GENERAL:

THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE DRAWINGS OF ALL OTHER DISCIPLINES AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO INSERTS, ANCHORS, SLEEVES, AND OTHER ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL SAFETY PRECAUTIONS AND REGULATIONS DURING THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ALL THE FIELD DIMENSIONS ANY UNUSUAL CONSTRUCTION CONDITION THAT JEOPARDIZE SAFETY OF LABOR AND/OR PUBLIC, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY BEFORE PROGRESS, IN CASE OF AT THE TIME AND/OR IN FUTURE OR IN CASE OF THE DISCREPANCIES IN THE PROJECT. SPECIFIED MATERIALS AND FASTENERS ARE ALLOWABLE TO BE SUBSTITUTED WITH EQUAL GREATER SPECIFICATION.

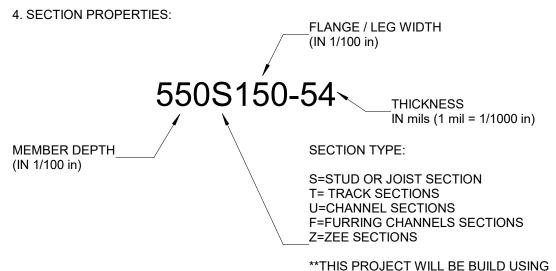
COLD-FORMED STEEL

1. ALL COLD FORMED STEEL STUDS, JOIST, TRACK & MISC. SHAPES MILL CERTIFIED STEEL TO MEET:

2. ALL STEEL STUDS, JOIST & TRACK SHALL HAVE A LEGIBLE LABEL, STAMP OR EMBOSSMENT, AT A MAXIMUM OF 48" O.C., INDICATING THE MANUFACTURER'S NAME, LOGO OR INITIALS, ICC EVALUATION SERVICE REPORT NUMBER, THE MATERIAL BASE METAL THICKNESS (UNCOATED) IN .001 in. AND THE YIELD STRENGTH IF DIFFERENT THAN 33 ksi.

A. ASTM A1003 ST GRADE 50, TYPE H 18-97 mil GALV. STEEL

3. MILL CERTIFICATES FROM THE COIL PRODUCER SHALL BE MADE AVAILABLE IF REQUESTED. MILL CERTIFICATE TO INCLUDE AS A MINIMUM THE CHEMICAL COMPOSITION, YIELD STRENGTH, TENSILE STRENGTH, ELONGATION, AND COATING THICKNESS.



FRAMECAD ® MACHINERY FOR AUTOMATIVE CFS CHANNELS PRODUCTION. THUS, T-SECTION IS REPLACED BY S-SECTION FOR ALL TRACKS, STUDS BLOCKING, TRUSS CHORDS WHERE TYPICALLY T-SECTION IS IN USE.

MINIMUM DELIVERABLE THICKNESS (mils)	GAUGE	DESIGN THICKNESS (INCHES)
33	20	0.0346
43	18	0.0451
54	16	0.0566
68	14	0.0713
97	12	0.1017
118	10	0.1242

5. STUDS AND TRACKS THAT COMPRISE A HEADER. STRONGBACK OR SILL SHALL NOT BE SPLICED, CURVED HEADERS, STRONGBACKS, AND SPANDREL TRACKS SHALL BE STRETCH FORMED. CLIPPING OR CRIMPING OF FLANGES OR WEBS IS NOT PERMITTED. IF OTHER PROPRIETARY CURVED PRODUCTS ARE PROPOSED THEY SHALL BE SUBMITTED TO DEVCO. WITH APPROPRIATE CALCULATIONS AND/OR TESTING, FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

6. EXTERIOR AND INTERIOR FRAMING, SHEATHING AND FINISH MATERIAL SHALL NOT BRIDGE DEFLECTION JOINTS (COMPENSATION CHANNEL), SEISMIC JOINTS, EXPANSION JOINTS, OR ANY LOCATION WHERE DIFFERENTIAL MOVEMENT OF THE STRUCTURE IS EXPECTED. EXCEPT AS SPECIFICALLY DETAILED WITHIN, SLIP JOINTS SHALL BE INSTALLED BETWEEN FRAMING SUPPORTED BY DIFFERENT FLOORS/ROOF(S). FOR EXAMPLE, A VERTICAL SLIP JOINT SHALL BE INSTALLED BETWEEN A SOFFIT HANGER AND A WALL.

7. SCREW VALUES USED IN DESIGN MEET 2007 "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" (AISI S100-07/S2-10) INCLUDING THE 2010 SUPPLEMENT SECTION E4 FOR SCREW CONNECTIONS. SCREWS TO CONFORM TO SAE J78.

A. WELDING TO BE PER AWS D1.3 "STRUCTURAL WELDING CODE - SHEET

B. WELDS TO BE INSPECTED PER APPLICABLE BUILDING CODE. C. MINIMUM E60XX ELECTRODES.

- D. USE LOW HYDROGEN ELECTRODES FOR WELDING SHEET STEEL TO STRUCTURAL STEEL GREATER THAN 1/4" IN THICKNESS.
- E. ELECTRODES MUST BE ACCEPTABLE (PER THE ROD MANUFACTURER) FOR USE IN SEISMIC APPLICATIONS. F. ALL WELDS OF GALVANIZED STEEL SHALL BE TOUCHED UP WITH A ZINC
- G. FOR MATERIALS LESS THAN OR EQUAL TO 0.1242" THICK, DRAWINGS SHOW NOMINAL WELD SIZE. FOR SUCH MATERIALS THE EFFECTIVE THROAT OF WELDS SHALL NOT BE LESS THAN THE THICKNESS OF THE THINNEST CONNECTED PART.

STRUCTURAL STEEL NOTES:

- 1. ALL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE AISC STEEL CONSTRUCTION MANUAL, 13TH EDITION, WELDING SHALL CONFORM TO THE LATEST AWS AND AISC SPECIFICATIONS.
- 2. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICE AND WITHIN THE TOLERANCES SPECIFIED IN THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL.
- 3. IT IS SPECIFICALLY NOTED THAT BURNED HOLES ARE NOT ACCEPTABLE UNLESS SPECIAL PERMISSION IS GIVEN BY ENGINEER.
- 4. ALL SHOP FABRICATED WORK SHALL BE DONE IN A SHOP APPROVED BY THE GOVERNING AGENCY. FABRICATOR SHALL SUBMIT PROGRAM OF WELDING INSPECTION TO ENGINEER FOR APPROVAL.
- 5. ALL STRUCTURAL STEEL SHALL BE AS FOLLOWS UNO:

ALL WF, WT SHAPES: CONNECTION PL & MISC STEEL (UNO): GUSSET & COLLECTOR PLATES: PIPE COLUMNS (TYPE S, SEAMLESS): STRUCTURAL TUBING: ANGLE, CHANNELS: THREADED ROD: **HEADED SHEAR STUDS:**

A992 GRADE 50 ASTM A36 ASTM A572 GRADE 50 ASTM A53 GRADE B ASTM A500 GRADE B ASTM A36 ASTM A36 **ASTM A108,** GRADES 1015 TO 1020, TYPE 316, 50 ksi

ELECTRODES: a) E70XX FOR A36

> b) FOR OTHER STEEL GRADES USE MATCHING WELD METAL AND **PROCESSES**

- 6. ALL HIGH STRENGTH BOLTS SHALL BE ASTM A325-N TYPE UNLESS OTHERWISE NOTED.
- 7. ALL BOLTS USED FOR ERECTION SHALL BE ASTM A325 TYPE WITH THREADS EXCLUDED FROM SHEAR PLANES.
- 8. ALL PLAIN ANCHORS SHALL BE A36; ALL ANCHOR BOLTS SHALL COMPLY WITH ASTM F1554. 3" MINIMUM CONCRETE COVER WILL BE PLACED AROUND ALL ANCHOR BOLTS EXPOSED TO THE
- 9. WELDING MATERIALS: PROVIDE TYPE REQUIRED FOR MATERIALS BEING WELDED, PER AWS D1.1.
- 10. PROVIDE CONTINUOUS INSPECTION FOR ALL FABRICATION AND WELDING OF STRUCTURAL STEEL AS REQUIRED PER CODE REQUIREMENTS.
- 11. ALL COMPLETE PENETRATION GROOVE WELDS IN JOINTS AND SPLICES SHALL BE TESTED 100 PERCENT IN ACCORDANCE WITH IBC . USE ONE OF THE APPROVED METHODS OF TIGHTENING HIGH STRENGTH BOLTS.
- 12. A WELDING SEQUENCE SHALL BE PLANNED TO MINIMIZE RESIDUAL STRESSES AND DISTORTIONS OF INDIVIDUAL MEMBERS AND THE BUILDING RAME. ALL DETAILING, FABRICATION, AND ERECTION SHALL COMPLY WITH AISC, LATEST EDITION.
- 13. UNLESS OTHERWISE NOTED, ALL STIFFENER PLATES ARE 3/8" THICK MINIMUM AND ALL BUTT WELDS ARE FULL PENETRATION WELDS. ERECTION CLIPS, TEMPORARY BRACING, ETC., REQUIRED BY THE CONTRACTOR ARE NOT SHOWN.
- 14. ALL STRUCTURAL STEEL SHALL BE PAINTED WITH ONE SHOP COAT OF ZINC CHROMATE PRIMER OR EQUAL. AFTER ERECTION, FIELD CONNECTIONS SHALL BE TOUCHED UP. DO NOT PAINT PORTION OF STEEL TO BE EMBEDDED IN CONCRETE, HEADED ANCHOR STUDS, FAYING SURFACES OR AREAS TO RECEIVE FIRE PROOFING. EXTERIOR, EXPOSED STEEL MEMBERS ARE SPECIFIED TO BE HOT-DIPPED GALVANIZED OR STAINLESS AS NOTED.
- 15. WELD LENGTHS CALLED FOR ON PLANS ARE THE NET EFFECTIVE LENGTH REQUIRED. WHERE FILLET WELD SYMBOL IS GIVEN WITHOUT INDICATION OF SIZE, USE MINIMUM SIZE WELDS AS SPECIFIED IN AISC MANUAL OF STEEL CONSTRUCTION LATEST EDITION. THIS INCLUDES OPEN WEB JOIST
- 16. THE USE OF E70T-4 WELDING WIRE IS NOT ALLOWED FOR ANY APPLICATION.

SPECIAL INSPECTIONS NOTES:

1705.12.2 - REQUIRED VERIFICATION AND INSPECTION FOR WIND RESISTANCE			
1. INSPECT WELDING OPERATIONS OF ELEMENTS OF THE MAIN WIND FORCE-RESISTING SYSTEM		Х	IBC 1705.12.2
2. INSPECT SCREW ATTACHMENT, BOLTING, ANCHORING, AND OTHER FASTENING OF ELEMENTS OF THE MAIN WIND FORCE- RESISTING SYSTEM, INCLUDING SHEAR WALLS, DIAPHRAGMS, COLLECTORS (DRAG STRUTS), BRACES, AND HOLD-DOWNS		X	IBC 1705.12.2 INSPECTION OF SHEAR WALLS AND DIAPHRAGMS WITH FASTENERS SPACED GREATER THAN 4" OC IS NOT REQUIRED
1705.13.3 - REQUIRED VERIFICATION AND INSPECTION	N FOR SEI	SMIC	RESISTANCE
1. INSPECT WELDING OPERATIONS OF ELEMENTS OF THE MAIN SEISMIC FORCE-RESISTING SYSTEM		Х	IBC 1705.13.3
2. INSPECT SCREW ATTACHMENT, BOLTING, ANCHORING, AND OTHER FASTENING OF ELEMENTS OF THE MAIN SEISMIC FORCE-RESISTING SYSTEM, INCLUDING SHEAR WALLS, DIAPHRAGMS, COLLECTORS (DRAG STRUTS), BRACES, AND HOLD-DOWNS		X	IBC 1705.13.3 INSPECTION OF SHEAR WALLS AND DIAPHRAGMS WITH FASTENERS SPACED GREATER THAN 4" OC IS NOT REQUIRED
1705.2 - STRUCTURAL STEEL CONSTRUCTION (AISC 3	360 AND A	SIC 3	41)
5. STRUCTURAL STEEL WELDING:			
C. INSPECTION TASKS AFTER WELDING (INSPECT FOR EACH WELDED JOINT OR MEMBER, THE QA TASKS LISTED IN AISC 360, TABLE N5.4-3)		Х	
1705.6 - SOILS			
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIRED BEARING CAPACITY		X	
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL		X	
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS		Х	
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	Х		
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY		Х	

SCHEDULE OF SPECIAL INSPECTIONS

- COLUMN HEADER NOTATION USED IN TABLE:
- C INDICATES CONTINUOUS INSPECTION IS REQUIRED. P INDICATES PERIODIC INSPECTIONS ARE REQUIRED. THE NOTES AND/OR CONTRACT DOCUMENTS SHOULD CLARIFY.
- **BOX ENTRY NOTATION USED IN TABLE:** X IS PLACED IN THE APPROPRIATE COLUMN TO DENOTE EITHER "C" CONTINUOUS
- OR "P" PERIODIC INSPECTIONS. -- DENOTES A ONE-TIME ACTIVITIY OR ONE WHOSE FREQUENCY IS DEFINED IN SOME

ADDITIONAL DETAILS REGARDING INSPECTIONS ARE PROVIDED IN THE PROJECT

SPECIFICATIONS OR NOTES ON THE DRAWINGS.

SLAB ON GRADE

SLAB CONSTRUCTION REFER TO S1/2 DETAIL

MAXIMUM SLUMP FOR CONCRETE SLABS WILL BE 5" WITH TYPE II CEMENT

ALL WELDED WIRE FABRIC SHALL BE IN ACCORDANCE WITH ASTM A-185. LAP ADJOINING PIECES AT LEAST ONE FULL MESH. WELDED WIRE FABRIC SHALL BE ORDERED IN SHEETS, NOT ROLLS. WELDED WIRE FABRIC SHALL BE BLOCKED INTO POSITION WITH PRECAST CONCRETE BLOCKS HAVING THE SAME COMPRESSIVE STRENGTH OF THE SLAB.

- THE ALTERNATE WIRES OF THE WELDED WIRE FABRIC MUST BE PRECUT AT THE SLAB CONTRACTION JOINT LOCATIONS TO CREATE A "WEAKENED PLANE".
- THE USE OF POLYPROPYLENE FIBERS (IN LIEU OF WELDED WIRE FABRIC) IS PROHIBITED.
- ALL POROUS FILL MATERIAL SHALL BE A CLEAN GRANULAR FILL MATERIAL WITH 100% PASSING THE 1 V2" SIEVE AND NO MORE THAN 5% PASSING THE NO. 4 SIEVE. POROUS FILL SHALL BE COMPACTED TO 98% MAX DRY DENSITY PER ASTM D-1557 MODIFIED PROCTOR METHOD.
- SLAB JOINTS SHALL BE FILLED WITH A SEALANT PER THE MANUFACTURER RECOMMENDATIONS.
- SLABS EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (±1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.
- THE SLAB SHALL BE WET CURED BY KEEPING THE SLAB MOIST FOR A PERIOD OF SEVEN DAYS. ALTERNATIVELY, PROVIDE A WET-CURING SEALANT PER THE MANUFACTURERS RECOMMENDATIONS.

WRAP VAPOR BARRIER AROUND FOOTING ACCORDING TO BUILDING SCIENCE BEST PRACTICE.

CAST-IN-PLACE CONCRETE NOTES:

CONCRETE MIXES SHALL BE DESIGNED PER ACI 301, USING PORTLAND CEMENT CONFORMING TO ASTM C-150 OR C-595, AGGREGATE CONFORMING TO ASTM C-33, AND ADMIXTURES CONFORMING TO ASTM C-494, C-1017, C818, AND C-260. CONCRETE SHALL BE READY MIXED IN ACCORDANCE WITH ASTM

CONCRETE SHALL CONFORM TO THE FOLLOWING:

LOCATION MIN F'C FOUNDATION 3.500 PSI SLAB ON GRADE 3,500 PSI

REINFORCING STEEL, INCLUDING HOOKS AND BENDS, SHALL BE DETAILED IN ACCORDANCE WITH ACI 315. ALL REINFORCING STEEL INDICATED AS BEING CONTINUOUS SHALL BE LAPPED WITH A TYPE 2 SPLICE UNLESS OTHERWISE

BAR SUPPORTS SHALL BE PROVIDED FOR ALL REINFORCING STEEL TO ENSURE MINIMUM CONCRETE COVER. BAR SUPPORTS SHALL BE PLASTIC TIPPED OR STAINLESS STEEL.

CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED TO 5% (+-1%) WITH AN ADMIXTURE THAT CONFORMS TO ASTM C-260.

PARAMETERS:

GENERAL PARAMETERS:

THE DESIGN FORCES LISTED ARE PER 2023 FLORIDA BUILDING CODE (FBC-23) ASCE 7-16

<u>LOADS:</u> WALL:	DEAD LOAD (DL) 45 PSF	LIVE LOAD (LL)
ROOF: FLOOR:	20 PSF 15 PSF	20 PSF 40 PSF
0 0		

WIND DESIGN BASIS:

BASIC WIND SPEED	150 MPH
IMPORTANCE FACTOR I	1.0
RISK CATEGORY	II
WIND EXPLOSURE	D
SNOW LOAD (DESIGN SNOW LOAD)	0 psf
,	-

SEISMIC DESIGN BASIS:

IMPORTANCE FACTOR I	1.0
SITE CLASS	В
Ss	0.047
S1	0.026
SDs	0.05
SEISMIC DESIGN CATEGORY	Α
BASIC SEISMIC FORCE-RESISTING SYSTEM	B-2 (ASCE 7-16 TABLE 12.2-1)
_	• ` ′

SOIL DATA:

BEARING CAPACITY: 2,000 PSF

BASED ON GEOTECH REPORT BY

UNIVERSAL ENGINEERING SCIENCES, PROJECT #1110.2200387.0000, AUGUST 29 2022

REGISTERED PROFESSIONAL ENGINEER - ALLAN G ABUBAKAKAR

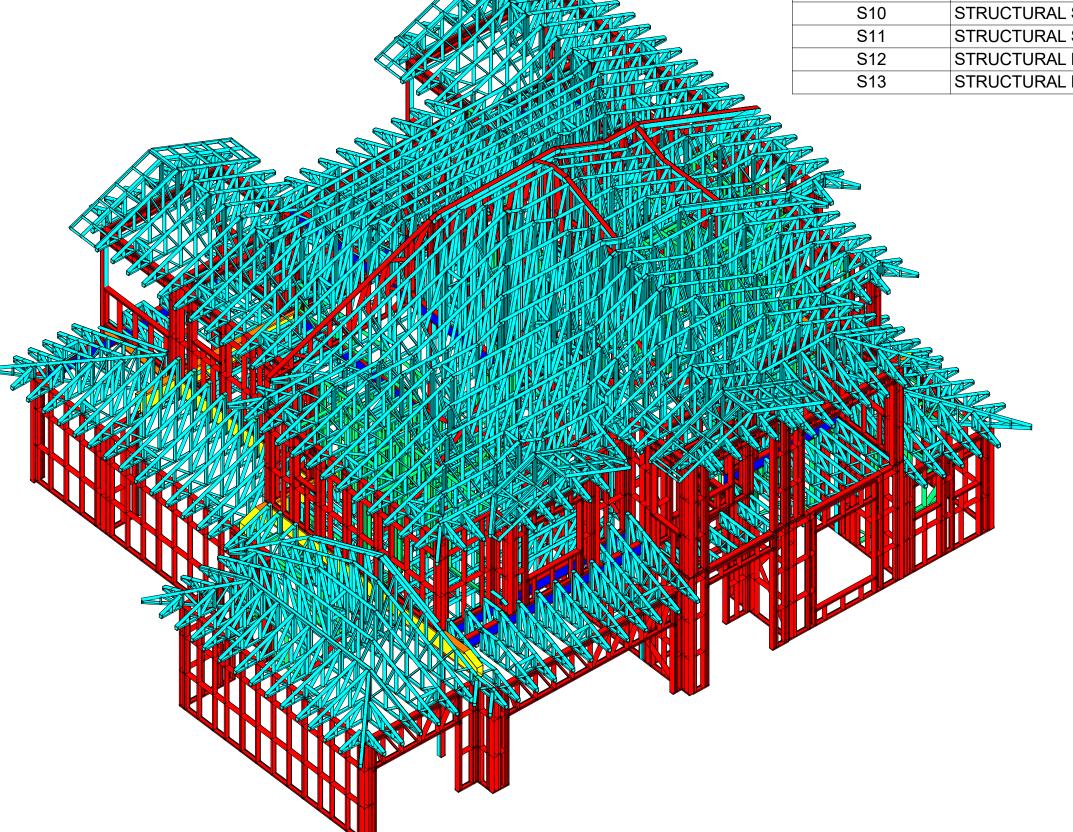
CODE /AUTHORITY:

- ALL WORK SHALL COMPLY WITH THE FOLLOWING: - 2021 INTERNATIONAL BUILDING CODE (IBC);
- 2023 FLORIDA BUILDING CODE (FBC); - ASCE 7-22 MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA
- FOR BUILDINGS AND OTHER STRUCTURES;
- AISC 341-16 SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS; - AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS;
- ASW D 1.3 STRUCTURAL WELDING CODE SHEET STEEL - ACI 318-19 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

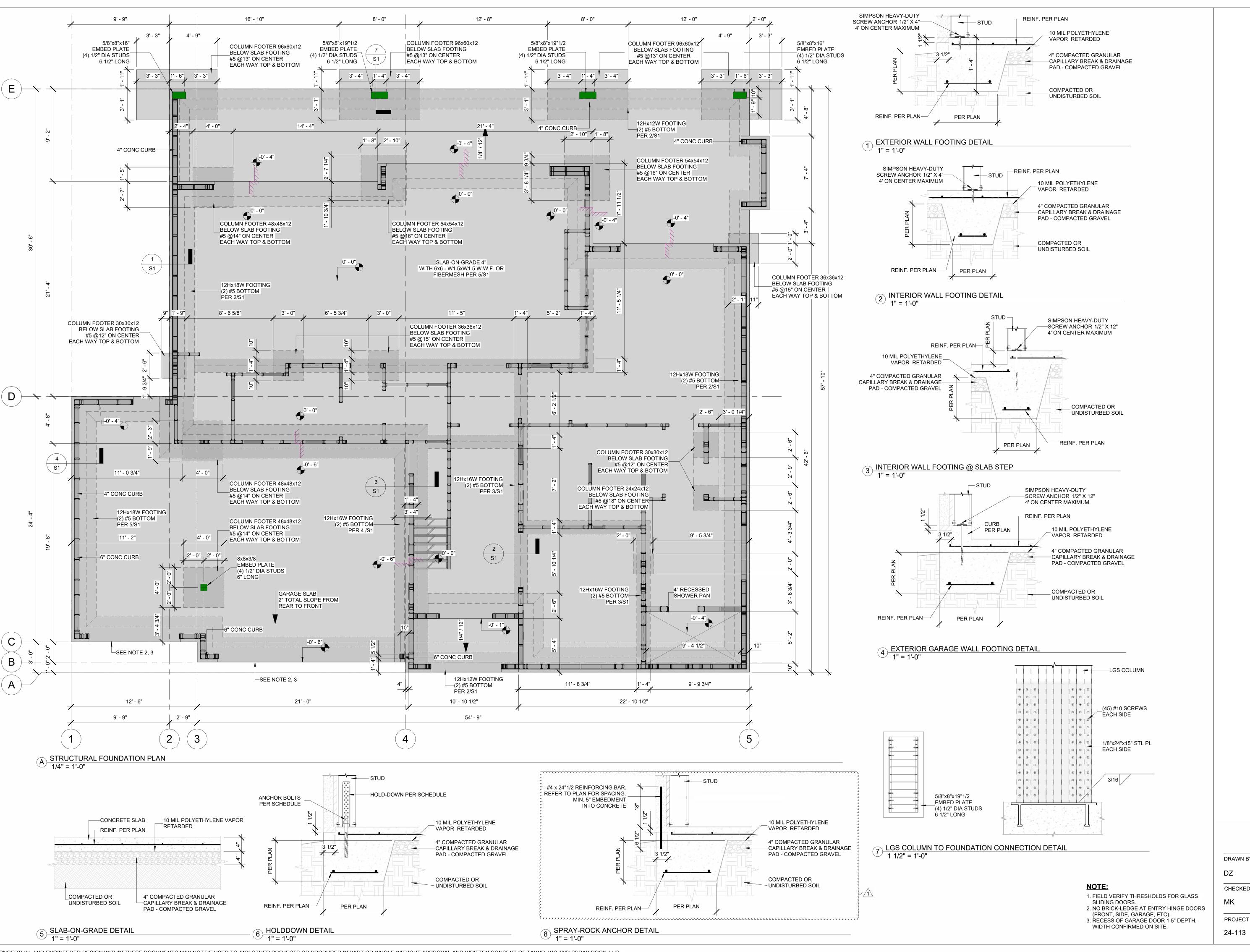
SHFFTLIST

OTILL! LIOT		
	SHEET NUMBER	SHEET NAME
	S0	COVER SHEET
	S1	STRUCTURAL FOUNDATION PLAN
	S2	FIRST FLOOR WALL FRAMING PLAN
	S2.1	FIRST FLOOR CEILING FRAMING PLAN

S1	STRUCTURAL FOUNDATION PLAN
S2	FIRST FLOOR WALL FRAMING PLAN
S2.1	FIRST FLOOR CEILING FRAMING PLAN
S3	SECOND FLOOR FRAMING PLAN
S4	SECOND FLOOR WALL FRAMING PLAN
S4.1	2ND FLOOR CEILING FRAMING PLAN
S5	ROOF FRAMING PLAN
S6	STRUCTURAL SECTIONS
S7	STRUCTURAL SECTIONS
S8	STRUCTURAL SECTIONS
S9	STRUCTURAL SECTIONS
S10	STRUCTURAL SECTIONS
S11	STRUCTURAL SECTIONS
S12	STRUCTURAL DETAILS
S13	STRUCTURAL DETAILS



SHEET NUMBER DRAWN BY **COVER SHEET** CHECKED BY PROJECT NUMBER 24-113



DZ

CHECKED BY

MK

PROJECT NUMBER

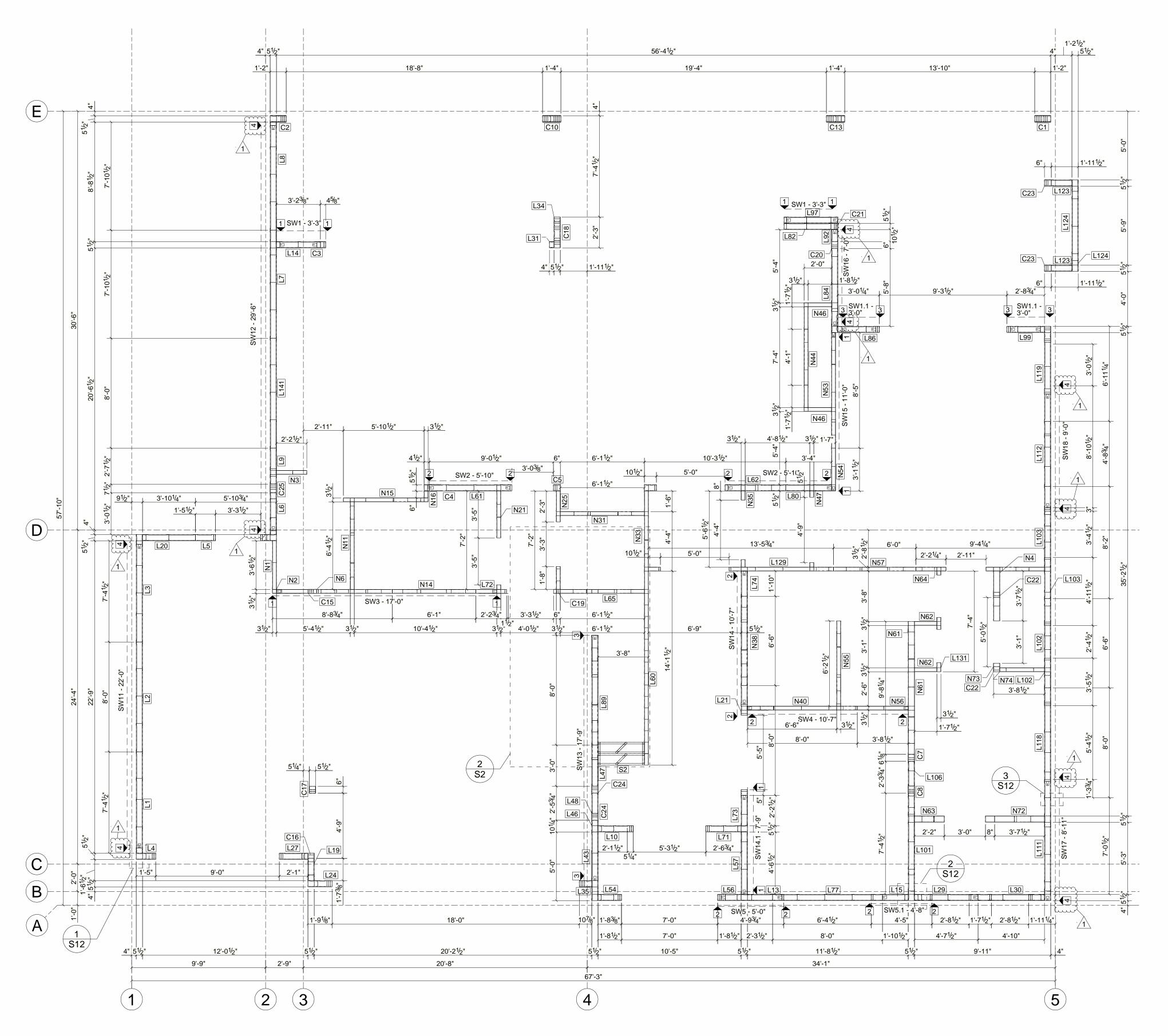
SHEET NAME:

STRUCTURAL

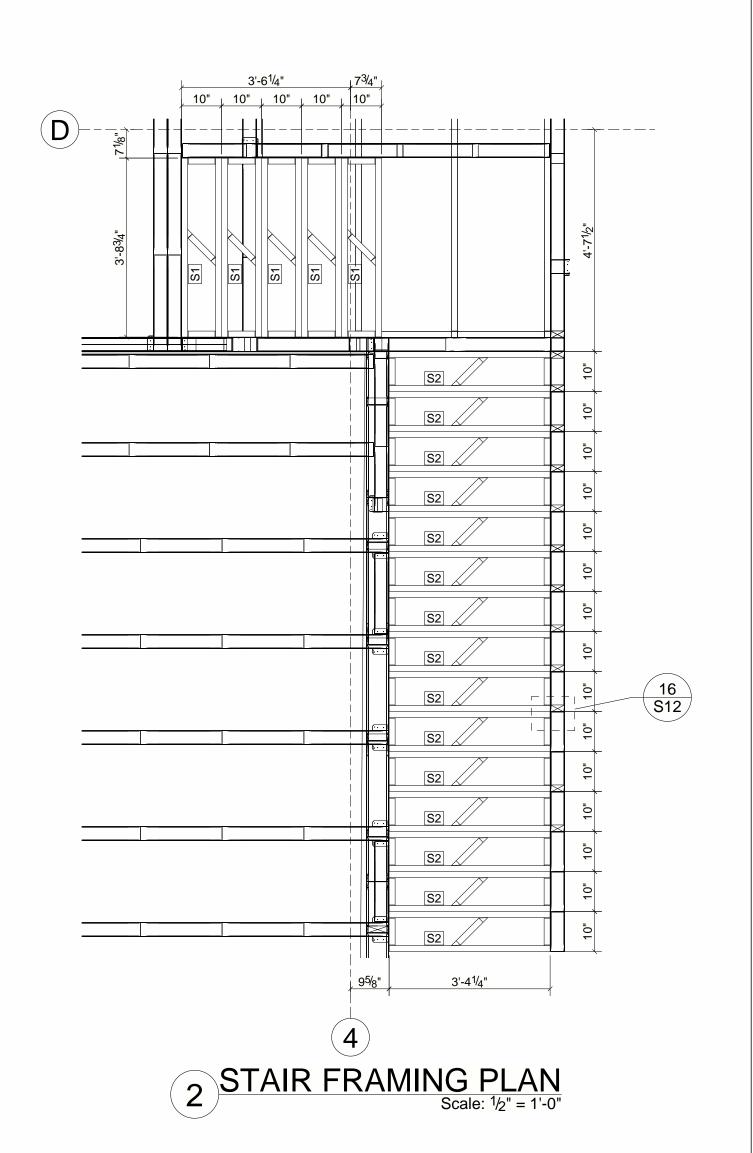
FOUNDATION

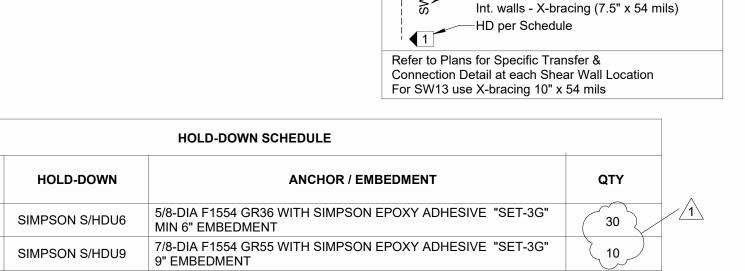
PLAN

SHEET NUMBER:



1 FIRST FLOOR WALL FRAMING PLAN Scale: 1/4" = 1'-0"



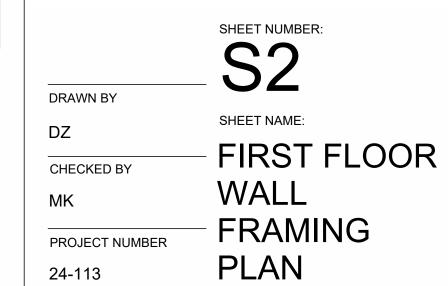


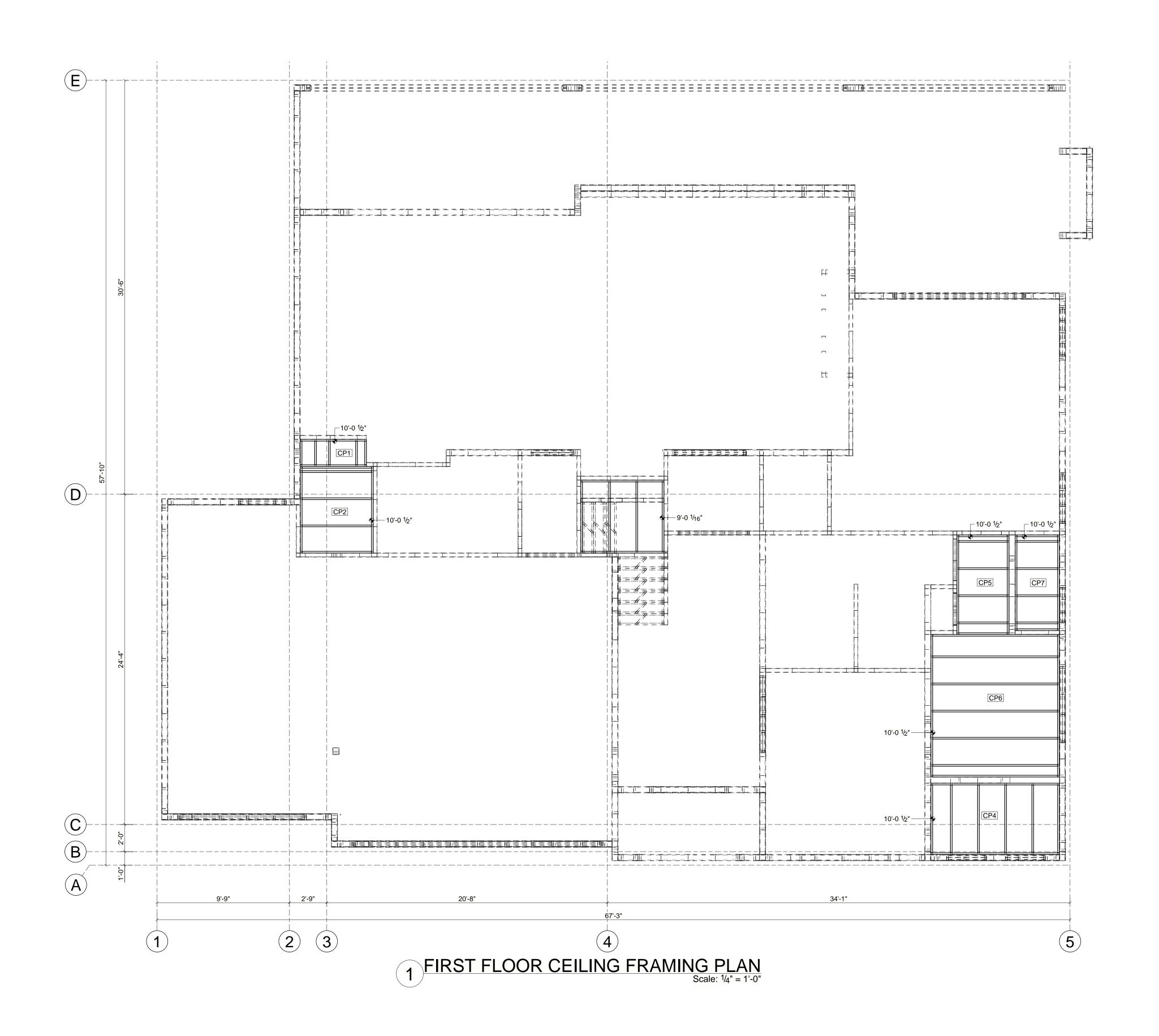
#4 x 24"1/2 REINFORCING BAR. WITH SIMPSON EPOXY ADHESIVE "SET-3G" MIN. 5" EMBEDMENT

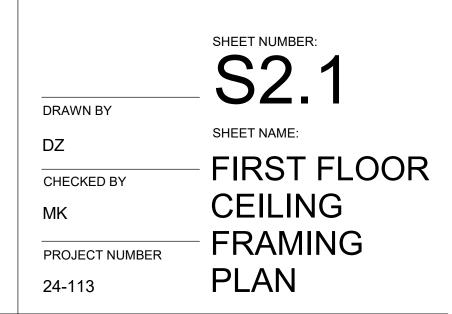
SIMPSON S/HDU11 7/8"-DIA F1554 GR55 8" EMBEDMENT

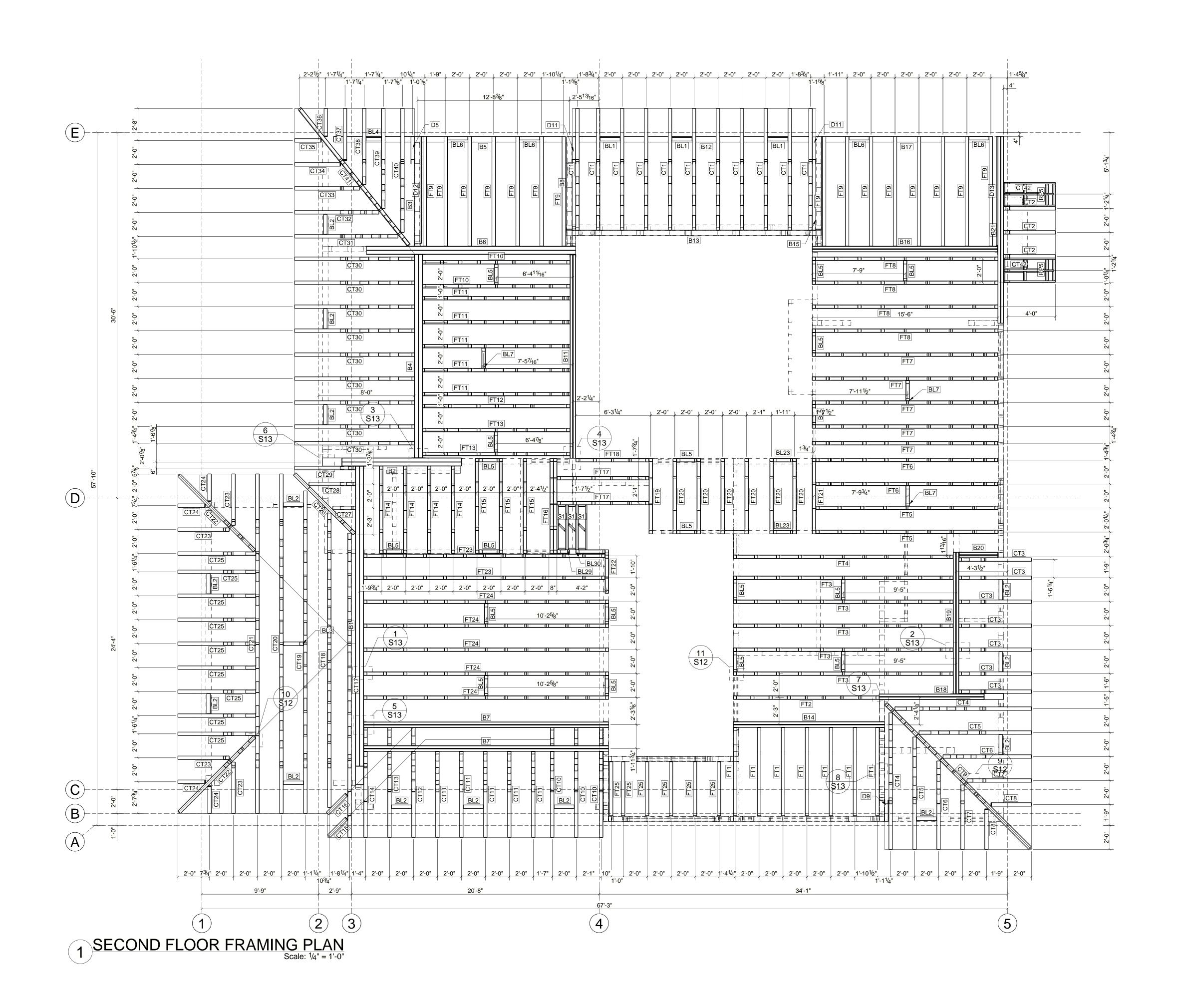
SHEAR WALL SCHEDULE

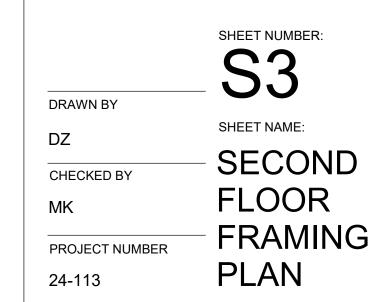
Length of Shear wall (Min.)
Ext. walls - "SPRAY-ROCK" sprayed concrete shear wall, 3 inch thick

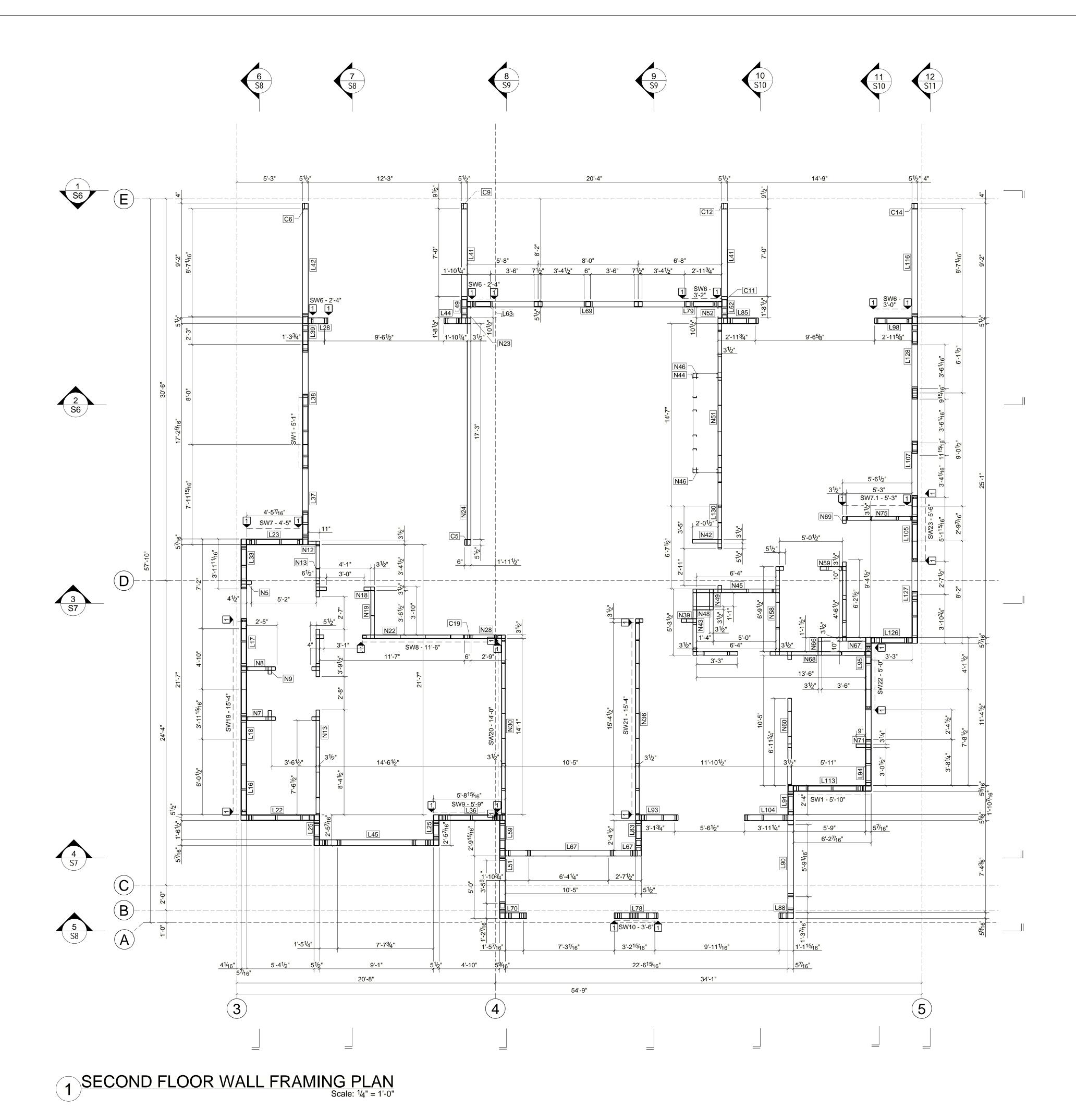


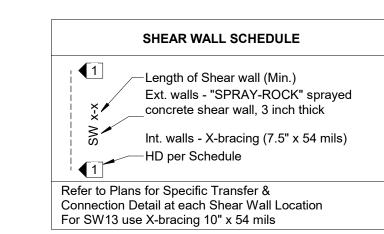






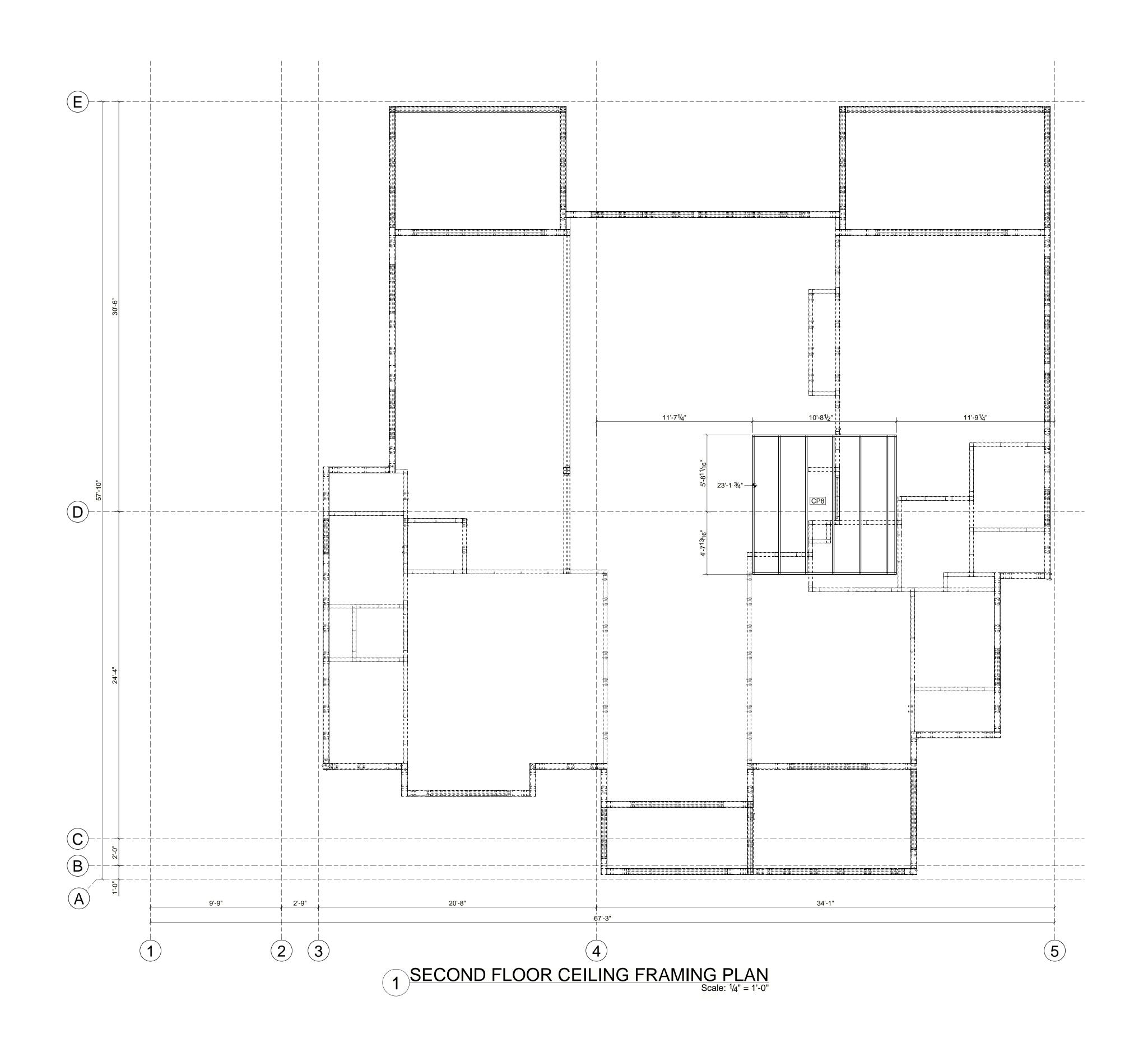


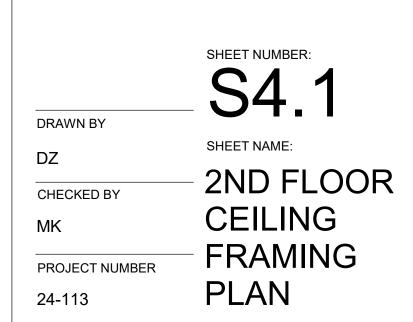


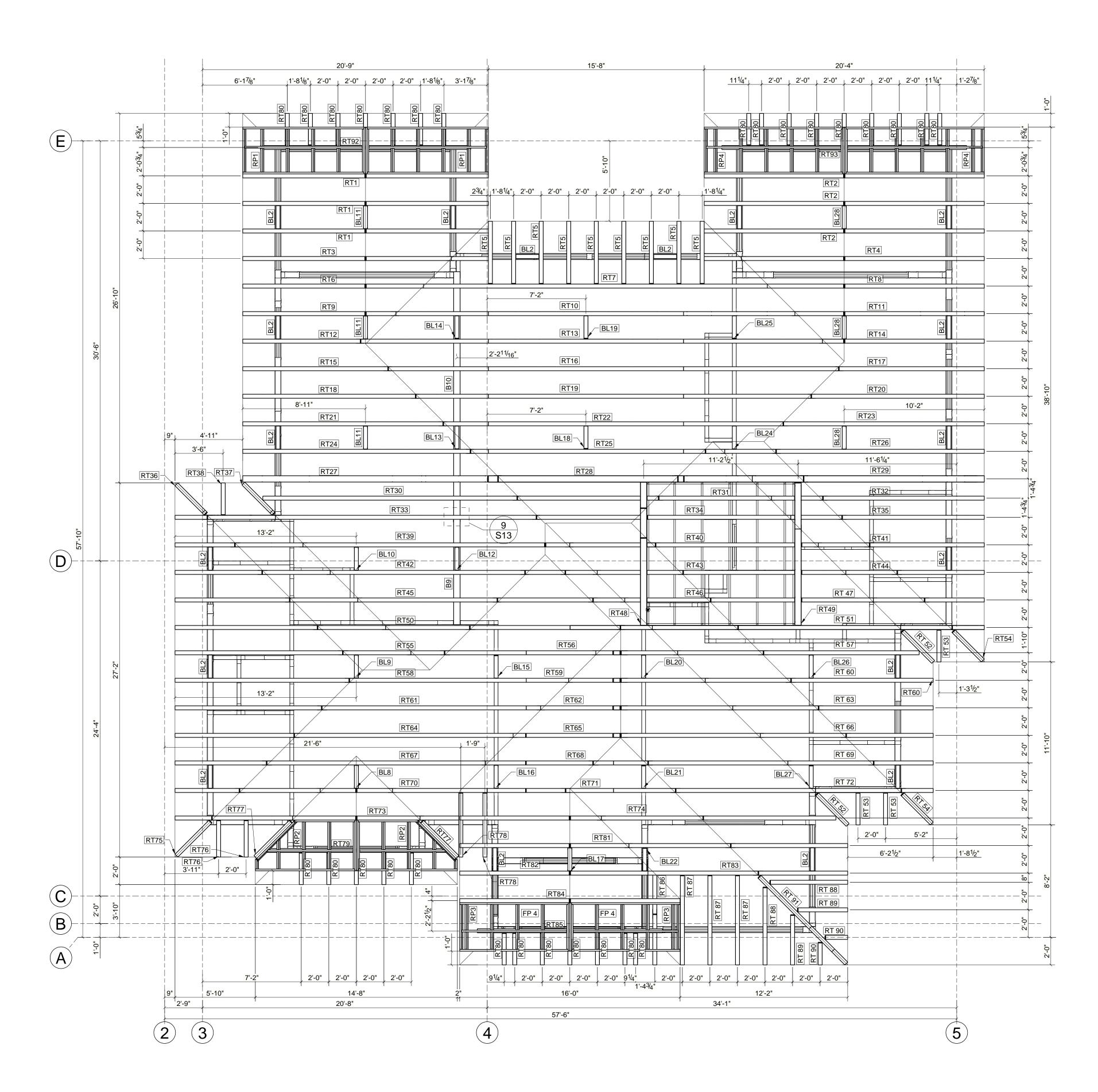


	HOLD-DOWN SCHEDULE			
TYPE	HOLD-DOWN	ANCHOR / EMBEDMENT	QTY	
1	SIMPSON S/HDU6	5/8-DIA F1554 GR36 WITH SIMPSON EPOXY ADHESIVE "SET-3G" MIN 6" EMBEDMENT	38	
2	SIMPSON S/HDU9	7/8-DIA F1554 GR55 WITH SIMPSON EPOXY ADHESIVE "SET-3G" 9" EMBEDMENT	12	
3	SIMPSON S/HDU11	7/8"-DIA F1554 GR55 WITH SIMPSON EPOXY ADHESIVE "SET-3G" 8" EMBEDMENT	4	

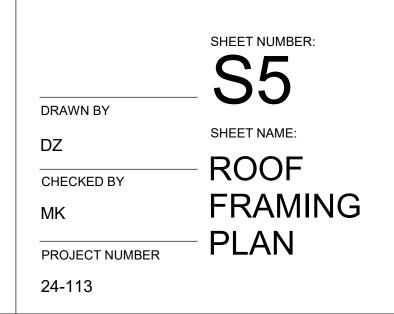
	SHEET NUMBER:
	9/
DRAWN BY	
DZ	SHEET NAME:
CHECKED BY	- SECOND
MK	FLOOR WALL
	- FRAMING
PROJECT NUMBER	
24-113	PLAN

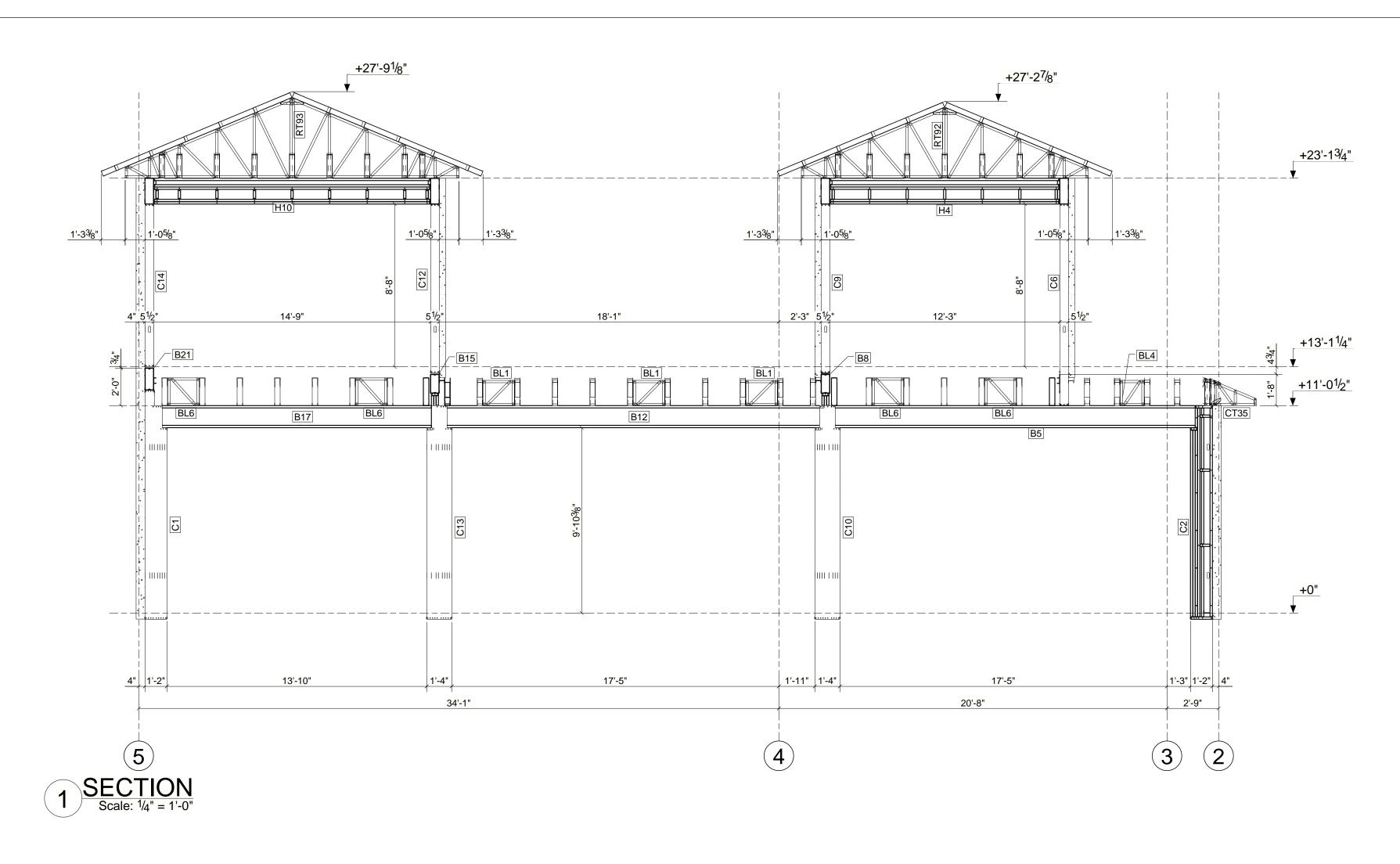


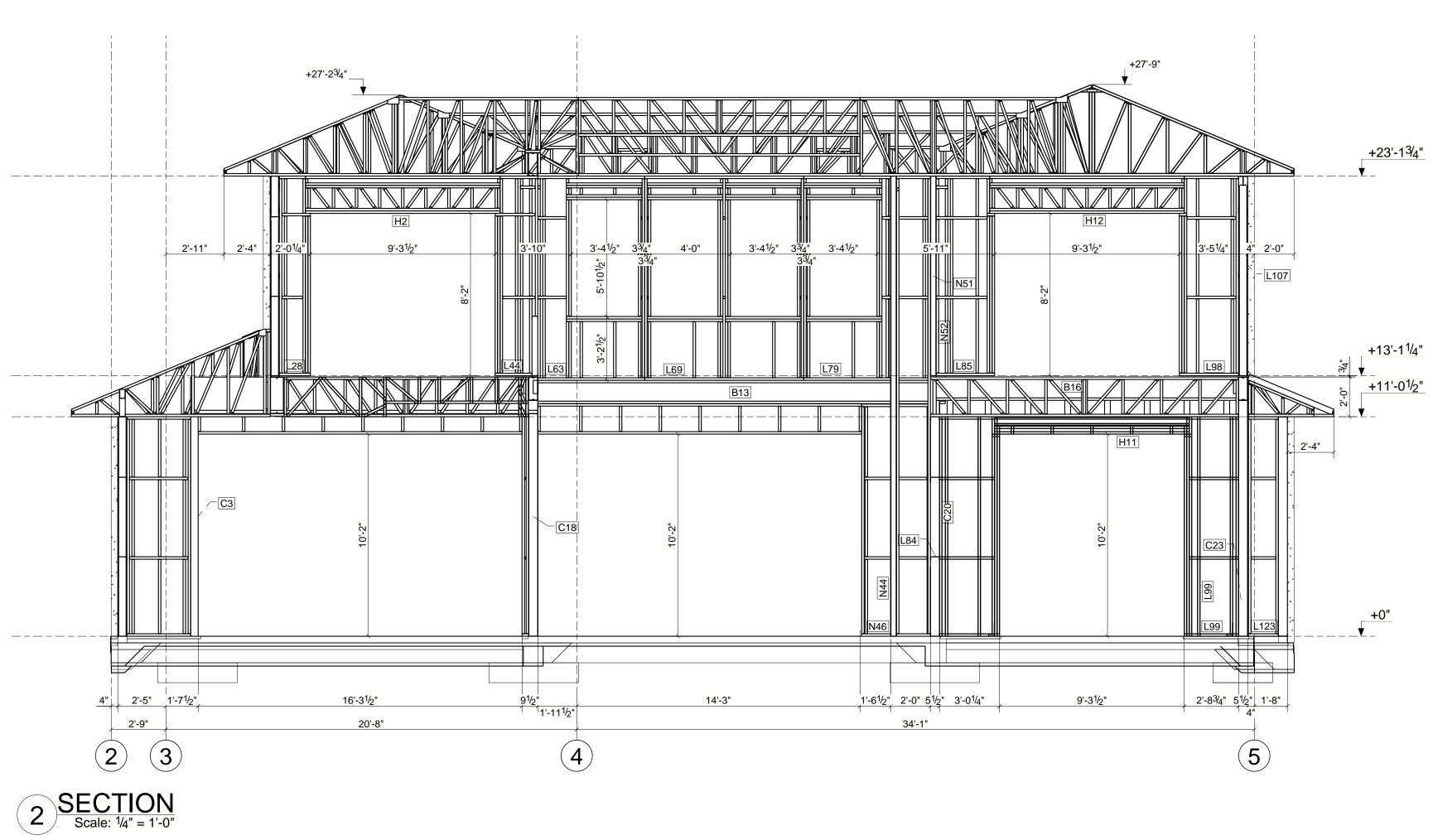


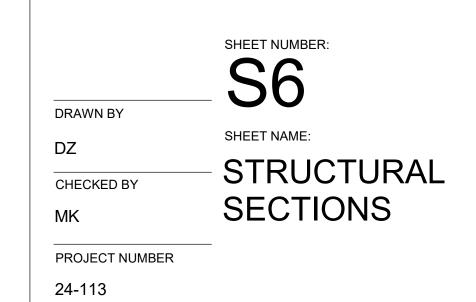


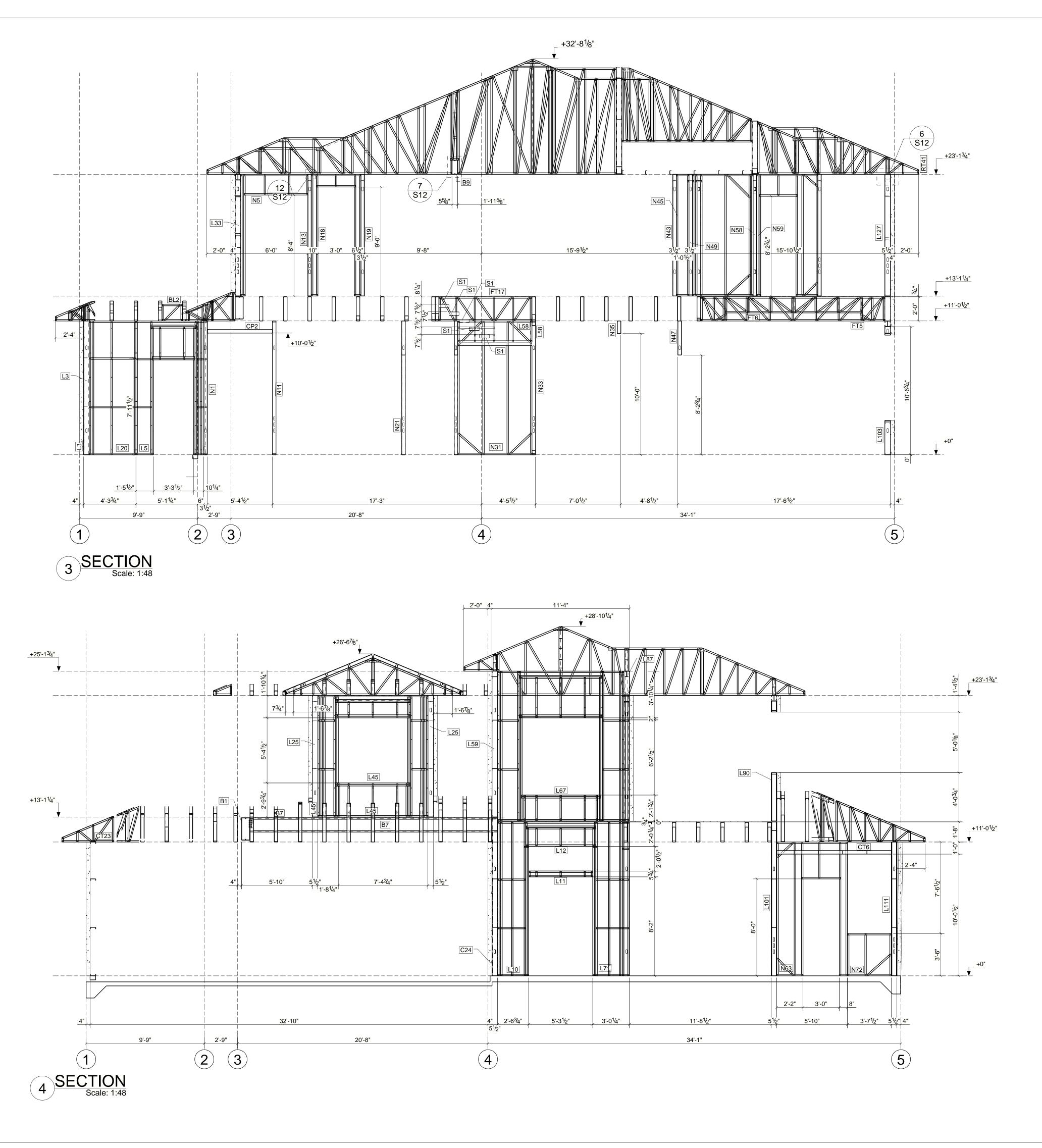
1 ROOF FRAMING PLAN Scale: 1/4" = 1'-0"

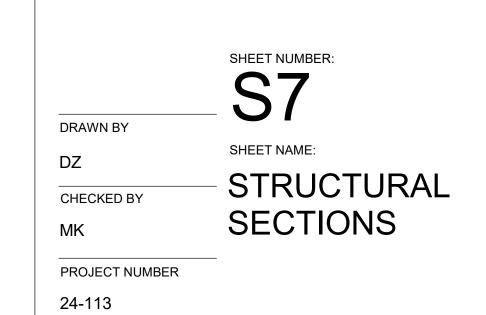


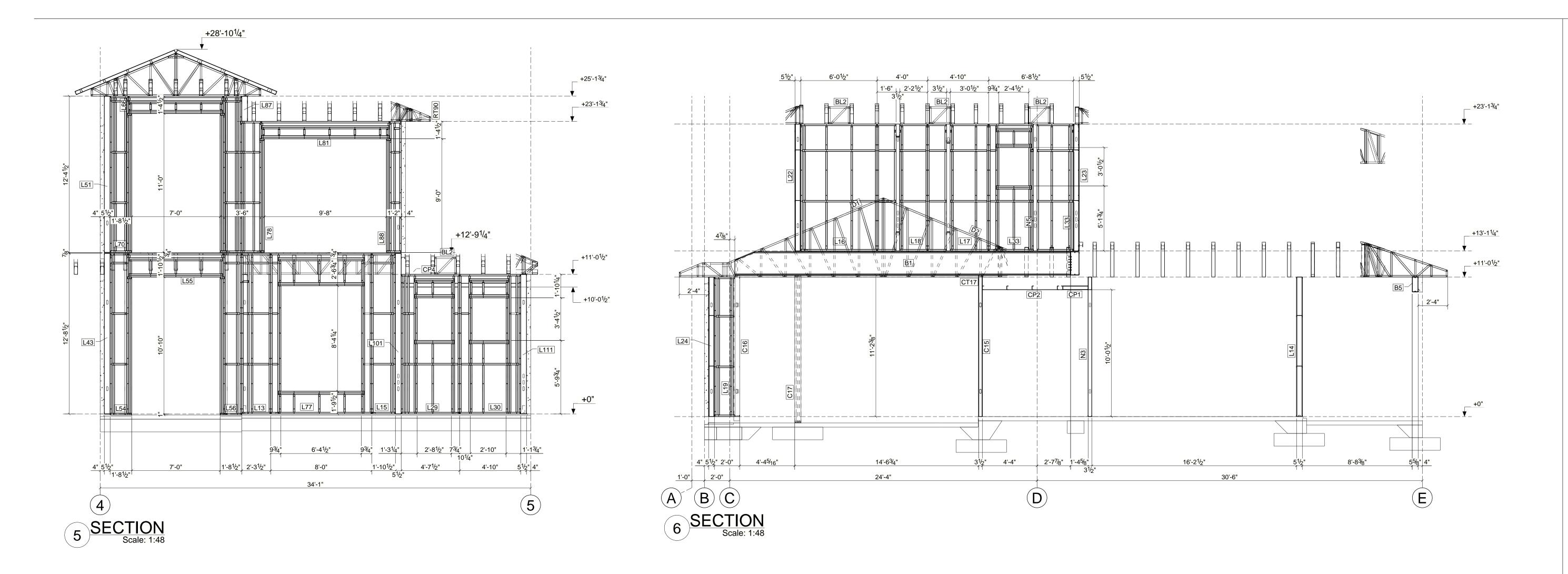


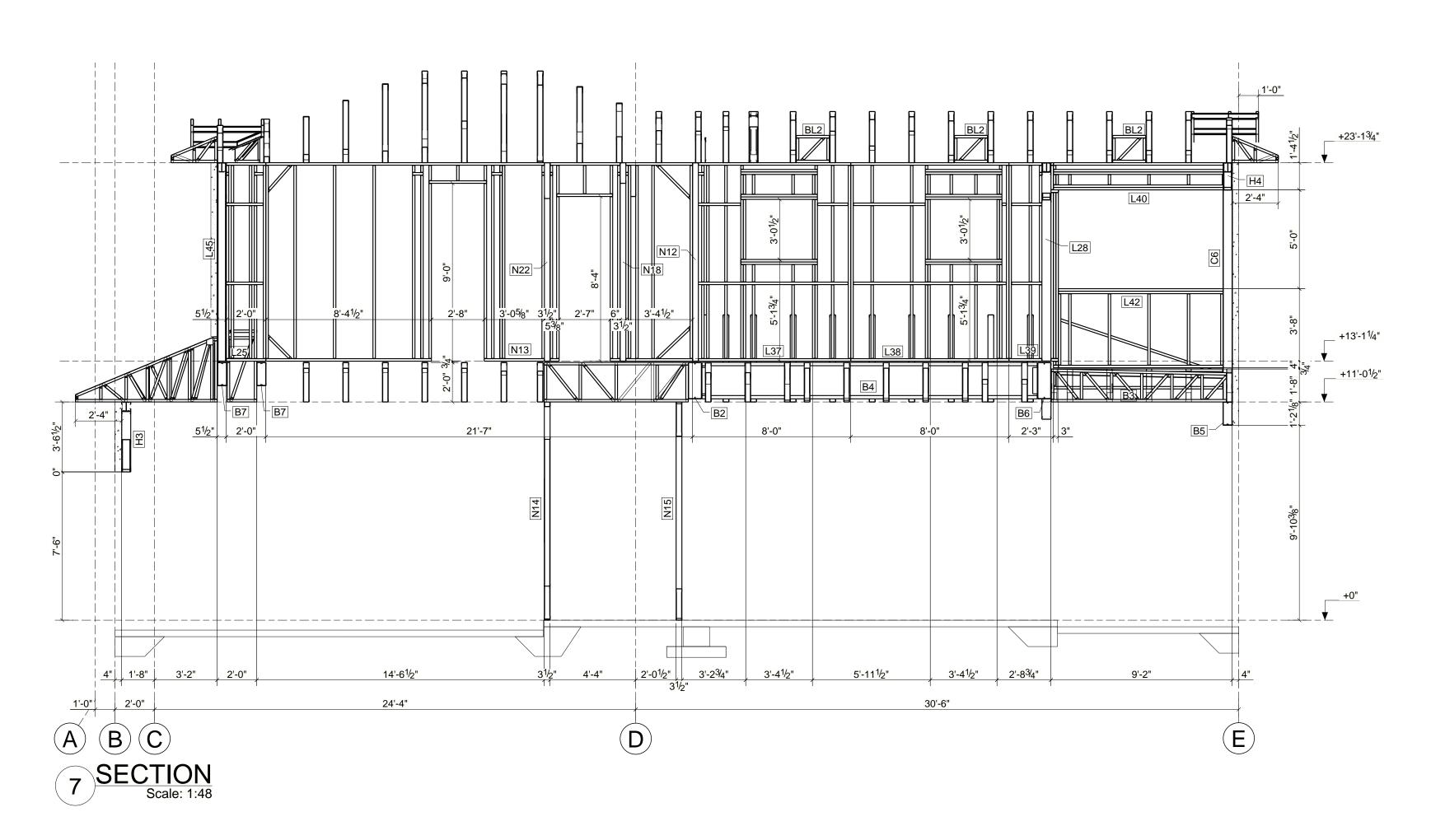


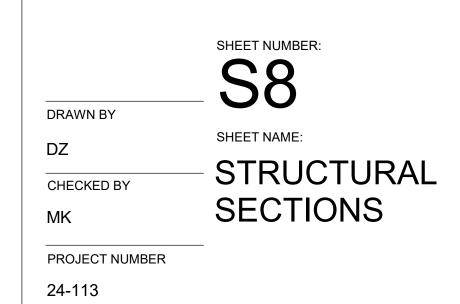


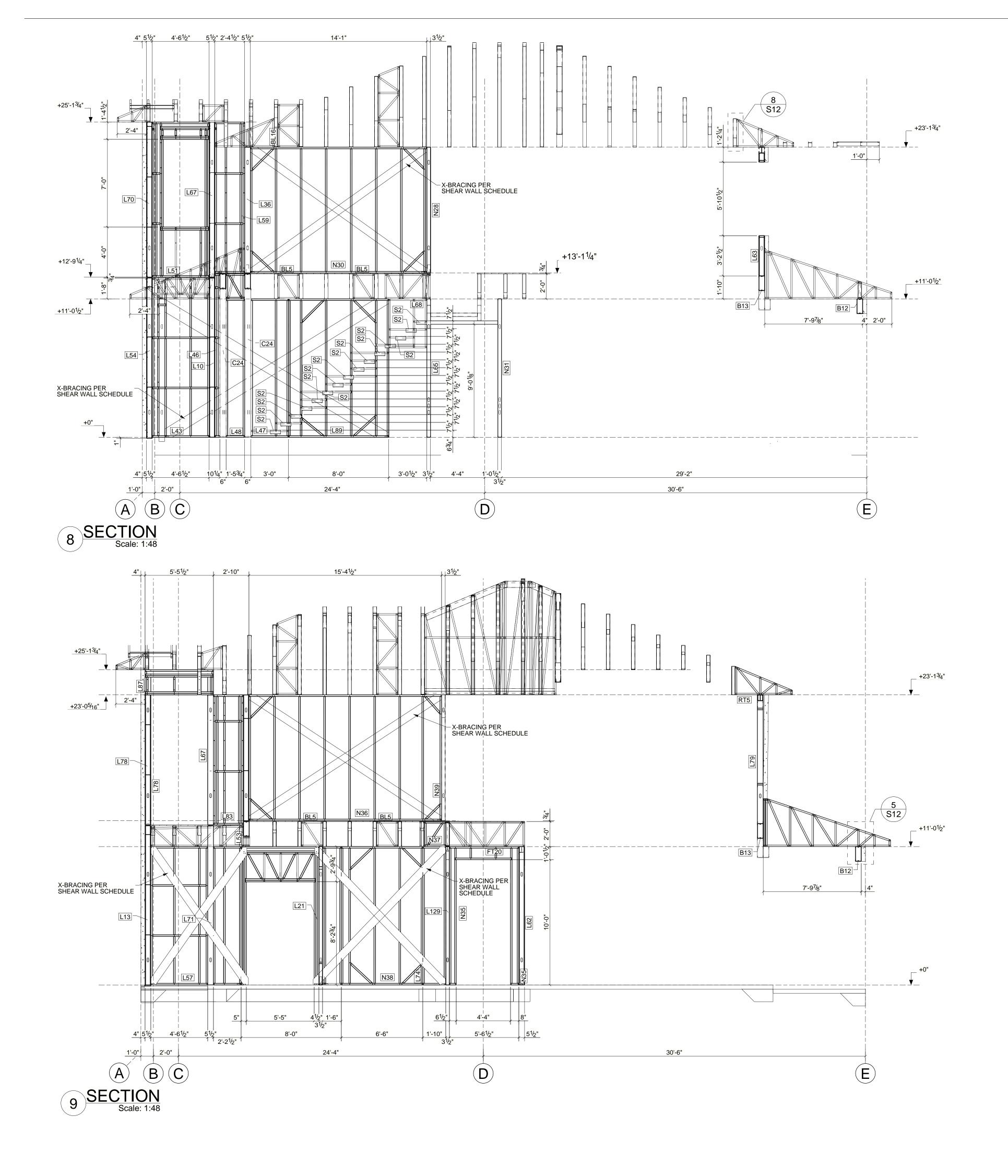


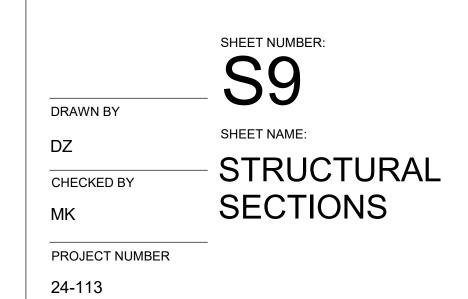


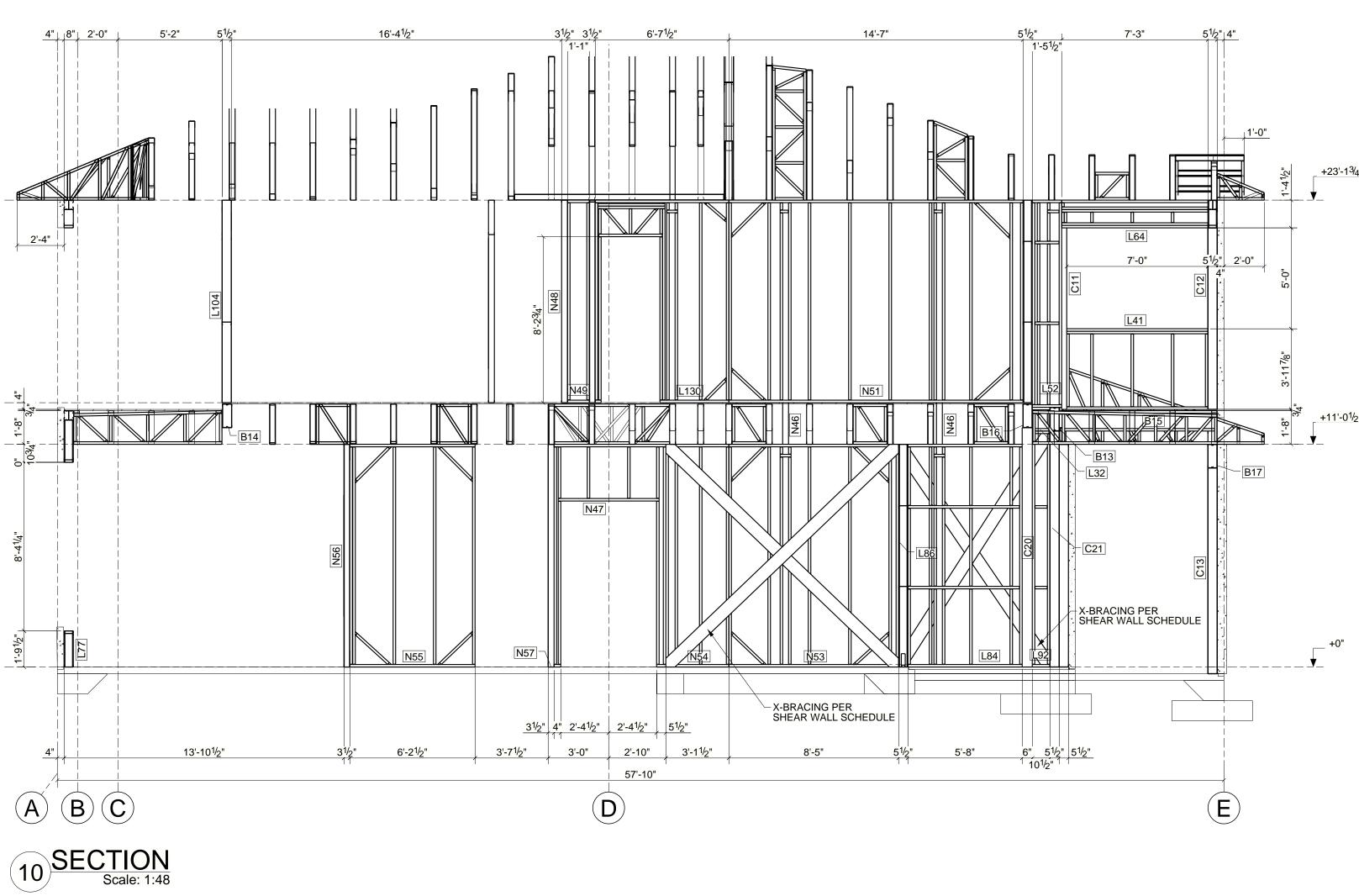


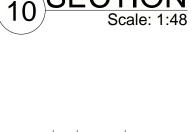


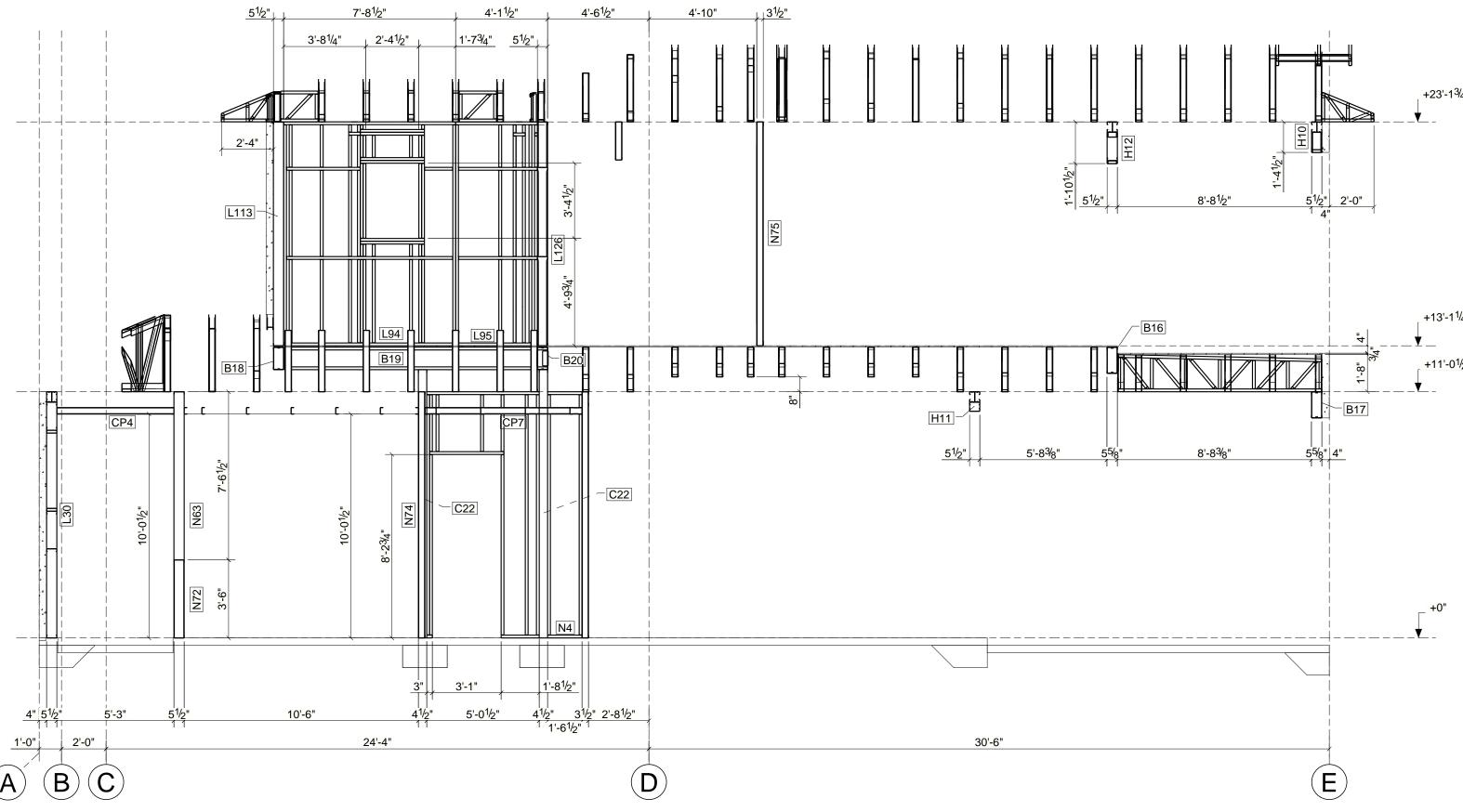












SECTION
Scale: 1:48

DRAWN BY

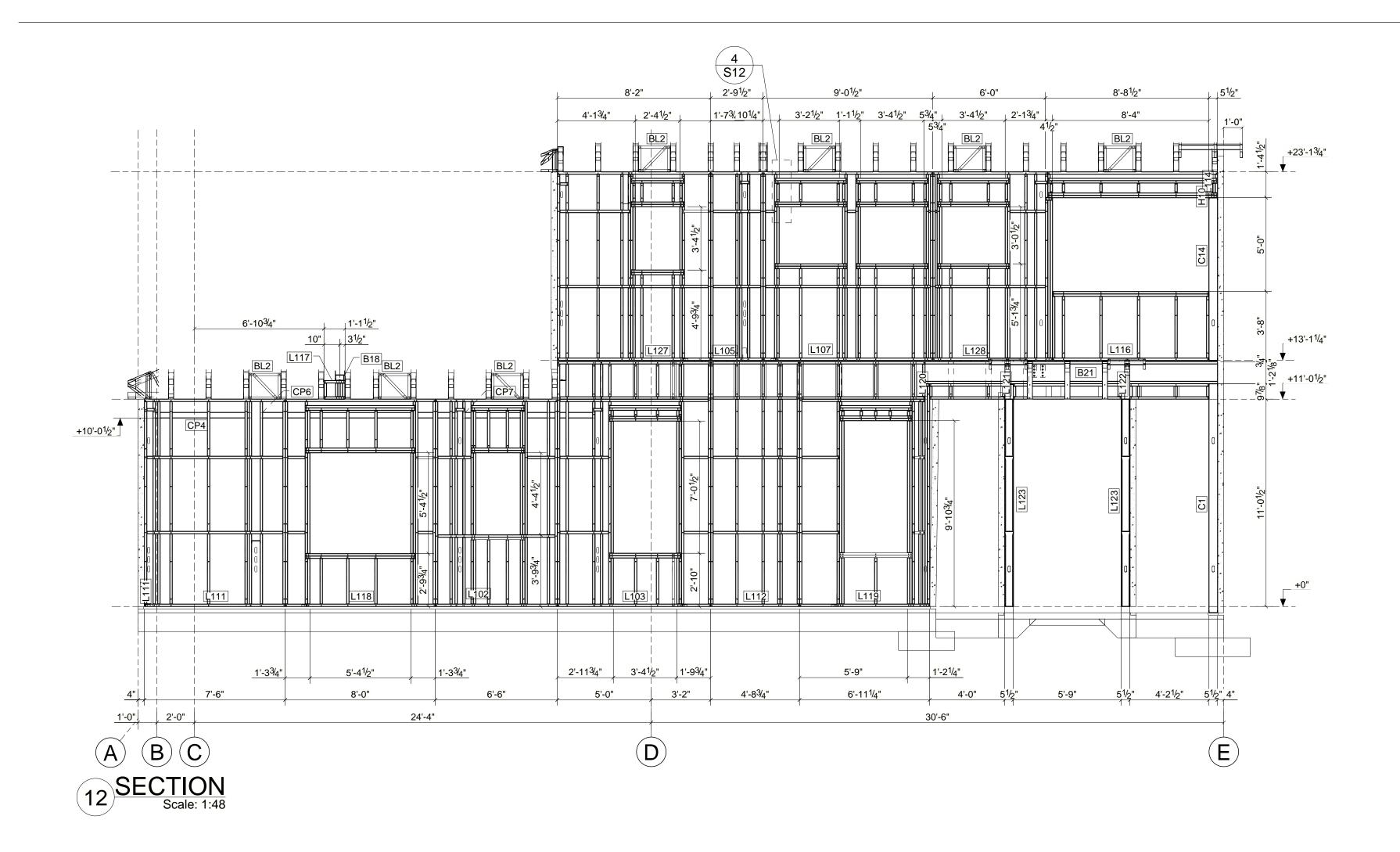
DZ

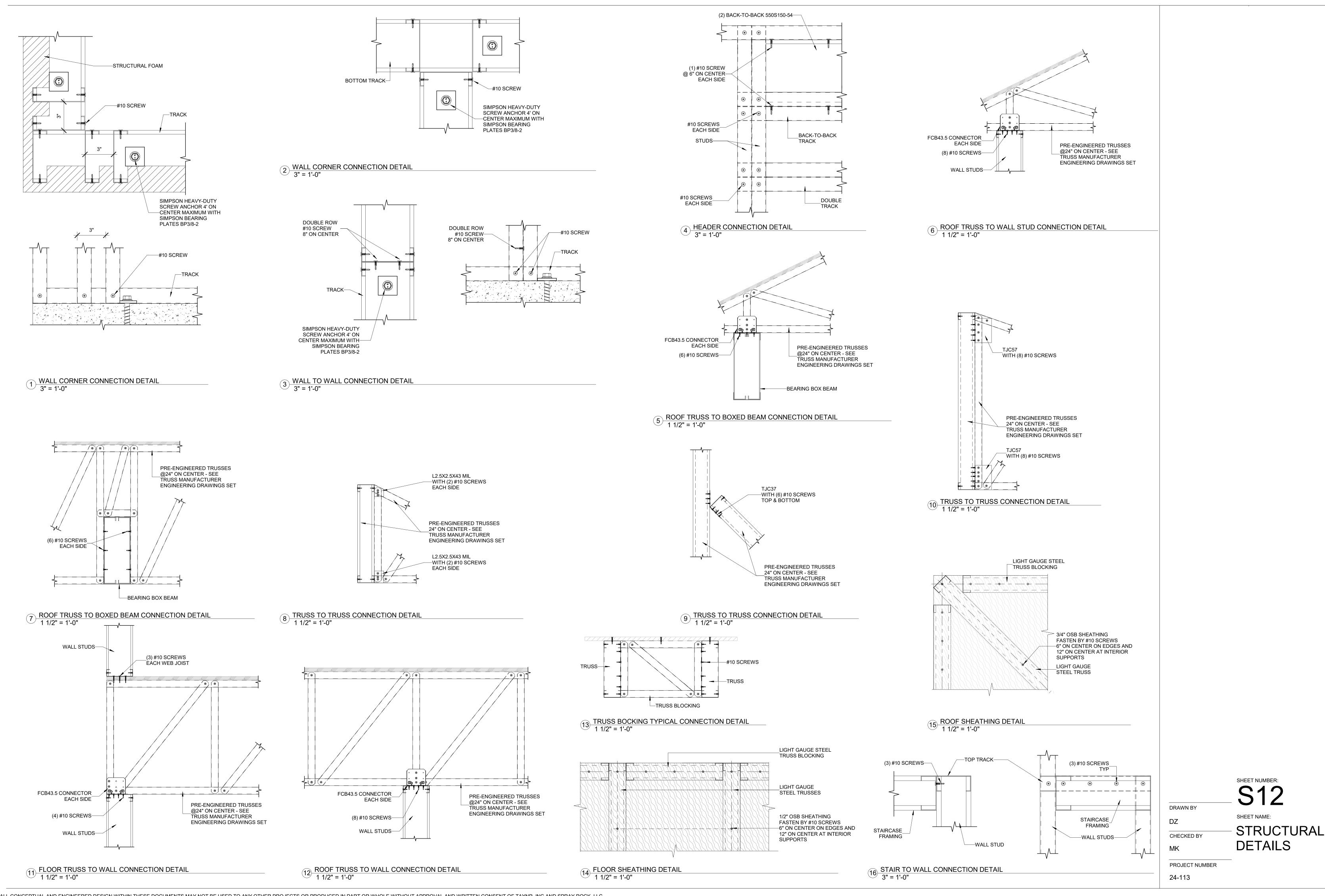
CHECKED BY

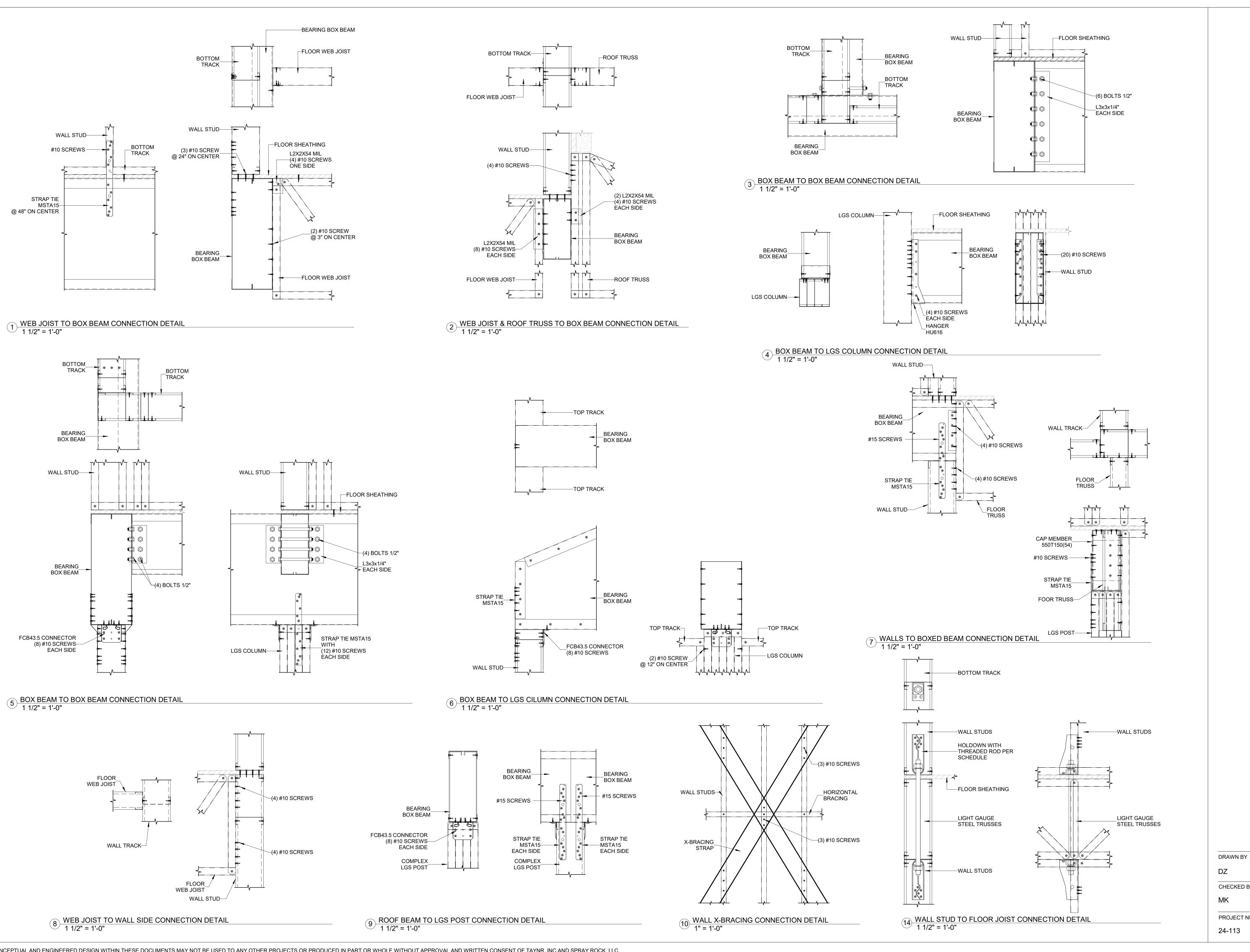
MK

PROJECT NUMBER

24-113







STRUCTURAL CHECKED BY **DETAILS** PROJECT NUMBER 24-113

SHEET NUMBER:

SHEET NAME: