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SIGNATURES

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

8.17.2017

WILLIAM T. BULLER 20995
reg. no.

William T. Buller 6.30.2018
reg. exp. date

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PROJECT INFO

Commission No.
B/A: 615-19
Drawn By:
JR/MDS
Issue Date
8.17.2017

SUBMITTALS / REVISIONS

7.28.1017 90% REVIEW
8.10.2017 100% REVIEW
8.17.2017 BID SET

SCALE
1/4" = 1'-0"

Fox Pointe Townhomes, Austin
MN

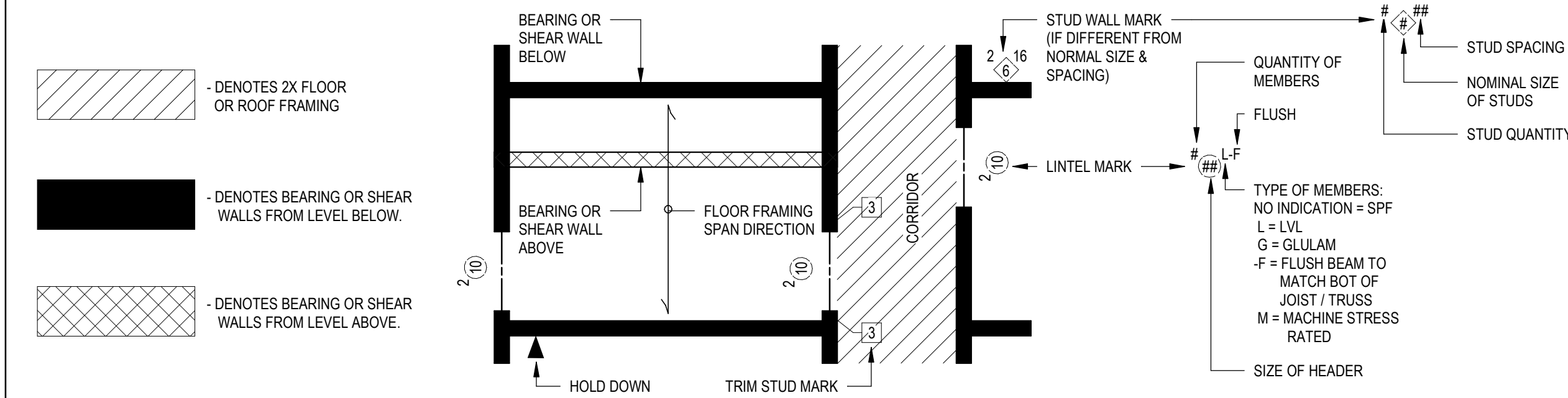
Three Rivers Community Action

STRUCTURAL COVER SHEET

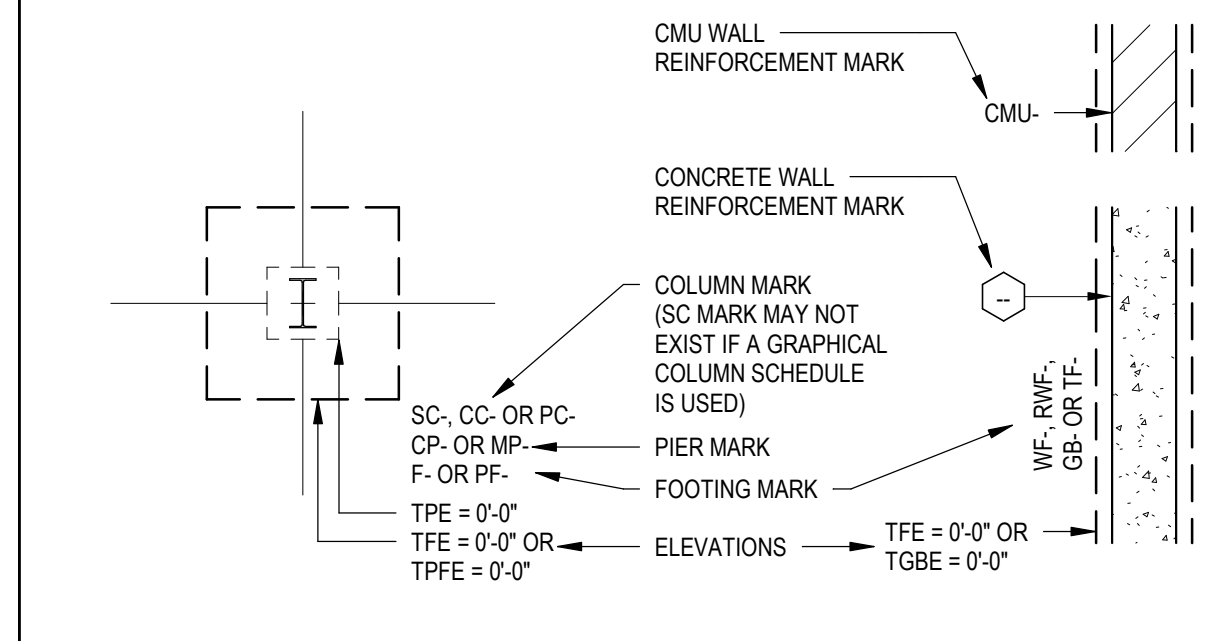
S000

STRUCTURAL SHEET INDEX					
<ul style="list-style-type: none"> • INDICATES DRAWINGS THAT ARE BEING ISSUED. •S INDICATES DRAWINGS THAT ARE BEING ISSUED AND SIGNED FOR THE FIRST TIME. ▲ INDICATES DRAWINGS THAT HAVE BEEN ISSUED ON SMALL SHEETS OR WRITE UP. 					
SHEET #	ISSUE			SHEET TITLE	
	7.28.2017 - 90% REVIEW	8.10.2017 - 100% REVIEW	8.17.2017 - BID SET		
S000	•	•	•S	STRUCTURAL COVER SHEET	
S001	•	•	•S	GENERAL STRUCTURAL NOTES	
S002	•	•	•S	TYPICAL DETAILS	
S003	•	•	•S	TYPICAL DETAILS - WOOD SCHEDULES	
S004	•	•	•S	TYPICAL DETAILS - WOOD STAIR FRAMING	
S110	•	•	•S	OVERALL FOUNDATION PLAN AND NOTES BUILDING A	
S111	•	•	•S	FOUNDATION PLAN BUILDING A	
S112	•	•	•S	SECOND FLOOR FRAMING PLAN BUILDING A	
S113	•	•	•S	ROOF FRAMING PLAN BUILDING A	
S120	•	•	•S	OVERALL FOUNDATION PLAN AND NOTES BUILDING B	
S121	•	•	•S	FOUNDATION PLAN BUILDING B	
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S130	•	•	•S	OVERALL FOUNDATION PLAN AND NOTES BUILDING C	
S131	•	•	•S	FOUNDATION PLAN BUILDING C	
S132	•	•	•S	SECOND FLOOR FRAMING PLAN BUILDING C	
S133	•	•	•S	ROOF FRAMING PLAN BUILDING C	
S200	•	•	•S	PARTIAL PLANS	
S300	•	•	•S	FOUNDATION DETAILS	
S301	•	•	•S	WOOD FRAMING DETAILS	
S302	•	•	•S	WOOD FRAMING DETAILS	

WOOD FRAMING PLAN LEGEND



FOUNDATION PLAN LEGEND



TYPICAL MARKS

BP- = BASE PLATE	F- = ISOLATED FOOTING
BRP- = BEARING PLATE	L- = LINTEL
BO OR B0-000 = CONCRETE BEAM	MP- = MASONRY PIER
CC- = CONCRETE COLUMN	PF- = PILE FOUNDATIONS
CCB- = CONCRETE COUPLING BEAM	PB- = POST-TENSION BEAM
J0 OR J0-000 = CONCRETE JOIST	PC- = PRECAST COLUMN
CP- = CONCRETE PIER	RWF- = RETAINING WALL FOOTING
DP- = DRILLED PIER	SC- = STEEL COLUMN
DPC- = DRILLED PIER CAP	SH- = STEEL HANGER
EP- = EMBED PLATE	SP- = STEEL POST
GB- = GRADE BEAM	WF- = WALL FOOTING

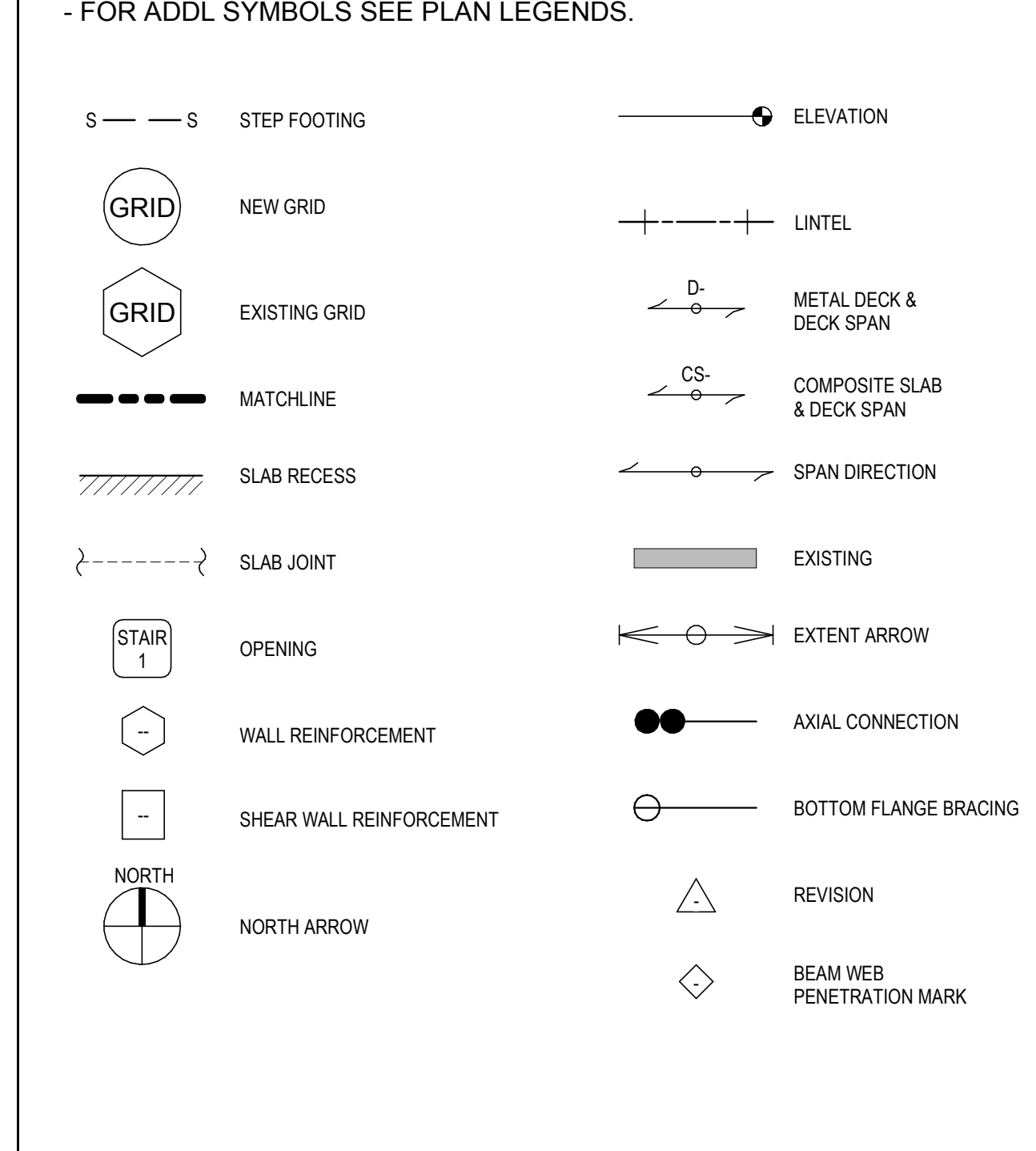
STRUCTURAL ABBREVIATIONS

ADD	ADDENDUM	EA	EACH	K	KIP (1,000 POUNDS)	R	RADIUS
ADDL	ADDITIONAL	EF	EACH FACE	K/FT	KIPS PER FOOT	REF	REFERENCE
ALT	ALTERNATE	ELEC	ELECTRICAL	K/LF	KIPS PER LINEAL FOOT	REIN	REINFORCEMENT
ANCH	ANCHOR (ANCHORAGE)	ENGR	ENGINEER	K/SF	KIPS PER SQUARE FOOT	REQD	REQUIRED
ARCH	ARCHITECT (ARCHITECTURAL)	EL	ELEVATION			REV	REVERSE/REVISION
@		ELEV	ELEVATOR	L	ANGLE	RD	ROUGH OPENING
BSMT	BASEMENT	EOD	EDGE OF DECK	LB	LENGTH	RO	ROUGH OPENING
BM	BEAM	EOR	ENGINEER OF RECORD	LG	LENGTH LONG	SCHED	SCHEDULE
BRG	BEARING	EOS	EDGE OF SLAB	LL	LIVE LOAD	SECT	SECTION
BTWN	BETWEEN	EQ	EQUAL	LOC	LOCATION	SHT	SHEET
BLK	BLOCK	EQUIP	EQUIPMENT	LONG	LONGITUDINAL	SIM	SIMILAR
BB	BOND BEAM	ERECT	ERECTOR	LLH	LONG LEG HORIZONTAL	SIP	STRUCTURAL INSULATED PANEL
BOT, BO, BI	BOTTOM	EW	EACH WAY	LLV	LONG LEG VERTICAL	SJ	STEEL JOIST INSTITUTE
BFE	BOTTOM FOOTING ELEVATION	EXIST, (E)	EXISTING	LWT	LIGHT WEIGHT	SOG	SLAB ON GRADE
BLKG	BLOCKING	EXT	EXTERIOR	M	MOMENT	SPA	SPACES
BLDG	BUILDING	FD	FLOOR DRAIN	MAX	MAXIMUM	SPEC	SPECIFICATIONS
CANT	CANTILEVER	FD/FND	FOUNDATION	MCJ	MASONRY CONTROL JOINT	SQ	SQUARE
CIP	CAST IN PLACE	FLFLR	FLOOR	MECH	MECHANICAL	STD	STANDARD
CLG	CEILING	FRMG	FRAMING	MEZZ	MEZZANINE	STL	STEEL
CTR	CENTER	FS	FAR SIDE	MFR	MANUFACTURER	STIFF	STIFFENER
CL	CENTERLINE	FT	FOOT (FEET)	MIN	MINIMUM	STR	STIRRUPS
CLR	CLEAR	FTG	FOOTING	MISC	MISCELLANEOUS	STRUCT	STRUCTURAL
COL	COLUMN			MO	MASONRY OPENING	TBE	TOP OF BEAM ELEVATION
COMP	COMPOSITE	GALV	GALVANIZED	MTL	METAL	TDE	TOP OF DECK ELEVATION
CONC	CONCRETE	GA	GAGE	(N)	NEW	TEMP	TEMPORARY
CMU	CONCRETE MASONRY UNIT	GC	GENERAL CONTRACTOR	NO	NUMBER	TEMP STL	TEMPERATURE STEEL
CONN	CONNECTION(S)	GB	GRADE BEAM	NOM	NOMINAL	TFE	TOP OF FOOTING ELEVATION
CONST	CONSTRUCTION	HD	HEADED	NS	NEAR SIDE	THK	THICK
CONST JT	CONSTRUCTION JOINT	HDR	HEADER	NIC	NOT IN CONTRACT	T & B	TOP AND BOTTOM
CONT	CONTINUOUS	HK	HOOK	NTS	NOT TO SCALE	TO, T/	TOP OF
		HT	HEIGHT	NWT	NORMAL WEIGHT	TOS	TOP OF STEEL
db	REINFORCING BAR DIAMETER	HS	HIGH STRENGTH	OC	ON CENTER	TOSL	TOP OF SLAB
DBL	DOUBLE	HSS	HOLLOW STRUCTURAL TUBE	OPNG	OPENING	TRANSV	TRANSVERSE
DEFL	DEFLECTION	HORIZ	HORIZONTAL	OD	OUTSIDE DIAMETER	TWE	TOP OF WALL ELEVATION
DEG	DEGREES	ID	INSIDE DIAMETER	OF	OUTSIDE FACE	TYP	TYPICAL
DL	DEAD LOAD	IF	INSIDE FACE			UNO	UNLESS NOTED OTHERWISE
D, d	DEPTH	INFO	INFORMATION			VERT	VERTICAL
DET	DETAIL	INT	INTERIOR			VIF	VERIFY IN FIELD
DIAG	DIAGONAL						
DIA	DIAMETER						
DIM	DIMENSION						
DWEL(S)	DOWEL(S)						
DN	DOWN						
DWG	DRAWING						
		JT OR JNT	JOINT				
		JST	JOIST				
		JBE	JOIST BEARING ELEVATION				
		JSD	JOIST SEAT DEPTH				
				PVC	POLYVINYL CHLORIDE		
						W, w	WIDTH
						W/	WITH
						W/O	WITH OUT
						WP	WORK POINT
						WT	WEIGHT
						WWF	WELDED WIRE FABRIC

OVERALL PROJECT NOTES

1. 3D VIEWS SHOWN ON THE CONTRACT DOCUMENTS ARE FOR REFERENCE ONLY.

TYPICAL SYMBOLS



GENERAL STRUCTURAL NOTES

These notes supplement the Specifications. Refer to the Specifications for additional requirements.

1. DESIGN CRITERIA:

1.1. BUILDING CODES USED FOR DESIGN:

1.1.1. IBC 2012 with Minnesota amendments.

1.2. STRUCTURAL TESTS AND SPECIAL INSPECTIONS:

1.2.1. Special inspections shall be performed by an independent testing agency according to IBC Chapter 17.

Table 1705.3 - Concrete Construction
Section 1705.4 - Masonry Construction
Table 1705.6 - Soils

1.2.2. Qualifications of special inspectors and frequency of tests and inspections shall be as defined in "Guideline Program for Structural Testing and Special Inspections," 5th Edition, Council of American Structural Engineers of Minnesota (available at <http://www.mn-sea.org/>).

1.2.3. The Engineer will provide periodic observation to assure conformance with design intent of the construction documents. These observations are not meant to fulfill the requirements of special inspections.

1.2.4. Special inspections of the following items are not within the scope of the structural drawings. Contact the Architect or design professionals with these responsibilities for information about these items.

- Sprayed Fire-resistant Materials
- Mastic and Intumescent Fire-resistant Coatings
- EIFS
- Smoke Control

1.3. FUTURE CONSTRUCTION:

1.3.1. VERTICAL: None.

1.3.2. HORIZONTAL: None.

1.4. DESIGN LOADS:

1.4.1. Risk Category:

From IBC Table 1604.5

Risk Category II

1.4.2. DESIGN LIVE LOADS:

Residential Areas 40 PSF

1.4.1. WIND LOAD:

Ultimate Design Wind Speed: . . . 115 MPH
 Exposure Classification: B
 Internal Pressure Coeff: +0.18
 -0.18

Wind pressures used for the design of exterior components and cladding shall be calculated by a design professional registered in the state where the project is located. Calculations shall be submitted for review.

1.4.2. SNOW LOAD:

Ground Snow Load: 50 PSF
 Flat Roof Snow Load: 39 PSF
 Snow Exposure Factor: 1.0
 Snow Load Importance Factor: . . . 1.0
 Roof Thermal Factor: 1.1
 Roof Slope Factor: 1.0

1.5. DEFLECTION AND DRIFT

1.5.1. Horizontal framing members are designed for deflections as tabulated. Deflections of horizontal to horizontal framing members are additive. Subcontractors shall make allowance for installation and operation of their systems to accommodate these deflections.

TYPICAL FRAMING MEMBERS			
Roof Live Load	. . . . .	span/360	
Floor Live + Superimposed Dead Load	. . . . .	span/480	
Construction Load	. . . . .	span/240	

FRAMING MEMBER SUPPORTING EXTERIOR WALL			
Ext wall + live + superimposed dead load	. . . . .	span/600	
Live + superimposed dead load	. . . . .	3/8" max	

1.5.1. Story drifting criteria:

Wind: H/400
 Seismic: 0.020 hx

2. DESIGN STRENGTHS:

2.1. CONCRETE:

2.1.1. All concrete shall be stone aggregate unless noted. See Specifications for additional durability requirements.

2.1.2. Minimum concrete 28-day compressive strength shall be as follows:

Class	f'c (PSI)	Type	Add'l Remarks	Location
A	4000	NWT		Interior Slabs and Walls
B	4500	NWT, Air	Note 1	Exterior Slabs and Walls
C	3000	NWT		Footings

Note 1: Limit Water to Cement Ratio to 0.45

2.2. CONCRETE REINFORCEMENT:

Deformed Bars:	FY = 60 KSI	ASTM A615
Welded Wire Fabric:	FY = 70 KSI	ASTM A185

2.3. MASONRY:

Assembly Compressive Strength:	f'm = 1,500 PSI
Masonry Grout:	f'g = 3,000 PSI
Deformed Bars:	FY = 60 KSI ASTM A615

2.4. DIMENSIONAL LUMBER:

2.4.1. Structural Framing (beams, joists, studs, plates): Spruce-Pine-Fir #1/#2

Fb =	875 PSI
Fv =	135 PSI
Fc parallel =	1,150 PSI
E =	1,400 KSI

2.5. LAMINATED VENEER LUMBER (LVL): Grade 2.0 E

Fb =	2,950 PSI
Fv =	290 PSI
E =	2,000 KSI

2.6. PARALLEL STRAND LUMBER (PSL):

2.6.1. Posts: Grade 1.8 E

Fb =	2,400 PSI
Fv =	190 PSI
Fc parallel =	2,500 PSI
E =	1,800 KSI

2.6.2. Beams 18" deep or less: Grade 2.0 E

Fb =	2,900 PSI
Fv =	290 PSI
Fc perp =	625 PSI
E =	2,000 KSI

2.7. LAMINATED STRAND LUMBER (LSL): Grade 1.3 E

Fb =	1,700 PSI
Fv =	425 PSI
Fc perp =	710 PSI
E =	1,300 KSI

3. FOUNDATIONS AND EARTHWORK:

3.1. SOILS AND FOUNDATION ENGINEERING REPORT:

3.1.1. Reference the project's geotechnical report prepared by Chosen Valley Testing, number 11698.17.MNR, dated July 25, 2017, for additional information and requirements.

3.1.2. This report is for informational purposes only and shall not be considered part of the contract documents. Furthermore, no warranty is made by the owner with regard to the completeness and accuracy of the subsurface investigation data, soil test data, statements and interpretations given in the report.

3.2. GROUND WATER:

3.2.1. Water levels indicated on the boring logs are subject to seasonal and/or annual variations. If necessary, a dewatering system of sufficient capacity shall be installed and operated to maintain the construction area free of water at all times.

3.3. EXCAVATIONS:

3.3.1. Should any questionable conditions be encountered during excavation, notify Owner's Representative immediately.

3.3.2. No engineered fill shall be placed until excavation bottoms have been inspected and approved by the Geotechnical Engineer.

3.3.3. Water shall not be permitted to accumulate in footing excavations.

3.3.4. Provide a minimum of 6 inches of granular fill below all interior slabs-on-grade.

3.3.5. The slab-on-grade design is based on a modulus of subgrade reaction of 125 PCI.

3.4. FOOTINGS:

3.4.1. The foundation design is based on a total load net soil pressure of:
 Spread Footings 2000 PSF
 Wall Footings 2000 PSF

3.4.2. Foundations are assumed to be supported on native material or properly compacted structural fill. All footing excavations shall be inspected, prior to concrete placement, by the Geotechnical Engineer to verify suitable bearing material of capacity as specified.

3.4.3. Notify the Owner's representative when additional excavation is required to reach suitable bearing material.

3.4.4. Footing steps shall be located generally where indicated on the plan, and shall be installed as detailed.

3.4.5. Bottom of exterior building footings surrounding heated areas are to be at least 42 inches below final outside grade unless dimensioned otherwise. Bottom of exterior building footings at stoops or other unheated areas are to be at least 60 inches below final outside grade unless dimensioned otherwise.

3.4.6. All continuous footings shall be centered under walls unless dimensioned otherwise.

3.5. BACKFILLING:

3.5.1. Both sides of foundation walls shall be backfilled simultaneously so as to prevent overturning or lateral movement of walls. All grade beams shall be adequately braced to prevent lateral movement during backfilling and compaction.

3.5.2. No fill or backfill shall be settled by the use of water.

3.6. FOUNDATION COMPLETION:

3.6.1. The Geotechnical Engineer shall certify in writing that all foundations were placed and completed as specified.

4. CONCRETE:

4.1. REFERENCES:

ACI 315	ACI Detailing Manual
ACI 318	Building Code Requirements for Reinforced Concrete
CRSI MSP	Manual of Standard Practice
AWS DI.4	Structural Welding Code - Reinforcing Steel
CRSI	Recommended Practice for Placing Reinforcing Bars

4.2. REINFORCING STEEL:

4.2.1. The reinforcing steel Contractor shall fabricate all reinforcement and furnish all accessories, chairs, spacer bars and supports necessary to secure the reinforcement unless shown otherwise on the plans and/or details.

4.2.2. Concrete reinforcement shall be placed according to ACI and CRSI "Recommended Practice for Placing Reinforcing Bars".

4.2.3. Minimum Clear Cover For Concrete Reinforcement:

Footings	. . . . .	2" Sides, 3" Bottom, 2" Top
Slabs on Grade	. . . . .	Center of Slab

4.2.4. Compression lap splice lengths shall be 30 bar diameters minimum unless detailed otherwise. When bars of different sizes are lap spliced in compression, splice length shall be the larger or the development length of the larger bar or the splice length of the smaller bar.

4.2.5. Lap splices shall be in accordance with the table shown in the drawings unless noted otherwise. Where classes are not called out on drawings, use Class "A" Splices.

4.2.6. All welded wire fabric shall have one full space plus 2" at splices and wire together.

4.2.7. Collated fibrillated polypropylene fiber may be used in lieu of welded wire fabric for 4" concrete slabs-on-grade. The amount of fiber to be added to the concrete is per manufacturer recommendations with a minimum amount of 1.5 pounds per cubic yard. Control joints in the slab-on-grade are to be spaced at 12'-0" on center maximum in each direction.

4.2.8. No welding of reinforcement shall be permitted unless specifically called for or reviewed by the Structural Engineer. Where welding is permitted, all welding of reinforcing bars shall conform to "Structural Welding Code - Reinforcing Steel". A chemical analysis of the reinforcing bars to be welded shall be submitted for review.

4.3. ANCHORING TO CONCRETE

4.3.1. Expansion anchors shall be Hilti Kwik Bolt TZ or approved equal, unless noted otherwise. Embedment shall be as follows unless noted otherwise:

Diameter	Embedment	Diameter	Embedment
3/8"	2"	5/8"	4"
1/2"	3 1/4"	3/4"	4 3/4"

4.3.2. Epoxy for dowels drilled into concrete shall be Hilti HIT RE 500-SD or approved equal, unless noted otherwise. Embedment shall be as follows unless noted otherwise:

Bar	Embedment	Bar	Embedment
# 3	3 1/4"	# 5	5 3/4"
# 4	4 3/8"	# 6	6"

5. MASONRY:

5.1. REFERENCES:

IBC 2012	Building Code Requirements for Concrete Masonry Structures
ACI 530	Specification for Concrete Masonry Construction
ACI 530.1	Specification for Concrete Masonry Construction

5.2. CONCRETE MASONRY UNITS:

5.2.1. Concrete masonry units shall conform to ASTM C 90, normal weight.

5.2.2. Structural walls shall be comprised of Plain Double Corner units, Open End ('A' shaped) units, or Double Open End ('H' shaped) units. Stretcher units shall not be used in structural walls.

5.2.3. Store concrete masonry units off the ground, under cover, and in a dry location.

5.2.4. Autoclave Aerated Concrete (AAC) masonry shall not be used.

5.3. MORTAR:

5.3.1. Mortar shall conform to the requirements of ASTM C 270.

5.3.2. Mortar for structural walls below grade shall be Type M. Mortar for other structural walls shall be Type M or S.

5.3.3. Face shells and webs of bed joints shall be fully mortared for all starter courses, columns, pilasters, and cells to be grouted.

5.3.4. Head joints shall be mortared a minimum distance from each face equal to the face shell thickness of the unit.

5.3.5. Do not wet concrete masonry before laying up or grouting.

5.4. GROUT:

5.4.1. Vertical cells to be grouted shall be aligned, and unobstructed openings for grout provided.

5.4.2. Grout shall conform to the requirements of ASTM C 476 and have a slump between 8 and 11 inches.

5.5. REINFORCEMENT:

5.5.1. Masonry walls shall have ladder type horizontal bed joint reinforcement consisting of W1.7 (9 gage) hot-dipped galvanized wire conforming to ASTM A 951. Bed joint reinforcement shall be spaced at 16" OC vertically.

5.5.2. Provide 5/8" cover to bed joint reinforcement for exterior walls or walls below grade. Provide 1/2" cover to bed joint reinforcement for other walls.

5.5.3. Secure vertical reinforcement with bar positioners at bar splices, top and bottom of walls, and at intervals not exceeding 192 bar diameters.

5.5.4. Lap splices shall be in accordance with the table shown in the drawings unless noted otherwise.

5.5.5. Provide a minimum of 1 1/2" cover to deformed bar reinforcement.

5.5.6. When using fine grout, provide a minimum of 1/4" clear distance between reinforcing bars and the face of any masonry unit. When using coarse grout, provide 1/2" clear distance.

5.5.7. Contractor shall provide Shop Drawings showing lengths, sizes, bending details, and locations of reinforcing steel, wall elevations, and setting diagrams for embedded items.

5.6. ANCHORING TO MASONRY:

5.6.1. Anchors installed into grouted cells or bond beams shall be Hilti Kwik Bolt 3 Masonry Anchors or approved equal, unless noted otherwise. Anchors shall not be installed in head joints unless approved by the Engineer. No more than one anchor shall be installed per cell unless approved by the Engineer. Embedment shall be as follows unless noted otherwise:

Diameter	Embedment	Diameter	Embedment
1/4"	2"	5/8"	4"
3/8"	2 1/2"	3/4"	4 3/8"
1/2"	3 1/2"		

6. STRUCTURAL WOOD:

6.1. REFERENCES:

IBC 2012	National Design Specification for Wood Construction
NFPA	Design Values for Wood Construction

6.2. DIMENSION LUMBER:

6.2.1. All member sizes given on plan are nominal dimensions.

6.2.2. Spacing of bridging for floor and roof joists shall not exceed 8' or 6 times the nominal joist depth (whichever is greater).

6.2.3. Wood studs shall bear the full length on all trim studs, columns, posts or other supporting members indicated on plan.

6.2.4. All beams and joists not bearing on supporting members shall be framed with "Simpson" joist hangers or equal. Use Type LUSXX for single 2x's and Type LUSXX-2 for double 2x's.

6.2.5. All nailing shall be in accordance with IBC Table No. 2304.10.1 unless noted otherwise.

6.2.6. Bolt nailers and blocking to steel members with 1/2" diameter bolts spaced at 32 inches on center unless noted otherwise.

6.2.7. Roof and ceiling joists are shown as a general layout only. Consider joist spacing shown as the maximum spacing with incidental framing, bracing and blocking added as needed for standard wood frame construction.

6.3. PREFABRICATED ROOF AND FLOOR TRUSSES:

6.3.1. Trusses shall be designed to meet all loading and spans as indicated on the plans. Design trusses for concentrated loads and cantilevers as indicated on architectural and structural plans.

6.3.2. Typical Floor Truss Design Loads:

Top Chord Live Load	. . . . .	See DESIGN LIVE LOADS above
Top Chord Dead Load	. . . . .	17 psf
Bottom Chord Dead Load	. . . . .	8 psf

6.3.3. Typical Roof Truss Design Loads:

Top Chord Live Load	. . . . .	See DESIGN LIVE LOADS and SNOW LOADS above
Top Chord Dead Load	. . . . .	12 psf
Bottom Chord Dead Load	. . . . .	8 psf

6.3.4. Trusses shall be designed and fabricated in accordance with the latest edition of ANSI/TPI 1.

6.3.5. The prefabricated wood truss fabricator is responsible for the design of the trusses, truss connections, etc. Trusses are to be designed and certified by a registered professional engineer licensed in the State where the project is located.

6.3.6. Truss supplier shall furnish all necessary blocking, bracing and connection material to provide a completed installation. This information shall be clearly shown on erection plan.

6.3.7. Contractor shall be responsible for bracing and/or bridging required during construction.

6.3.8. Permanent bracing required by the truss supplier for web members shall be designed and provided by the truss supplier.

6.3.9. Permanent lateral restraint and diagonal bracing shall be installed in accordance with the Structural Building Components Association (SBCA)BCSI B3: "Permanent Restraint / Bracing of Chords and Web Members".

6.3.10. All lumber used in the fabrication of trusses shall be stress graded. Connector plates shall be made of Grade "A" galvanized steel, minimum 20 gage, per TTP Specification.

6.4. LAMINATED VENEER LUMBER:

6.4.1. Laminated Veneer Lumber (indicated LVL on plans) to be supplied and manufactured according to the specification of the Truss Joist Corporation. See Section 1 of these notes for material strength information.

6.5. PARALLEL STRAND LUMBER:

6.5.1. Parallel Strand Lumber (indicated PSL on plans) to be supplied and manufactured according to the specification of the Truss Joist Corporation. See Section 1 of these notes for material strength information.

6.6. LAMINATED STRAND LUMBER:

6.6.1. Laminated Strand Lumber (indicated LSL on plans) to be supplied and manufactured according to the specification of the Truss Joist Corporation. See Section 1 of these notes for material strength information.

6.7. GLUED LAMINATED LUMBER:

6.7.1. Glued laminated members (indicated GL on plans) to be supplied and manufactured according to the specification of the American Institute of Timber Construction. See Section 1 of these notes for material strength information.

7. MISCELLANEOUS:

7.1. DEFERRED STRUCTURAL SUBMITTALS

7.1.1. The design and documentation of some components defined using performance-based specifications may be deferred until after a building permit is obtained.

7.1.2. Deferred submittals include, but are not limited to, the items listed below.

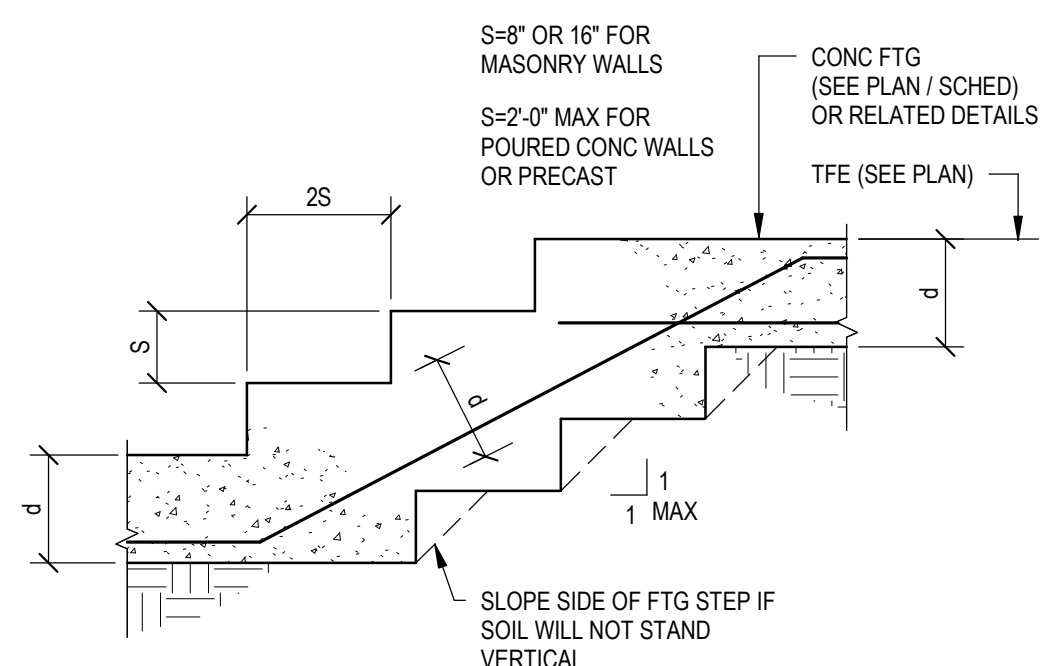
7.1.3. For the following deferred submittals, the Contractor shall submit shop drawings and calculations signed and stamped by an engineer registered in the state where components are installed. These shall be submitted for review prior to fabrication.

Wood Truss Systems

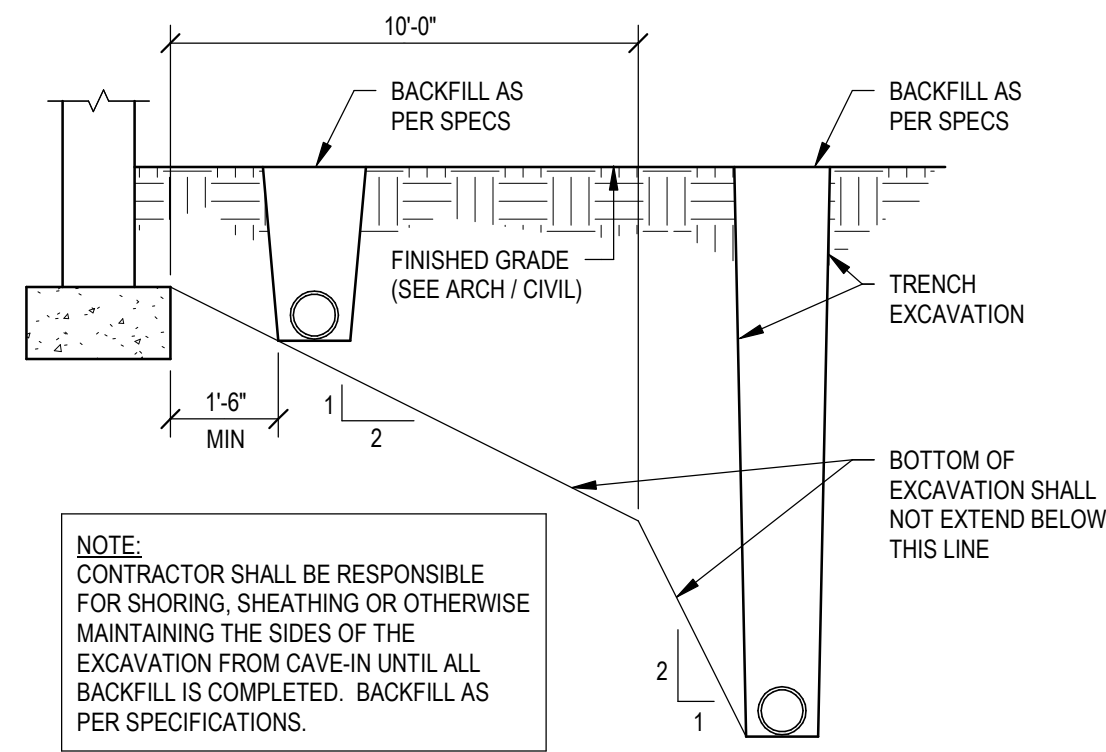
7.2. CONSTRUCTION JOINTS:

7.2.1. The Contractor shall submit drawings showing the proposed construction and control joints for all areas. This includes walls, structural floor systems, slabs on grade, etc. This drawing shall be reviewed by the Architect /Engineer and returned to the Contractor prior to pouring any concrete. The construction joint drawing shall be furnished to the fabricators before their shop drawings are submitted.

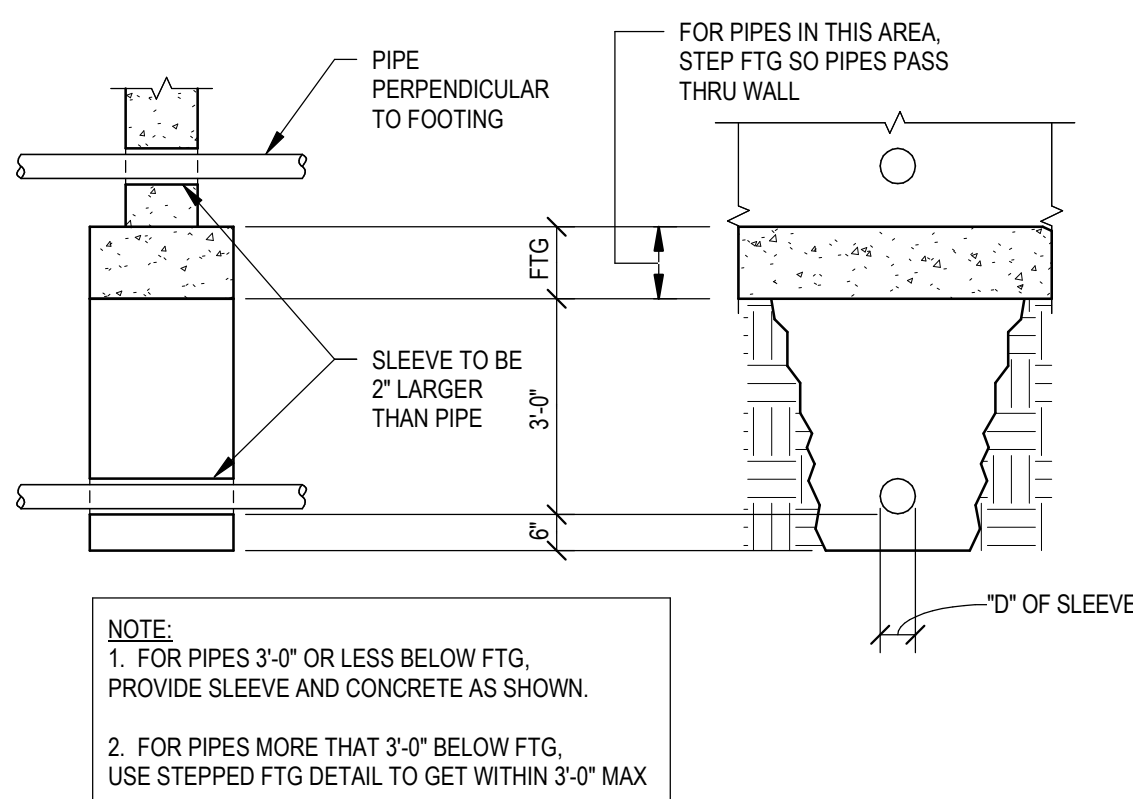
7.2.2. If the construction joints are changed after being reviewed, revised drawings shall be submitted for review.



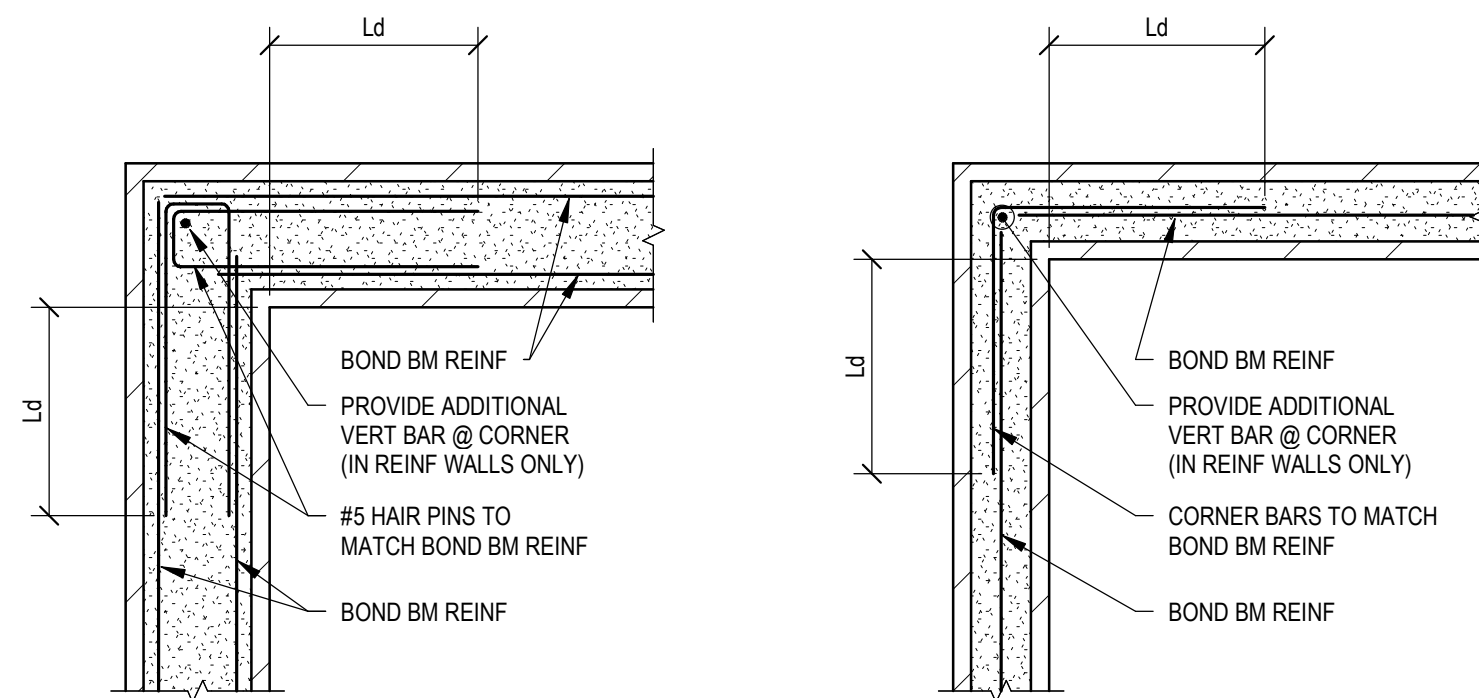
1 **STEPPED FOOTING DETAIL**
#00701 NO SCALE



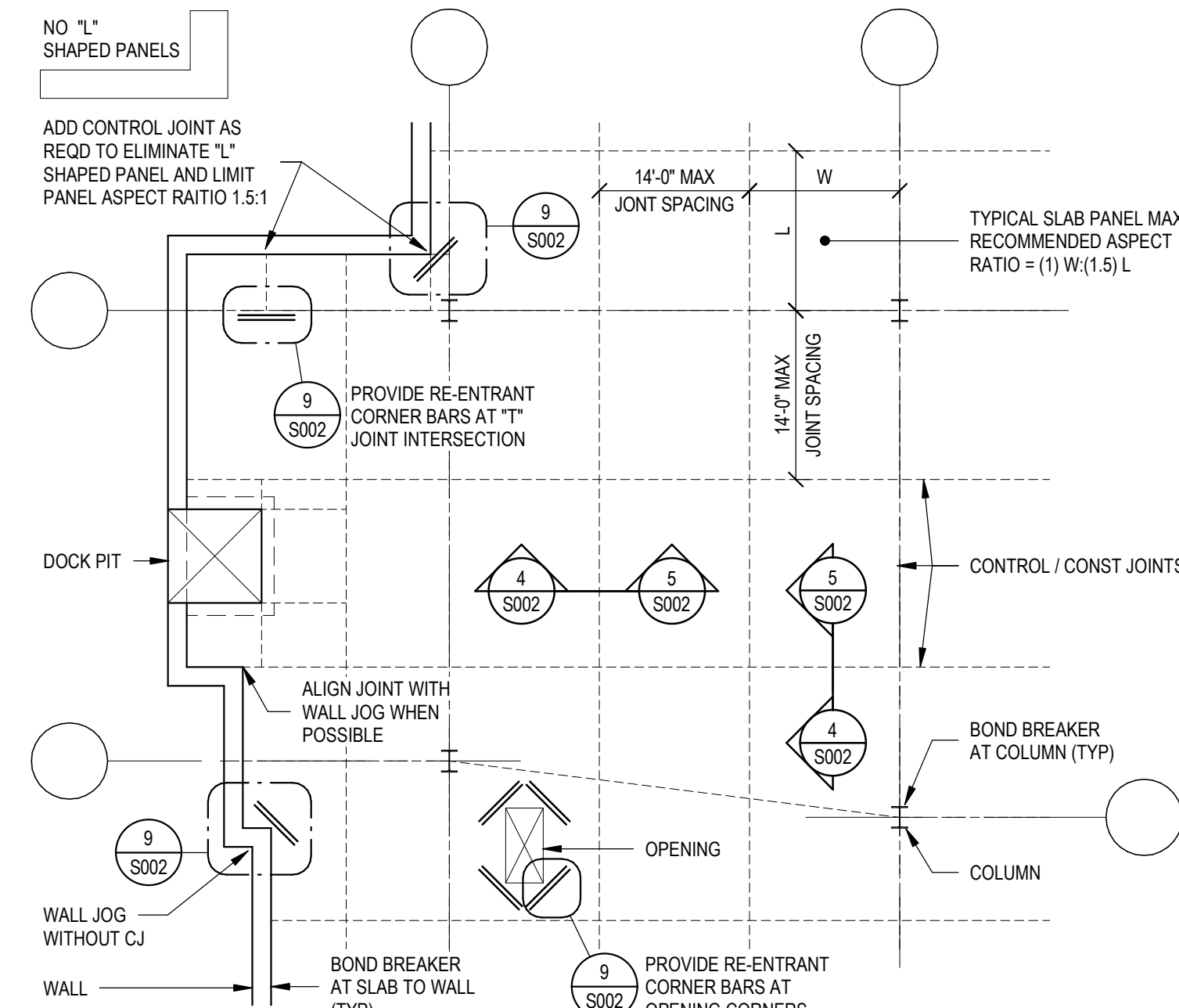
2 **UTILITIES PARALLEL TO FOOTINGS DETAIL**
#00702 NO SCALE



7 **PIPES PERPENDICULAR TO FOOTINGS DETAIL**
#00703 NO SCALE



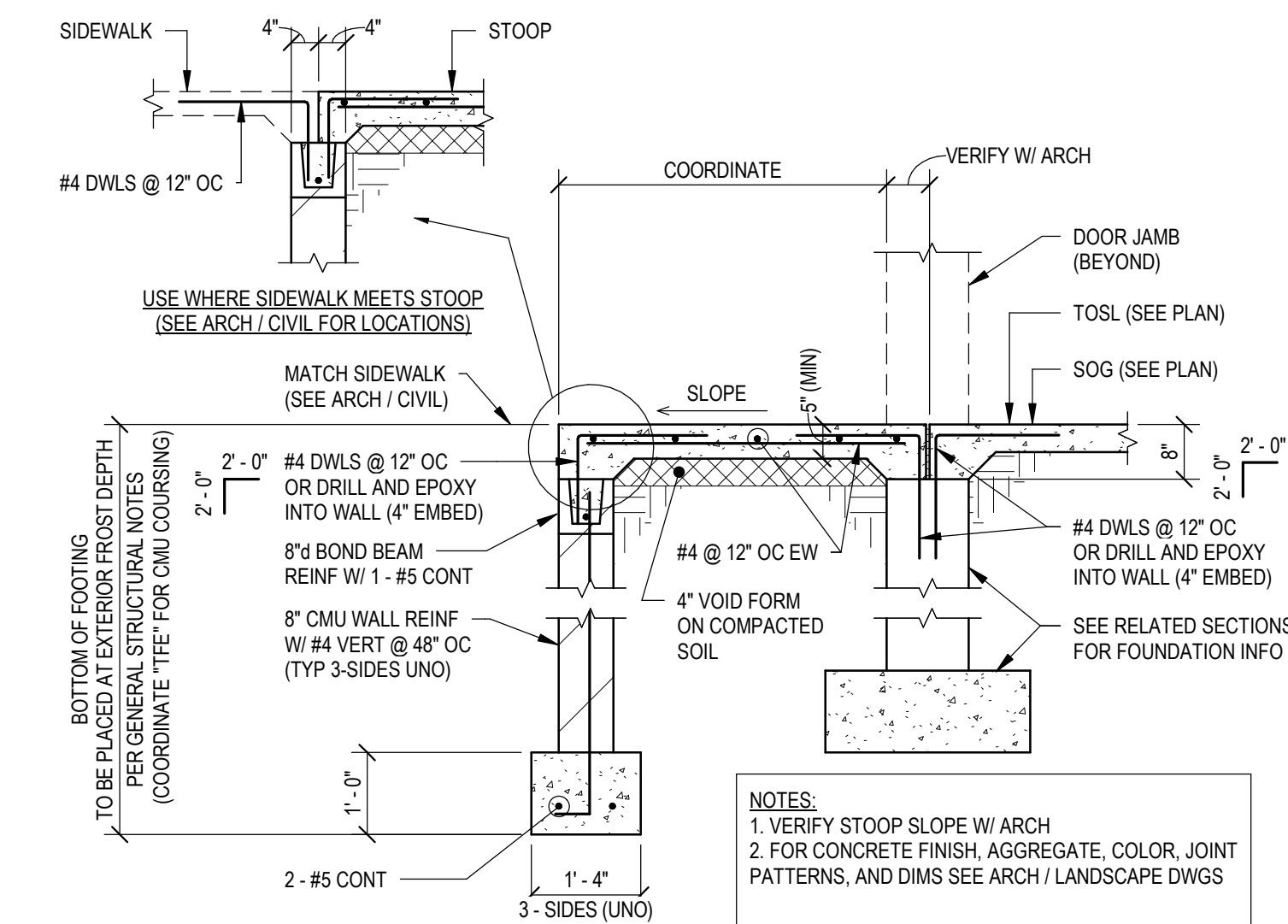
11 **CMU - REINFORCEMENT AT WALL INTERSECTIONS**
NO SCALE



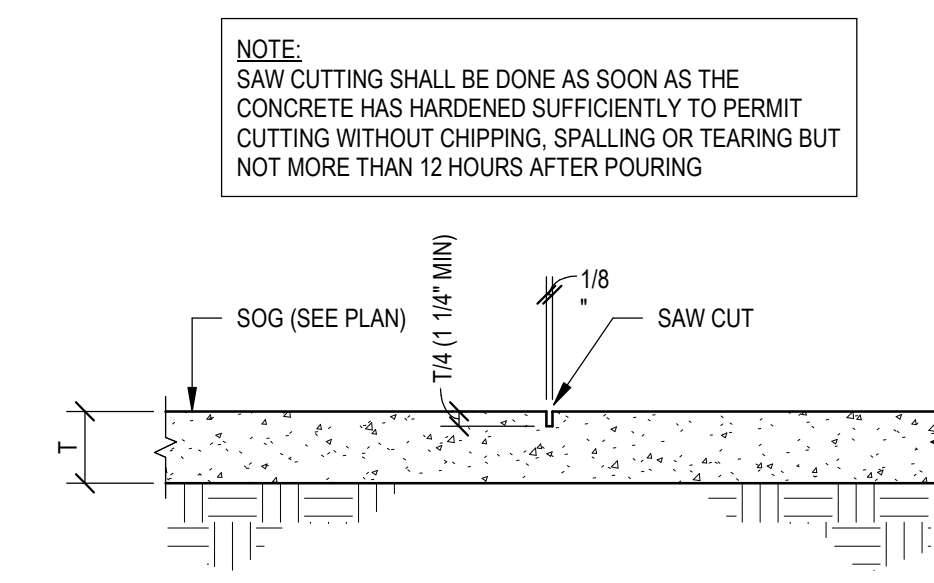
SLAB ON GRADE JOINTING AND ADDITIONAL REINFORCEMENT NOTES

1. MAX CONTROL JOINT SPACING TO BE 14'-0" OC EACH WAY.
2. CONTRACTOR TO SUBMIT SLAB ON GRADE JOINT PLAN THREE WEEKS PRIOR TO SLAB POUR.
3. LIMIT SLAB PANEL ASPECT RATIO TO 1.5:1.
4. MINIMIZE "L" SHAPED PANELS WHEN AT ALL POSSIBLE OR PROVIDE ADDITIONAL JOINTING OR RE-ENTRANT CORNER BARS.
5. WHENEVER POSSIBLE LOCATE JOINTS UNDER WALL AND FIXTURES.
6. SAW CUTTING SHALL BE DONE AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT CUTTING WITHOUT CHIPPING, SPALLING OR TEARING BUT NOT MORE THAN 12 HOURS AFTER POURING.

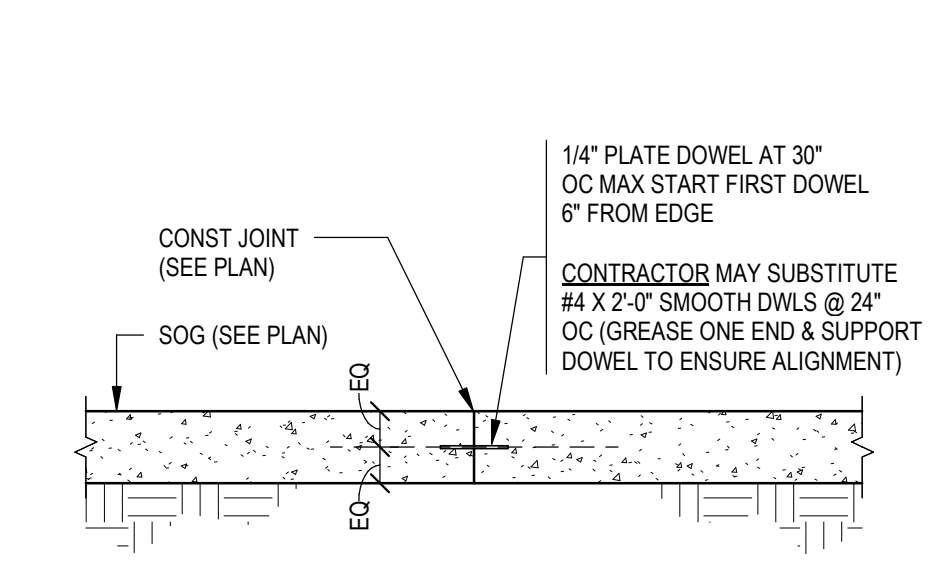
3 **SOG - JOINTING AND ADDITIONAL REINFORCEMENT REQUIREMENTS**
#01901 NO SCALE



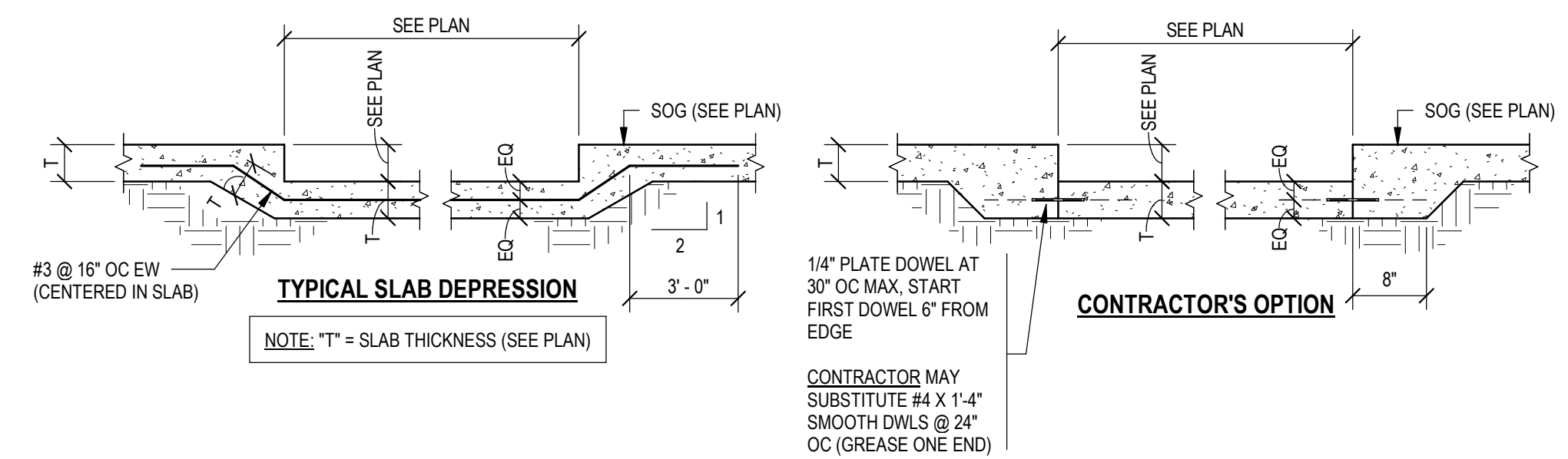
8 **CMU - STOOP**
#00209 NO SCALE



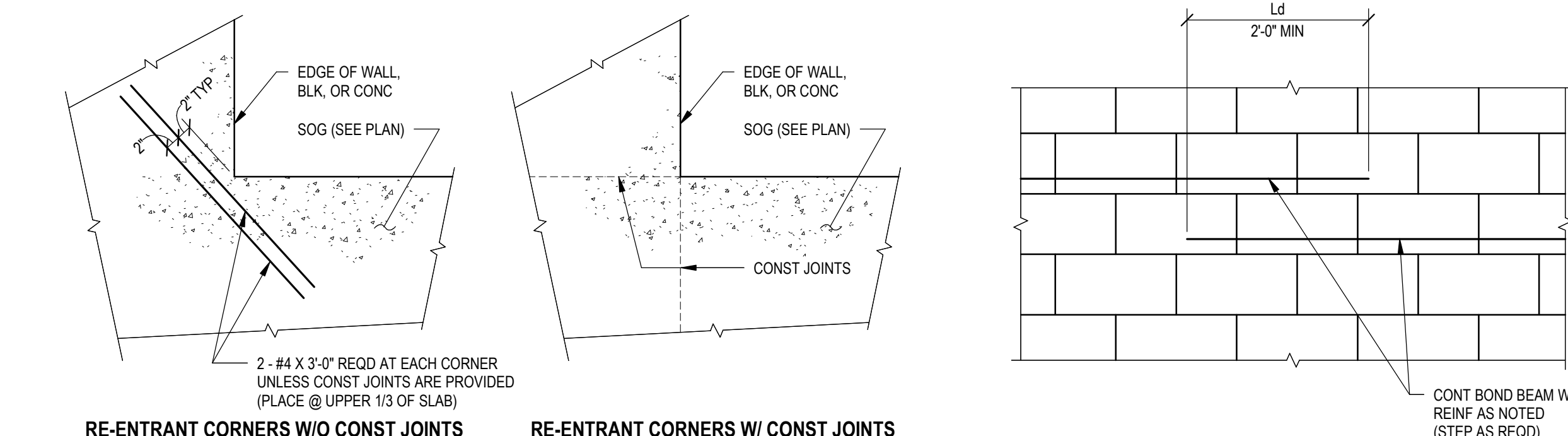
4 **SOG - CONTROL JOINT**
#01902 NO SCALE



5 **SOG - CONSTRUCTION JOINT**
#01903 NO SCALE



6 **SOG - RECESS / DEPRESSION**
#01905 NO SCALE



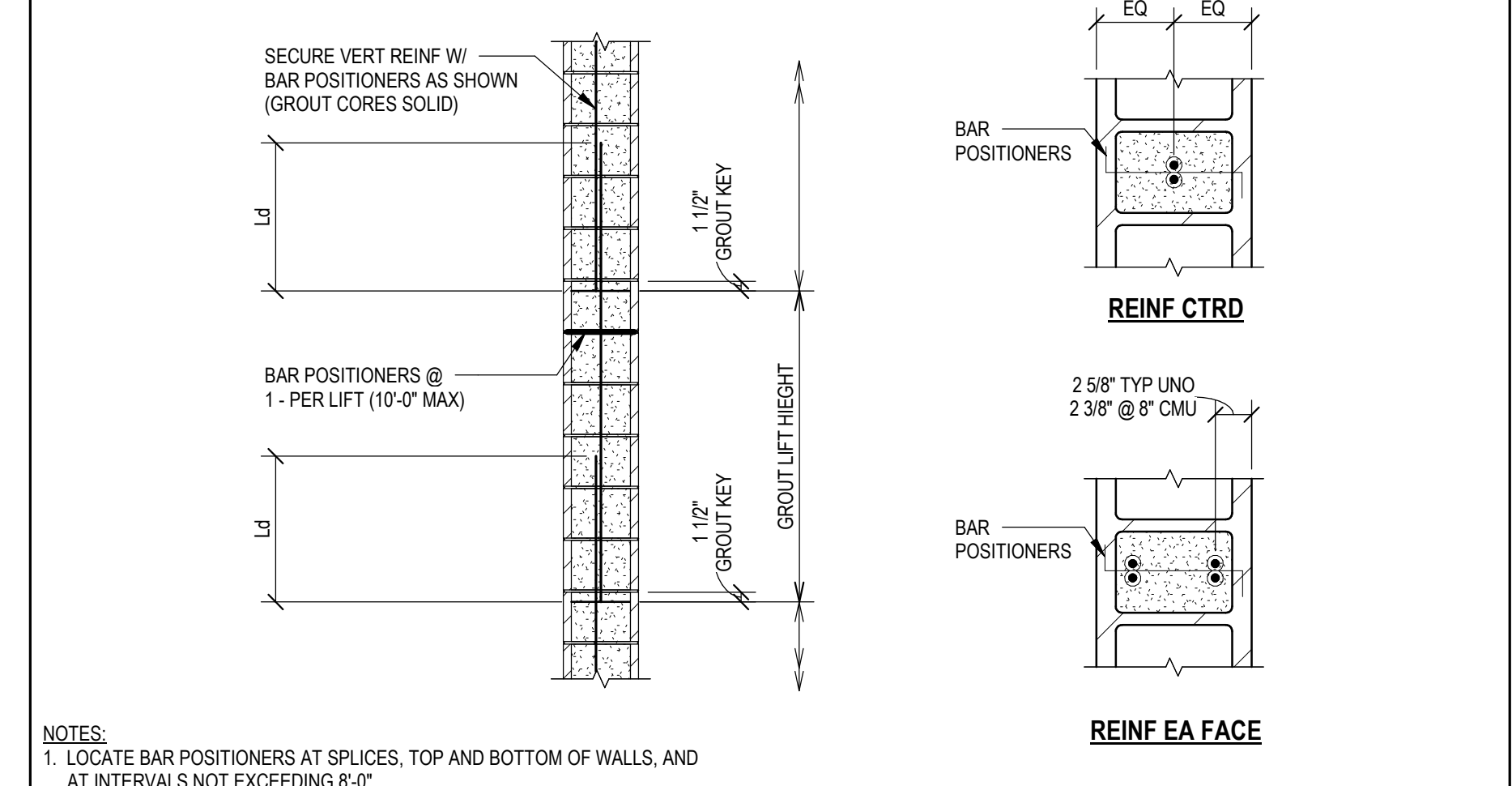
9 **SOG - RE-ENTRANT CORNERS**
#01904 NO SCALE

10 **CMU - BOND BEAM STEP**
#00206 NO SCALE

$f_m = 2,000 \text{ PSI}$

MASONRY (CMU) REINFORCEMENT DEVELOPMENT LENGTHS & LAP SPLICE LENGTHS (Ld)

BAR SIZE	CENTERED						EACH FACE
	6" BLOCK	8" BLOCK	10" BLOCK	12" BLOCK	14" BLOCK	16" BLOCK	
#3	12"	12"	12"	12"	12"	12"	12"
#4	17"	12"	12"	12"	12"	12"	22"
#5	27"	19"	15"	12"	12"	12"	34"
#6	52"	37"	29"	23"	20"	19"	54"
#7	-	51"	40"	32"	27"	24"	63"
#8	-	72"	61"	49"	41"	36"	72"
#9	-	-	78"	63"	53"	46"	81"



NOTES:

1. LOCATE BAR POSITIONERS AT SPLICES, TOP AND BOTTOM OF WALLS, AND AT INTERVALS NOT EXCEEDING 8'-0".



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SIGNATURES

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SUBMITTALS / REVISIONS

7.28.1017	90% REVIEW
8.10.2017	100% REVIEW
8.17.2017	BID SET

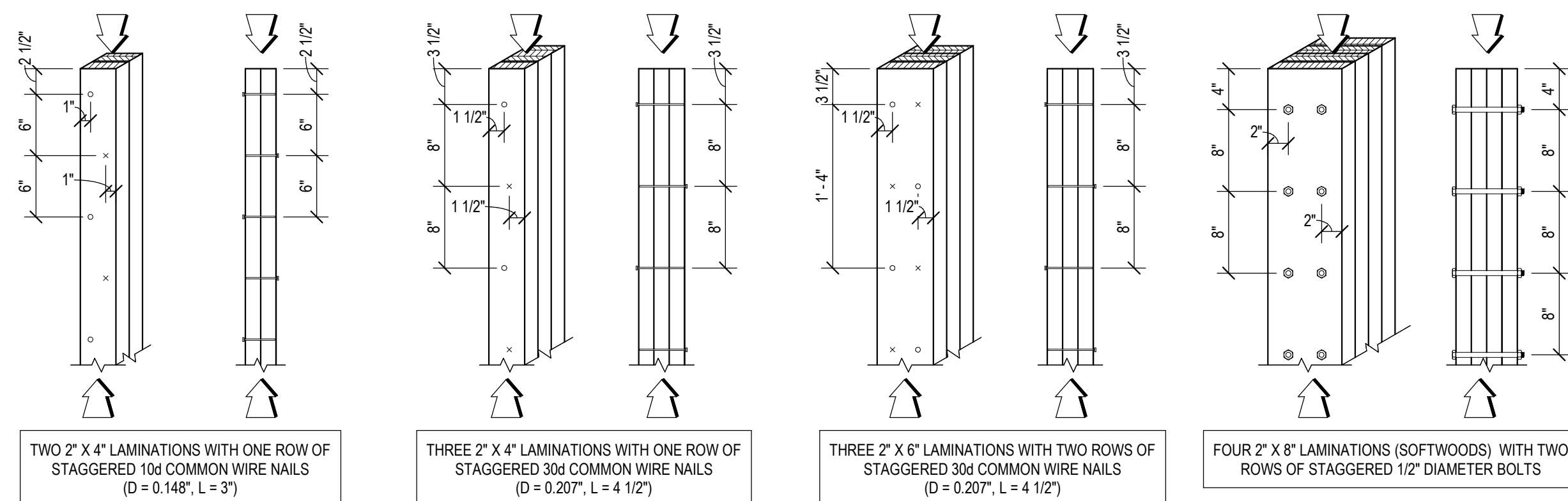
SCALE As indicated

Fox Pointe Townhomes, Austin MN

Three Rivers Community Action

TYPICAL DETAILS

S002



WOOD - STUD POST NAILING REQUIREMENTS
#10001 NO SCALE

WOOD SHEAR WALL LOCATION SCHEDULE					
FLOOR	PARTY WALLS	INTERIOR BRG WALLS	-	EXTERIOR WALLS	STAIR / ELEVATOR SHAFT WALLS
ROOF - LEVEL 2	SW-2	SW-5	-	SW-2	SW-5
LEVEL 2 - LEVEL 1	SW-2	SW-5	-	SW-2	SW-5

WOOD SHEAR WALL TYPE SCHEDULE								
MARK	WALL DESCRIPTION	FASTENER SIZE	FASTENING PATTERN		FASTENER LENGTH DEPTH	BLOCKE D	5/8" DIA ANCHOR BOLT SPACING	SILL PLATE CONNECTION THROUGH FLOOR SHEATHING
			EDGE	FIELD				
SW-1	1 - LAYER 5/8" GYP BD ONE SIDE	NO. 6 SCREW	8" OC	12" OC	1 1/4" LONG	NO	48" OC	(3) 16d NAILS PER STUD SPACE
SW-2	1 - LAYER 5/8" GYP BD ONE SIDE	6d	7" OC	7" OC	1 7/8" LONG	NO	48" OC	(3) 16d NAILS PER STUD SPACE
SW-3	1 - LAYER 5/8" GYP BD ONE SIDE	6d	4" OC	4" OC	1 7/8" LONG	NO	48" OC	(3) 16d NAILS PER STUD SPACE
SW-4	1 - LAYER 5/8" GYP BD ONE SIDE	6d	4" OC	4" OC	1 7/8" LONG	YES	48" OC	(3) 16d NAILS PER STUD SPACE
SW-5	1 - LAYER 5/8" GYP BD TWO SIDES	6d	7" OC	7" OC	1 7/8" LONG	NO	48" OC	(3) 16d NAILS PER STUD SPACE
SW-6	1 - LAYER 5/8" GYP BD TWO SIDES	6d	4" OC	4" OC	1 7/8" LONG	NO	48" OC	(6) 16d NAILS PER STUD SPACE
SW-7	1 - LAYER 5/8" GYP BD TWO SIDES	6d	4" OC	4" OC	1 7/8" LONG	YES	40" OC	(6) 16d NAILS PER STUD SPACE
SW-8	2 - LAYERS 5/8" GYP BD ONE SIDE	6d (BASE LAYER) 8d (FACE LAYER)	9" OC	9" OC	1 7/8" LONG 2 3/8" LONG	YES	48" OC	(3) 16d NAILS PER STUD SPACE
SW-9	2 - LAYERS 5/8" GYP BD TWO SIDES	6d (BASE LAYER) 8d (FACE LAYER)	9" OC	9" OC	1 7/8" LONG 2 3/8" LONG	YES	24" OC	(6) 16d NAILS PER STUD SPACE
SW-10	1 - LAYER 1/2" OSB PLYWOOD ONE SIDE	10d	6" OC	12" OC	1 1/2" PENETRATION INTO STUD (MIN)	YES	40" OC	(6) 16d NAILS PER STUD SPACE
SW-11	1 - LAYER 1/2" OSB PLYWOOD ONE SIDE	10d	4" OC	12" OC	1 1/2" PENETRATION INTO STUD (MIN)	YES	24" OC	(9) 16d NAILS PER STUD SPACE
SW-12	1 - LAYER 1/2" OSB PLYWOOD ONE SIDE	10d	3" OC	12" OC	1 1/2" PENETRATION INTO STUD (MIN)	YES	16" OC	(9) 16d NAILS PER STUD SPACE
SW-13	1 - LAYER 1/2" OSB PLYWOOD ONE SIDE	10d	2" OC	12" OC	1 1/2" PENETRATION INTO STUD (MIN)	YES	16" OC	(12) 16d NAILS PER STUD SPACE

NOTES - GENERAL:
1. SHEATHING SHOWN IS FOR SHEAR STRENGTH OF WALLS ONLY. ADDITIONAL LAYERS OF MATERIAL MAY BE REQUIRED FOR SOUND, FIRE RATING, WEATHER RESISTANCE OR OTHER ARCHITECTURAL REASONS. SEE ARCHITECTURAL WALL TYPES FOR ADDITIONAL INFORMATION.
2. ANY SHEATHING LAYERS APPLIED OUTSIDE OF RESILIENT CHANNEL DO NOT COUNT TOWARD MEETING THE REQUIREMENTS OF THIS SCHEDULE.
3. AT DOUBLE WALL LOCATIONS, THE DESIGNATION APPLIES TO EACH WALL WITHIN THE UNIT SEPARATION WALL ASSEMBLY.
4. ALL WALLS ABOVE ARE TYPICAL UNO ON PLAN.

NOTES - GYP PANEL SHEAR WALLS:
1. WHERE BLOCCKED WALLS ARE NOTED, BLOCKING SHALL BE 2" NOMINAL OR GREATER. ALL JOINTS IN SHEATHING SHALL OCCUR OVER AND BE FASTENED TO COMMON FRAMING MEMBERS OR COMMON BLOCKING.
2. 6D COOLER NAILS SHALL HAVE A DIAMETER OF 0.092", BE 1 7/8" LONG AND HAVE A 1/4" HEAD. ALTERNATE FASTENERS: WALLBOARD NAIL - 0.0915" DIAMETER X 1 7/8" LONG WITH 19/64" HEAD; 0.120 NAIL X 1 3/4" LONG WITH 3/8" HEAD.
3. 8D COOLER NAILS SHALL HAVE A DIAMETER OF 0.113", BE 2 3/8" LONG AND HAVE A 0.281" HEAD. ALTERNATE FASTENERS: WALLBOARD NAIL - 0.113" DIAMETER X 2 3/8" LONG WITH 3/8" HEAD; 0.120 NAIL X 2 3/8" LONG WITH 3/8" HEAD.
4. #6 SCREWS, WHERE NOTED ABOVE IN THE FASTENER SIZE COLUMN, SHALL BE TYPE S OR W DRYWALL SCREWS AND SHALL CONFORM TO ASTM C 1002.

NOTES - WOOD PANEL SHEAR WALLS:
1. PANELS SHALL NOT BE LESS THAN 4X 8' EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING.
2. NAILS SHALL BE LOCATED AT LEAST 3/8" FROM THE PANEL EDGES. MAX NAIL SPACING AT PANEL EDGES SHALL BE 6" O.C.
3. ALL WOOD PANEL SHEAR WALLS ARE TO BE BLOCCKED. ALL EDGES AND/OR JOINTS OF ALL PANELS SHALL BE SUPPORTED BY AND FASTENED TO COMMON FRAMING MEMBERS OR 2X NOMINAL (MIN) BLOCKING EXCEPT AS NOTED BELOW.
4. PROVIDE 3X NOMINAL WIDTH OF FRAMING MEMBERS OR BLOCKING AT LOCATIONS OF ADJOINING PANEL EDGES FOR SHEAR WALLS WITH NAILING AT 2" O.C.
5. WHERE WOOD PANELS ARE APPLIED ON BOTH FACES OF A SINGLE WALL AND NAIL SPACING IS LESS THAN 6" ON CENTER ON EITHER SIDE, EITHER PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR THE WIDTH OF THE NAILED FACE OF THE FRAMING MEMBERS SHALL BE 3" NOMINAL MINIMUM AND NAILING AT ADJOINING PANEL EDGES SHALL BE STAGGERED.
6. WOOD STRUCTURAL PANELS SHALL CONFORM TO THE REQUIREMENTS FOR ITS TYPE IN DOC PS1 OR PS2.

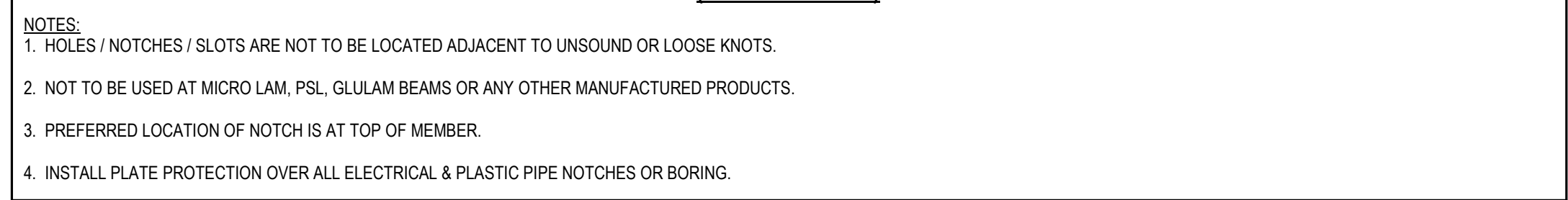
#10002

WOOD WALL FRAMING SCHEDULE					
FLOOR	PARTY WALLS	INT BRG WALLS	-	EXT WALLS	STAIR / ELEV SHAFT WALLS
ROOF - LEVEL 2	2 X 4 @ 16" OC	2 X 4 @ 16" OC	-	2 X 6 @ 16" OC	2 X 4 @ 16" OC
LEVEL 2 - LEVEL 1	2 X 4 @ 12" OC	2 X 4 @ 12" OC	-	2 X 6 @ 16" OC	2 X 4 @ 12" OC

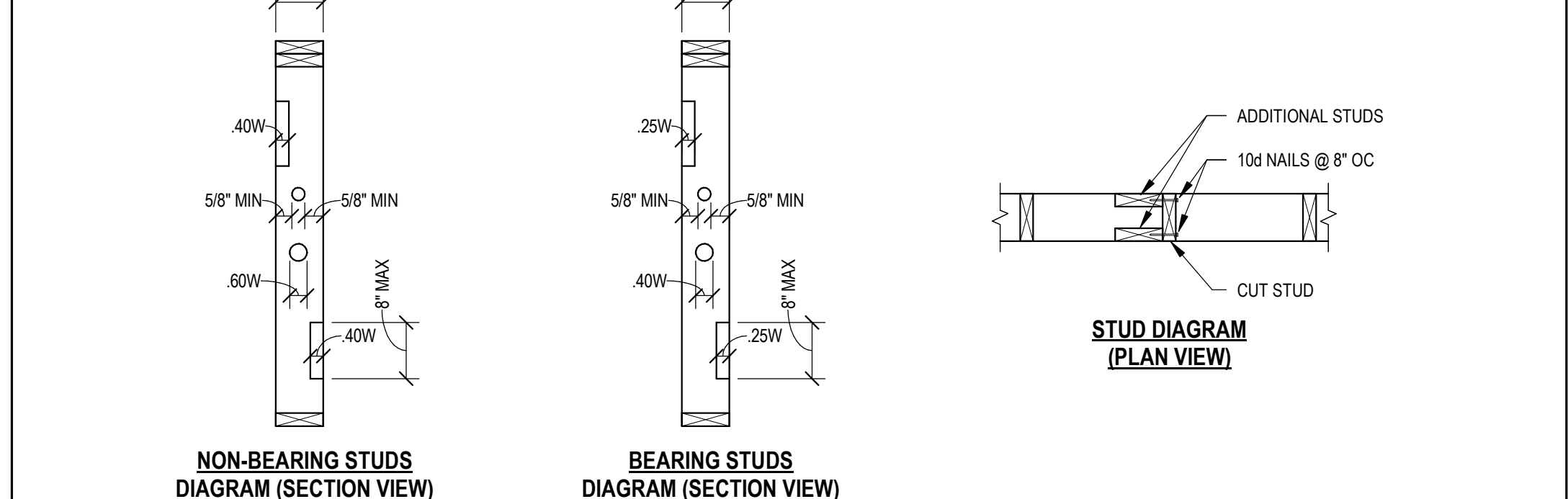
NOTE: 1. PARTY WALLS DESIGNATIONS REFER TO EACH WALL WITHIN THE UNIT SEPARATION WALL ASSEMBLY.

#10003

WOOD ALLOWABLE NOTCH & BORED HOLE DIMENSIONS								
JOIST & RAFTERS			BEARING STUDS			NON-BEARING STUDS		
NOMINAL	ACTUAL	d/6	d/4	d/3	.25W	.40W	.40W	.60W
4"	3 1/2"	5/8"	7/8"	1 1/8"	7/8"	1 3/8"	1 3/8"	2 1/8"
6"	5 1/2"	7/8"	1 3/8"	1 7/8"	1 3/8"	2 1/4"	2 1/4"	3 1/4"
8"	7 1/4"	1 1/4"	1 7/8"	2 3/8"	1 7/8"	2 7/8"	2 7/8"	4 3/8"
10"	9 1/4"	1 1/2"	2 3/8"	3 1/8"	N/A	N/A	N/A	N/A
12"	11 1/4"	1 7/8"	2 7/8"	3 3/4"	N/A	N/A	N/A	N/A
14"	13 1/4"	2 1/4"	3 3/8"	4 3/8"	N/A	N/A	N/A	N/A



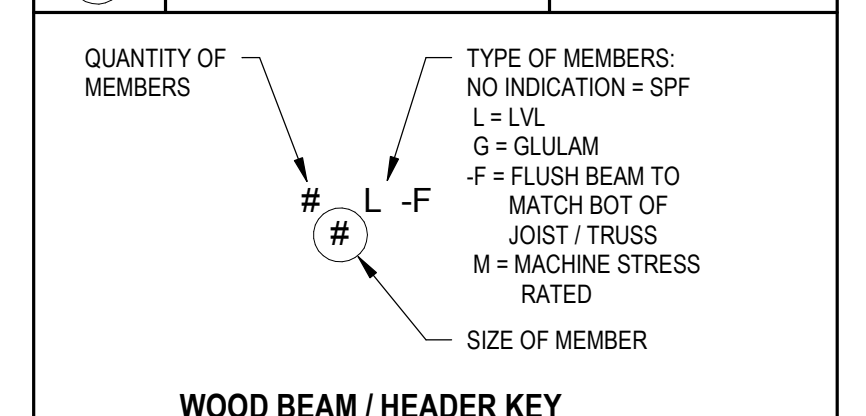
NOTES:
1. HOLES / NOTCHES / SLOTS ARE NOT TO BE LOCATED ADJACENT TO UNSOUND OR LOOSE KNOTS.
2. NOT TO BE USED AT MICRO LAM, PSL, GLULAM BEAMS OR ANY OTHER MANUFACTURED PRODUCTS.
3. PREFERRED LOCATION OF NOTCH IS AT TOP OF MEMBER.
4. INSTALL PLATE PROTECTION OVER ALL ELECTRICAL & PLASTIC PIPE NOTCHES OR BORING.



NOTES:
1. HOLES UP TO 60% ARE ALLOWED IN BEARING WALLS AT DOUBLE STUD CONDITIONS PROVIDED NOT MORE THAN TWO SUCCESSIVE DOUBLE STUDS ARE SO BORED.
2. AT BEARING AND NON-BEARING WALL LOCATIONS WHERE THE HOLE SIZE THROUGH THE STUDS EXCEEDS THE ABOVE ALLOWABLE LIMITS (40% AND 60% RESPECTIVELY) PROVIDE TWO ADDITIONAL STUDS PERPENDICULAR TO CUT STUD, SEE STUD DIAGRAM (PLAN VIEW) ABOVE.

#10004

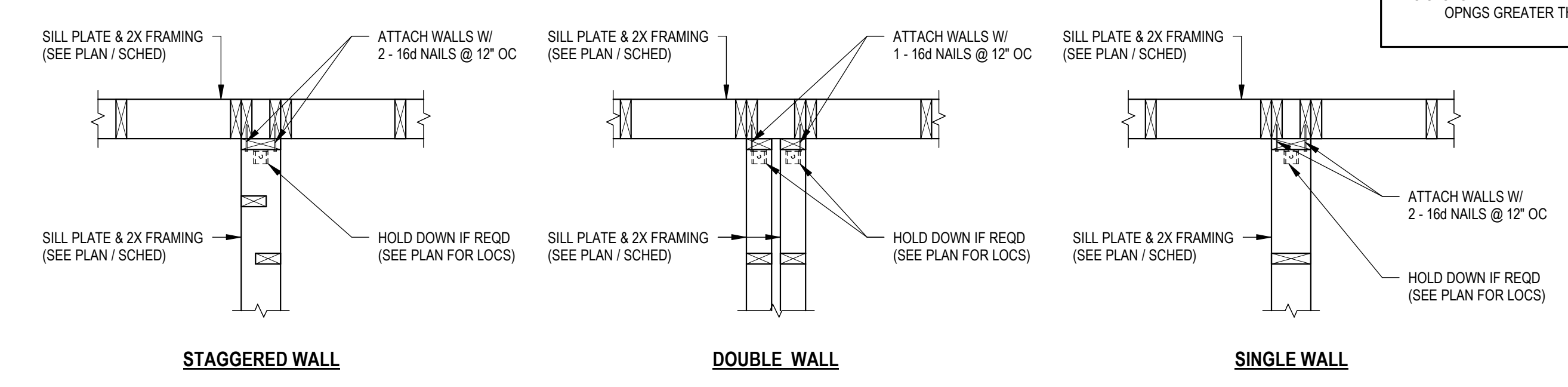
WOOD BEAM / HEADER SCHEDULE		
MARK	SIZE	COMMENTS
2 (6)	2 - 2 X 6	-
2 (8)	2 - 2 X 8	-
3 (8)	3 - 2 X 8	-
2 (10)	2 - 2 X 10	TYP UNO
3 (10)	3 - 2 X 10	-
2 (12)	2 - 2 X 12	-
3 (12)	3 - 2 X 12	-
2 (L 8)	2 - 1 3/4 X 7 1/4 LVL	-
3 (L 8)	3 - 1 3/4 X 7 1/4 LVL	-
2 (L 10)	2 - 1 3/4 X 9 1/4 LVL	-
3 (L 10)	3 - 1 3/4 X 9 1/4 LVL	-
4 (L 10)	4 - 1 3/4 X 9 1/4 LVL	-
2 (L 12)	2 - 1 3/4 X 11 1/4 LVL	-
3 (L 12)	3 - 1 3/4 X 11 1/4 LVL	-
4 (L 12)	4 - 1 3/4 X 11 1/4 LVL	-
2 (L 14)	2 - 1 3/4 X 14 LVL	-
3 (L 14)	3 - 1 3/4 X 14 LVL	-
4 (L 14)	4 - 1 3/4 X 14 LVL	-
2 (L 16)	2 - 1 3/4 X 16 LVL	-
3 (L 16)	3 - 1 3/4 X 16 LVL	-
4 (L 16)	4 - 1 3/4 X 16 LVL	-
2 (L 18)	2 - 1 3/4 X 18 LVL	-
3 (L 18)	3 - 1 3/4 X 18 LVL	-
4 (L 18)	4 - 1 3/4 X 18 LVL	-
4 (L 20)	4 - 1 3/4 X 20 LVL	-
3 (M 10)	3 - 1 3/4 X 9 1/4 MSR	-



TRIM STUD / POST TAG NOT COVERED BY NOTE 1

NOTES:
1. AT ALL LOCATIONS NOT INDICATED ON PLAN OR PER NOTE 2, PROVIDE 2 - 2X TRIM STUDS AND 1 - 2X KING STUD.
2. AT EXTERIOR WALL OPENINGS PROVIDE THE FOLLOWING KING STUDS:
OPNGS 4'-0" OR LESS = 1 - 2X KING STUD
OPNGS GREATER THAN 4'-0" TO 8'-0" = 2 - 2X KING STUDS
OPNGS GREATER THAN 8'-0" TO 12'-0" = 3 - 2X KING STUDS
OPNGS GREATER THAN 12'-0" = NOTIFY ENGINEER OF RECORD

#10005



WOOD - CONNECTION AT WALL INTERSECTION
#10434 NO SCALE

#10434

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WILLIAM T. BULLER 8.17.2017 20995 reg. no.

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PROJECT INFO
Commission No. B/A: 615-19
Drawn By: JR/MDS
Issue Date: 8.17.2017

SUBMITTALS / REVISIONS
7.28.1017 90% REVIEW
8.10.2017 100% REVIEW
8.17.2017 BID SET

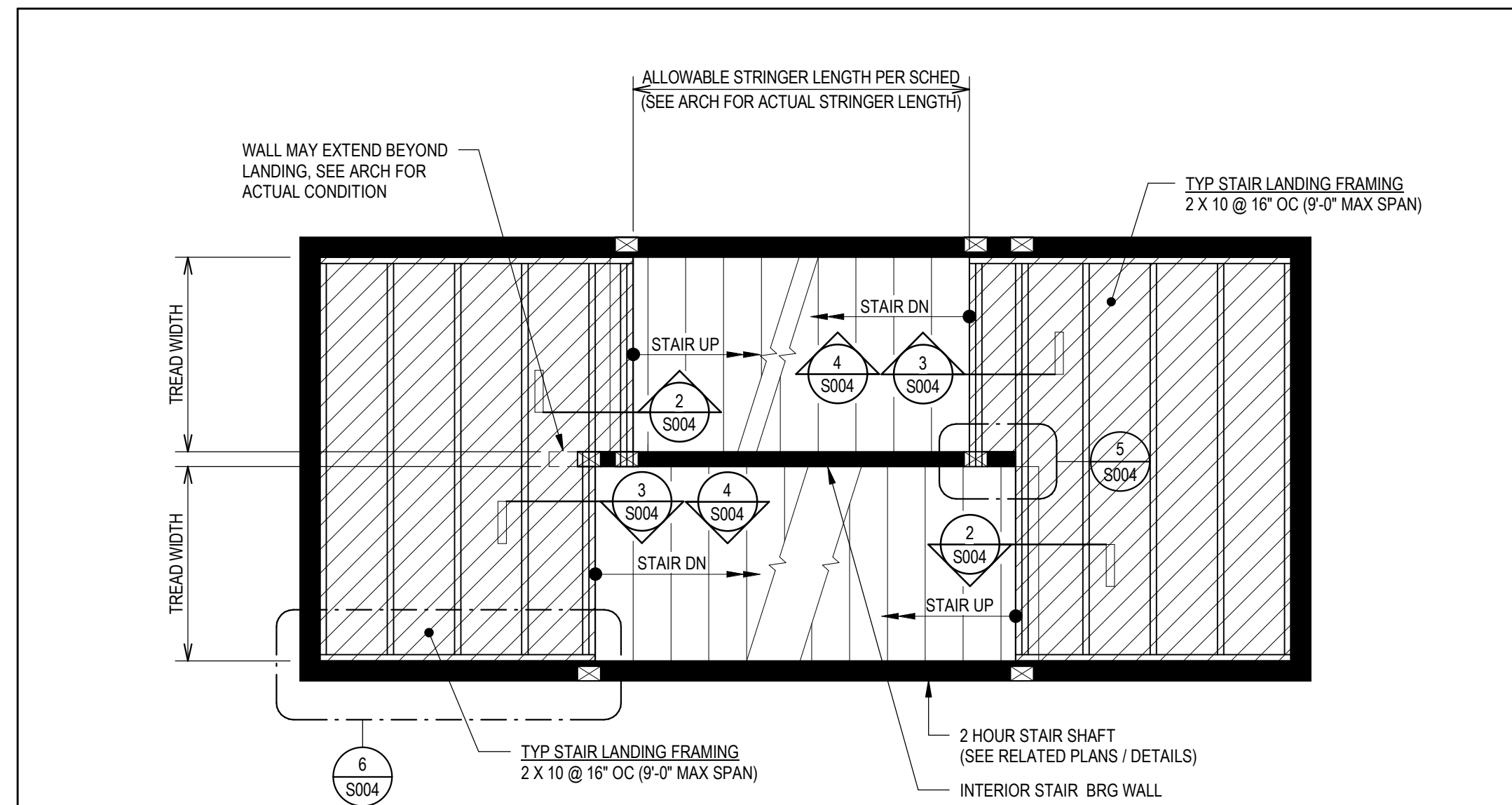
SCALE As indicated

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Three Rivers Community Action

TYPICAL DETAILS - WOOD SCHEDULES

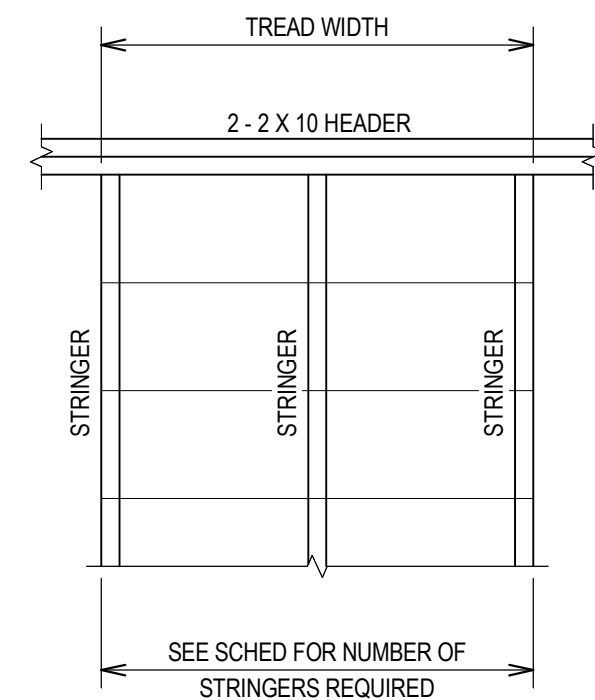
S003



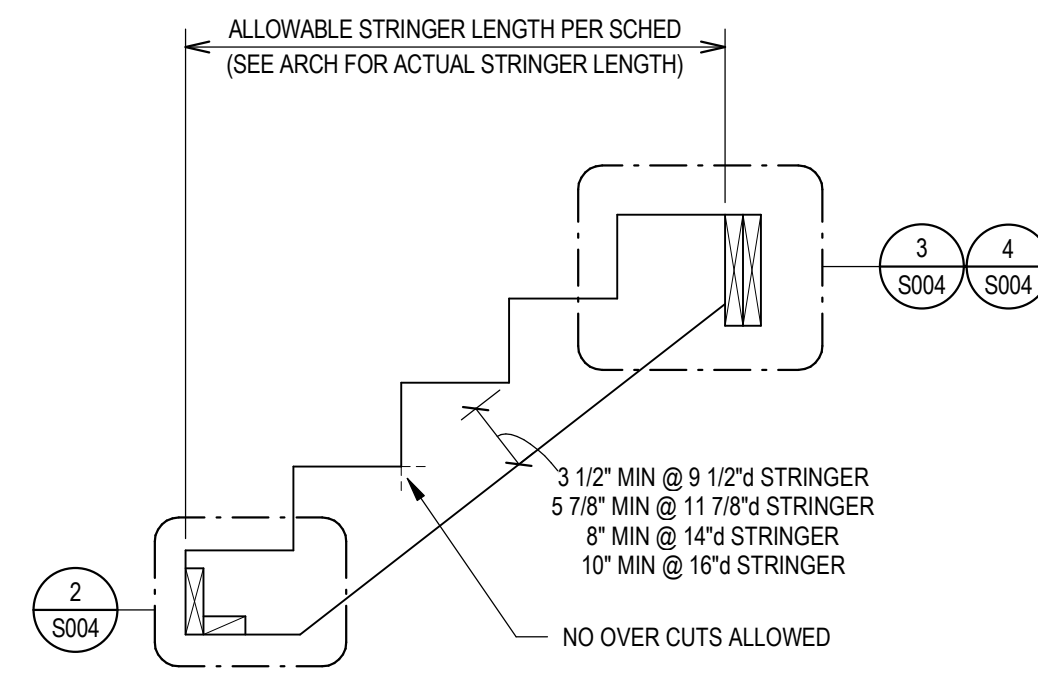
TYPICAL STAIR FRAMING CONCEPT PLAN - SEE ARCH FOR ACTUAL STAIR CONFIGURATION

42" TREAD WIDTH AND LESS	ALLOWABLE STRINGER LENGTH	LSL SIZE TO BE USED TO CUT STRINGER	NUMBER OF STRINGERS REQUIRED
	5'-10"	1 3/4" X 9 1/2"	3
	9'-2"	1 3/4" X 11 7/8"	3
	12'-6"	1 3/4" X 14"	3
	14'-0"	1 3/4" X 16"	3

48" TREAD WIDTH AND LESS	ALLOWABLE STRINGER LENGTH	LSL SIZE TO BE USED TO CUT STRINGER	NUMBER OF STRINGERS REQUIRED
	6'-8"	1 3/4" X 9 1/2"	4
	11'-8"	1 3/4" X 11 7/8"	4
	14'-10"	1 3/4" X 14"	4
	16'-8"	1 3/4" X 16"	4



STAIR STRINGER PLAN VIEW REFERENCE

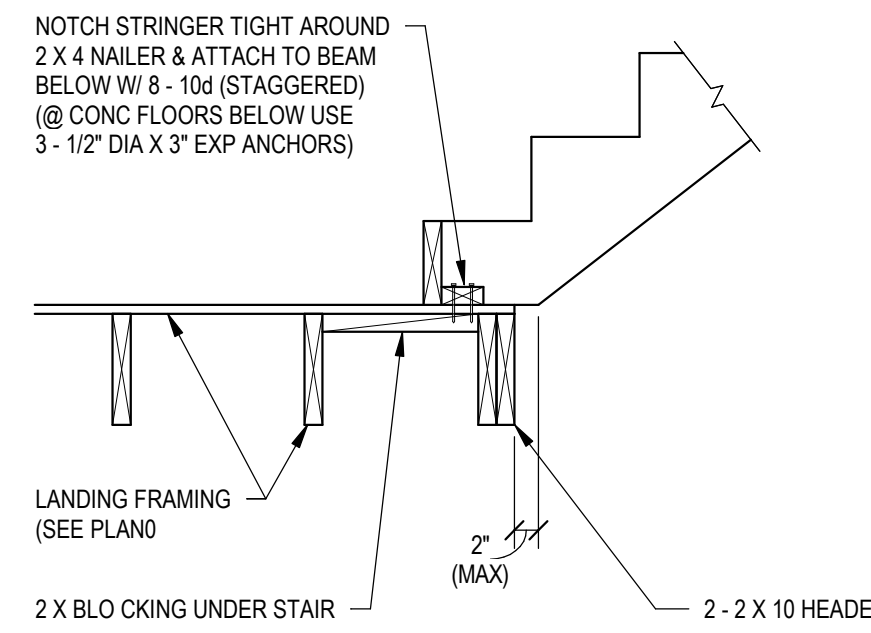


STAIR STRINGER SECTION VIEW REFERENCE

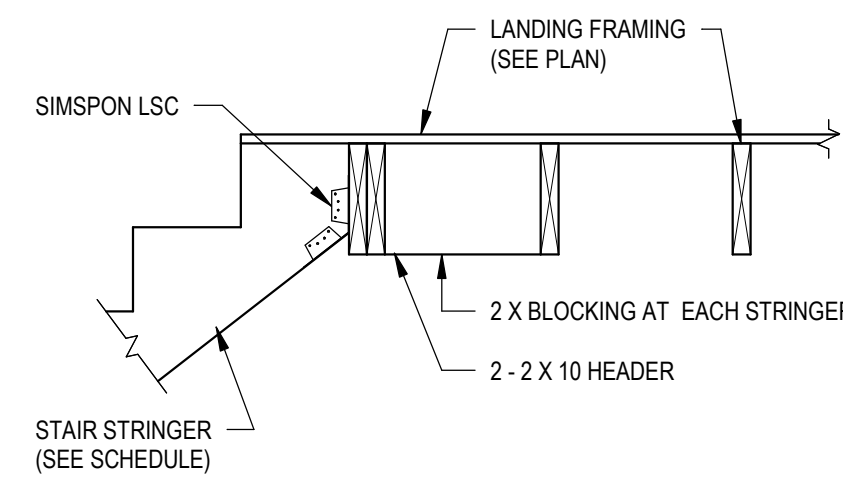
NOTES:

1. ALL STRINGERS TO BE CUT FROM TRUS-JOIST 1 3/4" TIMBERSTRAND 1.55E LSL.
2. FOR LONGER RUNS CONTACT ENGINEER OF RECORD.
3. DO NOT OVER CUT STAIR STRINGERS.
4. PLACE ONE STRINGER AT EACH END OF TREAD AND PLACE THE THIRD STRINGER AT CENTER OF TREAD.

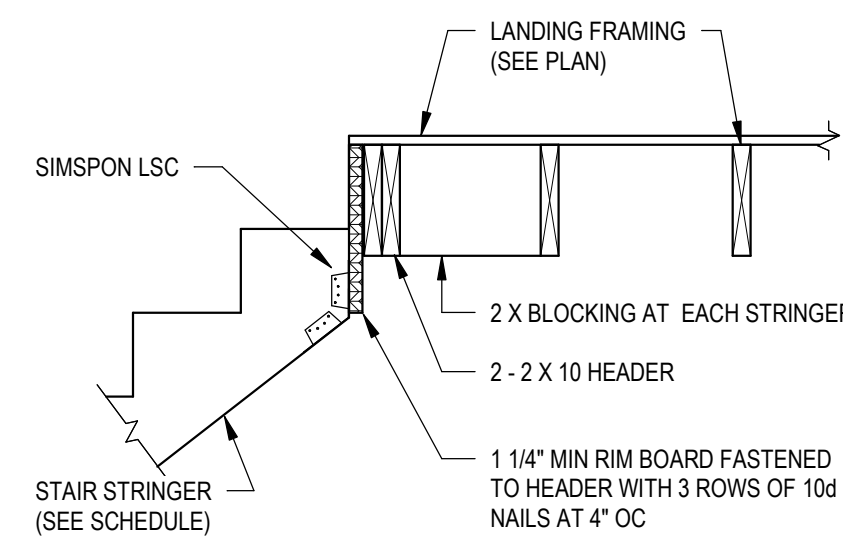
1 S004 TYPICAL STAIR FRAMING PLAN AND DETAILS #10101 NO SCALE



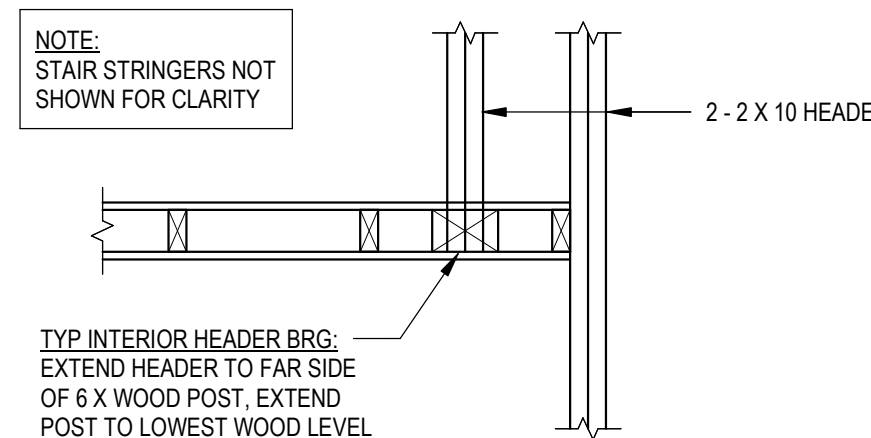
2 S004 STAIR STRINGER AT BOTTOM OF LANDING #10102 NO SCALE



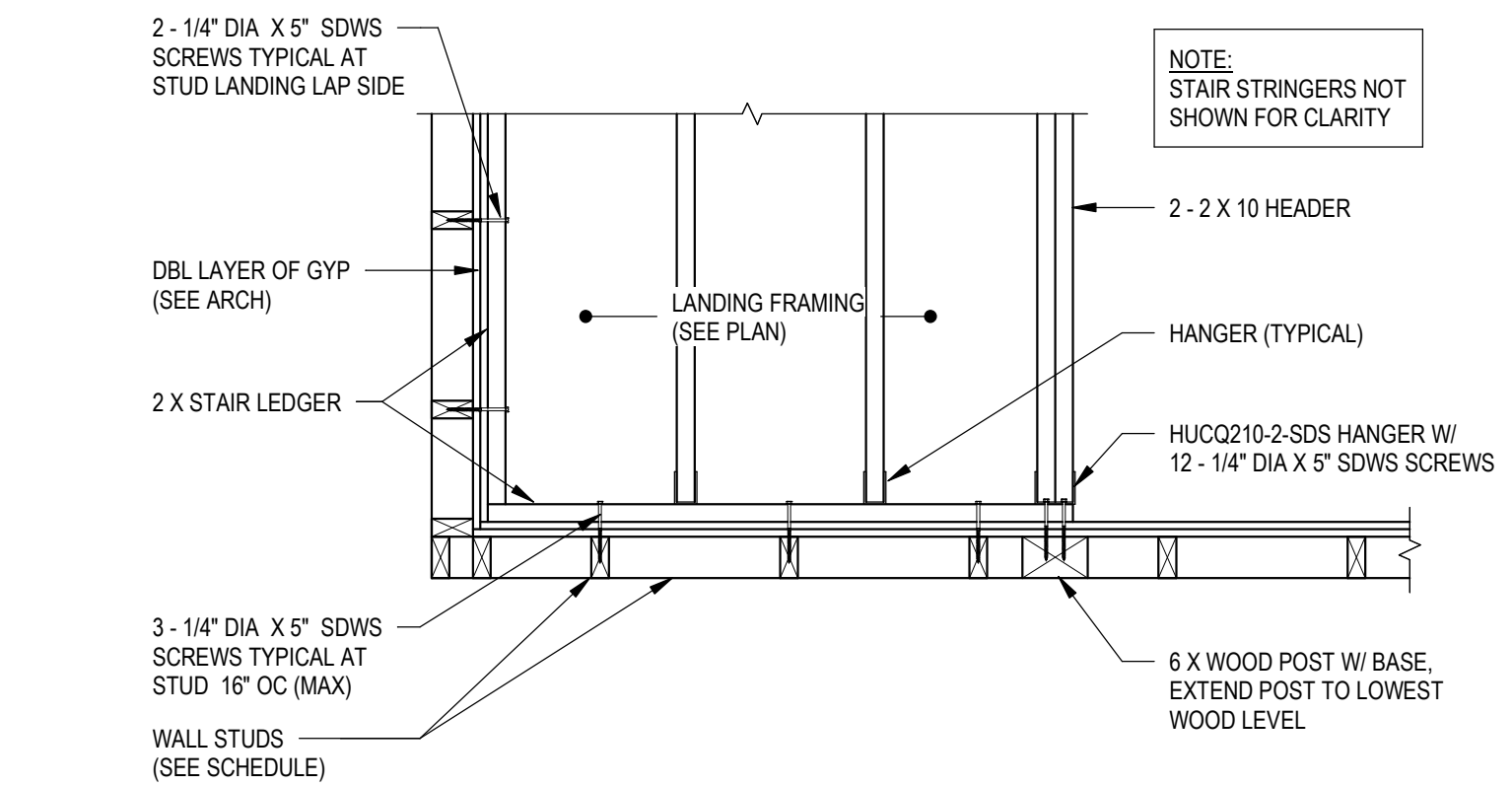
3 S004 STAIR STRINGER FLUSH WITH TOP OF LANDING #10103 NO SCALE



4 S004 STAIR STRINGER DROPPED AT TOP OF LANDING #10104 NO SCALE



5 S004 STAIR LANDING FRAMING #10108 NO SCALE



6 S004 STAIR LANDING FRAMING AT WOOD SHAFT WALLS #10105 NO SCALE



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WILLIAM T. BULLER 20995 reg. no.

6.30.2018 reg. exp. date



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7.28.2017 90% REVIEW
 8.10.2017 100% REVIEW
 8.17.2017 BID SET

SCALE
 As indicated

Fox Pointe Townhomes, Austin MN

Three Rivers Community Action

TYPICAL DETAILS - WOOD STAIR FRAMING

S004



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8.10.2017 100% REVIEW
8.17.2017 BID SET

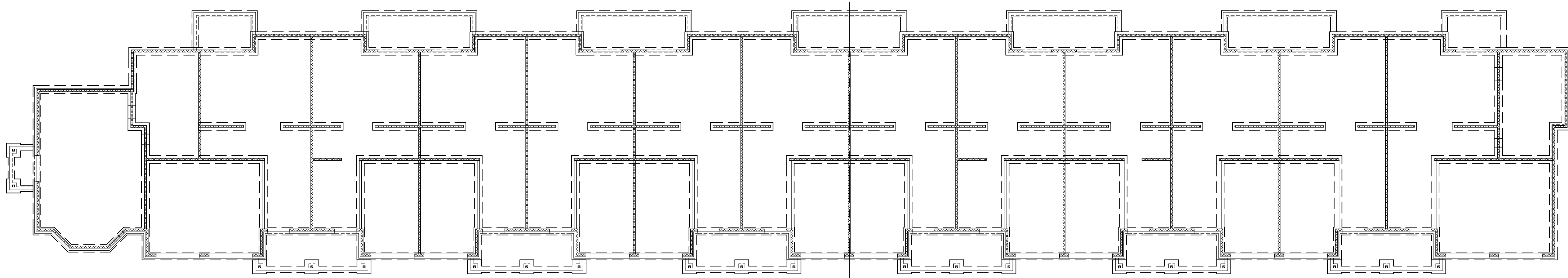
SCALE
As indicated

Fox Pointe Townhomes, Austin
MN

Three Rivers Community Action

OVERALL FOUNDATION PLAN
AND NOTES BUILDING A

S110



WEST

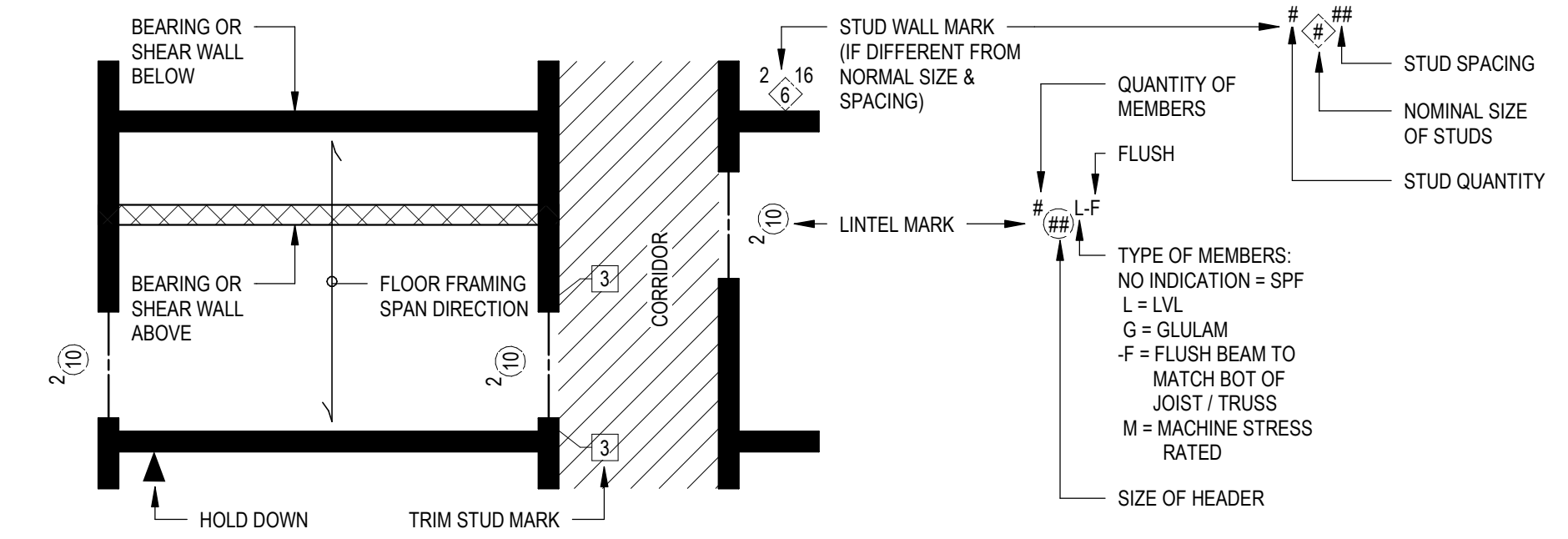
EAST



1 FOUNDATION PLAN - BUILDING A (OVERALL)
S110 NOT TO SCALE

WOOD FRAMING PLAN LEGEND

- DENOTES 2X FLOOR OR ROOF FRAMING
- DENOTES BEARING OR SHEAR WALLS FROM LEVEL BELOW.
- DENOTES BEARING OR SHEAR WALLS FROM LEVEL ABOVE.

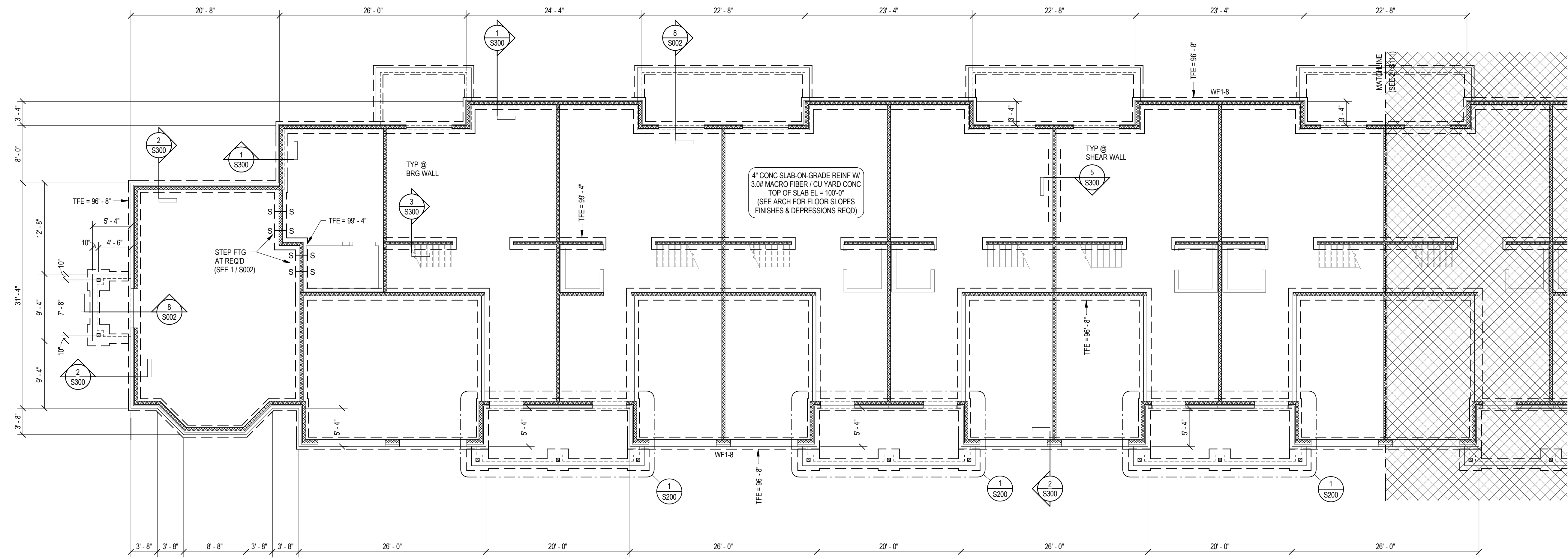


BUILDING A - FOUNDATION PLAN SHEET NOTES

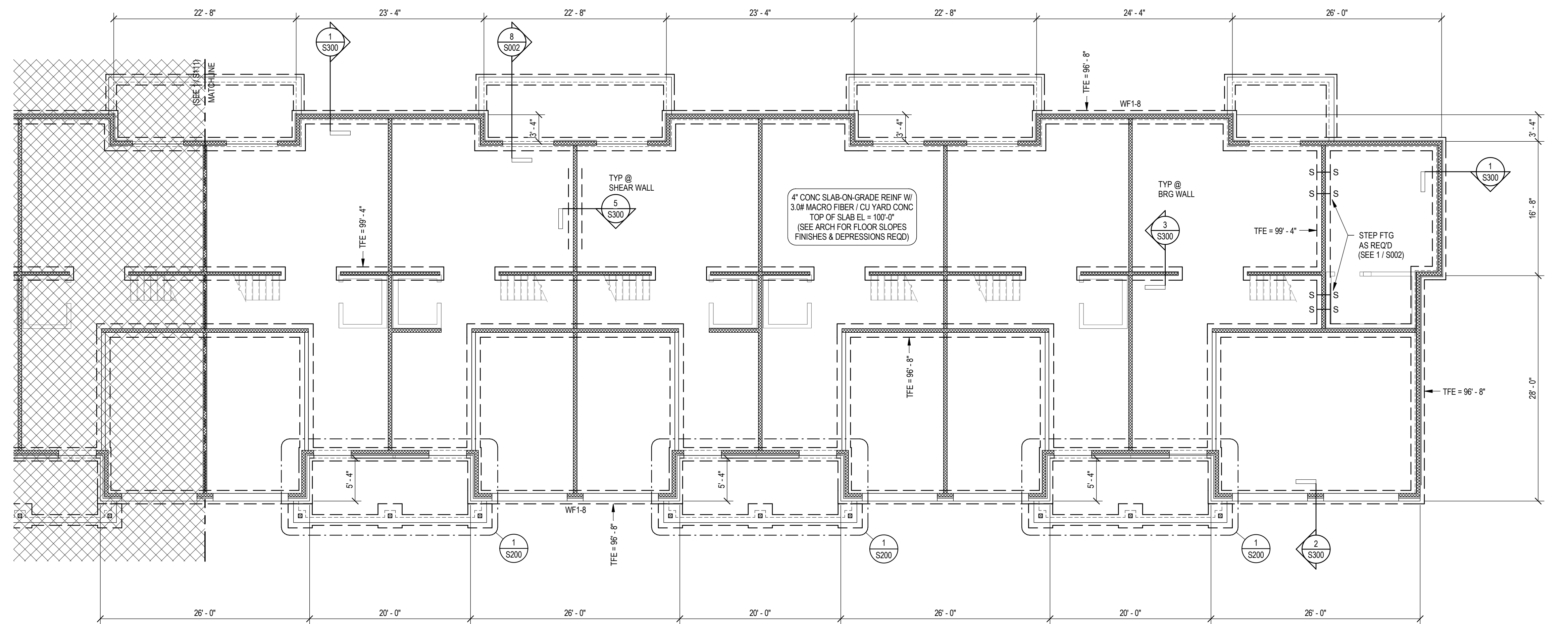
- A. General**
- See Cover Sheet for structural sheet index defining sheet name, sheet number and issue status.
 - See Cover Sheet for Structural Abbreviations, Typical Marks & Symbols and Plan Legends.
 - Review General Structural Notes and typical details in conjunction with applicable plans. See sheet index on Cover Sheet.
 - Elevation 100'-0" on these drawings matches elevation ###.#' on Civil drawings.
 - Coordinate stoop sizes and locations with Architectural and Civil. See typical details for stoop construction.
 - If present, coordinate the sizes and locations of tunnels, electrical cells, pits, pipes, floor drains, trenches and floor recesses with Architectural, Structural, Mechanical, Civil, and Electrical drawings.
 - Frost protection is required for all foundations if winter conditions are present.
- B. Footings**
- "F-" denotes footing mark. See schedule for size and reinforcing. "WF-" denotes wall footing mark. See schedule for size and reinforcing.
 - Top of footing elevation (TPE) is shown on plan. See typical detail sheets for stepped footing detail.
 - Locations of footing steps on plan are approximate. Contractor shall verify all step locations with Civil grade elevations to maintain minimum frost depths and all Mechanical, Electrical and Plumbing pipe elevations prior to pouring footings. Coordinate footing step locations with precaster if applicable. See typical detail sheets for pipes perpendicular and parallel to footing.
 - All footings shall be centered below walls, columns and piers unless dimensioned otherwise.
- C. CMU / Masonry Piers**
- "MP-" denotes masonry pier mark. See pier schedule for size and reinforcing.
 - Top of pier elevation (TPE) is shown on plan.
 - All CMU / masonry piers shall be centered on grid intersections unless dimensioned otherwise on plan.
- D. Slab On Grade**
- Top of slab elevation (TOSL) is shown on plan.
 - See Architectural drawings for depressions, slab slopes, finishes and drains.
 - Concrete slab thickness shall be as noted on plan. See Architectural drawings for vapor barrier requirements and geotech report for slab sub-base thickness and material specification.
 - Unless noted otherwise, reinforce slab with 3.0 pounds of macro fiber per cubic yard of concrete. Coordinate finishing requirements with owner. Contractor may substitute 6 x 6 - W1.4 x W1.4 WMF chaired in place 1" below top of slab in lieu of macro fiber.
 - Provide control joints (CJ) and construction joints (CONST JT) in slab. See typical foundation details.
 - Concrete Contractor shall submit location of slab construction joints for review three weeks minimum prior to slab pour.
- E. CMU Walls**
- "CMU-" denotes CMU wall reinforcing mark. See schedule and typical detail sheets for additional reinforcing requirements.
 - Coordinate all exterior wall finish ledge elevations for brick, stone, etc. with architectural drawings.
- 5. Provide dowels to walls, columns and piers above. Hooked dowels shall be tied to footing reinforcing prior to pouring concrete.**

BUILDING A - FRAMING PLAN SHEET NOTES

- A. General**
- See Cover Sheet for structural sheet index defining sheet name, sheet number and issue status.
 - See Cover Sheet for Structural Abbreviations, Typical Marks & Symbols and Plan Legends.
 - Review General Structural Notes and typical details in conjunction with applicable plans. See sheet index on Cover Sheet.
 - Elevation 100'-0" on these drawings matches elevation ###.#' on Civil drawings.
- B. Prefabricated Wood Trusses**
- See Architectural for truss bearing elevations.
 - Prefabricated wood trusses shall be designed to resist all loads indicated on plans, notes and details. Supplier shall submit calculations signed and stamped by a registered engineer in the state of the project for review and approval prior to fabrication. See General Structural Notes and specifications for other requirements.
 - Truss spacing by truss supplier. Spacing not to exceed 24" oc max.
- C. Plywood Diaphragms**
- See Architectural for top of sheathing elevations.
 - Floor sheathing shall be 3/4" APA rated plywood / OSB. Attach sheathing to floor framing members with 10d nails (0.128" diameter x 3" long) at 6" OC at panel edges and 12" OC at intermediate supports.
 - Roof sheathing shall be 5/8" APA rated plywood / OSB. Attach sheathing to roof framing members with 10d nails (0.128" diameter x 3" long) at 6" OC at panel edges and 12" OC at intermediate supports.
 - All diaphragm nailing shall be done with common nails and shall be driven flush but not fracture the surface of the sheathing. Box or sinker nails must be approved prior to use.
- D. Wood framed Construction**
- See General Structural Notes for additional wood construction information.
 - See schedules for load bearing walls, shear walls, beam / header information, etc.
 - All bottom plates or other wood in contact with precast, concrete or masonry shall be treated.
 - Anchors, hangers and other metal connectors in contact with pressure treated lumber shall be hot dipped galvanized, G185 treated or approved for use with pressure treated lumber by EOR.
 - Provide a minimum of 2 studs (3" length of bearing) at all beam, header and girder truss bearing unless noted otherwise on plan. Full width of beam, header and girder truss must be supported by an equal width of 2X or PSL post. Where posts / stud packs consisting of 3 or more studs occur on a level, identical posts / stud packs shall be constructed on all floors below to final supporting level unless noted otherwise on plan. Solid blocking shall be placed in floor framing space between upper and lower post / stud packs.
 - All wood beams connected to 4 x 4 posts or larger to use Simpson PC/EPC caps or equivalent unless noted otherwise.
 - Mechanical and electrical contractors to design their systems to accommodate 3/8" vertical shrinkage of the structure per floor, from lowest floor to roof.
 - Provide loose brick support lintels for the following openings:
 - L8 X 4 X 1/2 for openings less than 16'-8" wide
 - Openings wider than 16'-8" contact EOR
 - a. Loose lintels to be placed with vertical leg of angle tight against the back of brick
 - b. Provide 8" min bearing at each end of loose lintel



1 FOUNDATION PLAN - BUILDING A - WEST
S111 1/8" = 1'-0"



2 FOUNDATION PLAN - BUILDING A - EAST
S111 1/8" = 1'-0"



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WILLIAM T. BULLER 20995 reg. no.

William T. Buller 6.30.2018 reg. exp. date



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PROJECT INFO

Commission No.
B/A: 615-19
Drawn By:
JR/MDS
Issue Date
8.17.2017

SUBMITTALS / REVISIONS

7.28.1017 90% REVIEW
8.10.2017 100% REVIEW
8.17.2017 BID SET

SCALE
1/8" = 1'-0"

Fox Pointe Townhomes, Austin
MN

Three Rivers Community Action

FOUNDATION PLAN
BUILDING A

S111



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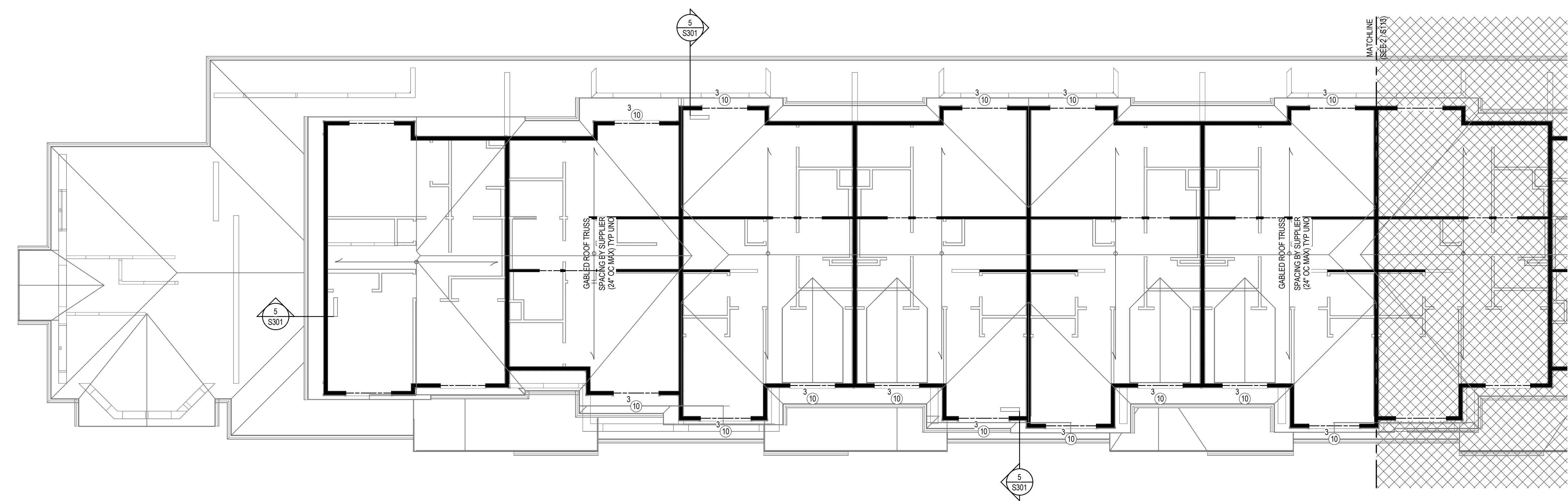
SCALE
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Fox Pointe Townhomes, Austin MN

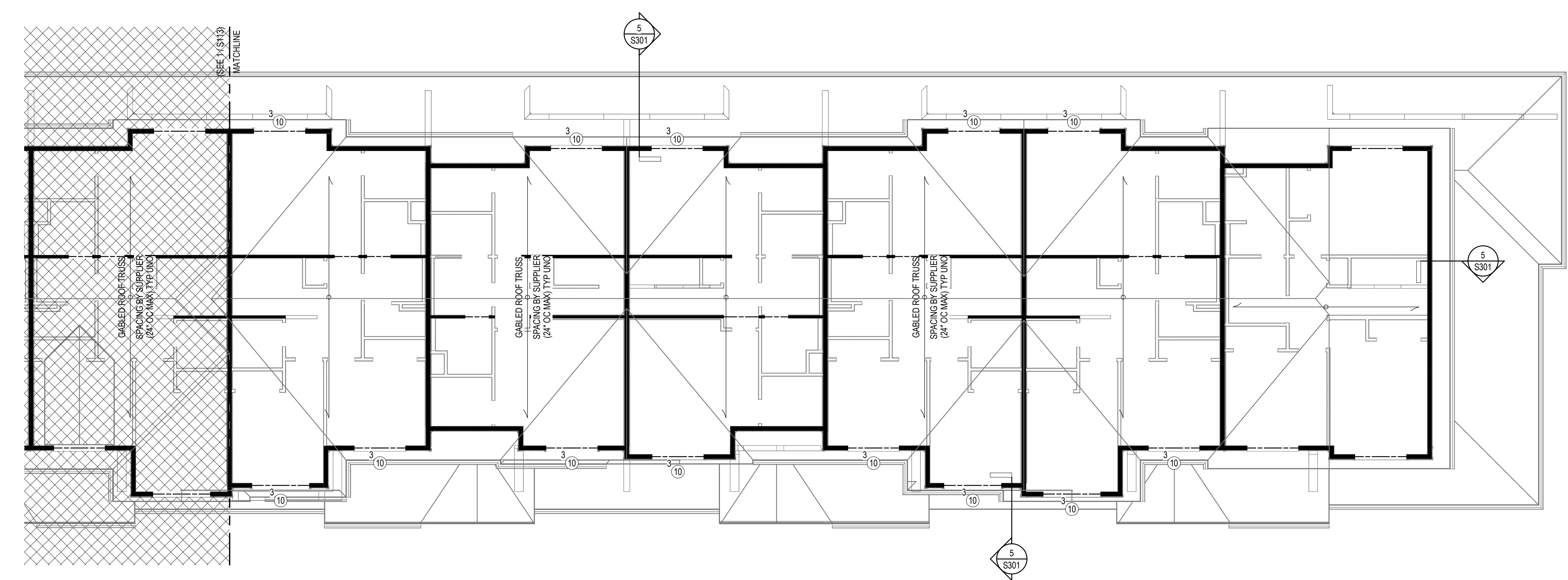
Three Rivers Community Action

ROOF FRAMING PLAN
BUILDING A

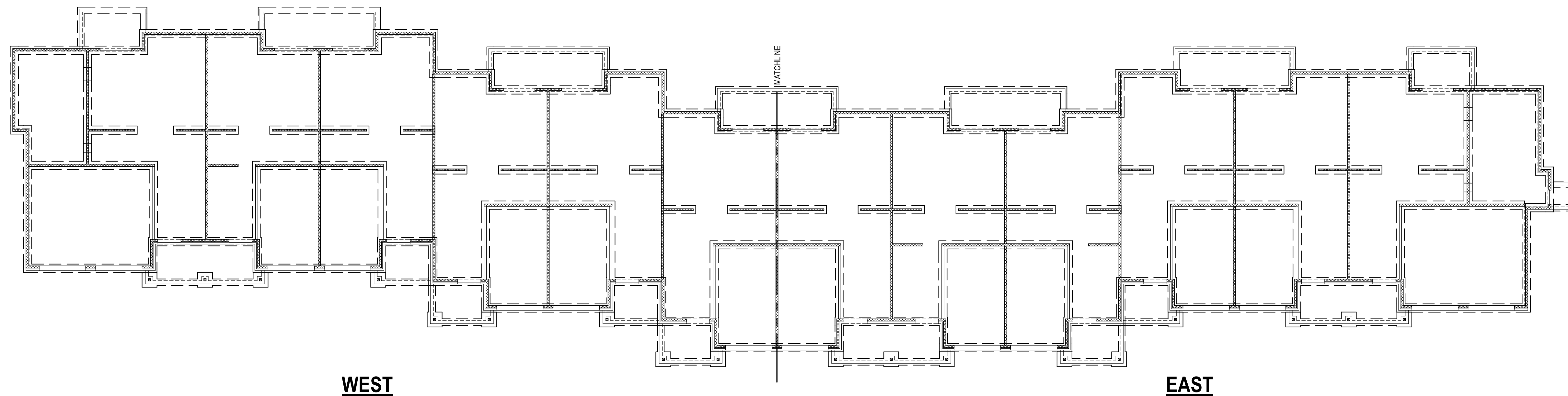
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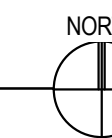
1 ROOF FRAMING PLAN - BUILDING A - WEST
S113 1/8" = 1'-0"



2 ROOF FRAMING PLAN - BUILDING A - EAST
S113 1/8" = 1'-0"



1 FOUNDATION PLAN - BUILDING B (OVERALL)
S120 NOT TO SCALE



WOOD FRAMING PLAN LEGEND



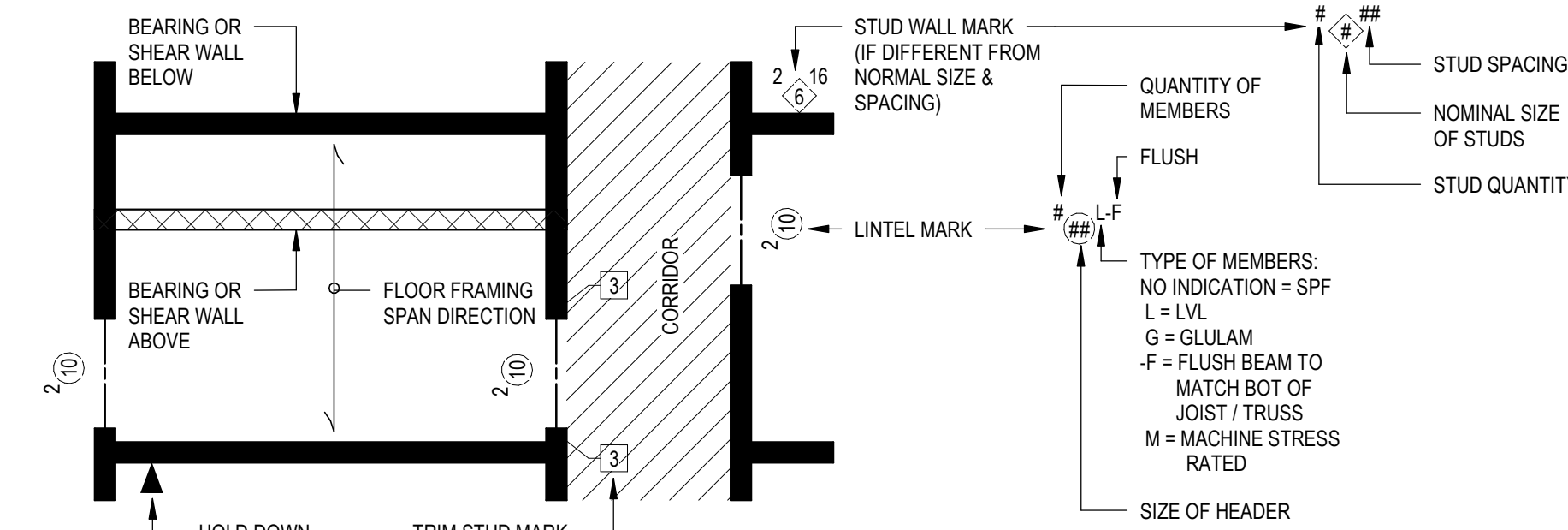
- DENOTES 2X FLOOR OR ROOF FRAMING



- DENOTES BEARING OR SHEAR WALLS FROM LEVEL BELOW.



- DENOTES BEARING OR SHEAR WALLS FROM LEVEL ABOVE.



BUILDING B - FOUNDATION PLAN SHEET NOTES

A. General

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 - b. Provide 8" min bearing at each end of loose lintel



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WILLIAM T. BULLER 20995 reg. no.

William T. Buller 6.30.2018 reg. exp. date



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PROJECT INFO

Commission No.
B/A: 615-19
Drawn By:
JR/MDS
Issue Date
8.17.2017

SUBMITTALS / REVISIONS	
7.28.1017	90% REVIEW
8.10.2017	100% REVIEW
8.17.2017	BID SET

SCALE
As indicated

Fox Pointe Townhomes, Austin
MN

Three Rivers Community Action

OVERALL FOUNDATION PLAN
AND NOTES BUILDING B

S120



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reg. exp. date

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& ASSOCIATES**

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8.10.2017 100% REVIEW
8.17.2017 BID SET

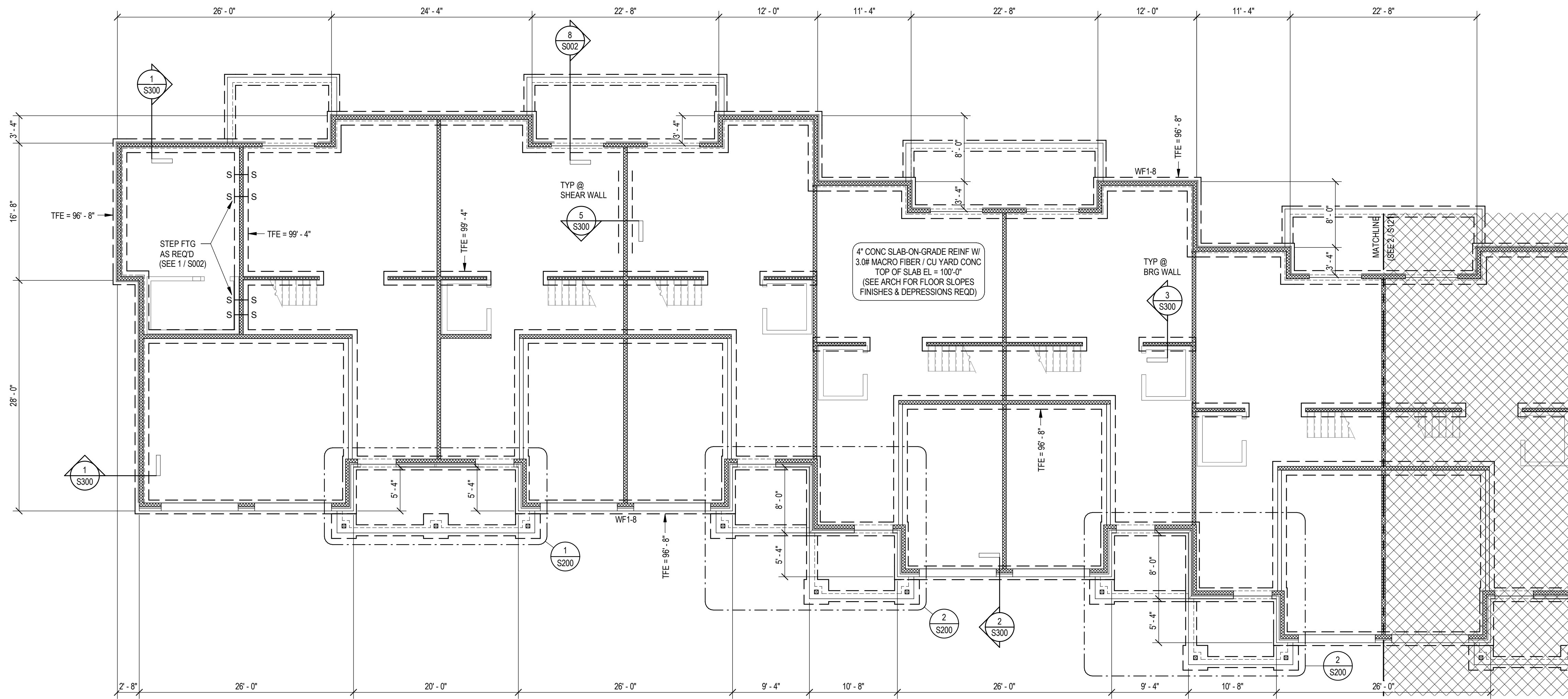
SCALE
1/8" = 1'-0"

Fox Pointe Townhomes, Austin
MN

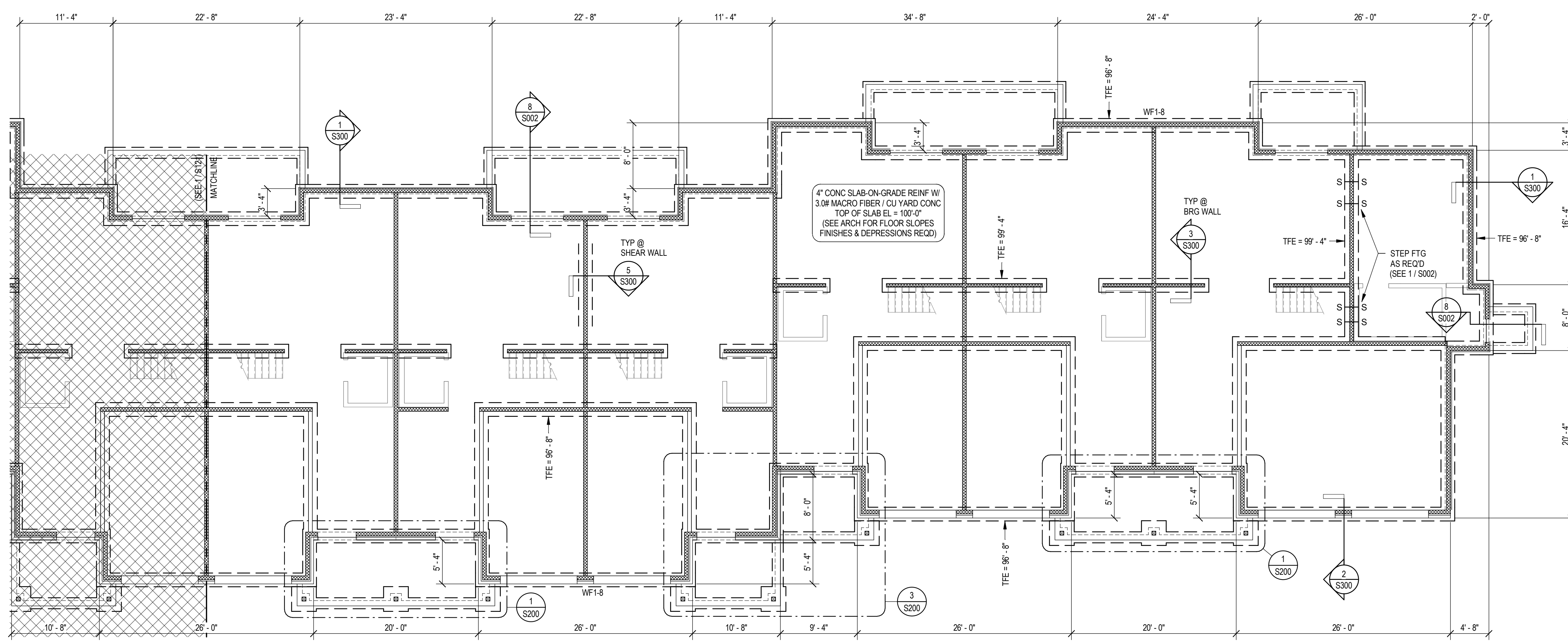
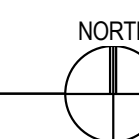
Three Rivers Community Action

FOUNDATION PLAN
BUILDING B

S121



1 FOUNDATION PLAN - BUILDING B - WEST
S121 1/8" = 1'-0"



2 FOUNDATION PLAN - BUILDING B - EAST
S121 1/8" = 1'-0"



8/17/2017 1:27:42 PM



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8.10.2017 100% REVIEW
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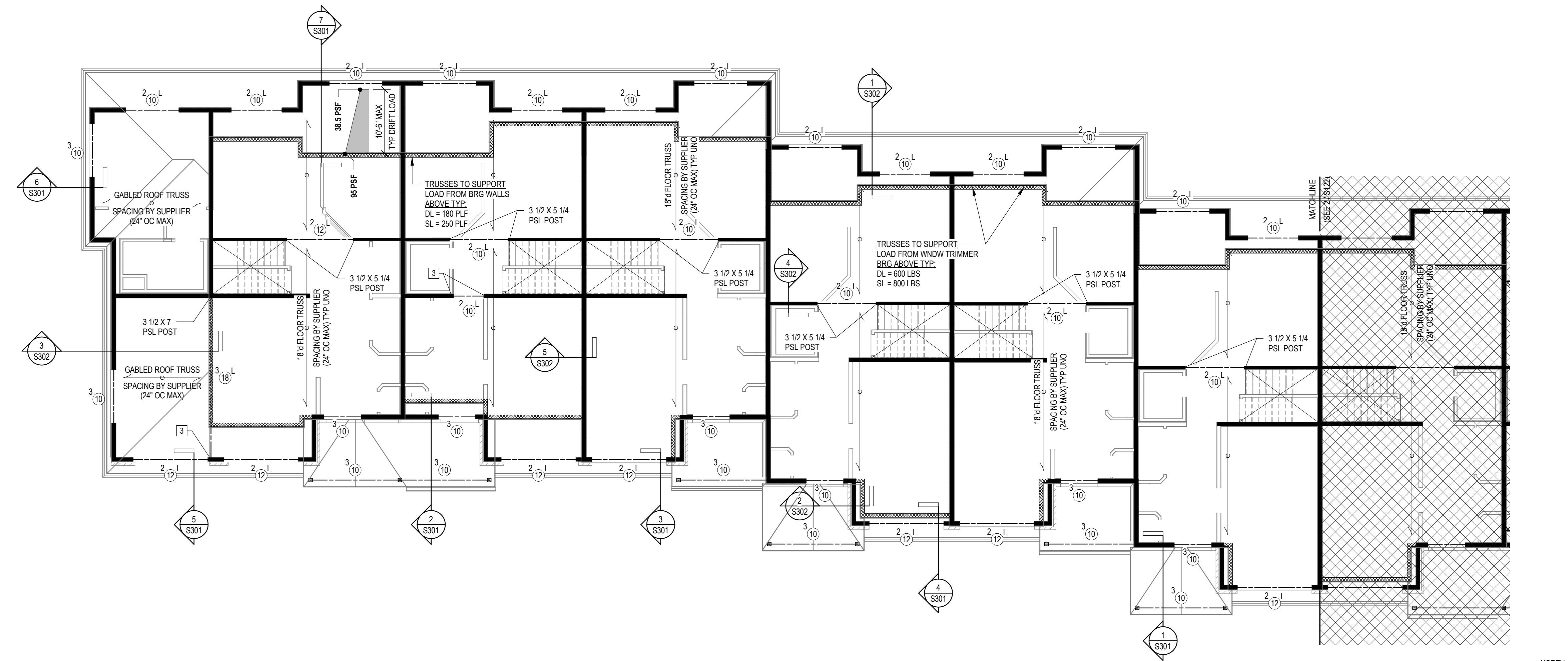
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Fox Pointe Townhomes, Austin MN

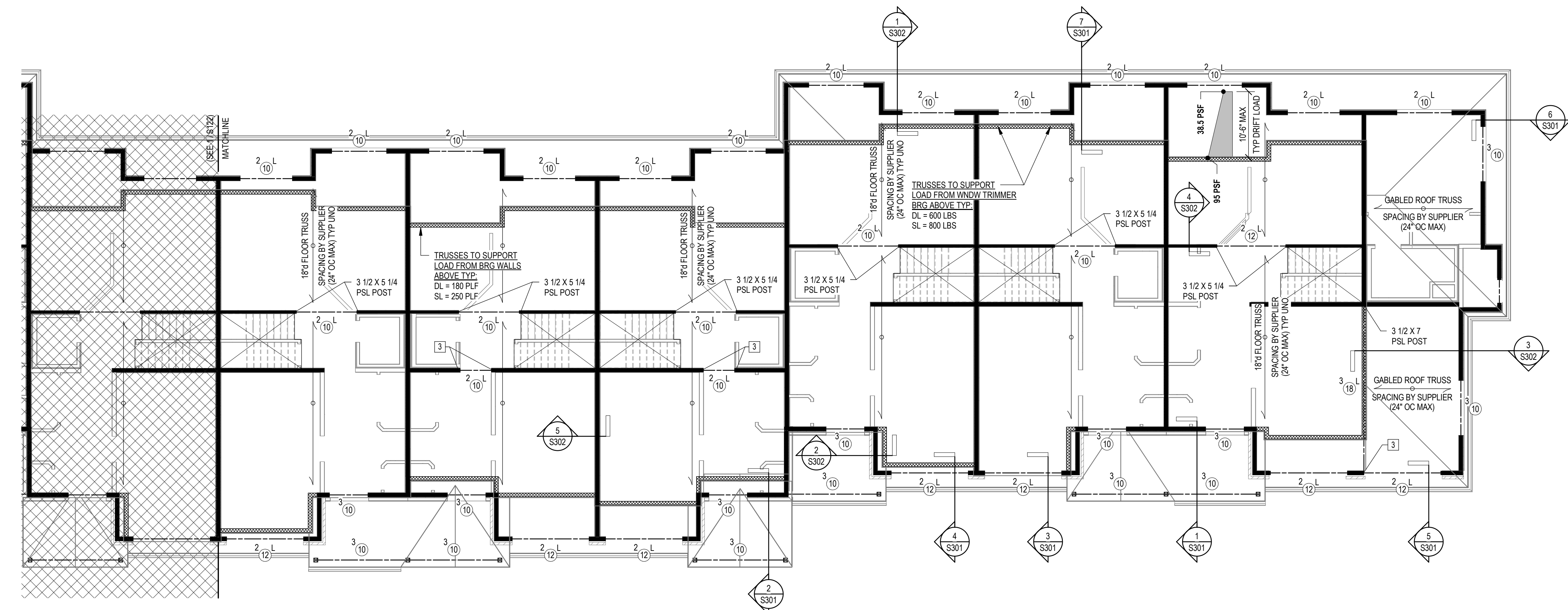
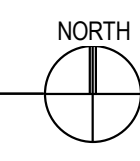
Three Rivers Community Action

SECOND FLOOR FRAMING
PLAN BUILDING B

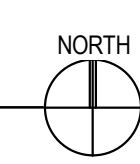
S122



1 SECOND FLOOR FRAMING PLAN - BUILDING B - WEST
S122 1/8" = 1'-0"



2 SECOND FLOOR FRAMING PLAN - BUILDING B - EAST
S122 1/8" = 1'-0"





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8.10.2017 100% REVIEW
8.17.2017 BID SET

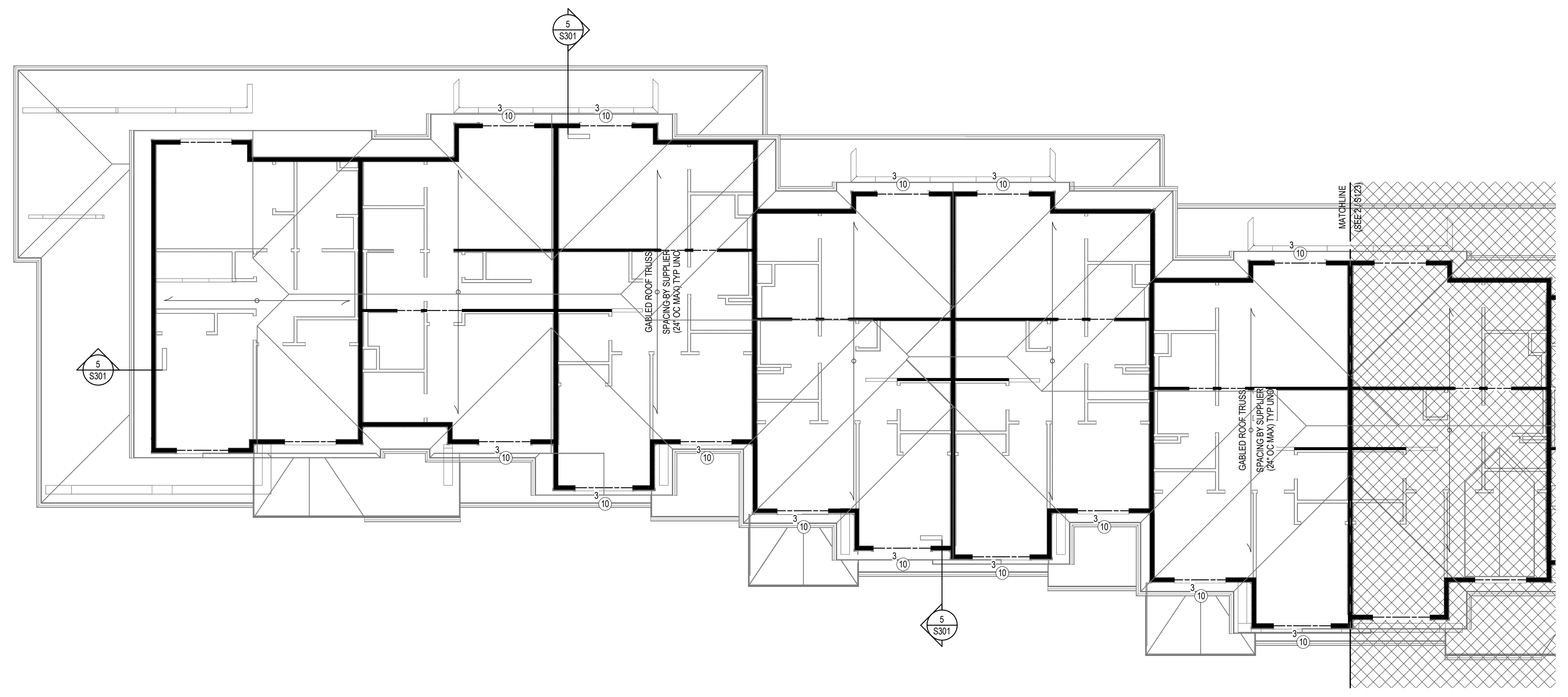
SCALE
1/8" = 1'-0"

Fox Pointe Townhomes, Austin MN

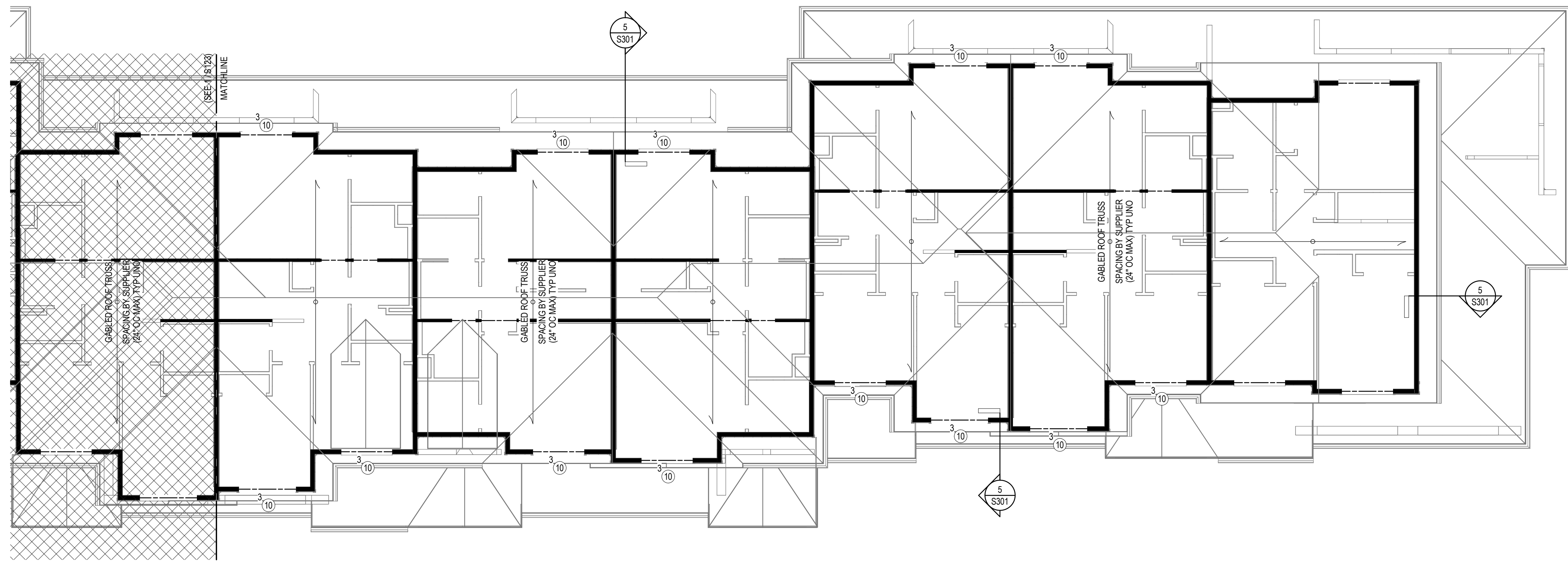
Three Rivers Community Action

ROOF FRAMING PLAN
BUILDING B

S123



1 ROOF FRAMING PLAN - BUILDING B - WEST
S123 1/8" = 1'-0"



2 ROOF FRAMING PLAN - BUILDING B - EAST
S123 1/8" = 1'-0"

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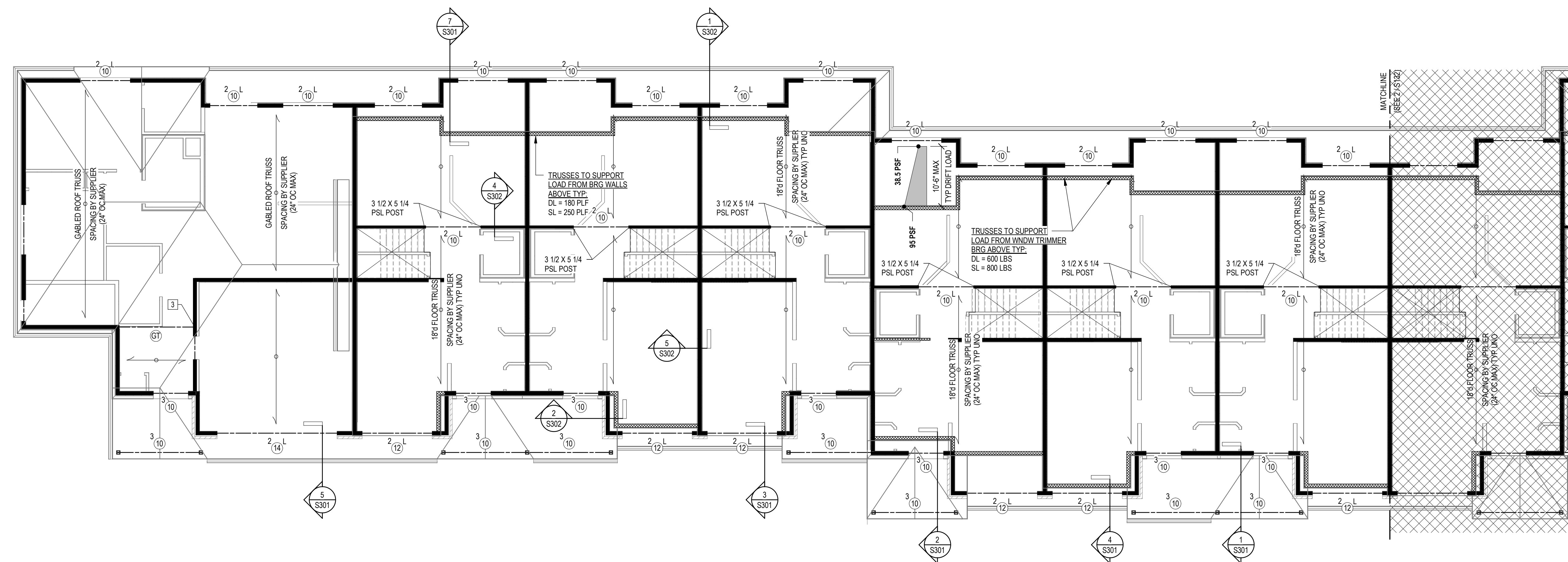
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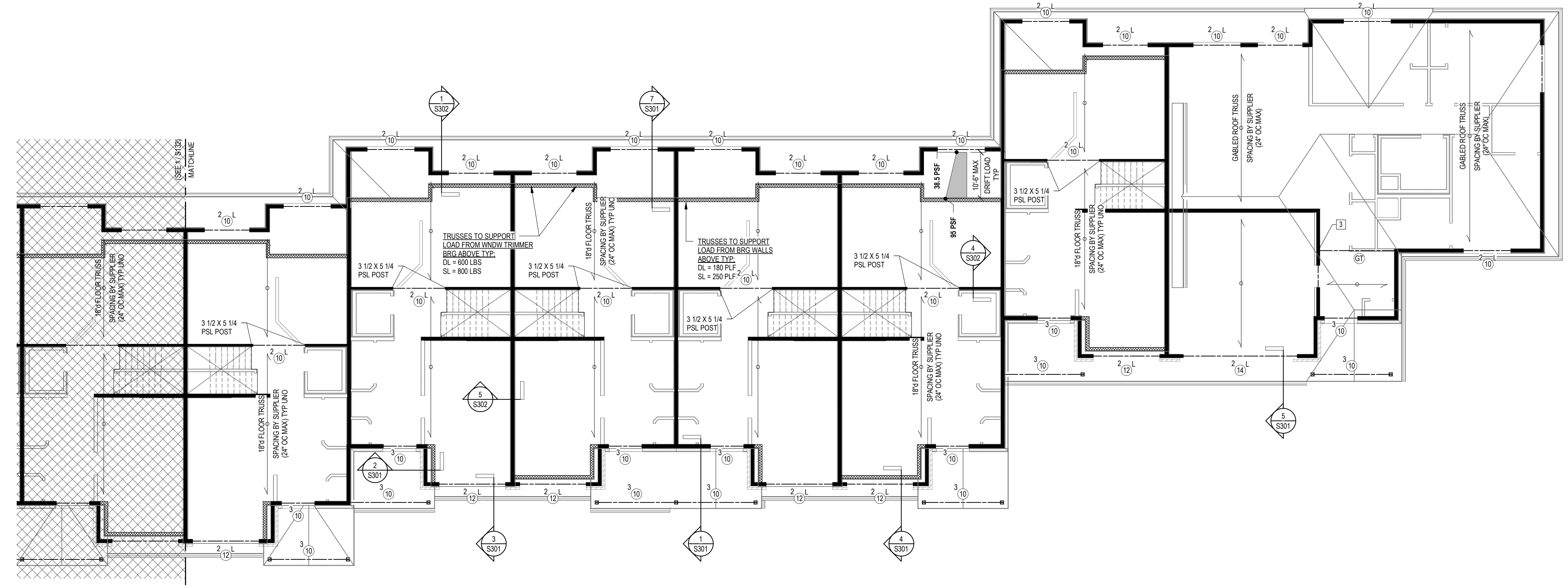
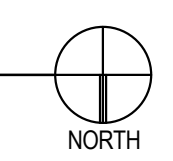
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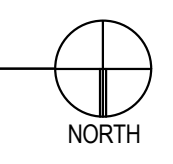
7.28.1017 90% REVIEW
8.10.2017 100% REVIEW
8.17.2017 BID SET



1 SECOND FLOOR FRAMING PLAN - BUILDING C - EAST
S132 1/8" = 1'-0"



2 SECOND FLOOR FRAMING PLAN - BUILDING C - WEST
S132 1/8" = 1'-0"





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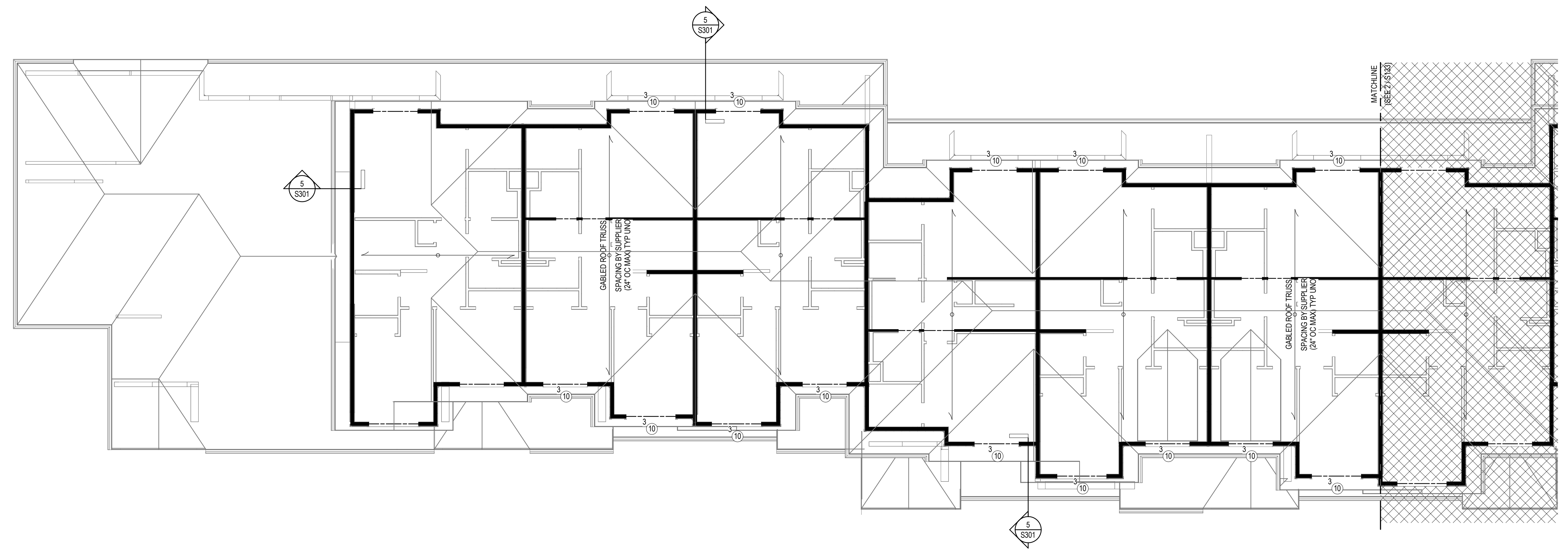
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Fox Pointe Townhomes, Austin MN

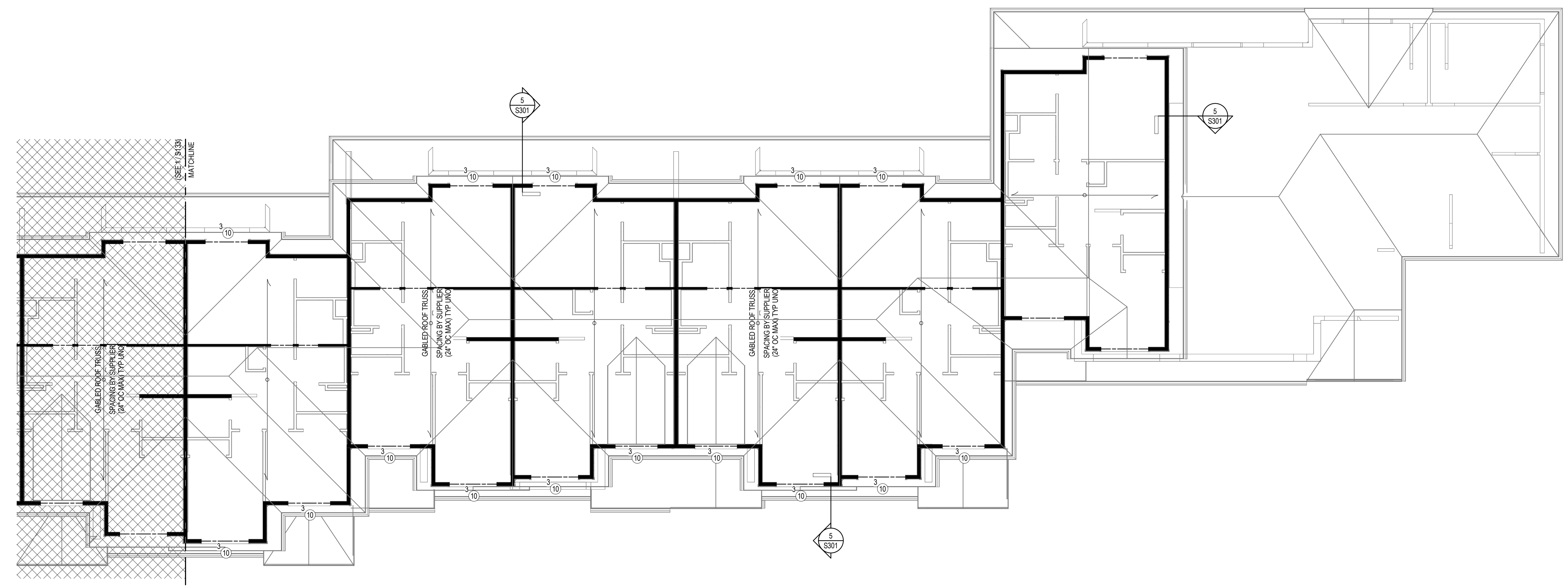
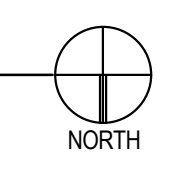
Three Rivers Community Action

ROOF FRAMING PLAN
BUILDING C

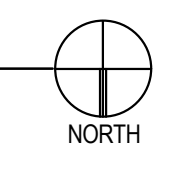
S133



1 ROOF FRAMING PLAN - BUILDING C - EAST
S133 1/8" = 1'-0"



2 ROOF FRAMING PLAN - BUILDING C - WEST
S133 1/8" = 1'-0"



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8.17.2017
WILLIAM T. BULLER 20995
reg. no.

6.30.2018
reg. exp. date

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PROJECT INFO

Commission No.
B/A: 615-19
Drawn By:
JR/MDS
Issue Date
8.17.2017

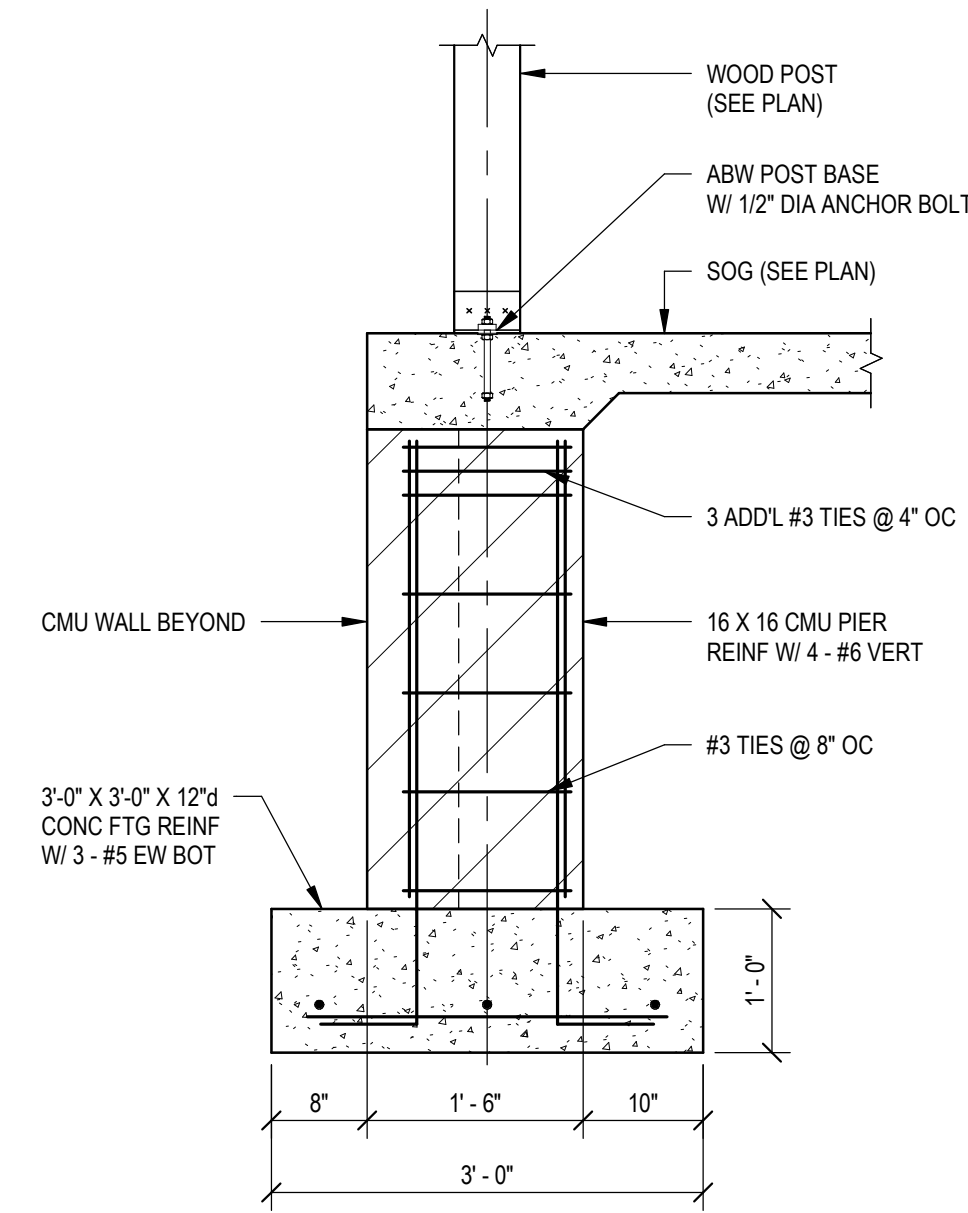
SUBMITTALS / REVISIONS
7.28.1017 90% REVIEW
8.10.2017 100% REVIEW
8.17.2017 BID SET

SCALE
3/4" = 1'-0"

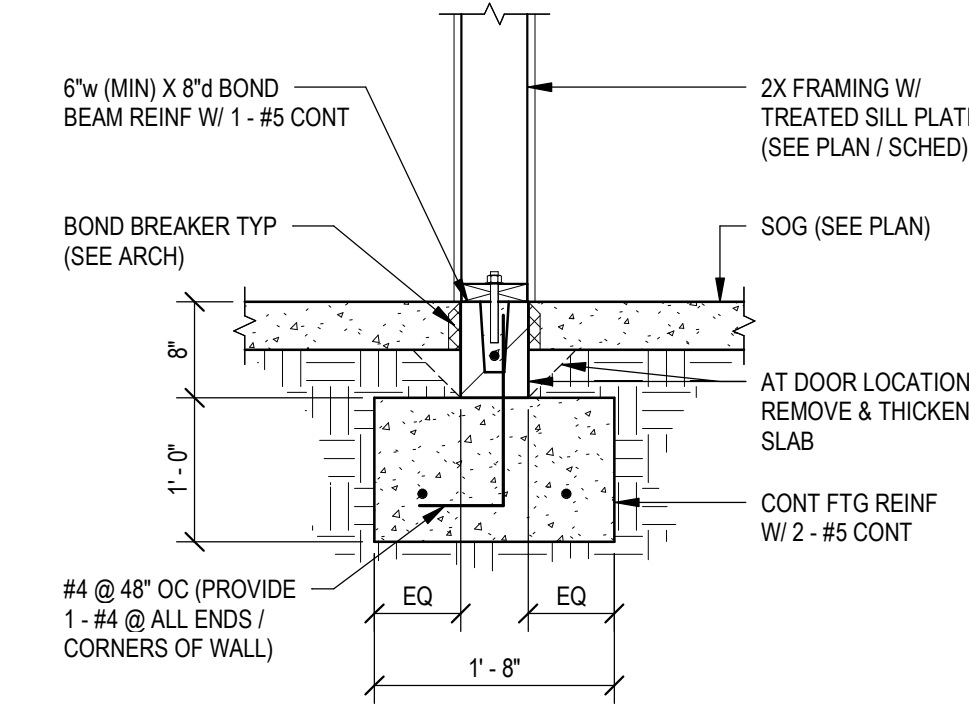
Fox Pointe Townhomes, Austin
MN
Three Rivers Community Action

FOUNDATION DETAILS

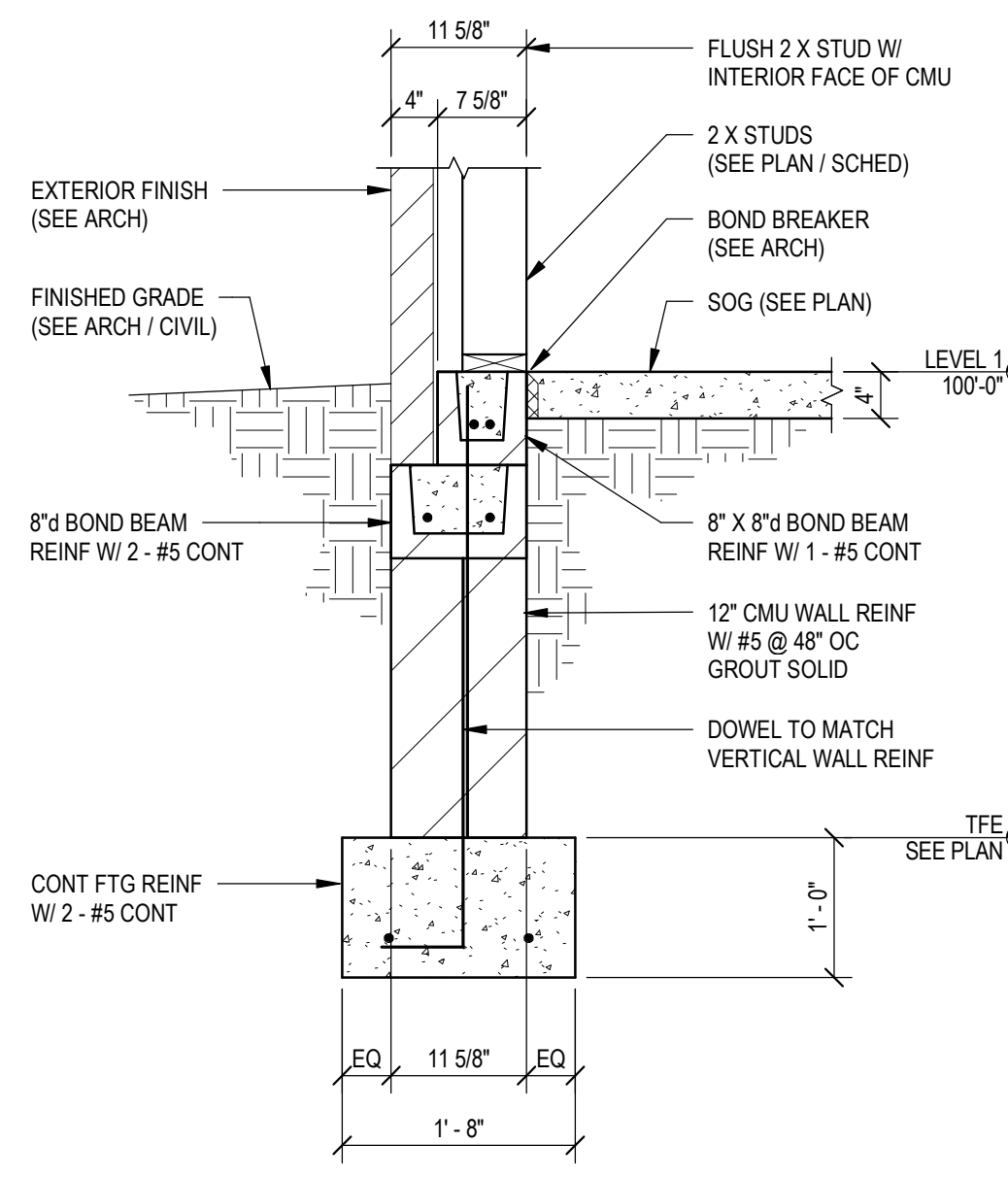
S300



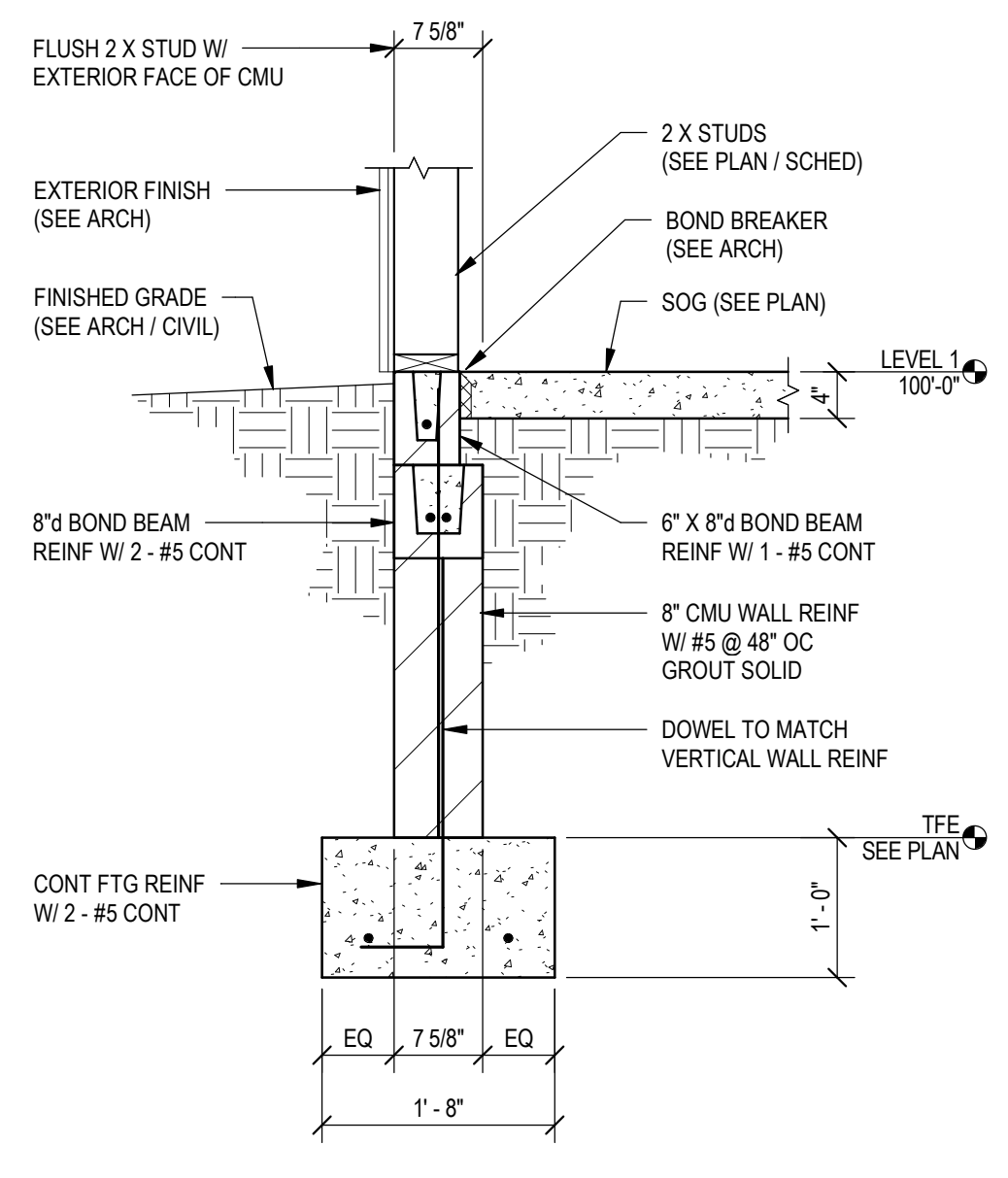
4 FOUNDATION DETAIL
S300 3/4" = 1'-0"



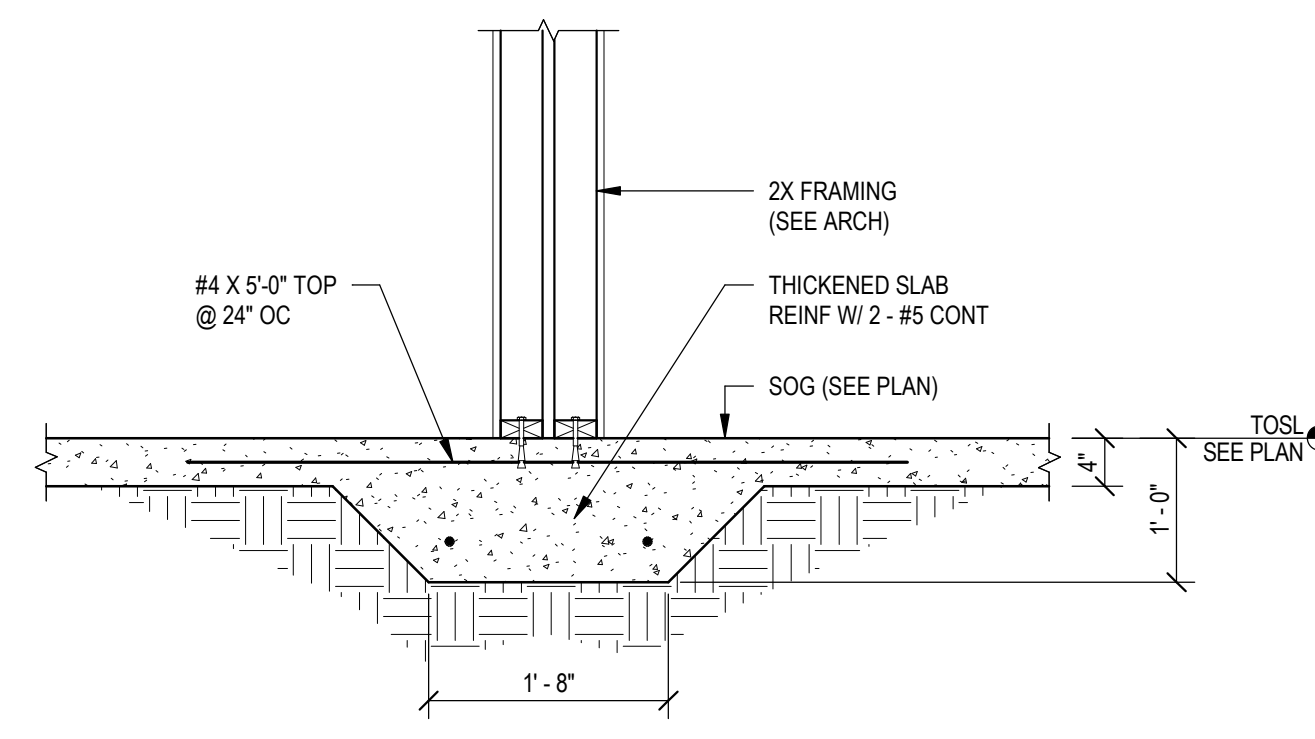
3 WOOD - INT STUD WALL BRG ON FOOTING
S300 3/4" = 1'-0"



2 FOUNDATION DETAIL
S300 3/4" = 1'-0"



1 FOUNDATION DETAIL
S300 3/4" = 1'-0"



5 FOUNDATION DETAIL
S300 3/4" = 1'-0"



**Blumentals
Architecture**

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info@blumentals.com

SIGNATURES

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William T. Buller 6.30.2018 reg. exp. date



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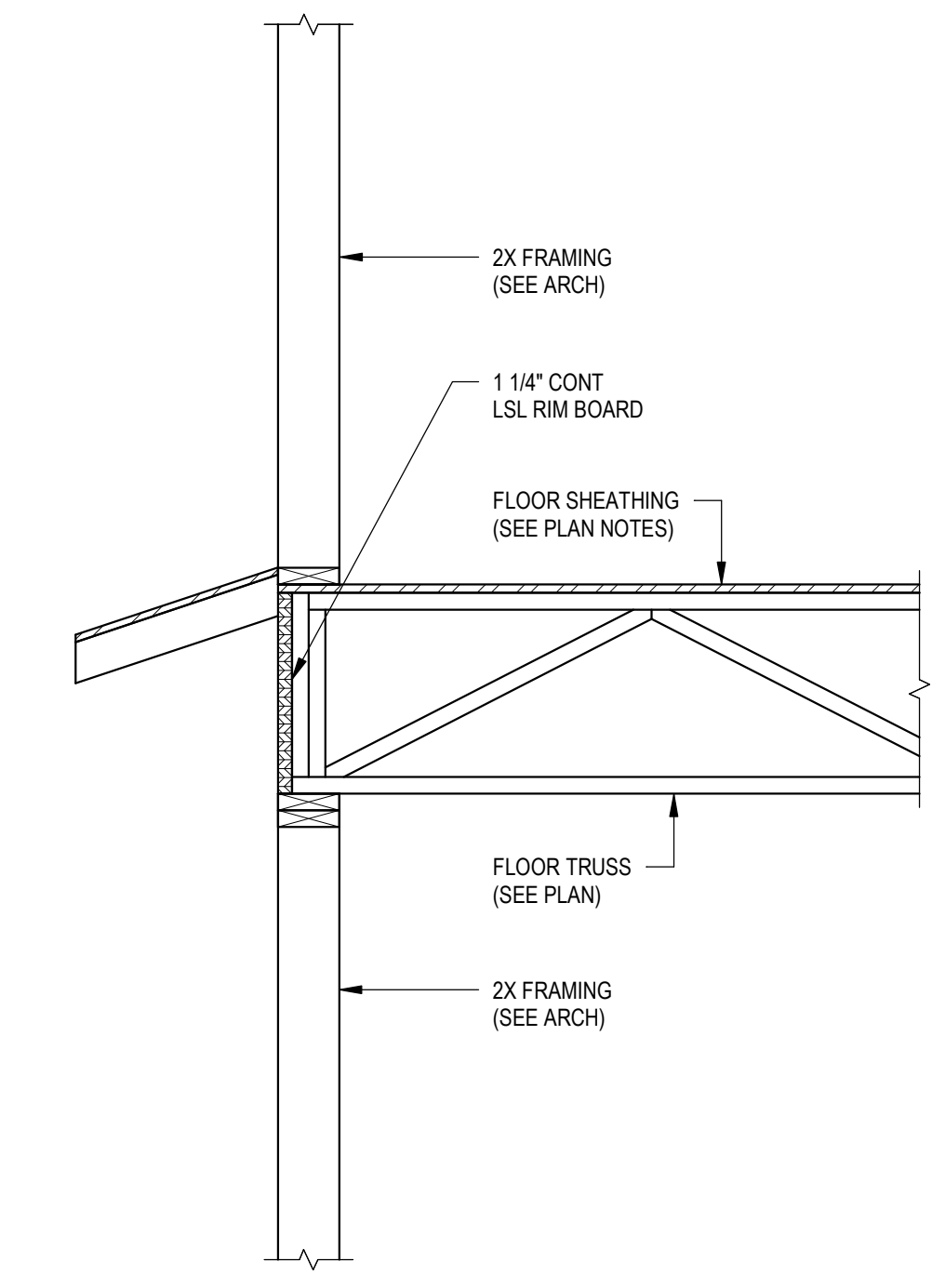
SCALE
3/4" = 1'-0"

Fox Pointe Townhomes, Austin MN

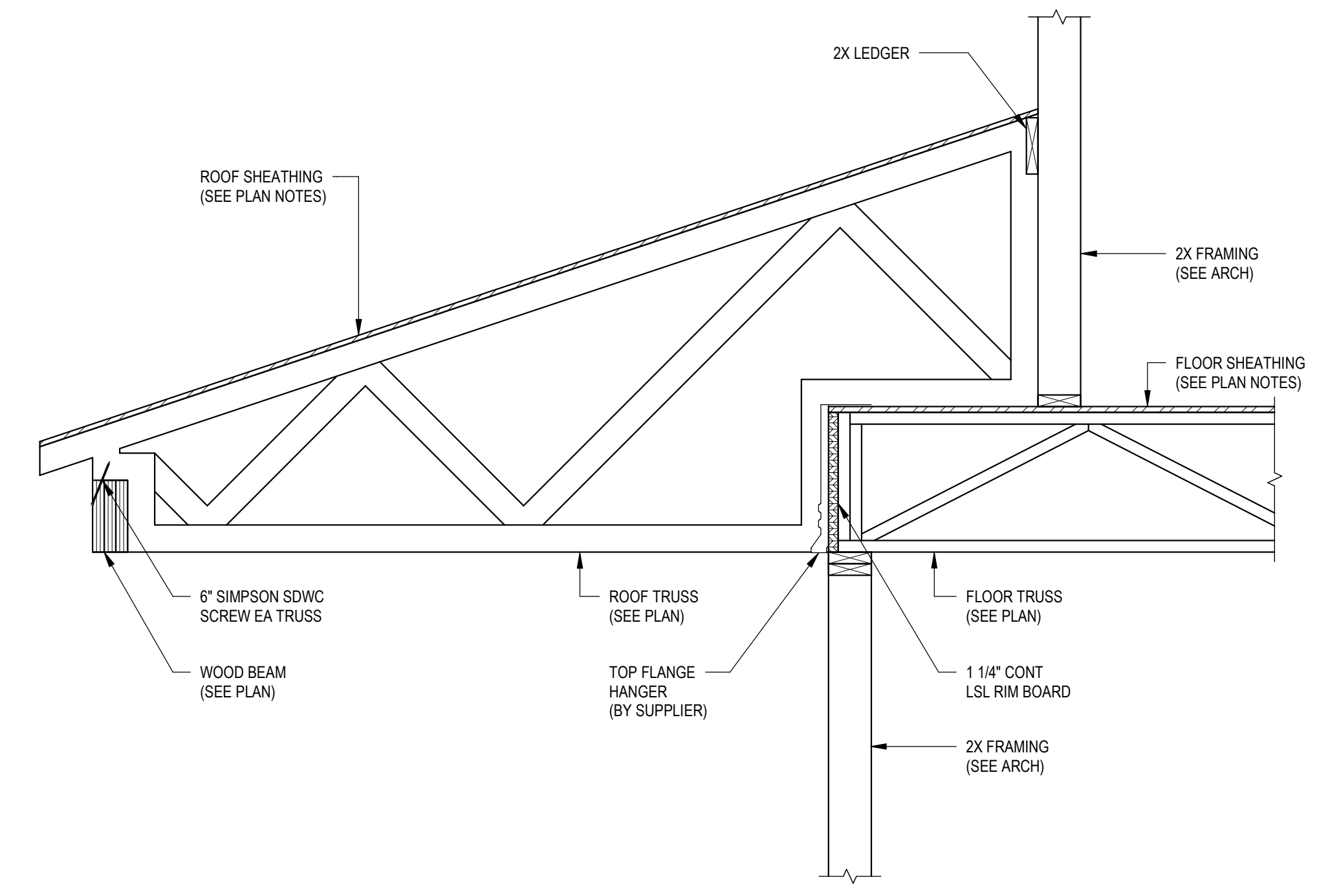
Three Rivers Community Action

WOOD FRAMING DETAILS

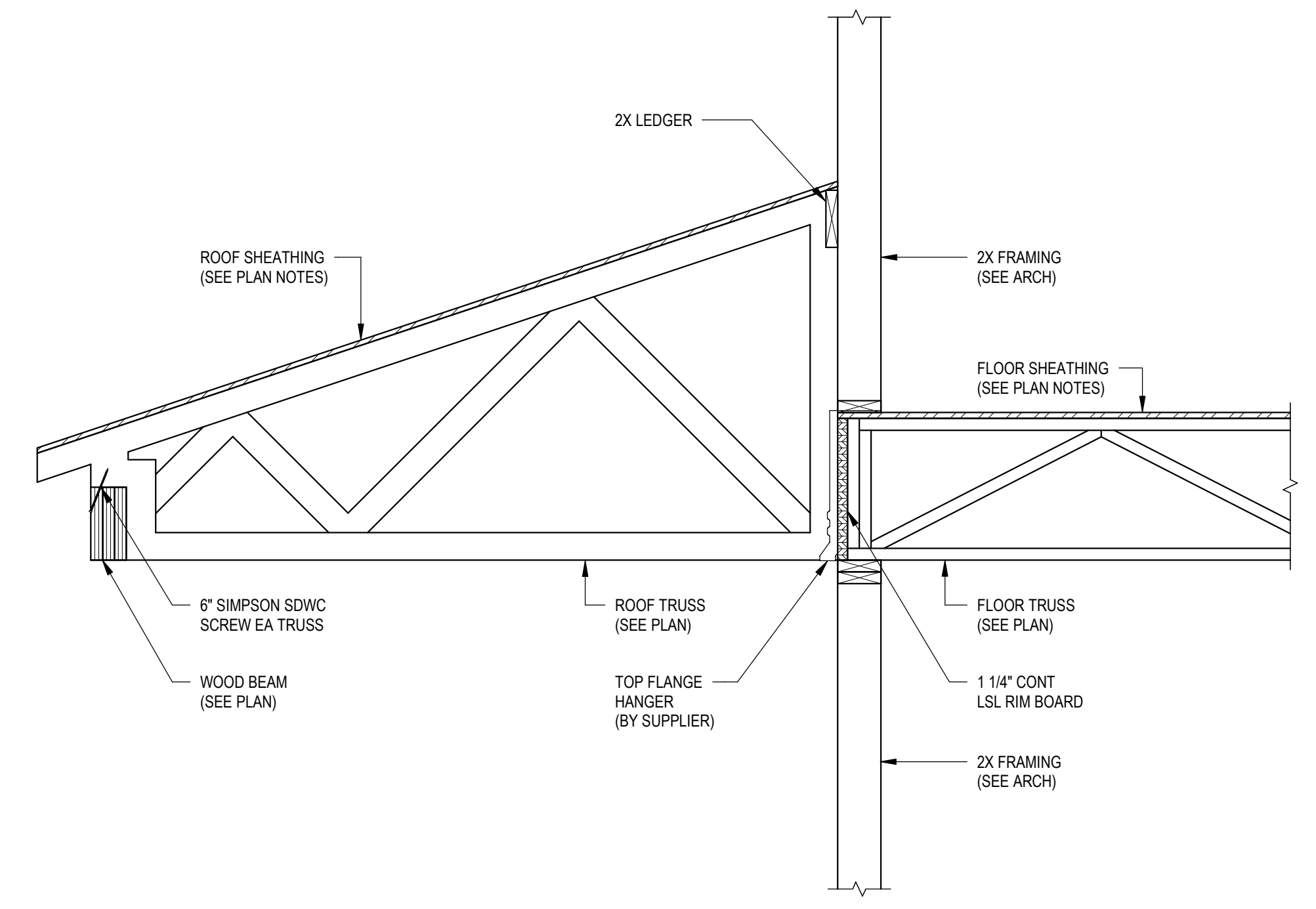
S301



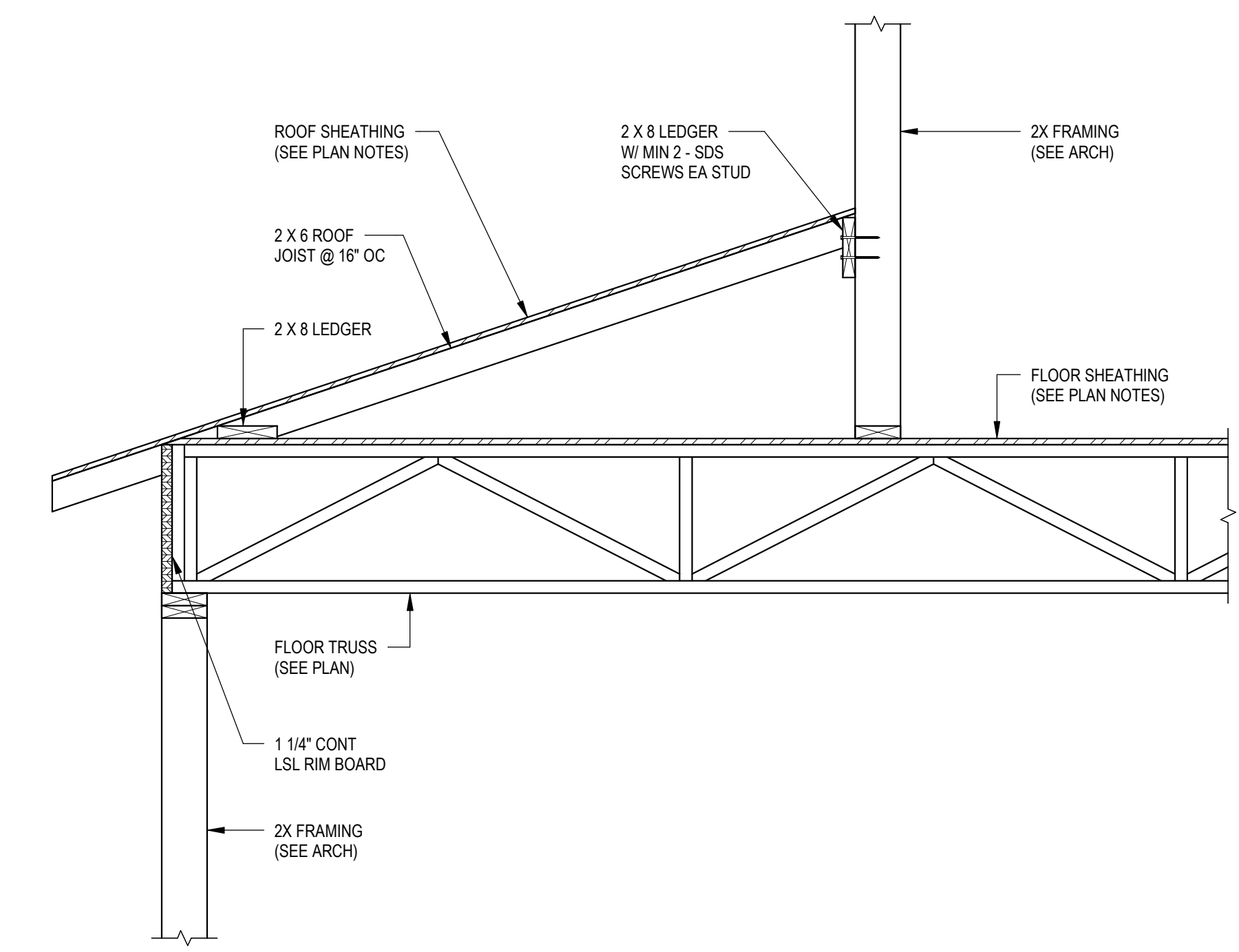
3 FRAMING DETAIL
S301 3/4" = 1'-0"



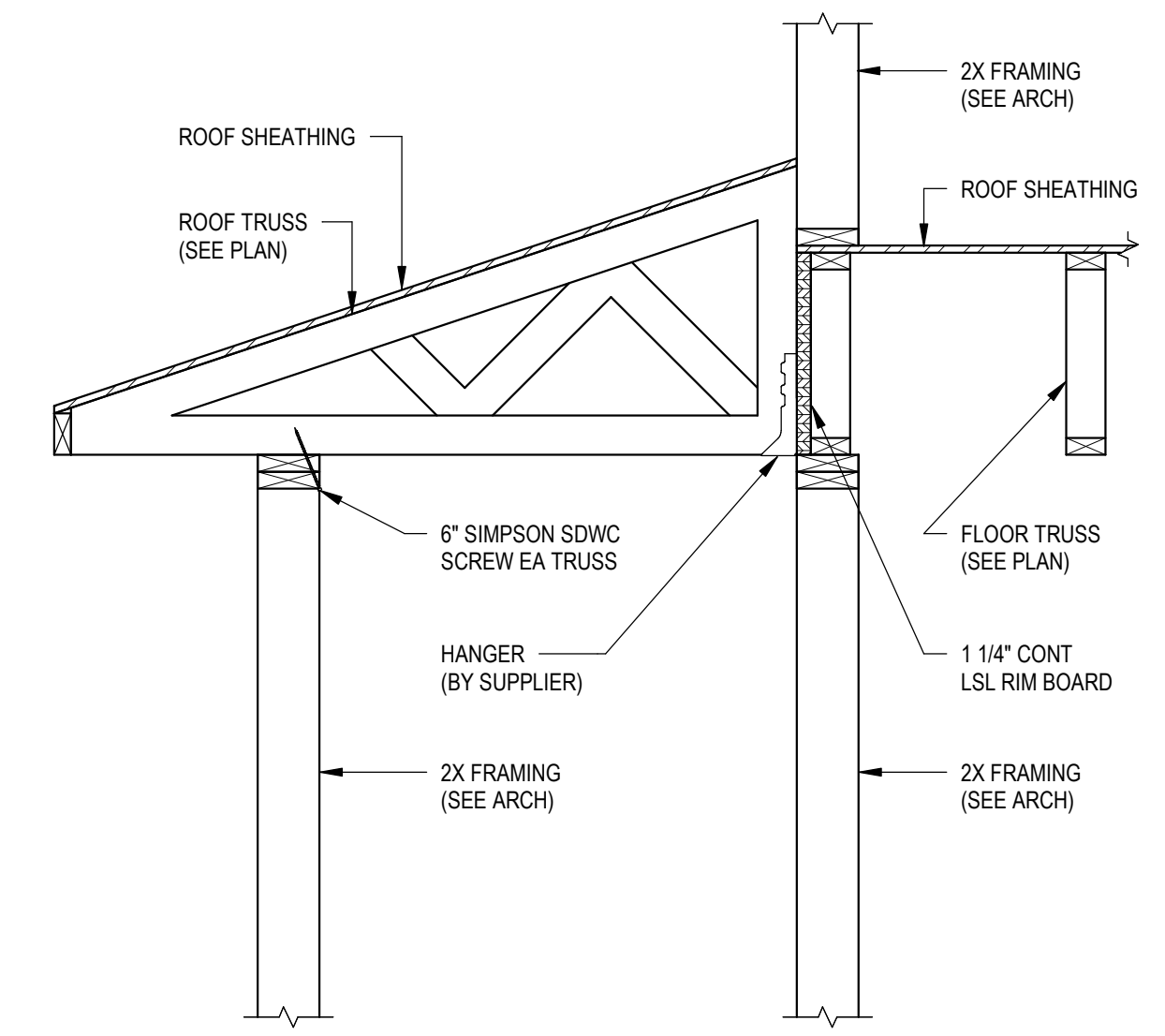
2 FRAMING DETAIL
S301 3/4" = 1'-0"



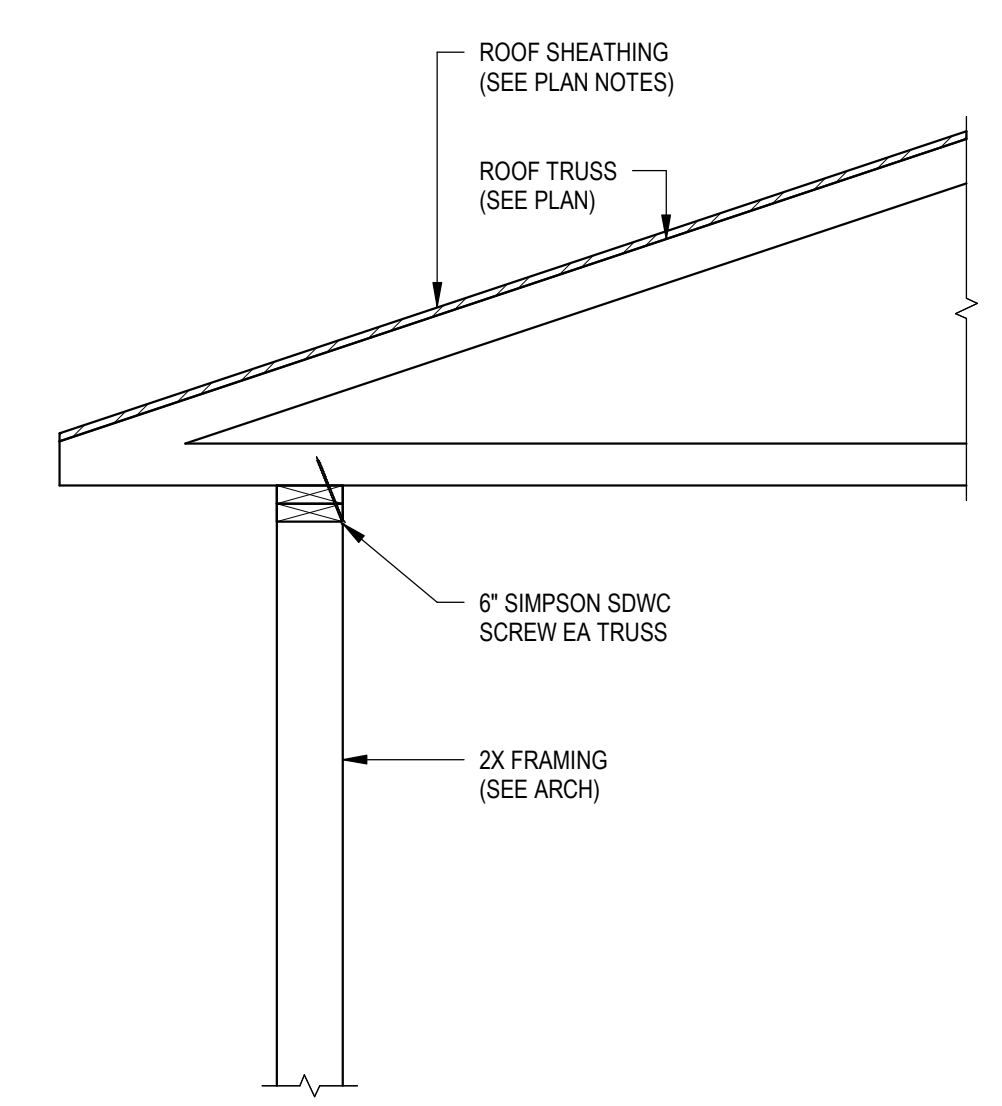
1 FRAMING DETAIL
S301 3/4" = 1'-0"



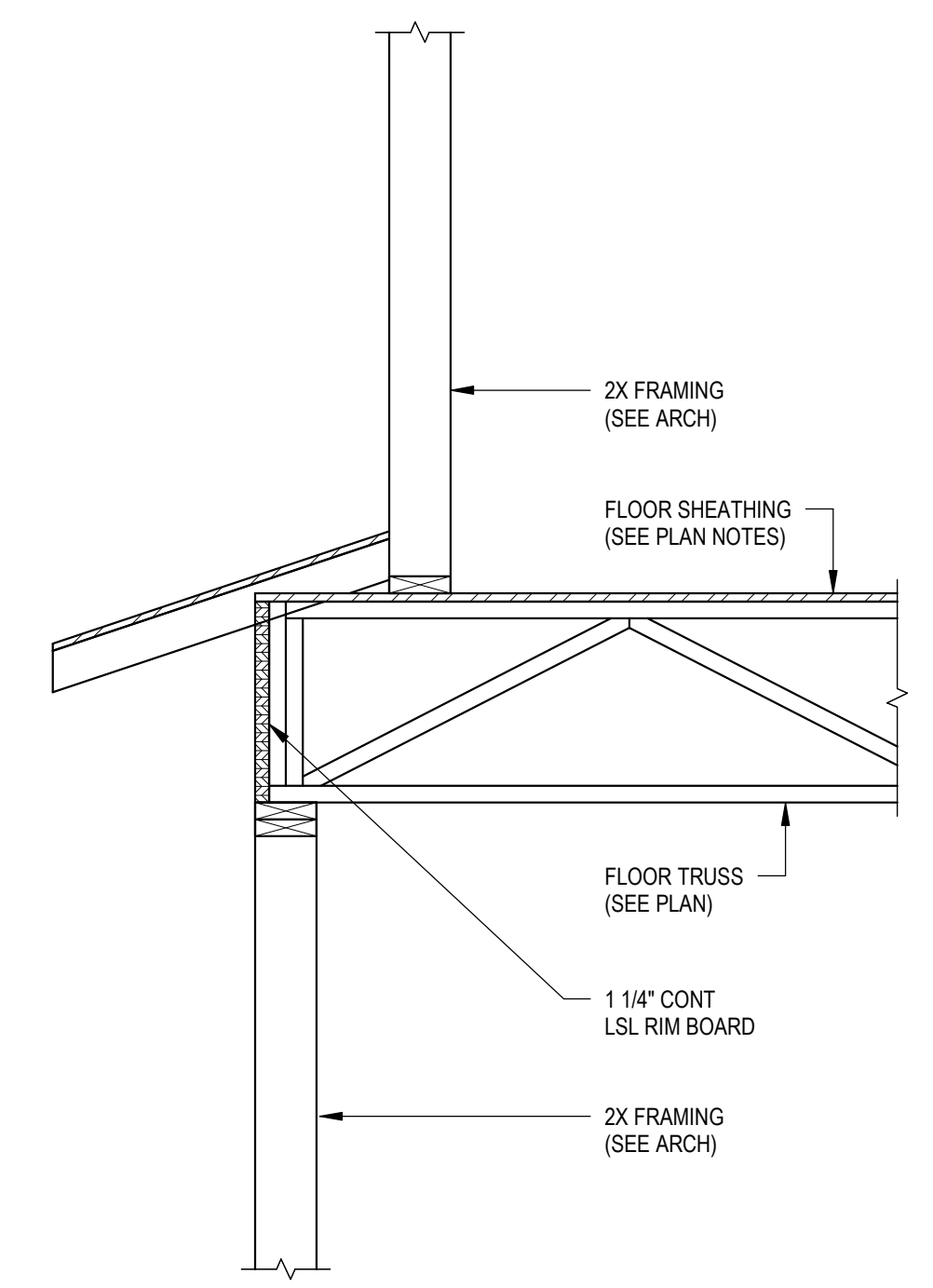
7 FRAMING DETAIL
S301 3/4" = 1'-0"



6 FRAMING DETAIL
S301 3/4" = 1'-0"

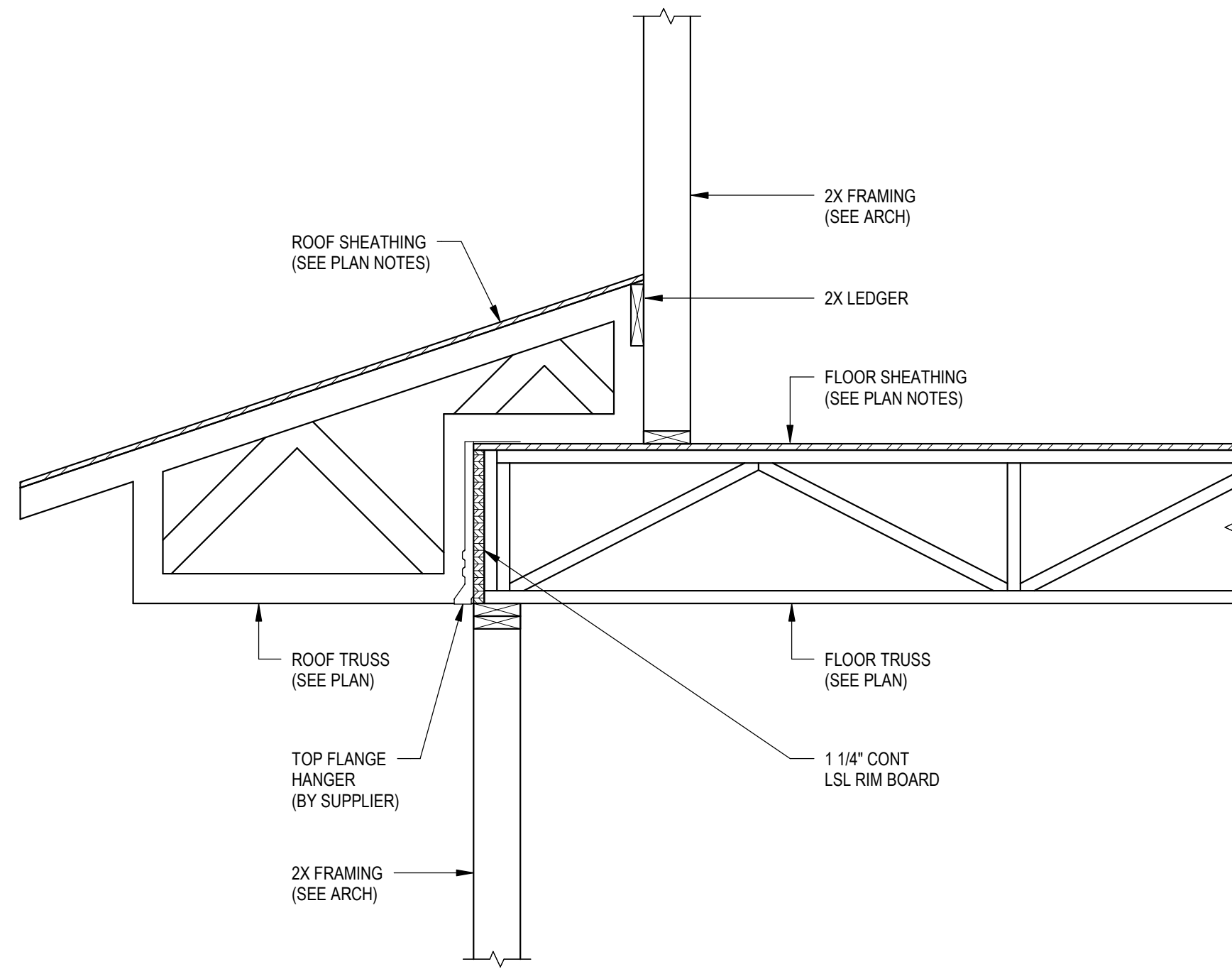


5 FRAMING DETAIL
S301 3/4" = 1'-0"

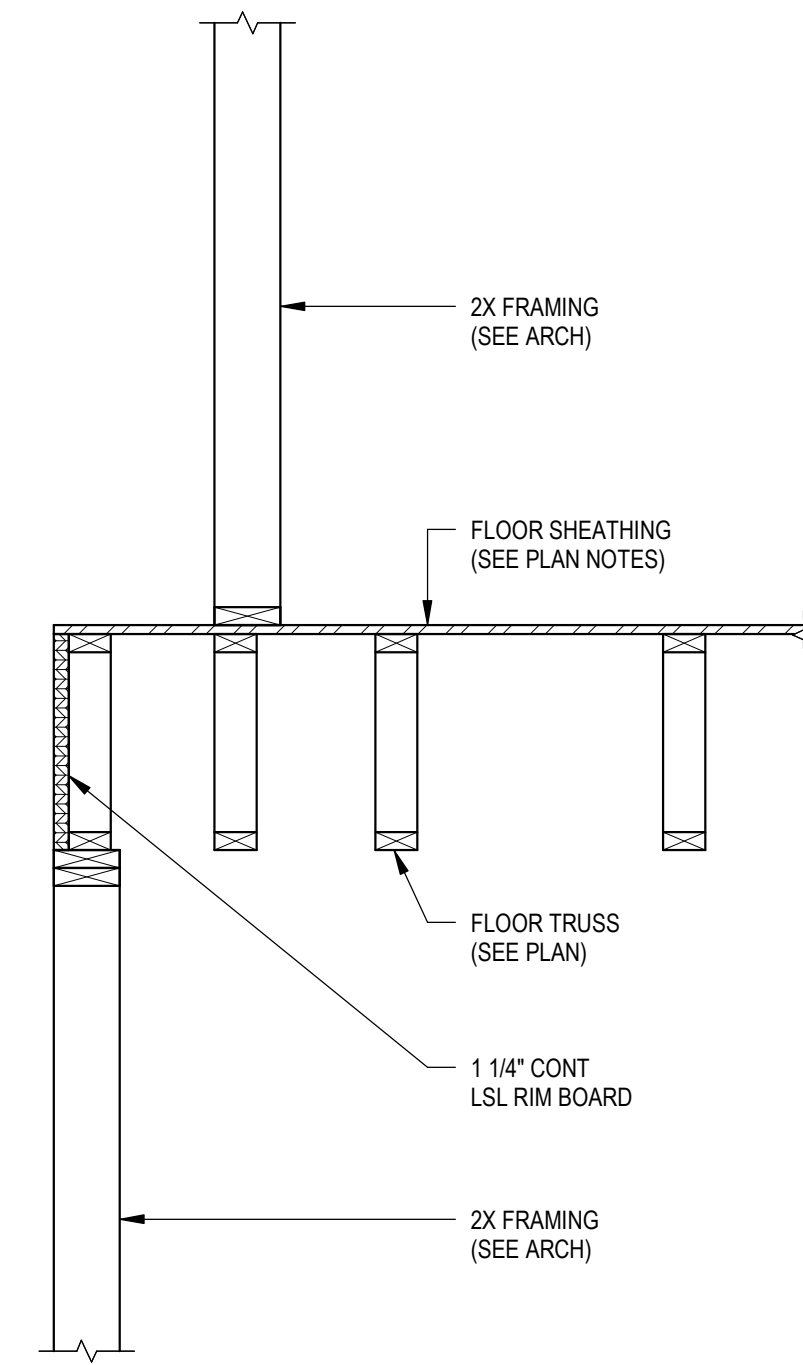


4 FRAMING DETAIL
S301 3/4" = 1'-0"

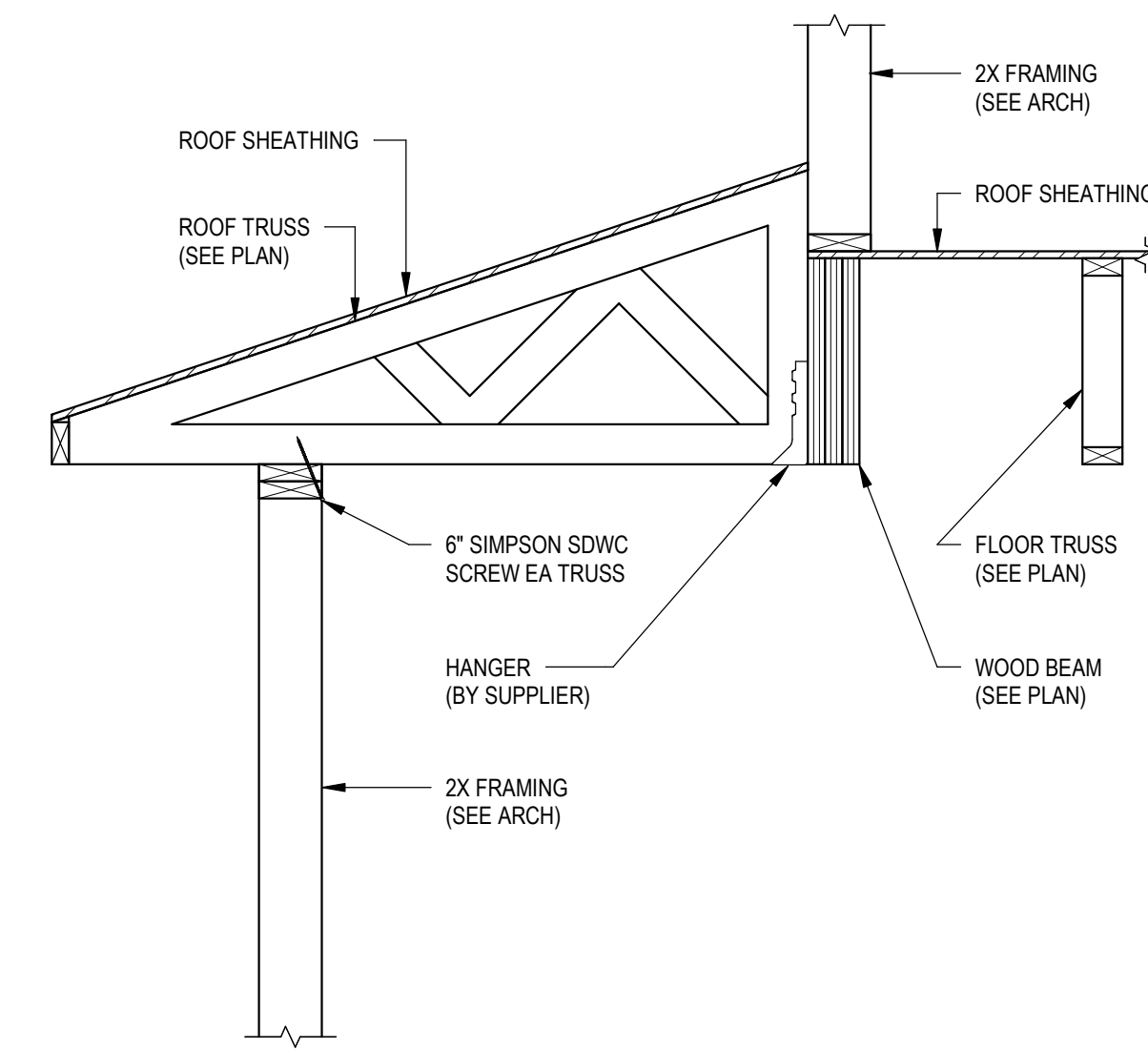
8/17/2017 1:28:18 PM



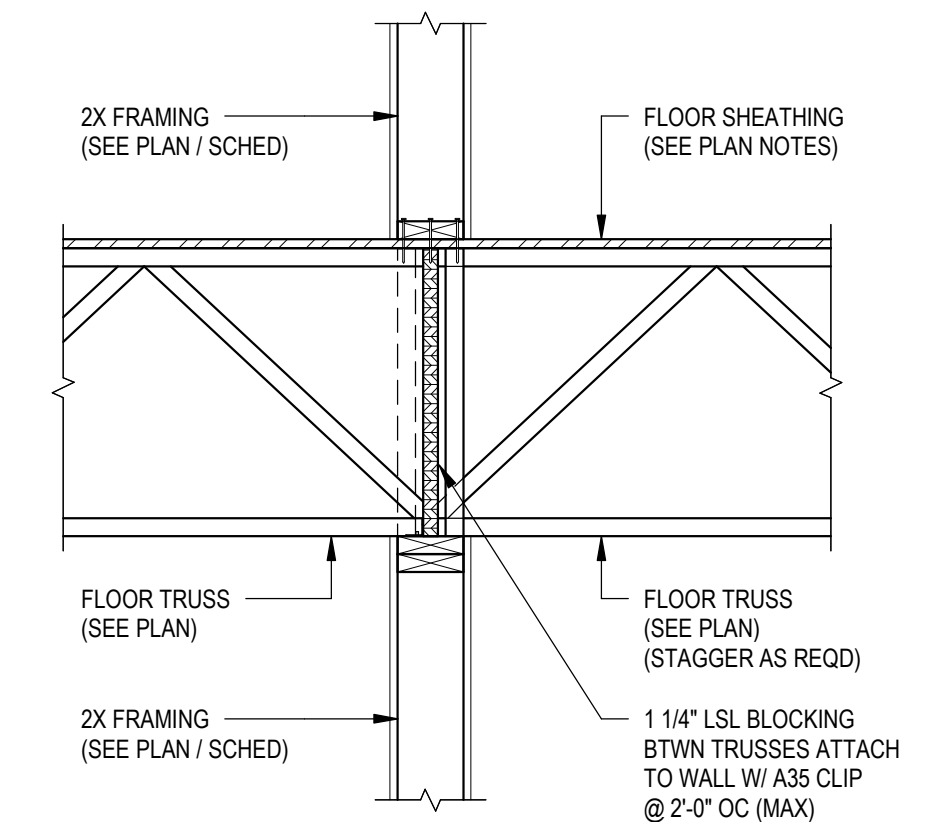
1 FRAMING DETAIL
S302 3/4" = 1'-0"



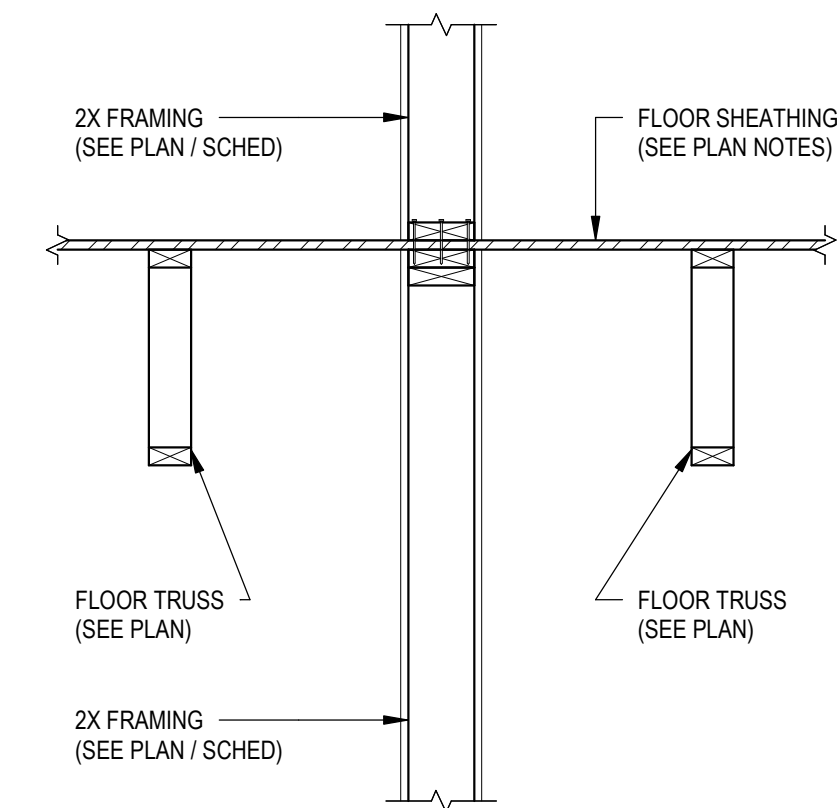
2 FRAMING DETAIL
S302 3/4" = 1'-0"



3 FRAMING DETAIL
S302 3/4" = 1'-0"



4 WOOD - FLR TRUSS BRG AT SINGLE WALL
S302 3/4" = 1'-0"



5 WOOD - FLR TRUSS NON-BRG AT SINGLE WALL
S302 3/4" = 1'-0"



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8.10.2017 100% REVIEW
8.17.2017 BID SET

SCALE
3/4" = 1'-0"

Fox Pointe Townhomes, Austin
MN

Three Rivers Community Action

WOOD FRAMING DETAILS

S302