

APPLICABLE CODES AND STANDARDS 2018 INTERNATIONAL BUILDING CODE ACI 318-14 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE TMS 402-2016 - BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES AISC 360-16 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS AISI S100-16 - NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS **DESIGN CRITERIA** FLOOR LIVE LOAD CORRIDORS - FIRST FLOOR DINNING AREA **OFFICE BUILDINGS - OFFICES RESIDENTIAL - PRIVATE ROOMS** RESIDENTIAL - PUBLIC ROOMS RESIDENTIAL - CORRIDORS - SAME AS AREA SERVED SIDEWALKS, VEHICULAR DRIVEWAYS 250 100 STAIRS AND EXIT WAYS 125 STORAGE - LIGHT ROOF LIVE LOAD (MINIMUM, NON-REDUCIBLE) OFFICE PARTITIONS (LIVE LOAD) 5 PSF PARTITIONS (LATERAL LOAD): RAILING (LATERAL LOAD AT TOP) 50 PLF OR 200 LB MECHANICAL EQUIPMENT ROOM 150 PSF OR EQUIP WEIGHT IF **GREATER** 40 PSF GROUND SNOW LOAD (Pg) 28 PSF FLAT-ROOF SNOW LOAD (P_f) PER ASCE 7-16 DRIFT SNOW LOAD SNOW EXPOSURE FACTOR (Ce): SNOW LOAD IMPORTANCE FACTOR (I): 1.0 1.0 THERMAL FACTOR (Ct): ULTIMATE DESIGN WIND SPEED (Vult): 122 MPH NOMINAL DESIGN WIND SPEED (Vasd): 95 MPH RISK CATEGORY: **CATEGORY I** WIND EXPOSURE: INTERNAL PRESSURE COEFFICIENT (GCpi): +/-0.18 COMPONENTS AND CLADDING DESIGN WIND PRESSURE: -38.18 PSF **ROOF - ZONE 1** -60.84 PSF ROOF - ZONE 2 ROOF - ZONE 3 -78.44 PSF WALL - ZONE 4 -28.1 PSF -34.7 PSF WALL - ZONE 5 EARTHQUAKE DESIGN DATA SEISMIC IMPORTANCE FACTOR (I): RISK CATEGORY: 0.2 SEC SPECTRAL RESPONSE ACCELERATION (S_S) 0.0898 1.0 SEC SPECTRAL RESPONSE ACCELERATION (S₁): 0.0350 SITE CLASS: 0.096 0.2 SEC SPECTRAL RESPONSE COEFFICIENT (SDS): 0.056 1.0 SEC SPECTRAL RESPONSE COEFFICIENT (S_{D1}): SEISMIC DESIGN CATEGORY: BASIC SEISMIC-FORCE-RESISTING SYSTEM: LIGHT GAUGE SHEAR WALLS DESIGN BASE SHEAR (V): 5.9 KIPS 11. SEISMIC RESPONSE COEFFICIENT (C_S): 0.01 12. RESPONSE MODIFICATION FACTOR (R): 6.5 ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE STRUCTURAL NOTES ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE APPLICATION OF ANY LOADS TO THE PARTIALLY COMPLETED STRUCTURE SHALL BE CONSIDERED BY THE CONTRACTOR AND SO INCLUDED IN THE DESIGN OF THE SHORING, BRACING, FORMWORK, AND ANY OTHER SUPPORTING ELEMENTS PROVIDED FOR CONSTRUCTION OF THE STRUCTURE WHERE CONSTRUCTION MATERIAL AND EQUIPMENT ARE TEMPORARILY STORED ON THE ROOF OR FLOOR FRAMING, THEY SHALL BE DISTRIBUTED SO THAT THE DESIGN LIVE LOAD AT THE LOADED AREA IS NOT EXCEEDED. DO NOT BACKFILL AGAINST WALLS OR OTHER STRUCTURAL ELEMENTS UNTIL SUCH ELEMENTS HAVE REACHED THEIR INTENDED STRENGTH, HAVE BEEN ADEQUATELY BRACED, AND/OR HAVE OTHER INTEGRAL STRUCTURAL ELEMENTS IN PLACE WHICH ARE INTENDED TO RESIST THE LATERAL EARTH LOADS. LATERAL LOAD RESISTING SYSTEM: ALL LATERAL LOAD RESISTANCE AND STABILITY IN THE COMPLETED STRUCTURE IS PROVIDED BY: N-S DIRECTION: LIGHT GAUGE SHEARWALLS & CMU SHEARWALLS E-W DIRECTION: LIGHT GAUGE SHEARWALLS & STEEL MOMENT FRAMES ROOF DIAPHRAGM: METAL DECK FLOOR DIAPHRAGM: CONCRETE OVER METAL DECK STEEL STABILITY: STRUCTURAL STEEL FRAMING INDICATED IN THESE PLANS REQUIRES INTERACTION WITH NON-STRUCTURAL STEEL ELEMENTS FOR STRENGTH AND/OR STABILITY. SEE PLANS FOR SPECIFIC LOCATIONS OF THESE NON-STRUCTURAL STEEL ELEMENTS WHICH ARE LISTED BELOW: CMU SHEARWALLS METAL FLOOR DECKING WITH CONCRETE TOPPING METAL ROOF DECKING LIGHT GAUGE SHEARWALLS DETAILS ON THE DRAWINGS INDICATED AS "TYPICAL" APPLY IN ALL AREAS WHERE CONDITIONS SIMILAR TO THE DETAIL OCCUR. THE STRUCTURAL DRAWINGS ARE NOT INTENDED FOR USE AS SHOP ERECTION DRAWINGS. REPRODUCTION OF THESE DRAWINGS IN LIEU OF PREPARATION OF SHOP ERECTION DRAWINGS SIGNIFIES THE USERS' ACCEPTANCE THAT ALL INFORMATION SHOWN IS CORRECT AND APPROPRIATE FOR SHOP DRAWINGS AND THAT THE USER WILL BE FULLY RESPONSIBLE FOR EXPENSES THAT MAY OCCUR FROM SAID ACCEPTANCE UNLESS SPECIFICALLY NOTED, THERE ARE NO PROVISIONS MADE FOR FUTURE FLOORS, ROOFS, OR OTHER LOADS. **CONSULTANTS:**

MATERIAL DATA <u>CONCRETE AND REINFORCING</u> 1. CONCRETE STRENGTH (f'c @ 28 DAYS) FOOTINGS 3,000 PSI 4,500 PSI FOUNDATION WALLS GRADE SUPPORTED SLABS 4.000 PSI 4,000 PSI CONCRETE TOPPINGS 3,000 PSI CONCRETE NOT SPECIFIED ALL CONCRETE EXPOSED TO FREEZE-THAW CONDITIONS SHALL HAVE A MINIMUM STRENGTH (f'c @ 28 DAYS) OF 4,500 PSI. THIS DOES NOT INCLUDE FOOTINGS/GRADE BEAMS THAT ARE COVERED BY SOIL. CEMENT TYPE: PORTLAND TYPE I AGGREGATES NORMAL WEIGHT, 1 1/2" MAX. SIZE - ASTM C33 PROVIDE AGGREGATES FREE OF MATERIALS WITH DELETERIOUS REACTIVITY TO ALKALI IN CEMENT, FROM A SINGLE SOURCE WITH DOCUMENTED SERVICE RECORD DATA OF AT LEAST 10 YEARS

SATISFACTORY SERVICE IN SIMILAR APPLICATIONS AND SERVICE CONDITIONS USING SIMILAR AGGREGATES AND CEMENTITIOUS MATERIALS.		
5. 6. 7. 8.	REINFORCING STEEL REINFORCING STEEL WELDED WIRE FABRIC PREFORMED EXPANSION JOINT (1/2")	ASTM A615, GRADE 60 ASTM A706, WELDABLE ASTM A185 ASTM D1751
MAS	ONRY	
1. 2.	MASONRY STRENGTH (f'm @ 28 DAYS) CONCRETE UNITS	1,500 PSI ASTM C90 NORMAL WEIGHT 2,000 PSI (BASED ON NET AREA) ASTM C270, TYPE S ASTM C476, 3/8" MAX. AGGREGATE SIZE 1,800 PSI ASTM C476 - 2,000 PSI ASTM A82, STD. LADDER TYPE - 9 GAUGE ZINC COATED PER ASTM A116 - (DUR-O-WALL OR APPROVED EQUAL @ 16 O.C. VERTICAL SPACING
3.	UNIT COMPRESSIVE STRENGTH	
4. 5.	MORTAR TYPE GROUT TYPE	
6. 7. 8.	MORTAR STRENGTH (28 DAYS) GROUT STRENGTH (28 DAYS) WIRE REINFORCING	

STEEL			
1. 2.	STRUCTURAL STEEL (WIDE FLANGES) STRUCTURAL STEEL (ALL OTHER TYPES)	ASTM A992, GRADE 50 ASTM A36	
3.	STRUCTURAL STEEL PIPE	ASTM A53, GRADE B,	
4.	STRUCTURAL TUBE	SCH. 40 ASTM A500, GRADE B	
5.	ANCHOR RODS	ASTM F1554, GRADE 55 WITH WELDING	
		SUPPLEMENT S1	
6.	BOLTED CONNECTIONS	ASTM A325N	
7.	WELDED CONNECTIONS	E70XX ELECTRODES	
8.	WELDED CONNECTIONS (GALVANIZED)	E6010 OR E6011	
		ELECTRODES	
9.	HEADED CONCRETE ANCHORS (HCA)	ASTM A108 GRADES	
		C1010 THROUGH C1020	
		(F _u =55 KSI)	
10.	DEFORMED BAR ANCHORS (DBA)	ASTM A108 & A496	
	METAL DEGICING	(F _y =70 KSI)	
11.	METAL DECKING	ASTM A611 OR	

ASTM A653-94 12. LIGHT GAUGE STEEL STUDS/JOISTS A. 12 TO 16 GAUGE (G60 GALV.) ASTM A1003 GRADE ST50H $(F_v=50 \text{ KSI})$ ASTM A1003 GRADE ST33H 18+ GAUGE (G60 GALV.) $(F_v=33 \text{ KSI})$

COORDINATION/VERIFICATION

CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH ANY PHASE OF THE WORK. ANY PROPRIETARY STRUCTURAL SYSTEMS THAT ARE COMPOSED OF

COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH THE INSTRUCTIONS PREPARED BY THE SUPPLIER. CROSS REFERENCE STRUCTURAL DRAWINGS WITH MECHANICAL AND ELECTRICAL DRAWINGS, AND WITH THE ACTUAL EQUIPMENT SUPPLIED TO THE PROJECT, FOR THE LOCATION AND SIZE OF ALL SLAB OPENINGS, SLEEVES, INSERTS, FLOOR DEPRESSIONS, BLOCK-OUTS, CURBS, ANCHORS, BOLTS, ETC.

REQUIRED FOR INSTALLATION. PROVIDE ADEQUATE STRUCTURAL FRAMING AS APPROVED BY THE ENGINEER FOR ALL REQUIRED MECHANICAL OPENINGS THROUGH SLABS, WALLS, FLOOR DECK, ETC., AND SUPPORT OF ALL MECHANICAL EQUIPMENT. OPENINGS SHALL NOT BE PERMITTED THROUGH BEAMS UNLESS SPECIFICALLY DETAILED BY THE ENGINEER.

REFER TO ARCHITECTURAL DRAWINGS FOR ALL SURFACE FINISHES, DIMENSIONS, AND LOCATIONS OF SLAB DROPS, MASONRY CONTROL JOINTS, AND WALL OPENING REQUIREMENTS

GEOTECHNICAL

BASIS OF DESIGN: THE FOUNDATION SYSTEM DESIGN IS BASED ON THE RECOMMENDATIONS OF GEOTECHNICAL REPORT NO. 06054.034 DATED

SEPTEMBER 1, 2016 PREPARED BY SCHEMMER. FOUNDATION SYSTEM: SHALLOW FOOTINGS MAXIMUM ALLOWABLE SOIL BEARING CAPACITY 2,500 PSF LATERAL EARTH PRESSURE: 180 PCF PASSIVE RESISTANCE 50 PCF ACTIVE PRESSURE AT-REST PRESSURE 65 PCF

SUBGRADE PREPARATION: HEAVILY ORGANIC OR ROOT INFESTED TOPSOIL SHALL BE EXCAVATED AND DISCARDED OR STOCKPILED FOR LATER USE IN COVERING FINISHED LANDSCAPED AREAS AFTER CONSTRUCTION. REMOVE TOPSOIL TO A MINIMUM DEPTH OF 8 INCHES. DEEPER STRIPPING SHALL BE DONE IF ORGANIC MATERIALS REMAIN BELOW A DEPTH OF 8 INCHES.

REMOVE ALL EXISTING STRUCTURES TO BE DEMOLISHED PRIOR TO GRADING. THIS INCLUDES PAVING, SIDEWALKS, AND OTHER MISCELLANEOUS SMALL STRUCTURES.

SURCHARGE REQUIREMENTS: PROVIDE SURCHARGE AS OUTLINED IN GEOTECH REPORT

STRUCTURAL FILL REQUIREMENTS: CLEAN, INORGANIC, LOW TO MEDIUM PLASTICITY LEAN CLAY (CL) OR SILT (ML), OR A COMBINATION OF THESE TWO MATERIALS MAXIMUM LIQUID LIMIT (LL)

MAXIMUM PLASTICITY INDEX WATER CONTENT (% OF OPTIMUM) +/-3% MAXIMUM LOOSE LIFT MINIMUM COMPACTION 95% (STANDARD PROCTOR TEST ASTM D-698)

SPREAD FOOTINGS SHALL BE PLACED ON NEAT. CLEAN AND DRY EXCAVATIONS. EXTREME CARE SHALL BE TAKEN WHEN EXCAVATING NEAR THE BEARING SURFACE. FOOT TRAFFIC SHALL BE KEPT TO A MINIMUM NECESSARY TO PLACE THE FOOTING REINFORCEMENT AND CONCRETE

CONTRACTOR SHALL PROVIDE FOR ADEQUATE DRAINAGE OF SURFACE WATER AWAY FROM THE STRUCTURE AND EXCAVATED AREAS DURING CONSTRUCTION. THIS INCLUDES NECESSARY PUMPING, TRENCHING, BACKFILL AND/OR DIKE CONSTRUCTION.

GRANULAR SUBBASE UNDER SLAB ON GRADE: MINIMUM THICKNESS MINIMUM COMPACTION

SEE PLAN 95% (STANDARD PROCTOR TEST ASTM D-698)

GRADATION REQUIREMENTS 100% PASSING THE 3/4" SIEVE LESS THAN 15% PASSING THE 100 SIEVE LESS THAN 2% PASSING THE 200 SIEVE

CAST-IN-PLACE CONCRETE

CONCRETE BATCH DESIGN(S) SHALL BE PROPORTIONED AND PRODUCED IN

ACCORDANCE WITH ACI 318, IN PARTICULAR CHAPTER 5, AND ACI 301. MIX AND DELIVER IN ACCORDANCE WITH ASTM C94. CONCRETE STRENGTH: SEE MATERIAL DATA NOTES & SPECIFICATION SECTION

SLUMP LIMITS: SEE SPECIFICATION SECTION 033000 MAXIMUM W/C RATIO: SEE SPECIFICATION SECTION 033000 AIR ENTRAINMENT: SEE SPECIFICATION SECTION 033000 ADMIXTURES: SEE SPECIFICATION SECTION 033000

(REFERENCE SPECIFICATION SECTION 033000 IN PROJECT MANUAL)

FLY ASH: SEE SPECIFICATION SECTION 033000 CONCRETE TO CONCRETE COLD JOINTS - PROVIDE 1/4" INTENTIONALLY ROUGHENED SURFACE AT ALL HORIZONTAL JOINTS

EXPOSED CORNERS: PROVIDE A 3/4" CHAMFER AT ALL EXPOSED CONCRETE CORNERS. 10. CURING: SEE SPECIFICATION SECTION 033000

11. REINFORCING BAR WELDING: ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT THE SPECIFIC APPROVAL OF THE ENGINEER. 12. MINIMUM CONCRETE CLEAR COVER:

A. FOOTINGS BOTTOM SIDES FOUNDATION WALLS TOP 1-1/2' BOTTOM SIDES

INTERIOR SLABS (TOP) SEE TYPICAL SLAB JOINT DETAIL ON SHEET SB501 OTHER COVER REQUIREMENTS SHALL BE AS NOTED IN APPLICABLE

13. NON-METALLIC, SHRINKAGE-RESISTANT GROUT: SEE SPECIFICATION SECTION 14. WATERSTOPS: SEE SPECIFICATION SECTION 033000

<u>SLAB ON GRADE REQUIREMENTS</u>

SLAB THICKNESS: SEE PLAN SLAB REINFORCING: SEE PLAN

GRANULAR SUBBASE: SEE GEOTECHNICAL NOTES

VAPOR RETARDER: SEE SPECIFICATION SECTION 033000. LAP AND TAPE ALL

JOINTS AND HOLES. CRACK CONTROL JOINTS (WHETHER CONSTRUCTION JOINTS OR SAWED JOINTS) IN SLABS ON GRADE SHALL OCCUR AS SHOWN AND ACROSS ALL DOOR OPENINGS. LOCATE JOINTS AT RE-ENTRANT CORNERS OF SLABS.

MAXIMUM SPACING OF CONTROL JOINTS: 12 FEET CURING: CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF SEVEN DAYS AFTER ITS PLACEMENT. APPROVED CURING: SEE SPECIFICATION SECTION 033000

SEAL ALL EXPOSED CONSTRUCTION/CRACK CONTROL JOINTS. SEALANT: SEE ARCHITECTURE.

ARCHITECT/ENGINEERS:

FLOOR FINISH & FLATNESS CRITERIA: SEE SPECIFICATION SECTION 033000

ANCHORAGE REQUIREMENTS

HEADED CONCRETE ANCHORS (HCA): AUTOMATICALLY END WELDED IN THE SHOP OR FIELD IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ANCHOR WELDS SHALL BE TESTED PER AWS SECTION 7.7. POST-INSTALLED MECHANICAL ANCHORS: INSTALL USING MINIMUM TORQUE, EMBEDMENTS, EDGE DISTANCES AND SPACING (UNLESS OTHERWISE NOTED) AS

RECOMMENDED BY THE ANCHOR MANUFACTURER POST-INSTALLED ADHESIVE ANCHORS: INSTALLATION TO MEET MANUFACTURER'S RECOMMENDATIONS (UNLESS NOTED OTHERWISE)INCLUDING MINIMUM EMBEDMENTS, EDGE DISTANCES, SPACING, PROCEDURES, AND

CURING TIME PRIOR TO LOADING. POST-INSTALLED ANCHORS SHALL BE LOCATED PER THE DETAILS. AVOID CUTTING OR DAMAGING EXISTING REINFORCING. SHOULD LOCATIONS OF DRILLED HOLES BE FOUND DIRECTLY ALIGNED WITH REINFORCING BARS, NOTIFY ENGINEER FOR NECESSARY ADJUSTMENTS TO THE DESIGN.

UNIT MASONRY

(REFERENCE SPECIFICATION SECTION 042000 IN PROJECT MANUAL)

DESIGN CRITERIA: MASONRY SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF ACI 530.

UNIT TYPES: SEE SPECIFICATION SECTION 042000 UNIT COMPRESSIVE STRENGTH: SEE MATERIAL DATA NOTES AND SPECIFICATION

MORTAR: SEE MATERIAL DATA NOTES AND SPECIFICATION SECTION 042000

CMU REINFORCING: UNLESS NOTED OTHERWISE, REINFORCE ALL CMU WALLS WITH VERTICAL #5 @ 32" O.C. FILL ALL REINFORCED CELLS WITH GROUT MINIMUM GROUT BETWEEN MASONRY AND REINFORCING SHALL BE 1/2". MINIMUM GROUT BETWEEN PAIRS OF REINFORCING BARS SHALL BE 3/4".

GROUT: SEE MATERIAL DATA NOTES AND SPECIFICATION SECTION 042000

A. PROVIDE #5 VERTICAL REINFORCING AT THE FOLLOWING LOCATIONS: AT ALL CORNERS OF CMU WALLS

AT ALL ENDS OF CMU WALLS EACH SIDE OF CONTROL JOINTS

EACH SIDE OF WALL OPENINGS SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF CONTROL JOINTS. BOND BEAMS

LOCATED AT TOP OF ALL CMU WALLS AND WHERE INDICATED IN DETAILS MINIMUM DEPTH UNLESS OTHERWISE NOTED = 8".

REINFORCING - (2) #4 CONTINUOUS. LAP SPLICE = 28 IN CORNER DOWELS - (2) #4 RIGHT ANGLE DOWELS THAT LAP A MINIMUM OF 2'-0" WITH ADJACENT BOND BEAM REINFORCING. IF BOND BEAMS AT INTERSECTING WALLS MEET AT DIFFERENT ELEVATIONS, EXTEND BOTH BOND BEAMS AROUND INTERSECTING CORNER TO FIRST INTERIOR

REINFORCED CELL, BUT NOT LESS THAN 4 FEET EXTEND BOND BEAMS THROUGH CONTROL JOINTS, BUT INTERRUPT BOND

24 FT. O.C. MAX.

BEAM REINFORCING AT CONTROL JOINTS LINTEL BEARING: PROVIDE A MINIMUM OF 8 INCHES BEARING AT EACH END. CONTROL JOINTS: EXCEPT WHERE OFFSETS OR SLIP JOINTS ARE SHOWN, CONTROL JOINTS SHALL BE A CONTINUOUS VERTICAL LINE FROM TOP OF FOOTING TO TOP OF MASONRY WALL. SPACE CONTROL JOINTS AS FOLLOWS: A. INTERIOR WALLS 36 FT. O.C. MAX.

STRUCTURAL STEEL FRAMING (REFERENCE SPECIFICATION SECTION 051200 IN PROJECT MANUAL)

B. EXTERIOR WALLS

GENERAL STRUCTURAL STEEL REQUIREMENTS

1. DESIGN CRITERIA: STRUCTURAL STEEL SHALL BE INSTALLED PER THE REQUIREMENTS OF AISC 360.

STRUCTURAL STEEL GRADES: SEE MATERIAL DATA NOTES AND SPECIFICATION SECTION 051200

ANCHOR AND BOLT GRADES: SEE MATERIAL DATA NOTES AND SPECIFICATION **SECTION 051200**

WELD ELECTRODES: SEE MATERIAL DATA NOTES AND SPECIFICATION

BEARING CONNECTIONS: UNLESS OTHERWISE NOTED, ALL BEAM CONNECTIONS SHALL BE SIMPLE FRAMED SHEAR BEARING CONNECTIONS IN ACCORDANCE WITH THE AISC "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."

DESIGN OF CONNECTIONS: BEAM CONNECTIONS SHALL BE AS DETAILED ON THE PLANS. ALTERNATIVE CONNECTIONS, DESIGNED BY A LICENSED ENGINEER FOR THE FABRICATOR, MAY BE UTILIZED PROVIDED THE ALTERNATIVE CONNECTION PROVIDES THE SAME LOAD CARRYING CAPACITY OF THE ORIGINAL DESIGN.

SPLICES: STEEL FABRICATOR SHALL VERIFY WITH ENGINEER ALL BEAM SPLICES OTHER THAN THOSE SHOWN ON THE PLANS. ANY FULL PENETRATION SHOP SPLICES APPROVED BY THE ENGINEER SHALL BE INSPECTED BY RADIOGRAPHIC METHODS BY A TESTING LABORATORY APPROVED BY THE ENGINEER AND PAID FOR BY THE FABRICATOR OPPOSING CONNECTIONS: WHERE BEAMS ARE BOLTED ON TWO SIDES OF A COMMON PLATE OR WEB, THE CONNECTIONS SHALL BE DETAILED WITH AN

ADDITIONAL ROW OF BOLTS ON ONE SIDE THAT IS NOT SHARED WITH THE OTHER SIDE TO ALLOW INDEPENDENT BOLTING DURING ERECTION. STEEL PROTECTION: ALL STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED WITH PRIMER PER SPECIFICATION SECTION 051200, UNLESS NOTED

STEEL PROTECTION: WHERE STEEL IS INDICATED AS GALVANIZED, PROVIDE HOT-DIPPED GALVANIZED SURFACE PER SPECIFICATION SECTION 051200. 11. SHOP DRAWINGS: SEE SPECIFICATION SECTION 051200 FOR SUBMITTAL

REQUIREMENTS. 12. SLIDE BEARINGS: WHERE SHOWN ON THE DRAWINGS, TEFLON SLIDE BEARING PADS SHALL BE PROVIDED. BEARING PADS SHALL BE DURA-SLIDE AS MANUFACTURED BY TOBI ENGINEERING, INC. OR APPROVED EQUAL

 WELDING: ALL WELDING SHALL BE PERFORMED BY QUALIFIED WELDERS PER AWS STANDARD QUALIFICATION PROCEDURES

14. COMPLETE PENETRATION WELDS: COMPLETE PENETRATION WELDED CONNECTIONS SHALL BE PROVIDED WHERE INDICATED. A MINIMUM OF 10% OF ALL FIELD AND SHOP FULL PENETRATION WELDS SHALL BE TESTED BY X-RAY OR ULTRASONIC PROCEDURES. (SEE SPECIFICATIONS FOR OTHER TESTING.)

STEEL DECKING (REFERENCE SPECIFICATION SECTION 053100 IN PROJECT MANUAL)

DECK GOVERNING CRITERIA: THE DESIGN, FABRICATION, AND ERECTION OF METAL DECKING SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE SDI SPECIFICATIONS AND THE SDI DIAPHRAGM DESIGN MANUAL

ROOF DECK CONNECTIONS: ROOF DECKING SHALL BE CONNECTED TO THE STRUCTURE AS INDICATED IN THE ROOF DECK SCHEDULE. MAINTAIN OVERALL STRUCTURAL BRACING UNTIL ALL DECKING HAS BEEN INSTALLED. FLOOR DECK CONNECTIONS: FLOOR DECKING SHALL BE CONNECTED TO THE

STRUCTURE AS INDICATED IN THE FLOOR DECK SCHEDULE. MAINTAIN OVERALL STRUCTURAL BRACING UNTIL ALL DECKING HAS BEEN INSTALLED. DECK PROTECTION: SEE SPECIFICATION SECTION 053100 FLOOR SLAB-ON-DECK DESIGN: ALL FLOOR SLABS SUPPORTED ON STEEL

STRUCTURE AND METAL DECK SHALL HAVE A TOTAL THICKNESS AND REINFORCING AS INDICATED ON PLAN.

(REFERENCE SPECIFICATION SECTION 054000 IN PROJECT MANUAL)

DESIGN CRITERIA: COLD-FORMED METAL FRAMING SHALL BE INSTALLED PER

LIGHT GAUGE STEEL STUDS/JOISTS: SEE MATERIAL DATA NOTES AND SPECIFICATION SECTION 054000

REFERENCE PLANS AND SCHEDULES FOR GAUGE AND SPACING OF LIGHT GAUGE STEEL STUDS/JOISTS. LIGHT GAUGE STEEL BOTTOM TRACK AT LOAD BEARING WALLS:

FASTEN TO FOUNDATION AT SHEAR WALLS PER SHEAR WALL SCHEDULE & TYPICAL DETAILS.

BOTTOM TRACK SHALL BE GALVANIZED

STRUCTURAL NOTES

Approved: kmw

FRAMING AT FLOOR/ROOF OPENINGS: PROVIDE DOUBLE HEADERS AND DOUBLE JOISTS EACH SIDE OF ALL OPENINGS IN FLOORS AND ROOFS

BLOCKING AND BRIDGING AT STUDS: SEE SPECIFICATION SECTION 054000

COLD-FORMED METAL TRUSSES (REFERENCE SPECIFICATION SECTION 054400 IN PROJECT MANUAL)

DESIGN CRITERIA: TRUSS VENDOR IS TO SUBMIT TO THE ARCHITECT. ENGINEER, AND CITY DESIGN CALCULATIONS BY A LICENSED ENGINEER AND SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS ARE TO SHOW ALL TEMPORARY AND PERMANENT BRACING REQUIRED BY DESIGN. DESIGN CALCULATIONS SHALL BE SEALED BY THE

LICENSED ENGINEER. DESIGN RESPONSIBILITIES - TRUSSES SHALL BE DESIGNED UNDER THE FOLLOWING FORMAT

A. LATERAL FORCES APPLIED TO THE TRUSSES, SUCH AS DRAG TRUSS LOADS, COLLECTORS, ETC., ARE INDICATED ON THE PLANS WHERE

APPLICABLE. ALL TRUSS-TO-TRUSS CONNECTIONS ARE THE RESPONSIBILITY OF THE TRUSS ENGINEER.

DRAG LOADS (HORIZONTAL TRUSS TRANSFERS) CONNECTIONS BETWEEN THE TRUSS AND THE STRUCTURE ARE INDICATED ON THE

PLANS WHERE APPLICABLE. D. ALL TRUSS-TO-STRUCTURE (WALLS OR BEAMS) CONNECTIONS ARE INDICATED ON THE PLANS WHERE APPLICABLE

IT IS THE RESPONSIBILITY OF THE TRUSS ENGINEER TO DEVELOP THE LOADING REQUIRED TO IMPLEMENT THE REQUIRED SNOW LOADS PER IBC AND ASCE 7 SPECIFICATIONS. THIS INCLUDES ADDITIONAL SNOW LOAD AT EAVES. AND UNBALANCED LOADING ON THE GABLE AND HIP ROOFS.

IT IS THE RESPONSIBILITY OF THE TRUSS ENGINEER TO REVIEW ALL OF THE INDICATED DESIGN SPECIFICATIONS. ROOF TRUSS SUPPORTS AND DRAG DETAILS AND TO INCORPORATE THESE REQUIREMENTS INTO THE ENGINEERING DESIGN OF THE ROOF TRUSS SYSTEM.

THE TRUSS ENGINEER SHOULD DEVELOP A TRUSS LAYOUT PLAN FOR THE TRUSS SYSTEM THAT CLEARLY INDICATES THE TRUSS VERTICAL SUPPORT CONDITIONS, TRUSS-TO-TRUSS CONNECTIONS, DRAG TRUSSES AND COLLECTORS, AND ANY OTHER FIELD-INSTALLED REINFORCEMENT, INCLUDING FIELD-INSTALLED TOP CHORD REINFORCEMENT AT EAVES NECESSARY TO EXECUTE THE TRUSS SYSTEM DESIGN. THE TRUSS ROOF FRAMING PLAN SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER AND BE INCLUDED WITH THE INDIVIDUAL TRUSS CUT SHEETS. THE TRUSS ENGINEER SHOULD ALSO PROVIDE PROPER SUPERVISION OF ANY TRUSS COMPANY **TECHNICIANS**

TRUSS BRACING: TEMPORARY ERECTION BRACING AND PERMANENT WEB BRACING SHALL BE DESIGNED BY THE TRUSS MANUFACTURER. THE TRUSS ENGINEER SHALL DESIGN TRUSSES AND APPLICABLE

CONNECTIONS FOR BLAST LOADS INDENTIFIED IN THE PROJECT SPECIFICATIONS. LATTERAL BLAST LOADS FROM THE WALLS SHALL

BE CONSIDERED IN THE DESIGN. METAL TRUSS DESIGN LOADS (IN ADDITION TO SELF-WEIGHT) ROOF DEAD LOAD (TOP CHORD)

ROOF DEAD LOAD (BOTTOM CHORD) 25 PSF MECHANICAL ROOMS & CORRIDORS 10 PSF ALL OTHER AREAS FLOOR DEAD LOAD (TOP CHORD) 15 PSF FLOOR DEAD LOAD (BOTTOM CHORD) MECHANICAL ROOMS & CORRIDORS 25 PSF 10 PSF ALL OTHER AREAS

E. ROOF LIVE LOAD (TOP CHORD) SEE DESIGN CRITERIA NOTES ROOF LIVE LOAD (BOTTOM CHORD) 10 PSF SEE DESIGN G. FLOOR LIVE LOAD (TOP CHORD)

CRITERIA

NOTES

(REFERENCE SPECIFICATION SECTION 061600 IN PROJECT MANUAL)

ROOF/FLOOR SHEATHING: SEE MATERIAL DATA NOTES AND SPECIFICATION SECTION 061600

WALL SHEATHING: SEE MATERIAL DATA NOTES AND SPECIFICATION

ROOF/FLOOR SHEATHING NAILING: COMMON WIRE NAILS SHALL BE USED AND PENETRATE SUPPORTING MEMBERS A MINIMUM OF 1-5/8". INDIVIDUAL PIECES OF SHEATHING SHALL NOT BE LESS THAN 24" IN THEIR SHORTEST

PLAN DIRECTION NOR LESS THAN 8 SQ. FT. IN AREA: A. ROOF SHEATHING: SHEET EDGES 10d @ 6" O.C.

SHALL BE NAILED PER THE REQUIRED EDGE NAILING ABOVE

INTERMEDIATE FRAMING MEMBERS 10d @ 12" O.C. B. FLOOR SHEATHING 10d @ 6" O.C. SHEET EDGES PANEL FIELD 10d @ 12" O.C. WALL SHEATHING NAILING: SEE SHEAR WALL SCHEDULE AND TYPICAL

SHEAR WALL DETAILS

PROVIDE BLOCKING OR PANEL EDGE CLIPS AT ALL PANEL EDGES OPENINGS IN SHEATHING: EDGES OF ALL OPENINGS THROUGH SHEATHING

COLD-FORMED METAL FRAMING

THE REQUIREMENTS OF AISI NAS.

FASTEN AT ALL OTHER LOAD BEARING WALLS PER DETAILS INDICATED

FRAMING AT WALL OPENINGS: SEE TYPICAL DETAILS FOR HEAD AND SILL FRAMING AT WALL OPENINGS.

UNLESS DETAILED OTHERWISE

BLOCKING AND BRIDGING AT JOISTS: SEE SPECIFICATION SECTION 054000 **Drawing Title**

Project Number CONSTRUCT CLC COTTAGE 438-420 - HOSPICE Building Number Drawing Number SIOUX FALLS, SD S-001 06/30/2021 MJN

Office of Construction and Facilities Management



SCHEMMER

Design with Purpose. Build with Confidence

TSA PROJECT 06054.034

Dwg. 44 of 90

Department of Veterans Affairs

SPECIAL INSPECTIONS (IBC 2018) SPECIAL INSPECTIONS CONTINUED (IBC 2018) **SPECIAL INSPECTIONS CONTINUED (IBC 2018)** SPECIAL INSPECTIONS SHALL BE PROVIDED BY THE OWNER CONCRETE CONSTRUCTION FOR THE WORK IN ACCORDANCE WITH IBC CHAPTER 17. STEEL CONSTRUCTION - AFTER WELDING . INSPECTION OF REINFORCEMENT AND VERIFY CONTRACTOR SHALL NOTIFY AND ACCOMMODATE THE WELDS CLEANED. (QC - O; QA - O) APPLICABLE INSPECTOR DURING APPROPRIATE PHASES OF SIZE, LENGTH AND LOCATION OF WELDS. (QC - P; QA -PLACEMENT. (PERIODIC) THE WORK AS REQUIRED FOR EACH TYPE OF INSPECTION. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS WELD MEET VISUAL ACCEPTANCE CRITERIA. (QC - P; **STEEL CONSTRUCTION - GENERAL** OTHER THAN ASTM A706. (PERIODIC) 1. SHOP CUT AND FINISHED SURFACES IN ACCORDANCE INSPECT SINGLE-PASS FIILLET WELDS, MAXIMUM CRACK PROHIBITION. WITH SECTION M2 OF AISC 360-16. 5/16". **(PERIODIC)** WELD/BASE-METAL FUSION. SHOP HEATING FOR STRAIGHTENING, CAMBERING CRATER CROSS SECTION. INSPECT ALL OTHER WELDS. (CONTINUOUS) AND CURVING IN ACCORDANCE WITH SECTION M2.1 WELD PROFILES. INSPECT ANCHORS CAST IN CONCRETE. (PERIODIC) OF AISC 360-16. 4. INSPECT ANCHORS POST-INSTALLED IN HARDENED WELD SIZE. TOLERANCES FOR SHOP FABRICATION IN UNDERCUT CONCRETE MEMBERS. ACCORDANCE WITH SECTION 6.4 OF AISC 303-16. POROSITY. ADHESIVE ANCHORS INSTALLED IN STEEL DECK IN ACCORDANCE WITH SDI-QA/QC-2017 ARC STRIKES. (QC - P; QA - P) HORIZONTALLY OR UPWARDLY INCLINED FIELD CUT SURFACES IN ACCORDANCE WITH SECTION ORIENTATIONS TO RESIST SUSTAINED TENSION K-AREA. (QC - P; QA - P) M2.2 OF AISC 360-16. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND LOADS. (CONTINUOUS) FIELD HEATING FOR STRAIGHTENING IN ACCORDANCE MECHANICAL ANCHORS AND ADHESIVE BUILT-UP HEAVY SHAPES. (QC - P; QA - P) WITH SECTION M2.1 OF AISC 360-16. ANCHORS NOT DEFINED IN 4.A. (PERIODIC) BACKING REMOVED AND WELD TABS REMOVED (IF TOLERANCES FOR FIELD ERECTION IN ACCORDANCE REQUIRED). VERIFY USE OF REQUIRED DESIGN MIX. (PERIODIC) WITH SECTION 7.13 OF AISC 303-16. REPAIR ACTIVITIES. (QC - P; QA - P) PRIOR TO CONCRETE PLACEMENT, FABRICATE DOCUMENT ACCEPTANCE OR REJECTION OF WELDED SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP STEEL INSPECTION DEFINITIONS AND AIR CONTENT TESTS, AND DETERMINE THE JOINT OR MEMBER. (QC - P; QA - P) O - OBSERVE THESE ITEMS ON A RANDOM BASIS. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT TEMPERATURE OF THE CONCRETE. (CONTINUOUS) **OPERATIONS NEED NOT** THE APPROVAL OF THE EOR. (QC - O; QA - O) VERIFY MAINTENANCE OF SPECIFIED CURING BE DELAYED PENDING THESE INSPECTIONS. TEMPERATURE AND TECHNIQUES. (PERIODIC) **P** - PERFORM THESE TASKS FOR EACH WELDED JOINT OR STEEL CONSTRUCTION - PRIOR TO BOLTING INSPECT ERECTION OF PRECAST CONCRETE MEMBER. EACH MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR MEMBERS. (PERIODIC) BOLTED CONNECTION, OR EACH STEEL ELEMENT. INSPECT FORMWORK FOR SHAPE, LOCATION AND FASTENER MATERIALS. (QC - O; QA - P) DIMENSIONS OF THE CONCRETE MEMBER BEING FASTENERS MARKED IN ACCORDANCE WITH ASTM STEEL CONSTRUCTION - PRIOR TO WELDING FORMED. (PERIODIC) REQUIREMENTS. 1. WELDER QUALIFICATION RECORDS AND CONTINUITY (QC - O; QA - O) RECORDS CORRECT FASTENERS SELECTED FOR THE JOINT MASONRY CONSTRUCTION - LEVEL B (QC - P; QA - O) EMPIRICALLY DESIGNED MASONRY, MASONRY VENEER, DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE 2. WELDING PROCEDURE SPECIFICATIONS (WPSs) GLASS UNIT MASONRY TO BE EXCLUDED FROM SHEAR PLANE). AVAILABLE. - RISK CATEGORY IV (QC - O; QA - O) (QC - P; QA - P) CORRECT BOLTING PROCEDURE SELECTOR FOR ALL OTHER MASONRY - RISK CATEGORY I, II OR III MANUFACTURER CERTIFICATIONS FOR WELDING JOINT DETAIL. **TEST:** VERIFICATION OF SLUMP FLOW AND VISUAL CONSUMABLES AVAILABLE. (QC - P; QA - P) STABILITY INDEX (VSI) AS (QC - O; QA - O) 4. MATERIAL IDENTIFICATION (TYPE/GRADE). (QC - O; DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH CONNECTING ELEMENTS, INCLUDING THE QA - O) SPECIFICATION ARTICLE 1.5 B.1.b.3 FOR SELF-APPROPRIATE FAYING SURFACE CONDITION AND WELDER IDENTIFICATION SYSTEM. (QC - O; QA - O) CONSOLIDATING GROUT. HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE FIT-UP GROOVE WELDS (INCLUDING JOINT **TEST:** VERIFICATION OF f'm IN ACCORDANCE WITH REQUIREMENTS. (QC - O; QA - O) GEOMETRY). (QC - O; QA - O) SPECIFICATION PRE-INSTALLATION VERIFICATION TESTING BY JOINT PREPARATION. ARTICLE 1.4 B PRIOR TO CONSTRUCTION, EXCEPT WHERE INSTALLATION PERSONNEL OBSERVED AND DIMENSIONS (ALIGNMENT, ROOT OPENING, DOCUMENTED FOR FASTENER ASSEMBLIES AND SPECIFICALLY EXEMPTED BY THIS CODE. ROOT FACE, BEVEL). 1. VERIFY COMPLIANCE WITH THE APPROVED METHODS USED. (QC - P; QA - O) C. CLEANLINESS (CONDITION OF STEEL SUBMITTALS. (PERIODIC) PROTECTED STORAGE PROVIDED FOR BOLTS. NUTS SURFACES). AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT WASHERS AND OTHER FASTENER COMPONENTS. TACKING (TACK WELD QUALITY AND LOCATION). THE FOLLOWING ARE IN COMPLIANCE: (QC - O; QA - O) BACKING TYPE AND FIT (IF APPLICABLE). A. PROPORTIONS OF SITE-PREPARED MORTAR. 7. FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y- AND K-<u>STEEL CONSTRUCTION - DURING BOLTING</u> (PERIODIC) JOINTS WITHOUT BACKING (INCLUDING JOINT CONSTRUCTION OF MORTAR JOINTS FASTENER ASSEMBLIES PLACED IN ALL HOLES AND GEOMETRY) (QC - P; QA - O) (PERIODIC) WASHERS ARE POSITIONED AS REQUIRED. (QC - O; A. JOINT PREPARATION. LOCATION OF REINFORCEMENT AND QA - O) DIMENSIONS (ALIGNMENT, ROOT OPENING. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION CONNECTORS. (PERIODIC) ROOT FACE, BEVEL). PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING PRIOR TO THE PRETENSIONING OPERATION. (QC - O; CLEANLINESS (CONDITION OF STEEL ARE IN COMPLIANCE: SURFACES). FASTENER COMPONENT NOT TURNED BY THE GROUT SPACE. (PERIODIC) D. TACKING (TACK WELD QUALITY AND LOCATION). GRADE, TYPE, AND SIZE OF REINFORCEMENT WRENCH PREVENTED FROM ROTATING. (QC - O; QA -CONFIGURATION AND FINISH OF ACCESS HOLES. (QC -AND ANCHOR BOLTS. (PERIODIC) O; QA - O) PLACEMENT OF REINFORCEMENT AND FASTENERS ARE PRETENSIONED IN ACCORDANCE 9. FIT-UP FILLET WELDS. (QC - O; QA - O) CONNECTORS. (PERIODIC) WITH THE RCSC SPECIFICATION, PROGRESSING DIMENSIONS (ALIGNMENT, GAPS AT ROOT). PROPORTIONS OF SITE-PREPARED GROUT. SYSTEMATICALLY FROM THE MOST RIGID POINT CLEANLINESS (CONDITION OF STEEL (PERIODIC) TOWARD THE FREE EDGES. (QC - O; QA - O) SURFACES). CONSTRUCTION OF MORTAR JOINTS C. TACKING (TACK WELD QUALITY AND LOCATION). STEEL CONSTRUCTION - AFTER BOLTING (PERIODIC) 10. CHECK WELDING EQUIPMENT. (QC - O; QA - N/A) DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED VERIFY DURING CONSTRUCTION: A. SIZE AND LOCATION OF STRUCTURAL CONNECTIONS. STEEL CONSTRUCTION - DURING WELDING **ELEMENTS.** (PERIODIC) (QC - P; QA - P) USE OF QUALIFIED WELDERS. (QC - O; QA - O) TYPE, SIZE AND LOCATION OF ANCHORS, CONTROL AND HANDLING OF WELDING INCLUDING OTHER DETAILS OF ANCHORAGE OF COLD-FORMED STEEL DECK CONSUMABLES. (QC - O; QA - O) MASONRY TO STRUCTURAL MEMBERS, FRAMES SPECIAL INSPECTIONS AND QUALIFICATION OF A. PACKAGING. OR OTHER CONSTRUCTION. (PERIODIC) WELDING SPECIAL INSPECTORS FOR COLD-FORMED EXPOSURE CONTROL. STEEL FLOOR AND ROOF DECK SHALL BE IN WELDING REINFORCEMENT. (CONTINUOUS) B. NO WELDING OVER CRACKED TACK WELDS. (QC - O; ACCORDANCE WITH THE QUALITY ASSURANCE PREPARATION, CONSTRUCTION, AND QA - O) INSPECTION REQUIREMENTS OF SDI-QA/QC-2017. PROTECTION OF MASONRY DURING COLD 4. ENVIRONMENTAL CONDITIONS. WEATHER (TEMPERATURE BELOW 40 DEGREES WIND SPEED WITHIN LIMITS. FAHRENHEIT (4.4 DEGREES CELSIUS)) OR HOT PRECIPITATION AND TEMPERATURE. WEATHER (TEMPERATURE ABOVE 90 DEGREES 5. WPS FOLLOWED. (QC - O; QA - O) FAHRENHEIT (32.2 DEGREES CELSIUS)). SETTINGS ON WELDING EQUIPMENT (PERIODIC) TRAVEL SPEED. PLACEMENT OF GROUT IS IN COMPLIANCE. SELECTING WELDING MATERIALS. (CONTINUOUS) SHIELDING GAS TYPE/FLOW RATE. OBSERVE PREPARATION OF GROUT SPECIMENTS, PREHEAT APPLIED. MORTAR SPECIMENS, AND/OR PRISMS. (PERIODIC) INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.). G. PROPER POSITION (F, V, H, OH). 1. VERIFY MATERIALS BELOW SHALLOW FOOTINGS ARE 6. WELDING TECHNIQUES. (QC - O; QA - O) ADEQUATE TO ACHIEVE THE DESIGN BEARING INTERPASS AND FINAL CLEANING. CAPACITY. (PERIODIC) EACH PASS WITH PROFILE LIMITATIONS. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER EACH PASS MEETS QUALITY REQUIREMENTS. DEPTH AND HAVE REACHED PROPER MATERIAL. 7. PLACEMENT AND INSTALLATION OF STEEL HEADED (PERIODIC) STUD ANCHORS PERFORM CLASSIFICATION AND TESTING OF (QC - P; QA - P) COMPACTED FILL MATERIALS. (PERIODIC) 4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL. (CONTINUOUS) PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. (PERIODIC) PRECAST CONCRETE STRUCTURAL ELEMENTS MANUFACTURER'S CERTIFICATE OF COMPLIANCE TO QUALITY ASSURANCE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS IS REQUIRED. **CONSULTANTS:** ARCHITECT/ENGINEERS: SPECIAL INSPECTIONS SCHEMMER

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Design with Purpose. Build with Confidence

TSA PROJECT 06054.034

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Approved: KMW

SIOUX FALLS, SD 06/30/2021

Drawing Number S-002 Dwg. 45 of 90

Project Number

Building Number

438-420

CONSTRUCT CLC COTTAGE

- HOSPICE

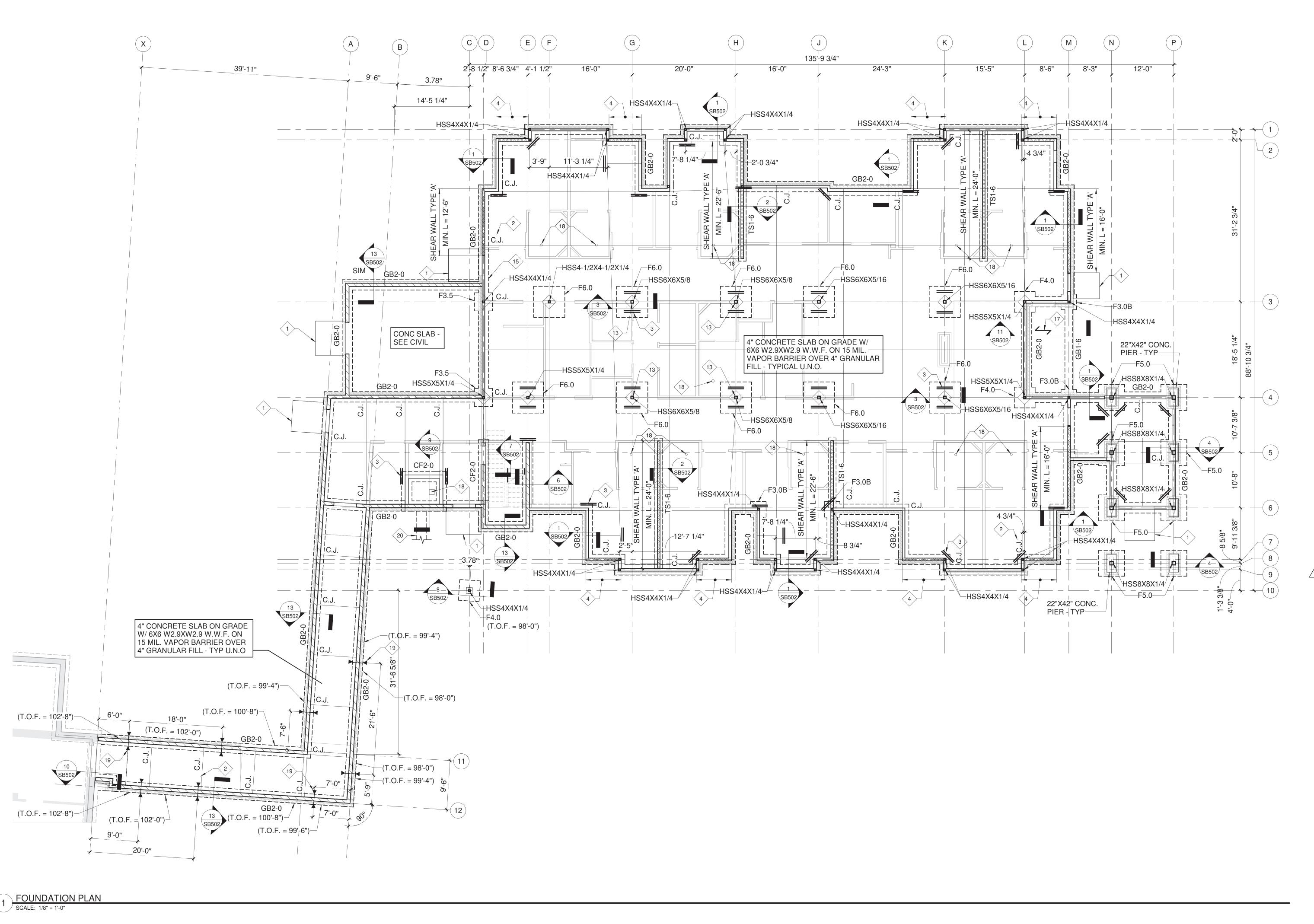
Department of Veterans Affairs

Office of

Construction

and Facilities

Management



FOUNDATION PLAN NOTES:

- A REFERENCE SHEET S-001 FOR STRUCTURAL NOTES AND SHEET S-000 FOR SCHEDULES.
- **B** REFERENCE SHEET SB501 FOR TYPICAL FOUNDATION

DETAILS NOT NECESSARILY INDICATED ON PLAN.

- C VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- **D** ARCHITECTURAL ELEVATION 100'-0" IS EQUAL TO CIVIL ELEVATION 1498.00'.
- E TOP OF FOOTING (T.O.F.) ELEVATION IS 99'-4", TYPICAL
- **F** FINISHED FLOOR ELEVATION (F.F.E.) IS 100'-0", TYPICAL U.N.O.
- G GRADE BEAMS ARE REQUIRED AT ALL EXTERIOR
- WALLS. BOTTOM OF GRADE BEAM SHALL HAVE A MINIMUM DEPTH OF 42" BELOW EXTERIOR GRADE
- H THICKENED SLAB FOOTINGS ARE REQUIRED AT ALL INTERIOR LOAD BEARING WALLS.
- J PAD FOOTINGS ARE REQUIRED BELOW ALL STRUCTURAL COLUMNS.
- K STRUCTURAL STOOPS ARE REQUIRED AT ALL EXTERIOR SWING DOORS. SEE TYPICAL DETAIL ON
- L SHEAR WALLS SHOWN EXTEND FROM FIRST FLOOR

REF. NOTES (×):

SHEET SB501.

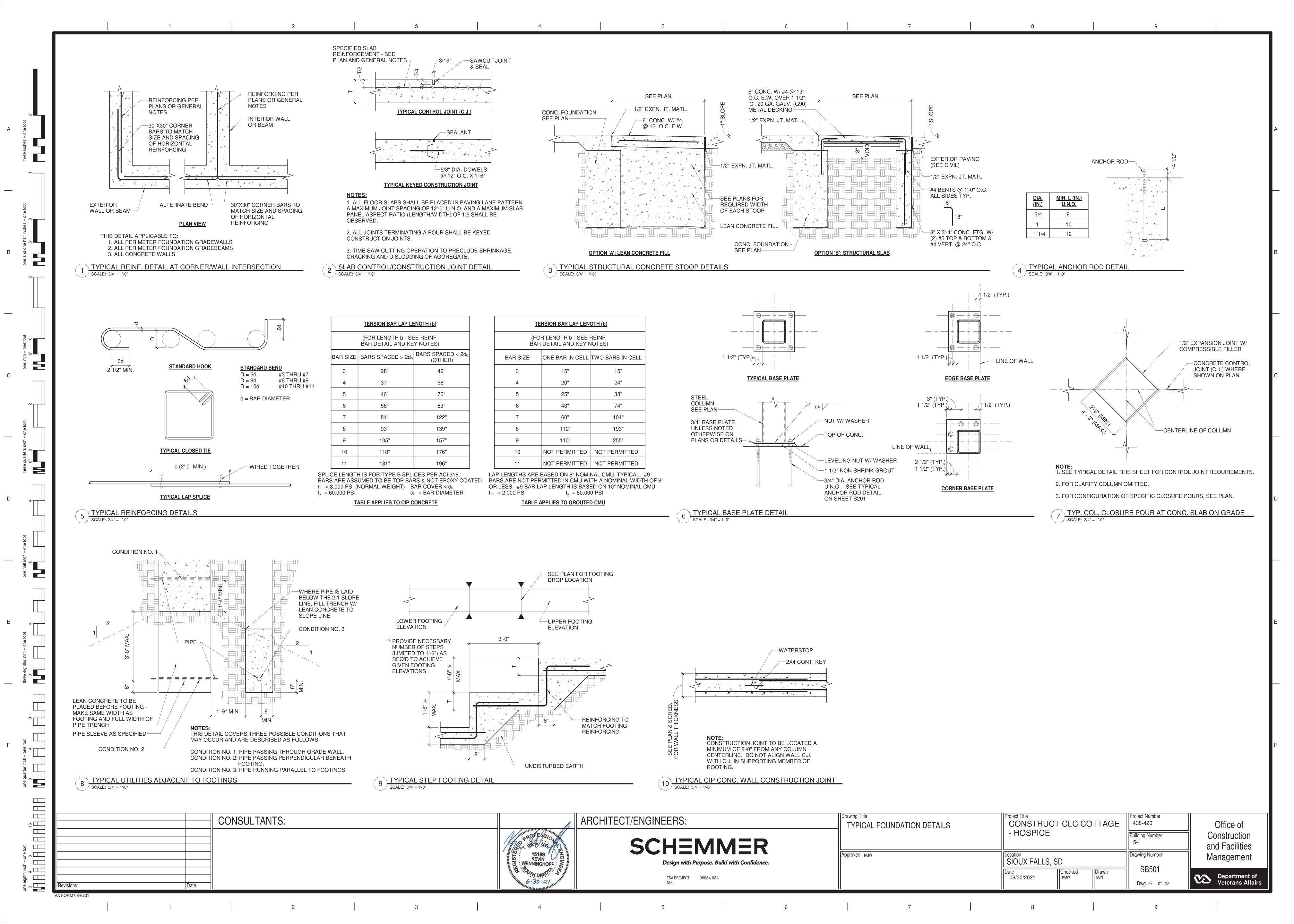
UP TO ROOF, TYPICAL.

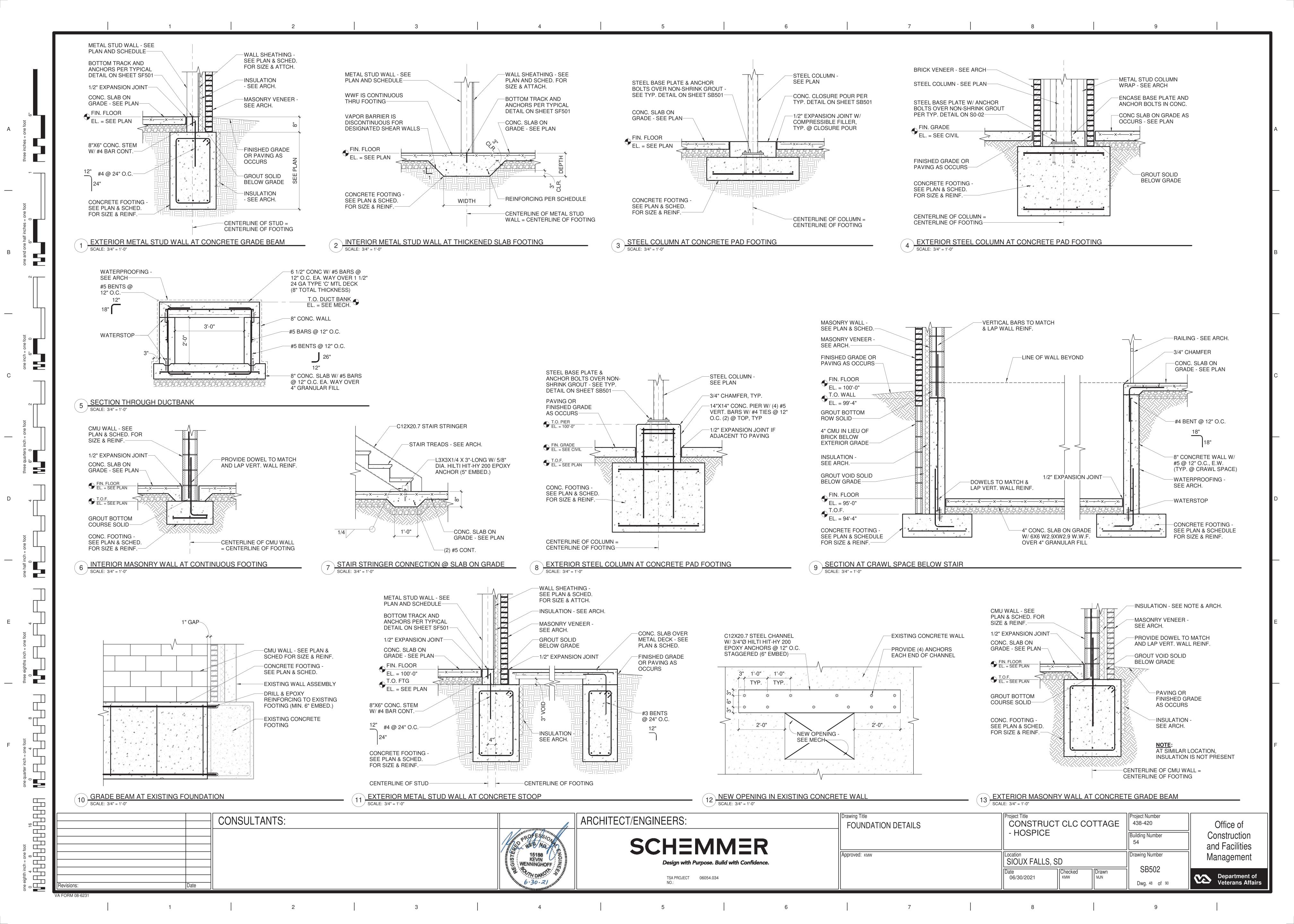
- 1 STRUCTURAL STOOP SEE SHEET SB501 FOR TYPICAL DETAIL. REFERENCE ARCHITECTURAL DRAWINGS FOR STOOP DIMENSIONS.
- 2 'C.J.' INDICATES CONTROL JOINT SEE TYPICAL DETAIL ON SHEET SB501 AND STRUCTURAL NOTES ON SHEET S-001 FOR MORE INFORMATION.
- 3 PROVIDE (2) #4 X 3'-0"-LONG BARS @ 4" O.C. CENTERED IN SLAB AT ALL RE-ENTRANT CORNERS WITHOUT CONTROL JOINTS (C.J.) AND AT ENDS OF CONTROL JOINTS TERMINATED WITHIN SLAB TYPICAL.
- 4 SHEAR WALL TYPE 'A' MIN. L = 6'-0"
- 13 PROVIDE 1 1/8" THICK BASE PLATE W/ 1" DIAMETER ANCHOR BOLTS @ THIS COLUMN TYPICAL @ MOMENT FRAMES
- 15 SLEEVE THRU GRADE BEAM FOR UTILITIES AS REQUIRED. REFERENCE TYPICAL DETAIL 8/SB501.
- 17 3" CONCRETE W/ #3 BARS @ 12" O.C. OVER 2" TYPE 'C' 16 GAUGE NON-COMPOSITE METAL DECK, TYPICAL (U.N.O.) SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- **18** FLOOR DRAIN SEE MECH. AND SEE ARCH FOR FLOOR SLOPE.
- 19 SYMBOL INDICATES FOOTING STEP SEE TYPICAL DETAIL 9/SB501.
- MECHANICAL DUCTBANK SEE MECH & SEE DETAILS 5 & 12 ON SB502 FOR CONDITIONS AT EXISTING BUILDINGS.

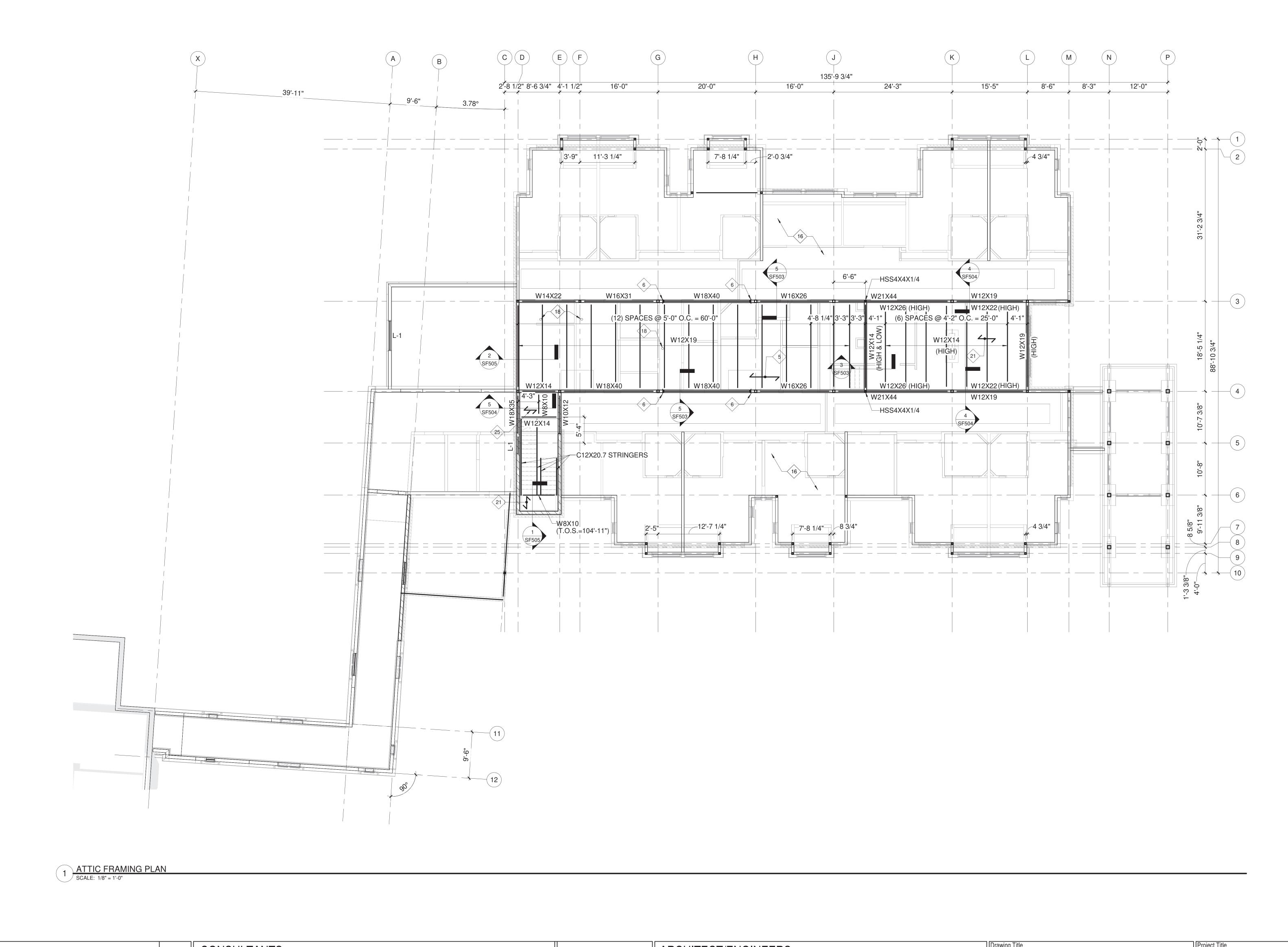
PLAN NORTH



Drawing Title
FOUNDATION PLAN Project Title
CONSTRUCT CLC COTTAGE Project Number CONSULTANTS: ARCHITECT/ENGINEERS: 438-420 Office of - HOSPICE Construction SCHEMMER and Facilities 15188 KEVIN G Approved: кмw SIOUX FALLS, SD Drawing Number Management Drawn MJN Department of Veterans Affairs 06/30/2021 KMW TSA PROJECT 06054.034 Dwg. 46 of 90







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FLOOR FRAMING PLAN NOTES:

- A REFERENCE SHEET S-001 FOR STRUCTURAL NOTES AND SHEET S-000 FOR SCHEDULES.
- B REFERENCE SHEET SF501 & SF502 FOR TYPICAL FRAMING DETAILS NOT NECESSARILY INDICATED ON
- C VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- D TOP OF STEEL (T.O.S.) ELEVATION IS 113'-6", TYPICAL U.N.O., (HIGH) T.O.S ELEVATION IS 115'-11 1/2"
- **E** FINISHED FLOOR ELEVATION (F.F.E.) IS 114'-0", AT HIGH STEEL FINISHED FLOOR ELEVATION IS 116'-3 1/2".
- F DEFLECTION CLIPS ARE REQUIRED FOR ALL NON-LOADBEARING METAL STUD WALLS CONNECTED TO STRUCTURE ABOVE.

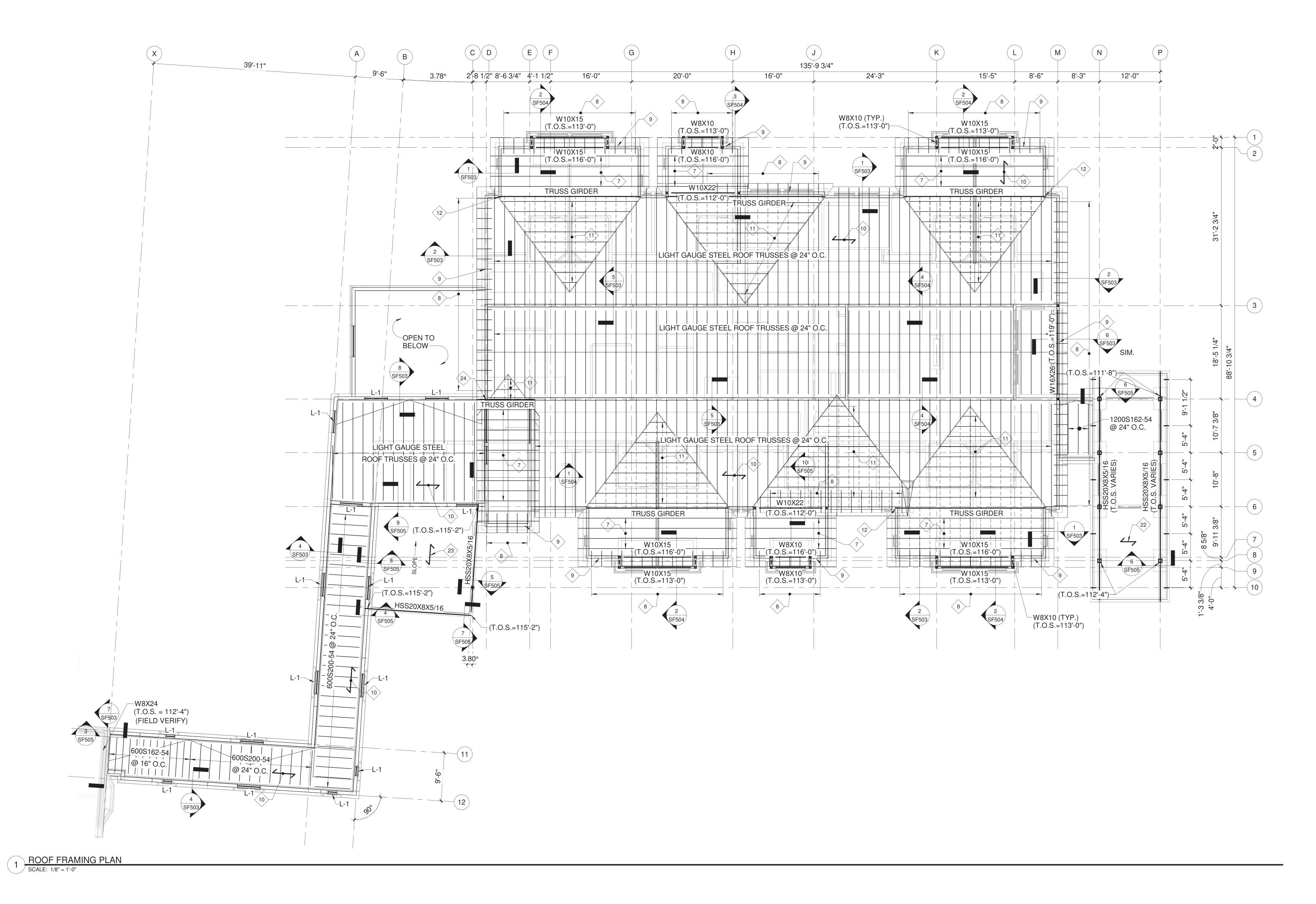
REF. NOTES (×):

- 5 4 1/2" CONCRETE W/ 6X6 W2.9XW2.9 W.W.F. OVER 1 1/2" TYPE 'C' 20 GAUGE NON-COMPOSITE METAL DECK, TYPICAL (6" TOTAL THICKNESS) SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- **6** SYMBOL INDICATES MOMENT CONNECTION TYPICAL. REFERENCE DETAIL 7/SF502.
- PROVIDE 3/4"-THICK CEMDECK (OR EQUAL) OVER BOTTOM CHORD OF LIGHT GAUGE TRUSSES. SCREW INTO TRUSS BOTTOM CHORD @ 12" ON CENTER. PROVIDE LIGHT GAUGE STUD FRAMING AS REQUIRED TO BOX OUT AROUND DUCT PENETRATIONS (COORDINATE W/ MECH.). TRUSS BOTTOM CHORDS SHALL BE DESIGNED FOR A LIVE LOAD OF 20 PSF.
- **18** FLOOR DRAIN SEE MECH. AND SEE ARCH FOR FLOOR SLOPE.
- 21 2 1/2" CONCRETE W/ 6X6 W2.9XW2.9 W.W.F. OVER 1 1/2" TYPE 'C' 20 GAUGE NON-COMPOSITE METAL DECK, TYPICAL (U.N.O.) SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- 25 8 1/2" CONCRETE W/ #4 BARS @ 12" O.C. EA. WAY OVER 1 1/2" TYPE 'C' 20 GAUGE NON-COMPOSITE METAL DECK, TYPICAL (10" TOTAL THICKNESS) SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.





Project Title
CONSTRUCT CLC COTTAGE Drawing Title
ATTIC FRAMING PLAN Project Number CONSULTANTS: ARCHITECT/ENGINEERS: 438-420 Office of - HOSPICE Construction SCHEMMER and Facilities 15188 KEVIN WENNINGHOFF Approved: кмw SIOUX FALLS, SD Drawing Number Management Drawn MJN Checked Department of Veterans Affairs 06/30/2021 TSA PROJECT Dwg. 49 of 90



ROOF FRAMING PLAN NOTES:

- A REFERENCE SHEET S-001 FOR STRUCTURAL NOTES AND SHEET S-000 FOR SCHEDULES.
- **B** REFERENCE SHEET SF501 FOR TYPICAL FRAMING DETAILS NOT NECESSARILY INDICATED ON PLAN.
- C VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
- D TOP OF STEEL (T.O.S.) ELEVATION IS 113'-6", TYPICAL
- E DEFLECTION CLIPS ARE REQUIRED FOR ALL NON-LOADBEARING METAL STUD WALLS CONNECTED
- F PROVIDE TRUSS HOLD-DOWN ANCHORS AT ALL TRUSS BEARING LOCATIONS.

TO STRUCTURE ABOVE.

- **G** REFERENCE ARCHITECTURAL SECTIONS FOR TRUSS BEARING HEIGHTS, CEILING PROFILE REQUIREMENTS, AND OVERHANG CONDITIONS.
- H LIGHT GAUGE STEEL TRUSSES SHALL BE DESIGNED TO SUPPORT CEILING LIFTS IN ALL RESIDENT ROOMS AND IN THE BATHING SUITE (1,000 # CONCENTRATED LIVE LOAD). REFERENCE ARCHITECTURAL REFLECTED CEILING PLAN FOR LIFT LOCATIONS.

REF. NOTES (\times) :

- 7 LIGHT GAUGE STEEL ROOF TRUSSES @ 24" O.C.
- 8 LIGHT GAUGE CEE OUTRIGGERS @ 24" O.C.
- 9 LIGHT GAUGE CEE-STUD GABLE FRAME ABOVE STUD WALL OR STEEL BEAM AS OCCURS. BRACE TO ROOF STRUCTURE AS SHOWN IN DETAILS.
- 1" TYPE 'E' 26 GAUGE METAL ROOF DECK, TYPICAL (U.N.O.) SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- 11 LIGHT GAUGE STEEL OVER FRAMING TRUSSES @ 24" O.C.
- **12** PROVIDE (2) 600S162 12 GA. (50 KSI) STUDS BELOW TRUSS GIRDER BEARING TYPICAL
- 22 TORIS 4A 18 GA. ROOF DECK SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- 23 TORIS 5.5 18 GA. ROOF DECK SEE METAL DECK SCHEDULE ON SHEET S-000 FOR MORE INFORMATION.
- **24** WOOD TRUSS MANUFACTURER TO PROVIDE 16X12 OPENING FOR MECHANICAL DUCT

PLAN NORTH



Drawing Title

ROOF FRAMING PLAN Project Title
CONSTRUCT CLC COTTAGE Project Number CONSULTANTS: ARCHITECT/ENGINEERS: 438-420 Office of - HOSPICE Construction SCHEMMER and Facilities 15188 KEVIN WENNINGHOFF Approved: кмw SIOUX FALLS, SD Drawing Number Management Drawn MJN Department of Veterans Affairs 06/30/2021 KMW TSA PROJECT 06054.034 Dwg. 50 of 90

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