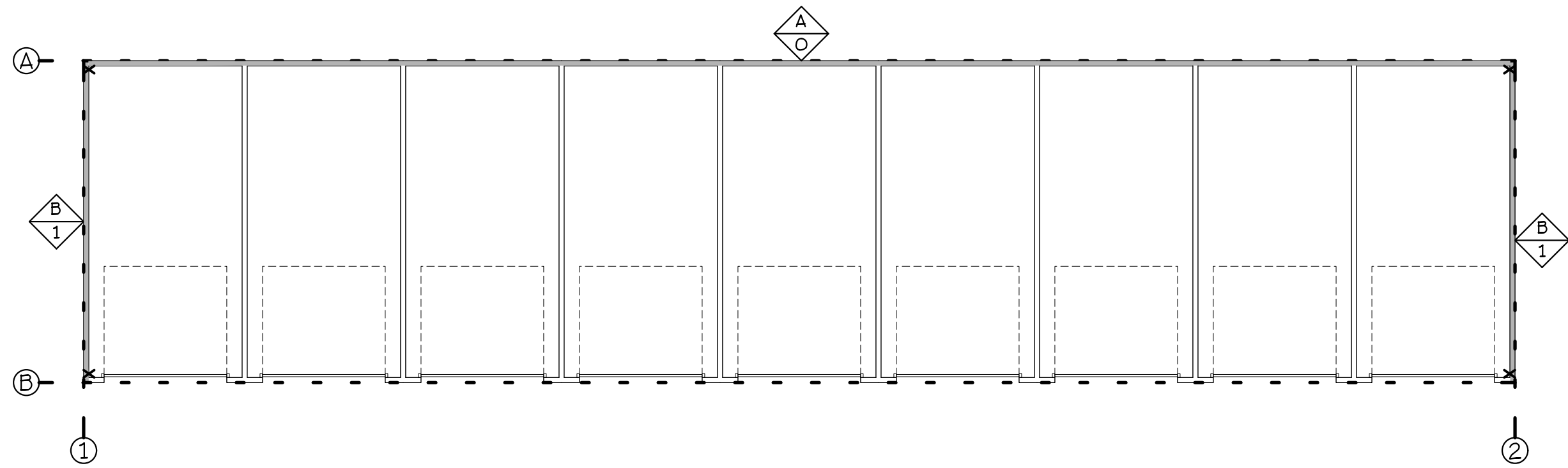




LOWER FLOOR PLAN
SCALE: 1/8" = 1'-0"

STORAGE 2 (9 STORAGE)

DESIGN LOADS:

A. Roof Dead Load	= 17 psf
B. Roof Live load	= 20 psf
C. Floor Dead Load	= 20 psf
D. Floor Live load	= 40 psf
E. Stair Dead Load	= 50 psf
F. Stair Live load	= 100 psf
G. Flat roof snow Load	= 12.6 p.s.f.
H. Minimum snow Load	= 25 p.s.f.
I. Exposure factor	= $C_e = 0.9$
J. Thermal factor	= $C_t = 1.0$
K. Importance factor	= $I_s = 1.0$
L. Slope factor	= $C_s = 1.0$

WIND:

Basic Wind Speed $V = 120$ mph
Design Wind Speed $V_{wz} = 93$ mph
Importance Factor $I = 1.0$
Wind Exposure = B
Internal Pressure Coefficient $G = \pm 0.18$

SEISMIC:

Risk Category = II
Seismic Importance Factor $I_s = 1.0$
 $S_s = 0.796$
 $S_1 = 0.398$
 $S_{m1} = 0.743$
 $S_{m2} = 0.493$
Seismic Design Category=D
Seismic Force Resisting System-Bearing wall system w/ structural wood panels.
Response Modification Coefficient $R=6.5$.
Design Base Shear= $0.71 \times W$
Seismic Response Coefficient $C_s=0.116$.
Analysis Procedure-Equivalent Lateral Force Procedure.

GENERAL STRUCTURAL NOTES:

CODE:

A. All materials and workmanship shall conform to the requirements of the State of Oregon 2022 Structural Specialty Code.

GENERAL:

- A. Contractor shall be responsible for all construction methods, techniques, sequencing and safety required to complete construction.
- B. Contractor shall verify all dimensions and details prior to proceeding with construction. All discrepancies shall be approved by the Architect or Engineer of record.
- C. Contractor shall verify all required openings on Architectural, Mechanical and Electrical plans.

FOUNDATION:

- A. Footings have been designed for a maximum allowable soil bearing pressure of 1500 psf. (Geotech Report).
- B. All footings shall be poured against undisturbed soil unless otherwise noted. (See Geotech report for soil condition and requirements).

CONCRETE:

- A. All structural concrete shall develop a unit compressive stress of 2500 psi minimum at 28 days per O.S.S.C. section 1904.1.

REINFORCED STEEL:

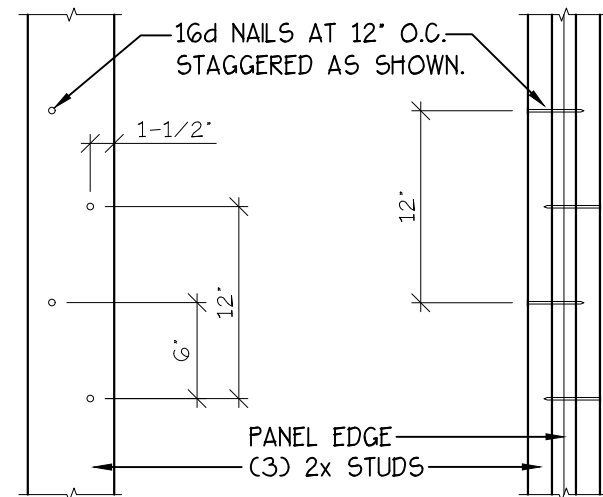
- A. All reinforcing steel shall be ASTM A615, Grade 60 rail steel deformed bars conforming to ASTM A706, Grade 60 bars where welding is required.
- B. Details of reinforcing steel shall conform to ASTM Manual of Standard Practice, Code of Standard Practice for Detailing Reinforcing Materials, by CRSI and WCRSI (latest Edition).
- C. All concrete slab reinforcing steel shall be supported at the required heights by approved bolsters prior to pouring slab concrete.

REINFORCING PROTECTION:

- A. Concrete deposited against earth = 3 inches
- B. Concrete formed surfaces exposed to ground or weather: #5 rebar and smaller - 1-1/2 inches.
- C. Slabs = 3/4 inches.

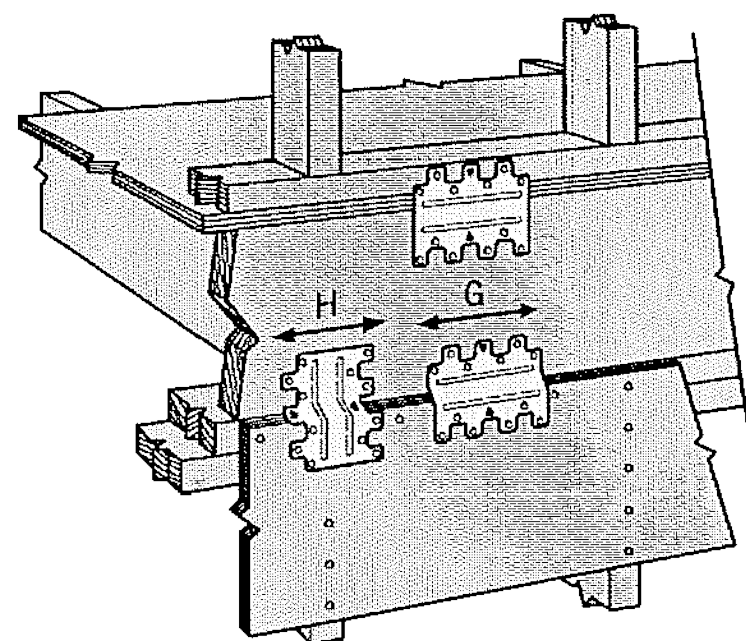
STRUCTURAL WOOD:

- A. All structural wood members shall conform to the National Design Specifications for Stress Grade Lumber and its fastenings.
- Post and Beam 1st floor framing - Douglas Fir No. 2 or better.
- Floor Joists and Headers - Douglas Fir No. 2 Unless noted otherwise.
- Stud walls - Douglas Fir stud U.N.O.
- (Use of Hem-Fir of Mix shall be acceptable only with approval from the engineer)
- B. The Contractor shall furnish and install all bolts, and plates as required to complete the job.
- C. Washers shall be used under all bolt heads and nuts bearing on wood.
- D. All wood members in contact with concrete or masonry shall be pressure treated.

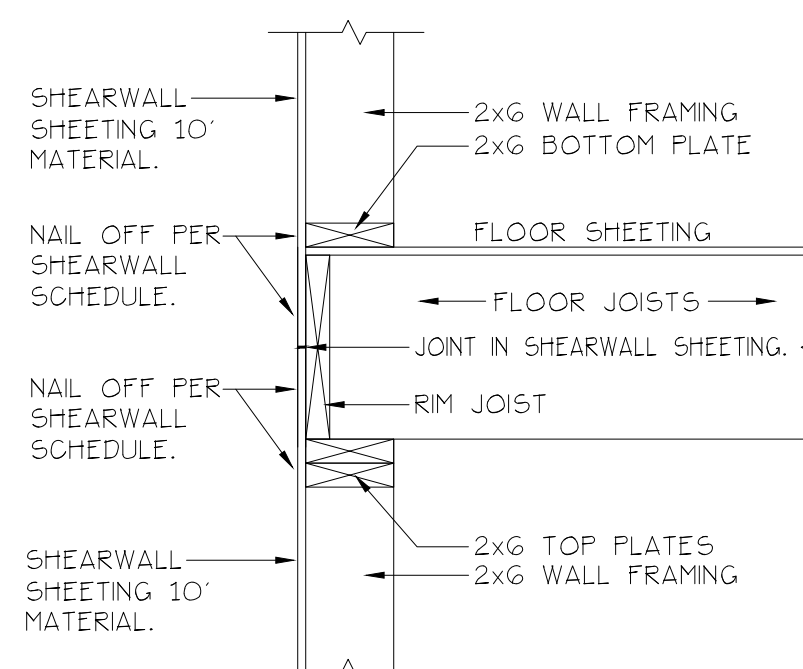


THIS DETAIL IS SHOWN TO CLARIFY
NOTE #11 OF SHEAR WALL SCHEDULE.

(C3) 2x STUDS LAMINATED
N.T.S.



LTP5 INSTALLATION
N.T.S.



ALTERNATE WALL NAILING
TO ELIMINATE LTP-5 (note 14)
N.T.S.

HOLDOWN SCHEDULE^{1,2,3,4}

HOLDOWN TYPE	HOLDOWN	ANCHOR BOLT	ANCHOR DIAMETER	EMBED LENGTH	MIN. STEM-WALL WIDTH	WOOD MEMBER	CONNECTION TO WOOD MEMBER	REMARKS	ALLOWABLE LOAD
1	No Holdown								
2	HDU2	SSTB24	5/8"	20	5/8"	(2) 2x6 ^G	(G) 1/4"x2-1/2" ⁷		3,075#
3	HDU4	SB5/8x24	5/8"	18"	6"	(2) 2x6 ^G	(10) 1/4"x2-1/2" ⁷		4,565#
4	HDU5	SB5/8x24	5/8"	18"	6"	(2) 2x6 ^G	(14) 1/4"x2-1/2" ⁷		5,645#
5	HDU8	SB7/8x24	7/8"	18"	8"	4x6	(20) 1/4"x2-1/2" ⁷		7,870#
6	HDQ8	PAB7-30	7/8"	26	3/4"	8"	(20) 1/4" x 3" ⁷		9,230#
7	HD12	PAB8-30	1"	26	3/4"	8"	(4) 1" DIA. M.B.		14,220#
8	HDU14	PAB8-30	1"	26	3/4"	8"	(36) 1/4"x2-1/2" ⁷		14,445#
9	MSTC28	N/A	N/A	N/A	N/A	(2) 2x6 ^G	(16) - 16d Sinker		1,540#
10	MSTC40	N/A	N/A	N/A	N/A	(2) 2x6 ^G	(32) - 16d Sinker		3,080#
11	MSTC52	N/A	N/A	N/A	N/A	(2) 2x6 ^G	(48) - 16d Sinker		4,620#
12	MSTC66	N/A	N/A	N/A	N/A	(2) 2x6 ^G	(64) - 16d Sinker		5,860#

Notes:

- Holdowns by Simpson strong-Tie Company, Inc. See Simpson catalog for proper installation.
- Hardmount all holdown anchors prior to concrete pour.
- Edge nail sheathing to all posts or boundary members at holdowns.
- Locate Holddown within 6" of end of Shear Panel.
- All wood members must be 'Douglas fir'.

- Laminate studs with 16d Nails at 12" on center staggered. Clinch tips of nails.
- Use Simpson SDS 1/4" dia. wood screws.
- 2 Holdowns required (See 'Holdowns between floors' detail this sheet).
- Use threaded rod + CNW coupler to attach to anchor bolt at foundation. Run threaded rod up to Holddown at lower floor and connect.

Shearwall Type
Holdown Type

SHEAR WALL SCHEDULE

WALL TYPE	STRUCTURAL PANEL SHEATHING	PANEL EDGE NAILING	FIELD NAILING	A 35 CLIP DOUBLE TOP PLATE CONN. ⁵	SILL PLATE CONNECTION (A.B.) ¹⁶		SOLE PLATE ⁵ CONNECTION	SHEAR VALUE (PLF) DOUGLAS FIR	
					1/2" DIA. x 10" LONG	5/8" DIA. x 10" LONG		WIND	SEISMIC
A	7/16" OSB or 15/32" Plywood	0131" Dia. x 2.5" Nails at 6" o.c.	0131" Dia. x 2.5" Nails at 12" o.c.	20" O.C.	3'-8" O.C. ¹⁰	4'-0" O.C. ¹⁰	16d Nails at 6" o.c.	365	260
B	7/16" OSB or 15/32" Plywood	0131" Dia. x 2.5" Nails at 4" o.c.	0131" Dia. x 2.5" Nails at 12" o.c.	15" O.C.	2'-9" O.C. ¹⁰	4'-0" O.C. ¹⁰	16d Nails at 4-1/2" o.c.	530	380
C	7/16" OSB or 15/32" Plywood	0131" Dia. x 2.5" Nails at 3" o.c.	0131" Dia. x 2.5" Nails at 12" o.c.	11" O.C.	N/A	2'-9" O.C. ¹⁰	16d Nails at 3-1/2" o.c.	685	490
D	15/32" Plywood	0148" Dia. x 3" Nails at 3" o.c.	0148" Dia. x 3" Nails at 12" o.c.	9" O.C.	N/A	2'-4" O.C. ¹⁰	(2) Rows 16d Nails at 6" o.c.	840	600
E	15/32" Plywood	0148" Dia. x 3" Nails at 3" o.c.	0148" Dia. x 3" Nails at 12" o.c.	7" O.C.	N/A	1'-9" O.C. ¹²	N/A	1,075	770
F	1/2" GWB MIN.	5d cooler nails at 4" o.c.	5d cooler nails at 12" o.c.	24" O.C.	4'-0" O.C.	4'-0" O.C.	16d Nails at 6" o.c.	125	125
G	1/2" GWB MIN.	#6x1-1/4" screws 4" o.c. (blocked)	#6x1-1/4" screws 12" o.c.	24" O.C.	4'-0" O.C.	4'-0" O.C.	16d Nails at 6" o.c.	160	160

Notes:

- Block all edges of sheathing.
- Do not break sheathing skin by over driving nails.
- Pre-drill as required to avoid splitting sills, etc.
- Nails should be located 3/8" clear of panel edges.
- Use Simpson A35 clips to attach blocking to top plate at floor line. At roof line use Simpson H-1 clips at each truss (U.O.N.).
- Values of other standard construction fasteners will require spacing adjustments and must be approved by the engineer-of-record.
- Use hot dipped galvanized nails at all exterior applications.
- C-D, C-G sheathing, plywood panels siding, and other grades covered in APA Plywood Design Specification.

- Sheathing face grain can be applied perpendicular or parallel to wall studs, provided studs are spaced a maximum of 16" o.c.
- 3"x3"x1/4" washer required on A.B. with 2x sill plates.
- Framing at adjoining panel edges shall be (C3) 2x studs laminated (see detail this sheet).
- Min. 3" nominal sill plate w/ 3"x3"x1/4" washers.
- Sheath entire wall (above + below) windows and doors) according to shearwall schedule. Use of 3"x3"x1/4" washers are required on all anchor bolts for these walls.
- Install LTP5 when required at 32" o.c. per detail.
- All wood members must be 'Douglas Fir'.
- All walls not designated as shearwalls to have 1/2"x10" anchor bolts at 4'-0" o.c. maximum.
- Interior shearwall to extend to roof sheathing via truss or blocking panels.

Shearwall Type
Holdown Type