

BES STORMWATER FACILITY INSPECTION REQUIRED AT TIME OF CONSTRUCTION. SEE BES INSPECTION CARD. To schedule, contact the automated inspection request (IVR) system at 503-823-7000 and request inspection #487 BES Onsite Stormwater Facility Eval-OR-contact BES at 503-823-7761 for assistance.

BDS INSPECTOR APPROVAL REQUIRED FOR DOWNSPOUTS AND PRIVATE STORM SEWER PIPING OUTSIDE OF STORM FACILITIES.

SEPARATE BES ROW SEWER CONNECTION PERMIT REQUIRED, WORK IN THE PUBLIC RIGHT OF WAY CALL: 503-823-1026 or Email: BESTrades@portlandoregon.gov

NO.	REVISION DATE:	DESCRIPTION:
1	8-19-2021 ZONING	CHANGED THE DEPTH OF THE 4 BAYS & FIREPLACE.
2	9-10-2021 BES	LISTED & SEPERATED THE IMPERVIOUS AREAS
3	9-10-2021 BES	CHANGED TO LINED PLANTER SW-141.
4	9-10-2021 BES	SHOWN & LABELED CORRECT SEWER INFO.
5	9-10-2021 BES	ADDED BES NOTES.
6	9-24-2021 WATER	ADDED GAS LATERALS & MAIN & EXISTING SEWER LATERAL. MOVED WATER METER & LINE. MOVED SEWER LINE.
7	9-27-2021 BES	UPDATED W/ ELEVATIONS & INFO. FOR LINED PLANTER.
8	10-19-2021 BES, 3RD	NOTED NEW STORM BRANCH IN R.O.W.

PREMISES IDENTIFICATION: NEW AND EXISTING BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY, INCLUDING MONUMENT SIGNS. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMERALS OR ALPHABET LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1/2 INCH. WHERE ACCESS IS BY MEANS OF A PRIVATE ROAD AND THE BUILDING CANNOT BE VIEWED FROM THE PUBLIC WAY, A MONUMENT, POLE OR OTHER SIGN OR MEANS SHALL BE USED TO IDENTIFY THE STRUCTURE(S). (OFC 505.1)

- NOTES:**
- ALL UTILITIES IN THE RIGHT OF WAY WITHIN THE DEVELOPMENT PROPERTY'S FRONTAGE MUST BE LOCATED THROUGH 811, ONE CALL, AND SHOWN ON THE ASSOCIATED PLAN SET. APPLICANT WILL NEED TO BE ABLE TO PROVIDE THE LOCATE TICKET NUMBER IF REQUESTED FOR VERIFICATION.
 - CONTRACTOR TO SPECIFY EXACT LOCATIONS OF UTILITY STUBS.
 - UNDERGROUND GAS LINE (VERIFY LOCATION).
 - SEPERATION BETWEEN SANITARY SEWER & WATER LINE SHOULD BE 5 FT. MINIMUM SKIN TO SKIN.
 - SEPERATION BETWEEN UNDERGROUND ELECTRICAL SERVICE LINE & WATER LINE SHOULD BE 4 FT. MINIMUM.
 - SEPERATION BETWEEN MULTIPLE WATER SERVICES ON ONE TAX LOT SHOULD BE 3 FT. MINIMUM.
 - SEPERATION BETWEEN WATER SERVICE AND PROPERTY LINES SHOULD BE 1.5 FT. MINIMUM.
 - ALL OTHER UNDERGROUND UTILITIES NEED TO HAVE 3 FT. MINIMUM SEPERATION FROM WATER LINE.
 - NEW WATER METERS SHOULD NOT BE PLACED IN DRIVEWAY WINGS.
 - STREET TREES MUST BE A MINIMUM OF 5 FT. FROM THE NEAREST EDGE OF WATER PIPE, VALVE OR METER BOX & A MINIMUM OF 10 FT. FROM A FIRE HYDRANT. REFERENCE STANDARD DRAWING P-845 FOR MORE INFORMATION.

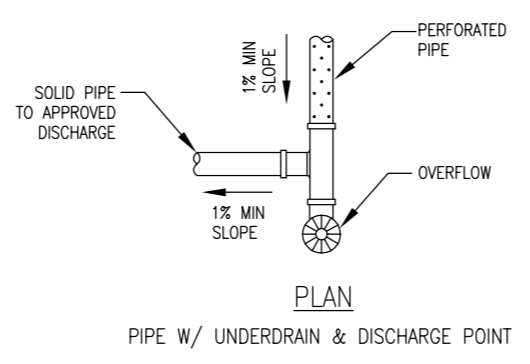
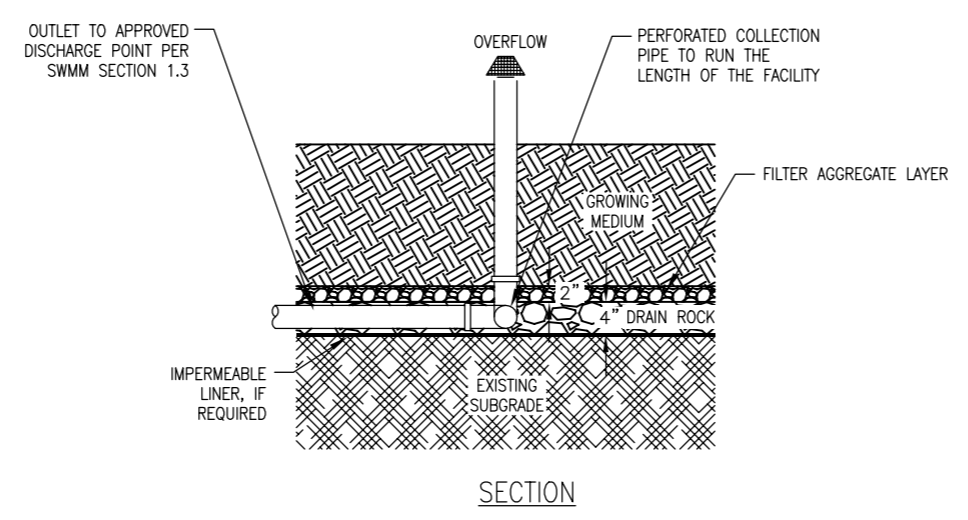
1,156 SQ. FT. = ROOF AREA
 213.5 SQ. FT. = DRIVEWAY AREA
 NOT INCLUDING AREA UNDER ROOF OVERHANGS.
 90 SQ. FT. = REAR PATIO AREA NOT INCLUDING AREA UNDER ROOF OVERHANGS.
 1,459.5 SQ. FT. IMPERVIOUS AREA TOTAL

PROJECT LEGAL DESCRIPTION: PROP. ID#: STATE ID: 1S2E19CC 1802 LOT 17, STANFORD HTS, BLOCK13 SE 1/4 NE 1/4 SEC. 8, T.1S R.2E. W.M. MULTNOMAH COUNTY, OREGON	ROOF AREA: 1,156.0 SQ. FT.	SITE PLAN SCALE: 1" = 10.0' (ON 18"X24" PAPER SIZE) DATE: 6-30-21 JOB# 21-52
	FLATWORK AREA: DRIVEWAY & SIDEWALK 238.0 SQ. FT. COVERED FRONT PORCH 28.0 SQ. FT. REAR PATIO 100.0 SQ. FT. TOTAL= 566.0 SQ. FT.	
PROJECT ADDRESS: 4435 SE UMATILLA ST. (LOT E. OF 4407) PORTLAND, OREGON 97206	LOT COVERAGE: LOT AREA 2,500.0 SQ. FT. BUILDING AREA 997.2 SQ. FT. (NOT INCLUDING OVERHANGS) 39.9 % LOT COVERAGE	 500 NW 20TH ST STE 203 (o) PHONE: 503-663-1100 GRESHAM, OREGON 97030 EMAIL: brian@massiehd.com
	PROPOSED PROJECT FOR: SENTAUR INC.	

21-065817 RS

SIMPLIFIED DESIGN APPROACH

SIMPLIFIED DESIGN APPROACH

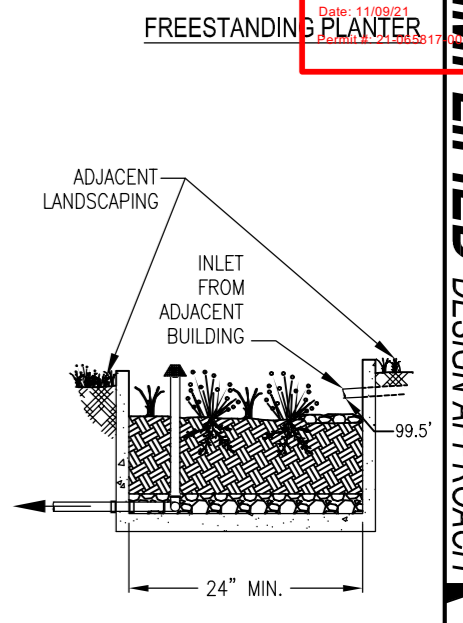
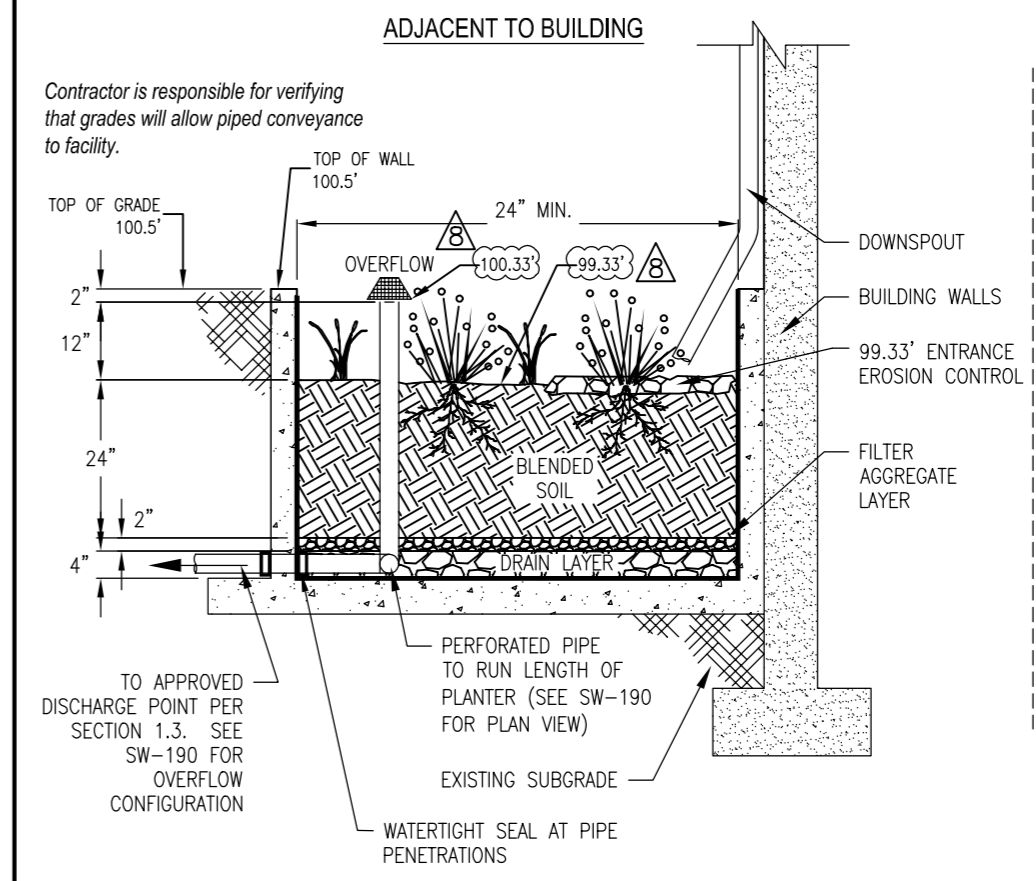


- DRAWING NOT TO SCALE -



STORMWATER MANAGEMENT
 TYPICAL DETAILS FOR
 PRIVATE PROPERTY

UNDERDRAIN
 AND OVERFLOW
 CONFIGURATIONS
SW-190
 9-2-20



Contractor is responsible for verifying that grades will allow piped conveyance to facility.

1. Setbacks: No setback is required for lined planters. Walls can't exceed 30" height above grade if within 5' of property line including right-of-way.
2. Facility Slope (planted floor): Maximum of 0.5% in all directions.
3. Planter Structure: A single-pour monolithic concrete shell, without cold joints, is required to avoid the requirement for liner. Include walls on foundation plans. Check state structural standards for foundations.
4. Waterproofing: No additional waterproofing is needed if structure is monolithically poured.
5. Piping: Conform with Oregon Plumbing Specialty Code (OPSC) requirements.
6. Drain Layer: 4" of 3/4"-1 1/2" washed drain rock. Filter aggregate layer: 2-3" of 1/4"-No.10 washed angular aggregate.
7. Overflow: Overflow elevation must allow for 2" of freeboard, minimum. Protect from debris and sediment with strainer or grate.
8. Blended Soil: Use BES' standard soil blend for stormwater facilities (SWMM Section 6.3) unless otherwise approved. Install minimum of 24" of blended soil.
9. Vegetation: Refer to plant list in SWMM Section 3.5. Minimum container size is 1 gal. Number of plantings per 100sf of facility area: 80 herbaceous plants OR 72 herbaceous plants and 4 small shrubs.
10. Entrance Erosion Control: Install river rock, flagstone, or similar to dissipate the energy of incoming water at entrances and ends of downspout extensions.
11. Inspections: Call BDS I/R Inspection Line, (503) 823-7000, request 487. 3 inspections required.

CONSTRUCTION REQUIREMENTS
 Do not allow temporary storage of construction waste or materials in the facilities. Do not allow entry of runoff or sediment during construction.

- DRAWINGS NOT TO SCALE -



STORMWATER MANAGEMENT
 TYPICAL DETAILS FOR
 PRIVATE PROPERTY

LINED PLANTER
SW-141
 9-2-20

9-27-2021 BES	UPDATED W/ ELEVATIONS & INFO. FOR LINED PLANTER.
10-19-2021 BES, 3RD	UPDATED ELEVATIONS AT OVERFLOW RISER & AT GROWING MEDIUM

PROJECT LEGAL DESCRIPTION:
 PROP. ID#: STATE ID: 1S2E19CC 1802
 LOT 17, STANFORD HTS, BLOCK13
 SE 1/4 NE 1/4 SEC. 8, T.1S R.2E.
 W.M. MULTNOMAH COUNTY, OREGON

PROJECT ADDRESS:
 4435 SE UMATILLA ST. (LOT E. OF 4407)
 PORTLAND, OREGON 97206

PROPOSED PROJECT FOR:
 SENTAUR INC.

SITE PLAN DETAILS

SCALE: 1" = 10.0' (ON 18"X24" PAPER SIZE)
 DATE: 9-10-21
 JOB# 21-52

NORTH

IMHD
 MASSIE HOME DESIGN

500 NW 20TH ST STE 203 (o) PHONE: 503-663-1100
 GRESHAM, OREGON 97030 EMAIL: brian@massiehd.com

CITY OF PORTLAND BASE ZONE DESIGN STANDARD
 STREET-FACING FACADE:
 55.25 SQ. FT. WINDOW & DOOR AREA OF STREET FACING FACADE DIVIDED BY 315.9 SQ. FT. AREA OF STREET FACING FACADE = 17.5% WINDOW AND DOOR AREA OF STREET FACING FACADE (15% MIN.)

MASSIE HOME DESIGN
 500 NW 20TH ST STE 203
 GRESHAM OREGON 97030
 (O) PHONE: 503-663-1100
 EMAIL: brian@massiehd.com

PROJECT ADDRESS:
 4338 SE UMATILLA ST
 PORTLAND, OREGON 97206
 THESE PLANS ARE FOR THE CONSTRUCTION OF THIS PROJECT ONLY. NO PARTS OF THESE PLANS ARE TO BE REPRODUCED OR COPIED IN ANY FORM WITHOUT THE EXPRESS WRITTEN PERMISSION OF MASSIE HOME DESIGN.

PLAN 1753-B1
FOR
SENTAUR INC.

NO.	REVISION DATE	DESCRIPTION:
1	8-19-21	CHANGED THE DEPTH OF THE 4 BAYS & FIREPLACE.

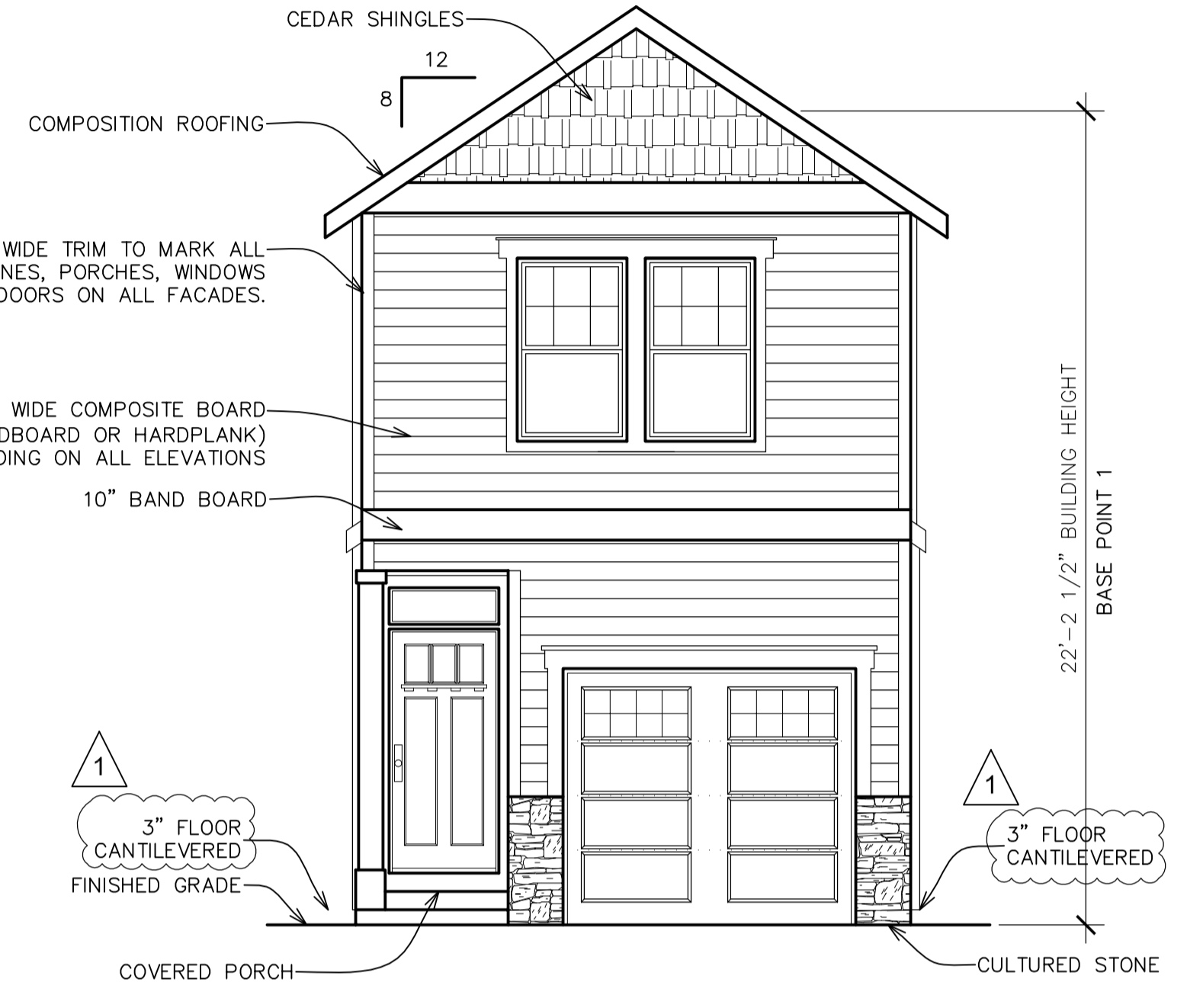
DRAWN BY: E.H.
 REVIEWED BY: BLM
 DATE: 6-30-21
 JOB#: 21-52

1 OF 5

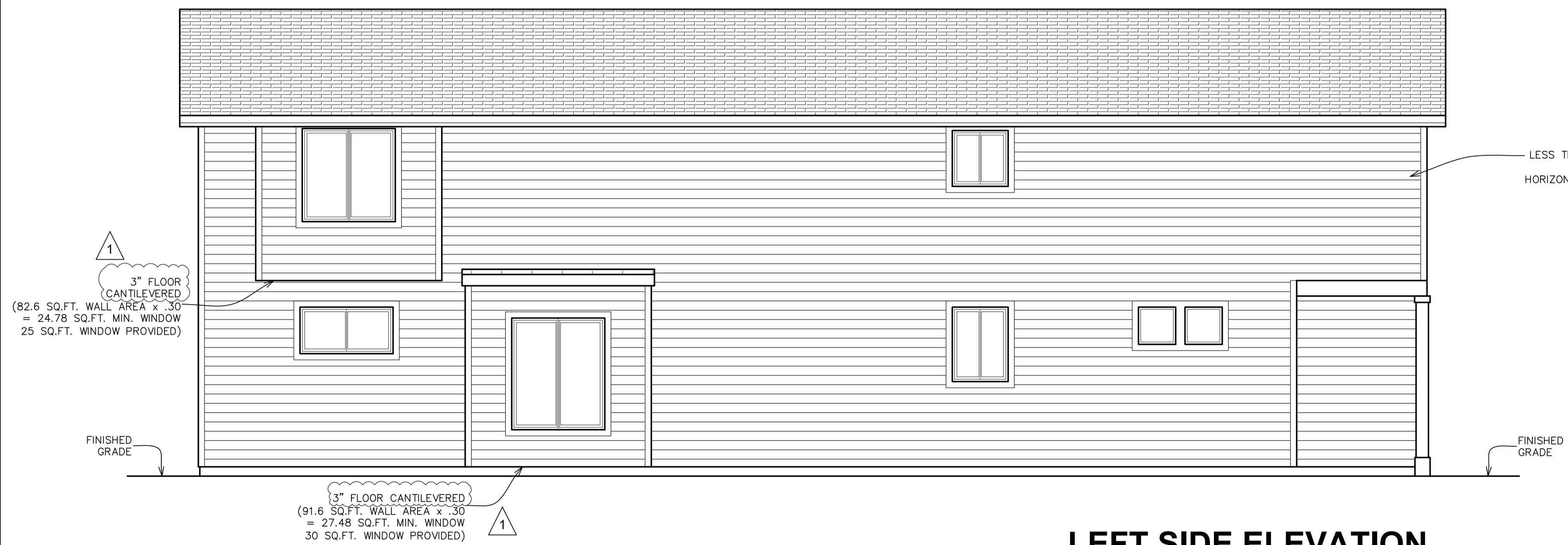
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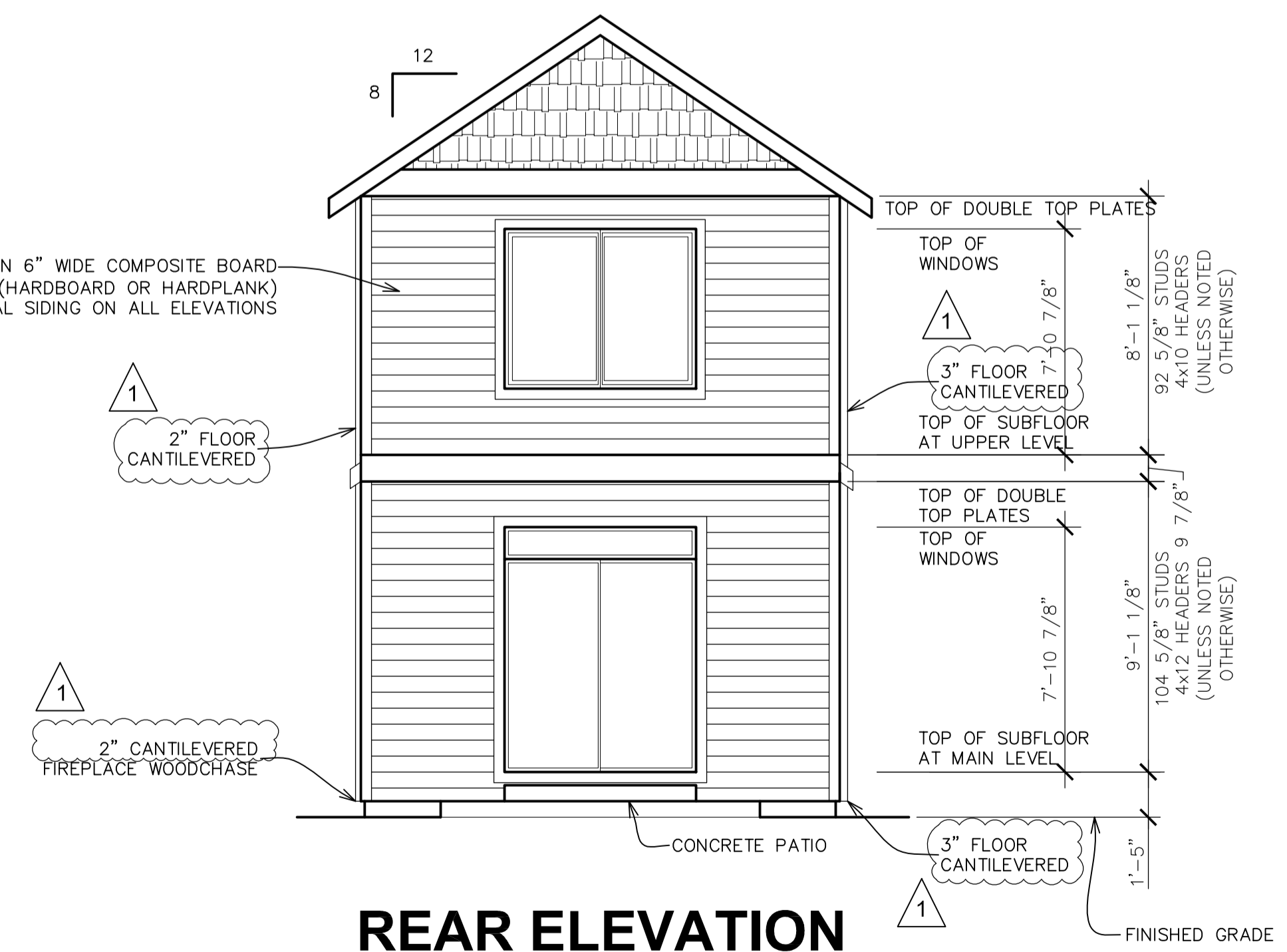
RIGHT SIDE ELEVATION
 SCALE: 1/4" = 1'-0"



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

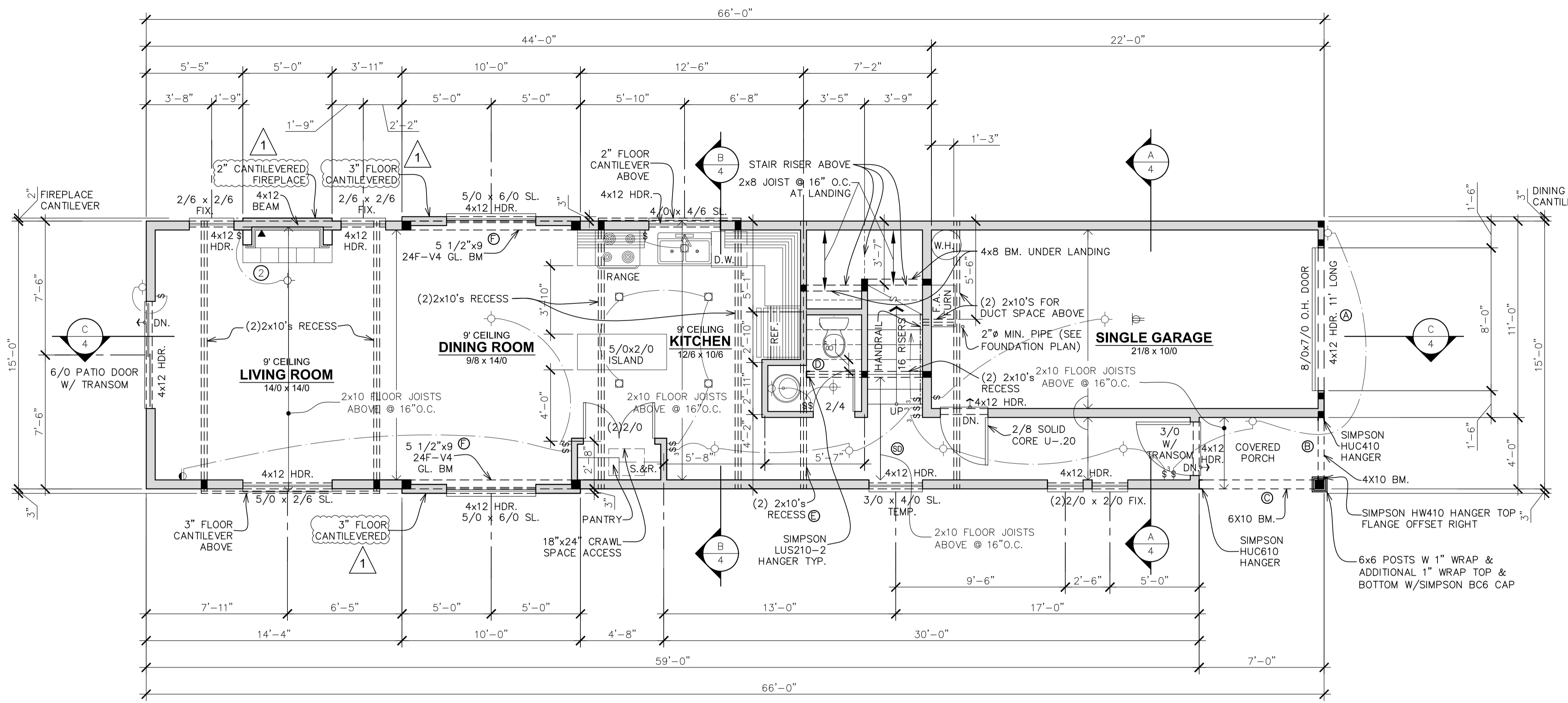


LEFT SIDE ELEVATION
 SCALE: 1/4" = 1'-0"



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

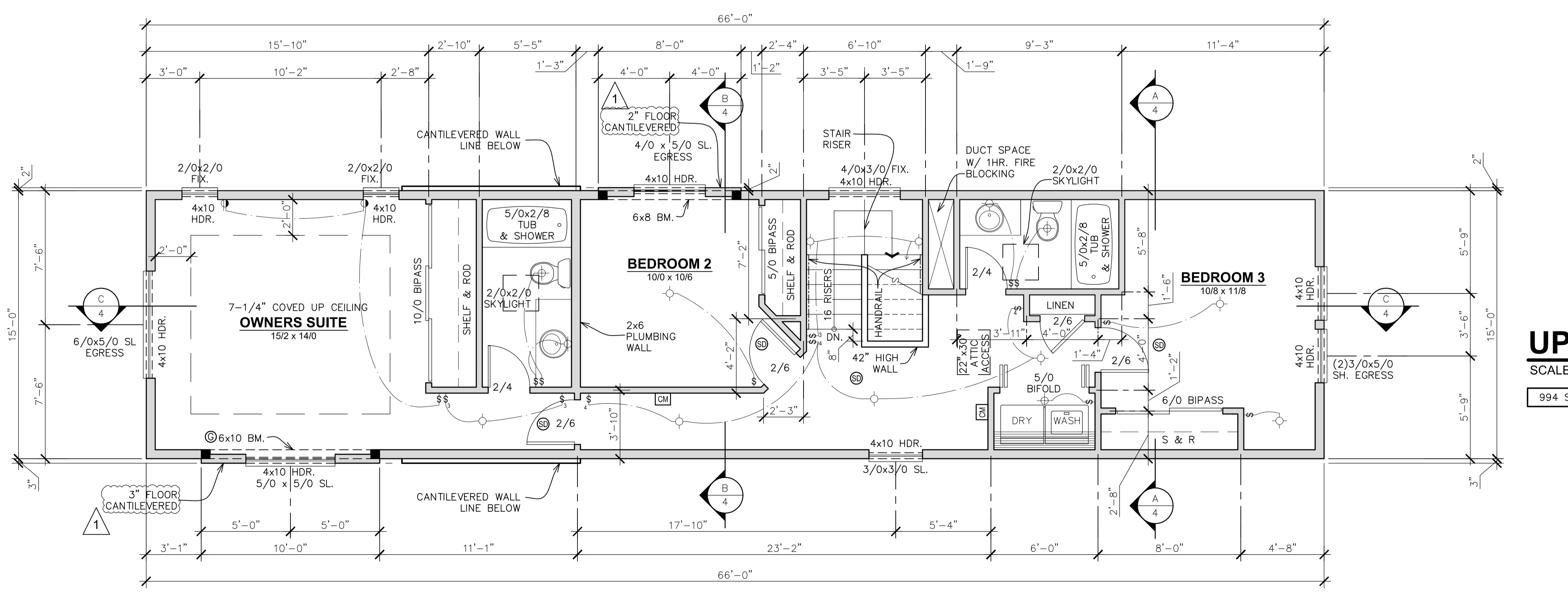
RECEIVED 8-19-21



- LEGEND:**
- SURFACE MOUNTED INCANDESCENT
 - WALL MOUNTED INCANDESCENT
 - RECESSED INCANDESCENT
 - ⊖ EXHAUST FAN VENTED TO EXTERIOR
 - ⊖ CEILING MOUNTED DUPLEX OUTLET
 - ⊖ SPLIT-WIRED OUTLET, WIRE TO SWITCH
 - ⊖ SINGLE-POLE SWITCH
 - ⊖ THREE-WAY SWITCH
 - ⊖ TELEPHONE OUTLET
 - ⊖ TELEVISION OUTLET
 - ⊖ 110V SMOKE ALARM / DETECTOR WITH BATTERY BACKUP-INNERCONNECT
 - ⊖ 110V CARBON MONOXIDE ALARM / DETECTOR WITH BATTERY BACKUP- IN EACH BEDROOM OR WITHIN 15 FEET OUTSIDE OF EACH BEDROOM DOOR
 - ⊖ STRUCTURAL BEAM, SEE INCLUDED CALCULATIONS FOR BEAM DATA
 - ⊖ BEARING POINT LOCATION, PROVIDE 2x STUDS, MIN. OF BEAM WIDTH, UNLESS NOTED

- NOTES:**
1. VENT RANGE HOOD / DOWNDRAFT EXHAUST MIN. 150 CFM INTERMITTENT TO OUTSIDE. VENT DRYER, LAUNDRY & BATH FANS TO OUTSIDE. BATH ROOMS WITH BATHING FACILITIES SHALL HAVE A MECHANICAL VENTILATION SYSTEM DESIGNED TO EXHAUST A MINIMUM OF 80 CFM INTERMITTENT OR 20 CFM CONTINUOUS CONTROLLED BY A DE-HUMIDISTAT TIMER OR SIMILAR MEANS OF AUTOMATIC CONTROL. IN ADDITION, WHEN NOT PROVIDED WITH NATURAL VENTILATION, TOILET ROOMS WITHOUT BATHING OR SPA FACILITIES SHALL HAVE A MECHANICAL VENTILATION SYSTEM DESIGNED TO EXHAUST A MINIMUM OF 50 CFM.
 2. METAL GAS FIREPLACE TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS, PROVIDE OUTSIDE COMBUSTIBLE AIR.
 3. PROVIDE 18" PLATFORM FOR WATER HEATER & FURNACE.
 4. SEISMIC STRAPPING OF WATER HEATER IS REQUIRED PER SECTION M1307.2

**SHEARWALL/HOLD-DOWN CALLOUT, SEE ENGINEERING "S" PAGES FOR TYPES REQUIRED.

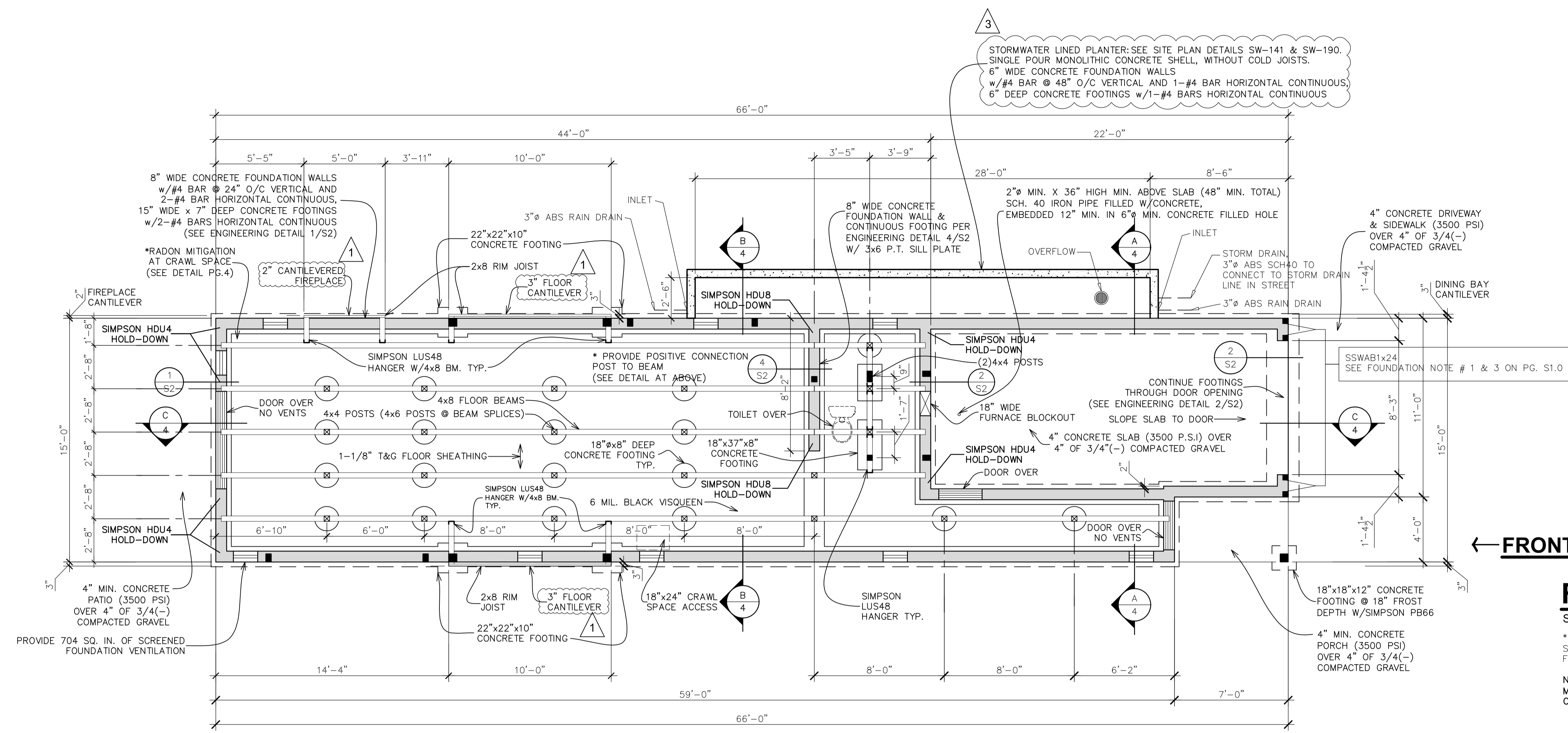


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DATE: 6-30-21

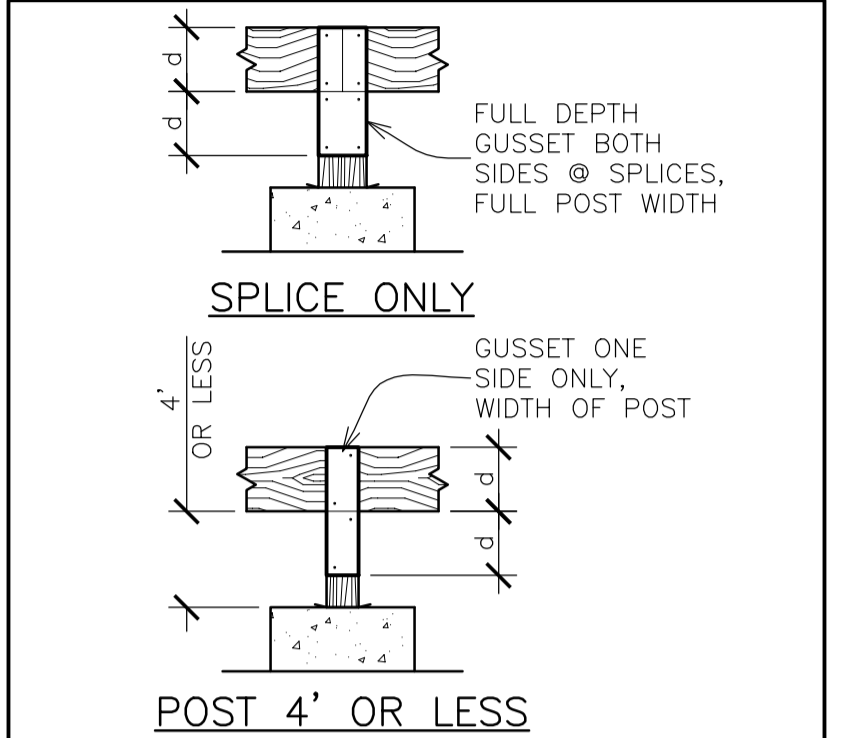
PLAN 1753-B1

RECEIVED 8-19-21



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

NOTE: "SIMPSON" PRODUCTS TO BE INSTALLED PER MANUFACTURER INSTRUCTIONS. SEE CURRENT "SIMPSON" CATALOG FOR MORE INFORMATION.



NOTES:

- DETAILS SHOWN APPLY WHEN THERE IS FULL PERIMETER FOUNDATION WALLS.
- THIS IS AN ACCEPTABLE PRACTICE PERTAINING TO SECTIONS R407.3 AND R502.9

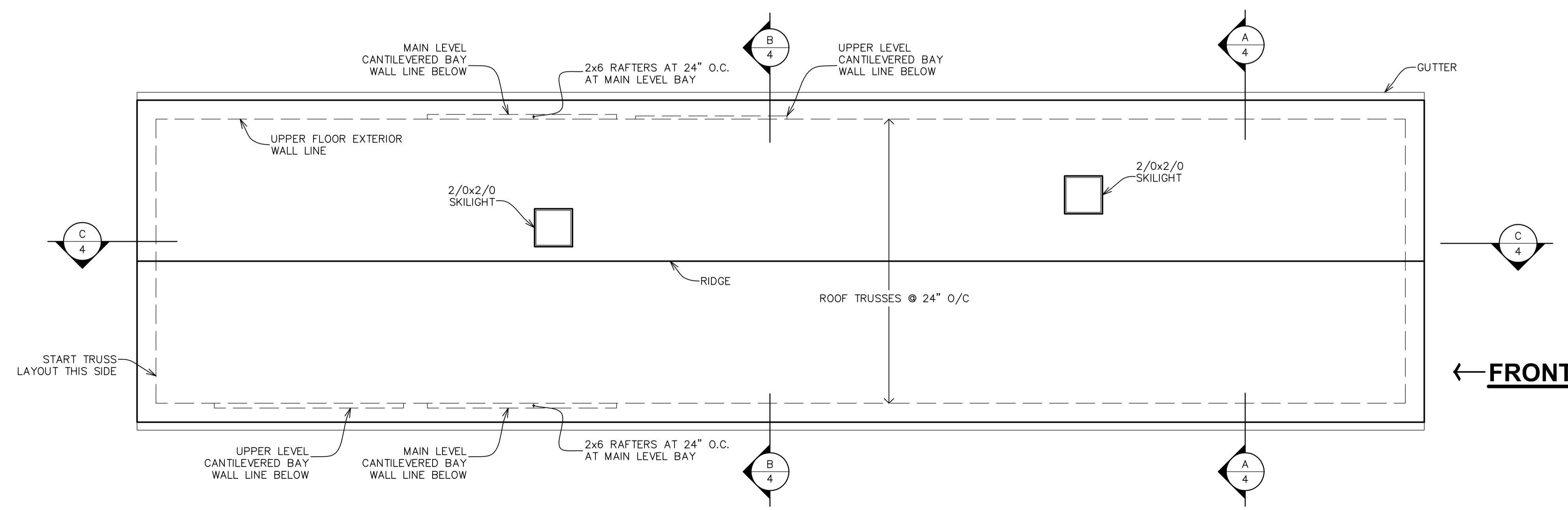
NAIL AND SCREW PENETRATION	END OR EDGE DISTANCE
8d NAILS	3/4"
#8 SCREWS = 1 1/2"	
10d NAILS	13/16"
#10 SCREWS = 1 5/8"	

CONNECTORS:

- QUANTITY AS SHOWN ON DETAILS.
- GUSSET PLATE: 1/2" STRUCTURAL SHEATHING OR 1x4" NOMINAL WOOD LUMBER MIN. OR 16 GAUGE (0.0598") STEEL PLATE MIN.
- NAILS: 8d FOR 1/2" STRUCTURAL SHEATHING OR 1x (VARIES) NOMINAL MATERIALS. 10d FOR 2x (VARIES) NOMINAL MATERIALS & LARGER.
- WOOD SCREWS & STAPLES ARE AN ACCEPTABLE ALTERNATE.

*EXCEPTION: GIRDERS & POSTS SUPPORTING EXTERIOR DECKS NOT EXCEEDING 18" INCHES (457MM) IN HEIGHT ARE NOT REQUIRED TO BE Laterally BRACED OR HAVE GUSSETS AT POST AND GIRDER CONNECTIONS. (SEE SECTION R507)

FIGURE R502.9
 POST AND BEAM CONNECTIONS (AT CRAWL SPACE)



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

ROOF STRUCTURE SPECIFICATIONS:

- COMPOSITION ROOFING
- 15# FELT
- 15/32" ROOF SHEATHING
- ROOF TRUSSES @ 24" O/C
- 2x6 RAFTERS AT 24" O.C. AT MAIN LEVEL BAY
- 2x6 BARGE RAFTERS
- 1'-0" ROOF OVERHANGS (1" ROOF EAVE OVERHANG AT BAYS)
- GUTTERS, OWNER TO SPECIFY & LOCATE DOWNSPOUTS
- 8/12 ROOF PITCH

ROOF VENTILATION SPECIFICATIONS:

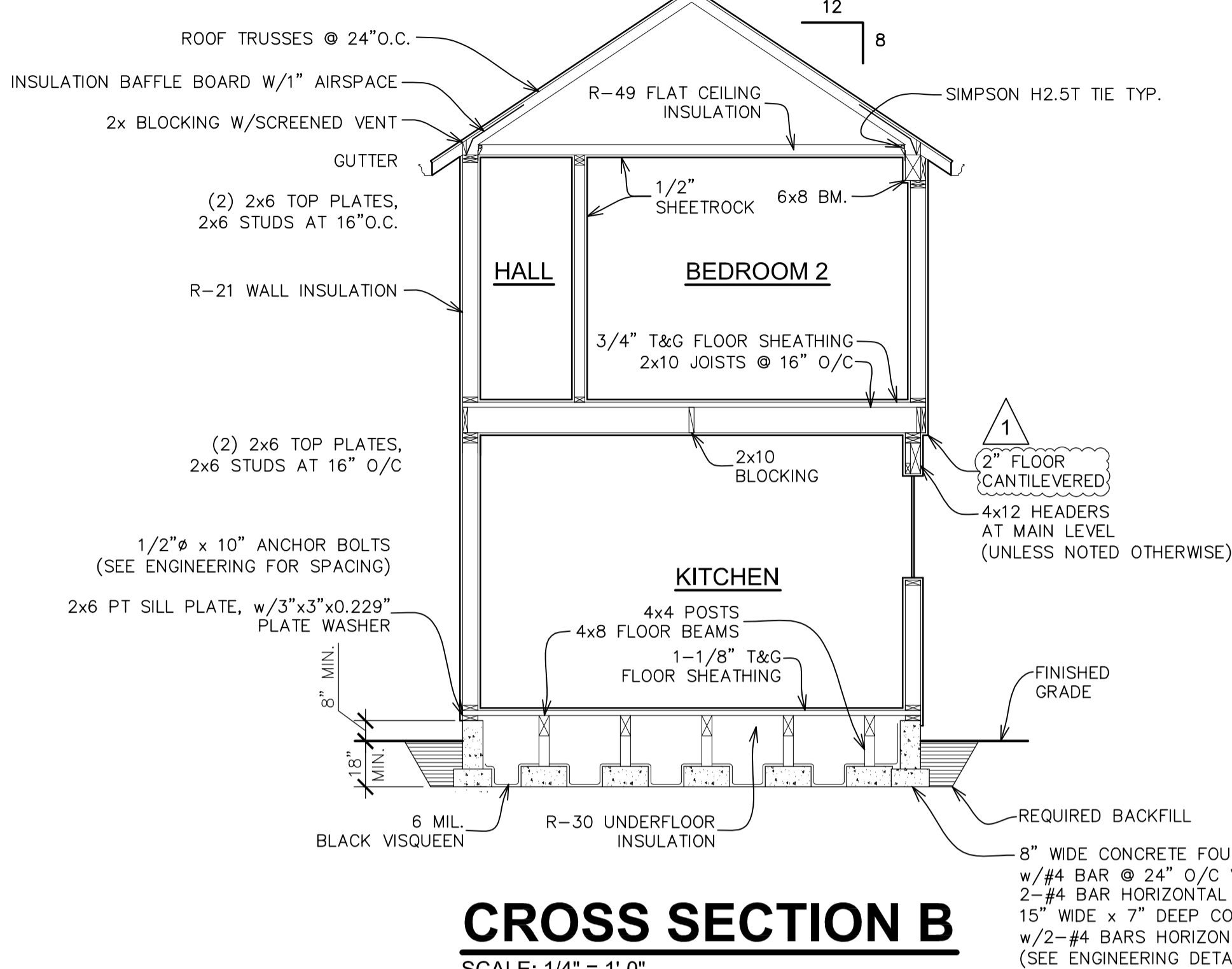
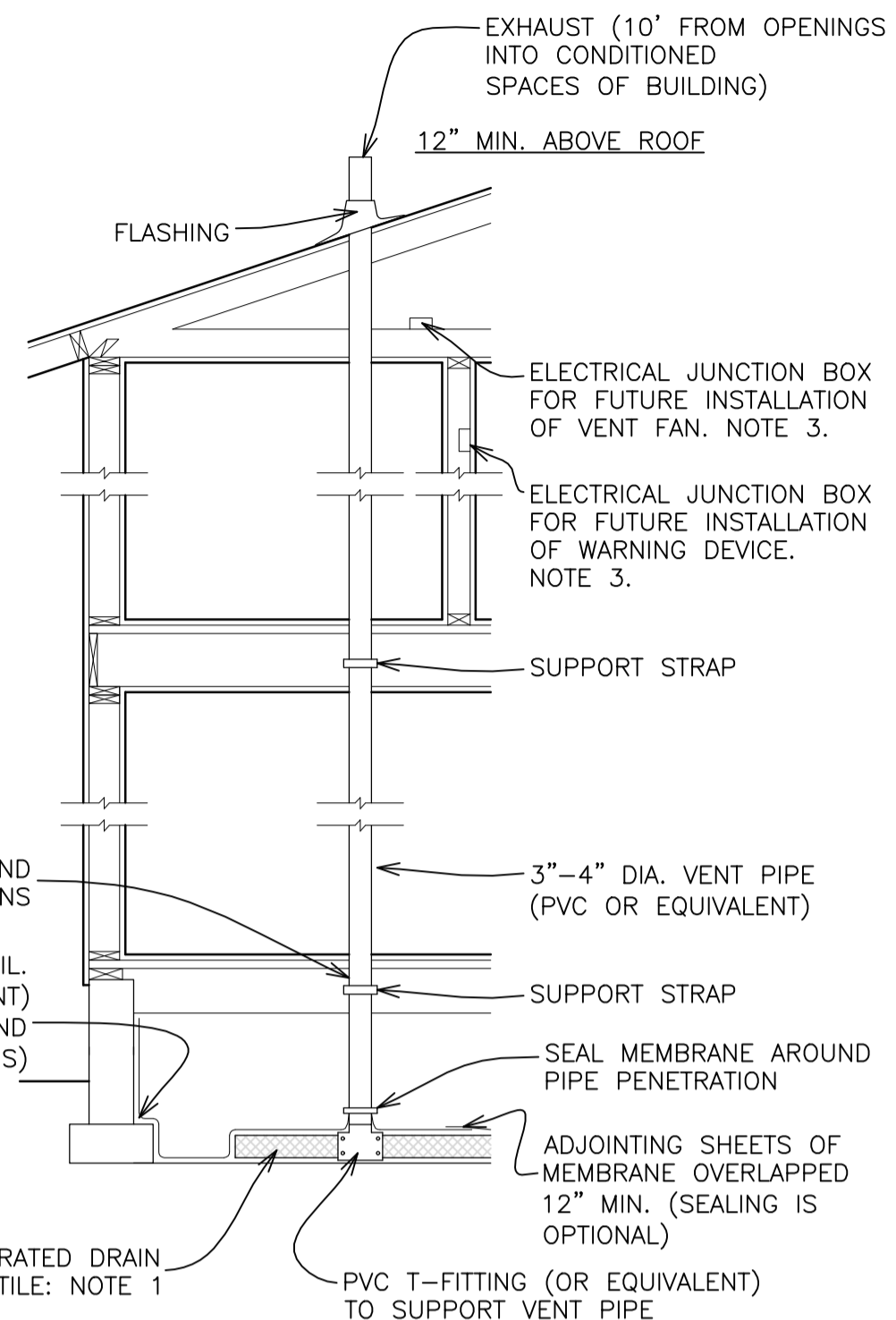
- PROVIDE (5) 50 SQ. IN. SCREENED ROOF RIDGE VENTS AT UPPER LEVEL (238 SQ. IN. TOTAL).
- PROVIDE (12) 20 SQ. IN. SCREENED ROOF EAVE VENTS AT UPPER LEVEL (238 SQ. IN. TOTAL).

NO.	REVISION DATE	DESCRIPTION
1	8-19-21	CHANGED THE DEPTH OF THE 4 BAYS & FIREPLACE.
3	9-10-21	CHANGED TO LINED PLANTER SW-141.

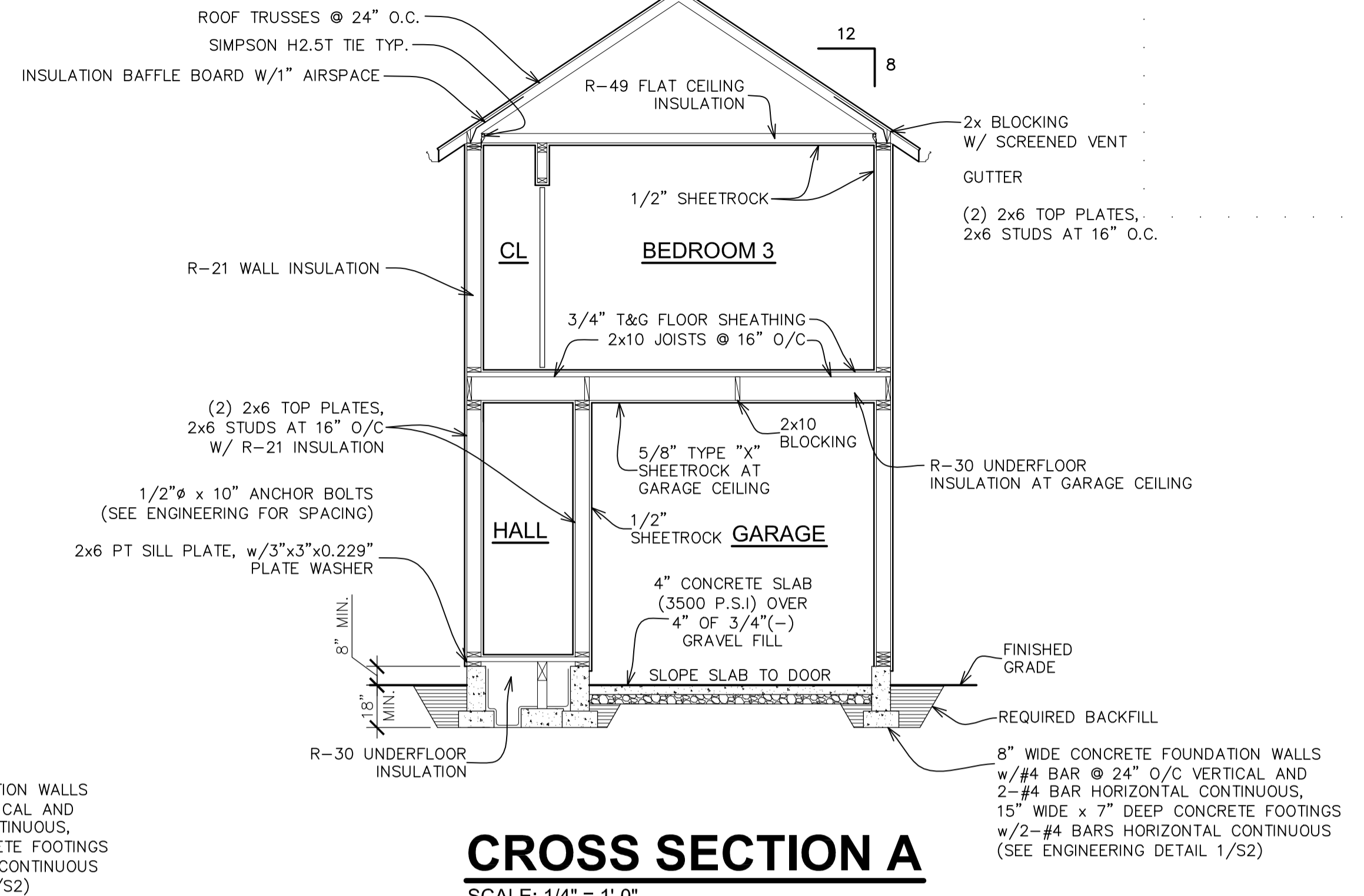
DATE: 6-30-21

PASSIVE RADON CONTROL SYSTEM IN CRAWL SPACE FOR NEW CONSTRUCTION

- NOTES:
1. INSTALL A MIN. 5' LENGTH OF 3"-4" DIAMETER PERFORATED DRAIN TILE HORIZONTALLY BENEATH THE SHEETING AND CONNECT TO THE "T" FITTING WITH THE VERTICAL STANDPIPE THROUGH THE SOIL-GAS-RETARDER MEMBRANE. THIS HORIZONTAL PIPE SHOULD NORMALLY BE PLACED PARALLEL TO THE LONG DIMENSION OF THE HOUSE AND SHOULD EXTEND NO CLOSER THAN 6" TO THE FOUNDATION WALL.
 2. VENTILATE CRAWLSPACES IN CONFORMANCE WITH LOCAL CODES: VENTS SHALL BE OPEN TO THE EXTERIOR AND BE OF NONCLOSEABLE DESIGN.
 3. CIRCUITS SHOULD BE A MINIMUM 15 AMP, 115 VOLT.
 4. COMBINATION FOUNDATIONS: COMBINATION BASEMENT/CRAWL SPACE OR SLAB-ON-GRADE/CRAWL SPACE FOUNDATIONS SHALL HAVE SEPARATE RADON VENT PIPES INSTALLED IN EACH TYPE OF FOUNDATION AREA. EACH RADON VENT PIPE SHALL TERMINATE ABOVE THE ROOF OR SHALL BE CONNECTED TO A SINGLE VENT THAT TERMINATES ABOVE THE ROOF.



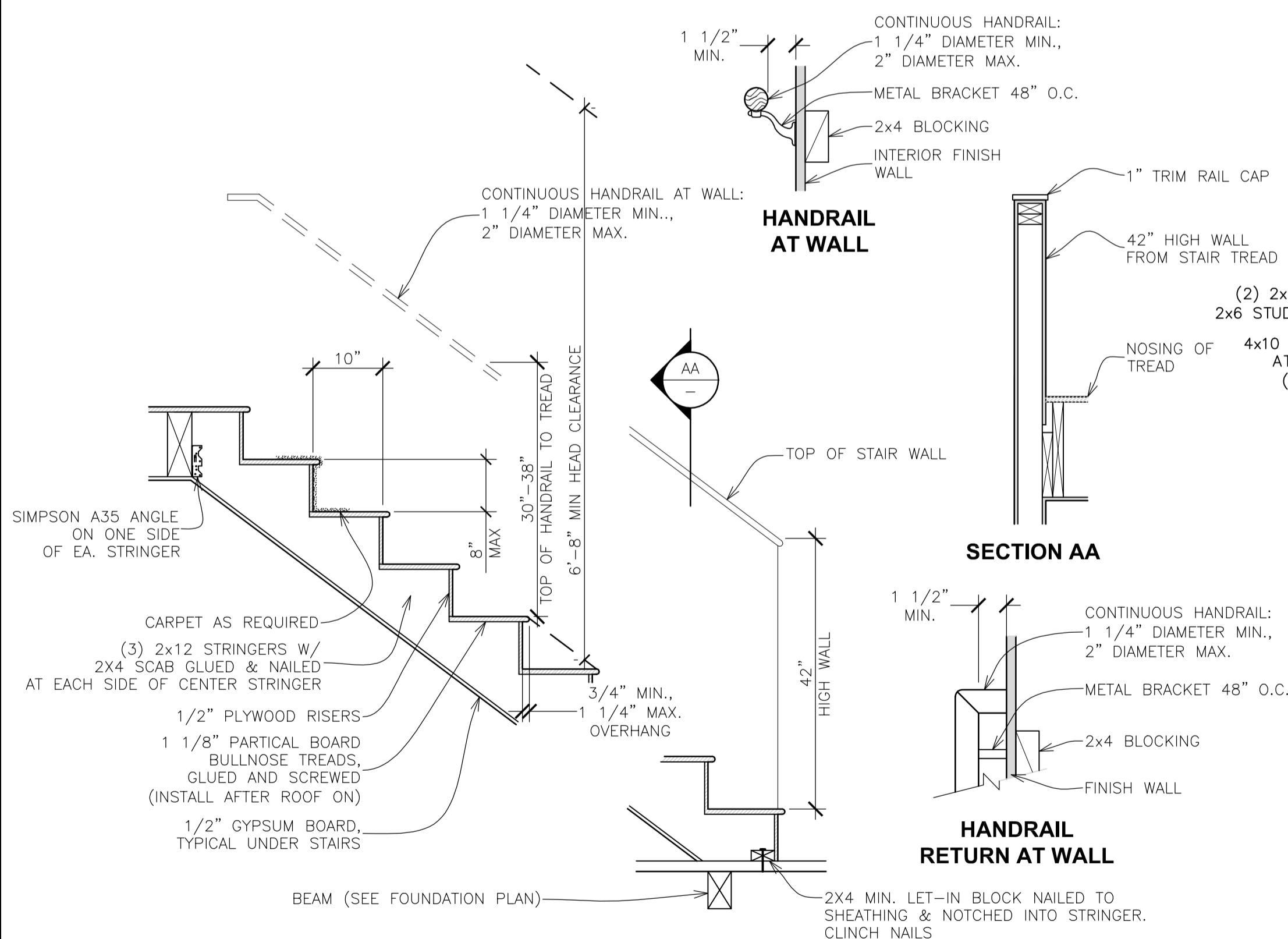
CROSS SECTION B
 SCALE: 1/4" = 1'-0"



CROSS SECTION A
 SCALE: 1/4" = 1'-0"

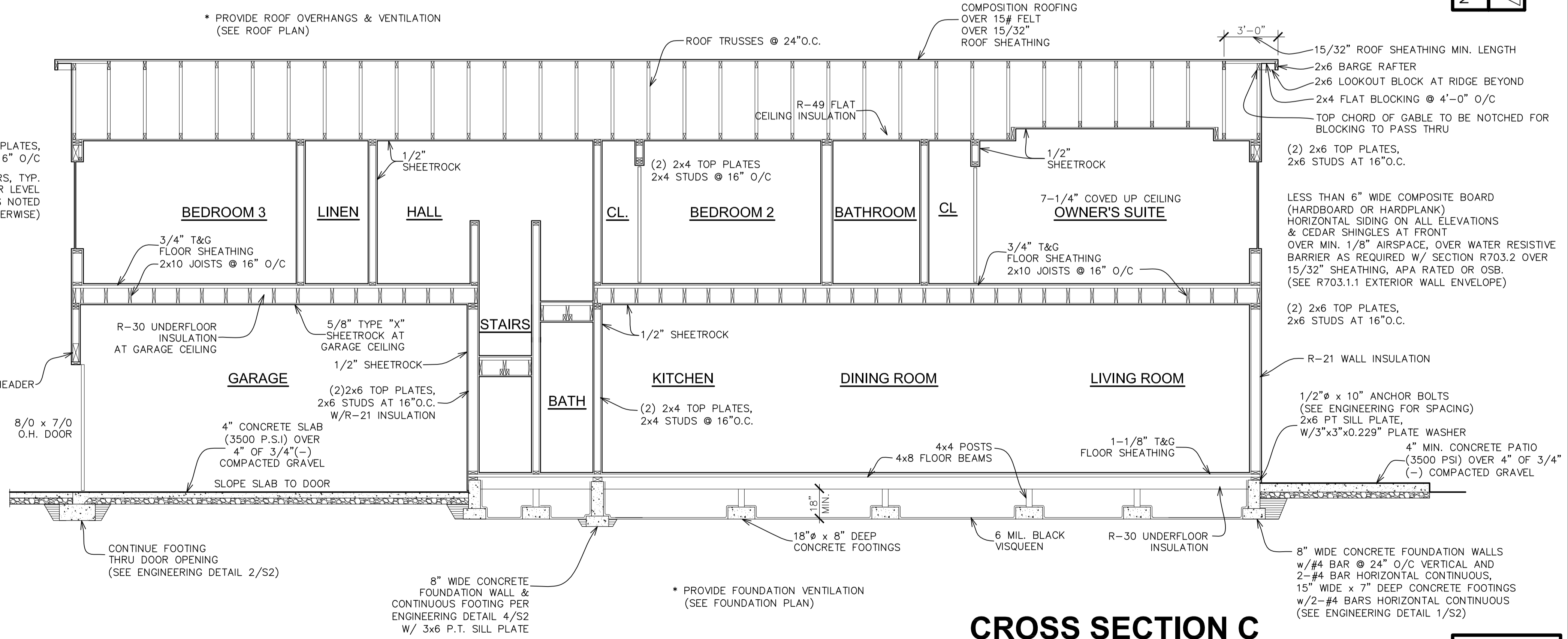
RADON MITIGATION

PASSIVE SUB-MEMBRANE DEPRESSURIZATION SYSTEM (NOT TO SCALE)



STAIR DETAIL W/ 42" HIGH WALL

NO SCALE (FOR INTERIOR STAIRS)



CROSS SECTION C
 SCALE: 1/4" = 1'-0"

NO.	REVISION DATE:	DESCRIPTION:
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DATE: 6-30-21

PLAN 1753-B1

4 OF 5

RECEIVED 8-19-21

SCALE: 1/4" = 1'-0" (ON 24" X 36" PAPER SIZE)

GENERAL NOTES

- 1. THESE PLANS ARE TO COMPLY WITH THE 2017 OREGON RESIDENTIAL SPECIALTY CODE (ORSC) EFFECTIVE OCT. 1ST 2017, BASED ON THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC) AND ANY APPLICABLE STATE, COUNTY OR LOCAL REGULATIONS. BUILDING CODES AND REQUIREMENTS CAN CHANGE AND MAY VARY FROM JURISDICTION TO JURISDICTION. IT IS THE RESPONSIBILITY OF THE PURCHASER AND/OR CONTRACTOR OF THIS PLAN TO SEE THAT THE STRUCTURE IS BUILT IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.

CONCRETE AND FOUNDATIONS
1. SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSF.
2. FOOTINGS TO BEAR ON UNDISTURBED LEVEL SOIL DEVOID OF ORGANIC MATERIAL AND STEPPED AS REQUIRED TO MAINTAIN A MINIMUM OF 18" BELOW FINAL GRADE.
3. ALL SLABS ON GRADE SHALL BEAR ON 4" COMPACTED GRANULAR FILL.

Table with 3 columns: GRADE, STRUCTURAL MEMBER, and description of members like STUDS, POSTS, BEAMS AND HEADERS.

DESIGN LOADS: MAY VARY IN YOUR LOCAL AREA. CONSULT WITH A LOCAL STRUCTURAL ENGINEER OR DESIGNER FOR APPROPRIATE REVISIONS.

Table with 3 columns: AREA, LOAD TYPE, and LOAD VALUE. Includes ROOF, FLOOR, BALCONES (EXTERIOR), PASSENGER VEHICLE GARAGES, CEILING, and STAIRS.

MISCELLANEOUS

- 1. 1/2" WATER-RESISTANT SHEETROCK AROUND TUB & SHOWER.
- 2. THE LIGHTING LAYOUT IS SUGGESTED ONLY. CONSULT YOUR ELECTRICAL CONTRACTOR FOR EXACT SPECIFICATIONS & LOCATIONS OF LIGHTS, SWITCHES & OUTLETS.
- 3. BASEMENTS WITH HABITABLE SPACE AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPENING FOR EMERGENCY ESCAPE AND RESCUE WITH THE FOLLOWING REQS:
A. A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
B. THE MINIMUM NET CLEAR OPENING SHALL BE 5.7 SQ. FT.
C. GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.5 SQ. FT.
D. THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24 INCHES.
E. THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20 INCHES.

TABLE N1101.1(1) PREScriptive ENVELOPE REQUIREMENTS

Table with 4 columns: BUILDING COMPONENT, REQUIRED PERFORMANCE, STANDARD CASE VALUE, and FOUR INTERMEDIATE VALUES.

- a. As allowed in section N1104.1 thermal performance of a component may be adjusted provided that overall heat loss does not exceed the total resulting from conformances to the required U-factor standards.
- b. R-values used in this table are nominal for the insulation only in standard wood framed construction and not for the entire assembly.
- c. Wall insulation requirements apply to all exterior wood frame, concrete or masonry walls that are above grade. This includes cripple walls & rim joist areas.

from Table N1101.1(1): (WALL INSULATION—ABOVE GRADE, R=21 INTERMEDIATE)

N1104.5.2 Intermediate framing for walls. Intermediate framing for walls is an optional construction method.

- 1. Walls. Walls shall be formed with 2x studs at 16 inches (610 mm) on center and shall include, as detailed in items 2 and 3.
- 2. Corners and Intersections. Exterior wall and ceiling corners shall be fully insulated through the use of three-stud corners configured to allow full insulation into the corner.
- 3. Headers. Voids in headers 1 inch (25.4 mm) or greater in thickness shall be insulated with rigid insulation that has a value of R=4 or greater per 1 inch (25.4mm) thickness.

TABLE R602.3 (1) FASTENING SCHEDULE. Table with 3 main columns: ITEM, DESCRIPTION OF BUILDING ELEMENTS, and SPACING & LOCATION. Includes ROOF, WALL, and FLOOR sections.

TABLE R602.3 (1) - CONTINUED FASTENING SCHEDULE
a. NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USED FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN: 80 KSI FOR SHANK DIAMETER OF 0.192 INCH [20x COMMON NAIL], 90 KSI FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 KSI FOR SHANK DIAMETERS OF 0.142 INCH OR LESS.

OSCC - 2304.9.5.1 FASTENERS AND CONNECTORS FOR PRESERVATIVE-TREATED WOOD.
Fasteners, including nuts and washers, in contact with preservative-treated wood shall be of hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically deformed zinc-coated steel with coating weights in accordance with ASTM B 633 minimum. Connectors that are used in exterior applications and in contact with preservative-treated wood shall have coating types and weights in accordance with the treated wood or connector manufacturer's recommendations.

TABLE R602.3 (2) ALTERNATE ATTACHMENTS TO TABLE R602.3(1)

Table with 4 columns: NOMINAL MATERIAL THICKNESS, DESCRIPTION OF FASTENER AND LENGTH, SPACING OF FASTENERS (EDGES), and INTERMEDIATE SUPPORTS (INCHES).

Table with 4 columns: NOMINAL MATERIAL THICKNESS, DESCRIPTION OF FASTENER AND LENGTH, SPACING OF FASTENERS (EDGES), and BODY OF PANELS (INCHES). Includes FIBER-CEMENT, PLYWOOD, and PARTICLEBOARD sections.

TABLE R602.3(2) ALTERNATE ATTACHMENTS TO TABLE R602.3(1)-CONTINUE

For S1: 1 INCH = 25.4mm
a. NAIL IS A GENERAL DESCRIPTION AND SHALL BE PERMITTED TO BE 1-HEAD, MODIFIED ROUND HEAD OR ROUND HEAD.
b. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16-INCH ON DIAMETER EXCEPT AS NOTED.

TABLE N1101.1(2) ADDITIONAL MEASURES

Table with 2 columns: Measure (Select One) and Description of measure requirements.

GENERAL NOTES AND SPECIFICATIONS

SUMMARY OF WORK:

LOCATION: 4435 SE UMATILLA ST PORTLAND, OREGON
LATERAL ANALYSIS AND DESIGN FOR SINGLE FAMILY RESIDENCE

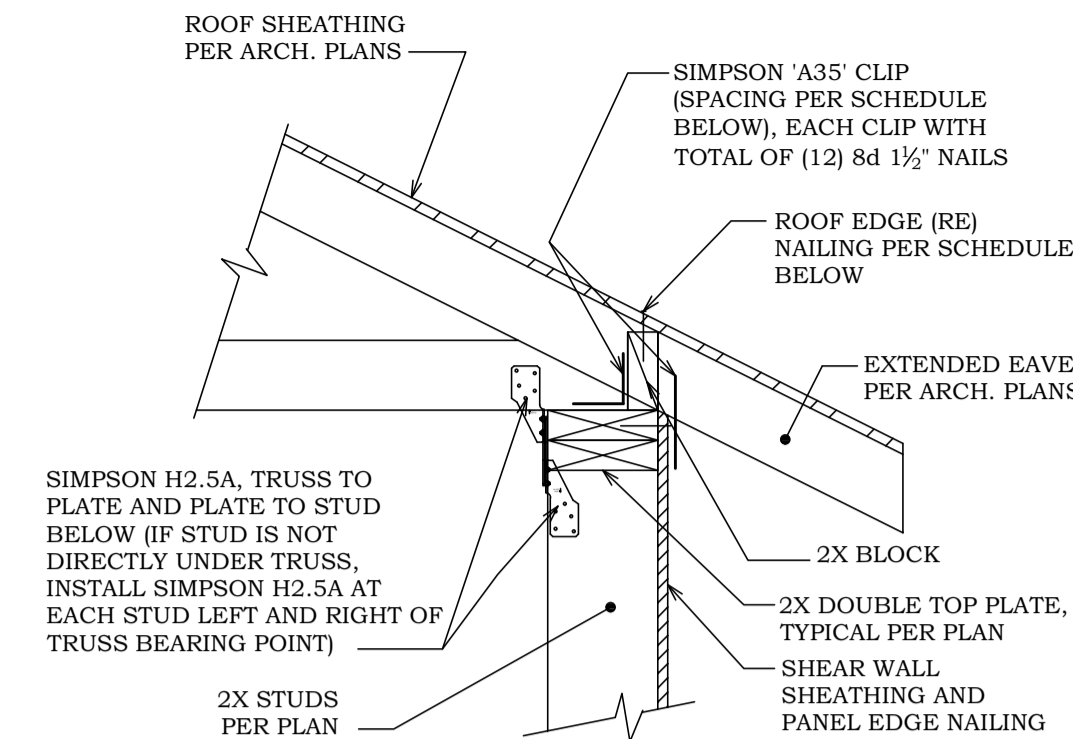
DESIGN LOADS:

CODE: 2019 OSSC
USE OR OCCUPANCY OF BUILDINGS AND STRUCTURES RISK CATEGORY (ASCE TABLE 1.5-1): II
WIND SPEED V_{basic} : 120 MPH EXPOSURE 'B', V_{end} = 93 MPH (OSSC EQUATION 16-33)
SEISMIC DESIGN CATEGORY: 'D'
GROUND SNOW LOAD: 25 PSF (ROOF SNOW LOAD: 25 PSF)
ROOF DEAD LOAD: 17 PSF
FLOOR LIVE LOAD: 40 PSF
FLOOR DEAD LOAD: 10 PSF
SOIL BEARING PRESSURE: 1500 PSF
SOIL PASSIVE SOIL PRESSURE: 200 PSF

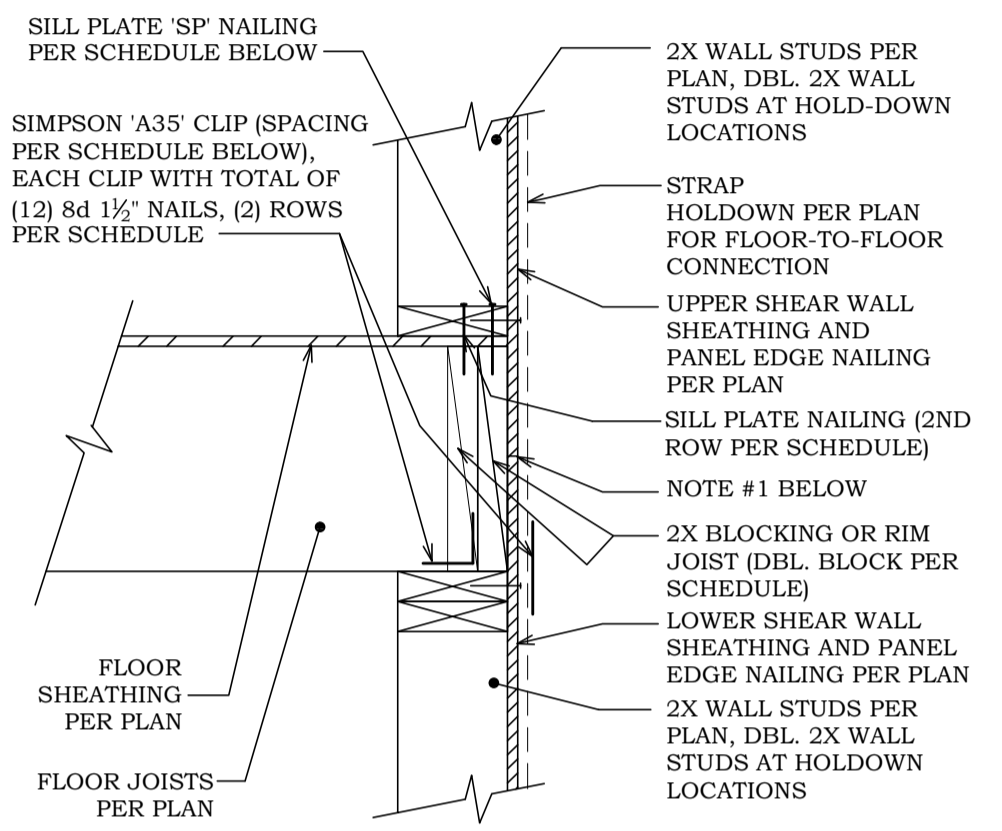
FRAMING REQUIREMENTS:

- WALL STUDS TO BE 2X6 DFL-#2 @ 16" O.C., TYPICAL U.N.O.
- ROOF SHEATHING TO BE 3/8" 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.
- TYPICAL WALL SHEATHING (TSM) TO BE 3/8" 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.
- FLOOR SHEATHING TO BE 3/4" 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.
- SILL PLATE TO BE 2X P.T. U.N.O. (REFER TO SILL BOLT SPACING IN SCHEDULE BELOW).
- FOR NAIL SIZES REFER TO BELOW.

City of Portland
REVIEWED FOR
CODE COMPLIANCE
Date: 11/09/21
Panel #: 21-00017-00-05-05



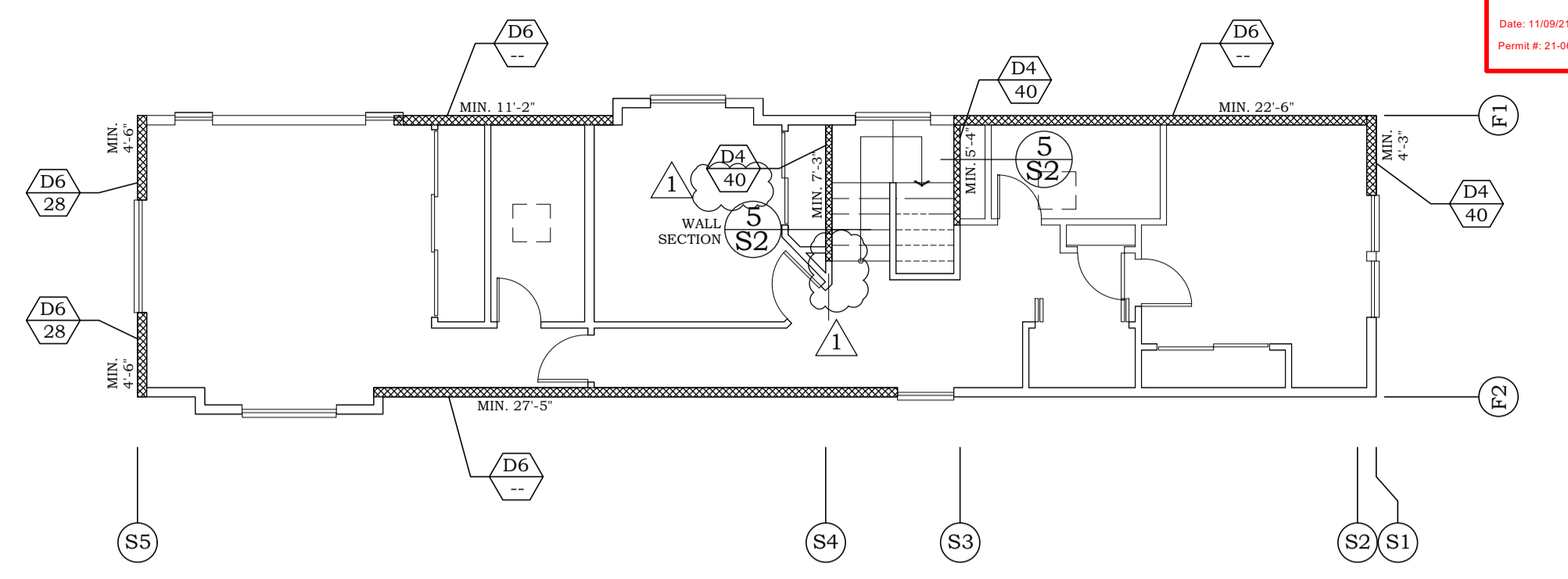
RW
S1
ROOF TO SHEAR WALL SECTION



FF
S1
FLOOR TO FLOOR SECTION AT SHEAR WALL

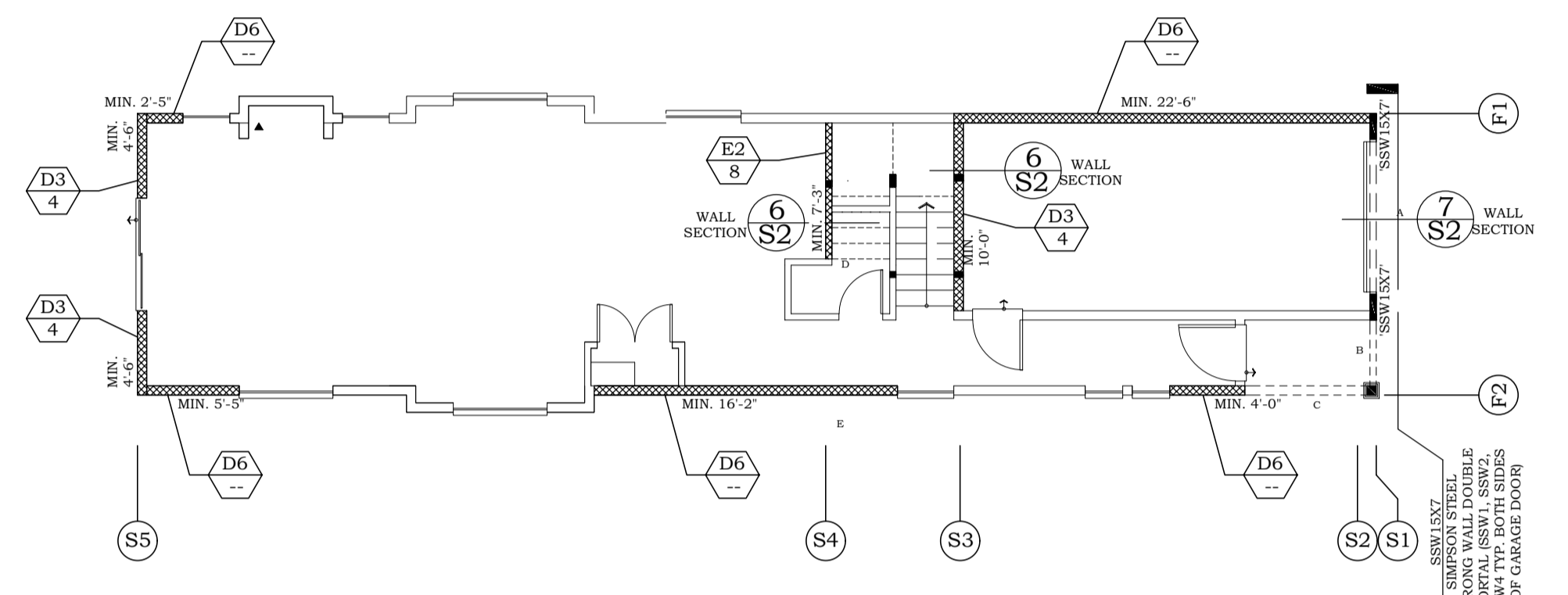
PANEL TYPE	'SP' NAIL SPACING	SIMPSON CLIP SPACING	'RE' NAIL SPACING
D6	16d @ 8" O.C.	1'-8" O.C.	8d @ 8" O.C.
D4	16d @ 4" O.C.	1'-2" O.C.	8d @ 4" O.C.
D3	16d @ 3" O.C.	0'-11" O.C.	8d @ 3" O.C.
D2	16d @ 3" O.C.	8" O.C.	8d @ 2 1/2" O.C.
E2	16d @ 2" O.C.	7" O.C.	8d @ 2" O.C.
D3X2	16d @ 3" O.C. (2) ROWS	1'-0" O.C. (2) ROWS	8d @ 3" O.C. (2) ROWS
D2X2	16d @ 2" O.C. (2) ROWS	10" O.C. (2) ROWS	8d @ 2" O.C. (2) ROWS

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By Alina at 11:47 am, Sep 15, 2021



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.

SHEAR WALL SCHEDULE:

PANEL NOTATION	SHEATHING THICKNESS (IN.)	NAILS/SPACING	DBL. STUD CONN. (FACE NAIL)	SILL BOLT ⁽¹⁾ SPACING	SHEAR CAPACITY (SEISMIC)	SHEAR CAPACITY (WIND)
D6	MIN. 3/16"	8d @ 6" O/C	16d @ 9" O/C	1/2" @ 36" O/C	260 PLF	365 PLF
D4 ⁽²⁾	MIN. 3/16"	8d @ 4" O/C	16d @ 6" O/C	1/2" @ 24" O/C	380 PLF	532 PLF
D3 ⁽³⁾	MIN. 3/16"	8d @ 3" O/C	16d @ 4" O/C	1/2" @ 18" O/C	490 PLF	685 PLF
D2 ⁽³⁾	MIN. 3/16"	8d @ 2" O/C	16d @ 3" O/C	1/2" @ 16" O/C	640 PLF	895 PLF
E2 ⁽⁴⁾	15/32"	10d @ 2" O/C	N/A	1/2" @ 14" O/C ⁽⁵⁾	770 PLF	1077 PLF
D3X2 ⁽⁶⁾⁽⁷⁾	15/32" EACH FACE	8d @ 3" O/C (2) ROWS	N/A	1/2" @ 12" O/C	980 PLF	1370 PLF
D2X2 ⁽⁶⁾⁽⁷⁾	15/32" EACH FACE	8d @ 2" O/C (2) ROWS	N/A	1/2" @ 9" O/C	1280 PLF	1790 PLF

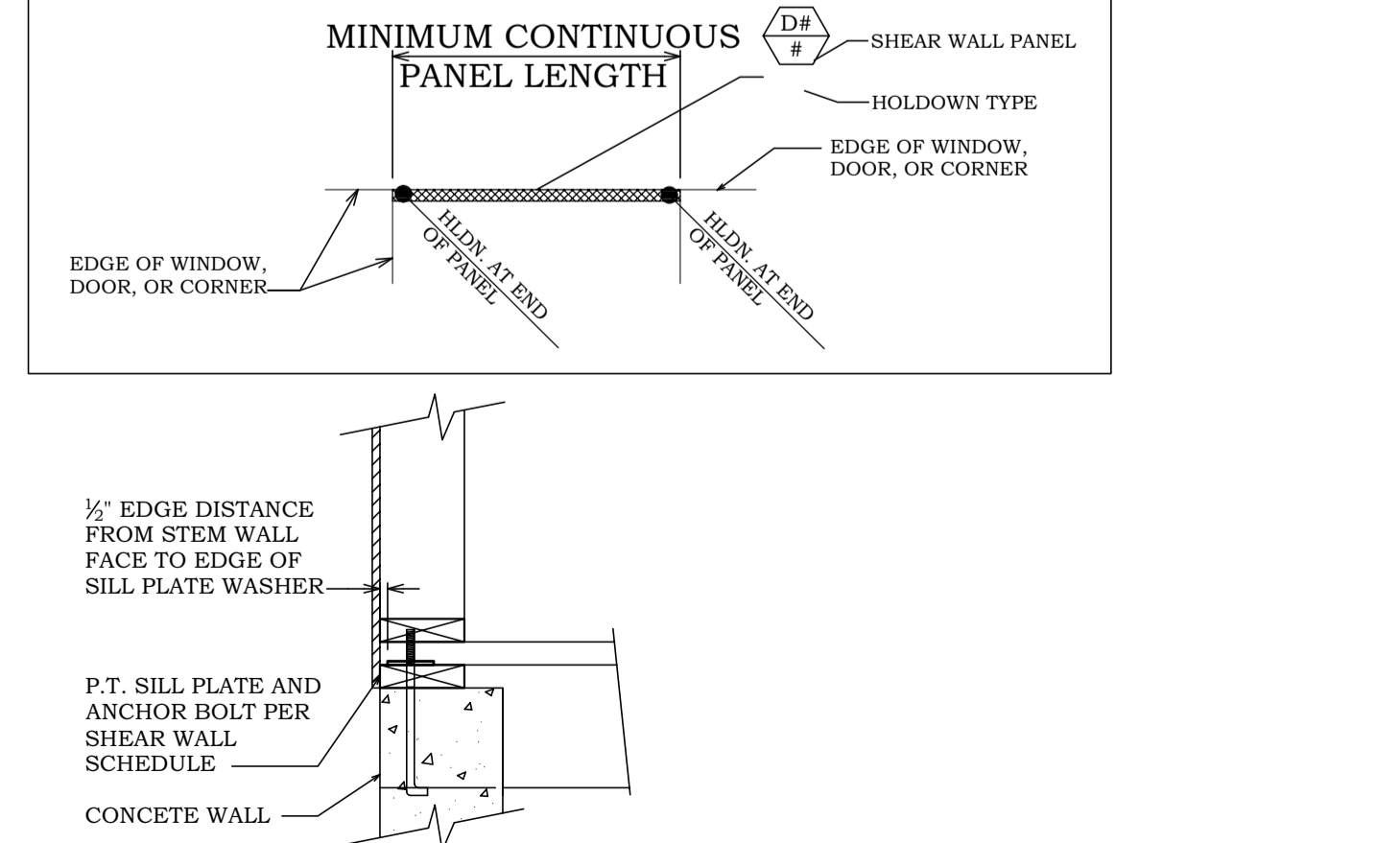
NOTES:
(1) SHEATHING TO BE APA RATED SHEATHING OR OSB (GRADE C-C OR C-D STRUCTURAL II OR BETTER).
(2) ALL PANEL EDGES TO BE BACKED WITH 2-INCH NOMINAL OR WIDER FRAMING (DFL-#2). INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY. SPACE NAILS MAXIMUM 6" O.C. ALONG PANEL EDGES FOR STUDS SPACED 24" O.C. FOR OTHER CONDITIONS AND PANEL THICKNESSES, SPACE NAILS MAXIMUM 12" O.C. ON INTERMEDIATE SUPPORTS.
(3) FRAMING AT ADJOINING PANEL EDGES SHALL BE SINGLE 3X NOMINAL MEMBER OR SINGLE 2X 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 1" SQUARE X 1/4" 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) PLYWOOD TO BE INSTALLED ON BOTH SIDES OF PANEL.
(8) N/A
(9) GALVANIZED NAILS SHALL BE HOT-DIPPED OR TUMBLED.

HOLD-DOWN SCHEDULE:

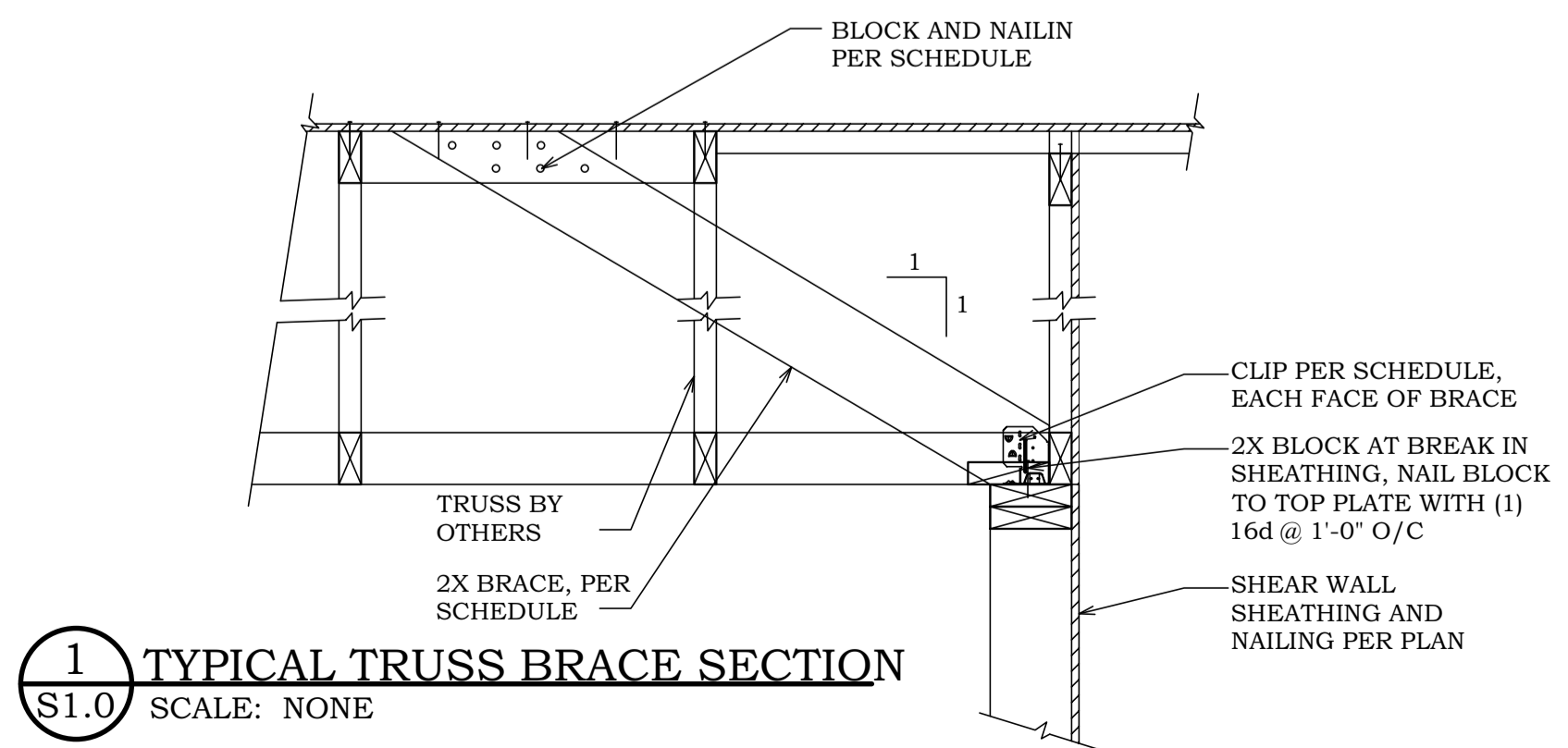
HOLDOWN NOTATION	'SIMPSON' HOLDOWN TYPE	INSTALLATION INSTRUCTIONS
2	HDU2 (3075#)	STD. 3/8" X 24" MIN. 18" EMBEDMENT (6) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2X" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
4	HDU4 (4565#)	STD. 3/8" X 24" MIN. 18" EMBEDMENT (6) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2X" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
5	HDU5 (5645#)	STD. 3/8" X 24" MIN. 18" EMBEDMENT (6) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2X" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
8	HDU8 (6765#, 6970#, 7870#)	STD. 3/8" X 24" MIN. 18" EMBEDMENT (6) CONCRETE. ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF (2)2X6 DFL-#2 WALL STUDS (MIN. 2X" EDGE DISTANCE). FASTEN STUDS TOGETHER WITH 16d NAILS @ 6" O/C ENTIRE HEIGHT OF STUD. INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
11	HDU11 (9335#)	STD. 1" ANCHOR BOLT OR ALTERNATIVE TO BE EMBEDDED INTO CONCRETE FOOTING (MIN. 12"). ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF 4X6 DFL-#2 (MIN. 2X" EDGE DISTANCE). INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
14	HDU14 (14445#)	STD. 1" ANCHOR BOLT OR ALTERNATIVE TO BE EMBEDDED INTO CONCRETE FOOTING (PER 2/S2). ANCHOR TO BE INSTALLED PLUMB AND LOCATED ALONG CENTER LINE OF 6X6 DFL-#2 (MIN. 2X" EDGE DISTANCE). INSTALL HOLDDOWN PER MANUFACTURER'S SPECIFICATIONS.
28	MSTC28 (1535#)	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 (3070#)	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.
52	MSTC52 (4610#)	INSTALL STRAP ACROSS FLOOR LINE. INSTALL MIN. (24) 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.
66	MSTC66 (8850#)	INSTALL STRAP ACROSS FLOOR LINE. INSTALL MIN. (36) 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) HOLD-DOWNS 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.
(2) IF HOLD-DOWNS 2, 5, 6, AND 8 ARE INSTALLED FROM FLOOR TO FLOOR, REFER TO DETAIL FF/S1.
(3) U.N.O. INSTALL (1)-#4 CONTINUOUS HORIZONTAL TOP BAR 3" DOWN FROM TOP OF WALL AT ALL HOLD-DOWN ANCHORS. EXTEND BAR MIN. 5'-0" PAST HOLD-DOWN IN BOTH DIRECTIONS (BEND BAR AROUND AT CORNER CONDITION). FOR THIS 10'-0" SECTION INSTALL (1)-#4 VERTICAL BAR @ 24" O.C. THE HOLD-DOWN ANCHOR TO HORIZONTAL TOP BAR.

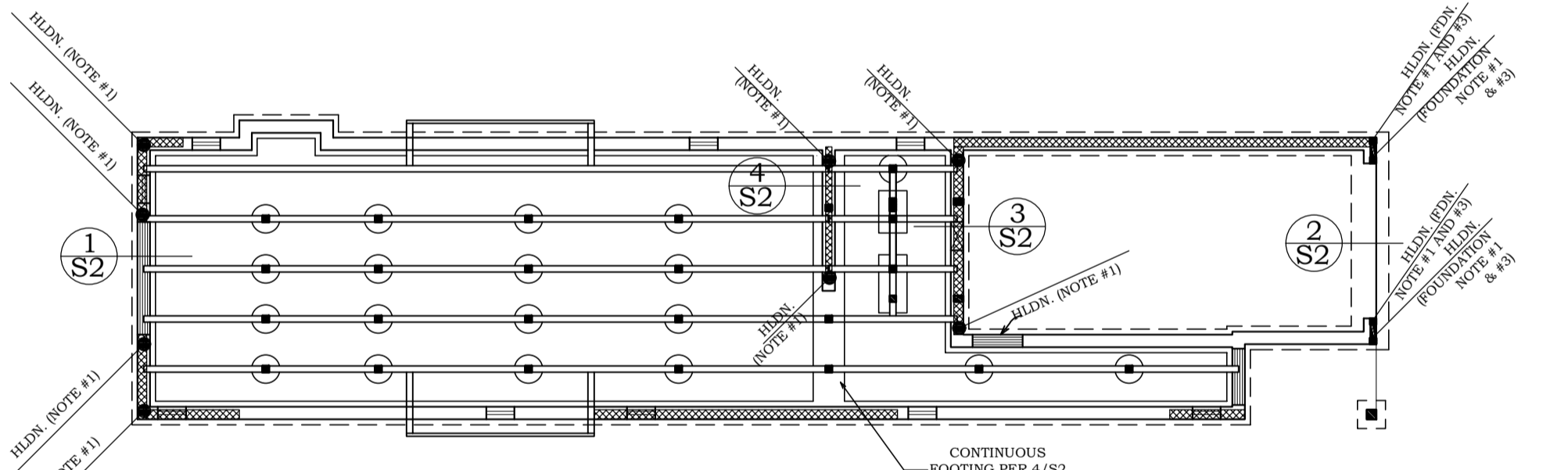
SHEAR WALL / HOLDOWN NOTATION DIAGRAM



BRACE LENGTH	BRACE SIZE	SPACING	CLIP AT TOP PLATE	# OF BLOCKS	# OF NAILS	PANEL EDGE NAILS
5 TO 8FT	(2)2X6	3'-0" O/C	SIMPSON' GBC	(2)	(6) EACH BLOCK	3" O/C, (2) ROWS
1 TO 5FT	2X6	4'-0" O/C	SIMPSON' GBC	(2)	(6) EACH BLOCK	3" O/C, (2) ROWS



1
S1.0
TYPICAL TRUSS BRACE SECTION
SCALE: NONE



PARTIAL FOUNDATION PLAN (HOLDOWN LOCATIONS)

FOUNDATION NOTES
1. REFER TO MAIN FLOOR SHEAR WALL PLAN FOR HOLDOWN SIZE.
2. THIS DRAWING IS FOR LATERAL INFORMATION ONLY. REFER TO ARCHITECTURAL PLANS FOR ALL OTHER INFORMATION.
3. ANCHOR BOLT TO BE SIMPSON' SSWAB1X24" (REFER TO 2/S2 AND SSW1, SSW2, SSW4).

MATERIALS:
CONCRETE: MIN. 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 DESIGN BEARING PRESSURE REFERENCED ABOVE. ALL NON-STRUCTURAL WEATHER PROOFING AND FINISH MATERIAL TO BE DETERMINED 'BY OTHERS'.

SLAB CONTROL JOINTS: PER OWNERS REQUIREMENTS OR DIRECTION.
MISC. SITE PREPARATIONS: OBTAIN AND OBEY ALL APPLICABLE REGULATIONS REGARDING GRADING AND EXCAVATION. IDENTIFY, MARK, AND PROTECT FROM DAMAGE ALL EXISTING UNDERGROUND PIPES, CONDUITS, AND CABLE (WATER SUPPLY, SANITARY SEWER, STORM SEWER, GAS, STEAM, ELECTRICAL AND COMMUNICATION CABLE). REMOVE SOIL WITH ORGANIC MATTER. PERFORM BACKFILL AND COMPACTION IN A SYSTEMATIC PATTERN, TO ASSURE COMPLETE AND CONSISTENT WORK. IF ANY OVER-EXCAVATION ACCIDENTALLY OCCURS, CORRECT IT WITH WELL-COMPACTED BACKFILL. PROVIDE TESTING AND INSPECTION OF BACKFILL AND COMPACTION. LAYER BACKFILL IN 6 IN. TO 12 IN INCREMENTS. COMPACT ALL FILL. USE STABILIZED FILL MATERIAL OF AN APPROVED TYPE AND FROM AN APPROVED SOURCE. TEST AND APPROVE MATERIAL DELIVERED FROM OTHER SITES. DO NOT ALLOW ANY DEBRIS TO BE MIXED WITH FILL. CURE CONCRETE TO FULL REQUIRED STRENGTH BEFORE BACKFILLING. PROVIDE DRAINAGE CATCHERS PER ARCHITECTURAL DRAWINGS.

SPECIAL INSPECTION: NONE

PROJECT NAME
MHD 1753 B1
SHEAR WALL AND HOLDOWN SCHEDULE
SHEAR WALL PLANS

DATE
08/24/21

DESCRIPTION

No.

TURNER
ENGINEERING & DESIGN
Office (503) 970-8607
Email: turner@turneranddesign.com
PO BOX 220
EAGLE CREEK, OREGON 97022

REGISTERED PROFESSIONAL ENGINEER
58949PE
RICHARD J. TURNER
JULY 15, 2008

EXP. DATE: 06-30-22

ISSUE CD

DESIGNED BY RJT

DRAWN BY RJT

CHECKED BY RJT

DATE 06/24/21

PROJECT NO. R21351

SHEET NO. S1.0

No.	DATE	DESCRIPTION

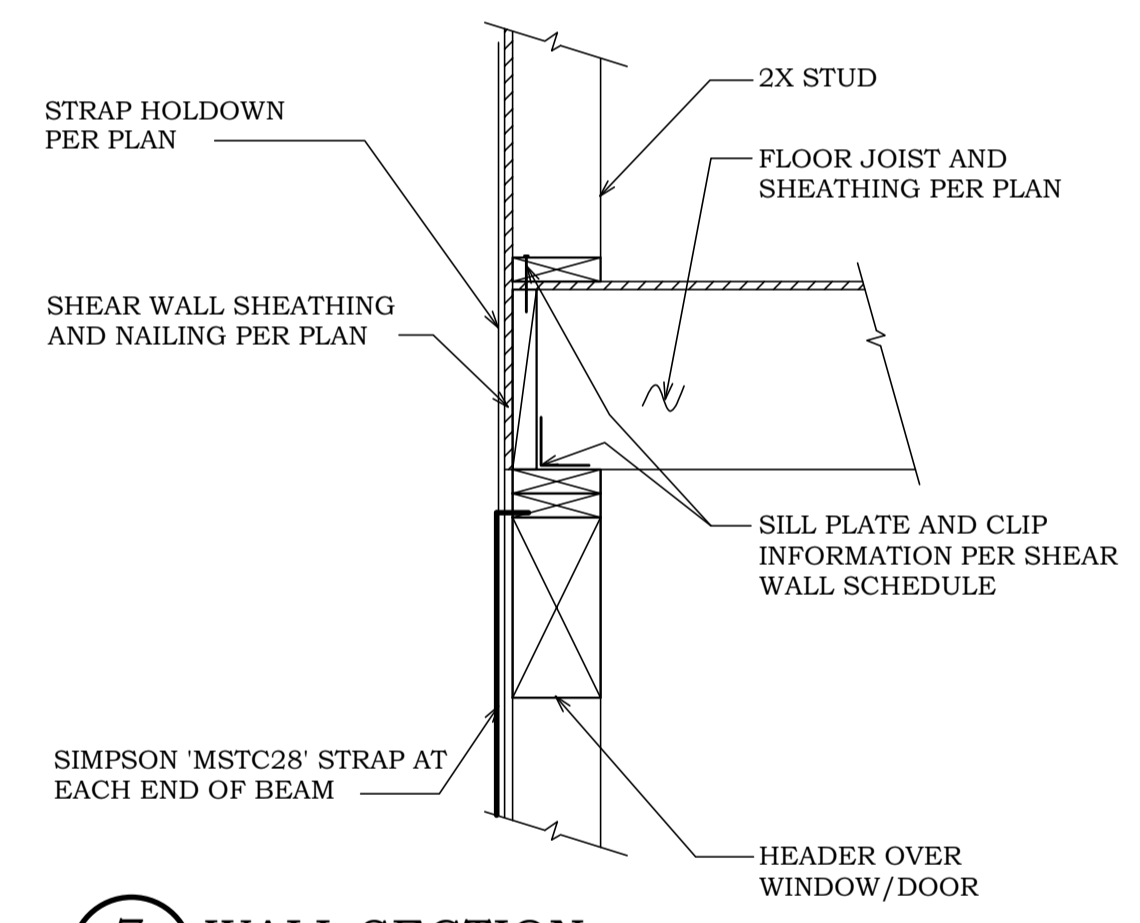
PROJECT NAME
 MHD 1753-B1
 STRUCTURAL DETAILS

TURNER
 ENGINEERING & DESIGN
 58948PE
 Office (503) 970-8407
 Email: turner.team@turnereng.com
 PO BOX 220
 EAGLE CREEK, OREGON 97022

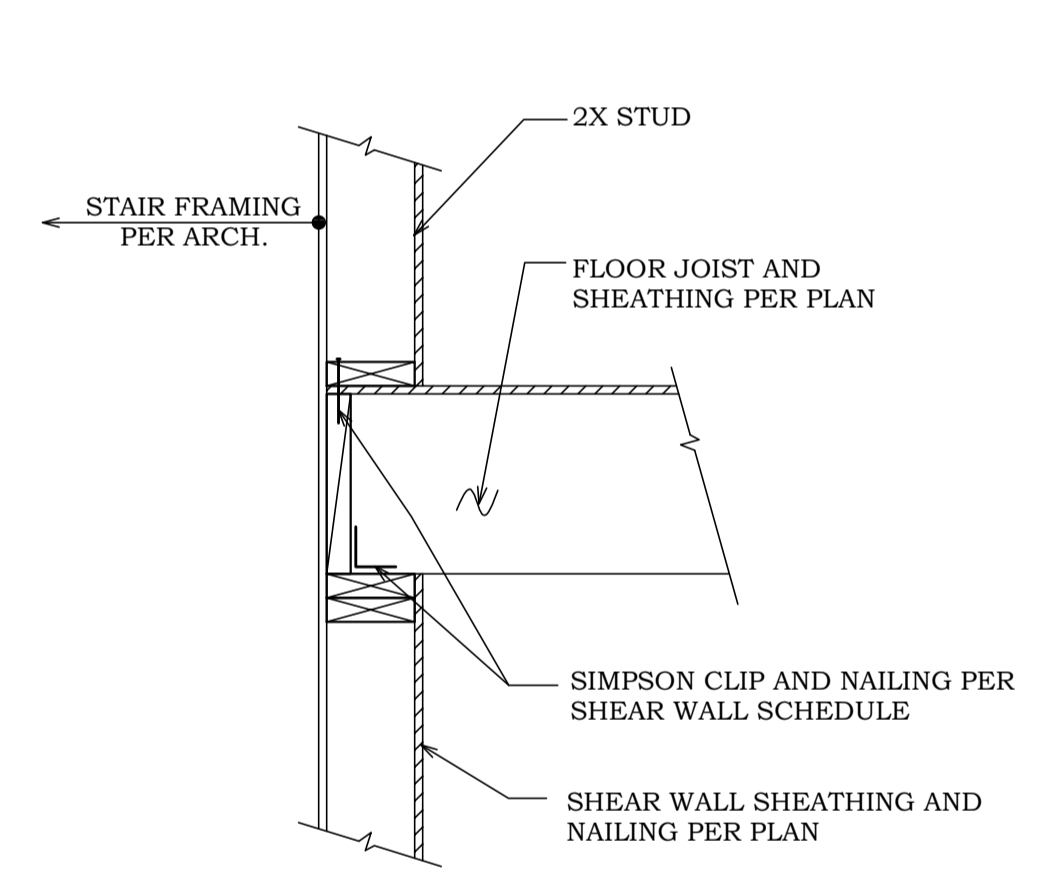
ENGINEERS STAMP

 RICHARD J. TURNER
 EXP. DATE: 06-30-22

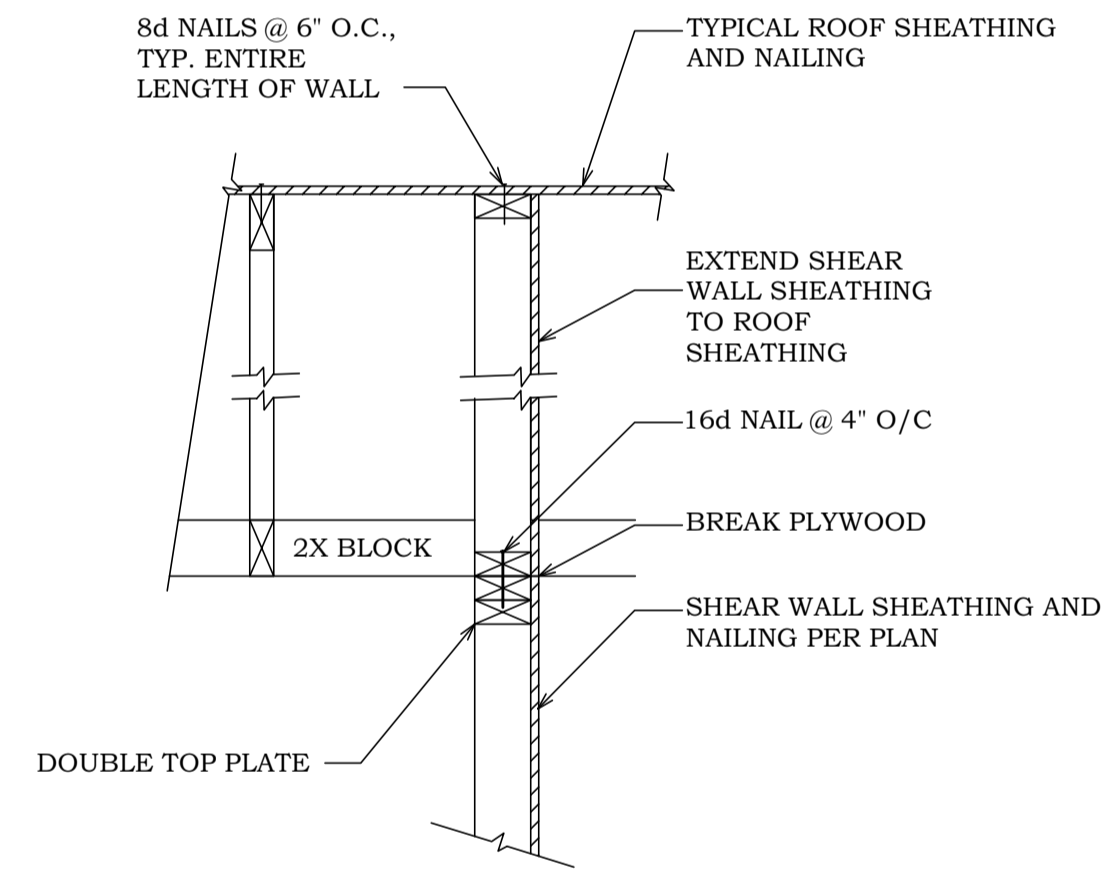
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DESIGNED BY	RJT
DRAWN BY	RJT
CHECKED BY	RJT
DATE	06/30/21
PROJECT NO.	R21351
SHEET NO.	S2.0



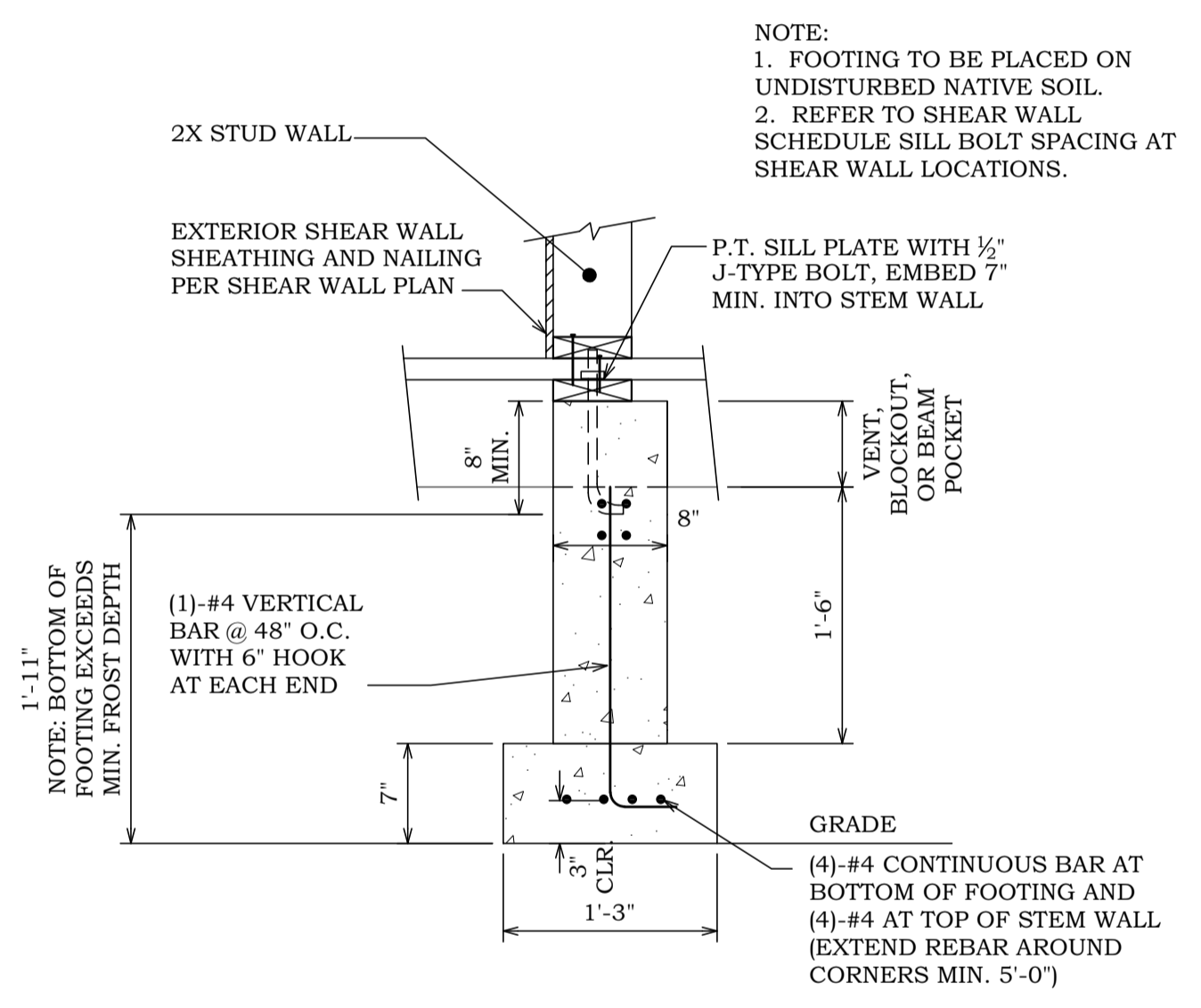
7 WALL SECTION
 S2 SCALE: 1" = 1'-0"



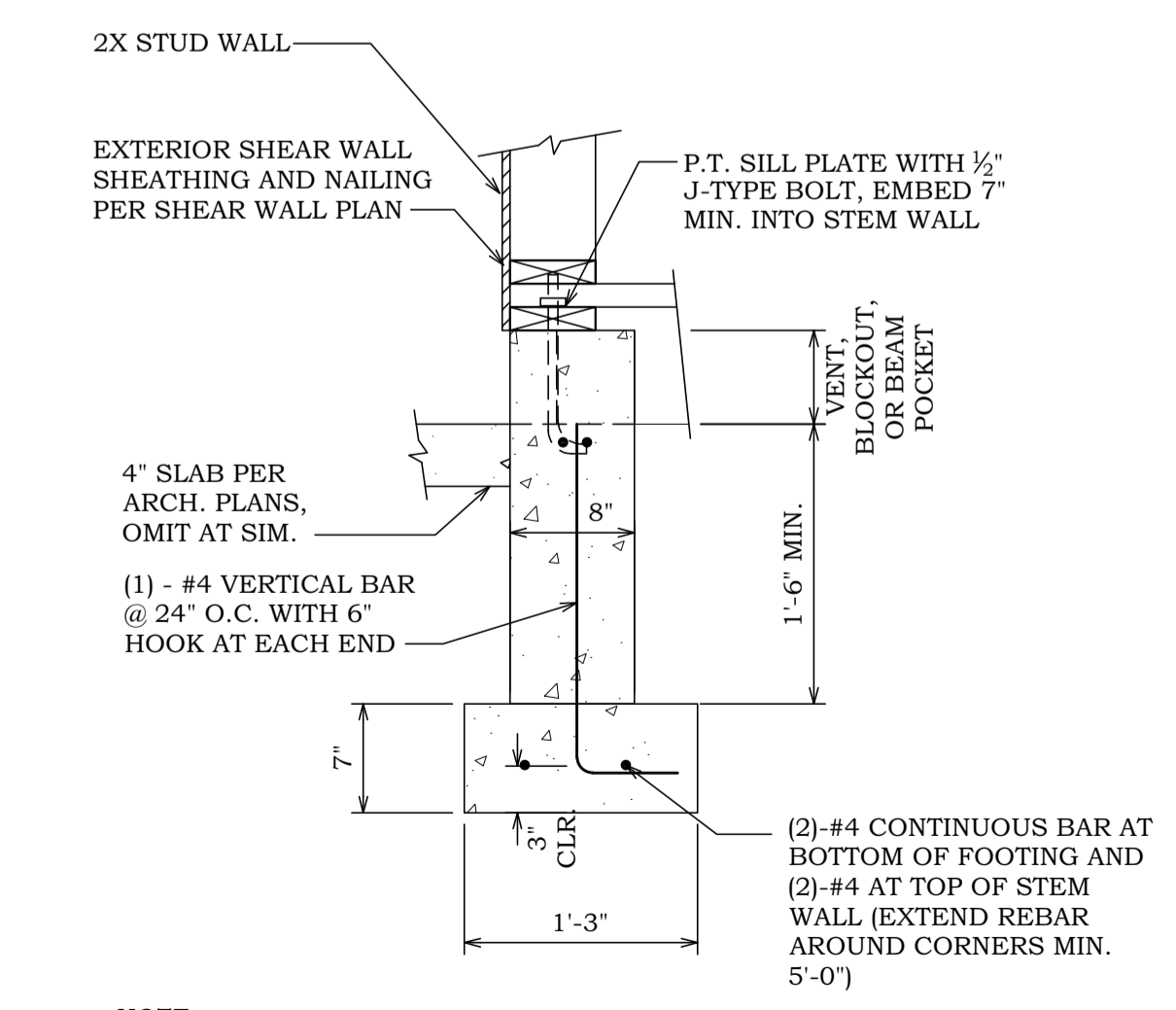
6 WALL SECTION
 S2 SCALE: 1" = 1'-0"



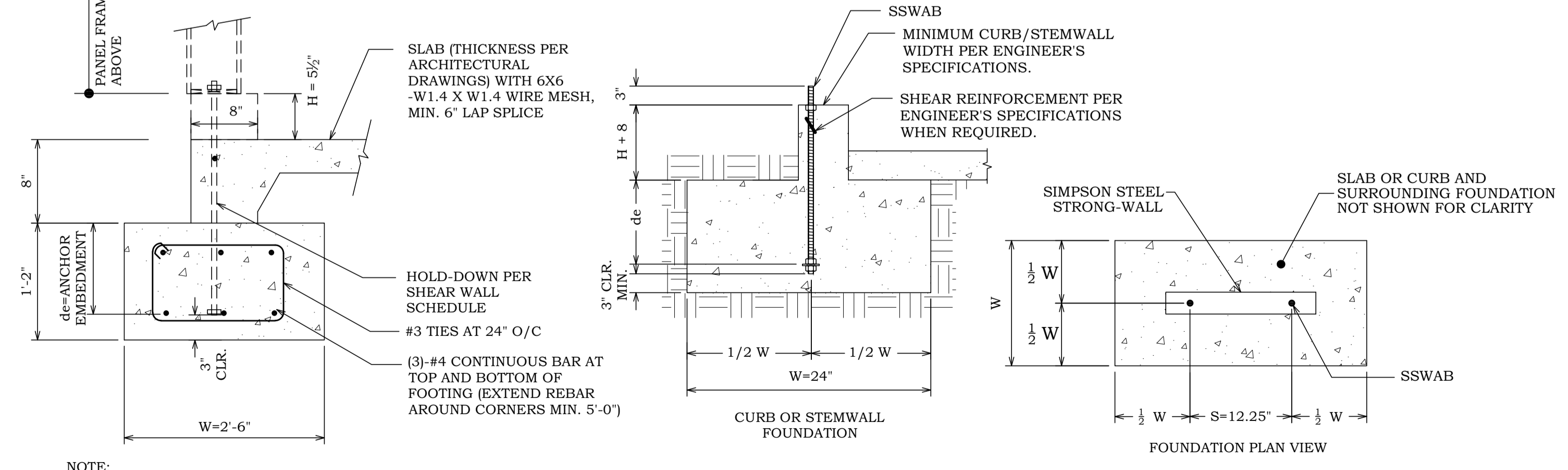
5 WALL SECTION
 S2 SCALE: 1" = 1'-0"



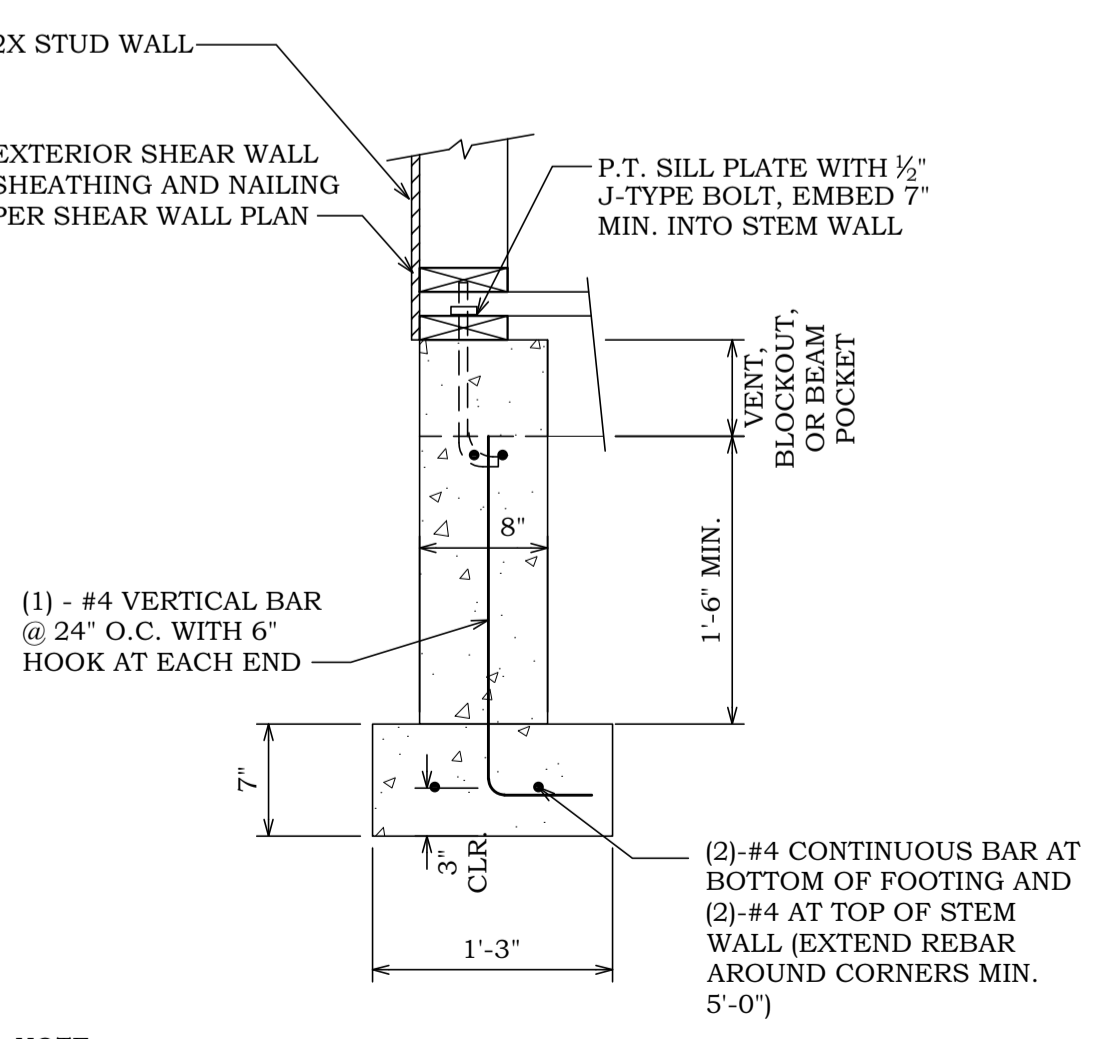
4 FOOTING SECTION
 S2.0 SCALE: 1" = 1'-0"



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



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



1 FOOTING SECTION
 S2.0 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.

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

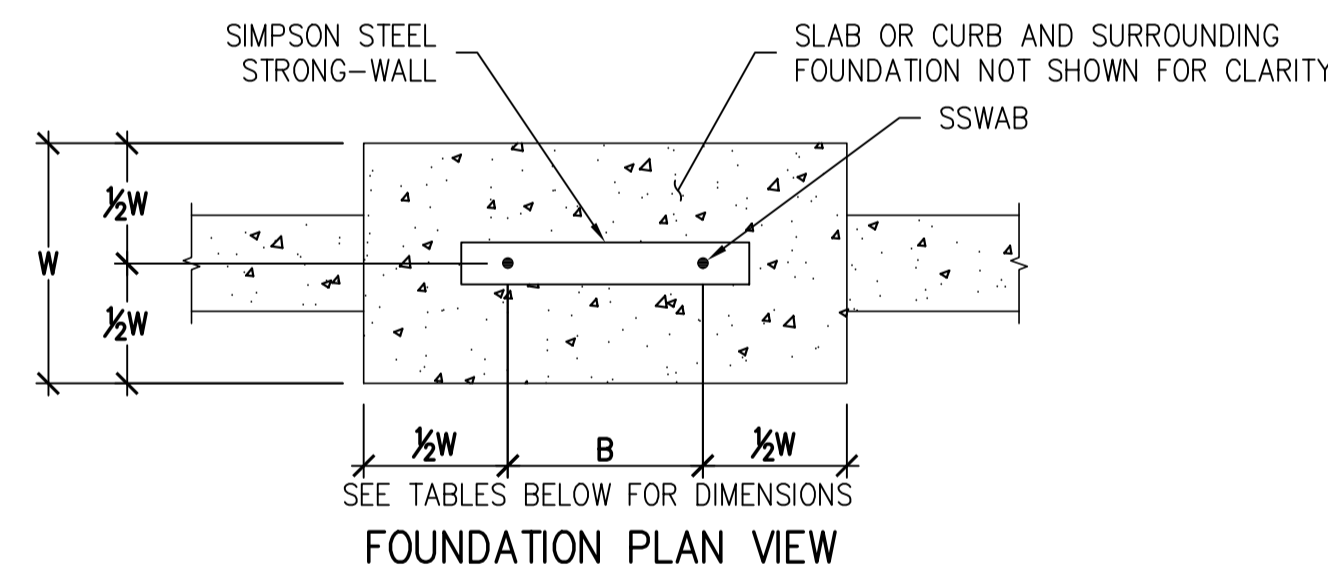
NOTE:
 1. FOOTING TO BE PLACED ON UNDISTURBED NATIVE SOIL.
 2. REFER TO SHEAR WALL SCHEDULE SILL BOLT SPACING AT SHEAR WALL LOCATIONS.

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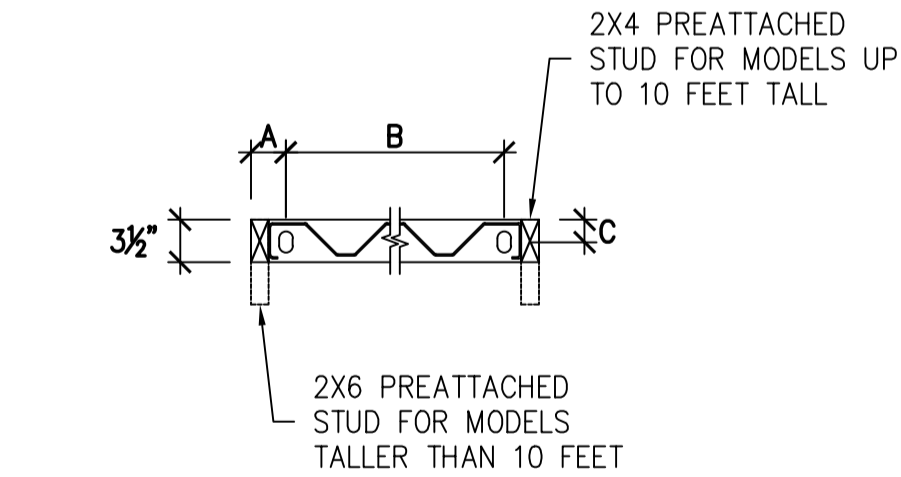
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By Alina at 11:46 am, Sep 15, 2021

STEEL STRONG-WALL ANCHORAGE – TYPICAL SECTIONS



STEEL STRONG-WALL ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	SSWAB 1" ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	de (in)
SEISMIC	CRACKED	STANDARD	16,100	33	11
		HIGH STRENGTH	17,100	35	12
	UNCRAKED	STANDARD	33,000	51	17
		HIGH STRENGTH	35,300	54	18
WIND	CRACKED	STANDARD	15,700	28	10
		HIGH STRENGTH	17,100	30	10
		STANDARD	32,300	44	15
		HIGH STRENGTH	35,300	47	16
	UNCRAKED	STANDARD	6,200	16	6
		HIGH STRENGTH	11,400	24	8
		STANDARD	17,100	32	11
		HIGH STRENGTH	21,100	36	12
WIND	CRACKED	STANDARD	27,300	42	14
		HIGH STRENGTH	31,800	46	16
		HIGH STRENGTH	35,300	50	17
	UNCRAKED	STANDARD	6,400	14	6
		HIGH STRENGTH	12,500	22	8
		HIGH STRENGTH	17,100	28	10



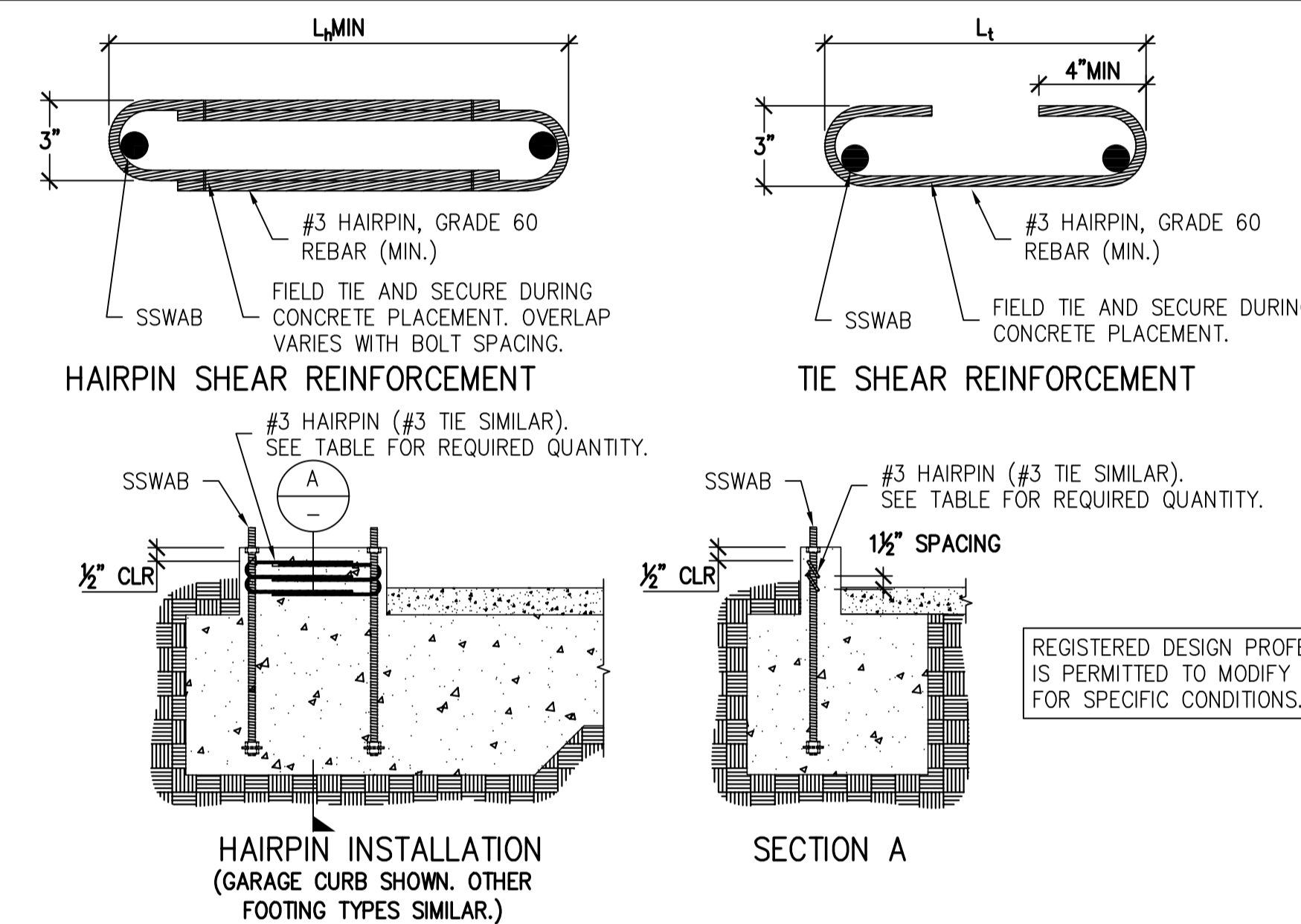
STEEL STRONG-WALL® ANCHOR BOLT LAYOUT

WALL MODEL	DISTANCE FROM END OF WALL TO CENTER OF SSWABs (A) (in.)	DISTANCE FROM CENTER TO CENTER OF SSWABs (B) (in.)	DISTANCE FROM CENTER OF WALL TO CENTER OF ALL SSWABs (C) (in.)
SSW15	2 3/4"	9 1/4"	1 1/2"

- NOTES:
- ANCHORAGE DESIGNS CONFORM TO ACI 318-14 AND ACI 318-11 APPENDIX D WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
 - ANCHOR STRENGTH INDICATES REQUIRED GRADE OF SSWAB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
 - SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-11 SECTION D.3.3.4.
 - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
 - FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.
 - REFER TO 1/SSW1 FOR de.

SSWAB TENSION ANCHORAGE SCHEDULE 2500 PSI

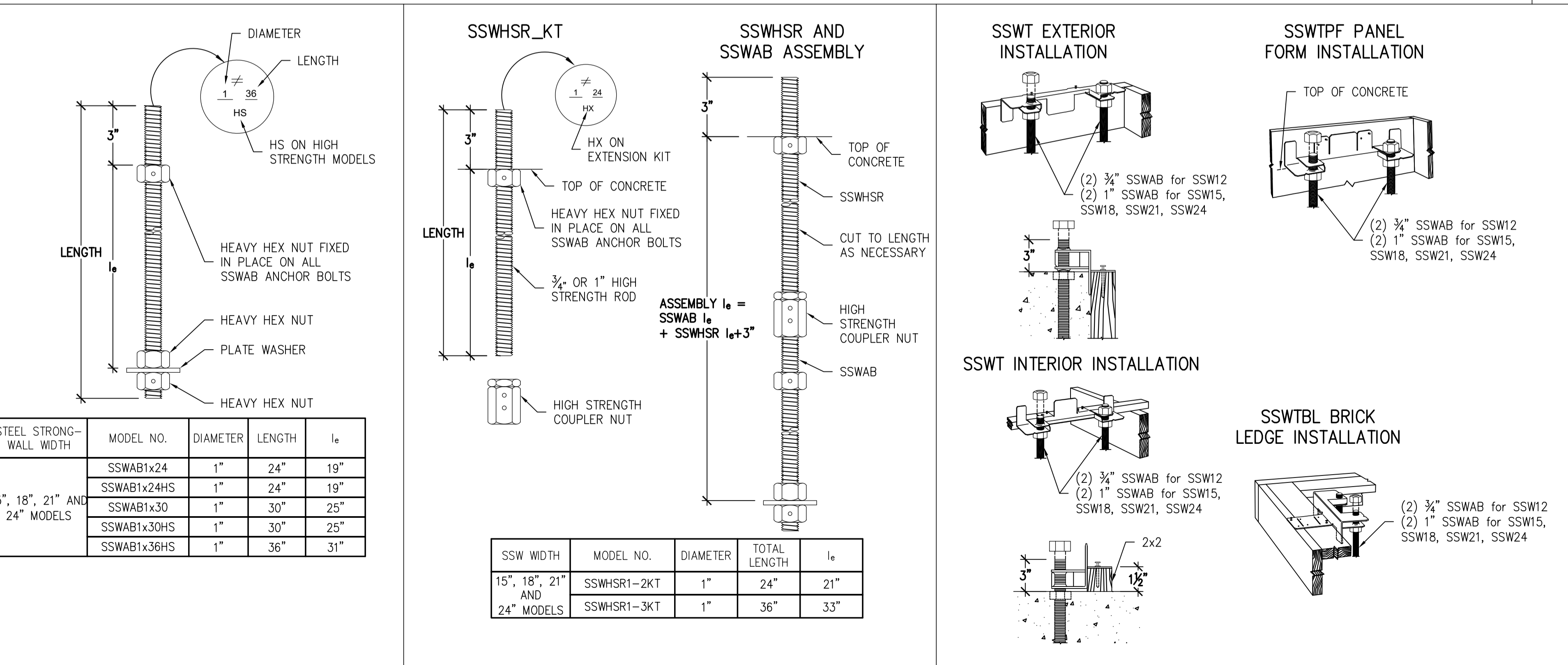
2



MODEL	SEISMIC ³				WIND ⁴			
	L _t OR L _h (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	ASD ALLOWABLE SHEAR LOAD V (lbs.) ⁶			
					6" MIN CURB/STEMWALL	8" MIN CURB / STEMWALL	UNCRAKED	CRACKED
SSW15	12	(2) #3 TIES	6	NONE REQUIRED	1590	1135	1810	1295

- NOTES:
- SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-14 AND ACI 318-11 AND ASSUME MINIMUM f_c=2,500 PSI CONCRETE. SEE DETAILS 1/SSW1 TO 3/SSW1 FOR TENSION ANCHORAGE.
 - SHEAR REINFORCEMENT IS NOT REQUIRED FOR PANELS INSTALLED ON A WOOD FLOOR, INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.
 - SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
 - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.
 - MINIMUM CURB/STEMWALL WIDTH IS 6" WHEN STANDARD STRENGTH SSWAB IS USED.
 - USE (1) #3 TIE FOR SSW12 AND SSW15 WHEN THE STEEL STRONG-WALL PANEL DESIGN SHEAR FORCE EXCEEDS THE TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
 - CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-14 SECTION 17.7.2 AND ACI 318-11 D.8.2.

STEEL STRONG-WALL ANCHOR BOLT SHEAR ANCHORAGE



STEEL STRONG-WALL WIDTH	MODEL NO.	DIAMETER	LENGTH	l _e
15", 18", 21" AND 24" MODELS	SSWAB1x24	1"	24"	19"
	SSWAB1x24HS	1"	24"	19"
	SSWAB1x30	1"	30"	25"
	SSWAB1x30HS	1"	30"	25"
	SSWAB1x36HS	1"	36"	31"

SSW WIDTH	MODEL NO.	DIAMETER	TOTAL LENGTH	l _e
15", 18", 21" AND 24" MODELS	SSWHR1-2KT	1"	24"	21"
	SSWHR1-3KT	1"	36"	33"

SSW ANCHOR BOLTS

5

SSW ANCHOR BOLT EXTENSION

6

SSW ANCHOR BOLT TEMPLATES

7

NO.	DATE	REVISIONS
1	09-21-2009	2006 IBC REVISIONS
2	04-16-2014	2012 IBC REVISIONS
3	08-08-2016	2015 IBC REVISIONS
4	06-18-2020	2018 IBC REVISIONS

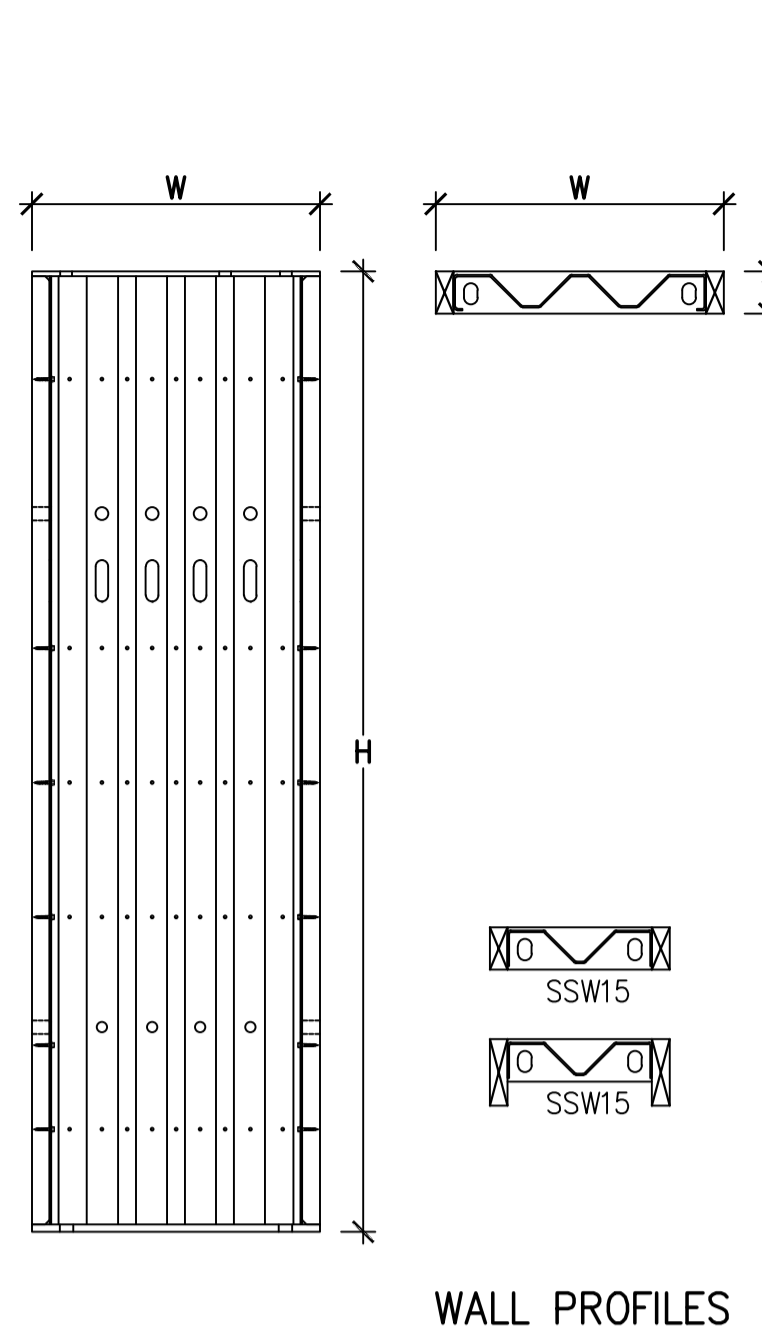
SIMPSON Strong-Tie Co. Inc.
 5956 W. Las Positas Blvd.
 Pleasanton, CA 94588
 Tel: (800) 999-5099
 Website: www.strongtie.com

THIS IS NO EQUAL

STEEL STRONG-WALL ANCHORAGE DETAILS ENGINEERED DESIGNS

SIMPSON Strong-Tie
 THIS IS NO EQUAL

NAME	
DATE	6-18-2020
SCALE	N.T.S.
CHECKED	
SHEET	SSW1
OF SHEETS	
JOB NO.	

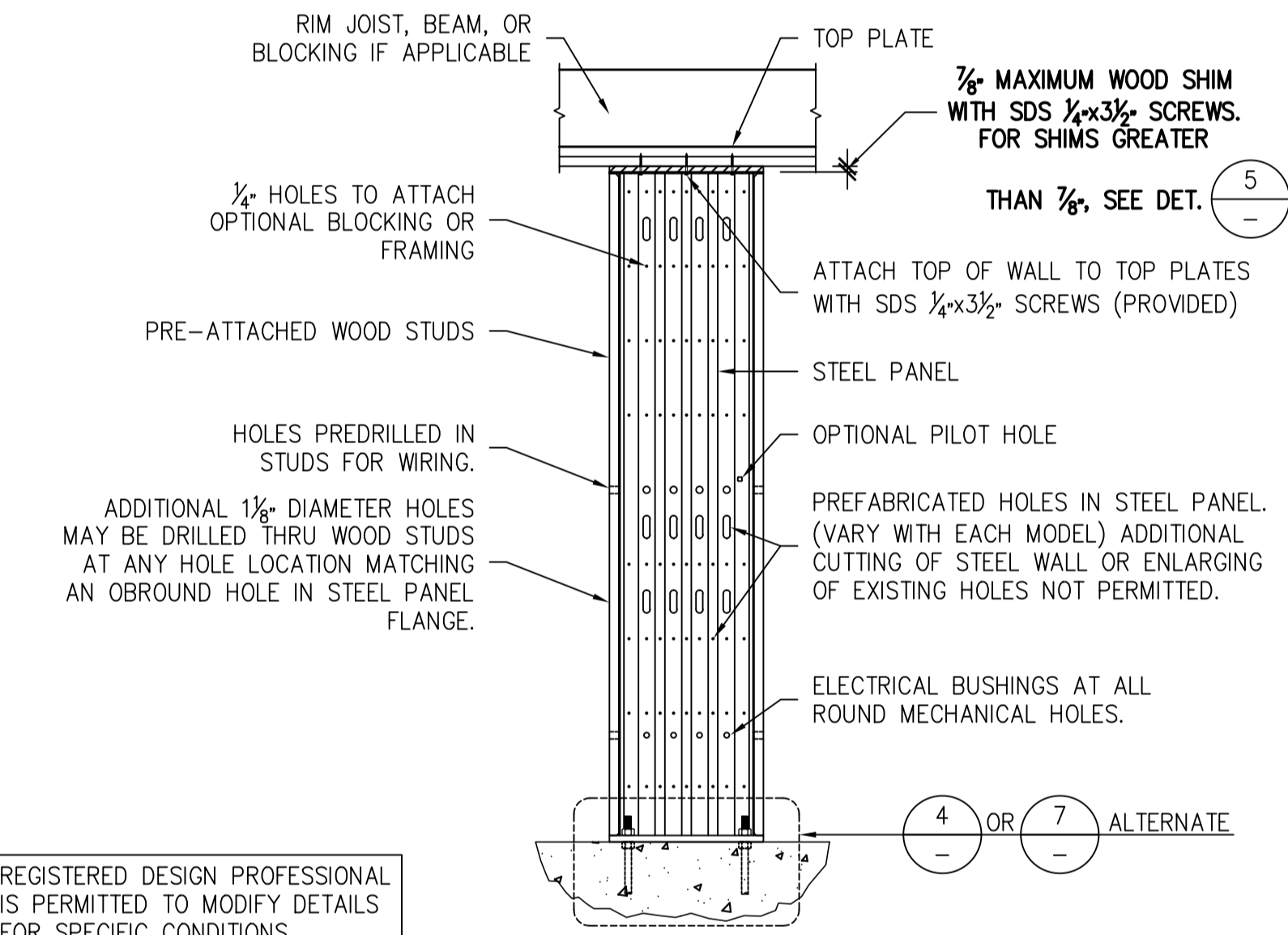


STEEL STRONG-WALL MODELS					
STD. WALL MODEL NO.	-STK WALL MODEL NO.	H(in)	T(in)	HOLDOWN ANCHOR BOLTS?	QTY. OF TOP OF WALL SCREWS ¹
SSW15x8	SSW15x8-STK	93/4	3 1/2	2-1"	6

TABLE NOTES:
 1. SDS 1/4"x3/8" SCREWS PROVIDED WITH WALL.
 2. SEE SHEET SSW1 FOR ANCHORAGE SOLUTIONS.

STEEL STRONG-WALL MODELS

1



REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

SINGLE-STORY SSW ON CONCRETE

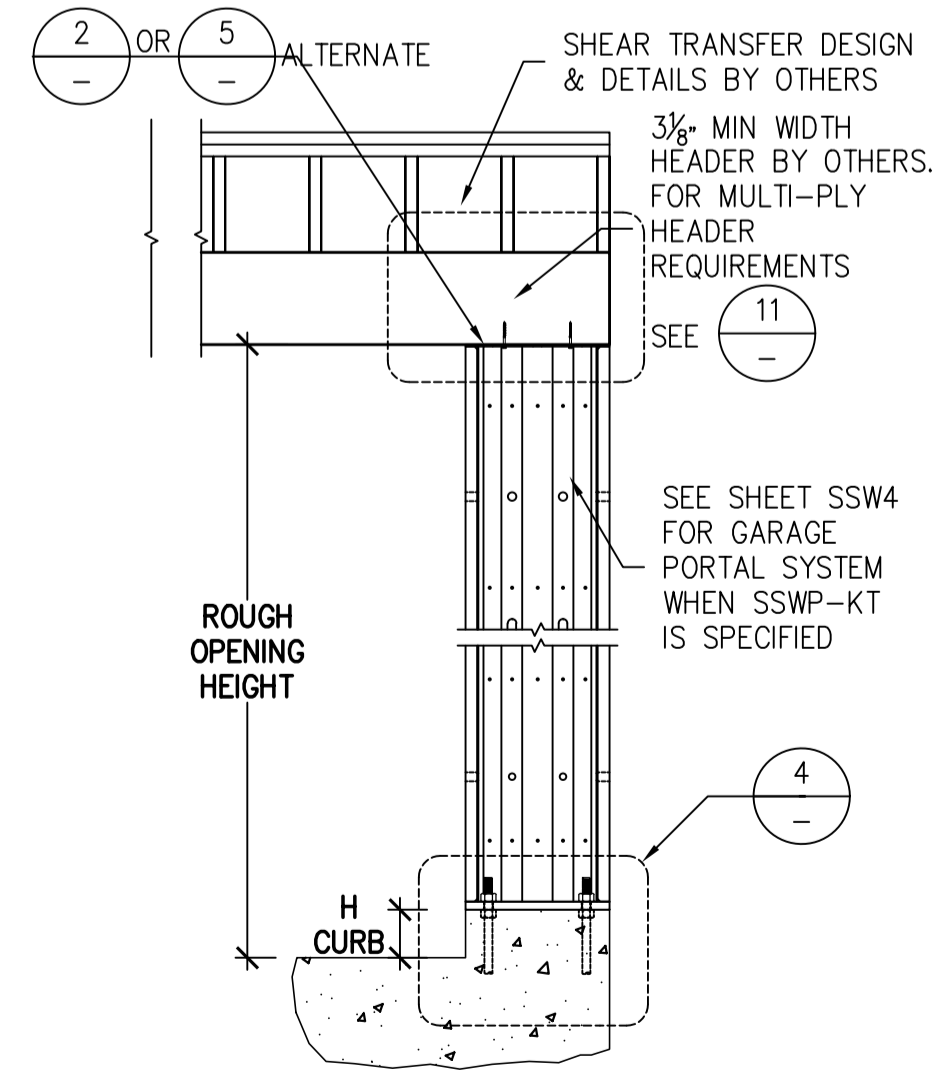
2

GARAGE HEADER ROUGH OPENING HEIGHT

MODEL NO.	H CURB	ROUGH OPENING HEIGHT
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	5 1/2"	7'-1 1/2"
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	6"	7'-2"
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	5 1/2"	8'-2 3/4"
SSW12X7 SSW15X7 SSW18X7 SSW21X7 SSW24X7	6"	8'-3 3/4"

- THE HEIGHT OF THE GARAGE CURB ABOVE THE GARAGE SLAB IS CRITICAL FOR THE ROUGH HEADER OPENING AT GARAGE RETURN WALLS.
- SHIMS ARE NOT PROVIDED WITH STEEL STRONG-WALL.
- FURRING ON UNDERSIDE OF GARAGE HEADER MAY BE NECESSARY FOR LESSER ROUGH OPENING HEIGHTS.

REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



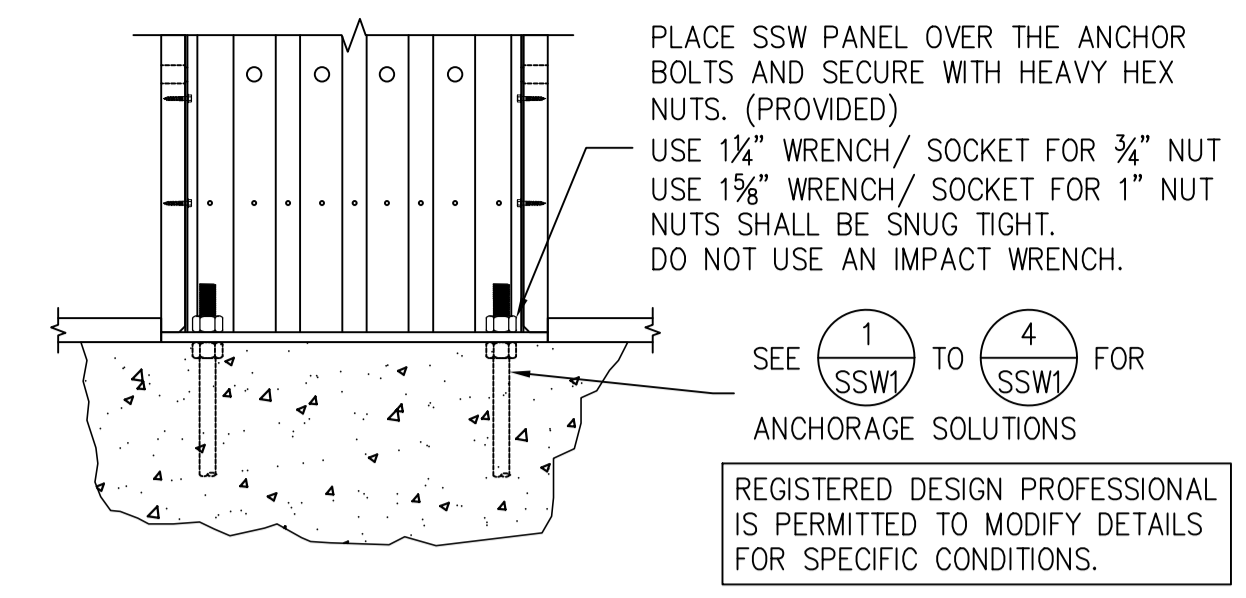
GARAGE WALL OPTION 2 FOR GARAGE WALL OPTION 2

NOTE:
 7-FT. HIGH STEEL STRONG-WALL MODELS ARE 80", 2" TALLER THAN 7-FT. HIGH WOOD STRONG-WALL SHEARWALLS

REGISTERED DESIGN PROFESSIONAL SHALL DESIGN FOR:
 1. SHEAR TRANSFER
 2. OUT OF PLANE LOADING EFFECT
 3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT.

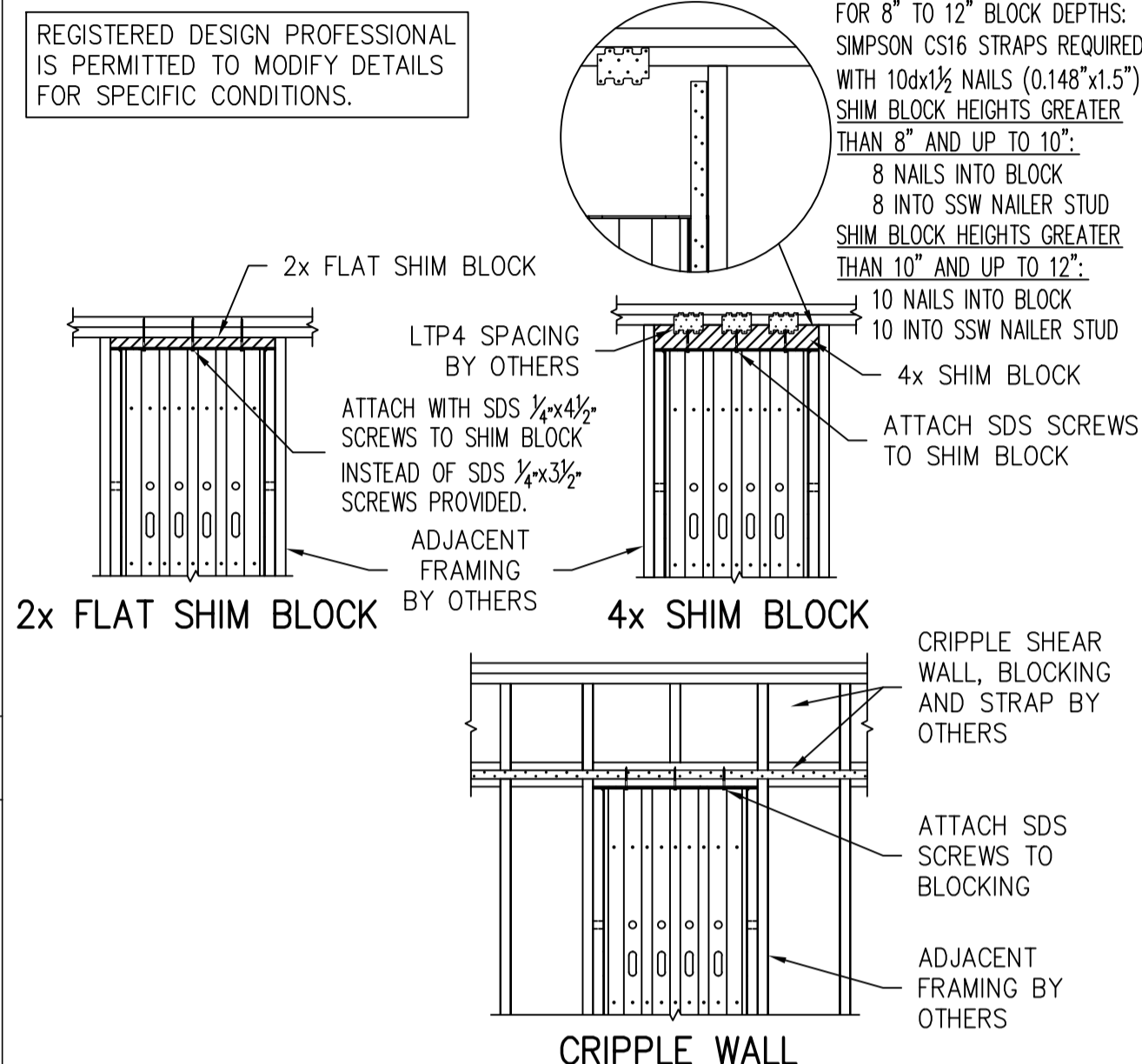
ALTERNATE GARAGE WALL OPTIONS

3



STRONG-WALL ON CONCRETE

4



REGISTERED DESIGN PROFESSIONAL SHALL DESIGN FOR:
 1. SHEAR TRANSFER
 2. OUT OF PLANE LOADING EFFECT
 3. INCREASED OVERTURNING AND DRIFT DUE TO ADDITIONAL HEIGHT.

TOP OF WALL HEIGHT ADJUSTMENTS

5

RECEIVED
 By Alina at 11:46 am, Sep 15, 2021

- STEEL STRONG-WALL SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY, INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY, INC." IS AN ISO 9001 REGISTERED COMPANY.
- USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
- THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE SPECIFIER.
- ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STEEL STRONG-WALL SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE SPECIFIER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
- INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE SPECIFIER.
- SIMPSON STRONG-TIE COMPANY, INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
- ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.

NOTES

12

City of Portland
 REVIEWED FOR
 CODE COMPLIANCE
 Date: 11/09/21
 Permit #: 21-060137-00-00-05

NO.	DATE	REVISIONS
1	09-21-2009	2006 IBC REVISIONS
2	04-16-2014	2012 IBC REVISIONS
3	08-08-2016	2015 IBC REVISIONS
4	06-18-2020	2018 IBC REVISIONS

SIMPSON Strong-Tie Co. Inc.
 • 5956 W. Las Positas Blvd.
 Pleasanton, CA 94588
 • Tel: (800) 999-5099
 • Website: www.strongtie.com

REGISTERED DESIGN PROFESSIONAL
STEEL STRONG-WALL FRAMING DETAILS
 ENGINEERED DESIGNS

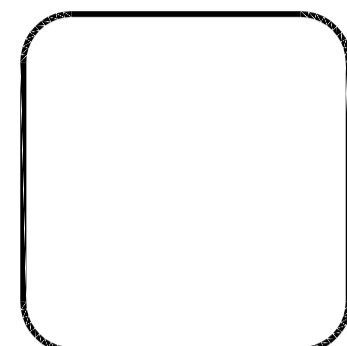
THIS IS NO EQUAL

SIMPSON Strong-Tie Co. Inc.
 REGISTERED DESIGN PROFESSIONAL
STEEL STRONG-WALL FRAMING DETAILS
 ENGINEERED DESIGNS

THIS IS NO EQUAL

NAME	
DATE	6-18-2020
SCALE	N.T.S.
CHECKED	
SHEET	SSW2
OF SHEETS	
JOB NO.	

NO.	DATE	REVISIONS
0	09-21-2009	FIRST RELEASE
1	04-16-2014	2013 IBC REVISIONS
2	08-08-2016	2015 IBC REVISIONS
3	06-18-2020	2018 IBC REVISIONS



SIMPSON Strong-Tie, Co. Inc.
 • 5956 W. Las Positas Blvd.
 Pleasanton, CA 94588
 • Tel: (800) 999-5099
 • Website: www.strongtie.com



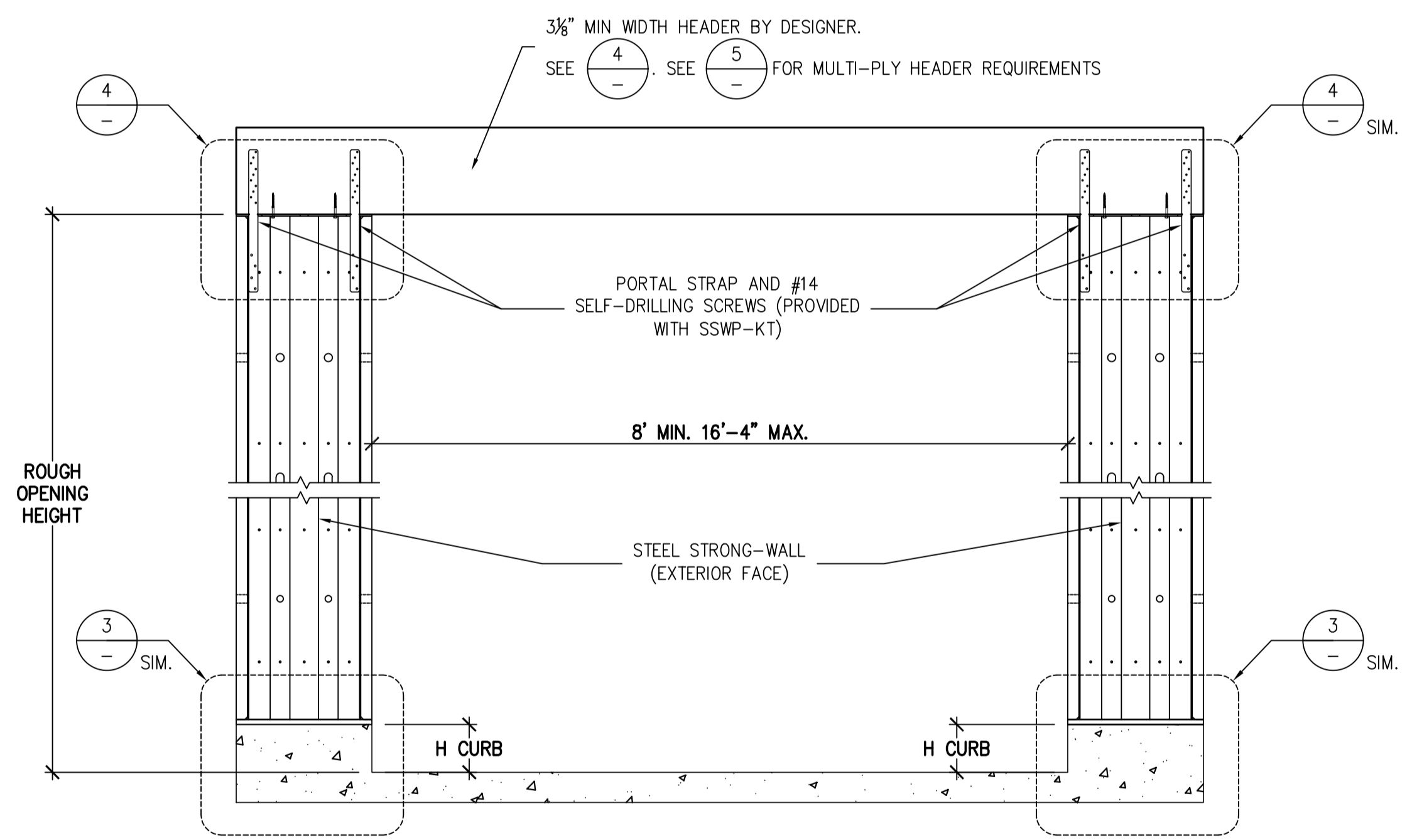
STEEL STRONG-WALL
 PORTAL SYSTEM FRAMING DETAILS
 ENGINEERED DESIGNS



NAME	
DATE	6-18-2020
SCALE	N.T.S.
CHECKED	
SHEET	SSW4
OF SHEETS	
JOB NO.	

1

5



**GARAGE HEADER
 ROUGH OPENING HEIGHT**

MODEL NO.	H CURB	ROUGH OPENING HEIGHT
SSW15X7	5 1/2"	7'-1 1/2"
	6"	7'-2"

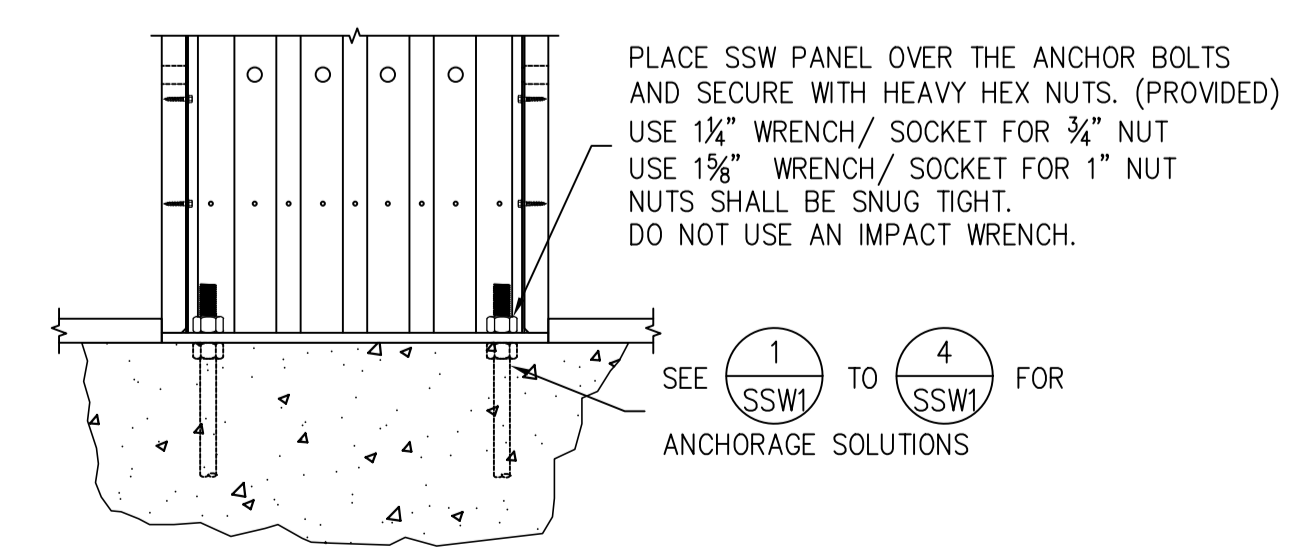
1. THE HEIGHT OF THE GARAGE CURB ABOVE THE GARAGE SLAB IS CRITICAL FOR THE ROUGH HEADER OPENING AT GARAGE RETURN WALLS.
2. SHIMS ARE NOT PROVIDED WITH STEEL STRONG-WALL.
3. FURRING DOWN GARAGE HEADER MAY BE NECESSARY FOR CORRECT ROUGH OPENING HEIGHT.

1. STEEL STRONG-WALL SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY, INC." "HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY, INC." IS AN ISO 9001 REGISTERED COMPANY.
2. USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
3. THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE SPECIFIER.
4. ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
5. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STEEL STRONG-WALL SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE SPECIFIER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE SPECIFIER.
7. SIMPSON STRONG-TIE COMPANY, INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
8. ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.

STEEL STRONG-WALL DOUBLE WALL PORTAL

2

6

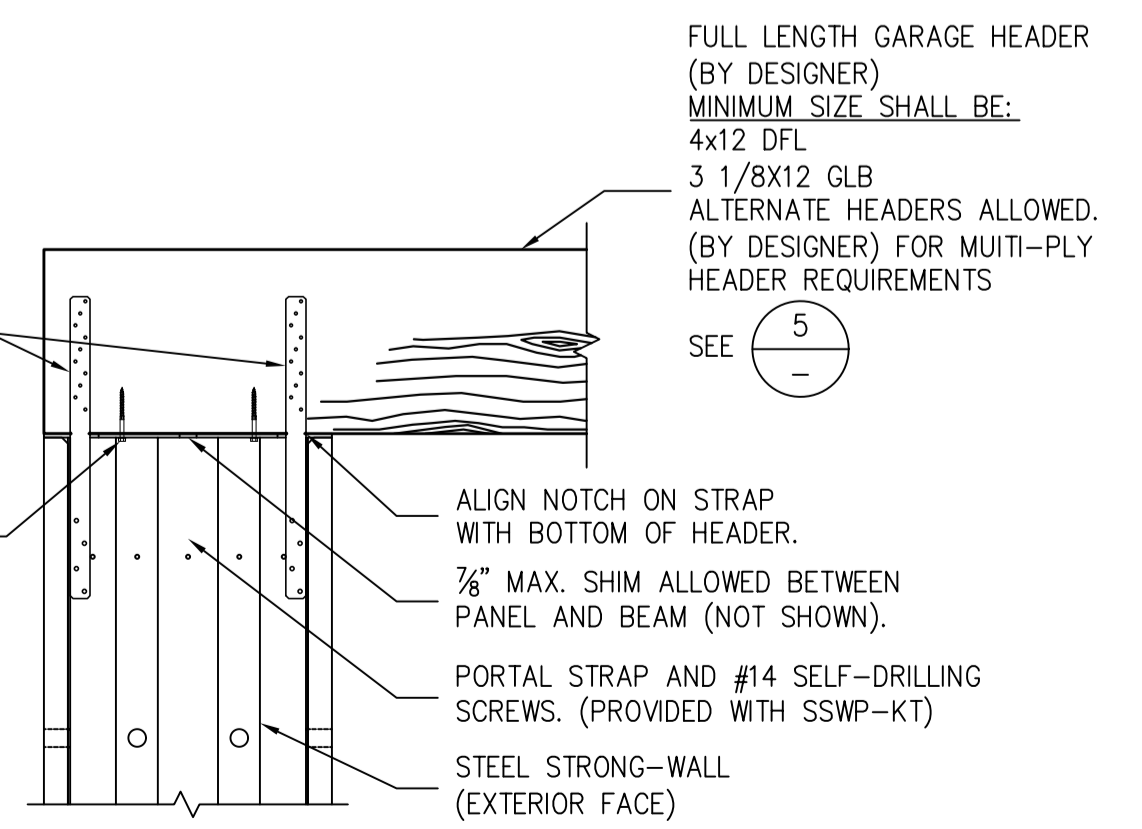


REGISTERED DESIGN PROFESSIONAL IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

NOTE :
 LOAD PATH DESIGN AND DETAILS ABOVE HEADER TO BE PROVIDED BY DESIGNER.

FIELD NAIL PORTAL STRAP TO HEADER WITH (10) 10dX2 1/2" MIN. NAILS.
 FASTEN STRAP TO PANEL WITH (4) #14 SELF-DRILLING SCREWS. (SCREWS PROVIDED WITH SSWP-KT)

NOTE :
 STRAPS MUST BE INSTALLED ON EXTERIOR FACE OF SSW PANEL. POSITION HEADER FLUSH WITH EXTERIOR FACE OF SSW PANEL.



BASE PLATE CONNECTION

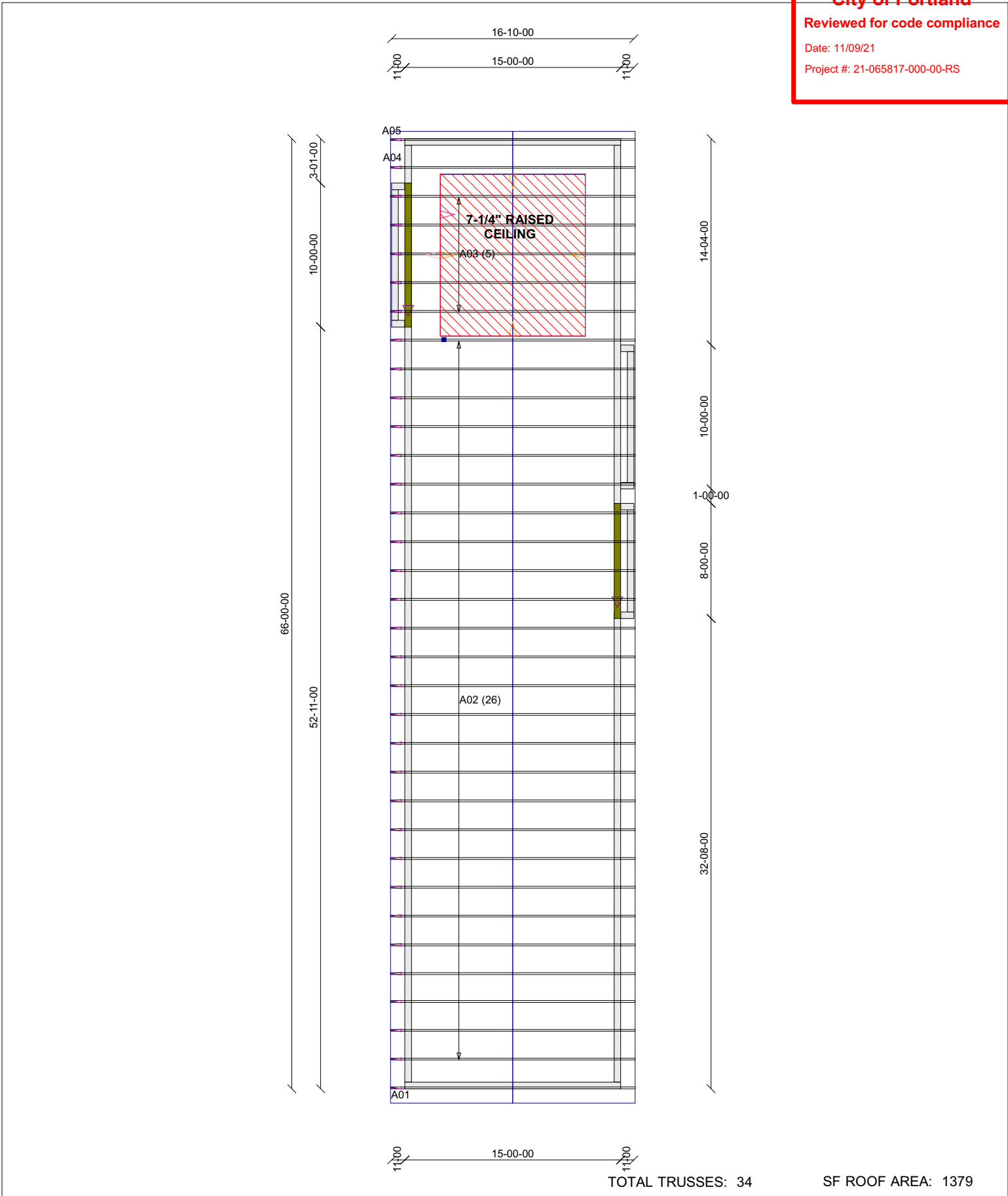
3

TOP OF WALL CONNECTION

4

RECEIVED
 By Aina at 11:46 am, Sep 15, 2021

City of Portland
 Reviewed for code compliance
 Date: 11/09/21
 Project #: 21-065817-000-00-RS



TOTAL TRUSSES: 34

SF ROOF AREA: 1379

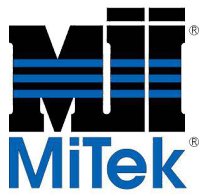


(360)750-1470 Vancouver
 (503)285-2615 Portland
 (360)750-1493 Fax
 1-877-TRUSWAY Toll Free
 3901 NE 68th Street
 Vancouver, WA 98661

CUSTOMER: PARR LUMBER ROCKWOOD
 JOB NAME: Sentaur
 PLAN: 2153-B1 GABLE
 JOB NUMBER: 214150
 SALESMAN: GREG MARTIN

PITCH: 8/12
 OVERHANGS: 1' - 0"
 LOADING: 25-7-10
 WIND SPEED: 140
 BUILDING EXP: B

9/2/2021



City of Portland
 Reviewed for code compliance
 Date: 11/09/21
 Project #: 21-065817-000-00-RS

MiTek USA, Inc.

250 Klug Circle
 Corona, CA 92880
 951-245-9525

Re: 214150-A
 Sentaur

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Trus-way Inc.

Pages or sheets covered by this seal: K9976757 thru K9976761

My license renewal date for the state of Oregon is December 31, 2021.



[Signature]
 RENEWAL DATE: 12-31-2021

RECEIVED
 By Alina at 11:43 am, Sep 15, 2021

July 20, 2021

Baxter, David

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Sentaur
214150-A	A01	Common Supported Gable	1	1	
					Job Reference (optional)

Truss-Way, Vancouver, WA - 98661, 8.430 s Jun 2 2021 MiTek Industries, Inc. Print Job 20-0658126-20210 Page 1
 ID:YT96x7oEqWmQPJV5iUc2VKyyACK-f_VboLpq6BV02t_UIMAwttZg8iKzZXfI8kkFYFyArB
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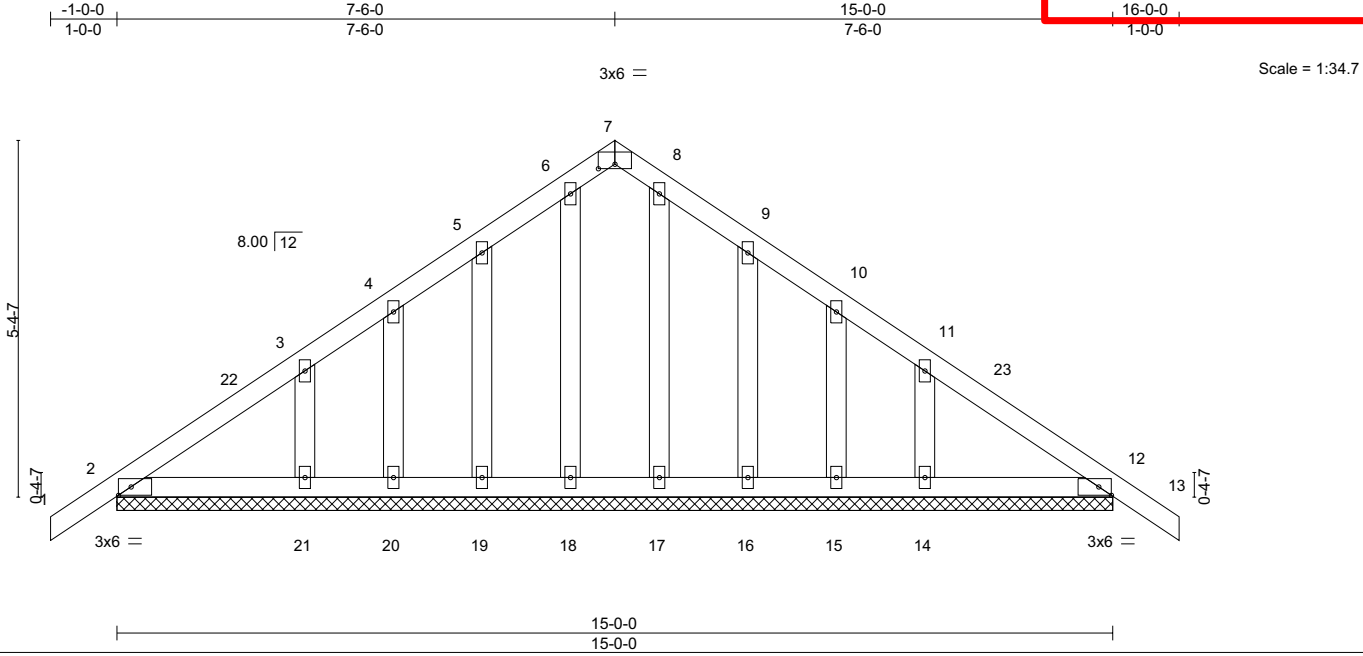


Plate Offsets (X,Y)-- [2:0-2-4,Edge], [7:0-3-0,0-0-13], [12:0-2-4,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	220/195
Snow (Pf/Pg) 20.8/30.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 12 n/r 120		
TCDL 7.0	Lumber DOL 1.15	WB 0.05	Vert(CT) 0.00 13 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 83 lb	FT = 8%

LUMBER-
 TOP CHORD 2x4 DF No.1&Btr G
 BOT CHORD 2x4 DF No.1&Btr G
 OTHERS 2x4 DF Stud/Std G

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 15-0-0.
 (lb) - Max Horz 2=-131(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 17, 16, 15, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 4-6-0, Corner(3R) 4-6-0 to 10-6-0, Exterior(2N) 10-6-0 to 13-0-0, Corner(3E) 13-0-0 to 16-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Plates checked for a plus or minus 4 degree rotation about its center.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.
 - One RT7 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, 19, 20, 21, 16, 15, and 14. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



RENEWAL DATE: 12-31-2021
 July 20,2021

Job	Truss	Truss Type	Qty	Ply	Sentaur
214150-A	A02	Common	26	1	

Truss-Way, Vancouver, WA - 98661, 8.430 s Jun 2 2021 MiTek Industries, Inc. **Printed 20-06-2021 10:28:20 Page 1**
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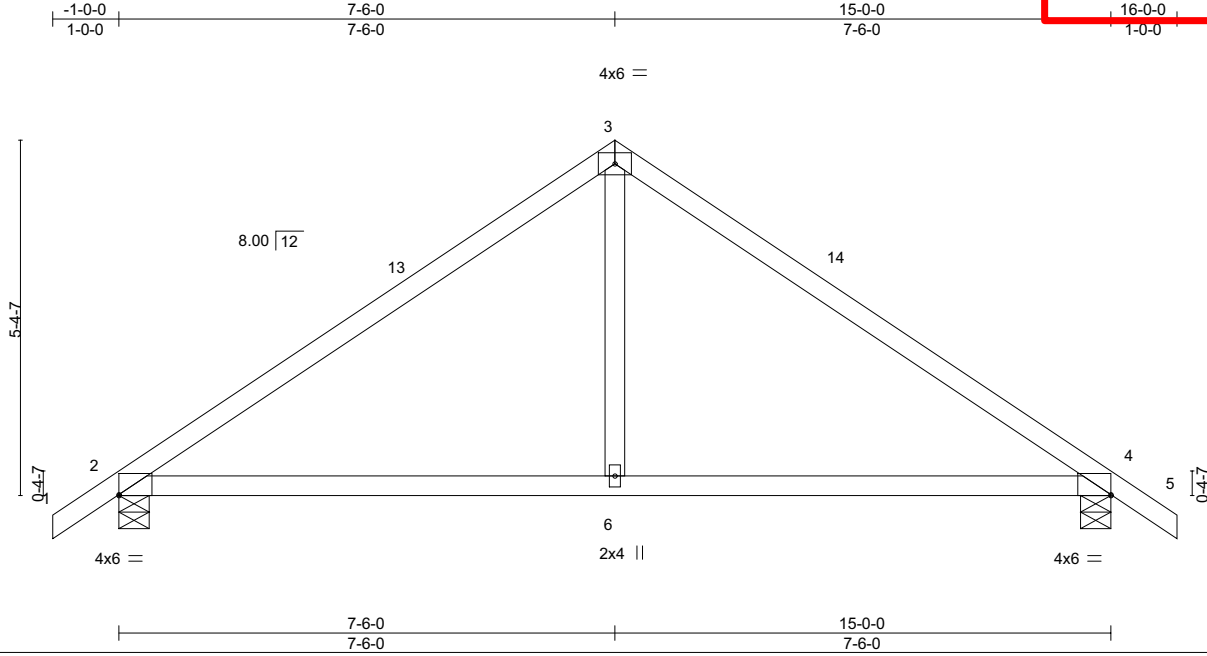


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [4:0-0-0,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.51	in (loc) l/defl L/d	MT20	220/195
Snow (Pf/Pg) 20.8/30.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.10 6-12 >999 240		
TCDL 7.0	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.23 6-12 >782 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014		Wind(LL) 0.06 6-12 >999 360	Weight: 56 lb	FT = 8%

LUMBER-
 TOP CHORD 2x4 DF No.1&Btr G
 BOT CHORD 2x4 DF No.1&Btr G
 WEBS 2x4 DF Stud/Std G

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 4=0-5-8
 Max Horz 2=131(LC 11)
 Max Uplift 2=-140(LC 12), 4=-140(LC 12)
 Max Grav 2=694(LC 2), 4=694(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-775/189, 3-4=-775/189
 BOT CHORD 2-6=-2/545, 4-6=-2/545
 WEBS 3-6=0/353

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-6-0, Exterior(2R) 4-6-0 to 10-6-0, Interior(1) 10-6-0 to 13-0-0, Exterior(2E) 13-0-0 to 16-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
 - Plates checked for a plus or minus 4 degree rotation about its center.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.
 - One RT7 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



RENEWAL DATE: 12-31-2021
 July 20, 2021

Job 214150-A	Truss A03	Truss Type Roof Special	Qty 5	Ply 1	Sentaur
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City of Portland
Reviewed for code compliance

Date: 11/09/21

Quality Truss, Redmond OR. 97756, Mitek 8.430 s May 12 2021 MiTek Industries, Inc. Tue Jul 20 16:50:04 2021 Page 1
ID:YT96x7oEqWmQPJV5iUc2VKyyACK-QaW7XEfmka3BN7UYpweAUwVY8RFX9PjVA

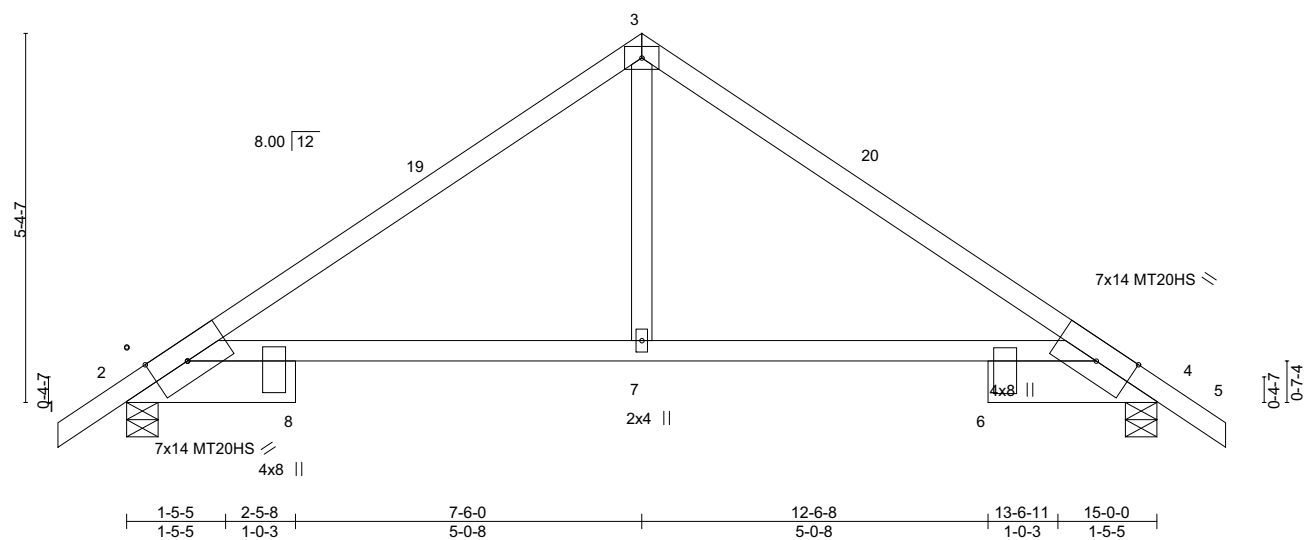
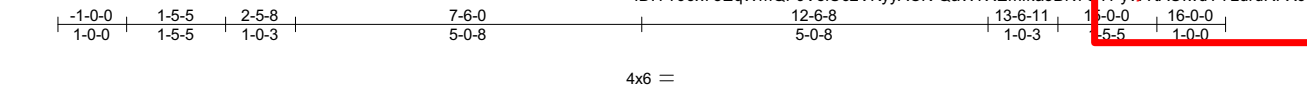


Plate Offsets (X,Y)-- [2:0-6-8,Edge], [2:0-2-8,0-10-10], [2:0-2-5,0-10-10], [4:0-6-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.47	in (loc) l/defl L/d	MT20	220/195
Snow (Pf/Pg) 20.8/30.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.13 7-16 >999 240	MT20HS	165/146
TCDL 7.0	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.31 7-16 >573 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.16 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014		Wind(LL) 0.09 7-16 >999 360	Weight: 66 lb	FT = 8%

LUMBER-	BRACING-
TOP CHORD 2x4 DF No.1&Btr G	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x8 DF SS *Except* 2-4: 2x4 DF No.1&Btr G	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 DF Stud/Std G	

REACTIONS. (size) 2=0-5-8, 4=0-5-8
 Max Horz 2=131(LC 11)
 Max Uplift 2=-143(LC 12), 4=-143(LC 2)
 Max Grav 2=689(LC 2), 4=689(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-19=-789/171, 3-19=-698/185, 3-20=-691/182, 4-20=-781/168
 BOT CHORD 2-8=0/594, 7-8=0/594, 6-7=0/594, 4-6=0/594
 WEBS 3-7=0/386

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TC DL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-6-0, Exterior(2R) 4-6-0 to 10-6-0, Interior(1) 10-6-0 to 13-0-0, Exterior(2E) 13-0-0 to 16-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
 - All plates are MT20 plates unless otherwise indicated.
 - Plates checked for a plus or minus 4 degree rotation about its center.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.
 - One RT7 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



RENEWAL DATE: 12-31-2021
July 20, 2021

Job	Truss	Truss Type	Qty	Ply	Sentaur	Job Reference (optional)
214150-A	A04	Common	1	1		

Truss-Way, Vancouver, WA - 98661, 8.430 s Jun 2 2021 MiTek Industries, Inc. File: 20-06581320210 Page 1
 ID: YT96x7oEqWmQPJV5iUc2VKyyACK-T8ss3Oubi1F_m Re5dHK68pcj7HXzCIBXgBZlvywAr5
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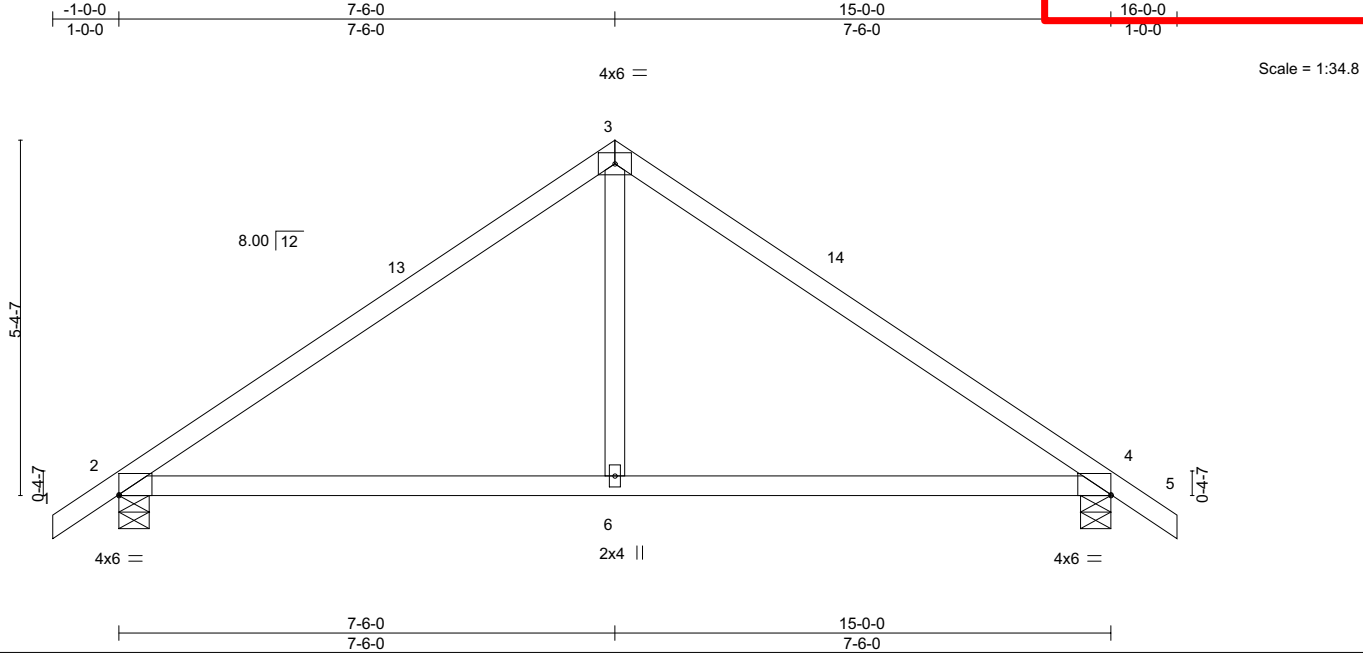


Plate Offsets (X,Y)-- [2:0-0-0,0-0-3], [4:0-0-0,0-0-3]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.51	in (loc) l/defl L/d	MT20	220/195
Snow (Pf/Pg) 20.8/30.0	Plate Grip DOL 1.15	BC 0.41	Vert(LL) -0.10 6-12 >999 240		
TCDL 7.0	Lumber DOL 1.15	WB 0.14	Vert(CT) -0.23 6-12 >782 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014		Wind(LL) 0.06 6-12 >999 360	Weight: 56 lb	FT = 8%

LUMBER-	BRACING-
TOP CHORD 2x4 DF No.1&Btr G	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 DF No.1&Btr G	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 DF Stud/Std G	

REACTIONS. (size) 2=0-5-8, 4=0-5-8
 Max Horz 2=131(LC 11)
 Max Uplift 2=-140(LC 12), 4=-140(LC 12)
 Max Grav 2=694(LC 2), 4=694(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-775/189, 3-4=-775/189
 BOT CHORD 2-6=-2/545, 4-6=-2/545
 WEBS 3-6=0/353

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCDL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 4-6-0, Exterior(2R) 4-6-0 to 10-6-0, Interior(1) 10-6-0 to 13-0-0, Exterior(2E) 13-0-0 to 16-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
 - Plates checked for a plus or minus 4 degree rotation about its center.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - A plate rating reduction of 20% has been applied for the green lumber members.
 - One RT7 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



RENEWAL DATE: 12-31-2021
 July 20, 2021

Job 214150-A	Truss A05	Truss Type Common Supported Gable	Qty 1	Ply 1	Sentaur Job Reference (optional)
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Truss-Way, Vancouver, WA - 98661, 8.430 s Jun 2 2021 MiTek Industries, Inc. Print Job 20-0658139-20210 Page 1
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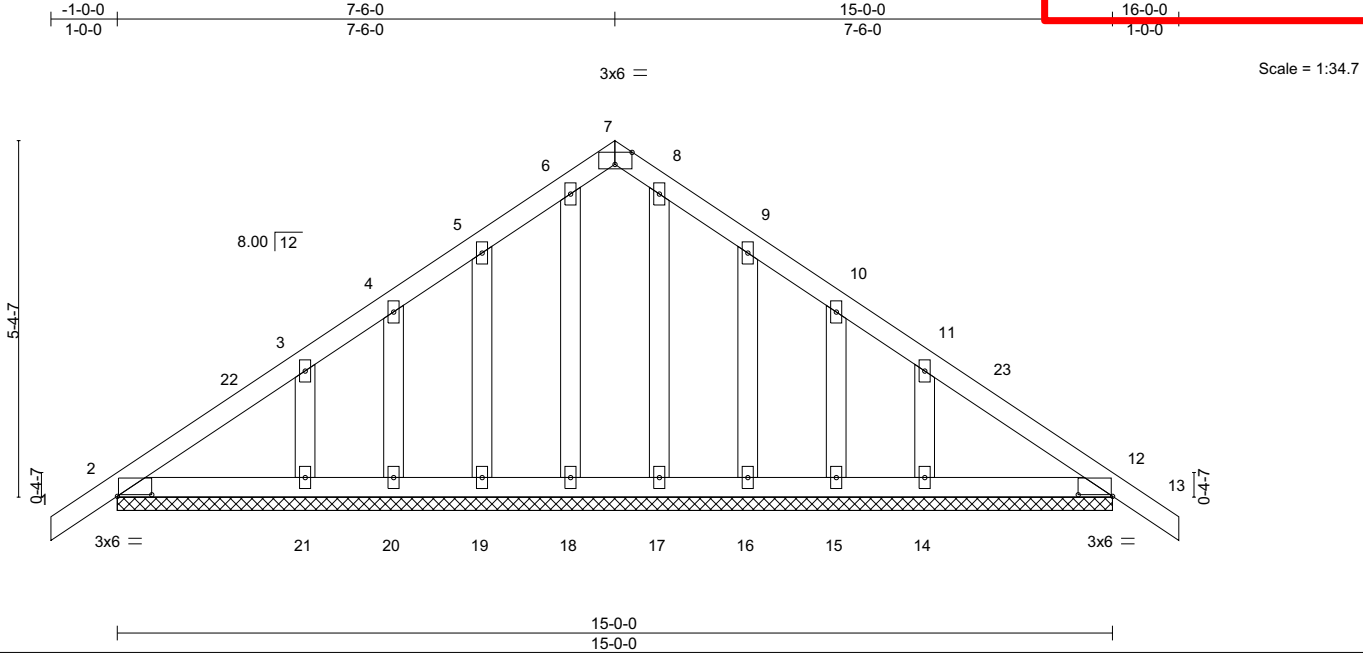


Plate Offsets (X,Y)-- [2:0-6-3,0-0-4], [7:0-3-1,Edge], [12:0-6-3,0-0-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL (roof) 25.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	220/195
Snow (Pf/Pg) 20.8/30.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) 0.00 12 n/r 120		
TCDL 7.0	Lumber DOL 1.15	WB 0.05	Vert(CT) 0.00 13 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 12 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 83 lb	FT = 8%

LUMBER-	BRACING-
TOP CHORD 2x4 DF No.1&Btr G	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 DF No.1&Btr G	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 DF Stud/Std G	

REACTIONS. All bearings 15-0-0.
 (lb) - Max Horz 2=-131(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 12, 19, 20, 21, 16, 15, 14
 Max Grav All reactions 250 lb or less at joint(s) 2, 12, 18, 19, 20, 21, 17, 16, 15, 14

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=140mph (3-second gust) Vasd=111mph; TCCL=4.2psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 4-6-0, Corner(3R) 4-6-0 to 10-6-0, Exterior(2N) 10-6-0 to 13-0-0, Corner(3E) 13-0-0 to 16-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=30.0 psf; Pf=20.8 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.8 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Plates checked for a plus or minus 4 degree rotation about its center.
 - 8) Gable requires continuous bottom chord bearing.
 - 9) Gable studs spaced at 1-4-0 oc.
 - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 12) A plate rating reduction of 20% has been applied for the green lumber members.
 - 13) One RT7 USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 12, 19, 20, 21, 16, 15, and 14. This connection is for uplift only and does not consider lateral forces.
 - 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

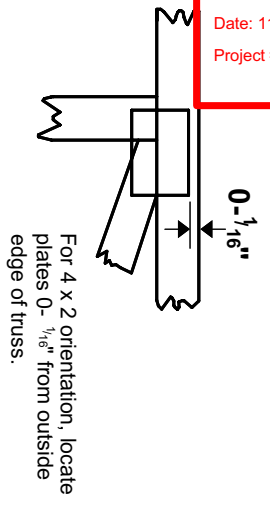


RENEWAL DATE: 12-31-2021
 July 20, 2021

Symbols

PLATE LOCATION AND ORIENTATION

Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



This symbol indicates the required direction of slots in connector plates.

* Plate location details available in **MITrak 20120 software** or upon request.

PLATE SIZE

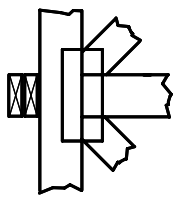
4 X 4
 The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

BEARING



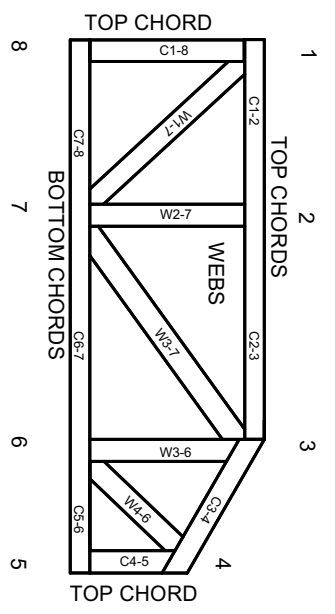
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-89: Design Standard for Bracing.
- BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

- ICC-ES Reports:
- ESR-1311, ESR-1352, ESR1988
- ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative 1 or 1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Gamber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

