GENERAL STRUCTURAL NOTES:

1. THE GOVERNING BUILDING CODE IS THE MINNESOTA STATE BUILDING CODE 2020 EDITION AS APPROVED AND AMENDED BY THE CITY OF HUGO, MN.

2. CONTRACT DOCUMENTS INCLUDE THE STRUCTURAL DRAWINGS AND SPECIFICATIONS, BUT DO NOT INCLUDE SHOP DRAWINGS, VENDOR DRAWINGS, OR OTHER SUBMITTALS BY THE CONTRACTOR.

3. CONTRACTOR SHALL CROSS VERIFY ALL CONTRACT DOCUMENTS, ELEVATIONS, DIMENSIONS, AND EXISTING CONDITIONS PRIOR TO STARTING WORK. DISCREPANCIES OR CONFLICTS SHALL BE NOTED TO THE ENGINEER OF RECORD OR IMMEDIATELY FOR REMEDIATION. SPECIFIC NOTES AND DETAILS SHALL PRESIDE OVER GENERAL NOTES AND SPECIFICATIONS.

4. THE DIMENSIONS, LOCATIONS, AND DETAILS SHOWN ON THE DRAWINGS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF THE DRAWINGS BEING ISSUED. DEVIATIONS WHICH ARE NECESSARY OR WHICH CONFLICT SHALL BE REPORTED TO THE ENGINEER OF RECORD. CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR DEVIATIONS NOT APPROVED BY THE ENGINEER OF RECORD.

5. COSTS OF ADDITIONAL DESIGN WORK DUE TO THE SELECTION OF AN OPTION OR DUE TO ERRORS OR OMISSION IN CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. THE CONTRACTOR HAS SOLE RESPONSIBILITY FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES OF CONSTRUCTION. THE STRUCTURAL DRAWINGS REFLECT THE COMPLETED STRUCTURE. BRACING, SHORING, AND PROTECTION DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR. THE STRUCTURE SHALL NOT BE LOADED WITH CONSTRUCTION MATERIALS AND EQUIPMENT THAT EXCEEDS THE DESIGN LOADS.

7. PENETRATIONS NOT SHOWN ON THE DRAWINGS MUST BE APPROVED BY THE ENGINEER OF RECORD BEFORE PLACING THROUGH STRUCTURAL ELEMENTS. CONTRACTOR SHALL PROVIDE A CAST-IN SLEEVE FOR ALL HORIZONTAL ELEMENTS THAT EXTEND THROUGH FOOTING AND FOUNDATION WALL, SUCH AS DRAIN TILE, CONDUIT, PIPING, ETC. COORDINATE SLEEVES WITH ENGINEER OF RECORD. SEE MECHANICAL, ELECTRICAL, AND ARCHITECTURAL DRAWINGS FOR ALL PENETRATIONS AND EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

8. CONTRACTOR TO VERIFY ALL WEIGHTS, LOCATIONS & DIMENSIONS OF MECH. EQUIPMENT SHOWN AND NOTIFY THE ENGINEER OF RECORD OF ANY DISCREPANCIES. COORDINATE THIS INFORMATION WITH ALL NECESSARY INDIVIDUALS.

9. PERIODIC SITE OBSERVATION BY REPRESENTATIVES OF SANDMAN STRUCTURAL ENGINEERS IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DRAWINGS. A LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS OR DEFICIENCIES IN THE WORK OF THE CONTRACTOR. ALL MATERIALS AND WORKMANSHIP ARE SUBJECT TO THE REVIEW OF THE ENGINEER OF RECORD.

10. SEE THE FOLLOWING DETAILS FOR STANDARD DETAILS:

    CAST IN PLACE CONCRETE & FOUNDATION: 1/S301
    STEEL CONNECTIONS: 11/S402
    WOOD FRAMING: 1/S401

DESIGN CRITERIA/DESIGN LOADS:

SNOW LOAD DESIGN CRITERIA			
GROUND SNOW LOAD	Pg	50 PSF	-
SNOW IMPORTANCE FACTOR	Is	1.0	-
EXPOSURE FACTOR	Ce	1.0	-
THERMAL FACTOR	Ct	1.1	TYPICAL
THERMAL FACTOR	Ct	1.2	GARAGE/CANOPY
SLOPED ROOF FACTOR	Cs	1.0	TYPICAL/CANOPY

ROOF DESIGN LOADS			
LOAD TYPE	NOTATION	LOAD	NOTES
SNOW LOAD	S	38.5 PSF	TYPICAL (Ps)
SNOW LOAD	S	42 PSF	GARAGE (Ps)
LIVE LOAD	RLL	20 PSF	-
DEAD LOAD	D	20 PSF	D TC = 12 PSF D BC = 8 PSF

FLOOR DESIGN LOADS				
FLOOR	DESCRIPTION	DEAD LOAD (D)	LIVE LOAD (L)	NOTES
2ND-3RD	TYP RESIDENTIAL	26 PSF	40 PSF*	D TC = 18 PSF D BC = 8 PSF
2ND-3RD	CORRIDORS	26 PSF	80 PSF*	D TC = 18 PSF D BC = 8 PSF
2ND-3RD	STAIRS/LANDINGS/ PUBLIC AREAS	26 PSF	100 PSF	D TC = 18 PSF D BC = 8 PSF
2ND-3RD	ELECT/MECH/ TRASH/STORAGE	26 PSF	80 PSF*	D TC = 18 PSF D BC = 8 PSF
1ST-3RD	BALCONIES	15 PSF	60 PSF*	-
*DENOTES LIVE LOAD IS REDUCIBLE PER ASCE 7				

WIND LOAD DESIGN CRITERIA			
ULT. DESIGN WIND SPEED	V-ult	109 MPH	-
NOMINAL DESIGN WIND SPEED	V-asd	84.4 MPH	-
RISK CATEGORY	-	II	-
EXPOSURE CATEGORY	-	C	-
INTERNAL PRESSURE COEF.	GCpi	+/- 0.18	-
C & C BASE PRESSURE	qh - ult	26.5 PSF	-
END ZONE WIDTH	a	6.8 FT	-

ESTIMATED WOOD BUILDING SHRINKAGE		
WOOD LEVEL	LEVEL SHRINKAGE	CUMULATIVE SHRINKAGE
3RD	0.164"	0.642"
2ND	0.239"	0.478"
1ST	0.239"	0.239"

ESTIMATED SHRINKAGE VALUES ASSUME ALL MEMBERS HAVE A MOISTURE CONTENT OF 19% AT THE TIME OF INSTALLATION AND 10% IN FINAL STATE.

THESE VALUES HAVE BEEN PROVIDED FOR CONSIDERATION IN DESIGN AND DETAILING OF BUILDING SYSTEMS SENSATIVE TO SHRINKAGE.

INSTALLATION OF MEP SYSTEMS ARE TO TAKE IN CONSIDERATION THE ESTIMATED SHIRNKAGE OF THE WOOD STRUCTURE.

OWNER HAS CHOICE TO USE CMU ELEVATOR SHAFTS THROUGH WOOD STRUCTURE. DUE TO DIFFERENTIAL SHRINKAGE BETWEEN MATERIALS, FINISHES AT INTERFACE MAY REQUIRE REPETITIVE MAINTANCE.

SHOP DRAWING & DEFERRED DESIGN SUBMITTAL NOTES:

1. CONTRACTOR TO FURNISH COMPLETE AND DETAILED SHOP DRAWING & SUBMITTALS FOR REVIEW AND APPROVAL BY THE EOR. THE FOLLOWING ARE REQUIRED FOR THIS PROJECT.

SHOP DRAWING OR SUBMITTAL	NOTES/COMMENTS
CONCRETE MIX DESIGNS	BY 3RD PARTY TESTING AGENCY
CONCRETE REINFORCEMENT	-
STRUCTURAL & MISC. STEEL	-
CMU, MORTAR, & GROUT MATERIAL SPECS	-
CMU REINFORCEMENT	-
LUMBER MATERIAL GRADE & DOWEL-TYPE FASTENERS	-
METAL PLATE CONNECTED WOOD TRUSSES	DEFERRED SUBMITTAL: SEE NOTE #4
HANDRAILS AND GUARDRAILS	DEFERRED SUBMITTAL: SEE NOTE #4
ELEVATOR	PROVIDE LOADS @ STRUCTURAL SYSTEM
SIMPSON STRONG-TIE ANCHOR TIEDOWN SYSTEM	-
ALUMINUM FRAMING ASSEMBLIES	DEFERRED SUBMITTAL: SEE NOTE #4

2. CONTRACT DRAWINGS SHALL NOT BE REPRODUCED FOR USE AS SHOP DRAWINGS. ALL SHOP DRAWINGS MUST BEAR THE REVIEW STAMP OF THE CONTRACTOR BEFORE THEY ARE REVIEWED BY THE ENGINEER OF RECORD.

3. SHOP DRAWINGS SHALL SHOW ALL FIELD DETAILS AND ADDITIONAL INFORMATION NEEDED FOR THE CONTRACTOR TO CONSTRUCT THE BUILDING PER THE CONTRACT DOCUMENTS.

4. STRUCTURAL COMPONENTS/SYSTEMS DESIGNATED AS A "DEFERRED SUBMITTAL" OR AS "DELEGATED DESIGN", "DESIGNED BY OTHERS", OR "PRE-ENGINEERED" MUST INCLUDE A CALCULATION PACKAGE THAT IS STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, LICENSED IN THE STATE THE PROJECT WILL BE CONSTRUCTED, PRIOR TO SUBMITTAL FOR APPROVAL TO THE ENGINEER OF RECORD.

5. SHOP DRAWINGS SHALL BE AVAILABLE ON THE JOB SITE DURING TIMES OF INSPECTION AND SHALL BE CLEARLY INDICATED THAT THEY HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER OF RECORD.

6. REVIEW OF SUBMITTALS AND SHOP DRAWINGS BY THE EOR DOES NOT RELIEVE THE CONTRACTOR OF THE SOLE RESPONSIBILITY TO REVIEW AND CHECK ALL SUBMITTALS AND SHOP DRAWINGS BEFORE SUBMITTING TO THE STRUCTURAL ENGINEER. THE CONTRACTOR REMAINS SOLELY RESPONSIBLE FOR THE ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF SHOP DRAWINGS AS THEY PERTAIN TO MEMBER SIZES, DETAILS, AND DIMENSIONS SPECIFIED IN THE CONTRACT DOCUMENTS.

7. ALL HANDRAIL AND GUARDRAIL SYSTEMS SHALL BE DESIGNED TO RESIST ASCE-7 CHAPTER 4 DESIGN LOADING CRITERIA AND TO TRANSFER THESE LOADS THROUGH THE SUPPORTS TO THE STRUCTURE.

FOUNDATION NOTES:

1. FOOTINGS ARE DESIGNED FOR A NET ALLOWABLE SOIL BEARING PRESSURE OF 2500PSF FOR STRIP FOOTINGS AND 2500PSF FOR PAD FOOTINGS. THESE VALUES ARE PER THE GEOTECHNICAL REPORT BY CHOSEN VALLEY TESTING ISSUED ON NOVEMBER 14, 2022, REPORT #20916.22.MNT.

2. ALL FILL UPON WHICH FOUNDATION ELEMENTS BEAR OR RELY UPON FOR CONFINING RESISTANCE AND/OR LATERAL SUPPORT; SHALL BE DESIGNED, SPECIFIED, AND TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER. THESE SITUATIONS INCLUDE, BUT ARE NOT LIMITED TO, SITE GRADING, OVER EXCAVATION FILL, UTILITY TRENCHES, ETC.

3. TEMPORARY AND PERMANENT SLOPE STABILITY OF UNDERLYING SOILS SUPPORTING THE CONSTRUCTION AND STRUCTURE IS THE RESPONSIBILITY OF A QUALIFIED GEOTECHNICAL ENGINEER. DESIGN OF THE ABOVE AND BELOW GRADE STRUCTURAL ELEMENTS AND SYSTEMS INDICATED ON THE STRUCTURAL DRAWINGS ASSUME THAT SLOPE STABILITY CONCERNS DO NOT EXIST. DESIGN AND SERVICEABILITY CONSIDERATION HAVE NOT BEEN INCORPORATED FOR DIFFERENTIAL VERTICAL AND/OR LATERAL DISPLACEMENT OF THE SOILS SUPPORTING THE STRUCTURE DUE TO SLOPE INSTABILITY.

4. UNLESS SPECIFICALLY PRESCRIBED IN A GEOTECHNICAL REPORT, BACKFILL ABOVE THE BOTTOM OF FOOTING ELEVATION AGAINST FOUNDATION WALL OR RETAINING WALL SYSTEMS SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAX DENSITY (ASTM D698-00A). MOISTURE CONTENT AT THE TIME OF COMPACTION SHOULD BE -1% / +3% OF OPTIMUM. GRADATION OF FILL MATERIAL SHALL HAVE LESS THAN 12% PASSING THE #200 SIEVE.

5. PROTECT FOOTING EXCAVATIONS FROM WATER, MOISTURE, OR FROST INFILTRATION. PRIOR TO PLACEMENT OF FOOTING CONCRETE, CLEAN FOOTING EXCAVATIONS OF SNOW, WATER, MUD, DIRT, AND DEBRIS. DO NOT PLACE FOOTINGS OR BACKFILL ON FROZEN SUB GRADE.

6. FROST COVER FOR FOOTINGS SHALL BE PER RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. SEE PLAN FOR TOP OF FOOTING ELEVATIONS AND DETAILS FOR FOOTING STEP REQUIREMENTS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE EOR IMMEDIATELY OF ANY SPECIAL SOIL OR WATER CONDITIONS THAT EXIST ON SITE.

8. BACKFILL & COMPACTION SHALL BE INSPECTED AND TESTED BY A LICENSED GEOTECHNICAL ENGINEER OR QUALIFIED FIELD TECH. THE SUBMITTAL OF TESTING REPORTS SHALL BE PER SPECIAL INSPECTION REQUIREMENTS.

9. BACKFILL SHALL BE COMPACTED BY MECHANICAL MEANS. WATER INFILTRATION SHALL NOT BE ALLOWED. BACKFILL SHALL BE PLACED IN ALTERNATING LIFTS ON EACH SIDE OF THE FDN WALLS FOR STABILITY.

10. FOOTINGS SHALL NOT BEAR ON UNCONTROLLED FILL UNLESS APPROVED BY GEOTECHNICAL ENGINEER.

11. WALL FOOTINGS ARE TO BE CENTERED ON WALLS UNO PAD FOOTINGS ARE TO BE CENTERED ON COLUMNS UNLESS NOTED OTHERWISE.

12. CONTRACTOR TO COORDINATE INTERIOR & EXTERIOR TOP OF FOOTINGS WITH MEP CONTRACTORS, PRIOR TO START OF CONSTRUCTION. PLUMBING TO BE ROUTED ABOVE FOOTINGS UNLESS APPROVED BY ENGINEER OF RECORD. FOOTINGS MAY NEED TO BE LOCALLY LOWERED TO ACCOUNT FOR ADJACENT PLUMBING LINES OR BASINS THAT COULD UNDERMINE SUPPORTING SOIL ALONGSIDE OR BELOW FOOTINGS.

13. IF SHOWN ON FOUNDATION PLAN, DRAIN TILE IS FOR GRAPHICAL REPRESENTATION ONLY. SIZE AND LAYOUT TO BE CONFIRMED WITH MEP CONTRACTOR AND CIVIL DRAWINGS.

CONCRETE AND STEEL REINFORCEMENT NOTES:

1. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO AMERICAN CONCRETE INSTITUTION (ACI) CODES AND SPECIFICATIONS, LATEST EDITION.

    ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE"
    ACI 315 "DETAILS & DETAILING OF CONCRETE REINFORCEMENT"
    ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
    ACI 306R "COLD WEATHER CONCRETING"

2. CAST-IN-PLACE CONCRETE COMPRESSIVE STRENGTHS REQUIRED (28 DAY):

    FOOTINGS 4000 PSI* PIERS / COLUMNS 4000 PSI
    INTERIOR SLABS 4000 PSI EXTERIOR SLABS 4500 PSI*
    *MAX W/C RATIO OF 0.55
    **MAX W/C RATIO OF 0.45. MIX DESIGN TO BE AIR ENTRAINED PER ACI TABLE 19.3.3.1

3. SUBMIT CONCRETE MIX DESIGN & STRENGTH DATA TO ENGINEER OF RECORD FOR APPROVAL. ALL ADMIXTURES ARE THE RESPONSIBILITY OF THE CONCRETE SUPPLIER'S ENGINEER.

4. CAST-IN-PLACE CONCRETE SHALL BE SUBJECT TO TESTING BY AN INDEPENDENT TESTING LABORATORY, SEE SPECS AND SPECIAL INSPECTION REQUIREMENTS.

5. ALL CONCRETE SHALL BE PLACED PER ACI & THOROUGHLY CONSOLIDATED BY MEANS OF A VIBRATOR, PARTICULARLY AROUND REINFORCEMENT STEEL AND CORNERS OF FORM WORK.

6. REINFORCING STEEL SHALL BE GRADE 60 DEFORMED, BILLET-STEEL, ASTM A615, UNO.

7. WELDED REINFORCING STEEL SHALL BE GRADE 60, LOW CARBON, ASTM A706, WHICH IS SPECIALLY MANUFACTURED TO BE WELDABLE.

8. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A82 AND A185 STANDARDS AND SHALL BE PLACED IN THE CENTER OF THE SLAB, UNLESS NOTED OTHERWISE. LAP JOINTS A MINIMUM OF 6". EXTEND FABRIC TO BE WITHIN 1" OF SLAB EDGES.

9. PROVIDE ADEQUATE BOLSTERS, HIGH CHAIRS, SUPPORT BARS, ETC TO MAINTAIN THE SPECIFIED CLEARANCES FOR THE ENTIRE LENGTH OF ALL REINFORCING STEEL AND WELDED WIRE FABRIC.

10. PROVIDE EXTRA REINFORCEMENT AROUND ALL OPENINGS GREATER THAN 8" SQUARE OR ROUND. PROVIDE (2) #5 BARS @ 3" OC FOR EACH MAT OF BARS, AT EACH SIDE AND CORNER OF OPENING EXTENDING MINIMUM 18" PAST CORNER OF THE OPENING. PLACE 2" CLEAR FROM OPENING.

11. SEE DETAILS FOR REINFORCING LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE ON PLAN OR DETAILS.

12. CAST DOWELS, WITH STANDARD 90 DEGREE HOOK, IN FOOTINGS FOR CONCRETE PIERS AND WALLS ABOVE. DOWELS SHALL BE THE SAME SIZE AND QUANTITY AS THE VERTICAL REINFORCING (UNLESS NOTED OTHERWISE)

13. SUPPLY 100 FEET EXTRA OF #5 REBAR FOR MISC. PLACEMENT AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL INCLUDE LABOR ALLOWANCE FOR PLACEMENT.

14. EXTERIOR SLABS SHALL DRAIN FREELY AWAY FROM THE BUILDING. SEE CIVIL AND ARCH. DRAWINGS FOR ELEVATIONS AND SLOPES.

15. CONTROL SAWCUT JOINTS ARE TO BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING. SEE DETAIL 1/S301 FOR SLAB CONSTRUCTION JOINTS (CCJ) AND FOR SLAB CONTROL JOINTS (CJ). CONTRACTOR SHALL SUBMIT A PROPOSED JOINT LAYOUT TO ARCH/ENG FOR APPROVAL PRIOR TO SLAB PLACEMENT.

    A. CONTROL JOINTS SHALL BE ON COLUMN LINES AND @ RE-ENTRANT CORNERS TO THE GREATEST EXTENT POSSIBLE WITH SPACING LESS THAN 10'-0" OC BETWEEN.
    B. CONSTRUCTION JOINTS SHALL BE LOCATED SO AS NOT TO ALLOW A SINGLE SLAB POUR TO EXCEED 4000 SQUARE FEET UNLESS ALTERNATE MEASURES ARE TAKEN TO CONTROL SLAB CURLING & SHRINKAGE.
    C. PROVIDE CONTROL JOINT OR CONSTRUCTION CONTROL JOINTS SO AS NOT TO EXCEED A SLAB UNIT ASPECT RATIO OF 1.5:1.

16. SYNTHETIC FIBERS, WHERE SPECIFIED ON PLAN FOR SLAB-ON-GRADE APPLICATIONS, TO BE MICROFIBER TYPE AND COMPLY WITH ASTM D7508 FOR USE IN PRODUCING TYPE III SYNTHETIC FIBER-REINFORCED CONCRETE MEETING THE REQUIREMENTS OF ASTM C1116 & ACI 544. MICROFIBER PERFORMANCE INTENT IS FOR REDUCTION OF PLASTIC SHRINKAGE CRACKS ONLY. MICROFIBERS ARE NOT INTENDED TO PROVIDE SECONDARY REINFORCEMENT FOR HARDENED CONCRETE CRACK CONTROL. HARDENED CONCRETE CRACK CONTROL TO BE ACCOMPLISHED BY USING ACI RECOMMENDED PRACTICES FOR MIX-DESIGN, PLACEMENT, CURING, AND CONTROL JOINT PLACEMENT. DOSAGE OF MICROFIBER TO BE DETERMINED BY CONCRETE MIX DESIGNER FOR THE SPECIFIC PROJECT APPLICATIONS. MINIMUM DOSAGE TO BE 1.5LB/CUBIC YARD. FIBER SELECTION AND CONCRETE PLACEMENT TO COMPLY WITH REQUIRED SLAB FINISHES IN PROJECT SPECIFICATIONS.

17. SEE ARCH DRAWINGS FOR DIMENSIONS OF STOOPS, FOUNDATION WALL HOLDOUTS, SLAB RECESSES, SLOPED SLABS & FOUNDATION WALL INSULATION. REFER TO ARCH DRAWINGS FOR BELOW GRADE VAPOR BARRIER REQUIREMENTS.

POST INSTALLED ANCHORAGE NOTES:

1. POST INSTALLED ANCHORS NOTED ON PLAN AND/OR DETAILS NOTED SHALL BE AS FOLLOWS (UNO).
   IF ALTERNATIVE ANCHORS ARE DESIRED, CONTRACTOR MUST SUBMIT PRODUCT DATA FOR APPROVAL BY THE STRUCTURAL ENGINEER PRIOR TO ORDERING OF MATERIALS. ANCHORS USED TO TRANSFER STRUCTURAL LOADS MUST HAVE BEEN APPROVED BY METHODS OF ACI 318 APPENDIX D FOR MECHANICAL ANCHORS AND ICC-ES AC308 FOR ADHESIVE AND TORQUE-CONTROLLED ANCHORS. ADHESIVES USED IN COLD WEATHER MUST MEET ALL WEATHER REQUIREMENTS AND CODE REQUIREMENTS STATED ABOVE.

    INJECTION ADHESIVE ANCHORS: SIMPSON SET-3G ADHESIVE.
    A. THREADED RODS TO BE ASTM F1554 GRADE 55, UNO. CUT EMBEDDED END @ 45° ANGLE.
    B. REBAR TO MATCH CONCRETE AND STEEL REINFORCEMENT NOTE REQUIREMENTS

    EXPANSION ANCHORS: SIMPSON STRONG BOLT 2

    SCREW ANCHORS: SIMPSON TITEN HD

    POWDER ACTUATED FASTENERS (PAF): 0.157"Ø STEEL-TO-STEEL, THRU BASE METAL, 1/2" MIN. EDGE DISTANCE. 0.157"Ø x11/4" STEEL TO CONCRETE & MASONRY. 3" MIN. CONCRETE EDGE DISTANCE (UNO).

2. POST INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE STRUCTURAL ENGINEER PRIOR TO USING POST INSTALLED ANCHORS FOR MISSING OR MISPLACED CIP ANCHORS. CARE SHALL BE TAKEN TO AVOID CONFLICTS WITH EXISTING REINFORCING BARS. HOLES SHALL BE DRILLED AND CLEANED PER ANCHOR MANUFACTURER'S SPECIFICATIONS. ANCHORS AND ADHESIVE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

MASONRY NOTES:

1. MASONRY CONSTRUCTION SHALL CONFORM TO THE MASONRY SOCIETY (TMS) - BUILDING CODE REQUIREMENTS AND SPECIFICATION FOR MASONRY STRUCTURES, LATEST EDITION.

    TMS402-16: "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES"
    TMS602-16: "SPECIFICATION FOR MASONRY STRUCTURES"

2. PROVIDE CMU OF NORMAL WEIGHT CONFORMING TO ASTM C90 AND TESTED IN ACCORDANCE WITH ASTM C140.

3. MASONRY ASSEMBLIES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI. TESTED IN ACCORDANCE WITH THE PRISM METHOD (ASTM C1314) OR UNIT STRENGTH METHOD PER ACI 530.

4. FOR STRUCTURAL CMU, THAT IS EXPOSED TO EXTERIOR CONDITIONS, PROVIDE MASONRY UNITS AND MORTAR MIX WITH INTEGRAL WATER REPELLENT. UNITS AND MORTAR ARE TO BE MADE WITH LIQUID POLYMERIC, INTEGRAL WATER REPELLENT ADMIXTURE THAT DOES NOT REDUCE FLEXURAL BOND STRENGTH. COORDINATE WITH TRANSITIONS FOR BELOW GRADE WATERPROOFING SYSTEMS. UNITS AND MORTAR ADMIXTURES TO BE FROM SAME MANUFACTURER.

5. MORTAR SHALL CONFORM TO ASTM C270 AND BE TESTED IN ACCORDANCE WITH ASTM C780. FOR STRUCTURAL WALLS USE TYPE "S" BELOW GRADE AND TYPE "S" ABOVE GRADE. REFER TO ASTM C1586 STANDARD GUIDE FOR QUALITY ASSURANCE OF MORTARS.

6. MASONRY GROUT SHALL CONFORM TO ASTM C476 WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS, TESTED IN ACCORDANCE WITH ASTM C1019.

7. BOND BEAMS SHALL HAVE (2) #5 BARS CONTINUOUS, WITH CORNER BARS (UNLESS NOTED OTHERWISE). PLACE BOND BEAMS WHERE SHOWN ON PLAN, DETAILS AND AT TOP OF WALL. CONTINUE BOND BEAMS THROUGH CONTROL JOINTS.

8. PROVIDE FULL MORTAR BED AT FACE SHELLS AND CROSS WEBS ADJACENT TO GROUTED CORE LOCATIONS. PROVIDE FULL MORTAR BED AT BASE OR BOTTOM WALL COURSE AND UNDER ALL SOLID UNITS.

9. ALIGN VERTICAL CELLS TO BE FILLED WITH GROUT TO PROVIDE CONT. UNOBSTRUCTED VERTICAL CELLS. REMOVE OVERHANGING MORTAR OR OTHER OBSTRUCTION AND DEBRIS.

10. CMU SHALL BE LAID IN A RUNNING BOND, UNO.

11. IF NOT NOTED ON STRUCTURAL PLANS, PROVIDE VERTICAL CONTROL JOINTS MEETING THE FOLLOWING CRITERIA. DEVIATION REQUIRES APPROVAL FROM ENGINEER AND ARCHITECT.

    MAX SPACING NOT TO EXCEED 24'-0"
    MAX OF 8'-0" FROM BUILDING CORNERS
    NO CLOSER THAN 2-0" TO OPENING EDGES
    NO CLOSER THAN 1'-4" TO BEAM OR JOIST BEARING LOCATION

12. VERTICAL REBAR SHALL BE LATERALLY SUPPORTED IN PROPER POSITION AT TOP AND BOTTOM OF BAR DURING GROUTING OF CELLS WITH WIRE POSITIONERS PRIOR TO GROUT PLACEMENT. "WET STICKING" OF REINFORCEMENT AND EMBEDS IS NOT ACCEPTABLE. SEE ACI SPECIFICATIONS FOR PLACEMENT TOLERANCES.

13. VERTICAL REINFORCEMENT, INCLUDING JAMB REINFORCEMENT, SHALL BE DOWELED INTO FOUNDATION WALLS OR FOOTINGS.

14. IT IS THE CONTRACTORS RESPONSIBILITY TO BRACE WALLS UNTIL FLOOR OR ROOF CONNECTIONS ARE COMPLETED.

15. HORIZONTAL JOINT REINFORCING SHALL BE GALVANIZED 9 GAUGE. WITH MAX SPACING OF 16" ON CENTER VERTICALLY. LAP 8" MINIMUM. ALL CORNERS AND WALL INTERSECTIONS TO BE PREFABRICATED PIECES. JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR. TERMINATE JOINT REINFORCEMENT AT CONTROL JOINTS, UNLESS NOTED OTHERWISE.

16. UNLESS NOTED OTHERWISE, CMU INTERIOR PARTITION WALLS (NON-STRUCTURAL) SHALL HAVE VERTICAL REINFORCING CONSISTING OF #5 BARS @ 4'-0" ON CENTER IN MASONRY GROUT.

17. PROVIDE (1) #5 EACH SIDE OF CONTROL JOINT, AT END OF WALL SEGMENTS, AND AT WALL CORNERS.

18. SHOP DRAWING SUBMITTAL FOR WALL REINF. SHALL SHOW ALL WALL ELEVATIONS WITH REINFORCING, CONTROL JOINTS, AND ALL WALL REINFORCING RELATED DETAILS.

19. MAX GROUT LIFT IS 5'-0"; UNLESS ALTERNATE ACI METHOD IS APPROVED BY ENGINEER. GROUT SHALL BE CONSOLIDATED BY MECHANICAL MEANS. PLACE 2" COLD JOINT GROUT DEPRESSION (GROUT KEY) AT TOP OF EACH INTERMEDIATE GROUT LIFT. CONTRACTOR TO SUBMIT WRITTEN PROCEDURES FOR GROUTING SEQUENCES PRIOR TO START OF CONSTRUCTION.

20. DO NOT PLACE ANY PIPES OR OTHER PENETRATIONS THROUGH MASONRY WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.

21. MASONRY LINTELS FOR ALL OPENINGS IN NON-LOAD BEARING MASONRY WALLS UP TO 6'-4" SPAN PROVIDE BOND BEAM LINTEL WITH (2) #5 CONTINUOUS, UNLESS NOTED OTHERWISE MINIMUM BEARING FOR BLOCK LINTELS IS 8" ON SOLID MASONRY.

22. PROVIDE WALL WIDTHxMINIMUM 8" HIGH CONTINUOUS BOND BEAM WITH (2) #5 CONTINUOUS AT STEEL JOIST OR PLANK BEARING LOCATIONS. SEE PLAN. NOTE, AT LOCATIONS WHERE BEARING IS NOT AT COURSING PROVIDE 16" HIGH CONTINUOUS BOND BEAM AND NOTCH AS REQUIRED FOR BEARING ELEVATION.

23. SEE ARCH FOR ADDITIONAL GROUTING OR CORE FILL TO SATISFY FIRE RATING OF WALL ASSEMBLY.

ABBREVIATIONS AND SYMBOLS:

ALT	ALTERNATE	LSV	LONG SIDE VERTICAL
ALUM	ALUMINUM	LONG	LONGITUDINAL
AR	ANCHOR ROD	MAX	MAXIMUM
ARCH	ARCHITECT	MECH	MECHANICAL
BLDG	BUILDING	MEP	MECH/ELECTRICAL/PLUMBING
BO	BOTTOM OF	MIN	MINIMUM
BRG	BEARING	MISC	MISCELLANEOUS
CCJ	CONSTRUCTION CONTROL JOINT	NTS	NOT TO SCALE
CIP	CAST IN PLACE	NS	NON-SHRINK
CJ	CONTROL JOINT	OC	ON CENTER
CJP	COMPLETE JOINT PENETRATION	OD	OUTSIDE DIAMETER
CL	CENTER LINE	OF	OUTSIDE FACE
CLR	CLEAR	OH	OVERHEAD
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CONC	CONCRETE	PAF	POWDER ACTUATED FASTENER
CONN	CONNECTION	P/C	PRECAST
CONT	CONTINUOUS	PEMB	PRE-ENGINEERED METAL BUILDING
CONST	CONSTRUCTION	PL	PLATE
COORD	COORDINATION	PLF	POUNDS PER LINEAR FOOT
DBE	DECK BEARING ELEVATION	PSF	POUNDS PER SQUARE FOOT
DBL	DOUBLE	PSI	POUNDS PER SQUARE INCH
DEG	DEGREE	QTY	QUANTITY / QUANTITIES
DET	DETAIL	RAD	RADIUS
DIAG	DIAGONAL	REF	REFERENCE
DIM	DIMENSION	REINF	REINFORCING / REINFORCE
DL	DEAD LOAD	RET	RETURN
DT	DOUBLE TEE	RO	ROUGH OPENING
DWG	DRAWING	RTU	ROOF TOP UNIT
DWL	DOWEL	R/W	REINFORCE WITH
EA	EACH	SC	SLIP CRITICAL
EF	EACH FACE	SCHED	SCHEDULE
EL	ELEVATION	SD	SEE DETAIL
EOR	ENGINEER OF RECORD	SF	SQUARE FOOTAGE
EQ	EQUAL	SIM	SIMILAR
(E)	EXISTING	SOG	SLAB ON GRADE
EXP	EXPANSION	SPECS	SPECIFICATIONS
EXT	EXTERIOR	SQ	SQUARE
EW	EACH WAY	SS	STAINLESS STEEL
FAB	FABRICATOR	STD	STANDARD
FDN	FOUNDATION	STIFF	STIFFENER
FT	FOOT	STRUCT	STRUCTURAL
FTG	FOOTING	SW	SHEAR WALL
GA	GAUGE	TEMP	TEMPORARY
GALV	GALVANIZE	T&B	TOP & BOTTOM
GC	GENERAL CONTRACTOR	T&G	TONGUE & GROOVE
GT	GIRDER TRUSS	THK	THICK / THICKENED
HC	HOLLOW CORE	TOB	TOP OF BEAM
HSA	HEADED STUD ANCHOR	TOF	TOP OF FOOTING
HORZ	HORIZONTAL	TOJ	TOP OF JOIST
HSS	HOLLOW STRUCTURAL SECTION	TOW	TOP OF WALL
ICF	INSULATED CONCRETE FORM	TOS	TOP OF STEEL
ID	INSIDE DIAMETER	TRANS	TRANSVERSE
IF	INSIDE FACE	TYP	TYPICAL
INT	INTERIOR	ULT	ULTIMATE
IT	INVERTED TEE	UNO	UNLESS NOTED OTHERWISE
JBE	JOIST BEARING ELEVATION	(V)	VERIFY
K	KIPS	VERT	VERTICAL
KLF	KIPS PER LINEAR FOOT	W/	WITH
KSF	KIPS PER SQUARE FOOT	W/O	WITHOUT
KSI	KIPS PER SQUARE INCH	WP	WORK POINT
LL	LIVE LOAD	WWF	WELDED WIRE FABRIC
LLH	LONG LEG HORIZONTAL	Ø	DIAMETER
LSH	LONG

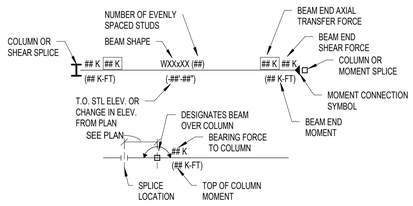
STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED PER AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CODES AND SPECIFICATIONS:
   AISC 303 "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
   AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"

2.

MATERIAL QUALIFICATIONS, UNO ON DRAWINGS				
SHAPE	Fy	Fu	ASTM STD	NOTES
W	50 KSI	-	A992	-
STANDARD PIPES	35 KSI	-	A53 GRADE B	-
HSS ROUND	46 KSI	-	A500 GRADE C	-
HSS SQ. & RECTANGULAR	50 KSI	-	A500 GRADE C	-
M, S, C, MC, & ANGLES	36 KSI	-	A36	-
PLATE	50 KSI	-	A572 GR 50	-
ANCHOR RODS *	55 KSI	-	F1554 GR 55	A563 HEAVY HEX NUT
THREADED RODS **	-	125 KSI	A193 GRADE B7	A563 HEAVY HEX NUT
SHEAR STUD CONNECTORS	-	65 KSI	A108	-
HIGH STRENGTH BOLTS	-	120 KSI	F3125 GRADE A325	A563 HEAVY HEX NUT
WASHERS	-	-	F436	-
* GRADE IS 55 MUST HAVE S1 CERTIFICATION FOR BEING WELDABLE. GRADE 105 CANNOT BE WELDED				
**SEE POST-INSTALLED ANCHOR NOTES FOR ADHESIVE ANCHOR APPLICATION REQUIREMENTS				

3. WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY (AWS) AND AISC. ELECTRODES TO BE E70XX.
4. UNSPECIFIED WELDS SHALL BE CONTINUOUS FILLETS WITH A MINIMUM SIZE PER MATERIAL THICKNESS PER AISC MANUAL.
5. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS EXPERIENCED IN THE TYPE CONSTRUCTION INVOLVED. PROOF OF WELDER CERTIFICATION SHALL BE AVAILABLE AT THE JOB SITE.
6. STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL FIELD AND SHOP WELDING REQUIREMENTS USING AWS SYMBOLS.
7. STRUCTURAL STEEL SHOP DRAWINGS SHALL SHOW ALL FIELD ERECTION DETAILS FOR THE CONTRACTOR TO ERECT THE STRUCTURE ACCORDING TO THE CONTRACT DRAWINGS.
8. COVER STEEL SURFACES WITH ASPHALTIC BASED ROOFING COMPOUND PRIOR TO CASTING CONCRETE AROUND COLUMN BASES.
9. ALL STEEL MEMBERS SHALL RECEIVE A PRIME COAT OF PAINT EXCEPT STEEL SCHEDULED TO BE FIREPROOFED. SEE ARCH FOR PAINTING REQUIREMENTS.
10. BOLTED CONNECTIONS SHALL BE MADE USING 3/4"Ø A325 BOLTS AND WASHERS (UNLESS OTHERWISE REQUIRED BY DESIGN). BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION UNLESS NOTED OTHERWISE. ALL HOLES MUST BE DRILLED OR PUNCHED. FLAME CUTTING OF HOLES IS NOT PERMITTED.
11. FIELD NOTCHING OR COPING OF STRUCTURAL STEEL MEMBERS IS NOT ALLOWED WITHOUT PRIOR APPROVAL FROM THE EOR. ADDITIONAL WELDING, OUTSIDE OF WHAT IS SHOWN ON SPECIFIC DETAIL, IS NOT ALLOWED WITHOUT PRIOR APPROVAL FROM EOR.
12. KEEP STEEL FREE OF PAINT AND PRIMER THAT IS TO BE FIELD WELDED.
13. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL STEEL CONNECTIONS ARE TO BE COMPLETED IN ACCORDANCE WITH OPTION 1 OF SECTION 3.1.1 OF THE AISC 303. SEE SHOP DRAWING & DEFERRED SUBMITTAL NOTES FOR REQUIRED SUBSTANTIATING CONNECTION INFORMATION.
14. PROVIDE SHRINKAGE RESISTANT GROUT CONFORMING TO ASTM C1107 UNDER ALL COLUMN BASE PLATES. GROUT STRENGTH TO HAVE A MINIMUM DESIGN COMPRESSIVE STRENGTH AT LEAST TWICE THE STRENGTH OF THE FOUNDATION CONCRETE.
15. DO NOT MODIFY ANY ANCHOR BOLT SETTINGS OR BASE PLATE HOLES WITHOUT PRIOR APPROVAL FROM STRUCTURAL ENGINEER.
16. COLUMN BASE PLATES SHALL BE 3/4" THICK AND 6" LARGER IN EACH DIRECTION THAN THE NOMINAL DIMENSION OF THE SUPPORTED COLUMN (i.e. 12" SQUARE BASE PLATE FOR 6"Ø OR 6" SQ. COLUMN AND 10" SQUARE BASE PLATE FOR 4"Ø OR 4" SQ. COLUMN). ALL BASE PLATES SHALL BE ANCHORED TO PIER/FOOTING BELOW WITH (4) 3/4"Ø x 1'-1" HEADED ANCHOR RODS WITH HEAVY HEX NUTS, TACK WELDED TO ROD, SET INTO FOUNDATION WALL (9" EMBEDMENT+ 6" PROJECTION) UNLESS SPECIFICALLY NOTED OTHERWISE.
17. STRUCTURAL STEEL BEAM KEY:



ALUMINUM FRAMING ASSEMBLIES NOTES:

1. THE DEFERRED ALUMINUM DESIGN SHALL CONFORM TO THE ALUMINUM DESIGN MANUAL (LATEST ADDITION). THIS DESIGN SHOULD BE DONE UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT.
2. THE ALUMINUM ASSEMBLIES SHALL BE DESIGNED FOR THE LIVE LOAD, SNOW LOAD, AND WIND LOAD (UPLIFT) LISTED UNDER THE DESIGN CRITERIA.
3. ALL CONNECTIONS TO THE BASE STRUCTURE SHALL BE FULLY DETAILED IN THE ALUMINUM APPROVAL SUBMITTAL AND CALCULATIONS SHALL BE PROVIDED. THE REACTIONS FROM THESE CONNECTIONS SHALL BE PROVIDED TO THE EOR TO CONFIRM THE CAPACITY OF THE SUPPORTING STRUCTURE.
4. A SEPARATION MATERIAL SHALL BE USED BETWEEN THE ALUMINUM ASSEMBLIES AND ANY DISSIMILAR METAL TO PREVENT CORROSION. THIS MATERIAL SHALL BE SHOWN ON THE SHOP DRAWINGS.
5. ALL SUBMITTAL CALCULATIONS SHALL BE SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.

WOOD FRAMING NOTES:

1. WOOD AND TIMBER CONSTRUCTION SHALL COMPLY WITH THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) STANDARD SPECIFICATIONS.
2. WOOD CONSTRUCTION SHALL CONFORM TO CHAPTER 23 (SECTIONS 2301, 2302, 2303, 2304, 2305, & 2306) OF THE 2018 IBC FOR MINIMUM REQUIREMENTS UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS. PER SECTION 2301.2, THE STRUCTURAL DESIGN OF THIS STRUCTURE HAS BEEN IN ACCORDANCE WITH THE "ALLOWABLE STRESS DESIGN" METHOD. PROVISIONS WITHIN SECTION 2308 "CONVENTIONAL LIGHT-FRAME CONSTRUCTION" DO NOT APPLY TO THIS STRUCTURE.
3. ALL FRAMING LUMBER SHALL BE INSTALLED WITH MOISTURE CONTENT OF 19% OR LESS INDICATING "S-DRY" ON THE GRADE STAMP.
4. ALL LUMBER IN CONTACT WITH CONCRETE, MASONRY OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH AWPA STANDARD U 1, 28% MAXIMUM MOISTURE CONTENT.
5. ALL SIMPSON STRONG-TIE CONNECTORS USED WITH PRESSURE TREATED LUMBER SHALL BE "Z-MAX" COATED AS A MINIMUM OR REQUIRED COATING TO PROTECT CONNECTORS FROM SURFACE CHEMICALS.
6. LUMBER SHALL COMPLY WITH NATIONAL DESIGN SPECIFICATION (NDS), LATEST EDITION SUPPLEMENT FOR MINIMUM ALLOWABLE DESIGN STRESS VALUES FOR LUMBER GRADES SHOWN BELOW. ALL LUMBER FRAMING SHALL BE MARKED WITH A GRADE STAMP.

MINIMUM LUMBER DESIGN VALUES, UNLESS NOTED OTHERWISE ON PLAN OR DETAILS (PSI). DESIGN VALUES TAKEN FROM NDS SUPPLEMENT: TABLES 4A, 4B, & 4D						
SPECIES & GRADE	Fb	Ft	Fv	FcP	Fc	E
LOAD BEARING WALL STUDS						
SPF #1/#2	875	450	135	425	1150	1,400,000
HEADERS/BEAMS/JOISTS						
HEM FIR #2	850	525	150	405	1300	1,300,000
TREATED BEAMS/JOISTS						
SOUTHERN PINE #1	1000	650	175	565	1400	1,600,000
TOP PLATE/HEADER PLATE/ABOVE GROUND SILL PLATE						
SPF #1/#2	875	450	135	425	1150	1,400,000
TREATED SILL PLATE						
SOUTHERN PINE #2	1000	600	175	565	1400	1,400,000
TREATED POSTS (KDAT)						
SOUTHERN PINE #2	850	550	165	375	525	1,200,000
NON-TREATED POSTS						
DOUG FIR #2	750	475	170	625	700	1,300,000
FLOOR TRUSS END RIBBONS						
SPF #1/#2	875	450	135	425	1150	1,400,000

IF ALTERNATIVE GRADE OR SPECIES OF LUMBER IS DESIRED THAT IS EQUAL OR GREATER THAN THE ABOVE REQUIREMENTS, CONTRACTOR TO SUBMIT REQUEST TO ENGINEER FOR APPROVAL PRIOR TO ORDERING OF MATERIAL. SPF-S #2 IS SPRUCE-PINE-FIR SOUTH & IS NOT EQUIVALENT TO SPF #1/#2

7. ANCHOR TREATED SILL PLATES TO CONCRETE/MASONRY WITH 1/2"Ø GALV A.R.'S 4'-0" OC MINIMUM, UNLESS NOTED OTHERWISE ON PLAN. HOOKED ROD WITH MINIMUM EMBED = 7". SEE STANDARD DETAILS. THERE SHALL BE A MINIMUM OF (2) ANCHORS PER PIECE OF SILL PLATE W/ (1) BOLT LOCATED NO MORE THAN 12" OR LESS THAN 4" FROM END OF EACH SILL PLATE PIECE.

   A.1/2"x5" SIMPSON TITEN HD (GALVANIZED) MAY BE DIRECTLY SUBSTITUTED FOR CAST IN PLACE SILL PLATE ANCHORS.

8. DIMENSIONAL LUMBER USED FOR HEADERS SHALL HAVE NO SPLITS OR CHECKS.
9. PROVIDE STD CUT WASHERS PER STRUCTURAL DETAILS FOR ALL BOLTS IN WOOD MEMBERS. RE-TORQUE NUTS 48 HOURS AFTER FIRST TIGHTENING. SEE DRAWINGS FOR LOCATIONS OF SQ. PLATE WASHERS.
10. NOTCHING OR CUTTING OF STRUCTURAL WOOD MEMBERS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM ENGINEER. HOLES BORED IN WALL STUDS OR JOISTS SHOULD BE IN THE CENTER HALF OF THE MEMBER AND SHALL NOT BE LARGER THAN 1/4 OF THE DEPTH OF THE MEMBER. ALLOWABLE CUTTING, NOTCHING, AND BORED HOLE PROVISIONS OF IBC SECTION 2308 DO NOT APPLY TO THIS STRUCTURE.
11. LOAD BEARING STUD WALLS TO BE 2x6 @ 1'-4" OC UNLESS NOTED OTHERWISE. SEE TABLE ABOVE FOR SPECIES & GRADE.
12. EXTERIOR WALLS AND LOAD BEARING WALLS SHALL BE CAPPED WITH DOUBLE TOP PLATES. THE PLATES SHALL OVERLAP AT CORNERS AND AT INTERSECTIONS WITH OTHER LOAD BEARING WALLS. SEE STANDARD DETAILS.
13. STRUCTURAL WALL STUDS TO BE CONTINUOUS FROM FLOOR LEVEL TO UNDERSIDE OF DIRECT TRUSS BEARING OR FLOOR/ROOF SHEATHING ABOVE. STRUCTURAL WALLS WITH INTERMEDIATE SPLICES WITHIN WALL HEIGHT ARE NOT PERMITTED. SPECIAL CONDITIONS AND PROVISIONS WILL BE SHOWN IN SPECIFIC STRUCTURAL DETAILS.
14. POSTS AND BEARING STUDS (JACKS/KINGS) FOR BEAMS AND HEADERS SHALL BE CONTINUOUS TO THE FOUNDATION LEVEL. PROVIDE SQUASH BLOCKING BETWEEN FLOOR LEVELS TO MATCH THE WIDTH OF THE POST/STUD ASSEMBLY FROM ABOVE.
15. TOP FLANGE OF ALL RAFTERS, JOISTS AND BEAMS TO BE LATERALLY SUPPORTED @ 24" OC MIN. PROVIDE BRIDGING FOR TOP FLANGE AS REQUIRED TO NEAREST FRAMING MEMBER OR PROVIDE ADEQUATELY SUPPORTED PLYWOOD DECKING.
16. PROVIDE SOLID BLOCKING AT BEARING POINTS OF ALL 2x JOISTS.
17. METAL FRAMING ANCHORS AND HARDWARE SHOULD BE AS NOTED IN DETAILS. ALTERNATIVE HARDWARE THAT IS EQUAL OR GREATER IN CAPACITY MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. INSTALL PER MANUFACTURER'S SPECIFICATIONS. FASTENING TO BE PER SUPPLIER MAXIMUM UNLESS NOTED OTHERWISE.
18. FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL OR STAINLESS STEEL. THIS INCLUDES NAILS, TIMBER RIVETS, SILL ANCHORS, WOOD SCREWS, THRU BOLTS, AND LAG SCREWS.
19. STRUCTURAL LOAD BEARING OR LATERAL LOAD RESISTING WALLS ARE SHOWN ON THE PLAN. SEE ARCH DRAWINGS FOR PARTITION WALLS, PROVIDE NECESSARY CONNECTION/ALLOWANCE OF PARTITION WALLS TO UNDERSIDE OF FLOOR AND ROOF FRAMING TO ACCOUNT FOR FRAMING DEFLECTION.
20. DRILL BOLT/ANCHOR HOLES IN WOOD 1/16" LARGER THAN THE NOMINAL DIAMETER OF THE BOLT. REPAIR OVERSIZED HOLES WITH BEARING PLATE WASHERS.
21. ALL JOISTS, TRUSSES, HEADERS, AND BEAMS SHALL HAVE FULL BEARING UNLESS NOTED OTHERWISE NOTED ON THE DETAILS.

MINIMUM DESIGN VALUES FOR ENGINEERED WOOD MATERIALS UNLESS NOTED OTHERWISEO ON PLAN OR DETAILS (PSI)			
MATERIAL AND FUNCTION	Fb	Fcll	E
LVL BEAMS	2600	N/A	2,000,000
LSL BEAMS	2325	N/A	1,550,000
PSL BEAMS	2900	N/A	2,000,000
PSL COLUMNS	N/A	2500	1,800,000

MINIMUM DIMENSIONS OF FASTENERS, UNO [NDS APPENDIX L] UNITS = INCHES							
FASTENER TYPE	L	D	H	FASTENER TYPE	L	D	H
NAIL: 6d	2	0.113	0.266	NAIL: 16d	3 1/2	0.162	0.344
NAIL: 8d	2 1/2	0.131	0.281	NAIL: 30d	4 1/2	0.207	0.438
NAIL: 10d	3	0.148	0.312	#6 TYPE S OR W DRYWALL SCREW	1 7/8"	N/A	N/A

L = LENGTH, D = DIAMETER, H = HEAD DIAMETER

22.

MINIMUM FASTENERS FOR STANDARD WOOD FRAMING CONNECTIONS, UNO*			
CONNECTION	NAIL SIZE (LENGTH X DIAMETER) (INCHES)		
	3 1/2 x 0.162	3 x 0.148	3 x 0.131
WALL FRAMING			
TYPICAL DOUBLE STUDS (FACE NAIL)	16" OC	12" OC	12" OC
ABUTTING STUDS AT WALL INTERSECTIONS	12" OC	12" OC	12" OC
DOUBLE TOP PLATE TO EACH OTHER (FACE NAIL)	16" OC	12" OC	12" OC
TOP PLATE TO TOP PLATE AT END JOINT (LAP SPLICE) (EACH SIDE OF JOINT)	SEE STANDARD WOOD FRAMING DETAILS		
TOP PLATE OVERLAP AT CORNERS AND INTERSECTIONS (FACE NAIL)	2 NAILS	3 NAILS	3 NAILS
SOLE PLATE TO JOIST OR BLOCKING	2 @ 16" OC	3 @ 16" OC	4 @ 16" OC
TOP OR SOLE PLATE TO STUD (END NAIL)	3 NAILS	3 NAILS	4 NAILS
STUD TO TOP OR SOLE PLATE (TOE-NAIL)	3 NAILS	4 NAILS	4 NAILS
MULTI-PLY STUD COLUMN	SEE STANDARD WOOD FRAMING DETAILS		
HEADER ASSEMBLY	SEE STANDARD WOOD FRAMING DETAILS		
FLOOR, CEILING, AND ROOF FRAMING			
BLOCKING BETWEEN JOISTS OR RAFTER TO TOP PLATE (TOE-NAIL)	3 NAILS	3 NAILS	3 NAILS
BLOCKING BETWEEN RAFTERS OR TRUSS, NOT AT WALL TOP PLATE, TO RAFTER OR TRUSS (TOE-NAIL, EA END)	3 NAILS	4 NAILS	4 NAILS
BLOCKING BETWEEN RAFTERS OR TRUSS, NOT AT WALL TOP PLATE, TO RAFTER OR TRUSS (END NAIL, EA END)	2 NAILS	3 NAILS	3 NAILS
JOIST TO WALL PLATE OR BEAM (TOE-NAIL)	3 NAILS	3 NAILS	3 NAILS
2x RIBBON TO TRUSS END	3 NAILS	4 NAILS	4 NAILS
RIM JOIST TO TOP PLATE (TOE-NAIL)	6" OC	6" OC	6" OC
JOIST TO BAND JOIST (FACE NAIL)	3 NAILS	4 NAILS	4 NAILS
MULTI PLY BEAM/HEADER	SEE STANDARD WOOD FRAMING DETAILS		

*USE IBC TABLE 2304.10.1 FOR OTHER STANDARD FASTENERS NOT LISTED ABOVE, UNO.

METAL PLATE CONNECTED WOOD TRUSS NOTES:

1. METAL PLATE CONNECTED WOOD TRUSSES SHALL BE ENGINEERED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF THE PROJECT. A SEALED COVER SHEET SHALL BE SUBMITTED WITH THE SHOP DRAWINGS AT THE TIME OF SUBMITTAL. SHOP DRAWING DESIGN SUBMITTAL TO COMPLY WITH IBC SECTION 2303.4.
2. WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION", AFPA, AND "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION."
3. TRUSSES TO BE DESIGNED TO SATISFY THE FOLLOWING DEFLECTION REQUIREMENTS. TRUSS SUPPLIER TO PROVIDE CAMBER AS NECESSARY TO COUNTER DEFLECTIONS.
   ROOF TL = L/360 FLOOR TL = L/360
   ROOF LL = L/480 FLOOR LL = L/480

   PER TPI DEFLECTION TOTAL LOAD (TL) = KxDL+LL.
   [NOTE:"LL" TO BE EITHER SNOW, RAIN,WIND, OR LIVE].
   PER TPI CREEP FACTOR (K) TO BE 1.0 (NON-WOOD FRAMING), 1.5 (SOLID SAWN OR SCL WOOD, DRY USE), OR 2.0 (METAL PLATE CONNECTED WOOD TRUSSES, DRY USE). PARTITION WALLS BELOW TRUSSES TO BE FRAMED TO ALLOW FOR THIS EXPECTED DEFLECTION.
4. TRUSS SUPPLIER TO MAKE EVERY EFFORT TO FOLLOW FRAMING SCHEME AS THE LOADS HAVE BEEN DISTRIBUTED TO THE FOUNDATION ACCORDINGLY. IF REVISED FRAMING DIRECTIONS ARE DESIRED BY SUPPLIER, PLAN MUST BE SUBMITTED FOR APPROVAL PRIOR TO FOUNDATION CONSTRUCTION.
5. UNO ON DRAWINGS, EOR HAS NOT PROVIDED STRUCTURAL SHEATHING BENEATH THE BOTTOM CHORD OF ROOF OR FLOOR TRUSSES FOR BRACING.
6. ALL HARDWARE (BOLTS, HANGERS, STRAPS, ETC) REQUIRED FOR CONNECTIONS BETWEEN TRUSSES SHALL BE DESIGNED AND SUPPLIED BY THE TRUSS ENGINEER AND SUPPLIER.
7. UNO, ROOF TRUSSES SHALL BE ATTACHED TO THE TOP PLATE AT ALL BEARING CONDITIONS WITH SIMPSON H2.5T CLIPS OR SDWC15600 TRUSS SCREWS INSTALLED PER MANUFACTURER'S INSTRUCTIONS. GIRDERS AND ROOF BEAMS SHOULD BE ATTACHED TO BEARING SUPPORTS WITH (2) H2.5T CLIPS OR SDWC15600 SCREW INTO EACH PLY. TRUSS SUPPLIER TO PROVIDE BEARING BLOCKS AS REQUIRED BY DESIGN.
8. DO NOT CUT OR REMOVE TRUSS MEMBERS OR MAKE FIELD ALTERATIONS TO THE TRUSSES.
9. LAYOUT AND SPACING GUIDELINES ON PLAN ARE FOR REFERENCE ONLY UNLESS SPECIFICALLY DIMENSIONED OR DETAILED.
10. GIRDER TRUSSES SHALL BE SUPPORTED BY SAME NUMBER OF STUDS AS TRUSS PLIES (MIN OF 2 STUDS) WITH CONTINUOUS SOLID BEARING TO THE FOUNDATION. AVOID BEARING GIRDER TRUSSES OVER WALL OPENINGS, UNLESS OTHERWISE DIMENSIONED ON PLAN.
11. THE GUIDELINES SET FORTH BY THE TRUSS PLATE INSTITUTE (TPI) & SCBA PUBLICATION BSCI "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING, AND BRACING OF METAL PLATE CONNECTED WOOD TRUSSES" SHALL BE FOLLOWED BY THE TRUSS INSTALLER.
12. THE METAL PLATE CONNECTED WOOD TRUSS SUPPLIER SHALL SUPPLY THE CURRENT BCSI B-SERIES SUMMARY SHEETS WITH THE TRUSS ERECTION DRAWINGS OUTLINING THE PROPER HANDLING, ERECTING, AND BRACING OF TRUSSES.
13. ERECTION BRACING OF WOOD TRUSSES IS THE RESPONSIBILITY OF THE TRUSS INSTALLER. THE TRUSS INSTALLER SHALL PROVIDE TEMPORARY DIAGONAL, LATERAL, & CROSS BRACING (PER BSCI GUIDE) UNTIL ROOF SHEATHING, CEILING & PERMANENT BRACING CAN BE APPLIED & SHEARWALLS COMPLETED.
14. PERMANENT BRACING OF WOOD TRUSSES SHALL BE INSTALLED BY THE TRUSS INSTALLER, WHERE INDICATED BY THE TRUSS ERECTION DRAWINGS. MINIMUM BRACING REQUIREMENTS FOR TOP CHORD, BOTTOM CHORD, & WEB MEMBER PLANES SHALL BE IN ACCORDANCE WITH BSCI GUIDE UNLESS REQUIREMENTS NOTED ON THE PLAN ARE MORE STRICT.
15. SEE METAL PLATE CONNECTED WOOD TRUSS SHOP DRAWINGS FOR PERMANENT WEB AND CHORD BRACING LOCATIONS AND REQUIREMENTS.

WOOD STRUCTURAL PANEL WALL SHEATHING (WOOD FRAMING):

1. ALL STRUCTURAL WOOD PANELS SHALL BE GRADE STAMPED BY AN IAS ACCREDITED AGENCY AND COMPLY WITH DOC PS-1 OR DOC PS-2 REQUIREMENTS. ALL PANELS SHALL BE EXPOSURE 1 MINIMUM.
2. WALL PANEL: NOMINAL THICKNESS = 1/2", SPAN RATING 32/16, UNO.
3. PANEL JOINTS SHALL BE AT STUD CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANELS. EDGES TO BE BUTT TIGHT @ JOINTS. PANELS LESS THAN 12" WIDE SHALL NOT BE USED.
4. FASTENERS SHALL BE SPACED @ 6" OC ALONG ALL PANEL EDGES & @ 12" OC IN THE FIELD OF THE PANELS. FASTENERS TO BE LOCATED NOT LESS THAN 3/8" IN FROM THE EDGE OF THE PANEL
5. MINIMUM FASTENERS SHALL BE: 8d COMMON NAILS, WITH A MINIMUM 1 3/8" PENETRATION, FLUSH DRIVEN, UNO.
6. IN SHEARWALL APPLICATIONS, IF PRE-FABRICATED PANELS ARE USED, WALL SHEATHING MUST SPLICE @ STUD CENTERLINE AND NOT AT A JOINT BETWEEN WALL PANELS. IF SPLICE DOES HAPPEN BETWEEN WALL PANELS, FASTEN END STUDS OF PANELS TOGETHER W/ 16d NAILS @ 6" OC STAGGERED FROM BOTH SIDES. IN BOTH CASES, FIELD INSTALL UPPER TOP PLATE FOR WALL CONTINUITY PER STANDARD DETAILS.
7. IN SHEARWALL APPLICATIONS: PANEL EDGES TO BE UNBLOCKED, UNO. PANELS SHALL NOT BE LESS THAN 4'x8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. WALL OPENINGS, SUCH AS WINDOWS AND DOORS, DO NOT CONSTITUTE CHANGES IN FRAMING.
8. FASTENING REQUIREMENTS SHALL APPLY TO ALL STUDS, TOP & BOTTOM PLATES, & BLOCKING.
9. SMALLEST ALLOWABLE SPACING OF NAILS TO BE 3" OC FOR 2X LUMBER.
10. PROPOSED PENETRATIONS THROUGH SHEARWALL SHEATHING NEED TO BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO CUTTING IN THE FIELD.

GYPSUM WALLBOARD/GYPSUM SHEATHING (WOOD FRAMING):

1. 5/8" GYPSUM WALL BOARD SHALL BE USED. REFER TO ARCH. DRAWING FOR ADDITIONAL REQUIREMENTS OF GYPSUM WALLBOARD/SHEATHING.
2. PANEL JOINTS SHALL BE AT STUD CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANEL. EDGES TO BE BUTT TIGHT @ JOINTS. PANELS LESS THAN 12" WIDE SHALL NOT BE USED.
3. FASTENERS SHALL BE SPACED @ 8" OC ALONG ALL PANEL EDGES & @ 12" OC IN THE FIELD OF THE PANELS. FASTENERS TO BE LOCATED NOT LESS THAN 3/8" IN FROM THE EDGE OF THE PANEL.
4. MINIMUM FASTENERS SHALL BE NO. 6 TYPE S OR W DRYWALL SCREWS CONFORMING TO ASTM C 1002. SCREW LENGTH TO BE 1 1/4" FOR 5/8" GYP.
5. PANEL EDGES TO BE UNBLOCKED, UNO.
6. IN SHEARWALL APPLICATIONS, IF PRE-FABRICATED PANELS ARE USED, WALL SHEATHING MUST SPLICE @ STUD CENTERLINE AND NOT AT A JOINT BETWEEN WALL PANELS. ALTERNATE CONNECTION OF PANELS IS TO FASTEN END STUDS OF PANELS TOGETHER W/ 16d NAILS @ 6" OC STAGGERED FROM BOTH SIDES. IN BOTH CASES, FIELD INSTALL UPPER TOP PLATE FOR WALL CONTINUITY PER STANDARD DETAILS.
7. PANEL SHEETS SHALL BE APPLIED LONG DIRECTION PERPENDICULAR TO STUDS WITH EDGES BLOCKED OR APPLIED VERTICALLY WITH ALL EDGES ATTACHED TO FRAMING MEMBERS. PANELS LESS THAN 4'-0" WIDE NEED TO BE APPLIED HORIZONTAL TO FRAMING MEMBERS.
8. SMALLEST ALLOWABLE SPACING OF NAILS TO BE 3" OC FOR 2X LUMBER.
9. FASTENING REQUIREMENTS SHALL APPLY TO ALL STUDS, TOP & BOTTOM PLATES, & BLOCKING.

ROOF/FLOOR WOOD SHEATHING DIAPHRAGM NOTES (WOOD FRAMING):

1. ALL STRUCTURAL WOOD PANELS SHALL BE GRADE STAMPED BY AN IAS ACCREDITED AGENCY AND COMPLY WITH DOC PS-1 OR DOC PS-2 REQUIREMENTS. ALL PANELS SHALL BE EXPOSURE 1 MINIMUM.
2. PITCHED ROOF 3:12 OR GREATER PANEL: NOMINAL THICKNESS = 1/2", SPAN RATING 32/16 (UNO ON PLAN) FLOOR PANEL: NOMINAL THICKNESS = 3/4", SPAN RATING 48/24 (UNO ON PLAN)
3. MINIMUM FASTENERS SHALL BE 8d COMMON NAILS FOR 1/2" PANELS AND 10d COMMON NAILS FOR 3/4" PANELS. FASTENERS TO BE LOCATED 3/8" FROM PANEL EDGE WITH MINIMUM 1-3/8" PENETRATION INTO FRAMING. FASTEN @ 6" OC AT PANEL EDGES AND 12" OC IN THE FIELD OF THE PANEL, UNO. IF 8d COOLER, DEFORMED, AND SMOOTH NAILS ARE USED AND INSTALLED WITH NAIL-GUN, MINIMUM FASTENER SPACING IS 4" OC AT PANEL EDGES AND 8" OC IN THE FEILD OF THE PANEL.
4. AT ROOF OVERHANGS, MINIMUM FASTENING TO BE 6" OC IN THE FEILD AND AT PANEL EDGES; 4" OC IF INSTALLED WITH NAIL GUN AND COOLER, DEFORMED, AND SMOOTH NAILS.
5. PANEL JOINTS SHALL BE AT FRAMING CENTERLINE AND SHALL BE OFFSET FROM ADJACENT PANELS. PANELS SHOULD SPAN 2 OR MORE SPANS, WITH STRONG AXIS OF PANEL PERPENDICULAR TO FRAMING MEMBERS.
6. UNSUPPORTED EDGES SHALL HAVE A MINIMUM ONE PANEL EDGE CLIP, TONGUE AND GROOVE, OR BLOCKING. APA RECOMMENDS TONGUE AND GROOVE EDGES TO BE GLUED TOGETHER FOR IMPROVED FLOOR STIFFNESS AND CONTINUITY.
7. PANELS SHALL BE CONTINUOUS OVER 2 SPANS MINIMUM, AND SHALL HAVE THE FACE OF GRAIN PERPENDICULAR TO THE FRAMING DIRECTION.
8. SMALLEST ALLOWABLE SPACING OF NAILS TO BE 3" OC FOR 2X LUMBER.
9. ALL FASTENING MUST BE DRIVEN FLUSH WITH SHEATHING. IF MORE THAN 20% OF FASTENERS ARE OVERDRIVEN BY 1/8" - CONTACT ENGINEER FOR CORRECTIVE ACTION.
10. PER APA RECOMMENDATION AS BEST PRACTICE: FLOOR SHEATHING IS TO BE GLUED TO FLOOR FRAMING MEMBERS IN ADDITION TO TYPICAL FASTENING. GLUE SHOULD MEET AFG-01 OR ASTMD3498. ROOF SHEATHING SHOULD NOT BE GLUED TO ROOF FRAMING MEMBERS.
11. ALL PANELS SHOULD BE LAID OUT TO ACCOUNT FOR THERMAL AND/OR MOISTURE-INDUCED EXPANSION OF THE PANELS AFTER INSTALLATION. APA RECOMMENDS PROVIDING A 1/8" GAP AT ALL INDIVIDUAL PANEL EDGES AND RECOMMENDS THE USE OF TEMPORARY EXPANSION JOINTS AT 80'-0" OC, SEE APA TECHNICAL NOTE U425C FOR MORE INFORMATION. THE TEMPORARY EXPANSION JOINT IS FULLY FASTENED FOR DIAPHRAGM CONTINUITY IN ITS FINAL CONDITION. LOCATION OF JOINTS TO BE SELECTED BY GENERAL CONTRACTOR AND SUBMITTED TO EOR FOR APPROVAL.
12. ADDITIONAL PANEL CLIPS ARE REQUIRED @ UNSUPPORTED EDGES FOR PANEL WIDTHS LESS THAN OR EQUAL TO 24".

    16"-24" 2 PANEL CLIPS OR 2x4 BLOCKING
    <16" 2x4 BLOCKING EA EDGE

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions		
#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Telste
Signature:
Date: 11/08/2024 License #: 58944
SPACE FOR ENGINEER'S SEAL

SPECIAL INSTRUCTIONS AND TESTING:

THIS PROJECT REQUIRES SPECIAL INSPECTION AND TESTING IN ACCORDANCE WITH CHAPTER 17 OF THE MINNESOTA STATE BUILDING CODE 2020 EDITION. THESE NOTES AND THE STATEMENT OF SPECIAL INSPECTIONS PREPARED FOR THE PROJECT OWNER ARE INTENDED TO INFORM THE CONTRACTOR OF THE QUALITY ASSURANCE PROGRAM AND THE EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES. CONTRACTOR SHALL REFERENCE PROJECT MANUAL FOR ADDITIONAL INFORMATION. THE TESTING AND INSPECTION SERVICES SECTION WILL CLARIFY WHO SHALL EMPLOY AND PAY FOR SERVICES OF AN INDEPENDENT TESTING LABORATORY TO PERFORM ALL INSPECTIONS, SPECIAL INSPECTIONS, AND TESTING FOR PROJECT.

GENERAL NOTES:

1. THE SPECIAL INSPECTION AND TESTING PROGRAM IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

2. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITY TO COMPLY WITH THE OFFICIAL CONTRACT DOCUMENTS. THE CONTRACTOR HAS THE SOLE RESPONSIBILITY FOR ANY DEVIATIONS FROM THE OFFICIAL CONTRACT DRAWINGS. THE SPECIAL INSPECTOR DOES NOT REPLACE THE DUTIES OF THE BUILDING OFFICIAL NOR THE QUALITY CONTROL RESPONSIBILITIES AND PERSONNEL OF THE CONTRACTOR. JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

3. THESE INSPECTIONS ARE IN ADDITION TO THE INSPECTIONS SPECIFIED IN THE IBC SECTION 110 AND SPECIFIC STRUCTURAL OBSERVATION AS MAY BE REQUIRED BY THE CODE.

4. THOUGH NOT REQUIRED BY CODE, SPECIAL INSPECTORS AND/OR INSPECTION AGENCIES CAN DOCUMENT ACCEPTANCE OF THEIR RESPONSIBILITIES AND SCOPE OF WORK FOR A PROJECT BY SIGNING AN AGREEMENT THAT INCLUDES A DETAILED SCHEDULE OF SERVICES, COMMONLY KNOWN AS THE SPECIAL INSPECTION AND TESTING AGREEMENT AND THE SPECIAL INSPECTION AND TESTING SCHEDULE. THIS DOCUMENT MAY REFERENCE THIS SHEET AS THE "STATEMENT OF SPECIAL INSPECTIONS," (SSI).

5. THE STRUCTURAL DESIGN METHODS AND/OR ASSUMPTIONS UTILIZED ARE BASED UPON THE SPECIAL INSPECTIONS REQUIRED WITHIN THE CONTRACT DOCUMENTS.

CONTRACTOR RESPONSIBILITIES AND DUTIES:

1. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PROVIDING ADEQUATE NOTICE TO THE SPECIAL INSPECTORS FOR ALL INSPECTIONS. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE REQUIRED ITEMS PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF WORK.

2. THE CONTRACTOR SHALL PROVIDE THE SPECIAL INSPECTOR ACCESS TO THE APPROVED CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER. THIS CURRENT SET OF DOCUMENTS SHALL BE AVAILABLE AT THE JOB SITE.

3. THE CONTRACTOR IS TO CORRECT DISCREPANCIES AND DEVIATIONS AS DETERMINED BY SPECIAL INSPECTOR. ALL DISCREPANCIES AND DEVIATIONS OBSERVED SHALL BE RE-INSPECTED UNTIL THE SPECIAL INSPECTOR DEEMS CONSTRUCTION TO BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

4. THE CONTRACTOR IS TO RETAIN SPECIAL INSPECTION RECORDS COMPLETED BY THE SPECIAL INSPECTORS AT THE JOB SITE.

SPECIAL INSPECTOR QUALIFICATIONS AND RESPONSIBILITIES:

1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.

2. SPECIAL INSPECTORS SHALL NOTIFY CONTRACTOR PERSONNEL OF THEIR PRESENCE AND RESPONSIBILITIES AT THE JOBSITE.

3. THE SPECIAL INSPECTOR/TESTING AGENCY SHALL BE INDEPENDENT OF THE CONTRACTOR TO AVOID CONFLICT OF INTEREST.

4. THE SPECIAL INSPECTOR IS OBLIGATED TO BOTH THE OWNER AND THE BUILDING OFFICIAL FOR OBSERVING THAT THE WORK IS EXECUTED IN ACCORDANCE WITH THE OFFICIAL CONTRACT DOCUMENTS. THESE DOCUMENTS INCLUDE SEALED DRAWINGS AND SPECIFICATIONS, ADDENDA, CHANGE ORDERS, APPROVED SHOP DRAWINGS, ISSUED SKETCHES AND REVISION DRAWINGS, AND ALL DIRECTIVES ISSUED BY THE ARCHITECT/ENGINEER.

5. SPECIAL INSPECTORS SHALL KEEP ORGANIZED RECORDS OF INSPECTIONS AND SUBMIT INSPECTION REPORTS WITH A MINIMUM WEEKLY FREQUENCY TO THE CONTRACTOR, BUILDING OFFICIAL, ENGINEERS, AND ARCHITECTS INDIVIDUALLY. REPORTS SHOULD INDICATE THAT WORK INSPECTED WAS DONE IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION TO THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THEY SHOULD BE REPORTED TO THE BUILDING OFFICIAL AND TO THE ENGINEER OF RECORD.

6. A FINAL SIGNED REPORT IS TO BE SUBMITTED AT THE END OF THE PROJECT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF ANY DISCREPANCIES. THIS REPORT SHOULD STATE THAT ALL ITEMS REQUIRING SPECIAL INSPECTION AND TESTING WERE FULFILLED AND REPORTED TO THE BEST OF THEIR KNOWLEDGE IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS, AND THE APPLICABLE PROVISIONS OF THE IBC. ITEMS NOT IN CONFORMANCE, UNRESOLVED ITEMS, OR ANY DISCREPANCIES IN INSPECTION COVERAGE SHOULD BE SPECIFICALLY ITEMIZED.

STATEMENT OF SPECIAL INSPECTIONS (SSI):

THE FOLLOWING TABLES INDICATED THE MINIMUM SPECIFIC SPECIAL INSPECTION AND TESTING TO BE PERFORMED ON THIS PROJECT AND THE QUALIFICATIONS OF THE INDIVIDUAL INSPECTORS AND TESTING TECHNICIANS.

DEFINITIONS:

1. CONTINUOUS SPECIAL INSPECTION: THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED. 100% OF THE WORK MUST BE INSPECTED AND IT MUST BE INSPECTED AS THE WORK IS BEING PERFORMED.

2. PERIODIC SPECIAL INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN, OR IS BEING, PERFORMED AND AT THE COMPLETION OF WORK.

3. YES: THIS INSPECTION AND/OR TESTING IS REQUIRED BY THE BUILDING CODE AND MUST BE PERFORMED.

4. NO: THIS INSPECTION AND/OR TESTING IS NOT APPLICABLE TO THE PROJECT, AND NEED NOT BE PERFORMED.

5. SUGGESTED: THIS INSPECTION AND/OR TESTING IS NOT REQUIRED BY THE BUILDING CODE. HOWEVER, THE ENGINEER OF RECORD RECOMMENDS IMPLEMENTING THEM FOR QUALITY ASSURANCE. A POTENTIAL EXISTS FOR THESE MEASURES TO BE A VALUE ADDED SERVICE FOR THE OWNER TO ENSURE PROPER PROJECT COMPLETION.

SPECIAL INSPECTIONS - SOILS AND FOUNDATIONS (SHALLOW FOUNDATIONS)

VERIFICATION AND INSPECTION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Shallow Foundations	Inspect Soils below footings for adequate bearing capacity and consistency with geotechnical report.	Geotechnical Report	Periodic testing to verify compliance with project specifications & geotechnical report.	YES
2. Excavations	Verify excavations are extended to proper depth and have reached proper material.	Geotechnical Report	Periodic testing to verify compliance with project specifications & geotechnical report.	YES
3. Compacted Fill Placement	During fill placement, verify use of proper materials and procedures in accordance with the provisions of the approved geotechnical report. Verify densities and lift thickness during placement and compaction of compacted fill.	Geotechnical Report	Continuous	YES
4. Compacted Fill Materials	Perform classifications and testing of compacted fill materials.	Geotechnical Report	Periodic testing to verify compliance with project specifications & geotechnical report.	YES
5. Site Preparation	Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Geotechnical Report	Periodic testing to verify compliance with project specifications & geotechnical report.	YES
6. Rammed Aggregate Piers	Verification of aggregate properties, types and number of lifts, pier size and depths and applier rammer energy. Observation of the installation, identification of cave-in contamination, modulus test, bottom and crown stabilization tests.	Geotechnical Report	Periodic	NO

SPECIAL INSPECTION - MASONRY LEVEL 1 INSPECTIONS

VERIFICATION AND INSPECTION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Material Certification	All CMU, mortar mixes & grout mixes to be submitted to Structural Engineer for approval prior to construction.	ACI 530	Prior to Construction	YES
2. As masonry construction begins, these items to be verified to ensure compliance:				
2a. Proportions of site-prepared mortar	-	ACI 530	Periodic	YES
2b. Construction of mortar joints	-	ACI 530	Periodic	YES
2c. Location of reinforcement, connectors and anchorages.	-	ACI 530	Periodic	YES
3. The inspection program shall verify:				
3a. Size and location of structural elements	-	ACI 530	Periodic	YES
3b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction	-	ACI 530	Periodic	YES
3c. Specified size, grade and type of reinforcement	-	ACI 530	Periodic	YES
3d. Welding of reinforcement bars	-	ACI 530	Continuous	YES
3e. Protection of masonry during cold weather and hot weather conditions	-	ACI 530	Periodic	YES
4. Prior to grouting, the following shall be verified to ensure compliance:				
4a. Grout space is clean	-	ACI 530	Periodic	YES
4b. Placement of reinforcement, connectors and anchorages	-	ACI 530	Periodic	YES
4c. Proportions of site-prepared grout	-	ACI 530	Periodic	YES
4d. Construction of mortar joints	-	ACI 530	Periodic	YES
5. Grout placement shall be verified to ensure compliance with code and construction documents	-	ACI 530	Continuous	YES
6. Preparation of any required grout specimens and/or prisms shall be observed	-	ACI 530	Continuous	YES
7. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified	-	-	Periodic	YES
8. Evaluation of Masonry Strength	Test compressive strength of mortar and grout cube samples. Test compressive strength of masonry prisms.	ACI 530 and applicable ASTM Standards	Periodic	YES

SPECIAL INSPECTION - CAST-IN-PLACE CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Mix Design	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added on site does not exceed that allowed by the mix design.	ACI 318	Prior to start of concrete construction on project, Periodic	YES
2. Material Certification	Verify that concrete supplier's concrete components meet requirements set forth by applicable ASTM standards.	Applicable ASTM & ACI Specs	Prior to start of concrete construction on project	YES
3. Reinforcement Installation Placement, Including Prestressing Tendons	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters.	Applicable ACI Specs	Prior to each casting	YES
4. Welding of Reinforcing	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.	Applicable ASTM & ACI Specs	Continuous	YES
5. Anchor Rods	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.	Applicable ASTM & ACI Specs	Prior to each casting	YES
6. Concrete Placement	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.	Applicable ACI Specs	Continuous	YES
7. Sampling and Testing of Concrete	Prior to concrete placement test concrete for strength tests , slump, air content and temperature.	Applicable ACI and ASTM Specs	Not less than once a day, nor less than once for every 150 cubic yard, nor less than once for every 5000 SF of surface area for slabs or walls	YES
8. Curing and Protection	Verify maintenance of specified curing temperature and techniques, include cold weather protection and hot weather protection procedures.	Applicable ACI Specs	Monitor on site after each casting Periodic	YES
9. Post-Installed Anchors in Hardened Concrete	Inspect installation for type of anchor, embedment, edge distance & adhesive required.	ACI & Supplier's Specs	Continuous	YES
10. Post Tension	Verify in-situ concrete strength, prior to stressing of tendons in post tension concrete and prior to removal of shoring and forms from beams and structural slabs.	ACI	Periodic	NO
11. Formwork	Inspect formwork for shape, location and dimensions of concrete member being formed.	ACI	Periodic	YES
Exceptions per IBC 1704.4: Special Inspections are not required for the following unless otherwise required by the Building Official or Structural Engineer of the Record.				
1. Nonstructural concrete slabs supported directly on the ground.				
2. Concrete patios, driveways and sidewalks, on grade.				

SPECIAL INSPECTION - STRUCTURAL STEEL

VERIFICATION OR INSPECTION	AGENCY QUALIFICATION	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Fabricator Certification[1]	AISC QUALITY CERTIFICATION PROGRAM	-	N/A	YES
2. Erector Certification[2]	AISC QUALITY CERTIFICATION PROGRAM	-	N/A	YES
3. Material Certification	-	Applicable ASTMS	Prior to Fabrication	YES
4. Welding	-	AISC 360 Chapter N	See Tables N5.4-1, N5.4-2 & N5.4-3	YES
5. Bolting	-	AISC 360 Chapter N	See Tables N5.6-1, N5.6-2 & N5.6-3	YES
6. Shear Connectors	-	AISC 360 Chapter N	See Table N5.4-2	NO
7. Open Web Joists and Joist Girders	-	SJI	Periodic	NO
8. Welding/Mech Fastening - Cold Formed Floor and Roof Decks	-	SDI	Periodic	NO
9. Structural Details	-	-	Periodic	YES

1. IN LIEU OF AISC QUALITY CERTIFICATION PROGRAM, FABRICATOR CAN PROVIDE QUALITY CONTROL PROCEDURE DOCUMENTATION ACCORDING TO N2.2.

2. IN LIEU OF AISC ERECTOR CERTIFICATION PROGRAM, FABRICATOR CAN PROVIDE QUALITY CONTROL PROCEDURE DOCUMENTATION ACCORDING TO N2.3.

SPECIAL INSPECTION - WOOD CONSTRUCTION

VERIFICATION AND INSPECTION	SCOPE	REFERENCED STANDARD	FREQUENCY OF INSPECTION	REQUIRED ON PROJECT
1. Fabricator Certification/ Quality Control Procedures	Fabricator to be enrolled in a nationally accepted inspection program acceptable to the Structural drawings and specifications. The approved fabricator to submit a certification of compliance to a the building official.	-	N/A	YES
2. Material Grading	Review sheathing, framing members, wall studs, plates for proper species and grade	Applicable APA & AITC Specs	Prior to Construction & Periodic during construction	YES
3. Connections	Inspect connection of framing members. Including nail and bolts for size and spacing. Verify metal hardware connectors for type and proper installation	ANSI/AF&PA & Supplier's Specs	Periodic	YES
4. Framing and Details	Inspect framing for plumbness, spacing, bearing length, and size. Verify bracing is installed as required.	ANSI/AF&PA	Periodic	YES
5. Diaphragms and Shearwalls	Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness. Verify size and installation of hold-downs and straps.	ANSI/AF&PA & Supplier's Specs	Periodic	YES
6. Prefabricated Metal-Plate Connected Wood Trusses & I-Joists	See Item #1. Inspect installation for location, spacing, bearing length, connectors, and permanent bracing.	ANSI/AF&PA & Supplier's Specs	Periodic	YES
7. Long Span Metal-Plate Connected Trusses	Truss clear span of 60 ft of greater, inspection to verify temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the appoved truss submittal package.	TPI	Continuous	NO

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Telste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
SPECIAL INSPECTIONS

SHEET NO.
S003

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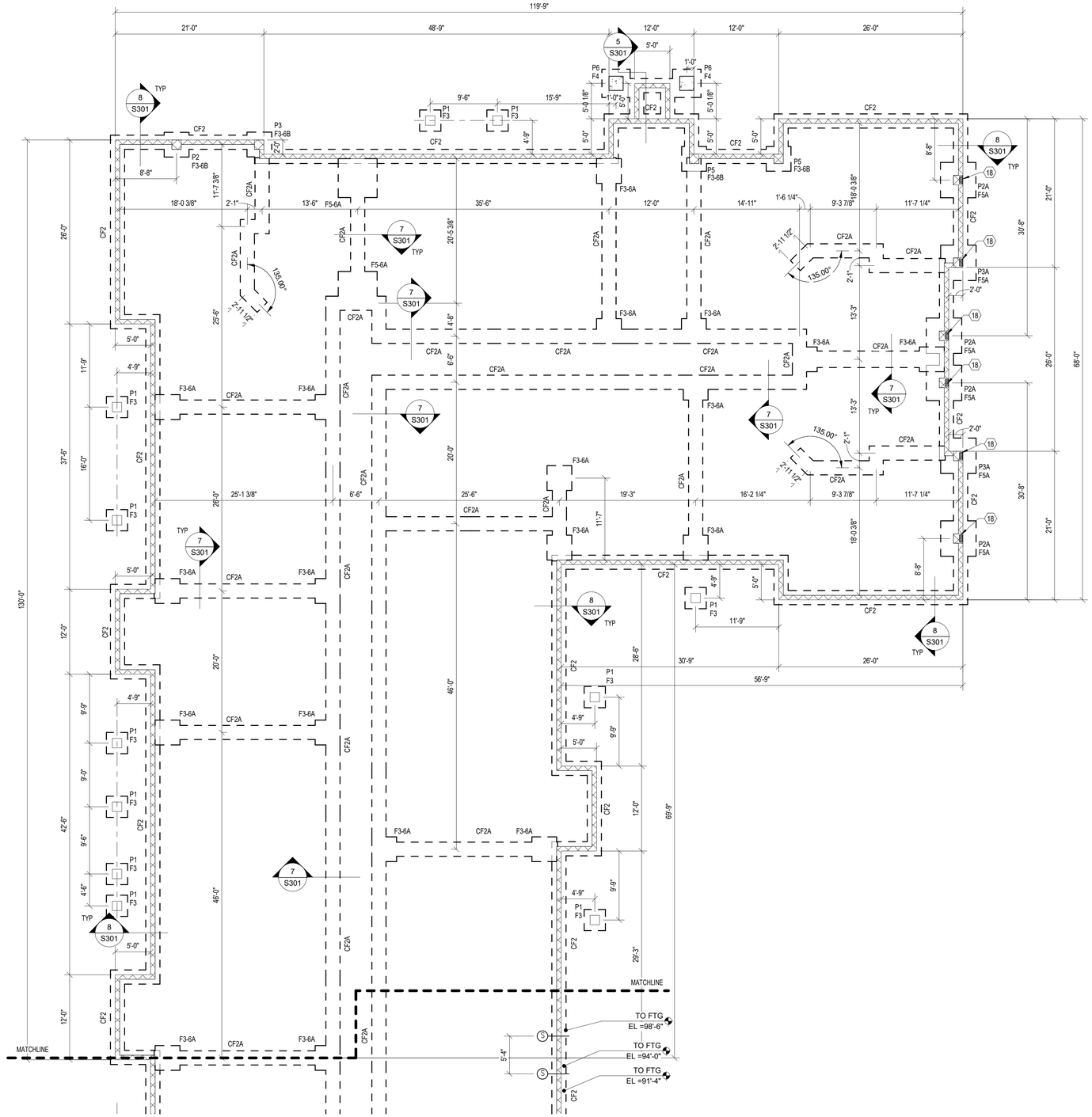

1 S101A FOUNDATION PLAN - AREA A
1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. TYPICAL INTERIOR SLAB ON GRADE, UNO
   THICKNESS = 4"
   REINFORCEMENT = MICROSYNTHETIC FIBER, SEE CONC REINF NOTES ON S001
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, UNO BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = SEE ARCH
   TOP OF SLAB ELEVATION = 100'-0"
   SEE ARCH FOR SLOPES AND RECESSES
2. TOP OF EXTERIOR FOOTING ELEVATION, UNO = 96'-8"
3. PERIMETER FOUNDATION WALLS TO BE 8" CMU WALLS GROUTED SOLID. SEE DETAILS FOR REINFORCEMENT.
4. GC ALTERNATE (FOR PRICING PURPOSES): 8" CAST-IN-PLACE CONCRETE FOUNDATION WALLS MAY BE USED IN LIEU OF 8" CMU WALLS. REINFORCEMENT TO BE #4 VERTICALS AT 4'-0" ON CENTER WITH #4 HORIZONTALS AT 1'-0" ON CENTER. IF ALTERNATE IS SELECTED, CONTACT EOR TO HAVE STRUCTURAL DRAWINGS UPDATED.

KEYNOTES

LABEL	NOTE
18	EMBED PLATE AT TOP OF CMU PIER INSTALLED BY MASON - SEE PIER DETAIL.

PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1		
P2	2/S302	-
P2A	13/S302	-
P3	8/S302	-
P3A	14/S302	-
P4	6/S302	-
P5	10/S302	-
P6	10/S302	-

CONT FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF2	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	
CF2A	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF2-6A	2'-6" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF3	3'-0" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	-

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES/COMMENTS
F3	3'-0" SQ	1'-0"	(3) #5	-	-
F3-6A	3'-6" SQ	2'-0"	(4) #5	(4) #5	THICKENED SLAB
F3-6B	3'-6" SQ	2'-0"	(4) #5	(4) #5	-
F4	4'-0" SQ	1'-0"	(4) #5	-	-
F4A	4'-0" SQ	1'-0"	(4) #5	-	THICKENED SLAB
F5A	5'-0" SQ	2'-0"	(5) #5	(5) #5	-
F5-6A	5'-6" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6A	6'-0" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6B	6'-0" SQ	2'-0"	(6) #5	(6) #5	-
F6-6	6'-6" SQ	1'-2"	(7) #5	(7) #4	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions

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Print Name: Michael Telste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FOUNDATION PLAN - AREA A

SHEET NO.

S101A

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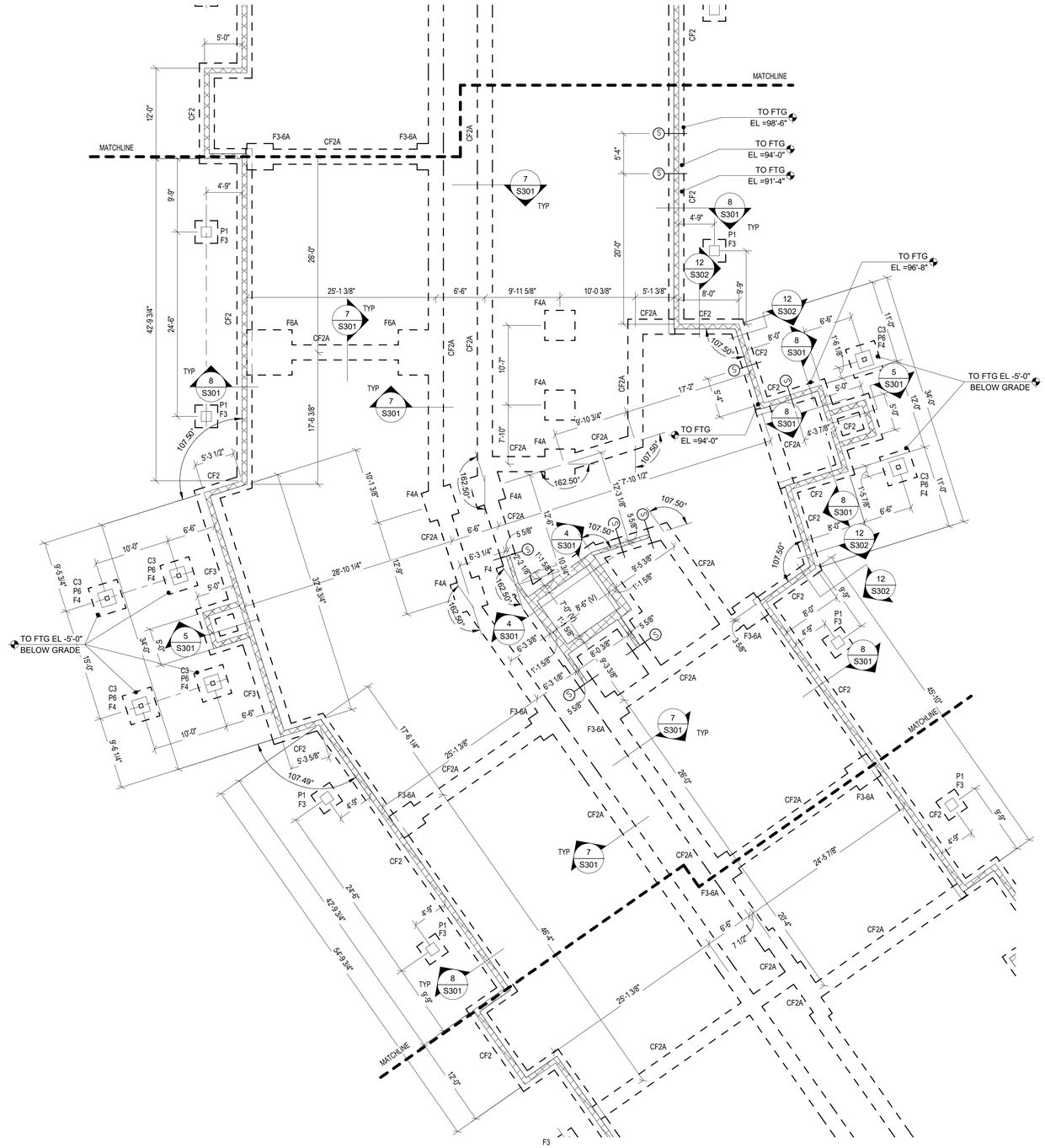

1 S101B FOUNDATION PLAN - AREA B
1/8" = 1'-0"

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FOUNDATION PLAN NOTES:

1. TYPICAL INTERIOR SLAB ON GRADE, UNO
   THICKNESS = 4"
   REINFORCEMENT = MICROSYNTHETIC FIBER, SEE CONC REINF NOTES ON S001
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, UNO BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = SEE ARCH
   TOP OF SLAB ELEVATION = 100'-0"
   SEE ARCH FOR SLOPES AND RECESSES
2. TOP OF EXTERIOR FOOTING ELEVATION, UNO = 96'-8"
3. PERIMETER FOUNDATION WALLS TO BE 8" CMU WALLS GROUTED SOLID. SEE DETAILS FOR REINFORCEMENT.
4. GC ALTERNATE (FOR PRICING PURPOSES): 8" CAST-IN-PLACE CONCRETE FOUNDATION WALLS MAY BE USED IN LIEU OF 8" CMU WALLS. REINFORCEMENT TO BE #4 VERTICALS AT 4'-0" ON CENTER WITH #4 HORIZONTALS AT 1'-0" ON CENTER. IF ALTERNATE IS SELECTED, CONTACT EOR TO HAVE STRUCTURAL DRAWINGS UPDATED.

KEYNOTES

LABEL	NOTE

PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1		
P2	2/S302	-
P2A	13/S302	-
P3	8/S302	-
P3A	14/S302	-
P4	6/S302	-
P5	10/S302	-
P6	10/S302	-

CONT FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF2	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	-
CF2A	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF2-6A	2'-6" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF3	3'-0" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	-

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES/COMMENTS
F3	3'-0" SQ	1'-0"	(3) #5	-	-
F3-6A	3'-6" SQ	2'-0"	(4) #5	(4) #5	THICKENED SLAB
F3-6B	3'-6" SQ	2'-0"	(4) #5	(4) #5	-
F4	4'-0" SQ	1'-0"	(4) #5	-	-
F4A	4'-0" SQ	1'-0"	(4) #5	-	THICKENED SLAB
F5A	5'-0" SQ	2'-0"	(5) #5	(5) #5	-
F5-6A	5'-6" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6A	6'-0" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6B	6'-0" SQ	2'-0"	(6) #5	(6) #5	-
F6-6	6'-6" SQ	1'-2"	(7) #5	(7) #4	-

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions		
#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

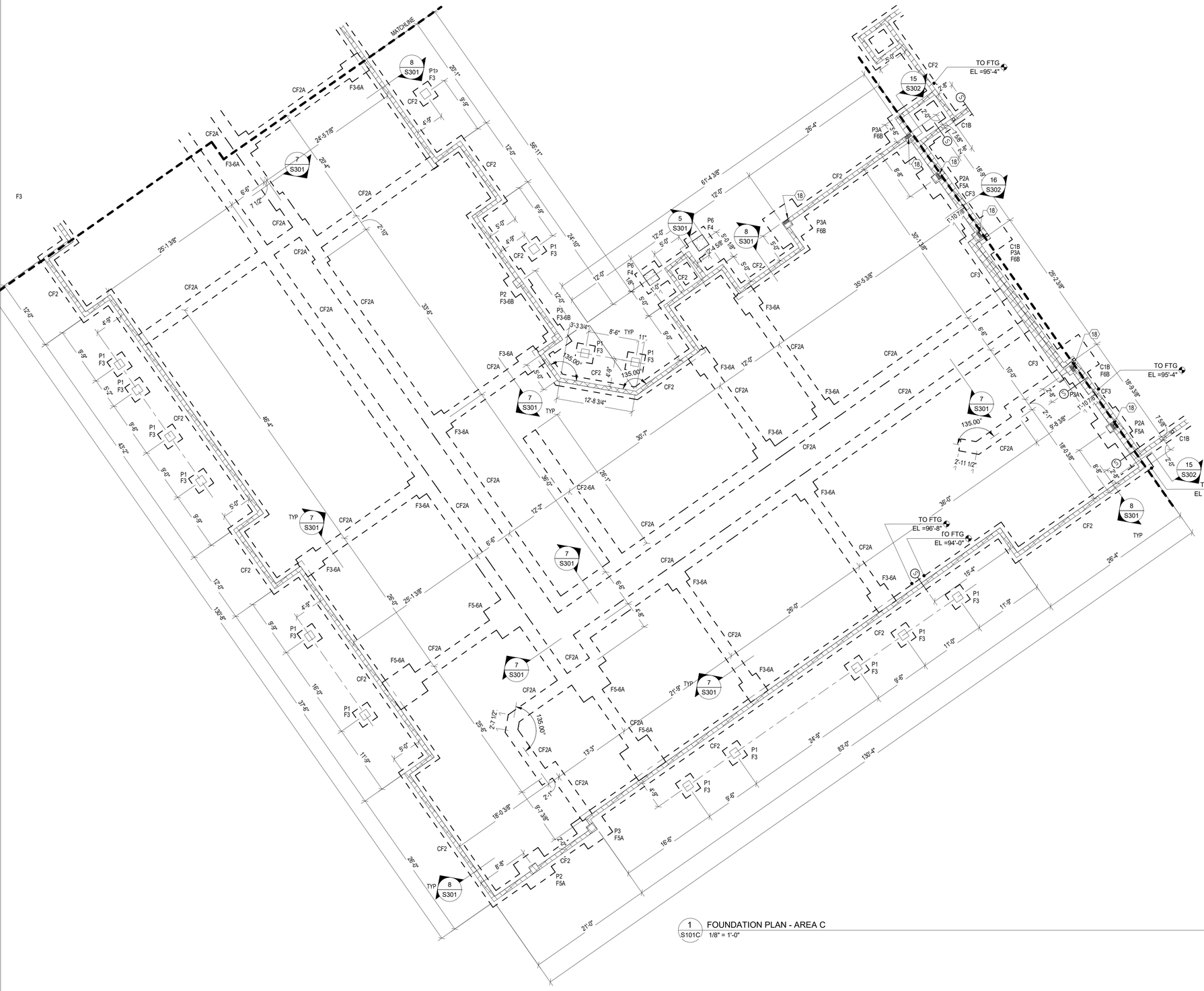
HUGO, MN

SHEET CONTENTS:
FOUNDATION PLAN - AREA B

SHEET NO.

S101B

22124-16



1 S101C FOUNDATION PLAN - AREA C
1/8" = 1'-0"

N

FOUNDATION PLAN NOTES:

1. TYPICAL INTERIOR SLAB ON GRADE, UNO
   THICKNESS = 4"
   REINFORCEMENT = MICROSYNTHETIC FIBER, SEE CONC REINF NOTES ON S001
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, UNO BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = SEE ARCH
   TOP OF SLAB ELEVATION = 100'-0"
   SEE ARCH FOR SLOPES AND RECESSES
2. TOP OF EXTERIOR FOOTING ELEVATION, UNO = 96'-8"
3. PERIMETER FOUNDATION WALLS TO BE 8" CMU WALLS GROUTED SOLID. SEE DETAILS FOR REINFORCEMENT.
4. GC ALTERNATE (FOR PRICING PURPOSES): 8" CAST-IN-PLACE CONCRETE FOUNDATION WALLS MAY BE USED IN LIEU OF 8" CMU WALLS. REINFORCEMENT TO BE #4 VERTICALS AT 4'-0" ON CENTER WITH #4 HORIZONTALS AT 1'-0" ON CENTER. IF ALTERNATE IS SELECTED, CONTACT EOR TO HAVE STRUCTURAL DRAWINGS UPDATED.

KEYNOTES

LABEL	NOTE
18	EMBED PLATE AT TOP OF CMU PIER INSTALLED BY MASON - SEE PIER DETAIL.

PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1		
P2	2/S302	-
P2A	13/S302	-
P3	8/S302	-
P3A	14/S302	-
P4	6/S302	-
P5	10/S302	-
P6	10/S302	-

CONT FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF2	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	-
CF2A	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF2-6A	2'-6" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF3	3'-0" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	-

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES/COMMENTS
F3	3'-0" SQ	1'-0"	(3) #5	-	
F3-6A	3'-6" SQ	2'-0"	(4) #5	(4) #5	THICKENED SLAB
F3-6B	3'-6" SQ	2'-0"	(4) #5	(4) #5	-
F4	4'-0" SQ	1'-0"	(4) #5	-	-
F4A	4'-0" SQ	1'-0"	(4) #5	-	THICKENED SLAB
F5A	5'-0" SQ	2'-0"	(5) #5	(5) #5	-
F5-6A	5'-6" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6A	6'-0" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6B	6'-0" SQ	2'-0"	(6) #5	(6) #5	-
F6-6	6'-6" SQ	1'-2"	(7) #5	(7) #4	-

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Proj. Engineer: TJO
Drawn by: AH
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Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FOUNDATION PLAN - AREA C

SHEET NO.

S101C

22124-16

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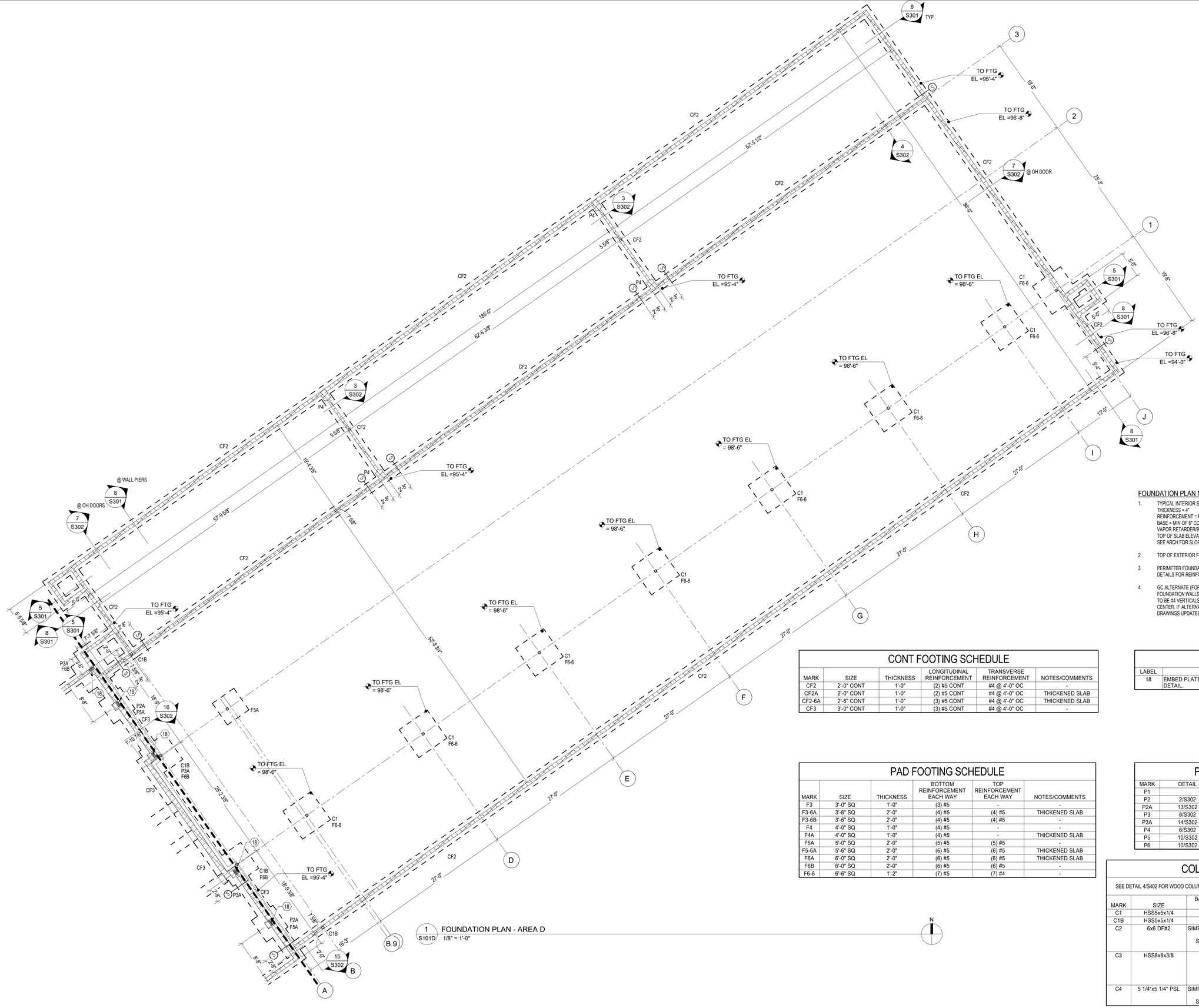

FOUNDATION PLAN NOTES:

1. TYPICAL INTERIOR SLAB ON GRADE, UNO
   THICKNESS = 4"
   REINFORCEMENT = MICROSYNTHETIC FIBER, SEE CONC REINF NOTES ON S001
   BASE = MIN OF 6" COMPACTED GRANULAR FILL, UNO BY GEOTECHNICAL REPORT
   VAPOR RETARDER/BARRIER = SEE ARCH
   TOP OF SLAB ELEVATION = 100'-0"
   SEE ARCH FOR SLOPES AND RECESSES
2. TOP OF EXTERIOR FOOTING ELEVATION, UNO = 96'-8"
3. PERIMETER FOUNDATION WALLS TO BE 8" CMU WALLS GROUTED SOLID. SEE DETAILS FOR REINFORCEMENT.
4. GC ALTERNATE (FOR PRICING PURPOSES): 8" CAST-IN-PLACE CONCRETE FOUNDATION WALLS MAY BE USED IN LIEU OF 8" CMU WALLS. REINFORCEMENT TO BE #4 VERTICALS AT 4'-0" ON CENTER WITH #4 HORIZONTALS AT 1'-0" ON CENTER. IF ALTERNATE IS SELECTED, CONTACT EOR TO HAVE STRUCTURAL DRAWINGS UPDATED.

CONT FOOTING SCHEDULE

MARK	SIZE	THICKNESS	LONGITUDINAL REINFORCEMENT	TRANSVERSE REINFORCEMENT	NOTES/COMMENTS
CF2	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	-
CF2A	2'-0" CONT	1'-0"	(2) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF2-6A	2'-6" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	THICKENED SLAB
CF3	3'-0" CONT	1'-0"	(3) #5 CONT	#4 @ 4'-0" OC	-

KEYNOTES

LABEL	NOTE
18	EMBED PLATE AT TOP OF CMU PIER INSTALLED BY MASON - SEE PIER DETAIL.

PAD FOOTING SCHEDULE

MARK	SIZE	THICKNESS	BOTTOM REINFORCEMENT EACH WAY	TOP REINFORCEMENT EACH WAY	NOTES/COMMENTS
F3	3'-0" SQ	1'-0"	(3) #5	-	-
F3-6A	3'-6" SQ	2'-0"	(4) #5	(4) #5	THICKENED SLAB
F3-6B	3'-6" SQ	2'-0"	(4) #5	(4) #5	-
F4	4'-0" SQ	1'-0"	(4) #5	-	-
F4A	4'-0" SQ	1'-0"	(4) #5	-	THICKENED SLAB
F5A	5'-0" SQ	2'-0"	(5) #5	(5) #5	-
F5-6A	5'-6" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6A	6'-0" SQ	2'-0"	(6) #5	(6) #5	THICKENED SLAB
F6B	6'-0" SQ	2'-0"	(6) #5	(6) #5	-
F6-6	6'-6" SQ	1'-2"	(7) #5	(7) #4	-

PIER SCHEDULE

MARK	DETAIL	NOTES/COMMENTS
P1		
P2	2/S302	-
P2A	13/S302	-
P3	8/S302	-
P3A	14/S302	-
P4	6/S302	-
P5	10/S302	-
P6	10/S302	-

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

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Proj. Engineer: TJO
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Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FOUNDATION PLAN - AREA D

SHEET NO.

S101D

22124-16

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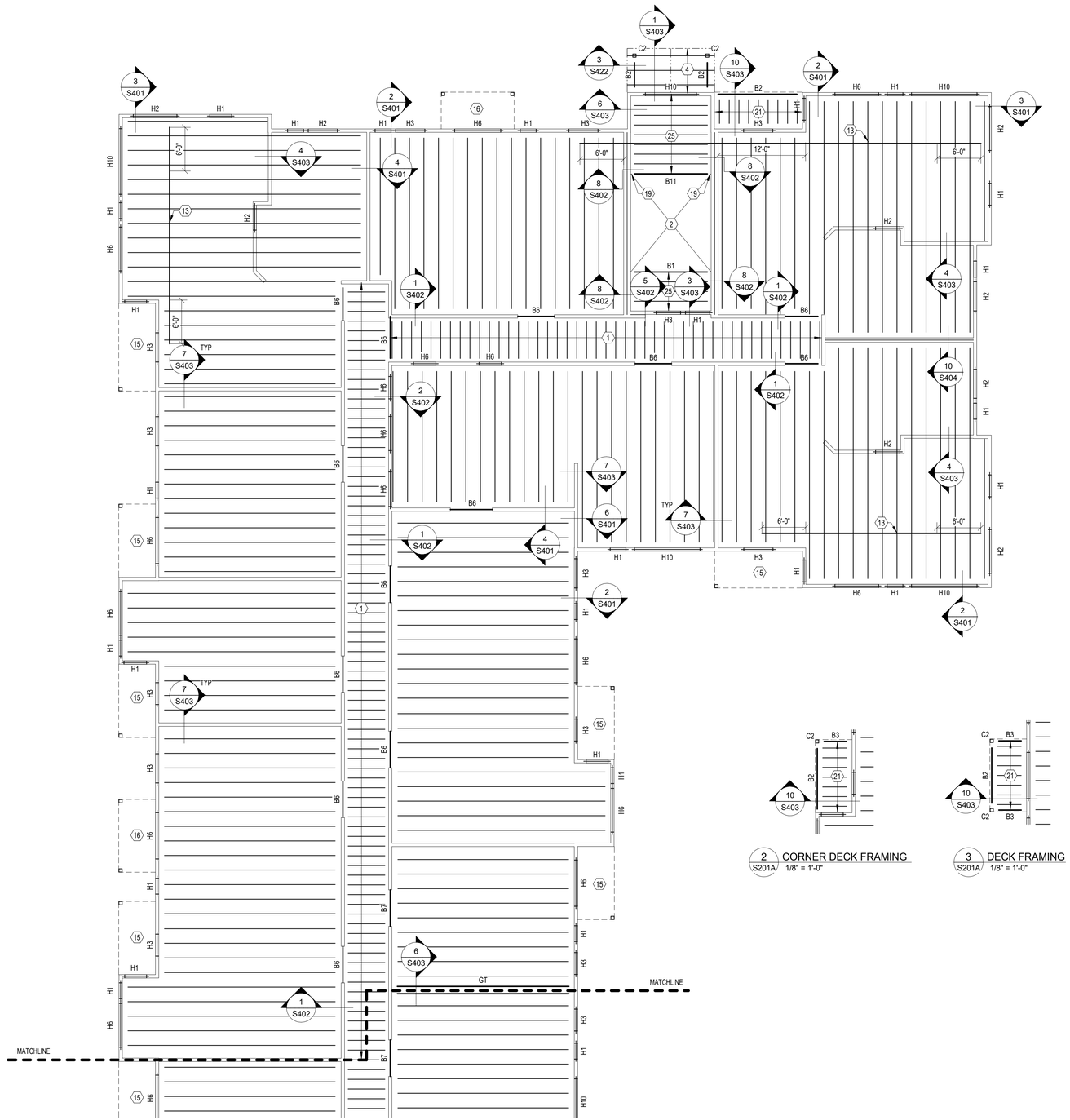
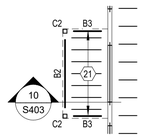


1 S201A SECOND FLOOR FRAMING PLAN - AREA A
1/8" = 1'-0"

2 S201A CORNER DECK FRAMING
1/8" = 1'-0"



3 S201A DECK FRAMING
1/8" = 1'-0"

FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0" OC, UNO.
2. TRUSS BEARING ELEVATION = 109'- 1 1/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
2	SEE DETAIL 7/S401 FOR STAIR FRAMING.
4	ROOF TRUSSES AT 1'-4" OC. SEE S001 FOR LOADING AND DESIGN FOR TOTAL SL = 110 PSF.
13	SIMPSON CS16 STRAP ACROSS TOP OF FLOOR SHEATHING AND FASTEN INTO 2x6 BLOCKING TIGHT BETWEEN TRUSSES, SEE DETAIL 11/S403. FASTENING AND BLOCKING ONLY REQUIERD IN STRAP LENGTHS DIMENSIONED ON PLAN WITH 8d NAILS IN EVERY OTHER HOLE ON STRAP IN DIMENSIONED LENGTH.
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
16	SEE DETAIL 3/S201A FOR DECK FRAMING.
19	BEAM TO CONNECT TO RATED WALL WITH SIMPSON MGU HANGER USING SDS 1/4"x4 1/2" SCREWS INTO (3) 1-3/4"x11 7/8" LVL HEADER AND (2) SPF#1/2 2x6 JACK STUDS EA SIDE OF HEADER INSTALLED PER SIMPSON L-C-FACEMNTFW LETTER.
21	TREATED 2x10 JOISTS AT 1'-4" OC.
25	2x10 FLOOR JOIST AT 1'-0" OC.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL.
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

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Signature:
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License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
SECOND FLOOR FRAMING PLAN
- AREA A

SHEET NO.

S201A

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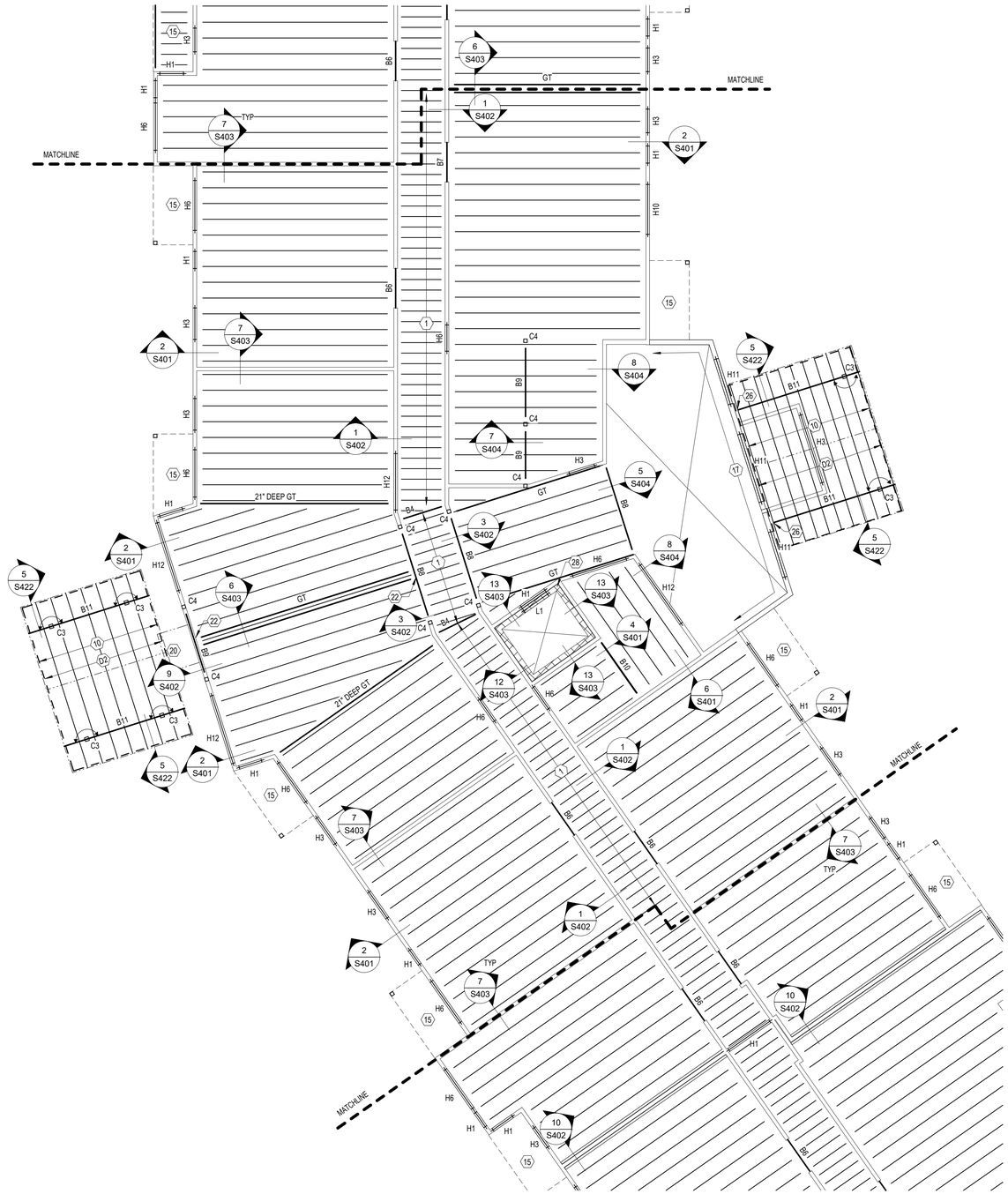

1 S201B SECOND FLOOR FRAMING PLAN - AREA B

1/8" = 1'-0"

SNOW DRIFT LOADING KEYNOTES:

SNOW DRIFT LOADING DIAGRAM:

FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0" OC, UNO.
2. TRUSS BEARING ELEVATION = 109'- 1 1/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
10	ROOF TRUSSES AT 19.2" OC. TRUSS BEARING ELEVATION = 110'-11 7/8"
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
17	TALL WALL WITH (2) 2x8 SPF #1/#2 STUDS AT 2'-0" OC.
20	ALUMINUM FRAMED CANOPY WITH (2) SUSPENSION RODS BY ALUMINUM SUPPLIER. SEE S001 FOR SUBMITTAL REQUIREMENTS AND DETAIL 1/S404 FOR CONNECTION TO STRUCTURE. DESIGN CANOPY FOR TOTAL SL = 110 PSF.
22	SIMPSON LGU SERIES FACE-MOUNT HANGER AT GIRDER TRUSS TO BEAM CONNECTION.
26	POCKET BEAM IN WALL. PROVIDE (4) 2x8 STUD PACK.
28	(5) 2x6 SPF #1/#2 STUD PACK FOR CONTINUOUS BEAM BEARING AT LEVEL ABOVE TO FOUNDATION.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

LINTEL SCHEDULE

MARK	SIZE	COMMENTS
L1	16" DEEP MASONRY LINTEL	(2) #5 CONT BOT, SD 6/S404

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
SECOND FLOOR FRAMING PLAN
- AREA B

SHEET NO.

S201B

22124-16

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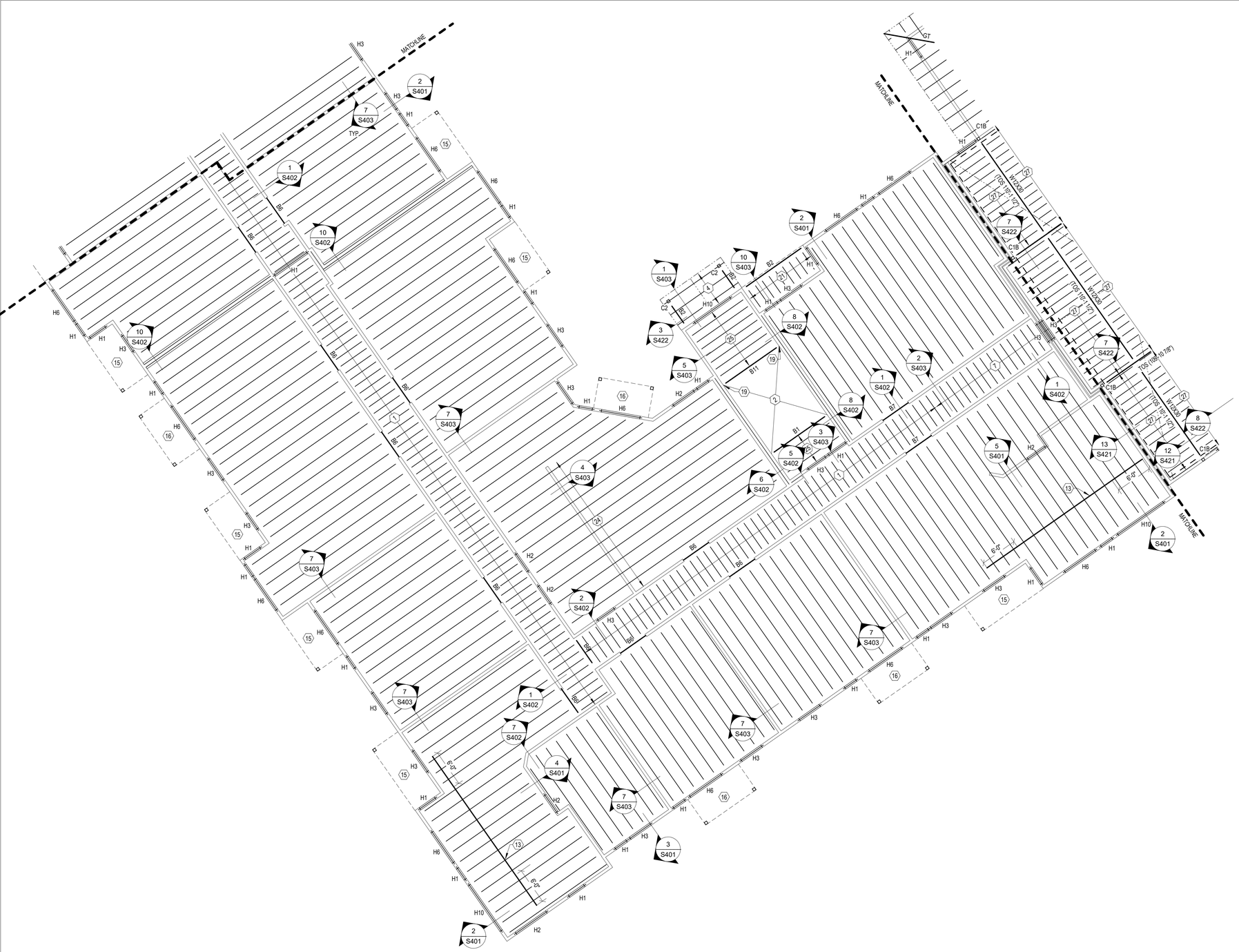

1 S201C SECOND FLOOR FRAMING PLAN - AREA C
1/8" = 1'-0"

N

FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0" OC, UNO.
2. TRUSS BEARING ELEVATION = 109'- 1 1/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
2	SEE DETAIL 7/S401 FOR STAIR FRAMING.
4	ROOF TRUSSES AT 1'-4" OC. SEE S001 FOR LOADING AND DESIGN FOR TOTAL SL = 110 PSF.
7	(2) 1-3/4"x9-1/4" LVL JOISTS AT 1'-4" OC.
13	SIMPSON CS16 STRAP ACROSS TOP OF FLOOR SHEATHING AND FASTEN INTO 2x6 BLOCKING TIGHT BETWEEN TRUSSES, SEE DETAIL 11/S403. FASTENING AND BLOCKING ONLY REQUIERD IN STRAP LENGTHS DIMENSIONED ON PLAN WITH 8d NAILS IN EVERY OTHER HOLE ON STRAP IN DIMENSIONED LENGTH.
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
16	SEE DETAIL 3/S201A FOR DECK FRAMING.
19	BEAM TO CONNECT TO RATED WALL WITH SIMPSON MGU HANGER USING SDS 1/4"x4 1/2" SCREWS INTO (3) 1-3/4"x11 7/8" LVL HEADER AND (2) SPF#1/2 2x6 JACK STUDS EA SIDE OF HEADER INSTALLED PER SIMPSON L-C-FACEMNTFW LETTER.
21	TREATED 2x10 JOISTS AT 1'-4" OC.
24	(2) 2x6 SPF #1/#2 STUDS AT 1'-4" OC.
25	2x10 FLOOR JOIST AT 1'-0" OC.
27	1-3/4"x14" LVL ROOF JOISTS AT 2'-0" OC.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCQQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions #	DATE	COMMENTS

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Print Name: Michael Telste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

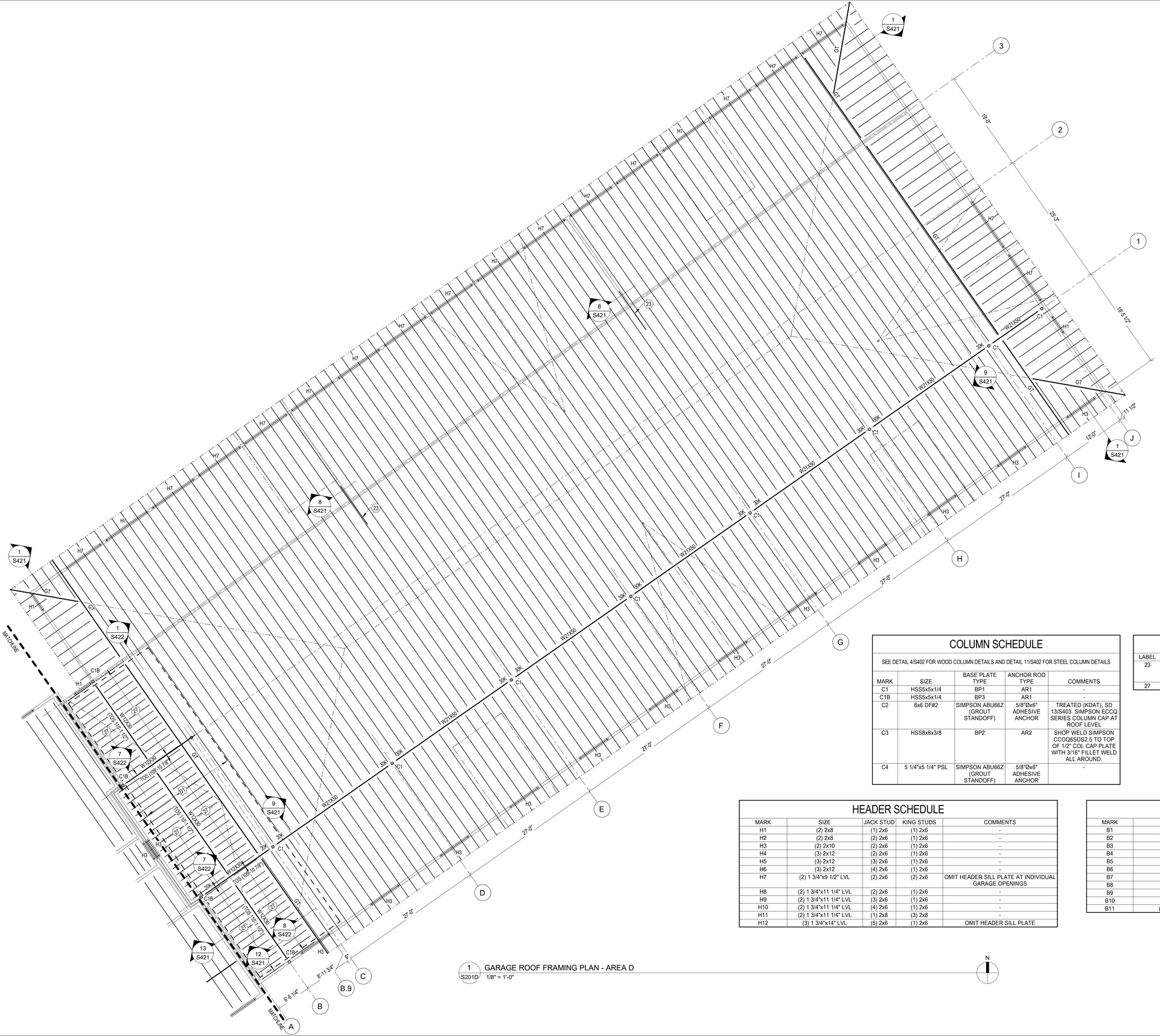
SHEET CONTENTS:
SECOND FLOOR FRAMING PLAN
- AREA C

SHEET NO.

S201C

22124-16

11/8/2024 9:05:53 AM

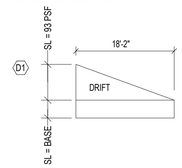


1 S201D GARAGE ROOF FRAMING PLAN - AREA D
1/8" = 1'-0"

N

SNOW DRIFT LOADING KEYNOTES:

SNOW DRIFT LOADING DIAGRAM:



ROOF FRAMING PLAN NOTES:

1. ROOF FRAMING TO BE ROOF TRUSSES AT 2'-0" OC, UNO.
2. TRUSS BEARING ELEVATION = 109'-1 1/8", UNO.
3. TOP OF STEEL ELEVATION = 110'-10" UNO.
4. STEEL BEAM END REACTIONS NOT SHOWN ON PLAN TO BE 15 KIP (ASD)

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

KEYNOTES

LABEL	NOTE
23	SIMPSON CMST14 STRAP ACROSS SIDE OF TRUSS TOP CHORDS OF SEPARATE TRUSSES IN LINE WITH SHEARWALL. STRAP END LENGTHS TO BE 36 INCHES WITH (38) 10d NAILS PER END LENGTH.
27	1-3/4"x14" LVL ROOF JOISTS AT 2'-0" OC.

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

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Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

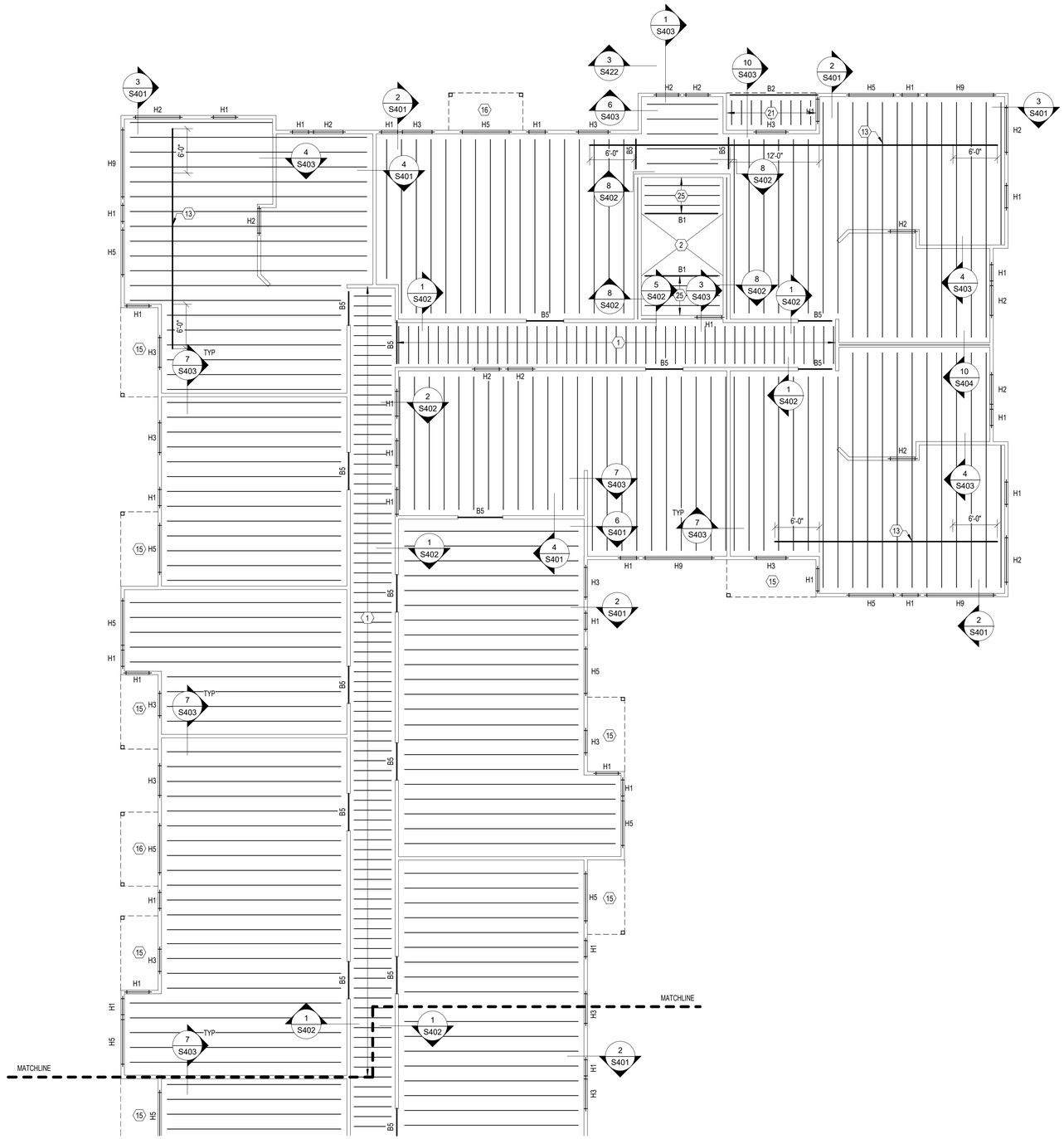
SHEET CONTENTS:
GARAGE ROOF FRAMING PLAN - AREA D

SHEET NO.

S201D

22124-16

11/8/2024 9:05:55 AM



1 THIRD FLOOR FRAMING PLAN - AREA A
S202A 1/8" = 1'-0"

FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0", UNO.
2. TRUSS BEARING ELEVATION = 120'-3", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
2	SEE DETAIL 7/S401 FOR STAIR FRAMING.
13	SIMPSON CS16 STRAP ACROSS TOP OF FLOOR SHEATHING AND FASTEN INTO 2x6 BLOCKING TIGHT BETWEEN TRUSSES, SEE DETAIL 11/S403. FASTENING AND BLOCKING ONLY REQUIERD IN STRAP LENGTHS DIMENSIONED ON PLAN WITH 8d NAILS IN EVERY OTHER HOLE ON STRAP IN DIMENSIONED LENGTH.
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
16	SEE DETAIL 3/S201A FOR DECK FRAMING.
21	TREATED 2x10 JOISTS AT 1'-4" OC.
25	2x10 FLOOR JOIST AT 1'-0" OC.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions #	DATE	COMMENTS

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Print Name: Michael Telste
Signature:
Date: 11/08/2024
License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
THIRD FLOOR FRAMING PLAN - AREA A

SHEET NO.

S202A

22124-16

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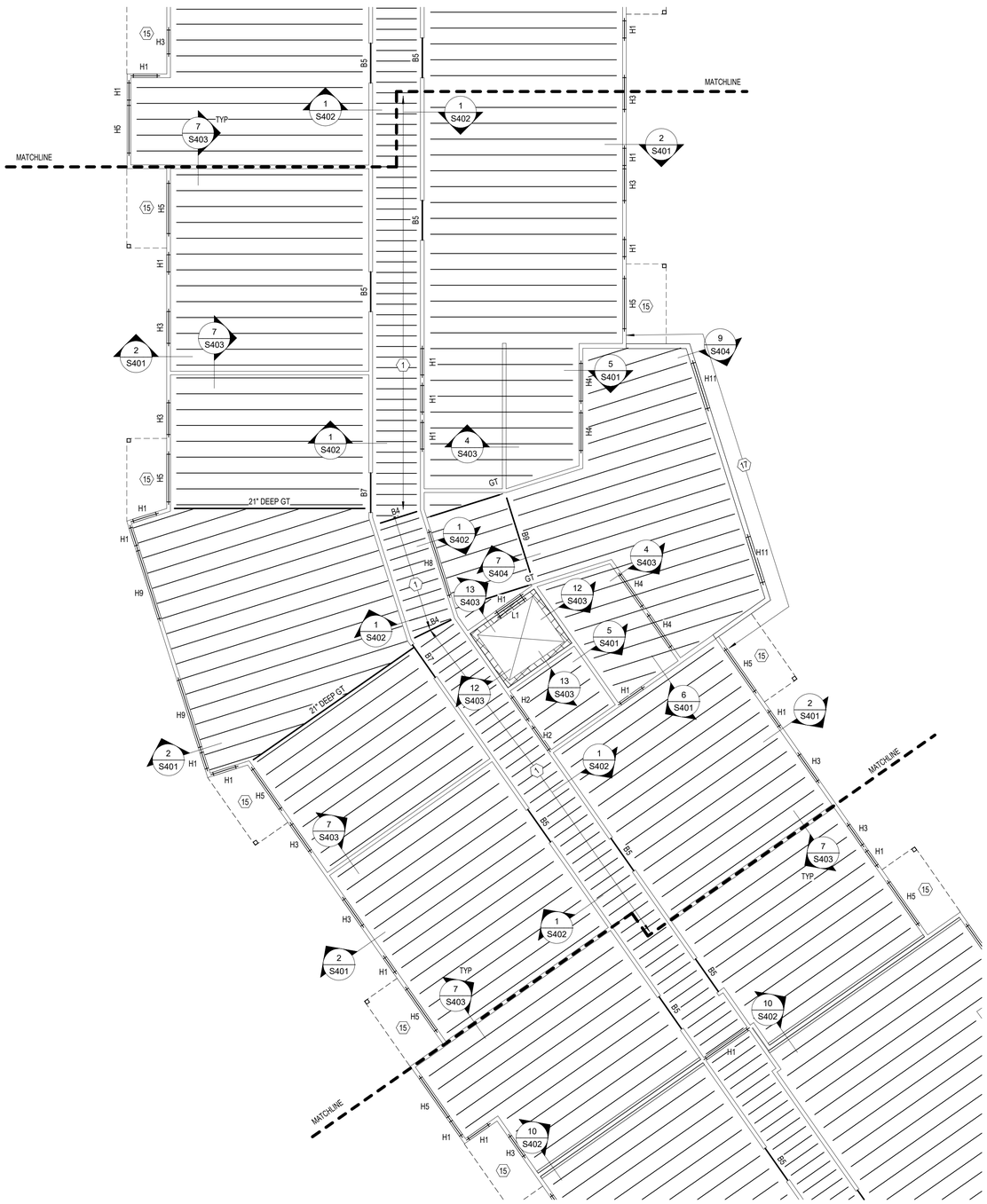

1 THIRD FLOOR FRAMING PLAN - AREA B
S202B 1/8" = 1'-0"

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FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0", UNO.
2. TRUSS BEARING ELEVATION = 120'-3", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

LINTEL SCHEDULE

MARK	SIZE	COMMENTS
L1	16" DEEP MASONRY LINTEL	(2) #5 CONT BOT, SD 6/S404

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
17	TALL WALL WITH (2) 2x8 SPF #1/#2 STUDS AT 2'-0" OC.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

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Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

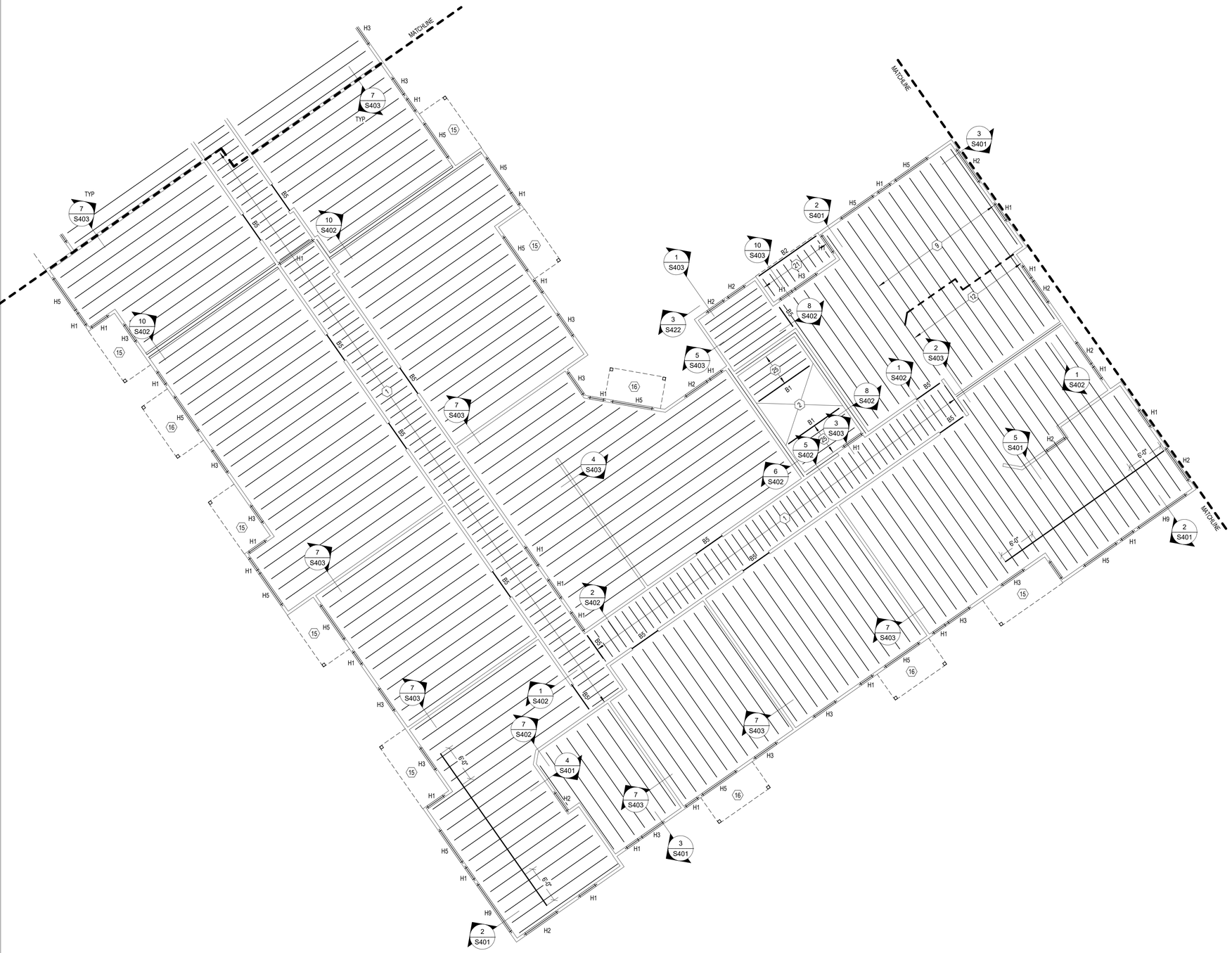
SHEET CONTENTS:
THIRD FLOOR FRAMING PLAN - AREA B

SHEET NO.

S202B

22124-16

11/8/2024 9:06:00 AM



1 THIRD FLOOR FRAMING PLAN - AREA C
S202C 1/8" = 1'-0"

FRAMING PLAN NOTES:

1. FLOOR FRAMING TO BE 24" FLOOR TRUSSES AT 2'-0", UNO.
2. TRUSS BEARING ELEVATION = 120'-3", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
1	2x10 JOISTS AT 1'-4" OC.
2	SEE DETAIL 7/S401 FOR STAIR FRAMING.
9	24" FLOOR TRUSSES AT 16" OC.
12	FRAME NON-BEARING, PARTITION WALL WITH 3/4" VERY TOP PLATE IN LIEU OF 2x VERY TOP PLATE. SECURE WALL TO UNDERSIDE OF TRUSSES WITH SIMPSON SDPW14500W DEFLECTOR SCREWS AT EVERY OTHER TRUSS - SEE DETAIL 11/S421.
15	SEE DETAIL 2/S201A FOR DECK FRAMING.
16	SEE DETAIL 3/S201A FOR DECK FRAMING.
21	TREATED 2x10 JOISTS AT 1'-4" OC.
25	2x10 FLOOR JOIST AT 1'-0" OC.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions #	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
THIRD FLOOR FRAMING PLAN - AREA C

SHEET NO.

S202C

22124-16

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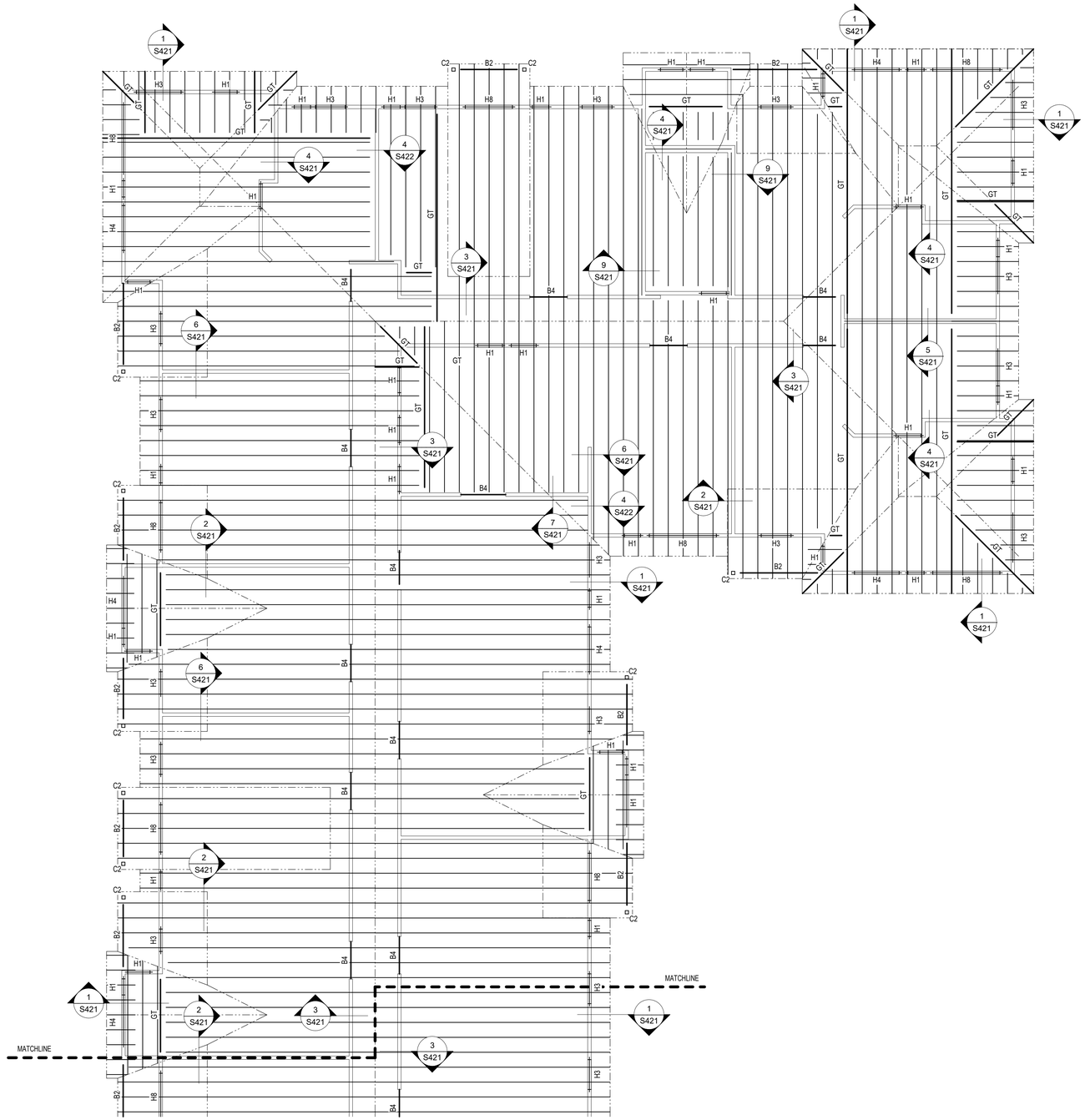

1 S203A ROOF FRAMING PLAN - AREA A
1/8" = 1'-0"

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ROOF FRAMING PLAN NOTES:

1. ROOF FRAMING TO BE PITCHED TRUSSES AT 2'-0" OC, UNO.
2. ROOF TRUSS BEARING ELEVATION = 131'-4 7/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions #	DATE	COMMENTS

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Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

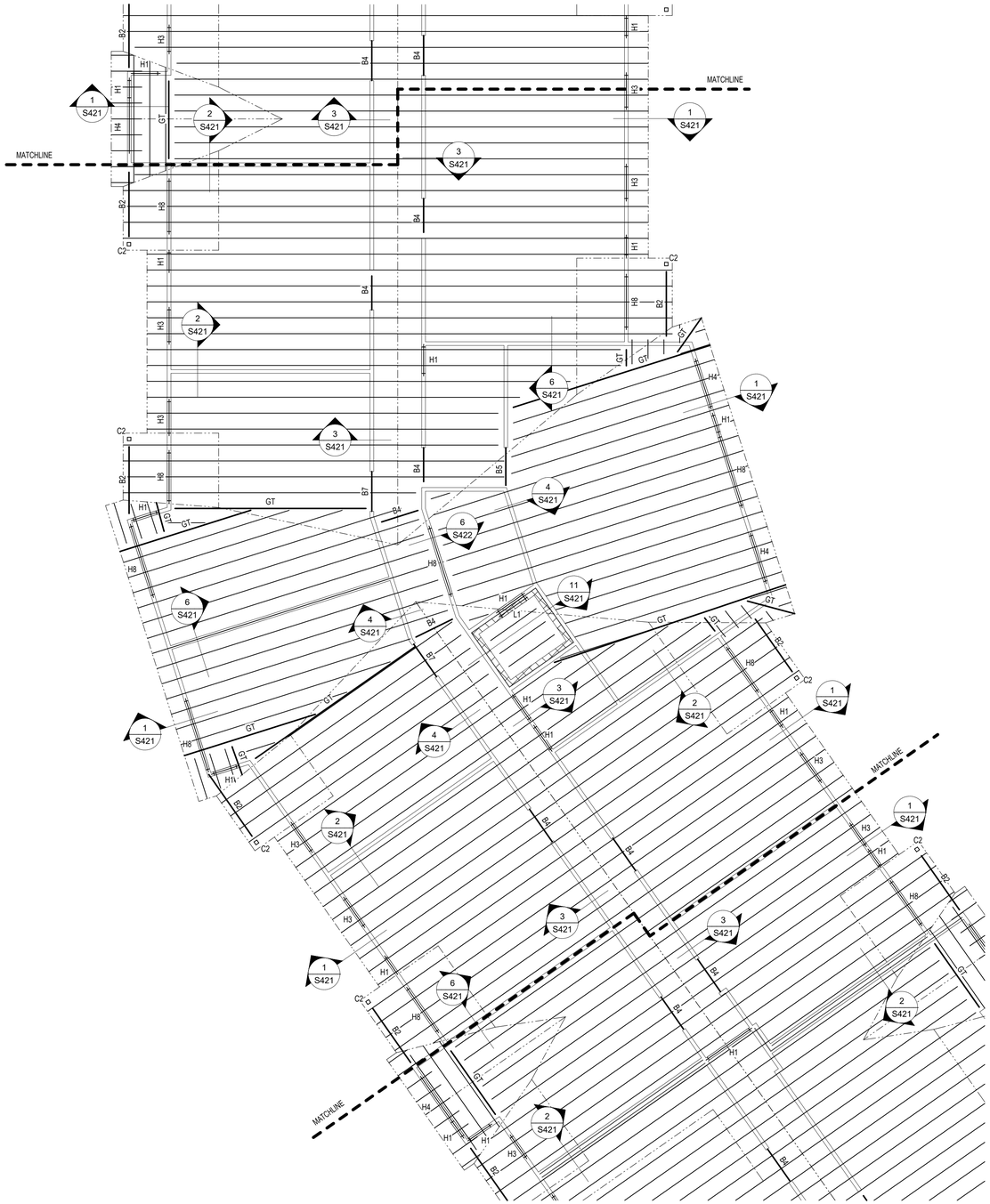
HUGO, MN

SHEET CONTENTS:
ROOF FRAMING PLAN - AREA A

SHEET NO.

S203A

22124-16



1 S203B ROOF FRAMING PLAN - AREA B
1/8" = 1'-0"

N

ROOF FRAMING PLAN NOTES:

1. ROOF FRAMING TO BE PITCHED TRUSSES AT 2'-0" OC, UNO.
2. ROOF TRUSS BEARING ELEVATION = 131'-4 7/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE

LINTEL SCHEDULE

MARK	SIZE	COMMENTS
L1	16" DEEP MASONRY LINTEL	(2) #5 CONT BOT, SD 6/S404

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Øx6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

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Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
ROOF FRAMING PLAN - AREA B

SHEET NO.

S203B

22124-16

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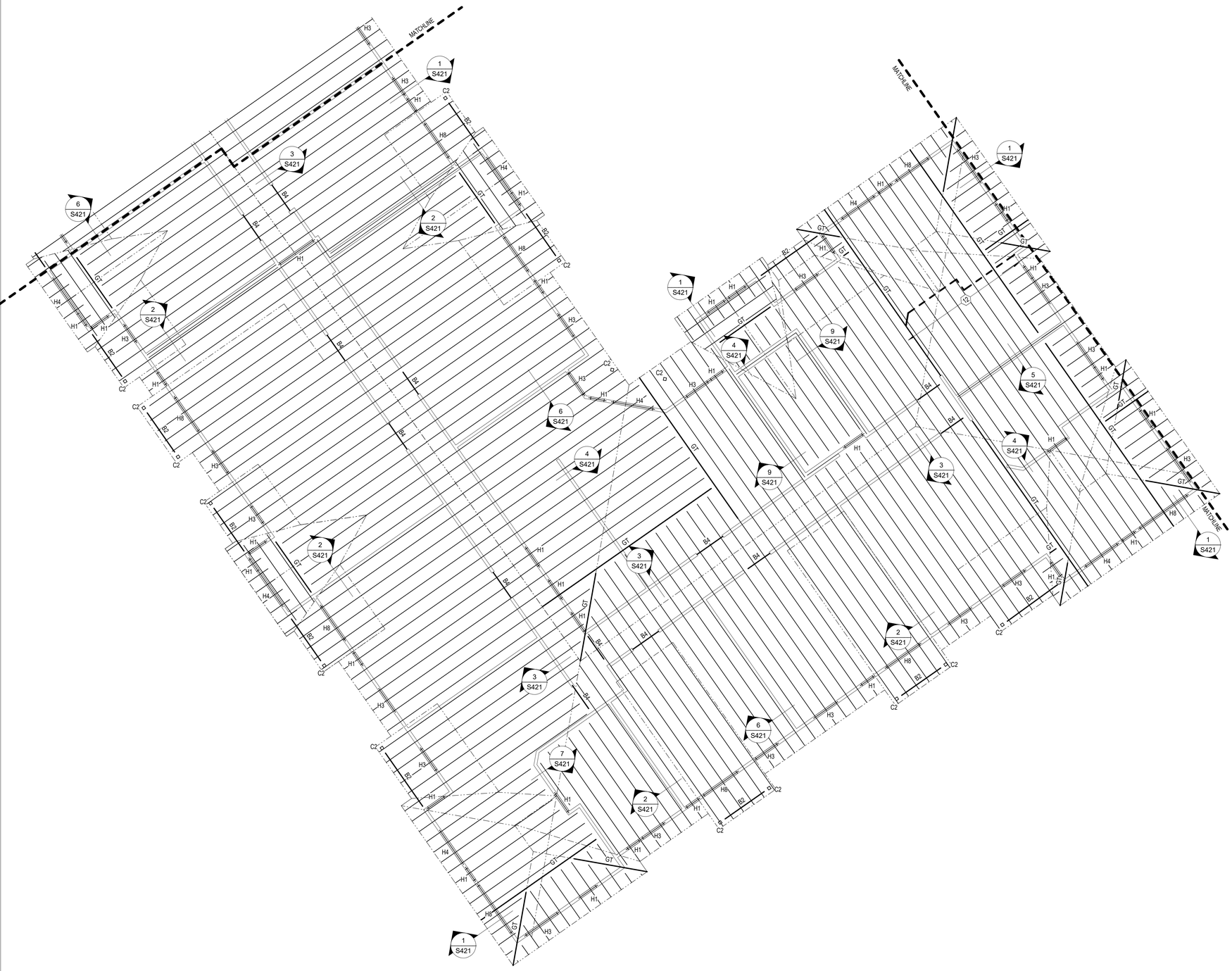

1 S203C ROOF FRAMING PLAN - AREA C
1/8" = 1'-0"

N

11/8/2024 9:06:10 AM

ROOF FRAMING PLAN NOTES:

1. ROOF FRAMING TO BE PITCHED TRUSSES AT 2'-0" OC, UNO.
2. ROOF TRUSS BEARING ELEVATION = 131'-4 7/8", UNO.
3. CMU AT ELEVATOR SHAFT WALLS TO BE FULLY GROUTED CORES. VERTICAL REINFORCEMENT TO BE #5 AT 4'-0" OC.

KEYNOTES

LABEL	NOTE
12	FRAME NON-BEARING, PARTITION WALL WITH 3/4" VERY TOP PLATE IN LIEU OF 2x VERY TOP PLATE. SECURE WALL TO UNDERSIDE OF TRUSSES WITH SIMPSON SDPW14500W DEFLECTOR SCREWS AT EVERY OTHER TRUSS - SEE DETAIL 11/S421.

COLUMN SCHEDULE

SEE DETAIL 4/S402 FOR WOOD COLUMN DETAILS AND DETAIL 11/S402 FOR STEEL COLUMN DETAILS

MARK	SIZE	BASE PLATE TYPE	ANCHOR ROD TYPE	COMMENTS
C1	HSS5x5x1/4	BP1	AR1	-
C1B	HSS5x5x1/4	BP3	AR1	-
C2	6x6 DF#2	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	TREATED (KDAT), SD 13/S403. SIMPSON ECCQ SERIES COLUMN CAP AT ROOF LEVEL
C3	HSS8x8x3/8	BP2	AR2	SHOP WELD SIMPSON CCOQ6SDS2.5 TO TOP OF 1/2" COL CAP PLATE WITH 3/16" FILLET WELD ALL AROUND.
C4	5 1/4"x5 1/4" PSL	SIMPSON ABU66Z (GROUT STANDOFF)	5/8"Ø x6" ADHESIVE ANCHOR	-

HEADER SCHEDULE

MARK	SIZE	JACK STUD	KING STUDS	COMMENTS
H1	(2) 2x8	(1) 2x6	(1) 2x6	-
H2	(2) 2x8	(2) 2x6	(1) 2x6	-
H3	(2) 2x10	(2) 2x6	(1) 2x6	-
H4	(3) 2x12	(2) 2x6	(1) 2x6	-
H5	(3) 2x12	(3) 2x6	(1) 2x6	-
H6	(3) 2x12	(4) 2x6	(1) 2x6	-
H7	(2) 1 3/4"x9 1/2" LVL	(2) 2x6	(2) 2x6	OMIT HEADER SILL PLATE AT INDIVIDUAL GARAGE OPENINGS
H8	(2) 1 3/4"x11 1/4" LVL	(2) 2x6	(1) 2x6	-
H9	(2) 1 3/4"x11 1/4" LVL	(3) 2x6	(1) 2x6	-
H10	(2) 1 3/4"x11 1/4" LVL	(4) 2x6	(1) 2x6	-
H11	(2) 1 3/4"x11 1/4" LVL	(1) 2x8	(3) 2x8	-
H12	(3) 1 3/4"x14" LVL	(5) 2x6	(1) 2x6	OMIT HEADER SILL PLATE

BEAM SCHEDULE

MARK	SIZE	WOOD POST	COMMENTS
B1	STAIR BEAM	(3) 2x6	SD 7/S401
B2	(3) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B3	(2) 2x10 (TREATED)	SEE PLAN	SD 13/S403
B4	(3) 2x10	(1) 2x6	-
B5	(3) 2x10	(2) 2x6	-
B6	(3) 2x10	(3) 2x6	-
B7	(3) 1 3/4"x9 1/2" LVL	(3) 2x6	-
B8	(3) 1 3/4"x24" LVL	(3) 2x6	-
B9	(3) 1 3/4"x16" LVL	(5) 2x6	-
B10	(3) 1 3/4"x14" LVL	(4) 2x6	-
B11	(3) 1 3/4"x11 7/8" LVL	SEE PLAN	-

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

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Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
ROOF FRAMING PLAN - AREA C

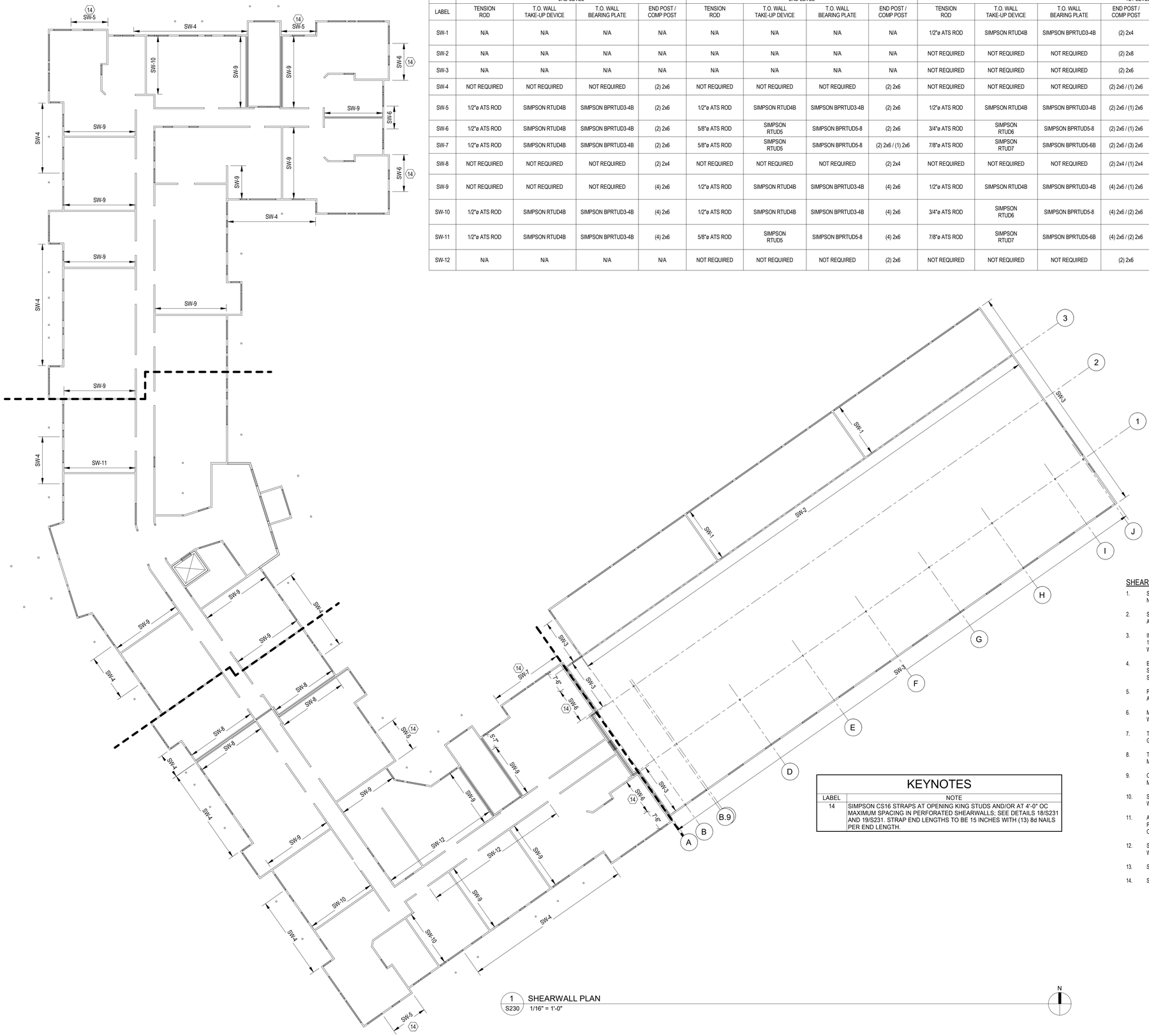
SHEET NO.

S203C

22124-16

SHEAR WALL SCHEDULE

LABEL	3RD LEVEL				2ND LEVEL				1ST LEVEL					
	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST / COMP POST	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST / COMP POST	TENSION ROD	T.O. WALL TAKE-UP DEVICE	T.O. WALL BEARING PLATE	END POST / COMP POST	BASE TENSION ROD ANCHOR	SILL PL FASTENING @ BASE LEVEL
SW-1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x4	1/2"ø ADHESIVE ANCHOR W/ 1'-0" CMU PIER EMBED S.D. 6/S302	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 2'-8" OC
SW-2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x8	NOT REQUIRED	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC
SW-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC
SW-4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6 / (1) 2x6	NOT REQUIRED	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 2'-8" OC
SW-5	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x6 / (1) 2x6	1/2"ø ADHESIVE ANCHOR W/ 1'-2" CMU PIER EMBED S.D. 2/S302 TYP	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 2'-8" OC
SW-6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x6	5/8"ø ATS ROD	SIMPSON RTUD5	SIMPSON BPRTUD5-8	(2) 2x6	3/4"ø ATS ROD	SIMPSON RTUD6	SIMPSON BPRTUD5-8	(2) 2x6 / (1) 2x6	EMBED PLATE AT CMU PIER S.D. 13/S302 TYP	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 1'-4" OC
SW-7	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(2) 2x6	5/8"ø ATS ROD	SIMPSON RTUD5	SIMPSON BPRTUD5-8	(2) 2x6 / (1) 2x6	7/8"ø ATS ROD	SIMPSON RTUD7	SIMPSON BPRTUD5-6B	(2) 2x6 / (3) 2x6	EMBED PLATE AT CMU PIER S.D. 14/S302	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 1'-4" OC
SW-8	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x4 / (1) 2x4	NOT REQUIRED	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC
SW-9	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(4) 2x6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(4) 2x6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(4) 2x6 / (1) 2x6	1/2"ø ADHESIVE ANCHOR W/ 0'-9" CONC EMBED S.D. 1/S302	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 3'-4" OC
SW-10	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(4) 2x6	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(4) 2x6	3/4"ø ATS ROD	SIMPSON RTUD6	SIMPSON BPRTUD5-8	(4) 2x6 / (2) 2x6	3/4"ø ADHESIVE ANCHOR W/ 1'-0" CONC EMBED S.D. 1/S302	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 1'-8" OC
SW-11	1/2"ø ATS ROD	SIMPSON RTUD4B	SIMPSON BPRTUD3-4B	(4) 2x6	5/8"ø ATS ROD	SIMPSON RTUD5	SIMPSON BPRTUD5-8	(4) 2x6	7/8"ø ATS ROD	SIMPSON RTUD7	SIMPSON BPRTUD5-6B	(4) 2x6 / (2) 2x6	7/8"ø ADHESIVE ANCHOR W/ 1'-4" CONC EMBED S.D. 1/S302	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 1'-4" OC
SW-12	N/A	N/A	N/A	N/A	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	(2) 2x6	NOT REQUIRED	1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC



1 S230 SHEARWALL PLAN
1/16" = 1'-0"

KEYNOTES

LABEL	NOTE
14	SIMPSON CS16 STRAPS AT OPENING KING STUDS AND/OR AT 4'-0" OC MAXIMUM SPACING IN PERFORATED SHEARWALLS; SEE DETAILS 18/S231 AND 19/S231. STRAP END LENGTHS TO BE 15 INCHES WITH (13) 8d NAILS PER END LENGTH.

SHEAR WALL PLAN NOTES:

1. SEE GENERAL NOTES FOR TYPICAL SHEATHING REQUIREMENTS. NOT SHOWN ON WALL SECTIONS.
2. SEE S001 POST-INSTALLED ANCHORAGE NOTES FOR APPLICABLE ANCHORAGE REQUIREMENTS.
3. INTERIOR CORRIDOR BEARING WALL SILL PLATE FASTENING TO BE 1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC UNO IN SHEAR WALL SCHEDULE.
4. EXTERIOR BEARING WALL SILL PLATE FASTENING TO BE 1/2"Ø x5" SIMPSON TITEN HD ANCHORS @ 4'-0" OC UNO IN SHEAR WALL SCHEDULE. SEE DETAIL 1/S301 FOR ANCHOR DIMENSIONS
5. PROVIDE SIMPSON BPS5/8-3HDG OR EQUAL SILL ANCHOR WASHERS AT ALL SHEAR WALL.
6. MAXIMUM WALL STUD SPACING TO BE 16" OC FOR ALL SHEAR WALLS, UNO
7. TENSION RODS TO BE STANDARD STRENGTH MATERIAL, ASTM F1554 GRADE 36 OR A36 (Fu=58 KSI) UNO
8. TENSION RODS DENOTED WITH "H.S." TO BE HIGH STRENGTH MATERIAL, ASTM A449 OR F1554 GRADE 105 (Fu=120 KSI MIN.) UNO
9. OVERSIZE TENSION ROD HOLES IN WOOD PLATES TO COMPLY WITH MANUFACTURER'S SPECIFICATIONS.
10. SEE DETAIL 17/S231 FOR FASTENING REQUIREMENTS AT SHEAR WALLS WITH PANEL EDGE FASTENING OF 3" OC OR LESS.
11. AT FLOORS WHERE TENSION ROD IS NOT REQUIRED, COMPRESSION POSTS MAY BE OMITTED. SEE SCHEDULE FOR REQUIRED NUMBER OF END POSTS.
12. SEE DETAIL 16/S231 FOR FASTENING REQUIREMENTS AT SHEAR WALL PANEL BUTT JOINTS.
13. SEE DETAIL 13/S231 FOR SIMPSON ATS FRAMING DETAILS.
14. SEE SHEET S231 FOR SHEARWALL SECTIONS.

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions		
#	DATE	COMMENTS

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Print Name: Michael Telste
Signature: _____
Date: 11/08/2024 License #: 56944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

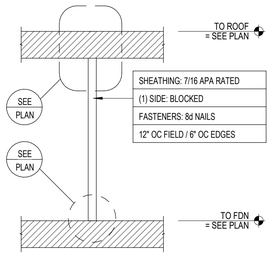
SHEET CONTENTS: SHEARWALL PLAN

SHEET NO.

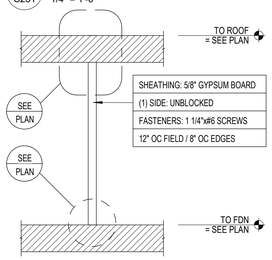
S230

22124-16

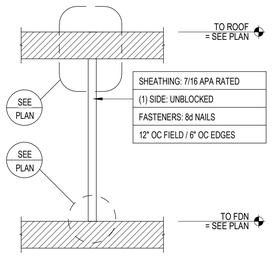
11/8/2024 9:06:12 AM



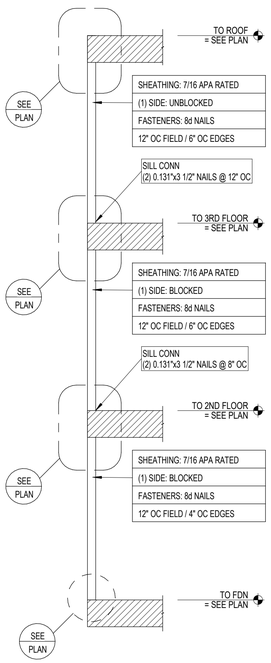
1 S231 SW SECTION (SW-1)
1/4" = 1'-0"



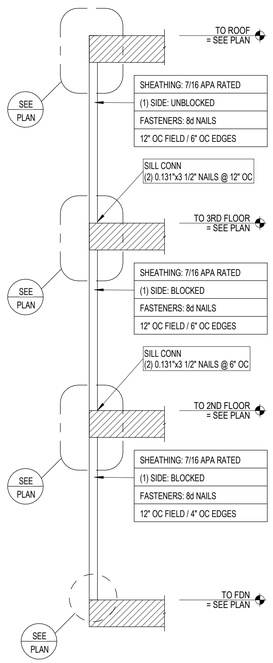
2 S231 SW SECTION (SW-2)
1/4" = 1'-0"



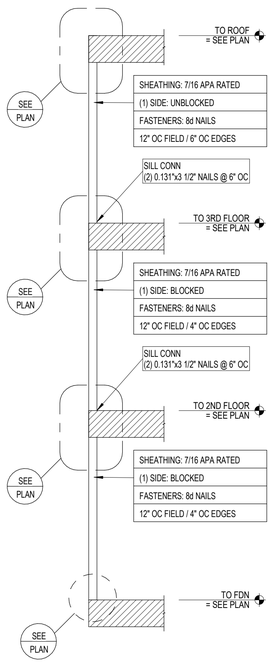
3 S231 SW SECTION (SW-3)
1/4" = 1'-0"



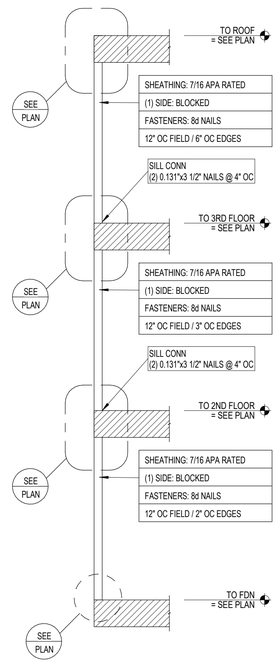
4 S231 SW SECTION (SW-4)
1/4" = 1'-0"



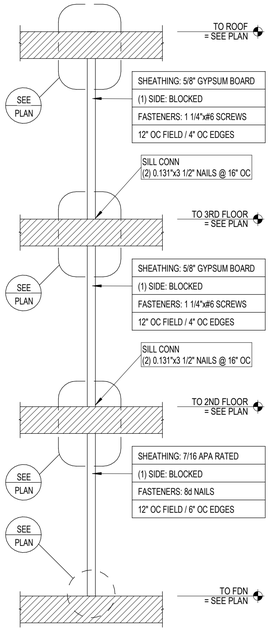
5 S231 SW SECTION (SW-5)
1/4" = 1'-0"



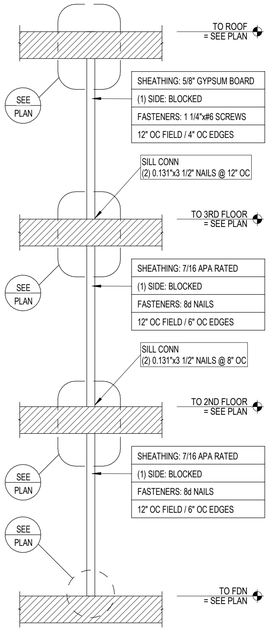
6 S231 SW SECTION (SW-6)
1/4" = 1'-0"



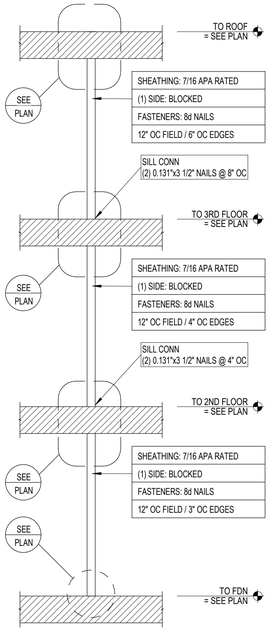
7 S231 SW SECTION (SW-7)
1/4" = 1'-0"



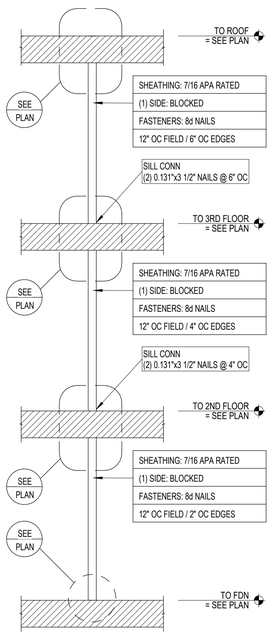
8 S231 SW SECTION (SW-8)
1/4" = 1'-0"



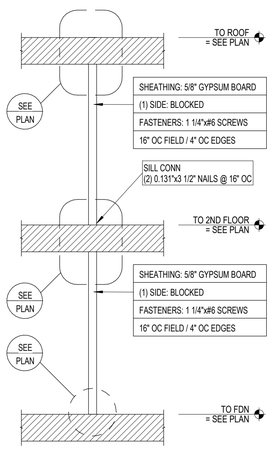
9 S231 SW SECTION (SW-9)
1/4" = 1'-0"



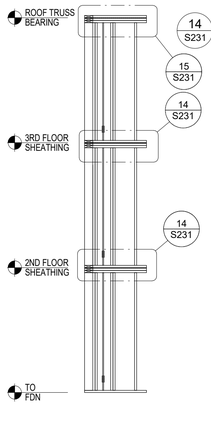
10 S231 SW SECTION (SW-10)
1/4" = 1'-0"



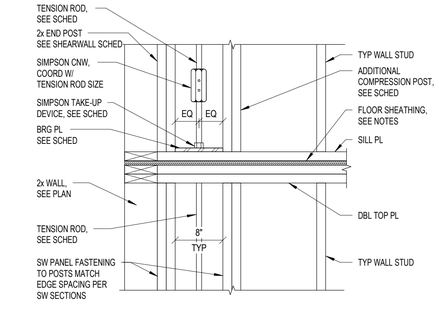
11 S231 SW SECTION (SW-11)
1/4" = 1'-0"



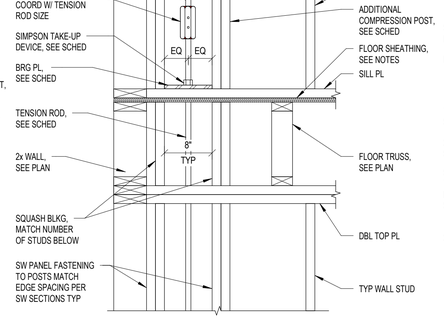
12 S231 SW SECTION (SW-12)
1/4" = 1'-0"



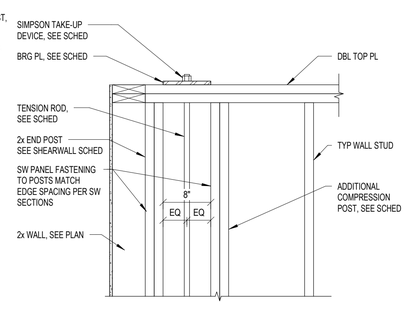
13 S231 STRONG-ROD ATS
1/4" = 1'-0"



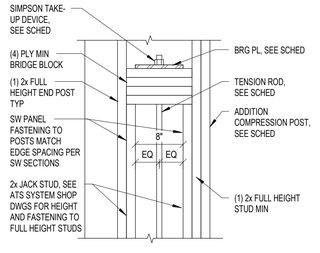
14 S231 TENSION ROD @ FLOOR LEVEL
1" = 1'-0"



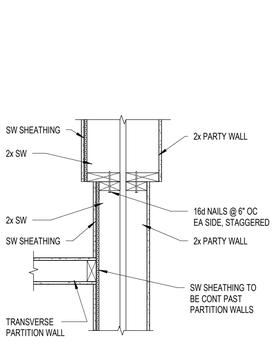
15 S231 TENSION ROD @ ROOF LEVEL
1" = 1'-0"



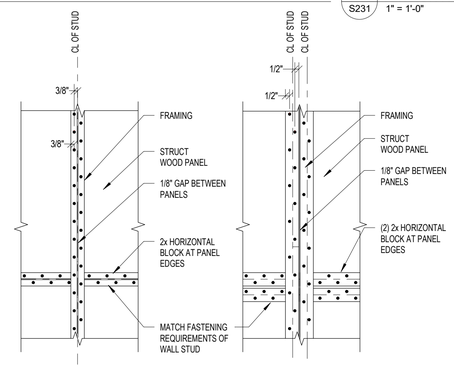
TOW



BRIDGE BLOCKING @ PARTIAL WALL HEIGHT



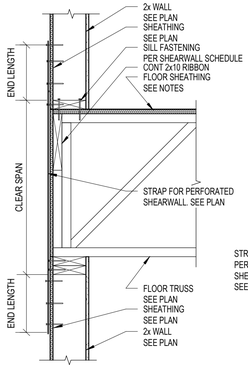
16 S231 SHEARWALL BUTT JOINT CONN
1" = 1'-0"



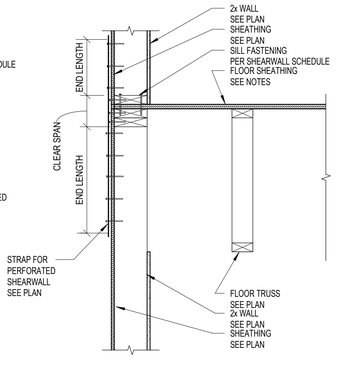
SINGLE STUD W/ STAGGERED FASTENERS
(FOR REQUIRED EDGE FASTENING > OR = 3" OC)

DBL STUD W/ STAGGERED FASTENERS
(WHERE REQUIRED BY SHEARWALL SECTIONS)

17 S231 STAGGERED NAILS @ PANEL EDGES
1 1/2" = 1'-0"



18 S231 FRAMING DETAIL
1" = 1'-0"



19 S231 FRAMING DETAIL
1" = 1'-0"

11/8/2024 9:06:13 AM

SANDMAN
Structural Engineers

Moorhead | Brainerd | Minneapolis
www.SandmanSE.com

Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions

#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
SHEARWALL SECTIONS AND DETAILS

SHEET NO.
S231

22124-16

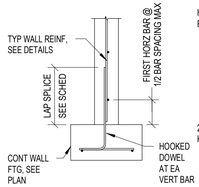
REINFORCING STEEL SPLICE LENGTHS FOR STANDARD NON-COATED BARS					
CONCRETE COMPRESSIVE STRENGTH F'c	CLASS A SPLICE		CLASS B SPLICE		COMPRESSION SPLICE
	#6 AND SMALLER	#7 AND LARGER	#6 AND SMALLER	#7 AND LARGER	#4 AND LARGER
3000 PSI	44 Bd	55 Bd	57 Bd	71 Bd	30 Bd
4000 PSI	38 Bd	47 Bd	49 Bd	62 Bd	30 Bd
5000 PSI	34 Bd	43 Bd	44 Bd	56 Bd	30 Bd

Bd = BAR DIAMETER

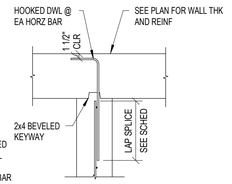
CONCRETE REINFORCEMENT CLEAR COVER, UNO (NON-PRESTRESSED)	
CONDITION AND DESIGNATION	CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER: #6 THRU #18	2"
CONCRETE EXPOSED TO EARTH OR WEATHER: #5 OR SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT W/ EARTH	
SLABS, WALLS, JOISTS: #14 AND #18	1 1/2"
SLABS, WALLS, JOISTS: #11 AND SMALLER	3/4"
BEAMS, COLUMNS (PRIMARY REINF, TIES, STIRRUPS, SPIRALS)	1 1/2"

NOTES:

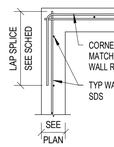
1. MINIMUM LAP: 18" FOR CLASS A OR B SPLICE & 12" FOR COMPRESSION SPLICES.
2. REQUIRED SPLICE LENGTH = LISTED SPLICE LENGTH x ADJUSTMENT FACTORS
   ADJUSTMENT FACTORS = 1.0 IF NONE BELOW APPLY
   A. FOR HORZ REINFORCING IN MAT SLABS, BEAMS, AND FOOTINGS W/ MORE THAN 12" OF FRESH CONCRETE PLACED BELOW BAR - ADJUSTMENT FACTOR = 1.3
   B. FOR Fy OTHER THAN 60 KSI - ADJUSTMENT FACTOR = Fy (USED)/60
   C. FOR LIGHT WEIGHT CONCRETE - ADJUSTMENT FACTOR = 1.33
   D. TYPICAL EPOXY COATED REINFORCING - ADJUSTMENT FACTOR = 1.2
   E. TYPICAL EPOXY COATED REINFORCING WITH COVER LESS THAN 3Bd OR CLEAR SPACING LESS THAN 6 Bd - ADJUSTMENT FACTOR = 1.5
3. ALL ADJUSTMENT FACTORS THAT APPLY SHALL BE USED TO CALCULATE REQUIRED SPLICE LENGTH
4. UNLESS OTHERWISE NOTED ON PLANS OR DETAILS, LAP THE FOLLOWING BARS AS DEFINED IN LAP SPLICE TABLE
   A. VERTICAL HOOKED OR STRAIGHT BARS EXTENDING FROM FOOTINGS: COMPRESSION SPLICE, UNO
   B. HORIZONTAL BARS IN GRADE BEAMS, FOOTINGS AND FOUNDATION WALLS: CLASS B SPLICE
   C. VERTICAL BARS IN COLUMNS AND PIERS: COMPRESSION SPLICE, UNO
   D. VERTICAL BARS IN BASEMENT, RETAINING WALLS AND GRADE BEAMS: CLASS B SPLICE
   E. UNO ON PLAN OR DETAILS, LAP THE SLAB BARS WITH A LAP LENGTH OF 48 Bd



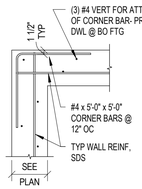
TYPICAL WALL BASE



WALL INTERSECTION

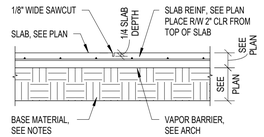


WALL CORNER

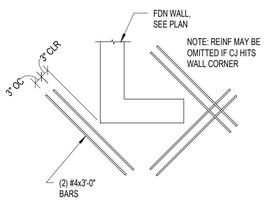


WALL CORNER

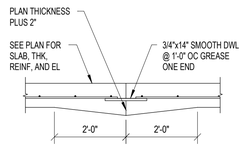
NOTES:
1. SAWCUT JOINT SHALL BE EXECUTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM DISLODGING BY SAW AND PRIOR TO SHRINKAGE STRESS CRACKING



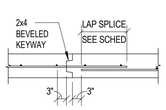
TYP SLAB CONTROL JOINT



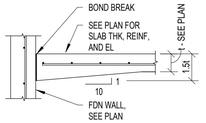
REENTRANT CORNER ADDITIONAL REINFORCEMENT REQUIRED



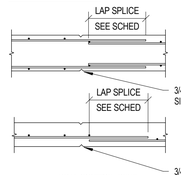
SLAB CONSTRUCTION JOINT



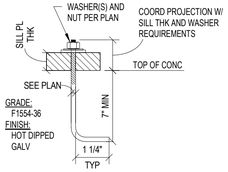
WALL CONSTRUCTION JOINT



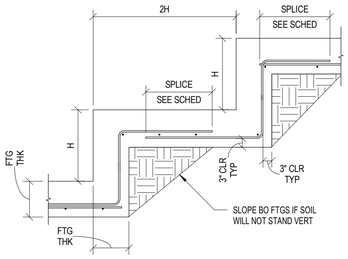
SLAB THICKENED EDGE



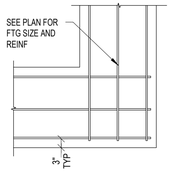
WALL CONTROL JOINT



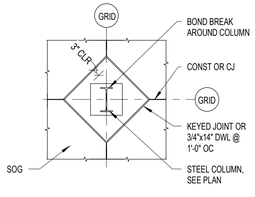
WOOD SILL PLATE ANCHOR



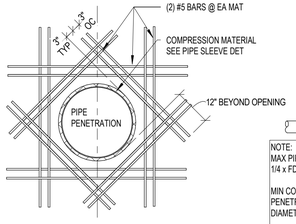
FOOTING STEP



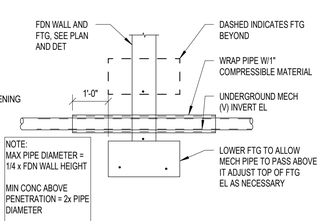
FOOTING CORNER



COLUMN ISOLATION JOINT



CORNER BARS @ PIPE OPENING

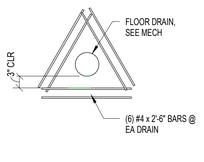


NOTE:
MAX PIPE DIAMETER = 1/4 x FDN WALL HEIGHT

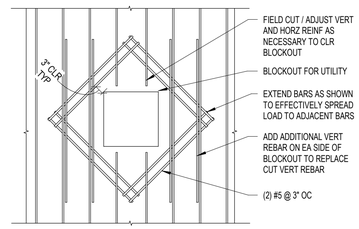
MIN CONC ABOVE PENETRATION = 2x PIPE DIAMETER

CONTACT ENGINEER IF REQUIREMENTS CAN'T BE MET

PIPE SLEEVE DETAIL

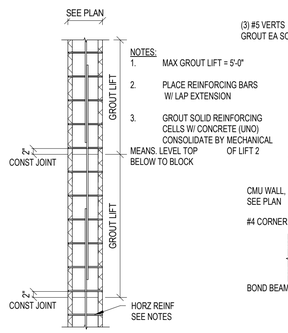


TYPICAL FLOOR DRAIN REINFORCEMENT



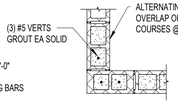
UTILITY BLOCKOUT DETAIL

1 S301 STANDARD FOUNDATION DETAILS
1/2" = 1'-0"



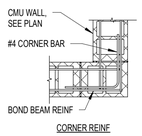
NOTES:
1. MAX GROUT LIFT = 5'-0"
2. PLACE REINFORCING BARS W/ LAP EXTENSION
3. GROUT SOLID REINFORCING CELLS W/ CONCRETE (UNO) CONSOLIDATE BY MECHANICAL MEANS. LEVEL TOP OF LIFT 2 BELOW TO BLOCK

CMU WALL CONSTRUCTION



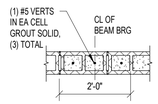
CORNER DETAIL

CMU REINF LAP SCHED		
BAR	LAP LENGTH SINGLE LAYER	LAP LENGTH DBL LAYER
#3	18"	27"
#4	24"	36"
#5	35"	45"
#6	54"	54"

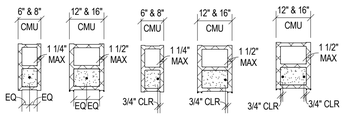


NOTE:
USE SAME CORNER BARS @ MASONRY WALL INTERSECTIONS

BOND BEAM CORNER



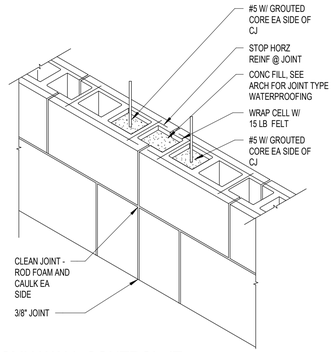
BEAM BRG @ CMU



SINGLE CENTERED INSIDE FACE EACH FACE

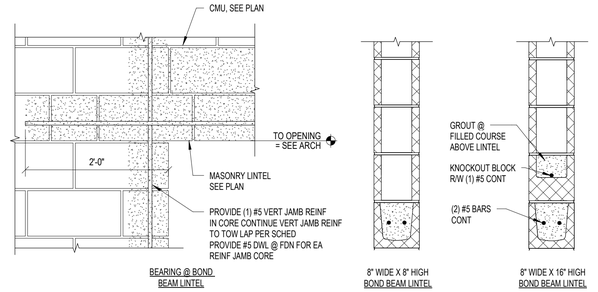
NOTE: REBAR POSITION AND FACE SHELL DIMENSIONS ARE CRITICAL FOR STRUCTURAL DESIGN CAPACITIES ON THE INSIDE FACE AND EACH FACE CONDITIONS. CONTRACTOR CONTACT EOR IF CMU FACE SHELL DIMENSIONS DIFFER ON THE PROJECT.

CMU WALL REINFORCEMENT POSITIONS

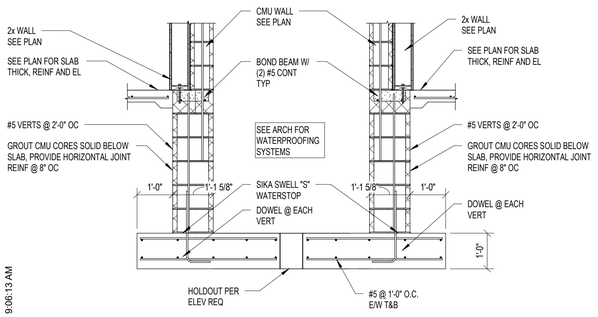


CMU WALL CONTROL JT

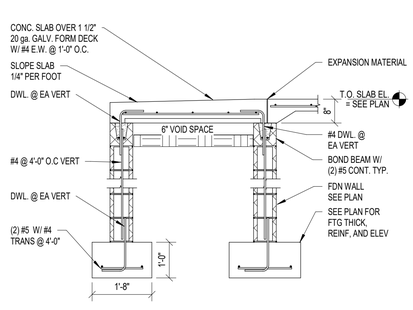
2 S301 STANDARD CMU DETAILS
1/2" = 1'-0"



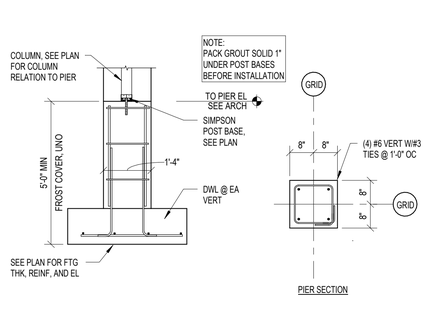
3 S301 STANDARD LINTEL DETAILS
1" = 1'-0"



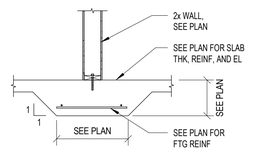
4 S301 FOUNDATION DETAIL
1/2" = 1'-0"



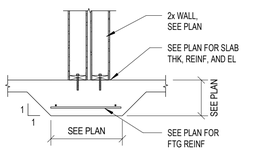
5 S301 FOUNDATION DETAIL
1/2" = 1'-0"



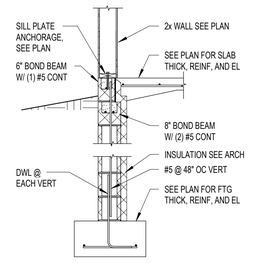
6 S301 PIER DETAIL (P1)
1/2" = 1'-0"



7 S301 FOUNDATION DETAIL
1/2" = 1'-0"



8 S301 FOUNDATION DETAIL
1/2" = 1'-0"



11/8/2024 9:06:13 AM

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions		
#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Print Name: Michael Telste
Signature:
Date: 11/08/2024
License #: 58944

SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

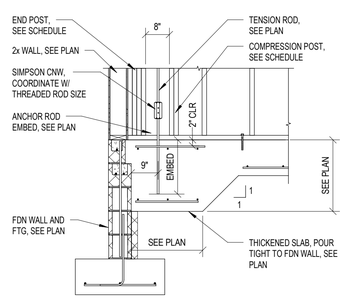
HUGO, MN

SHEET CONTENTS: FOUNDATION DETAILS

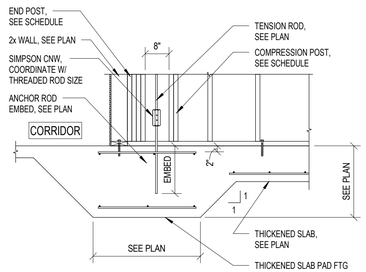
SHEET NO.

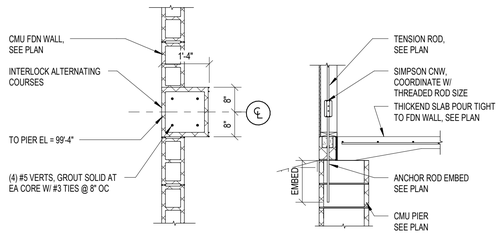
S301

22124-16



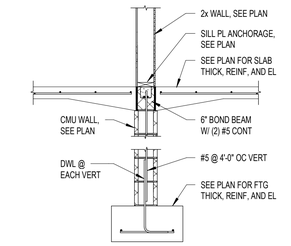
1 S302 FOUNDATION DETAIL
1/2" = 1'-0"



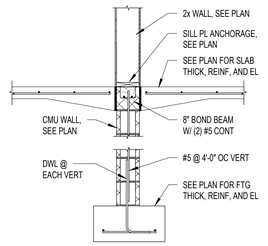


PLAN VIEW SECTION VIEW

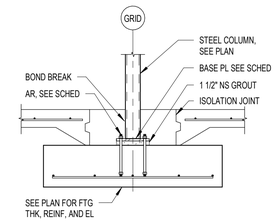
2 S302 PIER DETAIL (P2)
1/2" = 1'-0"



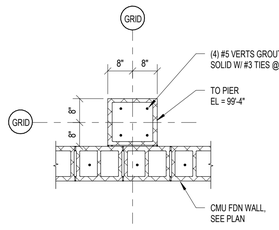
3 S302 FOUNDATION DETAIL
1/2" = 1'-0"



4 S302 FOUNDATION DETAIL
1/2" = 1'-0"

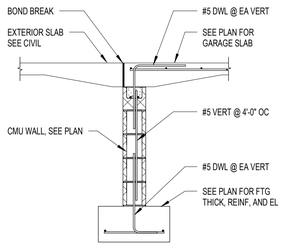


5 S302 FOUNDATION DETAIL
1/2" = 1'-0"

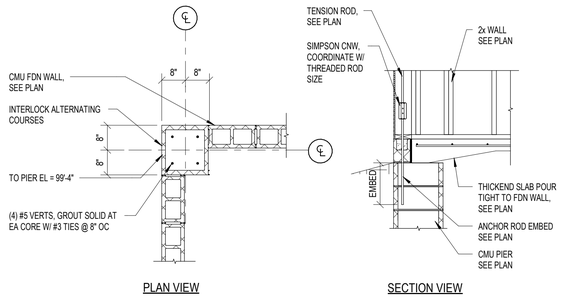


PLAN VIEW

6 S302 PIER DETAIL (P4)
1/2" = 1'-0"



7 S302 FOUNDATION DETAIL
1/2" = 1'-0"



PLAN VIEW SECTION VIEW

8 S302 PIER DETAIL (P3)
1/2" = 1'-0"

BASE PLATE SCHEDULE

MARK	SIZE	PATTERN	"A"	"B"	"C"	"D"	"E"	"W"	COMMENTS
BP1	PL3/4"x11"x0'-11"	A	1 1/2"	-	-	-	-	-	-
BP2	PL3/4"x1'-2"x1'-2"	C	1 1/2"	-	-	-	-	1/4"	-
BP3	PL3/4"x7"x1'-0"	B	1 1/2"	-	-	-	-	-	-

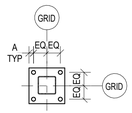
SEE TYP COLUMN TO BASEPLATE WELD DET

ANCHOR ROD SCHEDULE

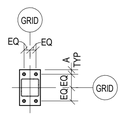
MARK	DIAMETER, d	EMBEDMENT, e	REVEAL, r	COMMENTS
AR1	3/4"	1'-0"	6"	-
AR2	3/4"	1'-6"	6"	-

PLATE WASHER SCHEDULE

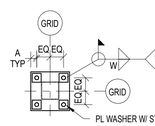
AR Ø	WASHER SIZE	THICKNESS	WELD SIZE, w	COMMENTS
3/4"	2"	1/4"	1/4	-
1"	3"	3/8"	1/4	-



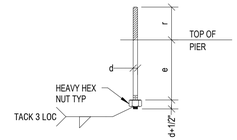
PATTERN A



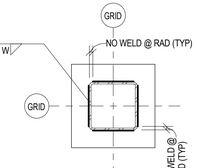
PATTERN B



PATTERN C

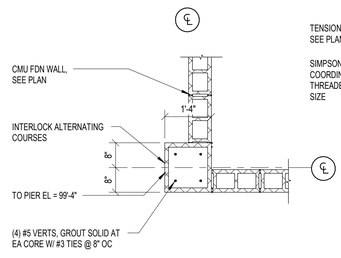


STANDARD ANCHOR ROD DETAIL



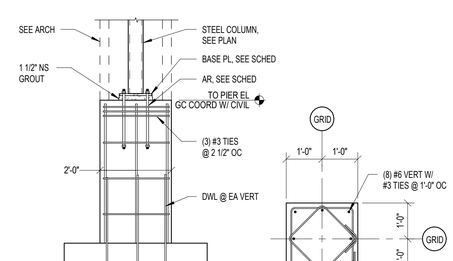
TYP COLUMN TO BASEPLATE WELD @ HSS TUBE

9 S302 STANDARD BASE PLATE DETAIL
1/2" = 1'-0"

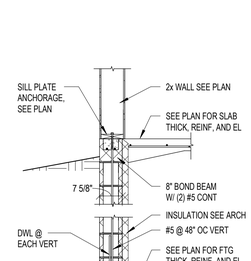


PLAN VIEW SECTION VIEW

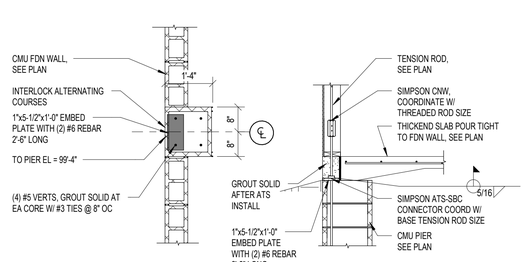
10 S302 PIER DETAIL (P5)
1/2" = 1'-0"



11 S302 PIER DETAIL (P6)
1/2" = 1'-0"

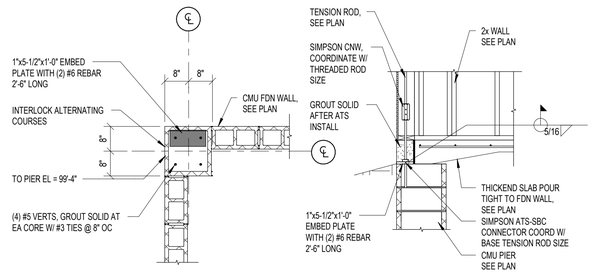


12 S302 FOUNDATION DETAIL
1/2" = 1'-0"



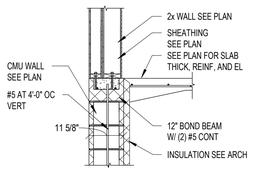
PLAN VIEW SECTION VIEW

13 S302 PIER DETAIL (P2A)
1/2" = 1'-0"

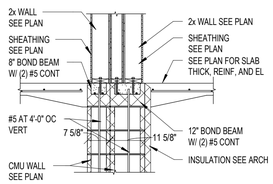


PLAN VIEW SECTION VIEW

14 S302 PIER DETAIL (P3A)
1/2" = 1'-0"



15 S302 FOUNDATION DETAIL
1/2" = 1'-0"



16 S302 FOUNDATION DETAIL
1/2" = 1'-0"

11/8/2024 9:06:15 AM

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Teiste
Signature:
Date: 11/08/2024
License #: 58944
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

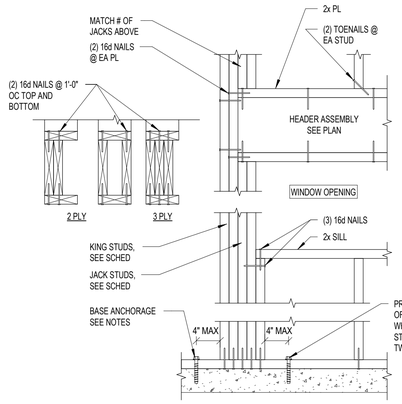
HUGO, MN

SHEET CONTENTS: FOUNDATION DETAILS

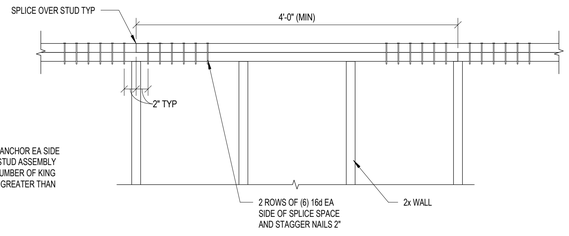
SHEET NO.

S302

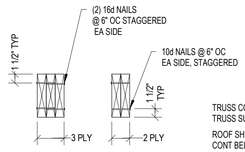
22124-16



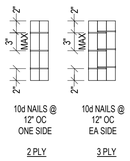
HEADER ASSEMBLY



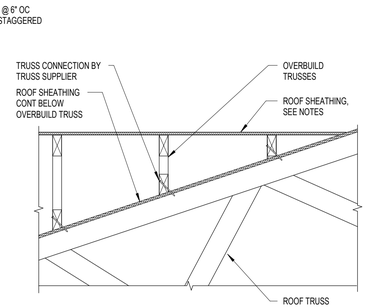
DOUBLE TOP PLATE SPLICE



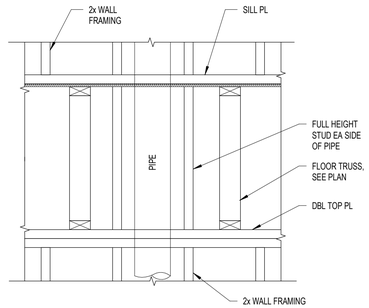
MULTI-PLY STUD COLUMN



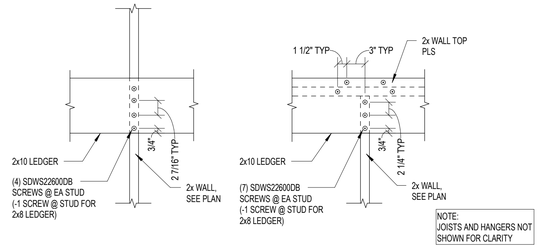
BEAM FASTENING DETAIL



ROOF TRUSS OVERBUILD

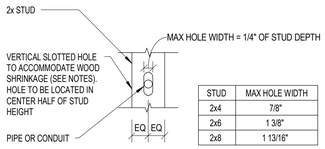


VERTICAL PLUMBING PENETRATION



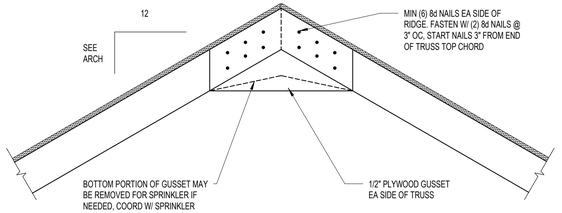
2x10 LEDGER AT WALL STUD

2x10 LEDGER AT DBL TOP PLATE



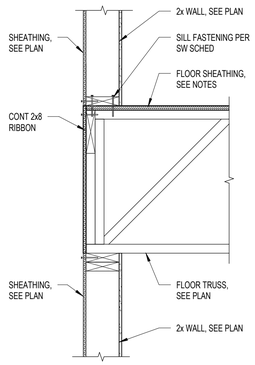
STUD	MAX HOLE WIDTH
2x4	7/8"
2x6	1 3/8"
2x8	1 13/16"

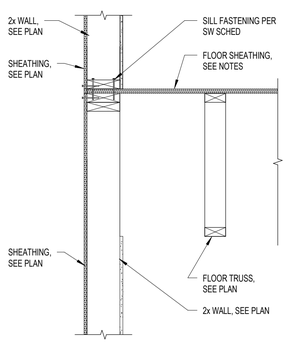
HORIZONTAL PENETRATION THROUGH STUDS

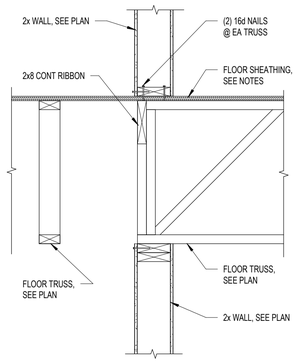


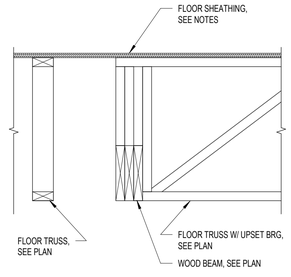
RIDGE GUSSET

1 S401 STANDARD FRAMING DETIALS
1" = 1'-0"

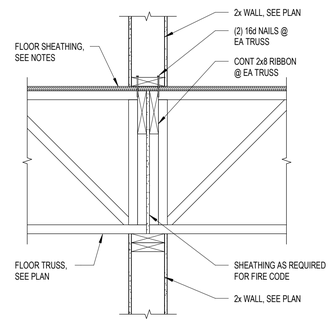


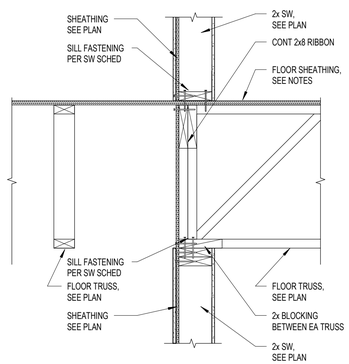






@ BEAM



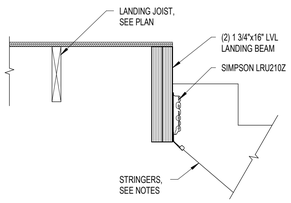


2 S401 FRAMING DETAIL
1" = 1'-0"

STAIR FRAMING NOTES

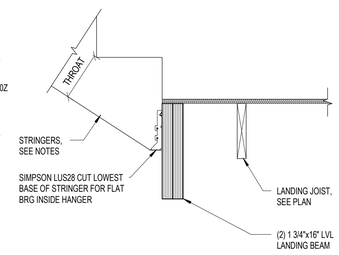
1. SEE ARCH FOR STAIR RISE/RUN AND LANDING DIMENSIONS
2. FRAMING CONDITIONS ENCOUNTERED IN THE FIELD THAT DO NOT MATCH THE SHOWN STRUCTURAL DETAIL, MUST BE COORDINATED W/ STRUCTURAL ENGINEER PRIOR TO WORK
3. DO NOT OVERCUT TREADS
4. STRINGERS: (4) 1 1/2" X 14" LSL EVENLY SPACED
5. MINIMUM THROAT DIMENSIONS:
   14" MEMBER = 8"
   16" MEMBER = 10"
   18" MEMBER = 12"
6. PROVIDE (3) 2x6/ (4) 2x4 AT BEAM BEARING UNO.
7. PROVIDE 2x4 BEARING WALL WITH BEVELED TOP PLATE AT FIRST FLOOR STRINGERS.

3 S401 FRAMING DETAIL
1" = 1'-0"

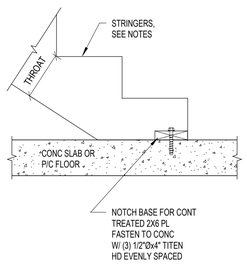


UPPER CONNECTION

4 S401 FRAMING DETAIL
1" = 1'-0"

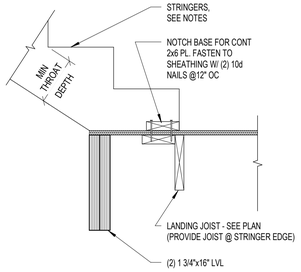


LOWER CONNECTION INTO LANDING



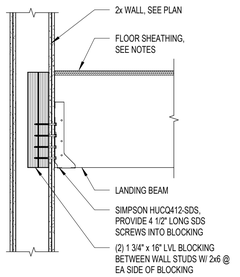
LOWER CONNECTION @ SLAB

5 S401 FRAMING DETAIL
1" = 1'-0"

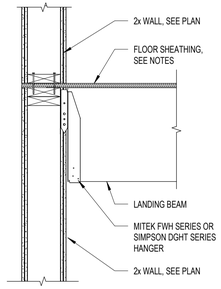


ALTERNATE LOWER CONNECTION ONTO LANDING

6 S401 FRAMING DETAIL
1" = 1'-0"



INTERMEDIATE LANDING BEAM CONNECTION TO RATED WALL



LANDING BEAM CONNECTION @ DOUBLE TOP PLATE

7 S401 SWITCHBACK STAIR FRAMING DETAILS
1" = 1'-0"

11/8/2024 9:06:15 AM

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Telste License #: 58944
Signature:
Date: 11/08/2024
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

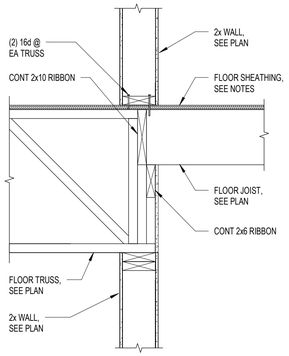
HUGO, MN

SHEET CONTENTS: FRAMING DETAILS

SHEET NO.

S401

22124-16



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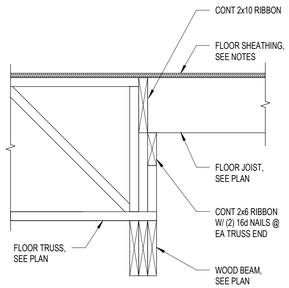
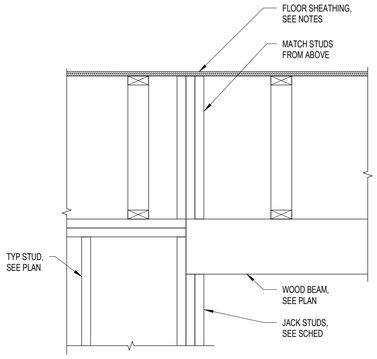
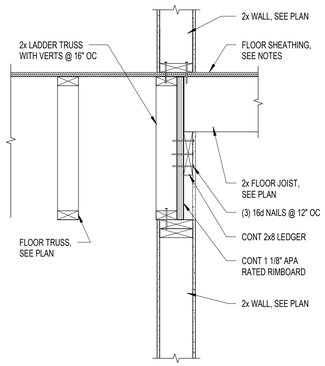
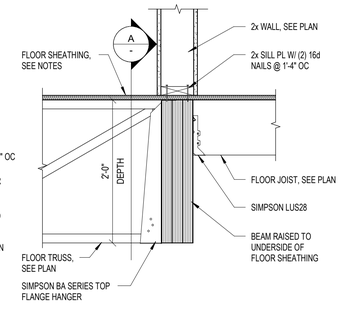


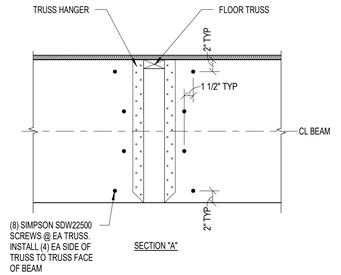
@ BEAM



@ BEAM BEARING







SECTION "A"

1 FRAMING DETAIL
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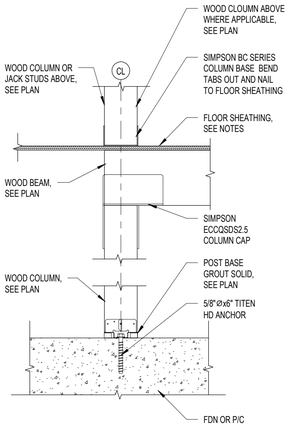

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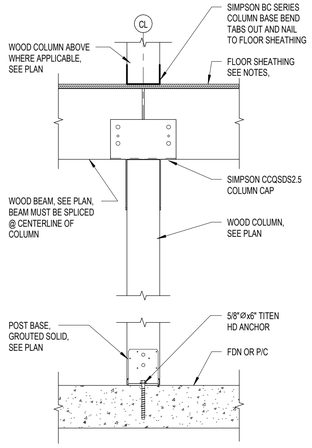

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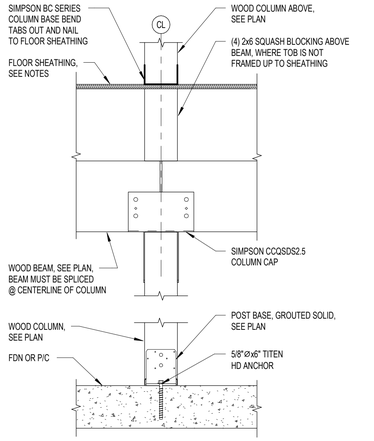

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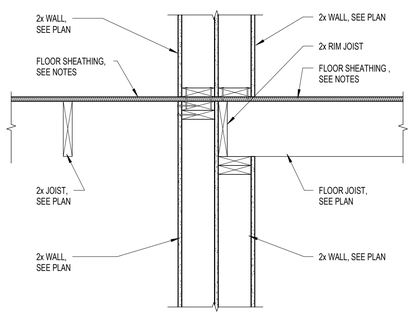

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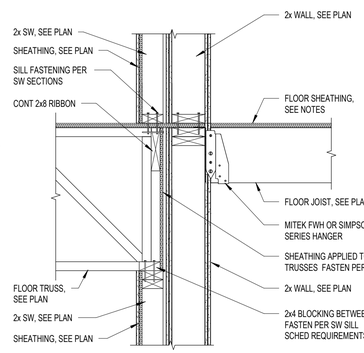

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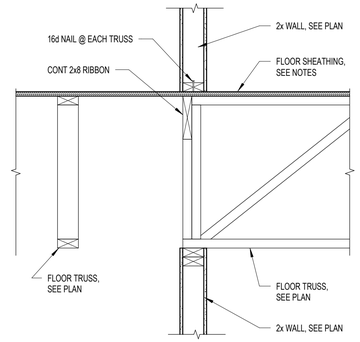

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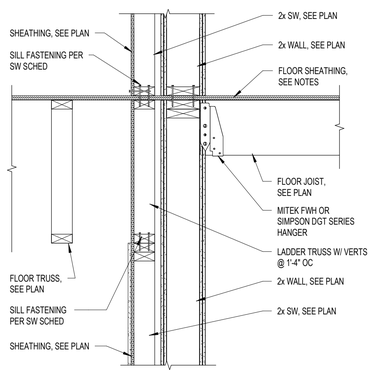

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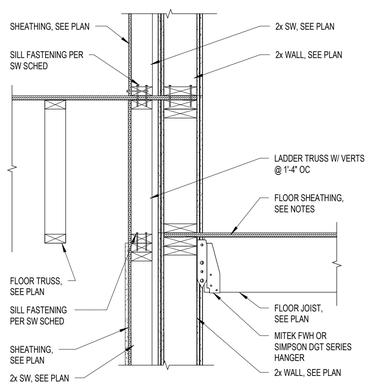

@ LOW LANDING

8 FRAMING DETAIL
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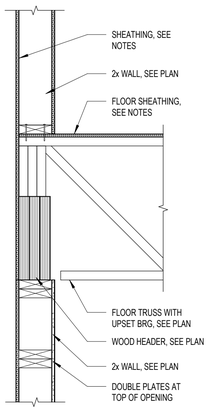

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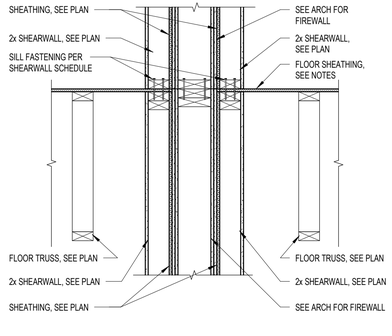

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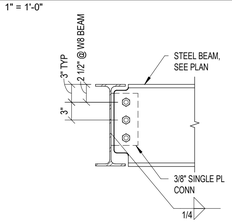
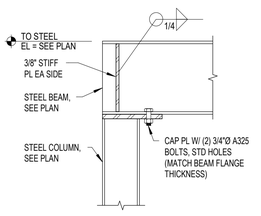
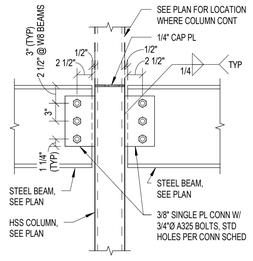


BEAM/BEAM CONNECITON DETAIL



BEAM END @ COLUMN DETAIL



BEAM/COLUMN CONNECTION DETAIL

CONNECTION SCHEDULE	
BEAM SIZE	ROWS OF BOLTS
W8, W10	2
W12,W14,W16	3
W18,W21	4

11 STANDARD CONNECTIONS
S402 1" = 1'-0"

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Proj. Engineer: TJO
Drawn by: AH
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Revisions

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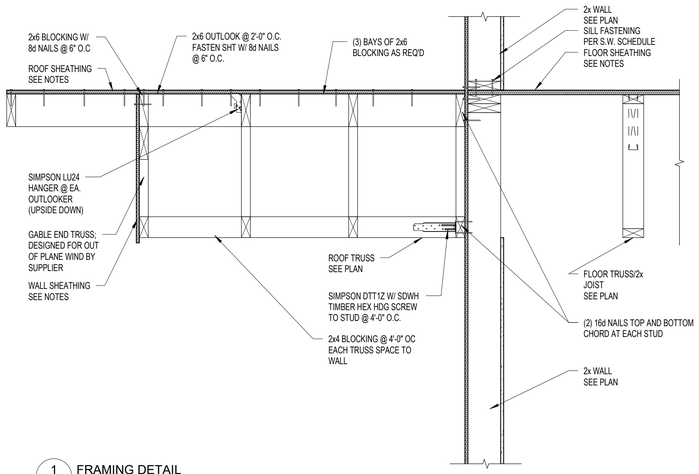
HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S402

22124-16



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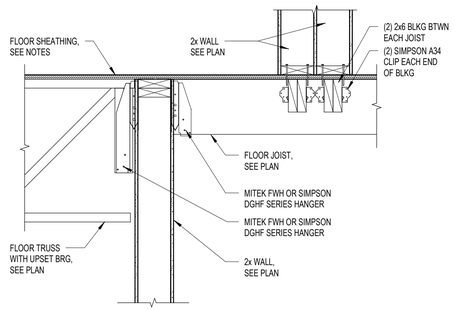

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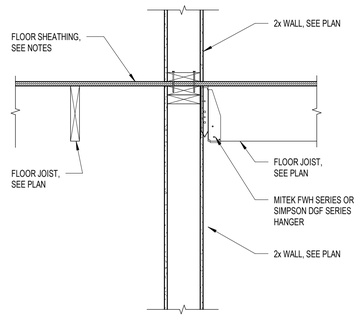

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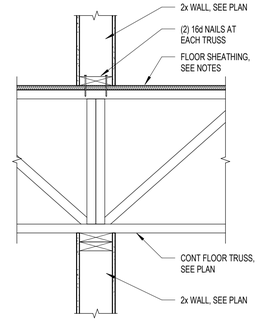

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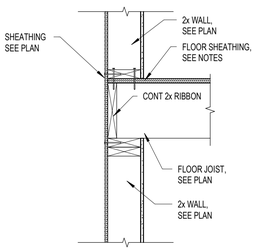

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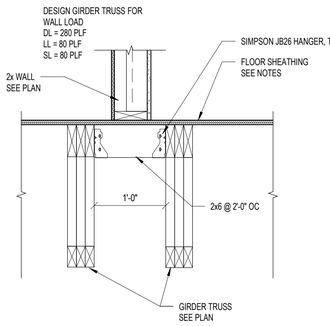

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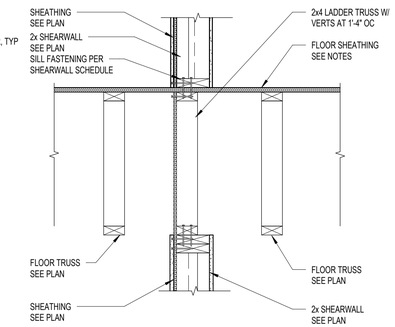

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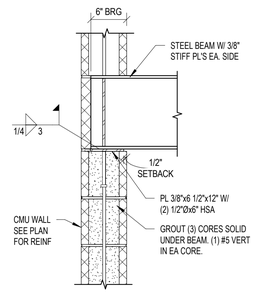

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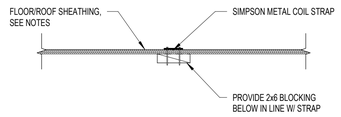

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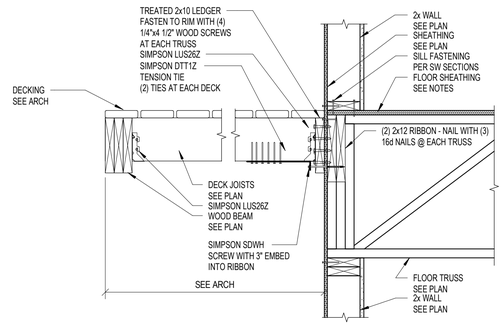

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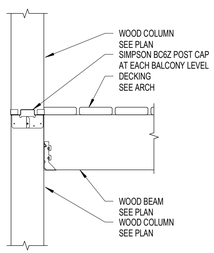
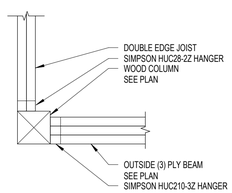


SECTION



PLAN VIEW

11 S403 FRAMING DETAIL
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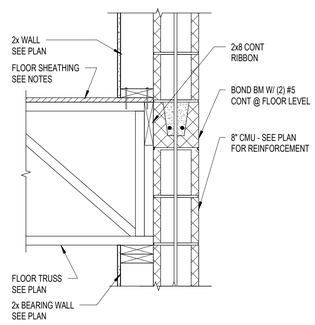

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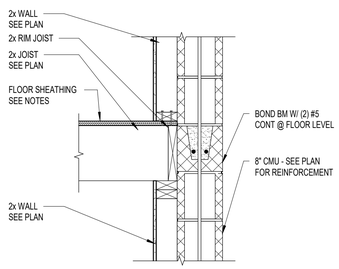

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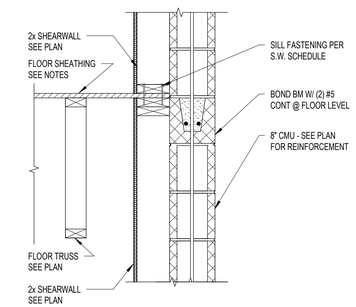

13 S403 FRAMING DETAIL
1" = 1'-0"

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HUGO, MN

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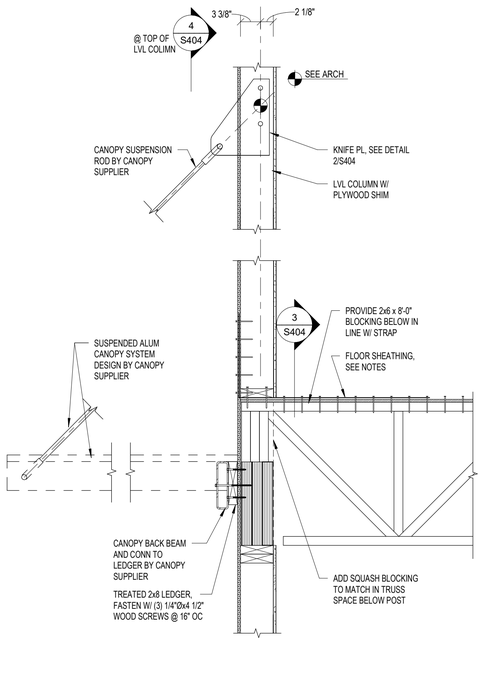
S403

22124-16



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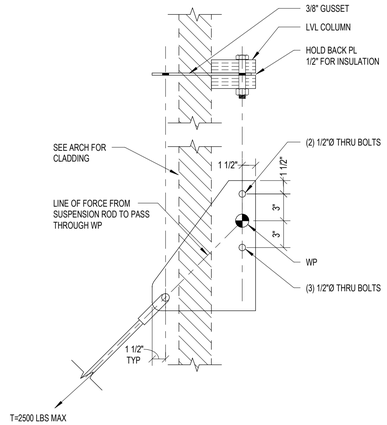
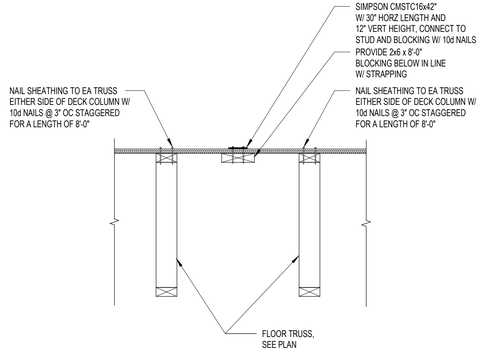


2 S404 KNIFE PLATE WITH LVL COLUMN AT CULTURED STONE
1 1/2" = 1'-0"



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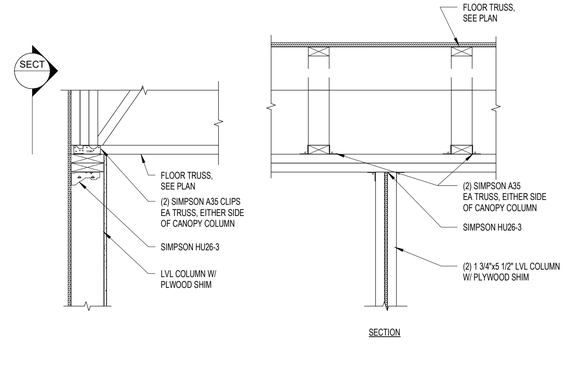

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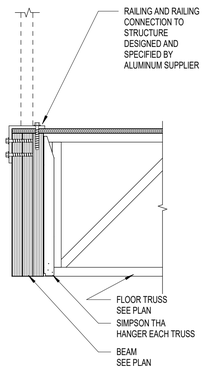

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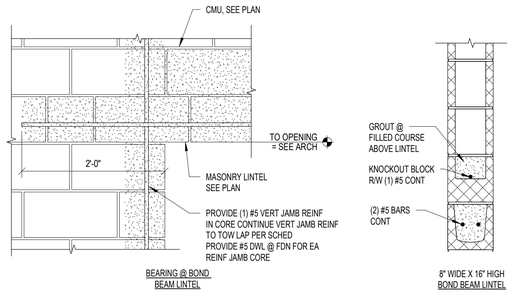

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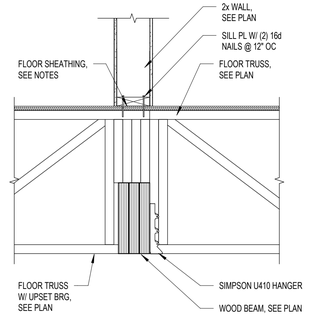

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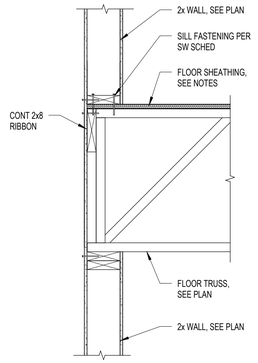

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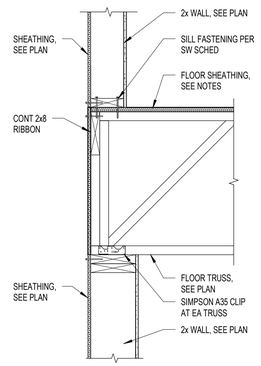

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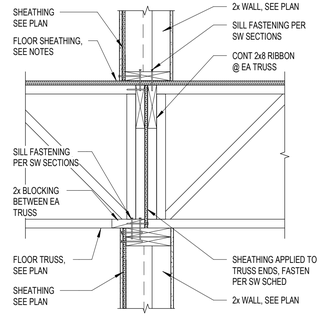

10 S404 FRAMING DETAIL
1" = 1'-0"

11/8/2024 9:06:17 AM

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HUGO, MN

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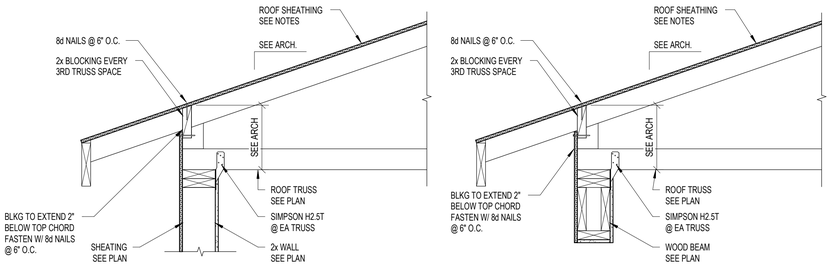
22124-16



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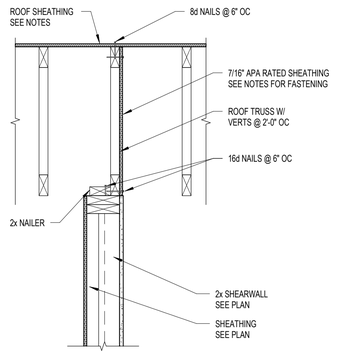

2 S421 FRAMING DETAIL
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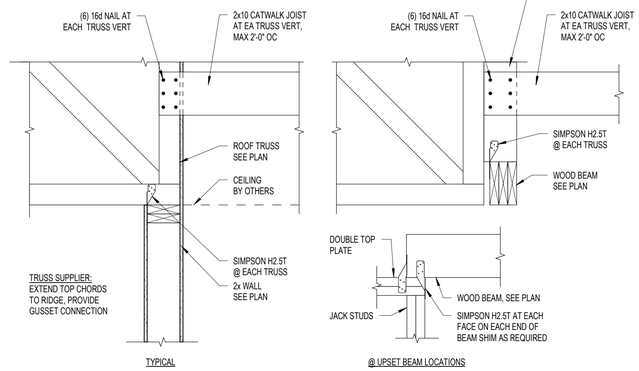

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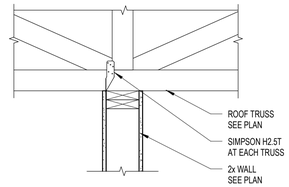

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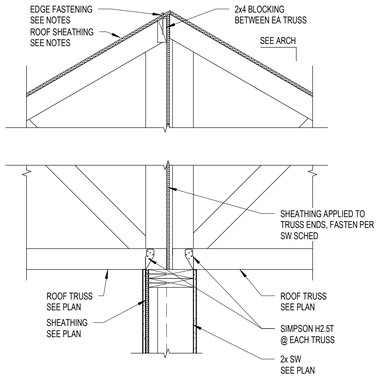

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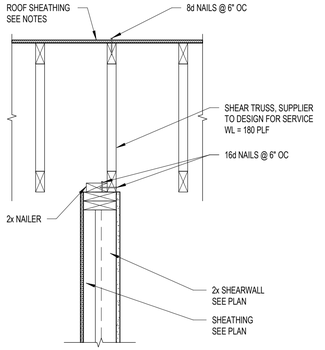

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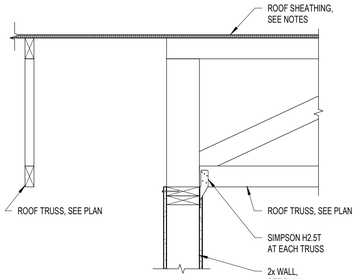

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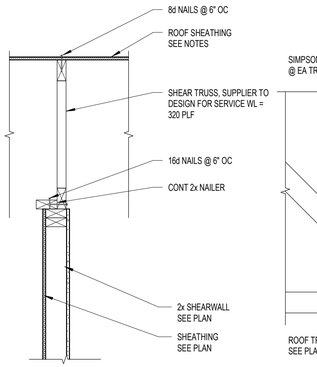

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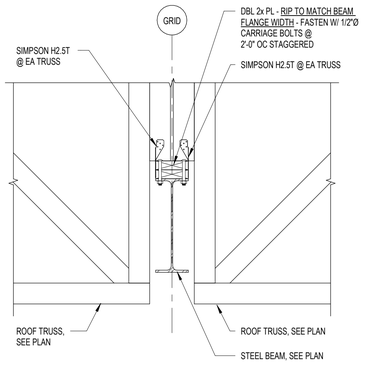

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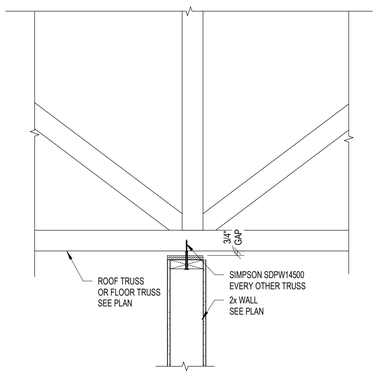

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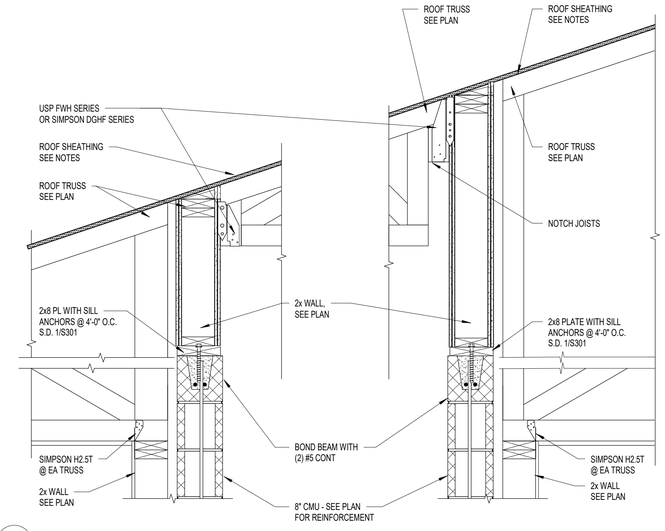

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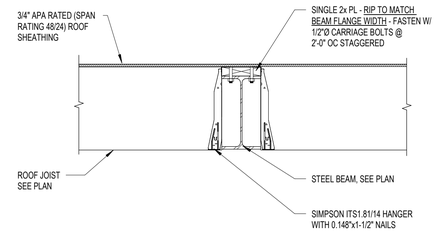

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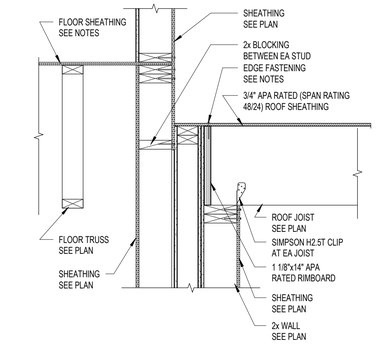

13 S421 FRAMING DETAIL
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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions		
#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944
SPACE FOR ENGINEER'S SEAL

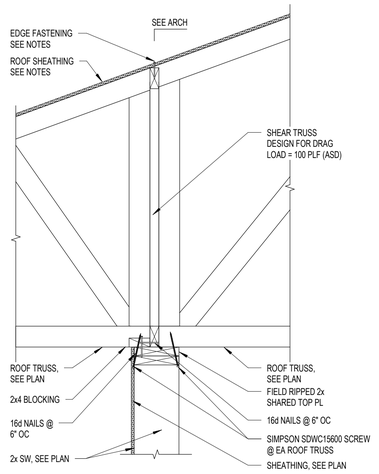
HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S421

22124-16



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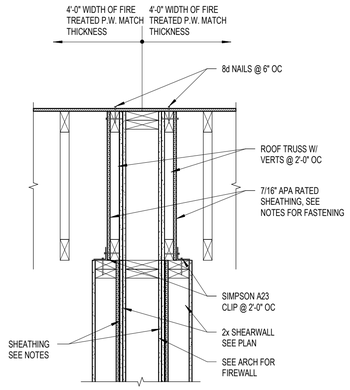

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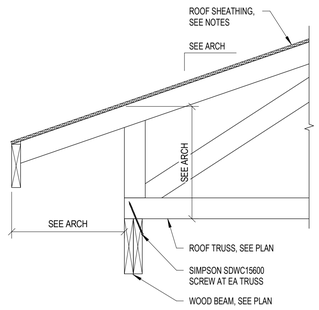

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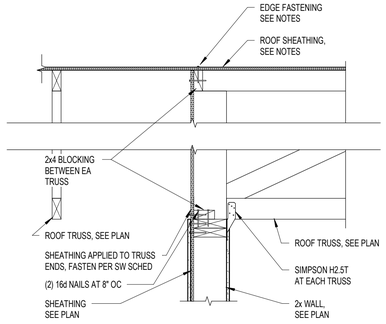

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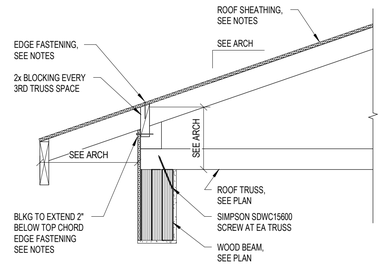

5 S422 FRAMING DETAIL
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6 S422 FRAMING DETAIL
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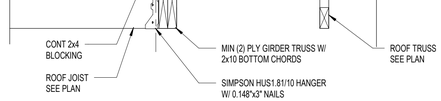

8 S422 FRAMING DETAIL
1" = 1'-0"

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Proj. Engineer: TJO
Drawn by: AH
Date Issued: 11/08/2024

Revisions	#	DATE	COMMENTS

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
Print Name: Michael Teiste
Signature:
Date: 11/08/2024 License #: 58944
SPACE FOR ENGINEER'S SEAL

HUGO APARTMENTS

HUGO, MN

SHEET CONTENTS:
FRAMING DETAILS

SHEET NO.
S422

22124-16

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