

6163.03 - NEW ROOM FINISH SCHEDULE

Main table with columns: FLOOR NUMBER, ROOM NUMBER, ROOM NAME, FLOOR, TYPE, MATERIAL, BASE, TYPE, MATERIAL, WAINSCOT, HEIGHT, MATERIAL, FINISH, FINISH TYPE, REMARKS, REVISION.

FINISH LEGEND

Legend table listing materials and finishes such as 03 35 00 SEALED CONCRETE FINISHING, 06 20 00 FINISH CARPENTRY, 07 18 13 PEDESTRIAN TRAFFIC COATINGS, etc.

GENERAL INTERIOR FINISH NOTES:

- 1. SEE AR101K AND AR102K SHEETS FOR CEILING MATERIAL, TYPE, AND HEIGHT.
2. SEE A101K AND A102K SHEETS FOR CORNER GUARD (CG) LOCATIONS.
3. SINGLE OR FIRST FINISH TYPE IN NEW ROOM FINISH SCHEDULE COLUMN INDICATES FIELD FINISH IN ENTIRE ROOM...

6163.03 - WINDOW SHADE SCHEDULE table with columns: ROOM NUMBER, ROOM NAME, QUANTITY, MOUNT, CONTROL LOCATION, CLOTH, TYPE, REMARKS.

Table with columns: ROOM NUMBER, ROOM NAME, QUANTITY, MOUNT, CONTROL LOCATION, CLOTH, TYPE, REMARKS. Includes room details like 1202C CHIEF, POLICE, 1202E OFFICE, etc.

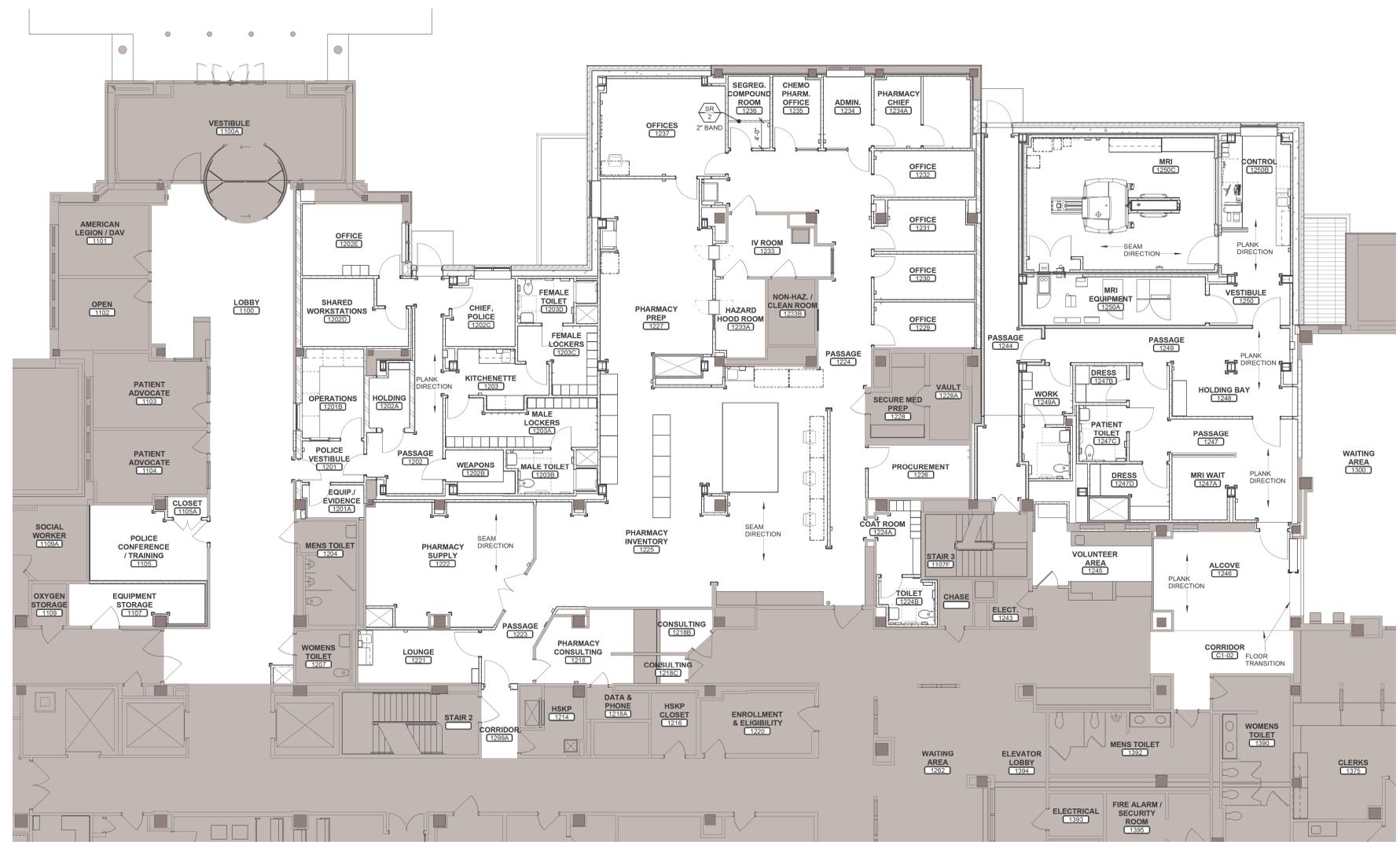
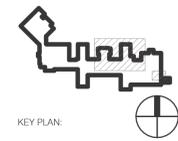
BASE: 1. BASE SHALL BE ROLL GOODS, NOT SECTIONS OR PIECE GOODS.
WALLS: 1. REFER TO THE PAINT SCHEDULE IN THE SPECIFICATIONS FOR THE SPECIFIC PAINT SYSTEM LOCATIONS.
CASEWORK AND MILLWORK: 1. UNEXPOSED INTERIOR SURFACES OF ALL MILLWORK TO BE WHITE MELAMINE...

Vertical text on the left margin: A, B, C, D, E, F

ARCHITECT/ENGINEER OF RECORD STAMP: bernersschber, Comm. Number: 6163.03, 310 Pine Street | Green Bay, WI 54301

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

Project Information: Drawing Title: NEW ROOM FINISH SCHEDULE, Phase: CONSTRUCTION SET, Project Title: EXPAND PHARMACY AND RADIOLOGY OSCAR G. JOHNSON VA MEDICAL CENTER, Project Number: 585-337, Building Number: 1, Drawing Number: 1002K, DWG. 42 OF 126.



F4 FIRST FLOOR - FLOOR SPECIAL PLAN
1/8" = 1'-0"



CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

bernerschaber

Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com

ARCHITECT/ENGINEER



Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
INTERIOR FLOOR SPECIAL PLAN

Approved:

Phase
CONSTRUCTION SET

FULLY SPRINKLERED

Project Title
EXPAND PHARMACY AND RADIOLOGY
OSCAR G. JOHNSON VA MEDICAL CENTER

Location
325 H STREET,
IRON MOUNTAIN, MI 49801

Issue Date
MAY 8, 2023

Checked
CMB

Drawn
CMB

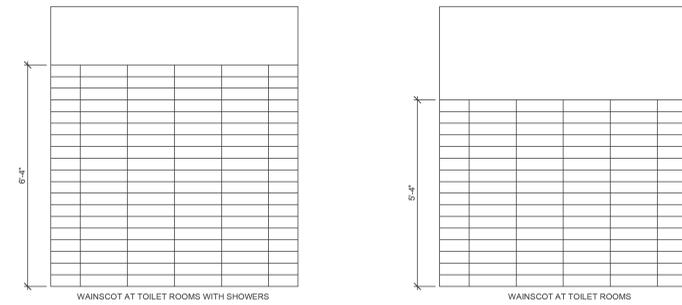
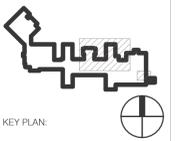
Project Number
585-337

Building Number
1

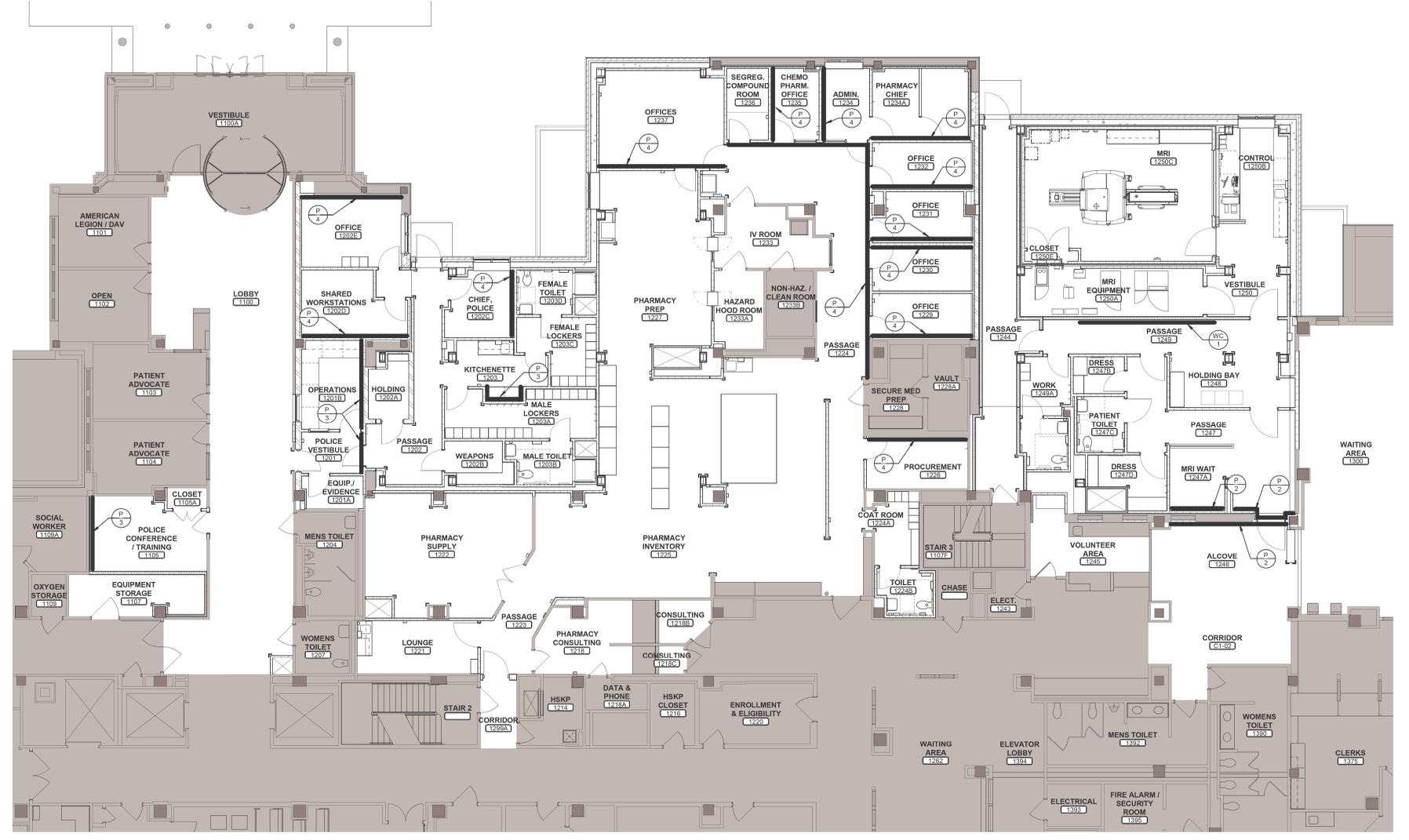
Drawing Number
I101K

DWG. 43 OF 126

5/2/2023 10:52:39 AM
Autosave Docx/Dwg: C:\Johnson VA Medical Center\OGLARCH.rvt



B7 TYPICAL TILE PATTERN
1/2" = 1'-0"



F4 FIRST FLOOR - WALL SPECIAL PLAN
1/8" = 1'-0"



CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

bernerschaber

Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com

ARCHITECT/ENGINEER



Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
INTERIOR WALL SPECIAL PLAN

Approved:

Phase
CONSTRUCTION SET

FULLY SPRINKLERED

Project Title
EXPAND PHARMACY AND RADIOLOGY
OSCAR G. JOHNSON VA MEDICAL CENTER

Location
325 H STREET,
IRON MOUNTAIN, MI 49801

Issue Date
MAY 8, 2023

Checked
CMB

Drawn
CMB

Project Number
585-337

Building Number
1

Drawing Number
I102K

DWG. 44 OF 126

5/22/2023 10:53:34 AM
Autosave Docx://D:\car G Johnson VA Medical Center\OGLARCH.rvt

BUILDING CODES

- DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE 2018 INTERNATIONAL BUILDING CODE. RISK CATEGORY IV

DESIGN LOADS AND DATA

SOIL DATA

- ACTIVE SOIL PRESSURE 40 PSF PER FOOT OF DEPTH
- AT-RISK SOIL PRESSURE 60 PSF PER FOOT OF DEPTH
- PASSIVE SOIL PRESSURE 300 PSF PER FOOT OF DEPTH
- SURCHARGE LOAD 100 PSF

SUPERIMPOSED LOADS (STRUCTURE SELF WEIGHT NOT INCLUDED)

DEAD

- CEILING/FLOOR HVAC PIPING, LIGHTS, CEILING, FLOORING) 10 PSF
- CEILING/ROOFING (HVAC PIPING, LIGHTS, CEILING, ROOFING) 25 PSF
- PEN HOUSE ROOF (HVAC PIPING, LIGHTS, ROOFING) 30 PSF
- ALLOWANCE FOR METAL DECK/FLOOR WORK DEFLECTION (IN ADDITION TO SUPERIMPOSED DEAD LOADS INDICATED) 8 PSF
- MECHANICAL EQUIPMENT, PIPING, ROOF TOP AHU'S, SPECIAL LOADS SEE LIVE LOAD

LIVE

- FIRST FLOOR 100 PSF
- PENTHOUSE FLOOR 125 PSF
- LIGHT STORAGE 100 PSF
- SMALL ROOMS 50 PSF
- PARTITION ALLOWANCE 0 PSF
- LIVE LOAD REDUCTION NONE

SNOW LOADS

- GROUND SNOW (p_g) 60 PSF
- SNOW DENSITY (1.3 x p_g + 14 < 30) 21.8 PCF
- ROOF EXPOSURE PARTIALLY EXPOSED
- EXPOSURE FACTOR (C_e) 1.0
- THERMAL FACTOR - BUILDING (C_t) 1.0
- SNOW IMPORTANCE FACTOR (I_s) 1.0
- FLAT ROOF SNOW LOAD (p_s = 0.7 C_e C_t I_s p_g) 51 PSF
- DRIFT LOAD AS NOTED ON DRAWINGS, PER ASCE 7-16

WIND DATA

- ULTIMATE DESIGN WIND SPEED - 3 SECOND GUST (V_{ult}) 120 MPH
- NOMINAL DESIGN WIND SPEED - 3 SECOND GUST (V_{nom}) 95 MPH
- ENCLOSURE UNENCLOSED
- WIND DIRECTIONALITY FACTOR (K_d) 0.85
- TOPOGRAPHIC FACTOR (K_z) 1.0
- GUST FACTOR (G - BUILDING IS RIGID) 0.85
- INTERNAL PRESSURE COEFFICIENT (ENCLOSED - GC) ±0.18
- ANALYSIS PROCEDURE DIRECTIONAL - ASCE 7-16, CHAPTER 27
- MEAN ROOF HEIGHT (H) 25 FT
- ROOF PLANE SLOPE (θ) 0 DEGREES
- COMPONENTS AND CLADDING SEE TABLE ON SHEET 8002

SEISMIC

- SEISMIC IMPORTANCE FACTOR 1.50
- MAPPED SPECTRAL RESPONSE ACCELERATION FOR SHORT PERIODS (S_s) 0.043
- MAPPED SPECTRAL RESPONSE ACCELERATION FOR 1 SECOND PERIOD (S₁) 0.024
- SITE CLASS PER (GEOTECHNICAL REPORT) [ASCE CHAPTER 20.1]
- DESIGN SPECTRAL RESPONSE ACCELERATION FOR SHORT PERIODS (S_s) 0.046
- DESIGN SPECTRAL RESPONSE ACCELERATION FOR 1 SECOND PERIOD (S₁) 0.038
- SEISMIC DESIGN CATEGORY A
- BASIC SEISMIC FORCE RESISTING SYSTEM AND PARAMETERS
- STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE R = 3.0 C_d = 5.0
- SEISMIC RESPONSE COEFFICIENT (C_s) 0.01
- DESIGN BASE SHEAR - PHARMACY/OCEAN 2.2 KIPS
- DESIGN BASE SHEAR - MRI 3.11 KIPS
- ANALYSIS PROCEDURE MINIMUM FORCE (ASCE 11.7)

SYSTEM DESIGN LOADS

- INDIVIDUAL LOADS SHOWN IN THESE DOCUMENTS USE THE FOLLOWING LOAD FACTORS:

BEAD LOAD

- DL 1.0
- LL 1.0
- LR 1.0
- RS 1.0
- WL 1.0
- WB 1.0
- BI 1.0

ENGINEER PROVIDING DETAILED DESIGN SHALL COMBINE INDIVIDUAL LOADS USING STRENGTH COMBINATIONS TO MEET THE REQUIREMENTS OF THE APPROPRIATE MATERIAL DESIGN SPECIFICATION.

MATERIAL STRENGTHS AND STANDARDS

THE MATERIAL STRENGTHS AND STANDARDS LISTED HERE REPRESENT A SELECTED SUMMARY OF THE REQUIREMENTS NOTED IN THE SPECIFICATIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. IN CASE OF DISCREPANCY BETWEEN THESE NOTES AND THE SPECIFICATIONS, THESE NOTES SHALL GOVERN.

SOILS

- DESIGN SOIL BEARING CAPACITY FOR SPREAD/RAFT FOOTINGS 4000 PSF
- DESIGN SOIL BEARING CAPACITY BENEATH MAT FOUNDATIONS 4000 PSF
- MODULUS OF SUB-GRADE REACTION 250 PCF
- COEFFICIENT OF SUBSIDENCE (CONCRETE - SOIL) 0.4

CONCRETE (28 DAY STRENGTH)

- FOOTINGS f_c = 3,000 PSI
- FOUNDATION WALLS, INTEGRAL PIERS f_c = 4,000 PSI
- CONCRETE SLAB ON METAL DECK - UNLESS NOTED OTHERWISE f_c = 4,000 PSI
- WHERE NOTED ON PLAN f_c = 5,000 PSI
- INTERIOR SLAB ON-GRADE f_c = 4,000 PSI
- EXTERIOR SLAB ON-GRADE f_c = 4,500 PSI

REINFORCING STEEL

- WELDED WIRE FABRIC, PROVIDED IN FLAT SHEETS ONLY (ASTM A185) F_y = 65,000 PSI
- DEFORMED BARS (ASTM A615, GRADE 60) F_y = 60,000 PSI

STRUCTURAL STEEL (SHAPES)

- W, WT SECTIONS, CHANNELS (ASTM A992) F_y = 50,000 PSI, F_t = 65,000 PSI
- ANGLES (ASTM A36) F_y = 36,000 PSI, F_t = 58,000 PSI
- HSS SHAPES - SQUARE/RECTANGULAR (ASTM A500, GRADE C) F_y = 50,000 PSI, F_t = 62,000 PSI
- STEEL PIPE (ASTM A53, GRADE B) F_y = 35,000 PSI, F_t = 60,000 PSI
- PLATES (ASTM A36) F_y = 36,000 PSI, F_t = 58,000 PSI

STRUCTURAL STEEL (CONNECTIONS)

- ANCHOR RODS (ASTM F1554, GRADE 55 WHICH MEET THE REQUIREMENTS OF THE S1 SUPPLEMENT) F_y = 55,000 PSI; F_t = 75,000 PSI
- HIGH STRENGTH BOLTS (F3125) GR, A325 UNLESS NOTED ON DRAWINGS
- TENSION CONTROL BOLTS (F3125) GR, F1852 UNLESS NOTED ON DRAWINGS
- WELDING ELECTRODES E70XX
- SHEAR CONNECTORS (ASTM A29, GRADE 1010 THROUGH 1020, AWS TYPE B) F_y = 51,000 PSI, F_t = 65,000 PSI
- CONCRETE ANCHORS (ASTM A29, GRADE 1010 THROUGH 1020, AWS TYPE C) F_y = 51,000 PSI, F_t = 65,000 PSI
- DEFORMED BAR ANCHORS (ASTM A662, AWS TYPE C) F_y = 70,000 PSI, F_t = 80,000 PSI
- GROUT (ASTM C107) F_c = 5,000 PSI

COLD-FORMED METAL FRAMING

- COLD-FORMED MATERIAL - 18 GAUGE AND THINNER (ASTM A653, GRADE 33) F_y = 33,000 PSI
- COLD-FORMED MATERIAL - 16 GAUGE AND THICKER (ASTM A653, GRADE 50) F_y = 50,000 PSI
- ANCHOR RODS (ASTM F1554, GRADE 55) F_y = 38,000 PSI, F_t = 58,000 PSI
- CONNECTOR PLATES (ASTM A36) F_y = 36,000 PSI, F_t = 58,000 PSI
- CONNECTOR BOLTS (ASTM A307, GRADE A) F_y = 60,000 PSI
- WELDING ELECTRODES E60XX
- GALVANIZING THICKNESS 600

GENERAL NOTES

- EXISTING CONDITIONS INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THE STRUCTURAL DRAWINGS REPRESENTS THE ACTUAL EXISTING FIELD CONDITION TO THE BEST OF OUR KNOWLEDGE. R.A. SMITH, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR SHALL FIELD VERIFY EXISTING ELEVATIONS, DIMENSIONS AND BUILDING CONDITIONS AFFECTING THE WORK BY DIRECT SURVEY AND MEASUREMENT PRIOR TO THE PREPARATION OF SHOP DRAWINGS, FABRICATION, ERECTION OR CONSTRUCTION OF ANY ITEM IMPACTED BY EXISTING CONDITIONS. REPORT DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS FOR REVIEW. ANY WORK PERFORMED PRIOR TO THE RESOLUTION OF THE DISCREPANCIES IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTORS EXPENSE.
- EXISTING STRUCTURE TO REMAIN IS SHOWN WITH LIGHT GRAY LINES. EXISTING STRUCTURE TO BE REMOVED IS NOT GENERALLY SHOWN ON STRUCTURAL DRAWINGS - SEE ARCHITECTURAL DRAWINGS FOR DEMOLITION INFORMATION.
- ALL EXISTING STRUCTURE TO REMAIN TO BE SUPPORTED BY NEW CONSTRUCTION SHALL BE SHORED UNTIL NEW CONSTRUCTION IS IN PLACE, COMPLETED, AND CAPABLE OF SUPPORTING THE EXISTING STRUCTURE. EXISTING STRUCTURE TO REMAIN THAT IS AFFECTED, BUT NOT SUPPORTED, BY NEW CONSTRUCTION SHALL BE SHORED UNTIL IT IS NO LONGER AFFECTED BY CONSTRUCTION ACTIVITIES.
- EXISTING CONSTRUCTION SHALL NOT BE USED AS A MATERIAL STAGING AREA FOR NEW CONSTRUCTION, AND SHALL NOT BE USED TO PROVIDE TEMPORARY BRACINGS FOR NEW CONSTRUCTION.

CONSTRUCTION

- UNLESS SPECIFICALLY NOTED OTHERWISE, BUILDING STRUCTURE HAS BEEN DESIGNED FOR THE FINAL COMPLETED CONDITION ONLY, AND HAS NOT BEEN ANALYZED, INVESTIGATED OR DESIGNED FOR OVERALL STRUCTURE, OR INDIVIDUAL MEMBER, STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY BRACING AND SUPPORTS FOR ALL STRUCTURAL ELEMENTS, BOTH INDIVIDUALLY AND COLLECTIVELY, AS REQUIRED AT EVERY STAGE OF CONSTRUCTION UNTIL THE FINAL COMPLETION OF THE STRUCTURE. NO PORTION OF THE BUILDING STRUCTURE, WHILE UNDER CONSTRUCTION, IS INTENDED TO BE STABLE IN THE ABSENCE OF THE CONTRACTORS TEMPORARY BRACINGS AND SUPPORTS, WHICH SHALL ADDITIONALLY PROVIDE SUPPORT FOR ALL CONSTRUCTION LOADING. MATERIALS AND EQUIPMENT SHALL BE STORED, TRANSPORTED AND INSTALLED IN A MANNER THAT WILL NOT EXCEED THE DESIGN FLOOR LOADING.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, TEMPORARY BRACING, SUPPORTS, SHORING, FORMING TO SUPPORT IMPOSED CONSTRUCTION LOADS, AND OTHER SIMILAR ITEMS.
- STRUCTURAL DOCUMENTS MAY REFER TO OSHA REQUIREMENTS. SUCH REFERENCES ARE INCIDENTAL, AND ARE NOT INTENDED TO IDENTIFY ALL APPLICABLE OSHA REQUIREMENTS.

COMPLETENESS

- INFORMATION CONTAINED IN THE GENERAL NOTES IS ONLY A PARTIAL SUMMARY OF PROJECT REQUIREMENTS SEE SPECIFICATIONS, PLANS AND DETAILS FOR ADDITIONAL REQUIREMENTS.
- USE ONLY DIMENSIONS INDICATED ON THE DRAWINGS. DO NOT MANUALLY SCALE THE DRAWINGS OR USE ANY DIMENSIONS MEASURED FROM ELECTRONIC DRAWING SOFTWARE.
- UNLESS NOTED OTHERWISE, CENTERLINE OF FLOOR FRAMING ELEMENTS COINCIDES WITH COLUMN CENTERLINE AND SLEEVES REQUIRED TO ACCOMMODATE VARIOUS BUILDING SERVICES MAY BE NOTED. CONTRACTOR TO VERIFY THE SIZE AND LOCATION OF ALL ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING OPENINGS, INCLUDING CLEARANCE REQUIREMENTS CONTAINED IN THE RESPECTIVE DISCIPLINE DOCUMENTS FOR INSTALLATION AND IN-PLACE OPERATION OF THE RESPECTIVE EQUIPMENT OR ITEMS.
- CONSULT ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND MANUFACTURERS SPEC SHEETS FOR LOCATIONS AND DIMENSIONS OF BASE CURBS, EQUIPMENT SUPPORTS, CURBS, INSERTS, DRIPS, REGLETS, REVEALS, FINISHES AND OTHER MISCELLANEOUS PROJECT REQUIREMENTS THAT NECESSITATE INCIDENTAL ACCOMMODATION BY THE BUILDING STRUCTURE BUT ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS.

GENERAL

- THE STRUCTURE HAS BEEN DESIGNED AS UNRESTRAINED FOR THE PURPOSE OF FIRE RATINGS AND FIREPROOFING ASSEMBLY EVALUATIONS.
- STRUCTURAL COMPONENTS HAVE NOT BEEN DESIGNED FOR VIBRATORY EQUIPMENT UNLESS NOTED OTHERWISE. PLACE VIBRATORY EQUIPMENT AND EQUIPMENT SENSITIVE TO VIBRATIONS ON VIBRATION ISOLATORS SPECIFICALLY DESIGNED FOR THE EQUIPMENT.
- ALL SYSTEMS, INCLUDING EXTERIOR FACADES AND FRAMING, WHICH ARE DESIGNED AND DETAILED BY COMPONENT SUPPLIERS, ARE ASSUMED TO IMPOSE VERTICAL AND/OR HORIZONTAL LOADS ON THE BASE BUILDING STRUCTURE WITHOUT CAUSING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. COMPONENT SUPPLIERS ARE RESPONSIBLE FOR DESIGNING, FURNISHING AND INSTALLING SUPPLEMENTARY BRACING MEMBERS AS REQUIRED TO PREVENT THEIR SYSTEMS FROM CAUSING TORSION IN THE SUPPORTING STRUCTURAL MEMBERS. WHERE PROVIDED, SUPPLEMENTARY BRACING SHALL NOT INTERFERE WITH ANY BUILDING SYSTEM NOTED OR DESCRIBED IN THE CONTRACT DOCUMENTS.
- UNDER NO CIRCUMSTANCES MAY ANY STRUCTURAL ELEMENT BE PENETRATED, CUT, NOTCHED, BLOCKED OUT, SLEEVED, CORE DRILLED, OR OTHERWISE FIELD MODIFIED OR REDUCED IN STRENGTH AFTER DELIVERY TO THE CONSTRUCTION SITE OR FINAL INCORPORATION IN THE BUILDING STRUCTURE UNLESS SUCH MODIFICATION IS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS, OR IS APPROVED BY THE ENGINEER OF RECORD.
- EXCEPT AS NOTED BELOW, ALL FUTURE EXPANSION IS ASSUMED TO BE COMPLETELY SELF SUPPORTING FOR BOTH GRAVITY AND LATERAL LOADS.

SYSTEM NOTES

- FOUNDATIONS AND EARTHWORK ALL REFERENCES TO GEOTECHNICAL ENGINEER IN THESE NOTES ARE UNDERSTOOD TO INCLUDE A TECHNICIAN RETAINED BY AND WORKING UNDER THE SPECIFIC DIRECTION OF A GEOTECHNICAL ENGINEER.
- REMOVE EXISTING SURFICIAL TOP SOIL AND VEGETATION FROM WITHIN THE BUILDING AREA AND A MINIMUM OF TEN FEET BEYOND. EXCAVATE MATERIAL TO PROPOSED SUB-GRADE SUBGRADE. COMPACT SUBGRADE WITH LIGHTWEIGHT EQUIPMENT (MAXIMUM WEIGHT 3000 POUNDS) TO WITHIN FIVE FEET OF THE EXISTING BUILDING FOOTINGS. COMPACTION OF SUBGRADE WITHIN FIVE FEET OF THE EXISTING BUILDING FOOTINGS OR WALLS SHALL BE ACCOMPLISHED BY USE OF HAND-COMPACTOR EQUIPMENT.
- SUBGRADE PREPARATION FOR FOOTINGS SHALL CONSIST OF EXCAVATION TO REQUIRED ALLOWABLE BEARING CAPACITY SOILS AT OR NEAR DESIGN FOOTING ELEVATIONS. COMPACTION AT FOOTING BEARING ELEVATION SHALL BE ACCOMPLISHED BY USE OF HAND-COMPACTOR EQUIPMENT.
- GEOTECHNICAL ENGINEER SHALL OBSERVE SLAB AND FOOTING SUBGRADE PRIOR TO AND AFTER COMPACTION WHERE, IN THE JUDGMENT OF THE GEOTECHNICAL ENGINEER THE SLAB OR FOOTING SUBGRADE IS NOT CONSISTENT WITH THE SOILS ENCOUNTERED IN THE BORINGS AND IS NOT SUITABLE FOR SLAB OR FOOTING BEARING. UNSUITABLE SOIL SHALL BE REMOVED AND REPLACED PER OVER-EXCAVATION DETAIL 18" MIN. PLAN EXTENT AND DEPTH OF THE OVER-EXCAVATION SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER.
- ALL COMPACTION REQUIREMENTS REFER TO % OF MAXIMUM DRY DENSITY PER ASTM D-1557 MODIFIED PROCTOR. ENGINEERED FILL BENEATH FOOTINGS SHALL BE PLACED IN LAYERS NO MORE THAN 12" THICK, AND EACH LAYER SHALL BE COMPACTED TO 95% MOISTURE CONDITION FILL MATERIALS AS REQUIRED TO OBTAIN PROPER COMPACTION. GRANULAR SOILS WITH A SIGNIFICANT PERCENT OF COHESIVE FINES SHALL BE CONDITIONED TO WITHIN 3% OF OPTIMUM MOISTURE CONTENT AT COMPACTION.
- ENGINEERED FILL SHALL CONSIST OF SAND AND/OR GRAVEL CONTAINING LESS THAN 10% WEIGHT OF FINES PASSING A NO. 200 SIEVE, WITH A MAXIMUM PARTIAL SIZE OF 4". ALTERNATIVELY, MATERIAL MEETING MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) SPECIFICATION CLASS II OR I(A) IS ACCEPTABLE FOR ENGINEERED FILL.
- FOR GENERAL INFORMATION AND SPECIFIC RECOMMENDATIONS AND REQUIREMENTS PERTAINING TO THE PROJECT SITE, REFER TO THE PROJECT GEOTECHNICAL REPORT PREPARED BY COLEMAN ENGINEERING COMPANY, PROJECT NUMBER GD-200619, DATED JANUARY 29, 2021, AND SUPPLEMENTAL LETTER DATED FEBRUARY 22, 2021.
- ALL ACTIVITIES CONCERNING PREPARATION AND VERIFICATION OF BEARING SOILS FOR SLAB-ON-GRADE AND FOOTINGS SHALL BE SUPERVISED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER.
- COLUMNS, PIERS, AND SPREAD FOOTINGS ARE CENTERED ON GRIDLINES UNLESS NOTED OTHERWISE. CONTINUOUS FOOTINGS ARE CENTERED ON WALLS ABOVE UNLESS NOTED OTHERWISE.
- BACKFILL UNIFORMLY ON EACH SIDE OF FOUNDATION WALLS, GRADE BEAMS AND OTHER SIMILAR ELEMENTS. DO NOT BACKFILL AGAINST ANY STRUCTURAL ELEMENT UNTIL THAT ELEMENT HAS ATTAINED FULL DESIGN STRENGTH. DO NOT BACKFILL AGAINST BASEMENT WALLS UNTIL TOP AND BOTTOM 2' OF WALL ARE BRACED BY FLOOR FRAMING AND SLAB-ON-GRADE UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- TOP OF FOOTING ELEVATION NOTED ON DRAWINGS REPRESENT CONSIDERED ENGINEERING JUDGMENT BY THE ENGINEER OF RECORD ABOUT PROTECTION FROM FROST AND MINIMUM DEPTH TO SOILS CAPABLE OF PROVIDING DESIGN SOIL BEARING CAPACITY. UNCERTAINTIES INHERENT IN DETERMINING THE ELEVATION OF SOILS ADEQUATE TO PROVIDE DESIGN BEARING CAPACITY MAY REQUIRE FOUNDATIONS TO BE LOWERED. IN NO CASE SHALL TOP OF FOOTING BE HIGHER THAN NOTED. A GEOTECHNICAL ENGINEER SHALL VERIFY THAT SOIL AT THE FOOTING BASE IS ADEQUATE TO PROVIDE THE REQUIRED DESIGN SOIL BEARING CAPACITY.
- CAST-IN-PLACE CONCRETE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF ACI 318-14 USING STRENGTH DESIGN METHODOLOGY, EXCEPT WHERE MORE RESTRICTIVE REQUIREMENTS ARE NOTED.
- REINFORCING CLEAR COVER SHALL BE AS NOTED BELOW UNLESS SPECIFICALLY NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

SYSTEM NOTES (CONTINUED)

- CAST-IN-PLACE CONCRETE (CONTINUED) PROVIDE (2) #5 BARS AROUND ALL OPENINGS AND (2) #5 DIAGONAL BARS AT ALL OPENING AND RE-ENTRANT CORNERS. BARS SHALL EXTEND A MINIMUM OF 24" PAST OPENING.
- ALL BAR SPACINGS SHALL BE CONTACT LAP SPACED USING CLASS B TENSION LAP LENGTHS, WITH ADJACENT LAPS STAGGERED A MINIMUM OF 3'-0" UNLESS DETAILED OTHERWISE. (SEE REINFORCEMENT TABLES FOR REQUIRED LAP AND DEVELOPMENT LENGTHS.)
- FIELD WELDING OF ASTM A615 REINFORCING STEEL IS NOT PERMITTED. FIELD BENDING OF REINFORCING STEEL IS NOT PERMITTED EXCEPT WHERE SPECIFICALLY DETAILED ON STRUCTURAL DRAWINGS.
- CORING OF COLUMNS, WALLS, BEAMS, JOISTS AND SLABS IS NOT PERMITTED. PROVIDE STEEL SLEEVES FOR ALL PENETRATIONS AT ALL LOCATIONS APPROVED BY THE ENGINEER OF RECORD PRIOR TO PLACING CONCRETE.

STRUCTURAL STEEL

- DESIGN, DETAILING, AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360-16), THE CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303-16), AND THE STEEL CONSTRUCTION MANUAL FIFTEENTH EDITION.
- TYPICAL DETAILS INDICATE GENERAL CRITERIA FOR DESIGN AND DETAILING OF CONNECTIONS. THEY ARE NOT INTENDED TO CONVEY COMPLETE INFORMATION CONCERNING SIZE AND QUANTITY OF CONNECTORS, PLATES, ANGLES, WELDS AND SIMILAR ITEMS THAT ARE DEVELOPED THROUGH THE DESIGN OF AN INDIVIDUAL CONNECTION FOR A SPECIFIC SET OF LOADS AND COMBINATIONS. DETAILS THAT CONVEY SPECIFIC COMPONENT INFORMATION ESTABLISH MINIMUM REQUIREMENTS AND ARE NOT INTENDED TO CONVEY A COMPLETE DESIGN UNLESS NOTED.
- UNLESS OTHERWISE NOTED, ALL STEEL TO STEEL FRAMING HAS BEEN SELECTED ASSUMING ATTACHMENTS FOR SHEAR ONLY USING DOUBLE ANGLE OR DOUBLE BENT PLATE CONNECTIONS SHOP WELDED TO FRAMING MEMBER AND FIELD BOLTED TO SUPPORTING MEMBER WITH HIGH STRENGTH BOLTS IN BEARING. CONNECTIONS SHALL BE SYMMETRICAL ABOUT THE BEAM WEB. FABRICATORS PROPOSING TO USE ALTERNATIVE METHODS OF ATTACHMENT NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS SHALL SUBMIT AN ALTERNATIVE FOR CONSIDERATION DURING BIDDING, AND SHALL BEAR ALL COSTS ASSOCIATED WITH REVIEW, ENGINEERING REVISION, AND APPROVAL OF ALTERNATIVE CONNECTIONS.
- SINGLE PLATE SHEAR TAB CONNECTIONS MAY BE USED IN LIEU OF DOUBLE ANGLE OR DOUBLE BENT PLATE CONNECTIONS WHERE SPECIFICALLY NOTED ON DRAWINGS, TO HSS OR PIPE COLUMNS, OR WHERE CONNECTION OF FRAMING MEMBER TO ONE SIDE OF A SUPPORT MEMBER IS MATCHED BY A SIMILAR CONNECTION ON THE OPPOSITE SIDE OF THE SAME SUPPORT MEMBER, AND WHERE BEAM SPANS DO NOT DIFFER BY MORE THAN 50% OF THE LARGER SPAN. SINGLE PLATE SHEAR TABS MAY NOT BE USED FOR CONNECTION OF FRAMING MEMBERS TO WIDE FLANGE COLUMNS OR TO SPANREL (EDGE) SUPPORT MEMBERS UNLESS SPECIFICALLY DETAILED ON DRAWINGS.
- CONNECTIONS FOR ALL STRUCTURAL STEEL BEAMS AND GRIDERS ON THE FIRST FLOOR OR WITHIN THE PENTHOUSE THAT ARE NOT SHOWN OR COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED USING THE REACTIONS SHOWN. REACTIONS SHOWN ON THE DRAWINGS WITHOUT INDIVIDUAL LOAD DESIGNATIONS HAVE BEEN COMBINED USING STRENGTH COMBINATIONS. IF NO REACTION IS SHOWN:
 - BEAM AND GIRDER SHEAR CONNECTIONS SHALL BE DESIGNED FOR 50% OF THE TOTAL UNIFORM LOAD CAPACITY FOR THE GIVEN MEMBER SIZE, SPAN, AND GRADE OF STEEL.
 - MOMENT CONNECTIONS SHALL BE DESIGNED TO FULLY DEVELOP THE MOMENT CAPACITY OF THE BEAM OR GIRDER.
- CONNECTIONS FOR ALL STRUCTURAL STEEL BEAMS AND GRIDERS ON THE ROOF AND PENTHOUSE ROOF NOT SHOWN OR COMPLETELY DETAILED ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED USING THE REACTIONS SHOWN. REACTIONS SHOWN ON THE DRAWINGS WITHOUT INDIVIDUAL LOAD DESIGNATIONS HAVE BEEN COMBINED USING STRENGTH COMBINATIONS. ADDITIONALLY:
 - WHERE THE GOVERNING LIMIT STATE IS BUCKLING (SHEAR FAILURE) USE THE REACTION SHOWN.
 - WHERE THE GOVERNING LIMIT STATE IS BRITTLE (YIELDING, RUPURE, WELD FRACTURE) USE THE REACTION SHOWN IN BRACKETS.
- IF NO REACTION IS SHOWN:
 - BEAM AND GIRDER SHEAR CONNECTIONS SHALL BE DESIGNED FOR 50% OF THE TOTAL UNIFORM LOAD CAPACITY FOR THE GIVEN MEMBER SIZE, SPAN, AND GRADE OF STEEL.
 - MOMENT CONNECTIONS SHALL BE DESIGNED TO FULLY DEVELOP THE MOMENT CAPACITY OF THE BEAM OR GIRDER.
- CONNECTIONS NOT SHOWN OR NOT COMPLETELY DETAILED ON THE DRAWINGS SHALL BE COMPLETED BY ONE OF THE FOLLOWING METHODS:
 - STANDARD AISC FRAMED CONNECTIONS MEETING OTHER REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS MAY BE SELECTED OR COMPLETED BY AN EXPERIENCED STEEL DETAILER RETAINED BY THE FABRICATOR IN ACCORDANCE WITH AISC 303-16, PARAGRAPH 3.1.1.2 AND USING STRENGTH DESIGN CONCEPTS.
 - STANDARD AISC FRAMED CONNECTIONS MEETING OTHER REQUIREMENT OF THE DRAWINGS AND SPECIFICATIONS AND LOCATED ON THE ROOF OR PENTHOUSE ROOF. ALL CONNECTIONS IN THE FOLLOWING LIST AND ALL CONNECTIONS NOT MEETING THE LIMITATIONS OF STANDARD AISC FRAMED CONNECTIONS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THE PROJECT IS CONSTRUCTED AND RETAINED BY THE FABRICATOR IN ACCORDANCE WITH AISC 303-16, PARAGRAPH 3.1.1.3 AND USING STRENGTH DESIGN CONCEPTS.
 - TENSION CONNECTIONS NOT COMPLETELY DETAILED ON THE DRAWINGS, INCLUDING CONSIDERATION OF PRYING ACTION.
 - MOMENT CONNECTIONS NOT COMPLETELY DETAILED ON THE DRAWINGS.
- IN NO CASE SHALL A CONNECTING ELEMENT CONTAIN LESS THAN TWO HIGH STRENGTH BOLTS ON EACH CONNECTING SURFACE, OR UTILIZE LESS THAN 3/16" FILLET WELDS, OR BE LESS THAN 1/2" IN DEPTH. IN NO CASE SHALL A CONNECTION BE DESIGNED FOR A SHEAR REACTION LESS THAN 18 KIPS (STRENGTH DESIGN).
- REFER TO ARCHITECTURAL DRAWINGS FOR MISCELLANEOUS STRUCTURAL STEEL NOT NOTED ON STRUCTURAL DRAWINGS.

METAL DECKING

- DESIGN, FABRICATION AND ERECTION OF STEEL DECK SHALL BE IN ACCORDANCE WITH THE STEEL DECK INSTITUTE (SDI) STANDARDS.
- PROVIDE ANGLE SUPPORTS FOR METAL DECK AT ALL COLUMN FACES WHERE SUPPORT IS REQUIRED, AND IS NOT PROVIDED BY MEMBERS FRAMING TO COLUMN. ANGLE FRAMING SHALL BE A MINIMUM OF 12x12x16.
- NO LOADS FROM ARCHITECTURAL, MECHANICAL, ELECTRICAL OR PLUMBING ITEMS, SINGLY OR IN AGGREGATE, IN EXCESS OF 25 POUNDS SHALL BE HUNG FROM METAL ROOF DECK IN ANY 4 SQUARE FOOT AREA. LOADS EXCEEDING THIS LIMIT REQUIRE SUPPLEMENTAL FRAMING ATTACHED DIRECTLY TO STRUCTURAL FRAMING.

COLD-FORMED METAL FRAMING

- DESIGN, FABRICATION AND ERECTION OF COLD-FORMED METAL FRAMING SHALL BE IN ACCORDANCE WITH THE 2012 AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AND THE 2012 AISI STANDARDS FOR COLD-FORMED STEEL FRAMING.
- COLD-FORMED METAL FRAMING IS PERFORMANCE BASED, AND SHALL BE COMPLETELY DESIGNED AND DETAILED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF ILLINOIS AND RETAINED BY THE COLD-FORMED SUPPLIER. DESIGN SHALL BE SUBMITTED TO THE LIMITATIONS NOTED. COLD-FORMED MEMBERS NOTED SHALL BE CONSIDERED MINIMUM SIZES. CONNECTION DETAILS INDICATE INTENT FOR CONNECTION BEHAVIOR ONLY.
- FOR RIGID VENEER, LIMIT THE MAXIMUM SIMPLE SPAN LATERAL DEFLECTION OF COLD-FORMED METAL PROVIDING LATERAL SUPPORT TO SPAN/20 - LIMIT THE MAXIMUM CANTILEVER LATERAL DEFLECTION TO CANTILEVER SPAN/30 AT THE WINDOW HEAD AND SILL. IN ALL CASES, THE COLD-FORMED METAL FRAMING ALONE SHALL TAKE ALL THE LATERAL LOAD - NO COMPOSITE ACTION WITH SHEATHING, BRICK, CMU, STONE, OR ANY RIGID VENEER MATERIAL IS PERMITTED.
- FOR FLEXIBLE VENEER, LIMIT THE MAXIMUM SIMPLE SPAN LATERAL DEFLECTION OF COLD-FORMED METAL PROVIDING LATERAL SUPPORT TO SPAN/30 - LIMIT THE MAXIMUM CANTILEVER LATERAL DEFLECTION TO CANTILEVER SPAN/240 AT THE WINDOW HEAD AND SILL. IN ALL CASES, THE COLD-FORMED METAL FRAMING ALONE SHALL TAKE ALL THE LATERAL LOAD - NO COMPOSITE ACTION WITH SHEATHING MATERIAL IS PERMITTED.
- LIMIT VERTICAL DEFLECTION OF STUD LINTEL ASSEMBLIES TO 1/8" INCH AT THE HEAD OF WINDOWS OR OPENINGS.
- HEADERS AND JAMBS AT OPENING MAY CONSIST OF BUILT-UP COLD-FORMED METAL FRAMING OR HOT-ROLLED STEEL SECTIONS AS DETERMINED BY THE COLD-FORMED FRAMING DESIGNER. SOME CONDITIONS MAY NECESSITATE HOT-ROLLED SECTIONS, WHICH ARE TO BE SUPPLIED AND INSTALLED BY THE COLD-FORMED METAL CONTRACTOR.

CONDUIT AND SLEEVES IN CONCRETE

- THE USE OF ALUMINUM CONDUITS EMBEDDED IN STRUCTURAL CONCRETE ELEMENTS (PIERS, WALLS, BEAMS, AND SLABS-ON-METAL DECK) IS PROHIBITED.
- WHERE SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO THE PLACEMENT OF SLEEVES, CONDUIT OF ANY TYPE MAY PASS PERPENDICULARLY THROUGH A STRUCTURAL CONCRETE ELEMENT PROVIDED THAT A SCHEDULE 40 STEEL SLEEVE IS PROVIDED WITH AN INSIDE DIAMETER NO LESS THAN 1" LARGER THAN THE CONDUIT OUTSIDE DIAMETER. APPROVAL WILL GENERALLY NOT BE GIVEN FOR SLEEVE PENETRATIONS THROUGH CONCRETE PIERS AND GRADE BEAMS, AND FOR CONDUIT GROUPS WITH A COMBINED DIAMETER GREATER THAN 12" AT ONE LOCATION THROUGH SLABS ON METAL DECK, UNLESS SPECIFICALLY INCORPORATED BY REFERENCE IN THE DRAWINGS.

SYSTEM NOTES (CONTINUED)

- CONDUIT AND SLEEVES IN CONCRETE (CONTINUED) CONDUITS EMBEDDED IN STRUCTURAL CONCRETE ELEMENTS, SHALL SATISFY THE FOLLOWING CRITERIA:
 - THEY ARE UNCOATED OR GALVANIZED IRON OR STEEL NOT THINNER THAN STANDARD SCHEDULE 40 STEEL PIPE.
 - THEY SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 THE OVERALL THICKNESS OF THE SLAB WALL OR BEAM IN WHICH THEY ARE EMBEDDED, OR 4" OUTSIDE DIAMETER, WHICHEVER IS SMALLER, FOR SLABS-ON-METAL DECK. THICKNESS SHALL BE THE CONCRETE DEPTH ABOVE FLUTES.
 - SPECIFIED CONCRETE COVER FOR PIPES, CONDUITS AND FITTINGS SHALL NOT BE LESS THAN 2" FOR CONCRETE EXPOSED TO EARTH OR WEATHER, NOR LESS THAN 1" FOR CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND.
 - MULTIPLE CONDUITS SHALL NOT BE CLOSELY GROUPED, WHERE IT IS DESIRED TO PLACE MULTIPLE CONDUITS CLOSELY TOGETHER, INDIVIDUAL CONDUITS SHALL NOT BE SPACED CLOSER THAN FOUR OUTSIDE DIAMETERS OF THE LARGEST CONDUIT IN THE GROUP ON CENTER, NO MORE THAN FOUR (4) CONDUITS MAY BE PLACED IN A GROUP. CONDUIT GROUPS SHALL BE SEPARATED BY A MINIMUM CLEAR DISTANCE OF 30 INCHES.
 - CONDUITS MAY NOT BE STAGGERED.
 - PIPING AND CONDUIT SHALL BE FABRICATED AND INSTALLED SO THAT CUTTING, BENDING OR DISPLACEMENT OF REINFORCEMENT OR OTHER EMBEDMENTS FROM THEIR PROPER LOCATION WILL NOT BE REQUIRED.
 - DO NOT CUT CONDUIT TO REINFORCEMENT STEEL. PROVIDE A MINIMUM OF 2" CLEARANCE FOR CONCRETE FLOW BETWEEN CONDUIT AND REINFORCEMENT STEEL.
 - CONDUITS MAY NOT CROSS ONE ANOTHER EXCEPT THAT IF A SINGLE CONDUIT IS LAID IN A DECK RIB BELOW THE TOP OF DECK IT MAY CROSS A CONDUIT PERPENDICULAR TO THE DECK RIBS AND PASSING ABOVE THE TOP OF THE DECK RIB.
 - NO MORE THAN ONE CONDUIT MAY BE PLACED IN ANY DECK RIB, AND CONDUIT SHALL NOT BE PLACED IN ANY DECK RIB CONTAINING HEATED WELDED STUDS (HWS).
 - CONDUIT RUNNING MORE OR LESS PARALLEL TO ANY ROW OF HWS SHALL BE LOCATED A MINIMUM OF 12" AWAY FROM HWS.
 - CONDUIT RUNNING BETWEEN HWS SHALL RUN PERPENDICULAR TO THE ROW OF HWS. SHALL BE LOCATED AN EQUAL DISTANCE BETWEEN THE HWS AND SHALL NOT BE TIED TO THE HWS. CONDUIT RUNNING BETWEEN HWS SHALL NOT BE LESS THAN 2" CLEAR FROM EDGE OF THE HEAD ON THE STUD.
- POST-INSTALLED ANCHORAGE ALL POST-INSTALLED ANCHORS MUST BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS INCLUDING, BUT NOT LIMITED TO, DRILL TYPE, HOLE CLEANING, INSTALLATION TORQUE, AND TEMPERATURE CONSTRAINTS.
- ALL PERSONNEL INSTALLING POST-INSTALLED ANCHORS SHALL BE TRAINED/CERTIFIED BY THE MANUFACTURER ON PROPER INSTALLATION TECHNIQUE FOR EACH TYPE OF FASTENER. CONTRACTOR SHALL COORDINATE ANY ON-SITE TRAINING WITH THE ANCHOR MANUFACTURER. TRAINING DOCUMENTATION SHALL BE AVAILABLE FOR REVIEW UPON REQUEST. ADDITIONALLY, THE ANCHOR MANUFACTURER'S REPRESENTATIVE SHALL BE PRESENT DURING THE INITIAL INSTALLATION OF EACH TYPE OF ANCHOR TO REVIEW AND APPROVE THE CONTRACTOR'S INSTALLATION PROCEDURES.
- FOR ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY, INSTALLED INSTALLER SHALL HOLD AN ACTIVE AICCRSI ISSUED ADHESIVE ANCHOR INSTALLER CERTIFICATION IN ADDITION TO TRAINING BY THE ANCHOR MANUFACTURER.
- WHEN A SPECIFIC PRODUCT AND MANUFACTURER IS REFERENCED IN THE CONTRACT DOCUMENTS, THAT SPECIFIC PRODUCT SHALL BE USED. THE LISTS BELOW CONTAIN ACCEPTABLE PRE-APPROVED ANCHORS FOR USE AS AN EQUAL (WHERE "OR EQUAL" IS INDICATED) OR WHERE POST-INSTALLED ANCHORAGE IS REFERRED TO IN THE STRUCTURAL DRAWINGS BY GENERIC REFERENCE (E.G. "EXPANSION ANCHOR" OR "SCREW ANCHOR" OR "ADHESIVE ANCHOR").

CONCRETE

- EXPANSION ANCHORS FOR USE IN CONCRETE INCLUDE:
 - HILTI: KWIK-BOLT 1Z
 - SIMPSON STRONG-TIE: STRONG-BOLT 2
 - DEWALT: POWER-STUD-S02, -S04 OR -R06
- SCREW ANCHORS FOR USE IN CONCRETE INCLUDE:
 - HILTI: KH-Z
 - SIMPSON STRONG-TIE: TITEN HD
 - DEWALT: SCREW-BOLT 1
- ADHESIVE ANCHORS FOR USE IN CONCRETE INCLUDE:
 - HILTI: KWIK-BOLT 1Z
 - SIMPSON STRONG-TIE: SET-3G OR AT-XP
 - DEWALT: PURE110+ OR AC208+ GOLD

MASONRY ANCHORS

- EXPANSION ANCHORS TO SOLID OR GROUDED CMU INCLUDE:
 - HILTI: KWIK-BOLT 1Z
 - SIMPSON STRONG-TIE: STRONG-BOLT 2
 - DEWALT: POWER-STUD-S01
- SCREW ANCHORS TO SOLID OR GROUDED CMU INCLUDE:
 - HILTI: KH-Z
 - SIMPSON STRONG-TIE: TITEN HD
 - DEWALT: SCREW-BOLT 1
- ADHESIVE ANCHORS TO SOLID, GROUDED, OR HOLLOW CMU:
 - HILTI: HIT-HY 270
 - SIMPSON STRONG-TIE: AT-XP
 - DEWALT: AC108+ GOLD

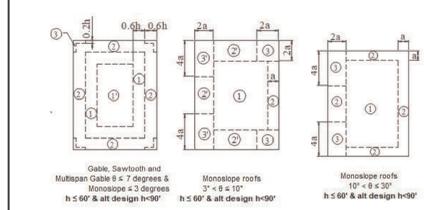
STANDARD ABBREVIATIONS

AB	ANCHOR BOLT (ROD)	LLBB	LONG LEG BACK TO BACK
AHJ	AIR HANDLING UNIT	LLH	LONG LEG HORIZONTAL
ALT	ALTERNATE	LLV	LONG LEG VERTICAL
APPROX	APPROXIMATELY	LP	LOW POINT
ARCH	ARCHITECTURAL	LSB	CLASS B BAR LAP
BF	BOTTOM	LSL	LAMINATED STRAND LUMBER
BS	BOTTOM OF FOOTING	LWTW	LIGHTWEIGHT
CH	CHORD	LVL	LAMINATED VENEER LUMBER
CL	CENTER LINE	LW	LONG WAY
BLDG	BUILDING	MAX	MAXIMUM
BRG	BEARING	MECH	MECHANICAL
BTHWN	BETWEEN	MFR	MANUFACTURER
CB	CATCH BASIN	MIN	MINIMUM
CP	CAST-IN-PLACE	MIS	MISCELLANEOUS
CJ	CONTROL JOINT	MS	MASONRY OPENING
CLR	CLEAR (DISTANCE)	MO	MIDDLE STRIP
CMU	CONCRETE MASONRY UNIT	NB	NOT BIDDABLE
COL	COLUMN	NC	NOT IN CONTRACT
CONC	CONCRETE	NOM	NOMINAL
CONT	CONTINUOUS	NYS	NOT TO SCALE
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CS	COLUMN STRIP	OPNG	OUTSIDE FACE OPENING
DBA	DEFORMED BAR ANCHOR	OPP	OPPOSITE
DE	DEAD LOAD	OSL	OUTSTANDING LEG
DIE	DIAMETER	PRES	PRESTRESSED
DL	DEAD LOAD	PCI	POUNDS PER CUBIC INCH
DWG	DRAWING	PL	POUNDS PER CUBIC FOOT
ED	EDGE OF DECK	PLG	PLUMBING
EOS	EDGE OF SLAB	PLF	POUNDS PER LINEAR FOOT
EO	EACH FACE	PROJ	PROJECTION
EW	EACH WAY EACH FACE	PSF	POUNDS PER CUBIC FOOT
EXP	EXPANSION JOINT	PSI	POUNDS PER SQUARE INCH
EXT	EXISTING	PRE (POST)	TENSIONED
EXTO (R)	EXTERIOR	RF	ROOF DRAIN
FD	FLOOR DRAIN	REF	REFERENCE
FLG	FLANGE	REIN	REINFORCEMENT
FLOOR	FLOOR	REMA	REMAINDER
ENG	ENGINEER	RFU	ROOF TOP UNIT
EQ	EQUAL	SC	SCHEDULE
ES	EDGE STRIP	SHT	SHEET
EW	EACH WAY	SM	SIMILAR
EXP	EXPANSION	SL	SNOW LOAD
EXT	EXTERIOR	SLB	SHORT LEGS BACK TO BACK
EXTO (R)	EXTERIOR	SO	SLAB-ON-GRADE
FD	FLOOR DRAIN	SPA	SPACE(S) (ED)ING
FLG	FLANGE	SPEC	SPECIFICATION(S)
FLOOR	FLOOR	SQ	SQUARE
FND	FOUNDATION	SS	STAINLESS STEEL
FTG	FOOTING	STD	STANDARD
GULLAM	GULLY	SW	SHORT WAY
GT	GENERAL CONTRACTOR	TF	TOP OF FOOTING
GL	GALVANIZED	TL	TOP OF LEDGE
GC	GENERAL CONTRACTOR	TP	TOP OF PIER
GL	GALVANIZED	TS	TOP OF STEEL
GT	GENERAL CONTRACTOR	TW	TOP OF WALL
GLLUM	GULLY	TC	TENSION CONTROL

ZONE	WIND AREA (SF)	ROOF SLOPE		ZONE	WIND AREA (SF)	ROOF SLOPE		ZONE	WIND AREA (SF)	ROOF SLOPE		ZONE	WIND AREA (SF)	ROOF SLOPE	
		0° TO 3°				3° TO 10°				10° TO 30°				30° TO 60°	
		(+)	(-)			(+)	(-)			(+)	(-)			(+)	(-)
1	10	16.0	41.3	1	10	16.0	28.1	1	10	16.0	32.5	4	10	23.7	25.7
1	20	16.0	38.5	1	20	16.0	28.1	1	20	16.0	31.2	4	20	22.7	24.6
1	50	16.0	34.9	1	50	16.0	28.1	1	50	16.0	29.4	4	50	21.3	23.2
1	100	16.0	32.2	1	100	16.0	28.1	1	100	16.0	28.1	4	100	20.2	22.2
1'	10	16.0	23.7	2	10	16.0	32.5	2	10	16.0	39.1	5	10	23.7	31.6
1'	20	16.0	23.7	2	20	16.0	31.8	2	20	16.0	36.4	5	20	22.7	29.5
1'	50	16.0	23.7	2	50	16.0	31.0	2	50	16.0	32.9	5	50	21.3	26.7
1'	100	16.0	23.7	2	100	16.0	30.3	2	100	16.0	30.3	5	100	20.2	24.6
2	10	16.0	54.4	2	10	16.0	39.1	3	10	16.0	67.6				
2	20	16.0	50.9	2	20	16.0	38.4	3	20	16.0	61.7				
2	50	16.0	46.3	2	50	16.0	37.5	3	50	16.0	53.8				
2	100	16.0	42.8	2	100	16.0	36.9	3	100	16.0	47.9				
3	10	16.0	74.2	3	10	16.0	43.5								
3	20	16.0	67.2	3	20	16.0	39.5								
3	50	16.0	57.9	3	50	16.0	34.3								
3	100	16.0	50.9	3	100	16.0	30.3								
				3'	10	16.0	61.0								
				3'	20	16.0	54.4								
				3'	50	16.0	45.7								
				3'	100	16.0	39.1								

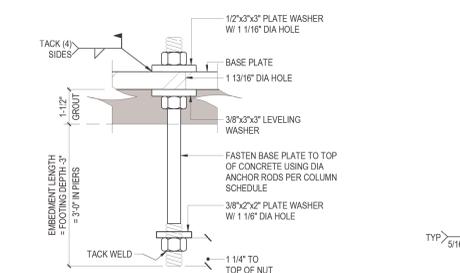
LOCATION	WIND AREA (SF)	ROOF SLOPE 0° TO 3°
OVERHANG 1, 1'	10	37.3
OVERHANG 1, 1'	20	36.7
OVERHANG 1, 1'	50	35.8
OVERHANG 1, 1'	100	35.1
OVERHANG 2	10	50.5
OVERHANG 2	20	45.8
OVERHANG 2	50	39.7
OVERHANG 2	100	35.0
OVERHANG 3	10	70.2
OVERHANG 3	20	62.1
OVERHANG 3	50	51.3
OVERHANG 3	100	43.1

NOTES:
 1. TABULATED LOADS ARE BASED ON ASCE 7-16 SIMPLIFIED PROVISIONS FOR ENCLOSED REGULAR-SHAPED BUILDINGS WITH THE FOLLOWING PARAMETERS: WIND SPEED = 120 MPH, MEAN ROOF HEIGHT = 30'-0", EXPOSURE B, K_e = 1.0.
 2. FOR DIFFERENT MEAN ROOF HEIGHTS OR EXPOSURES, TABULATED VALUES SHALL BE MULTIPLIED BY THE ADJUSTMENT FACTOR (A) CONTAINED WITHIN THE ABOVE TABLE.
 3. FOR WIND PRESSURES BELOW 16 PSF AFTER ALL ADJUSTMENT FACTORS HAVE BEEN TAKEN INTO ACCOUNT, A MINIMUM WIND PRESSURE OF 16 PSF SHALL BE USED FOR DESIGN. THOSE PRESSURES INDICATED BY [] IN THE ABOVE TABLE ARE THOSE THAT FALL BELOW THE MINIMUM VALUE BASED ON NO ADJUSTMENTS.
 4. WIND PRESSURES INDICATED ARE STRENGTH-LEVEL VALUES.
 5. TABLE LEGEND:
 (+) = POSITIVE (INWARD) PRESSURE
 (-) = NEGATIVE (OUTWARD) PRESSURE
 SF = SQUARE FEET
 6. FOR EFFECTIVE MEMBER AREAS NOT SPECIFICALLY LISTED, INTERPOLATE OR USE LARGEST VALUE OF WIND PRESSURE / SUCTION NOTION. DO NOT USE 1/3 STRESS INCREASE FOR MEMBER DESIGN WITH VALUES NOTED IN THIS TABLE.
 7. LENGTH NOTED "n" = 4.8 FEET

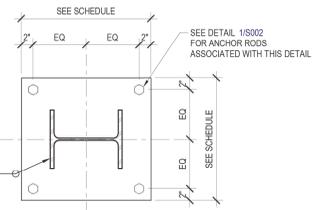


BAR SIZE	UNCOATED TENSION DEVELOPMENT & CLASS "B" LAP SPLICE SCHEDULE (f _c = 3,000 psi)									
	TENSION DEVELOPMENT LENGTH					CLASS "B" TENSION LAP LENGTH				
	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°
#3	12	13	12	13	12	13	13	17	13	17
#4	17	22	13	17	13	17	22	28	17	23
#5	24	32	20	26	17	22	32	41	26	33
#6	33	43	27	35	20	26	43	56	35	46
#7	53	69	44	57	33	43	69	90	57	74
#8	66	86	55	72	41	54	86	111	72	93
#9	80	104	67	87	51	66	104	135	87	113
#10	96	125	81	106	62	81	125	162	106	137
#11	113	146	96	125	74	97	146	190	125	162

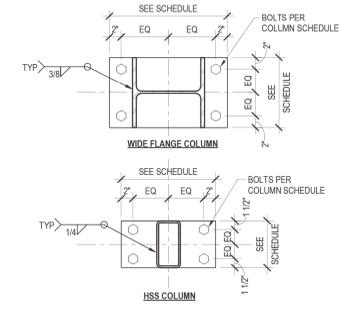
BAR SIZE	UNCOATED TENSION DEVELOPMENT & CLASS "B" LAP SPLICE SCHEDULE (f _c = 4,000 psi)									
	TENSION DEVELOPMENT LENGTH					CLASS "B" TENSION LAP LENGTH				
	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°	CLR COV = 1°	CLR COV = 1.5°	CLR COV = 75°
#3	12	12	12	12	12	12	12	15	12	15
#4	15	19	12	15	12	15	19	24	15	20
#5	21	28	17	22	15	19	28	36	22	29
#6	29	37	24	31	17	22	37	48	31	40
#7	46	60	38	50	28	37	60	78	50	64
#8	57	74	48	62	36	47	74	96	62	80
#9	69	90	58	76	44	57	90	117	76	96
#10	83	108	70	92	54	70	108	140	92	119
#11	98	127	83	108	64	84	127	165	108	141



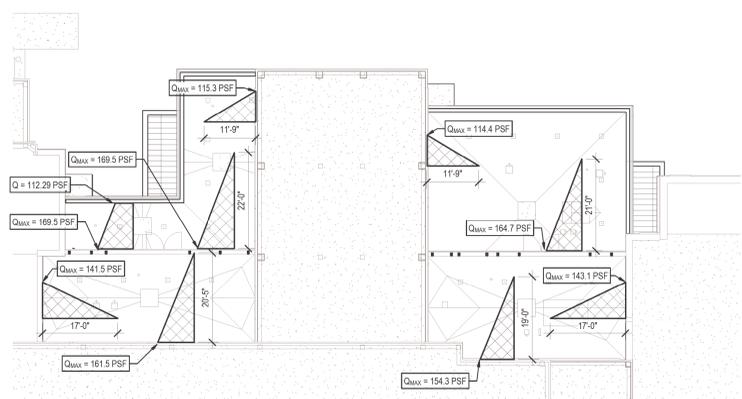
1 STANDARD ANCHOR ROD DETAIL
SCALE: 3" = 1'-0"



2 COLUMN TO BASE PLATE
SCALE: 1" = 1'-0"



3 COLUMN-TO-PLATE CONNECTION
SCALE: 1" = 1'-0"



4 SNOW DRIFT PLAN
SCALE: 1/16" = 1'-0"

MARK	SIZE	BASE PLATE	ANCHOR RODS	NOTES
C1	W12X40	PL-112X22X1'-10"	(4) 7/8" DIA ANCHOR RODS	
C2	W12X53	PL-112X22X1'-10"	(4) 7/8" DIA ANCHOR RODS	
C3	W12X65	PL-112X22X1'-10"	(4) 7/8" DIA ANCHOR RODS	
C3A	W12X65	PL-112X22X1'-10"	(4) 7/8" DIA ANCHOR RODS	PROVIDE CAP PL 1X12X1'-10" W/ (6) 1-1/8" DIA F3125, GR A325 BOLTS
C3B	W12X65	PL-112X22X1'-10"	(4) 7/8" DIA ANCHOR RODS	PROVIDE CAP PL 1X12X1'-10" W/ (4) 1-1/8" DIA F3125, GR A325 BOLTS. SEE DETAIL 6/SR21 FOR ADDITIONAL INFORMATION
C4	HSS8X4X3/16	PL-120X81'-2", SEE DETAIL 3/S002	(4) 3/4" DIA F3125, GR A325 (PT) BOLT	SEE DETAIL 2/SR21 FOR ADDITIONAL REQUIREMENTS AT BASE CONNECTION

COLUMN SCHEDULE NOTES:
 1. FASTEN STEEL COLUMN TO TOP OF CONCRETE USING ANCHOR BOLTS PER SCHEDULE WITH DOUBLE NUTS AT COLUMN BASEPLATE AND 1 1/2" GROUT. SEE 3/S002 FOR TYPICAL BASE PLATE CONFIGURATION UNO.
 2. ALL 3/4" DIA ANCHOR RODS TO BE ASTM F1554, GRADE 36. ALL 7/8" OR LARGER ANCHOR RODS TO BE ASTM F1554, GRADE 55 AND MEET REQUIREMENTS OF 'S' SUPPLEMENT. TYP U.N.O.
 3. COLUMN MARKS ARE INDICATED AT TOP ELEVATION OF COLUMNS. TYP
 4. GALVANIZE OR PRIME PAINT EXTERIOR COLUMNS AS REQUIRED BY ARCHITECT

MARK	EXTG CONTINUOUS FOOTING DIMENSIONS			FOOTING REINFORCEMENT	REMARKS
	WIDTH	THICKNESS			
(e)W10	1'-0"	12"		(2) #4 CONT	
(e)W18	1'-8"	12"			
(e)W22	2'-2"	12"			
(e)W24	2'-4"	12"			
(e)W110	1'-10"	12"			

MARK	ISOLATED FOOTING DIMENSIONS			FOOTING REINFORCEMENT	REMARKS
	LENGTH	WIDTH	THICKNESS		
(e)F1	9'-0"	5'-0"	18"	(3) #8 LONG, (1) (2) #6 SHORT B	
(e)F17	4'-2"	4'-2"	18"	(3) #4 B, EW	
(e)F50	5'-0"	5'-0"	12"	(5) #5, B, EW	
(e)F52	5'-2"	5'-2"	19"	(11) #4, B, EW	
(e)F66	6'-4"	6'-4"	20"	(17) #4, B, EW	
(e)F73	7'-8"	7'-3"	22"	(21) #4, B, EW	
(e)F78	7'-8"	7'-0"	22"	(15) #5, B, EW	
(e)F80	8'-0"	8'-0"	24"	(17) #5, B, EW	
(e)F90	9'-0"	9'-0"	26"	(21) #5, B, EW	
(e)F105	10'-5"	10'-5"	30"	(29) #5, B, EW	
(e)F111	8'-11"	8'-11"	21"	(14) #4, B, EW	

MARK	CONTINUOUS FOOTING SCHEDULE			FOOTING REINFORCEMENT	REMARKS
	WIDTH	THICKNESS			
W20	2'-0"	15"		(2) #5 CONT	
W26	2'-6"	15"		(3) #5 CONT	
W28	2'-6"	36"		(3) #5 CONT 1/8"	FOUR WITH GB1, SEE 15/S800

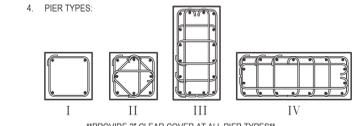
MARK	ISOLATED FOOTING DIMENSIONS			FOOTING REINFORCEMENT	REMARKS
	LENGTH	WIDTH	THICKNESS		
F1	12'-11"	5'-6"	21"	(6) #5 LONG, (1) (8) #5 LONG, (2) #5 SHORT B	NOTE 4
F2	15'-0"	5'-0"	21"	(6) #5 LONG, (1) (8) #5 LONG, (2) #5 SHORT B	
F30	3'-0"	3'-0"	12"	(4) #4, B, EW	NOTE 3
F50	5'-0"	5'-0"	15"	(5) #5, B, EW	
F60	6'-0"	6'-0"	18"	(10) #5, B, EW	
F70	7'-0"	7'-0"	18"	(7) #6, B, EW	

NOTES:
 1. B = BOTTOM, T = TOP, LW = LONG WAY, SW = SHORT WAY, EW = EACH WAY.
 2. ALL REINFORCEMENT BARS TO BE BOTTOM BARS UNLESS NOTED OTHERWISE.
 3. HOOK SHORT BARS EACH END AND LONG BARS AT EXISTING BUILDING FACE.
 4. HOOK BARS EACH END.
 5. EXISTING FOUNDATION INFORMATION IS BASED ON EXISTING DRAWINGS AND IS FOR INFORMATIONAL PURPOSES ONLY. VERIFY EXISTING DIMENSIONS, THICKNESSES, AND LOCATIONS AS REQUIRED.

MARK	GRADE BEAM SCHEDULE					REMARKS
	WIDTH	DEPTH	MAIN REINF	SIDE BARS	STIRRUPS	
GB1	24"	36"	(6) #7 1/8"	(2) #7 EACH SIDE	#4 AT 9" OC CLOSED	HOOK MAIN REINF & SIDE BARS AT FACE OF EXTG WALL

MARK	PIER DIMENSIONS			REINFORCEMENT		REMARKS
	X	Y	PIER TYPE	VERTICAL	TIES	
P26	30"	30"	II	(12) #6	#3 @ 12" OC	

NOTES:
 1. PIERS TO BE CENTERED ON BUILDING GRID LINE(S), UNLESS NOTED OTHERWISE.
 2. REFERENCE DETAIL 14/S800 FOR TYPICAL PIER INFORMATION.
 3. CAST PIER MONOLITHICALLY WITH FOUNDATION WALL.
 4. PIER TYPES:



"PROVIDE 2" CLEAR COVER AT ALL PIER TYPES"

raSmith
 CREATIVITY BEYOND ENGINEERING
 16745 W. Bluemound Road
 Brookfield, WI 53005-5938
 [262] 781-1000
 rasmith.com
 raSmith Project Number: 1200712

CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD
bernerschaber
 Comm. Number: 6163.03
 310 Pine Street | Green Bay, WI 54301
 920-432-4805 | www.bernerschaber.com
 ARCHITECT/ENGINEER

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

Drawing Title	SCHEDULES
Approved:	

Phase
CONSTRUCTION SET
 FULLY SPRINKLERED

Project Title	EXPAND PHARMACY AND RADIOLOGY OSCAR G. JOHNSON VA MEDICAL CENTER
Project Number	585-337
Building Number	1
Drawing Number	S002
DWG. 46 OF 126	



5/4/2023 12:04:45 PM
 Autodesk Docs: C:\User C.Johnson\VA Medical Center\1200712-2023-S.rvt
 VA FORM 08 - 6231

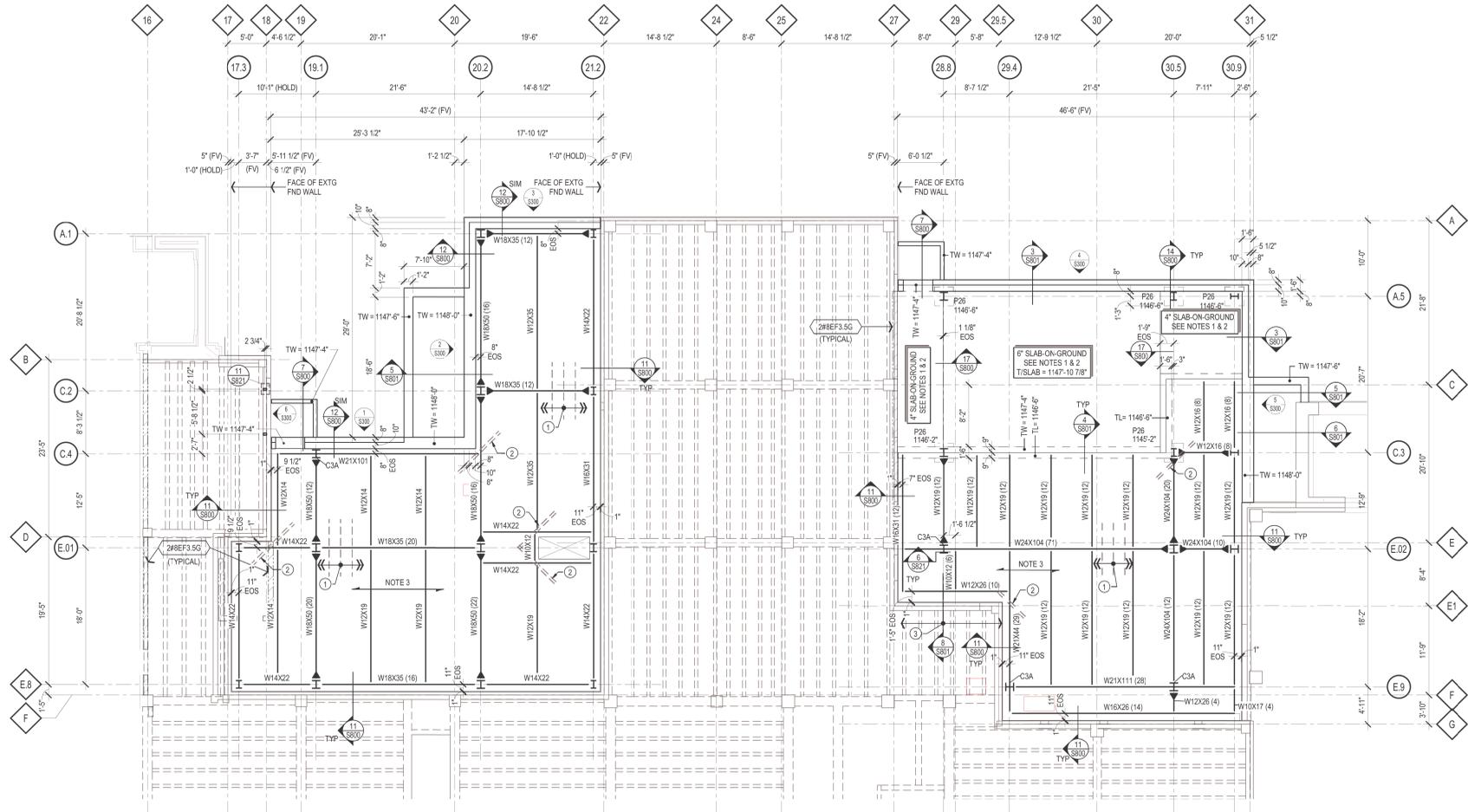
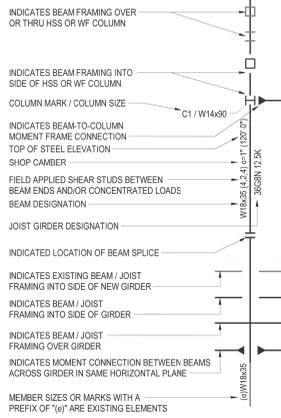
COMPOSITE FLOOR SYSTEM PLAN NOTES

- FINISH SLAB ELEVATION = 1148'-0" UNO. TOP OF FOUNDATION WALL = 1148'-0" UNO. TOP OF FOUNDATION WALL LEDGE = 1148'-0" UNO.
- STEEL ELEVATION = 1147'-6 3/4" UNLESS NOTED OTHERWISE ON THE PLAN AS (X-X').
- TYPICAL SLAB IS 5-1/4" THICK CONSISTING OF 3 1/4" LIGHTWEIGHT (115 PCF) CONCRETE WITH SYNTHETIC FIBERS (4 LBS/CY - SEE SPECIFICATIONS) ON 2" X 2" GAGE GALVANIZED COMPOSITE UNSHORED METAL DECK WITH THE FOLLOWING PROPERTIES UNDER 2 OR MORE SPANS:
 THICK = 0.0358 in $I_p = 0.409 \text{ in}^4/\text{ft}$ $S_x = 0.341 \text{ in}^3/\text{ft}$
 $F_y = 50 \text{ KSI}$ $I_s = 0.406 \text{ in}^4/\text{ft}$ $S_y = 0.346 \text{ in}^3/\text{ft}$
- HEADED WELD STUDS TO BE 3/4" DIAMETER BY 3 1/2" LONG (AFTER WELD LENGTH). HEADED WELD STUDS SHOULD BE ATTACHED DIRECTLY TO TOP OF BEAM AND NOT TO EDGE OF SLAB UNLESS OR BENT PLATES WELDED TO THE TOP OF BEAMS UNLESS DETAILED SPECIFICALLY OTHERWISE. SEE DETAILS 1/5820, 2/5820, & 3/5820 FOR COMPOSITE SLAB DETAILS.
- VERIFY ALL OPENING DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO STEEL FABRICATION.
- SEE SHEET S002 FOR COLUMN SCHEDULE.
- REACTIONS INDICATED ARE FACTORED VALUES THAT CONNECTION DESIGN IS TO SATISFY AS A MINIMUM. CONNECTION DESIGN SHALL BE BASED ON A $\phi = 1.0$. SHALL HAVE THE SAME CAPACITY BOTH UP AND DOWN, AND THE GOVERNING LIMIT STATE OF THE CONNECTION SHALL BE A DUCTILE MODE OF FAILURE. IN THE EVENT OF A BRITTLE FAILURE, MULTIPLY THE INDICATED REACTION BY 1.5.
- NUMBER(S) IN BRACKETS NEXT TO BEAM SIZE INDICATES NUMBER OF HEADED WELD STUDS REQUIRED. IF SINGLE NUMBER, INDICATED STUDS TO BE UNIFORMLY SPACED ALONG BEAM LENGTH. IF SERIES OF NUMBERS, INDICATED NUMBER OF STUDS TO BE UNIFORMLY SPACED BETWEEN INFRAMING BEAM(S).
- SEE DETAIL 14/5820 FOR TYPICAL MOMENT CONNECTION (SHOWN AS \blacktriangleright ON PLAN). SEE GENERAL NOTES ON SHEET S001 FOR MOMENT CONNECTION DESIGN CRITERIA.

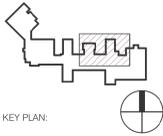
FIRST FLOOR PLAN KEYED NOTES

- PROVIDE #4 X 7'-6" LONG TOP BARS AT 18" OC CENTERED OVER GIRDER BEAMS ALONG GRIDS E 01, C 2, AND AT OTHER LOCATIONS WHERE THIS NOTE IS SPECIFICALLY REFERENCED. CHAIR BARS TO LOCATE 3/4" CLEAR TO TOP OF SLAB.
- AT ALL RE-ENTRANT CORNERS, PROVIDE (2) - #4 X 7'-6" LONG DIAGONAL BARS PLACED AT MID-DEPTH OF SLAB.

STRUCTURAL STEEL LEGEND



FIRST FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"



16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

raSmith Project Number: 1200712

CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

bernerschaber

Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com
ARCHITECT/ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
FIRST FLOOR FRAMING PLAN

Approved:

Phase
CONSTRUCTION SET

FULLY SPRINKLERED

Project Title
EXPAND PHARMACY AND RADIOLOGY OSCAR G. JOHNSON VA MEDICAL CENTER

Location
325 H STREET, IRON MOUNTAIN, MI 49801

Issue Date
MAY 8, 2023

Checked
NLD

Drawn
rpm

Project Number
585-337

Building Number
1

Drawing Number
S201
DWG. 48 OF 126



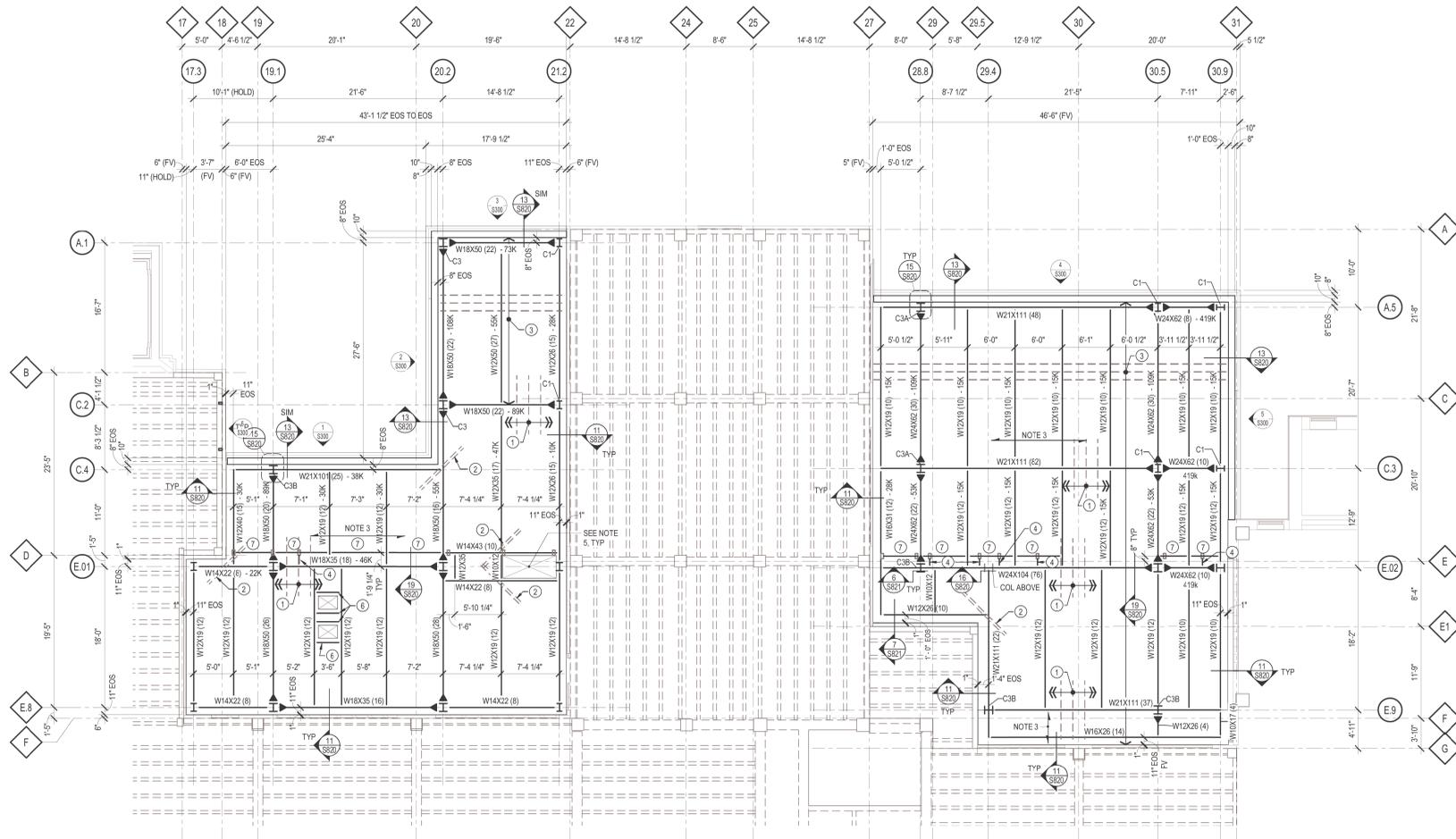
5/4/2023 12:50:57 PM
Autosave Docs: D:\user C:\Johnson VA Medical Center\1200712-2023-S.rvt

SECOND FLOOR FRMAING PLAN NOTES

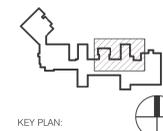
- FINISH SLAB ELEVATION=1161'-0" UNLESS NOTED OTHERWISE.
- STEEL ELEVATION=1160'-6" UNLESS NOTED OTHERWISE ON THE PLAN AS (X-X').
- TYPICAL SLAB IS 6" THICK CONSISTING OF 4" LIGHTWEIGHT (115 PCF) CONCRETE WITH SYNTHETIC FIBERS (4 LBS/CY - SEE SPECIFICATIONS) ON 2" X 15 GAGE GALVANIZED COMPOSITE UNSHORED METAL DECK WITH THE FOLLOWING PROPERTIES UNDER 2 OR MORE SPANS.
 $T_{eff} = 0.0556$ in $I_p = 0.699$ in⁴/ft $S_x = 0.638$ in³/ft
 $F_y = 80$ KSI $I_y = 0.700$ in⁴/ft $S_y = 0.648$ in³/ft
 SEE PLAN FOR ADDITIONAL REINFORCEMENT REQUIREMENTS.
- HEADED WELD STUDS TO BE 3/4" DIAMETER BY 3 1/2" LONG (AFTER WELD LENGTH). HEADED WELD STUDS SHOULD BE ATTACHED DIRECTLY TO TOP OF BEAM AND NOT TO EDGE OF SLAB ANGLES OR BENT PLATES WELDED TO THE TOP OF BEAMS UNLESS DETAILED SPECIFICALLY OTHERWISE. SEE DETAILS 15S20, 25S20, & 31S20 FOR COMPOSITE SLAB DETAILS.
- VERIFY ALL OPENING DIMENSIONS AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO STEEL FABRICATION.
- SEE SHEET S002 FOR COLUMN SCHEDULE.
- REACTIONS INDICATED ARE FACTORED VALUES THAT CONNECTION DESIGN IS TO SATISFY AS A MINIMUM. CONNECTION DESIGN SHALL BE BASED ON A $\phi = 1.0$. SHALL HAVE THE SAME CAPACITY BOTH UP AND DOWN, AND THE GOVERNING LIMIT STATE OF THE CONNECTION SHALL BE A DUCTILE MODE OF FAILURE. IN THE EVENT OF A BRITTLE FAILURE, MULTIPLY THE INDICATED REACTION BY 1.5.
- NUMBERS IN BRACKETS NEXT TO BEAM SIZE INDICATES NUMBER OF HEADED WELD STUDS REQUIRED. IF SINGLE NUMBER, INDICATED STUDS TO BE UNIFORMLY SPACED ALONG BEAM LENGTH. IF SERIES OF NUMBERS, INDICATED NUMBER OF STUDS TO BE UNIFORMLY SPACED BETWEEN INFRAMING BEAM(S).
- SEE DETAIL 14S820 FOR TYPICAL MOMENT CONNECTION (SHOWN AS \blacktriangleright ON PLAN). SEE GENERAL NOTES ON SHEET S001 FOR MOMENT CONNECTION DESIGN CRITERIA.

SECOND FLOOR PLAN KEYED NOTES

- PROVIDE #4 X 7'-6" LONG TOP BARS AT 18" OC CENTERED OVER GIRDER BEAMS ALONG GRIDS E 01, C 2, C 3, E 02, E 03, AND AT OTHER LOCATIONS WHERE THIS NOTE IS SPECIFICALLY REFERENCED. CHAIR BARS TO LOCATE 3/4" CLEAR TO TOP OF SLAB.
- AT ALL RE-ENTRANT CORNERS, PROVIDE (2) - #4 X 7'-6" LONG DIAGONAL BARS PLACED AT MID-DEPTH OF SLAB.
- PROVIDE #7 AT 12" OC BETWEEN THE LIMITS SHOWN ON PLAN WITHIN THE COMPOSITE SLAB METAL DECK RISBS BETWEEN SUPPORTS. CHAIR BARS TO 1-1/4" CLEAR FROM THE BOTTOM OF THE METAL DECK.
- W8X10 ALIGN WITH HSS POST ABOVE.
- (NOT USED)
- W8X10. VERIFY OPENING DIMENSION WITH ARCHITECT AND MECHANICAL, AND PROVIDE APPROPRIATE SLAB EDGE DETAILS 4, 5, 6, OR 7/S820 BASED ON EOS DIMENSION.
- W12X40. DESIGN FOR END REACTION OF 32.0 K. SEE NOTE 7 FOR ADDITIONAL INFORMATION.



1 SECOND FLOOR / ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"



16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

raSmith Project Number: 1200712

CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

bernerschaber

Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com
ARCHITECT/ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	SECOND FLOOR FRAMING PLAN
Phase	CONSTRUCTION SET
Approved:	
FULLY SPRINKLERED	

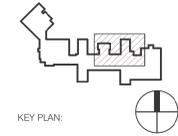
Project Title	EXPAND PHARMACY AND RADIOLOGY OSCAR G. JOHNSON VA MEDICAL CENTER
Location	325 H STREET, IRON MOUNTAIN, MI 49801
Issue Date	MAY 8, 2023
Checked	NLD
Drawn	rpm

Project Number	585-337
Building Number	1
Drawing Number	S202 DWG. 49 OF 126



5/4/2023 12:51:03 PM

Autosave Doc: I:\oscar G. Johnson VA Medical Center\1200712-2023-S.rvt

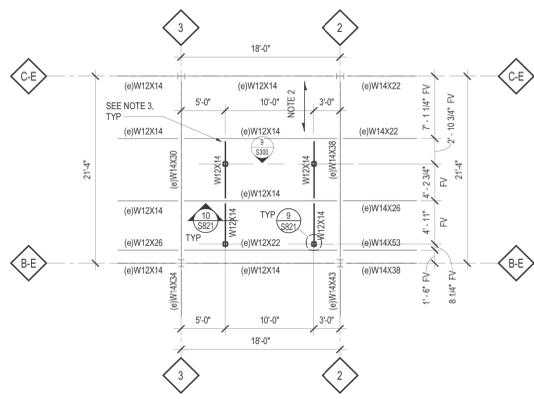


ROOF FRAMING PLAN NOTES

- STEEL ELEVATION = 1173'-1 1/2" UNLESS NOTED OTHERWISE ON THE PLAN AS (X'-X").
- ROOF DECKING SHALL BE 3" x 16 GA TYPE N GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 244 PATTERN OF 5/8" DIA PUDDLE WELDS (WELD AT EVERY RIB) WITH #10 TEK SIDELAP FASTENERS AT 12" OC. SEE DETAIL 8/S820 - PROVIDE DECK WITH THE FOLLOWING PROPERTIES:
THICK = 0.0598 in $I_x = 1.683 \text{ in}^4/\text{ft}$ $S_x = 0.893 \text{ in}^3/\text{ft}$
 $F_y = 40 \text{ KSI MN}$ $I_y = 1.807 \text{ in}^4/\text{ft}$ $S_y = 0.944 \text{ in}^3/\text{ft}$
INSTALL DECK UNDER 3 OR MORE SPAN CONDITIONS.
- PROVIDE ANGLE FRAME SUPPORT AT MINOR ROOF OPENINGS IN ACCORDANCE WITH DETAIL 9/S820, AND MAJOR ROOF OPENINGS AND ROOF DRAINS IN ACCORDANCE WITH DETAIL 10/S820.
- REFER TO SHEET S002 FOR COLUMN SCHEDULE.
- REACTIONS INDICATED ARE FACTORED VALUES THAT CONNECTION DESIGN IS TO SATISFY AS A MINIMUM. CONNECTION DESIGN SHALL BE BASED ON A $\phi = 1.0$, SHALL HAVE THE SAME CAPACITY BOTH UP AND DOWN, AND THE GOVERNING LIMIT STATE OF THE CONNECTION SHALL BE A DUCTILE MODE OF FAILURE. IN THE EVENT OF A BRITTLE FAILURE, MULTIPLY THE INDICATED REACTION BY 1.5.
- SEE DETAIL 14/S820 FOR TYPICAL MOMENT CONNECTION (SHOWN AS \blacktriangleright ON PLAN). SEE GENERAL NOTES ON SHEET S001 FOR MOMENT CONNECTION DESIGN CRITERIA.

PARTIAL 3RD FLOOR FRAMING PLAN AT ELECTRICAL PENTHOUSE PLAN NOTES

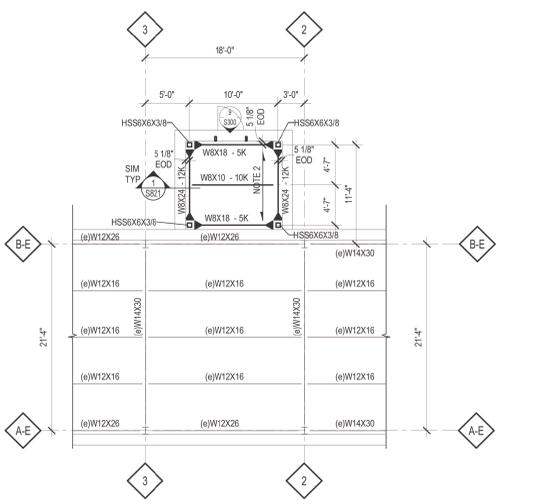
- EXISTING TOP OF SLAB ELEVATION = 1173'-0" - FV
- EXISTING ROOF/NEW PENTHOUSE FLOOR SLAB CONSIST OF 3-1/4" CONCRETE SLAB ON 20 GA METAL DECK (TOTAL SLAB THICKNESS = 5 1/4") - FV
- CONNECT NEW W12X14 BEAMS TO EXISTING BEAMS USING (2) L3X3X3/8 AND (3) 3/4" DIA F3125 GR A325 BOLTS.



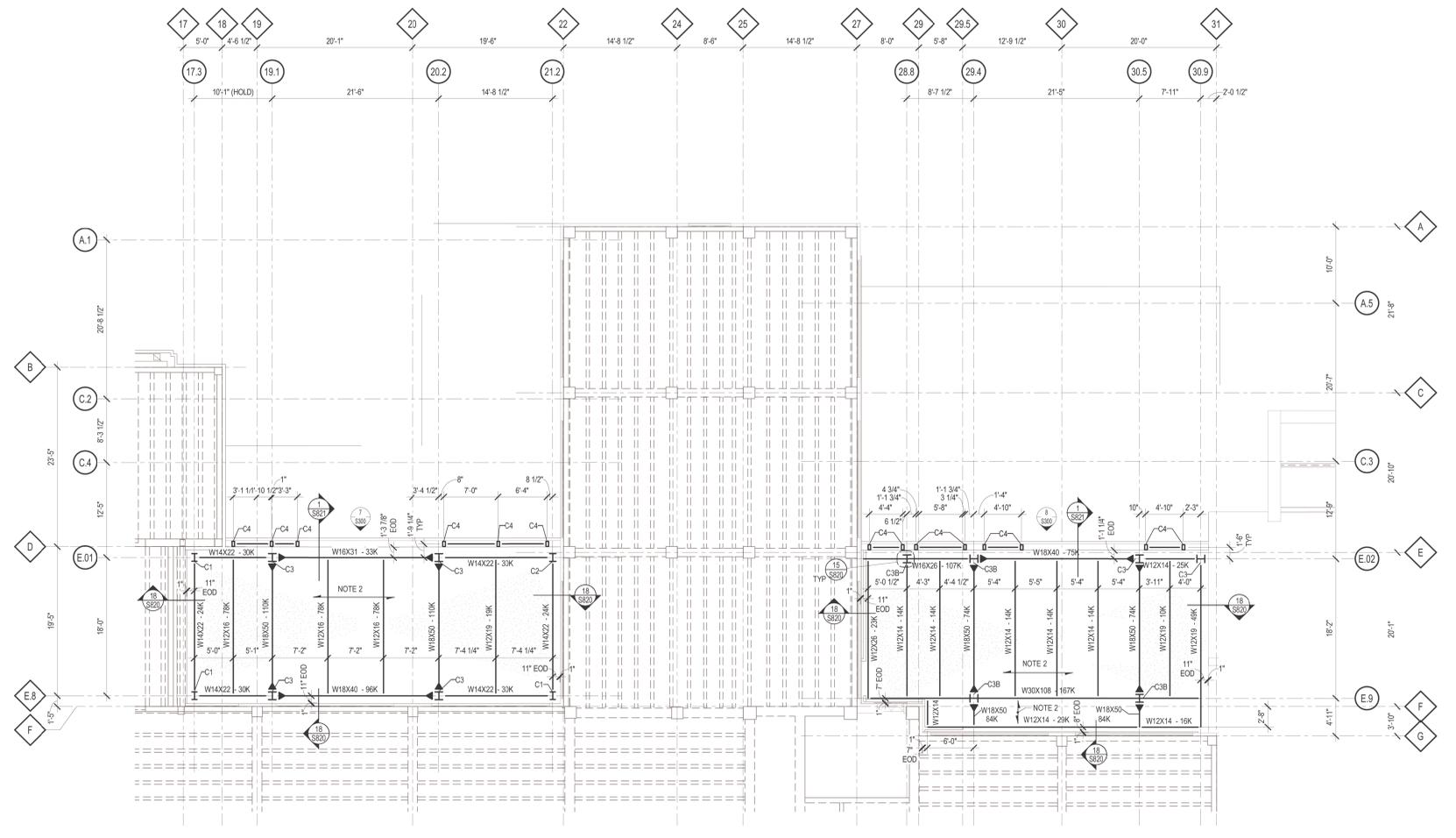
4 PARTIAL THIRD FLOOR PLAN AT ELECTRICAL PENTHOUSE SCALE: 1/8" = 1'-0"

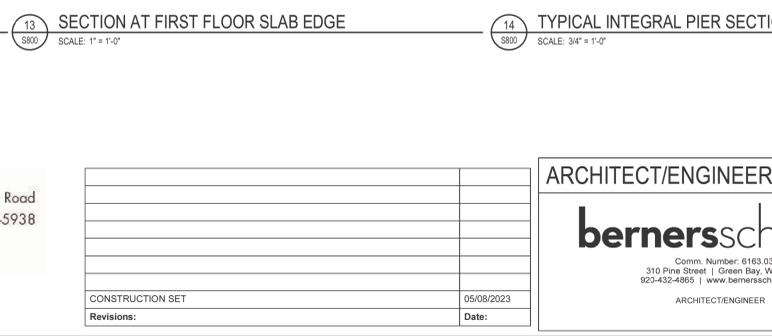
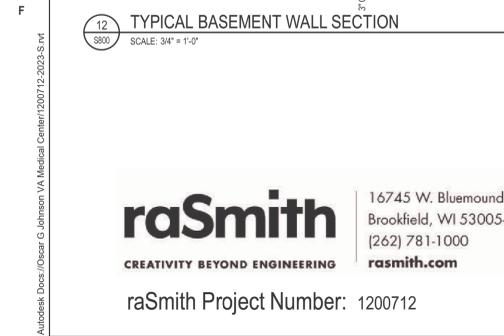
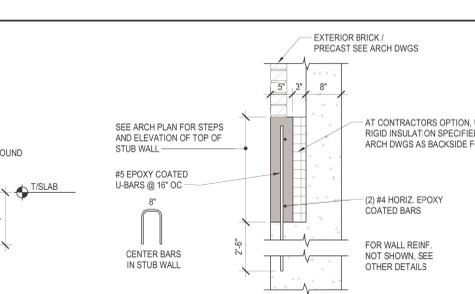
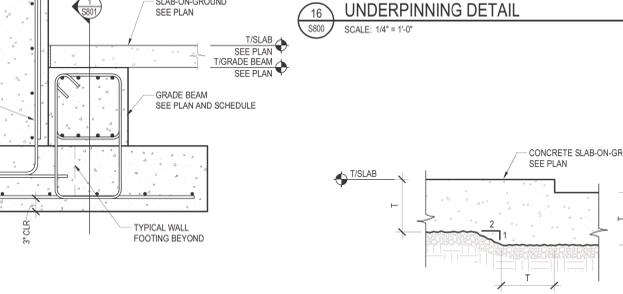
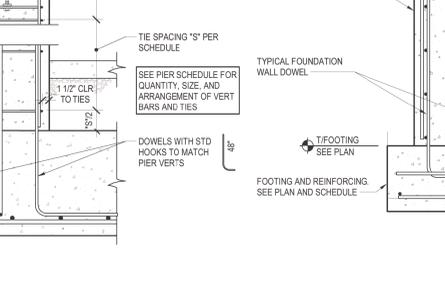
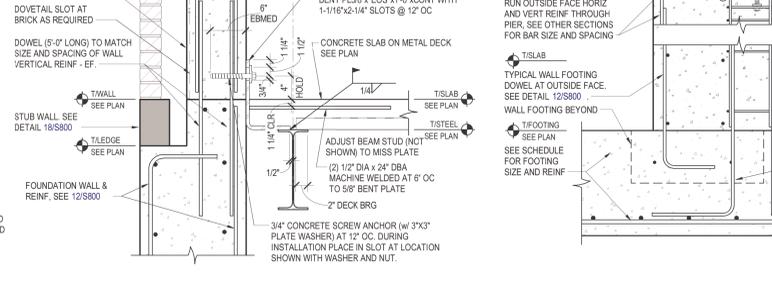
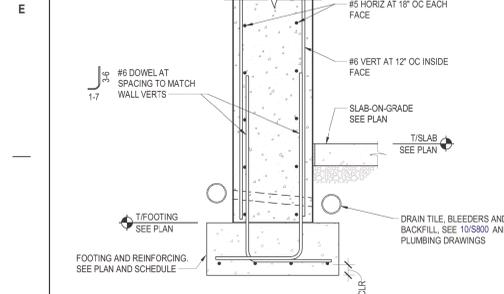
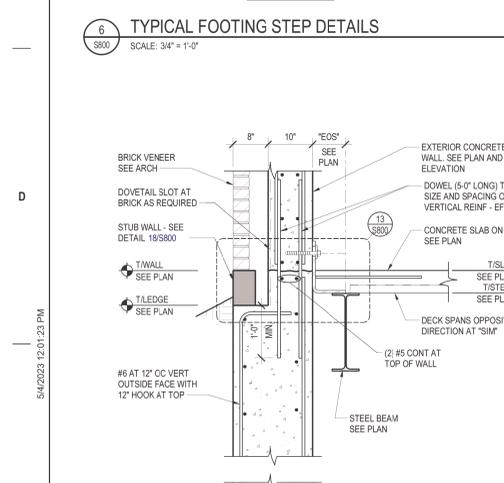
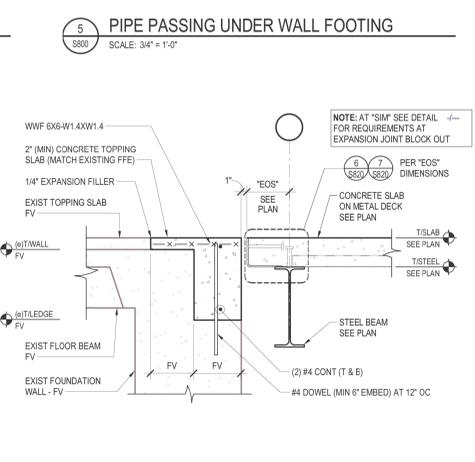
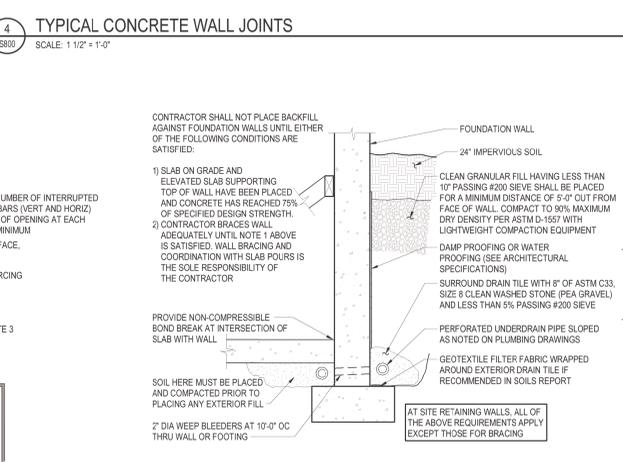
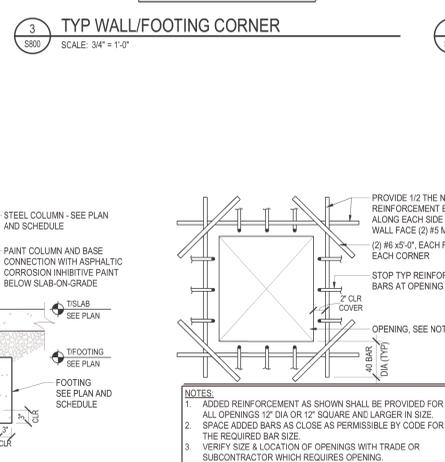
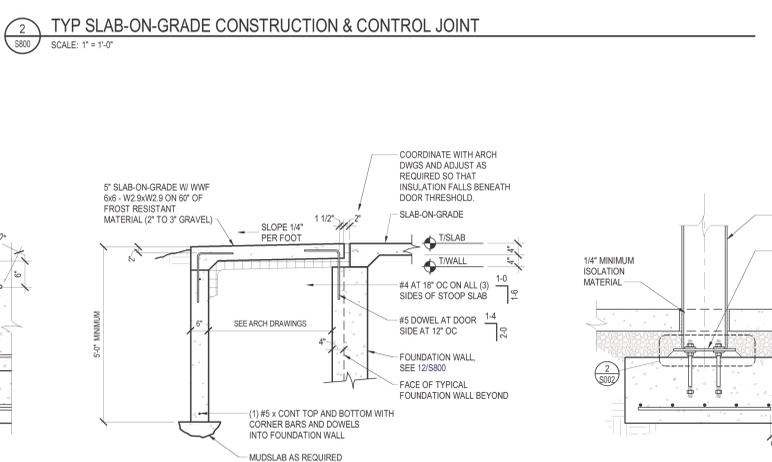
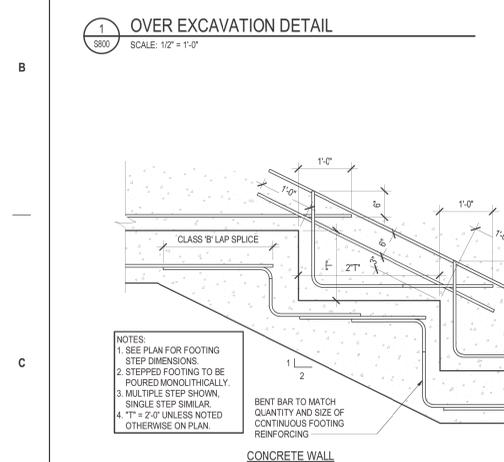
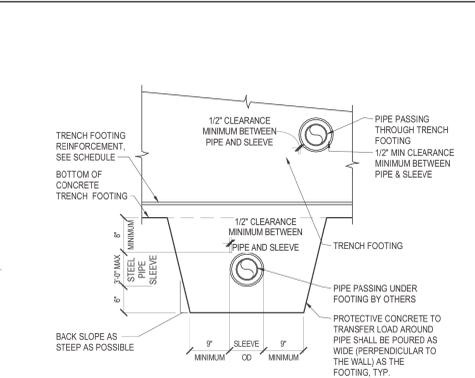
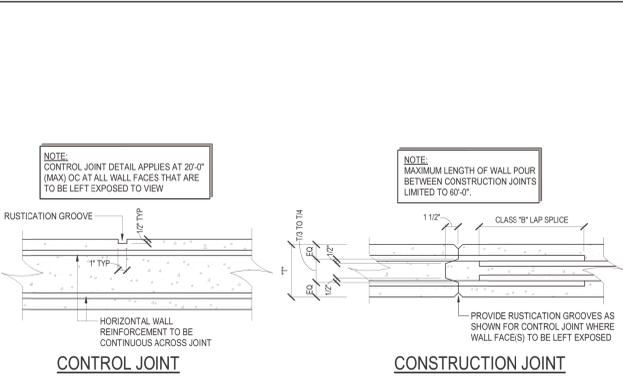
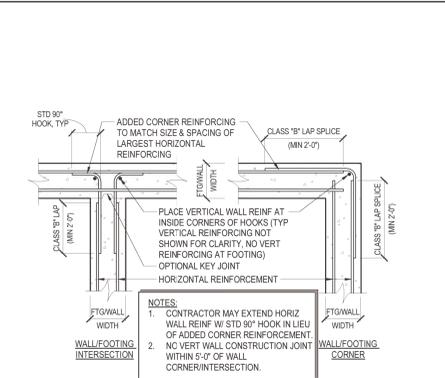
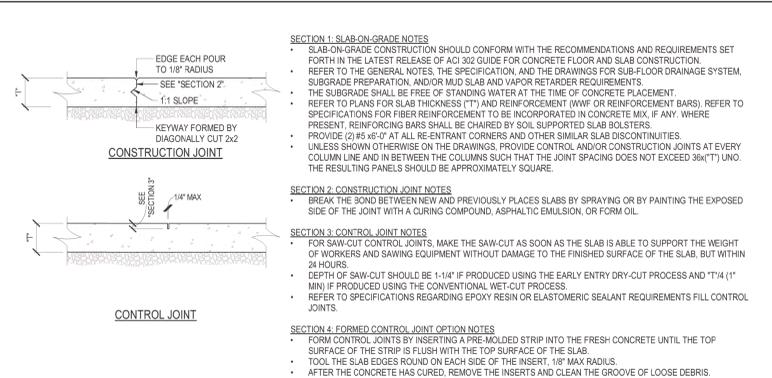
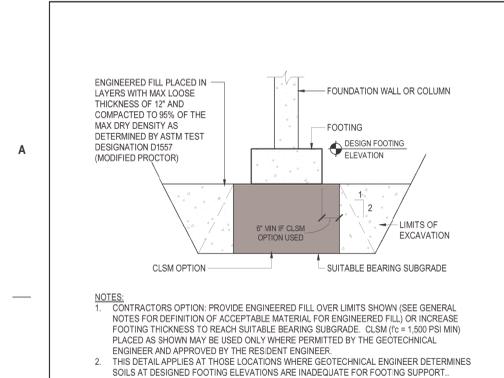
PARTIAL PENTHOUSE ROOF FRAMING PLAN NOTES

- STEEL ELEVATION = 1185'-10 1/2" UNLESS NOTED OTHERWISE ON THE PLAN AS (X'-X").
- ROOF DECKING SHALL BE 3" x 16 GA TYPE N GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 244 PATTERN OF 5/8" DIA PUDDLE WELDS (WELD AT EVERY RIB) WITH #10 TEK SIDELAP FASTENERS AT 12" OC. SEE DETAIL 8/S820 - PROVIDE DECK WITH THE FOLLOWING PROPERTIES:
THICK = 0.0598 in $I_x = 1.683 \text{ in}^4/\text{ft}$ $S_x = 0.893 \text{ in}^3/\text{ft}$
 $F_y = 40 \text{ KSI MN}$ $I_y = 1.807 \text{ in}^4/\text{ft}$ $S_y = 0.944 \text{ in}^3/\text{ft}$
INSTALL DECK UNDER 3 OR MORE SPAN CONDITIONS.
- PROVIDE ANGLE FRAME SUPPORT AT MINOR ROOF OPENINGS IN ACCORDANCE WITH DETAIL 9/S820, AND MAJOR ROOF OPENINGS AND ROOF DRAINS IN ACCORDANCE WITH DETAIL 10/S820.
- REFER TO SHEET S002 FOR COLUMN SCHEDULE.
- REACTIONS INDICATED ARE FACTORED VALUES THAT CONNECTION DESIGN IS TO SATISFY AS A MINIMUM. CONNECTION DESIGN SHALL BE BASED ON A $\phi = 1.0$, SHALL HAVE THE SAME CAPACITY BOTH UP AND DOWN, AND THE GOVERNING LIMIT STATE OF THE CONNECTION SHALL BE A DUCTILE MODE OF FAILURE. IN THE EVENT OF A BRITTLE FAILURE, MULTIPLY THE INDICATED REACTION BY 1.5.
- SEE DETAIL 14/S820 FOR TYPICAL MOMENT CONNECTION (SHOWN AS \blacktriangleright ON PLAN). SEE GENERAL NOTES ON SHEET S001 FOR MOMENT CONNECTION DESIGN CRITERIA.



2 PARTIAL ROOF PLAN AT ELECTRICAL PENTHOUSE SCALE: 1/8" = 1'-0"





raSmith
CREATIVITY BEYOND ENGINEERING
16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com
raSmith Project Number: 1200712

CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD
STAMP
bernerschaber
Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com
ARCHITECT/ENGINEER

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

Drawing Title: **FOUNDATION DETAILS**
Approved:

Phase: **CONSTRUCTION SET**
FULLY SPRINKLERED

Project Title: **EXPAND PHARMACY AND RADIOLOGY OSCAR G. JOHNSON VA MEDICAL CENTER**
Location: 325 H STREET, IRON MOUNTAIN, MI 49801
Issue Date: MAY 8, 2023
Checked: NLD
Drawn: rpm
Project Number: 585-337
Building Number: 1
Drawing Number: **S800**
DWG. 52 OF 126

A

B

C

D

E

F

A

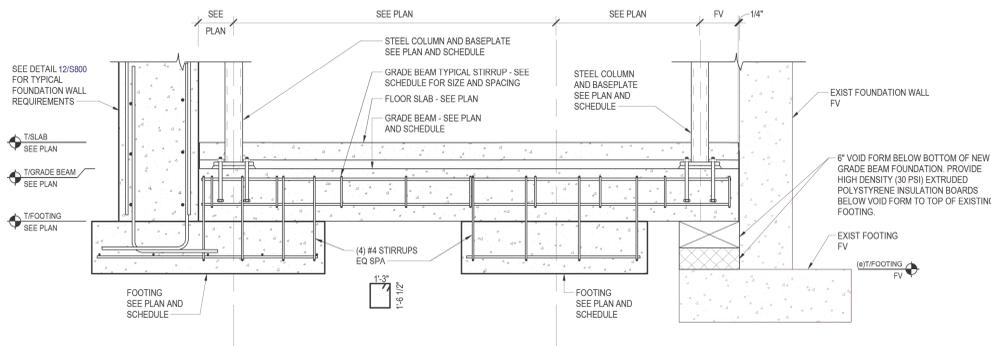
B

C

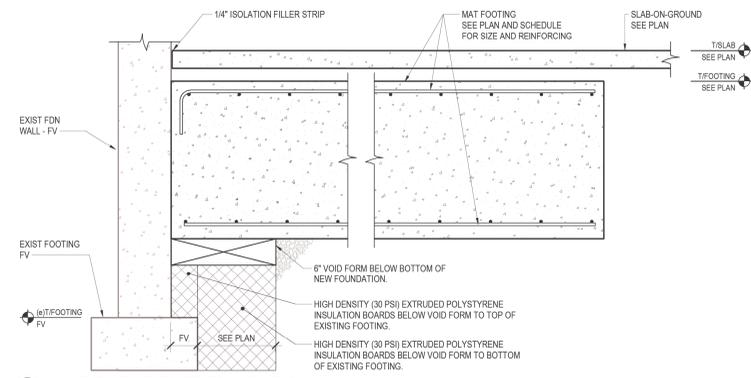
D

E

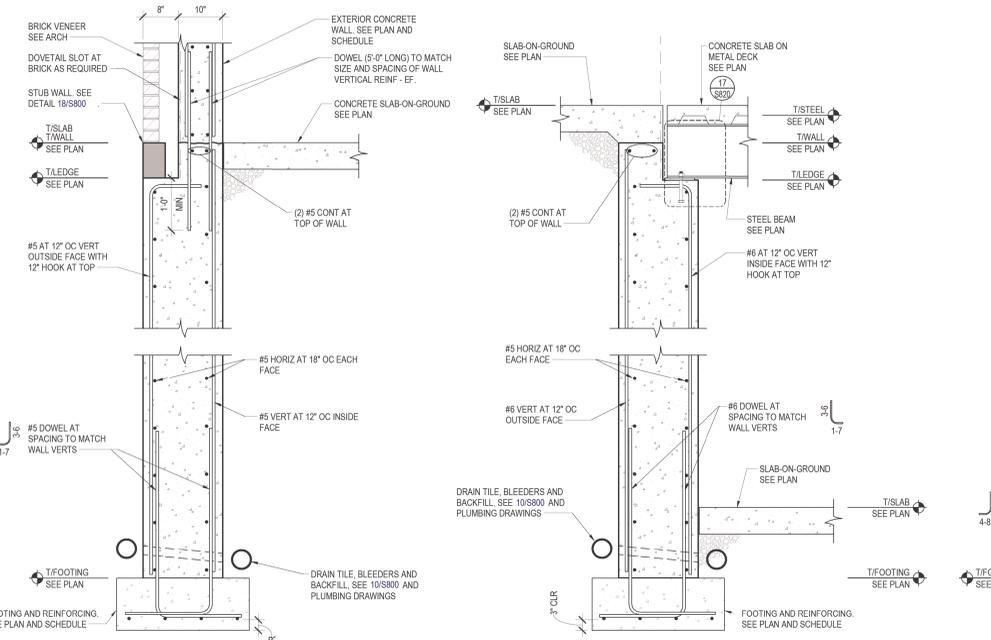
F



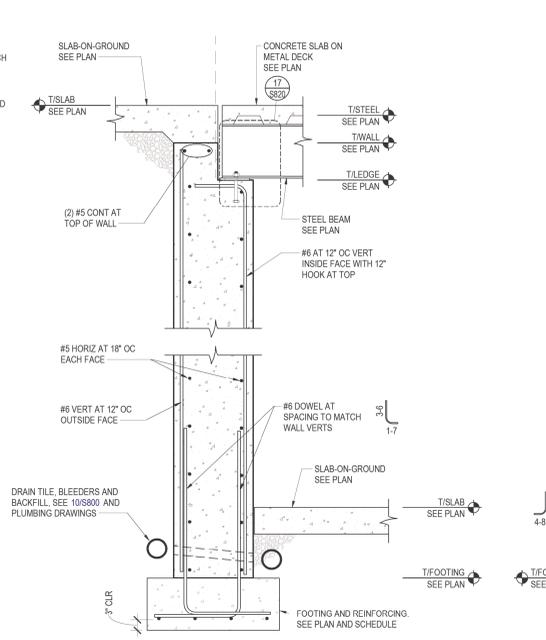
1 NEW GRADE BEAM FOUNDATION
SCALE: 3/4" = 1'-0"



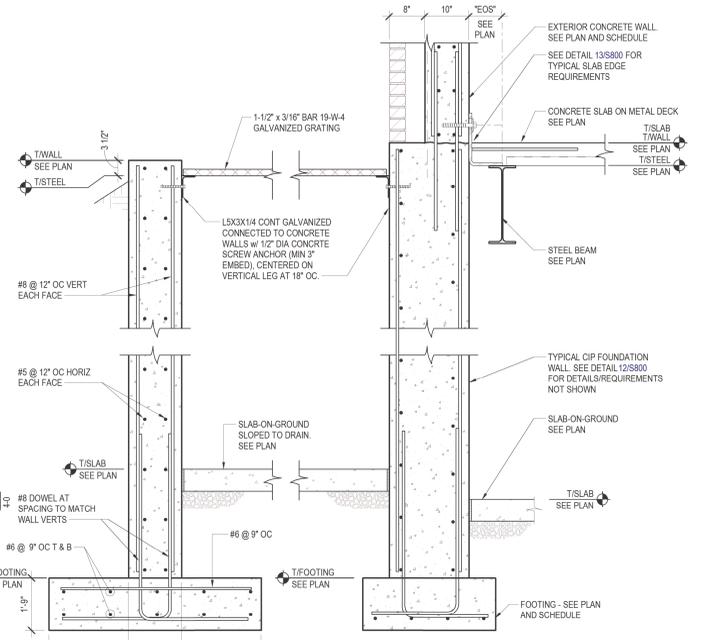
2 MAT SLAB AT EXIST FOUNDATION WALL
SCALE: 3/4" = 1'-0"



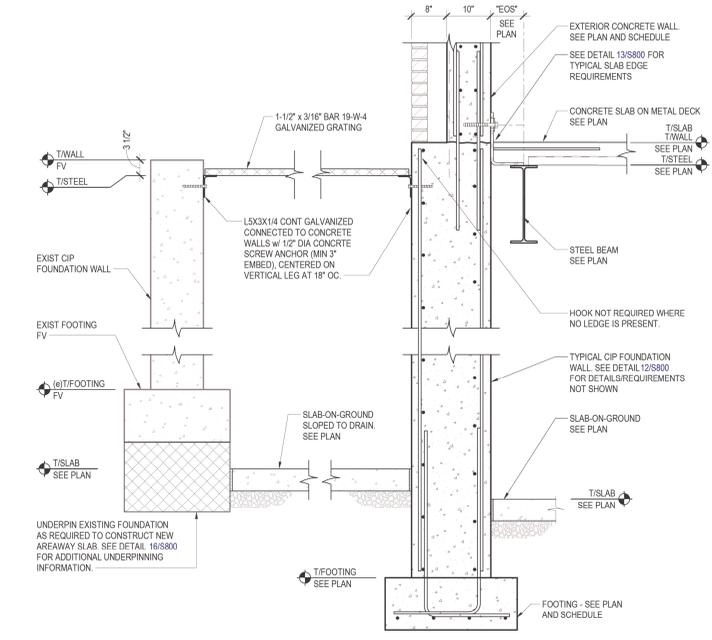
3 TYPICAL BASEMENT WALL SECTION
SCALE: 3/4" = 1'-0"



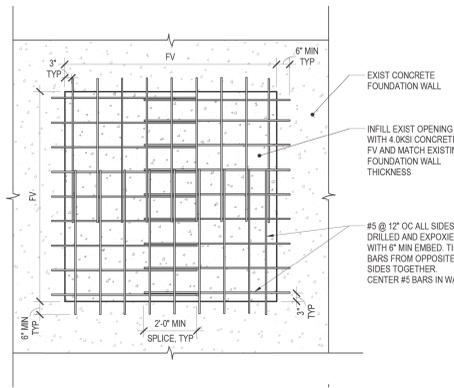
4 TYPICAL BASEMENT WALL SECTION AT MRI
SCALE: 3/4" = 1'-0"



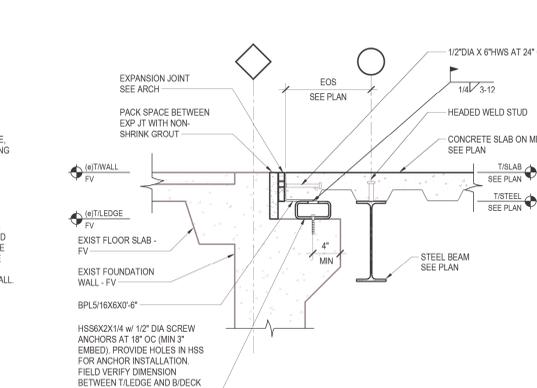
5 TYPICAL WALL SECTION AT AREAWAY
SCALE: 3/4" = 1'-0"



6 TYPICAL WALL SECTION AT AREAWAY AT EXISTING FOUNDATION
SCALE: 3/4" = 1'-0"



7 INFILL AT EXISTING FDN WALL
SCALE: 3/8" = 1'-0"



8 SLAB EDGE AT EXISTING FOUNDATION WALL HAUNCH
SCALE: 1" = 1'-0"

raSmith
CREATIVITY BEYOND ENGINEERING
raSmith Project Number: 1200712

16745 W. Bluemound Road
Brookfield, WI 53005-5938
(262) 781-1000
rasmith.com

CONSTRUCTION SET	05/08/2023
Revisions:	Date:

ARCHITECT/ENGINEER OF RECORD

bernerschaber

Comm. Number: 6163.03
310 Pine Street | Green Bay, WI 54301
920-432-4865 | www.bernerschaber.com
ARCHITECT/ENGINEER

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title
FOUNDATION DETAILS

Approved:

Phase
CONSTRUCTION SET

FULLY SPRINKLERED

Project Title
EXPAND PHARMACY AND RADIOLOGY
OSCAR G. JOHNSON VA MEDICAL CENTER

Location
325 H STREET,
IRON MOUNTAIN, MI 49801

Issue Date
MAY 8, 2023

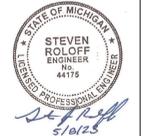
Checked
NLD

Drawn
rpm

Project Number
585-337

Building Number
1

Drawing Number
S801
DWG. 53 OF 126



AutoSave: Doc: \\Clear C:\Johnson VA Medical Center\200712-2023-S.rvt 5/4/2023 12:01:28 PM VA FORM 08 - 6231