

APPLIANCE PACKAGE & ENERGY CREDITS:

HEAT PUMP SPECS:

Make: MRCOOL
 Model: DIY-18-HPWMAH-230C25
 Energy Star Rated: HSPF 9

CREDITS CLAIMED

1.00

APPLIANCE SPECS.

Vent-less Dryer: Samsung DVE456100P
 Clothes Washer: Samsung WF45R6100AP
 Stove: Frigidaire FFEH3054U S/W/B
 Refrigerator: Frigidaire FFHB2750T D/S/P/E
 Dish Washer: Frigidaire FFID2426T D/S

0.50

Note: All Electric & Energy Star Rated

WATER HEATER SPECS.

Make: Rheem Model: RTEX-24
 Type: Electric Tank less

0.50

EFFICIENT BUILDING ENVELOPE:

TOTAL: 3.00 (Required 3.00)

Specification Sheets for all provided

CHAPTER 1: ADMINISTRATION

R101
 TITLE, SCOPE AND PURPOSE

- THIS COVERSHEET HAS BEEN PREPARED IN A GENERIC OUTLINE FORM FOLLOWING THE STANDARDS SET BY THE INTERNATIONAL RESIDENTIAL CODE (IRC), NOT ALL ITEMS ARE NECESSARILY REQUIRED TO COMPLETE THIS SPECIFIC PROJECT, COORDINATE PLANS WITH IRC.
- THIS SET OF WORKING DRAWINGS IS CONSIDERED A "BUILDER SET" AND DOES NOT INCLUDE SPECIFICATIONS OR BUILDING MATERIALS LIST. THEREFORE IT IS THE CONTRACTOR/OWNER RESPONSIBILITY TO PROVIDE AND COORDINATE SPECIFICATIONS, INCLUDING PRODUCT SELECTION AND INSTALLATION OR ASSEMBLY. ITEMS CALLED OUT ARE DONE SO FOR CONVENIENCE ONLY.
- DO NOT SCALE THESE DRAWINGS FOR CRITICAL DIMENSIONS. VERIFY ALL DIMENSIONS AND DATUMS BEFORE COMMENCING WORK AND BE RESPONSIBLE FOR THEIR ACCURACY AND REPORT DISCREPANCIES / OMISSIONS TO THE ARCHITECT IMMEDIATELY.

CHAPTER 3: BUILDING PLANNING

DESIGN CRITERIA

(B) R301.2 CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA. BUILDINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE IRC. ADDITIONAL CRITERIA SHALL BE ESTABLISHED BY THE LOCAL JURISDICTION AND SET FORTH IN TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA.

GROUND SNOW LOAD:	25
WIND SPEED:	PER STRUCT
SEISMIC DESIGN CATEGORY:	
SUBJECT TO DAMAGE FROM:	
WEATHERING:	MODERATE
FROST LINE DEPTH:	18"
TERMITE:	MODERATE
WINTER DESIGN TEMP:	26
ICE SHIELD UNDERLAYMENT REQUIRED:	NO
FLOOD HAZARDS:	
AIR FREEZING INDEX:	175
MEAN ANNUAL TEMP:	50.5

301.4 DEAD LOAD.
 THE ACTUAL WEIGHTS OF MATERIALS AND CONSTRUCTION SHALL BE USED FOR DETERMINING DEAD LOAD. DEAD LOADS USED FOR THIS PROJECT ARE AS FOLLOWS:

	15 PSF
	12 PSF
	10 PSF

301.5 LIVE LOAD.
 THE MINIMUM UNIFORMLY DISTRIBUTED LIVE LOAD SHALL BE AS PROVIDED IN

TABLE R301.5 MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS

ATTICS WITH STORAGE:	20 PSF
WITHOUT STORAGE:	10 PSF
EXTERIOR BALCONIES:	40 PSF
FIRE ESCAPES:	40 PSF
GUARDRAILS AND HANDRAILS:	200 PLF
GUARDRAIL IN-FILL COMPONENTS:	200 PLF
PASSENGER VEHICLE GARAGES:	200 PSF
ROOMS OTHER THAN SLEEPING ROOMS:	40 PSF
SLEEPING ROOMS:	30 PSF
	40 PSF

301.6 ROOF LOAD.
 ROOF SHALL BE DESIGNED FOR THE LIVE LOAD INDICATED IN TABLE R301.6 THE SNOW LOAD INDICATED IN TABLE R301.2(1), WHICHEVER IS GREATER.

TABLE R301.6 MINIMUM ROOF LIVE LOADS IN POUNDS-FORCE PER SQUARE

ROOF SLOPE:	TRIBUTARY LOADED AREA IN SQUARE FEET FOR ANY STRUCTURAL MEMBER		
	0 to 200	2001 to 600	Over 600
FLAT OR RISE LESS THAN 4" PER FOOT (1:3).	20	16	12
RISE LESS 4" PER FOOT (1:3) TO 12" PER FOOT (1:1).	16	14	12
RISE 12" PER FOOT (1:1) AND GREATER.	12	12	12

301.8 NOMINAL SIZES.
 ...WHERE DIMENSIONS OF LUMBER ARE SPECIFIED, THEY SHALL BE DEEMED TO BE NOMINAL DIMENSIONS UNLESS SPECIFICALLY DESIGNATED AS ACTUAL DIMENSIONS.

R317
 317.1 LOCATION REQUIRED.
 IN AREAS SUBJECT TO DECAY DAMAGE AS ESTABLISHED BY TABLE R301.2(1) LOCATIONS REQUIRED BY SECTION R317.1, SHALL BE PRESERVATIVE-TREATED IN ACCORDANCE WITH AWP A U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWP A U1

317.1.1 FIELD TREATMENT
 FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWP A M4.

- 6.1 GENERAL
- ALL CUTS, HOLES AND INJURIES SUCH AS ABRASIONS OR HOLES FROM REMOVAL OF NAILS AND SPIKES WHICH MAY PENETRATE THE TREATED ZONE SHALL BE FIELD TREATED. AN AWP A PRESERVATIVE SYSTEM, DETERMINED APPROPRIATE IN ACCORDANCE WITH AWP A M4 SECTION 7, SHALL BE USED FOR FIELD TREATMENT.
 - APPLY PRESERVATIVES IN ACCORDANCE WITH THE PRODUCT LABEL.
 - COAT ANY SURFACE THAT IS EXPOSED BY DAMAGE OR FIELD FABRICATION WHILE NOT USING EXCESS PRESERVATIVE.
 - ANY EXCESS PRESERVATIVE NOT ABSORBED BY THE WOOD PRODUCT SHALL BE CLEANED FROM THE SURFACE PRIOR TO THE USE OF THE PRODUCT.
 - BORED HOLES FOR CONNECTORS OR BOLTS MAY BE TREATED BY PUMPING COAL-TAR ROOFING CEMENT MEETING ASTM D5643 INTO HOLES USING A GREASE GUN OR SIMILAR DEVICE.
 - CAREFUL ATTENTION SHOULD BE GIVEN TO MATERIALS PLACED INTO WET ENVIRONMENTS.
 - AREA TO BE TREATED SHALL BE CLEAN, DRY AND FREE OF EXCESS PRESERVATIVE.

- 7.1 PRESERVATIVES
- THE PRESERVATIVE SYSTEM FOR FIELD TREATMENT SHALL BE DETERMINED BY THE TYPE OF PRESERVATIVE ORIGINALLY USED TO PROTECT THE PRODUCT.
 - THE PRESERVATIVES DESIGNATED IN AWP A M4 SECTIONS 7.1.1, AND 7.1.2 ARE SUITABLE ALTERNATIVES WHEN NO MATCH CAN BE FOUND.

317.1.2 GROUND CONTACT.
 ALL WOOD IN CONTACT WITH THE GROUND SHALL BE APPROVED PRESSURE-PRESERVATIVE-TREATED WOOD SUITABLE FOR GROUND CONTACT USE

317.3 FASTENERS.
 FASTENERS FOR PRESERVE STEEL AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
 EXCEPTION:
 1. ONE-HALF-INCH DIAMETER OR GREATER STEEL BOLTS.
 2. FASTENERS OTHER THAN NAILS AND TIMBER RIVETS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM

CHAPTER 4: FOUNDATIONS

R401
 GENERAL

401.1 APPLICATION.
 THE PROVISIONS SET FORTH IN CHAPTER 4 OF THE IRC SHALL CONTROL THE DESIGN AND CONSTRUCTION OF THE FOUNDATION AND FOUNDATION SPACES FOR ALL BUILDINGS. IN ADDITION TO THE PROVISIONS OF THIS CHAPTER, THE DESIGN AND CONSTRUCTION OF FOUNDATIONS IN AREAS PRONE TO FLOODING AS ESTABLISHED BY TABLE R301.2(1) SHALL MEET THE PROVISIONS OF SECTION R322.

401.4 SOIL TESTS.
 IN AREAS LIKELY TO HAVE EXPANSIVE, COMPRESSIBLE, SHIFTING OR OTHER UNKNOWN SOIL CHARACTERISTICS, THE BUILDING OFFICIAL SHALL DETERMINE WHETHER TO REQUIRE A SOIL TEST TO DETERMINE THE SOILS CHARACTERISTICS AT A PARTICULAR LOCATION, 401.4.1 GEOTECHNICAL EVALUATION.
 IN LIEU OF A COMPLETE GEOTECHNICAL EVALUATION, THE LOAD-BEARING VALUES IN TABLE R401.4.1 SHALL BE USED. TABLE R401.4.1 PRESUMPTIVE LOAD-BEARING VALUES OF FOUNDATIONS MATERIALS

CLASS OF MATERIAL	LOAD BEARING PRESSURE (PSF)
CRYSTALLINE BEDROCK	12,000
SEDIMENTARY AND FOLIATED ROCK	4,000
SANDY GRAVEL AND/OR GRAVEL (GW AND GP)	3,000
SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL (SW SP, SM, SC, GM & GC)	2,000***
CLAY, SANDY CLAY, SILTY CLAY, CLAYEY SILT, SILT AND SANDY SILT (CL, ML, MH & CH)	1,500

***U.N.O. 2,000 PSF SOIL BEARING IS ASSUMED FOR THIS PROJECT. VERIFY WITH STRUCTURAL NOTES

R402
 MATERIALS

402.2 CONCRETE.
 CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH AS SHOWN IN TABLE R402.2. CONCRETE SUBJECT TO WEATHERING AS INDICATED IN TABLE R301.2(1), SHALL BE AIR ENTRAINED AS SPECIFIED IN TABLE R402.2

TABLE R402.2 MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE

TYPE OF LOCATIONS OF CONC. CONSTRUCTION	TRIBUTARY LOADED AREA IN SQUARE FEET FOR ANY STRUCTURAL MEMBER		
	NEGLECTIBLE	MODERATE	SEVERE
BASEMENT WALLS, FNDN'S EXPOSED TO WEATHER.	2,500 psi	2,500 psi	2,500 psi
BASEMENT SLABS & INTERIOR SLABS ON GRADE, EXCEPT GAR. FLOOR SLABS.	2,500 psi	2,500 psi	2,500 psi
BASEMENT WALLS, EXTERIOR WALLS EXPOSED TO WEATHER.	2,500 psi	3,000 psi	3,000 psi
PORCHES, CARPORT SLABS & STEPS EXPOSED TO WEATHER & GARAGE FLOOR SLABS.	2,500 psi	3,000 psi	3,500 psi

R403
 FOOTINGS

403.1 GENERAL.
 ALL EXTERIOR WALLS SHALL BE SUPPORTED ON CONTINUOUS SOLID OR FULLY GROUTED MASONRY OR CONCRETE FOOTINGS, WOOD FOUNDATIONS, OR OTHER APPROVED STRUCTURAL SYSTEMS, WHICH SHALL BE OF SUFFICIENT DESIGN TO ACCOMMODATE ALL LOADS ACCORDING TO SECTION R301 AND BE CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R403. OF THE IRC. FOOTINGS SHALL BE SUPPORTED ON UNDISTURBED NATURAL SOILS OR ENGINEERED FILL.

403.1.4.1 FROST PROTECTION.
 FOUNDATION WALLS, PIERS AND OTHER PERMANENT SUPPORTS OF BUILDINGS AND STRUCTURES SHALL BE PROTECTED FROM FROST BY EXTENDING FOOTINGS BELOW THE FROST LINE AS SPECIFIED IN TABLE R301.2(1)...
 EXCEPTION: DECKS NOT SUPPORTED BY A DWELLING NEED NOT BE PROVIDED WITH FOOTINGS THAT EXTEND BELOW THE FROST LINE.

403.1.6 FOUNDATION ANCHORAGE.
 WHEN BRACED WALL PANELS ARE SUPPORTED DIRECTLY ON CONTINUOUS FOUNDATIONS, THE WALL WOOD SILL PLATE SHALL BE ANCHORED TO THE FOUNDATION IN ACCORDANCE WITH SECTION 403.1.6, OF THE IRC.

- SILL PLATE SHALL BE ANCHORED TO THE FOUNDATION WITH ANCHOR BOLTS SPACED A MAXIMUM OF 6 FEET ON CENTER. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES FROM EACH END OF THE PLATE SECTION.
 - BOLTS SHALL BE AT LEAST 1/2 INCH IN DIAMETER AND SHALL EXTEND A MINIMUM OF 7 INCHES INTO MASONRY OR CONCRETE.
 - SILLS AND SOLE PLATES SHALL BE PROTECTED AGAINST DECAY AND TERMITES WHERE REQUIRED BY SECTIONS R318 AND R319, OF THE IRC.
- EXCEPTION: FOUNDATION ANCHOR STRAPS, SPACED AS REQUIRED TO PROVIDE EQUIVALENT ANCHORAGE TO 1/2-INCH-DIAMETER ANCHOR BOLTS.

403.1.6.1 FOUNDATION ANCHORAGE IN SEISMIC DESIGN CATEGORIES DO, D1, D2, AND E.
 IN ADDITION TO THE REQUIREMENTS OF SECTION R403.1.6, THE FOLLOWING REQUIREMENTS SHALL APPLY TO WOOD LIGHT-FRAME STRUCTURES IN SEISMIC DESIGN CATEGORIES D1 AND D2.

- 1/4" X 3" X 3" PLATE WASHERS CONFORMING TO SECTION R602.11.1 SHALL BE USED ON EACH BOLT.
- INTERIOR BRACED WALL PLATES SHALL HAVE ANCHOR BOLTS SPACED AT NOT MORE THAN 6 FEET ON CENTER AND LOCATED WITHIN 12 INCHES FROM THE ENDS OF EACH PLATE SECTION WHEN SUPPORTED ON A CONTINUOUS FOUNDATION.
- INTERIOR BEARING WALL SOLE PLATES SHALL HAVE ANCHOR BOLTS SPACED AT NOT MORE THAN 6 FEET ON CENTER AND LOCATED WITHIN 12 INCHES FROM THE ENDS OF EACH PLATE SECTION WHEN SUPPORTED ON A CONTINUOUS FOUNDATION.
- THE MAXIMUM ANCHOR BOLT SPACING SHALL BE 4 FEET FOR BUILDINGS OVER TWO STORIES IN HEIGHT.
- STEPPED CRIPPLE WALLS SHALL CONFORM TO SECTION R602.11.3.

R404
 FOUNDATION WALLS

404.1 CONCRETE AND MASONRY FOUNDATION WALLS.
 CONCRETE AND MASONRY FOUNDATION WALLS SHALL BE SELECTED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404.1.3 OF THE IRC OR IN ACCORDANCE WITH ACI 318, NCMA TR68-A OR ACI 530/ASCE 5/TMS 402 OR OTHER APPROVED STRUCTURAL STANDARDS.

404.3 WOOD SILL PLATES.
 WOOD SILL PLATES SHALL BE A MINIMUM OF 2-INCH BY 4-INCH NOMINAL LUMBER. SILL PLATE ANCHORAGE SHALL BE IN ACCORDANCE WITH SECTIONS R403.1.6 AND R602.11.

CHAPTER 5: FLOORS

R501
 GENERAL

501.1 APPLICATION.
 FLOOR CONSTRUCTION SHALL BE IN ACCORDANCE TO THE PROVISIONS SET FORTH IN CHAPTER 5 OF THE IRC.

501.2 REQUIREMENTS.
 FOR FLOOR CONSTRUCTION LOADING, SEE SECTION R301.

CHAPTER 6: WALL CONSTRUCTION

R601
 GENERAL

R601.1 APPLICATION.
 WALL CONSTRUCTION SHALL BE IN ACCORDANCE TO THE PROVISIONS SET FORTH IN CHAPTER 6 OF THE IRC.

R601.2 REQUIREMENTS.
 FOR WALL CONSTRUCTION LOADING, SEE SECTION R301.

R602.3. DESIGN & CONSTRUCTION
 SEE TABLE R602.3(1) ON THIS SHEET FOR FASTENER / NAILING SCHEDULE

R613
 EXTERIOR WINDOWS AND GLASS DOORS

613.1 GENERAL.
 THE PROVISIONS SET FORTH IN SECTION 613. OF THE IRC, SHALL CONTROL THE PERFORMANCE AND CONSTRUCTION REQUIREMENTS FOR EXTERIOR WINDOW SYSTEMS INSTALLED IN WALL SYSTEMS. WATERPROOFING, SEALING AND FLASHING SYSTEMS ARE NOT INCLUDED IN THE SCOPE OF THIS SECTION.

613.2 PERFORMANCE.
 EXTERIOR WINDOWS AND DOORS SHALL BE DESIGNED TO RESIST THE DESIGN WIND LOADS SPECIFIED IN TABLE R301.2(2), ADJUSTED FOR HEIGHT AND EXPOSURE PER TABLE R301.2(3).

CHAPTER 7: WALL COVERING

R701
 GENERAL

701.1 APPLICATION.
 THE PROVISIONS SET FORTH IN CHAPTER 7 OF THE IRC, SHALL CONTROL THE DESIGN AND CONSTRUCTION OF THE INTERIOR AND EXTERIOR WALL COVERING FOR ALL BUILDINGS.

701.2 INSTALLATION.
 PRODUCTS SENSITIVE TO ADVERSE WEATHER SHALL NOT BE INSTALLED UNTIL ADEQUATE WEATHER PROTECTION FOR THE INSTALLATION IS PROVIDED. EXTERIOR SHEATHING SHALL BE DRY BEFORE APPLYING EXTERIOR COVER.

CHAPTER 8: ROOF-CEILING CONSTRUCTION

R801
 GENERAL

801.1 APPLICATION.
 THE PROVISIONS SET FORTH IN CHAPTER 8 OF THE IRC, SHALL CONTROL THE DESIGN AND CONSTRUCTION OF THE ROOF-CEILING SYSTEM FOR ALL BUILDINGS.

801.2 REQUIREMENTS.
 ROOF AND CEILING CONSTRUCTION SHALL BE CAPABLE OF ACCOMMODATING ALL LOADS IMPOSED ACCORDING TO SECTION R301 AND OF TRANSMITTING THE RESULTING LOADS TO THE SUPPORTING STRUCTURAL ELEMENTS.

801.3 ROOF DRAINAGE.
 IN AREAS WHERE EXPANSIVE OR COLLAPSIBLE SOILS ARE KNOWN TO EXIST, ALL DWELLINGS SHALL HAVE A CONTROLLED METHOD OF WATER DISPOSAL FROM ROOFS THAT WILL COLLECT AND DISCHARGE ALL ROOF DRAINAGE TO THE GROUND SURFACE AT LEAST 5 FEET FROM FOUNDATION WALLS OR TO AN APPROVED DRAINAGE SYSTEM.

CHAPTER 9: ROOF ASSEMBLIES

R901
 GENERAL

901.1 SCOPE.
 THE PROVISIONS SET FORTH IN CHAPTER 9 OF THE IRC, SHALL GOVERN THE DESIGN, MATERIALS, CONSTRUCTION AND QUALITY OF ROOF ASSEMBLIES.

2015 UNIFORM PLUMBING CODE

313
 PROTECTION OF PIPING, MATERIALS, AND STRUCTURES

SECTION 313.12 RATPROOFING
 a. STRAINER PLATES ON DRAIN INLETS SHALL HAVE 1/2-INCH OPENINGS MAX.
 b. METER BOXES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT RATS CANNOT ENTER A BLDG BY FOLLOWING THE SERVICE PIPES FROM THE BOX INTO THE BLDG.
 c. WHERE OPENINGS HAVE BEEN MADE IN WALLS, FLOORS, OR CLGS FOR THE PASSAGE OF PIPES, SUCH OPENINGS SHALL BE CLOSED AND PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS SECURELY FASTENED TO THE ADJOINING STRUCTURE.
 d. TUB WASTE OPENINGS IN FRAMED CONSTRUCTION TO CRAWL SPACES AT OR BELOW THE FIRST FLOOR SHALL BE PROTECTED BY THE INSTALLATION OF APPROVED METAL COLLARS OR METAL SCREEN, WITH 1/2-INCH OPENINGS MAX, AND SECURELY FASTENED TO THE ADJOINING STRUCTURE.

GENERAL CONSTRUCTION SPECS. AND CODE COMPLIANCE (2018 IRC, UPC & 2018 W.S.E.C.)

GENERAL NOTES

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 ADDITION & ADU
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KESH DESIGN LINES LLC

425 344 9906



SHEET NUMBER

A2
 Revision #:

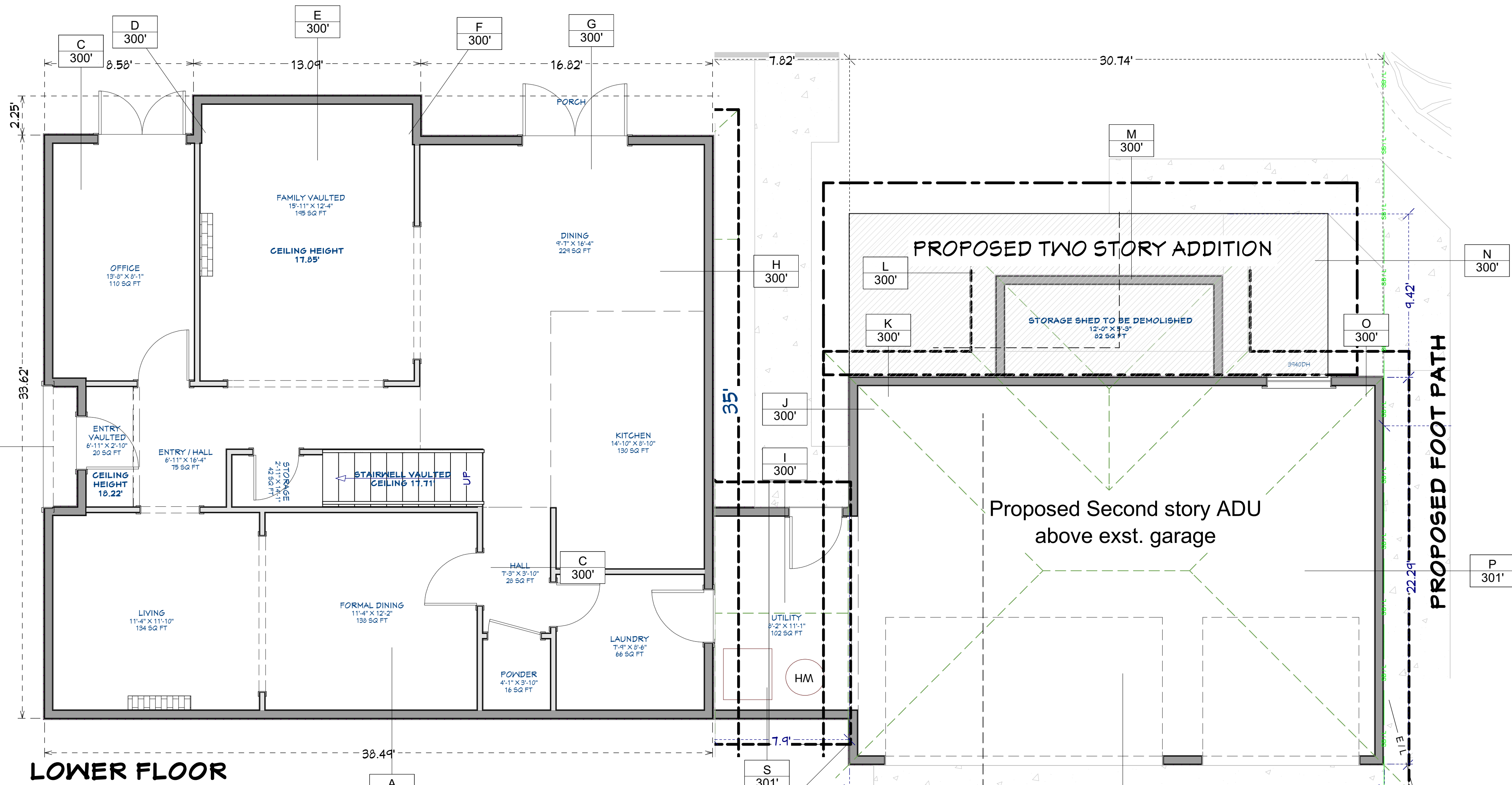
DATE: 06.12.20
 REV #10: 07.17.23
 DRAWN BY: K.C.

ROOM SIZE SCHEDULE (LOWER FLOOR)		
ROOM NAME	AREA, INTERIOR (SQ FT)	CEILING FINISH HEIGHT
ENTRY VAULTED	20	120 1/4"
FAMILY VAULTED	195	120 1/4"
STORAGE	42	107 5/8", 120 1/4"
DINING	229	107 5/8"
ENTRY / HALL	75	107 5/8"
FORMAL DINING	138	107 5/8"
HALL	28	107 5/8"
KITCHEN	130	107 5/8"
LAUNDRY	66	107 5/8"
LIVING	134	107 5/8"
OFFICE	110	107 5/8"
POWDER	16	107 5/8"
TOTALS:	1182	

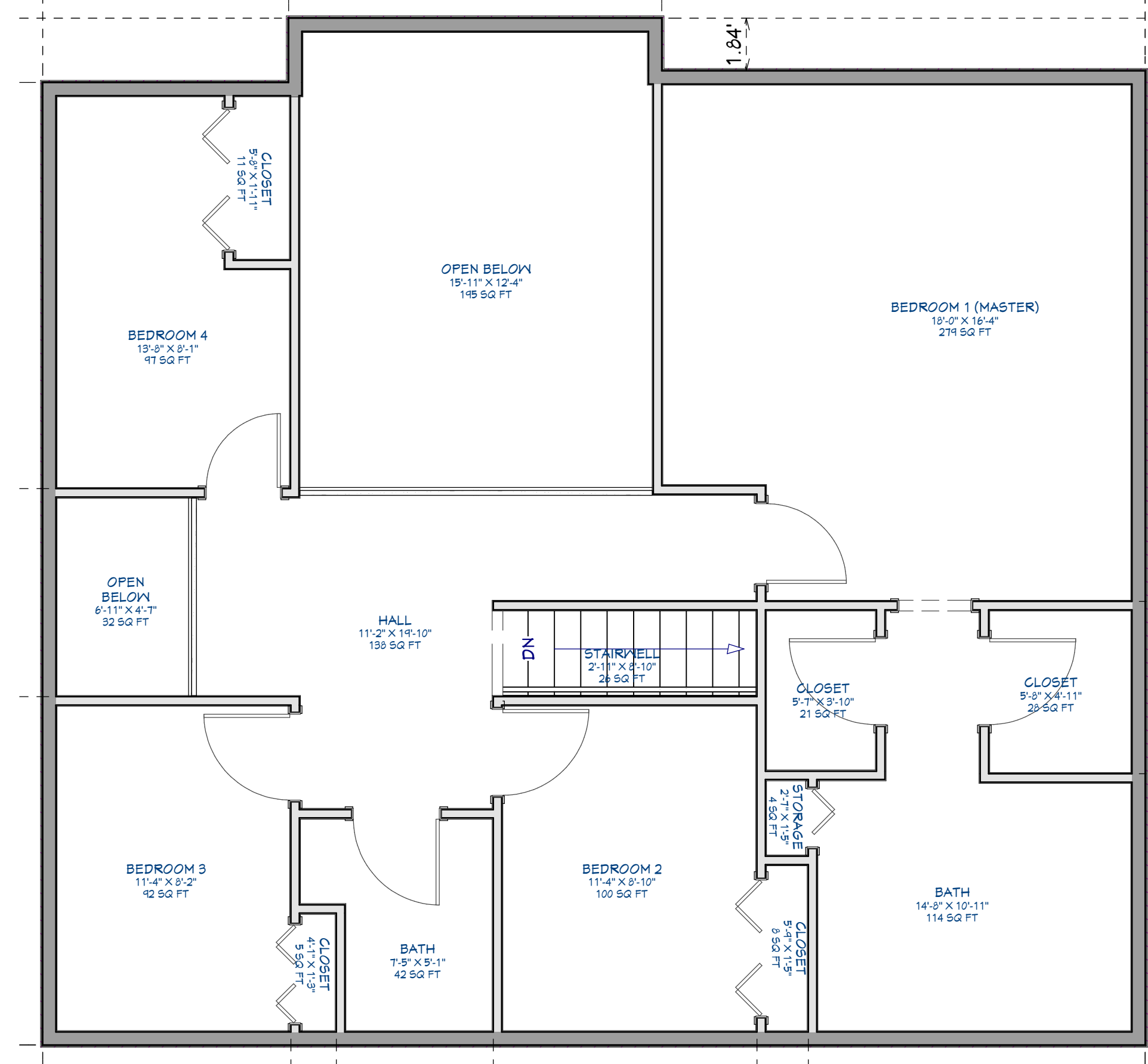
GARAGE SIZE		
ROOM NAME	AREA, INTERIOR (SQ FT)	CEILING HEIGHT
GARAGE	635	109 1/8"
STORAGE SHED TO BE DEMOLISHED	63	109 1/8"
UTILITY	90	97 1/2"
TOTALS:	789	

No change proposed to main house lower & upper floors

ROOM FINISH SCHEDULE (UPPER FLOOR)		
ROOM NAME	AREA, INTERIOR (SQ FT)	CEILING FINISH HEIGHT
OPEN BELOW	32	218 1/8"
OPEN BELOW	195	
STAIRWELL	26	
BATH	42	96 3/8"
BATH	114	96 3/8"
BEDROOM 1 (MASTER)	279	96 3/8"
BEDROOM 2	100	96 3/8"
BEDROOM 3	92	96 3/8"
BEDROOM 4	97	96 3/8"
CLOSET	21	96 3/8"
CLOSET	28	96 3/8"
CLOSET	8	96 3/8"
CLOSET	5	96 3/8"
CLOSET	11	96 3/8"
HALL	138	96 3/8"
STORAGE	4	96 3/8"
TOTALS:	1192	



LOWER FLOOR

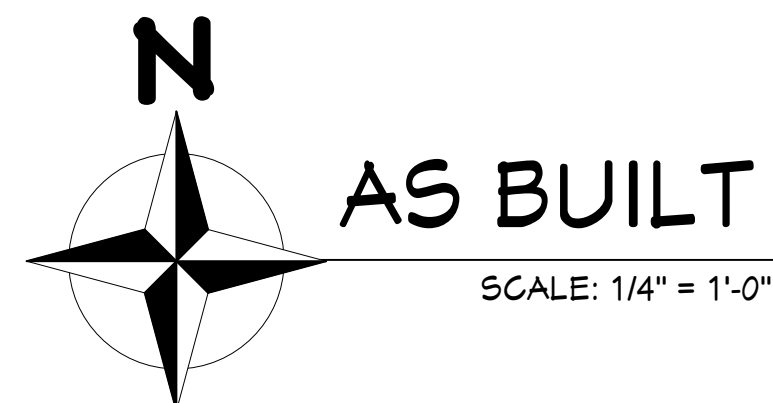


UPPER FLOOR

BUILDING HEIGHT CALCS.

HEIGHT CALCULATIONS			
BENCHMARK: POWER POLE 100'			
LABEL	MIDPOINT ELV. *	WALL SEG.**	* X **
A	101'	39.49'	3,988
B	100'	33.62'	3,362
C	100'	8.58'	858
D	100'	2.25'	225
E	100'	13.09'	1,309
F	100'	2.25'	225
G	100'	16.82'	1,582
H	100'	33.62'	3,362
I	100'	7.82'	782
J	100'	6.91'	691
K	100'	4.25'	425
L	100'	9.34'	934
M	100'	23.17'	2,317
N	100'	9.34'	934
O	100'	3.38'	338
P	101'	21.82'	2,182
Q	101'	30.80'	3,080
R	101'	2.91'	291
S	101'	7.74'	774
TOTAL:	1,905'	277.20'	27,723
(A) X (B) =	27723		
DIVIDE WALL SEG. =	277.20'		
ABE =	100' + 30' =	130'	
EXIST. HOUSE HEIGHT:	127.21'	CONFORMS	
PROPOSED ADU HEIGHT:	124.38'	CONFORMS	

- A. Average Building Elevation (ABE) calculations located on sheet #:
 - B. Allowable Building Height (ABE + 30 ft.)
 - C. Proposed Building Height
 - D. Benchmark Elevation*
 - E. Describe Benchmark Location (must be undisturbed throughout project)
- | | |
|------------|------|
| A3 | Feet |
| 130 | Feet |
| 124.28 | Feet |
| 100 | Feet |
| Power Pole | |



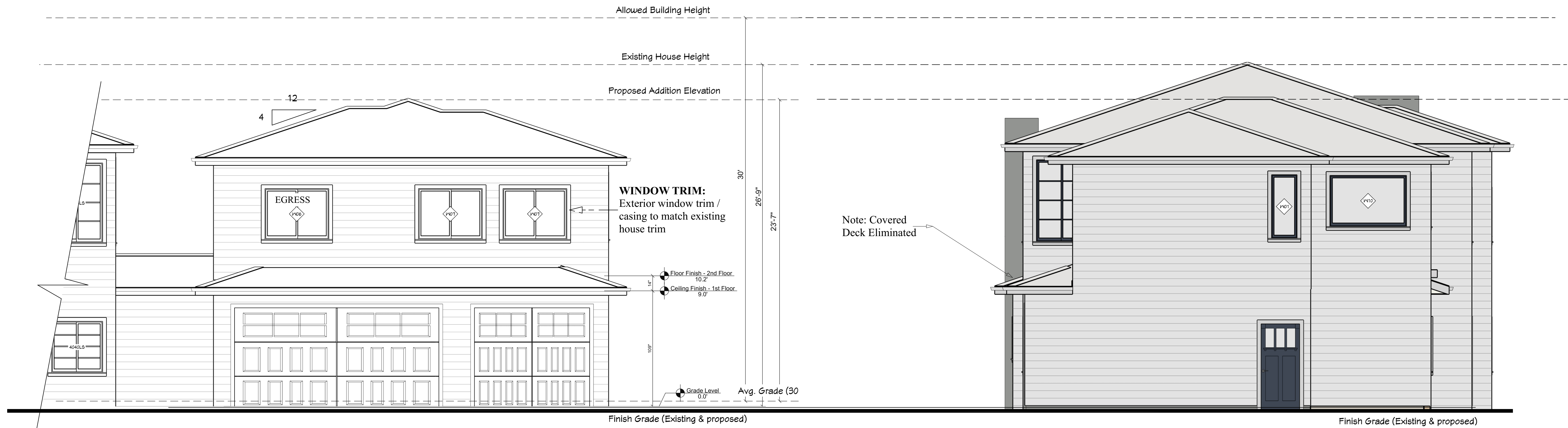
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DATE: 06.12.20
REV #10: 07.17.23
DRAWN BY: K.C.

AS BUILT
HEIGHT CALCULATIONS

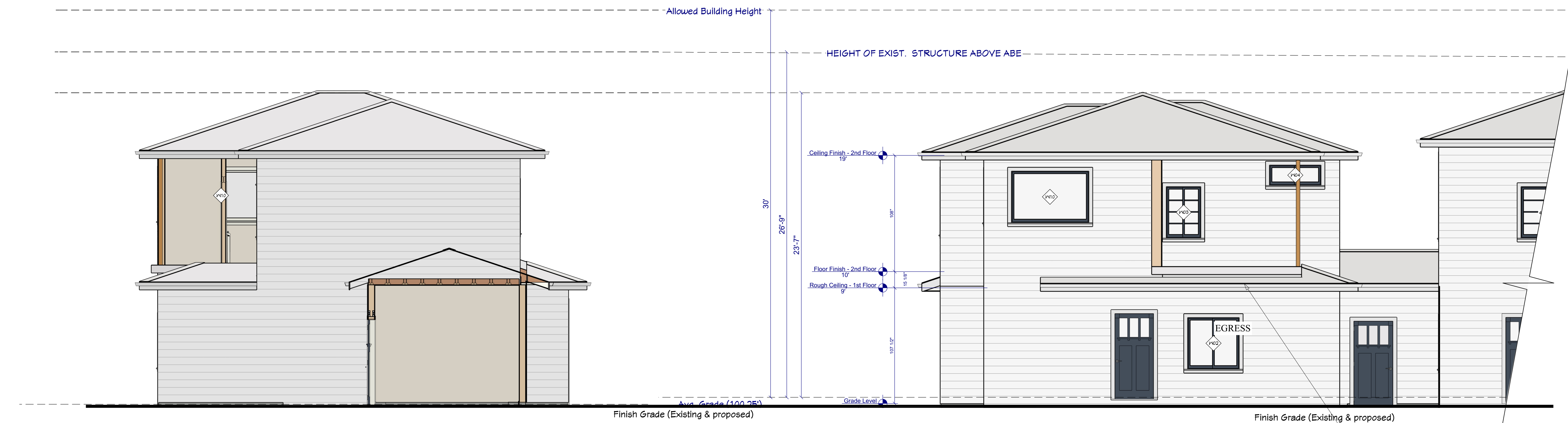
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E1 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

E3 WEST ELEVATION
SCALE: 1/4" = 1'-0"



E2 EAST ELEVATION
SCALE: 1/4" = 1'-0"

E4 NORTH ELEVATION
SCALE: 1/4" = 1'-0"

Provide roof intake vents along length of roof. (per manufactures installation specifications)

SEE NEW STRUCTURAL (S) SHEETS



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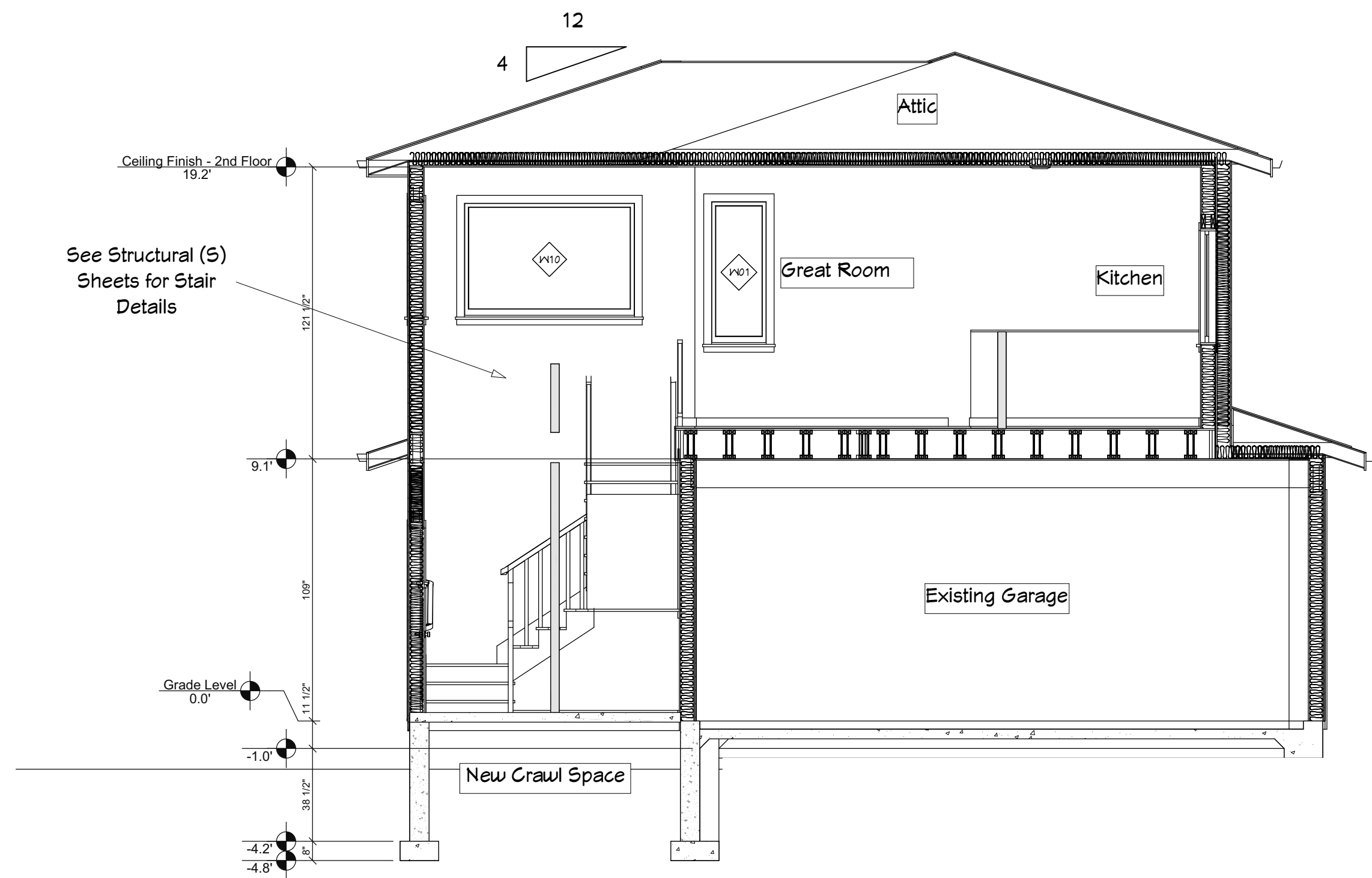
FOUNDATION and 1st FLOOR
FRAMING PLAN

DATE: 06.12.20
REV #10: 07.17.23
DRAWN BY: K.C.

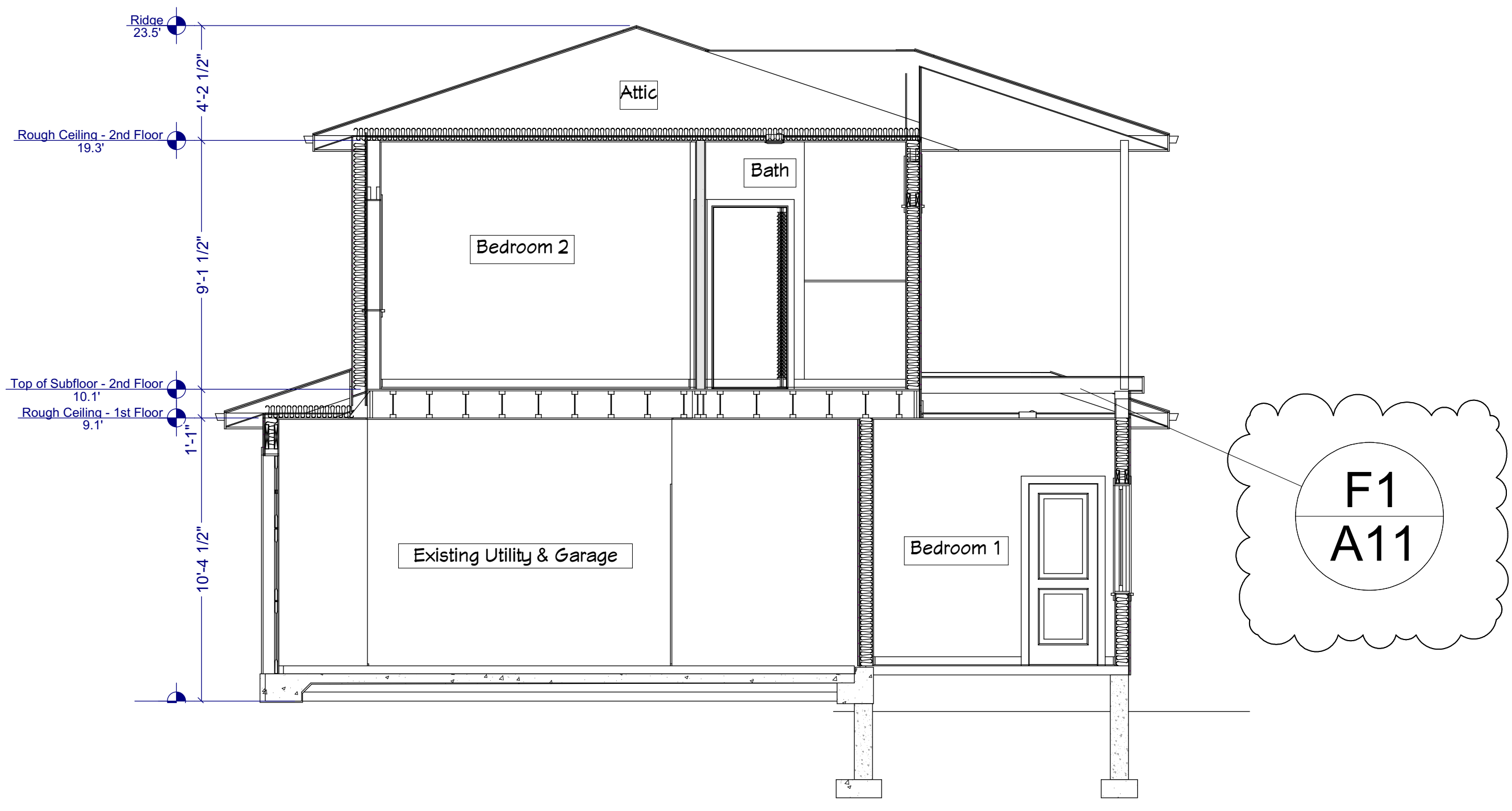
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A6

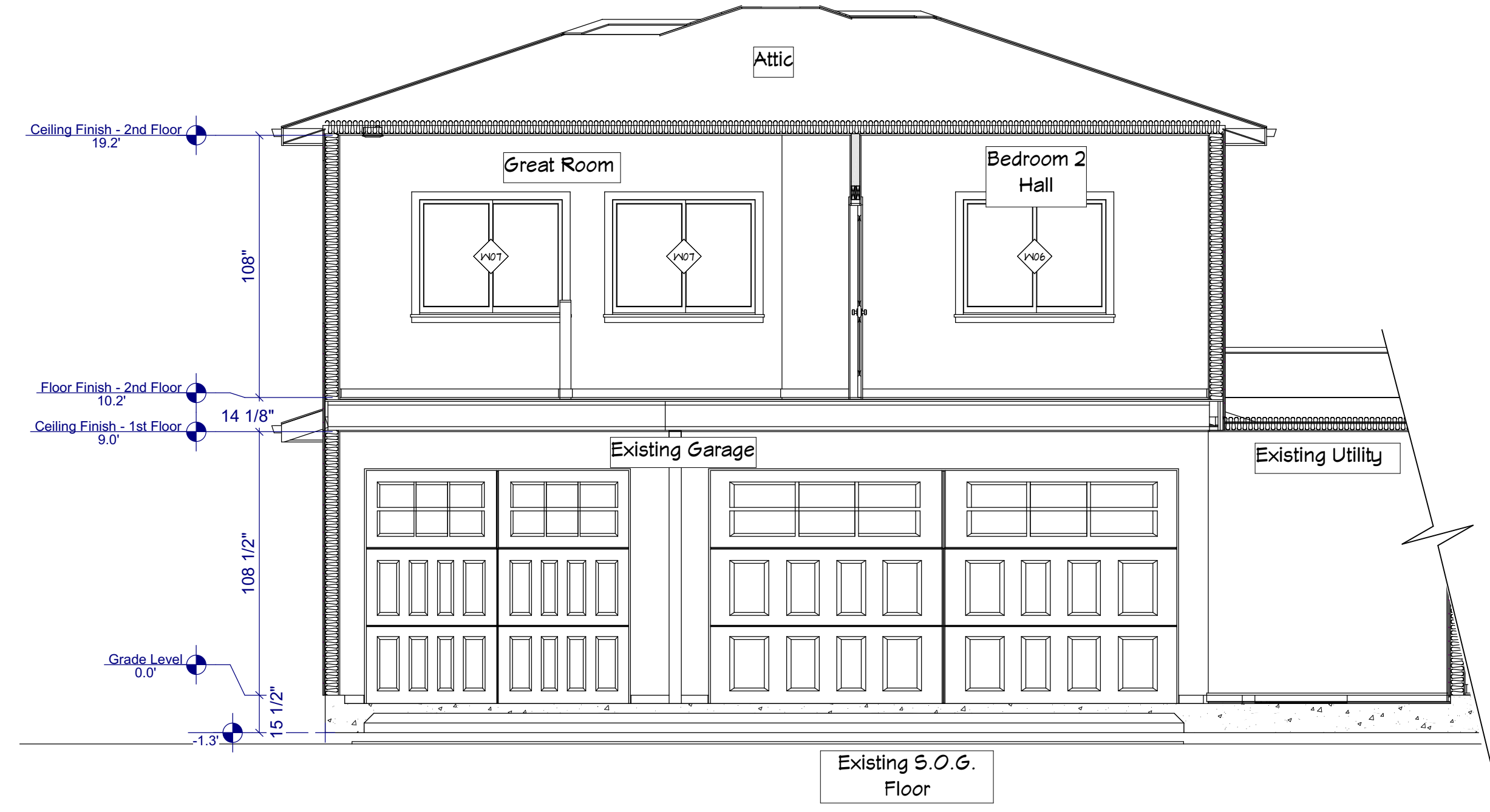
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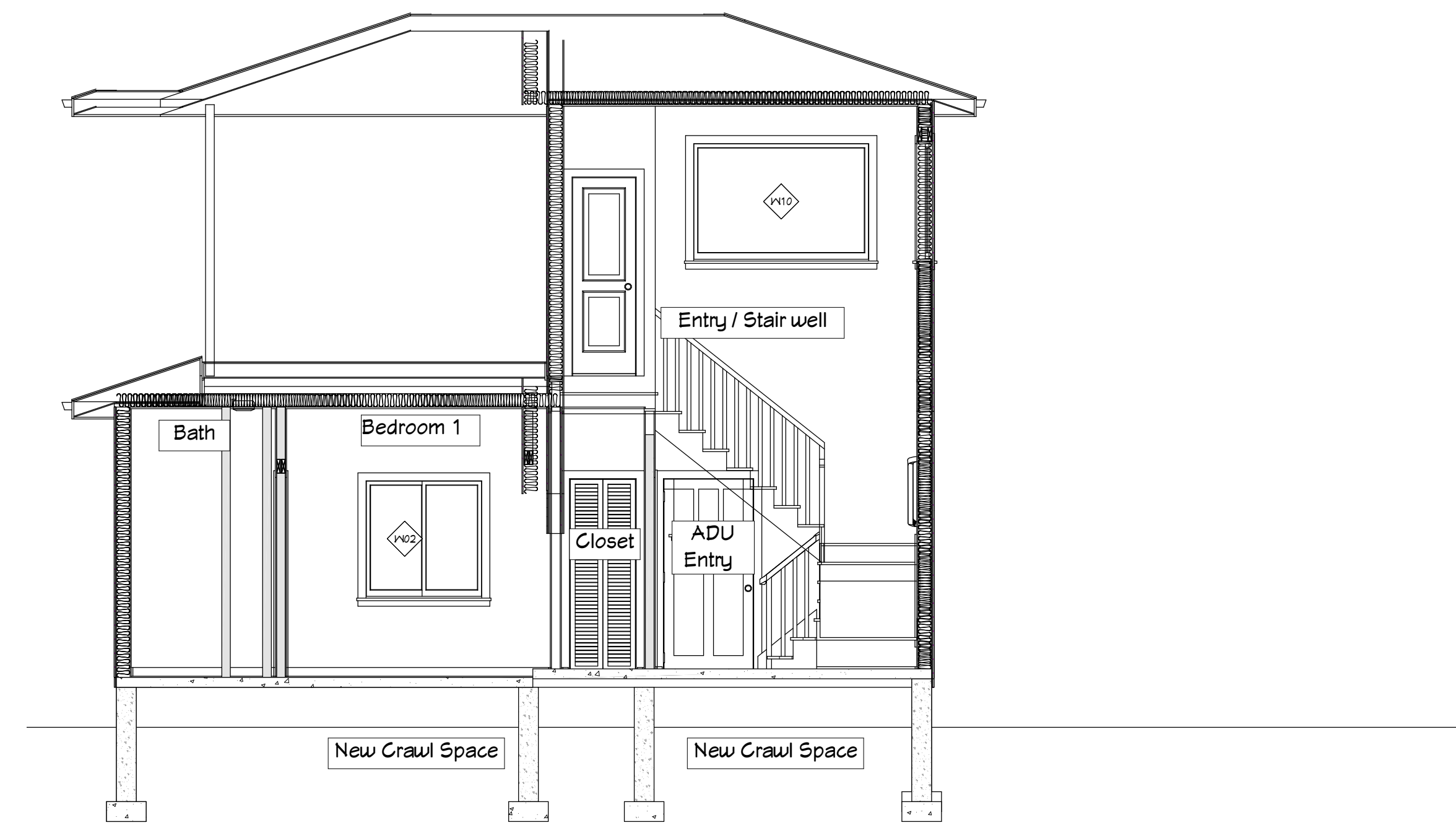
S1 SECTION
SCALE: 1/4" = 1'-0"



S3 SECTION
SCALE: 1/4" = 1'-0"

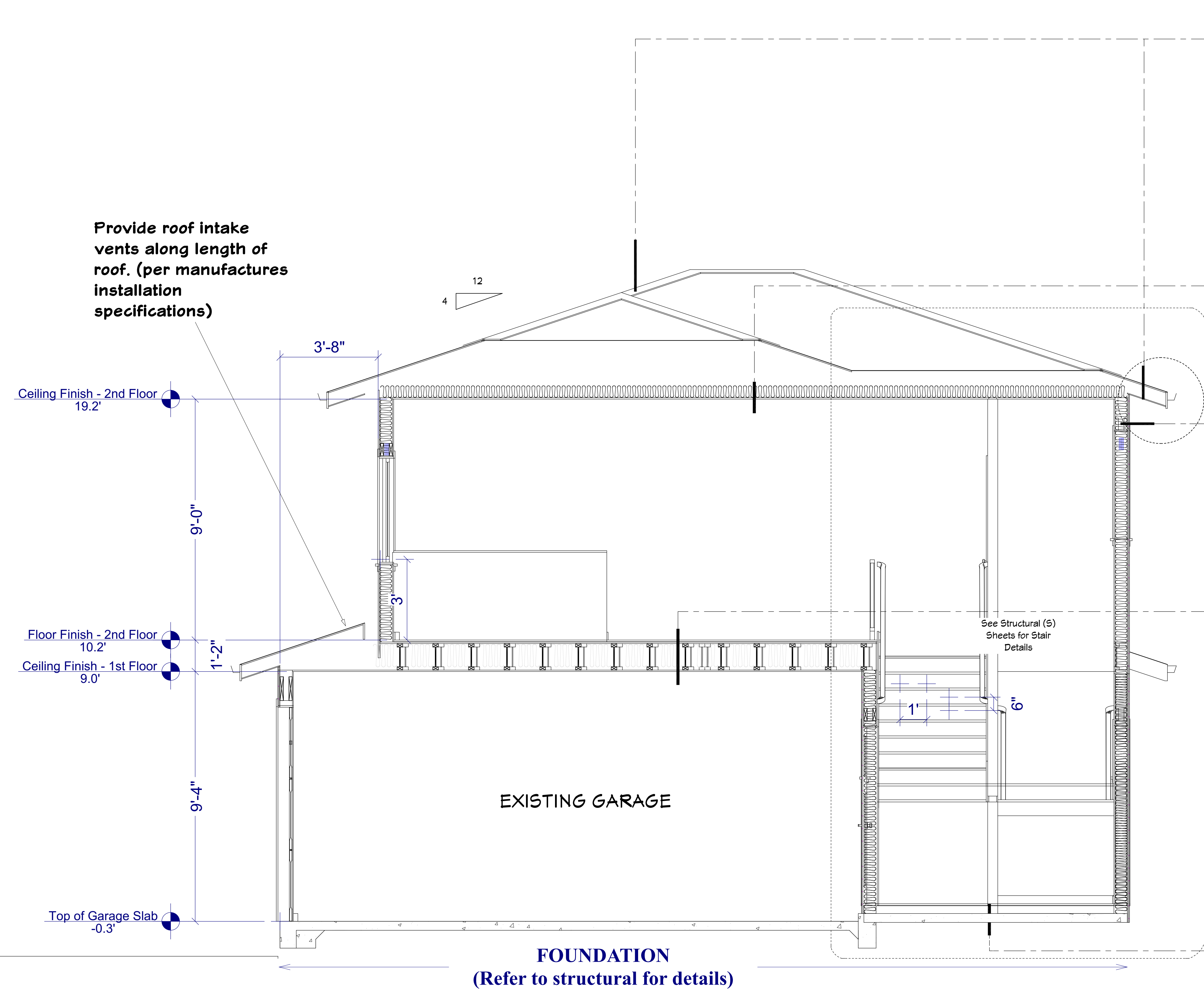


S2 SECTION
SCALE: 1/4" = 1'-0"



S4 SECTION
SCALE: 1/4" = 1'-0"





TYP. ROOF CONSTRUCTION:

Comp. Shingles to match existing house roof
 1/2" CDX Plywood
 Per Manufactured Trusses @ 24" O.C.
 R-49 Batt Insulation
 Insulation Baffle Extended 12" Abv. Insul. 1 1/2" Clr. Airspace
 Provide Intake Vents (as detailed or similar)
 Vented 2x Blocking w/ Toe Nail (Per IRC R806)
 Hurricane Ties per Truss Manuf. Specs @ each truss
 Provide Screened soffit vents 1 sq.ft. per 150 Sq.ft. of attic area.(sq.ft).

UPPER FLOOR CEILING ASSEMBLY:

Bottom Truss Ceiling
 Min. R-49 Batt Insulation
 1/2" GWB

TYP. EXTERIOR WALL CONSTRUCTION:

Siding to match existing Wood Lap house siding.
 5# felt building wrap
 2x6 studs @ 16 OC (std framing)
 Min. R-21 Batt Insulation (Heated Spaces)
 1/2" GWB @ inside face per plan

UPPER FLOOR ASSEMBLY:

See Structural for Floor Joists & subfloor details

1HR U311 STC 50 - CEILING ASSEMBLY

U311: Resilient furring channels attached 24" o.c. horizontally to one side of 2x4 wood studs 16" or 24" o.c. with 1-1/4" type W screws. 1/2" x 3" gypsum board filler strips attached to floor and ceiling plates with 1-1/4" type W screws 3'-0" o.c. 5/8" (15.9 mm) Fire-Shield C Gypsum Board applied horizontally to channel with 1" type S screws 12" o.c. on all edges and intermediate channels and attached to top and bottom plates with 1-7/8" type S screws 12" o.c. Vertical butt joints between studs back-blocked with 20" long piece of resilient channel. 5/8" (15.9 mm) Fire-Shield C Gypsum Board applied horizontally on opposite side directly to wood studs with 1-1/4" type W screws spaced 12" o.c. Horizontal joints in line, vertical joints staggered each side. Mineral wool insulation 3" thick friction fit between studs.

FLOOR ASSEMBLY:

Finish floor by owner
 New S.O.G. Concrete floor
 Min. R10 Rigid Insulation
 Compact Crushed Rock

Provide roof intake vents along length of roof. (per manufactures installation specifications)

Ceiling Finish - 2nd Floor
19.2'

9'-0"

Floor Finish - 2nd Floor
10.2'

Ceiling Finish - 1st Floor
9.0'

1'-2"

9'-4"

Top of Garage Slab
-0.3'

EXISTING GARAGE

FOUNDATION
(Refer to structural for details)

SHEET NUMBER
A8
Revision #:

DATE: 06.12.20
 REV #10: 07.17.23
 DRAWN BY: K.C.

SECTION & DETAILS

TOM & KIM TSO
 ADDITION & ADU
 8802 SE 9TH ST. MERCER ISLAND WA 98040

KESH DESIGN LINES LLC
 425 344 9906

SEE NEW STRUCTURAL (S) SHEETS



KESH DESIGN LINES LLC

425 344 9906

TOM & KIM TSO
ADDITION & ADU

8802 SE 9TH ST. MERCER ISLAND WA 98040

FRAMING PLAN & NOTES

DATE: 06.12.20
REV #10: 07.17.23
DRAWN BY: K.C.

SHEET NUMBER

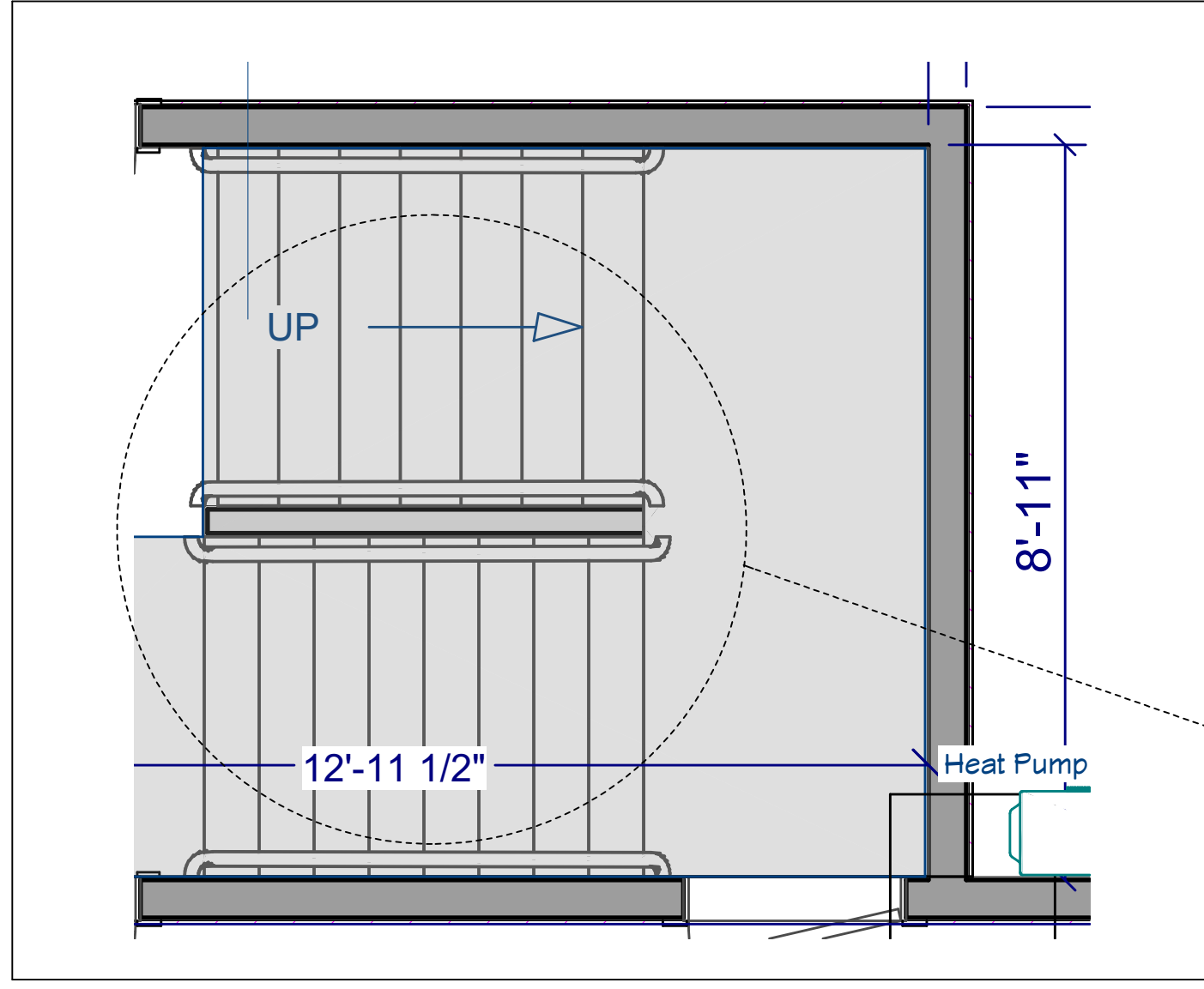
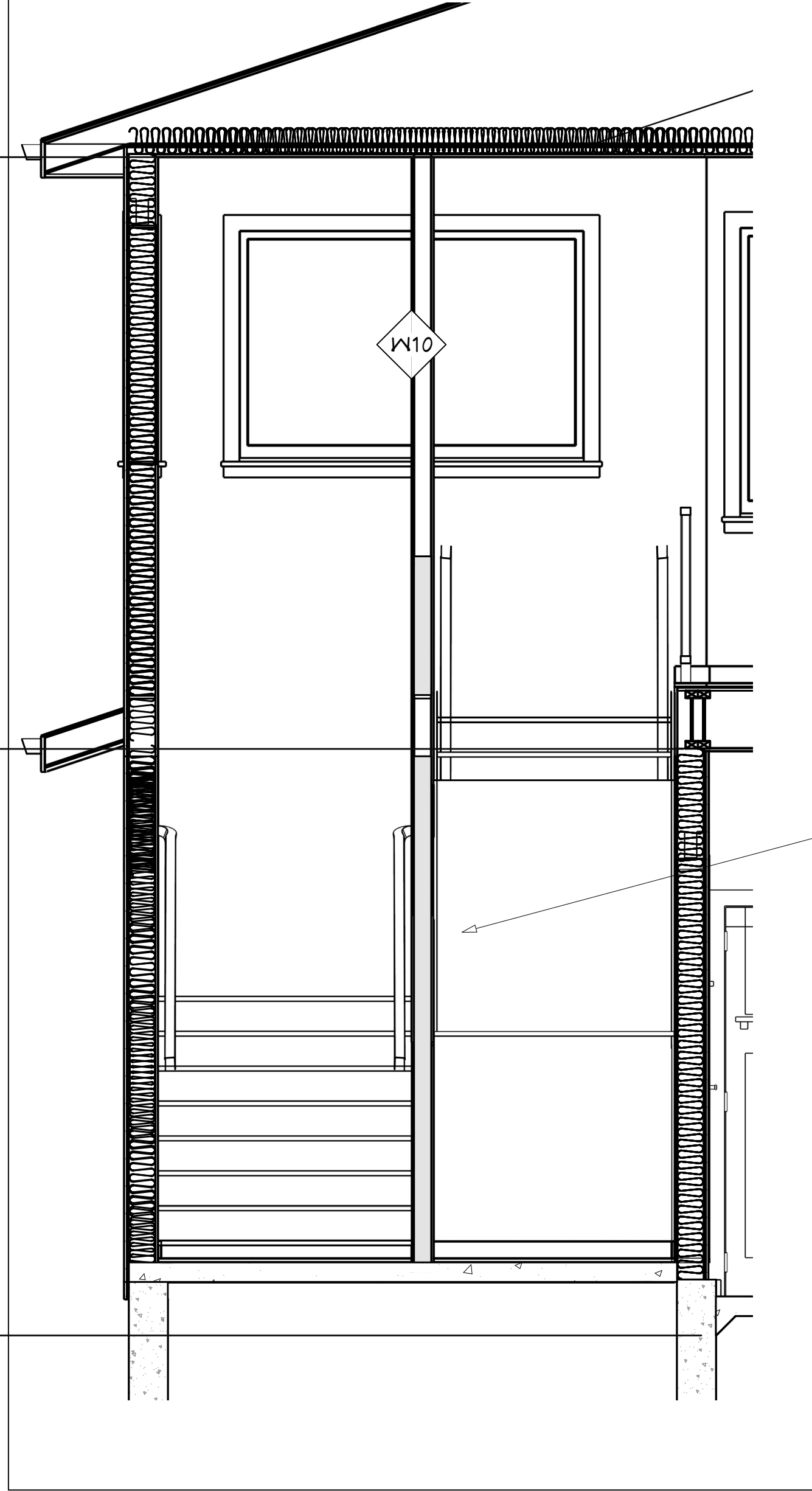
A9

Revision #:

S1

STAIR DETAILS

SCALE: = 1'-0"



11
D2

5
D1



KESH DESIGN LINES LLC

425 344 9906

TOM & KIM TSO
ADDITION & ADU
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STAIR DETAILS

DATE: 06.12.20
 REV #10: 07.17.23
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SHEET NUMBER
A10
Revision #:

ROOF FRAMING NOTES

1. USE 4x10 OR 6x8 DF #2 FOR BEAMS AND HEADERS UNO.
2. ALL RAFTERS TO BE 2x12 HF #2 AT 24" O.C. TYPICAL UNO.
3. ALL TRUSSES TO BE AT 24" O.C. TYPICAL UNO.
4. PROVIDE ROOF VENTS PER SEC. R806 IRC.
5. ROOF PITCH TO BE 4:12 PICAL UNLESS OTHERWISE NOTED.
6. 36" O.H. TYPICAL • EAVES 4 6" O.H. TYPICAL • GABLE ENDS, RAKES.
7. APPROVED ANCHORS SHALL BE USED AT ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TRUSS (PER TRUSS MANUF.) WHERE APPLICABLE. PROVIDE "SIMPSON" HI FRAMING ANCHORS AT EVERY RAFTER/TRUSS AT EACH END AND AT GABLE END TRUSSES.
8. VENTED BLOCKING OVER SUPPORTS.
9. CHIMNEY HEIGHT TO BE 2'-0" MIN. ABOVE ANY PORTION OF BUILDING WITHIN 10'-0" PER IRC SECTION R1001.6
10. BRACING: (STICK FRAMED AREAS ONLY)
 - (2) 2x4 UP TO 10' LONG.
 - (2) 2x6 10' TO 14' LONG.
 - (3) 2x6 OVER 14' LONG.
11. PLATE HEIGHTS:
 - MAIN FLOOR 9'-0", TYP. UNO.
 - UPPER FLOOR 9'-0", TYP. UNO.
12. TRUSSES:
 - CARRY MFR. STAMP.
 - DO NOT ALTER WITHOUT BUILDING DEPARTMENT APPROVAL.
 - INSTALL AND BRACE PER MFR. SPEC.
 - NON-BEARING WALLS SHALL BE HELD DOWN FROM THE TRUSS BOTTOM CHORDS WITH AN APPROVED FASTENER (SUCH AS SIMPSON STC).
13. CONTRACTOR TO VERIFY LOCATION OF ALL ROOF SUPPORT BRACING OR POSTING AND PROVIDE ADEQUATE BEARING TO FOUNDATION.
14. HANGERS AT POSITIVE CONNECTIONS TO BE SIMPSON OR EQUAL.

TRUSS FRAMING NOTES

- TRUSS ENGINEERING: PER IRC R802.10.1 TRUSS ENGINEER OF RECORD WHO WILL REVIEW, APPROVE AND NOTE ON THE DOCUMENTS THAT THEY HAVE FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE ENGINEER-APPROVED DOCUMENTS WILL THEN BE FORWARDED TO THE BUILDING OFFICIAL FOR REVIEW AND APPROVAL PRIOR TO FRAMING INSPECTION. CITY APPROVED DOCUMENTS SHALL BE ON THE JOB SITE AT INSPECTIONS. TRUSS ENGINEERING SHALL INCLUDE SPECIFIC TRUSS BRACING REQUIREMENTS.

NOTE

VENTILATION CALCULATIONS AND REQUIREMENTS

AT LEAST 40% & NOT MORE THAN 50% OF REQUIRED VENTS SHALL BE IN UPPER PORTION OF VENTILATED ROOF SPACE (MIN. 3' ABOVE EAVE OR CORNICE VENTS) WITH THE BALANCE OF REQUIRED VENTILATION PROVIDED BY EAVE VENTING.

PER IRC 806.1 ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FOR WHERE CEILING ARE AT LEAST 12" TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION OF EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION RESISTANT WIRE MESH, WITH 1/8" MIN. & 1/2" MAX. OPENINGS.

IF EAVE VENTS ARE INSTALLED INSULATION SHALL NOT OBSTRUCT THE FREE FLOW OF AIR (MIN. 1" SPACE BETWEEN INSULATION AND ROOF SHEATHING • VENT LOCATION.

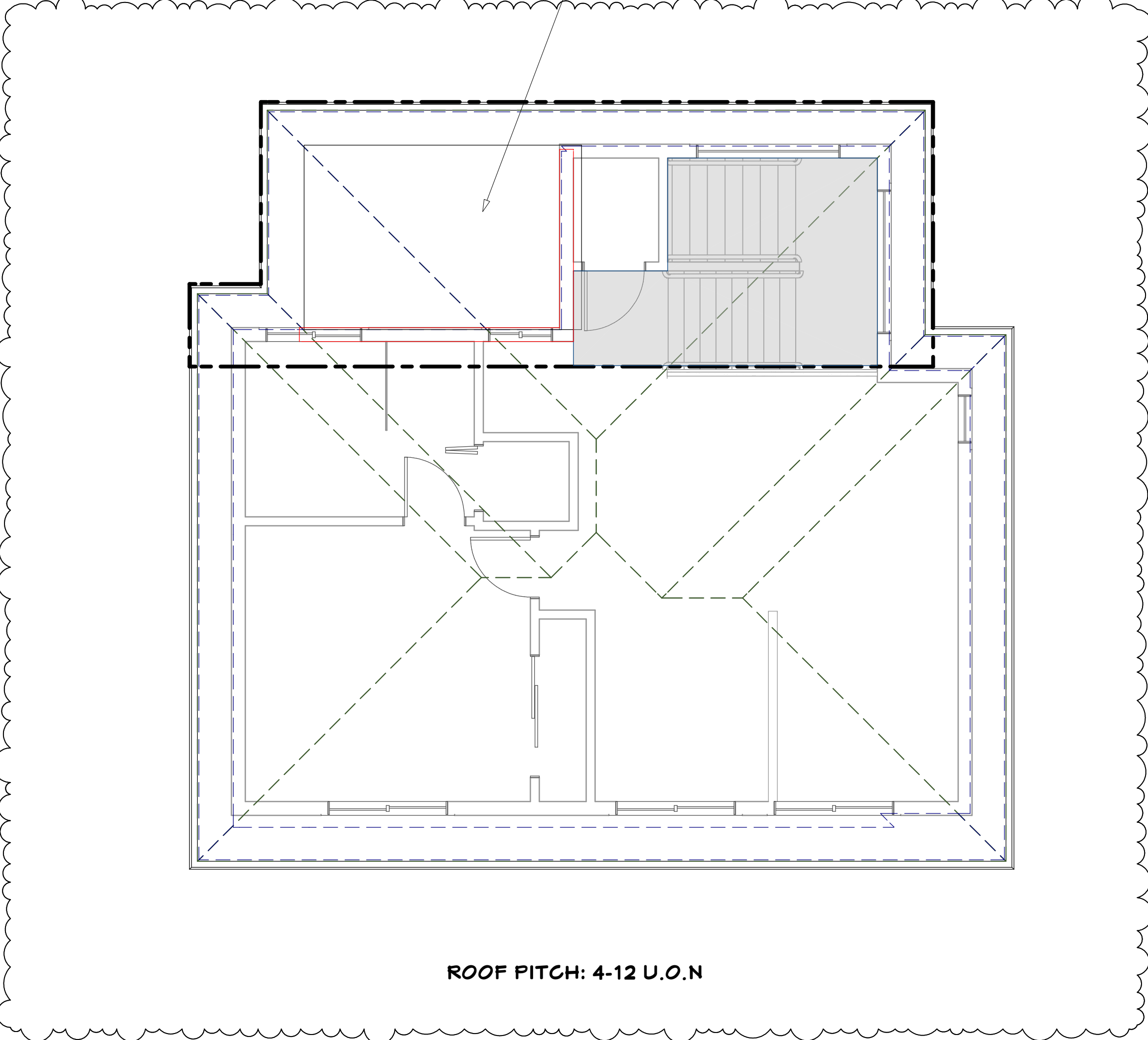
BAFFLING OF THE VENT OPENINGS SHALL BE INSTALLED. BAFFLES SHALL BE RIGID AND WIND-DRIVEN. MOISTURE RESISTANT. IF FEASIBLE BAFFLES SHOULD BE INSTALLED FROM THE TOP OF THE INSULATION TO THE EXTERIOR WALL, EXTENDING INWARD, TO A POINT 6" VERTICALLY ABOVE THE HEIGHT OF NON-COMPRESSIBLE INSULATION. VERTICALLY ABOVE LOOSE FILL INSULATION. (ALL CALCULATIONS WILL BE NET FREE AREA)

1444 SQ. FT. OF ATTIC AREA/300+481 SQ. FT. OF VENTILATION REQUIRED (694 SQ. INCHES)
 HIGH VENT • 341 SQ. IN.
 LOW VENT • 341 SQ. IN.

NOTE: EAVE VENTING PROVIDED BY 1 1/2" DIAMETER "BIRD HOLES" PER EAVE BLOCK (1 1/2" sq. in. PER BLOCK).

NOTE: UPPER ROOF VENTING PROVIDED BY 1"x1" ROOF VENTS. (49 # IN. PER VENT)

TPA or OTHER MEMBRANE ROOF ON LOWER LEVEL (per manufactures installation instructions)



ROOF PITCH: 4-12 U.O.N

ROOF PLAN

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

FIREBLOCKING AND DRAFTSTOPPING

PER IRC SECTION R602.8 FIREBLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED VERTICAL AND HORIZONTAL DRAFT OPENINGS AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIREBLOCKING SHALL BE PROVIDED IN WOOD FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

- 1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROUS OF STUDS OR STAGGERED STUDS AS FOLLOWS: A) VERTICALLY AT THE CEILING AND FLOOR LEVELS. B) HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.
- 2) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR IN SOFFITS, DROP CEILING, AND COVE CEILING.
- 3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R312.2.
- 4) AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
- 5) FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES SEE IRC SECTION R1003.9.
- 6) FIREBLOCKING OF CORNICES OF A TWO FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPERATION. FIREBLOCKING MATERIALS SHALL CONSIST OF MATERIAL LISTED IN IRC SECTION R602.8.1. LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIREBLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED. THE INTEGRITY OF ALL FIREBLOCKS SHALL BE MAINTAINED.

PER IRC SECTION R502.12 DRAFTSTOPPING: WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/CEILING ASSEMBLY, DRAFTSTOPPING SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1000 SF. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROX. EQUAL AREAS, WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:

- 1) CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
- 2) FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEBS OR PERFORATED MEMBERS.

DRAFTSTOPPING MATERIALS SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R502.12.1.

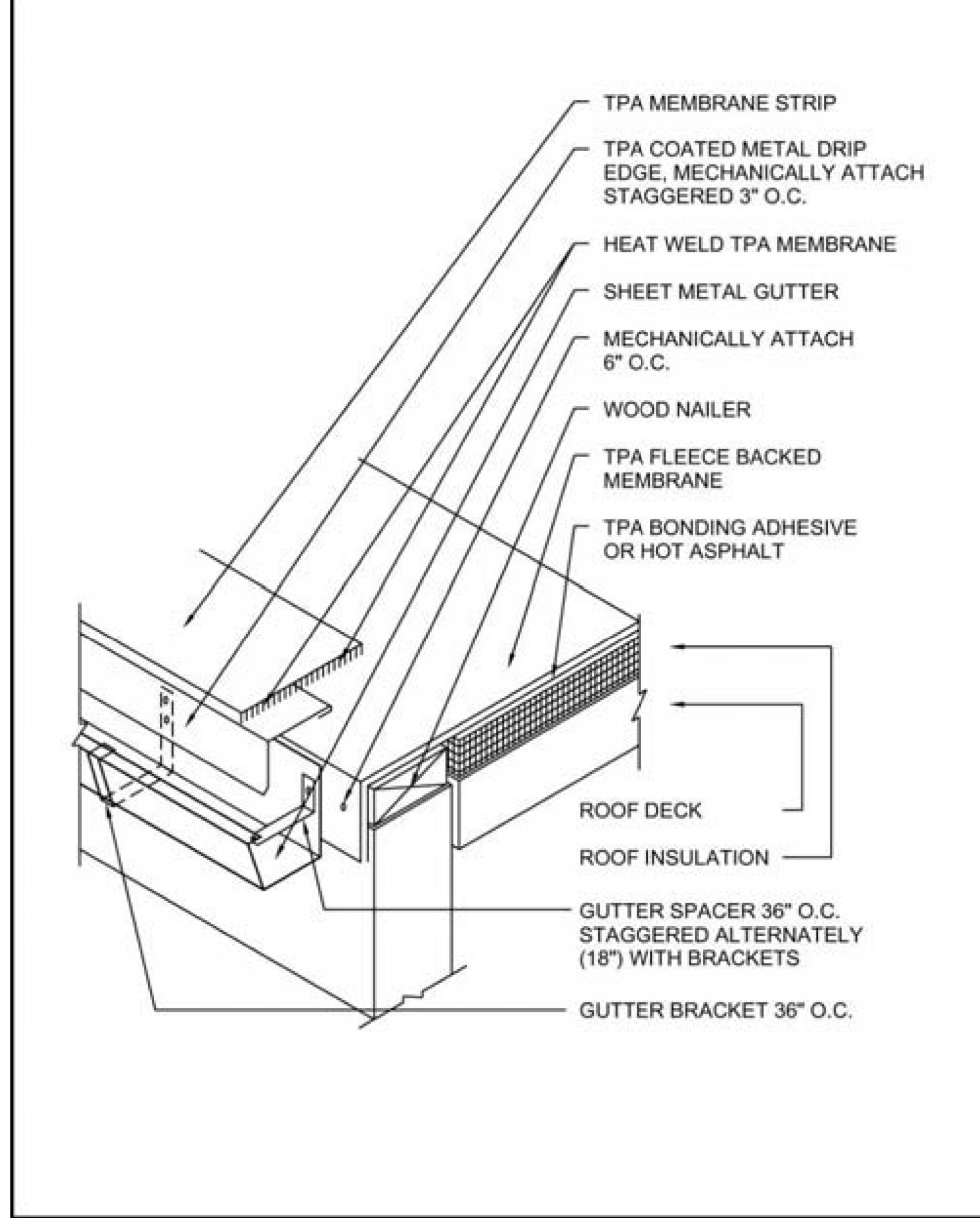
WOOD TRUSSES

TRUSSES SHALL BE DESIGNED BY A REGISTERED WASHINGTON STATE ENGINEER AND FABRICATED FROM ONLY THESE DESIGNS. TRUSSES TO BE STAMPED BY THE MANUFACTURER OR BY A QUALITY CONTROL AGENCY SUCH AS THE WASHINGTON STATE TRUSS FABRICATORS COUNCIL. ROOF TRUSS DESIGN SHALL BE SUBMITTED FOR APPROVAL PRIOR TO FABRICATION. NON-BEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER (SUCH AS SIMPSON STC) TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL. APPROVED HANGERS SHALL BE USED AT ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO THE MAIN GIRDER TRUSS. ALL ROOF TRUSSES SHALL BE INTEGRAL PART OF THE WHOLE BUILDING. ROOF TRUSSES SHALL HAVE JOINTS WELL FITTED AND SHALL HAVE ALL TENSION MEMBERS WELL TIGHTENED BEFORE ANY LOAD IS PLACED UPON THE TRUSS. DIAGONAL AND SWAY BRACING SHALL BE USED TO BRACE ALL TRUSSES. TRUSSES SHALL BE DESIGNED FOR UNIFORM LOADING AS FOLLOWS:

TOP CHORD	35 PSF OF TRIBUTARY AREA
BOTTOM CHORD	10 PSF OF TRIBUTARY AREA
TILE ROOF	45 PSF TOP CHORD AND 5 PSF BOTTOM CHORD

5/8" FORE CLAY (OR EQUIVALENT) PER IRC SECTION R1001.8

TPA MEMBRANE ROOF OR SIMILAR



F

Per R802.10 Wood Trusses

- | | |
|---|---|
| <p>ATTIC VENTILATION: AREA / 300</p> <p>PROVIDE 1" MIN. AIR GAP AT EAVES WITH INSULATION BAFFLES TYP. AT ALL TRUSS BAYS.</p> <p>PROVIDE GABLE VENTS ALL GABLE ENDS.</p> <p>PROVIDE GALV. ROOF VENTS ON BACKSIDE OF ROOFLINE ABOVE CONDITIONED AREA.</p> | <ol style="list-style-type: none"> 1. ALL TRUSSES SHALL CARRY MANUFACTURERS STAMP. 2. ALL TRUSSES SHALL BE INSTALLED & BRACED TO MANUFACTURERS SPECIFICATIONS. 3. ALL TRUSSES WILL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPT. APPROVAL OF ENGINEERING CALCULATIONS. 4. ALL TRUSSES SHALL HAVE DESIGN DETAILS & DRAWINGS ON SITE FOR FRAMING INSPECTION. 5. NON BEARING WALLS SHOULD BE HELD DOWN FROM THE TRUSS BOTTOM CHORD W/ SIMPSON STC TO INSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL. 6. ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO MAIN GIRDER TO BE PROVIDED BY TRUSS MANUFACTURE. 7. ALL ROOF FRAMING 24" O.C. 8. ALL ROOF PITCH 8:12 9. SCISSORS TRUSS CEILING PITCH 2:12. 10. TRUSSES MANUFACTURED BY (TO BE DETERMINED) 11. ALL OVERHANGS 16". |
|---|---|

SHEET NUMBER
A11

DATE: 06.12.20
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ROOF PLAN

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KESH DESIGN LINES LLC
 425 344 9906



SEE NEW STRUCTURAL (S) SHEETS



KESH DESIGN LINES LLC

425 344 9906

TOM & KIM TSO
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2802 SE 9TH ST. MERCER ISLAND WA 98040

SHEARWALL DETAILS

DATE: 06.12.20
REV #10: 07.17.23
DRAWN BY: K.C.

SHEET NUMBER

A12

Revision #:

WINDOW SCHEDULE										
ROOM NAME	NUMBER	QTY	FLOOR	WIDTH	HEIGHT	EGR ESS	TEM PERE D	DESCRIPTION	U-FACTOR	3D EXTERIOR ELEVATION
ADU GREAT	W01	1	2	24"	60"			SINGLE CASEMENT-HR	0.28	
ADU BEDROOM 1	W02	1	1	48"	48"	YES		LEFT SLIDING	0.28	
ADU GREAT	W03	1	2	32 1/8"	48"			LEFT SLIDING	0.28	
ADU BATH	W04	1	2	48"	19"			LEFT SLIDING	0.28	
ADU BEDROOM 1	W06	1	2	60"	48"	YES		RIGHT SLIDING	0.28	
ADU GREAT	W07	2	2	60"	48"	YES		RIGHT SLIDING	0.28	
ADU OPEN BELOW	W10	2	2	72"	48"		YES	FIXED GLASS	0.28	

DOORS AND WINDOWS

DOORS TO THE EXTERIOR SHALL HAVE MAX. 7 3/4" STEP TO MIN. 36" DEEP X (12" + OPERABLE DOOR WIDTH) MIN. LANDING ALL GLAZING TO BE PER WSEC TABLE 6-1 UNLESS NOTED OTHERWISE.
 ALL SKYLIGHTS AND SKYWALLS TO BE SAFETY LAMINATED GLASS UNLESS NOTED OTHERWISE.
 FRENCH DOORS TO BE DOUBLE GLAZED NON TESTED ASSUMED U VALUE OF .90, UNLESS NOTED OTHERWISE WITH SAFETY GLAZING.
 FACTORY BUILT WINDOWS TO BE CONSTRUCTED TO PERMIT MAXIMUM INFILTRATION OF 0.5 CFM PER LINEAL FOOT TOP OPERABLE SASH PERIMETER AS TESTED BY STANDARD ASTM E 283.73. SITE BUILT AND MILL WORK SHOP BUILT WOODEN SASH ARE EXEMPT FROM INFILTRATION CRITERIA ABOVE! BUT MUST BE MADE TIGHTLY FITTING AND WEATHER STRIPPED OR CAULKED.

SLIDING GLASS DOORS TO PERMIT MAXIMUM INFILTRATION OF 0.5 CFM INFILTRATION PER SQUARE FOOT OF DOOR AREA. EACH LIGHT SHALL BEAR THE MANUFACTURER'S LABEL DESIGNATING THE TYPE AND THICKNESS OF GLASS. IDENTIFICATION OF GLAZING IN HAZARDOUS LOCATIONS SHALL BE IN ACCORDANCE WITH IRC SECTION (B) 308.4

PROVIDE SOLID CORE DOORS # ENTRY AND FROM GARAGE TO LIVING AREAS (AS WELL AS ANY OTHER DOORS TO THE EXTERIOR. PROVIDE SELF-CLOSURE DEVICE ON DOOR TO GARAGE. PER IRC. SEE PLANS FOR:
 - MAXIMUM GLAZING AREA
 - GLAZING MFG. AND MODEL NUMBERS.
 - WEIGHTED UA CALCULATION FOR SUB-STANDARD GLAZING.

SAFETY GLAZING LOCATIONS AS PER IRC SECTION (B) 308.4:
 1. INGRESS AND EGRESS DOORS
 2. SLIDING GLASS DOORS, SUNGLASS GLASS DOORS
 3. SHOWER AND BATHTUB ENCLOSURES
 4. GLAZING W/ THE EXPOSED EDGE WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN THE CLOSED POSITION. 4 BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE
 5. GLAZING GREATER THAN 9 SF, LESS THAN 18" ABOVE FINISHED FLOOR
 6. GLAZING IN GUARDRAILS
 7. GLAZING IN STAIRWELLS AND WITHIN 3' OF TOP / BOTTOM OF STAIRS.
 UNLESS NOTED OTHERWISE, INSULATION TO BE PER WSEC TABLE 6-1
 INSULATION BARRIERS TO MAINTAIN 1" ABOVE INSULATION
 BARRIERS TO EXTEND 6" ABOVE BATT INSULATION
 BARRIERS TO EXTEND 12" ABOVE LOOSE FILL INSULATION.
 INSULATE BEHIND TUBS/SHOWERS, PARTITIONS AND CORNERS.
 FACE STAPLE BATT
 FRICTION FIT FACED BATT
 USE 4 MIL POLY VAPOR RETARDER AT WALLS
 USE PVA PAINT WITH A DRY CUP PERM RATING OF 1 MAX.

- WALLS BETWEEN HOUSE AND GARAGE HAVE TO HAVE R-21 UNO.
 - FLOORS ABY CRAWL SPACES, GARAGE, OR AT CANTILEVERS OVER GRADE HAVE TO HAVE R-30 UNO
 - ALL ATTIC AT CEILING HAVE TO HAVE R-38 (MIN) UNO.
 - DUCTS IN UNHEATED SPACES HAVE TO HAVE R-8
 - GAS WATER HEATERS SHALL MEET REQUIREMENTS OF 202 UPC AND BE 60 LABELED.

MISCELLANEOUS NOTES

- GUARDRAILS TO BE 36" MIN. ABOVE FINISH FLOOR.
- HANDRAILS TO BE 34" - 38" ABOVE NOSING, WITH HANDGRIP OF 1 1/2" - 2" IN
- OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL PATTERN SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH.
- ONE HOUR FIRE SEPARATIONS BETWEEN GARAGE AND DWELLING: INSTALL 1/2" TYPE-X ON ALL WALLS AND CEILING. BEARING WALLS. STAGGER JOINTS FROM PLYWOOD BELOW WHERE APPLICABLE.
- BEDROOM EMERGENCY EGRESS WINDOWS: MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. WIDTH OF 20" AND MINIMUM 24". MAXIMUM FINISHED BILL HEIGHT OF 44" ABOVE
- EACH SLEEPING ROOM SHALL BE PROVIDED W/ A SMOKE DETECTOR (INTERCONNECTED) PER SECTION (F) R303.1. SMOKE DETECTORS SHALL BE PROVIDED W/ A BATTERY BACK-UP. PER SEC. (F) R303.1 AND, LOCATED PER SECTION (F) R303.1.
- ANCHORED VENEER SHALL BE PROVIDED WITH #2 GA. X 3/4" CORROSION RESISTANT ANCHOR TIES. THE ANCHOR TIES SHALL BE SPACED A MAX. OF 24" O.C. AND SUPPORT NO MORE THAN 2 SQ. FT. OF VENEER. IN SEISMIC ZONE 3 & 4 THE EXTENDED LEG OF THE ANCHOR TIE SHALL LOOP AROUND A #3 GA. CONT. HORIZ. JOINT REINFORCEMENT WIRE.

**2018 Washington State Energy Code – Residential
 Prescriptive Energy Code Compliance for All Climate Zones in Washington
 Single Family – New & Additions (effective February 1, 2021)**

These requirements apply to all IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Project Information	Contact Information
8802 SE 37th ST. MERCER ISLAND WA 98040	Kesh Chavda - KDL Designs LLC 425 344 9906

Instructions: This single-family project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. Based on the size of the structure, the appropriate number of additional credits are checked as chosen by the permit applicant.

Provide all information from the following tables as building permit drawings: Table R402.1 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and 406.3 - Energy Credits.

Authorized Representative: Kesh Chavda Date: 04/12/2022

All Climate Zones (Table R402.1.1)	
R-Value ^a	U-Factor ^a
Fenestration U-Factor ^b	n/a
Skylight U-Factor ^b	0.30
Glazed Fenestration SHGC ^{b,c}	n/a
Ceiling ^d	49
Wood Frame Wall ^{e,f}	21 int
Floor	30
Below Grade Wall ^{g,h}	10/15/21 int + TB
Slab ^{g,h} R-Value & Depth	10, 2 ft

- ^a R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity that is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table.
- ^b The fenestration U-factor column excludes skylights.
- ^c "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
- ^d R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
- ^e For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- ^f R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
- ^g For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
- ^h Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

**2018 Washington State Energy Code – Residential
 Prescriptive Energy Code Compliance for All Climate Zones in Washington
 Single Family – New & Additions (effective February 1, 2021)**

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

- Small Dwelling Unit: 3 credits**
Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area. Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.
- Medium Dwelling Unit: 6 credits**
All dwelling units that are not included in #1 or #3
- Large Dwelling Unit: 7 credits**
Dwelling units exceeding 5,000 sf of conditioned floor area
- Additions less than 500 square feet: 1.5 credits**
All other additions shall meet 1-3 above

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Summary of Table R406.2 and 406.3			
Heating Options	Fuel Normalization Descriptions	Credits - select ONE heating option	User Notes
1	Combustion heating minimum NAECA ^a	0.0	<input type="checkbox"/>
2	Heat pump ^b	1.0	<input type="checkbox"/>
3	Electric resistance heat only - furnace or zonal	-1.0	<input type="checkbox"/>
4	DHP with zonal electric resistance per option 3.4	0.5	<input type="checkbox"/>
5	All other heating systems	-1.0	<input type="checkbox"/>
Energy Options	Energy Credit Option Descriptions	Credits - select ONE energy option from each category ^c	User Notes
1.1	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.2	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.3	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.4	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.5	Efficient Building Envelope	2.0	<input type="checkbox"/>
1.6	Efficient Building Envelope	3.0	<input type="checkbox"/>
1.7	Efficient Building Envelope	0.5	<input type="checkbox"/>
2.1	Air Leakage Control and Efficient Ventilation	0.5	<input type="checkbox"/>
2.2	Air Leakage Control and Efficient Ventilation	1.0	<input type="checkbox"/>
2.3	Air Leakage Control and Efficient Ventilation	1.5	<input type="checkbox"/>
2.4	Air Leakage Control and Efficient Ventilation	2.0	<input type="checkbox"/>
3.1 ^d	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.2	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.3 ^d	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.4	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.5	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.6 ^d	High Efficiency HVAC	2.0	<input type="checkbox"/>
4.1	High Efficiency HVAC Distribution System	0.5	<input type="checkbox"/>
4.2	High Efficiency HVAC Distribution System	1.0	<input type="checkbox"/>

**2018 Washington State Energy Code – Residential
 Prescriptive Energy Code Compliance for All Climate Zones in Washington
 Single Family – New & Additions (effective February 1, 2021)**

Summary of Table R406.2 (cont.)			
Energy Options	Energy Credit Option Descriptions (cont.)	Credits - select ONE energy option from each category ^e	User Notes
5.1 ^d	Efficient Water Heating	0.5	<input type="checkbox"/>
5.2	Efficient Water Heating	0.5	<input type="checkbox"/>
5.3	Efficient Water Heating	1.0	<input type="checkbox"/>
5.4	Efficient Water Heating	1.5	<input type="checkbox"/>
5.5	Efficient Water Heating	2.0	<input type="checkbox"/>
5.6	Efficient Water Heating	2.5	<input type="checkbox"/>
6.1 ^d	Renewable Electric Energy (3 credits max)	1.0	<input type="checkbox"/>
7.1	Appliance Package	0.5	<input type="checkbox"/>
Total Credits		3.0	<input type="checkbox"/> Calculate Total <input type="button" value="Clear Form"/>

- An alternative heating source sized at a maximum of 0.5 W/sf (equivalent) of heated floor area or 500 W, whichever is bigger, may be installed in the dwelling unit.
- Equipment listed in Table C403.3.2(4) or C403.3.2(5)
- Equipment listed in Table C403.3.2(1) or C403.3.2(2)
- You cannot select more than one option from any category EXCEPT in category 5. Option 5.1 may be combined with options 5.2 through 5.6. See Table 406.3.
- 1.0 credit for each 1,200 kWh of electrical generation provided annually, up to 3 credits max. See the complete Table R406.2 for all requirements and option descriptions.
- Use the single radiobutton in the upper right of the second column to deselect radiobuttons in that group.

Please print only pages 1 through 3 of this worksheet for submission to your building official.

For Building Officials Only

NOTE: See Sheet A.02 for:
 APPLIANCE SPECS.
 HEAT PUMP SPECS.
 WATER HEATER SPECS.

SHEET NUMBER
A13
 Revision #:

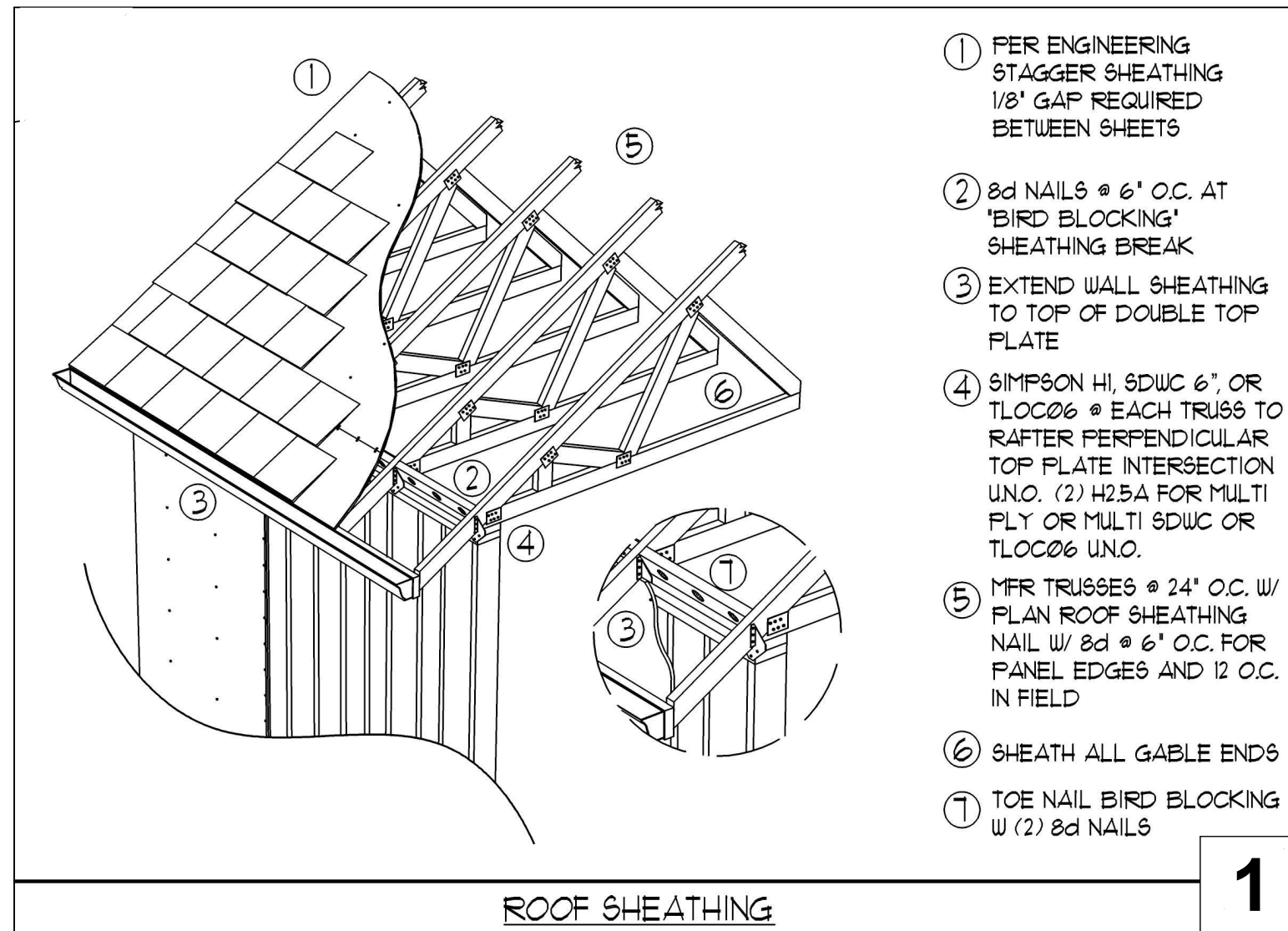
DATE: 06.12.20
 REV #10: 07.17.23
 DRAWN BY: K.C.

WINDOW SCHEDULE ENERGY
 CALCS.

TOM & KIM TSO
 ADDITION & ADU
 8802 SE 37th ST. MERCER ISLAND WA 98040

KESH DESIGN LINES LLC
 425 344 9906

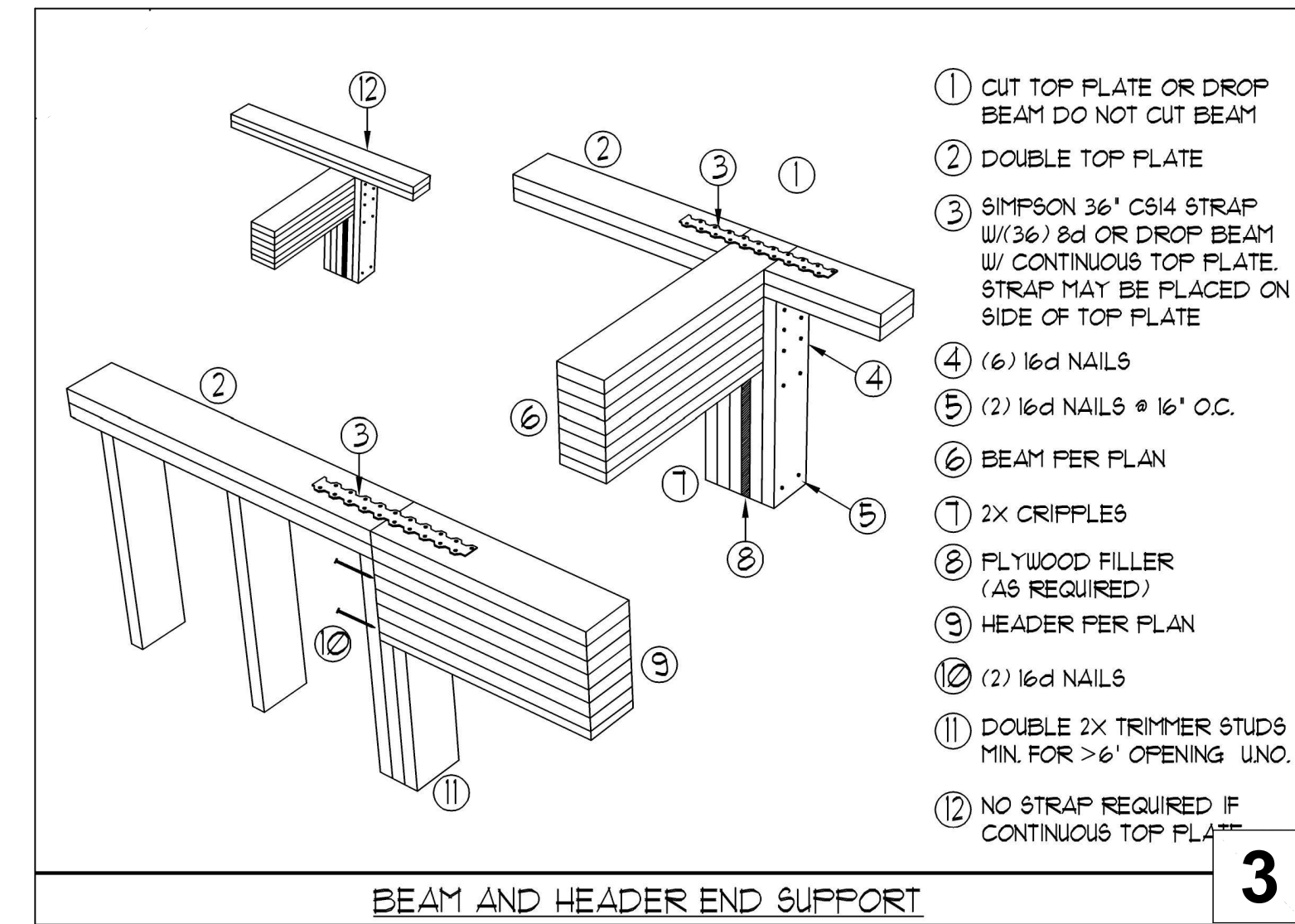




- ① PER ENGINEERING STAGGER SHEATHING 1/8" GAP REQUIRED BETWEEN SHEETS
- ② 2d NAILS @ 6" O.C. AT "BIRD BLOCKING" SHEATHING BREAK
- ③ EXTEND WALL SHEATHING TO TOP OF DOUBLE TOP FLATE
- ④ SIMPSON HI, SDUC 6", OR TLOC@6 @ EACH TRUSS TO RAFTER PERPENDICULAR TOP FLATE INTERSECTION UNO. (2) H25A FOR MULTI FLY OR MULTI SDUC OR TLOC@6 UNO.
- ⑤ MFR TRUSSES @ 24" O.C. W/ PLAN ROOF SHEATHING NAIL W/ 2d @ 6" O.C. FOR PANEL EDGES AND 12" O.C. IN FIELD
- ⑥ SHEATH ALL GABLE ENDS
- ⑦ TOE NAIL BIRD BLOCKING W/ (2) 2d NAILS

ROOF SHEATHING

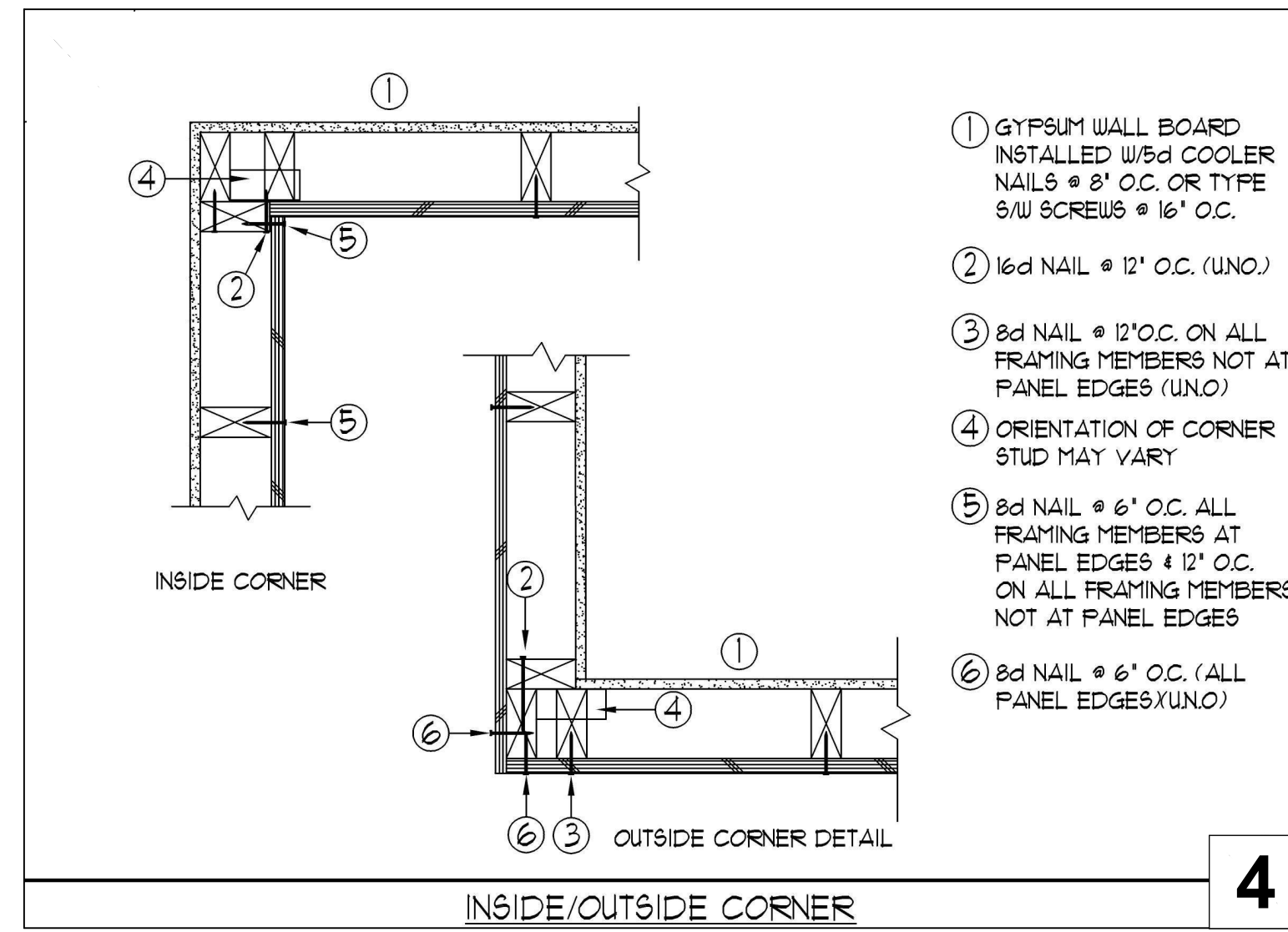
1



- ① CUT TOP FLATE OR DROP BEAM DO NOT CUT BEAM
- ② DOUBLE TOP FLATE
- ③ SIMPSON 36" CS14 STRAP W/ (36) 2d OR DROP BEAM W/ CONTINUOUS TOP FLATE. STRAP MAY BE PLACED ON SIDE OF TOP FLATE
- ④ (6) 16d NAILS
- ⑤ (2) 16d NAILS @ 16" O.C.
- ⑥ BEAM PER PLAN
- ⑦ 2X CRIPPLES
- ⑧ PLYWOOD FILLER (AS REQUIRED)
- ⑨ HEADER PER PLAN
- ⑩ (2) 16d NAILS
- ⑪ DOUBLE 2X TRIMMER STUDS MIN. FOR >6' OPENING UNO.
- ⑫ NO STRAP REQUIRED IF CONTINUOUS TOP FLATE

BEAM AND HEADER END SUPPORT

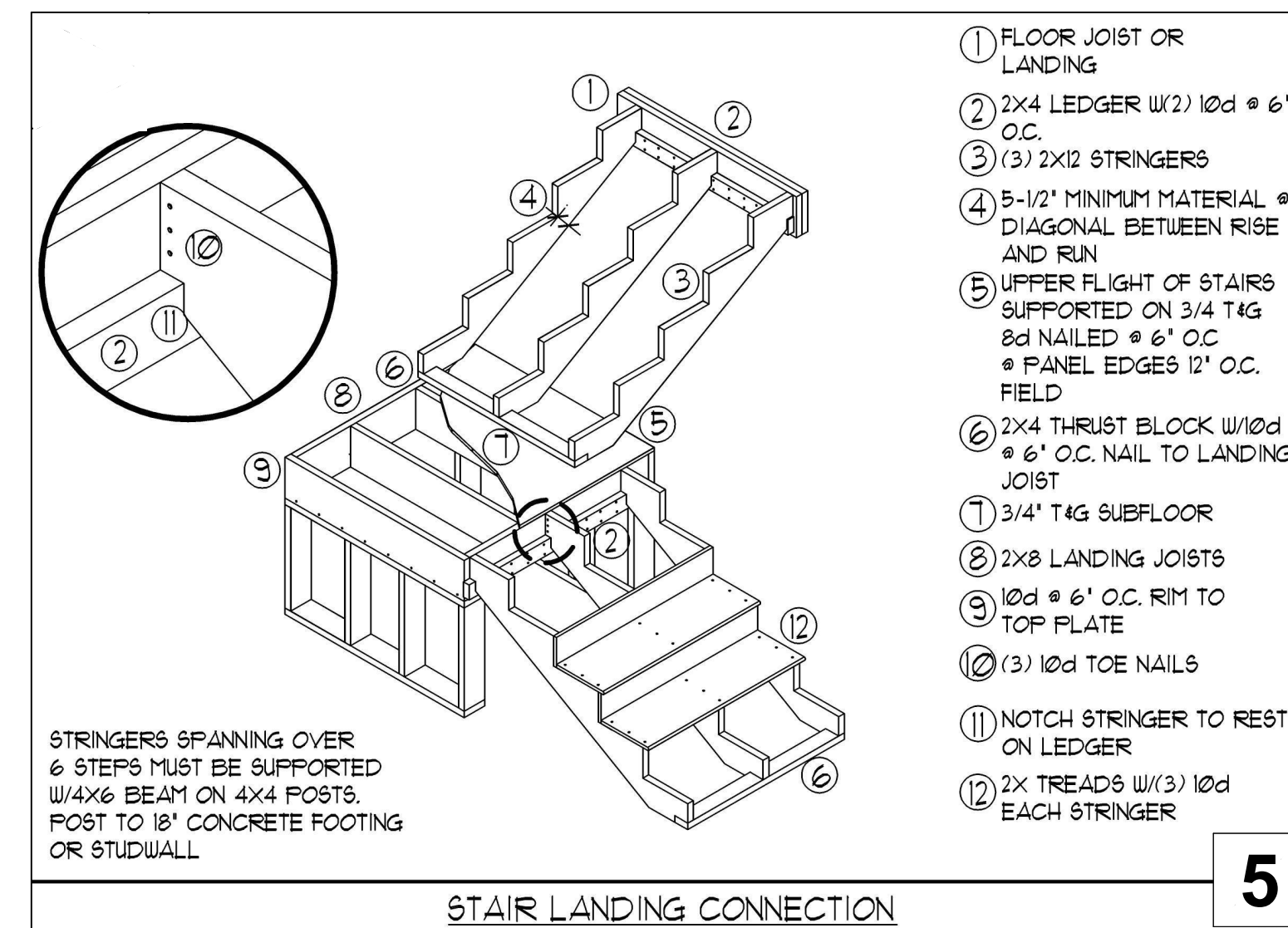
3



- ① GYPSUM WALL BOARD INSTALLED W/ 2d COOLER NAILS @ 8" O.C. OR TYPE 5 W/ SCREWS @ 16" O.C.
- ② 16d NAIL @ 12" O.C. (UNO.)
- ③ 2d NAIL @ 12" O.C. ON ALL FRAMING MEMBERS NOT AT PANEL EDGES (UNO.)
- ④ ORIENTATION OF CORNER STUD MAY VARY
- ⑤ 2d NAIL @ 6" O.C. ALL FRAMING MEMBERS AT PANEL EDGES @ 12" O.C. ON ALL FRAMING MEMBERS NOT AT PANEL EDGES
- ⑥ 2d NAIL @ 6" O.C. (ALL PANEL EDGES/UNO.)

INSIDE/OUTSIDE CORNER

4

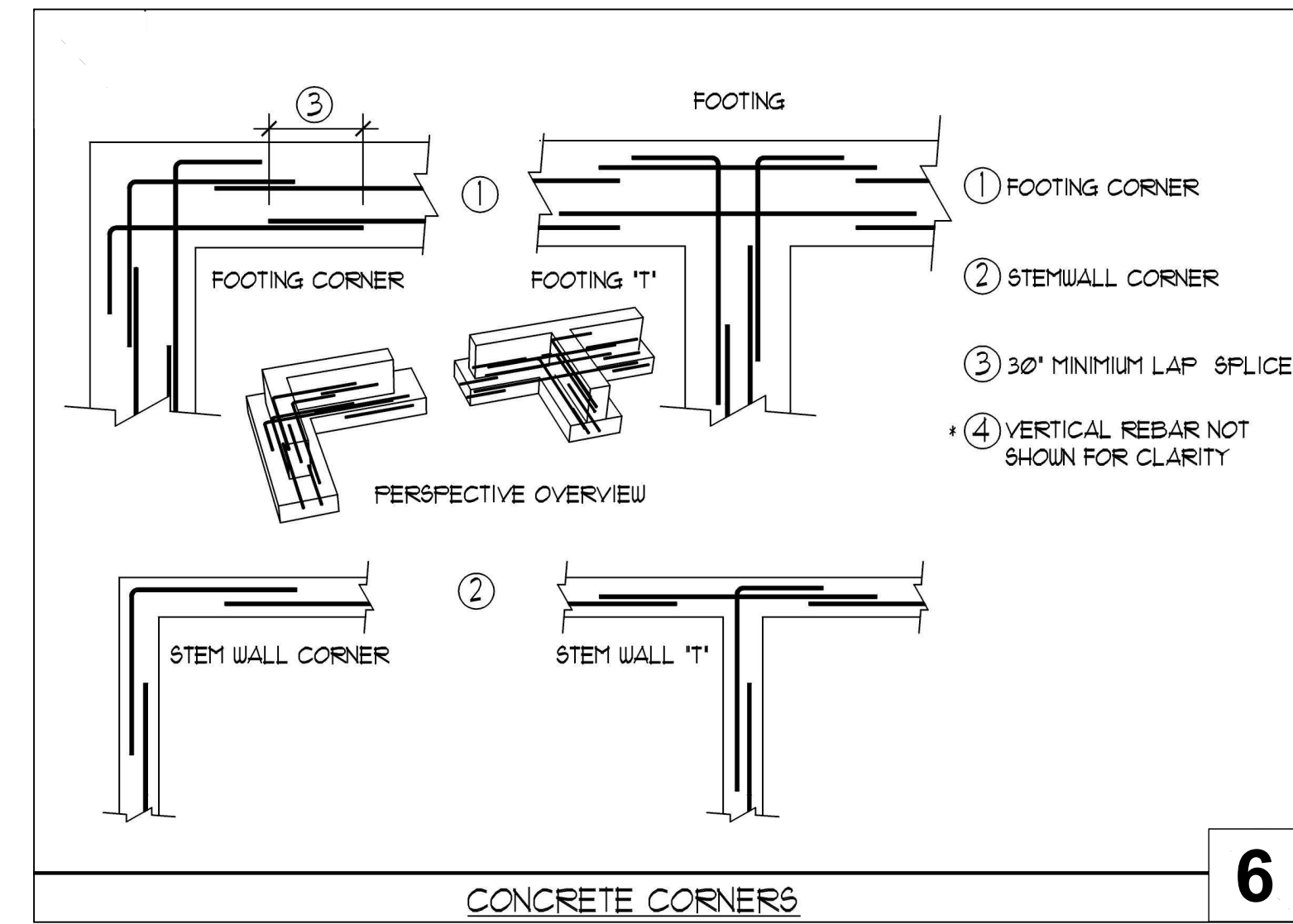


- ① FLOOR JOIST OR LANDING
- ② 2x4 LEDGER W/ (2) 10d @ 6" O.C.
- ③ (3) 2x12 STRINGERS
- ④ 5-1/2" MINIMUM MATERIAL @ DIAGONAL BETWEEN RISE AND RUN
- ⑤ UPPER FLIGHT OF STAIRS SUPPORTED ON 3/4 T&G 2d NAIL @ 6" O.C. @ PANEL EDGES 12" O.C. FIELD
- ⑥ 2x4 THRUST BLOCK W/ 10d @ 6" O.C. NAIL TO LANDING JOIST
- ⑦ 3/4" T&G SUBFLOOR
- ⑧ 2x8 LANDING JOISTS
- ⑨ 10d @ 6" O.C. RIM TO TOP FLATE
- ⑩ (3) 10d TOE NAILS
- ⑪ NOTCH STRINGER TO REST ON LEDGER
- ⑫ 2x TREADS W/ (3) 10d EACH STRINGER

STRINGERS SPANNING OVER 6 STEPS MUST BE SUPPORTED W/ 4x6 BEAM ON 4x4 POSTS. POST TO 18" CONCRETE FOOTING OR STUDWALL

STAIR LANDING CONNECTION

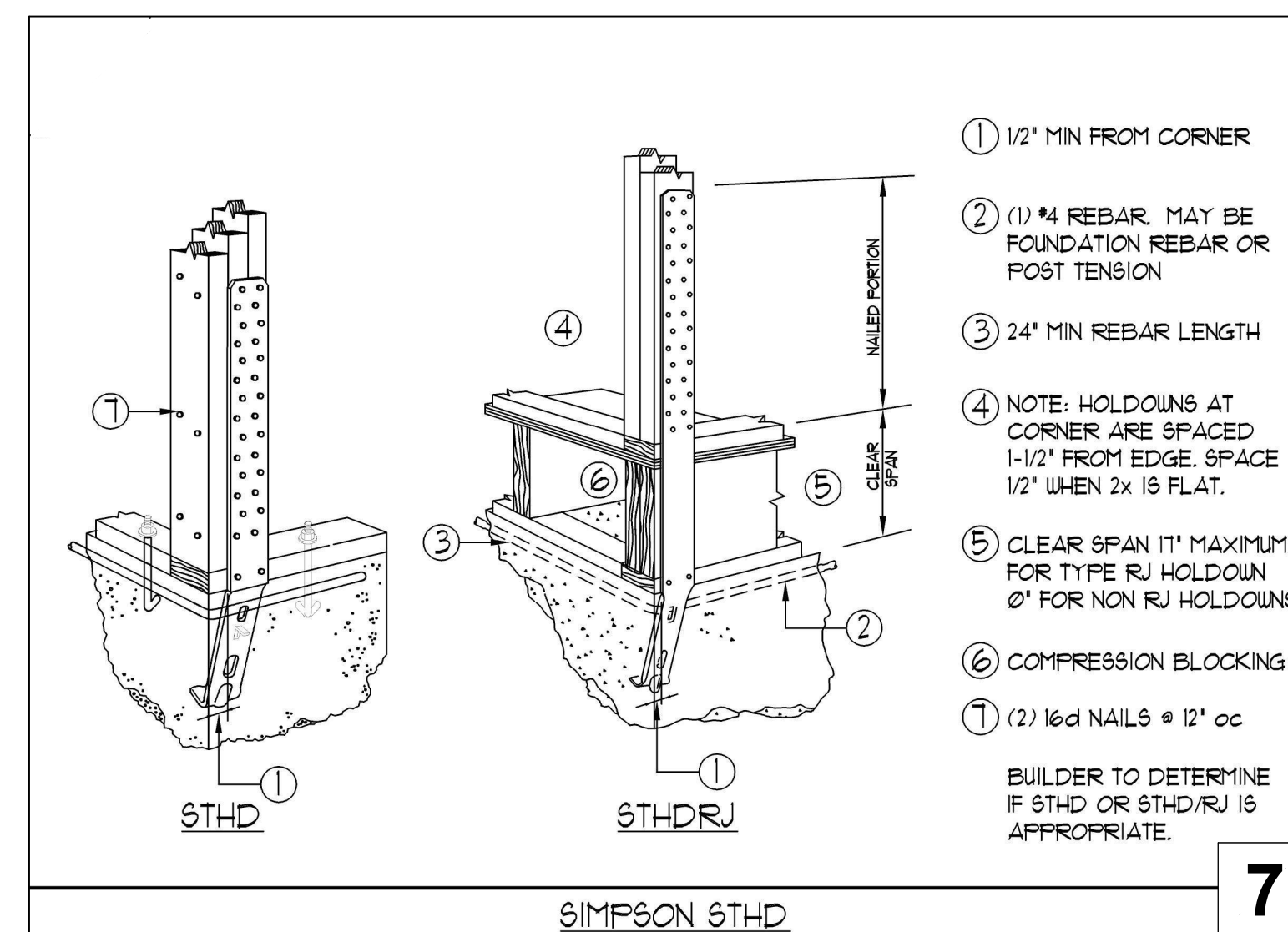
5



- ① FOOTING CORNER
- ② STEM WALL CORNER
- ③ 30" MINIMUM LAP SPLICE
- ④ VERTICAL REBAR NOT SHOWN FOR CLARITY

CONCRETE CORNERS

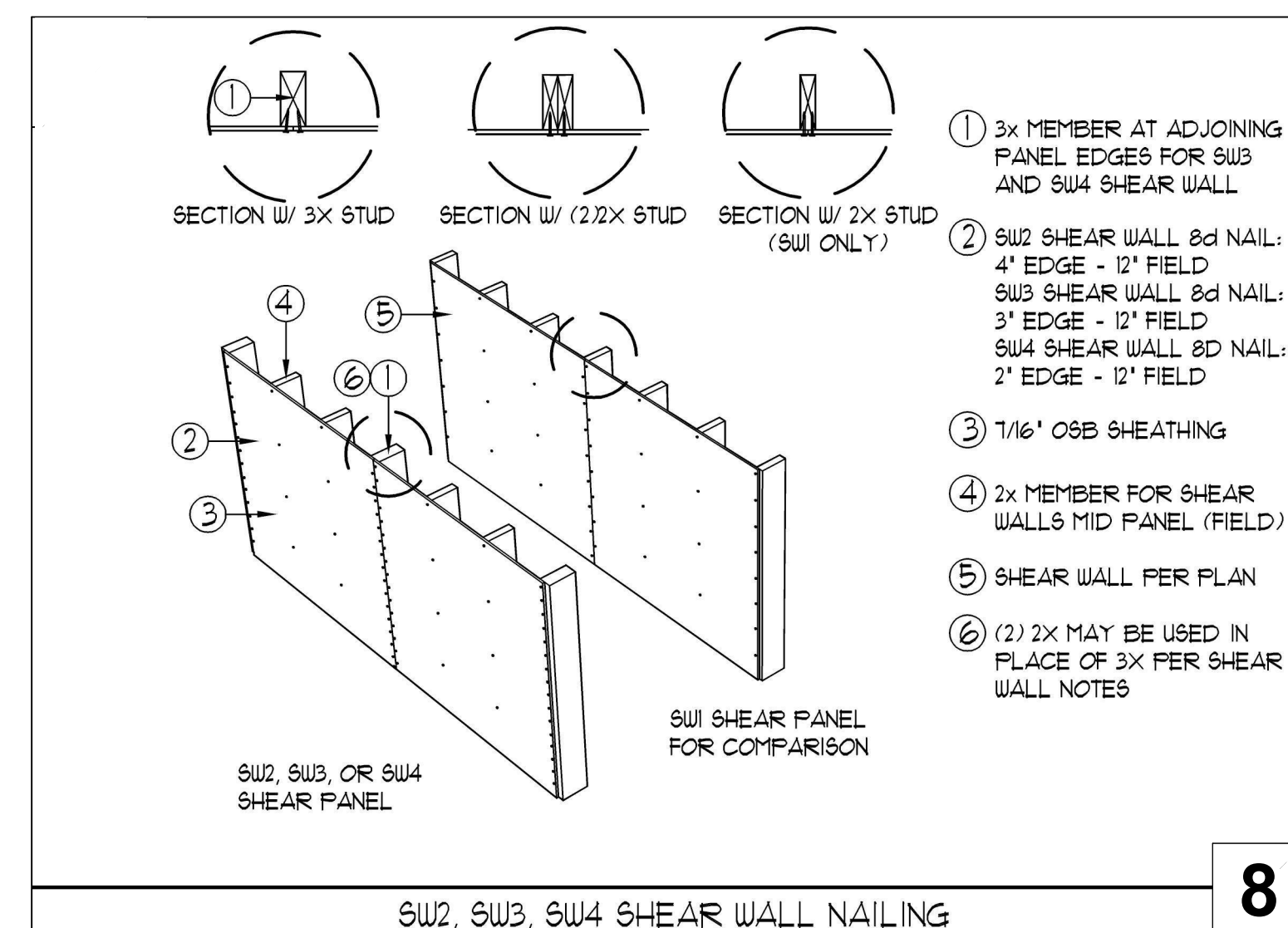
6



- ① 1/2" MIN FROM CORNER
 - ② (1) #4 REBAR. MAY BE FOUNDATION REBAR OR POST TENSION
 - ③ 24" MIN REBAR LENGTH
 - ④ NOTE: HOLDDOWNS AT CORNER ARE SPACED 1-1/2' FROM EDGE. SPACE 1/2' WHEN 2x IS FLAT.
 - ⑤ CLEAR SPAN 1" MAXIMUM. FOR TYPE RJ HOLDDOWN 0" FOR NON RJ HOLDDOWNS
 - ⑥ COMPRESSION BLOCKING
 - ⑦ (2) 16d NAILS @ 12" oc
- BUILDER TO DETERMINE IF 6THD OR 6THD/RJ IS APPROPRIATE.

SIMPSON 6THD

7



- ① 3x MEMBER AT ADJOINING PANEL EDGES FOR SW3 AND SW4 SHEAR WALL
- ② SW2 SHEAR WALL 2d NAIL: 4" EDGE - 12" FIELD
SW3 SHEAR WALL 2d NAIL: 3" EDGE - 12" FIELD
SW4 SHEAR WALL 2d NAIL: 2" EDGE - 12" FIELD
- ③ 1/16" OSB SHEATHING
- ④ 2x MEMBER FOR SHEAR WALLS MID PANEL (FIELD)
- ⑤ SHEAR WALL PER PLAN
- ⑥ (2) 2X MAY BE USED IN PLACE OF 3X PER SHEAR WALL NOTES

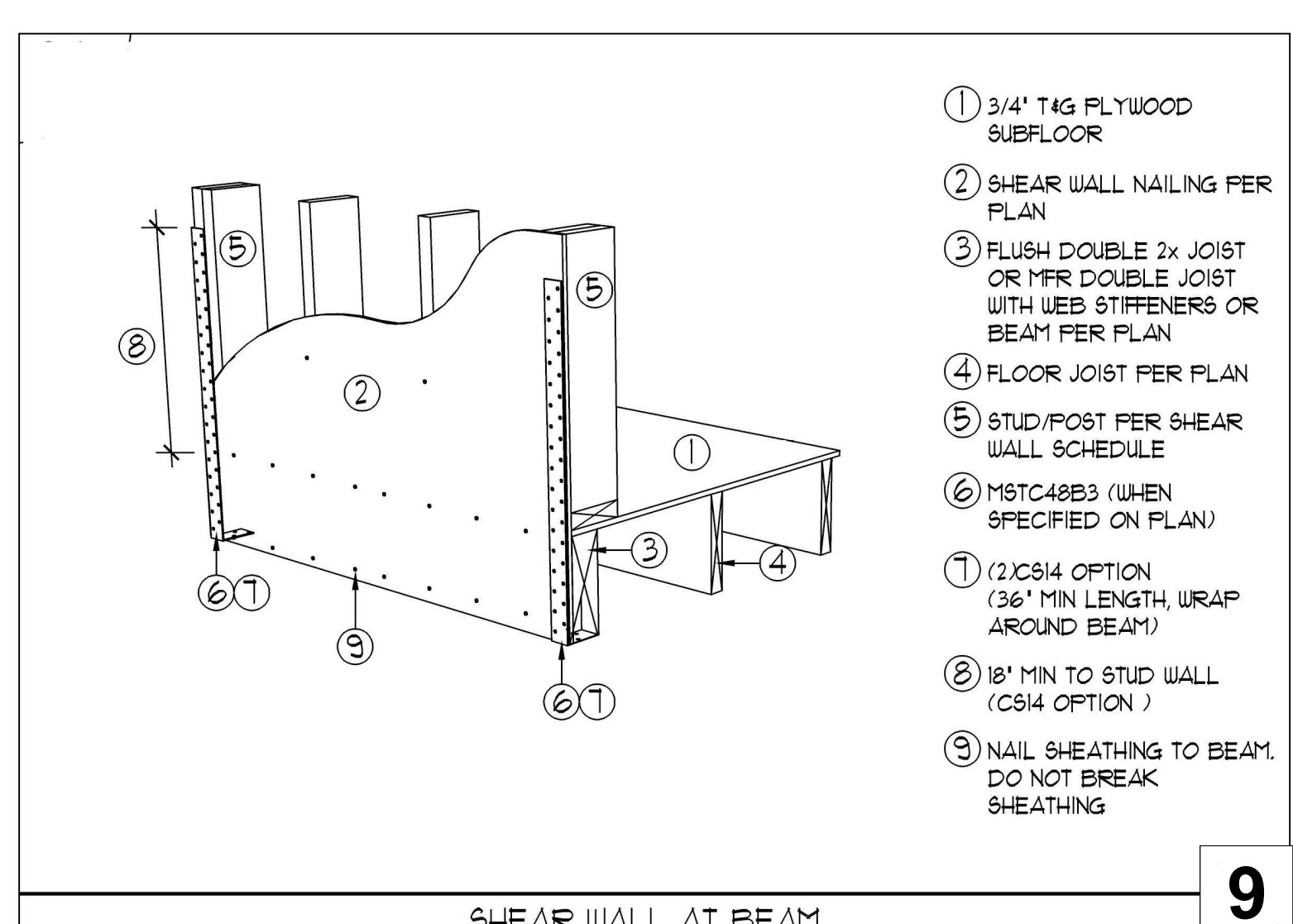
SECTION W/ 3X STUD SECTION W/ (2)2X STUD SECTION W/ 2X STUD (SW1 ONLY)

SW2, SW3, OR SW4 SHEAR PANEL

SW1 SHEAR PANEL FOR COMPARISON

SW2, SW3, SW4 SHEAR WALL NAILING

8

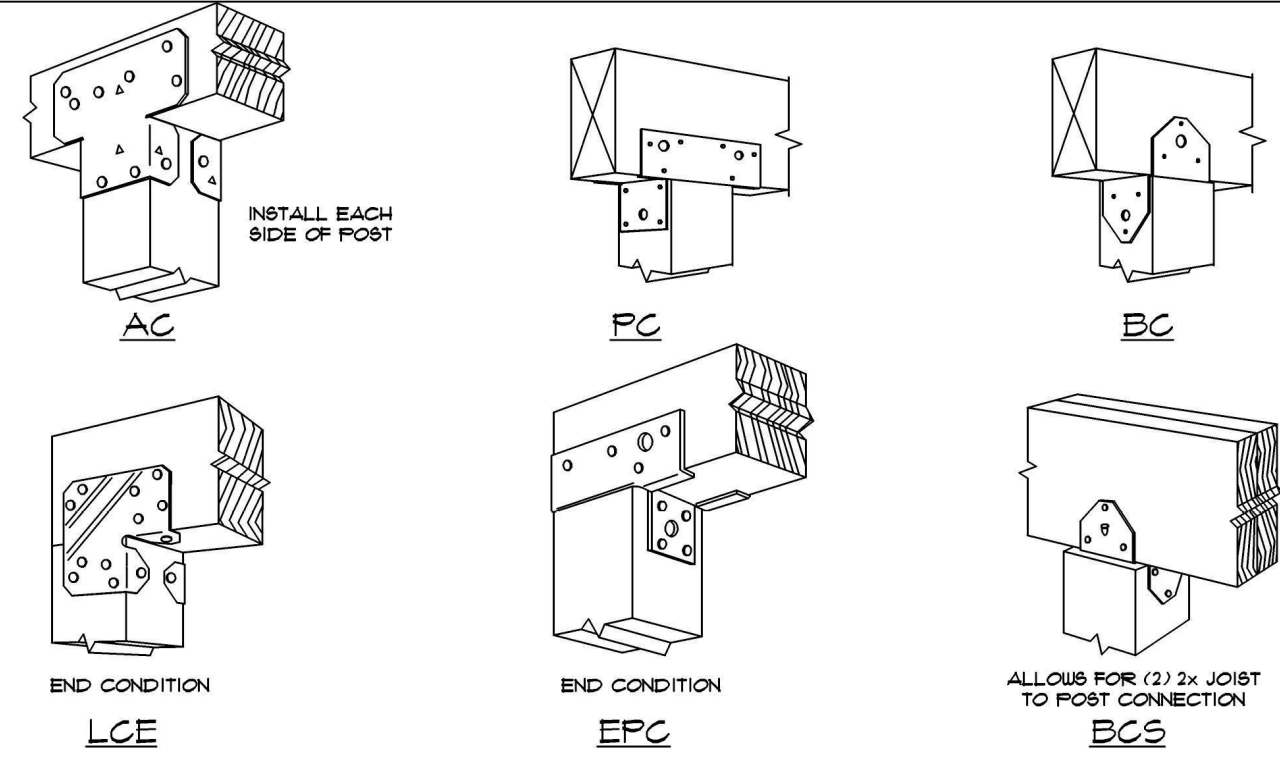


- ① 3/4" T&G FLYWOOD SUBFLOOR
- ② SHEAR WALL NAILING PER PLAN
- ③ FLUSH DOUBLE 2x JOIST OR MFR DOUBLE JOIST WITH WEB STIFFENERS OR BEAM PER PLAN
- ④ FLOOR JOIST PER PLAN
- ⑤ STUD/POST PER SHEAR WALL SCHEDULE
- ⑥ MSTC48B3 (WHEN SPECIFIED ON PLAN)
- ⑦ (2)CS14 OPTION (36" MIN LENGTH, WRAP AROUND BEAM)
- ⑧ 18" MIN TO STUD WALL (CS14 OPTION)
- ⑨ NAIL SHEATHING TO BEAM. DO NOT BREAK SHEATHING

SHEAR WALL AT BEAM

9

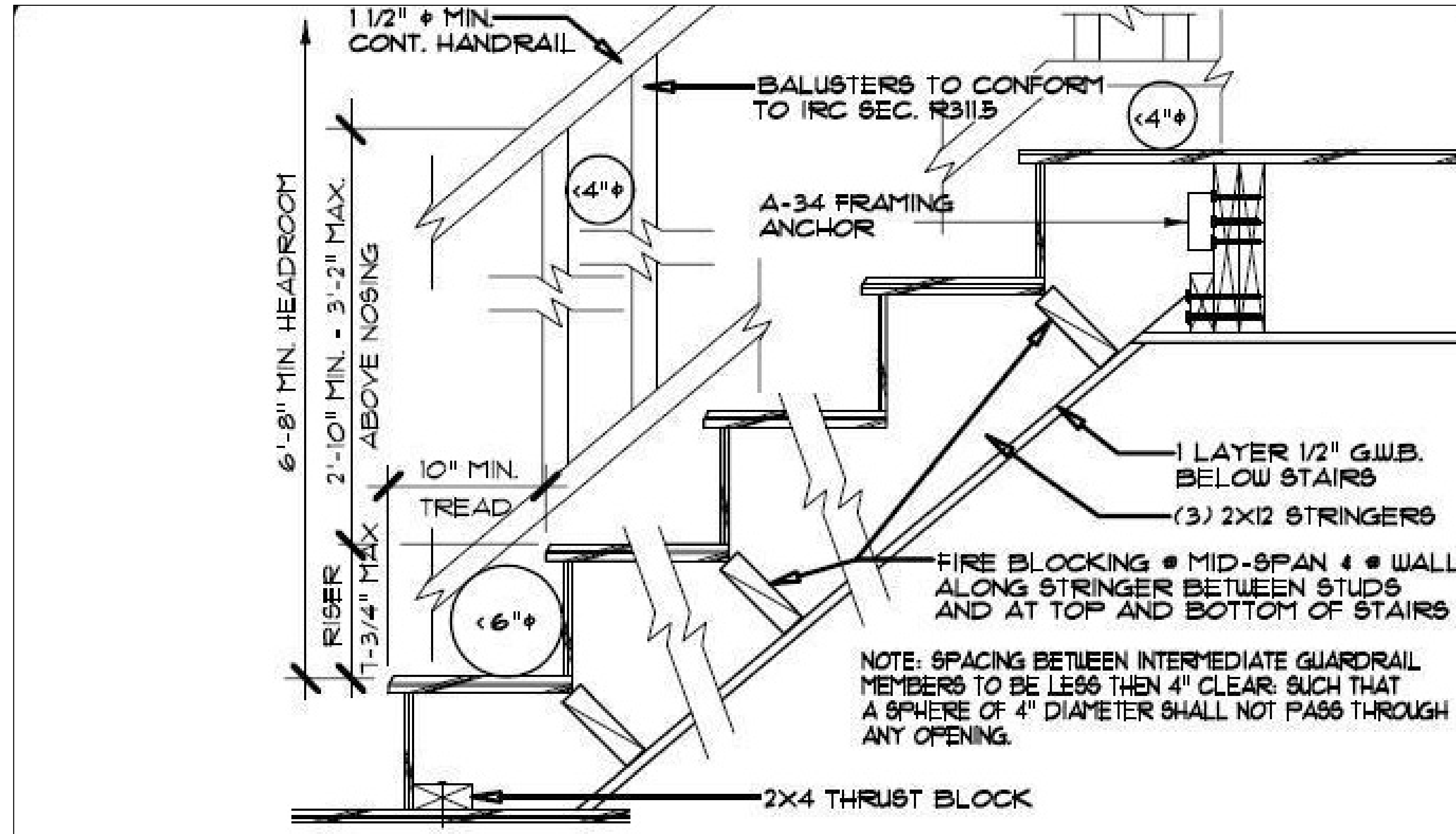




- ① WHERE POSTS AND BEAM OR GIRDER CONSTRUCTION IS USED TO SUPPORT FLOOR FRAMING, POSITIVE CONNECTION SHALL BE PROVIDED TO ENSURE AGAINST UPLIFT AND LATERAL DISPLACEMENT.
- ② ACE/LCE ELIMINATE THE NEED FOR RIGHT AND LEFTS, FOR USE W/ 4x OR 6x LUMBER
- ③ PC/EPC PROVIDES A CUSTOM CONNECTION FOR POST BEAM COMBINATIONS
- ④ PBC/ECS OFFER A LIGHT CAP CONNECTION

BEAM TO POST CONNECTIONS

10

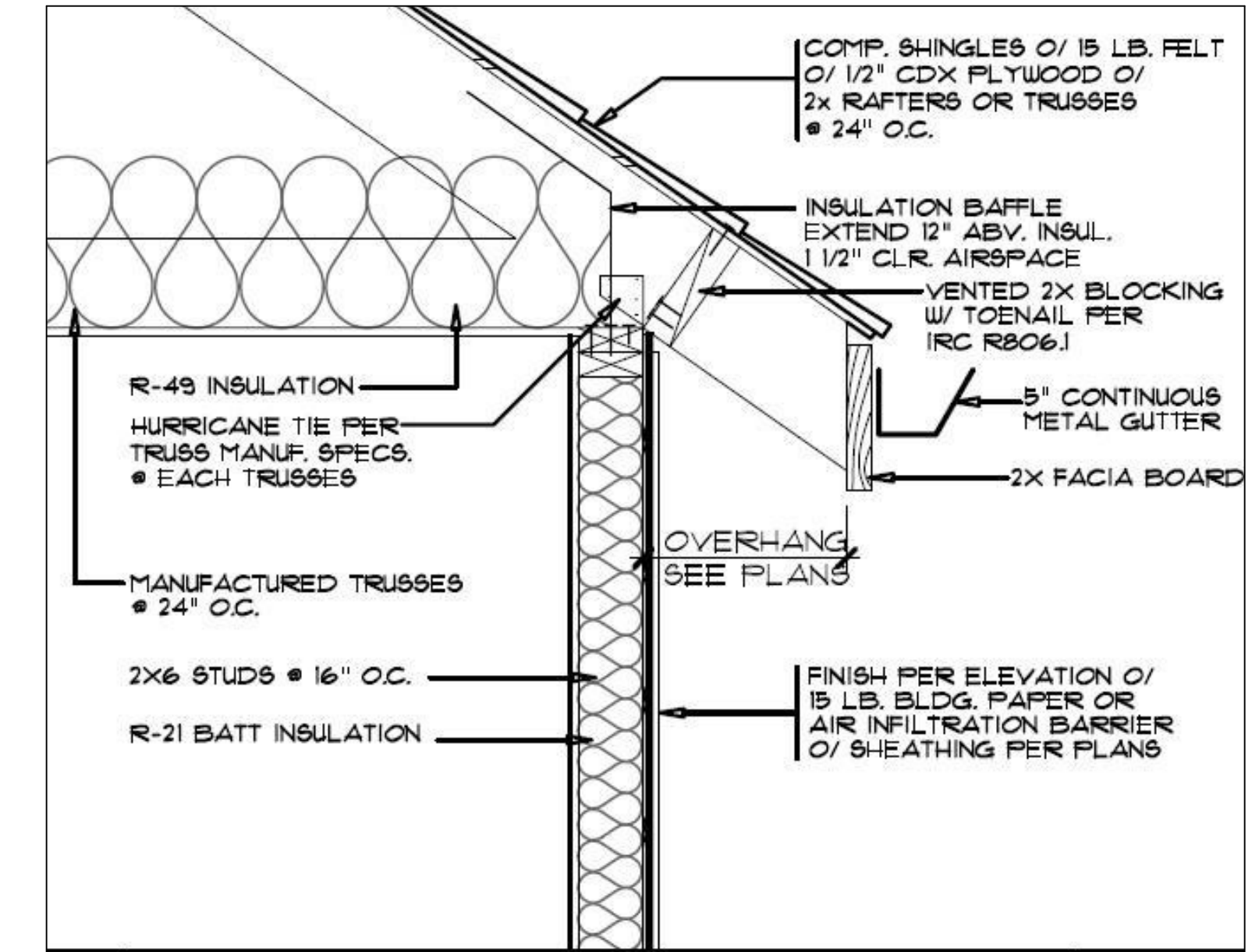


NOTES: PER IRC SECTION 309.6, R311.5.1 ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIR INCLUDING LANDINGS & TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP OF THE LANDING OF THE STAIRWAY. LIGHTING CONTROLS SHALL BE ACCESSIBLE AT THE TOP & BOTTOM OF EACH STAIRWAY WITHOUT TRAVERSING ANY STEPS. 4 OR MORE RISERS TO HAVE AT LEAST ONE HANDRAIL RUNNING CONTINUOUS THROUGH FULL LENGTH OF STAIR 34' MIN. HT., 38" MAX. HEIGHT. END SHALL RETURN TO WALL OR NEWEL POST OR VOLUTE. HANDRAIL MUST BE STRONG ENOUGH TO RESIST A 200 LB. FT. LOAD IN ANY DIRECTION. HANDRAIL TO BE PRESENT ON AT LEAST ONE SIDE OF STAIR. HAND GRIP PORTION OF HANDRAILS SHALL HAVE CIRCULAR CROSS SECTION OF 1 1/4" MIN. & 2 1/4" MAX. EDGES SHALL HAVE A MIN. RADIUS OF 1/8". ALL REQUIRED GUARDRAILS TO BE 36" MIN. IN HEIGHT.

11

WOOD STAIR DETAIL

SCALE
NTS



14 TOP PLATE TO TRUSS CONNECTION

SCALE
NTS

SHEET NUMBER

D2

DATE: 06.12.20

REV #10: 07.17.23

DRAWN BY: K.C.

DETAILS & NOTES

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