

PRELIMINARY,  
NOT FOR  
CONSTRUCTION

THOMPSON SPRINGS -  
COMMUNITY  
BUILDING

23-012  
13500 THOMPSON RD  
NEHALEM, OR 97131

INTERIM  
PROGRESS SET

MAY 20, 2025

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REVISIONS:



THOMPSON SPRINGS - COMMUNITY BUILDING

13500 THOMPSON RD  
NEHALEM, OR 97131

INTERIM PROGRESS SET

MAY 20, 2025

COVER

G000

PRELIMINARY,  
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THOMPSON SPRINGS -  
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BUILDING

23-012  
13500 THOMPSON RD  
NEHALEM, OR 97131

100% DESIGN  
DEVELOPMENT

MARCH 28, 2025

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REVISIONS:

ZONING SUMMARY		
SPECIAL USES PERMITTED: PLANNED DEVELOPMENT		
<u>PLANNED DEVELOPMENT (157.405)</u>		
157.405.05.D	MAX DENSITY = 17 UNITS	TOTAL GROSS SITE AREA = 127,986 SF (PER SURVEY) 127,986 SF * 0.85 = 108,788.1 NSA (NET SITE AREA) NSA = NDSA ASSUMING NO COMMERCIAL / NON-RESIDENTIAL USES MAX DENSITY = NDSA * 0.7 UNITS/ACRE PER RL ZONE 108,788.1 SF NSA (NET SITE AREA) = 2.49 ACRES 2.49 ACRES * 0.7 UNITS/ACRE = 17 UNITS
157.405.05.G	MULTI-FAMILY UNITS SHALL BE LIMITED TO 30% OF THE TOTAL UNIT COUNT	
	NO MULTI-FAMILY UNITS PROPOSED	
157.405.05.H	YARD SETBACKS FOR LOTS ON THE PERIMETER OF THE PROJECT SHALL BE A MINIMUM OF 20 FEET	
DENSITY PROVIDED: 157.405.05.D		QUANTITY
TOTAL DWELLING UNITS		10
	1-BEDROOM UNITS	4
	2-BEDROOM UNITS	6

GROSS AREA SUMMARY (TOTAL GROSS AREA (PER SURVEY): 127,986 SF)		AREAS
DEVELOPED AREA (DUPLEX STRUCTURES, COMMUNITY BUILDING, PATIOS, & DECKS)		12,029 SF
	PAVED PATIO AREA	2,003 SF
HARDSCAPE AREA (TOTAL ASPHALT PARKING AREA & PAVED PEDESTRIAN PATHS)		13,079 SF
	PAVED PEDESTRIAN PATHS	4,030 SF
	ASPHALT PARKING AREA ONLY	9,060 SF

Development Requirements : 157.405.05 (I) Common Open Space	OPEN SPACE AREA	OPEN SPACE %
TOTAL GROSS AREA: 2.94 ACRES / 127,986 SF		
REQUIRED	.59 ACRES / 25,597 SF	20%
PROVIDED*	.88 ACRES / 38,355 SF	29.9%
*NOTE: NO SLOPES GREATER THAN 10% ARE PRESENT IN OPEN SPACE. SEE SITE PLAN A010 FOR OPEN SPACE BOUNDARY LINE		

Vehicle Parking Standards: 157.403.06 (I) Landscaping	ASPHALT / PARKING AREA	LANDSCAPE / PLANTING
PARKING LOTS 10 OR MORE VEHICLES SHALL HAVE AT LEAST 10% OF THE AREA IN PLANTINGS OR LANDSCAPING.		
REQUIRED	8,560 SF	856 SF (10%)
PROVIDED	8,560 SF	1,692 SF

Off-Street Parking Standards: 157.403	VEHICLE SPACES
1 AND 2 FAMILY DWELLINGS: 2 VEHICLE SPACES (10 DWELLING UNITS PROVIDED)	
REQUIRED	20 SPACES
PROVIDED	15 SPACES
NOTE: SEE VARIANCE REQUEST SUBMITTED VIA WRITTEN NARRATIVE AS PART OF THE TYPE III LAND USE APPLICATION.	

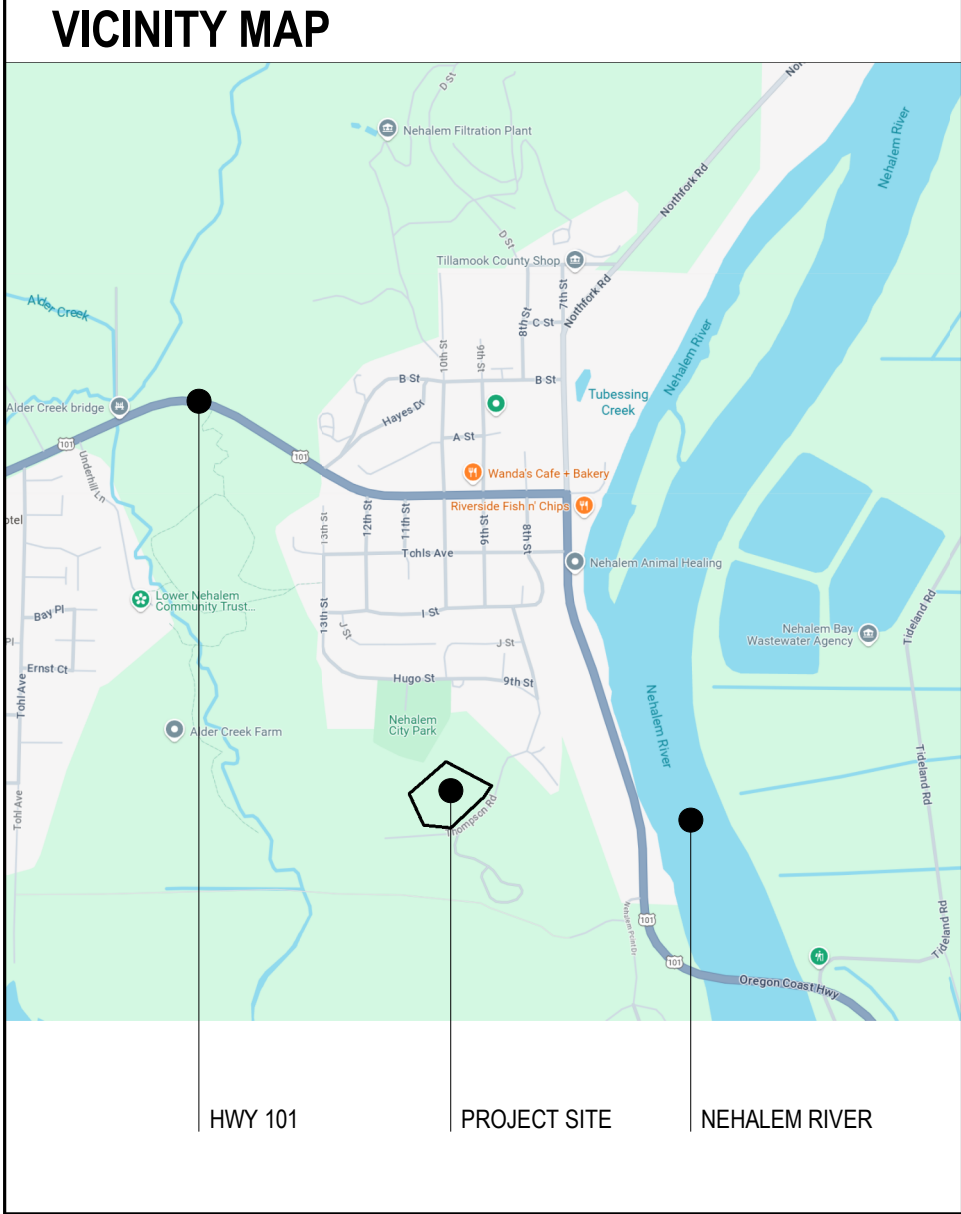
LOT INFORMATION
SITE ADDRESS: 13500 THOMPSON RD, NEHALEM, OR 97131
BASE ZONE: NH-RL LOW-DENSITY RESIDENTIAL
TAX LOT NUMBER: 3N1027CD01000; TAX ACCOUNT: 59297
SITE AREA: 2.86 ACRE / 124,581 SF (PER TILLAMOOK COUNTY ASSESSOR'S RECORDS)

APPLICABLE CODES
- NEHALEM COUNTY ZONING CODE - LAND USE ORDINANCE (LUO)
- 2023 NEHALEM DEVELOPMENT ORDINANCE
- 2022 OREGON STRUCTURAL SPECIALTY CODE
- 2022 OREGON FIRE CODE

PROJECT TEAM	
OWNER	
SAMMY'S PLACE PO Box 53 NEHALEM, OREGON 97131 CONTACT: Julie Chick EMAIL: julie@oregoncoast.org	
ARCHITECT	DEVELOPER
JONES ARCHITECTURE 120 NW 9TH AVE., SUITE 210 PORTLAND, OREGON 97209 TEL: 503.477.9165 CONTACT: Efrain Cano EMAIL: ecano@jonesarc.com	OWEN GABBERT LLC PO BOX 11266 PORTLAND, OREGON 97211 TEL: 503.908.3233 CONTACT: Shane Boland EMAIL: sboland@owengabbertllc.com
CIVIL ENGINEER	STRUCTURAL ENGINEER
HARPER, HOUF, PETERSON, RICHELLIS 205 SE SPOKANE ST, SUITE 200 PORTLAND, OREGON 97202 TEL: 503.221.1131 CONTACT: Alex Simpson EMAIL: alexs@thpr.com	FROELICH ENGINEERS 17700 SW UPPER BOONES FERRY RD, SUITE 210 PORTLAND, OREGON 97224 TEL: 503.624.7005 CONTACT: Brennan Stanyer EMAIL: bstanyer@froelich-engineers.com
GEOTECHNICAL ENGINEER	LANDSCAPE DESIGNER
PBS ENGINEERING AND ENVIRONMENTAL 4412 S CORBETT AVE. PORTLAND, OREGON 97239 TEL: 503.248.1939 CONTACT: Ryan White EMAIL: ryan.white@pbsusa.com	COYOTE GARDENS, INC PO BOX 414 NESKOWIN, OREGON 97149 TEL: 503.303.8300 CONTACT: Katie Shiluka EMAIL: katie@coyotegardens.com

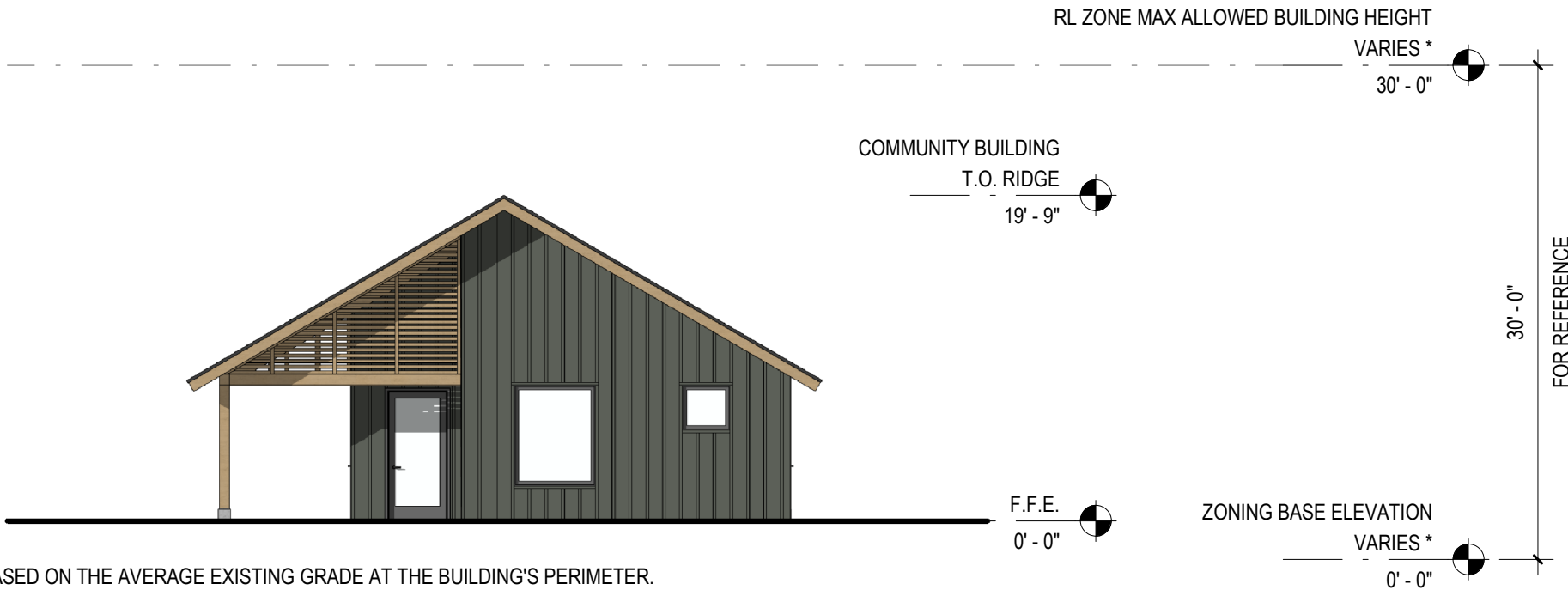
DIMENSIONING LEGEND	
EXTERIOR GRID LOCATION	TYP DOOR DIMENSIONS
	DOORS IN FRAMED PARTITION WALLS TO BE 4" FROM DOOR OPENING TO FINISH FACE OF PERPENDICULAR WALL, U.N.O.
INTERIOR GRID LOCATION	INTERIOR DIMENSIONS
	INTERIOR DIMENSIONS ARE TO FACE OF STUD, UNLESS NOTED OTHERWISE

PRESCRIPTIVE ENVELOPE REQUIREMENTS ASHRAE: TABLE 5.5-4 CLIMATE ZONE 4 (C)		
ENVELOPE	REQUIRED	PROVIDED
ROOFS: ATTIC AND OTHER	R-49	R-49
WALLS, ABOVE GRADE: WOOD FRAMED AND OTHER	R-20	R-20 OR BETTER
FLOORS: UNHEATED	R-15 FOR 24 INCH	R-15 FOR 24 INCH
OPAQUE DOORS: SWINGING	U - 0.37	U - 0.37 OR BETTER
VERTICAL FENESTRATIONS, 0% - 40% OF WALL		
FIXED:	U - 0.36	U - 0.36 OR BETTER
OPERABLE:	U - 0.45	U - 0.45 OR BETTER
ENTRANCE DOOR:	U - 0.63	U - 0.63 OR BETTER



PROJECT SUMMARY
THOMPSON SPRINGS IS AN AFFORDABLE, ACCESSIBLE HOUSING DEVELOPMENT IN NEHALEM, OR. THE PROJECT IS COMPRISED OF TEN SINGLE-STORY ONE AND TWO-BEDROOM DUPLEX RESIDENCES AND ONE 1,200 SF COMMUNITY BUILDING THAT WILL SERVE AS A UNIVERSALLY ACCESSIBLE COMMUNAL LIVING ROOM FOR RESIDENTS AND THEIR GUESTS. FOURTEEN ON-SITE PARKING SPACES WILL BE PROVIDED. THE PROJECT IS STRONGLY ROOTED IN THE PRINCIPLES OF UNIVERSAL DESIGN TO ENSURE DURABILITY, FLEXIBILITY AND ADAPTABILITY TO MEET THE EVOLVING NEEDS OF BOTH INDIVIDUALS AND THE COMMUNITY.
EACH RESIDENCE WILL BE INDIVIDUALLY OWNED, WHILE THE OVERALL SITE AND COMMON AREAS, INCLUDING THE COMMUNITY BUILDING, WILL BE UNDER SHARED OWNERSHIP AS PART OF A COMMUNITY LAND TRUST. THE MULTI-UNIT PROJECT WILL BE DEVELOPED UNDER THE PLANNED DEVELOPMENT, SECTION 157 OF THE NEHALEM CITY CODE. THE 2.8-ACRE SITE IS ADJACENT TO MARITIME FOREST AND CONTAINS NATURALLY OCCURRING WETLANDS THAT WILL BE PRESERVED AND ENHANCED AS PART OF THE PROJECT.

\* THE ZONING BASE ELEVATION SHALL BE ESTABLISHED BASED ON THE AVERAGE EXISTING GRADE AT THE BUILDING'S PERIMETER.



PROJECT  
INFORMATION AND  
SHEET INDEX

G001

SITE PLAN GENERAL NOTES

- SEE SURVEY FOR EXISTING SITE INFORMATION
- SEE CIVIL DEMOLITION & SITE PLAN FOR EXISTING STRUCTURES AND BUILDING PADS TO BE DEMOLISHED
- SEE CIVIL FOR GRADING & UTILITY INFORMATION
- SEE CIVIL SITE PLAN FOR ADDITIONAL DIMENSIONAL INFORMATION
- SEE CIVIL FOR PROPOSED ROW IMPROVEMENTS
- SEE LANDSCAPE SITE PLAN FOR PROPOSED PLANTING AND ASSOCIATED LANDSCAPE ELEMENTS

SITE PLAN KEY NOTES

- PEDESTRIAN WALKWAYS, CONCRETE
- CONTRASTING PAVEMENT AT WALKWAY CROSSING
- TRASH CORRAL
- BOARDWALK, CANTILEVERED OVER WETLAND

LEGEND

- BUILDING FOOTPRINT
- NEW DRIVEWAY AND PARKING AREA
- PARKING LOT PLANTING AREA
- EXISTING EASEMENT
- DELINEATED WETLAND AREA
- COMMON OPEN SPACE AREA < 10% SLOPE
- COMMON OPEN SPACE AREA > 10% SLOPE
- TRASH CORRAL
- (E) TREE TO REMAIN
- NEW TREE, SEE L100, LANDSCAPE PLANTING PLAN

UNIT MATRIX SUMMARY			
UNIT	# OF BEDROOMS	BUILDING PAD SIZE*	BUILDING PAD AREA
1A - LOT 2	1	32' X 18'-7"	625 SF
1B - LOT 3	1	32' X 18'-7"	625 SF
2A - LOT 4	2	42' X 22'-1"	935 SF
2B - LOT 5	2	42' X 22'-1"	935 SF
3A - LOT 6	2	42' X 22'-1"	935 SF
3B - LOT 7	2	42' X 22'-1"	935 SF
4A - LOT 8	1	32' X 18'-7"	625 SF
4B - LOT 9	1	32' X 18'-7"	625 SF
5A - LOT 11	2	42' X 22'-1"	935 SF
5B - LOT 12	2	42' X 22'-1"	935 SF
COMMUNITY BLDG	N/A	39'-0" X 26'-0"	9,80 SF

\*NOTE: BUILDING PAD SIZES ARE NOT INCLUSIVE OF PORCHES



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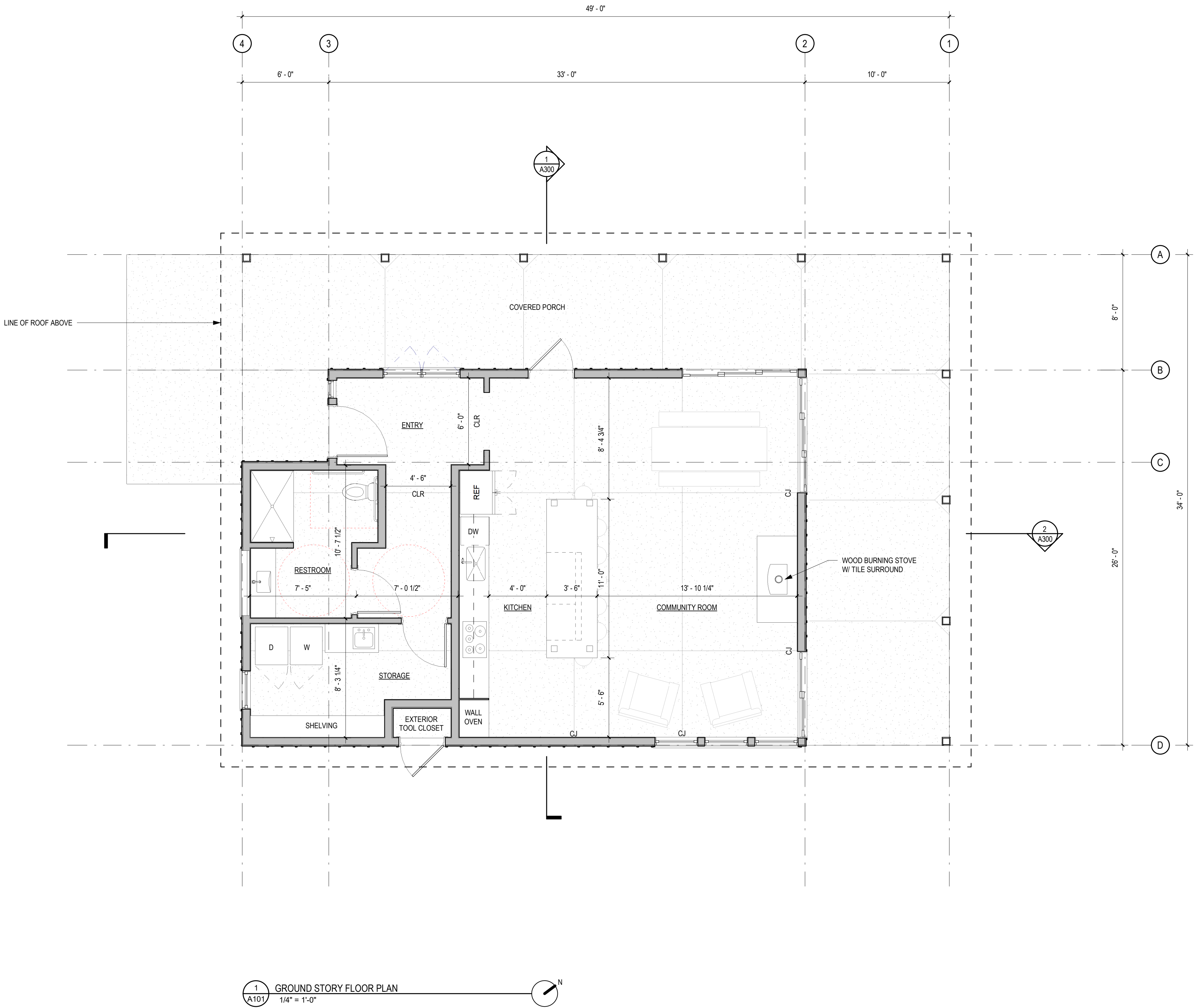
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DEVELOPMENT

MARCH 28, 2025

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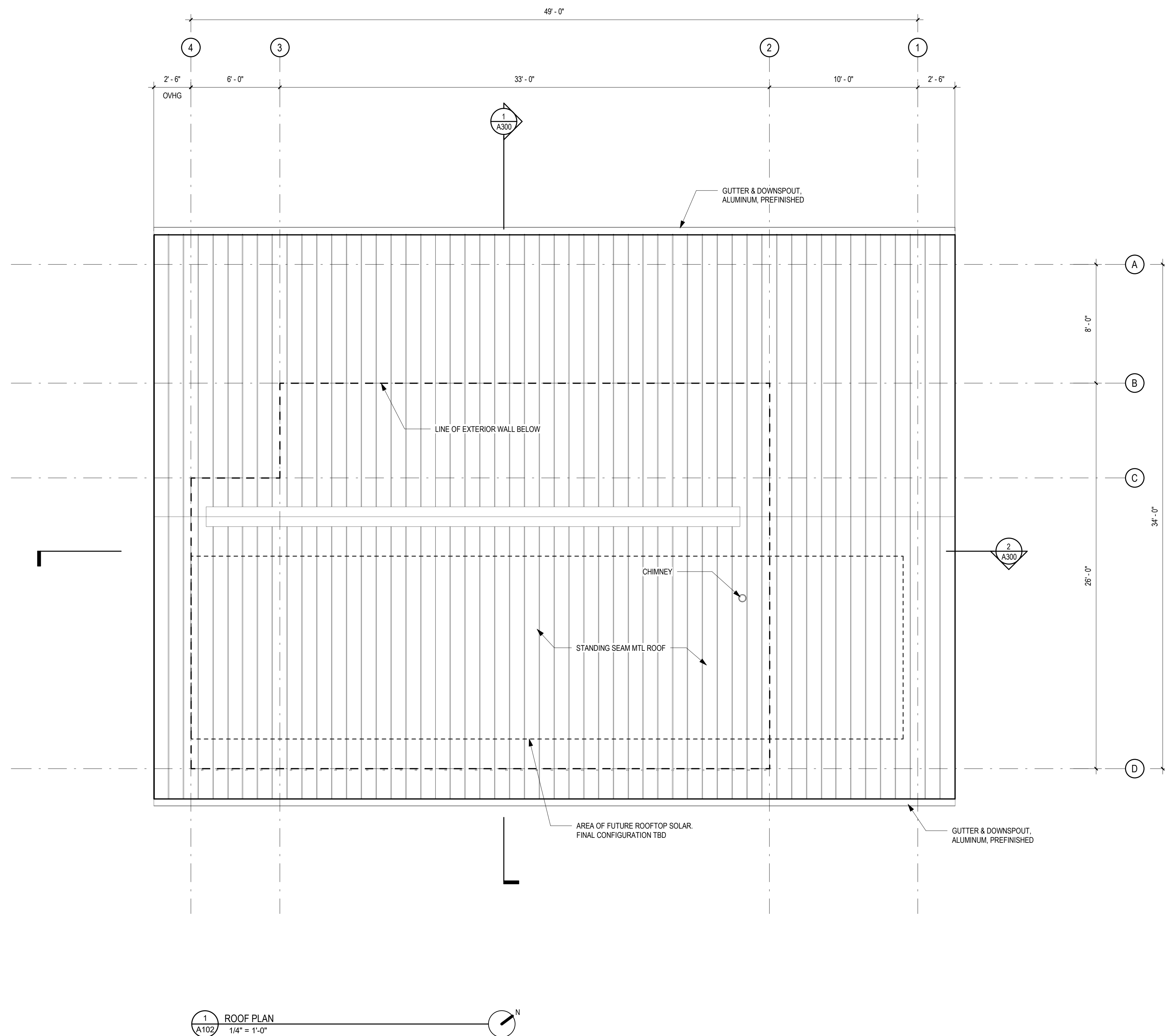
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ROOF PLAN

A102

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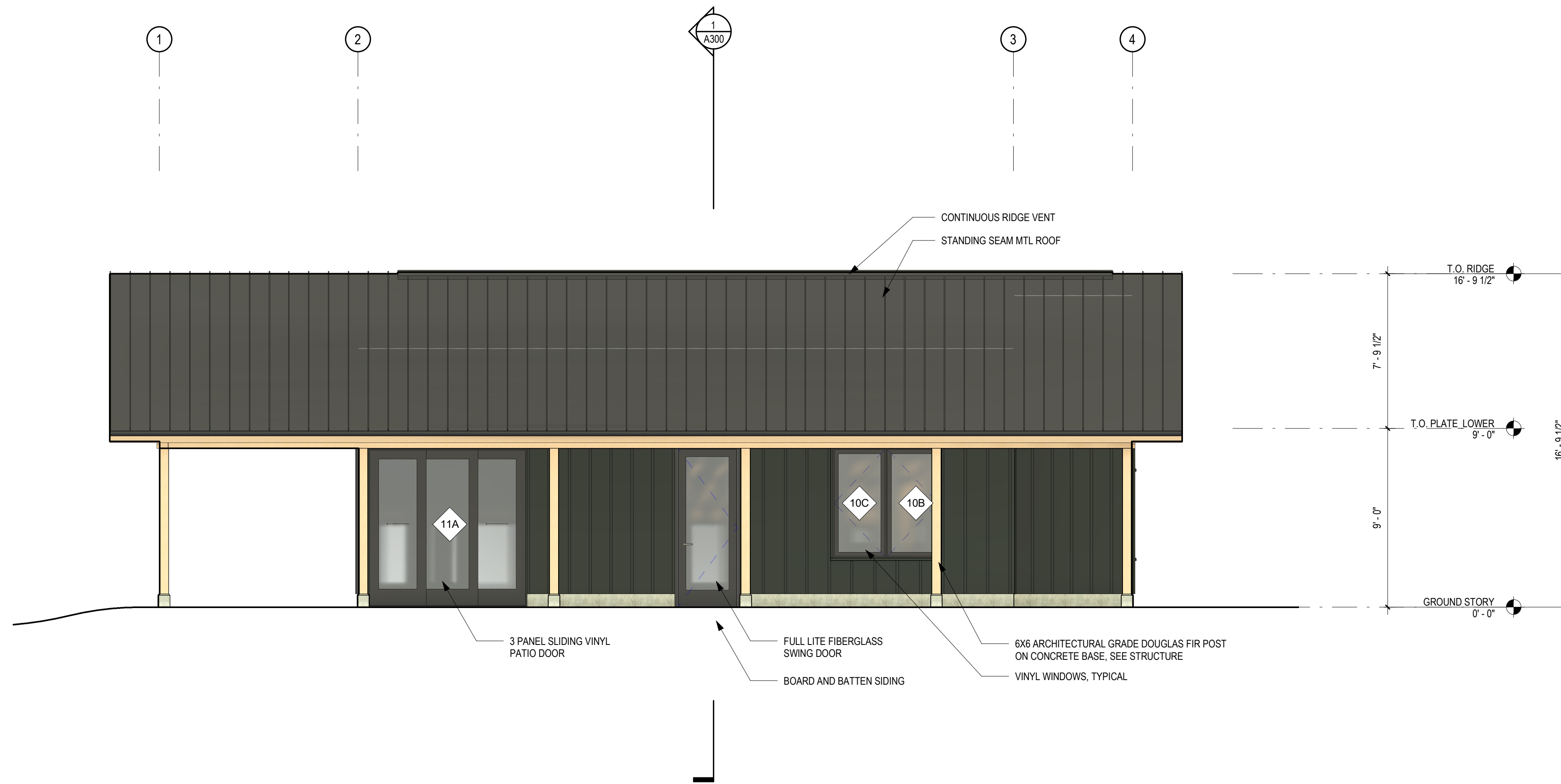
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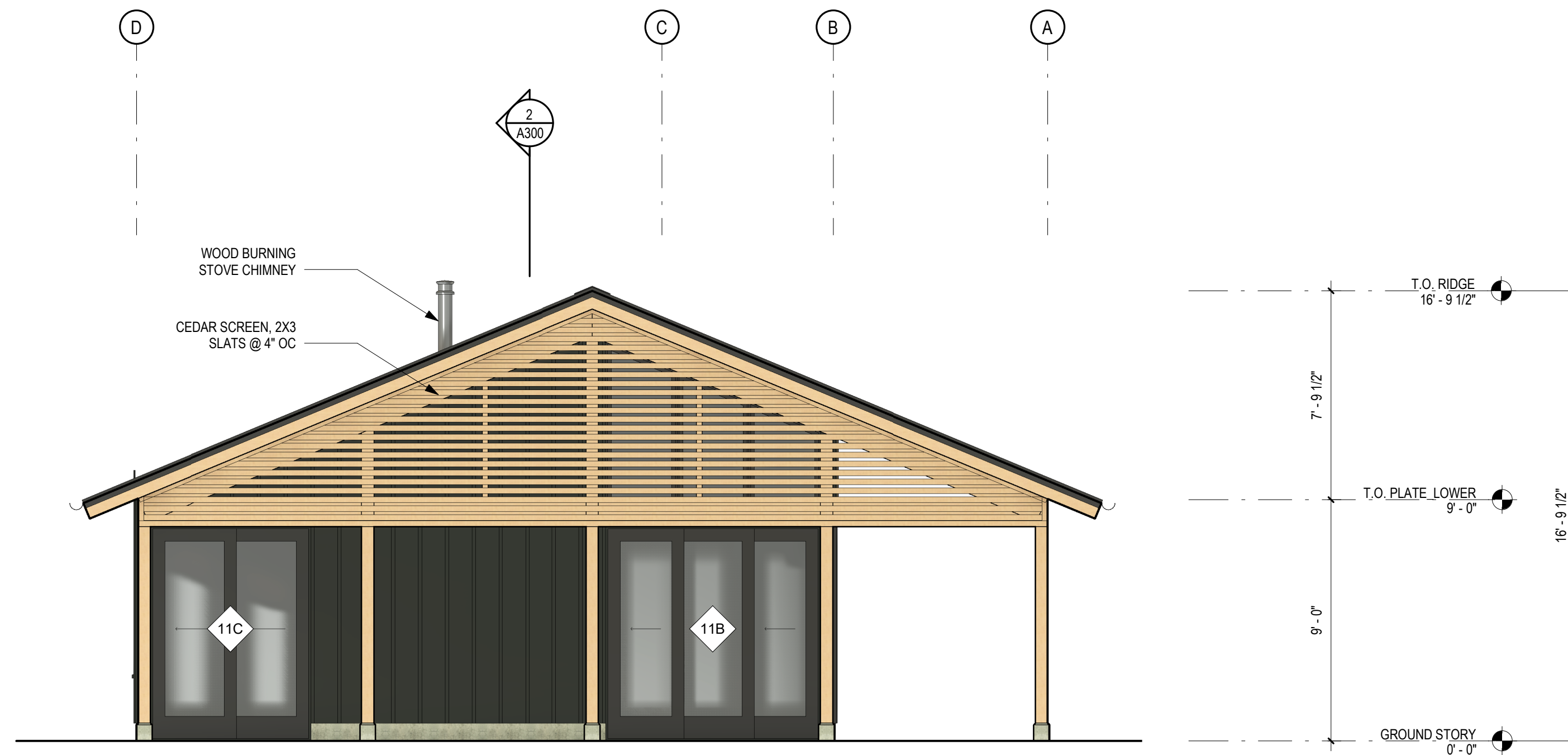
REVISIONS:

EXTERIOR ELEVATIONS

A200



1 WEST ELEVATION  
A200 1/4" = 1'-0"



2 NORTH ELEVATION  
A200 1/4" = 1'-0"

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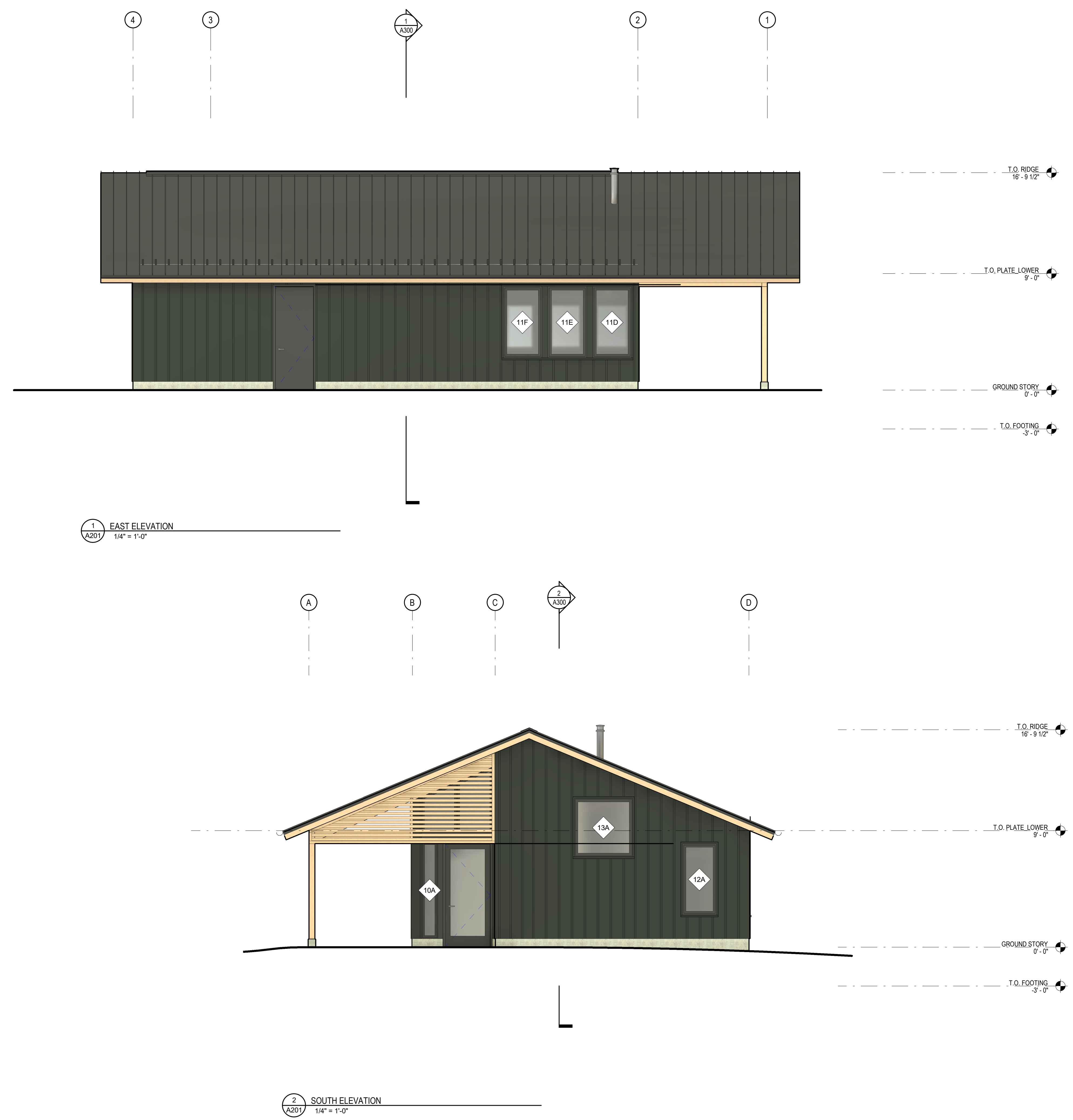
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REVISIONS:

EXTERIOR ELEVATIONS

A201



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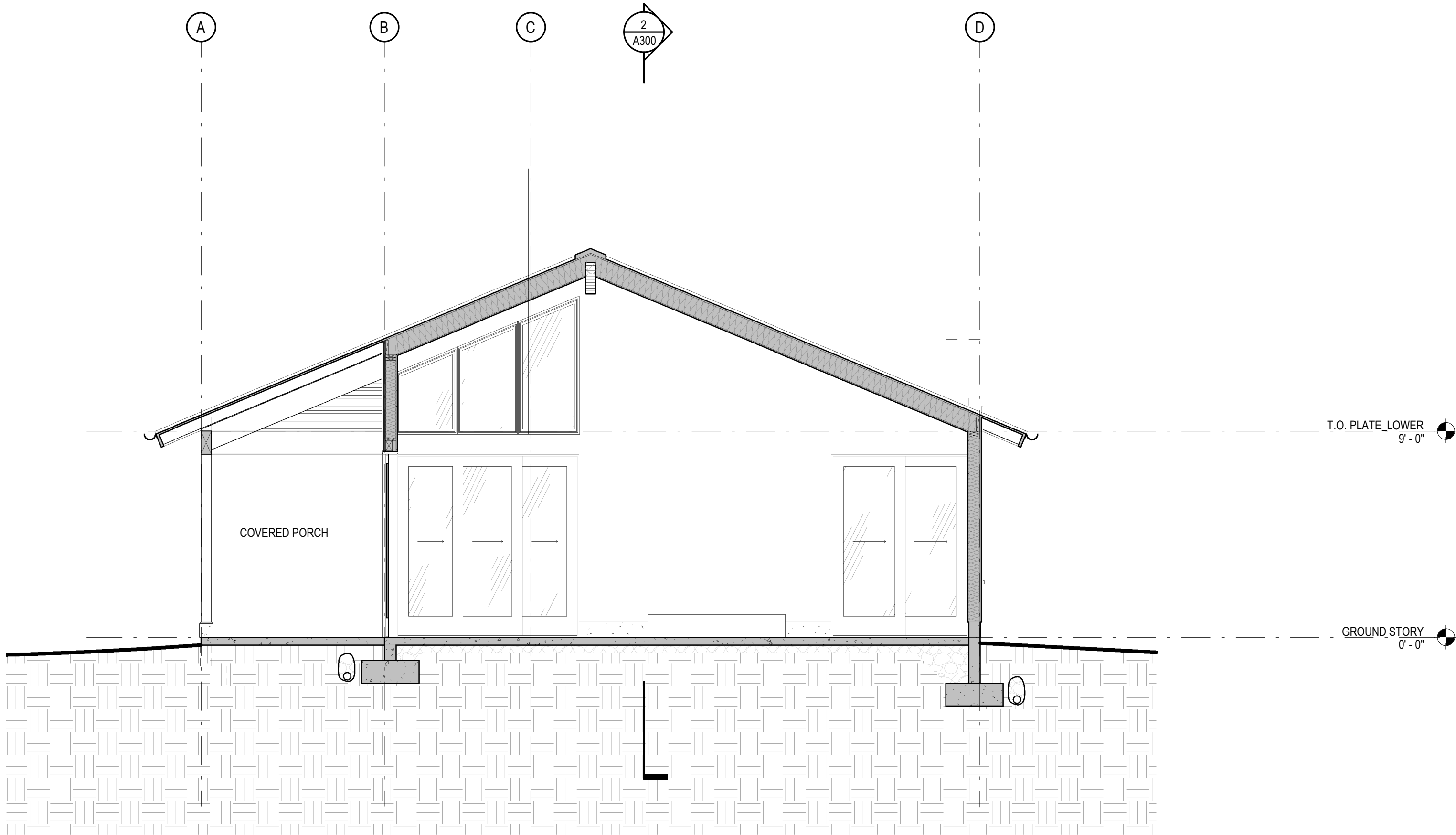
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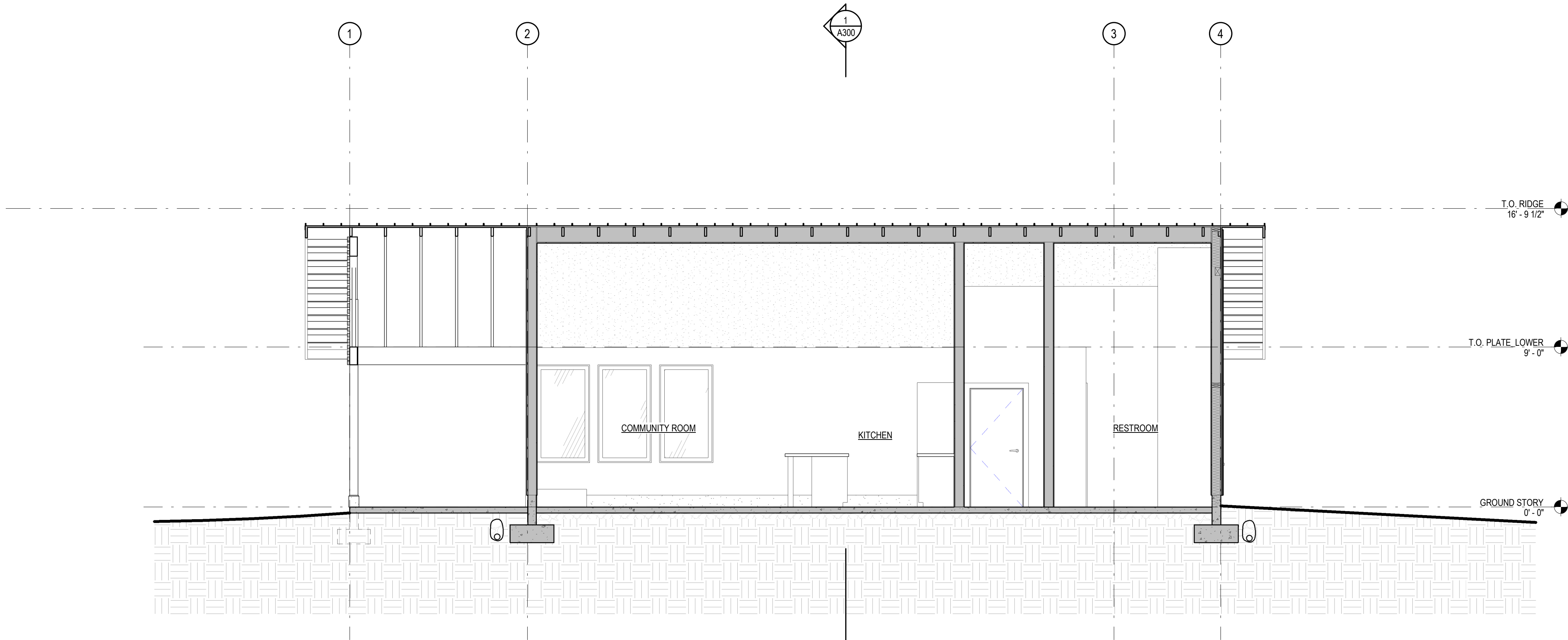
REVISIONS:

COMMUNITY BUILDING  
- BUILDING SECTIONS

A300

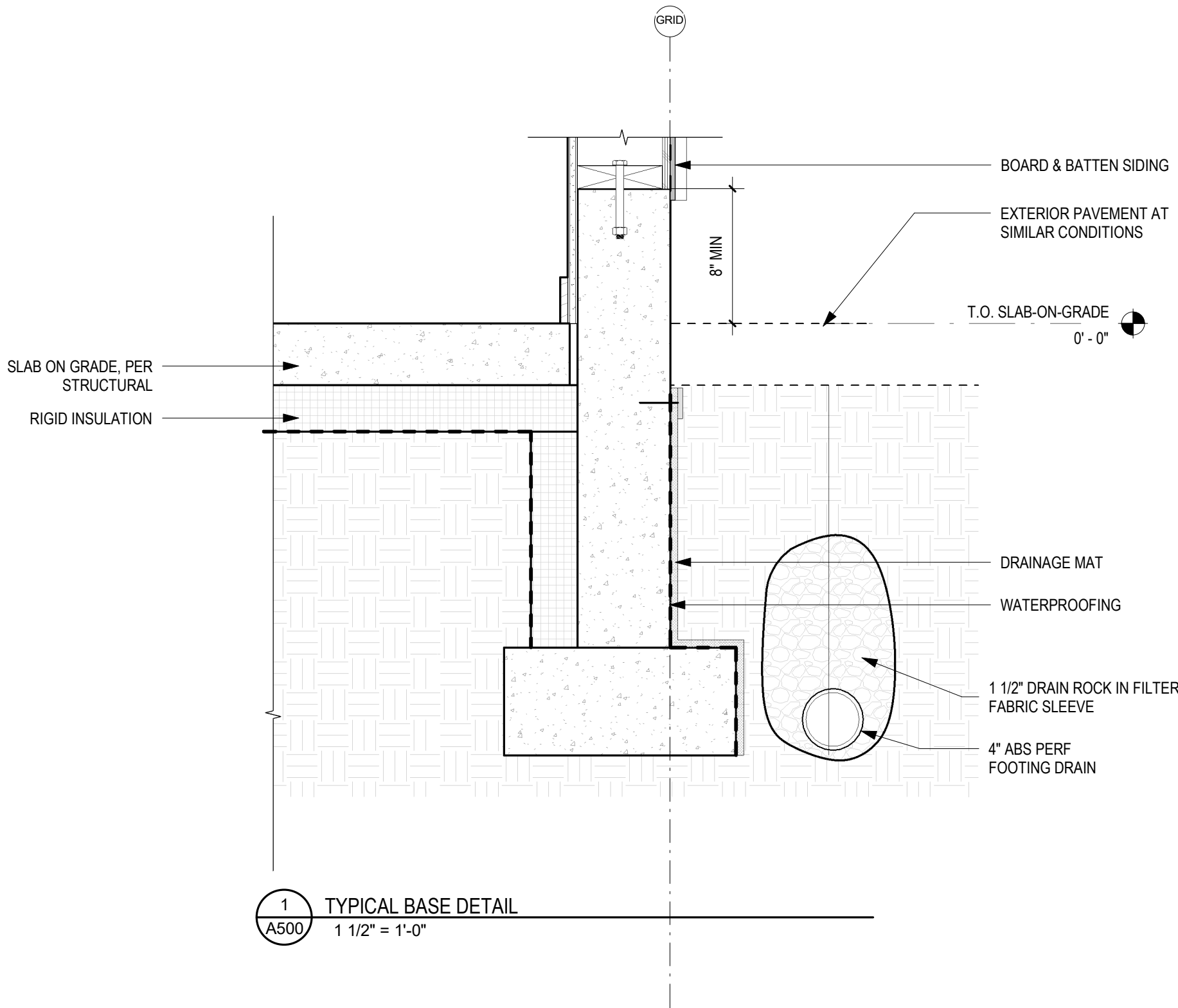


1  
A300  
COMMUNITY BUILDING - CROSS SECTION  
1/4" = 1'-0"



2  
A300  
COMMUNITY BUILDING SECTION LONGITUDINAL  
1/4" = 1'-0"

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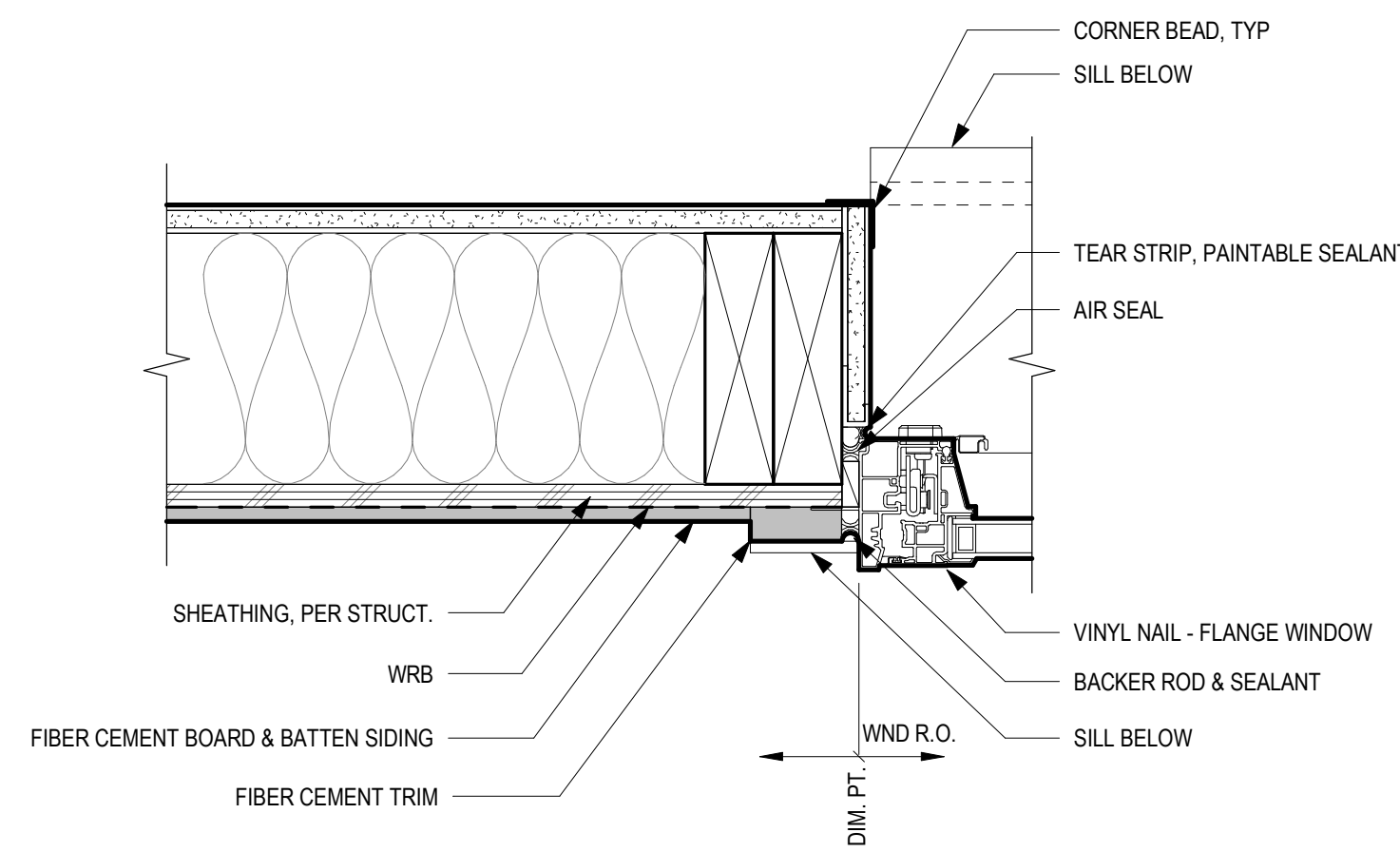
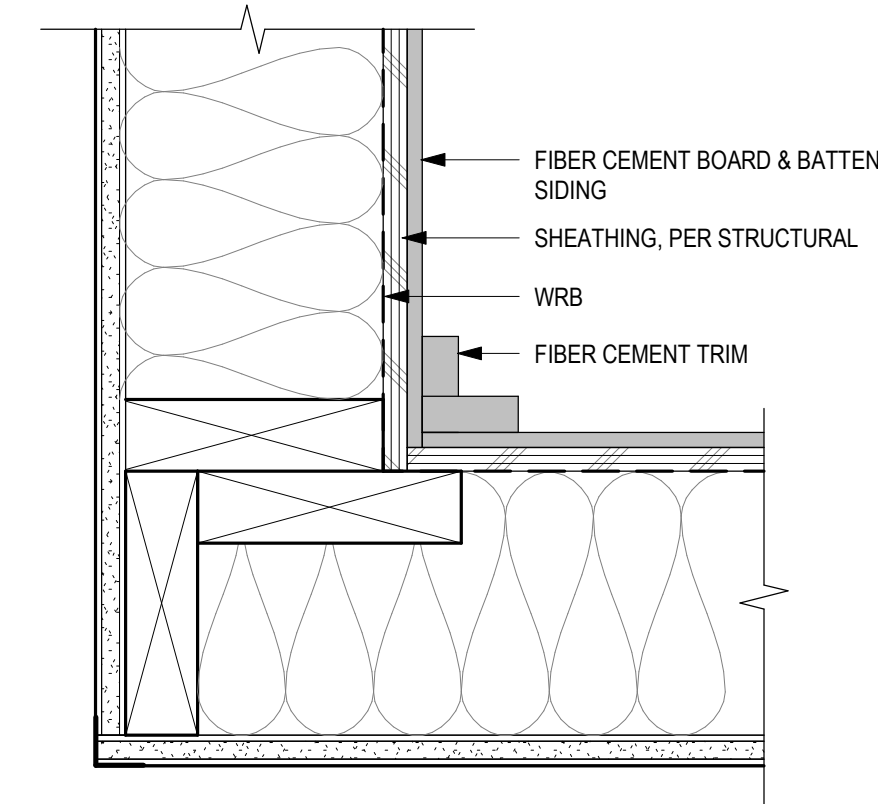
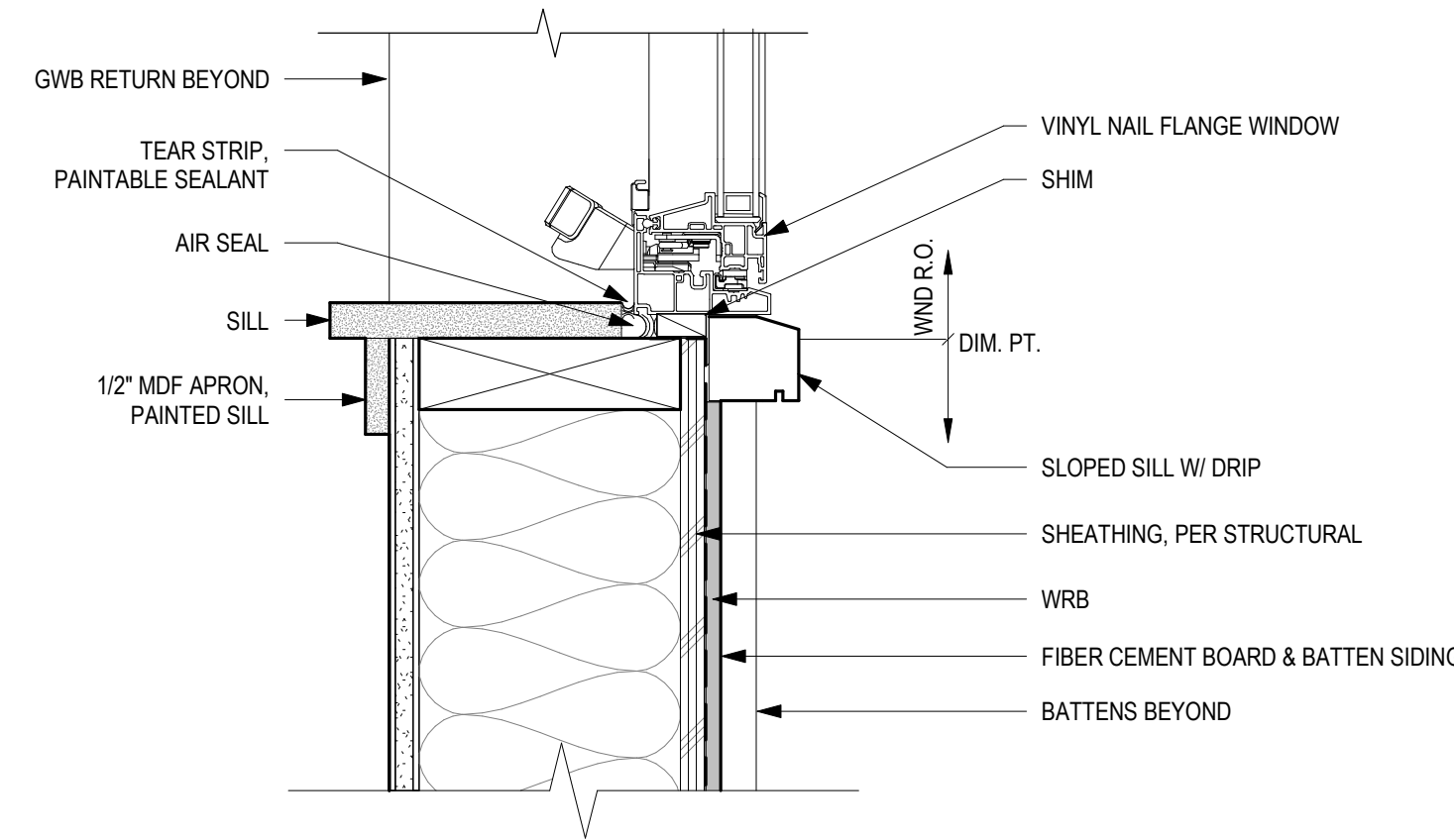
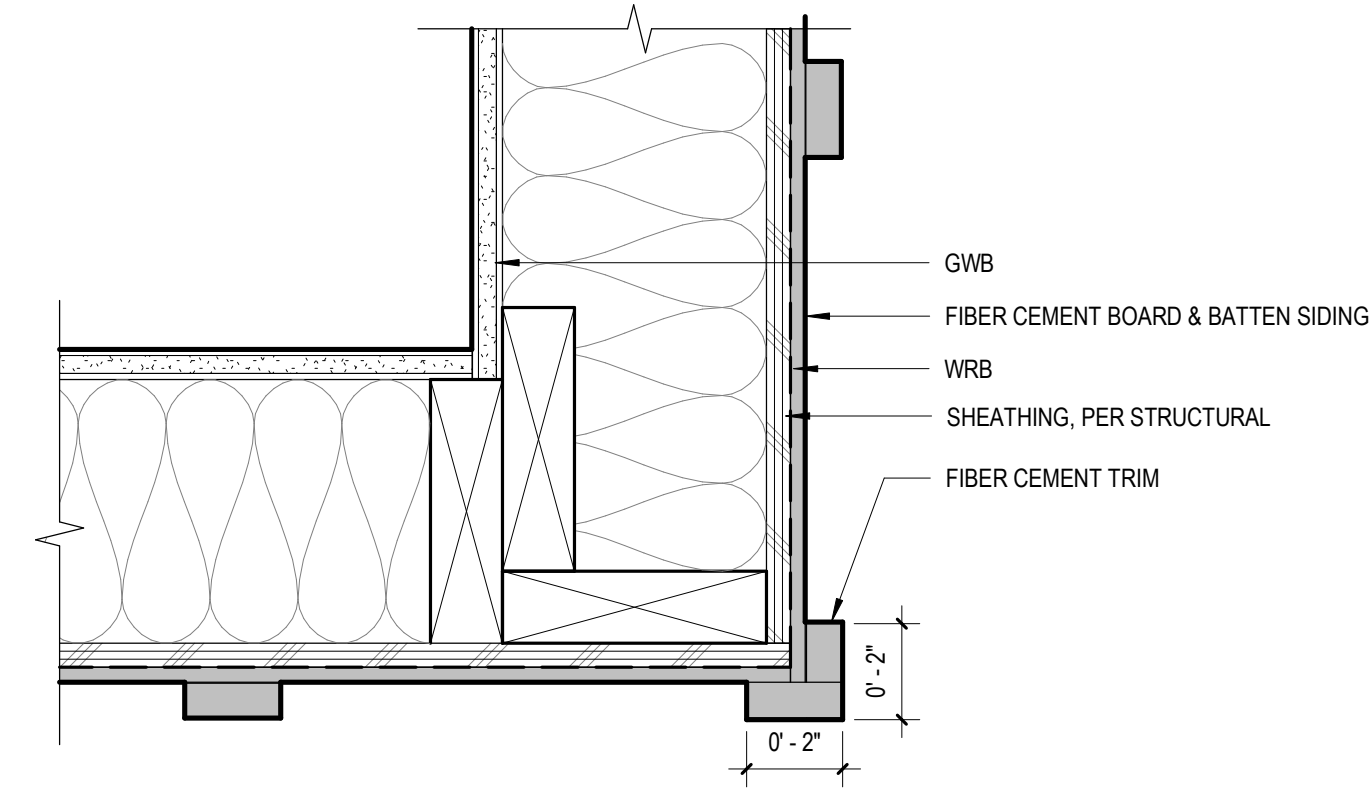
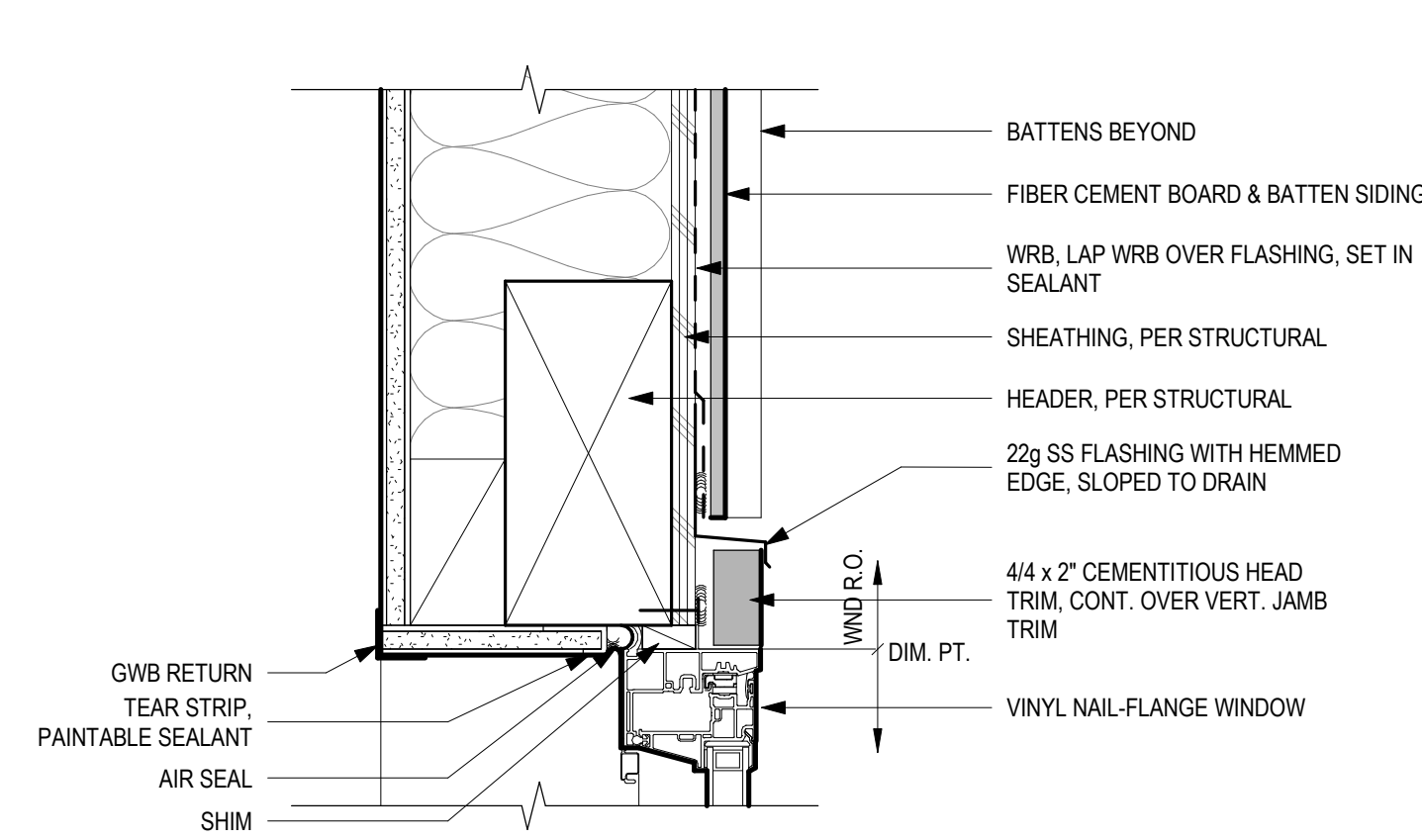
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EXTERIOR DETAILS -  
BASE

A500



THOMPSON SPRINGS

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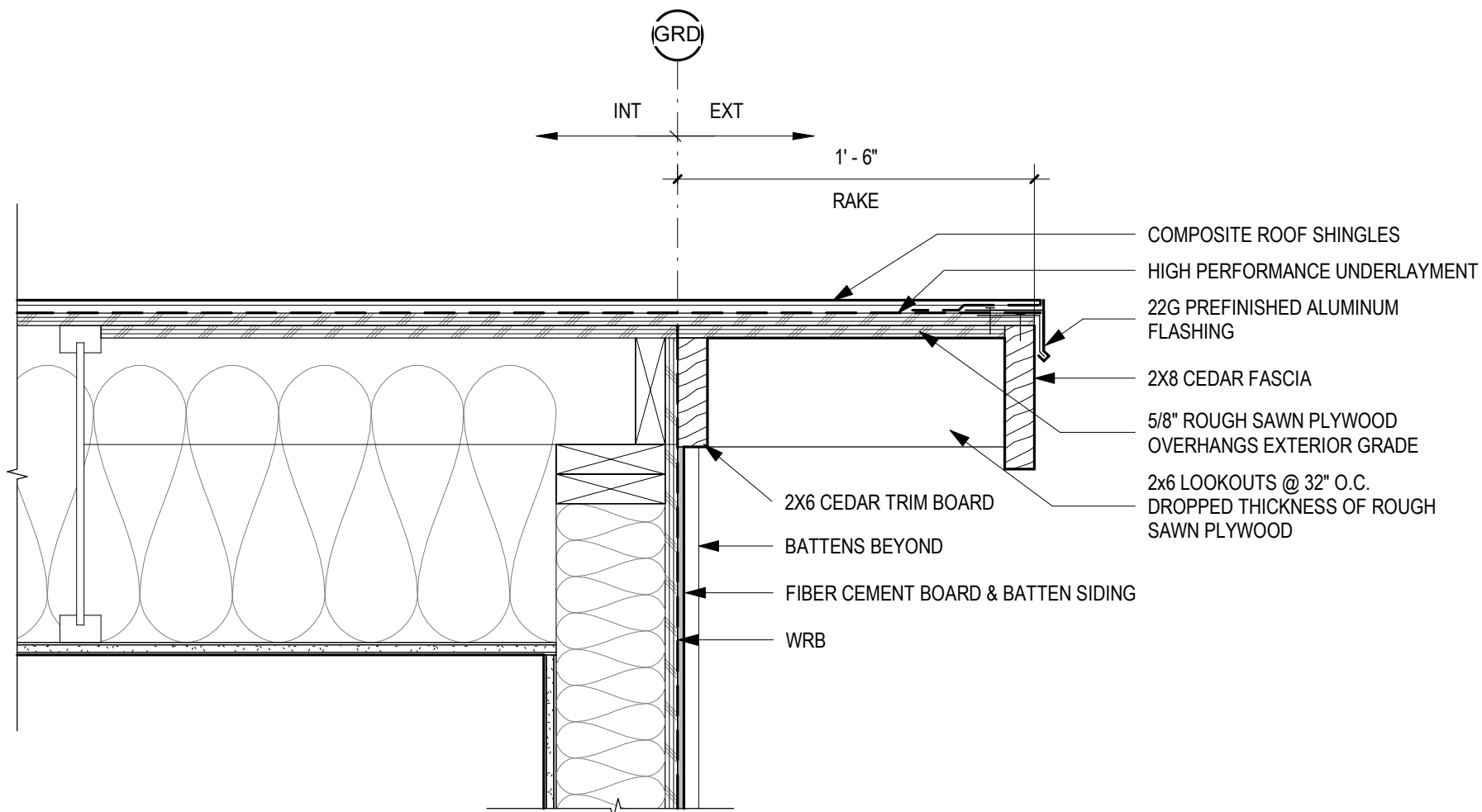
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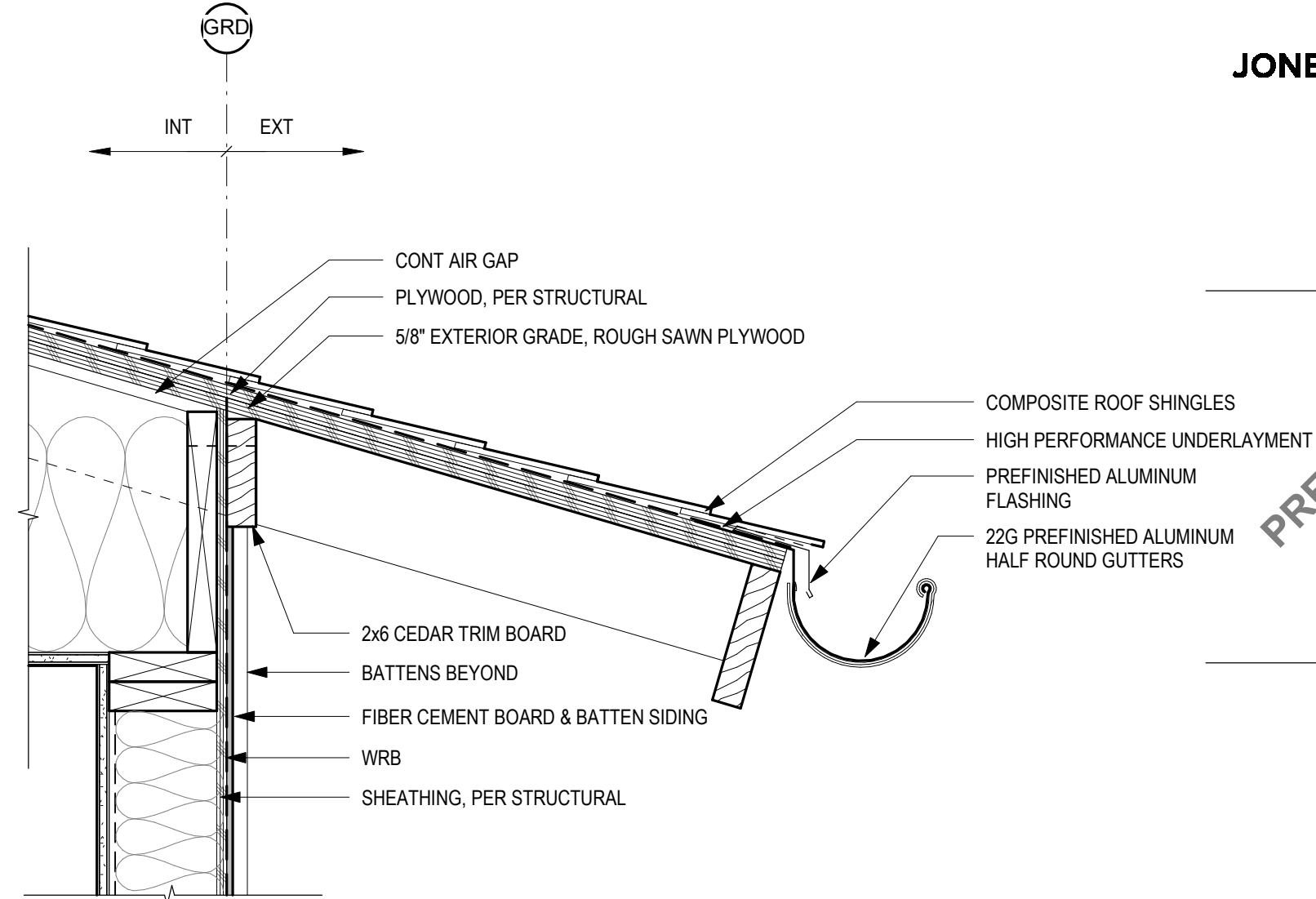
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EXTERIOR DETAILS -  
ENVELOPE &  
OPENINGS

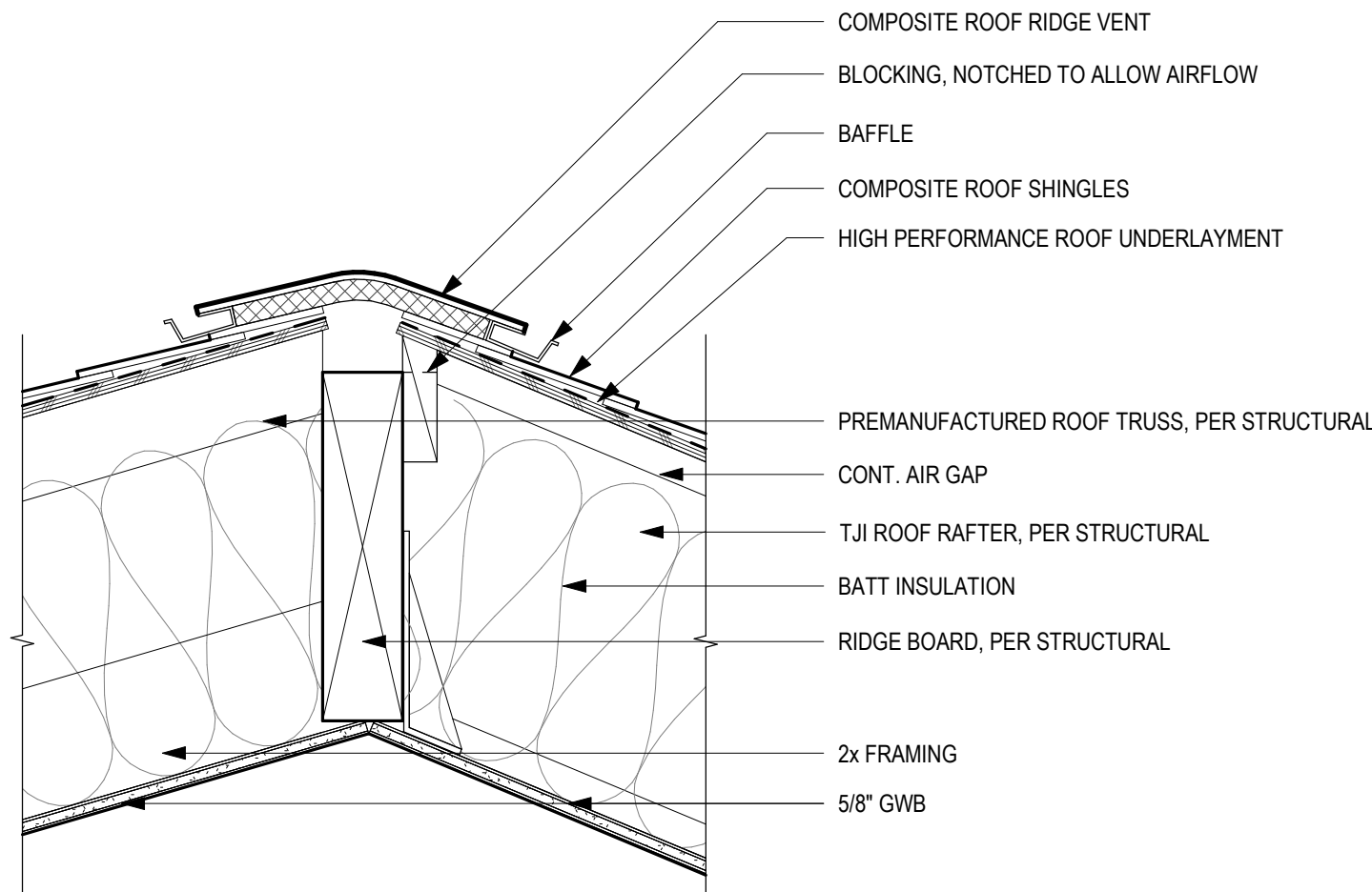
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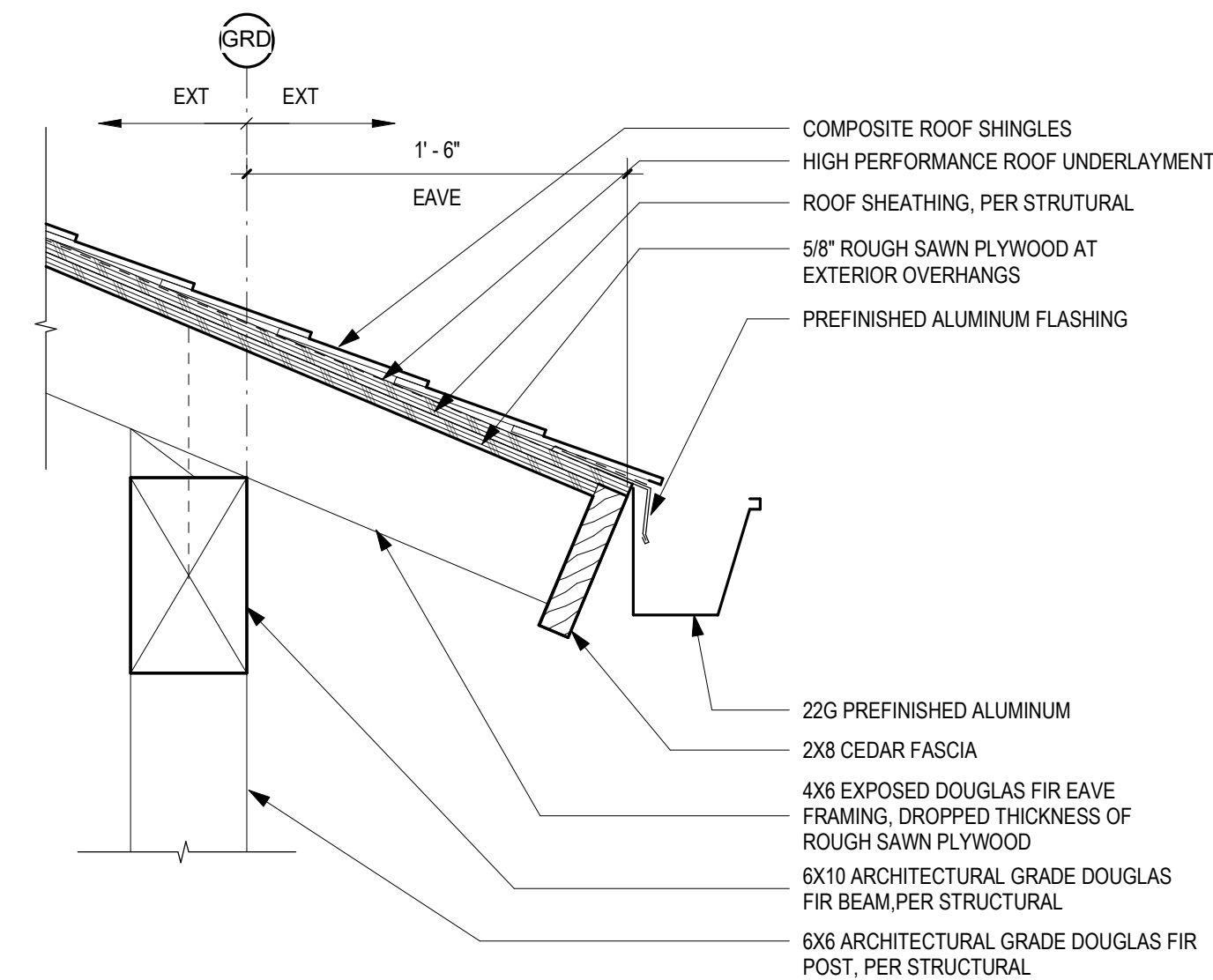
3 TYPICAL RAKE DETAIL  
1 1/2" = 1'-0"



1 EAVE DETAIL AT BACK PORCH  
1 1/2" = 1'-0"



4 TYPICAL TRUSS RIDGE VENT  
1 1/2" = 1'-0"



2 EAVE DETAIL AT FRONT POST  
1 1/2" = 1'-0"

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EXTERIOR DETAILS -  
ROOF

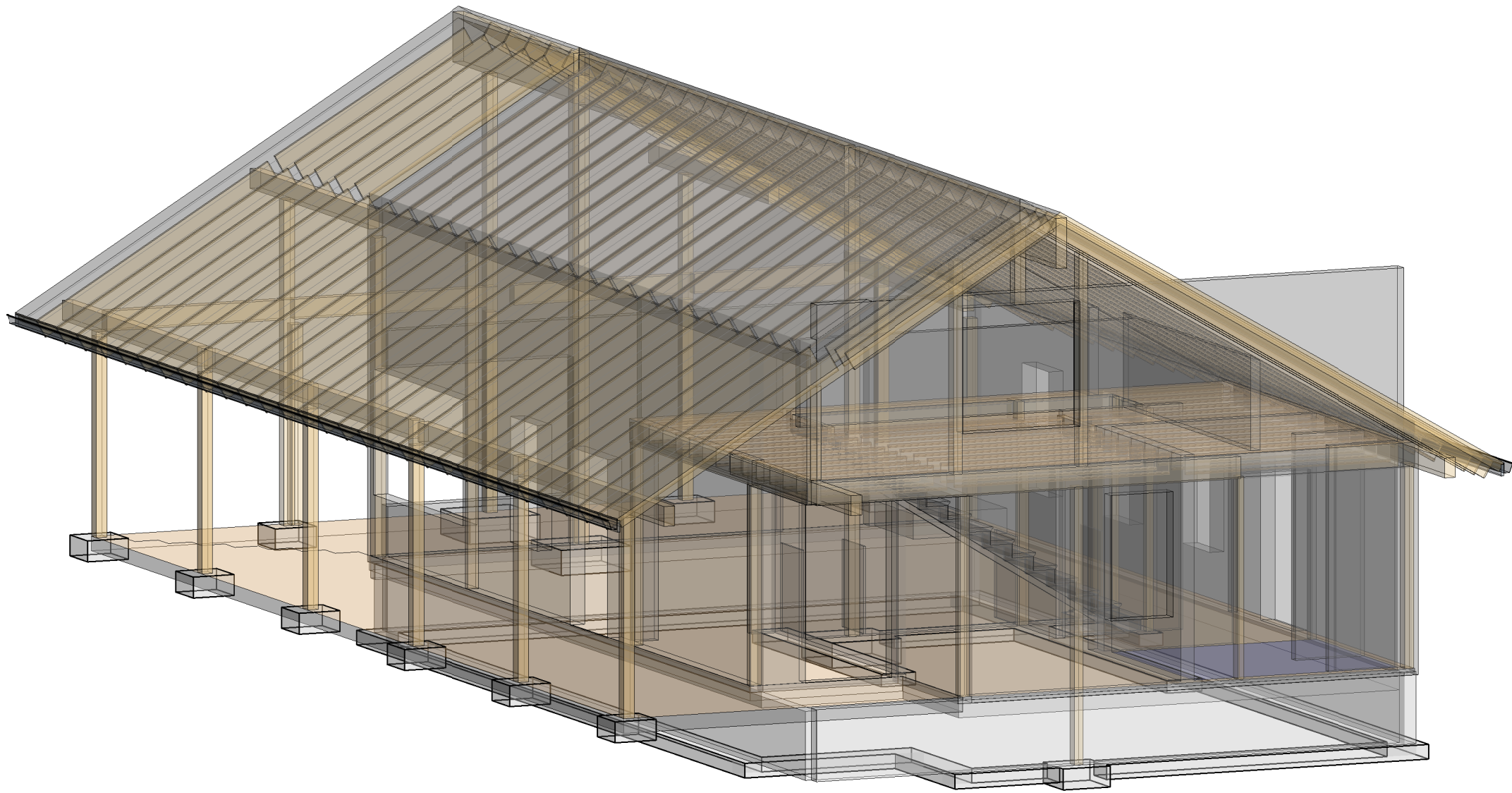
A520

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Sheet Number	Sheet Name
S000	COVER SHEET
S001	GENERAL STRUCTURAL NOTES
S002	GENERAL STRUCTURAL NOTES
S003	GENERAL STRUCTURAL NOTES & SPECIAL INSPECTION
S100	COMMUNITY BUILDING FOUNDATION AND FLOOR FRAMING PLAN
<del>S401</del>	<del>COMMUNITY BUILDING FLOOR FRAMING PLAN</del>
S102	COMMUNITY BUILDING ROOF FRAMING PLAN
S500	FOUNDATION DETAILS
S600	FLOOR FRAMING DETAILS
<del>S601</del>	<del>FLOOR FRAMING DETAILS</del>
S700	ROOF FRAMING DETAILS



COMPLETE LEGEND

- INDICATES FOOTING TYPE, REF SCHEDULE
- INDICATES STRUCTURAL COLUMN STARTING AT THIS LEVEL, REF COLUMN SCHEDULE
- INDICATES COLUMN
- INDICATES COLUMN ABOVE
- INDICATES INTERIOR STRUCTURAL STUD/ BEARING WALL
- INDICATES WOOD SHEATHED SHEAR WALL
- INDICATES EXTERIOR STRUCT WALL
- INDICATES INTERIOR ARCH WALL
- INDICATES STUD/ BEARING WALL TYPE
- INDICATES HEADER TYPE, REF HEADER SCHEDULE
- INDICATES BEAM TYPE, REF BEAM SCHEDULE
- INDICATES SHEAR WALL TYPE, REF SHEAR WALL SCHEDULE ON SXXX
- INDICATES HOLDDOWN TYPE, REF HOLDOWN SCHEDULE ON SXXX
- INDICATES JOIST TYPE AND SPACING, REF PLANS AND JOIST FRAMING SCHEDULE
- INDICATES DIRECTION DECK OR SHEATHING TO SPAN
- INDICATES ELEVATION
- INDICATES KEYED NOTE
- INDICATES CHANGE IN SLOPE
- INDICATES STEP IN ELEVATION
- INDICATES SNOW DRIFT LOAD. JOIST MANUFACTURER SHALL MAKE PROVISION FOR THESE IN THE DESIGN OF THE JOISTS REF PLANS FOR LOAD AND EXTENT.

THOMPSON SPRINGS

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FEBRUARY 28, 2025

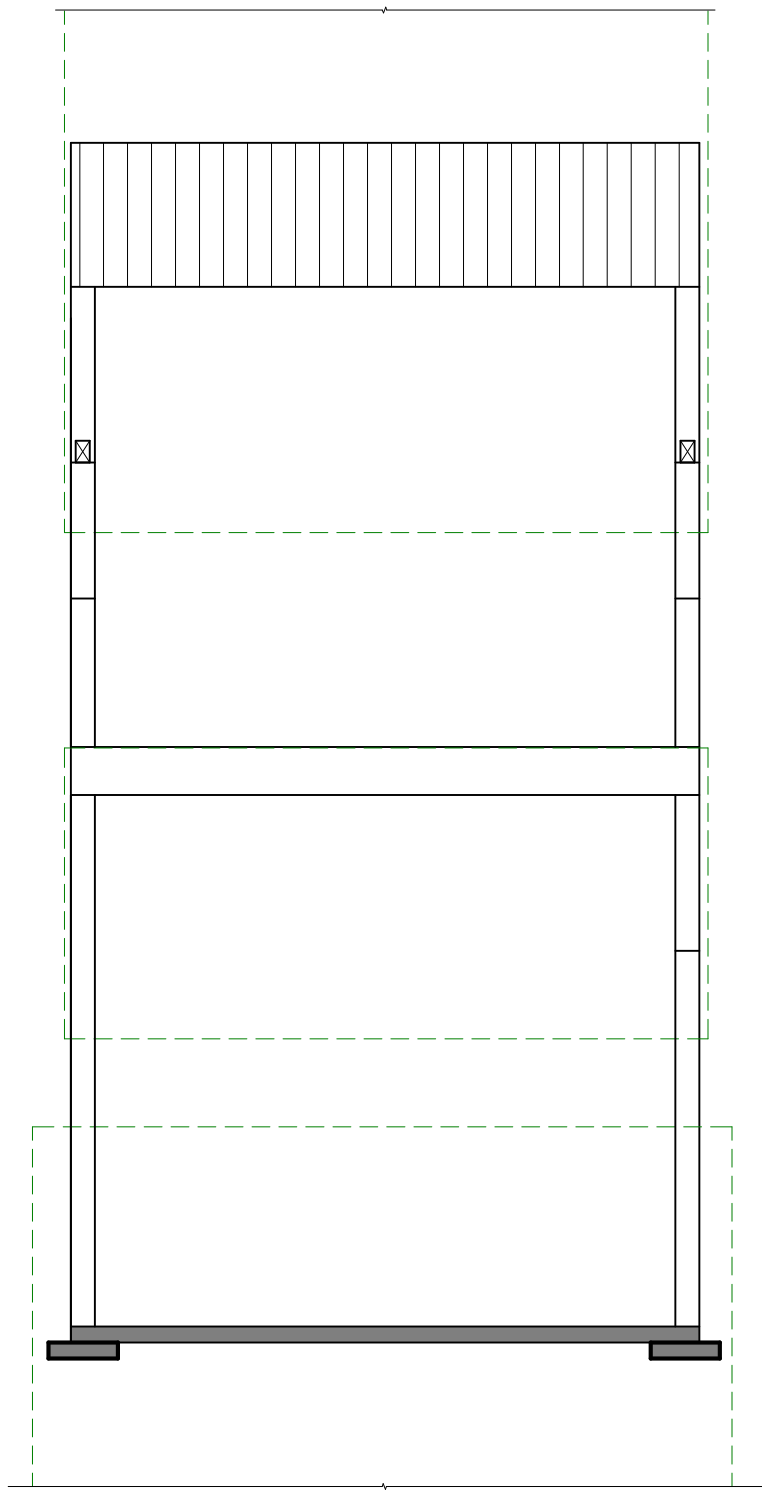
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REVISIONS:

COVER SHEET

S000

"	INCH	DBA	DEFORMED BAR ANCHOR	HAS	HEADED ANCHOR STUD	OC	ON CENTER	T AND B	TOP AND BOTTOM
#	NUMBER, POUND	DBL	DOUBLE	HC	HOLLOW-CORE	OD	OUTSIDE DIAMETER	T-AND-G	TONGUE-AND-GROOVE
'	FEET	DEFL	DEFLECTION	HCP	HOLLOW-CORE PLANK	OH	OVERHEAD	TAN	TANGENT
(E)	EXISTING	DEMO	DEMOLITION	HDD	HEADED ANCHOR STUD	OPNG	OPENING	THK	THICK
(N)	NEW	DEPT	DEPARTMENT	HDR	HEADER	OPP	OPPOSITE, OPPOSITE HAND	THRD	THREADED
		DETL	DETAIL	HEX	HEXAGONAL	OSWJ	OPEN-WEB STEEL JOIST	TOB	TOP OF BEAM
AB	ANCHOR BOLT	DF	DOUG FIR (DOUGLAS FIR)	HM	HOLLOW METAL			TOC	TOP OF COLUMN, TOP OF CURB
ACI	AMERICAN CONCRETE INSTITUTE	DIA	DIAMETER	HORIZ	HORIZONTAL	P/L	PROPERTY LINE	TOF	TOP OF FOOTING
ADD	ADDENDUM, ADDITION	DIAG	DIAGONAL	HSS	HOLLOW STRUCTURAL SHAPE	PAF	POWER-ACTUATED FASTENERS	TOJ	TOP OF JOIST
ADJ	ADJUST, ADJUSTABLE	DIAPH	DIAPHRAGM	HT	HEIGHT	PC	PRECAST	TOL	TOP OF LINTEL, LANDING
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	DIM	DIMENSION	HVAC	HEATING, VENTILATION, AIR CONDITIONING	PCF	POUNDS PER CUBIC FOOT	TOL	TOLERANCE
AFF	ABOVE FINISH FLOOR	DKG	DECKING			PERF	PERFORATE, PERFORATED, PERFORMANCE	TOP	TOP OF PIER, TOP OF PLATE
ALT	ALTERNATE	DL	DEAD LOAD	IBC	INTERNATIONAL BUILDING CODE	PERIM	PERIMETER	TOPV	TOP OF PAVEMENT
ALUM	ALUMINUM	DWG	DRAWING	ICF	INSULATED CONCRETE FORMS	PE	PROFESSIONAL ENGINEER	TOS	TOP OF SLAB, TOP OF STEEL
APPROX	APPROXIMATELY	DWGS	DRAWINGS	ID	INSIDE DIAMETER	PERP	PERPENDICULAR	TOW	TOP OF WALL
ARCH	ARCHITECTURE	DWL	DOWEL	IN	INCH, INCHES	PL	PLATE	TRANS	TRANSVERSE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS			INFO	INFORMATION	PLF	POUNDS PER LINEAL FOOT	TRANSL	TRANSLUCENT
AVG	AVERAGE	EIFS	EXTERIOR INSULATED FINISH SYSTEM	INSP	INSPECTION	PLWD	PLYWOOD	TYP	TYPICAL
AWS	AMERICAN WELDING SOCIETY	ELEV	ELEVATOR	INSUL	INSULATION	PNL	PANEL		
		ENGR	ENGINEER	INT	INTERIOR	PRE-MANUF	PRE-MANUFACTURED	UNO	UNLESS NOTED OTHERWISE
		EOR	ENGINEER OF RECORD			PREFAB	PREFABRICATED	UTIL	UTILITY
BALC	BALCONY	EQ	EQUAL	JST	JOIST	PREFIN	PREFINISHED		
BD	BOARD	EQPT	EQUIPMENT	JT	JOINT, JOINTS	PSF	POUNDS PER SQUARE FOOT	VERT	VERTICAL
BEV	BEVEL	ES	EACH SIDE			PSI	POUNDS PER SQUARE INCH	VFY	VERIFY
BKR	BACKER	EW	EACH WAY	K	KILOPOUND (1000 POUNDS)	PSL	PARALLEL STRAND LUMBER	VIF	VERIFY IN FIELD
BLDG	BUILDING	EXIST	EXISTING	KIP	KILOPOUND (1000 POUNDS)	PT	PRESERVATIVE-TREATED, POST-TENSIONED		
BLK	BLOCK	EXP	EXPANSION					W/	WITH
BLKG	BLOCKING	EXT	EXTERIOR					W/O	WITHOUT
BM	BEAM			L	ANGLE, LEFT, LENGTH	QTY	QUANTITY	WD	WOOD
BOC	BOTTOM OF CURB			LAM	LAMINATE, LAMINATED			WF	WIDE-FLANGE (STRUCTURAL STEEL)
BOT/BTM	BOTTOM			LAT	LATERAL	RAD	RADIUS	WP	WORK POINT OR WORKING POINT
BOW	BOTTOM OF WALL	F TO F	FACE TO FACE	LB	POUND	RCP	REFLECTED CEILING PLAN	WR	WATER-RESISTANT, WATER-RESISTIVE
BP	BASE PLATE	FAB	FABRICATIONS / FABRICATED	LF	LINEAL FEET, LINEAR FOOTAGE	RD	ROOF DRAIN	WS	WATERSTOP
BRDG	BRIDGE, BRIDGING	FE	FROELICH ENGINEERS	LIN	LINEAR	REF	REFERENCE	WT	WEIGHT
BRG	BEARING	FF	FINISH FLOOR	LIN FT	LINEAL FEET, LINEAR FOOTAGE	REINF	REINFORCED, REINFORCING	WWF	WOVEN WIRE FABRIC
BRK	BRICK	FFE	FINISH FLOOR ELEVATION	LL	LIVE LOAD	REQ	REQUIREMENTS		
BSMT	BASEMENT	FIN	FINISH	LLH	LONG LEG HORIZONTAL	REQD	REQUIRED		
BU	BUILT-UP	FLR	FLOOR	LLV	LONG LEG VERTICAL	REV	REVISION		
		FOC	FACE OF CONCRETE	LNTL	LINTEL	RO	ROUGH OPENING		
		FOF	FACE OF FINISH	LONG	LONGITUDINAL				
CEM	CEMENT, CEMENTITIOUS	FOM	FACE OF MASONRY	LSL	LAMINATED STRAND LUMBER	SCHED	SCHEDULE		
CGS	CENTER OF GRAVITY OF STRAND	FOS	FACE OF STUD	LT WT	LIGHTWEIGHT	SE	STRUCTURAL ENGINEER		
CIP	CAST-IN-PLACE	FR	FIRE-RATED, FIRE RESISTIVE	LVL	LAMINATED VENEER LUMBER	SECT	SECTION		
CJ	CONTROL JOINT	FRM	FRAMED, FRAMING			SF	SQUARE FEET		
CL	CENTER LINE	FRR	FIRE-RESISTANCE-RATED	MANUF	MANUFACTURER, MANUFACTURED	SGL	SINGLE		
CLG	CEILING	FRT	FIRE-RETARDANT-TREATED	MAX	MAXIMUM	SHT	SHEET		
CLR	CLEAR	FT	FOOT, FEET	MB	MACHINE BOLT	SHTG	SHEATHING		
CMU	CONCRETE MASONRY UNIT	FTG	FOOTING	MECH	MECHANICAL	SHTH	SHEATHING		
COL	COLUMN	FUT	FUTURE	MEZZ	MEZZANINE	SIM	SIMILAR		
COMP	COMPOSITE, COMPENSATION			MFR	MANUFACTURER, MANUFACTURED	SIMP	SIMPSON STRONG-TIE		
CONC	CONCRETE			MIN	MINIMUM	SL	SNOW LOAD		
COND	CONDITION	GA	GAUGE	MISC	MISCELLANEOUS	SOG	SLAB-ON-GRADE		
CONN	CONNECTION	GALV	GALVANIZED	MTL	METAL	SPEC	SPECIFICATION, SPECIFICATIONS		
CONSTR	CONSTRUCTION	GEN	GENERAL	MUL	MULLION	SQ	SQUARE		
CONT	CONTINUOUS	GL	GLUED-LAMINATED			SS	STAINLESS STEEL		
CORR	CORRIDOR	GLB	GLUED-LAMINATED BEAM	N	NORTH	STD	STANDARD		
CTR	CENTER	GLULAM	GLUED-LAMINATED	NIC	NOT IN CONTRACT	STIFF	STIFFENER		
CTRL	CONTROL	GND	GROUND	NO	NUMBER	STL	STEEL		
CU	CUBIC	GR	GRADE	NOM	NOMINAL	STRUCT	STRUCTURAL		
CUST	CUSTOM	GYP	GYP SUM	NTS	NOT TO SCALE	SUSP	SUSPENDED		
		GYP BD	GYP SUM BOARD			SYM	SYMMETRICAL		



FOUNDATION, PT, REBAR AND FRAMING PLAN CUTS - ELEVATION DIAGRAM

- INDICATES CAMBER AT MIDSPAN OF BEAM
- INDICATES NUMBER OF 3/4" DIA x X" SHEAR STUDS EQUALLY SPACED (TO BE FIELD WELDED)
- INDICATES BEAM SIZE.

PRELIMINARY,  
NOT FOR  
CONSTRUCTION



**FROELICH**  
ENGINEERS  
CIVIL - STRUCTURAL  
Portland, OR | Bend, OR | Denver, CO  
froelich-engineers.com | FE# 24-T079

THOMPSON SPRINGS

23-012

13500 THOMPSON RD  
NEHALEM, OR 97131

50% DESIGN  
DEVELOPMENT

FEBRUARY 28, 2025

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REVISIONS:

GENERAL  
STRUCTURAL NOTES

S001

PROJECT DESCRIPTION:

- NEW 1-STORY WITH LOFT SPACE COMMUNITY BUILDING
- CONVENTIONAL SPREAD AND STRIP CONCRETE FOUNDATIONS
- CONCRETE SLAB-ON-GRADE FIRST FLOOR
- WOOD 2X STUD WALLS SHEATHED WITH WOOD SHEATHED PANELS
- ENGINEERED WOOD I-JOIST AND BEAM FRAMED FLOOR
- PRE-MANUFACTURED / I-JOIST AND SAWN LUMBER ROOF FRAMING

GENERAL:

- THE STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THE ENTIRE SET OF CONTRACT DOCUMENTS (INCLUDING THE PROJECT SPECIFICATIONS) INTO THEIR WORK.
- THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THE GENERAL STRUCTURAL NOTES AND TYPICAL DETAILS.
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND ELEVATIONS PROVIDED ON STRUCTURAL DRAWINGS WITH ALL DISCIPLINES INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, GEOTECHNICAL ENGINEER, AND CIVIL ENGINEER PRIOR TO CONSTRUCTION.
- DETAILS ON THESE PLANS DEPICT THE GENERAL CONSTRUCTION METHODS FOR THIS STRUCTURE. CONNECTIONS, DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ARCHITECT/ENGINEER FOR CLARIFICATION IN A TIMELY MANNER PRIOR TO BID OPENING.

CODE REQUIREMENTS:

- CONFORM TO THE 2022 OREGON STRUCTURAL SPECIALTY CODE (OSSC), BASED UPON THE 2021 INTERNATIONAL BUILDING CODE (IBC).
- ALL REFERENCE TO OTHER CODES AND STANDARDS (ACI, AISC, AWS, NDS, ASTM, ETC.) SHALL BE FOR THE EDITIONS NOTED IN CHAPTER 35 OF THE IBC/OSSC.

TEMPORARY CONDITIONS:

- THE STRUCTURE HAS BEEN DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND / OR SUPPORT REQUIRED AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND / OR SEQUENCES.
- CONTRACTOR'S CONSTRUCTION METHODS AND / OR SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

EXISTING CONDITIONS:

- FIELD VERIFY ALL EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS - ONLY FIELD VERIFIED DIMENSIONS ARE TO BE USED IN CREATION OF THE SHOP DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY SIGNIFICANT DISCREPANCIES FROM DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS.

DESIGN CRITERIA:

- DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE IBC/OSSC. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWANCES WERE USED FOR DESIGN, WITH LIVE LOADS (LL) REDUCED IN ACCORDANCE WITH THE IBC:

DESIGN CRITERIA		
GEOTECHNICAL CRITERIA		
DESIGN BASED ON GEOTECHNICAL REPORT BY:	PBS ENGINEERING AND ENVIRONMENTAL DATED SEPTEMBER 2, 2022	
ALLOWABLE SOIL BEARING PRESSURE	1,500 PSF	
RISK CATEGORY	BUILDING RISK CATEGORY II	
LIVE LOAD CRITERIA		
FLOOR LIVE LOADS	UNIFORM LOAD (PSF)	CONCENTRATED LOAD (LBS)
RESIDENTIAL	40	--
VERTICAL FLOOR DEFLECTION (CLADDING DESIGN)	0.75" OR L/360 WHICHEVER IS LESS (LIVE LOAD PLUS LONG-TERM DEAD LOAD) L/600 AT STUCCO AND BRICK VENEER SUPPORTS	
VERTICAL FLOOR DEFLECTION (CLADDING DESIGN)	L/360 (LIVE LOAD), REF IBC/OSSC TABLE 1604.3	
NOTES:	1. LIVE LOADS REDUCED, REF IBC/OSSC 1607.10 2. MEMBER DESIGNED FOR THE MORE CRITICAL OF THE UNIFORM OR CONCENTRATED LOAD.	
ROOF CRITERIA		
ROOF LIVE LOAD	20 PSF	
SOLAR-READY ZONE LOAD	5 PSF IN ACCORDANCE WITH THE 2022 OSSC 1606.4.1, 3111.4.7 - THIS LOAD HAS BEEN INCORPORATED INTO THE DESIGN DEAD LOAD FOR THE STRUCTURE.	
	THE DESIGNED SOLAR-READY ZONE IS OVER THE: ENTIRE ROOF	
SNOW CRITERIA		
DESIGN ROOF SNOW LOAD	25 PSF MINIMUM IN ACCORDANCE WITH THE OSSC	
SNOW DRIFT	PER OSSC AS SHOWN ON PLANS (IN ADDITION TO DESIGN ROOF SNOW LOAD, NOT FLAT ROOF SNOW LOAD)	
GROUND SNOW LOAD	$P_g = 2 \text{ PSF}$	
	IN ACCORDANCE WITH THE IBC/OSSC	
SNOW EXPOSURE FACTOR	$C_e = 1.0$	
SNOW LOAD IMPORTANCE FACTOR	$I_s = 1.0$	
THERMAL FACTOR	$C_t = 1.0$	
WIND CRITERIA		
MAIN WIND FORCE RESISTING SYSTEM	120 MPH BASIC WIND SPEED	
COMPONENTS AND CLADDING	120 MPH BASIC WIND SPEED	
EXPOSURE CATEGORY	C	
GUST/INTERNAL PRESSURE	$GC_{pi} = +/- 0.18$	
SEISMIC CRITERIA		
SITE CLASS	D	
IMPORTANCE FACTOR	$I_e = 1.00$	
SEISMIC DESIGN CATEGORY	D	
MCE SPECTRAL ACCELERATIONS	$S_s = 1.25$	$S_1 = 0.66$
DESIGN SPECTRAL ACCELERATIONS	$S_{DS} = 0.83$	$S_{D1} = 0.748$
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE, REF ASCE 7-16 SECTION 12.8	
SEISMIC LOAD RESISTING SYSTEM	NORTH-SOUTH DIRECTION LIGHT FRAMED WOOD SHEAR WALLS	EAST-WEST DIRECTION LIGHT FRAMED WOOD SHEAR WALLS
RESPONSE MODIFICATION FACTOR	R = 6.5	R = 6.5
SEISMIC RESPONSE COEFFICIENT	$C_s = 0.1276$	$C_s = 0.1276$
DESIGN BASE SHEAR	V = 7.9 KIPS	V = 7.9 KIPS
REDUNDANCY FACTOR	rho 1.0	rho 1.0
DESIGN INELASTIC STORY DRIFT	delta VARIES	delta VARIES

STRUCTURAL OBSERVATION:

- THE STRUCTURAL ENGINEER OF RECORD (SER) WILL PERFORM STRUCTURAL OBSERVATIONS BASED ON THE REQUIREMENTS OF THE IBC/OSSC AT THE STAGES OF CONSTRUCTION LISTED BELOW. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SER TO PERFORM THESE OBSERVATIONS:

STRUCTURAL OBSERVATIONS		
CONSTRUCTION PHASE	OBSERVATION BY SER	COMMENTS
PRIOR TO FIRST CONCRETE POUR	X	REF FOOTNOTE A, B, C
AT COMPLETION OF BUILDING STRUCTURAL SYSTEM, PRIOR TO COVERING OF STRUCTURAL ELEMENTS	X	REF FOOTNOTE A, B
AS REQUIRED TO ADDRESS STRUCTURAL ISSUES	X	REF FOOTNOTE A, B

- STRUCTURAL OBSERVATIONS ARE INTENDED TO VERIFY GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS. SPECIAL INSPECTIONS AND TESTING ARE STILL REQUIRED.
- A FIELD REPORT WILL BE SUBMITTED TO THE BUILDING DEPARTMENT FOLLOWING EACH VISIT.
- STRUCTURAL OBSERVATION TO OCCUR AFTER THE REINFORCING STEEL HAS BEEN INSTALLED.

SPECIAL INSPECTION AND TESTING:

- SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE IBC AS SUMMARIZED IN THE SPECIAL INSPECTION AND TESTING PROGRAM ON SHEET 3002. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.
- SPECIAL INSPECTIONS SHALL CONFORM TO SECTION 1705 OF THE 2021 IBC / 2022 OSSC, CONTRACT DOCUMENTS AND APPROVED SUBMITTALS. REFER TO SPECIAL INSPECTION AND TESTING TABLES FOR PROJECT REQUIREMENTS.
- SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE STRUCTURAL ENGINEER ARCHITECT A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE APPROVED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1(1) OF AWS D1.1.
- THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS.
- THE SPECIAL INSPECTOR AND GEOTECHNICAL ENGINEER SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, STRUCTURAL ENGINEER, ARCHITECT, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.
- QUALITY ASSURANCE (QA) IS REQUIRED FOR STRUCTURAL STEEL ITEMS PER AISC 360 AND 341 UNLESS NOTED OTHERWISE. QUALITY CONTROL (QC) TO BE PROVIDED BY THE FABRICATOR, ERECTOR OR OTHER RESPONSIBLE CONTRACTOR AS APPLICABLE. CONTRACTOR AND SPECIAL INSPECTOR TO DOCUMENT QUALITY CONTROL AS REQUIRED IN AISC 360 SECTION N3 AND AISC 341 SECTION J2.
- INSPECTION TYPES:  
CONTINUOUS: 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.  
PERIODIC: 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 THE WORK.  
PERIODIC (FOR POST-INSTALLED ANCHORS): WHERE PERIODIC INSPECTION IS ALLOWED BY THE ANCHOR ICC/ACIPMO EVALUATION REPORT, INSPECTIONS SHALL BE AS FOLLOWS:
  - INSPECTIONS SHALL BE IN STRICT CONFORMANCE WITH THE EVALUATION REPORT AND MANUFACTURER'S INSTALLATION REQUIREMENTS. ANCHOR INSTALLERS SHALL BE QUALIFIED AS REQUIRED BY JURISDICTION REQUIREMENTS.
  - THE SPECIAL INSPECTOR SHALL BE ONSITE INITIALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR PARAMETERS (AS THEY APPLY TO THE PARTICULAR ANCHOR TYPE):  
DRILL BIT TYPE AND SIZE, ANCHOR TYPE OR BAR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, ADHESIVE IDENTIFICATION AND EXPIRATION DATE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR OR BAR EMBEDMENT DEPTH (WHERE APPLICABLE), ANCHOR SPACING AND EDGE DISTANCE, AND ADHERENCE TO THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
  - THE SPECIAL INSPECTOR SHALL BE ONSITE TO CONTINUOUSLY INSPECT THE INSTALLATION OF THE FIRST TO ANCHORS INSTALLED BY EACH INSTALLER FOR CONFORMANCE WITH THE EVALUATION REPORT AND THE CONSTRUCTION DOCUMENTS. PROVIDED ALL ANCHORS ARE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS AND CONFORM TO THE CONSTRUCTION DOCUMENTS, SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME INSTALLER IS PERMITTED TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. PROVIDE PERIODIC INSPECTION ON A MINIMUM OF 10% OF THE NEXT 1000 ANCHORS BY EACH INSTALLER AND A MINIMUM OF 5% OF THE REMAINING ANCHORS BY EACH INSTALLER. INSPECTIONS SHALL OCCUR A MINIMUM OF ONCE PER WEEK AT A RANDOM TIME WHILE ANCHOR INSTALLATION IS UNDERWAY. ANY NON-COMPLIANCE ISSUES SHALL RESET THE INSPECTION REQUIREMENTS TO (10) CONTINUOUS INSPECTIONS AND REQUIRE ALL PREVIOUS ANCHORS TO BE INSPECTED. NON-COMPLIANT ANCHORS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR REVIEW AND SHALL BE BROUGHT INTO COMPLIANCE BY EITHER TESTING OR RE-INSTALLATION.
  - FOR ALL ANCHORS, PRIOR TO CONCEALMENT, VERIFY: ANCHOR TYPE OR BAR TYPE, ANCHOR DIMENSIONS, TIGHTENING TORQUE (WHERE APPLICABLE), ANCHOR SPACING AND EDGE DISTANCE.
  - POST-INSTALLED ANCHOR INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS, LOCATION(S) AND CONDITION(S) OF ANCHORS INSPECTED, ANCHOR IDENTIFICATION AND EXPIRATION DATE (WHERE APPLICABLE), ANCHOR TYPE AND SIZE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES OBSERVED, DRILL BIT TYPE AND SIZE, AND TIGHTENING TORQUE.
  - SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE MINIMUM NUMBER OF ANCHORS WERE INSPECTED PER APPROVED ANCHOR EVALUATION REPORT.

OBSERVE: OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.

PERFORM: INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.

- DOCUMENT (D): INDICATES CONTRACTOR AND SPECIAL INSPECTOR TO PROVIDE DOCUMENTATION IN ACCORDANCE WITH AISC 341.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED IN THE TABLES SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
  - ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
  - ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
  - PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF THE REPORTS.
  - IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

SUBMITTALS:

- REVIEW OF THE SUBMITTALS IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED BY THE STRUCTURAL ENGINEER FOR CORRECTNESS, DIMENSIONS OR DETAILS CONTAINED WITHIN THE SUBMITTALS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING THEIR WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING THEIR WORK IN A SAFE AND SATISFACTORY MANNER.
- REVIEW OF THE SUBMITTALS DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF CONTRACT DOCUMENTS AND SPECIFICATIONS. THE REVIEW OF A SUBMITTAL DOES NOT CONSTITUTE A WAIVER OF THE REQUIREMENT OF STRICT COMPLIANCE WITH THE CONTRACT DOCUMENTS AND SPECIFICATIONS OF THE PROJECT. ALL MINIMUM CONDITIONS AND REQUIREMENTS SPECIFIED ON THE STRUCTURAL DRAWINGS, GOVERNING BUILDING CODES, AND REFERENCED STANDARDS SHALL BE MET REGARDLESS OF THE INFORMATION INDICATED ON THE SUBMITTALS.
- REVIEW OF SUBMITTALS WILL BE REVIEWED A MAXIMUM OF TWO ITERATIONS / ROUNDS BY FROELICH ENGINEERS, INC. FURTHER REVIEW OF STRUCTURAL SUBMITTALS WILL BE BILLED AT AN HOURLY RATE IN ADDITION TO PROJECT FEE, ACCORDING TO RATES NOTED IN THE PROJECT CONTRACT. REVIEW OF SUBMITTALS BEYOND OUR SCOPE WILL BE BILLED AT AN HOURLY RATE IN ADDITION TO PROJECT FEE, ACCORDING TO RATES NOTED IN THE PROJECT CONTRACT.
- SUBMITTALS AND DRAWINGS SHALL BE GENERATED BY AND ORIGINATE FROM THE CONTRACTOR. STRUCTURAL AUTOCAD/REVIT BACKGROUNDS WILL NOT BE RELEASED BY FE AND MAY NOT BE USED FOR THE GENERATION OF SUBMITTALS AND DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO GENERATE THEIR SUBMITTALS AND DRAWINGS.
- SUBMITTALS SHALL BE REVIEWED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION TO THE DESIGN TEAM. SUBMITTALS THAT ARE NOT REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR WILL BE RETURNED WITHOUT REVIEW.
- REQUESTS FOR SUBSTITUTIONS OR MODIFICATION OF PLANS OR SPECIFICATIONS SHALL BE SUBMITTED IN WRITING. SUBMITTALS, SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS SPECIFIC SUGGESTED CHANGES ARE CLEARLY MARKED (I.E. CLOUDED, SUGGESTING A CHANGE). IN ALL CASES, SUCH CHANGES BY MEANS OF THE SUBMITTAL BECOME THE RESPONSIBILITY OF THE PARTY INITIATING SUCH CHANGE. TIME AND MATERIALS INCURRED BY FE RELATED TO SUCH SUBSTITUTIONS OR MODIFICATIONS WILL BE BILLED AT AN HOURLY RATE IN ADDITION TO PROJECT FEE, ACCORDING TO RATES NOTED IN THE PROJECT CONTRACT.
- SUBMITTALS SHALL BE SUBMITTED TO THE DESIGN TEAM PRIOR TO THE FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL ITEMS INCLUDING THE FOLLOWING:

SUBMITTALS			
ITEM	SUBMITTAL (A, D)	DEFERRED SUBMITTAL (B, D)	COMMENTS
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCEMENT	X		
REINFORCING STEEL MILL CERTS	X		
ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATIONS	X		
CONCRETE ANCHORAGES	X		
ANCHOR BOLT LAYOUT	X		
SLAB-ON-GRADE CONTROL JOINT LAYOUT	X		
GLUED LAMINATED MEMBERS	X		
PRE-MANUFACTURED WOOD JOISTS		X	
STAIRS AND RAILINGS		X	
MEP ANCHORAGE AND BRACING		X	FOOTNOTE "C"

- IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. ANY MODIFICATIONS TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE BY THE STRUCTURAL ENGINEER OF RECORD.
- DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED UPON THE REQUIREMENTS OF THE IBC/OSSC AND AS NOTED UNDER "DESIGN CRITERIA."
- THE CONTRACTOR SHALL COORDINATE THE VERTICAL AND LATERAL RESTRAINTS OF MECHANICAL, ELECTRICAL, AND PLUMBING EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO THE STRUCTURE SHALL CONFORM TO ASCE 7 AND NOT LIMITED TO CHAPTER 13) AND BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
- FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO, THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION. ANY SUCH DETAILS ARE SUBJECT TO REVIEW AND ACCEPTANCE BY THE STRUCTURAL ENGINEER OF RECORD.
- THE DELEGATED DESIGNER SHALL, IN CONJUNCTION WITH THE GENERAL CONTRACTOR, COORDINATE THE VERTICAL, LATERAL RESTRAINTS, AND LOADING OF EQUIPMENT OR COMPONENT WITH THE STRUCTURE. CONNECTIONS TO THE STRUCTURE SHALL CONFORM TO IBC/OSSC AND ASCE 7 AND BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
- TERTIARY STRUCTURE SUBMITTALS NOT LISTED ABOVE ARE OUTSIDE THE SCOPE OF FROELICH ENGINEERS TO REVIEW.

FOUNDATIONS:

- FOUNDATION SIZES ARE BASED UPON A MAXIMUM TOTAL LOAD BEARING SOIL PRESSURE AS NOTED IN DESIGN CRITERIA FOR BEARING ON NATIVE SOILS/COMPACTED FILL, AS RECOMMENDED BY THE GEOTECHNICAL REPORT.
- ALL FOOTINGS SHALL BE A MINIMUM OF 18" BELOW FINAL GRADES.
- REMOVE ALL DISTURBED SOIL BY HAND OPERATION FROM FOOTING EXCAVATIONS TO NEAT LINES AND REPLACE WITH ENGINEERED FILL.
- THE CONTRACTOR SHALL REVIEW ALL GEOTECHNICAL ENGINEER RECOMMENDATIONS PRIOR TO THE COMMENCEMENT OF ANY SITEWORK.
- STRUCTURAL FILL MATERIALS, PLACEMENT, AND COMPACTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- STEP BOTTOM OF FOOTINGS FROM ELEVATION TO ELEVATION AT 2'-0" HORIZONTAL TO 1'-0" VERTICAL STEPS.
- PLACEMENT OF ALL FILL SHALL BE OBSERVED AND TESTED FOR RELATIVE COMPACTION BY A QUALIFIED TECHNICIAN UNDER THE GUIDANCE OF THE GEOTECHNICAL ENGINEER. MINIMUM TESTING FREQUENCY SHALL BE ESTABLISHED BY THE GEOTECHNICAL ENGINEER.
- THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF FILLING OPERATIONS.
- ALL GENERAL EXCAVATIONS AND FOOTINGS SHALL BE INSPECTED AND APPROVED PRIOR TO THE PLACEMENT OF ANY SOIL BACKFILL AND/OR CONCRETE.
- ALL FILL, BACKFILL AND COMPACTION ACTIVITIES SHALL FOLLOW RECOMMENDATIONS OF GEOTECHNICAL ENGINEER.
- GROUND ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT LEAST 5 PERCENT SLOPE FOR A MINIMUM DISTANCE OF 10 FEET FROM THE BUILDING. NOTIFY EOR IF CONDITIONS VARY.

CONCRETE:

- ALL CONCRETE WORK SHALL CONFORM TO "ACI 318-BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND CHAPTER 19 OF THE IBC/OSSC.
- CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, UNLESS NOTED OTHERWISE, AND SHALL BE AS FOLLOWS:

CONCRETE STRENGTHS				
DESCRIPTION	f <sub>c</sub> (PSI)	WATER - CEMENT RATIO BY WEIGHT	ENTRAINED AIR (PERCENT)	OTHER
FOOTINGS, STEMWALLS	3,000	0.53	2 +/- 1.5	
INTERIOR SLAB-ON-GRADE	4,000	0.48		SEE NOTE E

NOTES:

- VERIFY WATER/CEMENT RATIO WITH FLOOR COVERING MANUFACTURER FOR CONCRETE FLOORS WITH MOISTURE SENSITIVE FLOOR COVERINGS.
- CONCRETE MIXES SHALL BE NORMAL WEIGHT AND CONTAIN PORTLAND CEMENT CONFORMING TO ASTM C150 FOR TYPE I, OR TYPE II.
- AIR ENTRAINING AGENT SHALL CONFORM TO ASTM C260.
- COLUMNS THAT ARE AN INTEGRAL PART OF A WALL SHALL HAVE CONCRETE STRENGTH AS REQUIRED FOR COLUMNS.
- SHRINKAGE RATE, AS DETERMINED BY ASTM C157, OF CONCRETE SHALL NOT EXCEED 0.045 PERCENT AT 28 DAYS. USE A SHRINKAGE REDUCING ADMIXTURE TO ACHIEVE THIS VALUE, IF REQUIRED.
- LIMITS ON CEMENTITIOUS MATERIALS FOR CONCRETE ASSIGNED TO EXPOSURE CLASS F3:

CEMENTITIOUS MATERIALS	MAXIMUM PERCENT OF TOTAL CEMENTITIOUS MATERIALS BY MASS
FLY ASH OR OTHER POZZOLANS CONFORMING TO ASTM C618	25
SLAG CEMENT CONFORMING TO ASTM C989	50
SILICA FUME CONFORMING TO ASTM C1240	10
TOTAL OF FLY ASH OR OTHER POZZOLANS AND SILICA FUME	35
TOTAL OF FLY ASH OR OTHER POZZOLANS, SLAG CEMENT, AND SILICA FUME	50

- MAXIMUM AGGREGATE SIZE SHALL BE 3/4" AND NOT MORE THAN ONE-QUARTER OF THE REINFORCEMENT CLEAR SPACING.
- MINIMUM CEMENT CONTENT PER CUBIC YARD SHALL BE AS FOLLOWS:

MINIMUM CEMENT CONTENT	
f <sub>c</sub> (PSI)	MINIMUM CEMENT CONTENT PER CUBIC YARD
3,000	470 LBS.
4,000	550 LBS.
5,000	630 LBS.

NOTES:

- FLYASH CONFORMING TO ASTM C618 "TYPE F" OR "TYPE C" MAY BE USED TO REPLACE UP TO 20 PERCENT OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.
- SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA COMPLIANT WITH ACI-318 CHAPTER 26 A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE.
- NO WATER MAY BE ADDED TO CONCRETE IN THE FIELD UNLESS REQUESTED BY CONCRETE SUPPLIER AND APPROVED IN WRITING BY THE ENGINEER OF RECORD.
- A WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 USED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS SHALL BE INCORPORATED INTO CONCRETE MIX DESIGNS. A HIGH RANGE WATER REDUCING ADMIXTURE CONFORMING TO ASTM C494 "TYPE F" OR "TYPE 'S'" MAY BE USED IN CONCRETE MIXES PROVIDED THAT THE SLUMP DOES NOT EXCEED 10-INCHES.
- SLEEVES, OPENING, CONDUITS, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE-THIRD THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON-CENTER.
- PROVIDE SHOP DRAWINGS FOR THE LAYOUT OF CONSTRUCTION AND CONTROL JOINTS FOR CONCRETE SLABS-ON-GRADE. LOCATE JOINTS AT MAXIMUM 12'-0" ON-CENTER EACH WAY FORMING RECTANGLES WITH A LENGTH TO WIDTH RATIO NOT EXCEEDING 1.5 IN ANY DIRECTION. CONTROL JOINTS SHALL INTERSECT AT COLUMN BLOCKOUTS, AT ENDS OF BEARING WALLS, AND AT ALL RE-ENTRANT CORNERS IN THE SLAB.
- ALL BOLTS AND/OR ANCHOR RODS EMBEDDED INTO CONCRETE SHALL CONFORM TO ASTM SPECIFICATION F1554 GRADE 36 UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
- ANCHOR RODS ARE TO BE LOCATED BY MEANS OF TEMPLATE. ANCHOR RODS SHALL NOT BE HAND SET, OR WET SET.
- ANCHOR RODS AND EMBEDDED ITEMS SHALL BE SET IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE SECTION 7.5.
- WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE.
- PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE.
- PREPARATION, CONSTRUCTION AND PROTECTION OF CONCRETE DURING COLD WEATHER OR HOT WEATHER SHALL CONFORM TO ACI 318 26.5.4, 26.5.5 AND ACI 308R AND 305R.

SHORING AND RE-SHORING:

- SHORING AND RE-SHORING IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL CONFORM TO ACI 347R-14
- SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE THE CONCRETE STRENGTH HAS REACHED AT LEAST 70 PERCENT OF THE SPECIFIED DESIGN STRENGTH AS DETERMINED FROM FIELD CURED CYLINDERS.
- ADDITIONALLY FOR RETAINING WALLS:
  - BACKFILL AND COMPACT TOE AND HEEL SIDES EQUALLY UP TO FINAL TOE GRADE. AFTER THIS ELEVATION HAS BEEN ACHIEVED, THEN BACKFILL AND COMPACT THE HEEL SIDE.
  - LOWER SLAB (IF APPLICABLE) SHALL BE PLACED AND REACH FULL COMPRESSIVE STRENGTH PRIOR TO BACKFILLING OF HEEL.
  - UPPER SLAB (IF APPLICABLE) FOR BASEMENT RETAINING WALLS SHALL BE PLACED AND REACH FULL COMPRESSIVE STRENGTH PRIOR TO BACKFILLING OF HEEL.
  - MONITOR WALL FOR SIGNS OF SWELLING OR DISTRESS DURING BACKFILLING AND COMPACTION. STOP BACKFILLING AND NOTIFY ENGINEER OF RECORD IF SUCH SIGNS OCCUR.

EPOXY REPAIR ADHESIVE:

- EPOXY REPAIR ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO-COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND LONG POT LIFE. THE EPOXY ADHESIVE SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES.
- ADHESIVE SHALL HAVE A MINIMUM SLANT SHEAR STRENGTH OF 5,000 PSI AND A MINIMUM TENSILE STRENGTH OF 4,000 PSI.
- HOLE SIZES AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND THE REQUIREMENTS SET FORTH IN THE APPROVED ICC EVALUATION REPORT.
- REINFORCEMENT SHALL NOT BE CUT OR DAMAGED IN EITHER NEW OR EXISTING CONCRETE DURING INSTALLATION.



REINFORCING STEEL:

- REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE TO "ACI 318—BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND "ACI 315—MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."
- ALL REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS AND GRADES UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:

REINFORCING SPECIFICATIONS AND GRADES	
USE	ASTM SPECIFICATION AND GRADE
ALL OTHER REINFORCEMENT	ASTM A615, GRADE 60

\*ASTM A706 REBAR IN THE ABOVE USES IS PERMITTED TO BE REPLACED WITH ASTM A615 REBAR OF THE SAME GRADE IF ALL OF THE FOLLOWING ARE MET:

- THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED  $f_y$  BY MORE THAN 18,000 PSI
  - THE RATIO OF THE ACTUAL TENSILE STRENGTH TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25
  - SUPPORTING MILL CERTS OF THE REBAR SUPPLIED ON THE PROJECT IS PROVIDED FOR REVIEW
- REINFORCING STEEL SHALL BE SECURELY TIED IN-PLACE WITH #16 ANNEALED IRON WIRE. BARS IN BEAMS, SLABS, AND FOUNDATIONS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS, OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE "CRSI MANUAL OF STANDARD PRACTICE," MSP-1.
  - ALL REINFORCEMENT SHALL BE FREE OF LOOSE MILL AND RUST SCALE, OIL, DIRT, OR COATINGS OF ANY KIND THAT REDUCE THE BOND STRENGTH TO THE CONCRETE.
  - REINFORCEMENT STEEL SHALL NOT BE DISPLACED OR ALTERED FOR THE CONVENIENCE OF OTHER TRADES UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
  - "WET SETTING" OF REINFORCING STEEL, ANCHOR RODS, EMBEDDED PLATES AND INSERTS IS NOT PERMITTED.
  - ALL REINFORCEMENT SHALL BE CONTINUOUS WITH ADEQUATE LAP LENGTHS AT SPLICE LOCATIONS.
  - MINIMUM LAP OF WELDED WIRE FABRIC SHALL BE 12".
  - THE FOLLOWING MINIMUM LAP SPLICE LENGTHS SHALL BE PROVIDED FOR ALL REINFORCING STEEL:

TYPICAL LAP SPLICE SCHEDULE (IN)						
BAR SIZE	3,000 PSI		4,000 PSI		5,000 PSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	28	22	24	19	22	17
#4	37	29	32	25	29	22
#5	47	36	40	31	36	28

NOTES:

- FOR CENTER-TO-CENTER SPACING LESS THAN FOUR TIMES THE BAR DIAMETER, MULTIPLY THE ABOVE VALUES BY A FACTOR OF 1.4
  - TABLE VALUES APPLY FOR CLEAR COVER GREATER THAN OR EQUAL TO 1-1/2". CONTACT ENGINEER OF RECORD IF CONDITIONS VARY.
  - TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
  - VALUES ARE FOR UNCOATED BARS.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR ALL REINFORCING STEEL:

MINIMUM CONCRETE COVER (CAST-IN-PLACE)		
USE	COVER	
SLAB BARS	1"	
CONCRETE CAST AGAINST EARTH	3"	

CONCRETE ACCESSORIES:

- GENERAL PURPOSE HEADED STUDS (FOR STEEL EMBEDS AND ANCHORAGE) SHALL BE NELSON H4L HEADED CONCRETE ANCHORS WITH FLUXED ENDS (ICC ESR-2856) OR APPROVED EQUAL WITH A CURRENT EVALUATION REPORT, CONFORMING TO ASTM A108 GRADE C1010 - C1020 AND AWS D1.1 TYPE A, WITH A MINIMUM TENSILE STRENGTH OF 61,000 PSI. TYPE A STUDS SHALL BE STUDS THAT ARE HEADED AND USED AS EMBEDMENT ANCHORS ON MISCELLANEOUS EMBEDDED PLATE, FRAMES, ANGLES, ATTACHMENTS, AND CONNECTIONS.
- DEFORMED BAR ANCHORS (DBA) SHALL BE NELSON TYPE D2L DEFORMED BAR ANCHORS WITH FLUXED ENDS (ICC ESR-2807) OR APPROVED EQUAL WITH A CURRENT EVALUATION REPORT, CONFORMING TO ASTM A1064 AND AWS D1.1, TYPE C, WITH A MINIMUM TENSILE STRENGTH OF 80,000 PSI. TYPE C STUDS SHALL BE COLD-WORKED DEFORMED STEEL BARS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A1064.
- PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. EMBEDDED ITEMS SHALL NOT BE LOADED. NOR SHALL WELDS BE APPLIED, FOR A MINIMUM OF 7 DAYS AFTER CASTING OF CONCRETE.
- APPROVED POST-INSTALLED ANCHORS ARE AS FOLLOWS:

APPROVED POST-INSTALLED CONCRETE ANCHORS		
TYPE	ANCHOR	ICC REPORT
CONCRETE SCREWS	SIMPSON TITEN HD	ICC ESR-2713
	DEWALT SCREW-BOLT+	ICC ESR-3889
	HILTI KWIK HUS-EZ	ICC ESR-3027
	SIMPSON SET-3G	ICC ESR-4057
EPOXY ADHESIVE	DEWALT PURE110+	ICC ESR-3298
	DEWALT PURE220+	ICC ESR-5144
	HILTI HIT-RE 500V3	ICC ESR-3814
	SIMPSON AT-XP	IAPMO UES ER-263
ACRYLIC ADHESIVE	DEWALT AC200+	ICC ESR-4027
	HILTI HY 200	ICC ESR-3187
	SIMPSON STRONG-BOLT II	ICC ESR-3037
	DEWALT POWER STUD + SD2	ICC ESR-2502
EXPANSION ANCHORS	HILTI KWIK BOLT-TZ	ICC ESR-1917

NOTES:

- ANCHOR LOCATIONS AND REQUIREMENTS SHALL CONFORM TO THOSE NOTED SPECIFICALLY ON THE STRUCTURAL DRAWINGS. ALL OTHER LOCATIONS REQUIRE PRIOR APPROVAL.
- ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE TO THE APPLICABLE ICC REPORT AND MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- REINFORCEMENT SHALL NOT BE CUT IN NEW, OR EXISTING CONCRETE DURING INSTALLATION OF POST-INSTALLED ANCHORS. CONTRACTOR SHALL LOCATE AND AVOID ALL REINFORCEMENT.
- ANCHORS THAT ARE LEFT EXPOSED TO WEATHER SHALL BE STAINLESS STEEL OR HOT-DIPPED GALVANIZED.
- ANCHORS SHALL BE INSTALLED ONLY INTO CONCRETE THAT HAS ATTAINED FULL CONCRETE DESIGN STRENGTH,  $f_c$ .
- ADHESIVE ANCHORS SHALL BE INSTALLED ONLY IN DRY, HAMMER-DRILLED HOLES.
- INSTALLATION OF ADHESIVE ANCHORS SHALL BE PERFORMED ONLY BY ACI/CRSI CERTIFIED ADHESIVE ANCHOR INSTALLERS.
- ADHESIVE ANCHOR INSTALLATIONS IN HORIZONTAL, UPWARDLY INCLINED, AND OVERHEAD ORIENTATIONS SHALL UTILIZE ADHESIVE MANUFACTURER'S PISTON PLUG AND TUBING DELIVERY SYSTEM. PLACE ADHESIVE RETAINING CAP IN THE HOLE AFTER ADHESIVE INJECTION.
- ADHESIVE ANCHOR INSTALLATIONS EXCEEDING 10" EMBEDMENT IN DOWNWARD INCLINED, AND DOWNWARD ORIENTATIONS SHALL UTILIZE ADHESIVE MANUFACTURER'S PISTON PLUG AND TUBING DELIVERY SYSTEM.

SAWN FRAMING LUMBER:

- SAWN LUMBER SHALL CONFORM TO THE WEST COAST LUMBER INSPECTION BUREAU (WCLBI) OR THE WESTERN WOODS PRODUCTS ASSOCIATION (WWPA) GRADING RULES.
- ALL LUMBER SHALL BE THE SPECIES AND GRADES AS FOLLOWS:

SAWN LUMBER		
USE	SPECIES/GRADE	Fb (PSI)—BASE VALUE
LUMBER 2" TO 4" THICK	DOUGLAS FIR-LARCH NO.2	900
BEAMS 5"x5" AND GREATER	DOUGLAS FIR-LARCH NO.1	1350
POSTS	DOUGLAS FIR-LARCH NO.1	1200
T-AND-G DECKING	DOUGLAS FIR LARCH COMMERCIAL DEX	1450

- ALL DIMENSIONAL LUMBER AND TIMBERS SHALL BE KILN DRIED AND CERTIFIED IN WRITING BY THE SUPPLIER TO BE LESS THAN 19 PERCENT MOISTURE CONTENT.
  - ALL LUMBER IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESERVATIVE-TREATED (PT) IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS BUREAU (AWPB) UNLESS AN APPROVED MOISTURE BARRIER IS PROVIDED. ALL PT LUMBER SHALL BEAR THE AWPB QUALITY MARK.
  - CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO IBC/OSSC SECTIONS 2308.4.2.4, 2308.4.5.9, 2308.4.5.10 AND THE LIMITATIONS AS NOTED ON THE STRUCTURAL DRAWINGS.
  - PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITION WALLS.
  - PROVIDE SLOD LINES OF BLOCKING, SAME DEPTH OF FRAMING MEMBER, AT ALL BEARING POINTS.
  - JOIST BRIDGING SHALL BE REQUIRED WHERE JOISTS HAVE A DEPTH-TO-THICKNESS RATIO GREATER THAN 5-TO-1 AND WHERE ONE EDGE IS UNSUPPORTED. JOIST BRIDGING SHALL BE SPACED AT 8'-0" ON CENTER MAXIMUM.
  - WHERE NOTED ON THE PROJECT, LUMBER SHALL BE FIRE-RETARDANT-TREATED (FRT). FRT LUMBER HAS BEEN DESIGNED CONSIDERING REDUCED VALUES NOTED BELOW. FRT LUMBER REDUCED DESIGN VALUES OF THE SELECTED PRODUCT SHALL NOT EXCEED THE MAXIMUM REDUCTIONS LISTED.
- | LUMBER STRESS                   | REDUCTION |
|---------------------------------|-----------|
| BENDING                         | 0.85      |
| TENSION                         | 0.80      |
| COMPRESSION (PARALLEL-TO-GRAIN) | 0.90      |
| HORIZONTAL SHEAR                | 0.90      |
| FASTENERS                       | 0.90      |
- WHERE NOTED ON THE PROJECT, SHEATHING SHALL BE FIRE-RETARDANT-TREATED (FRT). FRT SHEATHING HAS BEEN DESIGNED CONSIDERING A MAXIMUM REDUCTION OF XX PERCENT. FRT SHEATHING DESIGN VALUES OF THE SELECTED PRODUCT SHALL NOT EXCEED THE MAXIMUM REDUCTIONS LISTED.
  - THE FRT TREATMENT SHALL HAVE A CURRENT INTERNATIONAL INSPECTION CONSULTING (ICC) REPORT COMPLYING WITH THE CURRENT BUILDING CODE AND ICC-ES ACCEPTANCE CRITERIA AC316.

GLUED-LAMINATED MEMBERS:

- GLUED-LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH THE "AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER" (ANSI/AITC A190.1), OR OTHER CODE-APPROVED DESIGN, MANUFACTURING AND QUALITY ASSURANCE PROCEDURES.
- ADHESIVE SHALL BE WET-USE EXTERIOR WATERPROOF GLUE.
- EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE.
- ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER THE SHOP OR FIELD.
- NOTCHING AND/OR BORING OF GLUED-LAMINATED MEMBERS (EITHER IN THE SHOP, OR FIELD) IS STRICTLY PROHIBITED UNLESS AS SPECIFICALLY DETAILED IN THE STRUCTURAL DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
- GLUED-LAMINATED TIMBER MEMBERS SHALL BE WESTERN SPECIES WITH THE FOLLOWING STRENGTH PROPERTIES, UNLESS OTHERWISE NOTED ON PLANS:

GLUED-LAMINATED MEMBERS				
COMBINATION SYMBOL (SPECIES)	USE	MODULUS OF ELASTICITY (PSI)	FLEXURAL STRESS (PSI)	HORIZONTAL SHEAR STRESS (PSI)
24F-V4 (DF/DF)	SIMPLE SPAN	1,800,000	2,400	265
24F-V8 (DF/DF)	CANTILEVERED OR CONTINUOUS	1,800,000	2,400	265

- GLUED-LAMINATED MEMBERS SHALL BE OF THE FOLLOWING APPEARANCE GRADE(S), UNLESS OTHERWISE NOTED ON PLANS: \*\*FRAMING, INDUSTRIAL, ARCHITECTURAL, PREMIUM\*\*
- GLUED-LAMINATED MEMBERS NOTED AS "FRR" (FIRE-RESISTANCE-RATED) SHALL BE LAID UP WITH ADDITIONAL TENSION LAMINATION(S) AS REQUIRED TO MEET 1 HOUR FIRE RESISTANCE RATING IN ACCORDANCE WITH IBC 722.6.3.4. THE QUALITY STAMP ON "FRR" BEAMS SHALL INDICATE THAT THE MANUFACTURER HAS MADE THE REQUIRED LAYUP MODIFICATIONS.

ENGINEERED COMPOSITE LUMBER:

- ENGINEERED COMPOSITE LUMBER PRODUCTS SUCH AS LAMINATED VENEER LUMBER (MICROLAM), PARALLEL STRAND LUMBER (PARALAM), AND LAMINATED STRAND LUMBER (TIMBERSTRAND) SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS, MANUFACTURED BY TRUS-JOIST OR AN APPROVED EQUAL.
- MEMBERS SHALL HAVE THE FOLLOWING MINIMUM DESIGN PROPERTIES:

ENGINEERED COMPOSITE LUMBER		
COMPOSITE LUMBER TYPE	MODULUS OF ELASTICITY (PSI)	ALLOWABLE FLEXURAL STRESS (PSI)
LSL	1,500,000	2,350
LVL	1,900,000	2,600
PSL	2,000,000	2,900

NOTE: FLEXURAL STRESSES NOTED ABOVE ARE FOR 12" DEEP MEMBERS. DEEPER MEMBERS SHALL BE DESIGNED FOR REDUCED STRESSES IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.

PRE-MANUFACTURED WOOD JOISTS:

- DESIGN OF THE PRE-MANUFACTURED JOIST SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- PRE-MANUFACTURED WOOD JOISTS SHALL BE OF THE SIZE AND TYPE AS SHOWN ON THE STRUCTURAL DRAWINGS. JOISTS SHALL BE MANUFACTURED BY TRUS-JOIST, OR AN APPROVED EQUAL, AND SHALL CONFORM TO "THE "PERFORMANCE STANDARD FOR APA EWS I-JOISTS" (APA EWS STANDARD PRJ-400).
- ALTERNATE JOIST PRODUCTS WILL BE CONSIDERED PROVIDED THEY ARE ICC APPROVED, ARE COMPATIBLE WITH THE LOAD CAPACITY, ARE OF THE SAME DEPTH AND ON-CENTER SPACING AS JOIST NOTED ON PLANS, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT, AND HAVE LVL FLANGES.
- IF ANOTHER JOIST PRODUCT IS TO BE SUBSTITUTED, THE SUBSTITUTED PRODUCT MUST BE EQUAL OR GREATER IN MOMENT, SHEAR, REACTION, EI, AND PERFORMANCE AS THE PRODUCT SPECIFIED FOR THIS PROJECT. THE SUPPLIER SHALL BE RESPONSIBLE FOR THE COST OF ANY RE-ENGINEERING AND MODIFICATIONS TO THE STRUCTURAL PLANS OR DETAILS DUE TO THE SUBSTITUTION OF THEIR PRODUCT.
- ALTERNATIVE PRODUCTS AND DESIGNS MUST BE APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO BID.
- CALCULATIONS OF THE PROPOSED ALTERNATE PRODUCTS MUST BE SEALED BY THE PRODUCT ENGINEER AND SUBMITTED FOR REVIEW BY THE ARCHITECT AND ENGINEER OF RECORD.
- JOIST SUPPLIER SHALL PROVIDE JOISTS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES NECESSARY FOR THE PROPER ERECTION AND PERFORMANCE OF THEIR PRODUCT. THESE SHALL BE CLEARLY CALLED OUT AND DETAILED ON THE SHOP DRAWINGS.
- JOIST SUPPLIER SHALL INSPECT ALL JOISTS, BEAMS, BRIDGING, HANGERS, BLOCKING, AND OTHER ACCESSORIES AFTER INSTALLATION AND PROVIDE WRITTEN VERIFICATION OF PROPER INSTALLATION OF THEIR PRODUCT TO THE ARCHITECT AND STRUCTURAL ENGINEER OF RECORD.
- LAMINATE MULTIPLE JOISTS WHERE INDICATED ON DRAWINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- CAMBER ALL JOISTS AS PER MANUFACTURER'S RECOMMENDATIONS.
- DO NOT NOTCH OR DRILL PRODUCTS, EXCEPT AS ALLOWED BY THE MANUFACTURER'S SPECIFICATIONS, ANY PROPOSED NOTCHING OR DRILLING OF PRODUCTS REQUIRES PRIOR APPROVAL BY THE MANUFACTURER.
- THE CONTRACTOR SHALL COORDINATE WITH THE JOIST MANUFACTURER TO PROVIDE ADDITIONAL JOISTS AND/OR ADJUST JOIST LAYOUT TO AVOID CONFLICTS WITH COLUMNS, COLUMN CONNECTIONS, CONNECTION HARDWARE, ETC.
- THE PRE-MANUFACTURED WOOD JOIST SYSTEM SHALL BE DESIGNED TO RESIST THE FOLLOWING MINIMUM LOADS:

PRE-MANUFACTURED WOOD JOIST LOADING	
LOADING TYPE	UNIFORMLY DISTRIBUTED LOAD (PSF)
ROOF LIVE LOAD	20 PSF
ROOF SNOW LOAD	25 PSF
	UNBALANCED: PER ASCE 7
ROOF DEAD LOAD	22 PSF (INCLUDES 5 PSF SOLAR-READY ZONE LOAD)
NET WIND UPLIFT	7 PSF

- CONTRACTOR TO VERIFY ALL WEIGHTS AND LOCATIONS OF CONCENTRATED LOADS DUE TO ROOF TOP MECHANICAL UNITS, MECHANICAL PIPING, ELECTRICAL UNITS, FOLDING PARTITIONS AND OTHER CONCENTRATED LOADS PRIOR TO JOIST FABRICATION.
- THE JOIST MANUFACTURER SHALL SUBMIT DESIGNS, SHOP DRAWINGS AND CALCULATIONS BEARING THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED FOR REVIEW.
- DESIGNS, SHOP DRAWINGS AND CALCULATIONS SHALL INCLUDE THE FOLLOWING INFORMATION:
  - DEFLECTION DESIGN CRITERIA
  - LIVE, SNOW, DEAD, WIND, SEISMIC AND MECHANICAL DESIGN LOADS
  - ERECTION AND PLACEMENT CRITERIA
  - DETAILS OF ALL BRIDGING, BRACING, STIFFENERS, BLOCKING, CONNECTIONS AND HANGERS
  - LOCATION AND FRAMING FOR ALL EQUIPMENT LOADS OVER 500 LBS
  - LOCATION AND FRAMING FOR ALL SUSPENDED WALLS AND EQUIPMENT
  - LOCATION AND FRAMING FOR ALL ROOF TIEOFFS (COORDINATE WITH TIEOFF ENGINEER AND MANUFACTURER)

WOOD STRUCTURAL PANEL SHEATHING:

- WOOD STRUCTURAL ROOF, WALL AND FLOOR PANELS SHALL CONFORM TO THE REQUIREMENTS OF THE U.S. PRODUCT STANDARD PS 1 FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD," THE "U.S. PRODUCT STANDARD PS 2 PERFORMANCE STANDARD FOR WOOD-BASED STRUCTURAL USE PANELS," OR THE "APA PRP-108 PERFORMANCE STANDARDS."
- UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING AS FOLLOWS:

WOOD STRUCTURAL PANEL SHEATHING	
USE	THICKNESS/RATING
ROOF SHEATHING	19/32"-INDEX 40/20
FLOOR SHEATHING	23/32"-INDEX 48/24
WALL SHEATHING	1/2"-INDEX 32/16
STAIR TREADS	23/32"-INDEX 48/24 STRUCT 1 PLYWOOD EXPOSURE 1
STAIR RISERS	15/32"-INDEX 32/16 PLYWOOD EXPOSURE 1

- ALL FLOOR AND ROOF SHEATHING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND WITH END JOINTS STAGGERED.
- ALL FLOOR AND ROOF SHEATHING JOINTS SHALL BE INSTALLED WITH A 1/8" GAP AS RECOMMENDED BY APA UNLESS NOTED OTHERWISE BY THE SHEATHING MANUFACTURER.
- ROOF SHEATHING SHALL BE BLOCKED, OR HAVE EDGES SUPPORTED BY PLYCLIPS.
- FLOOR SHEATHING PANELS SHALL BE FIELD-GLUED TO THE FRAMING USING ADHESIVES MEETING THE APA SPECIFICATION AFG-01 OR ASTM D3498. TONGUE AND GROOVE PANELS SHALL ALSO BE GLUED AT THE T AND G JOINT.
- SHEAR WALL SHEATHING SHALL BE PLYWOOD OR OSB PANELS CONFORMING TO THE REQUIREMENTS FOR ITS TYPE SPECIFIED IN DOC PS1 OR PS2.
- SHEAR WALL SHEATHING SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY AND BE BLOCKED AT ALL PANEL EDGES. SHEET SIZES SHALL BE 4'x8' UNLESS AT BOUNDARIES OR FRAMING CHANGES. DO NOT PIECE TOGETHER AROUND OPENINGS - INSTALL FULL SHEETS AND CUT OUT FOR OPENINGS. REFERENCE PLANS FOR ADDITIONAL REQUIREMENTS.
- AT WALL SHEATHING, ADJUST LAYOUT TO ELIMINATE SHEATHING PIECES LESS THAN 16" WIDE.
- AT ROOF AND FLOOR SHEATHING, ADJUST LAYOUT TO ELIMINATE SHEATHING PIECES LESS THAN 24" WIDE. AT OVERHANGS AND EAVES AT THE ROOF, PIECES SHALL BE NO LESS THAN 48" WIDE AND SHALL BE SUPPORTED BY AT LEAST 2 ROOF MEMBERS (ROOF JOISTS OR TRUSSES).
- DO NOT USE MATERIALS WITH DEFECTS THAT IMPAIR QUALITY OF SHEATHING OR PIECES THAT ARE TOO SMALL, CUT PANELS AT EDGES AND OTHER OBSTRUCTIONS OF WORK - FIT TIGHTLY AT JOINTS AND ADJOINING CONSTRUCTION.
- SHEATHING SHALL BE PROTECTED FROM MOISTURE DURING CONSTRUCTIONS PER THE RECOMMENDATIONS AND/OR REQUIREMENTS OF APA UNLESS DIRECTED OTHERWISE BY THE SHEATHING MANUFACTURER.
- ROOF AND FLOOR DIAPHRAGMS THAT EXCEED 80 FEET IN ANY DIRECTION THE CONTRACTOR SHALL PROVIDE TEMPORARY CONSTRUCTION JOINTS AS RECOMMENDED BY APA UNLESS DIRECTED OTHERWISE BY THE SHEATHING MANUFACTURER.

NAILING AND FASTENERS:

- ALL FRAMING NAILS SHALL BE OF THE SIZE AND NUMBER INDICATED ON THE DRAWINGS AND CONFORM TO THE STANDARD SPECIFICATION OF DRIVEN FASTENERS: NAILS, SPIKES, AND STAPLES" (ASTM F1667) AND "POWER-DRIVEN STAPLES AND NAILS FOR USE IN ALL TYPES OF BUILDING CONSTRUCTION" (NER 272).
- NAILING NOT SHOWN SHALL BE AS INDICATED ON IBC/OSSC TABLE 2304.9.1, OR NER-272.
- NAILS SHALL BE IDENTIFIED BY LABELS ATTACHED TO THEIR CONTAINERS, THAT SHOW THE MANUFACTURER'S NAME, NAIL SHANK DIAMETER, AND LENGTH.
- NAIL SIZES SHALL BE AS FOLLOWS:

FRAMING NAILS		
NAIL TYPE	SHANK DIAMETER (IN)	MINIMUM PENETRATION INTO FRAMING MEMBER (IN)
6d	0.113	1.250
8d	0.131	1.375
10d	0.148	1.500
16d	0.162	1.625

- UNLESS OTHERWISE NOTED ON PLANS, SHEATHING SHALL BE ATTACHED TO THE FRAMING SUPPORTS AS FOLLOWS:

SHEATHING NAILING		
USE	PANEL EDGES	INTERMEDIATE FRAMING MEMBERS
ROOF SHEATHING (WIND < 140 MPH)	0.131" DIA AT 6" OC	0.131" DIA AT 6" OC
ROOF SHEATHING WITHIN 4'-0" OF ROOF EDGES AND RIDGES (WIND > 130 MPH EXP B; 110 MPH EXP C)	0.131" DIA AT 4" OC	0.131" DIA AT 4" OC
ROOF SHEATHING ELSEWHERE (WIND > 130 MPH EXP B; 110 MPH EXP C)	0.131" DIA AT 6" OC	0.131" DIA AT 6" OC
FLOOR SHEATHING	0.148" DIA AT 6" OC	0.148" DIA AT 12" OC
WALL SHEATHING	0.131" DIA AT 6" OC	0.131" DIA AT 12" OC

NOTES:

- ALL NAILS SHALL BE COMMON NAILS EXCEPT ROOF SHEATHING RING SHANK NAILS (MEETING SPECIFICATIONS OF ASTM F1667) SHALL BE USED FOR FASTENING ROOF SHEATHING.
- BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-1981. ALL BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS. ALL A307 BOLTS SHALL HAVE CUT THREADS.
  - PRE-DRILL HOLES FOR LAG BOLTS. SOAP THREADS OF LAGS IMMEDIATELY PRIOR TO INSTALLATION.
  - JOIST HANGERS, HOLD-DOWNS, AND OTHER FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE (OR AN APPROVED EQUAL) AND BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. HARDWARE FASTENERS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS. ANY PRODUCT SUBSTITUTIONS TO SIMPSON SHALL MEET OR EXCEED SIMPSON'S PUBLISHED DESIGN CAPACITIES AND MUST HAVE A CURRENT ICC-ES EVALUATION REPORT FOR THE APPLICABLE CODES.
  - HANGERS NOT SHOWN SHALL BE SIMPSON U-TYPE, OR B-TYPE OF THE SIZE RECOMMENDED FOR THE SPECIFIC FRAMING MEMBER SHOWN ON PLAN.
  - FASTENERS (NAILS, BOLTS, SCREWS, LAG SCREWS, ETC) IN CONTACT WITH PT LUMBER AND SHEATHING SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED STEEL. OTHER FASTENERS AND HARDWARE IN CONTACT WITH PT LUMBER AND SHEATHING SHALL BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B695, CLASS 55 MINIMUM. CONNECTORS IN CONTACT WITH EXTERIOR APPLICATIONS OF PT LUMBER AND SHEATHING SHALL HAVE BE ZINC-COATED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A653, TYPE G185. ADDITIONALLY, FASTENER TYPE AND COATINGS SHALL COMPLY WITH THE WRITTEN REQUIREMENTS OF THE MANUFACTURER. NO SUBSTITUTIONS PERMITTED.
  - FASTENERS (NAILS, BOLTS, SCREWS, LAG SCREWS, ETC) IN CONTACT WITH FRT LUMBER AND SHEATHING SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED STEEL. OTHER FASTENERS AND HARDWARE IN CONTACT WITH FRT LUMBER AND SHEATHING SHALL BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B695, CLASS 55 MINIMUM. ADDITIONALLY, FASTENER TYPE AND COATINGS SHALL COMPLY WITH THE WRITTEN REQUIREMENTS OF THE MANUFACTURER.
  - SILLS AT WALLS SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER x 7" EMBED ANCHOR BOLTS AT 4'-0" OC MAXIMUM AND WITHIN 1'-0" OF SILL PLATE ENDS, CORNERS OR SPLICES, UNLESS DETAILED OTHERWISE. WASHERS TO BE MINIMUM 1/4"x3"x3", IN ACCORDANCE WITH IBC 2305.3.11.
  - ALL SILL PLATES AND LEDGERS SHALL BE ANCHORED WITH A MINIMUM OF THREE FASTENERS PER PIECE.
  - ANCHOR BOLTS, INCLUDING NUTS AND WASHERS, FROM SILL PLATES TO CONCRETE FOUNDATION OR SLAB SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A653 TYPE G185 OR APPROVED EQUAL.

ANCHOR BOLTS:

- ANCHOR BOLTS, INCLUDING NUTS AND WASHERS, FROM SILL PLATES TO CONCRETE FOUNDATION OR SLAB SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A653 TYPE G185 OR APPROVED EQUAL.
- ANCHOR BOLTS SHALL HAVE A GALVANIZED STEEL PLATE WASHER BETWEEN THE SILL PL AND NUT. REF SHEAR WALL DETAILS FOR PLACEMENT REQUIREMENTS OF BOLT AND WASHERS.
- ANCHOR BOLTS SHALL BE PLACED SO THAT PLATE WASHER EDGE IS PARALLEL TO AND LOCATED WITHIN 1/2" OF WALL SHEATHING. REF SHEAR WALL DETAILS FOR PLACEMENT REQUIREMENTS OF BOLT AND WASHERS.
- ANCHOR BOLTS SHALL BE LOCATED IN THE FORMS AND TIED SUFFICIENTLY TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. DO NOT HAND SET OR WET SET.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD INCLUDING THE FOLLOWING INFORMATION (SIMILAR IF ALTERNATE ANCHORAGE IS SELECTED):
  - ANCHOR BOLT MATERIAL TYPE
  - ANCHOR BOLT SIZE
  - OVERALL ANCHOR BOLT LENGTH
  - ANCHOR BOLT EMBEDMENT
  - ANCHOR BOLT PROJECTION (INCLUDING SUFFICIENT PROJECTION AND THREADS TO ALLOW FOR FIELD TOLERANCES)
  - ANCHOR BOLT SPACING
  - DIMENSIONED ANCHOR BOLT LAYOUT DRAWINGS
  - PLATE WASHER TYPE AND LOCATIONS
  - SILL PLATE LENGTHS AND SPLICE LOCATIONS
- SILLS AT WALL SHALL BE BOLTED TO CONCRETE WITH 5/8" DIAMETER x 7" EMBED ANCHOR BOLTS AT 4'-0" OC MAXIMUM AND WITHIN 1'-0" OF SILL PLATE ENDS, CORNERS OR SPLICES. UNLESS NOTED OTHERWISE ON SHEAR WALL SCHEDULE, HOLD-DOWN BOLTS DO NOT TAKE THE PLACE OF ANCHOR BOLT AT THE END OF THE SHEAR WALL.
- ALL SILL PLATES SHALL BE ANCHORED WITH A MINIMUM OF THREE FASTENERS PER PIECE. HOLD-DOWN BOLTS DO NOT TAKE THE PLACE OF ANCHOR BOLT AT THE END OF THE SHEAR WALL.
- ANCHOR BOLTS SHALL BE ASTM F1554 GRADE 36 STEEL.

- HOLD-DOWN ANCHOR RODS:**
- HOLD-DOWN ANCHOR RODS, INCLUDING NUTS AND WASHERS, EMBEDDED INTO FOUNDATION OR SLAB SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A853 TYPE G185 OR APPROVED EQUAL.
  - HOLD-DOWN ANCHOR RODS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  - HOLD-DOWN ANCHOR RODS SHALL BE PLACED A MINIMUM OF 5" FROM THE END OF CONCRETE STEMWALLS. ADD ADDITIONAL 2x STUD AS REQUIRED.
  - REFERENCE PLANS, HOLD-DOWN SCHEDULE AND DETAILS FOR TYPICAL HOLD-DOWN INSTALLATION REQUIREMENTS
  - HOLD-DOWN ANCHOR RODS SHALL BE LOCATED IN THE FORMS AND TIED SUFFICIENTLY TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. DO NOT HAND SET OR WET SET.
  - HOLD-DOWN ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 STEEL, THREADED ON BOTH ENDS UNLESS NOTED OTHERWISE.
  - THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD INCLUDING THE FOLLOWING INFORMATION:
    - HOLD-DOWN ANCHOR MATERIAL TYPE
    - HOLD-DOWN ANCHOR SIZE
    - OVERALL HOLD-DOWN ANCHOR ROD LENGTH
    - HOLD-DOWN ANCHOR ROD EMBEDMENT INTO FOOTING
    - HOLD-DOWN ANCHOR ROD PROJECTION FOR HOLD-DOWN TYPE (INCLUDING SUFFICIENT PROJECTION AND THREADS TO ALLOW FOR A MINIMUM OF 2" FIELD TOLERANCE)
    - DIMENSIONED HOLD-DOWN ANCHOR ROD LAYOUT DRAWINGS
    - DIMENSIONED LAYOUT DRAWINGS SHOWING LOCATION, SIZE, TYPE, AND QUANTITY OF HOLD-DOWN POST OR BUILT-UP MEMBER
    - HOLD-DOWN TYPE
    - ALL ACCESSORIES (INCLUDING PLATE WASHERS, DOUBLE NUTS, ETC.) AND LOCATIONS
  - THE CONTRACTOR SHALL TIGHTEN ALL HOLD-DOWN ANCHOR RODS TO FOUNDATION WITHIN FIVE DAYS PRIOR TO ENCLOSING THE WALLS.

- WOOD AND WOOD PRODUCTS GENERAL CONSIDERATIONS**
- THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS RELATIVE TO STORING, HANDLING AND PROTECTING WOOD AND WOOD PRODUCTS DURING TRANSPORT TO THE SITE, ON SITE, AND ONCE IN PLACE TO PREVENT DAMAGE FROM MISHANDLING, MOISTURE, FUNGAL GROWTH, ULTRAVIOLET RADIATION, DISCOLORING, ETC. THIS INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:
    - CONTRACTOR SHALL INSPECT MEMBERS ARRIVING ON SITE-DAMAGED PRODUCTS SHALL BE REJECTED AND REPLACED.
    - MATERIALS SHALL BE STORED FLAT AND LEVEL ON SITE, SHORE UP OFF OF GROUND SURFACE OR STORAGE SURFACE ON BLOCKS OR RAISED PLATFORMS.
    - WOOD MEMBERS SHALL BE CAREFULLY TRANSPORTED, STORED, HANDLED, AND ERECTED WITH SOFT FABRIC SLINGS AND CORNER PROTECTORS TO PREVENT DAMAGE.
    - MATERIALS SHALL BE COVERED TO PROTECT FROM EXPOSURE WITH OPAQUE WATERPROOF COVERINGS. VENTILATE COVERINGS TO ALLOW FOR AIR FLOW AND PREVENT ACCUMULATION OF WATER OR CONDENSATION. MATERIALS SHALL BE CONTINUALLY PROTECTED AND COVERED DURING ALL STAGES OF TRANSPORTATION AND CONSTRUCTION.
    - SPACE BETWEEN BUNDLES TO PROVIDE ADEQUATE AIR CIRCULATION.
    - DO NOT REMOVE WRAPPINGS ON INDIVIDUALLY WRAPPED MEMBERS UNTIL THE WRAPPINGS NO LONGER SERVE A USEFUL PURPOSE INCLUDING PROTECTION FROM WEATHER, SUNLIGHT, SOILING, AND DAMAGE FROM WORK OF OTHER TRADES.
    - DAMAGED MEMBERS AND PRODUCTS SHALL BE REJECTED AND REPLACED.
    - ALL MOISTURE (RAIN, ICE, AND SNOW) SHALL BE IMMEDIATELY EVACUATED FROM THE FLOOR SHEATHING DO NOT ALLOW MOISTURE TO POND AND SIT ON FLOOR SHEATHING. DRAIN WATER COMPLETELY FROM THE BUILDING.
    - FLOOR AND ROOF SHEATHING SHALL BE INSTALLED AND PROTECTED FROM MOISTURE AND WATER DURING CONSTRUCTIONS PER THE RECOMMENDATIONS AND/OR REQUIREMENTS OF APA INCLUDING CONSTRUCTION EXPANSIONS GAPS FOR LARGE DIAPHRAGMS PER TECHNICAL NOTE U425C.
  - THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS TO PREVENT WOOD AND WOOD PRODUCTS FROM EXCEEDING APPROPRIATE MOISTURE CONTENT LIMITS. WOOD AND WOOD PRODUCTS WILL EXPAND OR CONTRACT BASED UPON CHANGES IN MOISTURE. MITIGATE AND MANAGE THE EFFECTS OF CHANGES IN MOISTURE TO THE WOOD DURING CONSTRUCTION.
    - ALL DIMENSIONAL LUMBER AND TIMBERS SHALL BE KILN DRIED AND CERTIFIED IN WRITING BY THE SUPPLIER TO BE LESS THAN 19 PERCENT MOISTURE CONTENT.
    - ENGINEERED WOOD PRODUCTS, LAMINATED WOOD PRODUCTS, AND SHEATHING SHALL CERTIFIED IN WRITING BY THE SUPPLIER TO BE LESS THAN 12 PERCENT MOISTURE CONTENT.
    - TEST WOOD AND WOOD PRODUCTS FOR MOISTURE CONTENT UPON DELIVERY TO THE SITE BEFORE USE. MONITOR MOISTURE CONTENT DURING STORAGE AND CONSTRUCTION. MONITOR MOISTURE CONTENT ONCE IN PLACE, WHILE UNCOVERED AND UNFINISHED.
    - FINISHES, CLADDING, INSULATION, OR OTHERWISE ENCLOSING WOOD ASSEMBLIES SHALL BE DELAYED UNTIL WOOD COMPONENTS (STUDS, BEAMS, COLUMNS, BOTTOM PLATES, ETC.) HAVE BEEN TESTED AND SHOWN TO BE LESS THAN THE MOST STRINGENT MOISTURE CONTENT OF THE MATERIALS. IN NO CASE SHALL ANY MATERIALS BE PLACED OVER WOOD UNTIL WOOD HAS BEEN TESTED AND SHOWN TO BE LESS THAN 19% MOISTURE CONTENT.
    - FOR INTERIOR TIMBERS AND GLULAMS IT IS RECOMMENDED TO HEAT THE BUILDING GRADUALLY OVER A TWO TO THREE WEEK PERIOD. THIS WILL PROVIDE A GRADUAL CHANGE IN MOISTURE CONTENT OF THE MEMBERS TO HELP MINIMIZE CHECKING, CRACKING AND/OR SPLITTING. DO NO APPLY DIRECT FORCED AIR HEAT ONTO MEMBERS.
    - ALL OTHER BUILDING SYSTEMS SHALL CONSIDER AND DETAIL FOR THE EFFECTS OF THE DIMENSIONAL CHANGES (SHRINKAGE) OF THE WOOD STRUCTURE. PROVIDE OVERSIZED HOLES FOR PIPES, USE EXPANSION/COMPRESSION SLIP JOINTS TO PERMIT VERTICAL MECHANICAL, ELECTRICAL, PLUMBING, ETC. ELEMENTS TO MOVE WITH THE WOOD STRUCTURE.
    - THE ANTICIPATED SHRINKAGE / SETTLEMENT OF THE WOOD STRUCTURE IS 1/4" EACH FLOOR. THE FOLLOWING ACCUMULATED SHRINKAGE / SETTLEMENT IS ANTICIPATED:

1ST FLOOR/LEVEL: 0.25"

2ND FLOOR/LEVEL: 0.50"

3RD FLOOR/LEVEL: 0.75"

4TH FLOOR/LEVEL: 1.00"

5TH FLOOR/LEVEL: 1.25"
  - REFER TO ARCHITECTURAL DRAWINGS, PROJECT SPECIFICATIONS, AND MANUFACTURER'S REQUIREMENTS FOR ADDITIONAL REQUIREMENTS.
  - BOLTED WOOD CONNECTIONS SHALL BE RE-TIGHTENED 90 DAYS AFTER ERECTION, OR PRIOR TO COVERING WITH FINISHES. WHERE BOLTED CONNECTIONS REMAIN EXPOSED, CHECK AND RE-TIGHTEN AS REQUIRED PRIOR TO COMPLETION OF CONSTRUCTION.
  - IT IS RECOMMENDED THAT BOLTED WOOD CONNECTIONS BE CHECKED (AND RE-TIGHTENED, WHERE NECESSARY) BETWEEN 18 AND 24 MONTH AFTER THE STRUCTURE IS COMPLETED.

GENERAL - SPECIAL INSPECTIONS					
SYSTEM OR MATERIAL	IBC / OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY		REMARKS
			CONTINUOUS	PERIODIC	
FABRICATORS	1705.11 1704.2.5			X	SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP. SPECIAL INSPECTIONS SHALL BE PERFORMED DURING FABRICATION. PERFORMING SPECIAL INSPECTIONS IS NOT REQUIRED, WHERE FABRICATOR HAS BEEN APPROVED AS AN APPROVED FABRICATOR, PER SECTION 1704.2.5.1.
DEFERRED SUBMITTALS				X	SPECIAL INSPECTION REQUIREMENTS FOR DEFERRED SUBMITTAL ITEMS, INCLUDING REQUIREMENTS FOR DESIGNATED SEISMIC SYSTEMS IN ACCORDANCE WITH IBC AND OSSC SECTION 1705.13.4 IF APPLICABLE, TO BE SPECIFIED BY THE SYSTEM ENGINEER AND INCLUDED WITH DEFERRED SUBMITTAL DOCUMENTS.
SUBMITTALS TO THE BUILDING OFFICIAL	1704.5			X	CERTIFICATES OF COMPLIANCE, REPORTS OF PRE-CONSTRUCTION TESTS, OR REPORTS OF MATERIAL PROPERTIES SHALL BE SUBMITTED TO THE BUILDING OFFICIAL.
POST-INSTALLED ADHESIVE ANCHORS WITH SUSTAINED TENSION LOADS INSTALLED HORIZONTALLY OR AT AN UPWARD INCLINE IN HARDENED CONCRETE AND COMPLETED MASONRY			X		
POST-INSTALLED MECHANICAL ANCHORS AND ADHESIVE ANCHORS (EXCLUDING CONDITIONS NOTED ABOVE) IN HARDENED CONCRETE AND COMPLETED MASONRY				X	

SOILS / GEOTECHNICAL - SPECIAL INSPECTIONS					
SYSTEM OR MATERIAL	IBC / OSSC CODE REFERENCE	CODE OR STANDARDS REFERENCE	FREQUENCY		REMARKS
			CONTINUOUS	PERIODIC	
SOILS					
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	1705.6	GEOTECHNICAL REPORT		X	BY THE GEOTECHNICAL ENGINEER
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL				X	
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS				X	
DURING FILL PLACEMENT, VERIFY USE OF PROPER MATERIALS AND PROCEDURES IN ACCORDANCE WITH THE PROVISIONS OF THE APPROVED GEOTECHNICAL REPORT. VERIFY DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.			X		
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY				X	

CONCRETE - SPECIAL INSPECTIONS					
SYSTEM OR MATERIAL	IBC / OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY		REMARKS
			CONTINUOUS	PERIODIC	
GENERAL	1705.3 1901.6	ACI 318: 26.13			SPECIAL INSPECTIONS OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1705.3 OF THE IBC AND SECTION 26.13 OF ACI 318.
REINFORCING STEEL PLACEMENT	1901.5	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3		X	REINFORCING TO COMPLY WITH ALL CODE PROTECTION, SPACING AND TOLERANCE LIMITS.
INSPECT ANCHORS / BOLTS CAST-IN CONCRETE	-	ACI 318:		X	ALL CAST-IN-PLACE ANCHORS/BOLTS SHALL BE VISUALLY INSPECTED. REFERENCE: STEEL INSPECTIONS FOR ADDITIONAL INSTALLATION, MATERIAL AND WELDING INSPECTIONS OF STEEL ITEMS EMBEDDED IN CONCRETE (HEADED STUDS, DBA's, ETC.)
VERIFYING USE OF REQUIRED MIX DESIGN(S)	1904.1 1904.2	ACI 318: CH. 19, 26.4.3, 26.4.4		X	
CONCRETE SPECIMENS FOR TESTING		ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	X		PRIOR TO CONCRETE PLACEMENT, FABRICATE CONCRETE SPECIMENS FOR TESTING. SEE THE CONCRETE TESTING TABLE FOR ADDITIONAL INFORMATION.
CONCRETE PLACEMENT,		ACI 318: 26.5, 26.13.3.2(a)	X		
CONCRETE CURING		ACI 318: 26.5.3 - 26.5.5		X	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES
VERIFICATION OF FORMWORK		ACI 318: 26.11.1.2(b), 26.13.3.3		X	SPECIAL INSPECTIONS APPLY TO SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED

CONCRETE - TESTING				
SYSTEM OR MATERIAL	IBC / OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY	REMARKS
CONCRETE STRENGTH	1705.3 ASTM C172 ASTM C 31 ACI 318 26.12, ACI 318 26.5	ASTM C39	EACH 150 CY NOR LESS THAN EACH 5000 SF OF SLAB OR WALL PLACED EACH SHIFT	FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED
CONCRETE SLUMP		ASTM C143		
CONCRETE AIR CONTENT		ASTM C231		
CONCRETE TEMPERATURE		ASTM C1064		

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THOMPSON SPRINGS

23-012

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50% DESIGN  
DEVELOPMENT

FEBRUARY 28, 2025

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REVISIONS:

GENERAL  
STRUCTURAL NOTES &  
SPECIAL INSPECTION

S003



FOUNDATION PLAN NOTES

- A FOR A COMPLETE LEGEND OF ALL CALLOUTS AND SYMBOLS SEE COVER SHEET AND SCHEDULES.  
B CONTRACTOR TO LAYOUT CONTROL JOINTS PER THE CRITERIA IN STRUCTURAL NOTES AND DETAIL 2/S500 AND SUBMIT TO THE DESIGN TEAM FOR REVIEW AND APPROVAL.  
C REFERENCE GEOTECHNICAL REPORT FOR SUBGRADE REQUIREMENTS.  
D ALL SLAB ON GRADE FINISHES SHALL BE PER ARCHITECT.  
E REFERENCE ARCHITECT FOR ALL EDGE OF SLAB DIMENSIONS.  
F REFERENCE MECHANICAL / PLUMBING DRAWINGS FOR LOCATIONS OF FLOOR DRAINS AND OTHER PENETRATIONS.

HOLDOWN SCHEDULE

MARK	HOLD-DOWN TYPE	HOLD-DOWN POST	HOLD-DOWN ATTACHMENT TO POST	ANCHOR ROD	ANCHOR ROD EMBEDMENT DEPTH, L <sub>e</sub>
-	NONE REQUIRED				
1	HDU2-SDS2.5	(2) 2x STUDS	(6) SDS 1/4" x 2-1/2"	USE A 5/8" DIA THREADED ROD EMBEDDED INTO FTG WITH A 1/2"x1 3/4"x1 3/4" PLATE WASHER	6"
2	HDU4-SDS2.5	(2) 2x STUDS	(10) SDS 1/4" x 2-1/2"	USE A 5/8" DIA THREADED ROD EMBEDDED INTO FTG WITH A 1/2"x1 3/4"x1 3/4" PLATE WASHER	6"
3	HDU5-SDS2.5	(2) 2x STUDS	(14) SDS 1/4" x 2-1/2"	USE A 5/8" DIA THREADED ROD EMBEDDED INTO FTG WITH A 1/2"x1 3/4"x1 3/4" PLATE WASHER	6"

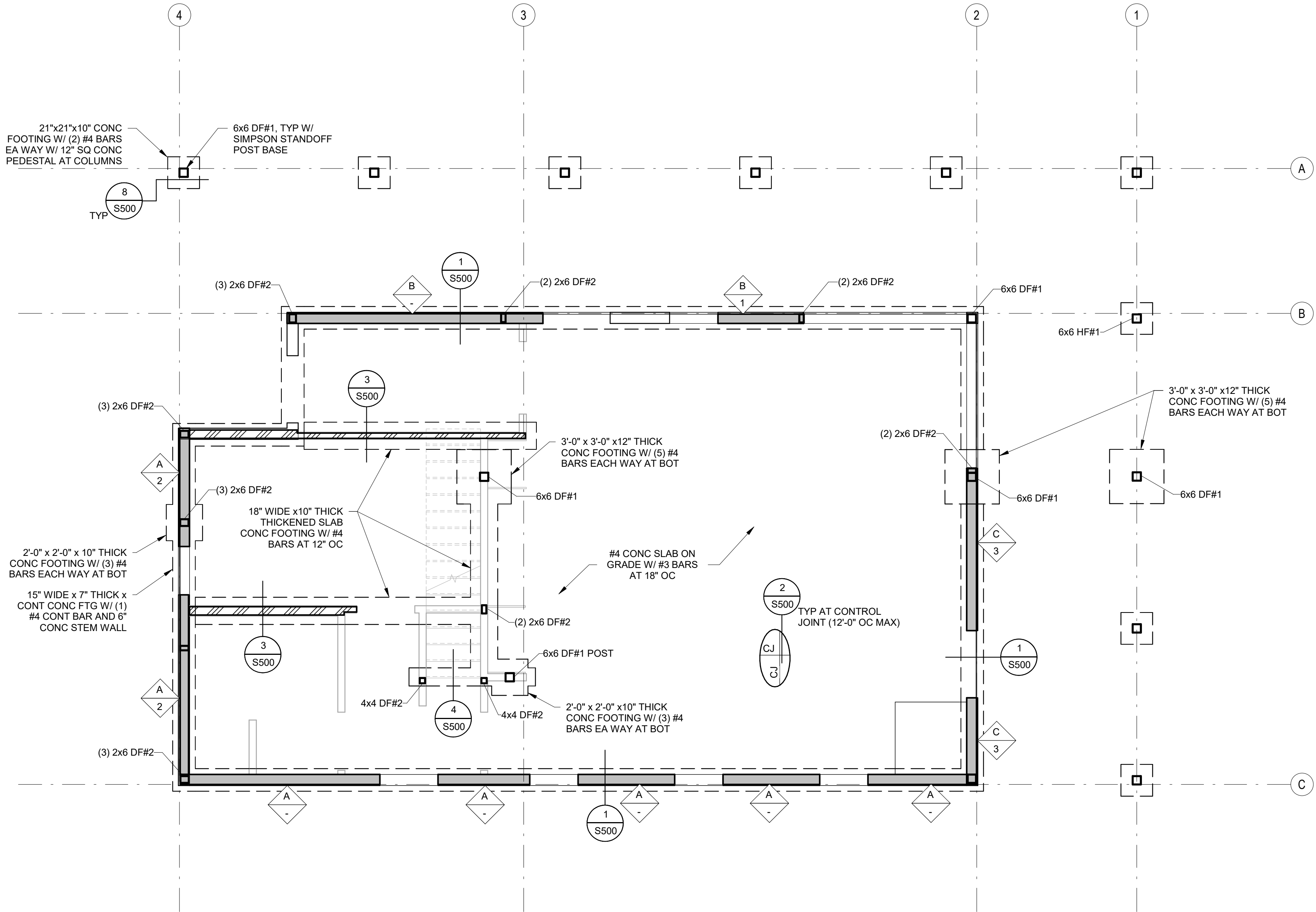
- NOTES:  
1. ANCHOR RODS SHALL BE ASTM F1554 GRADE 36. REF 5/S500 FOR ANCHOR ROD EMBEDMENT DEPTH, L<sub>e</sub>.  
2. ALL HOLD-DOWNS AND HOLD-DOWN ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S REQUIREMENTS.  
3. BUILT UP HOLD-DOWN POSTS SHALL BE LAMINATED IN ACCORDANCE WITH THE STANDARD BUILT-UP WOOD POST DETAIL 2/S600.  
4. REF SHEET S500 FOR TYPICAL HOLD-DOWN INSTALLATION.  
6. THREADED ANCHOR RODS TO BE ASTM F1554 GRADE 36, A36, OR A307 UNO.  
7. NUTS FOR ANCHOR RODS SHALL BE STANDARD HEX NUTS TYPE ASTM A563-A.  
8. WASHER FOR ANCHOR RODS SHALL BE ASTM F844. PROVIDE WASHER BETWEEN ALL NUTS AND BASE PLATES.  
9. ANCHOR BOLTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653.  
10. HOLD-DOWNS SHALL OCCUR AT EACH END OF SHEAR WALLS. TYPICAL UNLESS NOTED OTHERWISE.

SHEAR WALL SCHEDULE

TYPE	APA RATED SHEATHING	PANEL NAILING	FRAMING THICKNESS AT ADJOINING PANEL EDGES	PERIMETER SOLE PL CONNECTION TO RIM JOIST	INTERIOR SOLE PL CONNECTION TO RIM JOIST	PERIMETER RIM JOIST CONNECTION TO DOUBLE TOP PLATE	INTERIOR RIM JOIST CONNECTION TO DOUBLE TOP PLATE	MUD SILL AND ANCHOR BOLTS (REF NOTE 1, 5)	COMMENTS
A	15/32" SHTH (1) SIDE	0.148" DIA x 3" NAILS AT 6" OC FOR PANEL EDGES, 12" OC FIELD	2x	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 16" OC	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 16" OC	0.148" DIA x 3" TOENAILS AT 8" OC	SHEAR CLIP AT 20" OC	2x SILL PL W/ 5/8" DIA AB AT 48" OC (EMBEDMENT = 7")	
B	15/32" SHTH (1) SIDE	0.148" DIA x 3" NAILS AT 4" OC FOR PANEL EDGES, 12" OC FIELD	3x	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 16" OC	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 10" OC	0.148" DIA x 3" TOENAILS AT 8" OC	SHEAR CLIP AT 16" OC	2x SILL PL W/ 5/8" DIA AB AT 36" OC (EMBEDMENT = 7")	
C	15/32" SHTH (1) SIDE	0.148" DIA x 3" NAILS AT 3" OC FOR PANEL EDGES, 12" OC FIELD	3x	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 8" OC	2x SOLE PLATE W/ SIMPSON SDWS 0.220" DIA x 6" SCREW AT 8" OC	0.148" DIA x 3" TOENAILS AT 8" OC	SHEAR CLIP AT 12" OC	2x SILL PL W/ 5/8" DIA AB AT 30" OC (EMBEDMENT = 7")	

SHEAR WALL GENERAL NOTES (APPLICABLE TO ALL SHEAR WALL TYPES):

1. IF ANCHOR BOLT SPACING IS GREATER THAN SHEAR WALL LENGTH INSTALL (1) ANCHOR WITHIN 12" OF EACH END.  
2. SHEAR WALLS ARE TO BE BLOCKED AT ALL PANEL EDGES UNLESS NOTED OR DETAILED OTHERWISE.  
3. GALVANIZED NAILS SHALL BE USED FOR THE NAILS INTO PT OR FRT LUMBER.  
4. SHEAR CLIPS SHALL BE EITHER SIMPSON LTP4 OR A35 CLIPS INSTALLED PER MANUFACTURER'S REQUIREMENTS WITH 0.131" DIA x 2 1/2" NAILS.  
5. ANCHOR BOLTS SHALL BE GALVANIZED AND SHALL HAVE A GALVANIZED PLATE WASHER (PLATE WASHER EDGE PARALLEL TO AND LOCATED WITHIN 1/2" OF WALL SHEATHING) BETWEEN THE SILL PL AND NUT. REFERENCE SHEAR WALL DETAILS 5/S500, 6/S500 AND 7/S500 FOR PLACEMENT REQUIREMENTS OF AB AND PL WASHER.  
6. PENETRATIONS - NO BLOCKING REQUIRED AT 4 1/2" x 4 1/2" MAXIMUM OPENINGS PROVIDED OPENINGS ARE SEPARATED BY 8" MINIMUM. HOLE IS CIRCULAR OR SQUARE CUT WITH RADIUS CORNERS, NO OVERCUTTING. HOLES ARE NOT WITHIN LAST 16" OF SHEARWALL LENGTH, AND ACCUMULATED LENGTH OF THE OPENINGS IN THE SHEARWALL DOES NOT EXCEED THE LESSER OF 20% OF THE WALL LENGTH AND 18". OPENINGS BEYOND THESE PARAMETERS REQUIRE APPROVAL BY THE ENGINEER OF RECORD PRIOR TO CUTTING AND DRILLING.  
7. PENETRATIONS - BLOCKING REQUIRED AT 9" x 9" MAXIMUM OPENINGS PROVIDED OPENINGS ARE SEPARATED BY 16" MINIMUM. HOLE IS CIRCULAR OR SQUARE CUT WITH RADIUS CORNERS, NO OVERCUTTING. HOLES ARE NOT WITHIN LAST 16" OF SHEARWALL LENGTH, AND ACCUMULATED LENGTH OF THE OPENINGS IN THE SHEARWALL DOES NOT EXCEED THE LESSER OF 20% OF THE WALL LENGTH AND 18". 2x BLOCKING SHALL BE PROVIDED ABOVE AND BELOW THE OPENING, FOR THE WIDTH OF THE STUD BAY. SHEAR WALL SHEATHING SHALL BE EDGE NAILED TO THIS BLOCKING. OPENINGS BEYOND THESE PARAMETERS REQUIRE APPROVAL BY THE ENGINEER OF RECORD PRIOR TO CUTTING AND DRILLING.  
8. REFERENCE THE HOLD-DOWN SCHEDULE OR CONTINUOUS THREADED ROD HOLD-DOWN SCHEDULE (WHICHEVER APPLIES) FOR END POST REQUIREMENTS AT EACH END OF SHEAR WALLS. EDGE NAIL SHEATHING TO END POSTS.



**JONES** ARCHITECTURE

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## THOMPSON SPRINGS

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FEBRUARY 28, 2025

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REVISIONS:

## COMMUNITY BUILDING ROOF FRAMING PLAN

S102

### ROOF FRAMING PLAN NOTES

A FOR A COMPLETE LEGEND OF ALL CALLOUTS AND SYMBOLS SEE COVER SHEET AND SCHEDULES.

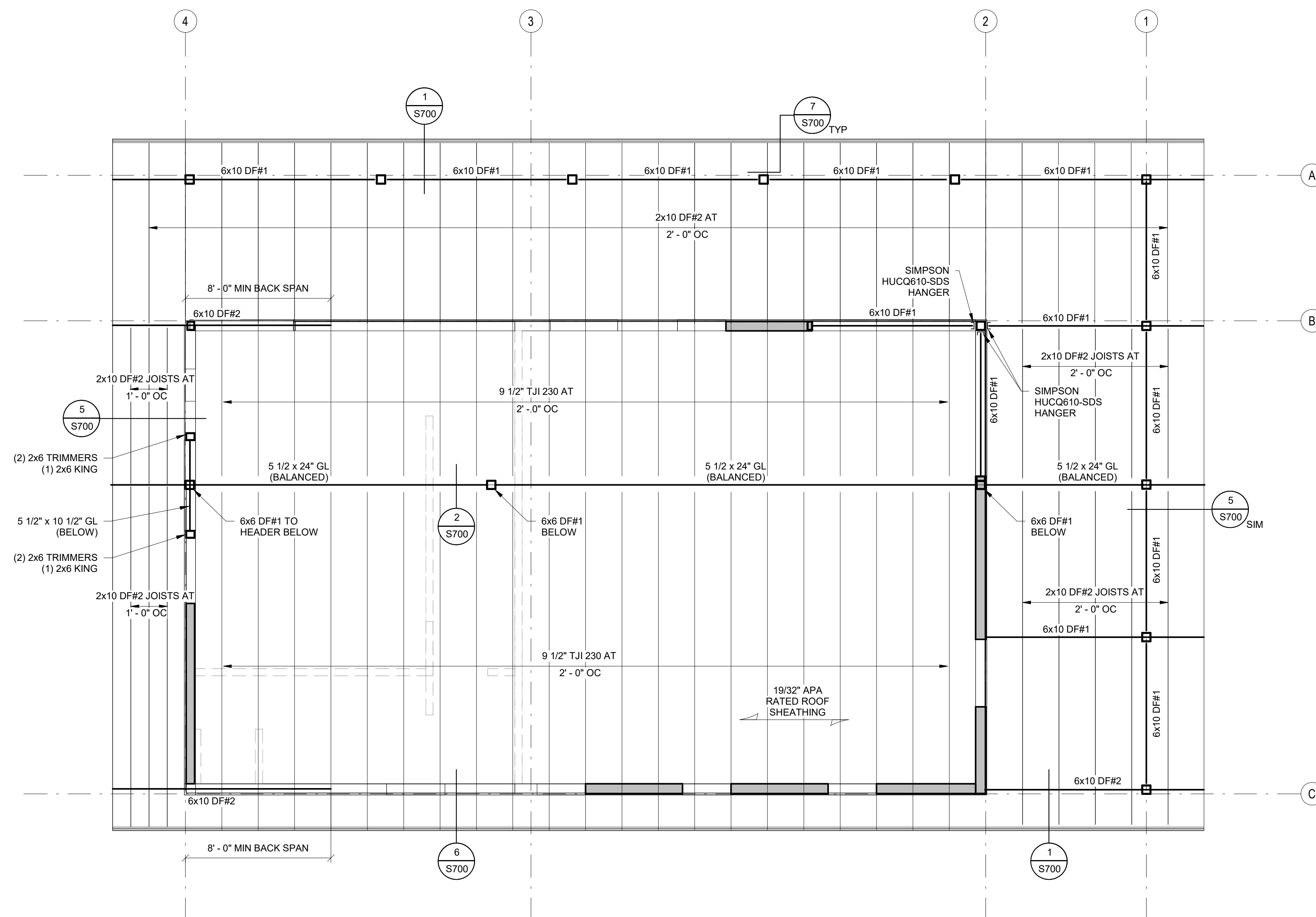
B REFERENCE DETAIL 1/S600 FOR TYPICAL DOUBLE TOP PL SPLICE CONNECTION.

C VERIFY SIZE AND LOCATION OF ALL MECHANICAL AND WALL PENETRATIONS.  
D REFERENCE ARCHITECTURAL FOR ALL EDGE OF SLAB DIMENSIONS.

E TRUSS MANUFACTURER TO REVIEW ALL DETAILS AND PLANS TO ACCOUNT FOR SPECIFIC CONDITIONS.

F PROVIDE SIMPSON LSTA36 STRAP CENTERED AT ALL DOUBLE TOP PLATE BREAKS WITH (11) 0.148" DIA x 3" NAILS TO EACH SIDE OF PLATE BREAK, (22) TOTAL NAILS

G PROVIDE HEADERS AT ALL OPENINGS. REF DETAIL 5/S600 FOR TYPICAL HEADER CONSTRUCTION, UNO.





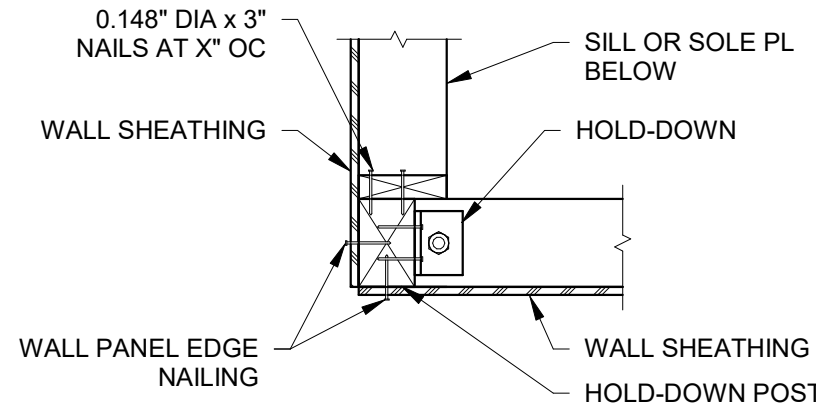
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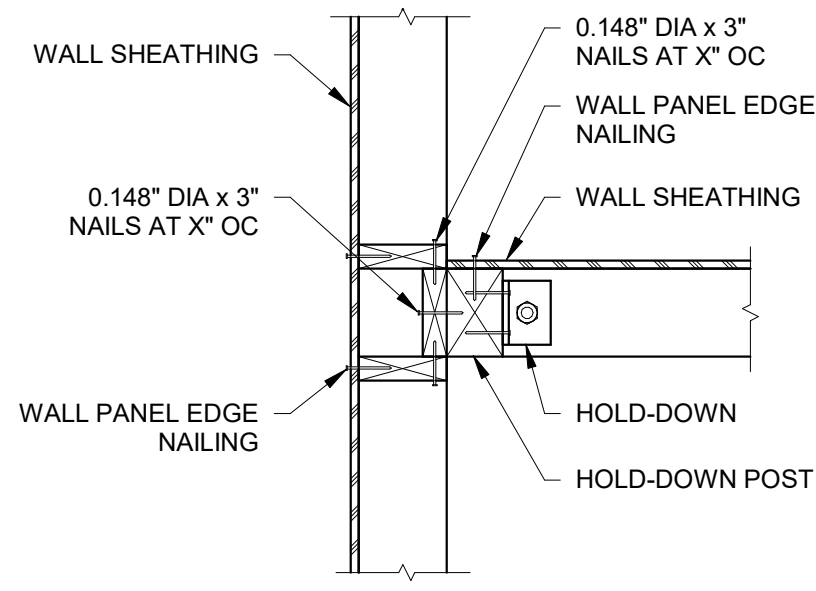
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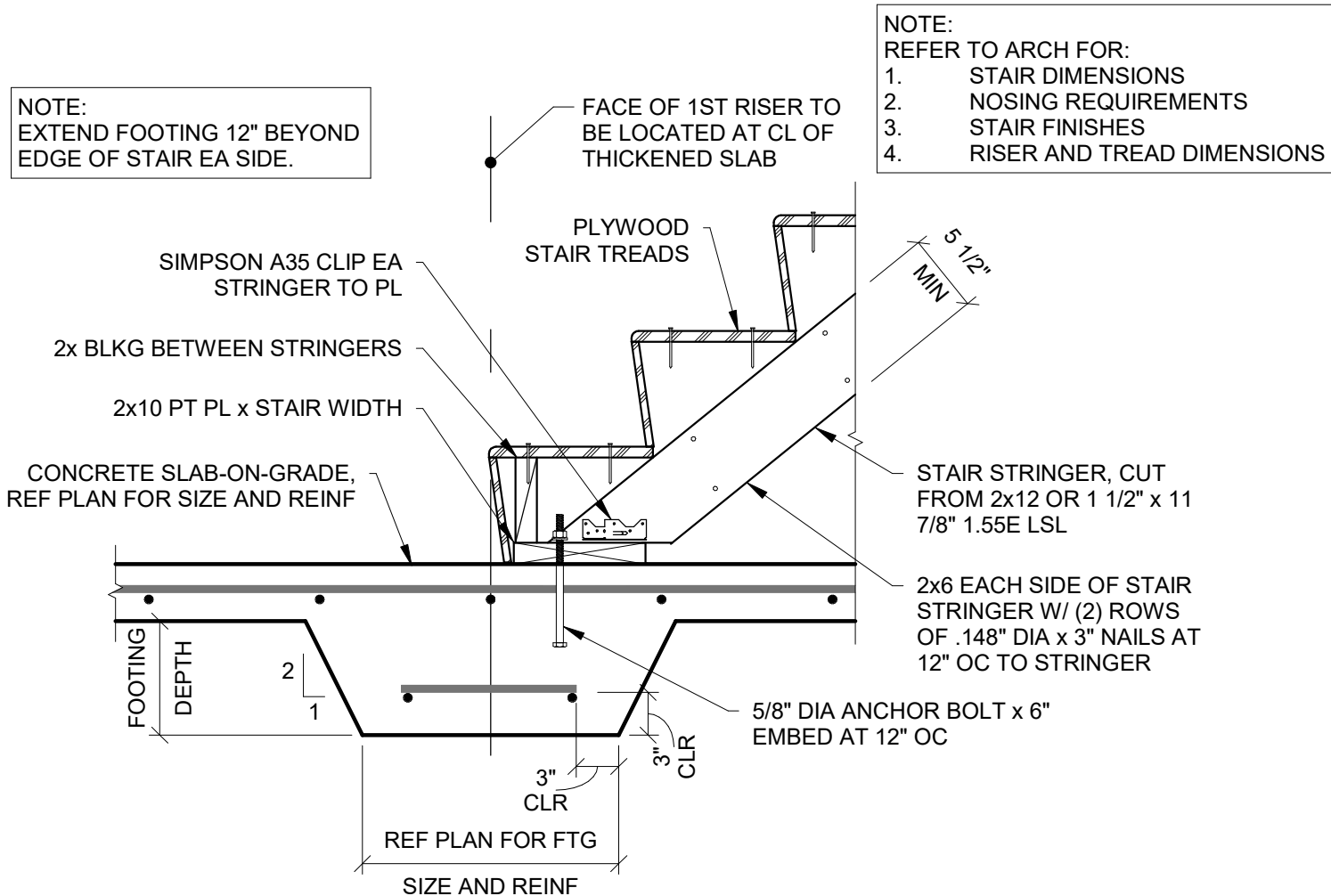
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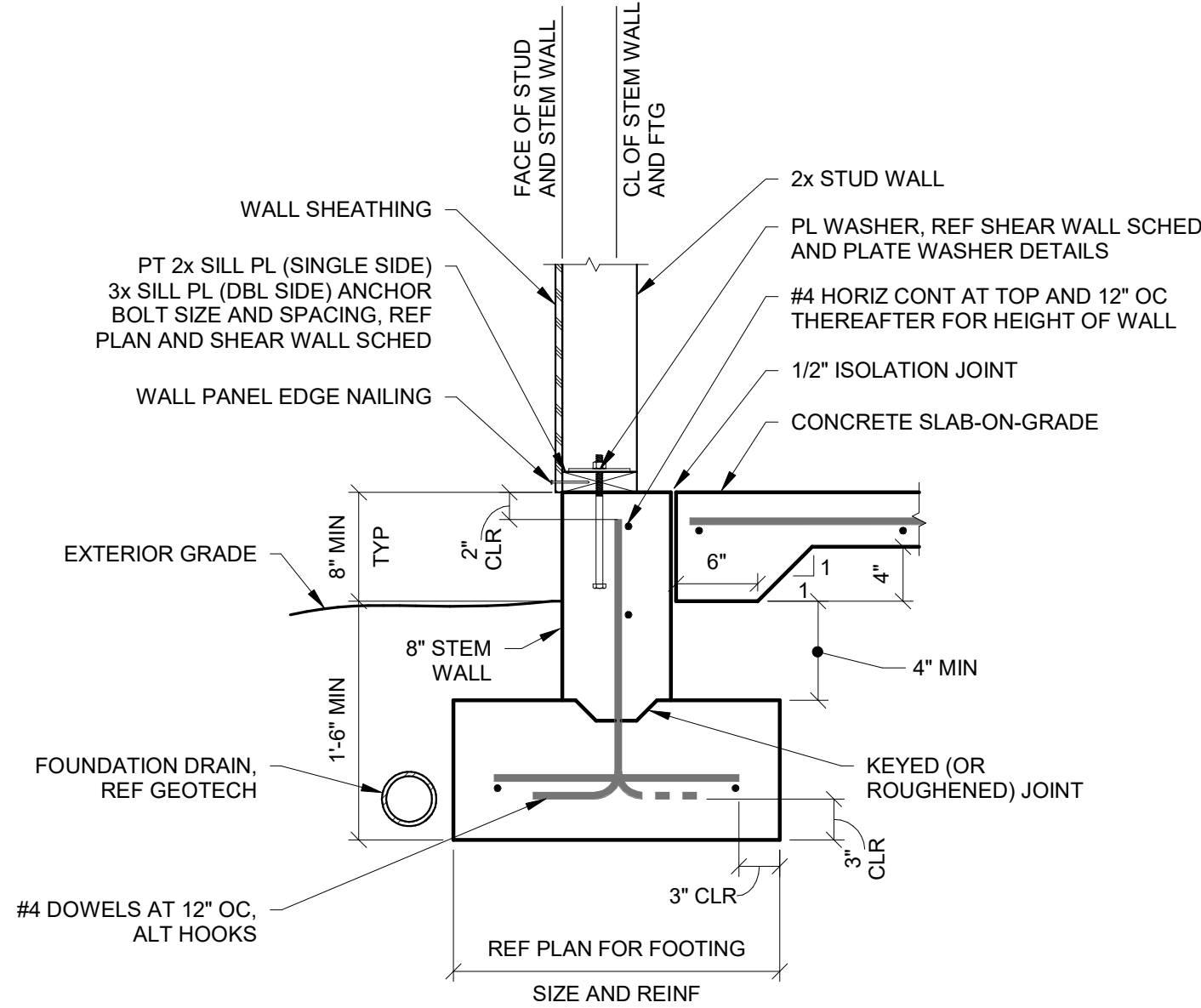
WALL CORNER



WALL TEE

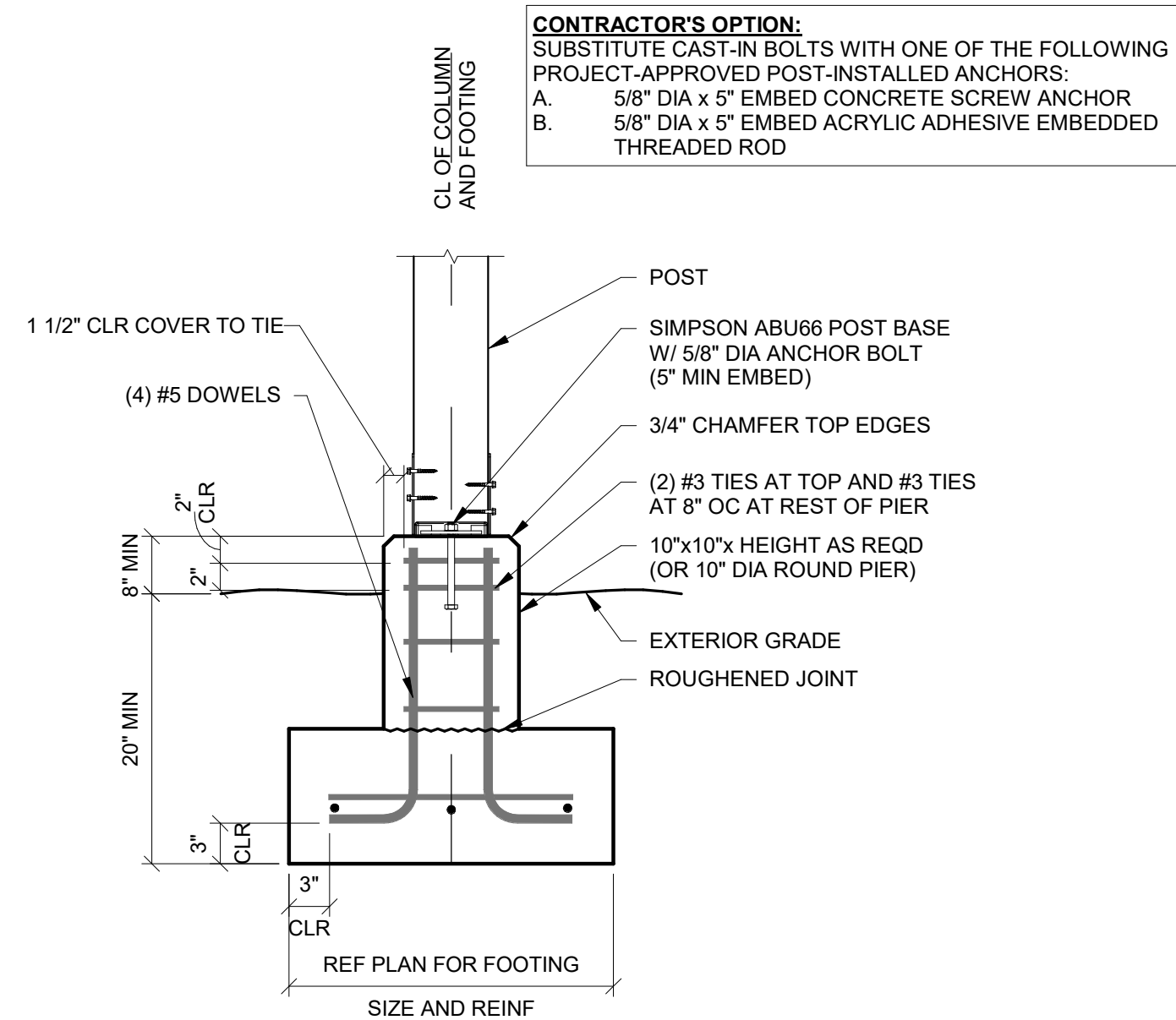


WOOD STAIR STRINGER TO FOUNDATION  
1" = 1'-0"

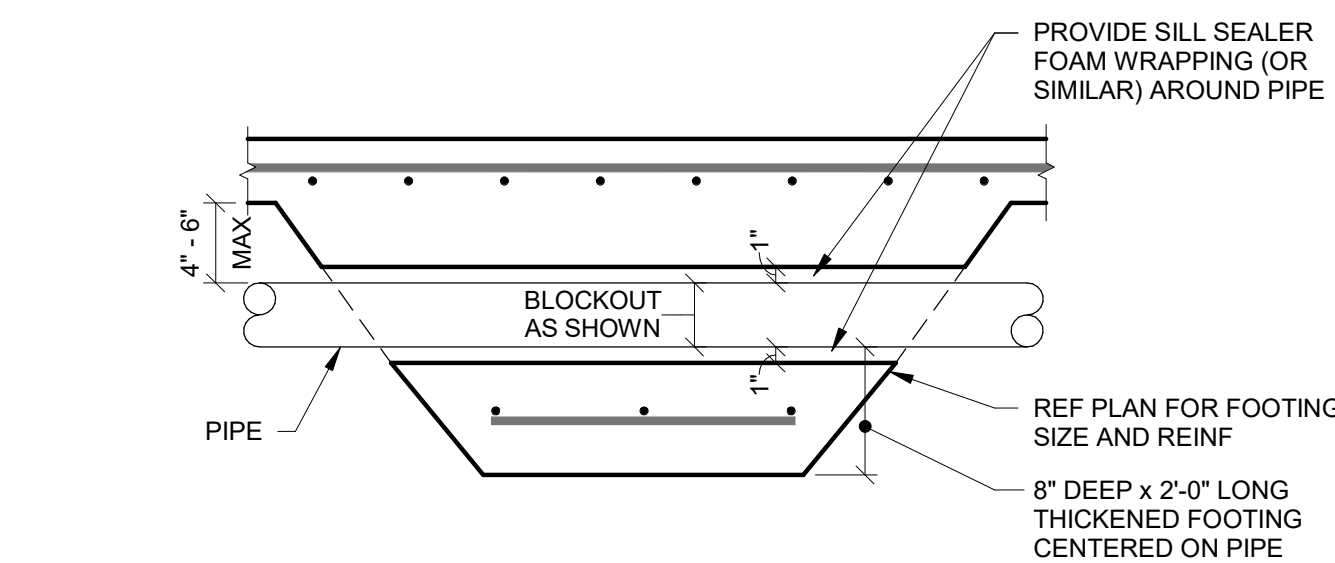


EXTERIOR WALL TO FOUNDATION  
1" = 1'-0"

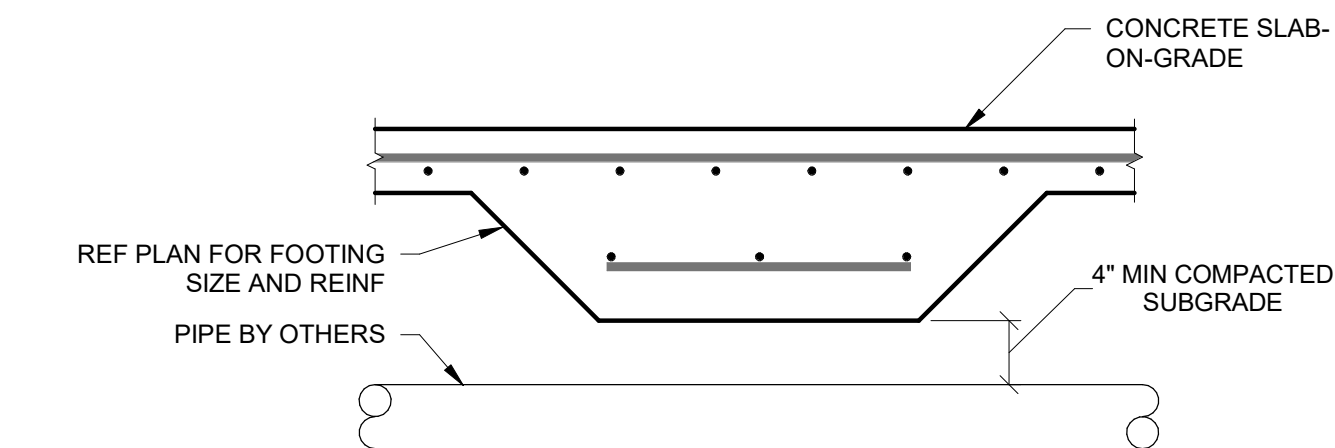
HOLD-DOWN AT WALL CORNERS AND INTERSECTIONS - PLAN VIEW  
1" = 1'-0"



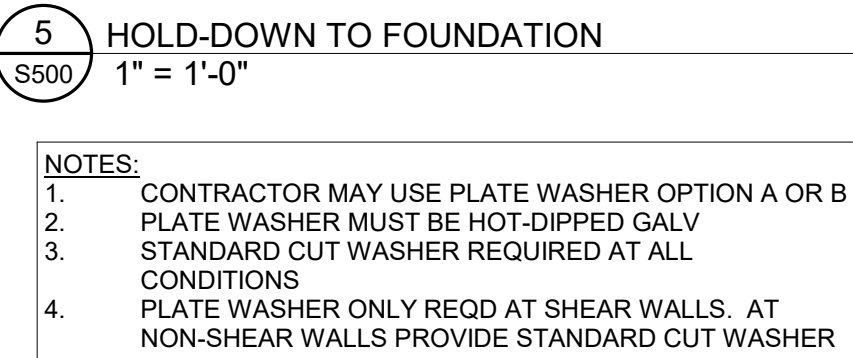
EXTERIOR WOOD POST AT FOUNDATION  
1" = 1'-0"



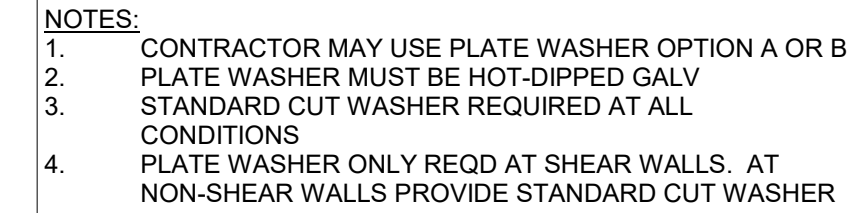
PIPE THROUGH THICKENED SLAB FOOTING  
1" = 1'-0"



PIPE UNDER FOOTING  
1" = 1'-0"

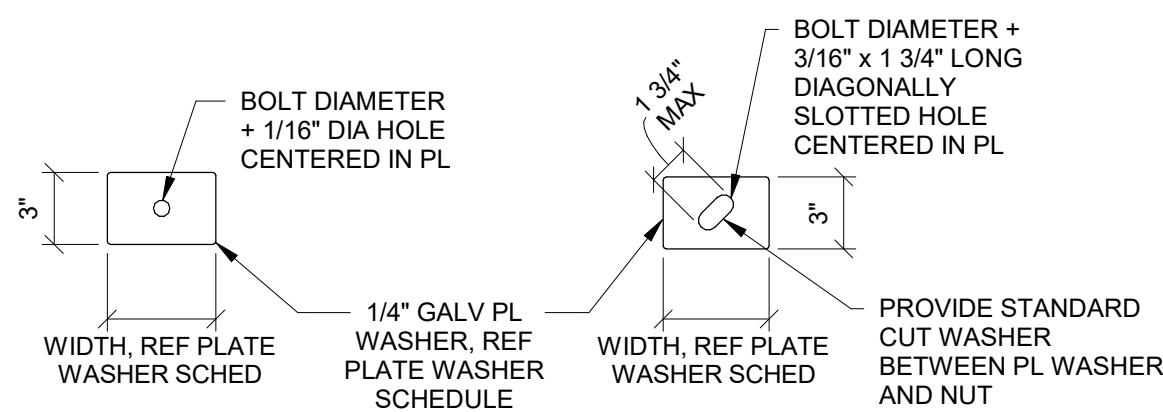


HOLD-DOWN TO FOUNDATION  
1" = 1'-0"



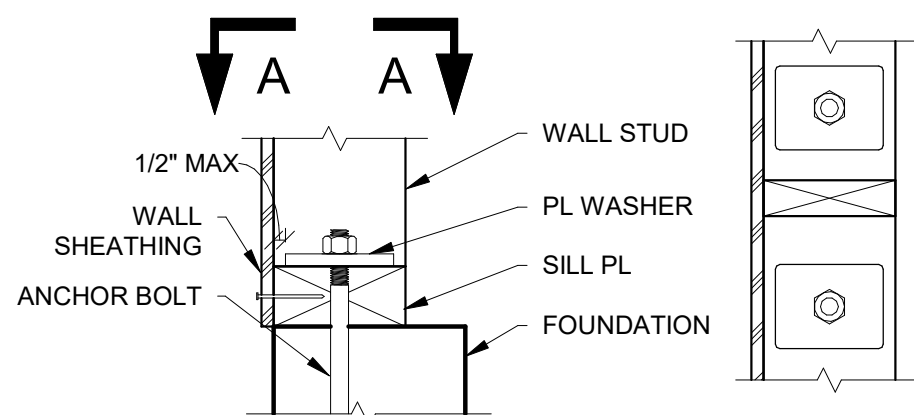
HOLD-DOWN TO FOUNDATION  
1" = 1'-0"

WALL SIZE	PLATE WASHER SIZE
2x4	3"x3"
2x6	3"x4 1/2"
2x8	3"x6 1/2"



OPTION A

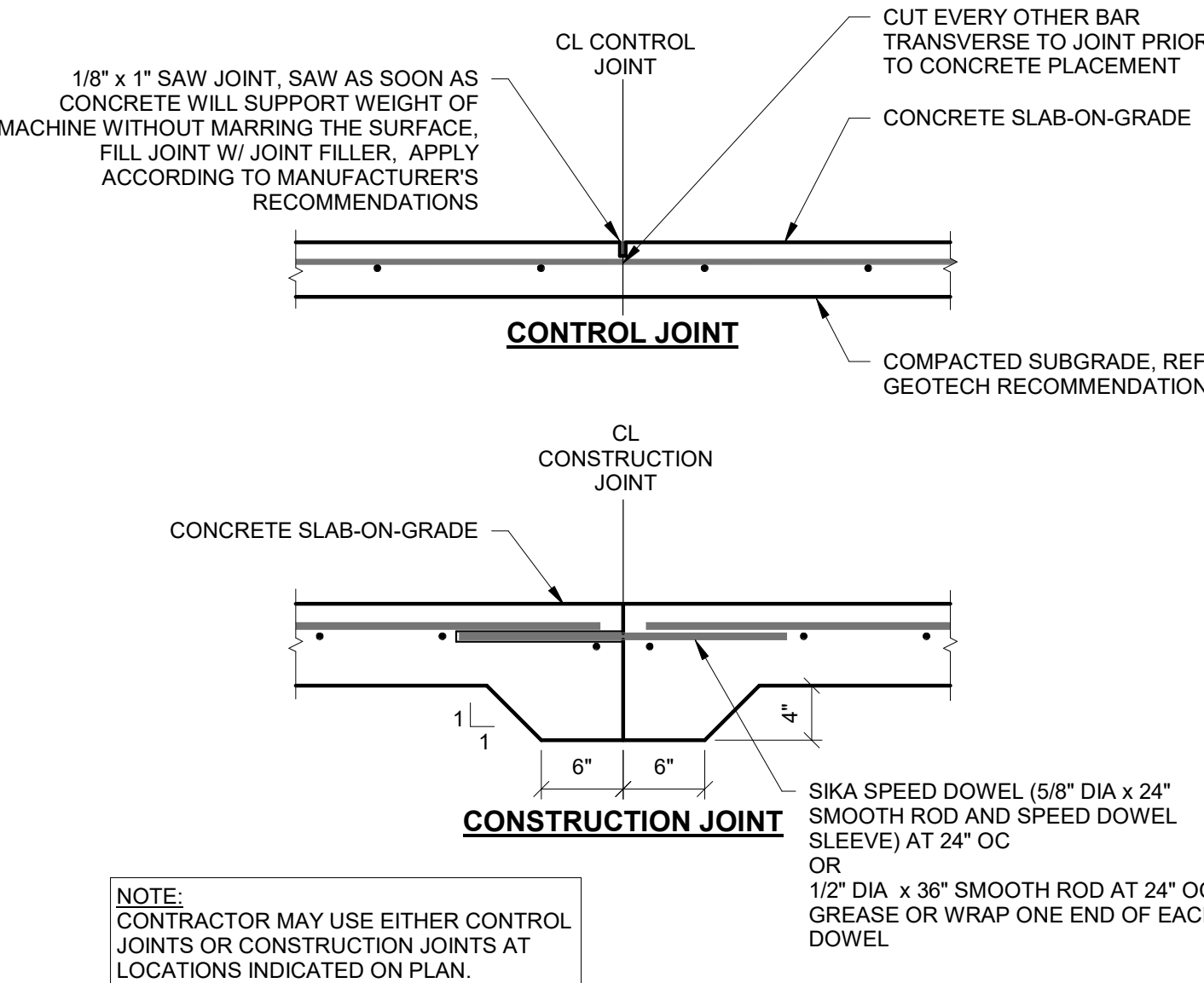
OPTION B



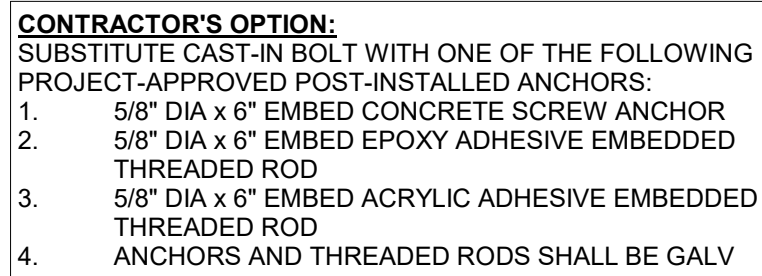
SECTION A - A

SINGLE SIDED SHEAR WALL

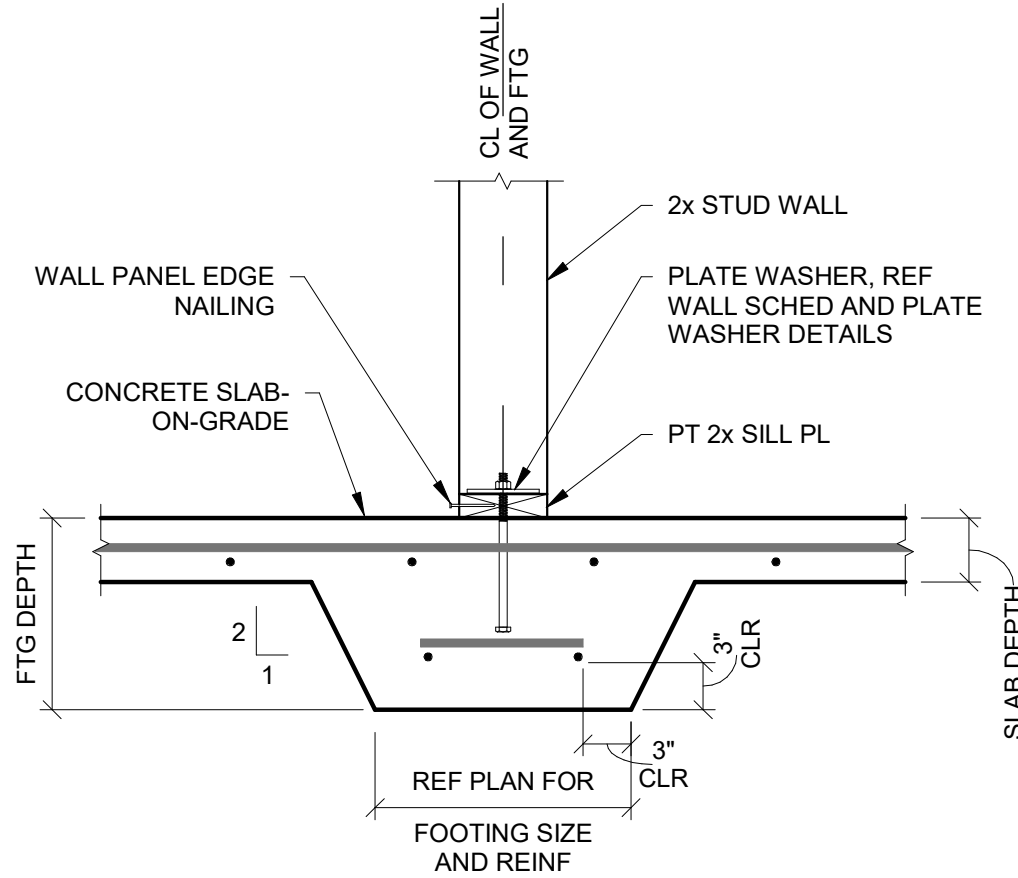
STANDARD PLATE WASHER (2x4, 2x6, AND 2x8 STUD WALLS)  
1 1/2" = 1'-0"



CONTROL JOINTS IN SLAB  
1" = 1'-0"



CONTROL JOINTS IN SLAB  
1" = 1'-0"



INTERIOR BEARING WALL TO THICKENED SLAB  
1" = 1'-0"

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REVISIONS:

FOUNDATION DETAILS

S500



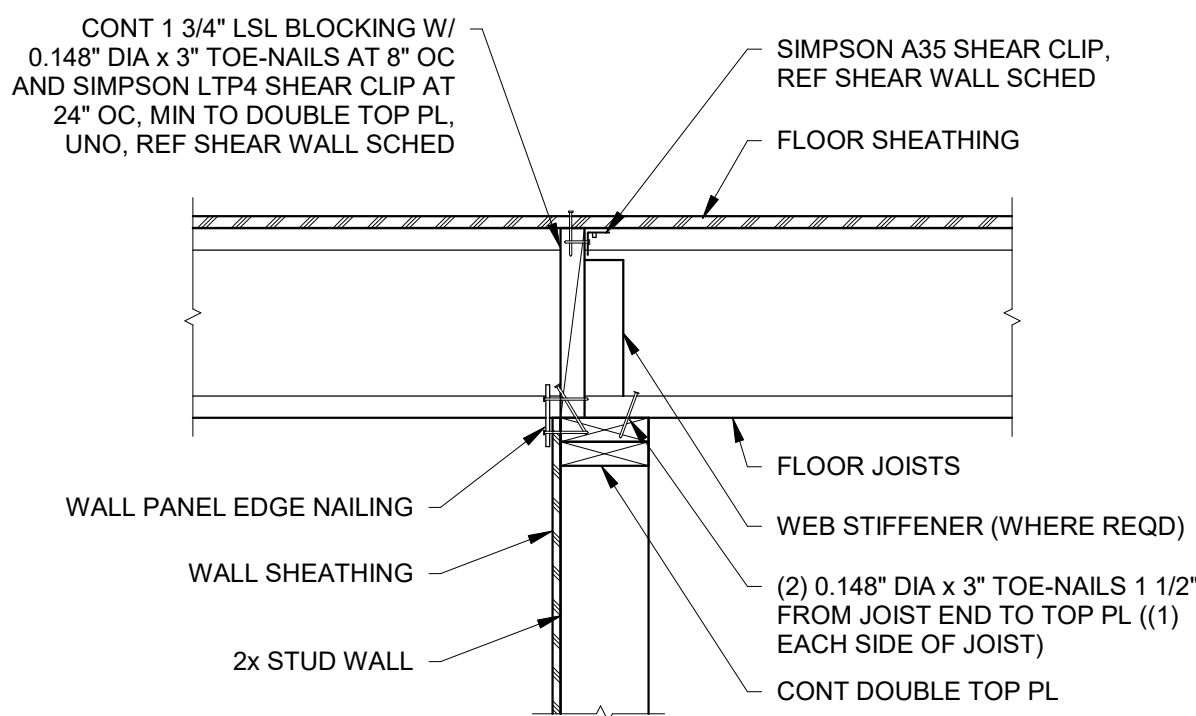
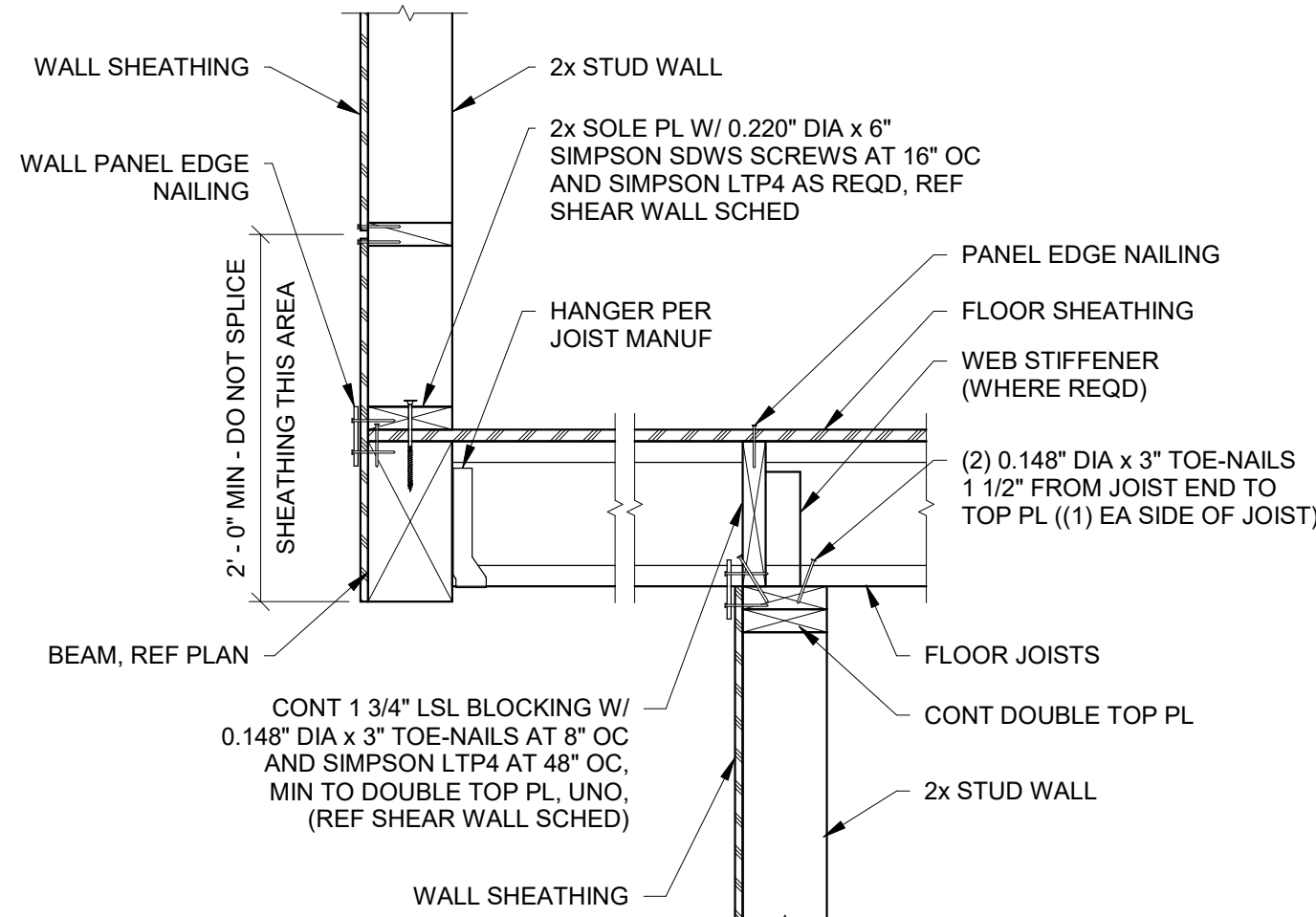
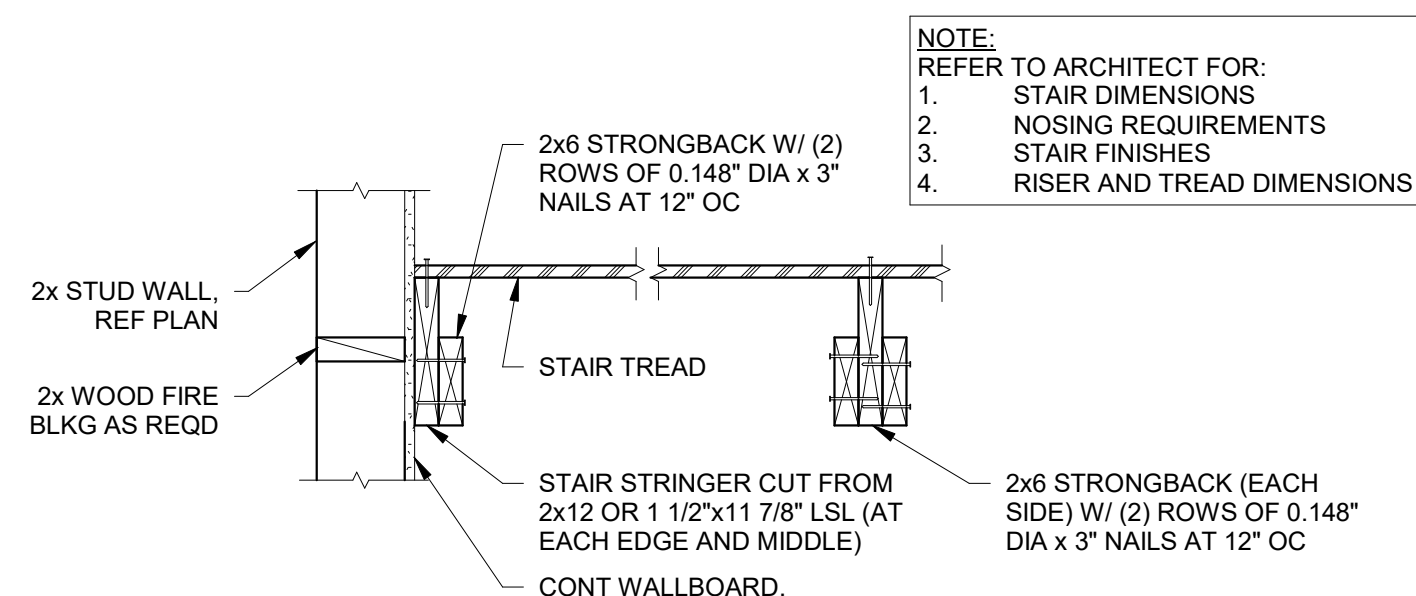
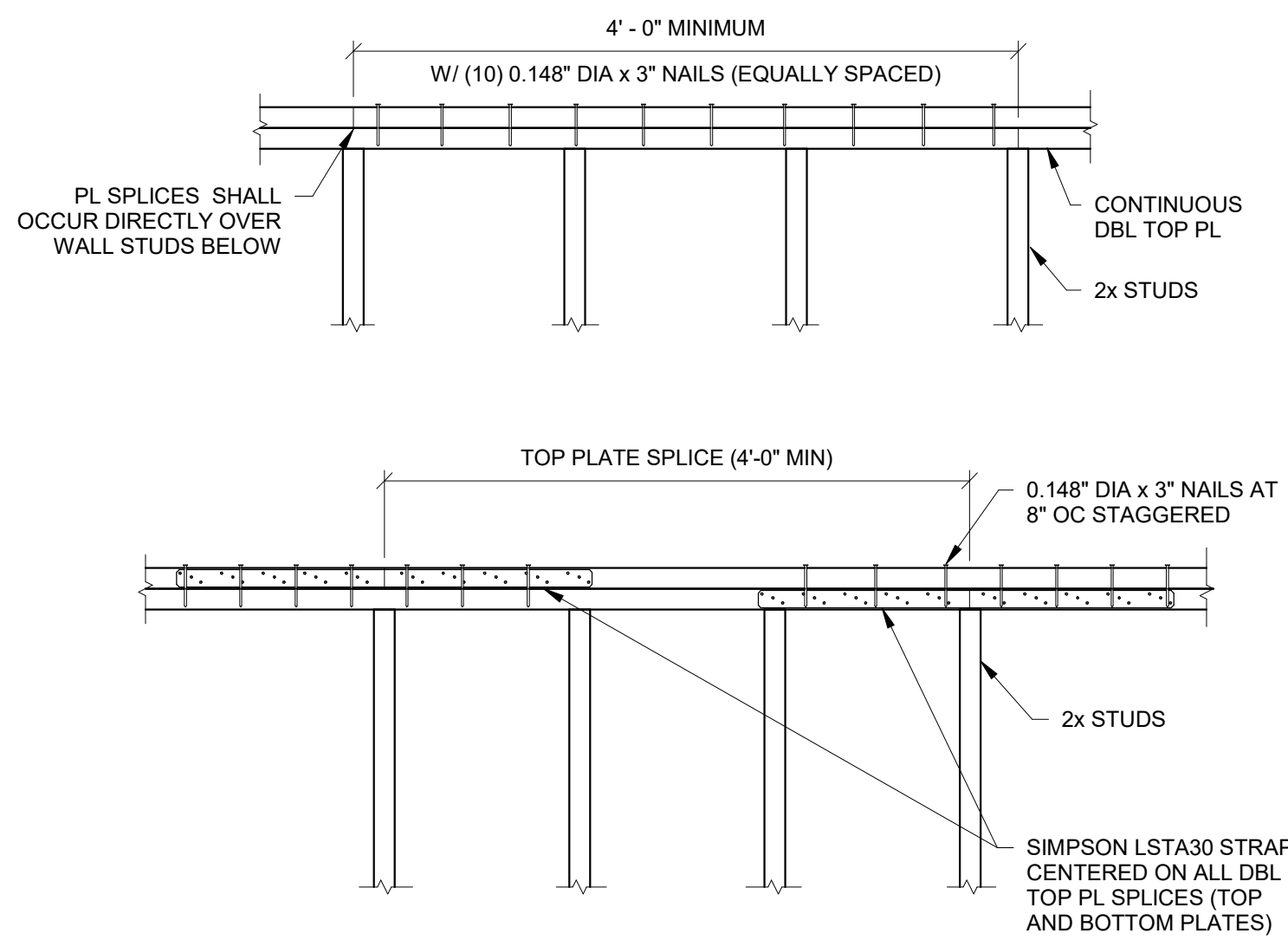
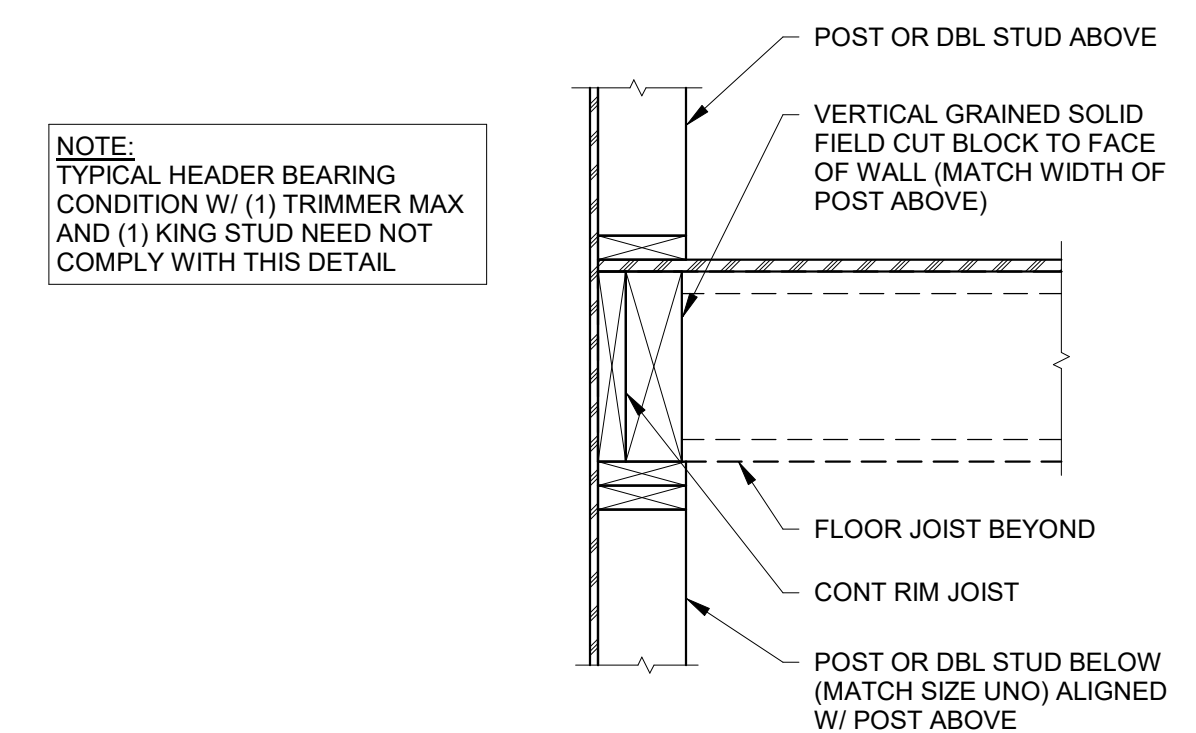
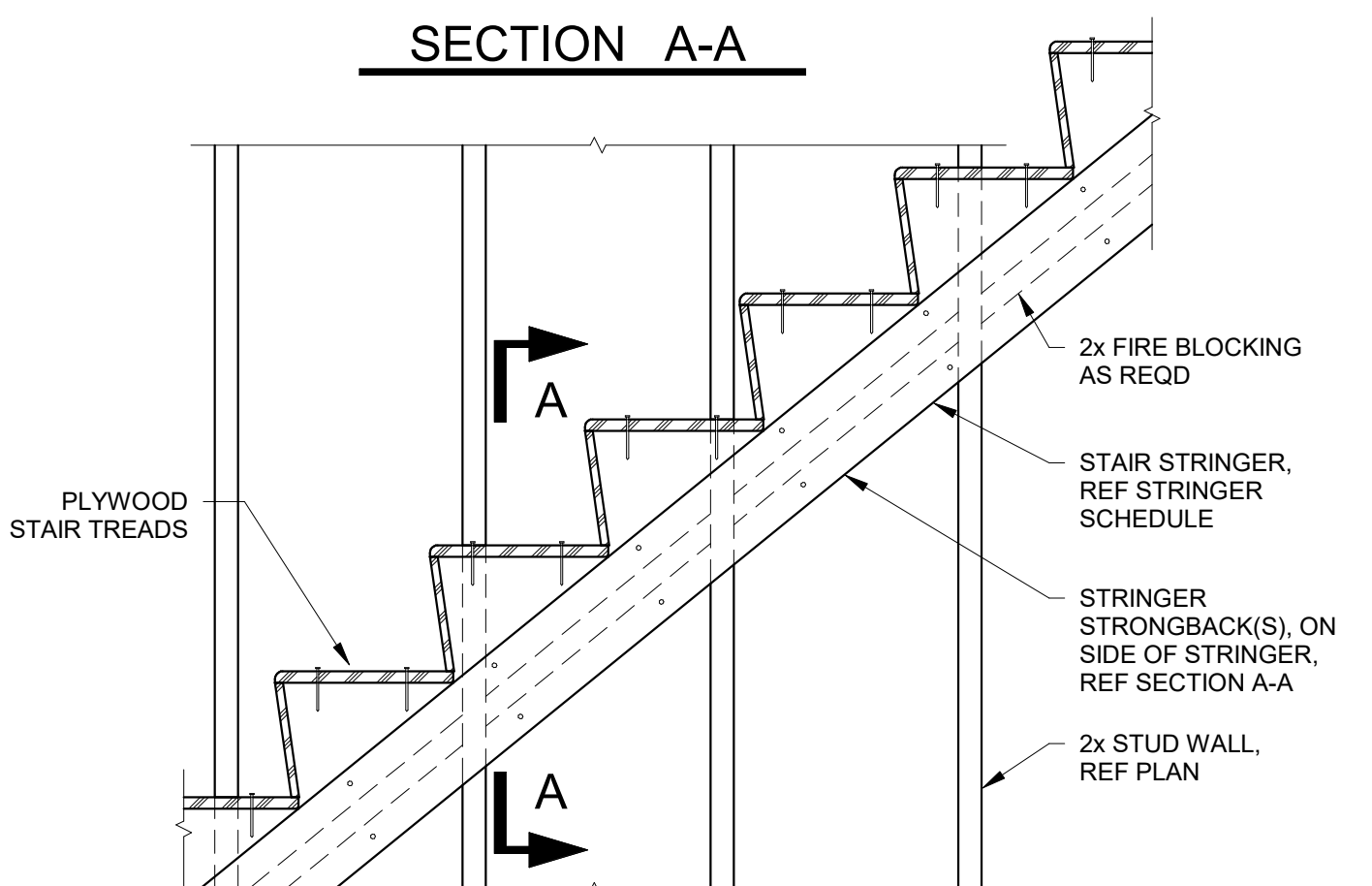
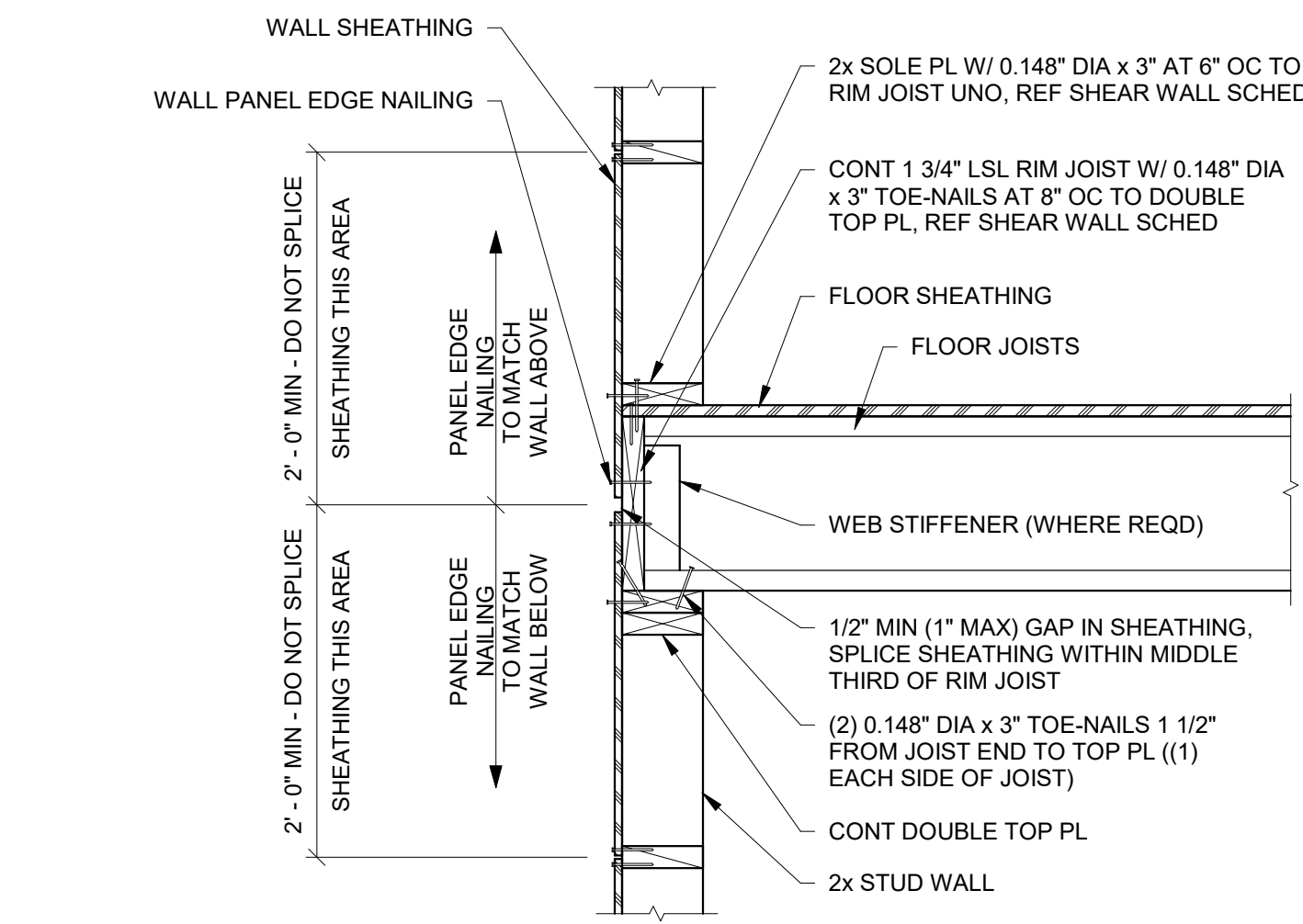
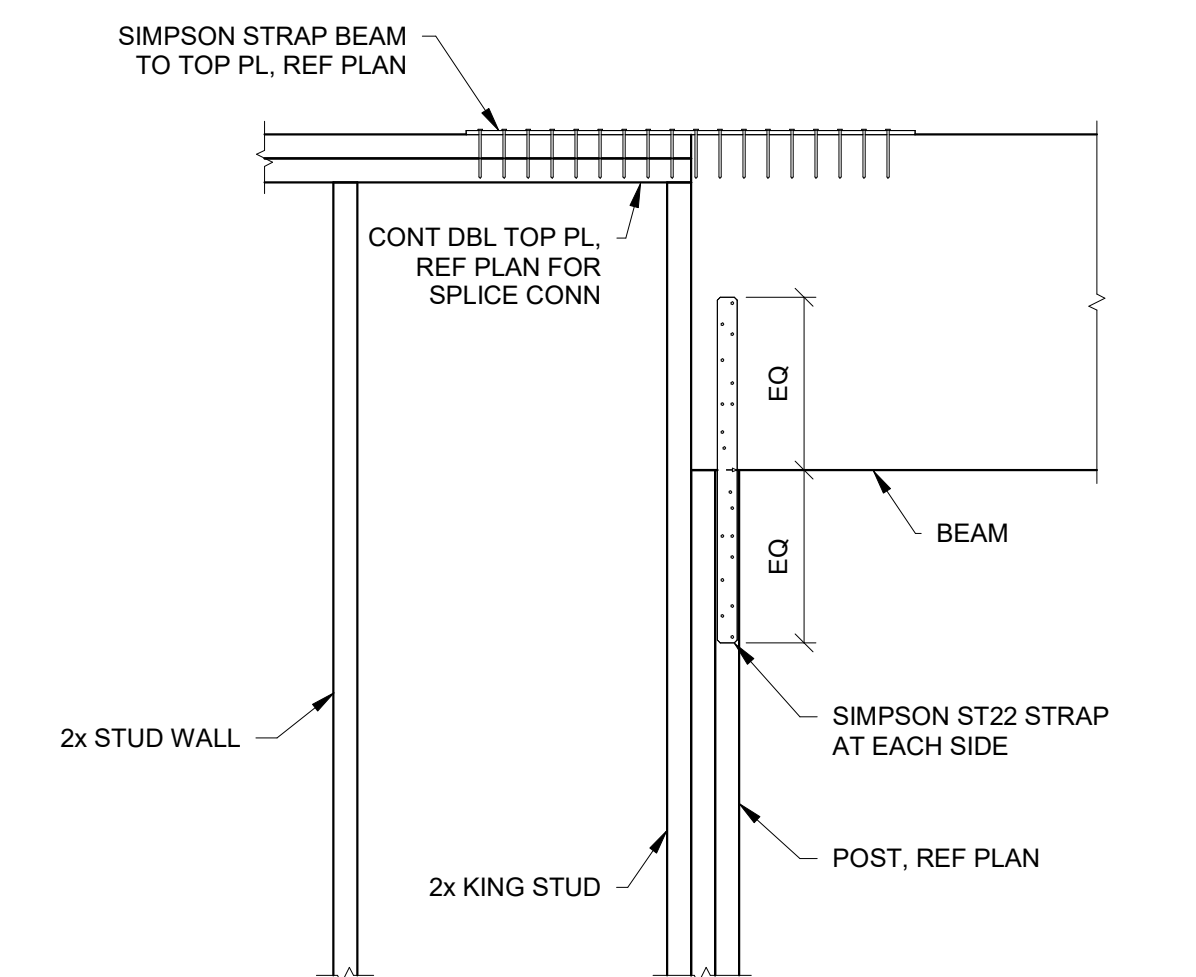
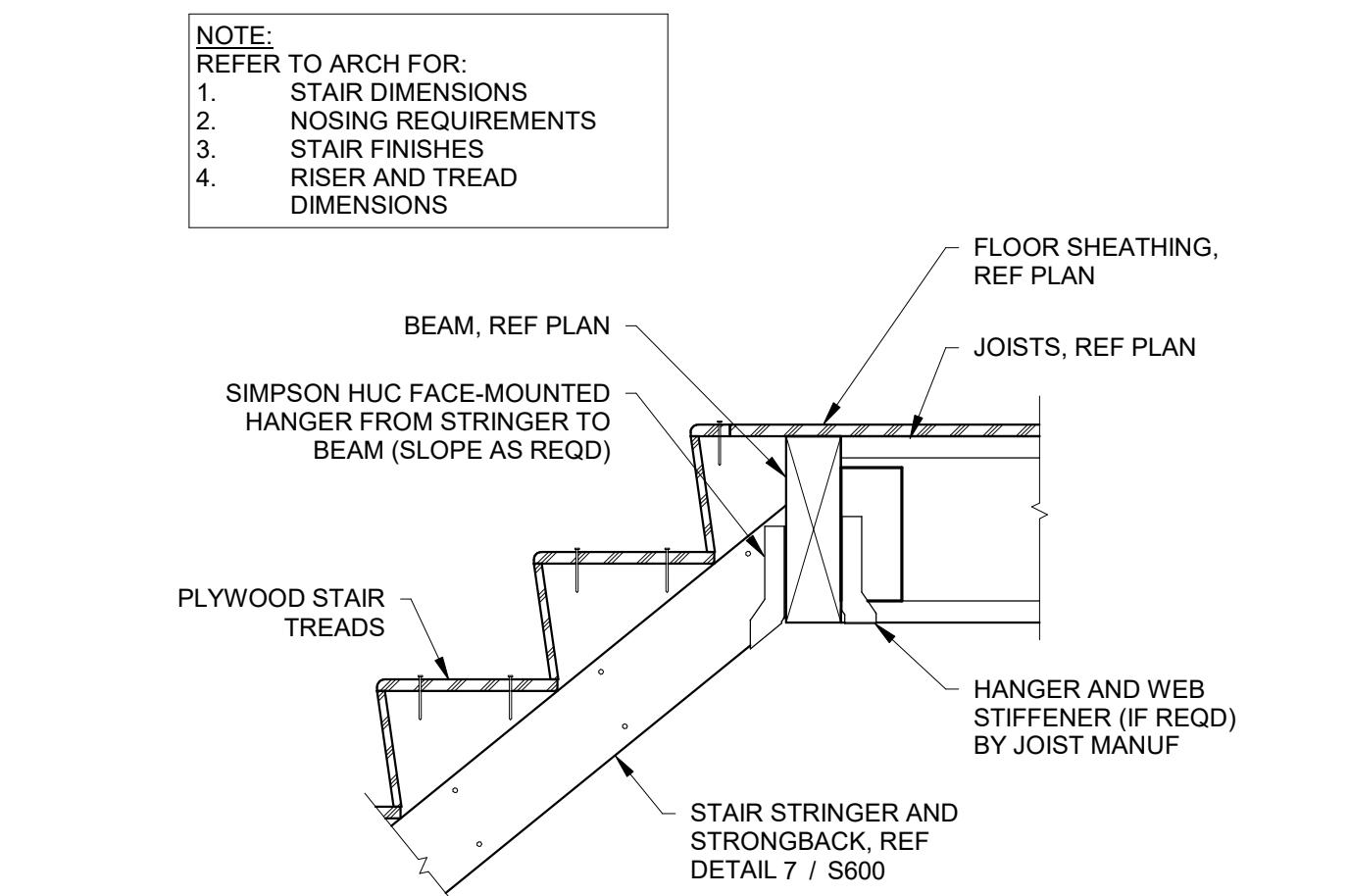
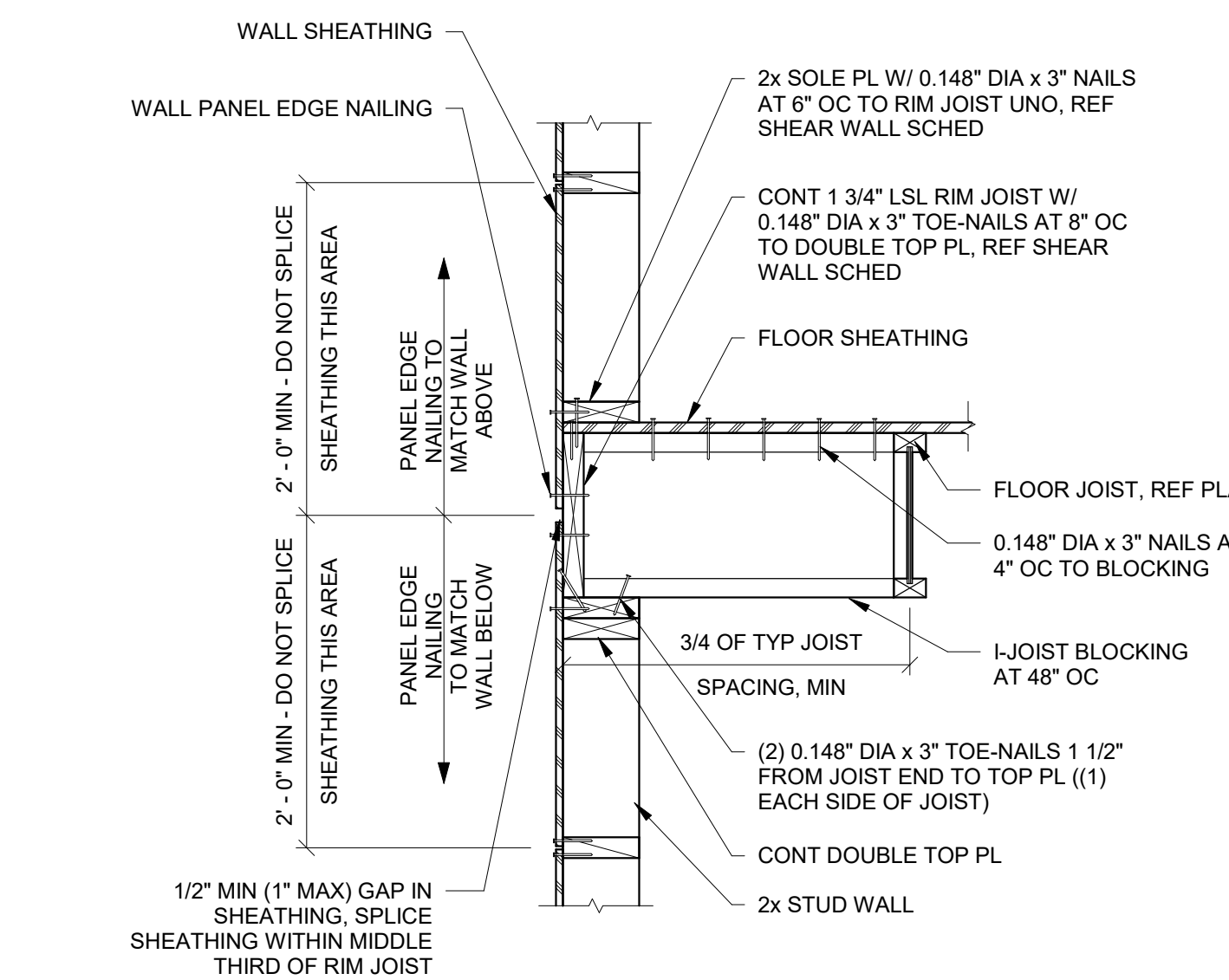
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**9** FLOOR JOISTS PERPENDICULAR TO INTERIOR WALL  
1" = 1'-0"**6** CANTILEVERED FLOOR JOISTS TO EXTERIOR WALL  
1" = 1'-0"**3** WINDOW/DOOR HEADER DETAIL AND SCHEDULE  
1" = 1'-0"**1** DOUBLE TOP PLATE SPLICE - NAILED  
1" = 1'-0"**10** CONTINUOUS POST LOAD PATH  
1" = 1'-0"**7** WOOD STAIR STRINGER  
1" = 1'-0"**4** FLOOR JOIST PERPENDICULAR TO PERIMETER WALL  
1" = 1'-0"**11** WOOD BEAM DRAG STRUT  
1" = 1'-0"**8** WOOD STAIR STRINGER TO BEAM  
1" = 1'-0"**5** FLOOR JOIST PARALLEL TO PERIMETER WALL  
1" = 1'-0"

2x4 BUILD-UP		FASTENER PLACEMENT		2x6, 2x8 BUILD-UP	
BUILT-UP MEMBER	FASTENER SIZE	MAX FASTENER SPACING	FASTENER END DIST	FASTENER EDGE DIST	ROWS OF FASTENERS
(2) 2x4	0.148" DIA x 3" NAIL	6"	2.5"	1"-1.5"	1 - STAGGER
(3) 2x4	SIMPSON SDW 0.220" DIA x 4 3/8" SCREWS	8"	2.5"	1.5"	1 - STAGGER
(4) OR MORE 2x4	SIMPSON SDW 0.220" DIA x 4 3/8" SCREWS	8"	3.5"	1.5"	1 - STAGGER
(2) 2x6, (2) 2x8	0.148" DIA x 3" NAIL	8"	2.5"	1"-1.5"	2
(3) 2x6, (3) 2x8	SIMPSON SDW 0.220" DIA x 4 3/8" SCREWS	9"	3.5"	1.5"	2
(4) 2x6, (4) 2x8	SIMPSON SDW 0.220" DIA x 4 3/8" SCREWS	7"	3.5"	1.5"	2
(5) OR MORE 2x6, 2x8	SIMPSON SDW 0.220" DIA x 4 3/8" SCREWS	8"	3.5"	2"	2 - 5/8" STAGGER

- NOTES:
- WALL SHEATHING OR GYP BOARD FASTENERS SHALL BE STAGGERED TO EACH STUD IN BUILT-UP MEMBER.
  - ADJACENT NAILS AND SCREWS SHALL BE INSTALLED FROM OPPOSITE SIDES OF THE BUILT-UP MEMBER.
  - BOLTS SHALL HAVE STANDARD CUT WASHERS BETWEEN WOOD AND BOLT HEAD AND NUT HEAD.
  - FASTENERS SHALL BE SUFFICIENTLY DRIVEN (OR TIGHTENED) TO ENSURE ALL WOOD LAMINATIONS ARE IN FULL CONTACT.
  - FASTENERS FOR 4/5 OR MORE MEMBERS SHALL BE SIZED TO PENETRATE THREADS A MINIMUM OF 1/2 A SINGLE PLY DEPTH AND NOT EXCEED FULL THREAD ENGAGEMENT IN THE END MEMBER.

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FLOOR FRAMING  
DETAILS

S600

