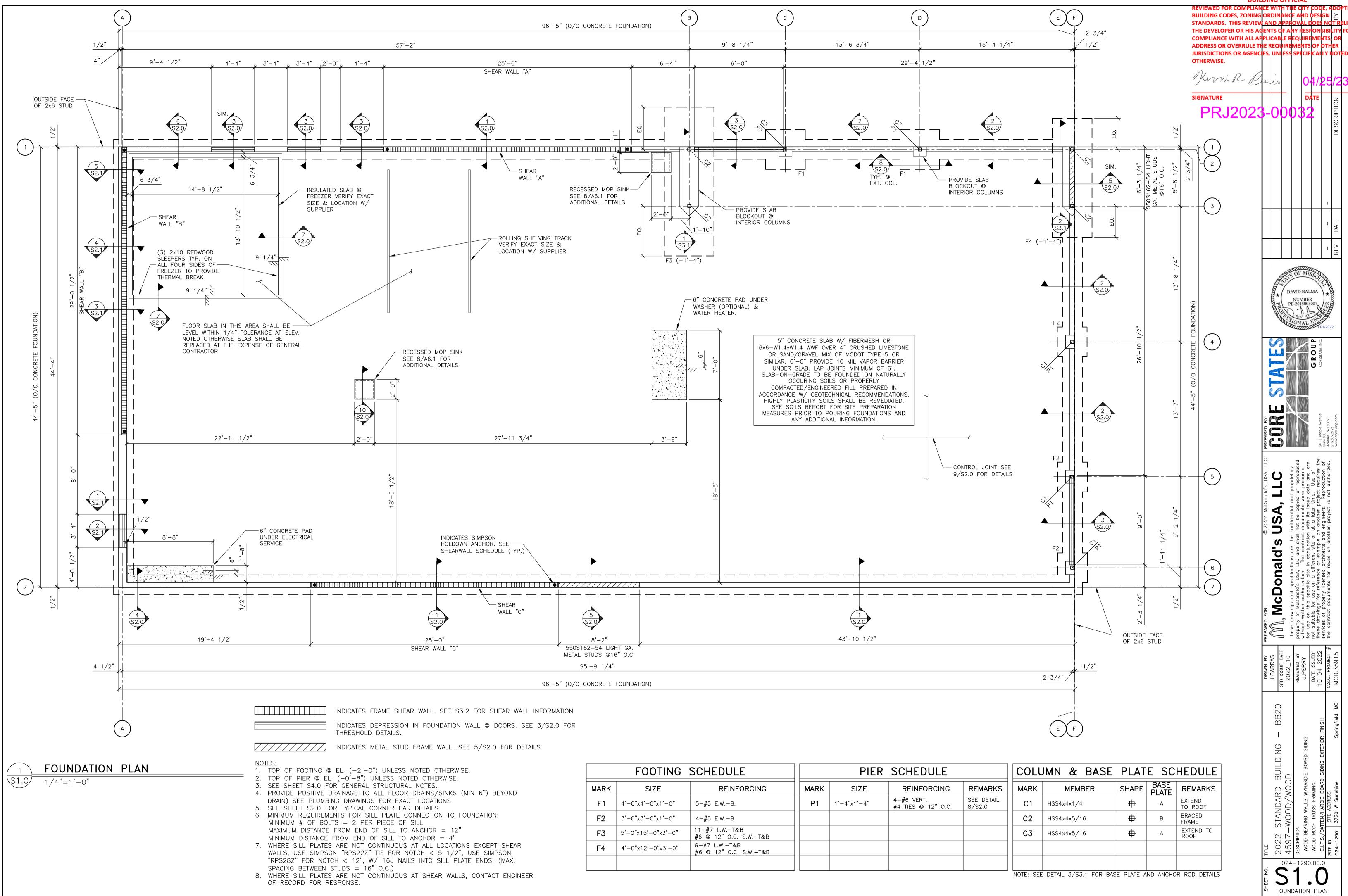
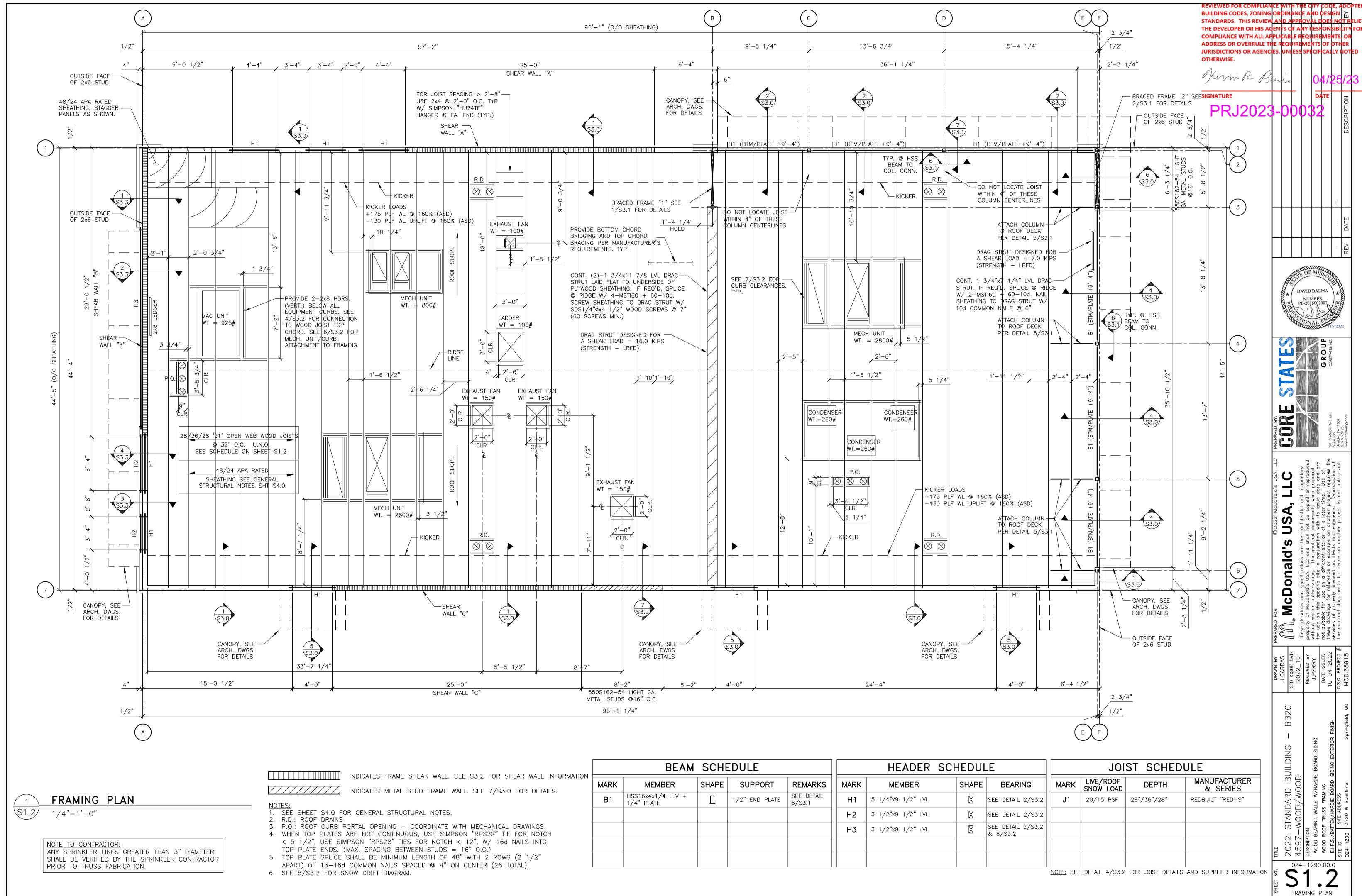
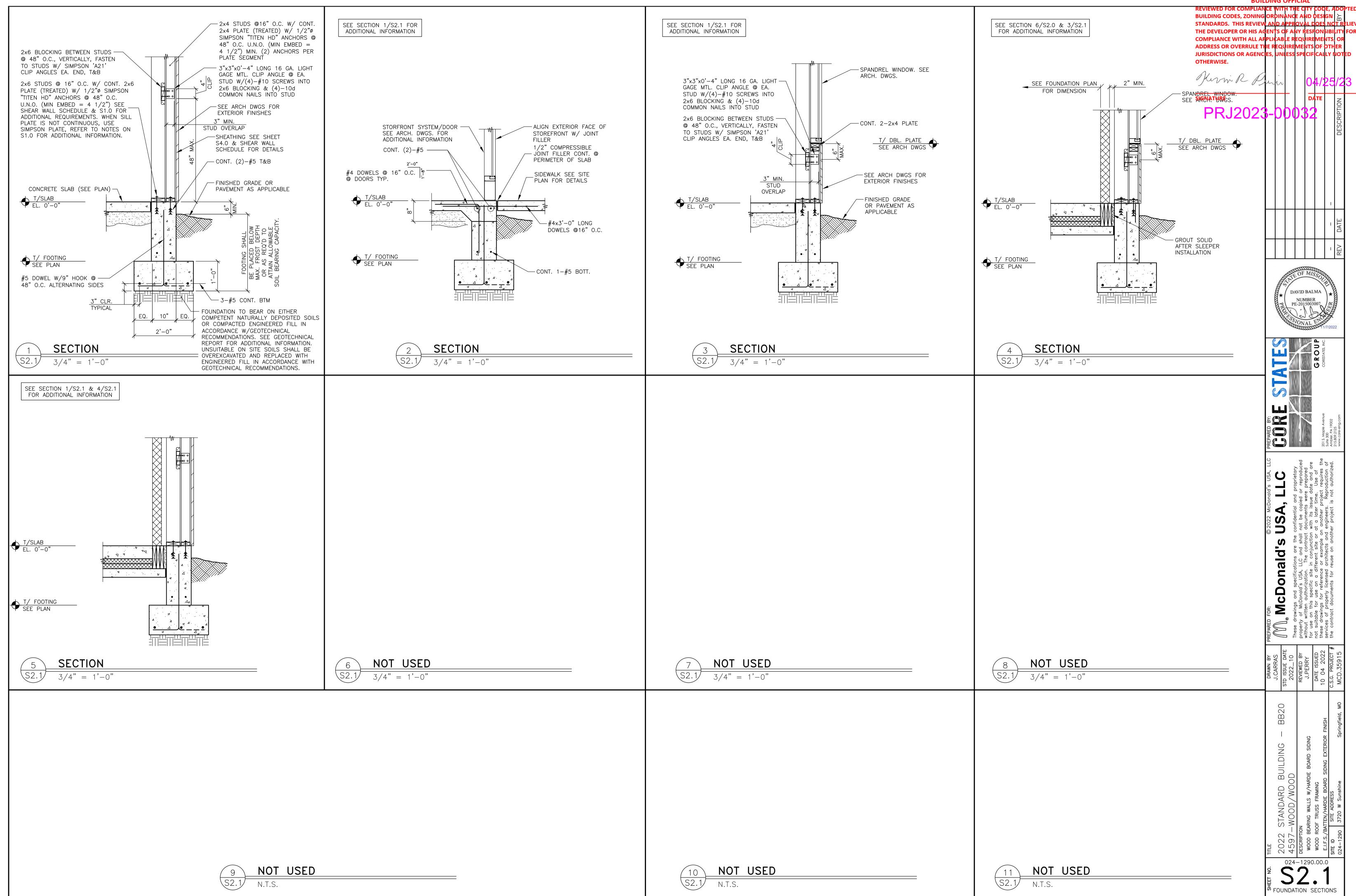
FOR CONSTRUCTION BY THE CITY OF SPRINGFIELD, MC BUILDING OFFICIAL



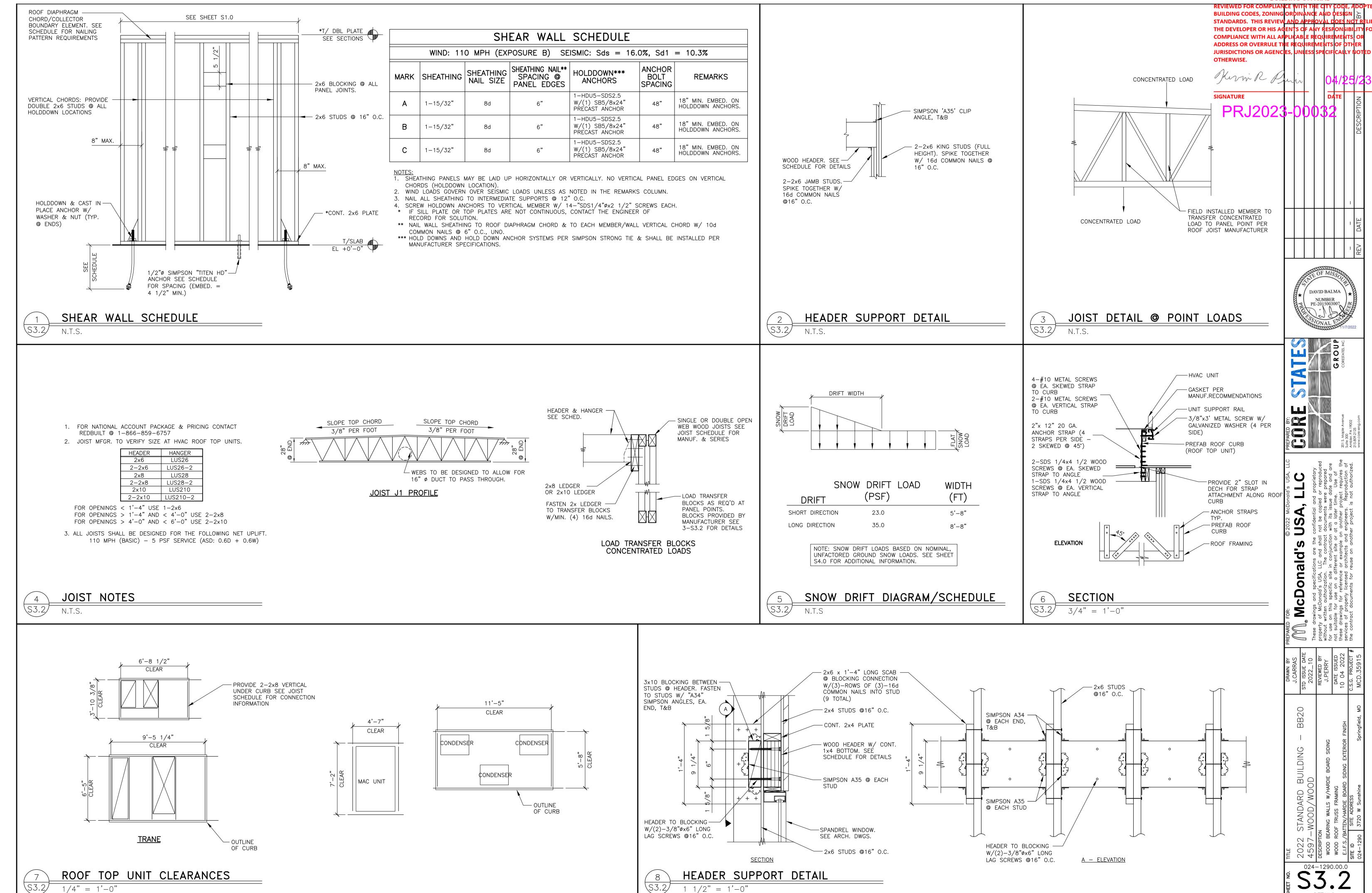
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3/4" = 1'-0"

APPROVED FOR CONSTRUCTION BY THE CITY OF SPRINGFIELD, MC **BUILDING OFFICIAL** STRUCTURAL GENERAL NOTES: COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS, ADDRESS OR OVERRULE THE REQUIREMENTS OF OTHE THE STRUCTURAL DESIGN OF THIS BUILDING WAS BASED ON THE DESIGN CRITERIA: A. BUILDING CODE: 2018 INTERNATIONAL BUILDING CODE ALL GRADES OF LUMBER INDICATED ON STRUCTURAL DRAWINGS SHALL BE RATED BY THE JURISDICTIONS OR AGENCIES, UNITESS SPECIFICALLY NOTED ALL DIMENSIONS ON STRUCTURAL DRAWINGS TO BE CHECKED AGAINST ARCHITECTURAL, B. FLOOR: LIVE LOAD: 100 PSF MECHANICAL AND ELECTRICAL DRAWINGS BY THE GENERAL CONTRACTOR AND ANY SOUTHERN PINE INSPECTION BUREAU (SPIB), OR THE WESTERN WOOD PRODUCTS OTHERWISE. C. ROOF: DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATELY. ASSOCIATION (WWPA). LUMBER GRADES SHALL BE AS FOLLOWS, WITH A MAXIMUM LIVE LOAD: 20 PSF MOISTURE CONTENT OF 19%: 2. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY, UNRELIEVED BY REVIEW OF SHOP DEAD LOAD: 20 PSF DRAWINGS OR PERIODIC OBSERVATION OF CONSTRUCTION, FOR COMPLIANCE WITH THE D. SNOW: A. SOUTHERN PINE NO. 1. GROUND LOAD: 15 PSF CONTRACT DOCUMENTS. FOR FABRICATION PROCESSES AND CONSTRUCTION TECHNIQUES. B. DOUGLAS FIR-LARCH NO. 1. FLAT ROOF LOAD: 15 PSF AND FOR SAFE CONDITIONS ON THE JOB SITE. C. HEM-FIR NORTH NO. 1 SIGNATURE SNOW EXPOSURE FACTOR, CE: 1.0 IMPORTANCE FACTOR, I: 1.0 3. DO NOT SCALE THE DRAWINGS. BOLT HEADS AND NUTS BEARING ON WOOD SHALL BE PROVIDED WITH STANDARD CUT THERMAL COEFFICIENT, CT: 1.0 WASHERS. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE E. WIND: BASIC WIND SPEED: 110 MPH (3-SECOND GUST) RISK CATEGORY: II MINIMUM NAILED CONNECTIONS FOR WOOD FRAMING MEMBERS SHALL BE IN ACCORDANCE WIND EXPOSURE: B WITH THE LOCAL BUILDING CODE OR TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING PRESSURES PER ASCE 7-16 CODE IF NO OTHER CRITERIA IS GIVEN. F. SEISMIC: RISK CATEGORY: II CONNECTORS SHOWN ON THE DETAILS ARE MANUFACTURED BY SIMPSON. WRITTEN IMPORTANCE FACTOR: 1.00 APPROVAL BY ENGINEER REQUIRED FOR SUBSTITUTIONS. SITE CLASS: C SS = 0.185, S1 = 0.103ROOF & WALL SHEATHING SDS = 0.160, SD1 = 0.103ALL SHEATHING SHALL CONFORM TO AMERICAN PLYWOOD ASSOCIATION (APA) DESIGN DESIGN CATEGORY: B SPECIFICATIONS, LATEST EDITION. SHEATHING SHALL BE CONTINUOUS OVER THREE PLYWOOD SHEAR WALLS (R = 6.5)STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R = 3.0)Cs1: 0.025 (LONGITUDINAL DIRECTION) Cs2: 0.053 (TRANSVERSE DIRECTION) WALL SHEATHING SHALL BE 15/32" (1/2" NOMINAL) APA RATED SHEATHING, EXPOSURE 1 DESIGN BASE SHEAR = SEE CALCULATIONS 32/16. ALL WALL SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS W/ 8d ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE COMMON NAILS @ 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATED SUPPORTS, G. FLOOD LOAD: N/A H. SPECIAL LOADS: N/A ROOF SHEATHING SHALL BE 23/32" (3/4" NOMINAL) APA RATED SHEATHING, EXPOSURE 1, FOUNDATION NOTES 48/24. ALL ROOF SHEATHING SHALL BE FASTENED TO SUPPORTING MEMBERS W/10d THE FOUNDATION DESIGN OF THIS BUILDING WAS BASED ON THE FOLLOWING CRITERIA: COMMON NAILS @ 6" O.C. AT PANEL EDGES, AND 12" O.C. AT INTERMEDIATE SUPPORTS. A. MINIMUM ALLOWABLE SOIL BEARING CAPACITY = 3100 PSF (@ ISOLATED COLUMN FOOTINGS) & 2900 PSF (@ CONTINUOUS WALL FOOTINGS). B. RECOMMENDED BY PROFESSIONAL SERVICE INDUSTRIES, INC. (PSI) IN THEIR REPORT CONCRETE BLOCK DESIGN AND CONSTRUCTION SHALL CONFORM TO "BUILDING CODE #0040447-1 DATED SEPTEMBER 8, 2022. REQUIREMENTS FOR MASONRY STRUCTURES," TMS 402/ACI 530/ASCE 5 AND "SPECIFICATIONS C. ANY FILL REQUIRED BELOW SLABS ON GRADE OR FOOTINGS SHALL BE COMPACTED AS FOR MASONRY STRUCTURES" (TMS 602/ACI 530.1/ASCE 6) REQUIRED BY THE SOILS REPORT NOTED IN ITEM #2. MASONRY MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE FOLLOWING 2. ALL EXTERIOR FOOTINGS SHALL EXTEND BELOW THE MAXIMUM ANTICIPATED DEPTH OF SPECIFICATIONS: A. HOLLOW LOAD BEARING CONCRETE BLOCK: ASTM C-90. MINIMUM COMPRESSIVE . THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER OF RECORD IMMEDIATELY IN STRENGTH = 2800 PSI AT 28 DAYS. THE EVENT THAT THE SOILS CONDITIONS ENCOUNTERED VARY FROM THOSE SHOWN ON THE BORING LOGS. B. MORTAR: ASTM C-270, TYPE S. MINIMUM COMPRESSIVE STRENGTH = 1800 PSI AT 28. ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY A SOILS TESTING LABORATORY PRIOR TO PLACEMENT OF CONCRETE. C. MORTAR: ASTM C-270, TYPE M. MINIMUM COMPRESSIVE STRENGTH = 2500 PSI AT 28DAYS. (USED FOR BELOW GRADE WORK) CONCRETE AND REINFORCING . ALL CONCRETE SHALL BE IN ACCORDANCE WITH THE "AMERICAN CONCRETE INSTITUTE D. GROUT: ASTM C-476. MINIMUM COMPRESSIVE STRENGTH = 2000 PSI AT 28 DAYS BUILDING CODE" (ACI 318) AND WITH "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" (ACI 301) LATEST EDITIONS. E. MASONRY REINFORCEMENT: ASTM A-82 GALVANIZED (JOINT BEDS, TIES) 2. ALL NORMAL WEIGHT CONCRETE (145 PCF) SHALL OBTAIN A MINIMUM 28 DAY F. MASONRY PRISM STRENGTH: F'm = 2000 PSICOMPRESSIVE STRENGTH OF 3000 PSI (3500 PSI FOR SLABS). PRIOR TO DELIVERY OF MASONRY UNITS TO THE JOB SITE, FURNISH TO THE OWNER . ALL CONCRETE SUBJECT TO EXTERIOR EXPOSURE SHALL BE AIR ENTRAINED AS AFFIDAVITS FROM AN APPROVED TESTING LABORATORY CERTIFYING THAT ALL UNITS CONFORM TO THEIR RESPECTIVE ASTM REQUIREMENTS. RECOMMENDED BY ACI 318. H. TEST CYLINDERS SHALL BE MADE AND TESTED AS OUTLINED IN CHAPTER 16 OF ACI-301.3. GROUT ALL CAVITIES CONTAINING REINFORCEMENT IN LIFTS NOT TO EXCEED 5'-0".REINFORCING BARS SHALL BE DEFORMED BARS OF NEW BILLET STEEL CONFORMING TO 4. LABORATORY PREPARED MIXES SHALL BE PREPARED AND TESTED IN ACCORDANCE WITH ASTM A-615, GRADE 60, WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, ALL ASTM C-270. FIELD MORTAR SHALL BE TESTED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH ASTM C-780 TWO SETS OF THREE MORTAR CLIRES SHALL BE TAKEN REINFORCING AND ACCESSORIES SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI STANDARD 315 AND 315R. DIRECTLY FROM THE MIXER FOR EACH DAY OF MASONRY WORK. TEST THE CUBES AT 28 DAYS. ACCEPTANCE OF THE MORTAR SHALL BE AT THE DISCRETION OF THE ENGINEER. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCEMENT AT POSITIONS SHOWN ON THE PLANS AND DETAILS. PLASTIC COATED ACCESSORIES SHALL BE USED IN ALL CALCIUM CHLORIDE AND/OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE EXPOSED CONCRETE WORK. INCLUDED IN MORTAR OR GROUT MIX. EXCEPT WHEN APPROVED IN WRITING BY THE STRUCTURAL ENGINEER. NO ANTI FREEZE COMPOUNDS SHALL BE USED TO LOWER THE THE GENERAL CONTRACTOR SHALL CHECK WITH ARCHITECTURAL, MECHANICAL AND MORTAR'S FREEZING POINT. ELECTRICAL DRAWINGS AND THE SUB-CONTRACTORS FOR OPENINGS. SLEEVES, ANCHORS. HANGERS, INSERTS, SLAB DEPRESSIONS AND OTHER ITEMS RELATED TO THE CONCRETE 6. NO EXTERIOR MASONRY SHALL BE LAID WHEN THE OUTSIDE AIR TEMPERATURE IS LESS WORK AND SHALL ASSUME RESPONSIBILITY FOR THEIR PROPER LOCATION. THAN 40 DEGREES FAHRENHEIT, UNLESS THE RECOMMENDATIONS SPECIFIED BY THE BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" TMS 402/ACI 530/ASCE 5 AND "SPECIFICATIONS FOR MASONRY STRUCTURES" (TMS 602/ACI 530.1/ASCE 6) FOR STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN CONFORMANCE WITH COLD WEATHER CONSTRUCTION ARE STRICTLY FOLLOWED. THE AISC360 "SPECIFICATION FOR STRUCTURAL STEEL". SEISMIC DESIGN OF STRUCTURAL STEEL STRUCTURES SHALL CONFORM TO AISC 341. THE MASONRY CONTRACTOR SHALL PROVIDE BRACING TO WITHSTAND HORIZONTAL . STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS: PRESSURES AS REQUIRED BY THE BUILDING CODE AND LOCAL ORDINANCE. A. ANCHOR RODS F1554, GRADE 36 LIGHT GAGE METAL FRAMING B. HIGH STRENGTH STRUCTURAL BOLTS A325-N U.N.O. 16 GA. AND HEAVIER STUDS SHALL HAVE A MINIMUM YIELD STRESS OF 50,000 PSI. 18 C. STRUCTURAL SHAPES (W) A992 GA. AND LIGHTER STUDS AND TRACKS SHALL HAVE A MINIMUM YIELD STRESS OF 33,000 D. STRUCTURAL SHAPES (M, S, C, MC, PLATES) A36 E. STRUCTURAL SHAPES (HP) A572 F. STRUCTURAL TUBING (HSS) A500 GRADE B . STUDS AND TRACKS SHALL BE 18 GA. MINIMUM U.N.O. THEY SHALL BE MANUFACTURED G. STRUCTURAL ANGLES ` A36 BY DIETRICH INDUSTRIES, INC. OR APPROVED EQUAL. . ALL WELDING ELECTRODES SHALL BE E70-XX. ALL SHOP AND FIELD WELDING SHALL BE PROVIDE DOUBLE STUDS FOR FULL HEIGHT OF WALL EACH SIDE OF ALL OPENINGS UNLESS OTHERWISE NOTED. WELD STUDS TO EACH OTHER WITH 1 1/2" LONG 1/8" FILLET WELDS MADE IN ACCORDANCE WITH A.W.S. D1.1 "CODE FOR WELDING IN BUILDING CONSTRUCTION" AND SHALL BE MADE BY CERTIFIED WELDERS. AT 12" O.C. EACH SIDE. PROVIDE STUD TRACK AT EACH HEAD AND SILL. REFER TO PLANS AND DETAILS FOR CONNECTION OF STUD WALLS TO FOUNDATION, FLOOR AMINATED VENEER LUMBER (LVL) ALL BEAMS SHALL BE MANUFACTURED WITH LAMINATED VENEER LUMBER AND WATERPROOF ADHESIVES. SHOP DRAWING SUBMITTALS SHALL BE SUBMITTED ELECTRONICALLY. 2. SIZE, MANUFACTURER & SERIES OF ALL LVL MEMBERS SHALL BE AS SHOWN ON DRAWINGS. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR ARCHITECT OF . SHOP DRAWINGS SHALL BE REVIEWED BY CONTRACTOR TO VERIFY THAT SUBMITTAL IS RECORD. COMPLETE PRIOR TO SUBMITTING TO ARCHITECT/ENGINEER. PROVIDE 3" MINIMUM BEARING OR AS SPECIFIED ON PLANS. REFER TO PLANS FOR DRAWINGS CREATED BY THE ENGINEER OF RECORD CANNOT BE REPRODUCED AND/OR FASTENING OF MULTIPLE PIECE BEAMS. USED AS A SHOP DRAWING SUBMITTAL. SHOP DRAWING SUBMITTALS SHALL INCLUDE THE FOLLOWING: OPEN WEB WOOD JOISTS A. CONCRETE MIX DESIGN OPEN WEB WOOD JOISTS SHALL BE MANUFACTURED WITH MACHINE STRESS RATED TOP AND B. FOUNDATION REINFORCING BARS BOTTOM CHORDS. WEBS SHALL BE TUBULAR STEEL MEMBERS PER MANUFACTURERS' C. STRUCTURAL STEEL D. OPEN WEB JOISTS AND CALCULATIONS SPECIFICATIONS. E. ROOF SHEATHING F. TRELLIS SYSTEM & CALCULATIONS 2. SIZE. MANUFACTURER & SERIES OF ALL OPEN WEB JOISTS SHALL BE AS SHOWN ON G. LAMINATED VENEER LUMBER (LVL) DRAWINGS. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR ARCHITECT OF RECORD. H. SAWN LUMBER AND CONNECTORS PROVIDE 3 1/2" MINIMUM BEARING OR AS SPECIFIED ON PLANS. SHIM AS REQUIRED TO PROVIDE FULL BEARING AND LEVEL SUPPORT SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 1705 OF IBC AND THE OWNER SHALL EMPLOY ONE OR MORE SPECIAL INSPECTORS TO PROVIDE INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED UNDER SECTION 4. DO NOT CUT TOP OR BOTTOM CHORDS.

1705. THE FOLLOWING AREAS OF WORK REQUIRE SPECIAL INSPECTIONS IN ACCORDANCE

WITH THE LISTED 2018 INTERNATIONAL BUILDING CODE SECTIONS/LOCATIONS:

A. SOILS - SECTION 1705.6 PER TABLE 1705.6

C. STEEL - SECTION 1705.2 (SEE AISC 360.16)

B. CONCRETE - SECTION 1705.3 PER TABLE 1705.3

. ALL HANGERS AND FRAMING CONNECTORS SHOWN ARE MANUFACTURED BY SIMPSON

3. REFER TO PLANS FOR WEB STIFFENER AND CONCENTRATED LOAD REQUIREMENTS.

ARCHITECT OF RECORD.

STRONG TIE. ANY SUBSTITUTIONS MUST BE APPROVED IN WRITING BY ENGINEER OR

REFER TO MANUFACTURERS' INSTALLATION GUIDE FOR JOIST BRACING DURING ERECTION.

REFER TO MANUFACTURERS' INSTALLATION GUIDE FOR JOIST BRIDGING REQUIREMENTS.

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