

GENERAL STRUCTURAL NOTES

1. The Contractor shall verify all field dimensions prior to fabrication & erection.
2. If there are any omissions, errors or discrepancies discovered within these plans (i.e. dimension conflicts), contact the Architect or Engineer of Record for clarification and/or correction prior to continuing with construction.

3. All plan dimensions as indicated on these plans or on architectural plans are assumed to be from face of studs or face of concrete UNO.

4. Design Loading Criteria

4.1. Roof:	Dead Live Snow (Uniform Roof) [†] † Per Jurisdiction	10 psf 20 psf 100 psf
Walls:	Exterior:	10 psf
4.2. Risk Cat:	II	
4.3. Wind:	Basic Speed: Exposure Ceiling Pitch K _z = 1.00	105 mph (Ult.) C 4-12 I _w = 100
4.4. Seismic:	Lat: 43.159945° N Long: 111.003935° W Site Class = D Des. Cat. = D S _s = 1.113 S _{ps} = 0.890 S ₁ = 0.343 S _{D1} = n/a I _e = 1.00 I _p = 1.00 R _W (W _{SW}) = 6.5 C _s (W _{SW}) = 0.254	

FOUNDATION NOTES

1. Minimum allowable soil pressures, per 2018 IBC:

1.1. Dead + Live	1500 psf
1.2. Dead + Live + Wind/Earthquake	2000 psf

***Covenant Engineering shall not be responsible for any negative effects, damage or other detrimental results related to inadequate or uncompacted soil and/or backfill conditions.

SAFETY NOTES

1. It is the Contractors' responsibility to comply with all federal and state regulations regarding maintaining a safe work environment and performing work in a safe manner. It is the Contractors' responsibility to be aware and comply with all OSHA requirements that may apply to this construction project.

STRUCTURAL REFERENCE CODES

1. All work to be performed under these project plans shall conform to the following applicable codes and any applicable supplements and amendments:

1. 2018 International Building Code
2. ASCE 7-16 Minimum Design Loads for Buildings and Other Structures
3. ACI 318-14 Building Code And Commentary (Concrete)
4. ANSI/AIAA ND5-2015 National Design Specification for Wood Construction

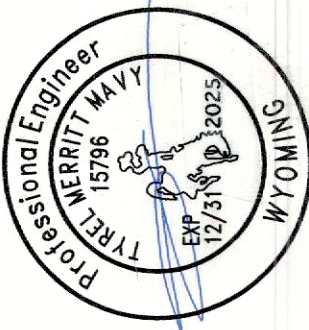
STRUCTURAL SHEET INDEX

- S00 STRUCTURAL NOTES & REFERENCES
- S10 FOUNDATION & LATERAL PLAN & DETAILS
- S11 ROOF FRAMING PLAN & DETAILS

STRUCTURAL ABBREVIATIONS

LLV	Long Leg Vertical	SDST	Self Drilling Self Tapping Screw
LP	Louisiana Pacific Corp.	Sh	Sheet
Lt	Light	Shg	Sheathing
LWC	Lt Weight Concrete	Sim	Similar
MB	Machine Bolt	SLV	Short Leg Vertical
Max	Maximum	SMS	Sheet Metal Screw
Mfr	Manufacturer	SOG	Slab-On-Grade
Min	Minimum	Spec	Specification(s)
Mtl	Metal	SS	Stainless Steel
(N)	New	Std	Standard
No. #	Number	Sigr	Staggered
N5	Near Side	Stiff	Stiffener
NTS	Not To Scale	Stl	Steel
NUC	Normal Weight Concrete	Struct	Structural
OC	On Center	Sq	Square
OD	Outside Diameter	T&B	Top & Bottom
Opn	Opening	T&G	Tongue & Groove
Opp	Opposite	TF	Top Flange
OS	Opposite Side(s)	Thk	Thick (enedness)
Par	Parallel	TJL	Trus-Joist Inc.
Perp	Perpendicular	TO	Top Of
PDF	Powder Driven Fastener	Trans	Transition
PL	Plate	Transv	Transverse
PLYD	Plywood	Type	Typical
Press	Pressure	(U)	Unistrut Corp.
psf	Pounds per Square Foot	UNO	Unless Noted Otherwise
psi	Pounds per Square Inch	URY	Unreinforced Masonry
FT	Pressure Treated Foot w/	OW	Open Web Joist
Pur	Purlin	Ver	Vertical
Rad	Radius	w/	With
Reinf	Reinforcing	w/o	Without
Rein	Reinforcement	WF	Wide Flange
Reqd	Required	WP	Work Point
(S)	Simpson Strong Tie	WS	Wood Screw
SC	Saw Cut, Slip-Critical	Wt	Weight
Sched	Schedule	WUF	Welded Wire Fabric
		Wd	Wood
		Wy	Way

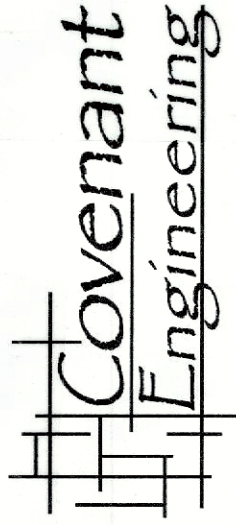
STAMP:



PROJECT:

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ISSUES: REVISIONS:

NO. DATE BY DESCRIPTION

SHEET DESCRIPTION:

STRUCTURAL
NOTES +
REFERENCES

JOB NUMBER: P22056

SCALE: AS NOTED

DATE: 2025

DRAWN BY: TMM

CHECKED BY:

SHEET NUMBER:

S00

1 OF 3 STRUCTURAL SHEETS

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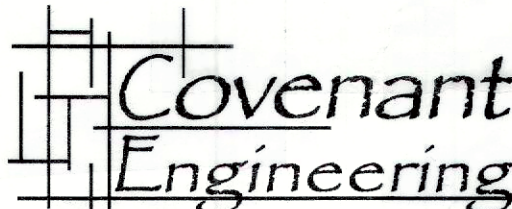


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SHEET DESCRIPTION:
ROOF FRAMING
PLAN + DETAILS

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2 OF 3 STRUCTURAL SHEET

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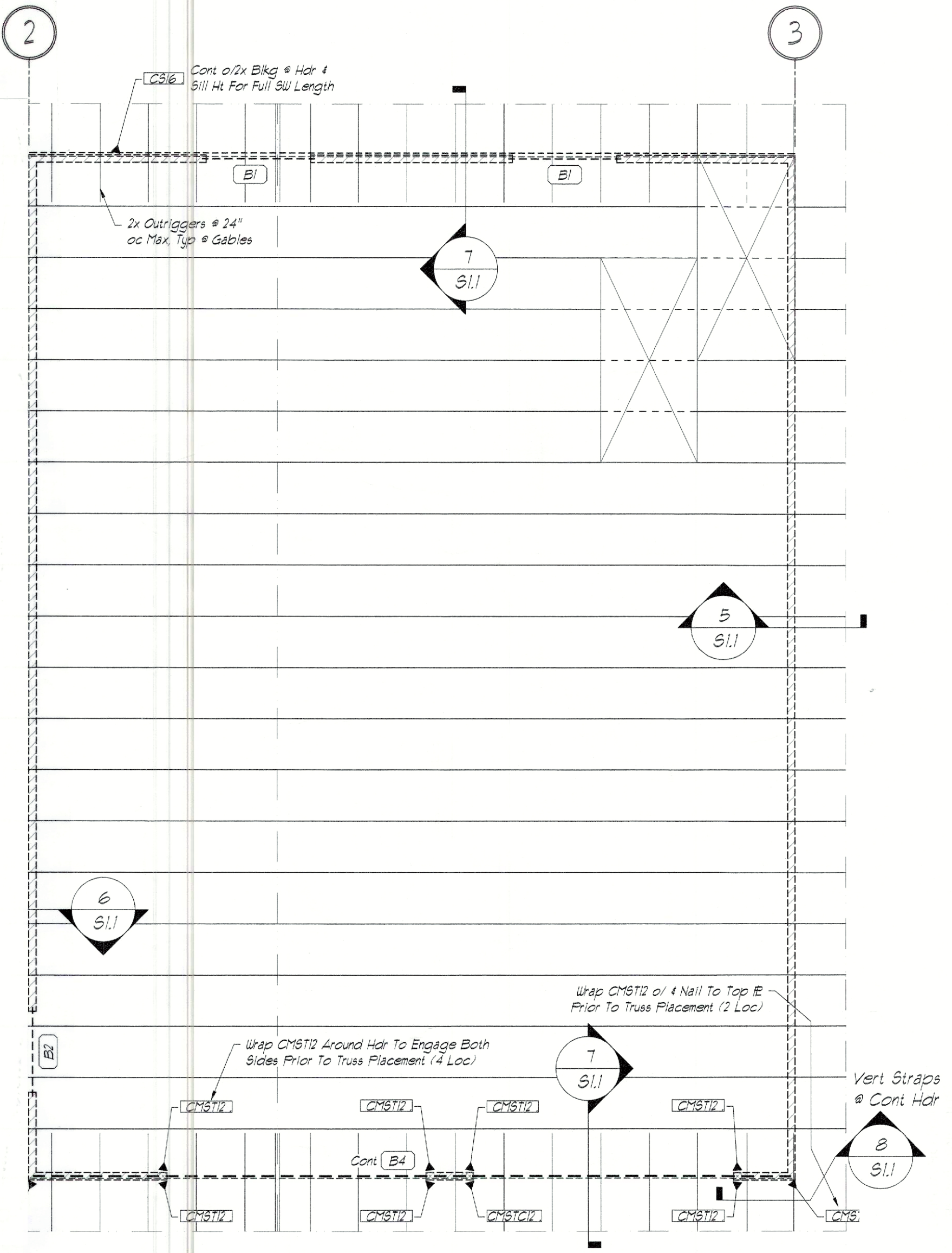
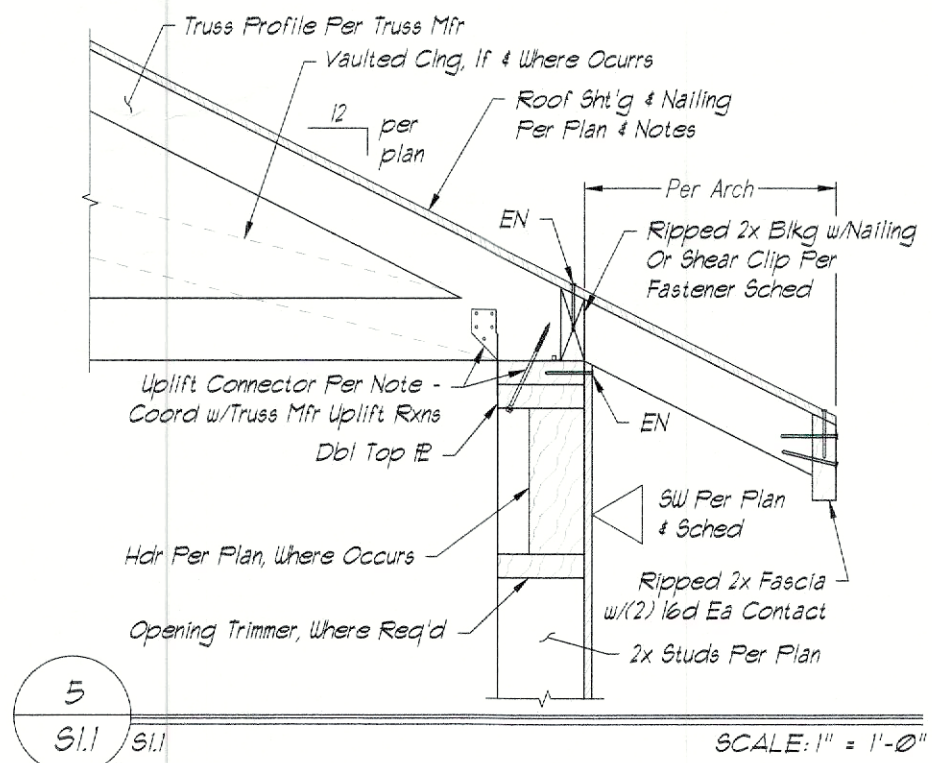
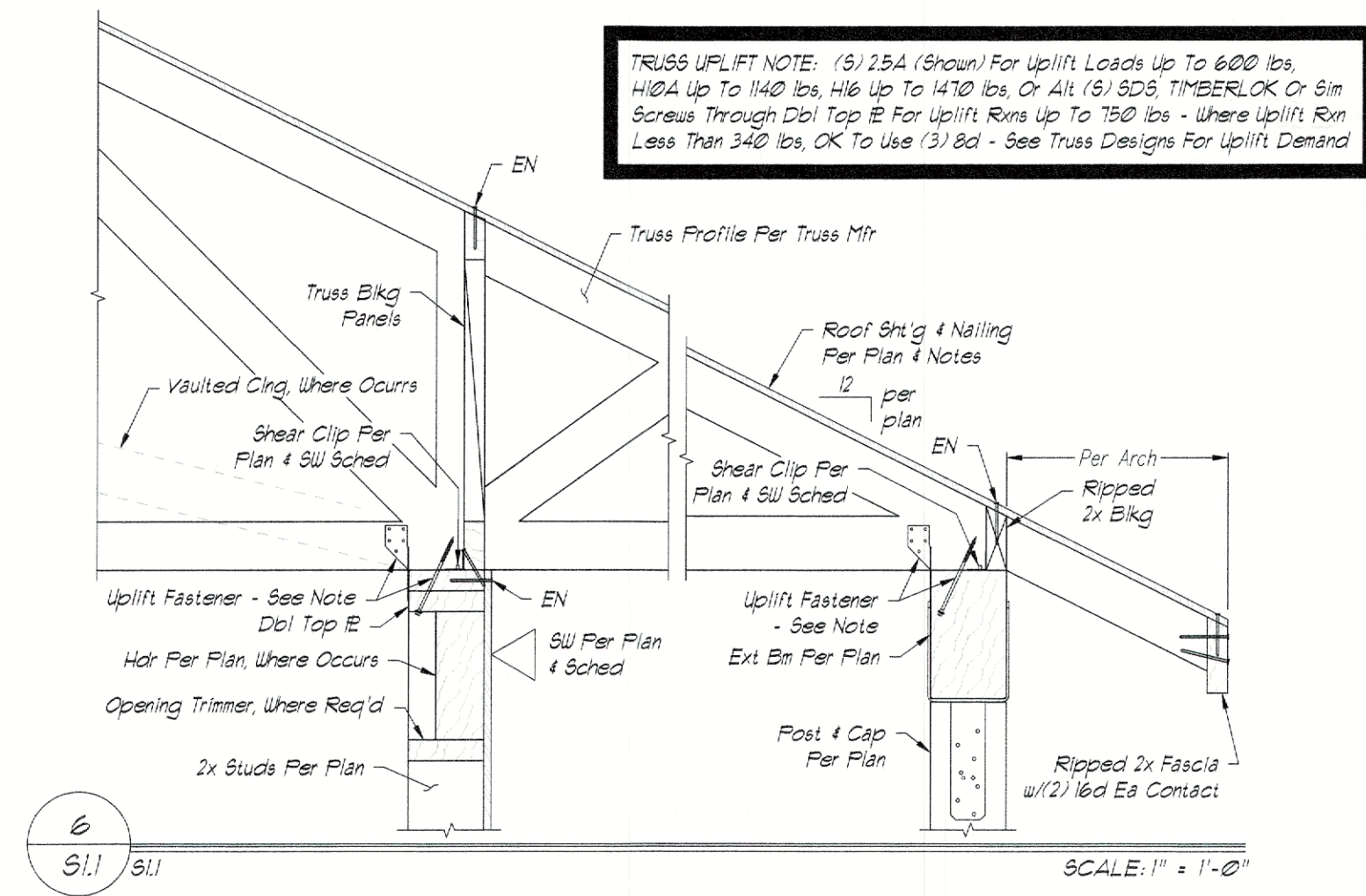
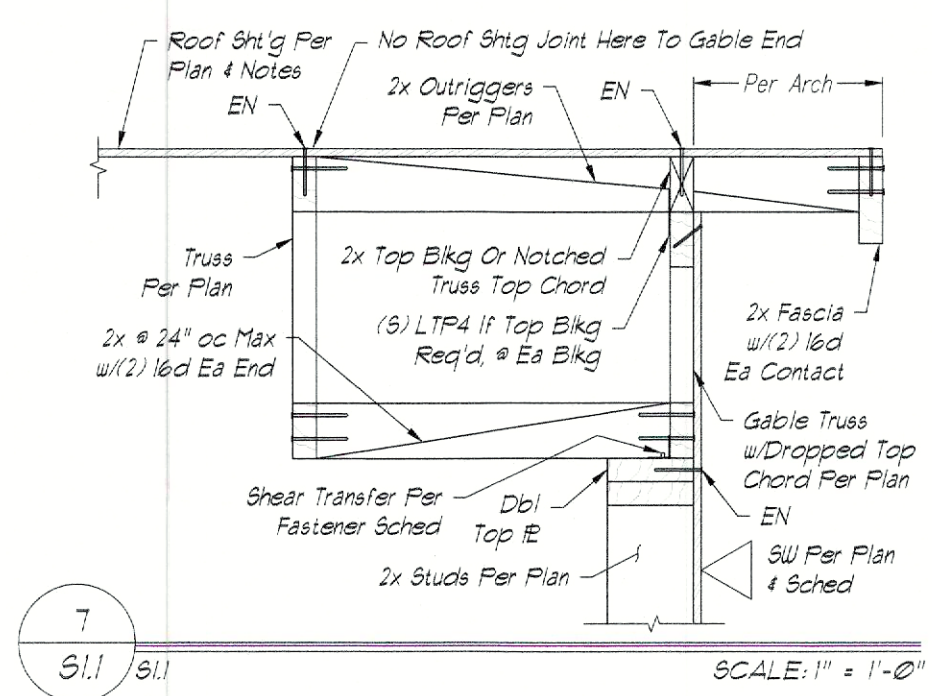
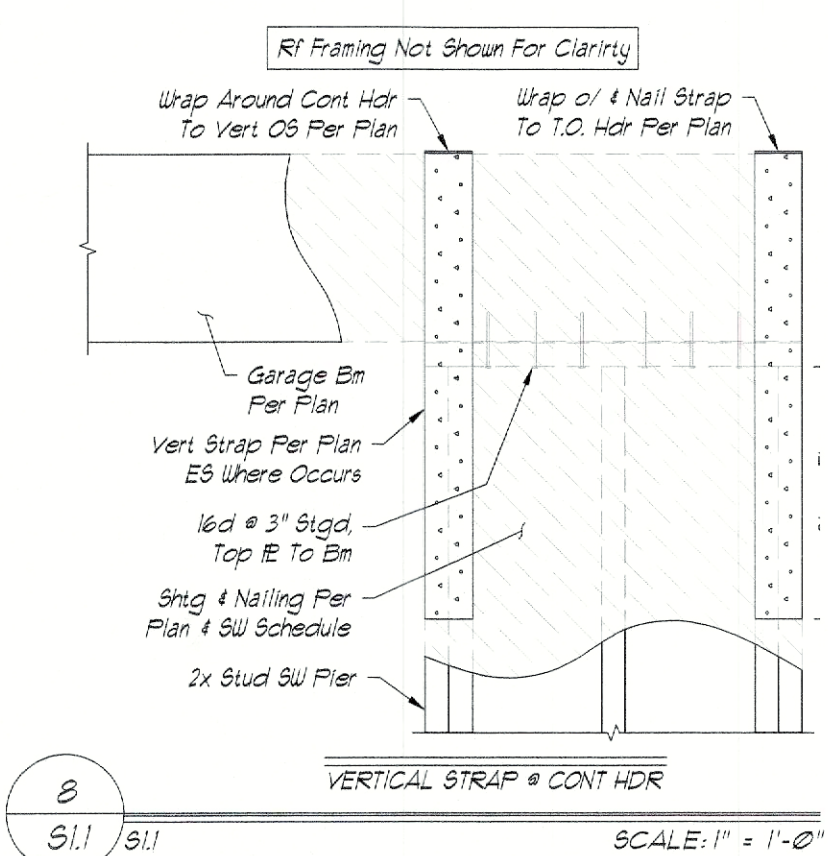
ROOF DIAPHRAGM SCHEDULE						
MARK	MATERIAL	TYPE	FASTENERS	EN	RN	NOTES
(RD)	WOOD	3/4" G-C G-D Or OSB Sing	8d w/ 3/8" Min Penetr	6" oc Max	12" oc	Use Plyed Brng Clips Or Brgs Unsuported Panel Edges

ROOF FRAMING SCHEDULE			
MARK	BEAM SIZE	SUPPORT TYPE	NOTES
B1	4x8 Or Sistered Dbl 2x8	Single Cripple/King Studs OK	n/a
B2	4x10 Or Sistered Dbl 2x12	Dbl Cripple/King Studs OK	n/a
B3	6x12 Or 3 1/2 x 9 24F-V4 GLB/VLAM Equiv	Post 1 Cap Per Plan	n/a
B4	3 1/2 x 12 24F-V4 GLB/VLAM Equiv	Post 1 Cap Per Plan	n/a

NOTES:

STRAP SCHEDULE		
STRAP CAPACITY	FASTENERS	NOTES
CS16	1705* (20) Ø.148 Or (22) Ø.131 x 2 1/2"	EL = 13" Ed End - OK To Slip Nails Blun @ 8" oc Max
CM572	925* (36) Ø.148 x 2 1/2" Or (74) Ø.162 x 2 1/2" Nails	EL = 38" To 4x Post Or Sistered Dbl Studs (Min)

NOTES:
1. All straps are req'd minimum. Larger straps and/or more fasteners OK w/o prior approval.



ROOF FRAMING PLAN

SCALE: 16.8 - 17.08

HOLD-DOWN SCHEDULE					
MARK	FASTENERS	ROD/ANCHOR/STRAP EL	WOOD VERT	CAPACITY	NOTES
HDU4	1/2" x 3 1/2" SCS	3/8" x 24 To Conc	Dbl 2x 4x 4	4565*	n/a

NOTES:
1. UNO orient all concrete anchor embed ends approx. centered within concrete walls, stems & footings.
2. Prior approval by Engineer-of-Record is required for any substitutions for or alterations to this table.

SHEARWALL SCHEDULE									
MARK	SHEATHING	EDGE NAILING	FIELD NAILING	END NAILING	SILL NAILING	3/8" SILL BOLTING	SHEAR CLIP	CAPACITY	NOTES
A	1/4" C-C, C-D Or OSB	2d @ 6" O.C.	2d @ 12" O.C.	2x DF2	16d @ 8"	3/8" x 8 @ 48"	(3) A34 @ 24" Or (3) L930 @ 48"	260 plf	n/a
B	1/4" C-C, C-D Or OSB	2d @ 3" O.C.	2d @ 12" O.C.	2x DF2	16d @ 8"	3/8" x 8 @ 48"	(3) A34 @ 24" Or (3) L930 @ 48"	430 plf	Sigd EN @ 1/2" Nom Framing @ Panel Edges

NOTES:
1. All exterior walls shall be sheathed & nailed to match minimum sheath/requirements UNO.
2. Foundation E (Sill E) in contact with concrete or masonry shall be pressure-treated.
3. Anchor bolts shall have 3" dia x 10" length. Top UNO.
4. Rebar and spacing is based on shearwall demand and is only required to be installed for the shearwall design length and locations as indicated per plan.
5. Rebar and spacing is based on diaphragm demand and continuous plates, and shall be required for full length or continuous wall line with average spacing no more than that indicated.

POST SCHEDULE			
MARK	POST	CAP	NOTES
P44	Wood 4 x 4	(3) ACE Or LCE	n/a
P60	Wood 6 x 6	(3) CCG Or 8in Preframed All (3) ACE Or LCE OK	PT @ Ext Loc

NOTES:
1. All sizes and grades are req'd minimum.
2. Solid posts may be replaced with built-up stud posts. See sheet S02 for requirements.
3. See sheet S02 for wood specifications.

BASE SCHEDULE			
MARK	Type	BASE	Anchorage
E	Wood Sill E	Wood Sill E	n/a
ST	Standoff Base	(3) A34 Or 8in Wedge AB Per Min Kit	Min Equiv To Fil Timber Post OK

NOTES:
1. All specified sizes and grades are req'd minimum. See sheet S02 for material specifications.

FOUNDATION SCHEDULE				
MARK	TYPE	SIZE	REINFORCING	NOTES
SLAB	SLAB	5" TRK	1/2"x6"x10" Gs WLF Or 1/2" @ 18" oc Centered Vert	Underlay: 2" Crushed Gravel Or Compacted Pad
FCI-4	CONT	1'-4" W x 0'-10" TRK	(2) #4 Cont w/ 1/2" Transv @ 32" oc Max	n/a
FFI-8	PAD	1'-8" SQ x 10" TRK	(2) #4 EW	n/a
FFI-4	PAD	1'-4" SQ x 10" TRK	(3) #4 EW	n/a

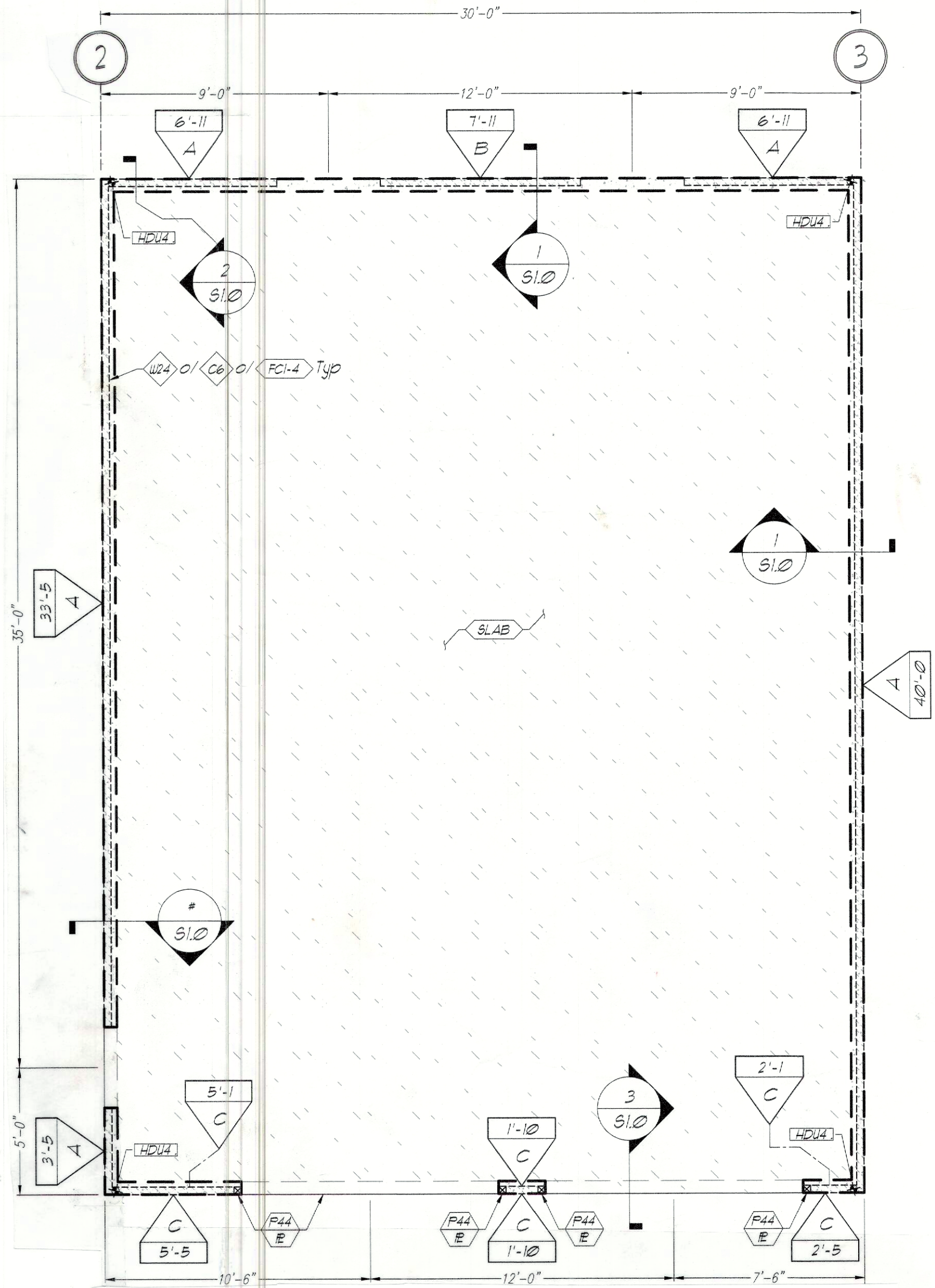
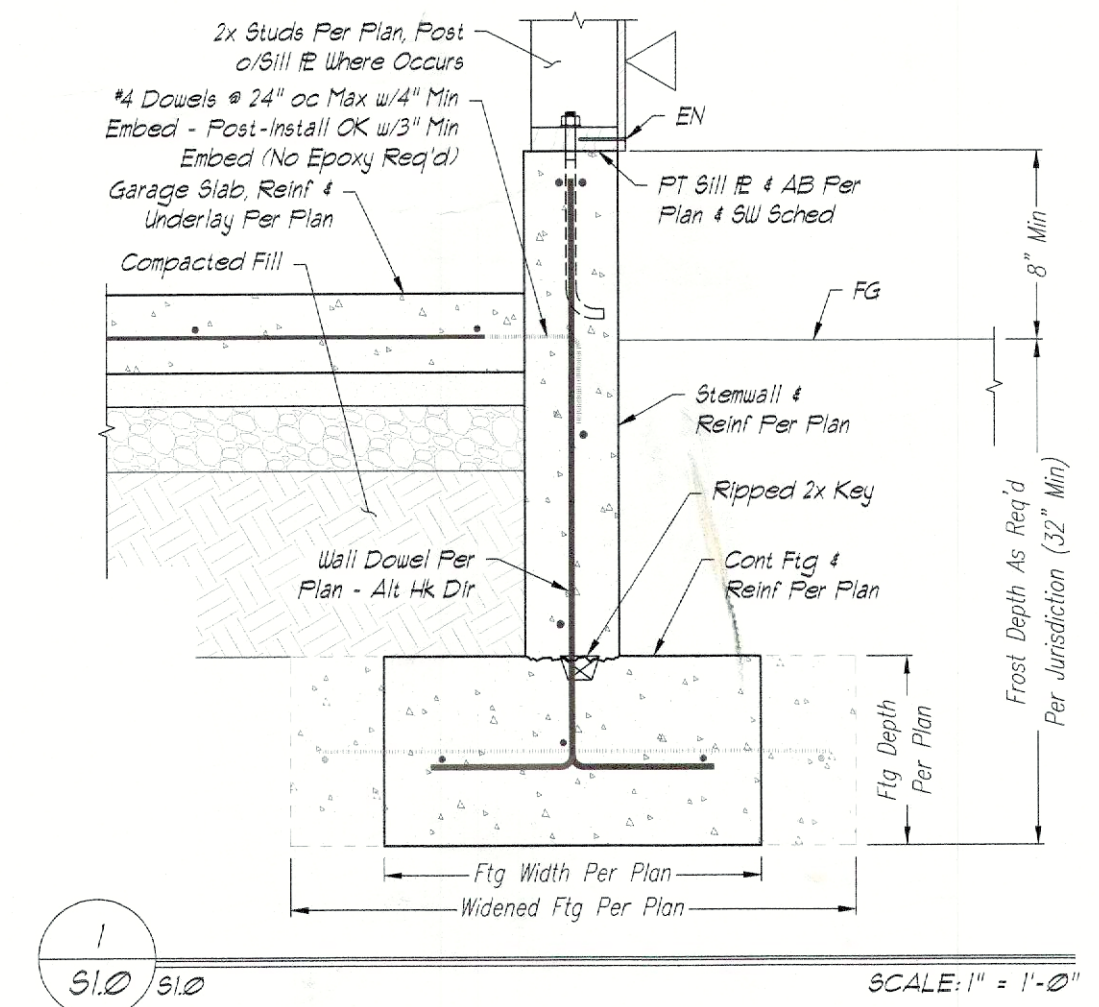
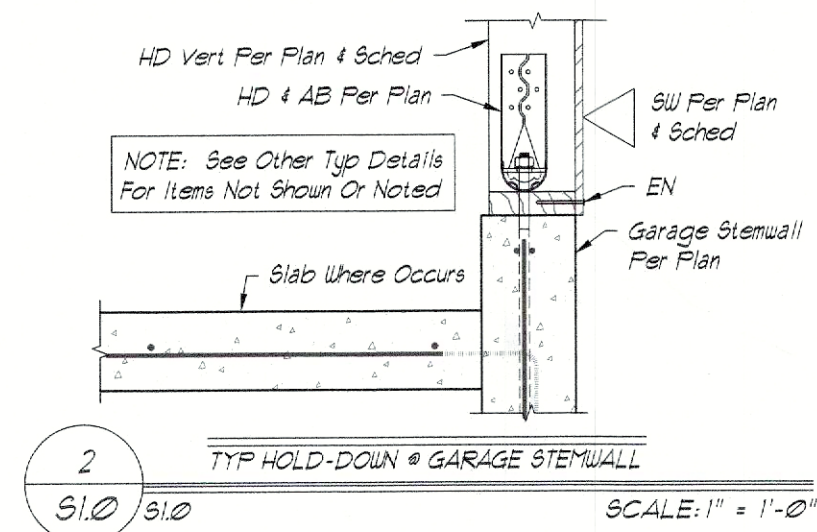
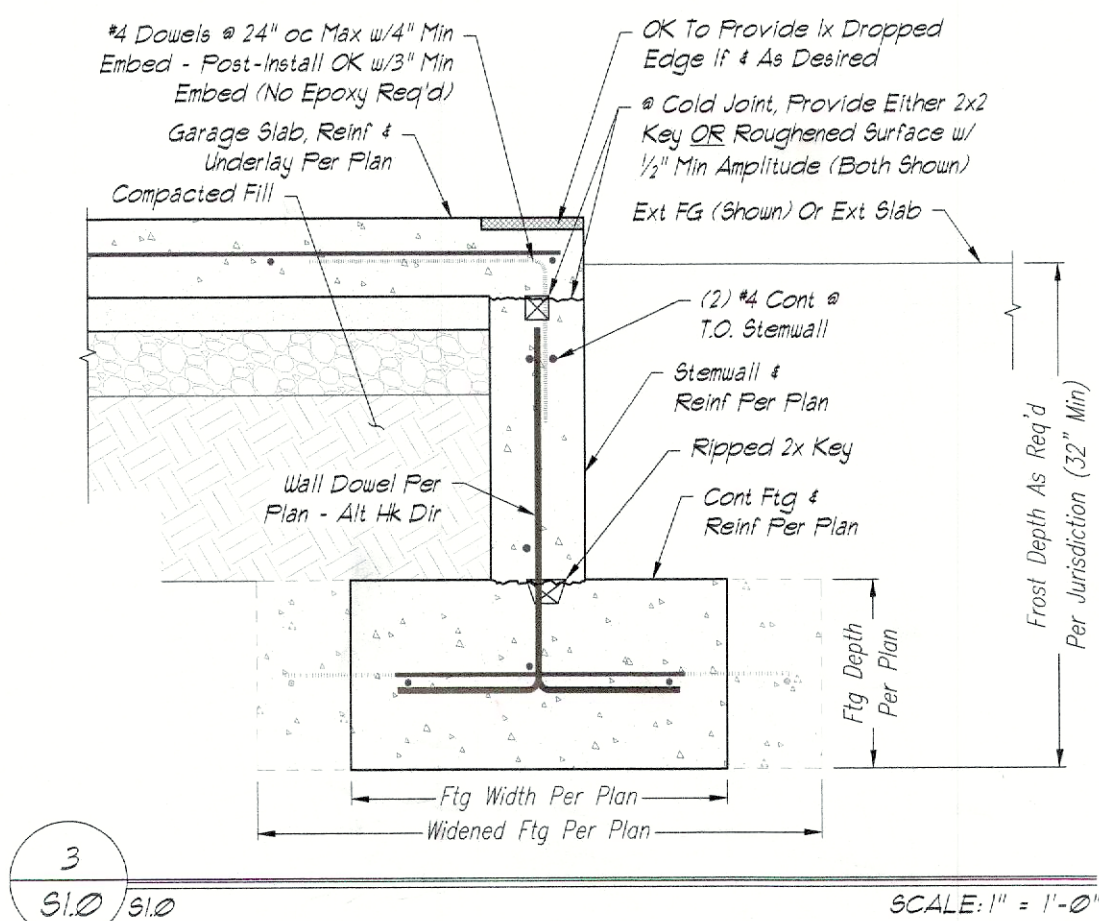
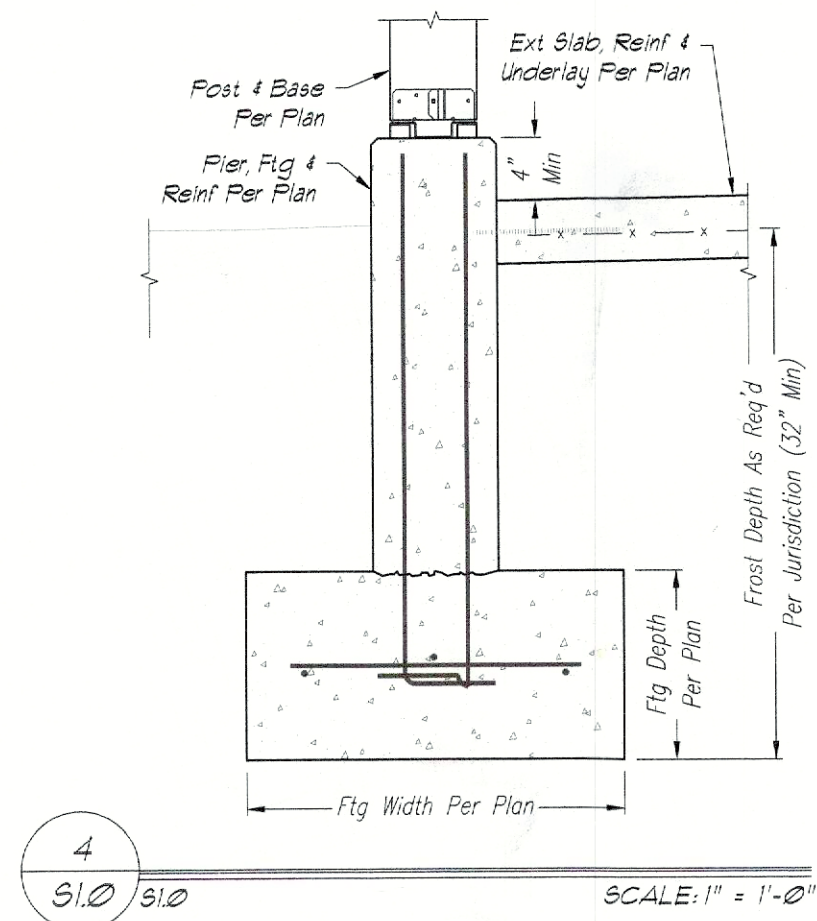
NOTES:
1. All sizes & quantities are req'd minimum. UNO it is acceptable to substitute larger sizes and/or more reinforcing without prior approval.
2. See sheet S02 for concrete and reinforcing specifications.

STUD WALL SCHEDULE			
MARK	MATERIAL	DESCRIPTION	NOTES
W24	WOOD STUD	2x4 Studs @ 16" oc Max w/Dbl Top E	Typ Struct Stud Wall

NOTES:
1. See sheet S02 for concrete reinforcing & wood specifications.
2. It is permissible to use larger sizes, better grades or reduced stud spacing without prior approval.

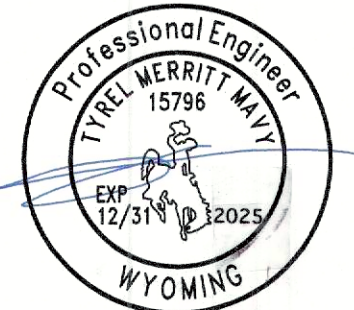
CONCRETE WALL SCHEDULE		
MARK	MATERIAL	DESCRIPTION
C6	CONC	6" TRK w/ #4 @ 18" EW 4 (2) #3 @ T.O. Wall

NOTES:
1. See sheet S02 for concrete reinforcing & wood specifications. See lateral plan for shearwall requirements.
2. It is permissible to use larger sizes, better grades or reduced stud spacing without prior approval.



FOUNDATION + LATERAL PLAN
SCALE: 1/4" = 1'-0"

STAMP:



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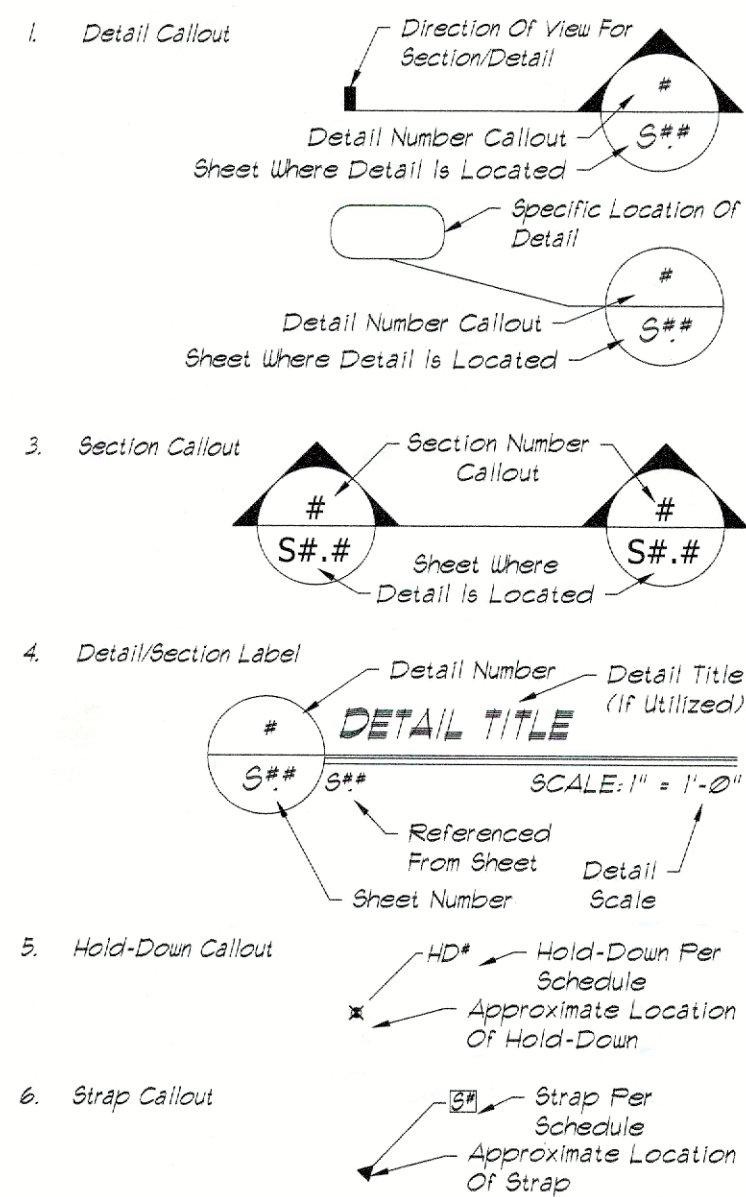
FASTENER SCHEDULE

The following are minimum fastener requirements for the conditions specified. Other nailing and/or fastening conditions may govern (i.e. top plate splices for shearwalls). See plans and other notes for conditions, locations and/or requirements which may exceed the minimums provided by this table. For fastening of manufactured products, refer to mfr recommendations.

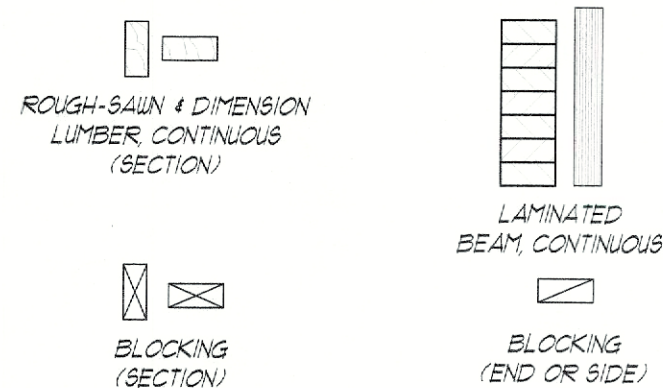
1. Jst to sill, bn or girder, TN	(3) 8d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
2. Bridging to jst, TN Ea end	(2) 8d, (2) Ø13" x 3" nails, (2) 14 Ga x 3" staples
3. 1x6 or less subfr to Ea jst, FN	(2) 8d
4. Wider than 1x6 subfr to Ea jst, FN	(3) 8d
5. 2x subfr to jst, bn or girder, blind 4 FN	(2) 16d
6. Sill E to jst or bkg, FN	16d @ 16", Ø13" x 3" nails @ 8", 14 Ga x 3" staples @ 12"
Sill E to jst or bkg at braced wall panels	(3) 16d @ 16", (4) Ø13" x 3" nails @ 16", (4) 14 Ga x 3" staples @ 16"
7. Top E to stud, EN	(2) 16d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
8. Stud to sill E, TN	(4) 8d, (4) Ø13" x 3" nails, (3) 14 Ga x 3" staples
Stud to sill E, FN	(2) 16d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
9. Dbl studs, FN	16d @ 24", Ø13" x 3" nails @ 8", 14 Ga x 3" staples @ 8"
10. Dbl top E's, FN	16d @ 16", Ø13" x 3" nails @ 12", 14 Ga x 3" staples @ 12"
Dbl top E's, lap splice	(8) 16d, (12) Ø13" x 3" nails, (12) 14 Ga x 3" staples
11. Bkg blwn jsts or rafters to top E, TN	(3) 8d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
12. Rm jst to top E, TN	8d @ 6", Ø13" x 3" nails @ 6", 14 Ga x 3" staples @ 6"
13. Top E's, laps 4 intersections, FN	(2) 16d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
14. Cont hor, (2) pieces	16d @ 16" along edge
15. Cng jst to E, TN	(3) 8d, (5) Ø13" x 3" nails, (5) 14 Ga x 3" staples
16. Cont hor to stud, TN	(4) 8d
17. Cng jst, laps 4 partitions, FN	(3) 16d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
18. Cng jst to parallel rafters, FN	(3) 16d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
19. Rafter to E, TN	(3) 8d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
20. 1x diag brace to Ea stud 4 E, FN	(2) 8d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
21. 1x6 shg to Ea brg, FN	(3) 8d
Wider than 1x6 shg to Ea brg, FN	(3) 8d
22. Built-up corner studs	16d @ 24", Ø13" x 3" nails @ 16", 14 Ga x 3" staples @ 16"
23. Built-up girders 4 bms, FN T&B, stgd, OS	20d @ 32", Ø13" x 3" nails @ 24", 14 Ga x 3" staples @ 24"
Built-up girders 4 bms, FN @ ends 4 Ea splice	(2) 20d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
24. 2x planks @ Ea brg	16d
25. Collar tie to rafter, FN	(3) 10d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
26. Jack rafter to hip, TN	(3) 10d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
Jack rafter to hip, FN	(2) 16d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
27. Rf rafter to 2x ridge bn, TN or FN	(2) 16d, (3) Ø13" x 3" nails, (3) 14 Ga x 3" staples
28. Jst to band jst, FN	(3) 16d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
29. Ledger strip, FN	(3) 16d, (4) Ø13" x 3" nails, (4) 14 Ga x 3" staples
30. Wall struct panels 4 particleboard, subfr, rf 4 wall shg to framing	
1/2 tk 4 less	6d @ 16", Ø13" x 2 3/8" nail, 16 Ga x 1 3/4" staple @
3/2 to 3/4 tk	8d or 6d def, Ø13" x 2 3/8" nail @ 4" @ 16", 16 Ga x 2" staple @ 4" @
7/8 to 1" tk	8d common or def
1 1/8 to 1 1/4 tk	10d or 8d
Wall struct panels 4 particleboard, single fr	
3/4 tk 4 less	6d def
7/8 to 1" tk	8d def
1 1/8 to 1 1/4 tk	10d common or 8d def
31. Panel siding to framing	
1/2 tk or less	6d corrosion-resistant siding or casing nail
3/4 tk	8d corrosion-resistant siding or casing nail
32. Fiberboard shg to framing	
1/2 tk	11 Ga x 1 1/2" roofing nail, 6d common, 16 Ga x 1 1/8" staple 1
3/4 tk	11 Ga x 1 3/4" roofing nail, 6d common, 16 Ga x 1 1/2" staple 1
33. Interior paneling to framing	
1/4 tk	4d casing or finish nails @ 6" EN/12" FN
3/4 tk	6d Panel supports @ 24", casing or finish nails @ 6" EN/12" FN

NOTES:
A. Where EN & FN are noted, such may be designated as EN/12" FN @ 6". FN @ 12" unless otherwise noted, common or box nails permitted for all conditions. All staples shall have 1/4" min crown width.
B. Nails spaced @ EN/12" FN except for EN/12" FN where FN supports span 48" or more.
C. Common or deformation shank.
D. 8d nails req'd for roof or ceiling panels 1" shg.
E. Resistance specified @ 4" EN/8" FN for r/r shg.
F. Fasteners spaced @ 4" EN/8" FN for subfr 4 wall shg. 3" EN/16" FN for r/r shg.
G. Corrosion-resistant roofing nails w/ 4 heads.
H. Corrosion-resistant staples w/ 1 crown. FN supports @ 16".
I. Fasteners spaced @ 3" EN/16" FN when used as structural shg. Spacing shall be @ 6" EN/12" FN for non-struct application.
J.

TYPICAL SYMBOLS



LUMBER LEGEND



CONCRETE MIX DESIGN

TYPE OR USE	28-DAY STRENGTH	MAX AGGREGATE	MAX SLUMP
Garage Slabs, Stemwalls, Piers, Footings	3000 psi	3/4"	6"
Concrete Not Otherwise Specified	2500 psi	1"	6"

TYPICAL CONSTRUCTION NOTES

- All manufactured hardware and framing materials identified in these plans may be substituted for similar materials manufactured by others, provided all such substitutions are with materials of at least equal capacity as those specified in these plans. All such substitutions shall be submitted to the EOR prior to their use and/or installation.
Hardware manufactured by USF Structural Connectors may be used without prior approval of the Engineer-Of-Record provided the strength requirements as previously described are met.
- As a minimum, the following shall be used, unless otherwise noted within these plans:
 - Sill Plates: All sill plates in contact with concrete shall be FT-DF #2 (Min) with a bolt between 6" and 9" from the end of each piece of sill plate with two (2) bolts (Min) per sill plate. Sill plates of other wood products are prohibited.
 - Sill plates shall be anchored to concrete w/ 6" (min) anchor bolts embedded at least 10" and spaced at no more than 48" oc.
 - Double top plates shall be applied with a minimum of (8) 10d nails at each side of each top- and bottom-piece joint splice. Concurrent splice joints shall be no closer than 48".
 - Shearwalls: All exterior walls shall be sheathed and nailed to match the minimum shearwall type per the shearwall schedule or plan notes, as applicable.
 - Post Alternate - Unless otherwise noted, it is acceptable to use built-up 2x studs in place of solid-sawn posts not exposed to weather, provided the following criteria are met:
 - The built-up section members are of the same material 4 grade as the post, including pressure-treated where specified (see TIMBER SPECIFICATIONS, this sheet).
 - The built-up section is at least as large as the identified post section.
 - The built-up section members are sistered together with 16d nails spaced at no more than 12" oc, staggered, and driven at varying angles to 'lie' each 2x ply to adjacent plys.
 - The ends of the built-up member are cut flush for full and uniform bearing.
 - Where a mechanical base or cap is required, the built-up section shall be either routed or sheathed for proper fit-up. Another suitable base or cap may be used, provided capacities meet or exceed those of the base or cap specified.
 - Construction adhesive is applied between plys in addition to the sistering nails.

TIMBER SPECIFICATIONS

- All timber grades as specified in these notes are minimum grades. It is acceptable to use grades of better quality (i.e. higher strength) without first obtaining approval from the EOR for any such variance.
- Timbers of nominal width equal to or larger than 4" shall not contain bowed heart (i.e. free-of-heart-center) or FOHC, unless noted "No FOHC OK" in these plans.
- All Douglas-Fir (DF) Products shall be graded by the Western Wood Products Association Grading Rules and any applicable ASTM standards (i.e. ASTM D245).
- All load-bearing and shearwall framing shall be Douglas-Fir #2. All studs 10"-0" and longer shall be Douglas-Fir #1.
- All sawn beams 4 headers less than 10"-0" shall be Douglas-Fir #2 or Douglas-Fir #1 for spans 10"-0" or longer, unless noted otherwise.
- All glue-laminated beams shall be 24F-V4 DF/DF. All multi-span 4 cantilever GLB's shall be 24F-V8 DF/DF.
- All posts shall be Douglas-Fir #1 or Better.
- No notching of timber products is allowed unless otherwise noted in these plans or subsequently issued via approved addendum or sketches. Any such addendum or sketches shall be accompanied by the wet stamp and signature of the EOR.
- Fasteners in preservative-treated and fire-retardant-treated wood shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper.
- Steel washers shall be provided under heads and nuts of all lag screws and bolts which bear on wood. The following minimum requirements shall be followed for sizing of washers to be used in sill plate applications:

Bolt/Lag Diameter	Steel FL Washer Size	Malleable Iron Washer Size
1/2"	2" Sq x 1/4"	2 1/2" Dia x 1/4"
5/8"	2 1/2" Sq x 1/4"	2 3/4" Dia x 3/8"
3/4"	3" Sq x 3/8"	3" Dia x 3/8"
7/8"	3 1/2" Sq x 3/8"	3 1/2" Dia x 3/8"
1"	3 3/4" Sq x 3/8"	4" Dia x 1/2"

For structures classified as Seismic Design Category D, E or F (See General Notes, this page), or for shearwalls where the design load exceeds 450 pounds per linear foot (plf), washers shall not be smaller than 3" Sq x 3/8" FL.

Standard cut washers may be used for all other applications, unless noted otherwise in these plans.

MFR WOOD ROOF TRUSSES

- Contractor/Fabricator shall field verify all structural dimensions prior to fabrication of any structural elements as required by these plans.
- Trusses shall be designed in accordance with the latest IBC and all other applicable reference documents.
- Design Load:

	Dead	Live	Snow
3.1. Top Chords:	10 psf	20 psf	100 psf
3.2. Bottom Chords:	Dead Live	10 psf 10 psf	
- Dead Loads may be assumed to include the weight of the trusses.
- Live 4 Mechanical Loads may be considered to act independently (i.e. not concurrently).
- All top 4 bottom chords shall meet a minimum specific gravity 'G' = 0.50 (Douglas-Fir Larch).
- Truss calculations shall include calculations for bearing stress to ensure that the allowable bearing stresses are not exceeded. Truss plans 4 calculations shall be prepared under the direction of and stamped by a professional or structural engineer registered in the State.
- The trusses shall be designed as a complete system, including all bracing and connections not shown or noted on these plans. Truss framing shall be similar to the framing as indicated in these plans. Alternate framing layouts may be submitted for approval (which may result in delays).

CONCRETE NOTES

- Concrete mixing, placing and pouring shall be in accordance with ACI 318 and the project specifications. Mix design shall be in accordance with the applicable sections of the CBC and these plans. Mix designs must be submitted for approval prior to placement of concrete.
- All pipes and conduits passing through walls and footings shall utilize sleeves affixed prior to placing of concrete.
- Concrete shall not be permitted to drop from a full height of more than six (6) vertical feet. Hoppers and/or vertical chutes shall be used to avoid segregation in and around reinforcing steel (i.e. in formed cast-in-place concrete walls).
- Footings (spread 4 continuous) are centered under posts, columns and walls, UNO.
- The finished surface of all horizontal concrete shall be removed so as to expose clean, solidly aggregated. All reinforcing steel dowels used at horizontal construction joints shall be free of flaking oxidation (rust) and any cured concrete (i.e. hard concrete adhered to the surface of the reinforcing dowels) prior to placement of new concrete at the construction joint.
- Footings shall bear on firm undisturbed native soil or compacted engineered fill.
- Unless otherwise noted in these plans, concrete mixes shall meet the criteria as listed in the table titled CONCRETE MIX REQUIREMENTS elsewhere within these plans.

REINFORCING STEEL NOTES

- Reinforcing placement and splicing shall be in accordance with the Manual of Standard Practice by the Concrete Reinforcing Steel Institute.
- Non-coated reinforcing steel shall be kept clean and free of corrosion or rust prior to placement of concrete.
- Splices of continuous steel reinforcement bars shall use Class B lap splices (1'-6" min) with adjacent splices spaced at no less than 3'-0".
- Welded wire fabric lap splices shall be lapped a minimum of 12".
- Provide any and all accessories necessary to support the reinforcing steel and hardware in place as shown in these plans.
- Wet-stabbing of reinforcing steel dowels or embedded anchor bolts shall not be permitted.
- Protection (clearance from edge or face of concrete) for reinforcing steel shall conform to the following:

7.1. Concrete poured against earth	3"
7.2. Concrete formed but exposed to earth or weather	2"
7.3. 15' 4' shaler	1 1/2"
7.4. 16' 4' larger	2"
7.5. Column 4 beams	1 1/2"
7.6. Interior walls 4 slabs	1 1/2"
7.7. Slab-on-Grade - from bottom	2"
7.8. Structural - from top	1 1/2"
7.9. Non-structural - from top	2"
- Each bar shall be wire-tied or attached by other approved method to ties, stirrups or cross-bars at a maximum of 24".
- Welding of steel reinforcing bars shall comply with requirements of the American Welding Society (AWS/D1) 2005 and the following:

9.1. Rebar to ASTM A36	E70XX electrodes
9.2. Rebar to A500 or stronger	E80XX electrodes
9.3. Rebar to Rebar	E80XX electrodes

- Reinforcing steel shall meet the following requirements:

10.1. Welded Wire Fabric	ASTM16
10.2. Ties or stirrups	ASTM A615, Grade 60
10.3. Other Bars (not welded)	ASTM A615, Grade 60
10.4. Welded bars	ASTM A706

TYPICAL STRUCTURAL ABBREVIATIONS

AB	Anchor Bolt	Dwl	Dowel	LLV	Long Leg Vertical	SDst	Self Drilling Self
Abv	Above	EP	Existing	LP	Louisiana Pacific Corp.		Tapping Screw
Adh	Adhesive	Et	Each	Lt	Light	Sh	Sheet
Adj	Adjust	Elev	Elevation	LWC	Light Weight Concrete	Shg	Sheathing
Adj'd	Adjusted	BN	Edge or End Nailing	MB	Machine Bolt	Sm	Similar
AF	Above Finish	Engr	Engineered	Max	Maximum	SUV	Short Leg Vertical
Arch	Architectural	EO	Edge Of	Mfr	Manufacturer	SMS	Sheet Metal Screw
BCL	Boise Cascade Inc.	EOR	Engineer Of Record	Min	Minimum	SOG	Slab-On-Grade
Bldg	Building	Eq	Equal	Spec	Specification/s		
Block	Block	ES	Each Side	Mt	Metal	SS	Stainless Steel
Bkg	Blocking	EW	Each Way	N	None	Std	Standard
Blw	Below	Exp	Expansion	No.	Number	Stg	Staggered
BFF	Below Finish	Ext	Exterior	NS	Near Side	Stiff	Stiffener
Bm	Beam	FF	Finish Floor	NTS	Not To Scale	Stl	Steel
BN	Boundary Nailing	FG	Finish Grade	NWC	Normal Weight Concrete	Struct	Structural
BO	Bottom Of	Flr	Floor	cc	On Center	Sq	Square
Bott	Bottom	FN	Field or Face Nailing	OD	Outside Diameter	T&B	Top 4 Bottom
Brg	Bearing	Fndn	Foundation	Opp	Opposite	T&G	Tongue 4 Groove
Btwn	Between	FO	Face Of	Opp	Opposite	TF	Top Flange
Bynd	Beyond	FOHC	Free Of Heart Center	OS	Opposite Side/s	Trk	Track/anchoredness
Cable	Cable	Fr	Frame, Framing	Par	Parallel	TJ	True-Joint Inc.
C	Construction Joint	Rsp	Perpendicular	RS	Rear Side	TO	Top Of
CL	Center Line	Rig	Footing	RFL	Flouder Driven Fastener	Trans	Transition
Cng	Ceiling	Ga	Gage	R, FL	Plate	Transv	Transverse
Cl	Clear	GLB	GLU-Laminated Beam	Plywd	Plywood	Typ	Typical
CMU	Concrete Masonry Unit	(H)	Hill Corp	Press	Pressure	(U)	Unistrut Corp.
Col	Column	HD	Hold-Down	psf	Pounds per Square Foot	UNO	Unless Noted Otherwise
Conc	Concrete	Hdr	Header			UR	Unreinforced Masonry
Conn	Connect, Connection	Hgr	Hanger	psl	Pounds per Square Inch	OW	Open Web Joist
Cont	Continuous	HK	Hook	PT	Pressure Treated, Post	Vert	Vertical
Countersink	Countersink	Horiz	Horizontal			w/	With
4 Dia	4 Dia	Height	Height			w/o	Without
Diag	Diagonal	ID	Inside Diameter			WF	Wide Flange
Dbl	Double	Incl	Included			WPF	Wide Flange
Demo	Demolition	Int	Interior			WS	Wood Screw
Det	Detail	ITU	ITU Red Head Corp.			Wt	Weight
DF	Douglas Fir	JH	Joist Hanger			WLF	Welded Wire Fabric
Dig	Dugout	Jt	Joint			Wd	Wood
Dim(s)	Dimension/s	Jst	Joist			Wdy	Width

GENERAL STRUCTURAL NOTES

- The Contractor shall verify all field dimensions prior to fabrication 4 erection.
- If there are any omissions, errors or discrepancies discovered within these plans (i.e. dimension conflicts), contact the Architect or Engineer of Record for clarification and/or correction prior to continuing with construction.
- All plan dimensions as indicated on these plans or on architectural plans are assumed to be from face of studs or face of concrete UNO.
- Design Loading Criteria:

4.1. Roof:	Dead Live Snow (Uniform Roof) 4 Per Jurisdiction	10 psf 20 psf 100 psf
4.2. Risk Cat:	II	10 psf
4.3. Wind:	Basic Speed: Exposure C Ceiling Fitch Kz = 1.00	105 mph (ult) 4:1 100
4.4. Seismic:	Lat: 43.59945° N Long: 111.003335° W Site Class = D Des Cat = D Ss = 113 S1 = 0.343 S2 = 1.00 Rwsd = 6.5	105 mph (ult) 4:1 100

FOUNDATION NOTES

- Minimum allowable soil pressures, per 2018 IBC:

11. Dead + Live	5000 psf
12. Dead + Live + Wind/Earthquake	2000 psf

***Covenant Engineering shall not be responsible for any negative effects, damage or other detrimental results related to inadequate or uncompacted soil and/or backfill conditions.

SAFETY NOTES

- It is the Contractor's responsibility to comply with all federal and state regulations regarding maintaining a safe work environment and performing work in a safe manner. It is the Contractor's responsibility to be aware and comply with all OSHA requirements that may apply to this construction project.

STRUCTURAL REFERENCE CODES

- All work to be performed under these project plans shall conform to the following applicable codes and any applicable supplements and amendments:
 - 2018 International Building Code
 - ASCE 7-16 Minimum Design Loads for Buildings and Other Structures
 - ACI 318-14 Building Code And Commentary (Concrete)
 - ANSI/AIA/AFPA NDS-2015 National Design Specification for Wood Construction

STRUCTURAL SHEET INDEX

- 600 STRUCTURAL NOTES 4 REFERENCES
- 510 FOUNDATION 4 LATERAL PLAN 4 DETAILS
- 511 ROOF FRAMING PLAN 4 DETAILS

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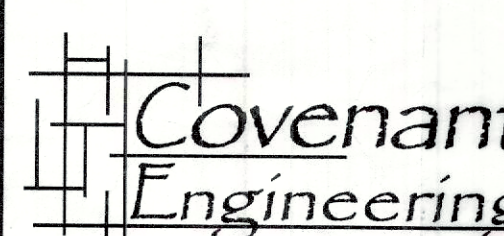


PROJECT:

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ISSUES: REVISIONS:

NO. DATE BY DESCRIPTION

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DATE: 2025

DRAWN BY: TMM

CHECKED BY:

SHEET NUMBER:

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1 OF 3 STRUCTURAL SHEETS

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