Front Elevation

Right Elevation

Back Elevation

Left Elevation

Building Coverage: 1,827 SqFt (35.9%)

Plan Name
Wahkeena B
Date
7/3/2019
Location
Lone Oak Estates Lot 13 Battle Ground, WA

Elevations

Total Sq Ft = 2,110

Scale: 1/4" = 1'

This plan is property of:

CEDARRIDGE HOMES

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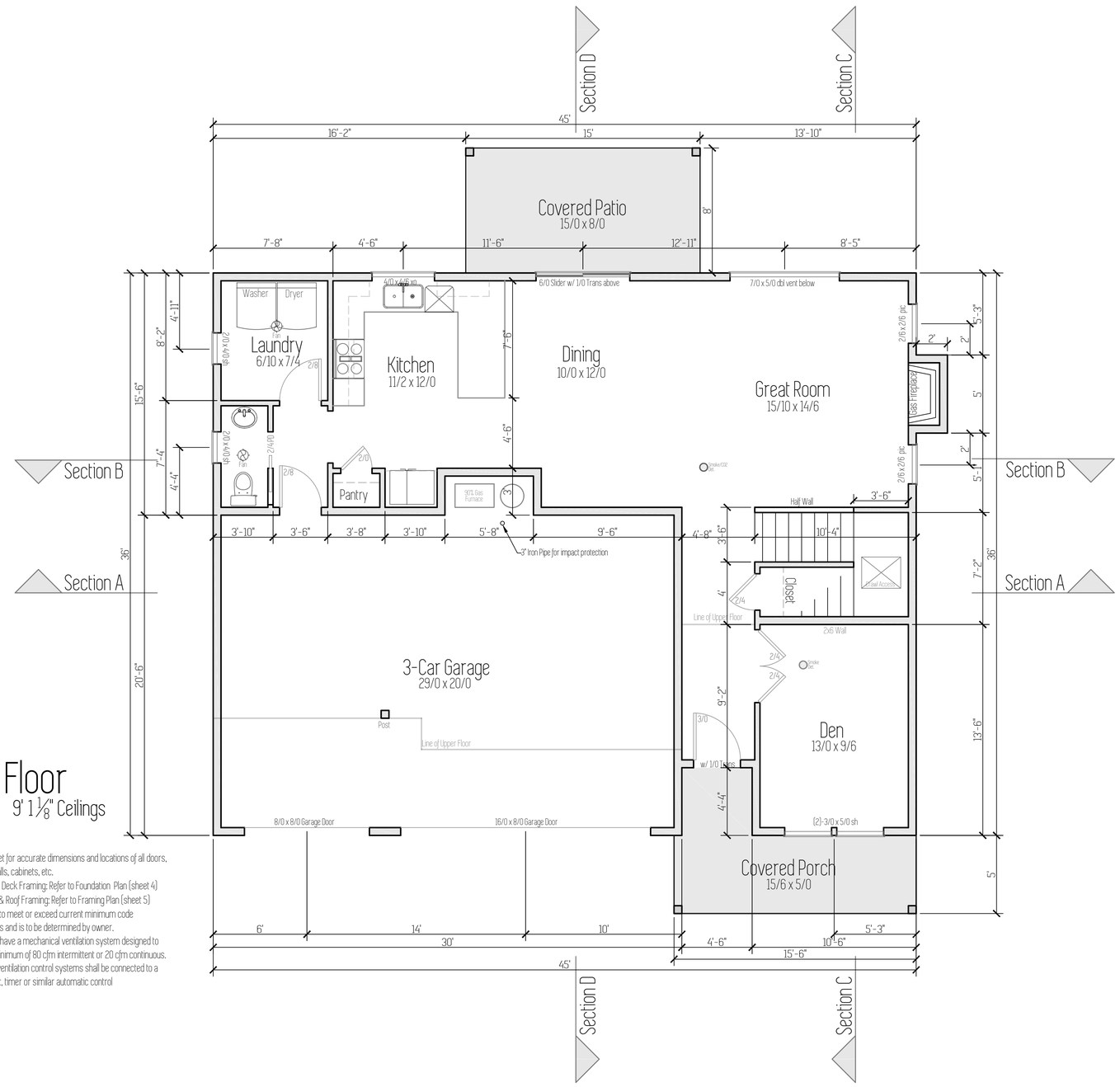
www.cedarridgehomes.us

Designed by:
TYSON GREY
tyson@cedarridgehomes.us



Main Floor

955 Sq ft 9' 1 1/8" Ceilings

Notes

- Use this sheet for accurate dimensions and locations of all doors, windows, walls, cabinets, etc.
- Main Floor & Deck Framing: Refer to Foundation Plan (sheet 4)
- Upper Floor & Roof Framing: Refer to Framing Plan (sheet 5)
- All electrical to meet or exceed current minimum code requirements and is to be determined by owner.
- All fans shall have a mechanical ventilation system designed to exhaust a minimum of 80 cfm intermittent or 20 cfm continuous. Mechanical ventilation control systems shall be connected to a dehumidistat, timer or similar automatic control

Plan Name
Wahkeena B
Date
7/3/2019
Location
Lone Oak Estates Lot 13 Battle Ground, WA

Main Floor Plan

Total Sq Ft = 2,110

Scale : 1/4" = 1'

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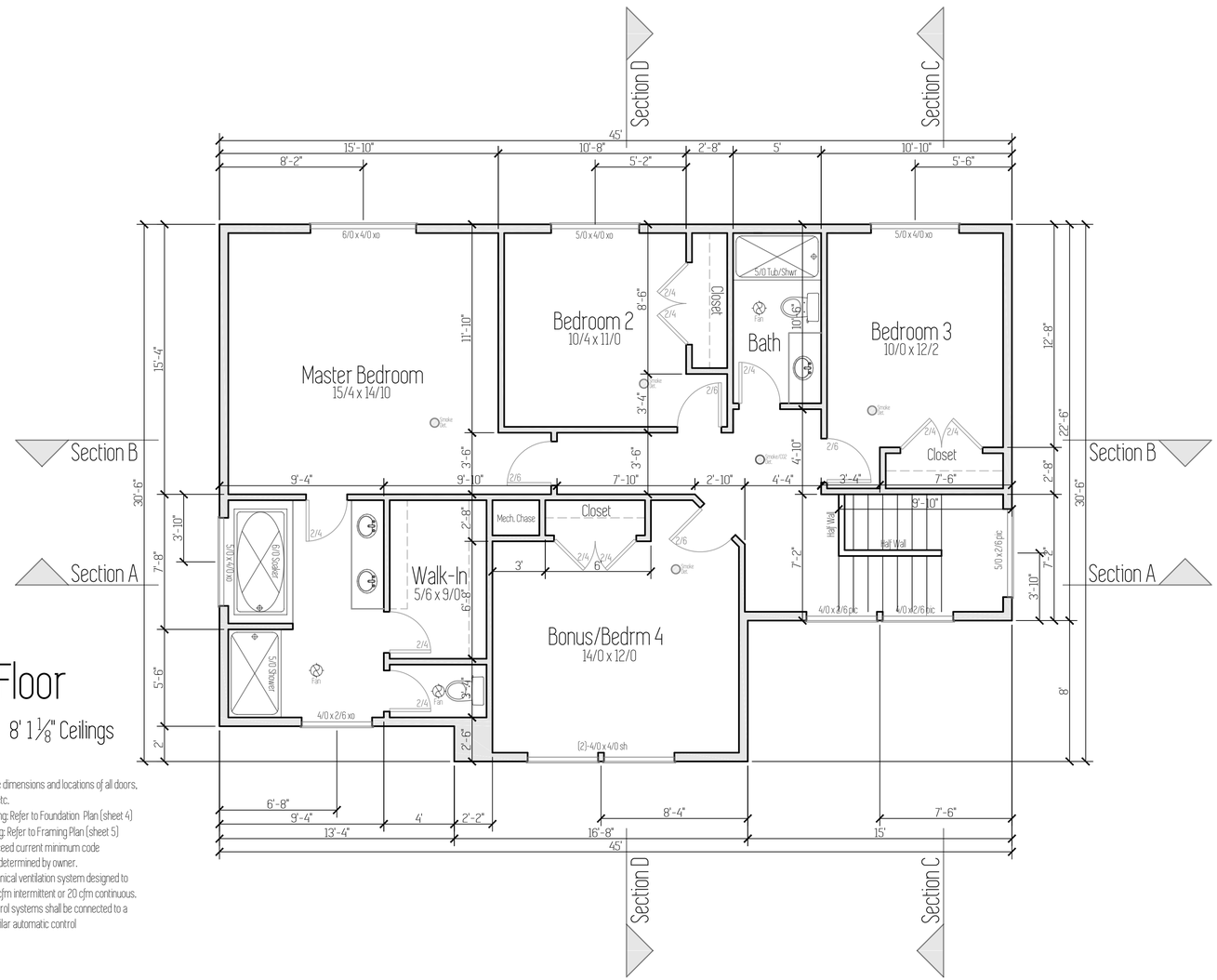
2



Upper Floor

1,155 Sq ft 8' 1⅛" Ceilings

Notes

- Use this sheet for accurate dimensions and locations of all doors, windows, walls, cabinets, etc.
- Lower Floor & Deck Framing: Refer to Foundation Plan (sheet 4)
- Upper Floor & Roof Framing: Refer to Framing Plan (sheet 5)
- All electrical to meet or exceed current minimum code requirements and is to be determined by owner.
- All fans shall have a mechanical ventilation system designed to exhaust a minimum of 80 cfm intermittent or 20 cfm continuous. Mechanical ventilation control systems shall be connected to a dehumidistat, timer or similar automatic control

Plan Name
Wahkeena B
Date
7/3/2019
Location
Lone Oak Estates Lot 13 Battle Ground, WA

Upper Floor Plan

Total Sq Ft = 2,110

Scale: 1/4" = 1'

This plan is property of :

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Foundation Notes

- Concrete : Minimum 28 day concrete strength = 2500 psi.
- Grade beams, piers and spread footings shall be poured onto undisturbed, native soil which is free from any material that will adversely affect the soil bearing pressure.
- Footings are to be on undisturbed soil with an assumed 1500 PSF
- All slabs to be supported with a min. of 4" of compacted crushed rock fill.
- Beam pockets in concrete walls to have a min. ½" air space on sides, and min. 3" of bearing for all beams and girders.
- Typical pier pad to be 18" dia. x 8" concrete footing with 4x4 DF#2 post.
- Typical crawl space beam to be 4x8 DF#2. Single gusset plate to be used on both sides of attachment to post.
- Cover entire crawl space with 6 mil black visqueen vapor barrier.
- Excavate a min. of 18" below bottom of all beams.
- Install 15" x 7" closable FND vents in FND walls. Min 1 sq.ft vented area for every 150 sq.ft of crawl space.
- Refer to Shear Wall Schedule and Hold-Down Schedule for sill bolt spacing and hold-down size. (PAGE S1.0)

Shear Wall Panel

Interior Bearing Wall (above)

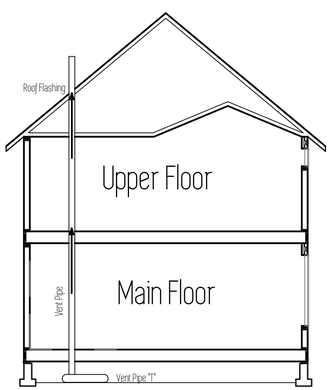
HoldDown

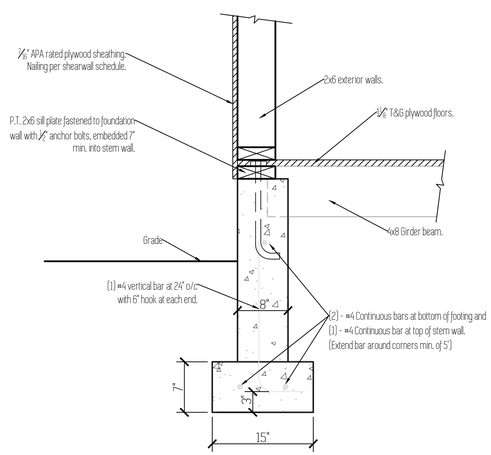
Footing Schedule	
F1	24" x 24" x 8" Concrete footing with (2) #4 bars each way.
F2	27" x 27" x 8" Concrete footing with (2) #4 bars each way.
F7	48" x 48" x 12" Concrete footing with (6) #4 bars each way.

Radon Passive System

AF103.5.1.3 Vent Pipe

A plumbing tee or other approved connection shall be inserted horizontally beneath the sheeting and connected to a 3- or 4-inch-dia. fitting with a vertical vent pipe installed through the sheeting. The vent pipe shall be extended up through the building floors, terminate at least 12" above roof in a location at least 10' away from any window or other opening into the conditioned spaces of the building that is less than 2' below the exhaust point, and 10' from any window or other opening adjoining or adjacent buildings.



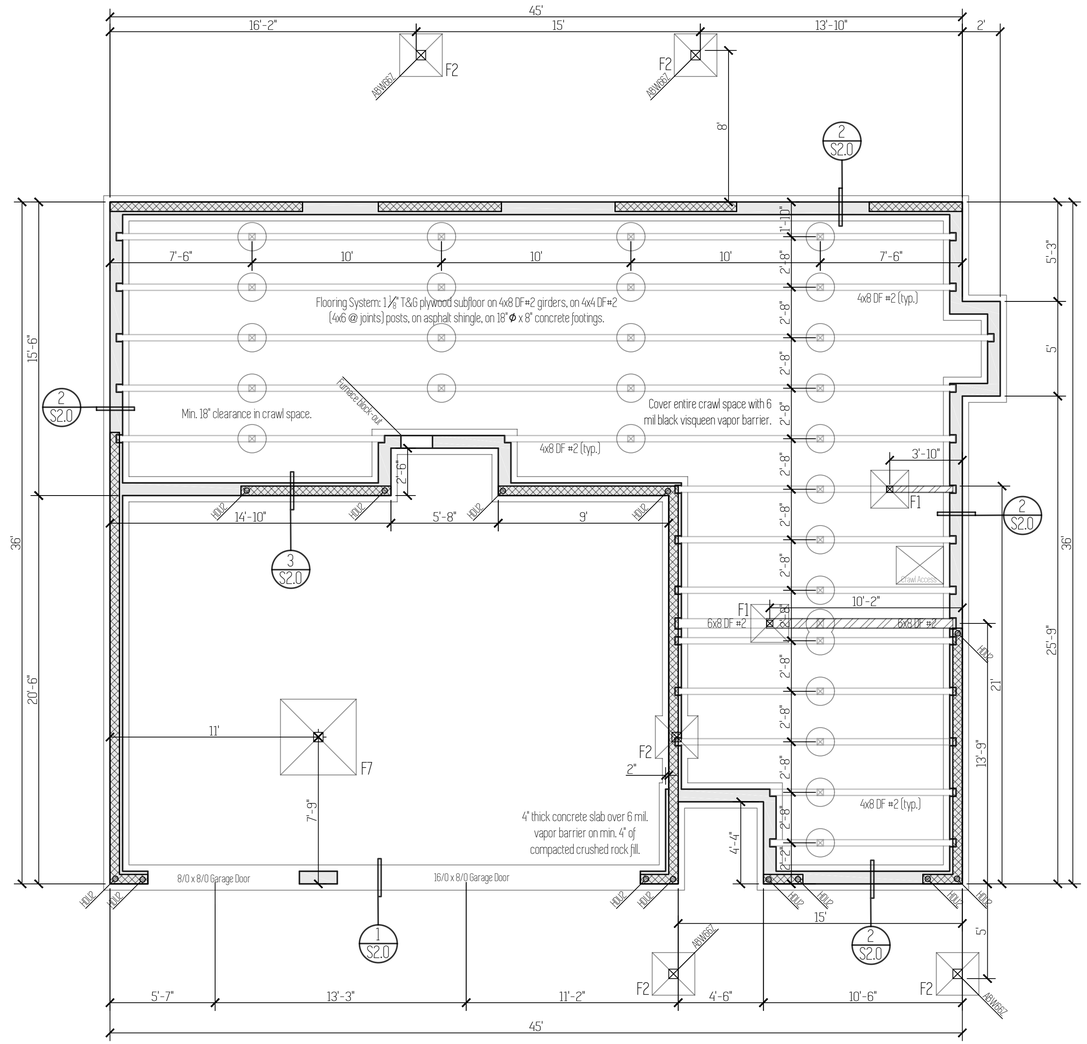


Typ. Foundation Wall

Scale: 1"=1'

Note:

1. Footing to be place on undisturbed, native soil.



Foundation Plan & Lower Floor Framing

Plan Name

Wahkeena B

Date

7/3/2019

Location

Lone Oak Estates
Lot 13
Battle Ground, WA

Foundation Plan

Total Sq Ft = 2,110

Scale : 1/4" = 1'

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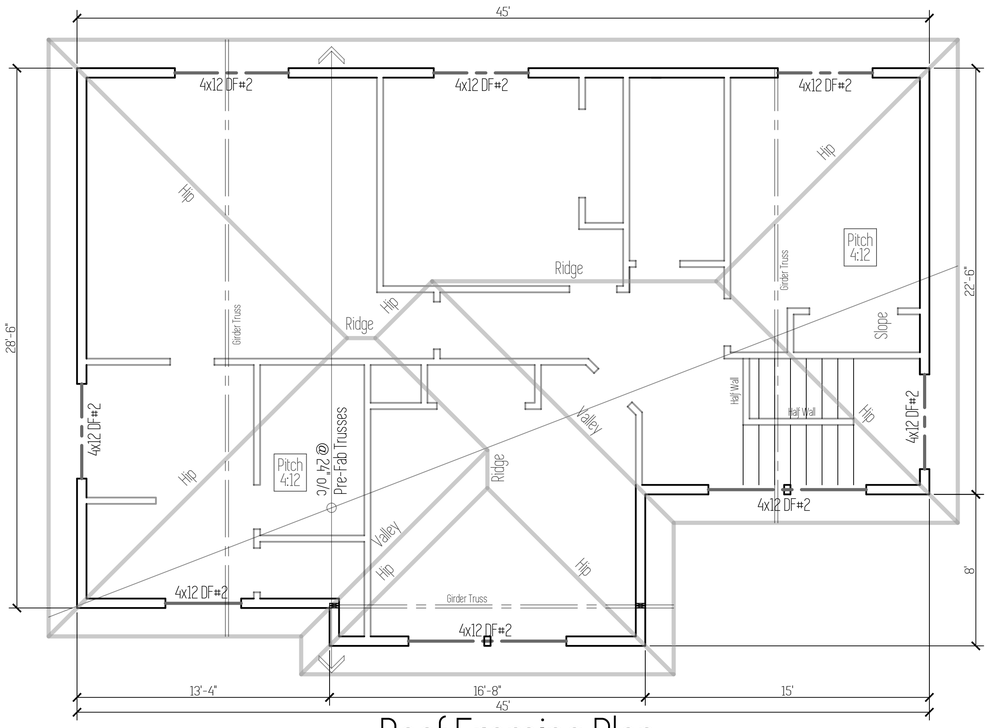
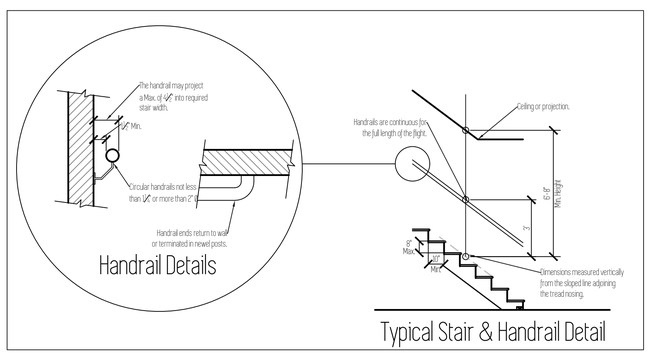
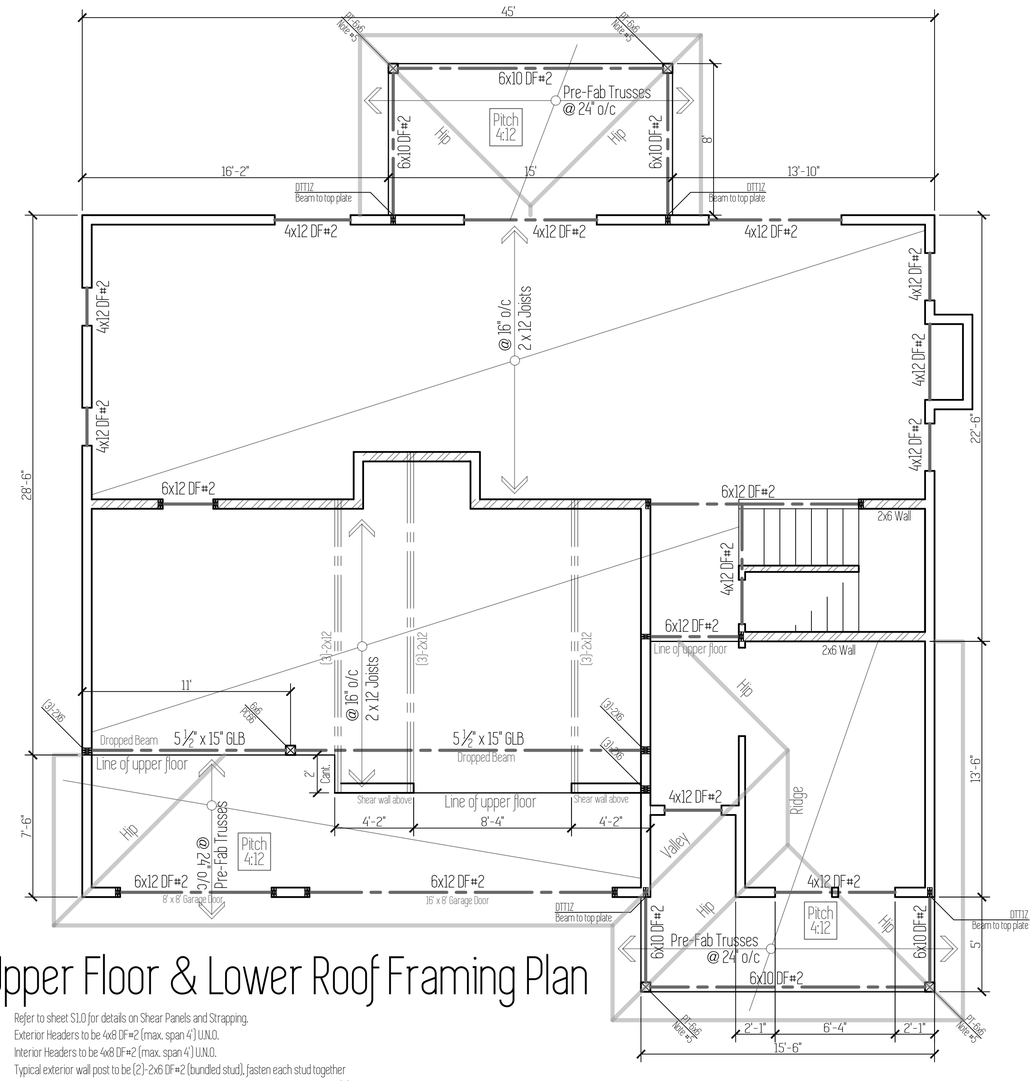


Roof Framing Plan

1. Refer to sheet S1.0 for details on Shear Panels and Strapping.
2. Exterior Headers to be 4x8 DF#2 (max. span 6') U.N.O.
3. Interior Headers to be 4x8 DF#2 (max. span 4') U.N.O.
4. Typical exterior wall post to be (2)-2x6 DF#2 (bundled stud), fasten each stud together w/16d nails @ 12" o/c, typ. entire length of stud, u.n.o. Typical interior wall post to be (2)-2x4 DF#2 (bundled stud), fasten each stud together w/16d nails @ 12" o/c, typ. entire length of stud, u.n.o.
5. Exterior post caps to be Simpson "PC" or "EPC", if exposed condition coat per manufacture's specs with exterior exposed and P.T. material.
6. Roof Overhangs: Hipped roofs. 18" Overhang everywhere.
7. Install 8" roof vents at 4' o/c along ridge.





Upper Floor & Lower Roof Framing Plan

1. Refer to sheet S1.0 for details on Shear Panels and Strapping.
2. Exterior Headers to be 4x8 DF#2 (max. span 4') U.N.O.
3. Interior Headers to be 4x8 DF#2 (max. span 4') U.N.O.
4. Typical exterior wall post to be (2)-2x6 DF#2 (bundled stud), fasten each stud together w/16d nails @ 12" o/c, typ. entire length of stud, u.n.o. Typical interior wall post to be (2)-2x4 DF#2 (bundled stud), fasten each stud together w/16d nails @ 12" o/c, typ. entire length of stud, u.n.o.
5. Exterior post caps to be Simpson "PC" or "EPC", if exposed condition coat per manufacture's specs with exterior exposed and P.T. material.
6. Roof Overhangs: Hipped roofs. 18" Overhang everywhere.
7. Install 8" roof vents at 4' o/c along ridge.

Interior Bearing Wall

Plan Name
Wahkeena B
Date
7/3/2019
Location
Lone Oak Estates Lot 13 Battle Ground, WA

Framing Plan

Total Sq Ft = 2,110

Scale : 1/4" = 1'

This plan is property of :

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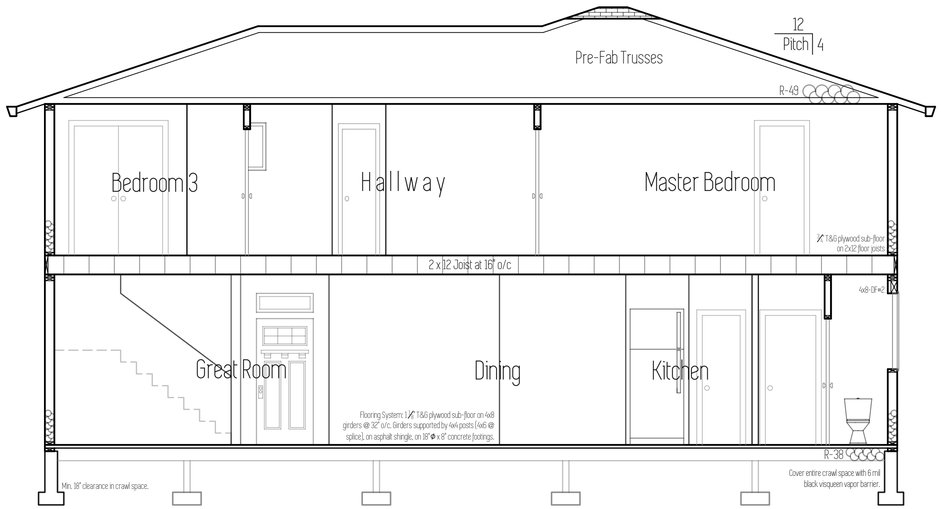
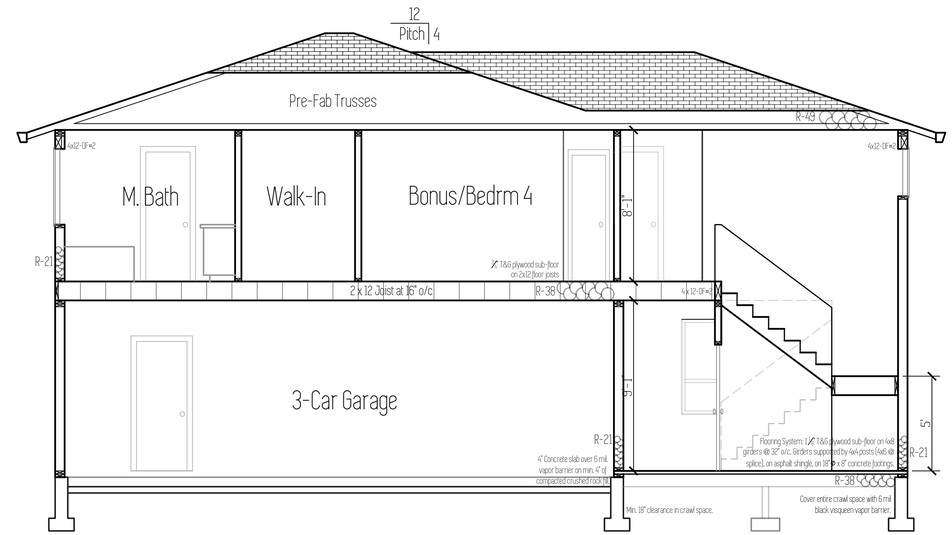
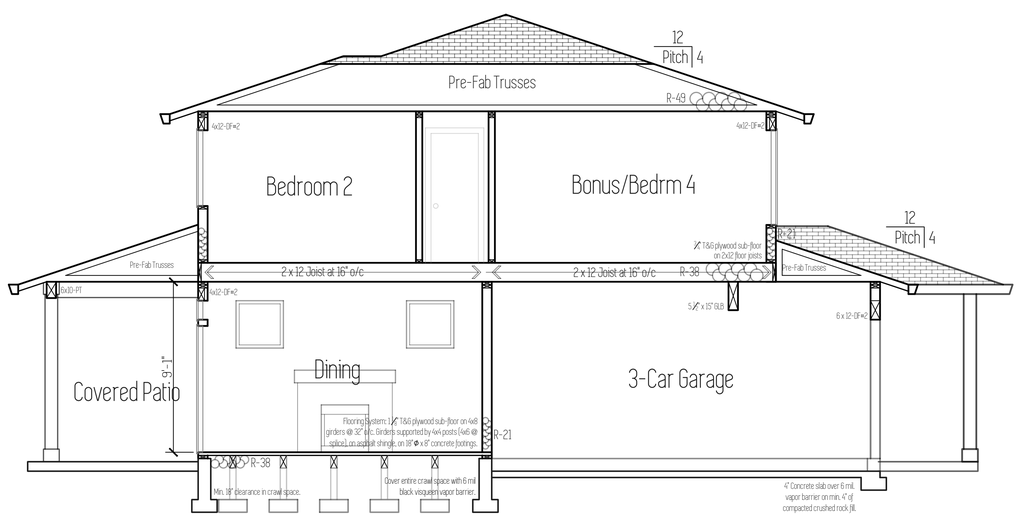


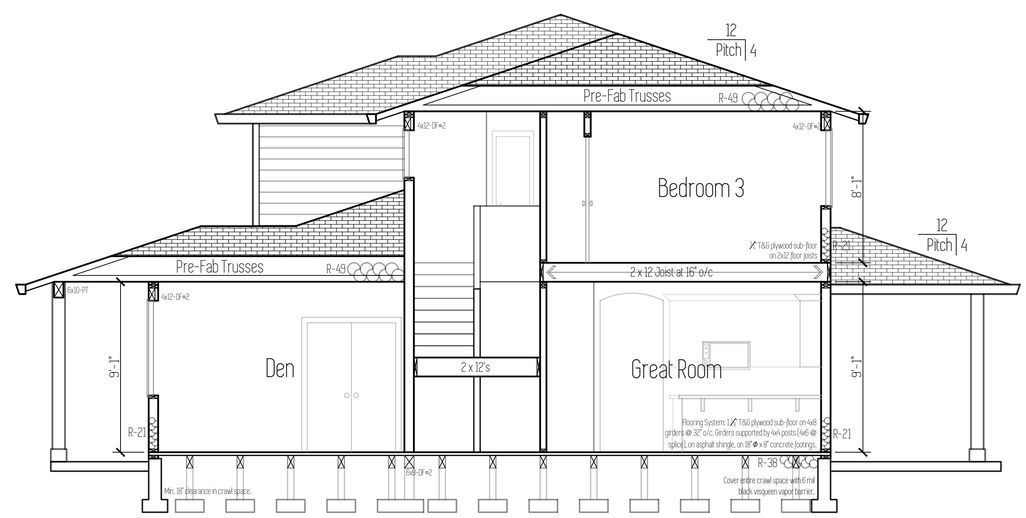
Section B



Section A



Section D



Section C

Plan Name
Wahkeena B
Date
7/3/2019
Location
Lone Oak Estates Lot 13 Battle Ground, WA

Sections

Total Sq Ft = 2,110

Scale : 1/4" = 1'

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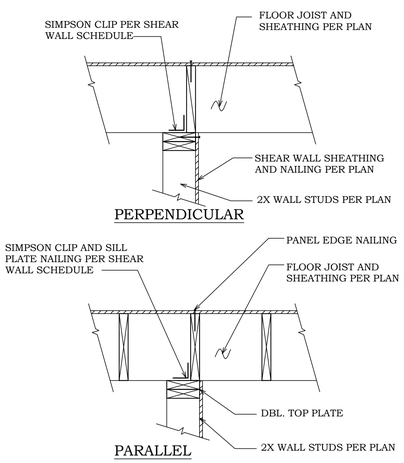
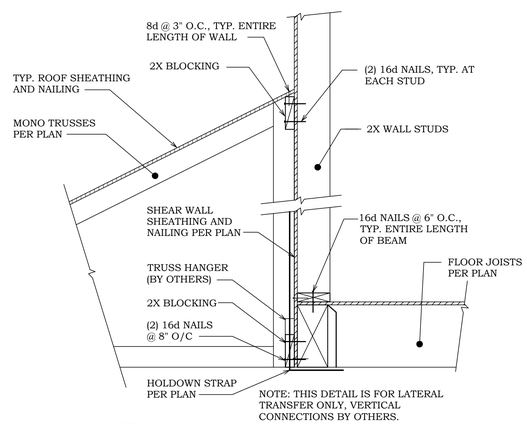
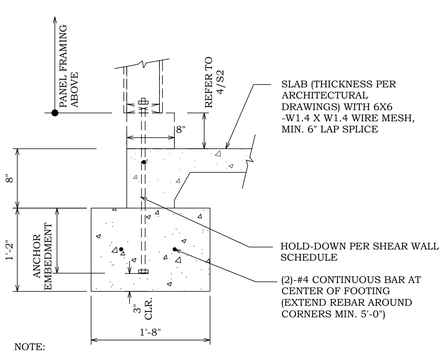


5 S2 WALL SECTION
SCALE: NONE

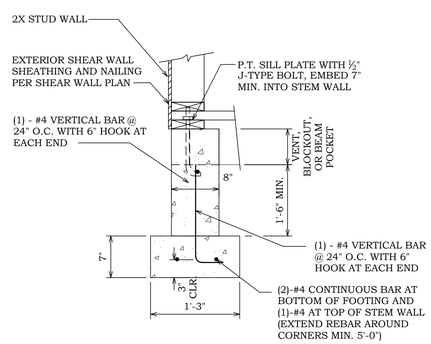


6 S2.0 LOWER ROOF SECTION
SCALE: 1" = 1'-0"



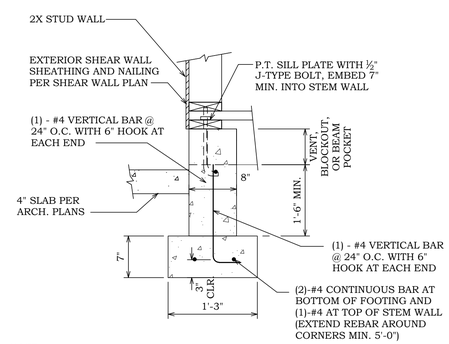
NOTE:
1. FOOTING TO BE PLACED ON UNDISTURBED NATIVE SOIL.
2. DRIVEWAY SURFACE NOT SHOWN.

1 S2 FOOTING SECTION
SCALE: 1" = 1'-0"



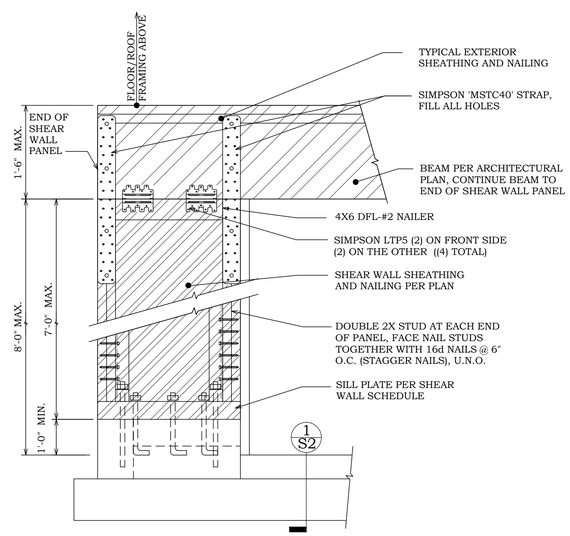
NOTE:
1. FOOTING TO BE PLACED ON UNDISTURBED NATIVE SOIL.
2. REFER TO SHEAR WALL SCHEDULE SILL BOLT SPACING AT SHEAR WALL LOCATIONS.

2 S2 FOOTING SECTION
SCALE: NONE



NOTE:
1. FOOTING TO BE PLACED ON UNDISTURBED NATIVE SOIL.
2. REFER TO SHEAR WALL SCHEDULE SILL BOLT SPACING AT SHEAR WALL LOCATIONS.

3 S2 FOOTING SECTION
SCALE: NONE



4 S2 SHEAR WALL ELEVATION VIEW
SCALE: NONE

No.	DATE	DESCRIPTION

PROJECT NAME
LOE 13
STRUCTURAL DETAILS

TURNER ENGINEERING & DESIGN
Office/Cell: (503) 970-0837
Email:rturner.teandd@gmail.com
PO BOX 220
EAGLE CREEK, OREGON 97022

ENGINEERS STAMP
RICHARD JAMES TURNER
STATE OF WASHINGTON
41,220
REGISTERED PROFESSIONAL ENGINEER
EXPIRES OCT 20, 2019

ISSUE CD
DESIGNED BY RJT
DRAWN BY JSF
CHECKED BY RJT
DATE 01/19/19
PROJECT NO. R19041
SHEET NO. S2.0

SUMMARY OF WORK:

LOCATION: WAHKEENA LOE 13 GARAGE LEFT BATTLE GROUND, WASHINGTON
STRUCTURAL ANALYSIS AND DESIGN FOR SINGLE FAMILY RESIDENCE

DESIGN LOADS:

CODE: 2015 IBC
USE OR OCCUPANCY OF BUILDINGS AND STRUCTURES RISK CATEGORY (ASCE TABLE 1.5-1): II
WIND SPEED Vult: 135 MPH EXPOSURE 'B', Vasd = 105 MPH (OSSC EQUATION 16-33)
SEISMIC DESIGN CATEGORY: 'D'
GROUND SNOW LOAD: 25 PSF (ROOF SNOW LOAD: 25 PSF)
ROOF DEAD LOAD: 15 PSF
FLOOR LIVE LOAD: 40 PSF
FLOOR DEAD LOAD: 10 PSF
SOIL BEARING PRESSURE: 1500 PSF
SOIL PASSIVE SOIL PRESSURE: 200 PSF

FRAMING REQUIREMENTS:

1. WALL STUDS TO BE 2X6 DFL-#2 @ 16" O.C., TYPICAL U.N.O.
2. ROOF SHEATHING TO BE 15/32" APA RATED CDX SHEATHING OR OSB. INSTALL PANELS HORIZONTALLY. SPACE 8d NAILS MAXIMUM 6" O.C. ALONG PANEL EDGES. FOR OTHER CONDITIONS, SPACE 8d NAILS MAXIMUM 12" O.C. ON INTERMEDIATE SUPPORTS.
3. TYPICAL WALL SHEATHING (TSN) TO BE 15/32" APA RATED CDX SHEATHING OR OSB. ALL PANEL EDGES TO BE BACKED WITH 2-INCH NOMINAL OR WIDER FRAMING. INSTALL PANELS HORIZONTALLY OR VERTICALLY. SPACE 8d NAILS MAXIMUM 6" O.C. ALONG PANEL EDGES. FOR OTHER CONDITIONS AND PANEL THICKNESSES, SPACE 8d NAILS MAXIMUM 12" O.C. ON INTERMEDIATE SUPPORTS.
4. FLOOR SHEATHING TO BE ¾" APA RATED CDX SHEATHING OR OSB. SPACE 8d NAILS MAXIMUM 6" O.C. ALONG PANEL EDGES. FOR OTHER CONDITIONS, SPACE 8d NAILS MAXIMUM 12" O.C. ON INTERMEDIATE SUPPORTS.
5. SILL PLATE TO BE 2X P.T. U.N.O. (REFER TO SILL BOLT SPACING IN SCHEDULE BELOW).
6. FOR NAIL SIZES REFER TO BELOW.

SHEAR WALL SCHEDULE: (1) (2) (4)

SDPWS TABLE 4.3A

PANEL NOTATION	SHEATHING THICKNESS (IN.)	NAILS/ SPACING	DBL. STUD CONN. (FACE NAIL)	SILL BOLT (5) SPACING	SHEAR CAPACITY (SEISMIC)	SHEAR CAPACITY (WIND)
D6	15/32" (8)	8d @ 6" O/C	16d @ 9" O/C	½" Ø @ 36" O/C	260 PLF	365 PLF
D4 (3)	15/32" (8)	8d @ 4" O/C	16d @ 6" O/C	½" Ø @ 24" O/C	380 PLF	532 PLF
D3 (3)	15/32" (8)	8d @ 3" O/C	16d @ 4" O/C	½" Ø @ 18" O/C	490 PLF	685 PLF
D2 (3)	15/32" (8)	8d @ 2" O/C	16d @ 3" O/C	½" Ø @ 16" O/C	640 PLF	895 PLF
E2 (6)	15/32" (8)	10d @ 2" O/C	N/A	½" Ø @ 14" O/C (6)	770 PLF	1077 PLF

NAIL	6d	8d	10d	16d
Ø	.113"	.131"	.148"	.162"
LENGTH	2"	2½"	3"	3½"

NOTES:

(1) SHEATHING TO BE APA RATED SHEATHING OR OSB (GRADE C-C OR C-D STRUCTURAL II OR BETTER).
(2) ALL PANEL EDGES TO BE BACKED WITH 2-INCH NOMINAL OR WIDER FRAMING (DFL-#2). INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY. SPACE NAILS MAXIMUM 6" O.C. ALONG PANEL EDGES FOR STUDS SPACED 24" O.C. FOR OTHER CONDITIONS AND PANEL THICKNESSES, SPACE NAILS MAXIMUM 12" O.C. ON INTERMEDIATE SUPPORTS.
(3) FRAMING AT ADJOINING PANEL EDGES SHALL BE A SINGLE 3" NOMINAL MEMBER OR (2) 2-INCH NOMINAL MEMBER FASTENED TOGETHER WITH 16d NAILS (SPACING ABOVE) TYPICAL ENTIRE HEIGHT OF DBL. STUD. NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 2" O.C.
(4) AT SHEAR WALL LOCATIONS, REFER RW/S1 AND FF/S1 FOR ROOF TO WALL AND FLOOR TO FLOOR FRAMING.
(5) INSTALL 3" SQUARE X 5/16" STEEL PLATE WASHER.
(6) FRAMING AT ADJOINING PANEL EDGES SHALL BE SINGLE 3X NOMINAL FRAMING MEMBERS AT EACH END OF THE PANEL. NAILS SHALL BE STAGGERED WHERE NAILS ARE SPACED 2" O.C. INSTALL MIN. 3X P.T. SILL PLATE, U.N.O.
(7) GALVANIZED NAILS SHALL BE HOT-DIPPED OR TUMBLED.
(8) IF 5/16" NOMINAL THICK PLYWOOD OR OSB IS USED, STUDS TO BE SPACED AT 1'-4" O/C, TYPICAL.
(9) COMMON OR GALVANIZED BOX

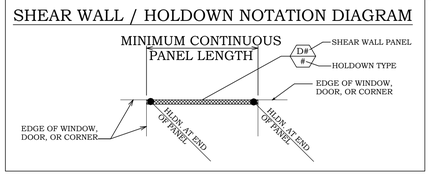
HOLD-DOWN SCHEDULE: (2) (3) (4)

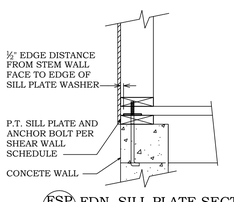
HOLDOWN NOTATION	'SIMPSON' HOLDOWN TYPE	INSTALLATION INSTRUCTIONS
2	HDU2 (3075#)	STD. 'SB ¾ X 24' MIN. 18" EMBEDMENT (ie) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2½" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDOWN PER MANUFACTURER'S SPECIFICATIONS.
4	HDU4 (4565#)	STD. 'SB ¾ X 24' MIN. 18" EMBEDMENT (ie) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2½" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDOWN PER MANUFACTURER'S SPECIFICATIONS.
5	HDU5 (5645#)	STD. 'SB ¾ X 24' MIN. 18" EMBEDMENT (ie) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2½" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDOWN PER MANUFACTURER'S SPECIFICATIONS.
8	HDU8 (5980#,6970#, 7870#)	STD. 'SB ¾ X 24' MIN. 18" EMBEDMENT (ie) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (3)2X6 DFL-#2 WALL STUDS (MIN. 2½" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDOWN PER MANUFACTURER'S SPECIFICATIONS.
28	MSTC28	INSTALL STRAP ACROSS FLOOR LINE, INSTALL MIN. (8) 16d NAILS INTO DOUBLE WALL STUDS ABOVE FLOOR AND INTO DOUBLE WALL STUDS BELOW. CENTER STRAP ON STUDS TO INSTALL NAILS INTO MIDDLE THIRD OF STUD.
40	MSTC40	INSTALL STRAP ACROSS FLOOR LINE, INSTALL MIN. (16) 16d NAILS INTO DOUBLE WALL STUDS ABOVE FLOOR AND INTO DOUBLE WALL STUDS BELOW. CENTER STRAP ON STUDS TO INSTALL NAILS INTO MIDDLE THIRD OF STUD.

NOTES:

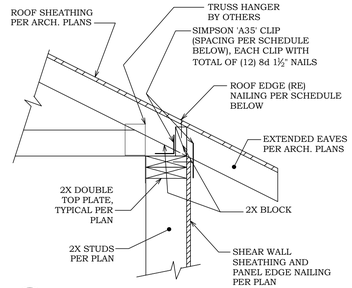
(1) IN LIEU OF SIMPSON 'SSTB' BOLTS ANCHOR BOLTS TO BE A307 OR 'A36' THREADED ROD WITH STD. NUT AND 2" X 2" X 5/16" STEEL PLATE WASHER ON BOTTOM OF BOLT.
(2) HOLDOWNS TO BE FASTENED TO DOUBLE STUDS (CONTINUOUS FROM SILL PLATE TO DOUBLE TOP PLATE) AT PANEL ENDS. WALL STUDS SHOULD HAVE PANEL EDGE NAILING FROM SHEAR WALL SHEATHING.
(3) IF HOLDOWNS 2, 5, 6, AND 8 ARE INSTALLED FROM FLOOR TO FLOOR, REFER TO DETAIL FF/S1.
(4) U.N.O., INSTALL (1)-#4 CONTINUOUS HORIZONTAL TOP BAR 3" DOWN FROM TOP OF WALL AT ALL HOLDOWN ANCHORS. EXTEND BAR MIN. 5'-0" PAST HOLDOWN IN BOTH DIRECTIONS (BEND BAR AROUND AT CORNER CONDITION). FOR THIS 10'-0" SECTION INSTALL (1)-#4 VERTICAL BAR @ 24" O.C. TIE HOLDOWN ANCHOR TO HORIZONTAL TOP BAR.

SHEAR WALL / HOLDOWN NOTATION DIAGRAM

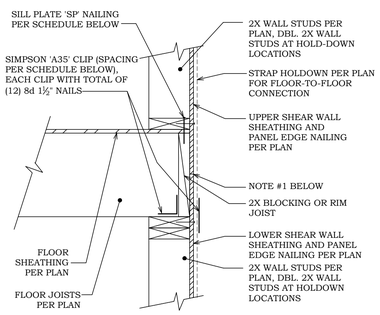




FSP/S1 FDN. SILL PLATE SECTION



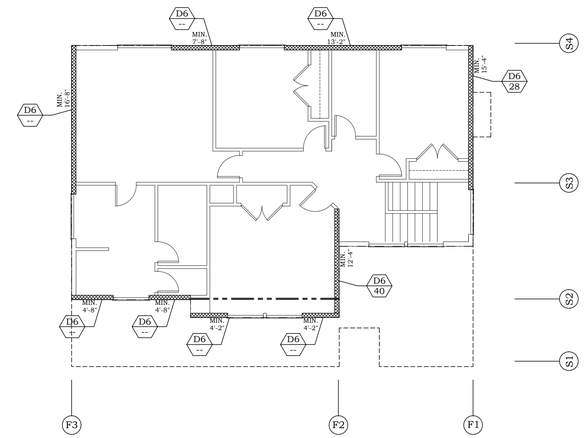
RW/S1 ROOF TO SHEAR WALL SECTION



FF/S1 FLOOR TO FLOOR SECTION AT SHEAR WALL

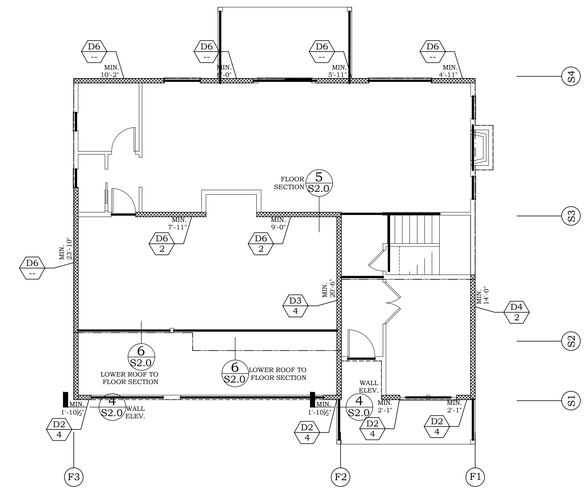
NOTE:
1. IN LIEU OF CLIPS, BREAK SHEAR WALL PANELS AT BLOCKING OR RIM JOIST (INSTALL PANEL EDGE NAILING AT BREAK).

PANEL TYPE	'SP' NAIL SPACING	SIMPSON CLIP SPACING	'RE' NAIL SPACING
D6	16d @ 8" O.C.	1'-8" O.C.	8d @ 8" O.C.
D4	16d @ 4" O.C.	1'-2" O.C.	8d @ 4" O.C.
D3	16d @ 3" O.C.	0'-11" O.C.	8d @ 3" O.C.
D2	16d @ 3" O.C.	8" O.C.	8d @ 2½" O.C.
E2	16d @ 2" O.C.	7" O.C.	8d @ 2" O.C.



UPPER FLOOR SHEARWALL PLAN

NOTE:
1. REFER TO FRAMING REQUIREMENTS FOR TYPICAL EXTERIOR SHEATHING AND NAILING, ROOF SHEATHING AND NAILING AND FLOOR SHEATHING AND NAILING REQUIREMENTS.



MAIN FLOOR SHEARWALL PLAN

NOTE:
1. REFER TO FRAMING REQUIREMENTS FOR TYPICAL EXTERIOR SHEATHING AND NAILING, ROOF SHEATHING AND NAILING AND FLOOR SHEATHING AND NAILING REQUIREMENTS.

No.	DATE	DESCRIPTION

PROJECT NAME
WAHKEENA RESIDENCE GL
SHEAR WALL AND HOLDOWN SCHEDULE
SHEAR WALL PLANS

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EXPIRES OCT 20, 2019

ISSUE: CD
DESIGNED BY: RJT
DRAWN BY: RJT
CHECKED BY: RJT
DATE: 04/07/17
PROJECT NO.: R17117
SHEET NO.: S1.0