STRUCTURAL GENERAL NOTES

GENERAL REQUIREMENTS

1. *All work shall conform to IBC (2015) including its referenced standards.*

2. *Where details are not specifically shown, construction shall follow typical details for similar conditions, subject to review by the Architect or Engineer.*

3. *Architectural drawings are the prime contract documents. Refer to the Architectural drawings for information including but not limited to: dimensions, elevations, slopes, door and window openings, non-bearing walls, curtain walls, stairs, elevators, curbs, drains, depressions, railings, waterproofing, finishes and other nonstructural items. These structural drawings may not contain details of all the construction, depending on the scope of work for which the Engineer was engaged.*

4. *The Contractor is responsible for adequate bracing of the structure and parts thereof for wind, earthquake and construction forces until all structural components are permanently connected. The Contractor shall be responsible for formwork design and shoring removal schedules.*

5. *The Contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the work. In case of discrepancies between the General Notes, plans, and details, the Architect/Engineer shall determine which shall govern. Discrepancies shall be brought to the attention of the Architect/Engineer before proceeding with the work.*

6. *The Contractor shall determine the location of all adjacent underground utilities prior to earthwork, foundations, shoring, and excavation.*

7. *Alternatives for specified items may be submitted to the Architect/Engineer for review.*

DESIGN LOADS

WIND: Basic Wind Speed: 135 MPH (3-second gust),
Exposure: B
Analysis procedure used: Simplified Procedure
Wind Base Shear = 9.7 kips (Front-to-Back)
= 9.7 kips (Left-to-Right)

SEISMIC: Seismic Importance Factor: $I_e = 1.0$
Spectral Response Coefficient (Short Period): $S_{DS} = 0.678$
Seismic Design Category = D
Site Class = D
Response Modification Factor: R = 6.5 (Light framed steel shear walls)
Analysis procedure used: Equivalent Lateral Force Analysis
Seismic Base Shear = 5.8 kips

DESIGN GRAVITY LOADS:

Floor dead load	15 psf UNO
Floor live load	40 psf UNO
Roof dead load	17 psf
Flat Roof Snow Load	25 psf

SUBMITTALS

1. *Submmitals are those items not designed by the project Architect and Engineer of Record (EOR). All submittals shall be presented to the Architect and EOR in electronic PDF format for review and approval prior to fabrication/installation.*

2. *Concrete:*

- *Provide mix designs for all mix types listed in the Table of Mix Designs.*

3. *Wood Framing:*

3.1. *Pre - Manufactured metal plate connected wood roof trusses*
- *All trusses shall have calculations and shop drawings sealed by a licensed professional engineer registered in the state of Washington.*
- *All trusses shall have shop drawings indicating the loading, material, size and spacing.*
- *All floor and roof trusses shall be designed for the loading listed in the Design Loads section.*

3.1. *Solid Web Wood Joists*
- *Shop drawings shall indicate the loading, material types, size, spacing.*

SOILS AND FOUNDATIONS

1. *Foundations are proportioned for a maximum bearing pressure of 1500 psf.*

2. *Footings shall be constructed on undisturbed soil. Frozen soil, organic material and deleterious matter not allowed. Any over excavation shall be backfilled with granular material compacted to 95% of the ASTM D-1557 (modified proctor) maximum dry density. All slabs-on-grade shall be founded on 4" minimum compacted crushed rock, or as directed by a Geotechnical Engineer. Base of footings shall be a minimum of 1'-6" below finished grade and a minimum of 1'-0" below existing grade.*

3. *Coordinate with following trades for embedded items, sleeves, shear wall holddowns, etc.*

CAST-IN-PLACE CONCRETE

1. *Concrete shall be normal-weight unless specified otherwise on the drawings.*

TABLE OF MIX DESIGN REQUIREMENTS

MEMBER TYPE/LOCATION	STRENGTH (psi)	TEST AGE (days)	MAXIMUM AGGREGATE	MAXIMUM W/C RATIO	AIR CONTENT
FOUNDATIONS					
Foundations (Ret. walls & footings)	3000	28	1"	--	5%
SLABS-ON-GRADE					
Interior	3000	28	1"	0.50	--

2. *When pouring concrete in "cold" weather, follow ACI 306R.*
3. *When pouring Concrete in "Hot" weather, follow ACI 305R.*

CONCRETE REINFORCEMENT

1. *Concrete reinforcement shall comply with the following:*

Reinforcing Bars	ASTM A615, Grade 60, deformed bars.
Weldable Reinforcing Bars	ASTM A706, Grade 60, deformed bars.
Deformed Welded Wire Fabric	ASTM A497

2. *Bars shall not be welded unless authorized. When authorized, conform to ACI 301, Sec. 3.2.2.2. "Welding" and provide ASTM A706, grade 60 reinforcement.*

3. *Reinforcing shall conform to the following cover requirements unless specifically shown otherwise on the drawings:*

Concrete cast against earth	3"
Concrete exposed to earth or weather	1-1/2" (#5 bars and smaller) 2" (#6 bars and larger)
Ties in columns and beams	1-1/2"
Bars in slabs and walls	3/4"

4. *Reinforcement lap splice lengths shall comply with the following table, unless specifically shown otherwise on the drawings:*

BAR SIZE	#3	#4	#5	#6
Top bars in footings	22"	29"	36"	43"
Bars in walls	21"	28"	35"	41"
Bars in slabs & elsewhere	17"	22"	28"	33"

(1) Bars shown to be continuous shall be lapped as scheduled above in straight runs, around corners, and into adjacent footings.

5. *Welded wire fabric in slabs on grade shall be chaired for 1 1/2" cover to the top of the slab.*

6. *All rebar shall be fabricated and placed in accordance with ACI Detailing Manual 315.*

WOOD FRAMING

1. *Certification: All sawn lumber and pre-manufactured wood products shall be identified by the grade mark or a certificate of inspection issued by the certifying agency.*

2. *Materials Sawn Lumber: Conform to grading rules of WWPA, WCLIB or NLGA. Finger jointed studs are acceptable at interior walls only.*

MEMBER USE	SIZE	SPECIES	GRADE
Studs	2x4, 3x4, 2x6, 3x6	DF	No. 2
Sill Plate	2x4,3x4, 2x6, 3x6	P.T. HF	No. 2
Posts	4x4, 4x6, 4x8	DF	No. 2
Joists	2x6 - 2x12	DF	No. 2
Beams	4x8 - 4x12	DF	No. 2
Beams	6x8 - 6x12	DF	No. 1
Posts & Timbers	6x6, 8x8	DF	No. 1

3. *Glued Laminated Timber: Conform to AITC 117 "Standard Specifications for Structural Glue-laminated Timber of Softwood Species, Manufacturing and Design" and ANSI/AITC A190.1 "Structural Glued Laminated Timber."*

MEMBER USE	SIZE	SPECIES	SYMBOL	USES
Beams	All	DF/ DF	24F-V4	Simple Spans
	All	DF/ DF	24F-V8	Cantilever Spans

4. *Engineered Wood Products: Micro-Lams (LVL), Timberstrand (LSL), Parallams (PSL) and Versa-Lam shall be documented by ICC reports confirming design properties in the table below:*

MEMBER USE	MEMBER TYPE	MEMBER SIZE	Fb (psi)	Fv (psi)	E (psi)
Beams	LVL	All	2,600	285	1,900,000
	LSL	All	2,325	310	1,550,000
	PSL	All	2,900	290	2,000,000
	Versa-Lam	All	3,100	285	2,000,000

5. *Structural Sheathing: Wood APA-rated structural sheathing includes: all veneer plywood, oriented strand board, waferboard, particleboard, T1-11 siding, and composites of veneer and wood based material with T&G joint.*

Minimum APA Rating						
LOCATION	THICKNESS (3)	SPAN RATING (1)	PLYWOOD GRADE	EXPOSURE	EDGE NAILING (2)	FIELD NAILING (2)
Roof	15/32" CDX	32/16	C-D	1	10 @ 6"	8d @ 12"
Floor	23/32" T&G	48/24	Sturd-I- Floor	1	10d @ 6"	10d @ 12"
Walls	15/32" CDX	24/16	C-D	1	PER PLAN	PER PLAN

(1) Unless noted otherwise on drawings, install roof and floor panels with long dimension across supports and with panel continuous over two or more spans. End joints shall occur over supports.
(2) Provide minimum sheathing edge nailing unless noted otherwise in the plans or structural schedules.
(3) CDX or OSB may be used interchangeably provided equivalent span ratings are achieved.

6. *Timber Connectors: Timber connectors shall be "Strong Tie" by Simpson Company as specified in their latest catalog. Alternate connectors by other manufacturers may be substituted subject to review by the Engineer prior to installation. Connectors shall be installed per the manufacturer's instructions. Where straps are used as hold-downs, nail straps to wood framing just prior to drywall application, as late as possible in the framing process to allow the wood to shrink and the building to settle. Premature nailing of the strap may lead to strap buckling and potential finish damage. Where connectors are in exposed exterior applications in contact with preservative treated wood (PT) other than CCA, connectors shall be either batch hot-dipped galvanized (HDG), mechanically galvanized (ASTM B695, Class 40 or greater) stainless steel, or provided with 1.85 oz/sf of zinc galvanizing equal to or better than Simpson ZMAX finish.*

7. *Fasteners: Fasteners (nails, bolts, screws, etc) attaching sawn timber members or sheathing (shear walls) to PT wood shall be either HDG, mechanically galvanized (ASTM B695, Class 40 or greater) or stainless steel. Provide washers under the heads and nuts of all bolts and lag screws bearing on wood. All nails 12d and smaller shall be full length common unless noted otherwise. 16d nails may be 16d sinkers unless noted otherwise.*

8. *Nails: Conform to IBC Sec 2304.9 "Connections and fasteners." Unless noted otherwise all nails shall be common. Nail sizes specified on the drawings are based on the following specifications:*

SIZE	LENGTH	DIAMETER
6d	2-1/4"	.113" Ø
8d	2-1/2"	.131" Ø
10d	3"	.148" Ø
16d sinker	3 1/4"	.148" Ø
16d	3 1/2"	.162" Ø

Alternative nails may be used but are subject to review and approval by the Engineer. Substitution of staples for the nailing of rated sheathing is subject to review by the Engineer prior to construction.

9. *Nailing requirements: Provide minimum nailing in accordance with IBC Table 2304.9.1 "Fastening Schedule" except as noted on the drawings. Nailing for roof/floor diaphragms/shear walls shall be per drawings. Nails shall be driven flush and shall not fracture the surface of sheathing.*

10. *Unless noted on the plans, construction shall conform to IBC Sec. 2308 "Conventional Light-Frame Construction."*

INDEX

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1 -
2 -

CLIENT
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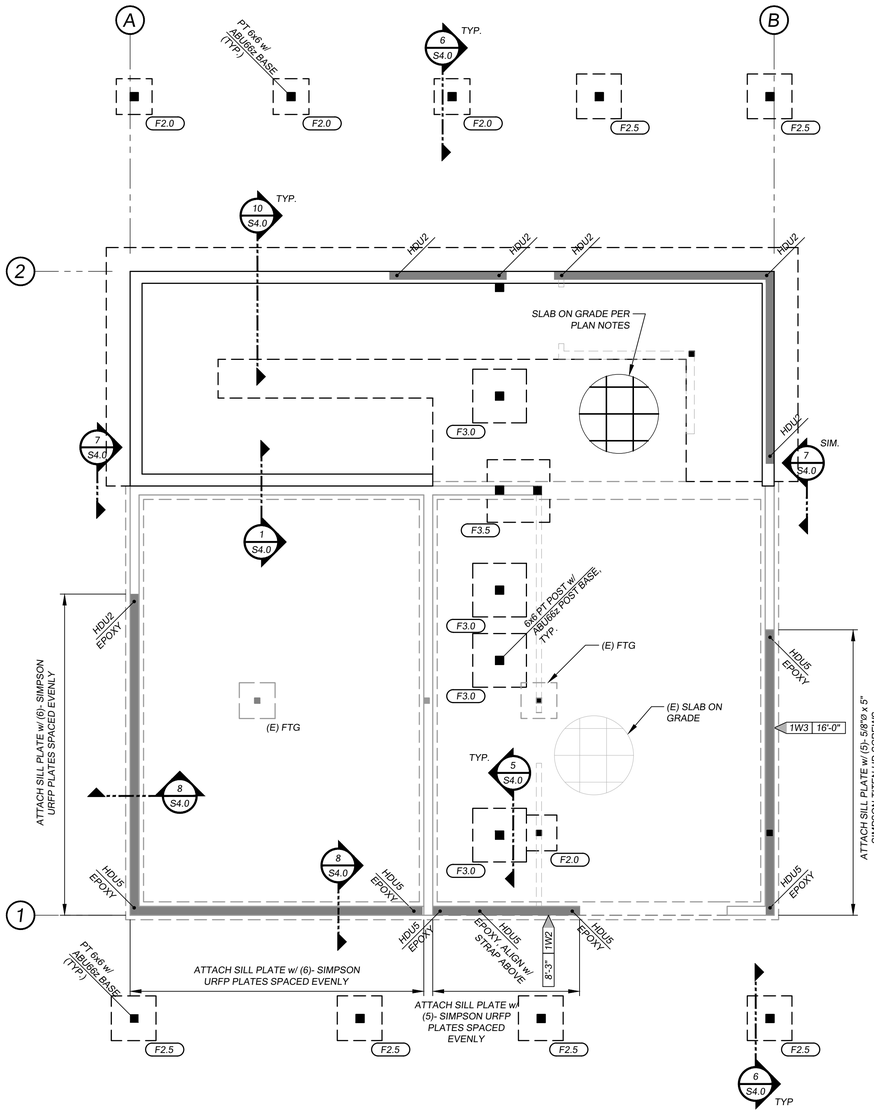
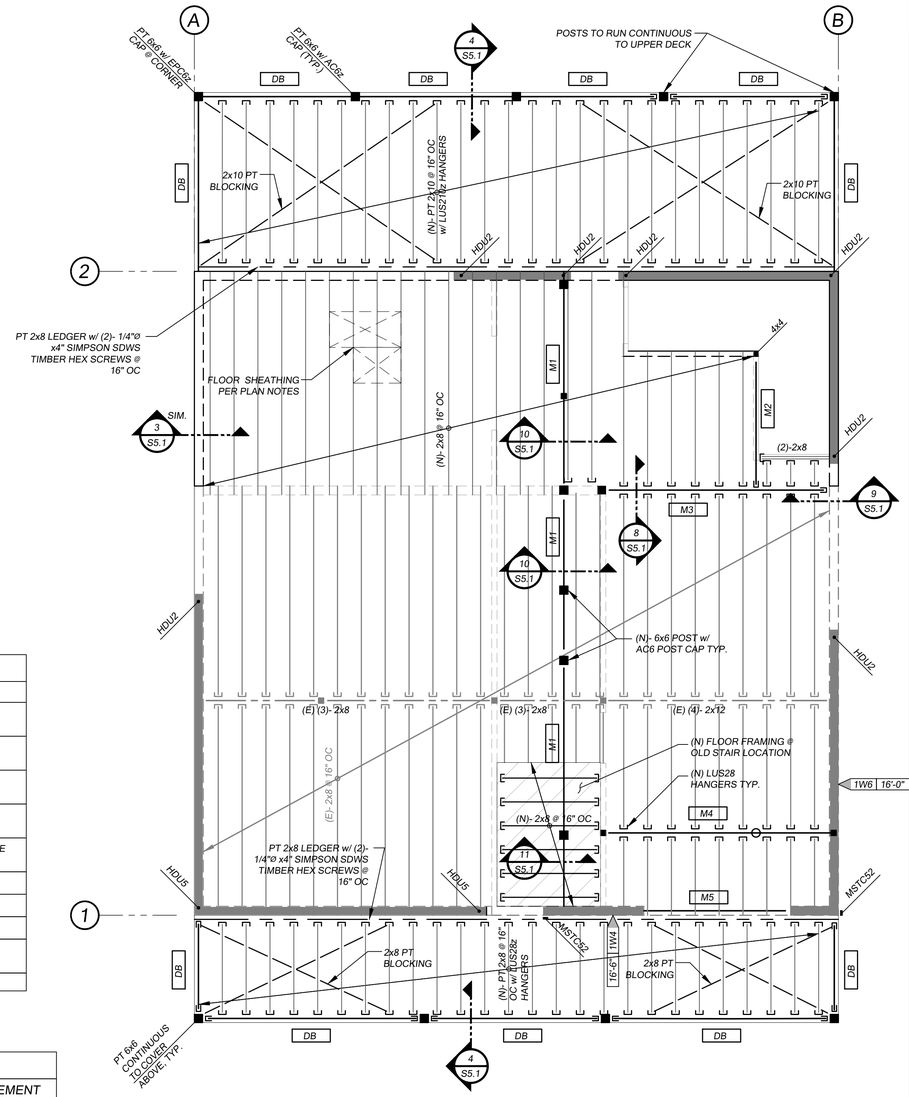
SHEET TITLE:
GENERAL NOTES & INDEX

S1.0





DRAWING LEGEND

SYMBOL	DESCRIPTION
	INDICATES A FOOTING & STEMWALL
	INDICATES A FOOTING
	INDICATES A POST FROM ABOVE
	INDICATES A SHEAR WALL FROM ABOVE
HDUx	INDICATES CONCRETE TO WOOD HOLD-DOWN, SEE HOLD-DOWN SCHEDULE ON S5.0
	INDICATES STRUCTURAL EXTERIOR WALL
	INDICATES NON-STRUCTURAL INTERIOR WALL
	INDICATES SHEAR WALL
TYPE LENGTH	INDICATES A SHEAR WALL, SEE SHEAR WALL SCHEDULE ON S5.0
	INDICATES WOOD POST

FOOTING SCHEDULE

MARK F#.#	DIMENSIONS 'L'	'W'	'H'	REINFORCEMENT EACH WAY (BOTT.)	REINFORCEMENT EACH WAY (TOP)
F2.0	2'-0"	2'-0"	1-0"	(2)-#4	N.A.
F3.0	3'-0"	3'-0"	1-3"	(3)-#4	N.A.
F3.5	3'-6"	3'-6"	1'-3"	(4)-#4	N.A.

BEAM SCHEDULE

BEAM MARK	BEAM TYPE	LEFT SUPPORT (LS)	RIGHT SUPPORT (RS)	NOTES
MAIN FLOOR ROOF BEAMS				
M1	5 1/2" x 10 1/2" GLB	PT 6x6	PT 6x6	
M2	(2)- 2x8	LUMBER POST	LUMBER POST	
M3	6 3/4" x 12" GLB	6X6 POST	MGU7.00-SDS	SEE DETAIL 9/S5.1
M4	3 1/2" x 11 1/4" LVL	6X6 POST	6X6 POST	
M5	3 1/2" x 9 1/4" LVL	LUMBER POST	LUMBER POST	
DB	PT 6x12	PT 6 x 6 POST	PT 6 x 6 POST	HUC610z HANGER AS NEEDED

FOUNDATION PLAN NOTES:

1. FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA AND SCHEDULES REFERENCE S1.0 AND S5.0.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. CONTRACTOR SHALL LOCATE AND VERIFY THE FOLLOWING WITH OTHERS PRIOR TO POURING CONCRETE; ALL BLOCKOUTS FOR DUCTS, PIPES AND VENTS.
4. TYPICAL BOTTOM OF EXTERIOR FOOTINGS SHALL BE 1'-6" MINIMUM BELOW EXISTING GRADE UNO.
5. ALL FOOTINGS AND SLABS SHALL BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL WITH A MINIMUM SOIL PRESSURE OF 1500 psf.
6. TYPICAL SLAB ON GRADE:
   - 6" COMPACTED CRUSHED ROCK BASE
   - MOISTURE BARRIER
   - 4" CONCRETE SLAB W/ #3 @ 18" OC EACH WAY OR 6x6 W2.9-W2.9 WWF CHAIRED FOR 1-1/2" COVER FROM TOP OF SLAB
   - CONTROL JOINTS AT OWNER'S OPTION
8. CONTRACTOR TO VERIFY TOP OF CONCRETE (T/CONC) WALL ELEVATIONS PRIOR TO POURING CONCRETE.
9. ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PRESSURE-TREATED.
10. ANCHOR BOLTS FOR FOUNDATION SILL PLATES TO BE 5/8" DIA. WITH 7" MINIMUM EMBEDMENT @ 48"OC UNO ON SHEAR WALL SCHEDULE, SEE S5.0. PROVIDE HOT-DIPPED GALVANIZED ANCHOR BOLTS AT PRESSURE-TREATED SILL PLATES. 3" x 3" x 1/4" HOT DIP GALVANIZED PLATE WASHERS SHALL BE PLACED BETWEEN THE SILL PLATE AND NUT. REFERENCE 4/S4.0 FOR TYPICAL SILL PLATE ANCHORAGE.
11. MOISTURE PROOF ALL CONCRETE STEM AND BASEMENT WALLS WHERE REQUIRED PER ARCHITECT/DESIGNER.
12. REFERENCE TYPICAL DETAILS AS FOLLOWS:

2/S4.0	TYPICAL CORNER REINFORCEMENT AT CONCRETE FOOTINGS
3/S4.0	TYPICAL CORNER REINFORCEMENT AT CONCRETE WALLS
4/S4.0	TYPICAL SILL PLATE ANCHORAGE DETAIL

FLOOR FRAMING PLAN NOTES:

1. FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, AND SCHEDULES REFERENCE S1.0 AND S5.0.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT'S DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
3. FLOOR SHEATHING SHALL BE 23/32" TONGUE AND GROOVE APA-RATED STURD-I-FLOOR. SHEATHING SHALL BE GLUED AND NAILED TO FRAMING WITH 10d NAILS @ 6"OC AT PANEL EDGES AND @ 12"OC FIELD, UNO. LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES.
4. ALL EXTERIOR WALLS (BEARING AND NON-BEARING) SHALL BE 2x6 @ 16" OC UNO.
5. ALL INTERIOR WALLS (BEARING OR NON-BEARING) SHALL BE 2x4 @ 16" OC UNO.
6. ALL EXTERIOR WALLS SHALL BE SHEAR WALL TYPE 1W6 UNO.
7. ALL 2x, DOUBLE 2x AND 4x HANGERS SHALL BE FACE MOUNT TYPE LUS, UNO. GLULAM, PARALLAM AND MICROLLAM HANGERS ARE AS SPECIFIED ON PLAN.
8. HEADERS SHOWN BUT NOT SPECIFIED SHALL BE A MINIMUM OF 4x10. HEADERS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (1) TRIMMER AND (1) KING STUD MINIMUM, UNO. TRIMMERS SHALL BE CONTINUOUS LOAD PATH TO THE FOUNDATION.
9. BEAMS ARE FLUSH FRAMED WITH JOISTS UNLESS NOTED OTHERWISE ON DETAILS.
10. BEAMS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY BUNDLED STUDS EQUAL TO THE BEAM WIDTH, UNO. CONTINUOUS LOAD PATH TO THE FOUNDATION.
11. ALL RIM JOISTS SHALL BE 2x8 UNO.
12. PROVIDE DOUBLE JOISTS AROUND ALL FLOOR AND ROOF OPENINGS OF 16" TO 32" ON ONE SIDE.

FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

MAIN FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"

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REVISIONS
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- -

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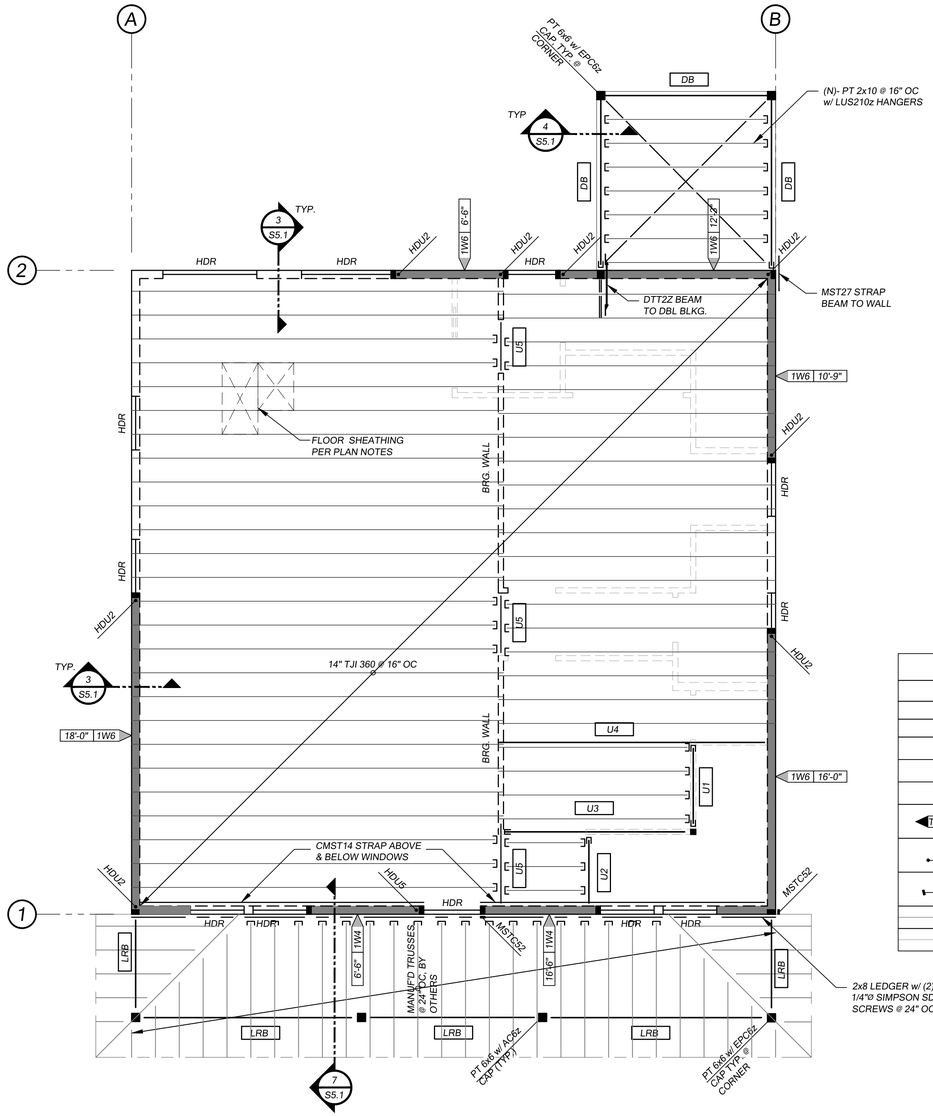
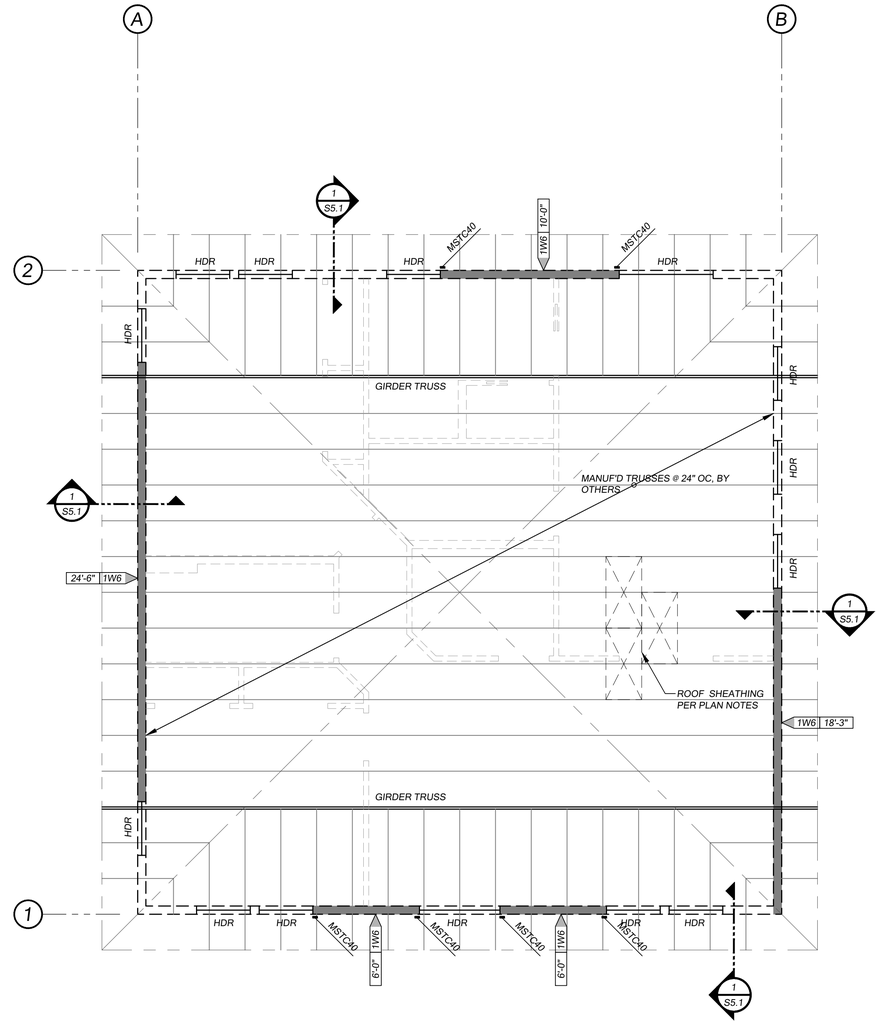
SHEET TITLE:
FOUNDATION & MAIN FLOOR FRAMING PLAN

S2.0





DRAWING LEGEND

SYMBOL	DESCRIPTION
■	INDICATES WOOD POST
○	INDICATES A POST FROM ABOVE
	INDICATES STRUCTURAL EXTERIOR WALL
	INDICATES NON-STRUCTURAL INTERIOR WALL
	INDICATES SHEAR WALL
TYPE | LENGTH	INDICATES A SHEAR WALL, SEE SHEAR WALL SCHEDULE ON S5.0
HDUx	INDICATES CONCRETE TO WOOD HOLD-DOWN, SEE HOLD-DOWN SCHEDULE ON S5.0
MSTCxx	INDICATES A WOOD TO WOOD HOLD-DOWN, SEE HOLD-DOWN SCHEDULE ON S5.0
	INDICATES ROOF LINE
	INDICATES ROOF LINE BELOW

BEAM SCHEDULE

BEAM MARK	BEAM TYPE	LEFT SUPPORT (LS)	RIGHT SUPPORT (RS)	NOTES
MAIN FLOOR ROOF BEAMS				
U1	3 1/2" x 14" LVL	HUC410	HUC410	BEAM OVER WALL
U2	3 1/2" x 14" LVL	LUMBER POST	HUC410	
U3	3 1/2" x 14" LVL	HU412 HANGER	LUMBER POST	BEAM OVER WALL
U4	3 1/2" x 14" LVL	HUCQ612-SDS	LUMBER POST	
U5	3 1/2" x 14" LVL	LUMBER POST	LUMBER POST	
LRB	6 x 10	PT 6 x 6 POST	PT 6 x 6 POST	MITER BMS @ CORNER
DB	PT 6x12	PT 6 x 6 POST	PT 6 x 6 POST	HUC610z HANGER AS NEEDED

FLOOR & ROOF FRAMING PLAN NOTES:

1. FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, AND SCHEDULES REFERENCE S1.0 AND S5.0
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT'S DRAWINGS. ALL EXISTING DIMENSIONS SHALL BE FIELD VERIFIED.
3. FLOOR SHEATHING SHALL BE MINIMUM OF 23/32" TONGUE AND GROOVE APA-RATED STURD-I-FLOOR. SHEATHING SHALL BE GLUED AND NAILED TO FRAMING WITH 10d NAILS @ 6"OC AT PANEL EDGES AND @ 12"OC FIELD, UNO. LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES.
4. ALL EXTERIOR WALLS (BEARING AND NON-BEARING) SHALL BE 2x6 @ 16" OC UNO.
5. ALL INTERIOR WALLS (BEARING OR NON-BEARING) SHALL BE 2x4 @ 16" OC UNO.
6. ALL EXTERIOR WALLS SHALL BE SHEAR WALL TYPE 1W6 UNO.
7. ALL 2x, DOUBLE 2x AND 4x HANGERS SHALL BE FACE MOUNT TYPE "U", UNO. GLULAM, PARALLAM AND MICROLLAM HANGERS ARE AS SPECIFIED IN THE BEAM TABLE. WOOD "I" JOIST HANGERS SHALL BE SUPPLIED AND DESIGNED BY JOIST SUPPLIER. "I" JOIST HANGERS SHALL BE TOP FLANGE BEARING SIMPSON ITS OR MIT TYPE, UNO.
8. HEADERS SHOWN AS (HDR) BUT NOT SPECIFIED SHALL BE A MINIMUM OF 4x10. HEADERS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY (1) TRIMMER AND (1) KING STUD MINIMUM. HEADERS 6FT LONG OR LONGER SHALL BE SUPPORTED BY A MINIMUM OF (2)-TRIMMERS AND (2)- KING STUDS UNO. TRIMMERS SHALL MAKE A CONTINUOUS LOAD PATH TO THE FOUNDATION.
9. ALL LVL BEAMS MAY BE MADE OF MULTIPLE LAMINATIONS OF 1 3/4" LVL'S OF THE SPECIFIED DEPTH PROVIDED THE LAMINATIONS ARE FASTENED TOGETHER WITH 16d x 3 1/4" NAILS AT 4" OC IN ALL DIRECTIONS.
10. BEAMS ARE FLUSH FRAMED WITH JOISTS UNLESS NOTED OTHERWISE ON DETAILS.
11. BEAMS SHOWN ON FRAMING PLAN SHALL BE SUPPORTED BY BUNDLED STUDS EQUAL TO THE BEAM WIDTH, UNO. BEAM SUPPORTS SHALL MAKE A CONTINUOUS LOAD PATH TO THE FOUNDATION.
12. ALL RIM JOISTS SHALL BE 1-1/2" LSL MINIMUM UNO.
13. ROOF SHEATHING SHALL BE 15/32" APA-RATED SHEATHING WITH A MINIMUM 24/16 SPAN RATING. SHEATHING SHALL BE NAILED TO ROOF FRAMING WITH 8d NAILS @ 6"OC AT PANEL EDGES AND @ 12"OC FIELD, UNO. LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES. BLOCK AND NAIL PANEL EDGES PER SCHEDULE. PROVIDE PANEL SHEATHING CLIPS CENTERED BETWEEN FRAMING AT UNBLOCKED SHEATHING EDGES AS REQUIRED BY ROOFING WARRANTY.
14. PROVIDE SOLID BLOCKING OVER ALL SHEAR WALLS AND BEARING WALLS WITH CLIPS AS NOTED IN THE SHEAR WALL SCHEDULE.
15. HORIZONTAL STRAP TIES INDICATED ON THE FRAMING PLAN ARE SHALL BE CENTERED OVER WALL TOP PLATE AND/OR HEADER, BLOCKING OR BEAM. FILL EVERY HOLE TYPICAL UNO.
16. ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:
    - •• ROOF PLAN SHOWN IS A SUGGESTED LAYOUT. CHANGES MUST BE SUBMITTED TO THE ENGINEER-OF-RECORD THRU THE CLIENT WITH BEARING POINTS AND REACTIONS.
    - •• FOR STANDARD DEAD AND LIVE LOADS AND SUBMITTAL INFORMATION, REFERENCE TO THE STRUCTURAL GENERAL NOTES.
    - •• ALL GIRDER TRUSSES SHALL BE SUPPORTED BY BUNDLED STUDS MATCHING THE GIRDER TRUSS WIDTH, UNO, CONTINUOUS LOAD PATH TO THE FOUNDATION. TRUSS MANUFACTURER SHALL SUBMIT TO ENGINEER GIRDER TRUSSES REACTIONS.
    - •• ALL MULTIPLE STUDS SUPPORTING HIP MASTER AND GIRDER TRUSSES TO CONTINUE LOAD PATH TO FOUNDATION.
    - •• TRUSS HANGERS SHALL BE SUPPLIED AND DESIGNED BY THE TRUSS SUPPLIER.
    - •• ALL DOUBLE LAMINATION GIRDER TRUSSES SHALL HAVE SIMPSON LGT2 HURRICANE ANCHORS UNO.
    - •• PROVIDE SIMPSON H2.5A STRAP TIES AT ALL TRUSSES.

SECOND FLOOR FRAMING PLAN

SCALE: 1/4" = 1'-0"

ROOF FRAMING PLAN

SCALE: 1/4" = 1'-0"

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DATE: 10/10/19
SCALE: AS SHOWN
ENGINEER: JP
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CHECK: BK
JOB: 2477

REVISIONS
1 -
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3 -

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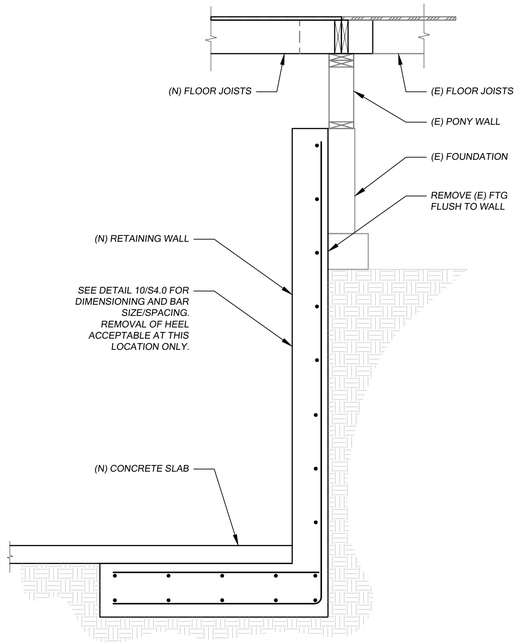
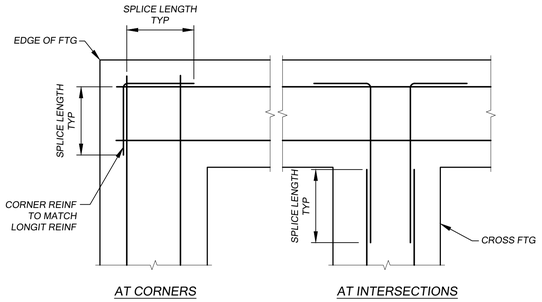
SHEET TITLE:
SECOND FLOOR & ROOF FRAMING PLAN

S2.1



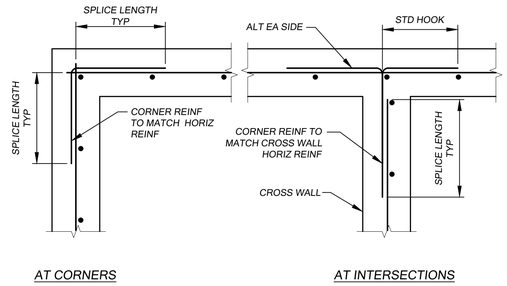
1 RET. WALL @ (E) CRAWLSPACE FNDN.
SCALE: NONE



NOTES:

1. FOR SPLICE LENGTHS REFERENCE LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE.
2. FOR WALL REINFORCING REFERENCE PLAN OR ELEVATIONS, SECTIONS AND DETAILS.
3. AT FOOTING AND STEM WALLS, CORNER REINFORCING TO MATCH FOOTING AND STEM WALL HORIZONTAL REINFORCING.

2 TYP CORNER REINF AT CONCRETE FOOTINGS
SCALE: NONE



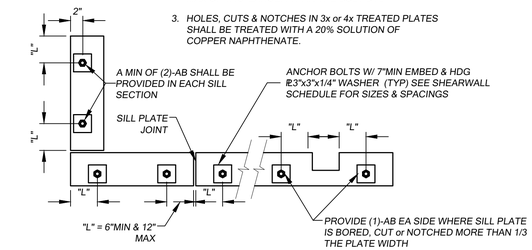
NOTES:

1. FOR SPLICE LENGTHS REFERENCE LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE.
2. FOR WALL REINFORCING REFERENCE PLAN OR ELEVATIONS, SECTIONS AND DETAILS.
3. AT FOOTING AND STEM WALLS, CORNER REINFORCING TO MATCH FOOTING AND STEM WALL HORIZONTAL REINFORCING.

3 TYP CORNER REINFORCING @ CONCRETE WALLS
SCALE: NONE

NOTES:

1. SILL PLATE SHALL BE PRESERVATIVE PRESSURE TREATED -REFER TO GENERAL NOTES FOR GLAV REQUIRMENTS FOR CONNECTORS & FASTENERS.
2. HOLES IN SILL PLATE SHALL BE A MIN OF 1/32" TO A MAX OF 1/16" LARGER THAN THE BOLT DIA.
3. HOLES, CUTS & NOTCHES IN 3x or 4x TREATED PLATES SHALL BE TREATED WITH A 20% SOLUTION OF COPPER NAPHTHENATE.

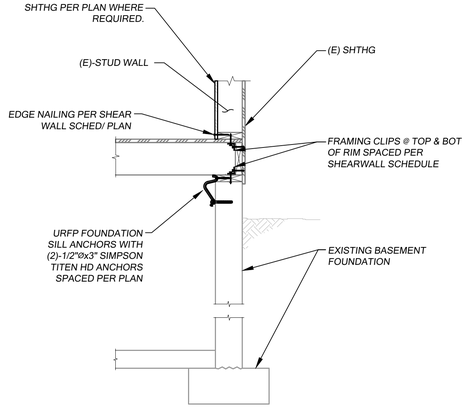


4 TYPICAL SILL PLATE ANCHORAGE DETAIL
SCALE: NONE

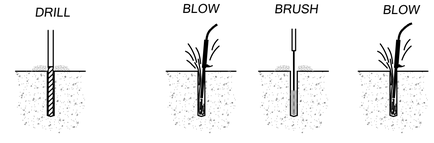
5 NEW FOOTING IN EXISTING SLAB ON GRADE
SCALE: NTS

6 EXTERIOR SPREAD FOOTING
SCALE: NONE

7 CONNECTION TO EXISTING FOUNDATION
SCALE: NTS



8 RETROFIT SHEAR WALL ANCHORAGE
SCALE 3/4" = 1'-0"



DRILL
DRILL HOLE TO SPECIFIED DIAMETER AND DEPTH.

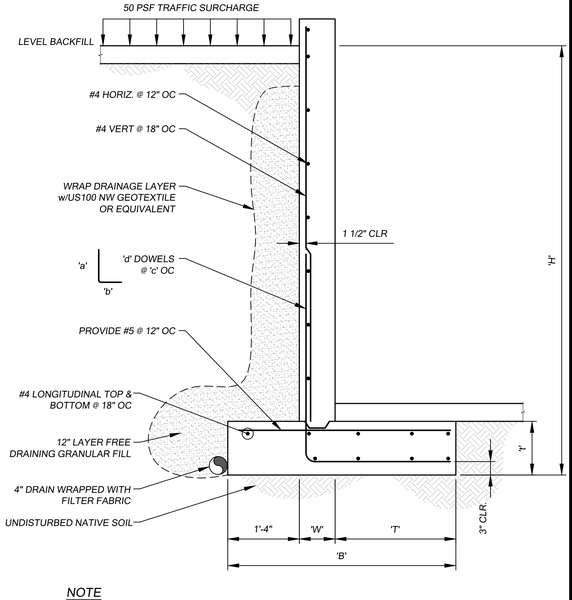
CLEAN
REMOVE DUST FROM HOLE WITH OIL-FREE COMPRESSED AIR. CLEAN WITH NYLON BRUSH AND BLOW OUT REMAINING DUST. NOTE: DUST LEFT IN HOLE CAN REDUCE THE EPOXY'S HOLDING CAPACITY.

FILL
DISPENSE BEAD OF ADHESIVE OFF TO THE SIDE TO CHECK FOR PROPER MIXTURE (A UNIFORM COLOR) BEFORE USING. FILL HOLE HALFWAY. STARTING FROM BOTTOM OF HOLE TO AVOID AIR POCKETS. WITHDRAW NOZZLE AS HOLE FILLS UP.

INSERT
ANCHORS MUST BE CLEAN AND OIL FREE. INSERT ANCHOR, TURNING SLOWLY UNTIL THE ANCHOR CONTACTS THE BOTTOM OF THE HOLE. DO NOT DISTURB DURING SET TIME. A SMALL AMOUNT OF ADHESIVE SHALL BE PUSHED OUT OF THE HOLE AS THE ROD IS INSERTED TO ENSURE THE HOLE IS FULL OF ADHESIVE.

NOTES:
1. SPECIAL INSPECTION REQUIRED.
2. INSTALLATION INTO CONCRETE OR SOLID GROUTED CONCRETE MASONRY ONLY

9 TYPICAL HOLE PREPARATION FOR EPOXIED ANCHORAGE
SCALE: NONE



NOTE
(1) PLACE SLAB BEFORE BACKFILLING, SLAB RESTRAINS WALL FROM SLIDING
(2) PLACE BACKFILL BEFORE FRAMING WALL ABOVE.

					DOWELS			
'H'	'B'	'T'	'W'	't'	'a'	'b'	'c'	'd'
8'-0"	4'-9"	2'-9"	8"	12"	3'-6"	3'-1"	9"	#4
10'-0"	6'-3"	4'-3"	8"	12"	5'-6"	4'-7"	6"	#5

10 RETAINING WALL w/ 50 psf SURCHARGE
SCALE: NONE

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DATE: 10/10/19
SCALE: AS SHOWN
ENGINEER: JP
DRAFTER: SCS
CHECK: BK
JOB: 2477

REVISIONS
- -
- -
1 -

CLIENT
RYDER GROUP NW, INC.
STEVE RYDER

PROJECT
VOLKE REMODEL ADDITION
325 NW 14TH AVE
CAMAS, WA 98607

SHEET TITLE:
FOUNDATION DETAILS

S4.0

SHEAR WALL SCHEDULE

SOME SHEAR WALL TYPES NOTED MAY NOT BE USED ON THIS PROJECT.

SHEAR WALL MARK (10)	CDX WALL SHEATHING, APA-RATED (8)	NAIL SIZE & SPACING @ ALL PANEL EDGES (3)	BLOCKING & STUD SIZE @ ADJOINING PANEL EDGES (2,4,9)	RIM JOIST or BLOCKING CONN. TO TOP PLATE BELOW (5)	2x PLATE ATTACHMENT NAILING TO WOOD BELOW	SILL PLATE ATTACHMENT		SHEAR CAPACITY lb/ft SEISMIC / WIND
						ANCHOR BOLTS TO CONC. BELOW (7)	SILL PLATE AT FOUNDATION	
L 1W6 ▶	15/32" ONE SIDE	8d @ 6"OC	2x	CLIP @ 20"OC	16d @ 6"OC	5/8"ø @ 48"OC	2x	260 / 364
L 1W4 ▶	15/32" ONE SIDE	8d @ 4"OC	2x	CLIP @ 12"OC	16d @ 4"OC	5/8"ø @ 32"OC	2x	350 / 490
L 1W3 ▶	15/32" ONE SIDE	8d @ 3"OC	3x	CLIP @ 10"OC	16d @ 3"OC	5/8"ø @ 12"OC	2x	490 / 686
						5/8"ø @ 32"OC	3x	
L 1W2 ▶	15/32" ONE SIDE	8d @ 2"OC	3x	CLIP @ 8"OC	(2)- ROWS 16d @ 4"OC (6)	5/8"ø @ 10"OC	2x	600 / 840
						5/8"ø @ 24"OC	3x	
L 2W4 ▶	15/32" BOTH SIDES (1)	8d @ 4"OC STAGGERED	3x	CLIP @ 12"OC EACH SIDE	(2)- ROWS 16d @ 4"OC (6)	5/8"ø @ 16"OC	3x	760 / 1064
L 2W3 ▶	15/32" BOTH SIDES (1)	8d @ 3"OC STAGGERED	3x	CLIP @ 10"OC EACH SIDE	(2)- ROWS 16d @ 3"OC (6)	5/8"ø @ 12"OC	3x	980 / 1372
L 2W2 ▶	15/32" BOTH SIDES (1)	8d @ 2"OC STAGGERED	3x	CLIP @ 6"OC	(2)- ROWS 16d @ 2"OC (6)	5/8"ø @ 10"OC	3x	1280 / 1792
L 2G4 ▶	5/8" GYB BOTH SIDES BLOCKED	6d COOLERS @ 4"OC	2x	CLIP @ 24"OC	16d @ 6"OC	5/8"ø @ 48"OC	2x	175 / 175

1. *Where sheathing is applied on both sides of wall, panel edge joints on 3x framing shall be staggered so that joints on the opposite sides are not located on the same studs.*
2. *Blocking is required at all panel edges in shear walls.*
3. *Panel edge nailing is required to each stud of a multiple stud hold-down post.*
4. *Intermediate framing to be 2x minimum members. Attach sheathing to intermediate framing with 8d nails at 12" oc*
5. *Framing clips: RBC, LTP4, LS50, or approved equivalent. Provide fasteners as required by Simpson. If shearwall sheathing is continuous across the top plate/ rim joist joint, framing clips may be omitted.*
6. *Where the bottom plate attachment specifies (2) rows of nails, provide a double joist, double rim joist, or double blocking. Alternatively, provide a member to match the wall plate width. Stagger nails 5/8", space 1 1/2" minimum. All members are to be solid sawn, or composite lumber. I-joists are not acceptable.*
7. *Foundation vents are acceptable under under shear wall types "1W6" and "1W4". Anchor bolts shall be placed 3" clear of foundation vents. Any two adjacent vents must have at least 12" of concrete between. Anchor bolt spacing may vary, but scheduled average spacing must be maintained. Foundation vents are not permitted under shear wall types "1w3", "1w2", "2w4", or "2w2".*
8. *7/16" APA-rated (OSB) sheathing may be used in place of 15/32" (CDX) sheathing provided that studs are spaced at 16' o.c. maximum.*
9. *(2)-2x studs nailed together at adjoining panel edges may be used in place of single 3x studs. Double 2x studs shall be connected together by nailing the studs together with 16d nails at the same spacing and diameter as the plate nailing.*
10. *L 2W3 ▶ "L" indicates the minimum shear wall length, "2" indicates number of sides requiring sheathing, "W" indicates wood sheathing and "X" indicates the minimum edge nail spacing.*

HOLD-DOWN SCHEDULE (1)

	TYPE	NUMBER OF STUDS/POST (2)	NAILS, SCREWS or BOLTS	DIAMETER	ANCHOR BOLT EMBEDMENT		CAPACITY kips
					STEMWALL (4)	SPREAD FOOTING	
					CIP (5)	CIP, (5, 6)	
CONCRETE TO WOOD	HTT4	(2) 2x	(18)-16d'S	5/8"ø	15"	12"	3.4
	HDU2-SDS2.5	(2) 2x	(6)-16d	5/8"ø	15"	12"	3.0
	HDU5-SDS2.5	(2) 2x	(14)-SDS 1/4"x2 1/2"	5/8"ø	15"	12"	5.6
	HDU8-SDS2.5	6x6	(20)-SDS 1/4"x2 1/2"	7/8"ø	17"	15"	7.8
	HDU14-SDS2.5	6x6	(36)-SDS 1/4"x2 1/2"	1"ø	22"	18"	14.4
WOOD TO WOOD (7)	MSTC28	(2) 2x	(6)-16d each end	-----	-----	-----	1.1
	MSTC40	(2) 2x	(14)-16d each end	-----	-----	-----	2.6
	MSTC52	(2) 2x	(22)-16d each end	-----	-----	-----	4.2
	MSTC66	(2) 2x	(32)-16d each end	-----	-----	-----	5.8

(1) SOME HOLD-DOWN TYPES NOTED MAY NOT BE USED ON THIS PROJECT.

(2) PROVIDE PANEL EDGE NAILING PER SHEAR WALL SCHEDULE AT HOLD-DOWN STUDS/POST. IF MULTIPLE STUDS ARE PROVIDED, NAIL STUDS TOGETHER WITH 16d NAILS STAGGERED TO MATCH THE SPACING OF THE SHEAR WALL EDGE NAILING

(3) BASED ON f'c = 2500 PSI CONCRETE.

(4) STEM WALLS SHALL BE 6" WIDE MINIMUM FOR 5/8" DIAMETER ANCHOR BOLTS AND 8" WIDE MINIMUM FOR 7/8" DIAMETER AND LARGER ANCHOR BOLTS.

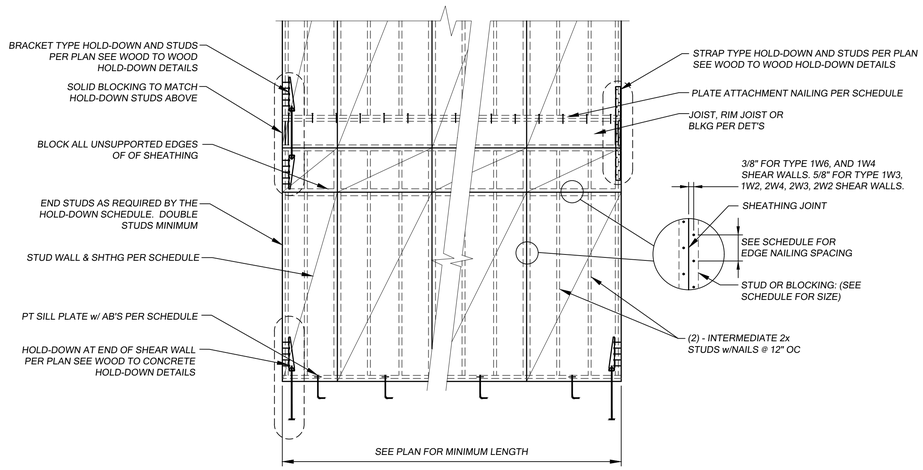
(5) CAST-IN-PLACE (CIP) TYPE ANCHOR BOLTS AT HOLD-DOWNS SHALL BE ASTM A36 THREADED RODS WITH A NUT AT THE BOTTOM EMBEDDED INTO CONCRETE AS SPECIFIED IN THE HOLD-DOWN SCHEDULE. SEE DETAILS.

(6) THREADED ROD WITH SIMPSON "SET-XP" EPOXY OR EQUIVALENT. OVERSIZE HOLES 1/8".

(7) CENTER STRAP ON CLEAR SPAN, PROVIED THE NUMBER OF SPECIFIED NAILS TO THE HOLD-DOWN STUDS ABOVE AND BELOW THE RIMBOARD.

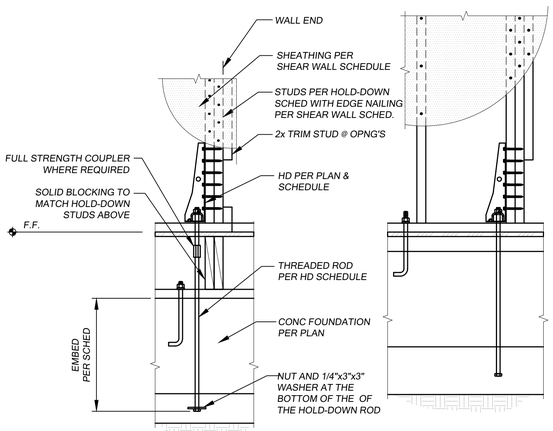
1 SHEAR WALL SCHEDULE

SCALE: 1"=1'-0"



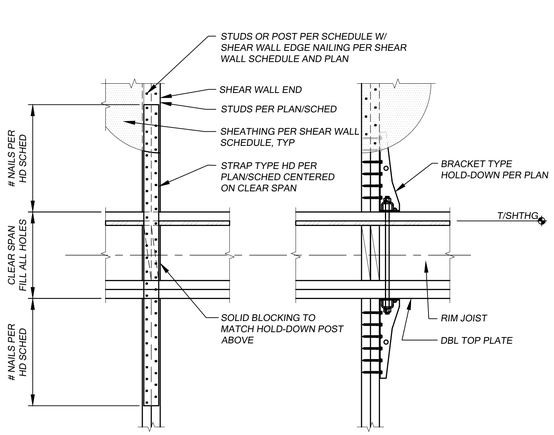
2 TYPICAL SHEAR WALL FRAMING DIAGRAM

SCALE: 1"=1'-0"



5 WOOD TO CONCRETE HOLD-DOWN DETAIL

SCALE: 1"=1'-0"



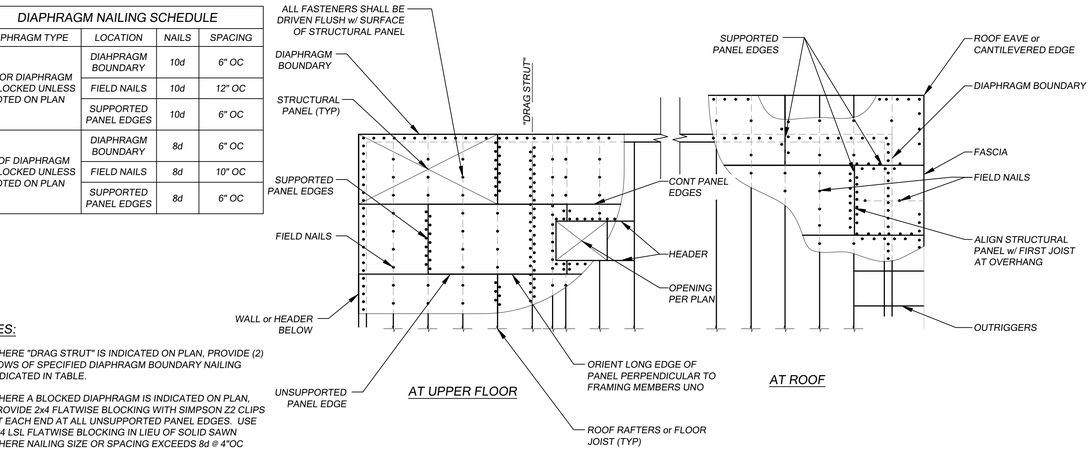
6 WOOD TO WOOD HOLD-DOWN DETAIL

SCALE: 1"=1'-0"

3 HOLD-DOWN SCHEDULE

SCALE: 1"=1'-0"

DIAPHRAGM NAILING SCHEDULE			
DIAPHRAGM TYPE	LOCATION	NAILS	SPACING
FLOOR DIAPHRAGM UNBLOCKED UNLESS NOTED ON PLAN	DIAPHRAGM BOUNDARY	10d	6" OC
	FIELD NAILS	10d	12" OC
	SUPPORTED PANEL EDGES	10d	6" OC
ROOF DIAPHRAGM UNBLOCKED UNLESS NOTED ON PLAN	DIAPHRAGM BOUNDARY	8d	6" OC
	FIELD NAILS	8d	10" OC
	SUPPORTED PANEL EDGES	8d	6" OC

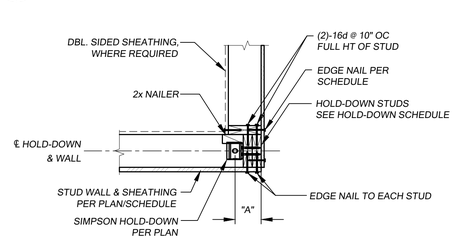


NOTES:

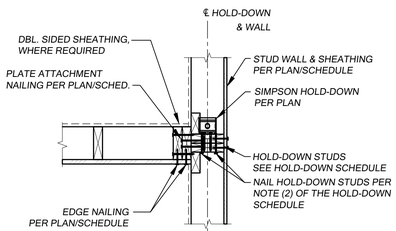
1. *WHERE "DRAG STRUT" IS INDICATED ON PLAN, PROVIDE (2) ROWS OF SPECIFIED DIAPHRAGM BOUNDARY NAILING INDICATED IN TABLE.*
2. *WHERE A BLOCKED DIAPHRAGM IS INDICATED ON PLAN, PROVIDE 2x4 FLATWISE BLOCKING WITH SIMPSON Z2 CLIPS AT EACH END AT ALL UNSUPPORTED PANEL EDGES. USE 2x4 LSL FLATWISE BLOCKING IN LIEU OF SOLID SAWN WHERE NAILING SIZE OR SPACING EXCEEDS 8d @ 4"OC*

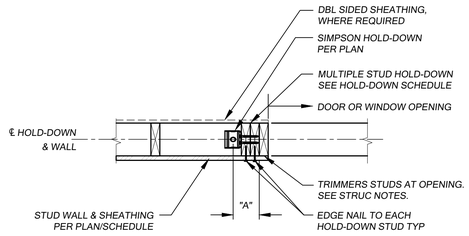
4 TYPICAL DIAPHRAGM FRAMING DIAGRAM

SCALE: 1"=1'-0"



SHEAR WALL FRAMING AT CORNER





SHEAR WALL FRAMING AT OPENING

DIMENSION "A"			
HOLDDOWN	DBL 2x END STUDS	4x END STUDS	6x END STUDS
HTT	4 3/8"	4 7/8"	6 7/8"
HDU	4 1/4"	4 3/4"	6 3/4"
HHDQ	NA	NA	7"

7 SHEAR WALL FRAMING AT INTERSECTION (OPTIONS A & B)

SCALE: 1"=1'-0"

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DATE:	10/10/19
SCALE:	AS SHOWN
ENGINEER:	JP
DRAFTER:	SCS
CHECK:	BK
JOB:	2477

REVISIONS

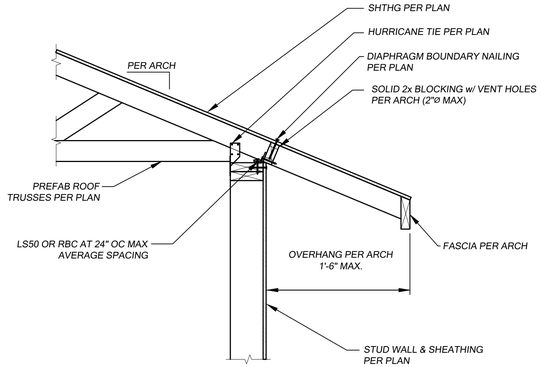
1	-					
2	-					

CLIENT: RYDER GROUP NW, INC. STEVE RYDER

PROJECT: VOLKE REMODEL ADDITION 325 NW 14TH AVE CAMAS, WA 98607

SHEET TITLE: FRAMING DETAILS

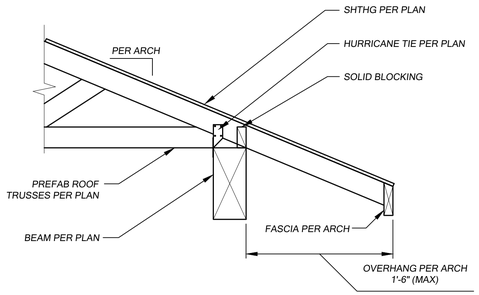
S5.0



TRUSSES PERPENDICULAR

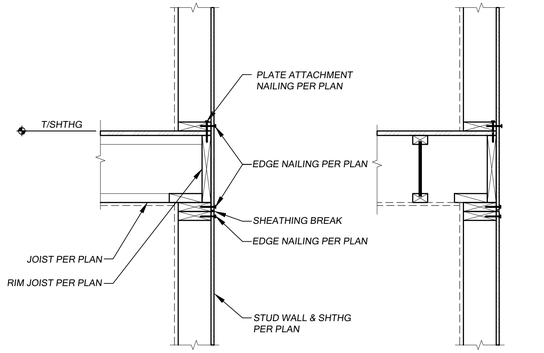
1 TRUSS TO WALL FRAMING - PERPENDICULAR

SCALE: 1"=1'-0"



2 TRUSS TO BEAM FRAMING

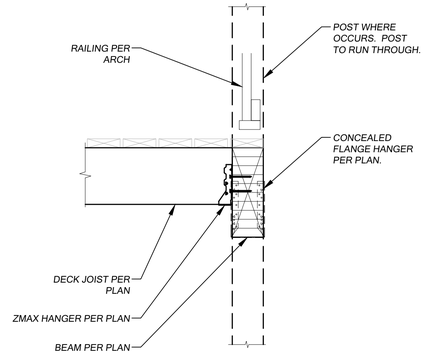
SCALE: 1"=1'-0"



JOISTS PERPENDICULAR JOISTS PARALLEL

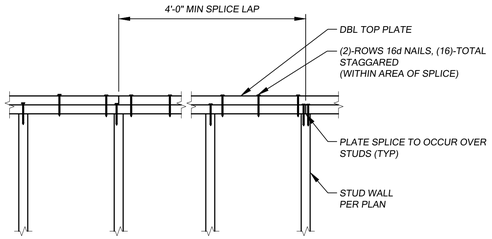
3 TYPICAL FLOOR TO FLOOR FRAMING

SCALE: 1"=1'-0"



4 FRAMING SECTION AT DECK JOISTS

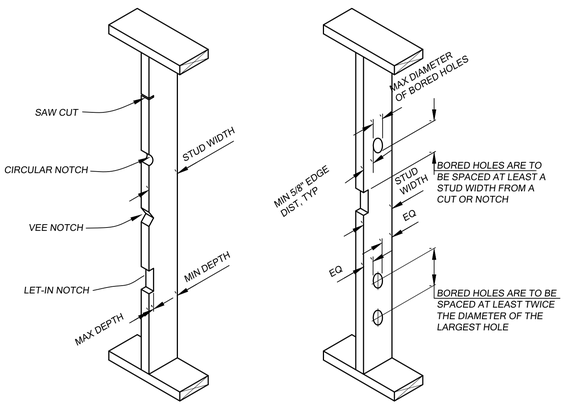
SCALE: 1"=1'-0"



NOTE:
FLOOR/ROOF JOISTS NOT SHOWN FOR CLARITY.

5 TYPICAL PLATE SPLICE

SCALE: NONE



6 TYPICAL STUD NOTCHING

SCALE: NONE

BEARING WALL STUDS		
STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1"	2 1/2"
2x6	1 1/2"	4"

BEARING WALL STUDS		
STUD SIZE	MAX DIAMETER OF BORED HOLE	MIN DEPTH REMAINING AFTER BORED HOLE
2x4	1 5/8"	5/8" EA SIDE OF HOLE
2x6	2 1/2"	5/8" EA SIDE OF HOLE

NOTE:
STUDS MAY NOT BE BORED IN EXCESS OF 40% OF THE STUD. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

NON-BEARING WALL STUDS		
STUD SIZE	MAX DEPTH OF EDGE CUT OR NOTCH	MIN DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1 5/8"	1 7/8"
2x6	2 1/2"	3"

NON-BEARING WALL STUDS		
STUD SIZE	MAX DIAMETER OF BORED HOLE	MIN DEPTH REMAINING AFTER BORED HOLE
2x4	2 1/4"	5/8" EA SIDE OF HOLE
2x6	3 5/8"	5/8" EA SIDE OF HOLE

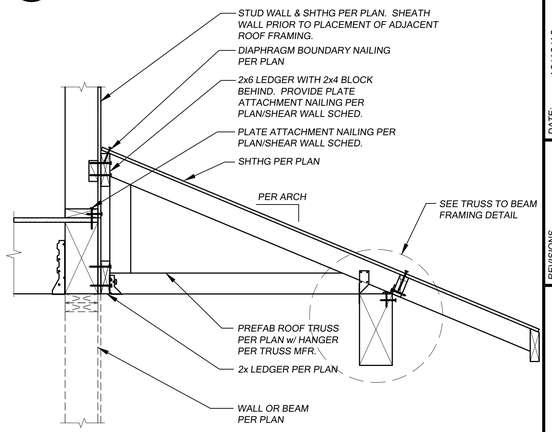
NOTE:
STUDS MAY NOT BE BORED IN EXCESS OF 60% OF THE STUD. BORINGS SHALL NOT BE MADE AT THE SAME SECTION WHERE CUT OR NOTCH HAS BEEN MADE.

CUTTING & NOTCHING WOOD STUDS

NOTE:
DO NOT NOTCH MORE THAN THREE ADJACENT STUDS W/O REVIEW BY ENGINEER.

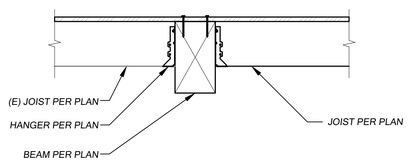
BORED HOLES IN WOOD STUDS

NOTE:
BORED HOLE NOT PERMITTED IN MORE THAN THREE ADJACENT STUDS W/O REVIEW BY ENGINEER.



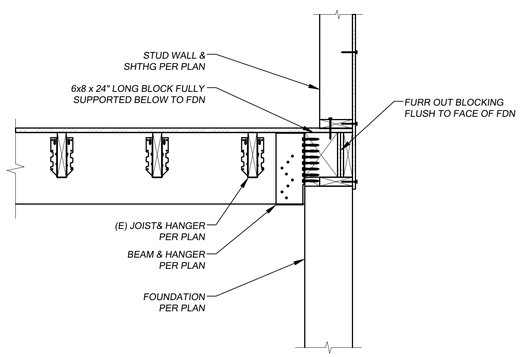
7 MONO TRUSS TO UPPER WALL FRAMING

SCALE: 1"=1'-0"



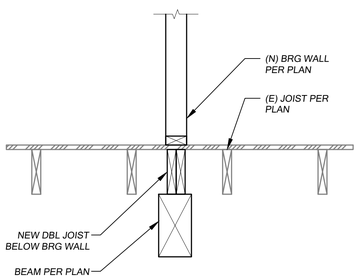
8 FRAMING SECTION AT BEAM

SCALE: 1"=1'-0"



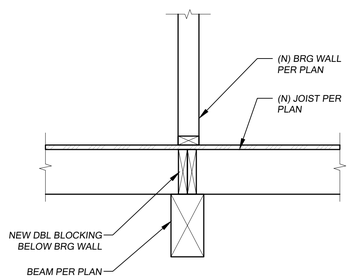
9 HANGERED BEAM AT FOUNDATION

SCALE: 1"=1'-0"



10 BEARING WALL SUPPORT AT BEAM

SCALE: 1"=1'-0"



11 BEARING WALL SUPPORT AT BEAM

SCALE: 1"=1'-0"

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DATE: 10/10/19
SCALE: AS SHOWN
ENGINEER: JP
DRAFTER: SCS
CHECK: BK
JOB: 2477

REVISIONS
1 -
2 -

CLIENT
RYDER GROUP NW, INC.
STEVE RYDER

PROJECT
VOLKE REMODEL ADDITION
325 NW 14TH AVE
CAMAS, WA 98607

SHEET TITLE:
FRAMING DETAILS

S5.1