Stephen Tapp

Architect/P.E.

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Structural Calculations (Addition Only)

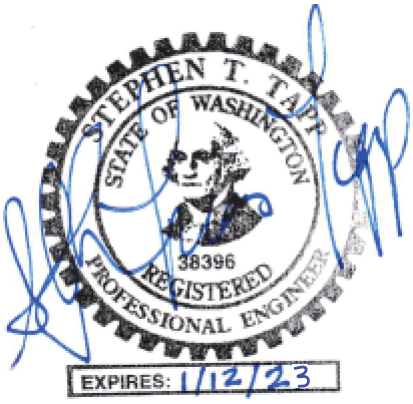
Gravity/Lateral Loading Analysis

Wind loading Controls Lateral Design

for

Searing Residential Addition

3873 80th Avenue SE
Mercer Island, Washington 98040



Date: June 2022
Project: T22F1
Building Code Reference: 2018 IRC

Loading Requirements

ASCE 7-16

Codes

2018 IRC
AISC/ASD Sixteenth Edition
ACI 318-14
NDS 2015
SEAW Rapid Solutions Methodology for Wind Design

Wind Design

Wind Speed = 85 mph
Wind Exposure = 'B'

Soil Loads (assumed)

Passive pressure = 300 psf
Assumed Soil density = 120 pcf
Assumed soil Bearing Pressure = 1500 psf
Friction capacity is a coefficient of .4
Factor of safety = 1.5

Building Loads

Snow Load = 25 psf
Roof (DL) = 15 psf
Exterior Wall (DL) = 15 psf
Interior Wall (DL) = 7.5 psf
Main/Upper Floor(DL) = 12 psf, LL = 40 psf
Main Exterior Deck Load = 60 psf (if less than 100 square feet)
100 psf (if more than 100 square feet)
Corridors, Stairs,Exits (LL) = 100 psf

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JOB GEARING ADDITION 3

SHEET NO. _____ OF _____

CALCULATED BY STT DATE 6.14.22

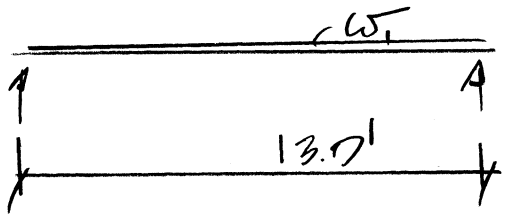
CHECKED BY _____ DATE _____

SCALE _____

CHECK NEW BEAM IN KITCHEN

	DL	LL
W_1	.21 KLF	.35 KLF

RB-100



FORTE WEB

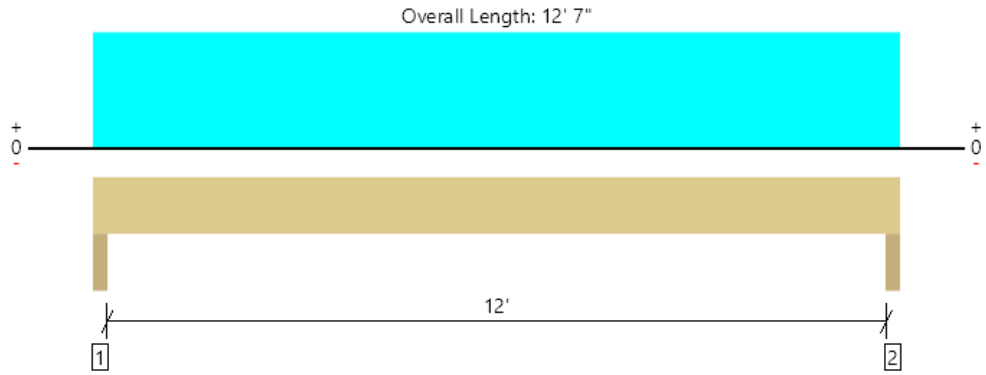
MEMBER REPORT

PASSED

5

Level, RB-100

1 piece(s) 3 1/2" x 9 1/2" 2.0E Parallam® PSL



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3589 @ 2"	7656 (3.50")	Passed (47%)	--	1.0 D + 1.0 L (All Spans)
Shear (lbs)	2971 @ 1' 1"	6428	Passed (46%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (Ft-lbs)	10699 @ 6' 3 1/2"	13057	Passed (82%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.377 @ 6' 3 1/2"	0.408	Passed (L/390)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.615 @ 6' 3 1/2"	0.613	Passed (L/239)	--	1.0 D + 1.0 L (All Spans)

System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2018
Design Methodology : ASD

- Deflection criteria: LL (L/360) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Floor Live	Total	
1 - Trimmer - SPF	3.50"	3.50"	1.64"	1386	2202	3588	None
2 - Trimmer - SPF	3.50"	3.50"	1.64"	1386	2202	3588	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	12' 7" o/c	
Bottom Edge (Lu)	12' 7" o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Floor Live (1.00)	Comments
0 - Self Weight (PLF)	0 to 12' 7"	N/A	10.4	--	
1 - Uniform (PLF)	0 to 12' 7"	N/A	210.0	350.0	Default Load

Member Notes

Searing Addition
3873 80th Avenue SE
Mercer Island, Washington 98040

Weyerhaeuser Notes

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The product application, input design loads, dimensions and support information have been provided by STT

ForteWEB Software Operator	Job Notes
STEPHEN TAPP STEPHEN TAPP ARCHITECT/PE (206) 459-5151 archeng2330@gmail.com	Searing Addition 3873 80th Avenue SE Mercer Island, Washington 98040

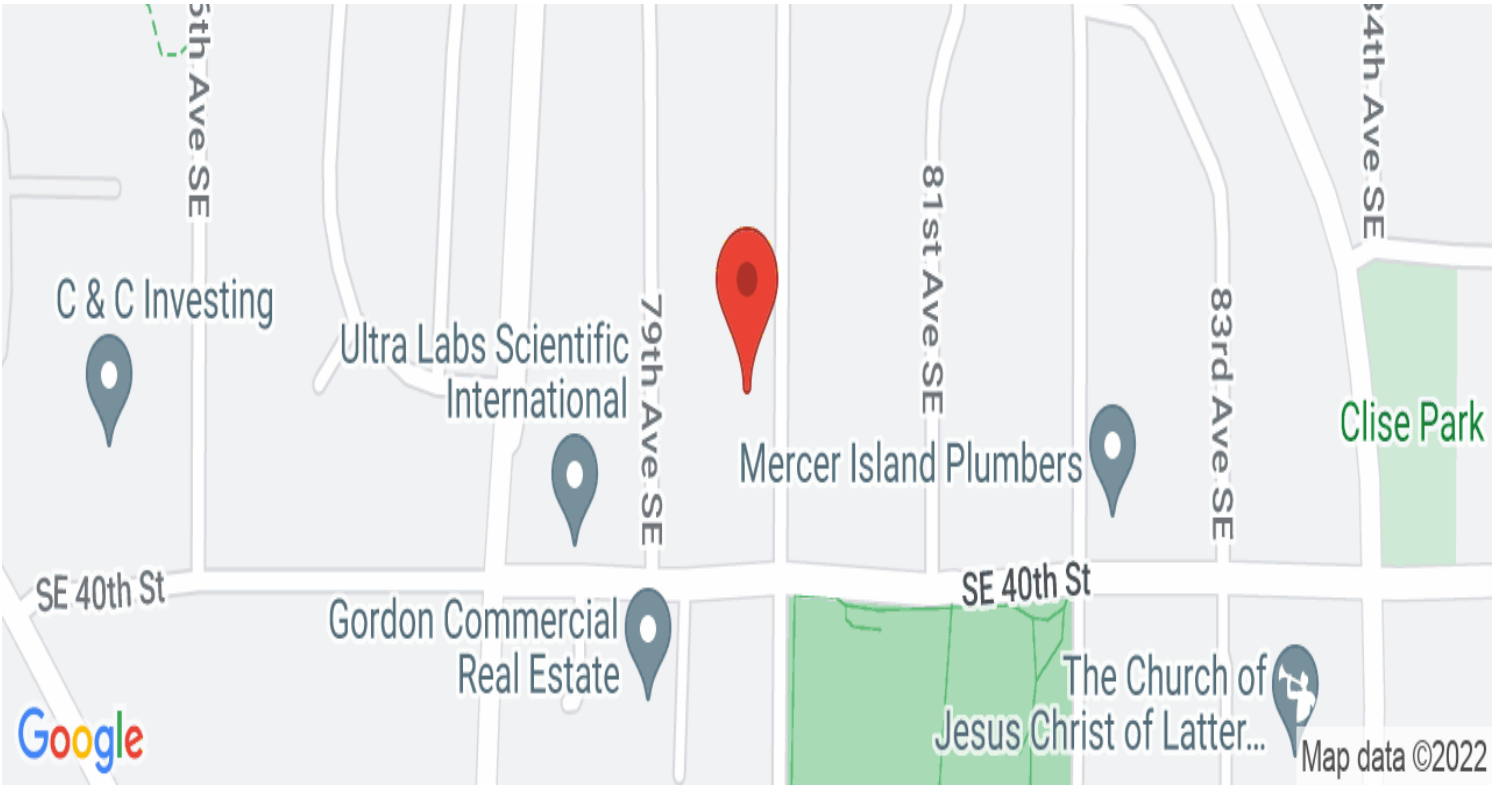
Weyerhaeuser

6/15/2022 12:42:19 AM UTC
ForteWEB v3.2, Engine: V8.2.0.17, Data: V8.1.0.16
File Name: Searing Addition

Searing Residential Addition

3873 80th Ave SE, Mercer Island, WA 98040, USA

Latitude, Longitude: 47.5752684, -122.2326873



Date	6/14/2022, 1:54:56 PM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Default (See Section 11.4.3)

Type	Value	Description
S_S	1.415	MCE_R ground motion. (for 0.2 second period)
S_1	0.492	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.698	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.132	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1.2	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.606	MCE_G peak ground acceleration
F_{PGA}	1.2	Site amplification factor at PGA
PGA_M	0.727	Site modified peak ground acceleration
T_L	6	Long-period transition period in seconds
SsRT	1.415	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.568	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	3.554	Factored deterministic acceleration value. (0.2 second)
S1RT	0.492	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.549	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	1.425	Factored deterministic acceleration value. (1.0 second)
PGAd	1.214	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.902	Mapped value of the risk coefficient at short periods
C_{R1}	0.897	Mapped value of the risk coefficient at a period of 1 s

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JOB SEARING ADDITION 8

SHEET NO. _____ OF _____

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CHECKED BY _____ DATE _____

SCALE _____

CHECK ADDITION WEIGHT

ROOF $10^{3}(15) =$ 1545#

EXT WALLS $40(15)(9)(15) =$ 2700#

TOTAL = 4245#

Earthquake Design Data

1) **Occupancy Category = I** — ASCE 7-10 Table 1-
   Occupancy Importance Factor Ie = 1 — ASCE 7-10 Table 11.5-1
   Seismic Use Group = I

2) **Mapped Spectoral Response Accelerations** ASCE 7-10 Fig 22-1, 22-2
   Latitude = 47.57 deg North
   Longitude = -122.23 deg West
   Location = Mercer Island, Wa. 98040
   Maximum Ground Motions, 5% Damping, from USGS Maps
   Ss = 1.42 g, 0.2 sec response
   S_1 = .49 g, 1.0 sec response

3) **Site Classification** — ASCE 7-10 Table 20-3.1
   Assumed
   C

4) **Site Coefficients** — ASCE Table 7-10 11-4.1. Table 11-4.2
   F_a = 1.2
   F_v = 1.5

5) **Maximum Considered Earthquake Acceleration** ASCE 7-10 11.4.3
   $S_{MS} = F_a * S_s = 1.7$
   $S_{M1} = F_V * S_1 = .74$

6) **Design Spectral Acceleration** — ASCE 7-10 11.4.4
   $S_{DS} = S_{MS} * 2/3 = 1.1$
   $S_{D1} = S_{M1} * 2/3 = .49$

7) **Seismic Design Category** — ASCE 7-10 Table11-6.1, Table 11-6.2
   D

8) **Basic Seismic Force Resisting System** — ASCE 7-10 Table 12-2.1
   Bearing Wall Systems
   Light-framed walls sheathed w/wood structural panels rated for shear resistance

Response Modification Factor (R) =6.5

System Over Strength Factor 'Wo" = 3.00

Deflection Amplification factor 'Cd" = 4.00

9) Analysis Procedure — ASCE 7-10 12.6

The Equivalent Lateral Force Procedure — ASCE 7-10 12.8

10) Building Period — ASCE 7-10 12.8.2

Structure Type for Building Period Calculation

All Other Structural Systems

"Ct" value = .02 — ASCE 7-10 Table 12.8-2

"x" value = .75

'h_n' = 9'

"Ta" = Ct*(hn^x) Approx. Fundamental Period — ASCE 7-10 Eq. 12.8-7

.1

"Cu" = 1.4 — ASCE 7-10 Table 12.8-1

Per ASCE 7-05 12.8.2 True Fundamental Period < (1.4)*(.1) = .14

11) "Cs" Response Coefficient — ASCE 7-10 12.8.1.1

S_{DS} = 1.1

S_{D1} = .49

S_1 = .49 g

'R' = 6.5

"I" = 1.00

'TL" = 6 — ASCE 7-10 Figure 22-15

(Eq. 12.8.2) $C_s = S_{DS}/(R/1)$ = .17 Preliminary C_s

(Eq. 12.8-3) $C_s = S_{D1}/T_a(R/1)$ = .53 Need Not Exceed

(Eq. 12.8-5) C_s = .01 Shall no be less than

(Eq. 12.8-6) $C_s = .5\ S_1/(R/1)$ = .037 Shall not be less than

Therefore C_s = .17

12) Building Weight "W" (from hand calculated sheet) = 4.5^K

13) Base Shear — ASCE 7-10 12.8-1

V = C_S *W

(.17) * 4.5^K = $.77^K$

14) Vertical Distribution of Seismic Forces

See Spread Sheet

Wind Load Design Data

Design Based on IRC 2018
ASCE 7-16
SEAW Rapid Solutions Methodology (RSM-03)

Basic Wind Speed

$V_{3.5}$ =110 mph
V_{fm} = 90 mph

Exposure

B

Roof Pitch

5:12

Mean Roof Height

9 feet

Least Horizontal Dimension

9 feet

Low Rise Building Criteria (h = 9')

1) **h ≤ 60 feet**

2) **h ≤least horizontal dimension**

Topographic Factors (Figure 3-3A, SEAW RSM)

K_1 = 0

K_2 = 0

K_3 = 0

$K_t = (1+(K_1*K_2* K_3))^2$

K_t = 1

Importance Factor

$I_w = 1$

Building Envelope

Enclosed

Design Wind Pressures

$P_{rsm} = q_s * K_{zt} * C_{rsm} * (I_w)$

$q_s = 20.7$ #/sq ft **(Figure 3-1 SEAW RSM)**

$K_{zt} =$ 1.38 **(Wind Load Factors)**

$I_w =$ 1

Crsm Factors See Below

Ballooning Case (Figure 3-5 EB, SEAW RSM)

Roof

Windward Roof = -.08(Up)
Windward Roof (O.H.) = -.8+-.58 = -1.38 (Up)
Leeward Roof = -.6(Up)

Walls

Windward Wall = .42(Inward)
Leeward Wall = -.5(Outward)

Deflating Case (Figure 3-5 ED, SEAW RSM)

Roof

Windward Roof = .48(Up)
Windward Roof (O.H.) = .48+-.58 = -1.06(Up)
Leeward Roof = -.3(Up)

Walls

Windward Wall = .73(Inward)
Leeward Wall) = -.14(Outward)

Factored Wind Pressures P_{rsm} =

Ballooning Case

	h	q_s	K_{zt}	C_{rsm}	I_w	K_t	**P_{rsm}**
Windward Wall =	0'-10'		20.7	1.38	0.42	1	1 11.99772
Leeward Wall	0'-10'		20.7	1.38	-0.5	1	1 -14.283
Side Wall			20.7	1.38	0.67	1	1 19.13922
Windward Roof			20.7	1.38	-0.67	1	1 -19.1392
Windward Roof Overhang			20.7	1.38	-1.3	1	1 -37.1358
Leeward Roof			20.7	1.38	-1.1	1	1 -31.4226

Deflating Case

Windward Wall =	0'-10'		20.7	1.38	0.73	1	1 20.85318
Leeward Wall	0'-10'		20.7	1.38	-0.2	1	1 -5.7132
Side Wall			20.7	1.38	-0.36	1	1 -10.2838
Windward Roof			20.7	1.38	-0.28	1	1 -7.99848
Windward Roof Overhang			20.7	1.38	-0.86	1	1 -24.5668
Leeward Roof			20.7	1.38	-0.8	1	1 -22.8528

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JOB Searing Addition 14

SHEET NO. _____ OF _____

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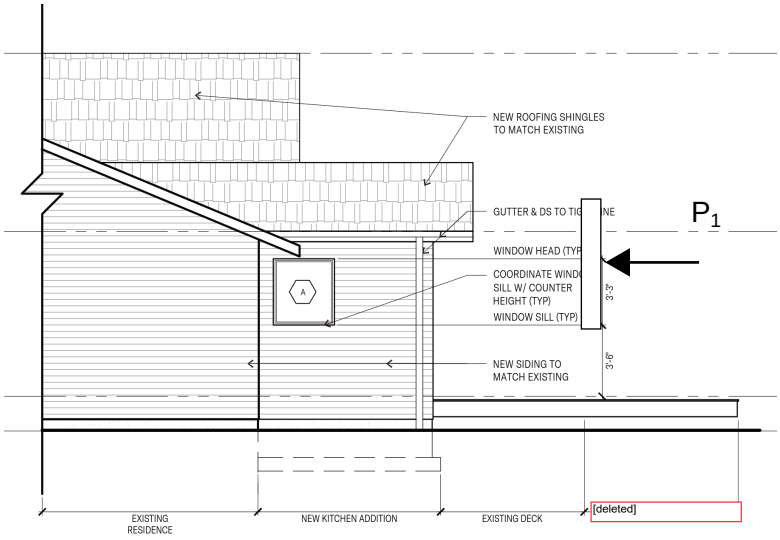

Wind Elevation Rear - Front

LOAD SYMBOL	P_{RSM}	HEIGHT	TRIB AREA	V_W
P_1	12 psf	9ft	13 ft	1404#
TOTAL =				1404#

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JOB Searing Addition 15

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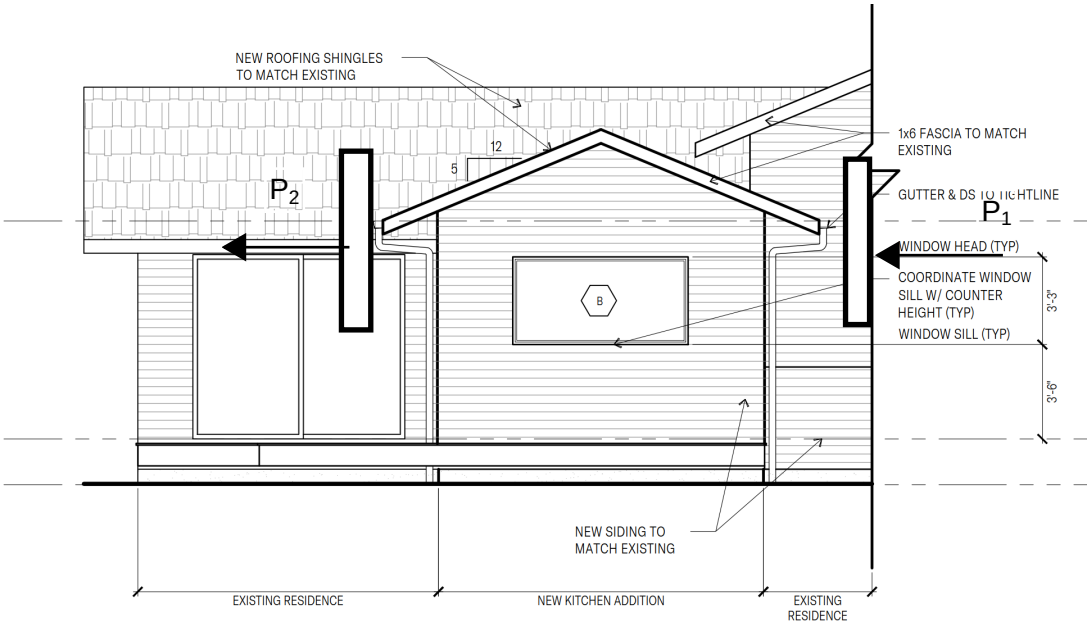


Wind Elevation Side - Side

LOAD SYMBOL	P_{RSM}	HEIGHT	TRIB AREA	V_W
P_1	12 psf	8 ft	8.5 ft	816#
P_2	14 psf	8 ft	8.5 ft	952#

Total = 1768#

Job :	Searing Addition
Engineer:	Stephen Tapp
Job #:	T22F1
Date:	Jun-22

Wind Loading Only

Level:	Main Roof Diaphragm							
Direction:	Side - Side							
Vseismic @ Level=								
Vseismic total=								
Vseismic with redundancy=								
Total Load to be resolved (#)=		1785						
Grid	1	2						
Span(FT.)	8.5							
Wind load(#/LF)	210	210						
Seismic load(#/LF)	0	0	0	0	0	0	0	0
Load#1(LB)								
Load#2(LB)								
Load#3(LB)								
P(wind+L1,L2,L3)=	892.5	892.5	0	0	0	0	0	0
P(seismic+L1,L2,L3)=	0	0	0	0	0	0	0	0
Wall Length(FT.)	6	2						
Unit Shear(#/LF)	148.75	446.25	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Wall Type	P1-6"	P1-3"						
Area Ab(sq.ft.)								
shear ratio r=	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Redundancy factor	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Section Length(FT)	3	2						
Panel Height(FT)	4	8						
(M)from upper level	0	0						
OTM(#')	1785	7140	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Panel Length(LF)	3	2						
Panel Wt.(#/LF)	122	122						
Wt. on Panel(#/LF)	100	100						
Reduction(%)	40	40	40	40	40	40	40	40
RM(#')		-266.4	0	0	0	0	0	0
Resultant(#')	1785	6873.6	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Uplift @ Panel Edge(#)	595	3436.8	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Simpson' Restraint	hdu5 w/ dbl studs	hdu5 w/ dbl studs						

Notes:

1. See building elevations for wind load distribution.

Shear Wall Analysis

Job :	Searing Addition
Engineer:	Stephen Tapp
Job #:	T22F1
Date:	Jun-22

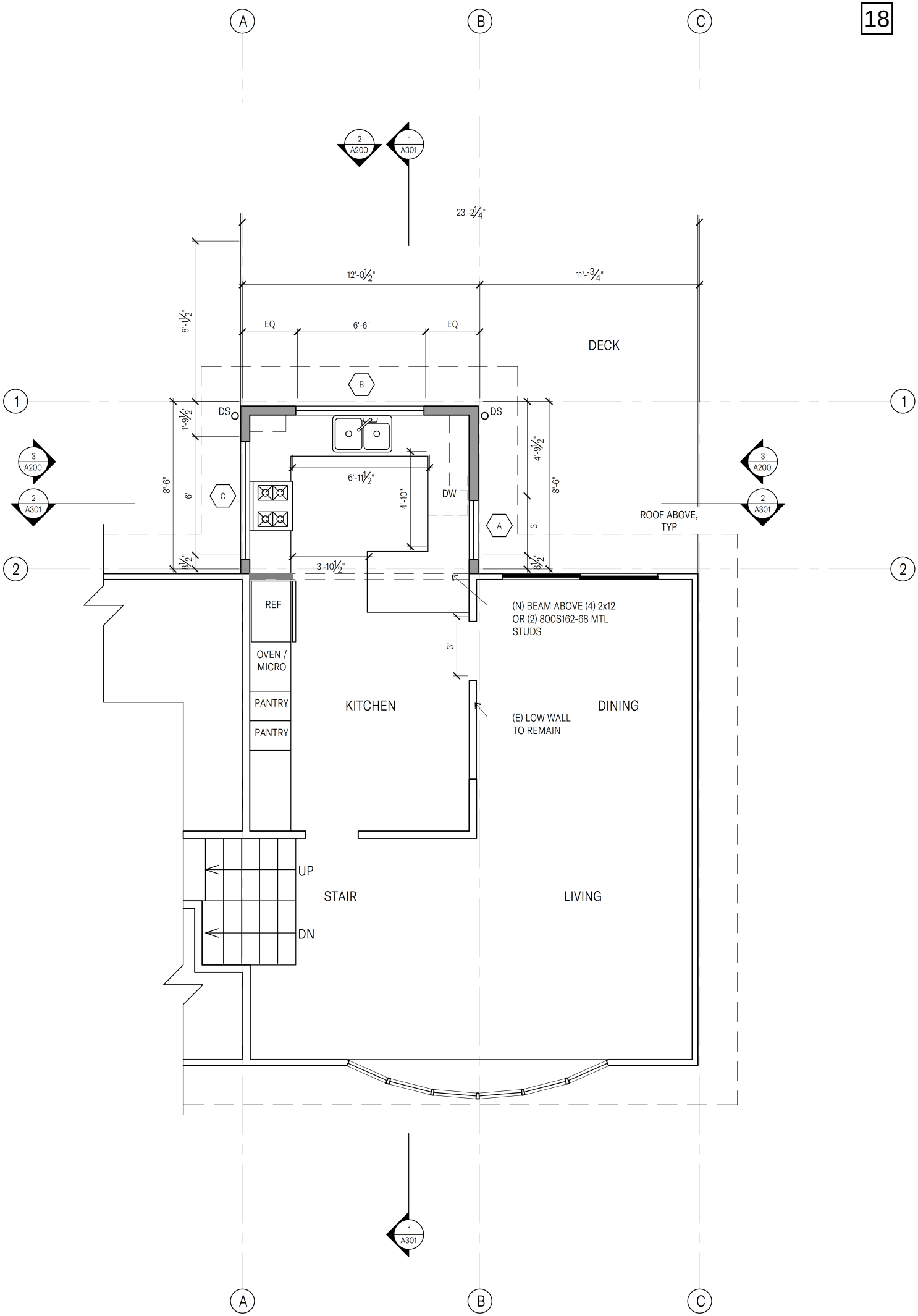
Wind Loading Only

Level:	Main Roof Diaphragm
Direction:	Rear - Front
Vseismic @ Level=	
Vseismic total=	
Vseismic with redundancy=	
Total Load to be resolved (#)=	1560

Grid	A	B						
Span(FT.)	13							
Wind load(#/LF)	120	120						
Seismic load(#/LF)	0	0	0	0	0	0	0	0
Load#1(LB)								
Load#2(LB)								
Load#3(LB)								
P(wind+L1,L2,L3)=	780	780	0	0	0	0	0	0
P(seismic+L1,L2,L3)=	0	0	0	0	0	0	0	0
Wall Length(FT.)	1.75	4.75						
Unit Shear(#/LF)	445.7143	164.2105	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Wall Type	P1-3"	P1-6"						
Area Ab(sq.ft.)								
shear ratio r=	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Redundancy factor	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Section Length(FT)	1.75	4.75						
Panel Height(FT)	3.25	6						
(M)from upper level	0	0						
OTM(#')	2535	4680	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Panel Length(LF)	1.75	4.75						
Panel Wt.(#/LF)	100	100						
Wt. on Panel(#/LF)	100	100						
Reduction(%)	40	40	40	40	40	40	40	40
RM(#')		-1353.75	0	0	0	0	0	0
Resultant(#')	2535	3326.25	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Uplift @ Panel	1448.571	700.2632	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Edge(#)								
Simpson'	hdu2 w/	hdu2 w/						
Restraint	2-2x studs	2-2x studs						

Notes:

1. See building elevations for wind load distribution.


A
B
C
1
2
2 A200
1 A301
3 A200
2 A301
23'-2¼"
12'-0½"
11'-1¾"
8'-1½"
EQ
6'-6"
EQ
DECK
B
DS
DS
1'-9½"
8'-6"
6'
C
6'-11½"
4'-10"
DW
4'-9½"
8'-6"
A
3'
ROOF ABOVE, TYP
8½"
3'-10½"
8½"
REF
OVEN / MICRO
PANTRY
PANTRY
KITCHEN
(N) BEAM ABOVE (4) 2x12 OR (2) 800S162-68 MTL STUDS
3'
DINING
(E) LOW WALL TO REMAIN
UP
DN
STAIR
LIVING

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JOB Searing Addition 19

SHEET NO. _____ OF _____

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CHECKED BY _____ DATE _____

SCALE _____

SHEAR WALL SCHEDULE - 2018 IBC

WALL SHEATHING TO BE ½" (C-D) STRUCTURAL 1, 24/0

ROOF SHEATHING TO BE ½" (C-D) STRUCTURAL 1, 32/16

USE 10d COMMON NAILS (.148"Ø X 3" LONG)

ALL FRAMING MEMBERS TO BE MAXIMUM 19% MOISTURE CONTENT

PLAN SYMBOL	WALL TYPE	NAIL SIZE	PANEL NAIL SPACING			BLK'G	REQUIRED ANCHORS		ALLOWABLE UNIT SHEAR (PLF)
			PANEL EDGES	FIELD STUDS	TOP/BTM PLATES		PR TR SILL	BTM PLATE	
6	P1-6"	10d	6"	12"	6"	2X6(4)	⅝"Ø @ 48"	16d @ 6"	262(HF), 320(DF)
4	P1-4"	10d	4"	12"	4"	3X6(4)	⅝"Ø @ 32"	(2) 16d @ 8"	348(HF), 425(DF)
3	P1-3"	10d	3"	12"	3"	3X6(4)	⅝"Ø @ 24"	(2) 16d @ 6"	525(HF), 640(DF)
2	P1-2"	10d	2"	12"	2"	3X6(4)	¾"Ø @ 24"	(2) 16d @ 5"	599(HF), 730(DF)
2-4	P2-4"	10d	4"	12"	4"	3X6(4)	¾"Ø @ 16"	(4) 16d @ 6"	840(HF), 1020(DF)
2-3	P2-3"	10d	3"	12"	3"	3X6	1"d.@24"	(4)16d.@4"	1100(HF),1330(DF)

Shear Wall Notes

1. **P-1 INDICATES PLYWOOD ON ONE SIDE OF SHEAR WALL ONLY.**
2. **P-2 INDICATES PLYWOOD ON TWO SIDES OF SHEAR WALL. FRAMING MEMBES SHALL BE 3X. OFFSET PANEL JOINTS TO FALL ON DIFFERENT STUDS.**
3. **PLYWOOD MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY ON HEM-FIR, OR DOUG FIR STUDS.**
4. **FOR NAILING AT 4", 3", 2" ON CENTER, USE 3X FRAMING MEMBERS AT ALL PANEL EDGES. STAGGER FASTENERS AT ALL PANEL JOINTS.**
5. **FOR NAILING AT 4",3",2" ON CENTER USE P.T. 3X SILL AT FOUNDATION.**
6. **SOLID BLOCK ALL PANEL EDGES WITH FULL DEPTH BLOCKING.**
7. **USE 10d. COMMON NAILS FOR SHEAR WALL FASTENERS.**
8. **NAILS MUST BE FLUSH DRIVEN WITH THE DIAPHRAGM SURFACE.**
9. **ANCHOR BOLTS TO HAVE A MINIMUM 3"X3"X1/4" PLATE WASHERS.**
10. **FINGER JOINTED STUDS ARE NOT TO BE USED AT HOLDOWN LOCATIONS.**
11. **NAILS FOR PANEL EDGES SHALL BE 10d COMMON(0.148 X 3" LONG). NAILS FOR PLATES SHALL BE 12d COMMON(0.148X 3 1/4" LONG).**
12. **WHERE BOTTOM PLATE NAILING REQUIRES (4) NAILS AT A SPECIFIC SPACING, BLOCK FLOOR SPACE BELOW THE SOLE PLATE CONSISTING OF A MINIMUM OF TWO FRAMING MEMBERS. NAILING PATTERN SHALL CONSIST OF TWO ROWS IN EACH MEMBER OFFSET 1/2" AND STAGGERED.**
13. **DO NOT INSTALL FLOOR DIAPHRAGM NAILING OVER BOTTOM SILL NAILING.**
14. **ALL STUDS TO BE 2X HEM-FIR OR BETTER.**

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JOB Searing Addition 20

SHEET NO. _____ OF _____

CALCULATED BY STT DATE 6.14.22

CHECKED BY _____ DATE _____

SCALE _____

SHEAR WALL NOTES - WALLS

PX-X INDICATES SHEAR WALL. SEE LEGEND.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, ANCHOR BOLT PLACEMENT, PRESSURE TREATED SILL SIZES, AND INSTALLATION DETAILS.

NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEAD OR CROWN IS FLUSH WITH THE SURFACE OF THE SHEATHING.

THE FASTENERS USED IN THE SHEAR WALL DESIGN ARE 10d COMMONS OR 10d GALVANIZED BOX NAILS. ANY FASTENER SUBSTITUTION WILL HAVE TO BE REVIEWED BY ENGINEER PRIOR TO CONSTRUCTION.

SOLID BLOCK BELOW SHEAR WALLS ABOVE.

◆ INDICATES SHEAR WALL TIE DOWN STRAP BETWEEN THE SHEAR WALL ABOVE AND THE FRAMING ABOVE OR THE WALLS BELOW.

SHEAR WALL NOTES - FOUNDATION

◄ INDICATES 'SIMPSON' HOLDOWN LOCATION (SEE MANUFACTURER'S INSTALLATION REQUIREMENTS). HOLDOWN ANCHORS ARE TO BE INSTALLED AT THE END OF PLYWOOD SHEAR WALL PANELS.

SEE SHEAR WALL SCHEDULE FOR SHEAR WALL NOTES, SCHEDULES, ANCHOR BOLT PLACEMENT, AND PRESSURE TREATED SILL SIZES.

ALL SHEAR WALL PANELS OTHER THAN P1-6" ARE TO BE INSTALLED WITH PRESSURE TREATED 3X SILLS.

ANCHOR BOLTS TO BE MINIMUM 5/8"Ø X 10" @ 48" O.C. (UNLESS NOTED OTHERWISE IN ANCHOR BOLT SCHEDULE, SHEET S-3).

CONCRETE STRENGTH F'C = 3000 PSI FOR CONCRETE EXPOSED TO THE ELEMENTS.
CONCRETE STRENGTH F"C = 2500 PSI FOR CONCRETE NOT EXPOSED TO ELEMENTS.

NOTIFY ENGINEER OF ANY REVISIONS TO SHEAR WALL OR HOLDOWN PLAN OR FIELD MODIFICATIONS DUE TO UNFORESEEN CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.

INCREASE DEPTH OF FOUNDATION AT HOLDOWN ANCHOR BOLTS TO INSURE PROPER CONCRETE COVERAGE.

SIMPSON STRONG TIE CONNECTORS ARE SPECIFICALLY REQUIRED TO MEET THE STRUCTURAL CALCULATIONS OF THIS PLAN. BEFORE SUBSTITUTING ANOTHER BRAND, CONFIRM LOAD CAPACITY BASED ON RELIABLE PUBLISHED TESTING DATA OF CALCULATIONS. THE ENGINEER OF RECORD SHOULD EVALUATE AND GIVE APPROVAL FOR SUBSTITUTION PRIOR TO INSTALLATION.

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Searing Addition

JOB 21

SHEET NO. _____ OF _____

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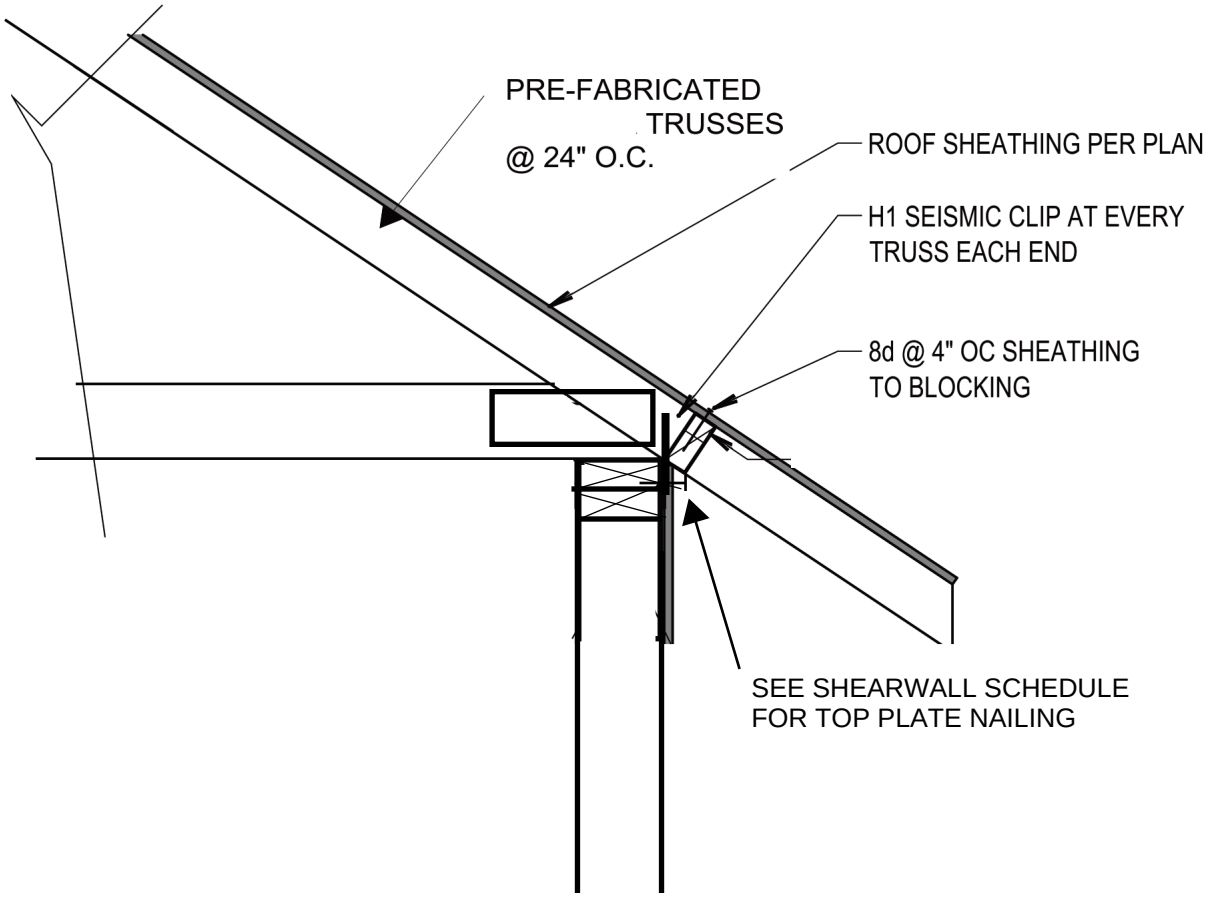
SCALE _____



ROOF TRUSS

SCALE: 1"=1'-0"

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JOB Searing Addition 22

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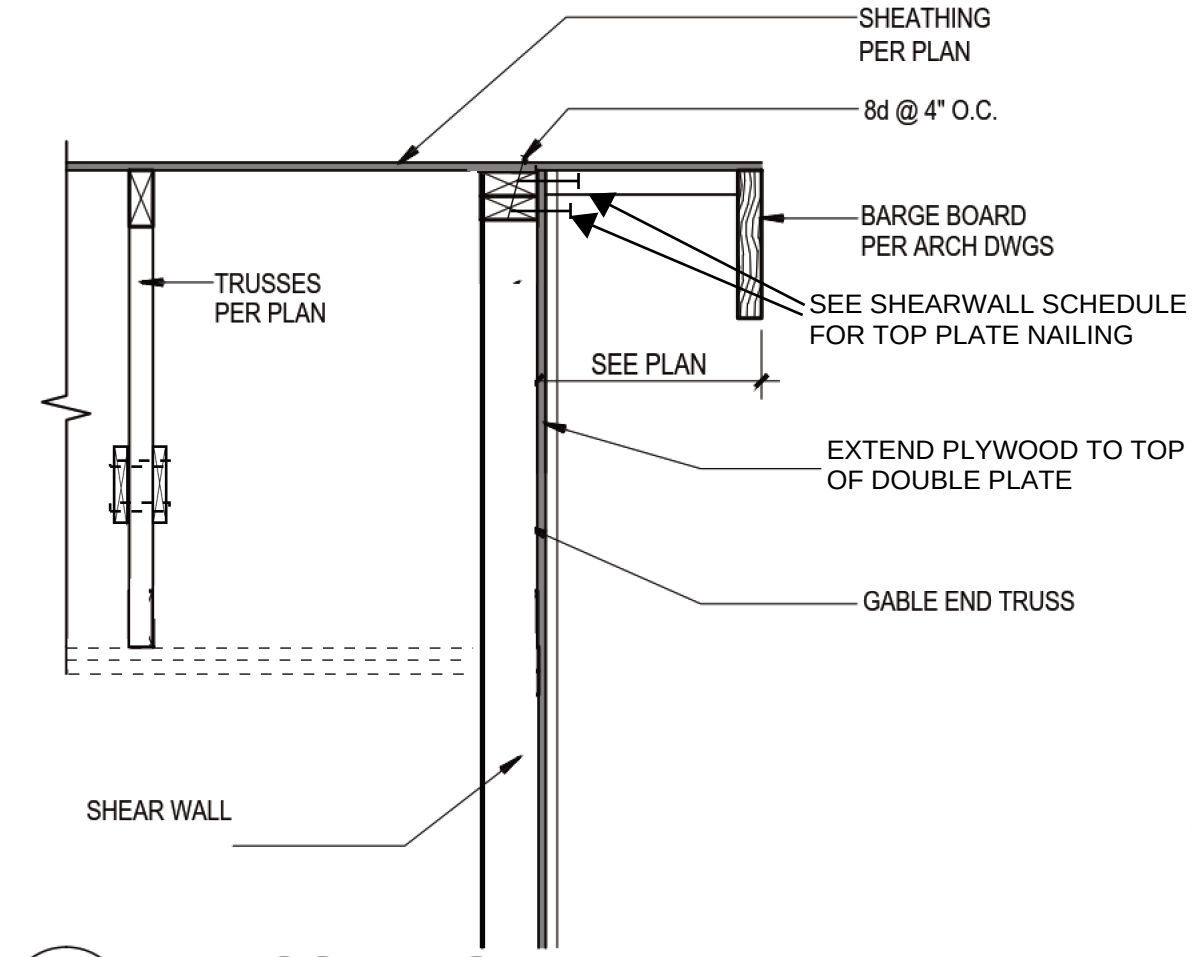
SCALE _____



TRUSS AT GABLE

SCALE: 1"=1'-0"

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JOB Searing Addition 23

SHEET NO. _____ OF _____

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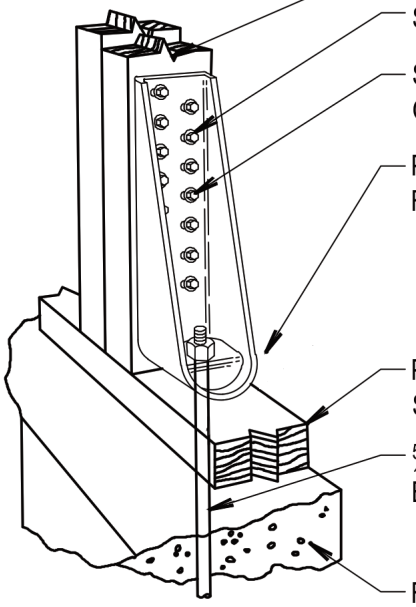
CHECKED BY _____ DATE _____

SCALE _____



TYPICAL HDU INSTALLATION AS A HOLDOWN (SHOWN "FLUSH", TOUCHING SILL PLATE)

NOTE:
SEE MANUFACTURER'S CATALOG FOR ADDITIONAL INFORMATION

HOLDOWN INSTALLATION

SCALE: NTS

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JOB Searing Addition 24

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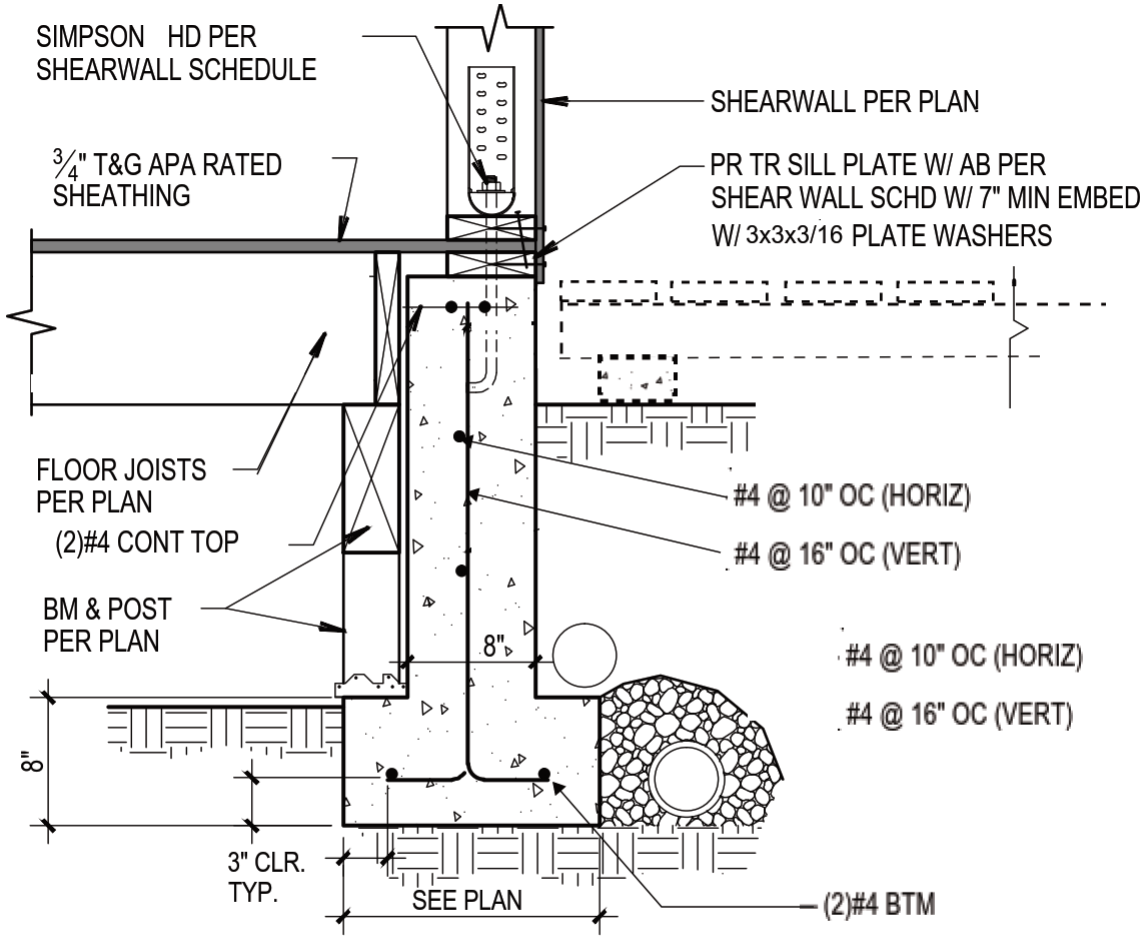
SCALE _____



TYPICAL FOUNDATION

SCALE: 1"=1'-0"