

PROJECT TEAM

OWNER:
Tom & Kim TSO
8802 SE 37th St.
Mercer Island WA 98040
email:

DESIGNER:
Kesh Design Lines
Tel: 425.361.7325
email: kesh@keshdesignlines.com

ENGINEERING:
As Needed

PROPERTY DETAILS

JOB NAME: TSO ADDITION & ADU
SITE ADDRESS:
8802 SE 37th ST. MERCER ISLAND WA 98040

LEGAL DISCRPTION:
MADRONA CREST ADD

ZONING: R-8.4 Single Family(Res Use/Zone)

PARCEL #: 502190-0455

PROJECT NARATIVE

Proposed is a 2 story Addition above and to the rear of the existing 750 SF garage.
One bedroom and One bath on lower level and Master Bed and Bath on upper level -
ADU totaling 899 SF.

Principal dwelling unit will be owner occupied.

New construction details will follow the existing design of the house including windows,
siding and roof pitch.

2 Additional on site parking will be designated for the ADU

No trees will be removed or disturbed

SHEET INDEX

P1 SITE PLAN
P2 SUPP. SHEET & GFA CALCULATIONS
A2 GENERAL NOTES
A3 AS BUILT
A4 PROPOSED MAIN & UPPER FLOOR
A5 ELEVATIONS
A6 FOUNDATION & MAIN FLOOR FRAMING
A7 SECTIONS
A8 SECTION & DETAILS
A9 FRAMING PLAN & NOTES
A10 STAIRS & BALCONY DETAILS
A11 ROOF PLAN
A12 SHEARWALL DETAILS
A13 WINDOW SCHEDULE & ENERGY CALCS.
D1 DETAILS & NOTES
D2 DETAILS & NOTES

STRUCTURAL:
S0 GEN. NOTES
S1 FRAMING PLAN
S2 FRAMING DETAILS
S3 WSW DETAILS

STRUCTURAL CALCULATIONS:
Page 1 - 22

LOT COVERAGE

| | | |
|---|---------------|-------------|
| A. Gross Lot Area | 12,100 | Square Feet |
| B. Net Lot Area | 10,960 | Square Feet |
| C. Allowed Lot Coverage Area | 4,840 | Square Feet |
| D. Allowed Lot Coverage | 40 | % of Lot |
| E. Existing Lot Coverage: | | |
| 1. Main Structure Roof Area | 2,827 2,873 | Square Feet |
| 2. Accessory Building Roof Area | 17 94 | Square Feet |
| 3. Vehicular Use (driveway, paved access easements [portion used by the lot for access], parking) | 790 | Square Feet |
| 4. Covered Patios and Covered Decks | 216 | Square Feet |
| 5. Total Existing Lot Coverage Area (E1+E2+E3+E4) | 3,906 3,973 | Square Feet |
| F. (Total Lot Coverage Area Removed) | (117) (94) | Square Feet |
| G. Proposed Adjustment for Single Story (Area) | 0 | Square Feet |
| H. Proposed Adjustment for Flag Lot | 0 | Square Feet |
| I. Total New Lot Coverage Area: | | |
| 1. Main Structure Roof Area | 936 340 | Square Feet |
| 2. Accessory Structure Roof Area | 0 | Square Feet |
| 3. Vehicular Use (driveway, paved access easement [portion used by the lot for access], parking) | 0 | Square Feet |
| 4. Covered Patios and Covered Decks | 0 | Square Feet |
| 5. Total New Lot Coverage Area (I1 + I2 + I3 + I4) | 936 340 | Square Feet |
| J. Total Project Lot Coverage Area = (E5 - F) + I5 | 4,216 4,219 | Square Feet |
| K. Proposed Lot Coverage Area = (I/B) x 100 | 38.46% 38.49% | % of Lot |

HARDSCAPE CALCULATIONS

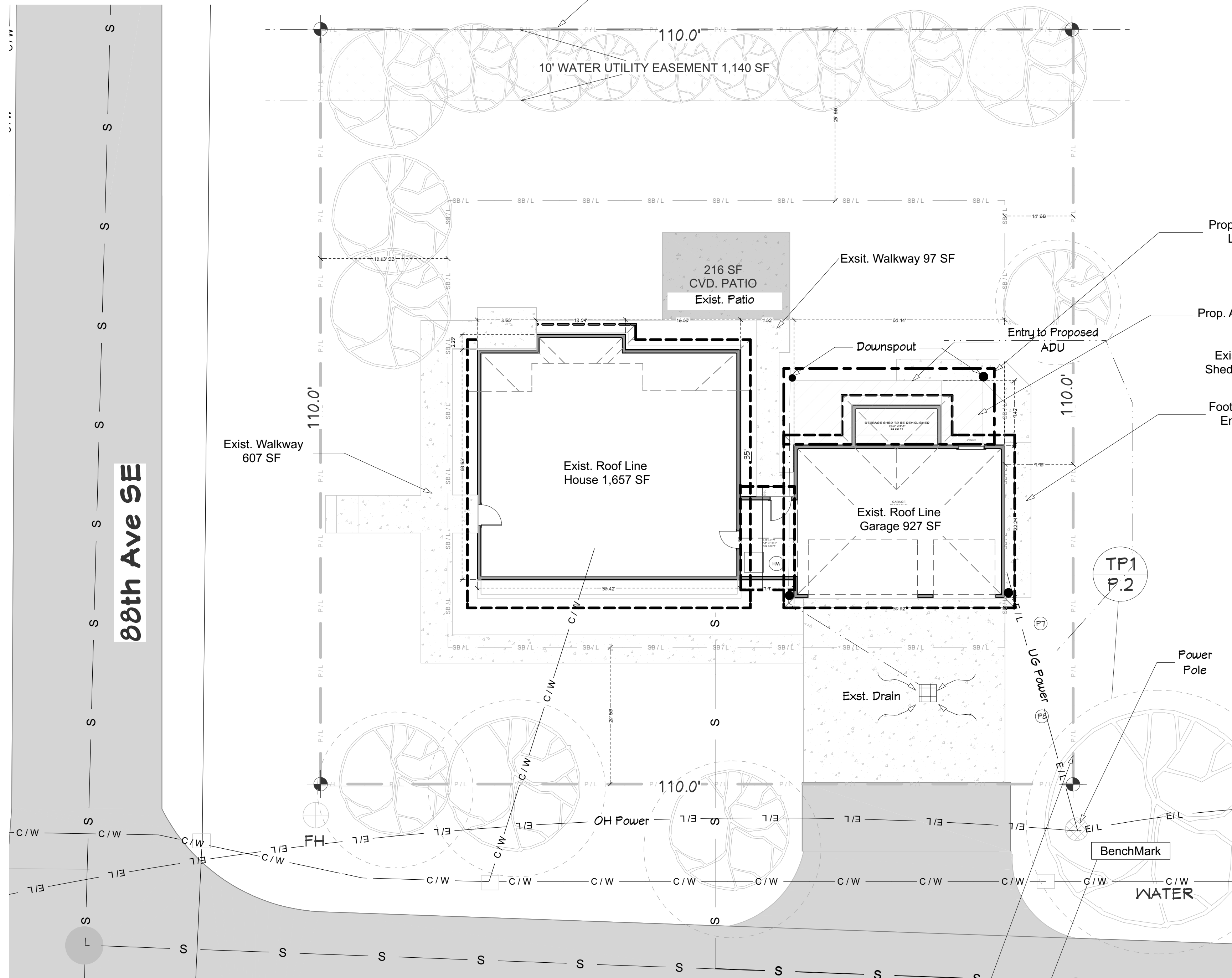
| | | |
|--|------------|-------------|
| A. Gross Lot Area | 12,100 | Square Feet |
| B. Net Lot Area | 10,960 | Square Feet |
| C. Area Borrowed from Lot Coverage | 0 | Square Feet |
| D. Allowed Hardscape Area = 9% of lot area + C | 9 | % of Lot |
| E. Allowed Hardscape Area | 986 | Square Feet |
| F. Total Existing Hardscape Area: | | |
| 1. Uncovered Decks | 0 | Square Feet |
| 2. Uncovered Patios | 0 | Square Feet |
| 3. Walkways | 703 704 | Square Feet |
| 4. Stairs | 0 | Square Feet |
| 5. Rockeries and Retaining Walls | 0 | Square Feet |
| 6. Other | 0 | Square Feet |
| 7. Total Existing Hardscape Area (F1+F2+F3+F4+F5+F6) | 703 704 | Square Feet |
| G. (Total Hardscape Area Removed) | 0 | Square Feet |
| H. Total New Hardscape Area: | | |
| 1. Uncovered Decks | 0 | Square Feet |
| 2. Uncovered Patios | 0 | Square Feet |
| 3. Walkways | 94 180 | Square Feet |
| 4. Stairs | 0 | Square Feet |
| 5. Rockeries and Retaining Walls | 0 | Square Feet |
| 6. Other | 0 | Square Feet |
| 7. Total New Hardscape Area (H1+H2+H3+H4+H5+H6) | 94 180 | Square Feet |
| I. Total Project Hardscape Area = (F7 - G) + H7 | 800 884 | Square Feet |
| J. Total Project Hardscape Area = (I/B)x100 | 7.3% 8.07% | % of Lot |

LOT SLOPE

According to the Mercer Island City Code, slope is a measurement of the average incline of the lot or other piece of land calculated by subtracting the lowest elevation of the property from the highest elevation and dividing the resulting number by the shortest horizontal distance between these two points. The resulting product is multiplied by 100.

LOT SLOPE CALCULATIONS

| | | |
|--|------|------|
| Highest Elevation Point of Lot: | 301 | Feet |
| Lowest Elevation Point of Lot: | 302 | Feet |
| Elevation Difference: | 1 | Feet |
| Horizontal Distance Between High and Low Points: | 110 | Feet |
| Lot Slope* | 0.91 | % |



SITE PLAN
SCALE: 1" = 10'-0"

To remain Grass (Critical root zone for city tree)
NOTE: Existing driveway apron will not be extended to ROW.

SHEET NUMBER
P1

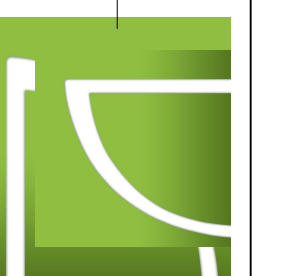
DATE: 11.15.22

DRAWN BY: K.C.

SITE PLAN
SCALE: 1" = 10'-0"

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

Kesh Design Lines
425 361 7325



APPLICABLE CODES

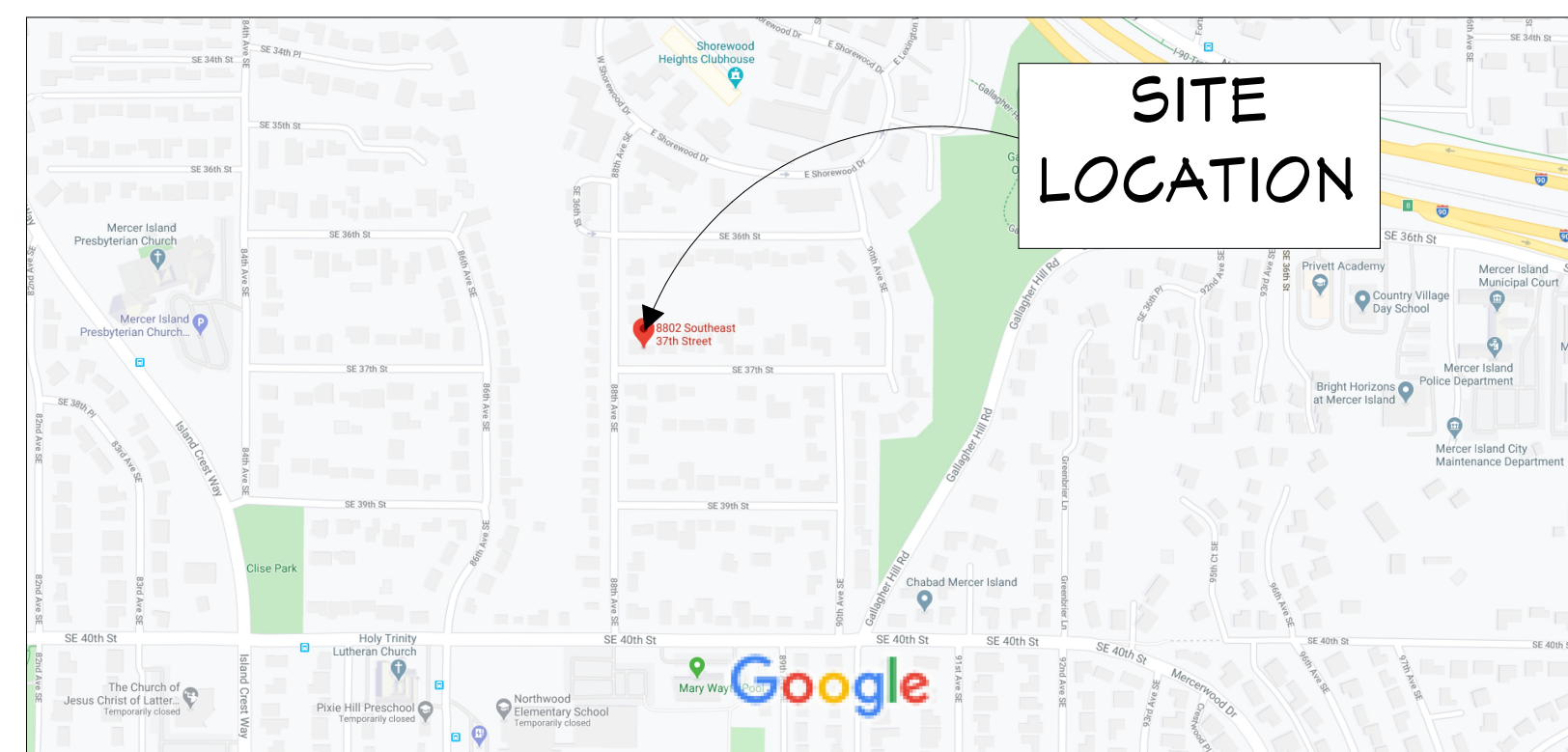
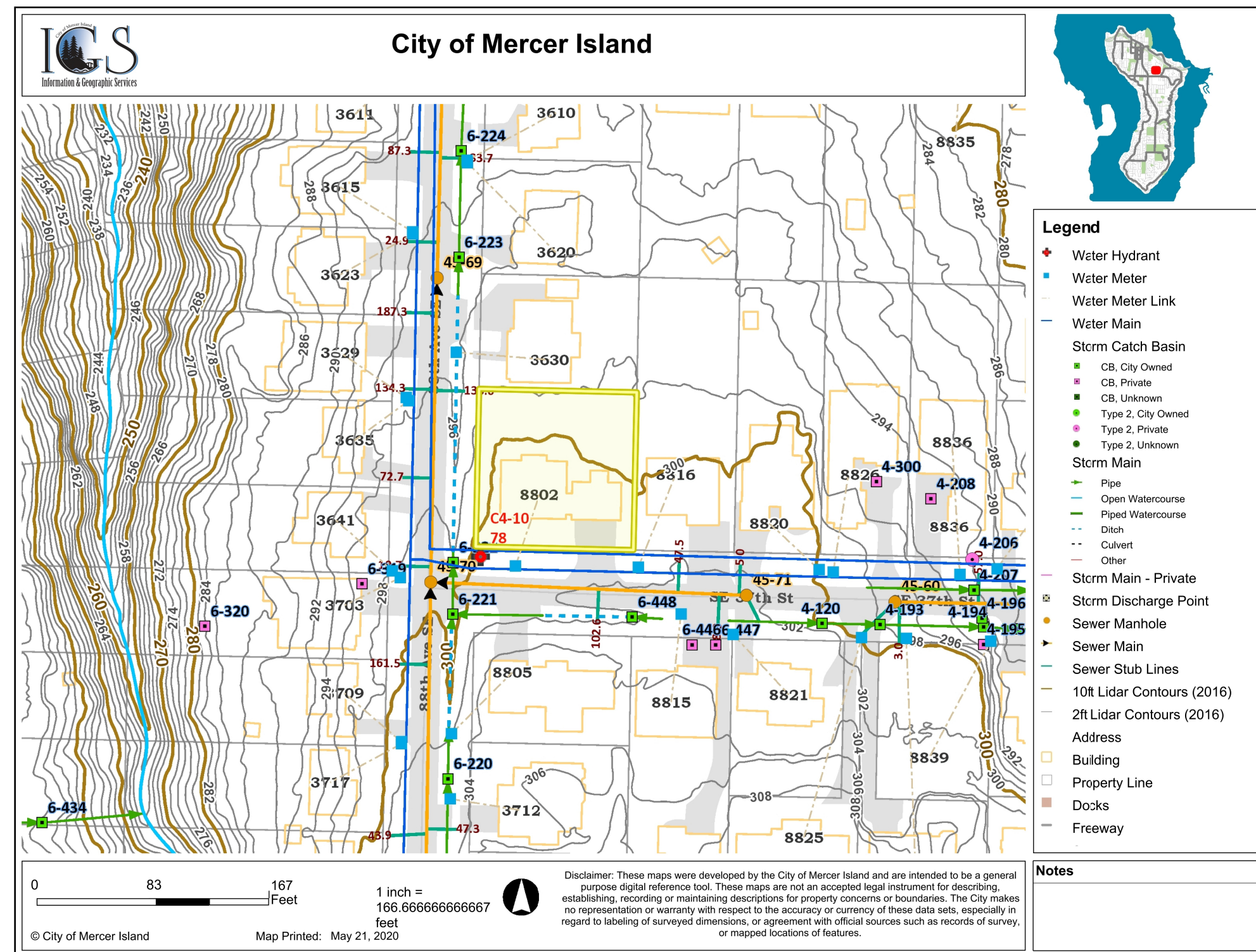
CITY OF MERCER ISLAND MUNICIPAL CODE
 2018 INTERNATIONAL BUILDING CODE
 2018 INTERNATIONAL RESIDENTIAL CODE
 2015 INTERNATIONAL FIRE CODE
 2015 INTERNATIONAL MECHANICAL CODE
 2015 INTERNATIONAL FUEL AND GAS CODE
 2015 UNIFORM PLUMBING CODE
 2012 WASHINGTON CITIES ELECTRICAL CODE
 CITY OF MERCER ISLAND ELECTRICAL CODE
 STATE ENVIRONMENTAL POLICY ACT (SEPA)
 WASHINGTON STATE ENERGY CODE

DESIGN CRITERIA

Wind Speed: 110 mph (IBC Figure 1609A)
 Wind Exposure: Category C
 Kzt Factor: 1.6 Per City of Mercer Island Wind Map
 Ground Snow Load: 25 psf (Snow drift per ASCE 7-10)
 Rain-on-Snow Surcharge: 5 psf added to flat roofs per (ASCE 7-10)
 Seismic Design Category: D2
 Rainfall: 1"/Hr (UPC Table D101.1)
 Soil Bearing Capacity: 1500 psf (IBC Table 1806.2)

COMPLIANCE PATH PRESCRIPTIVE:
 International Residential Code 2018 (IRC 2018)
 with WA State Amendments

TOPO & UTILITIES MAP nts



GROSS FLOOR AREA

| EXISTING ROOM AREA - LOWER LEVEL | | | | |
|-----------------------------------|------------------------|--------------------|------------------|-----------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | CEILING HEIGHT | DIMENSIONS | NOTES |
| FORMAL DINING | 225 | 109 1/8" | 16'-4" X 14'-4" | |
| HALL | 129 | 109 1/8", 121 3/4" | 9'-10" X 6'-10" | |
| (CEILING HGT. MOD. EXIST. ENTRY) | 33 | 18.2' | 4'-11" X 6'-9" | GRAY AREA |
| HALL | 31 | 109 1/8" | 4'-8" X 6'-7" | |
| LAUNDRY | 78 | 109 1/8" | 6'-6" X 12'-2" | |
| LIVING | 198 | 109 1/8" | 14'-9" X 13'-6" | |
| (CEILING HGT. MOD. EXIST. LIVING) | 198 | 18.2' | 13'-8" X 14'-6" | GRAY AREA |
| OFFICE | 170 | 109 1/8" | 13'-3" X 12'-11" | |
| POWDER | 31 | 109 1/8" | 4'-8" X 6'-9" | |
| STAIRWELL | 53 | 121 3/4" | 15'-5" X 3'-5" | |
| STORAGE | 15 | 109 1/8" | 4'-6" X 3'-5" | |
| UTILITY | 92 | 112 5/8" | 8'-3" X 11'-6" | |
| TOTALS: | 1,253.0 SF | | | |

| EXISTING ROOM AREA - UPPER LEVEL | | | | |
|----------------------------------|------------------------|----------------|-------------------|-------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | CEILING HEIGHT | DIMENSIONS | NOTES |
| BATH | 56 | 121 1/2" | 5'-6" X 9'-0" | |
| BATH | 7 | 121 1/2" | 1'-6" X 4'-10" | |
| BEDROOM 2 | 121 | 121 1/2" | 9'-1" X 13'-6" | |
| BEDROOM 1 | 177 | 121 1/2" | 12'-10" X 12'-11" | |
| BEDROOM 3 | 129 | 121 1/2" | 9'-6" X 13'-6" | |
| CLOSET | 10 | 121 1/2" | 2'-9" X 3'-6" | |
| CLOSET | 16 | 121 1/2" | 2'-0" X 7'-10" | |
| CLOSET | 30 | 121 1/2" | 4'-11" X 6'-1" | |
| CLOSET | 55 | 121 1/2" | 9'-4" X 5'-11" | |
| CLOSET | 9 | 121 1/2" | 2'-9" X 3'-5" | |
| HALL | 160 | 121 1/2" | 10'-0" X 11'-4" | |
| MASTER BATH | 130 | 121 1/2" | 15'-2" X 7'-3" | |
| OPEN BELOW | 198 | 243 1/4" | 13'-8" X 14'-8" | |
| OPEN BELOW | 42 | 243 1/4" | 6'-2" X 6'-10" | |
| OPEN BELOW | 53 | 243 1/4" | 15'-8" X 3'-5" | |
| TOTALS: | 1,193 SF | | | |

| EXISTING HOUSE TOTAL | |
|----------------------|------------------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) |
| LOWER FLOOR | 1,253 SF |
| UPPER FLOOR | 1,193 SF |
| TOTAL: | 2,446.0 SF |
| GARAGE: | 833.0 SF |

GROSS FLOOR AREA

| Building Area | Existing Area | Removed Area | New/Addition Area | Total |
|---|----------------------|---------------------|--------------------|----------------------|
| Upper Floor | 1,193 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 1,193 Sq. Ft. |
| Main Floor | 1,022 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 1,022 Sq. Ft. |
| Gross Basement Area | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| Garage/ Carport | 833 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 833 Sq. Ft. |
| Total Floor Area | 3,048 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 3,048 Sq. Ft. |
| Accessory Buildings | 82 Sq. Ft. | (82) Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| Accessory Dwelling Unit | 0 Sq. Ft. | 0 Sq. Ft. | 874 Sq. Ft. | 874 Sq. Ft. |
| 2nd & 3rd Story Roofed | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| Decks | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| Basement Area | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| Excluded | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| 150% GFA Modifier* (main and upper floor x2) | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| 200% GFA Modifier* (main and upper floor x2) | 231 Sq. Ft. | 0 Sq. Ft. | 26 Sq. Ft. | 257 Sq. Ft. |
| Staircase GFA Modifier* (x2 for a three story staircase, x3 for a four story staircase) | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. | 0 Sq. Ft. |
| TOTAL Building Area | 3,361 Sq. Ft. | (82) Sq. Ft. | 900 Sq. Ft. | 4,179 Sq. Ft. |

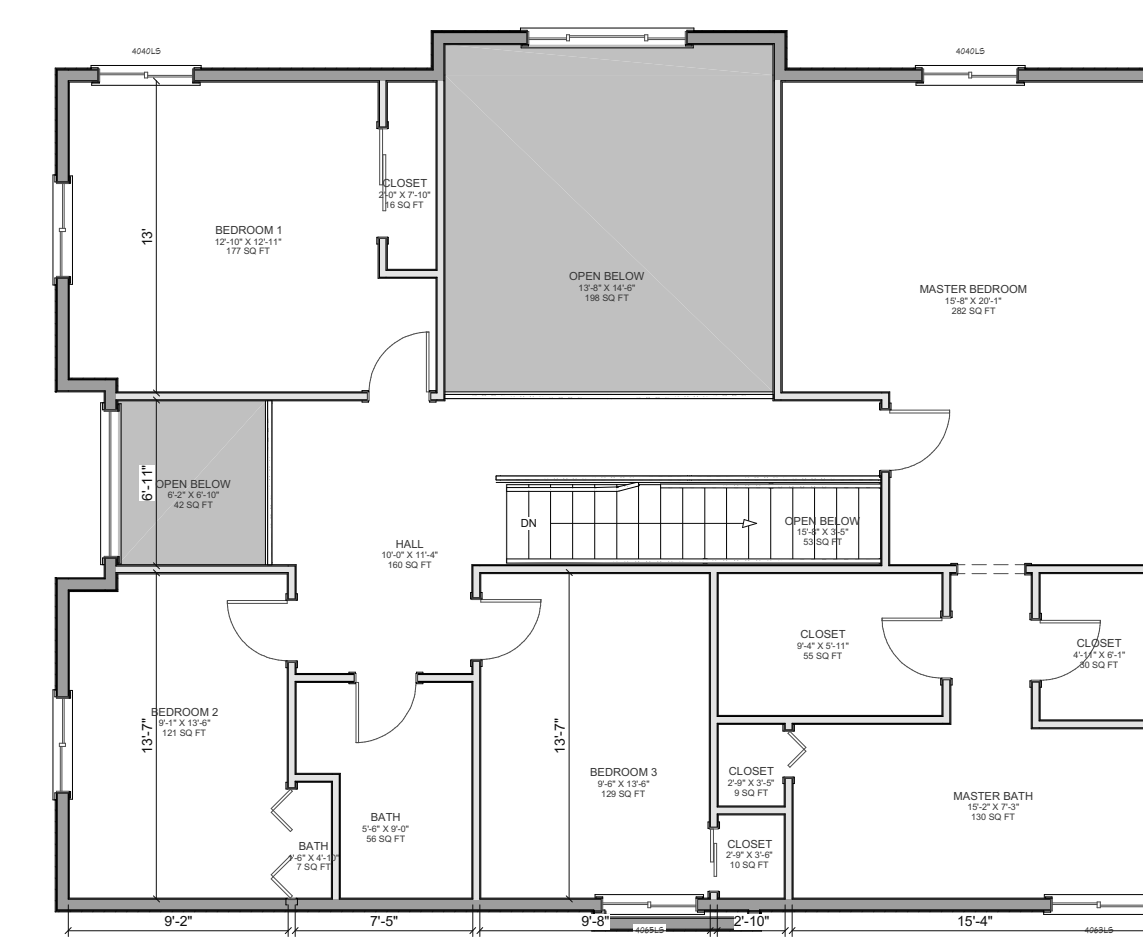
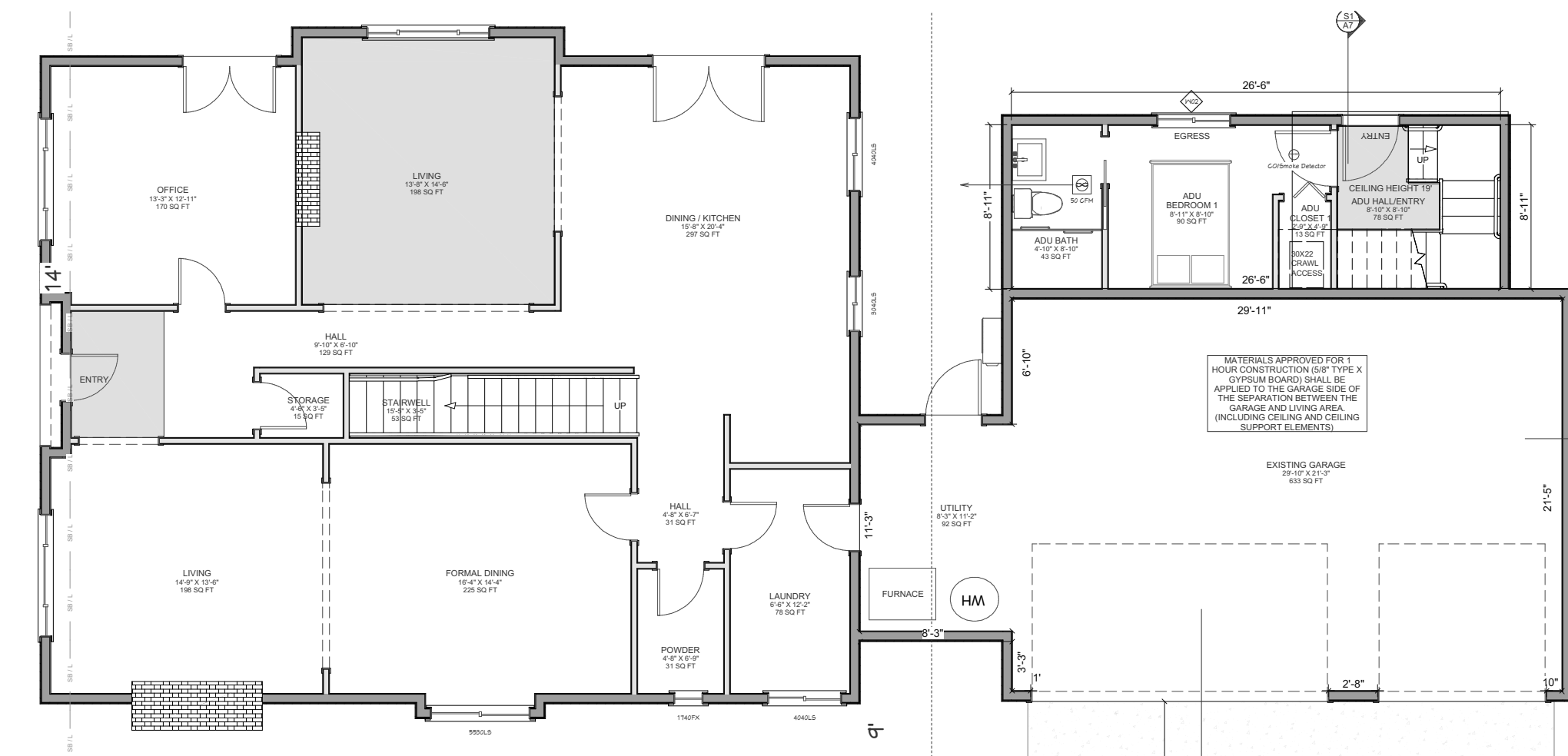
| | | |
|---|---|---|
| A. Lot Area | 12,100 | Square Feet |
| B. Zone R-8.4 | <input checked="" type="checkbox"/> R-9.6 | <input type="checkbox"/> R-12 <input type="checkbox"/> R-15 |
| C. Allowed Gross Floor Area (refer to "allowed GFA") | 4,840 | Square Feet |
| D. Allowed Gross Floor Area | 40% | % of Lot |
| E. Proposed Gross Floor Area | 3,982 | Square Feet |
| F. Proposed Gross Floor Area | 32.90% | % of Lot |
| Gross floor area calculations found on Plan Sheet # | P2 | |
| Basement exclusion calculations found on Plan Sheet # | N/A | |

| ADU LOWER FLOOR | | | |
|---------------------------|------------------------|-----------------------|-----------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | AREA, INC. WALLS | NOTES |
| ADU BATH | 43.0 | | |
| ADU BEDROOM 1 | 90.0 | | |
| ADU CLOSET 1 | 13.0 | | |
| ADU HALL/ENTRY | 78.0 | | |
| (CEILING HEIGHT MODIFIER) | 26.0 | | GRAY AREA |
| TOTALS: | 250.00 | 260.00 SQ. FT. | |

| ADU UPPER FLOOR | | |
|--------------------|------------------------|--------------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | AREA, INC. WALLS |
| ADU BATH | 74.0 | |
| ADU BEDROOM 1 | 137.0 | |
| ADU CLOSET | 15.0 | |
| ADU GREAT | 296.0 | |
| ADU LAUNDRY | 10.0 | |
| ADU STORAGE | 14.0 | |
| ADU OPEN BELOW 33% | | 36 |
| TOTALS: | 650.0 | 604 |
| | | 640 SQ. FT. |

| ADU TOTAL | |
|-----------------|------------------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) |
| LOWER FLOOR | 260.0 SF |
| UPPER FLOOR | 640.0 SF |
| TOTAL: | 900.0 SF |
| COMPLIES | |

| GFA TOTAL | |
|---|-------------------|
| EXISTING | NEW ADU |
| 2,446 SF | 900 SF |
| TOTAL: | 3,346.0 SF |
| 3,346 / 12,100 = 27.65% COMPLIES | |



SHEET NUMBER
P2

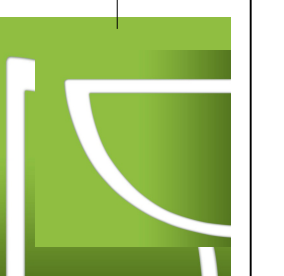
DATE: 11.15.22

DRAWN BY: K.C.

SUPPLEMENTAL SHEET
GFA CALCULATIONS

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

Kesh Design Lines
425 361 7325



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:

1.00

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 |
| | 40 PSF |
| | 60 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 AWP4 U1 FOR THE SPECIES, PRODUCT, PRESERVATIVE AND END USE. PRESERVATIVES SHALL BE LISTED IN SECTION 4 OF AWP4 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 AWP4 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 AWP4 ACCEPTED PRESERVATIVE SYSTEM, DETERMINED APPROPRIATE IN ACCORDANCE WITH AWP4 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 AWP4 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 PRESSURE PRESERVATIVE 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, FNDNS 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, FNDN 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 STORES 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

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

601.2 REQUIREMENTS. FOR WALL CONSTRUCTION LOADING, SEE SECTION R301.

602.3 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
- STRAINER PLATES ON DRAIN INLETS SHALL HAVE 1/2-INCH OPENINGS MAX.
 - 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.
 - 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.
 - 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.

COMPLIANCE PATH PRESCRIPTIVE:
 International Residential Code 2018 (IRC 2018)
 with VA State Amendments

SHEET NUMBER
A2
 Revision #:

DATE: 06.12.20
 REV #6: 01.01.23
 DRAWN BY: K.C.

GENERAL NOTES

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

KESH DESIGN LINES LLC
 425 344 9906

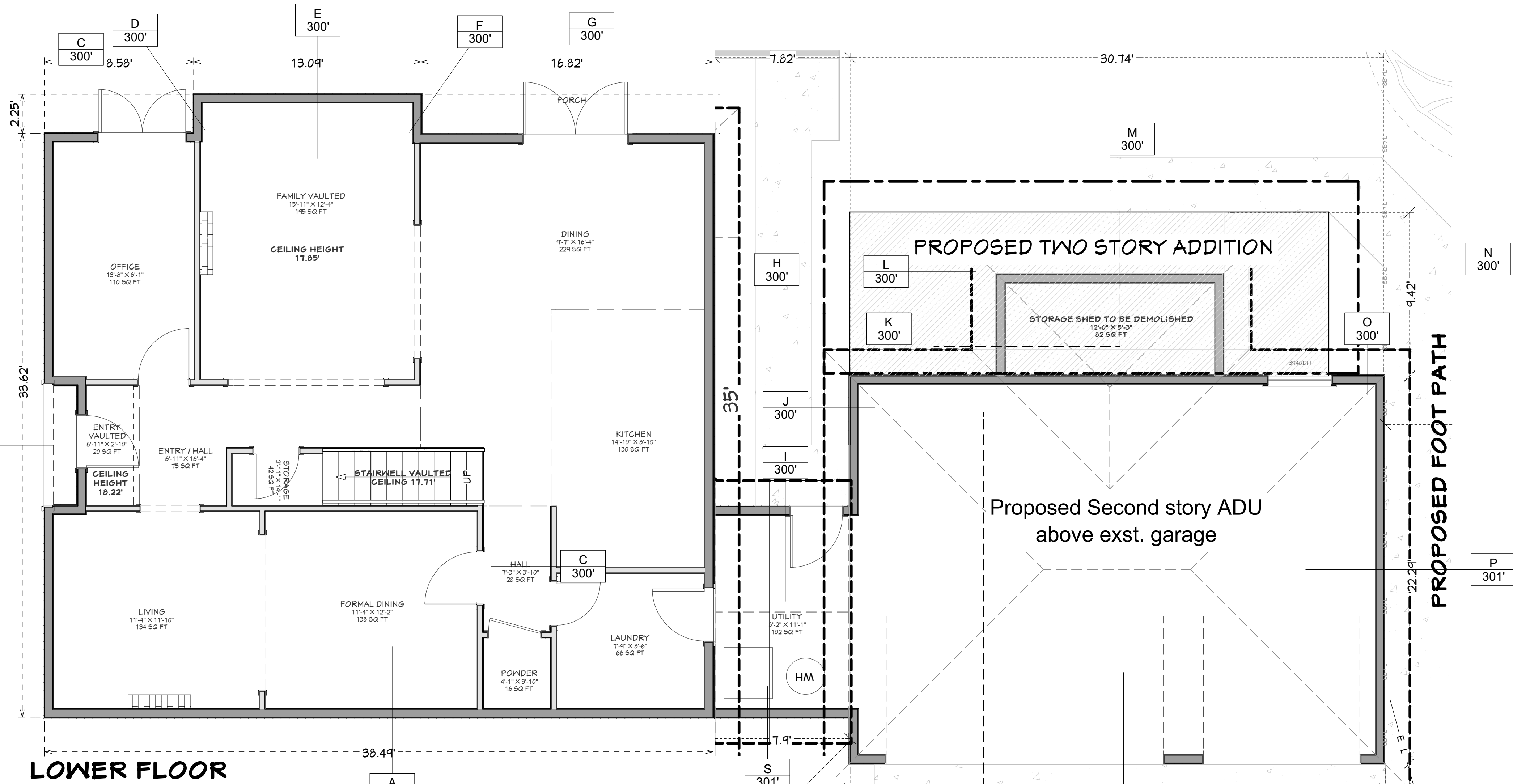


GENERAL CONSTRUCTION SPECS. AND CODE COMPLIANCE (2018 IRC, UPC & 2018 W.S.E.C.)

| 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 | |

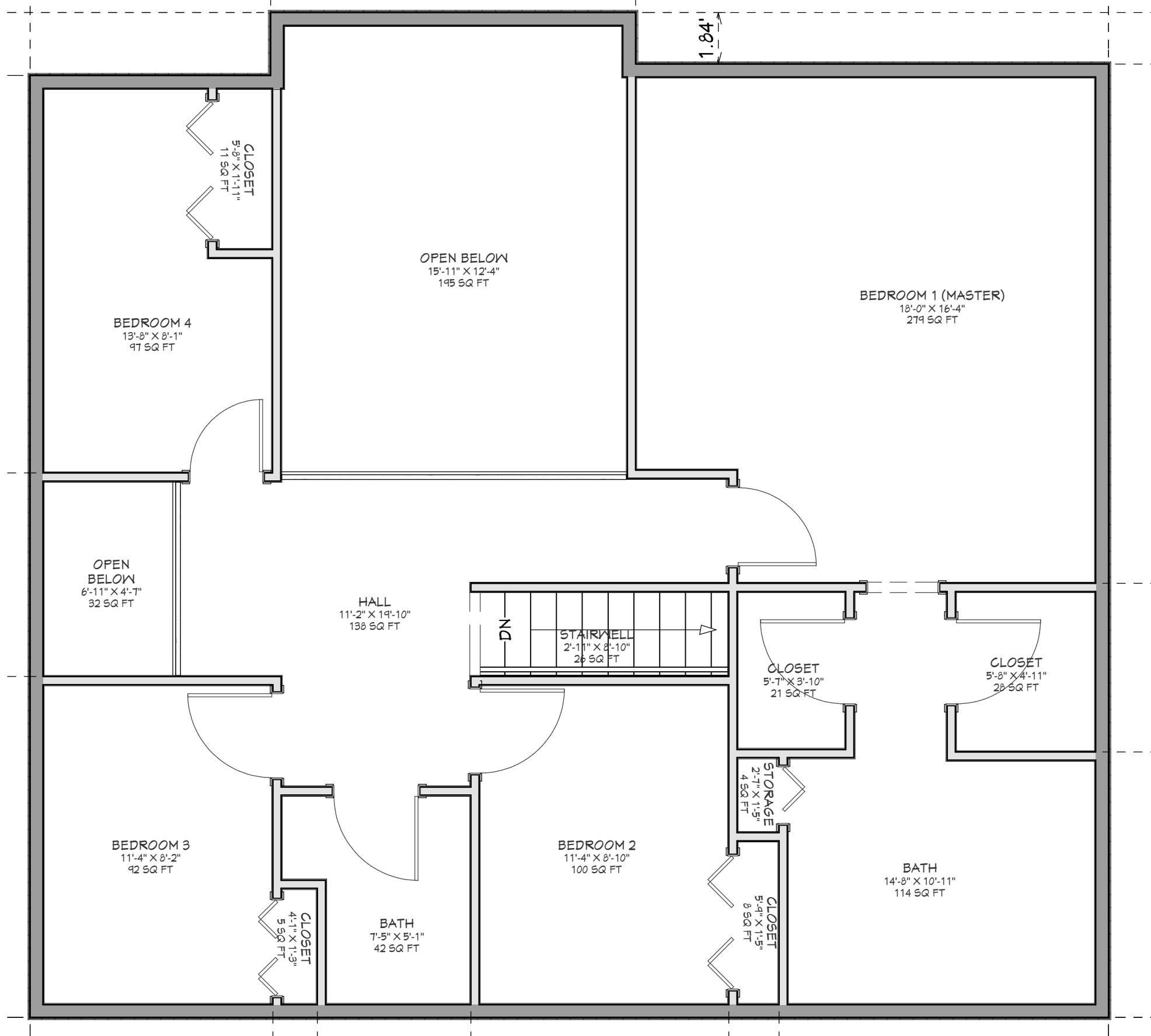
| GARAGE SIZE | | |
|-------------------------------|------------------------|----------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | CEILING HEIGHT |
| GARAGE | 635 | 109 1/8" |
| STORAGE SHED TO BE DEMOLISHED | 63 | 109 1/8" |
| UTILITY | 90 | 97 1/2" |
| TOTALS: | 789 | |

No change proposed to main house lower & upper floors



LOWER FLOOR

| 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 | |

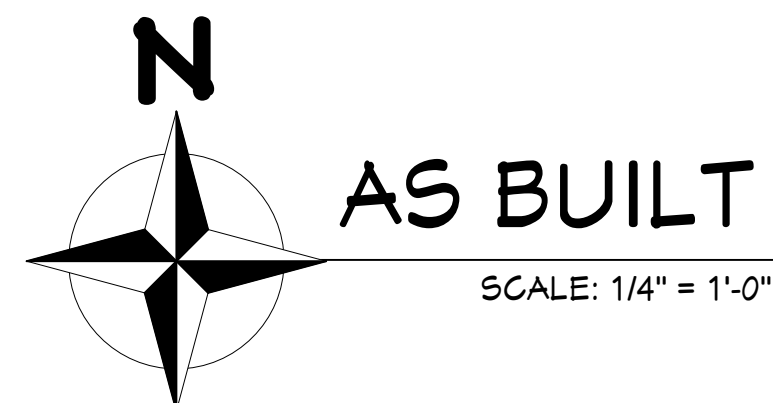


UPPER FLOOR

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' | 1309 |
| F | 100' | 2.25' | 225 |
| G | 100' | 16.82' | 1582 |
| H | 100' | 33.62' | 3362 |
| I | 100' | 7.82' | 782 |
| J | 100' | 6.91' | 691 |
| K | 100' | 4.25' | 425 |
| L | 100' | 9.34' | 934 |
| M | 100' | 23.17' | 2317 |
| N | 100' | 9.34' | 934 |
| O | 100' | 3.38' | 338 |
| P | 101' | 21.82' | 2204 |
| Q | 101' | 30.80' | 3111 |
| R | 101' | 2.91' | 294 |
| S | 101' | 7.74' | 782 |
| TOTAL: | 1,905' | 277.20' | 27723 |
| (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 #: A3
- B. Allowable Building Height (ABE + 30 ft.): 130 Feet
- C. Proposed Building Height: 124.28 Feet
- D. Benchmark Elevation*: 100 Feet
- E. Describe Benchmark Location (must be undisturbed throughout project) Power Pole



SHEET NUMBER
A3

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

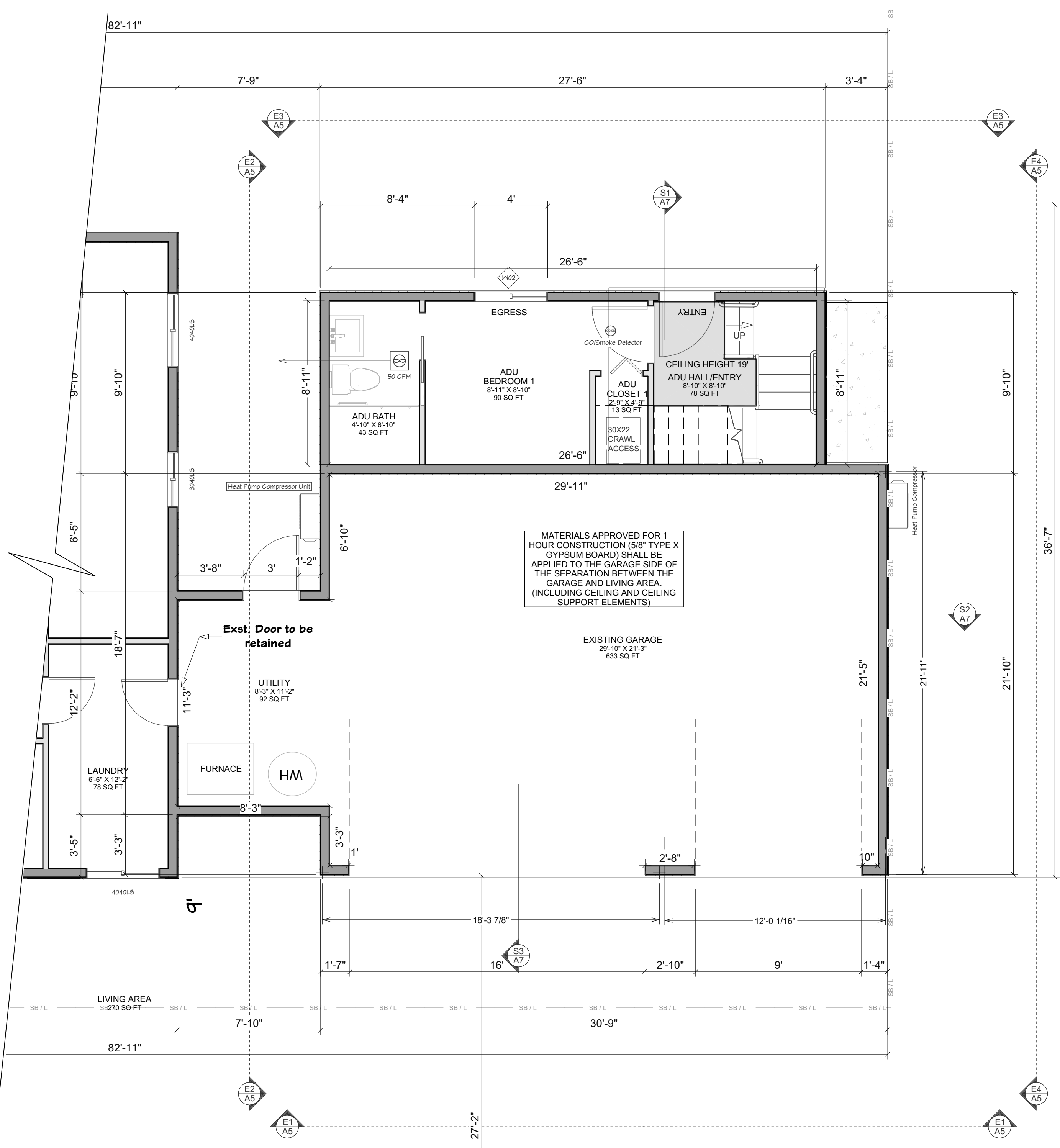
AS BUILT
HEIGHT CALCULATIONS

TOM & KIM TSO
ADDITION & ADU
2802 SE 9th ST, MERCER ISLAND WA 98040

KESH DESIGN LINES LLC
425 344 9906

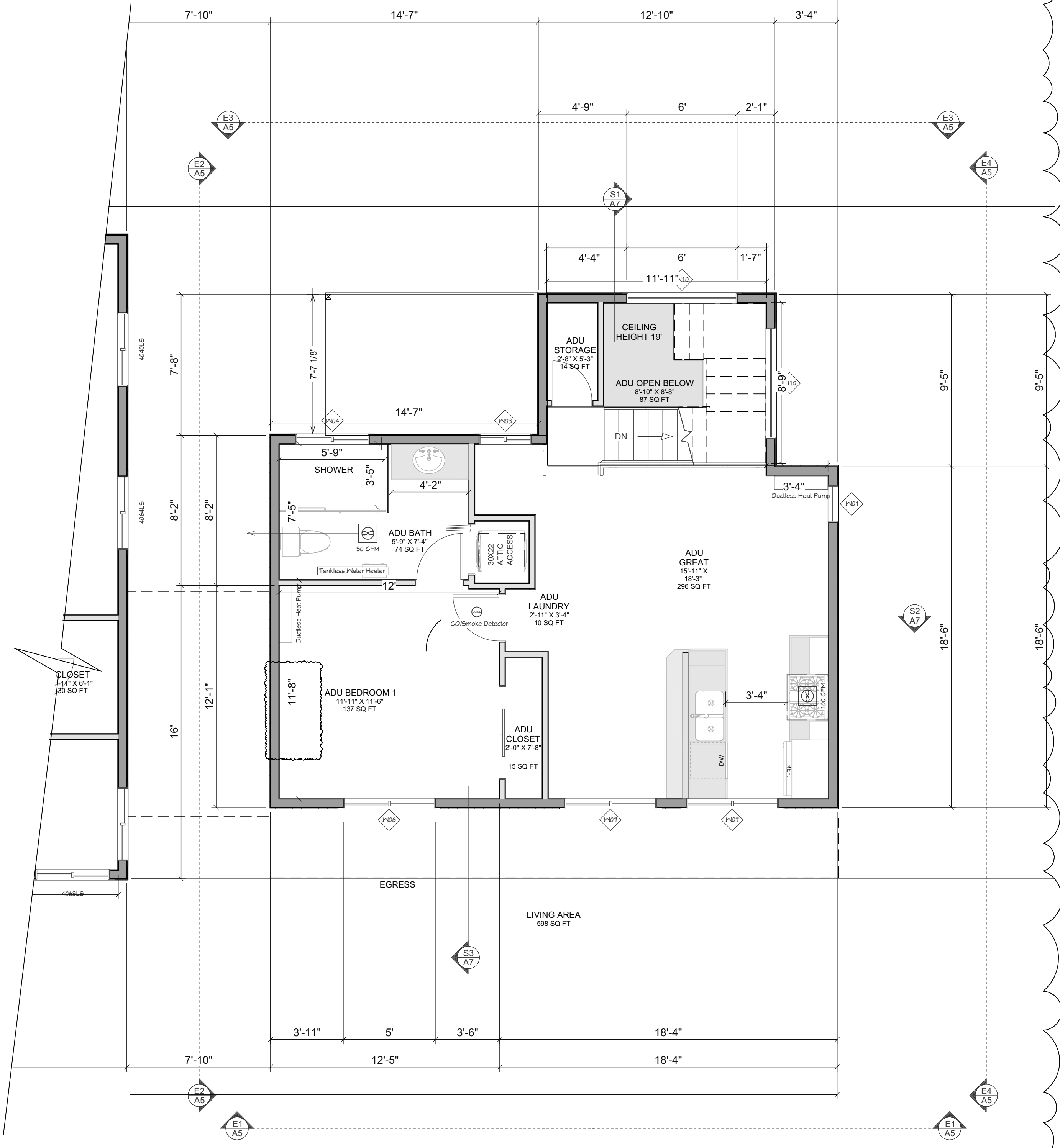
NOTES

- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- SEE STRUCTURAL PLANS FOR ALL HEADERS AND BEAM SIZES.
- BOTTOM OF HEADERS TO BE 8'-0" THIS FLOOR UNLESS NOTED OTHERWISE.
- ALL EXTERIOR WALLS 2x6 W/ R-21 INSULATION UNO.
- ALL FRAME NAILING TO SATISFY CHAPTER 6 IRC. BLOCK ALL FINISHED EDGES. ALL EXTERIOR SHEATHING NAILED W/ 10d # 6 O.C. (EDGE) AND 12" O.C. (FIELD) UNO, TYP.
- PROVIDE DOUBLE JOISTS OR BLOCKING WHERE PARTITIONS OCCUR ABOVE.
- PROVIDE SOLID BLOCKING OVER SUPPORTS.
- PLATE HEIGHT 9'-0" THIS FLOOR UNO.
- FIRE BLOCKING TO ALL PLUMBING PENETRATIONS.
- ALL STORAGE AND SPACES UNDER STAIRCASES TO BE FINISHED WITH 5/8" TYPE "X" GYPSUM BOARD.
- FINISH ALL CEILINGS WITH 1/2" GYPSUM BOARD.
- AT GARAGE USE 1/2" TYPE "X" GYP. BD. AT ALL CORNER WALLS 3/8" TYPE "X" AT ALL CEILINGS AND ALL EXPOSED BEAMS.
- PROVIDE 26-GAUGE GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS. (TYP) LAP BUILDING PAPER OVER.
- HOLD SIDING 6" ABV. FINISHED GRADE, TYP.
- FASTEN MULTI-LAM 2x BEAMS PER IRC STANDARDS, CHAPTER 6, TABLE R602.3(1), TYPICAL DIRECTION.
- ALL VOIDS TO BE FIRE/DRAFT BLOCKED PER IRC SECTION R602.9.
- INSTALL WATER HEATER PER IRC, CHAPTER 28 AND PER 2018 IMC. THE PILOTS, BURNERS, HEATING ELEMENTS, AND SWITCHES SHALL BE A MIN. OF 18" ABOVE THE GARAGE FLOOR PER 2018 IMC.
- STRAP THE WATER HEATERS AT POINTS WITH THE UPPER AND LOWER 1/2 OF ITS VERTICAL DIMENSION. LOWER POINT SHALL BE MINIMUM 4" ABOVE CONTROLS.
- FURNACE TO BE PLACED 18" ABV. FLOOR ON 1 HOUR RATED PLATFORM W/ 3/4" LAYERS PLYWOOD. THE PILOTS, BURNERS, HEATING ELEMENTS AND SWITCHES SHALL ALSO BE A MIN. OF 18" ABOVE THE GARAGE FLOOR. PROTECT FROM IMPACT PER 2018 IMC.
- DOOR BETWEEN HOUSE AND GARAGE TO BE 20 MIN RATED, SOLID CORE, TIGHT FITTING, WITH SELF CLOSURE.
- ALL SMOKE DETECTORS TO BE 10 VOLT WITH BATTERY BACKUP, INTERCONNECTED. DENOTES: INSTALL CARBON MONOXIDE ALARMS PER IRC R309 (UNA AMENDED).
- 36" I.C. APPROVED DIRECT VENT FIREPLACE W/ 20" D. FLUSH HEARTH. MIN. 6 SQ. IN. O.S. COMB. AIR. INSTALL DIR. VENT PIPE. PER TERMS OF LISTING AND FIGS. SPEC. PER SECTION R901.1 RC.
- PROVIDE CONT. HANDRAIL AT STAIRS A MIN. OF 1/2" FROM WALL.
- LIGHTING CONTROLS FOR INTERIOR STAIRWAYS MUST BE PROVIDED AT THE TOP AND BOTTOM OF THE STAIR.
- WALLS W/ GREATER THAN 350 PLF REQUIRE A MINIMUM OF A 3x MEMBER AT ABUTTING PANEL EDGES AND BULL PLATES FOR WALLS BETWEEN 350 AND 600 PLF. ANCHOR BOLT SPACING HAS BEEN DECREASED BY 1/2 (USE 2x BULL PLATE) PER IRC R403.6.
- TUBS AND SHOWERS:
 - FIRE BLOCKING BETWEEN STUDS.
 - LIMIT SHOWER FLOW TO 1.8 GPM.
 - LIMIT LAV SINK FLOW TO 1.0 GPM, OR LESS.
 - WATERPROOF WALL TO WITHIN 10" ABOVE DRAIN INLET.
 - VAPOR BARRIER BEHIND GYPSUM BD.
 - ALL GLAZING WITHIN 10" ABOVE DRAIN INLET TO BE SAFETY GLASS.
- OF 5.7 SQ. FT. NET CLEAR OPENING 4' 4" MAX. ABV. FIN. FLR. MIN. EGRESSIBLE WIDTH IS 20". MIN. HEIGHT IS 24".
 - SAFETY GLAZING REQUIRED IN THE FOLLOWING AREAS:
 - A. GLAZING LESS THAN 60" ABOVE TUB OR SHOWER.
 - B. ALL TUB & SHOWER DOORS & ENCLOSURES EXCEPT GLASS BLOCK, GREATER THAN 3" SPHERE UNLESS DECORATIVE GLASS.
 - C. ALL WINDOWS WITHIN 24" OF A DOOR SWING, LESS THAN 60" ABOVE FLOOR.
 - D. FIXED AND SLIDING PANELS OF SLIDING DOORS.
 - E. ALL UNFRAMED SWINGING DOORS.
 - F. GLAZING LESS THAN 3' HORIZ. OF STAIR OR LANDING LESS THAN 60" ABOVE FIN. FLR.
 - G. GLAZING LESS THAN 60" ABOVE STAIRS.
- ATTIC ACCESS TO BE A MIN. OF 22"x30" W/INSUL. & WEATHER-STRIPPING PER CODE.
- SHOULDER HOUSE FAN WITH AUTO TIMER AND MANUAL OVERRIDE.



| ADU LOWER FLOOR | | | |
|--|------------------------|-----------------------|-----------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | AREA, INC. WALLS | NOTES |
| ADU BATH | 43.0 | | |
| ADU BEDROOM 1 | 90.0 | | |
| ADU CLOSET 1 | 13.0 | | |
| ADU HALL/ENTRY (CEILING HEIGHT MODIFIER) | 26.0 | | GRAY AREA |
| TOTALS: | 250.00 | 260.00 SQ. FT. | |

MAIN FLOOR PLAN
SCALE: 1/4" = 1'-0"



| ADU UPPER FLOOR | | |
|--------------------|------------------------|--------------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) | AREA, INC. WALLS |
| ADU BATH | 74.0 | |
| ADU BEDROOM 1 | 137.0 | |
| ADU CLOSET | 15.0 | |
| ADU GREAT | 296.0 | |
| ADU LAUNDRY | 10.0 | |
| ADU STORAGE | 14.0 | |
| ADU OPEN BELOW 33% | | 36 |
| TOTALS: | 650.0 | 604 SQ. FT. |

UPPER FLOOR PLAN
SCALE: 1/4" = 1'-0"

| ADU TOTAL | |
|-----------------|------------------------|
| ROOM NAME | AREA, INTERIOR (SQ FT) |
| LOWER FLOOR | 260.0 SF |
| UPPER FLOOR | 640.0 SF |
| TOTAL: | 900.0 SF |
| COMPLIES | |

COMPLIANCE PATH PRESCRIPTIVE:
International Residential Code 2018 (IRC 2018)
with WA State Amendments

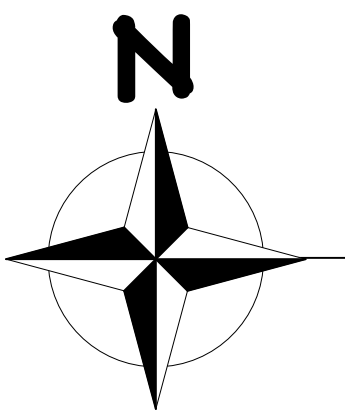
SHEET NUMBER
A4

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

**PROPOSED
MAIN & UPPER FLOOR**

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

KESH DESIGN LINES LLC
425 344 9906



PROPOSED MAIN & UPPER FLOOR PLAN

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

COMPLIANCE PATH PRESCRIPTIVE:
International Residential Code 2018 (IRC 2018)
with WA State Amendments

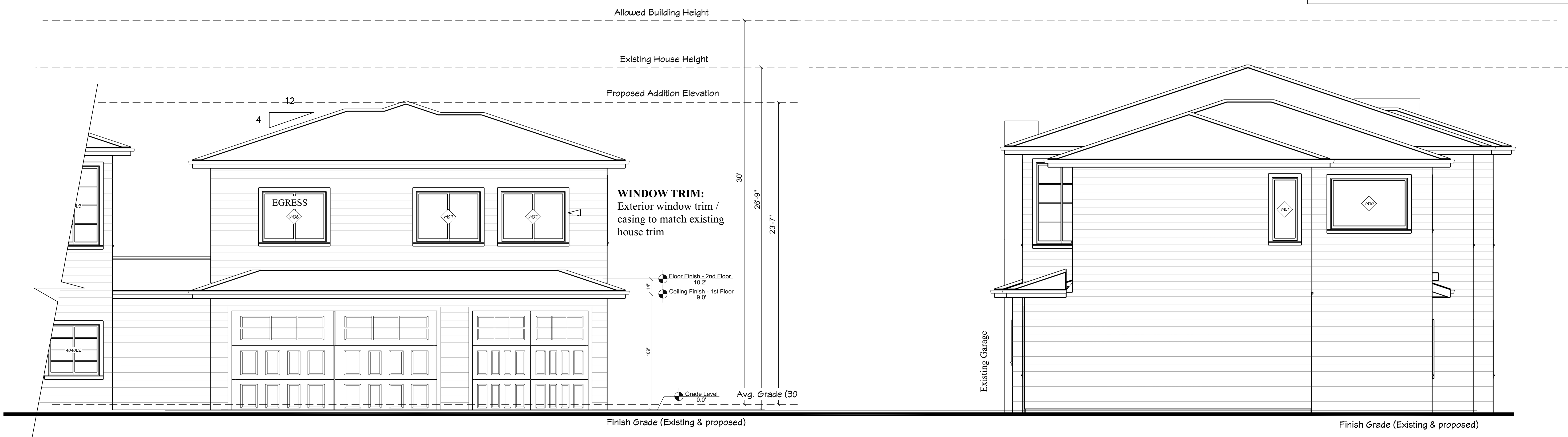
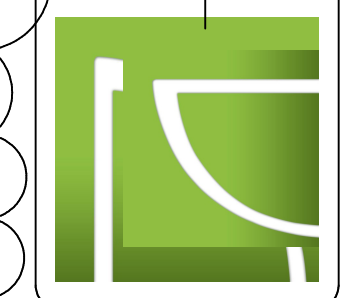
SHEET NUMBER
A5
Revision #:

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

ELEVATIONS

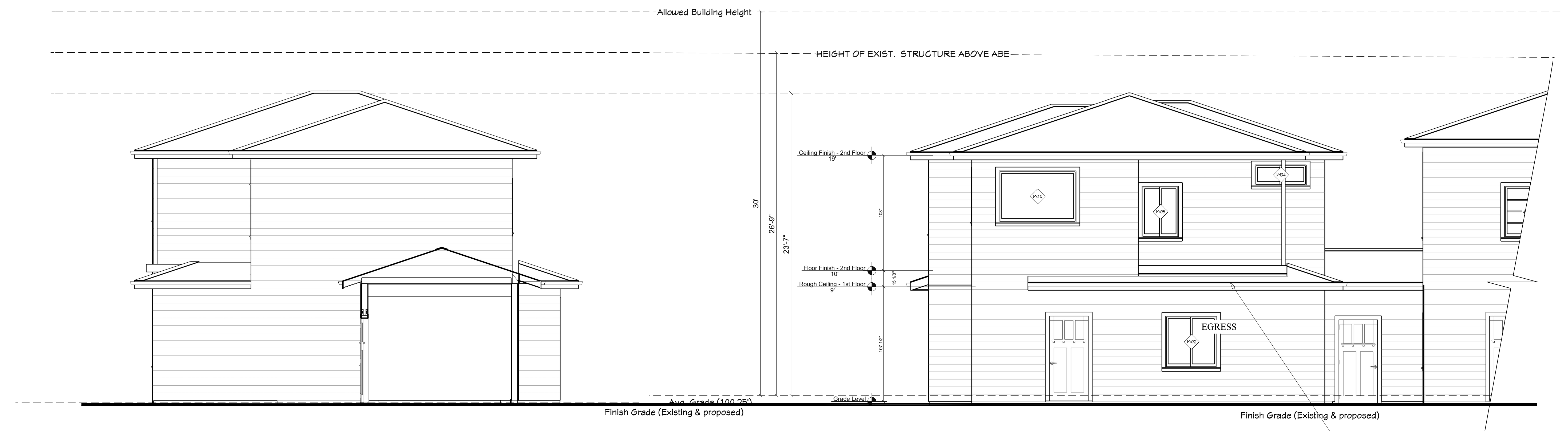
TOM & KIM TSO
ADDITION & ADU
8802 SE 9TH ST. MERCER ISLAND WA 98040

KESH DESIGN LINES LLC
425 344 9906



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



KESH DESIGN LINES LLC

425 344 9906

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

FOUNDATION and 1st FLOOR
FRAMING PLAN

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

SHEET NUMBER

A6

Revision #:

COMPLIANCE PATH PRESCRIPTIVE:
 International Residential Code 2018 (IRC 2018)
 with VA State Amendments

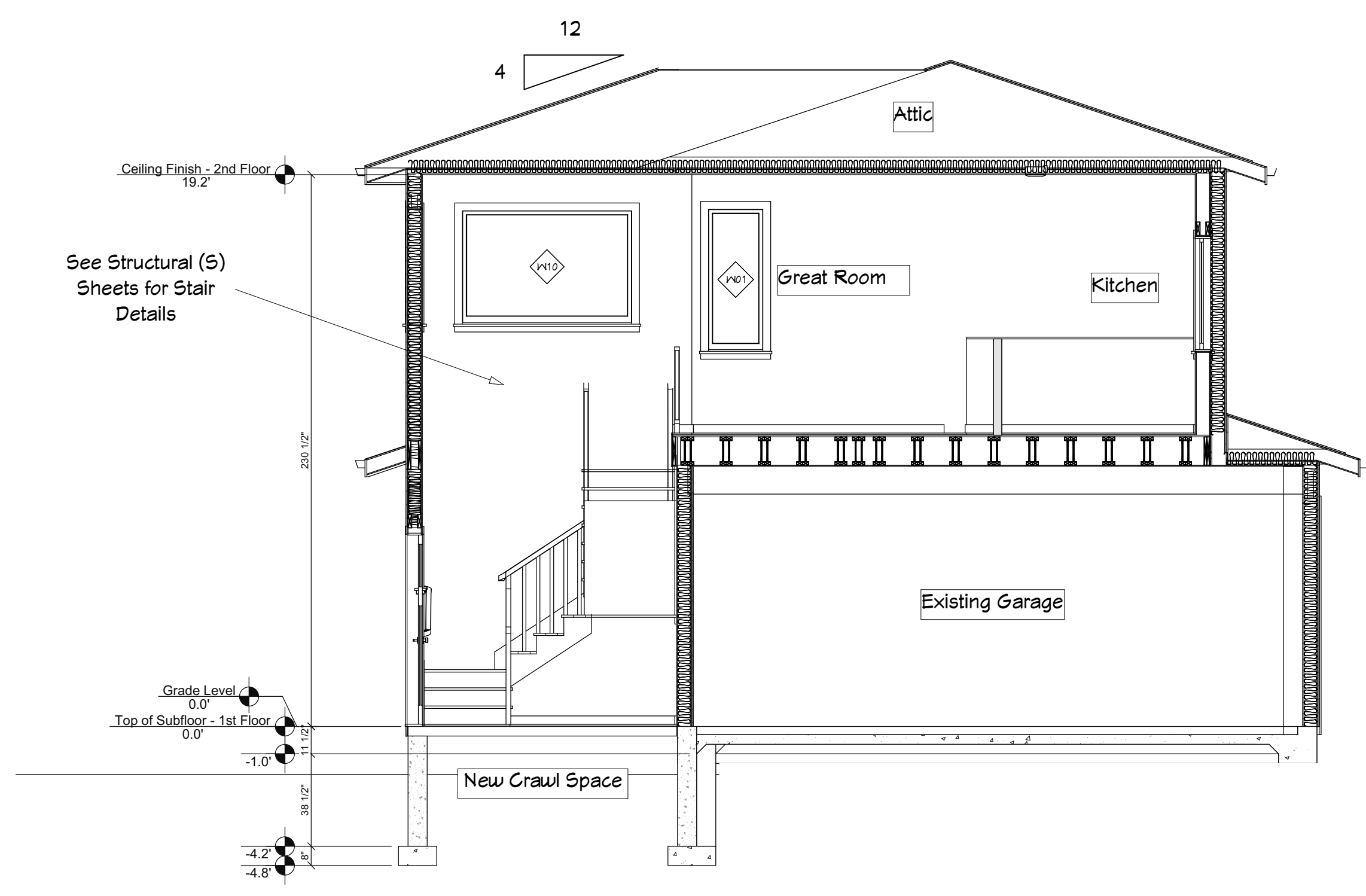
SHEET NUMBER
A7
Revision #:

DATE: 06.12.20
 REV #6: 01.01.23
 DRAWN BY: K.C.

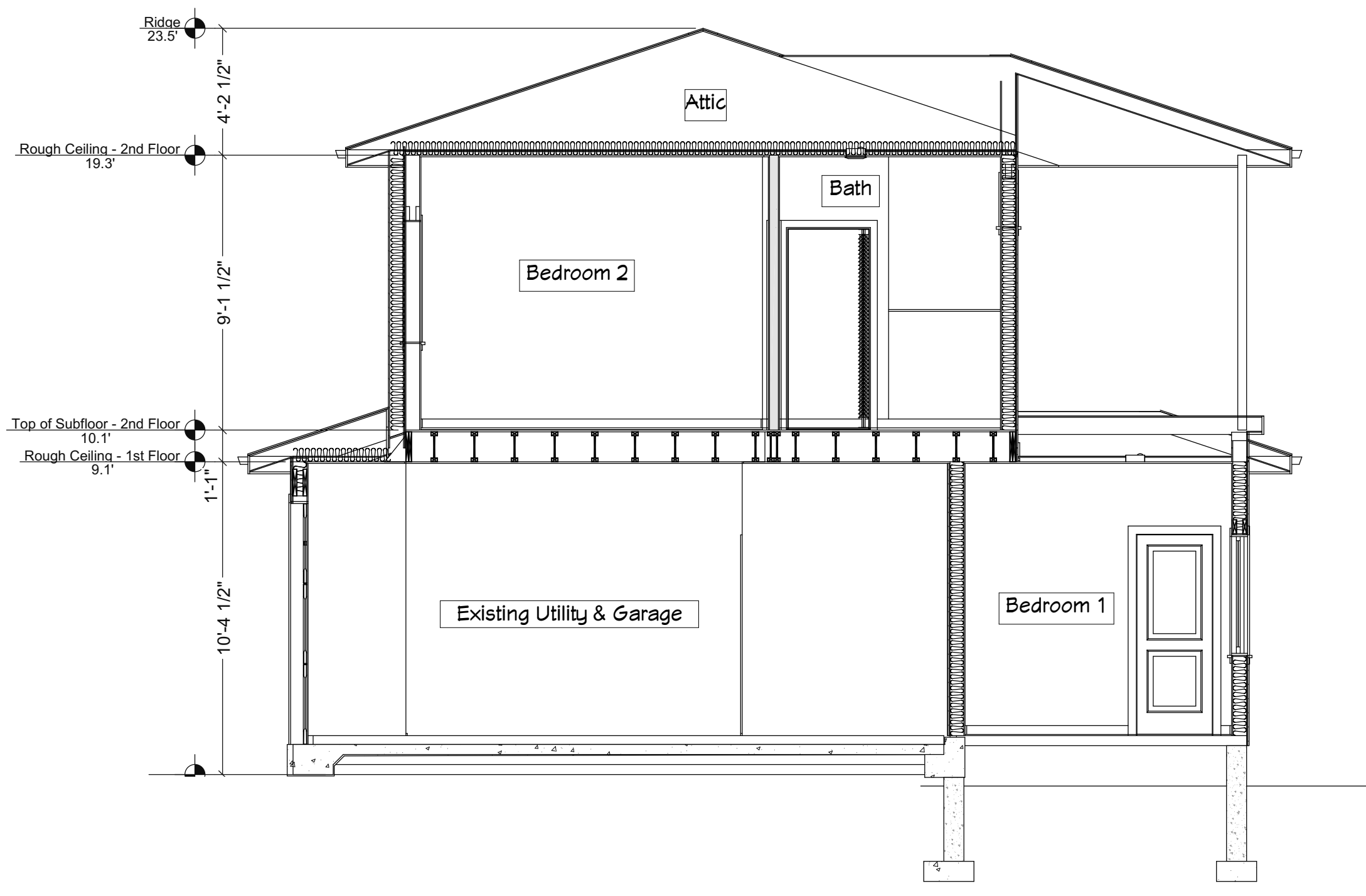
SECTION

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

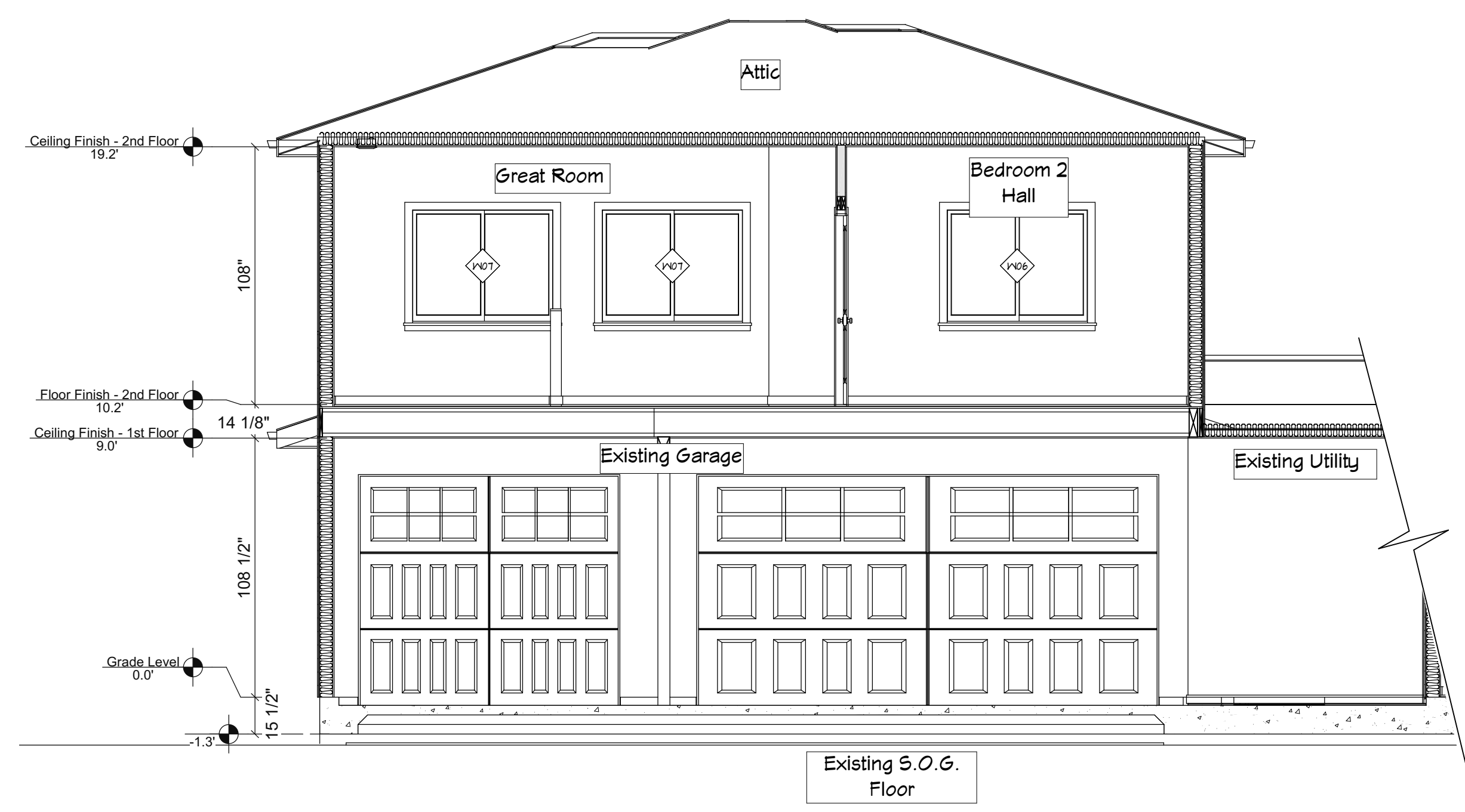
KESH DESIGN LINES LLC
 425 344 9906



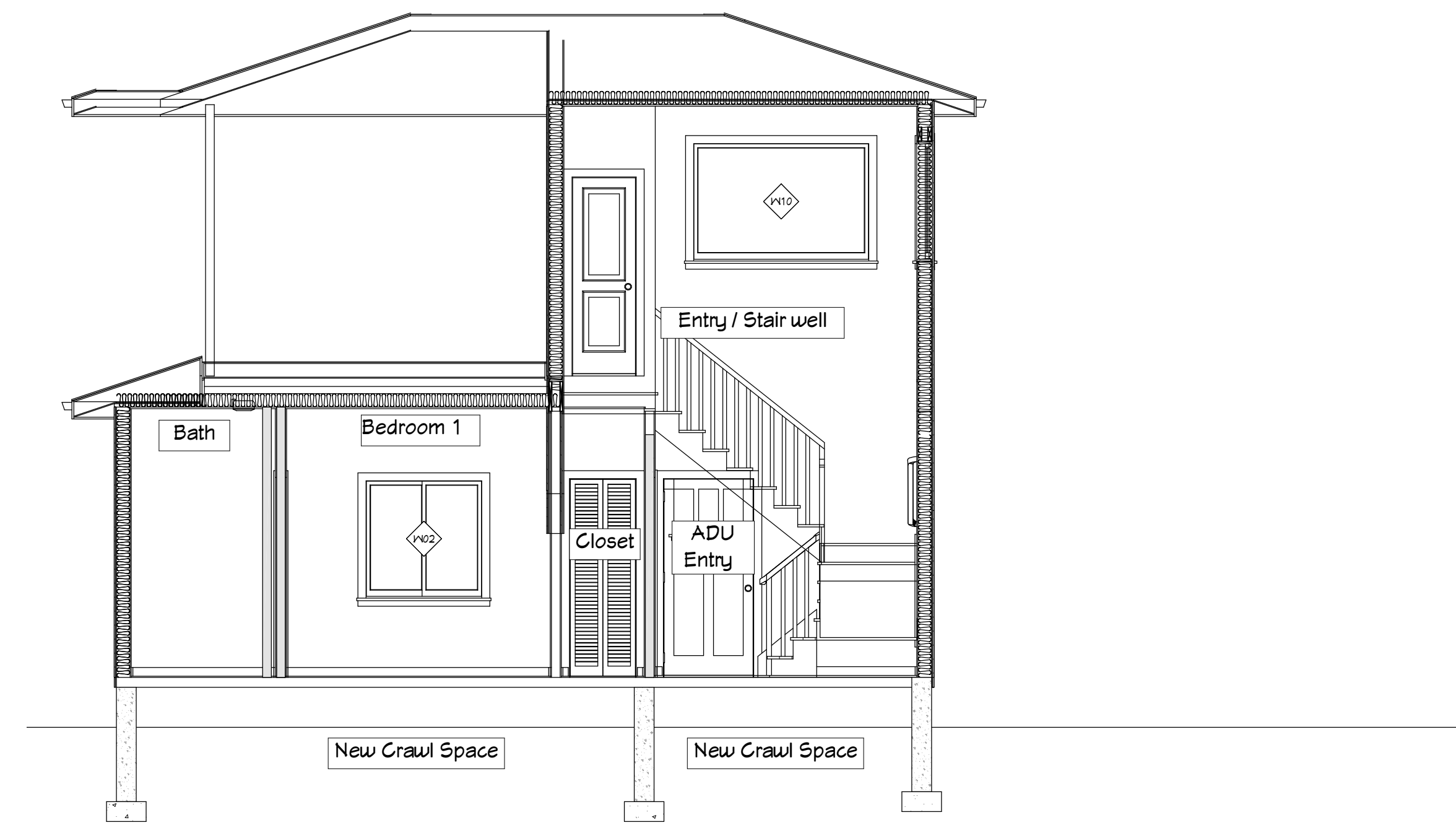
S1 SECTION
 SCALE: 1/4" = 1'-0"



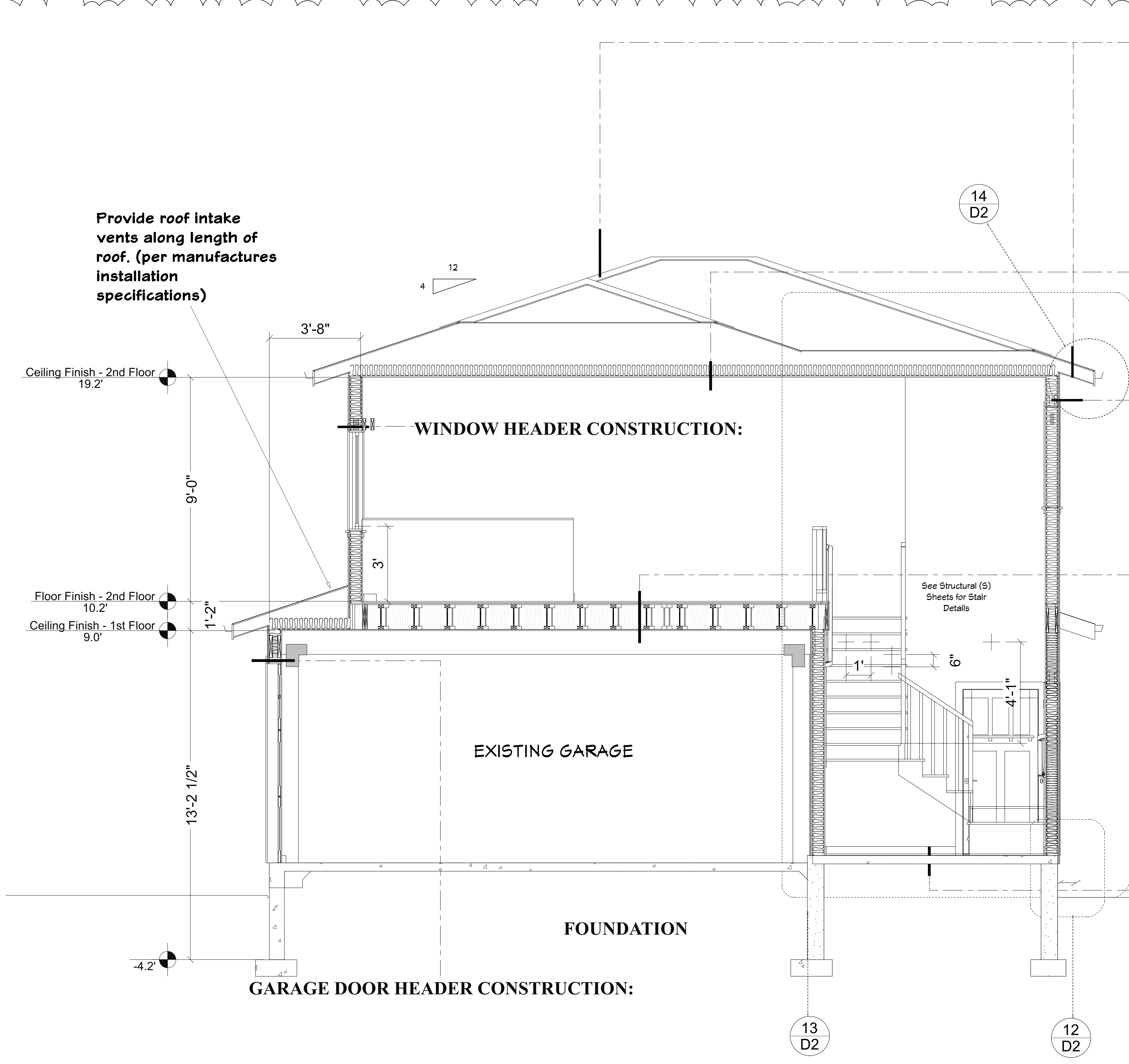
S3 SECTION
 SCALE: 1/4" = 1'-0"



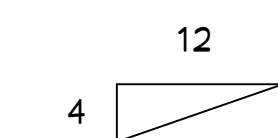
S2 SECTION
 SCALE: 1/4" = 1'-0"



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



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



WINDOW HEADER CONSTRUCTION:

GARAGE DOOR HEADER CONSTRUCTION:

EXISTING GARAGE

FOUNDATION

See Structural (S) Sheets for Stair Details

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

SHEET NUMBER
A8
Revision #:

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

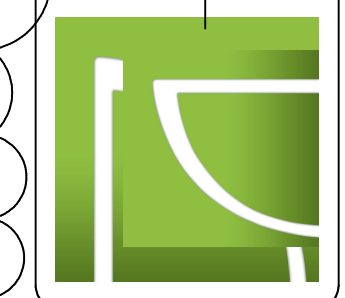
SECTION & DETAILS

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

KESH DESIGN LINES LLC
425 344 9906

S3 SECTION
SCALE: 1/2" = 1'-0"

COMPLIANCE PATH PRESCRIPTIVE:
International Residential Code 2018 (IRC 2018)
with WA State Amendments



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

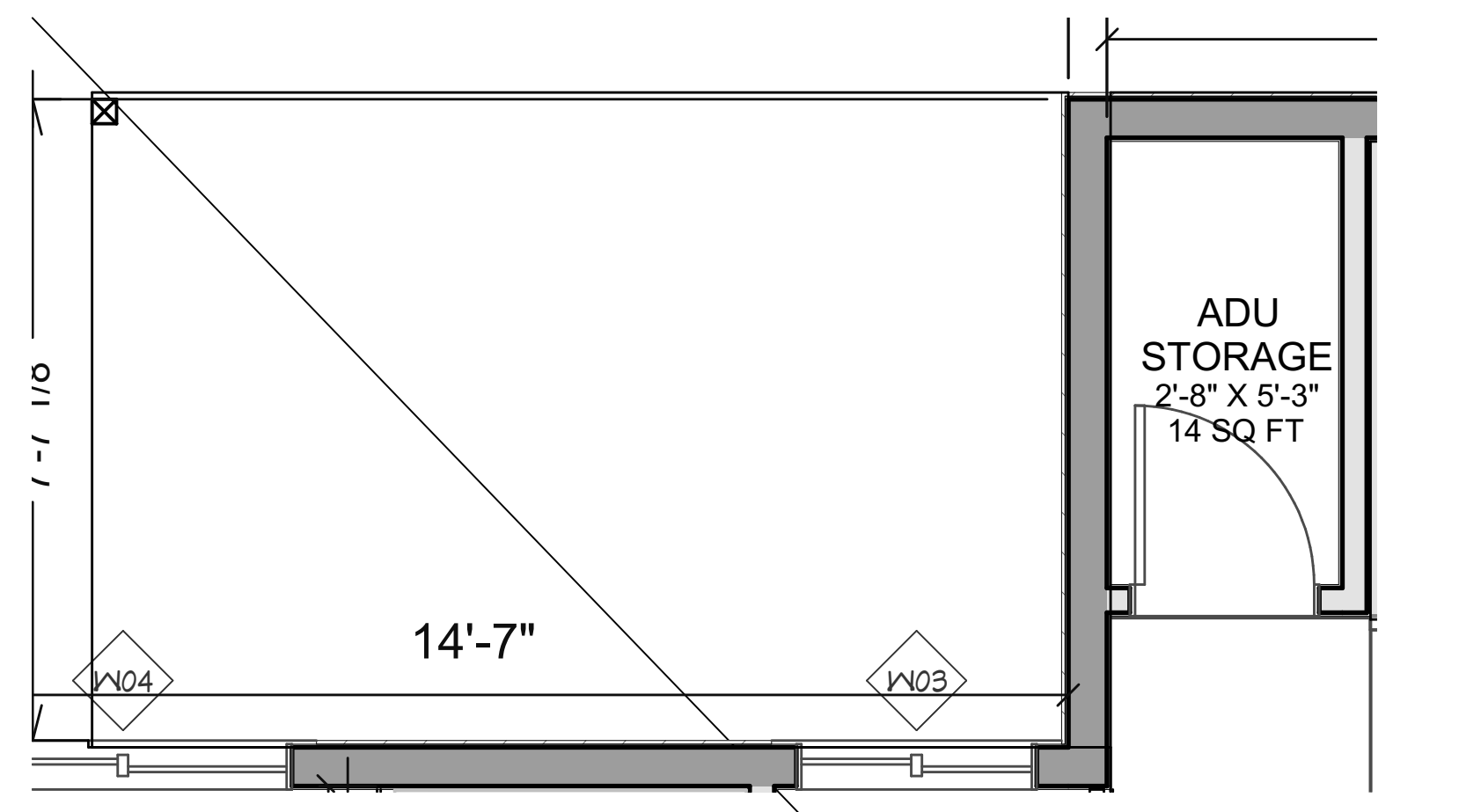
FRAMING PLAN & NOTES

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

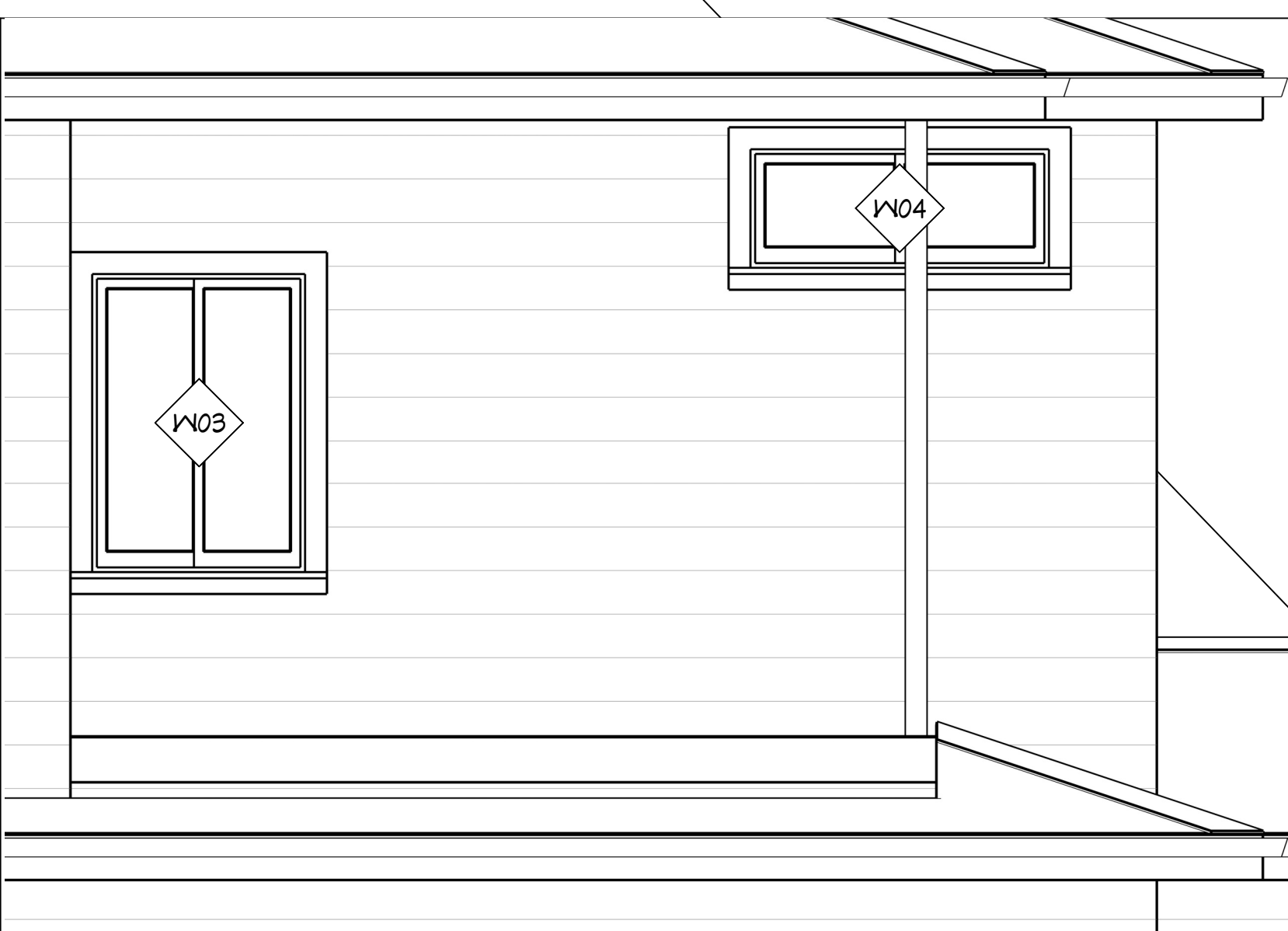
SHEET NUMBER

A9

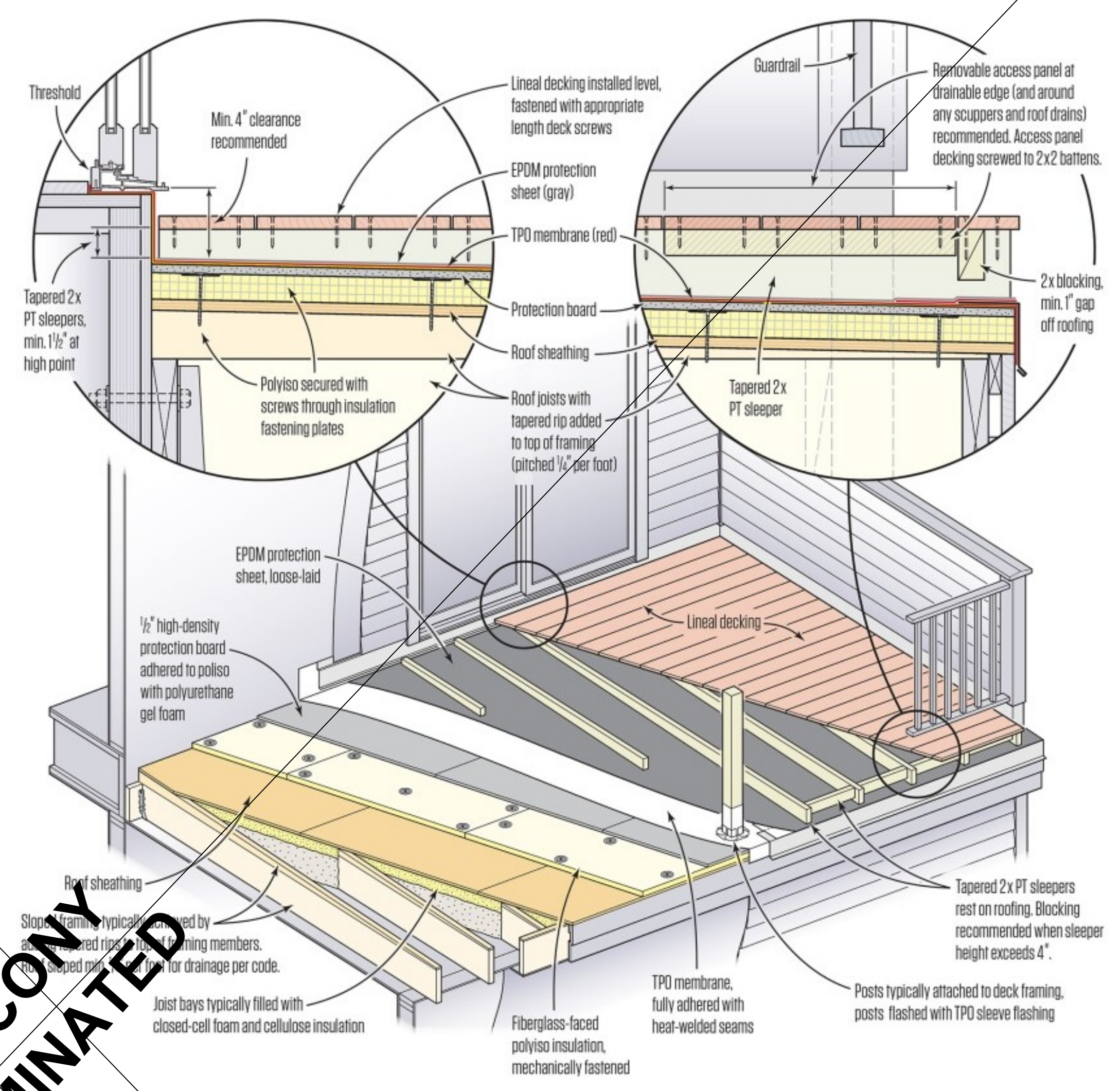
Revision #:



ADU STORAGE
2'-8" X 5'-3"
14 SQ FT



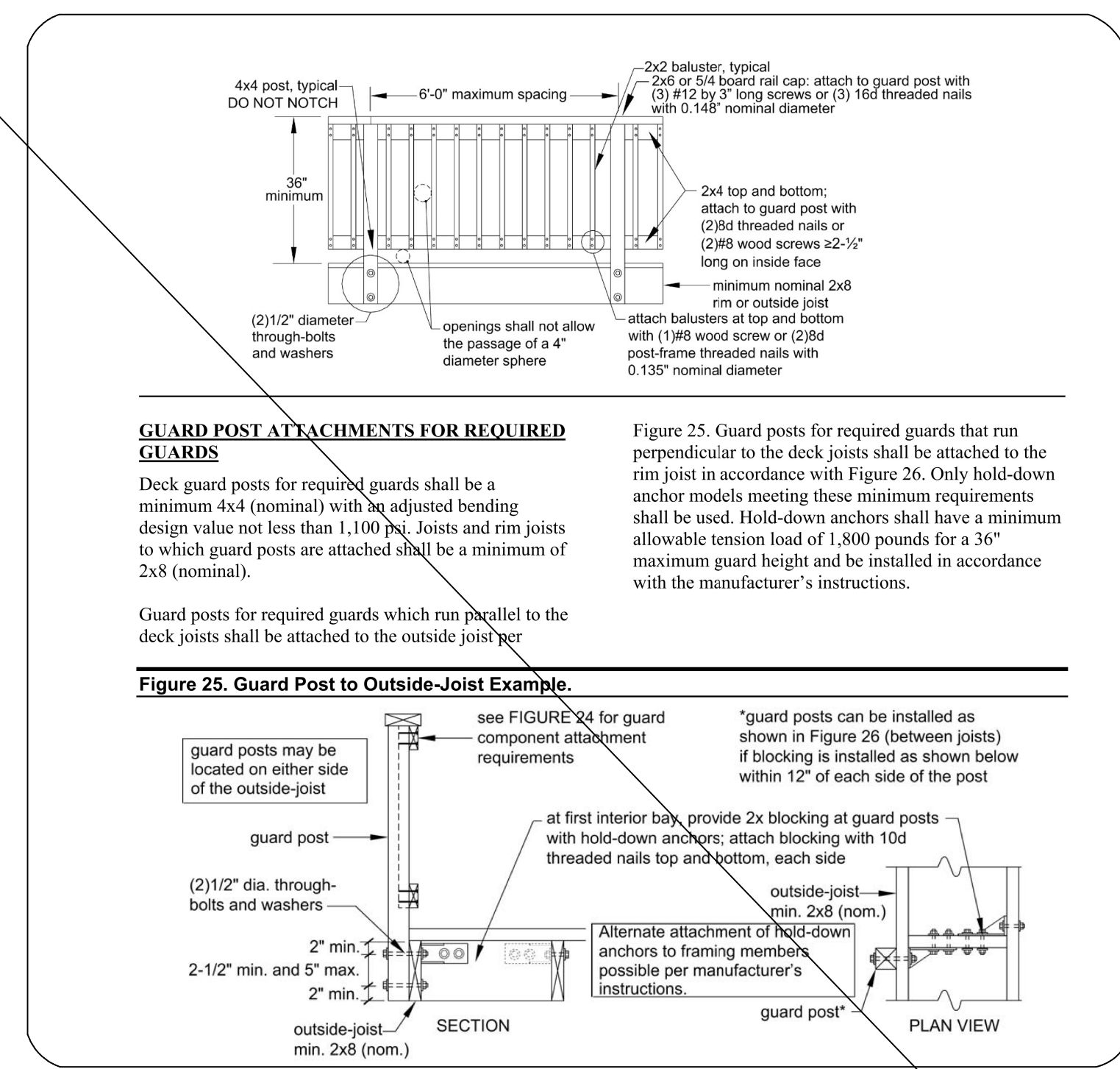
BALCONY FLOOR ASSEMBLY & WATERPROOFING DETAILS



BALCONY ELIMINATED

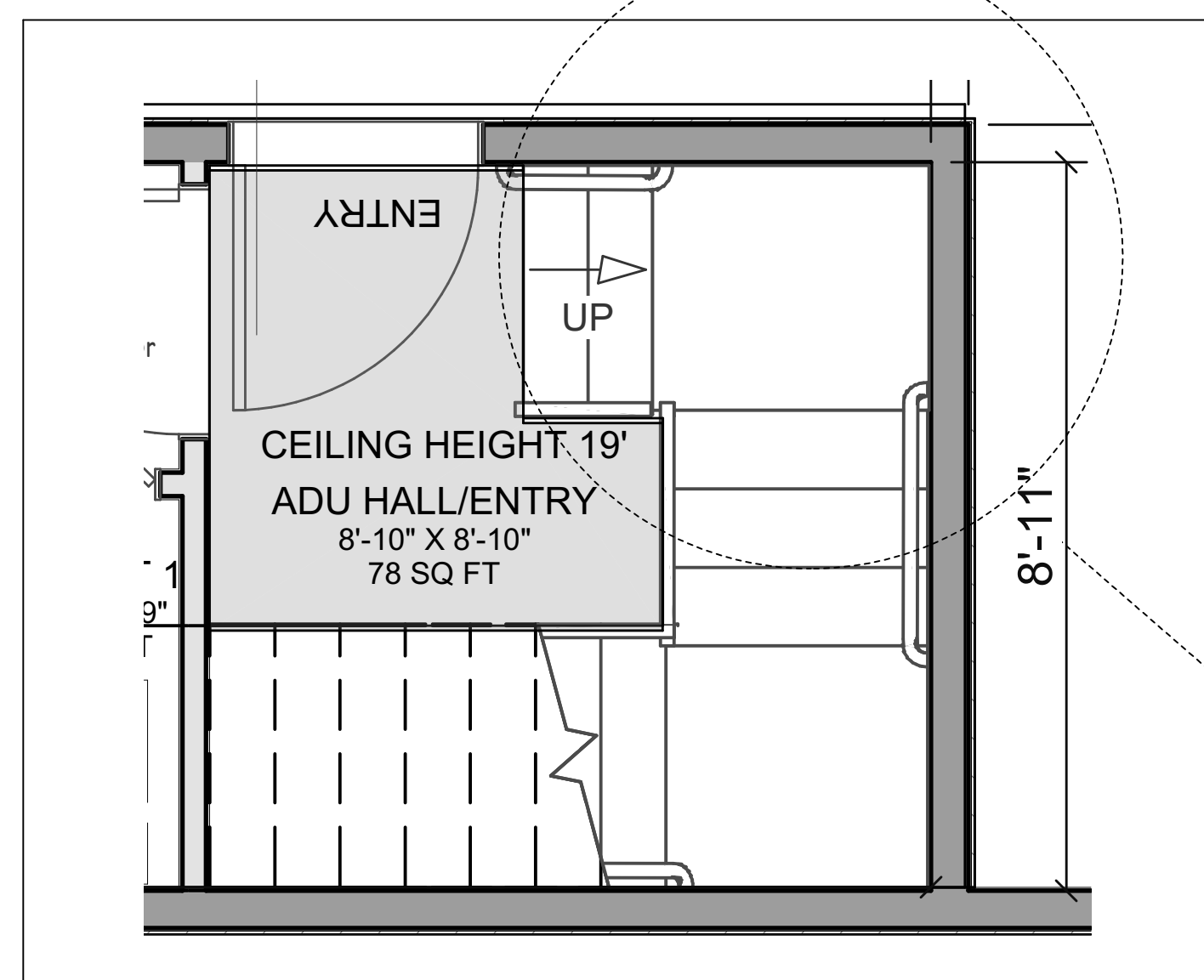
MISCELLANEOUS NOTES

1. GUARDRAILS TO BE 36" MIN. ABOVE FINISH FLOOR.
2. HANDRAILS TO BE 34" - 38" ABOVE NOSING, WITH HANDGRIP OF 1 1/2" - 2" IN
3. OPEN GUARDRAILS SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL PATTERN SUCH THAT A SPHERE 4" IN DIAMETER CANNOT PASS THROUGH.
4. ONE HOUR FIRE SEPARATIONS BETWEEN GARAGE AND DWELLING: INSTALL 1/2" TYPE-X ON ALL WALLS AND CEILINGS, BEARING WALLS. STAGGER JOINTS FROM PLYWOOD BELOW WHERE APPLICABLE.
5. BEDROOM EMERGENCY EGRESS WINDOWS: MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT., WIDTH OF 20" AND MINIMUM 24". MAXIMUM FINISHED SILL HEIGHT OF 44" ABOVE
6. EACH SLEEPING ROOM SHALL BE PROVIDED W/ A SMOKE DETECTOR (INTERCONNECTED) PER SECTION (F) R313.1. SMOKE DETECTORS SHALL BE PROVIDED W/ A BATTERY BACK-UP. PER SEC. (F) R313.1 AND, LOCATED PER SECTION (F) R313.1.
7. 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.



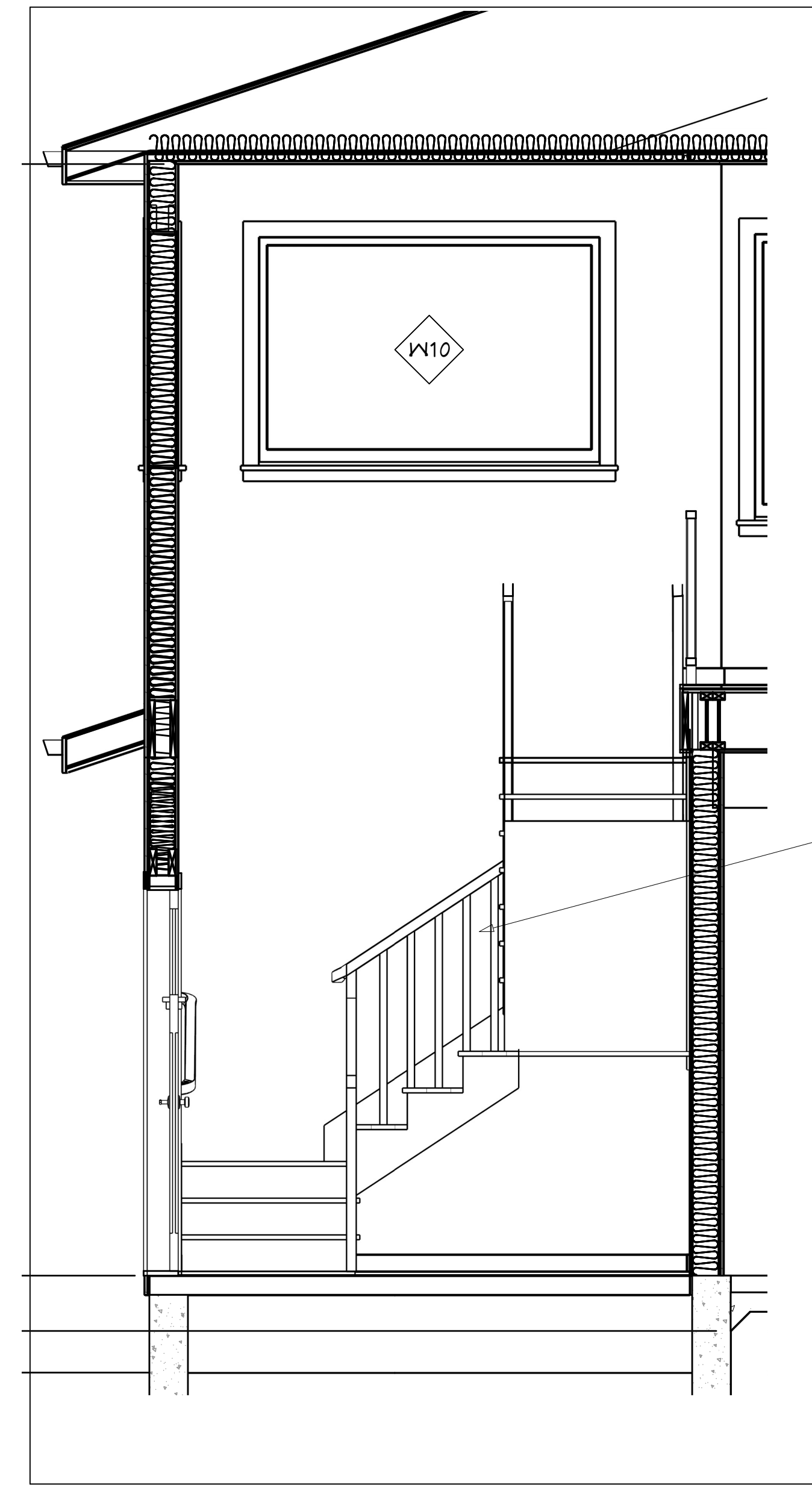
GUARD POST ATTACHMENTS FOR REQUIRED GUARDS
Deck guard posts for required guards shall be a minimum 4x4 (nominal) with an adjusted bending design value not less than 1,100 psi. Joists and rim joists to which guard posts are attached shall be a minimum of 2x8 (nominal).
Guard posts for required guards which run parallel to the deck joists shall be attached to the outside joist per

Figure 25. Guard Post to Outside-Joist Example.
see FIGURE 24 for guard component attachment requirements
guard posts can be installed as shown in Figure 26 (between joists) if blocking is installed as shown below within 12" of each side of the post
at first interior bay, provide 2x blocking at guard posts with hold-down anchors; attach blocking with 10d threaded nails top and bottom, each side
Alternate attachment of hold-down anchors to framing members possible per manufacturer's instructions
PLAN VIEW



CEILING HEIGHT 19'
ADU HALL/ENTRY
8'-10" X 8'-10"
78 SQ FT

11
D2
5
D1



S1 STAIR DETAILS
SCALE: = 1'-0"

B1 BALCONY GUARD RAIL DETAILS
SCALE: 1/2" = 1'-0"

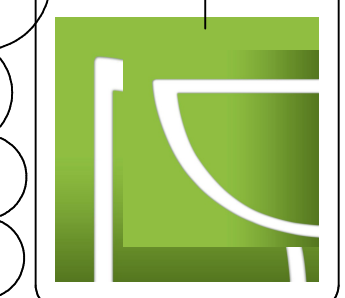
SHEET NUMBER
A10

DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

STAIR & BALCONY DETAILS

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

KESH DESIGN LINES LLC
425 344 9906



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. SPACING.

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

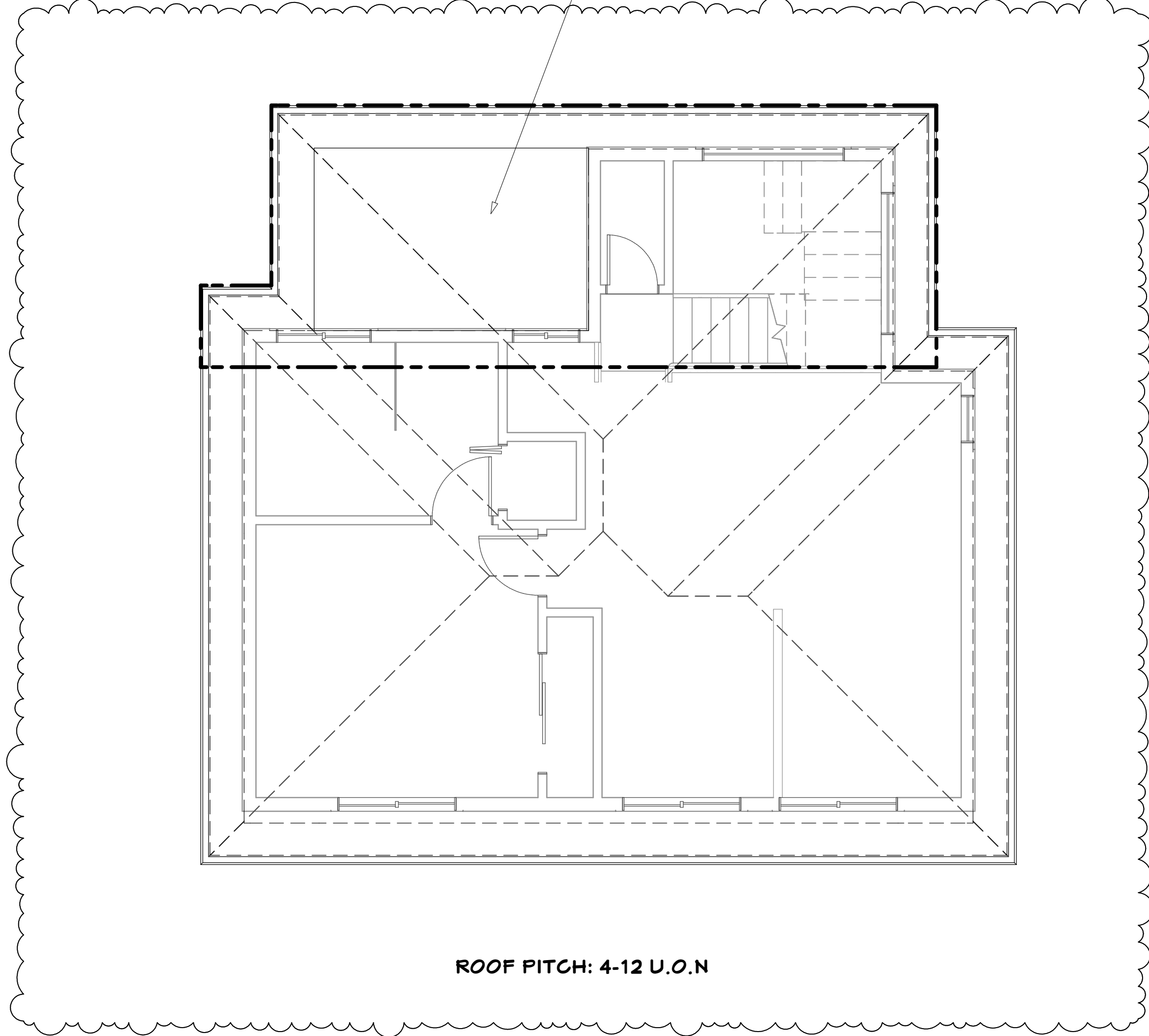
BAFFLING OF THE VENT OPENINGS SHALL BE INSTALLED. BAFFLES SHALL BE RIGID AND WIND-DRIVEN. MOISTURE RESISTANT. IF FEASIBLE BAFFLES SHOULD BE INSTALLED FROM THE TOP OF THE OUTSIDE OF THE EXTERIOR WALL, EXTENDING INWARD, TO A POINT 6" VERTICALLY ABOVE THE HEIGHT OF NON-COMPRESSIBLE INSULATION. VERTICALLY 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)

EPDM 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"

SEE NEW STRUCTURAL (S) SHEETS

FIREBLOCKING AND DRAFTSTOPPING

PER IRC SECTION R602.6 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 PURSED SPACES AND PARALLEL ROWS 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 R1003.1.9.
- 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 R602.6.1. 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, DRAFTSTOPS 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-WEB 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 FRAMED AND TIED INTO THE FRAME WORK AND SUPPORTING WALLS SO AS TO FORM AN 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

Per R802.10 Wood Trusses

ATTIC VENTILATION: AREA / 300

PROVIDE 1" MIN. AIR GAP AT EAVES WITH INSULATION BAFFLES TYP. AT ALL TRUSS BAYS.

PROVIDE GABLE VENTS ALL GABLE ENDS.

PROVIDE GALV. ROOF VENTS ON BACKSIDE OF ROOFLINE ABOVE CONDITIONED AREA.

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
 REV #6: 01.01.23
 DRAWN BY: K.C.

ROOF PLAN

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

SHEARWALL DETAILS

DATE: 06.12.20
REV #6: 01.01.23
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 | 34 3/16" | 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. 1 3/4" STEP TO MIN. 36" DEEP X (1/2" + 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 .80, UNLESS NOTED OTHERWISE WITH SAFETY GLAZING.
 FACTORY BUILT WINDOWS TO BE CONSTRUCTED TO PERMIT MAXIMUM INFILTRATION OF 0.5 CFM PER LINEAL FOOT OF 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 Baffles TO MAINTAIN 1" ABOVE INSULATION
 Baffles TO EXTEND 6" ABOVE BATT INSULATION
 Baffles TO EXTEND 12" ABOVE LOOSE FILL INSULATION.
 INSULATE BEHIND TUBS/SHOWERS, PARTITIONS AND CORNERS.
 FACE OF STAIR BATT
 FRICTION FIT FACED BATT
 USE 4 MIL POLY VAPOR RETARDER AT WALLS
 USE PVA PAINT WITH A DRY CUP PERH 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 SILL HEIGHT OF 44" ABOVE
- EACH SLEEPING ROOM SHALL BE PROVIDED W/ A SMOKE DETECTOR (INTERCONNECTED) PER SECTION (F) R313.1. SMOKE DETECTORS SHALL BE PROVIDED W/ A BATTERY BACK-UP. PER SEC. (F) R313.1 AND, LOCATED PER SECTION (F) R313.1.
- 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 ^a | 0.026 |
| Wood Frame Wall ^{a,b} | 0.056 |
| Floor | 0.029 |
| Below Grade Wall ^{c,d} | 10/15/21 int + TB |
| Slab ^{d,f} 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 pumps ^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 ^f | 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 ^g | High Efficiency HVAC | 1.0 | <input type="checkbox"/> |
| 3.2 | High Efficiency HVAC | 1.0 | <input type="checkbox"/> |
| 3.3 ^g | 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 ^g | 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 ^f | 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 ^e | 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"/> |

- 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 #:

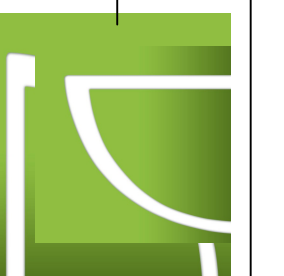
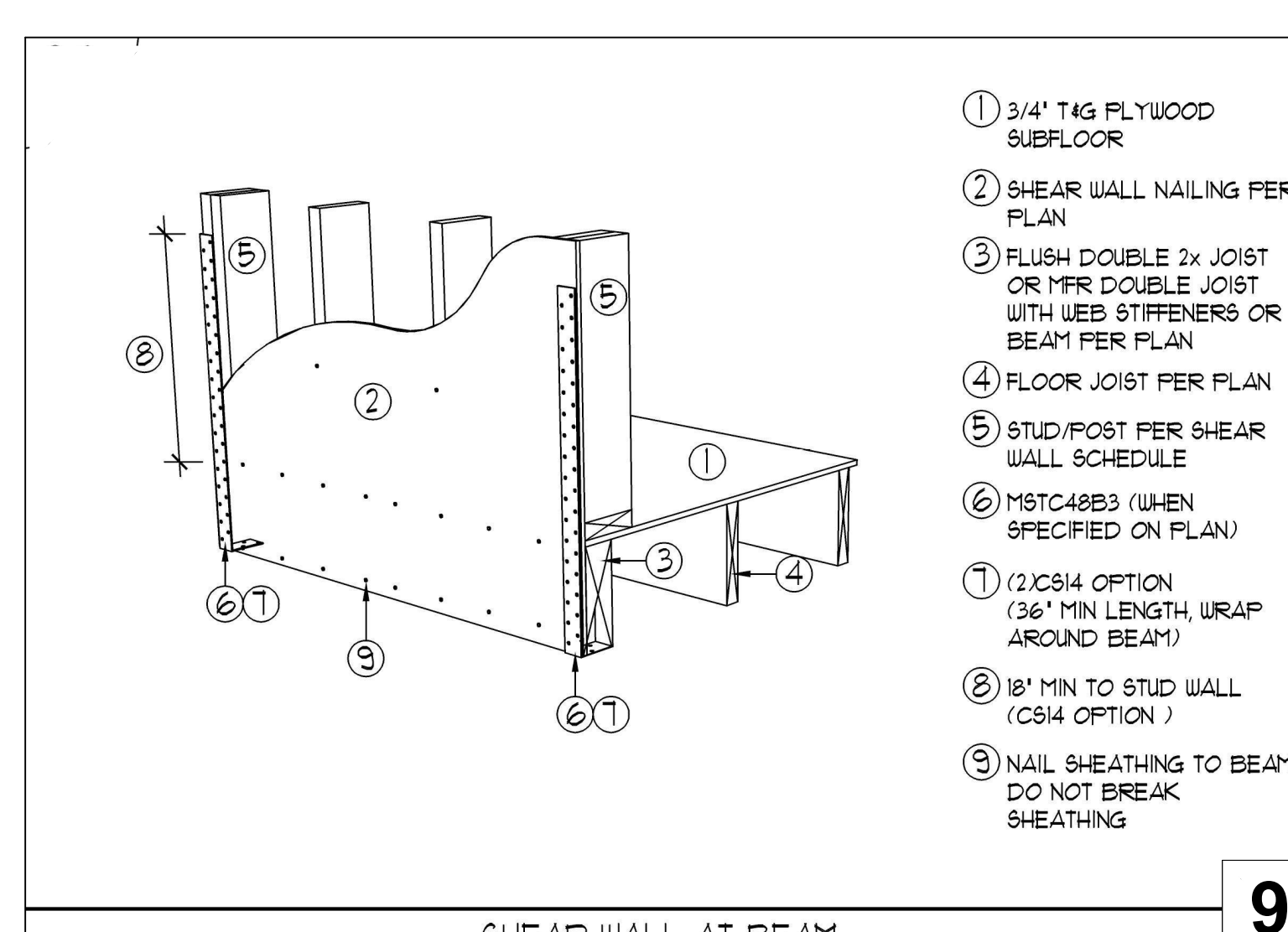
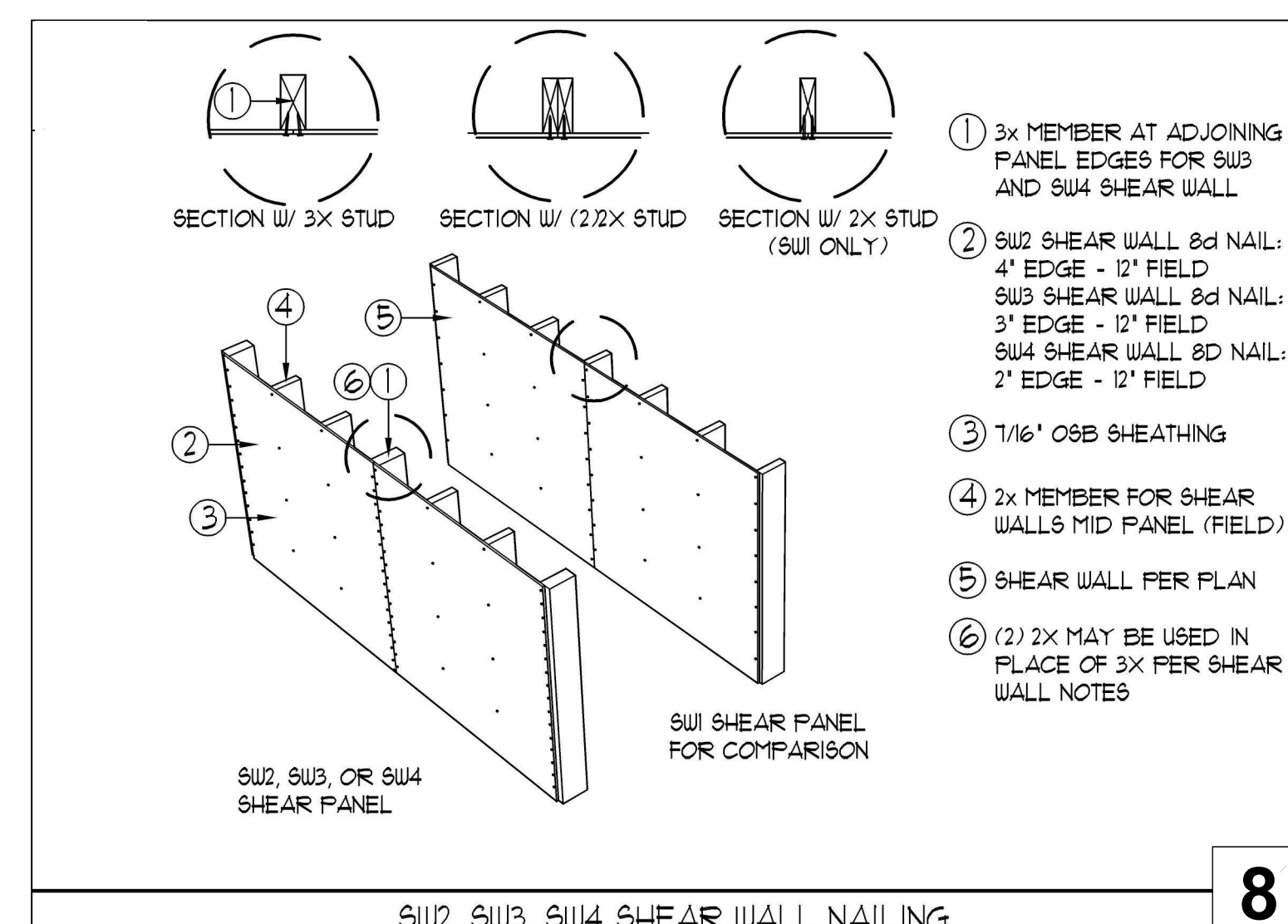
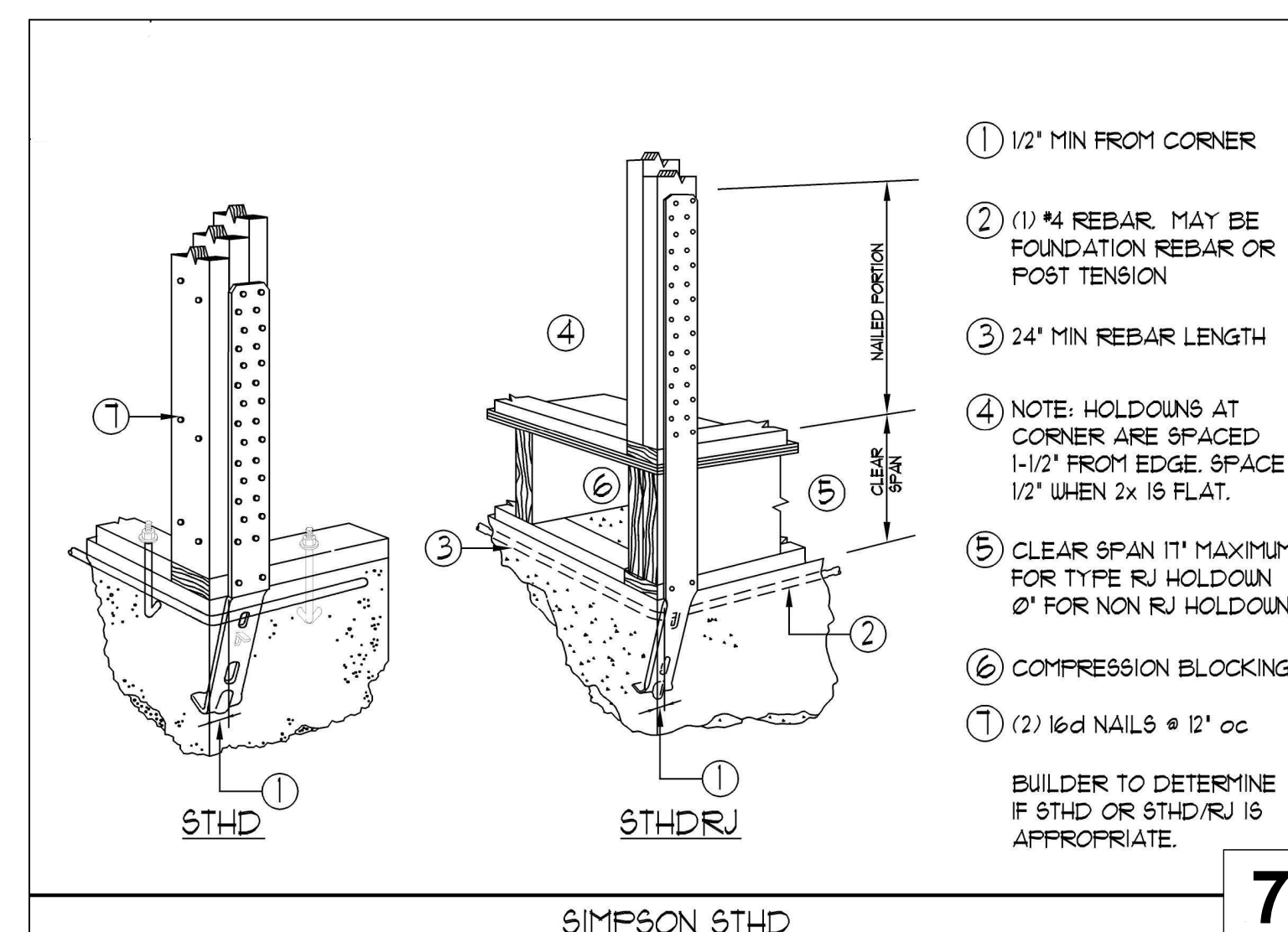
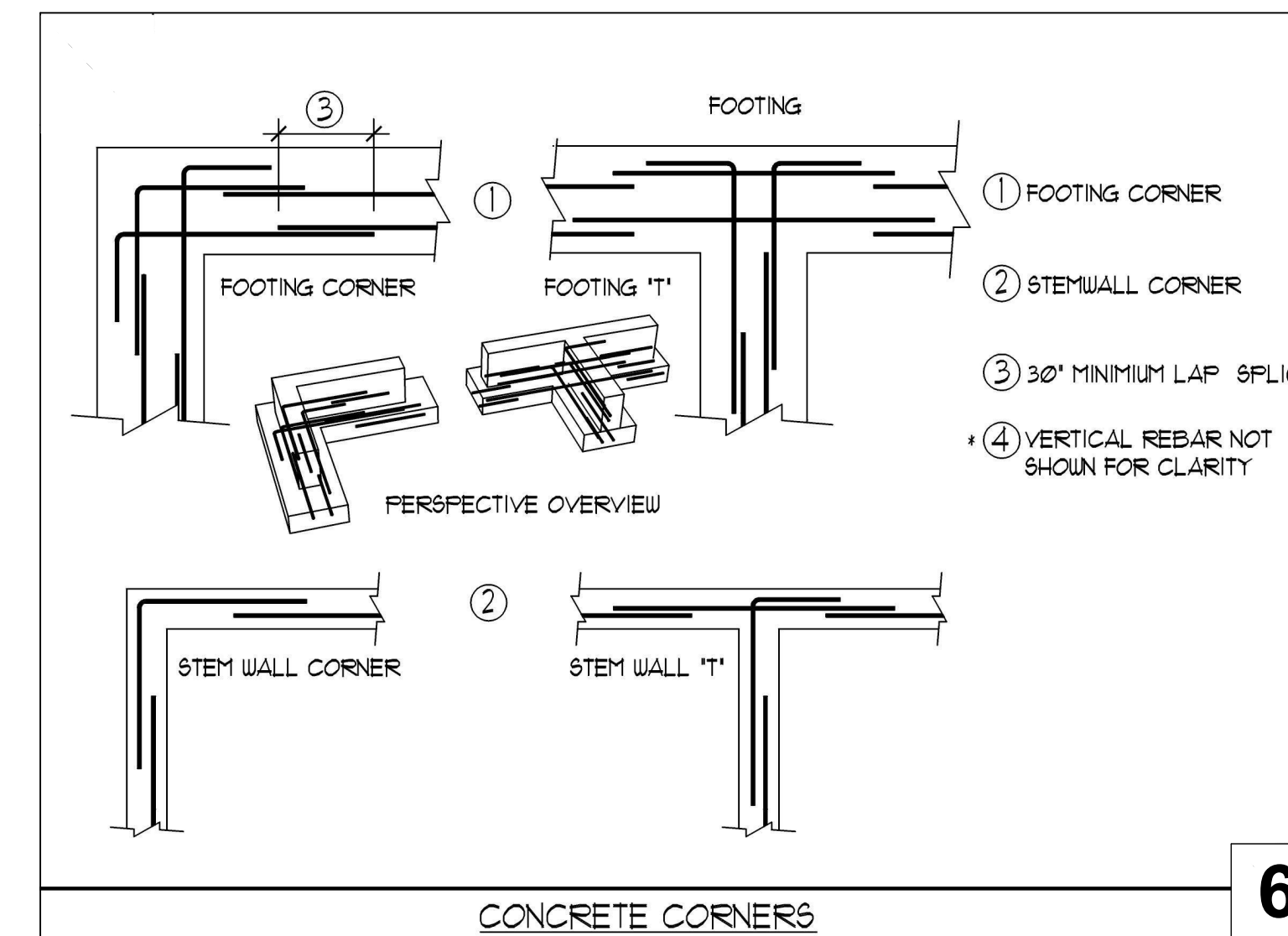
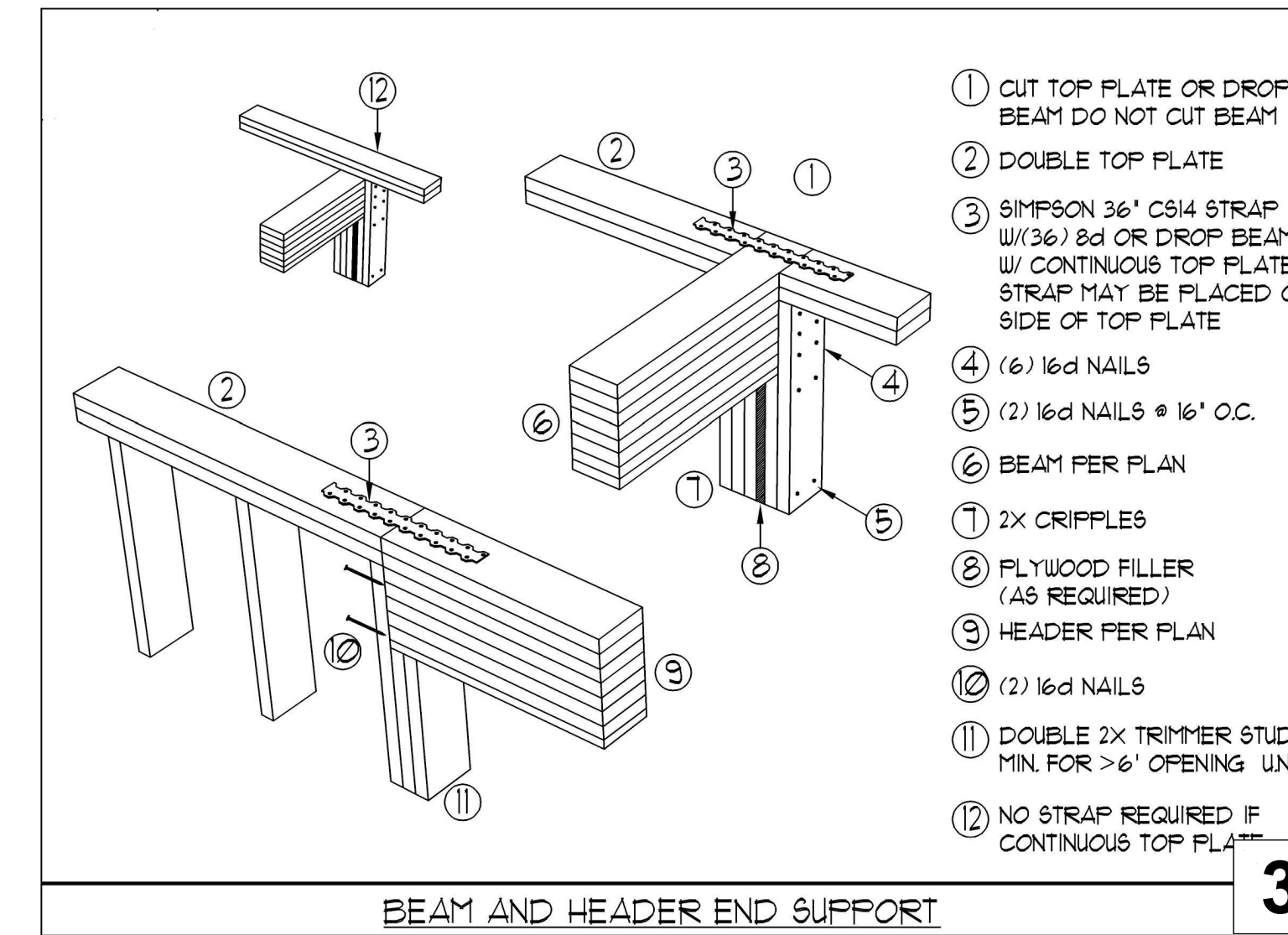
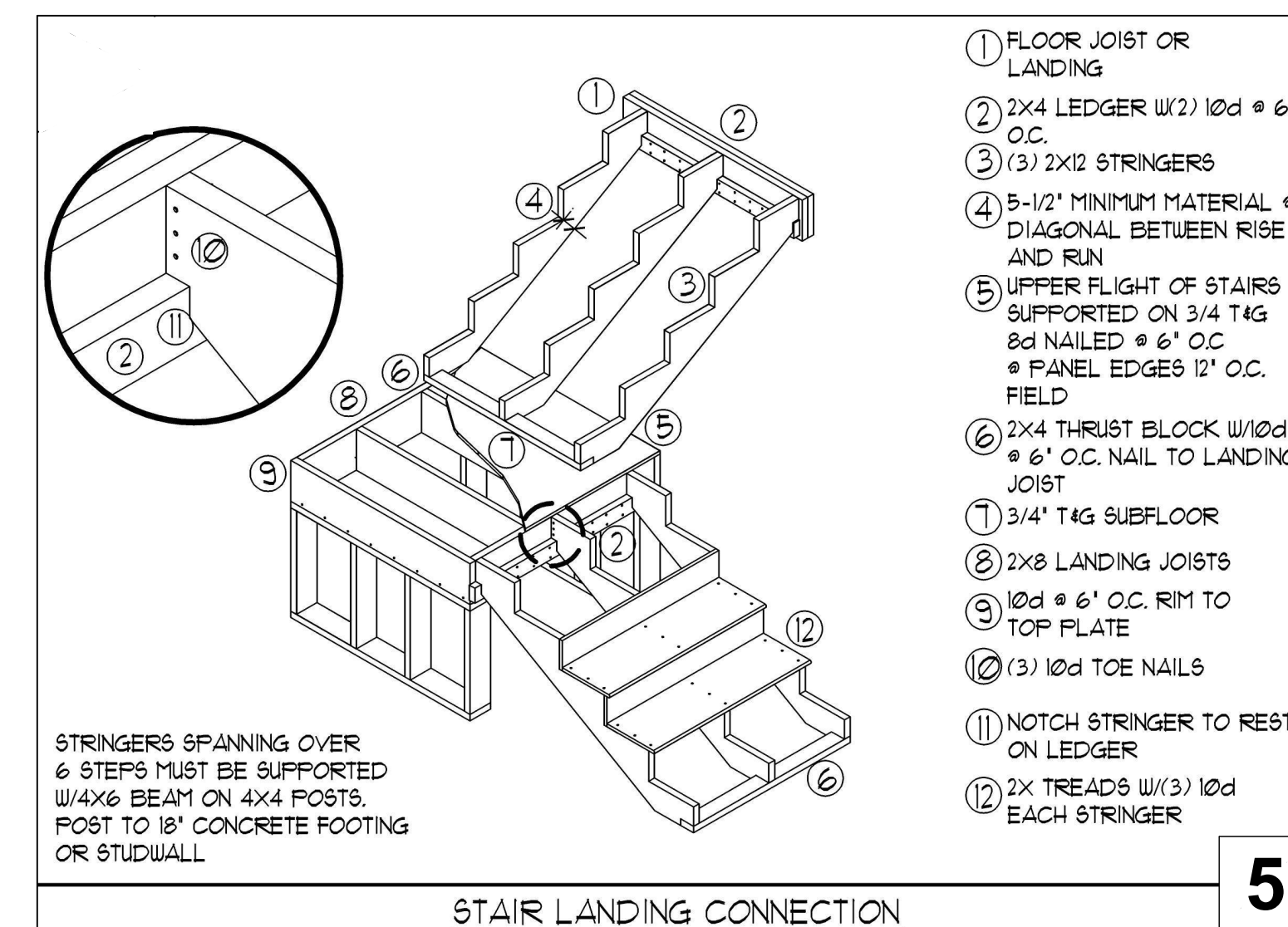
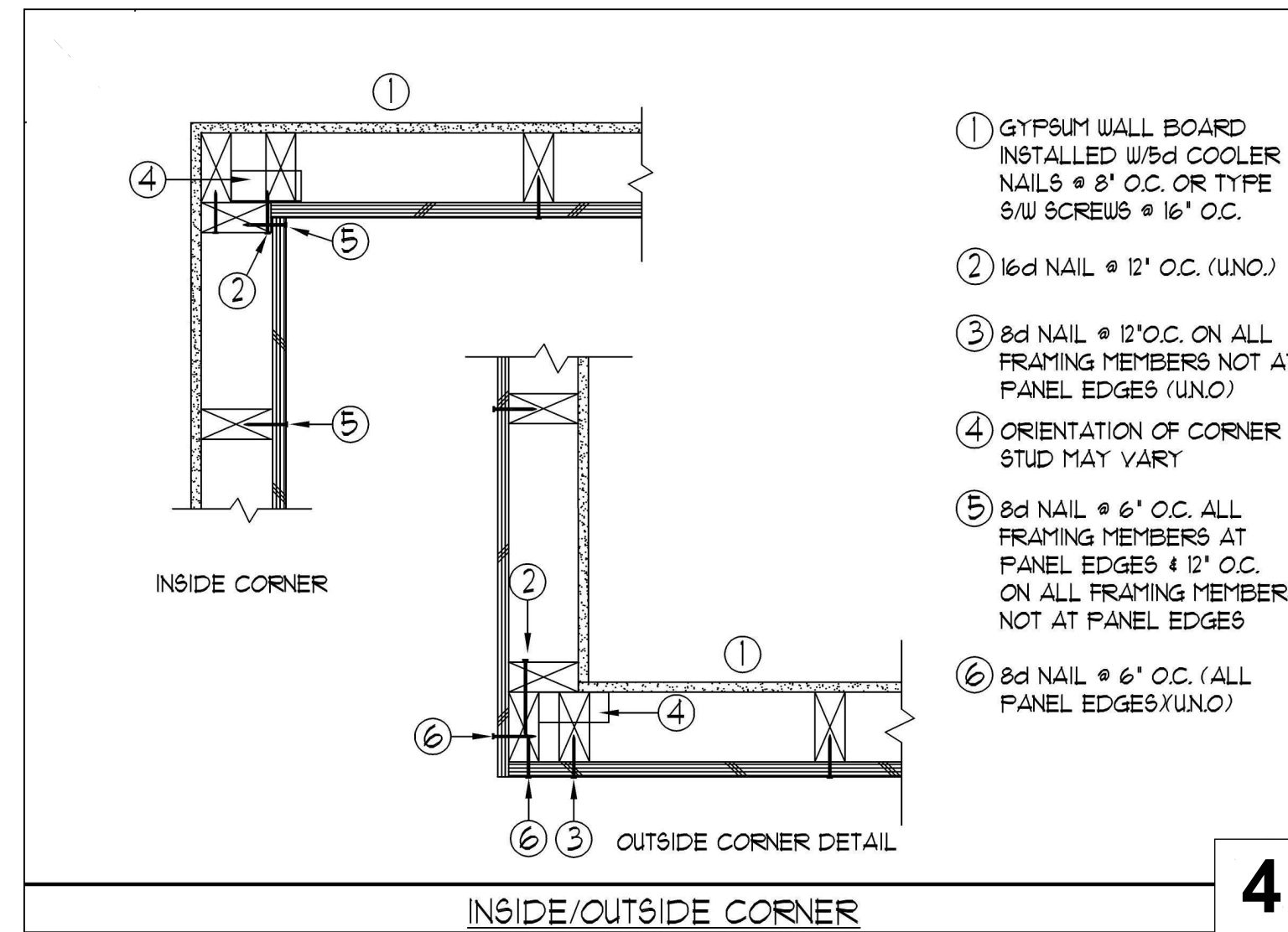
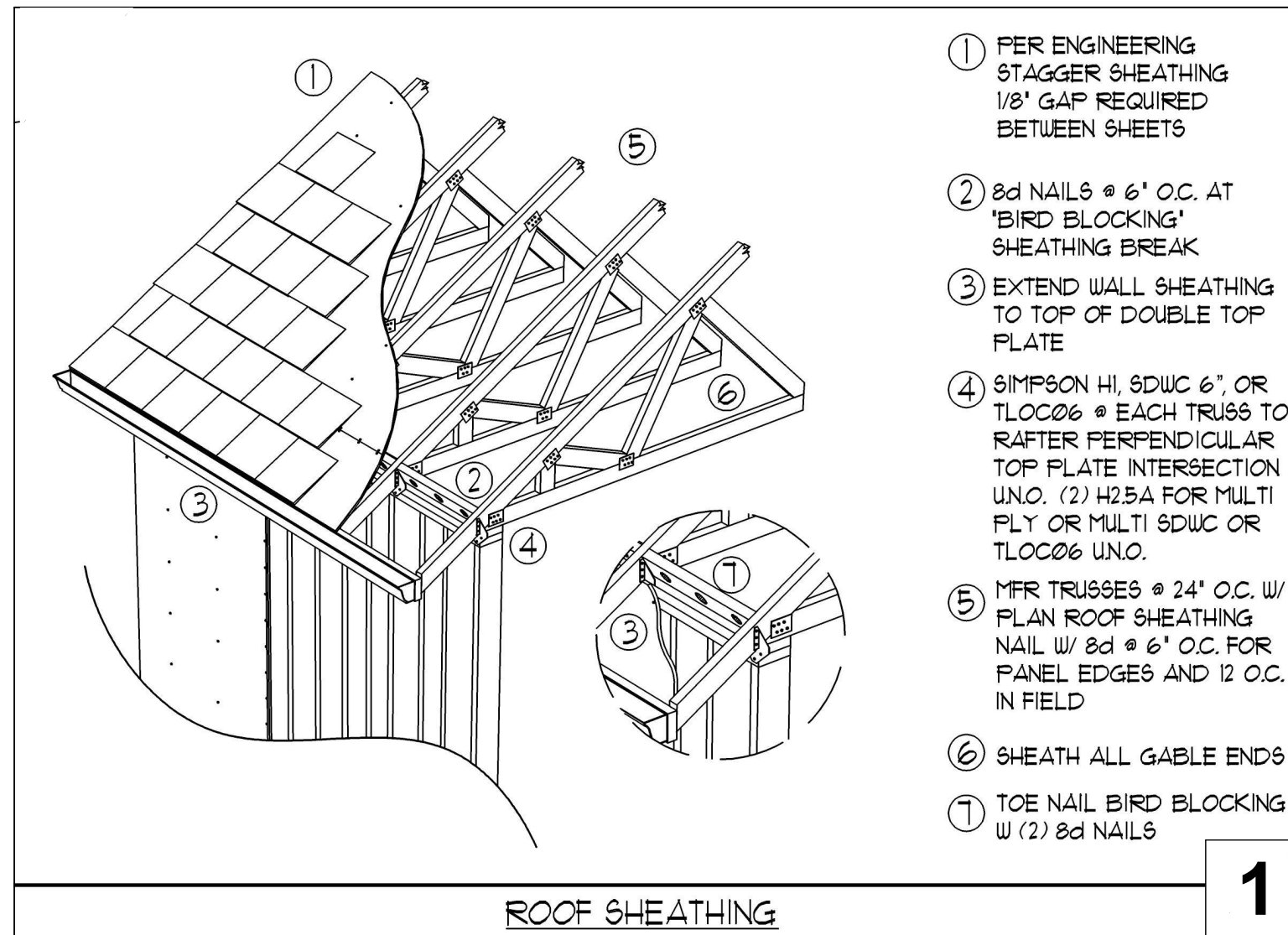
DATE: 06.12.20
 REV #6: 01.01.23
 DRAWN BY: K.C.

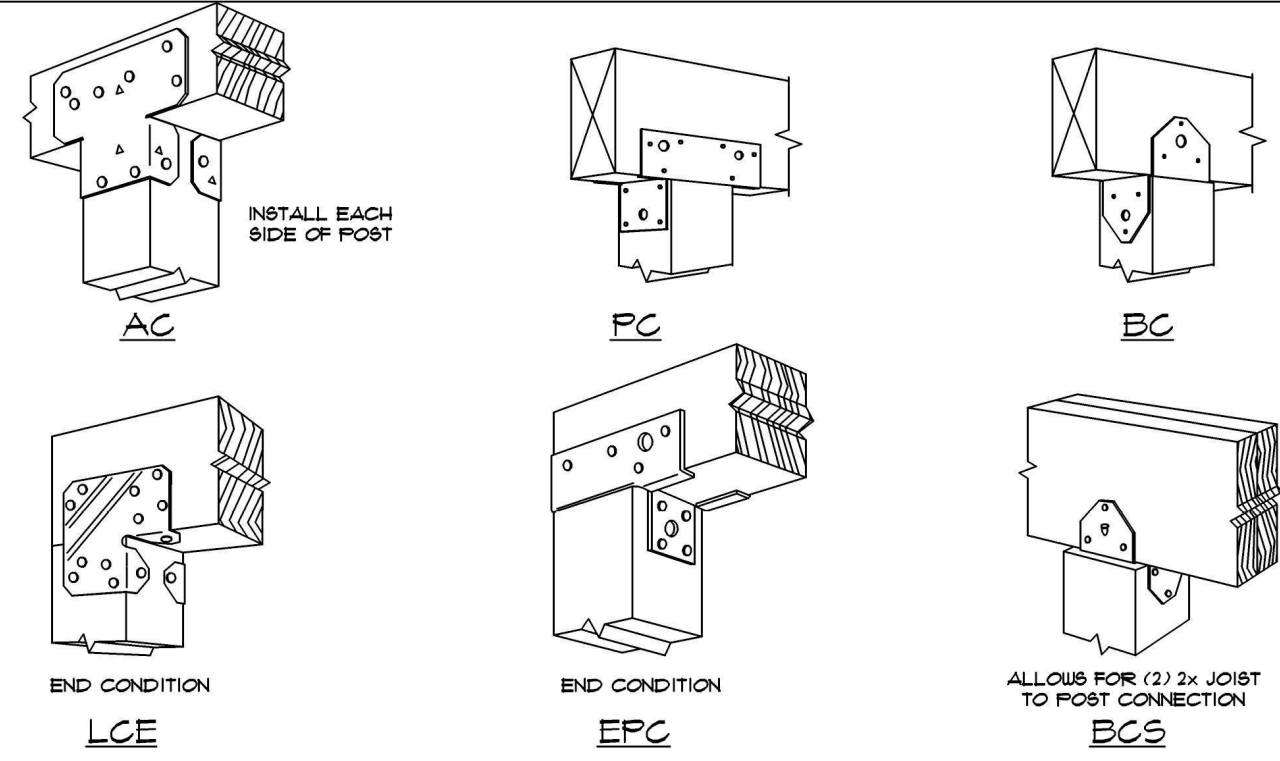
WINDOW SCHEDULE ENERGY
 CALCS.

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

KESH DESIGN LINES LLC
 425 344 9906



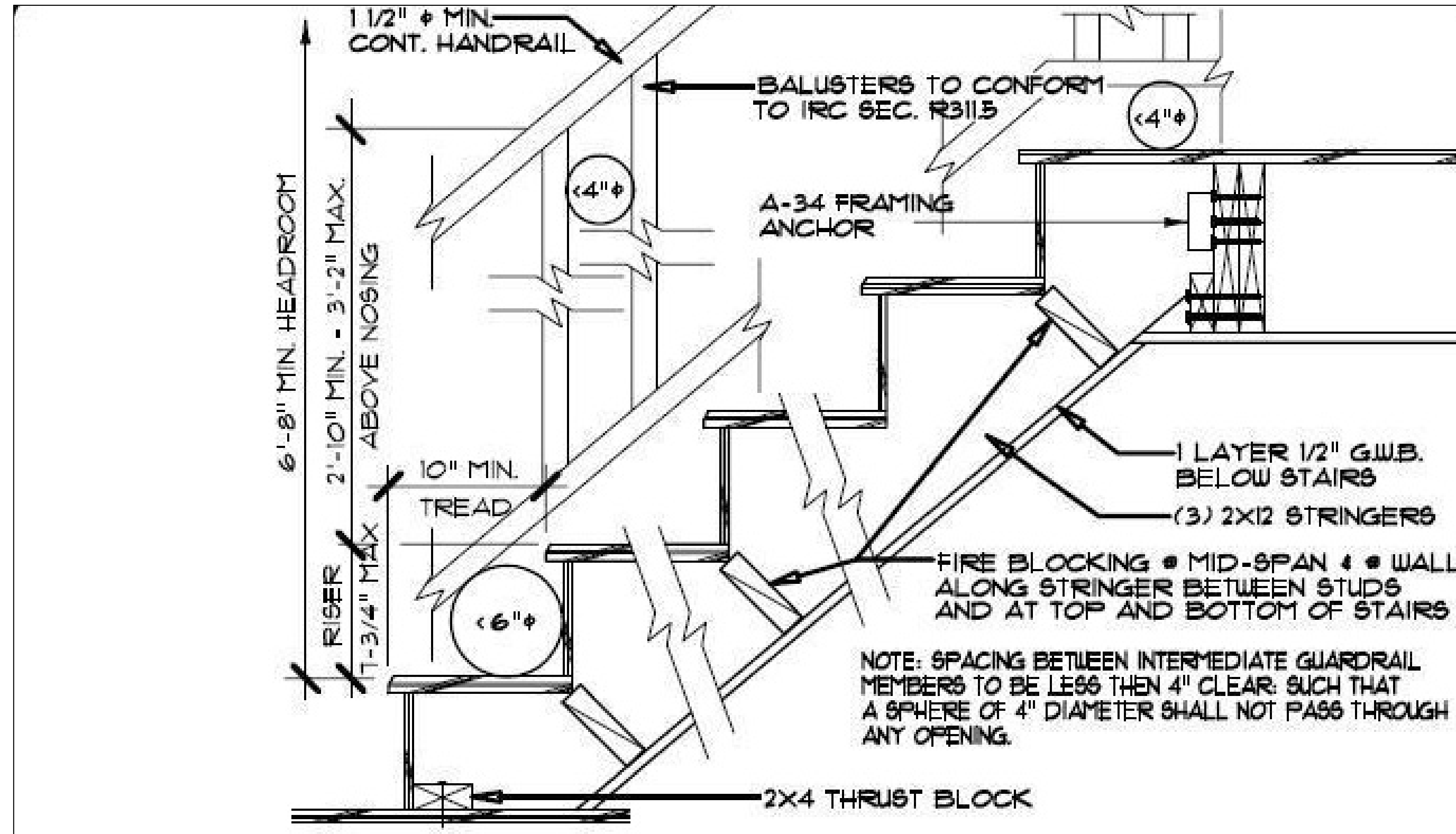




- ① WHERE POSTS AND BEAM OR GIRDER CONSTRUCTION IS USED TO SUPPORT FLOOR FRAMING, POSITIVE CONNECTION SHALL BE PROVIDED TO ENSURE AGAINST UPLIFT AND LATERAL DISPLACEMENT.
- ② ACE/LCE ELIMINATE THE NEED FOR RIGHT AND LEFTS, FOR USE W/ 4x OR 6x LUMBER
- ③ PC/EPC PROVIDES A CUSTOM CONNECTION FOR POST BEAM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

BEAM TO POST CONNECTIONS

10

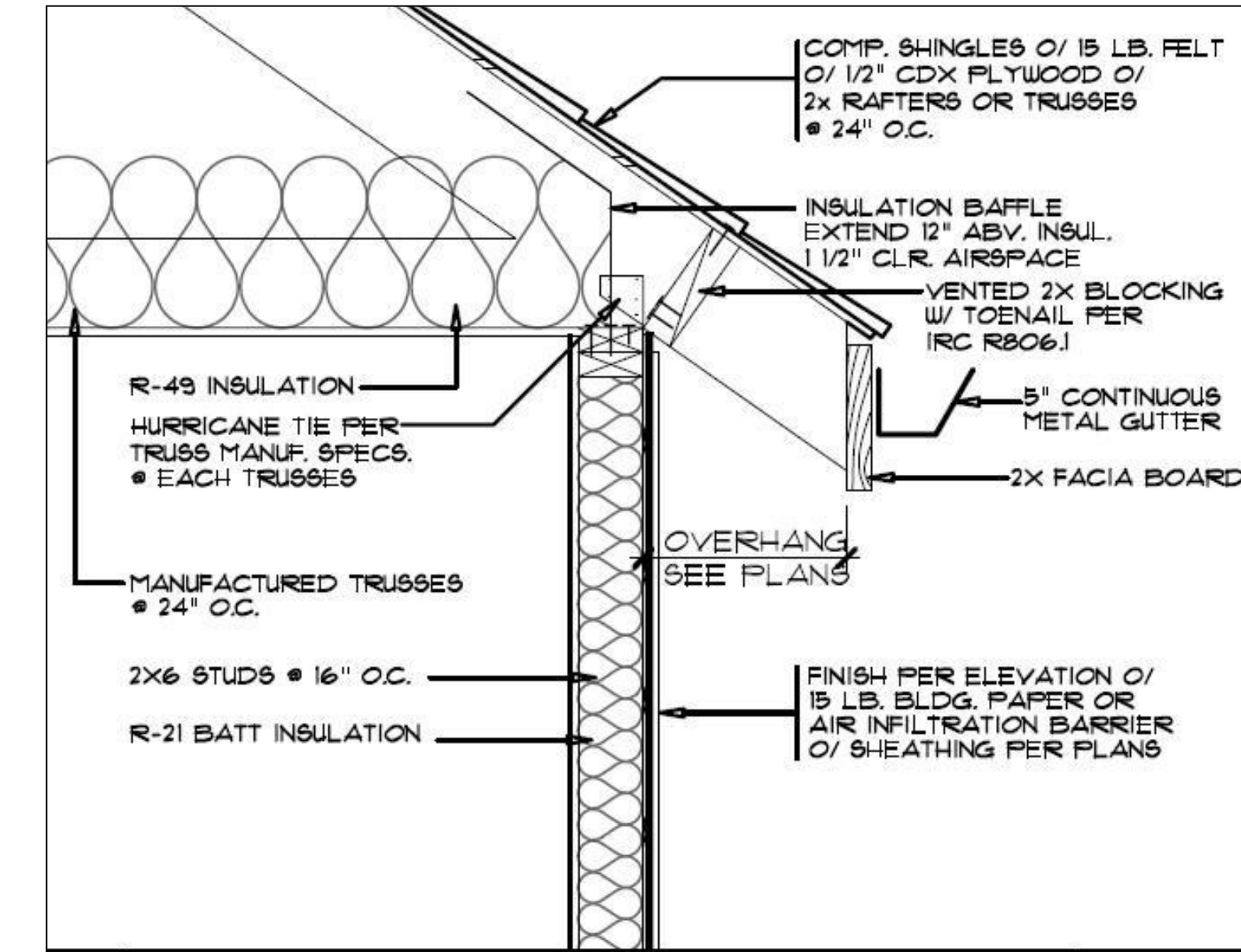


NOTES: PER IRC SECTION 309.6, R311.5.1 ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIR INCLUDING LANDINGS & TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE LANDING OF THE STAIRWAY. EXTERIOR 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

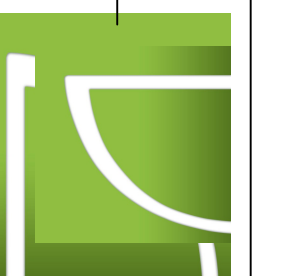
SHEET NUMBER
D2

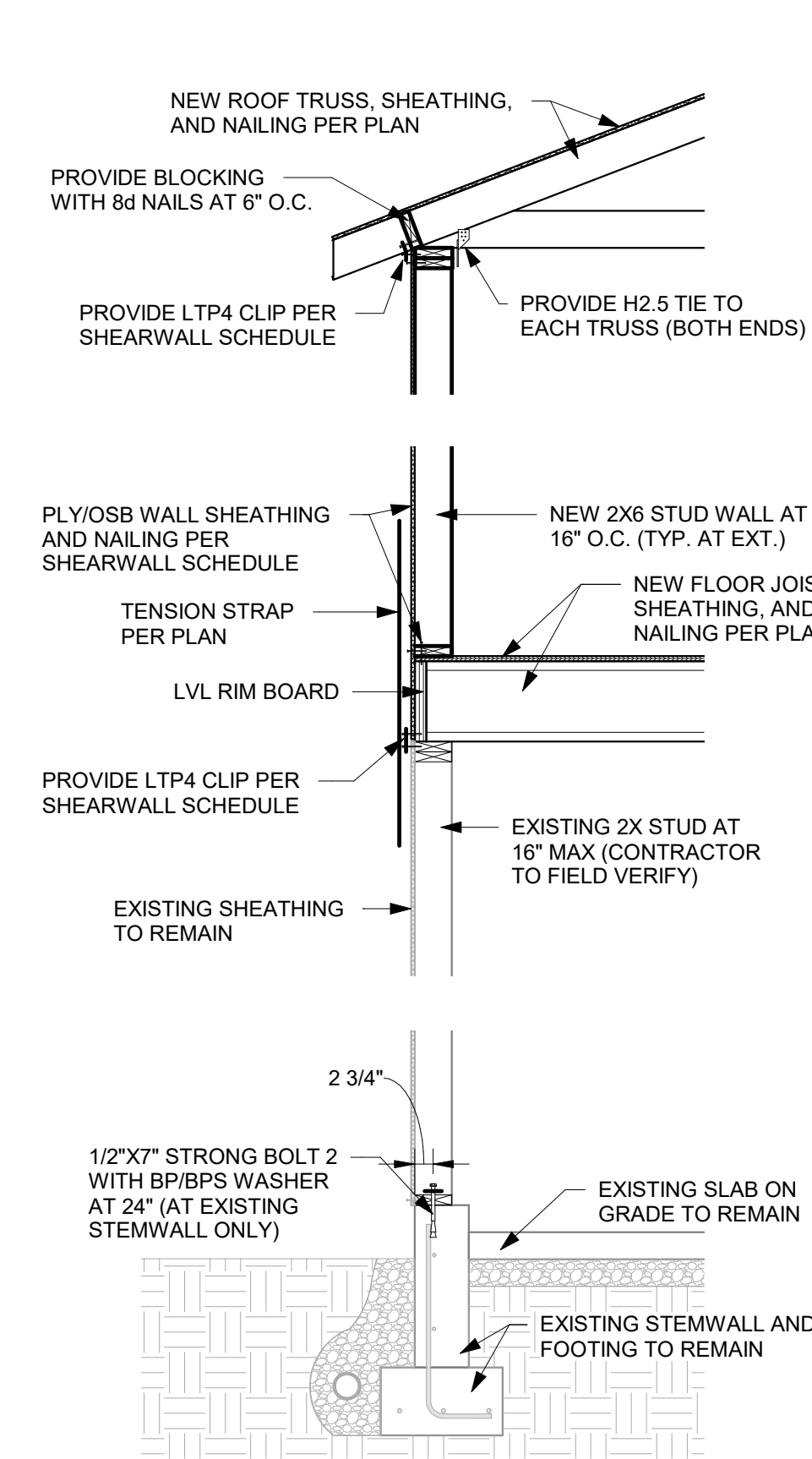
DATE: 06.12.20
REV #6: 01.01.23
DRAWN BY: K.C.

DETAILS & NOTES

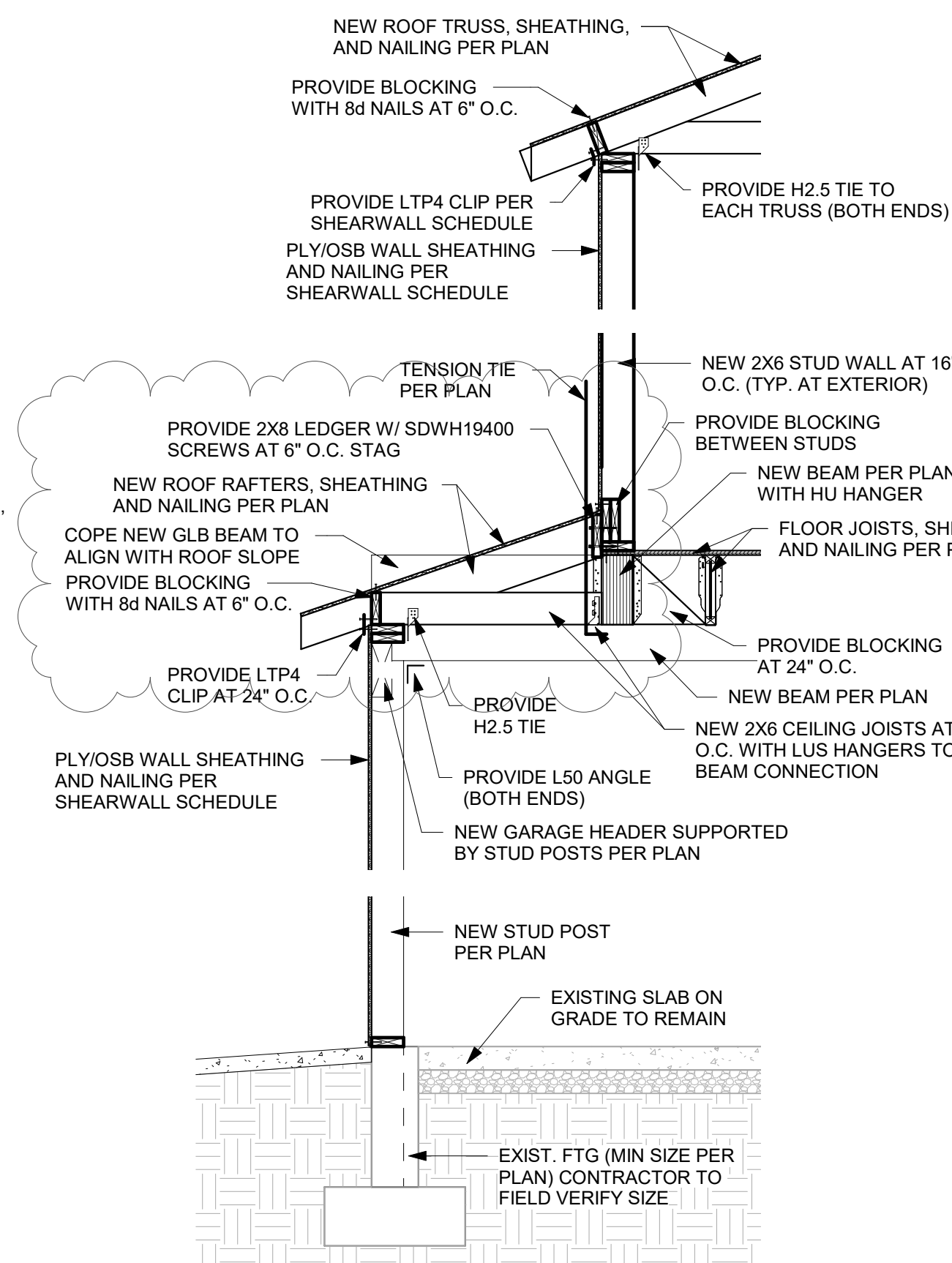
TOM & KIM TSO
ADDITION & ADU
8802 SE 9TH ST. MERCER ISLAND WA 98040

KESH DESIGN LINES LLC
425 344 9906

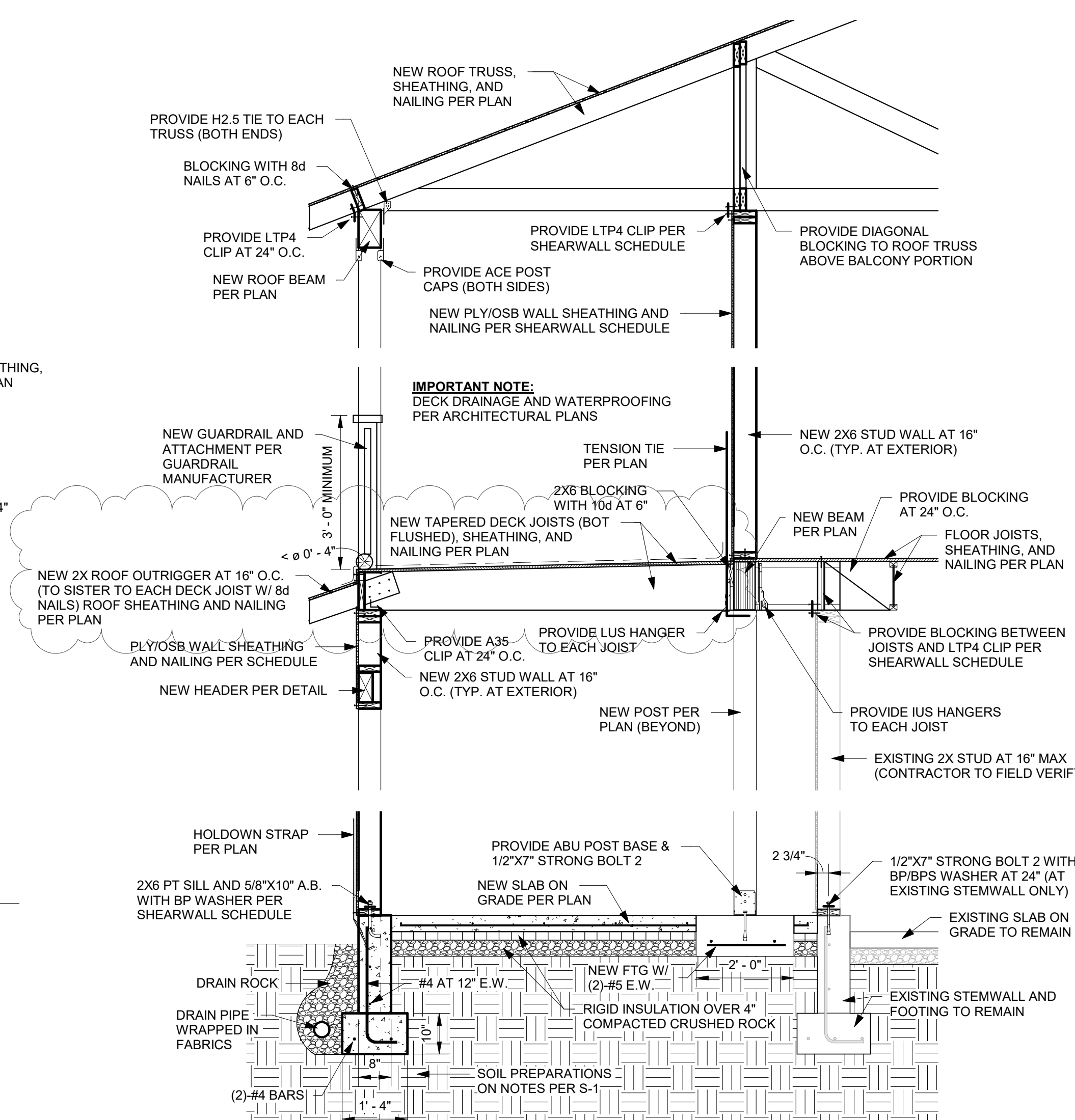




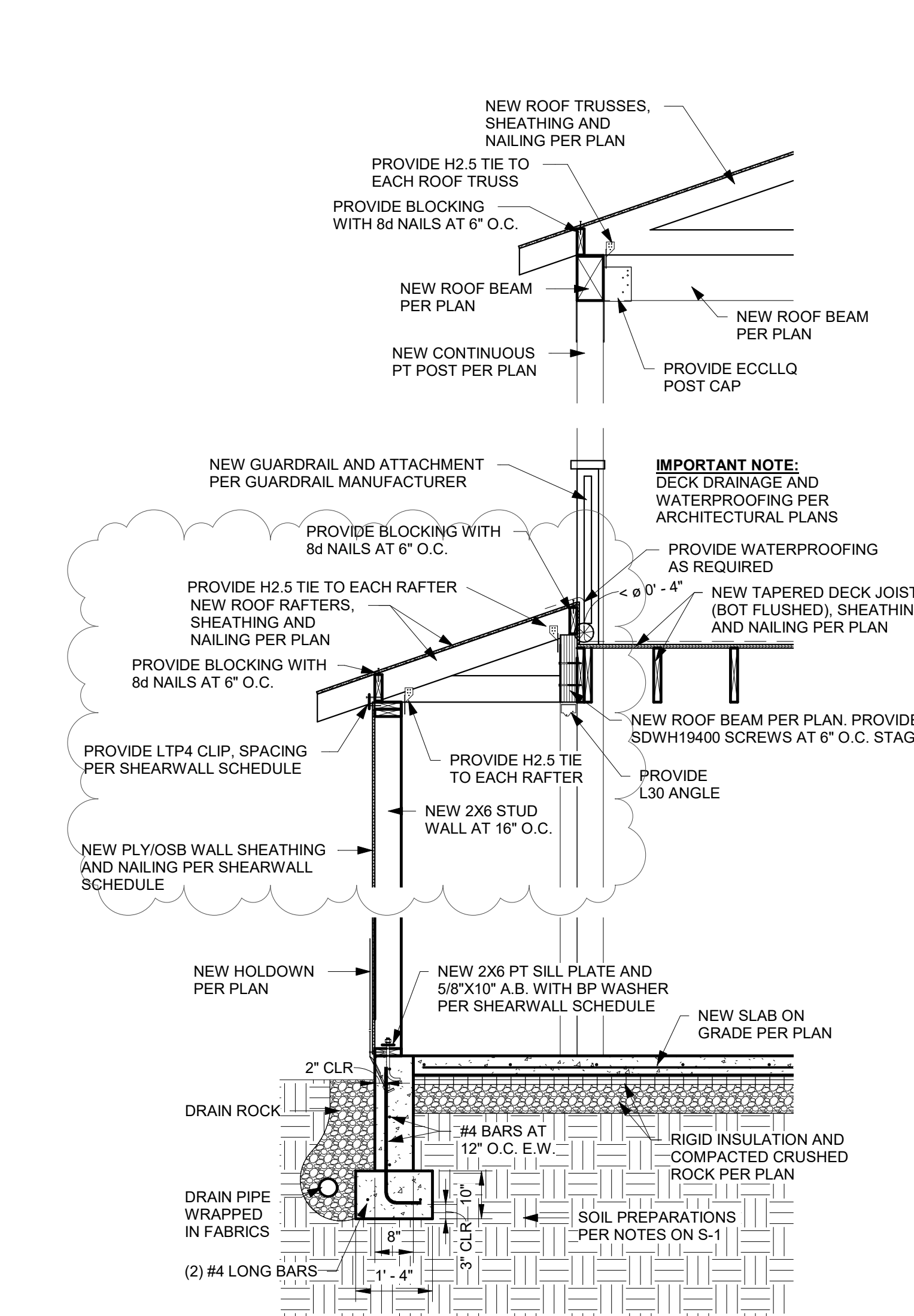
1 Section 1
1/2" = 1'-0"



2 Section 2
1/2" = 1'-0"



3 Section 3
1/2" = 1'-0"

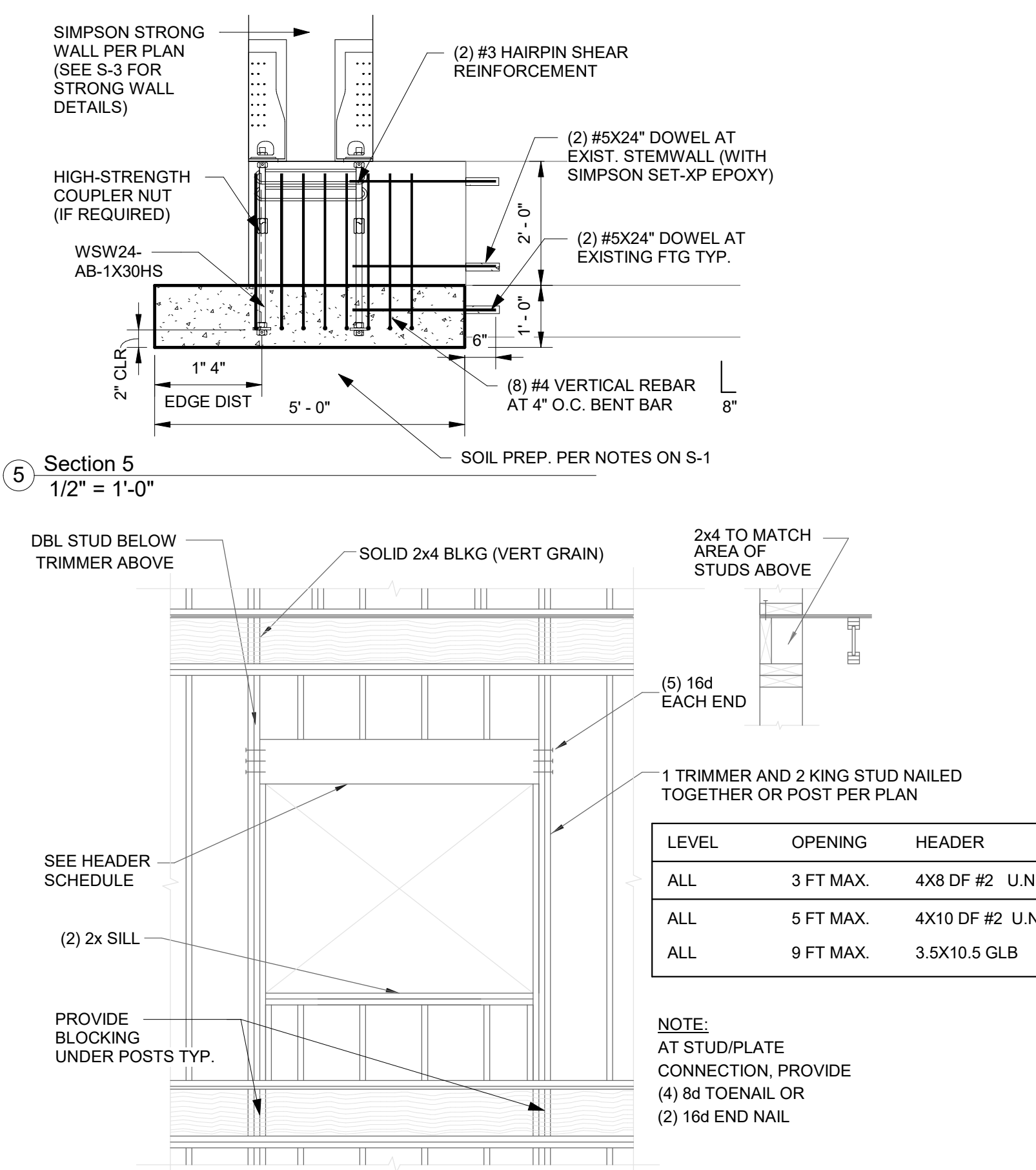


4 Section 4
1/2" = 1'-0"

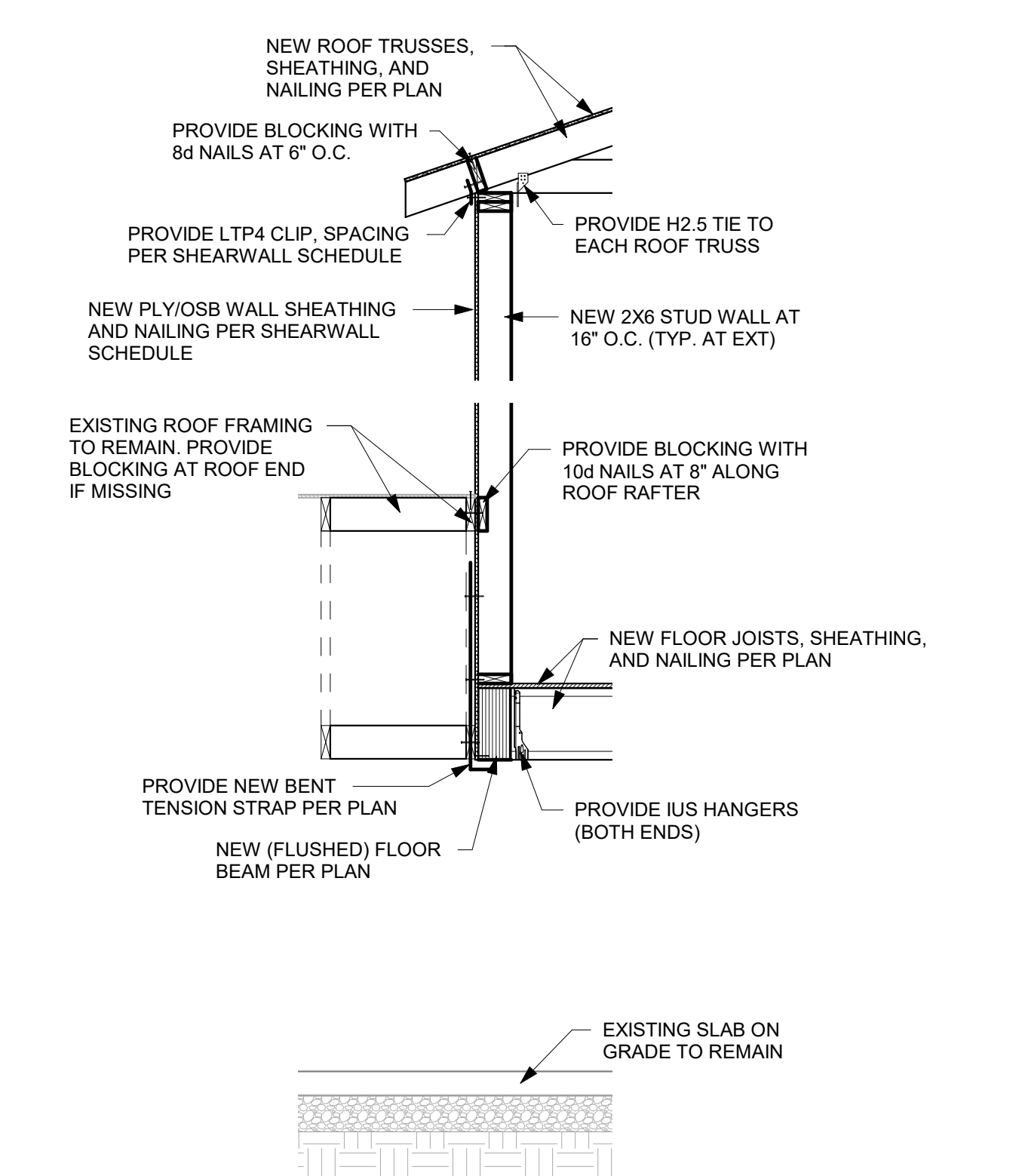
| TYPE | PLYWOOD OR OSB SHEATHING (NOTE 7) | PANEL EDGE NAILING (NOTE 4) | PANEL EDGE STUDS AND BLKG | ANCHOR BOLTS AT SILL PLATE (NOTE 8) | TOP/SILL PLATE TO BLOCKING/ RIM (NOTE 9) | BOTTOM PLATE TO BLOCKING/ RIM (NOTE 4) | CAPACITY (LRFD) (SEISMIC/WIND) |
|------|-----------------------------------|-----------------------------|---------------------------|-------------------------------------|--|--|--------------------------------|
| SW6 | 15/32" PLY/OSB ONE SIDE | 10d COM AT 6" | 2x | 5/8" AT 36" O.C.-2x | SIMPSON LTP4 AT 24" O.C. | 16d COM AT 6" O.C.-NARROW | 496 PLF/ 696 PLF |
| SW4 | 15/32" PLY/OSB ONE SIDE | 10d COM AT 4" | 2x (SEE NOTE 5) | 5/8" AT 24" O.C.-2x | SIMPSON LTP4 AT 16" O.C. | 16d COM AT 4" O.C.-NARROW | 736 PLF/ 1032 PLF |
| SW3 | 15/32" PLY/OSB ONE SIDE | 10d COM AT 3" | 3x | 5/8" AT 18" O.C.-2x | SIMPSON LTP4 AT 12" O.C. | 16d COM AT 3" O.C.-WIDE | 960 PLF/ 1344 PLF |
| SW2 | 15/32" PLY/OSB ONE SIDE | 10d COM AT 2" | 3x | 5/8" AT 12" O.C.-2x | SIMPSON LTP4 AT 8" O.C. | 16d COM AT 2" O.C.-WIDE | 1232 PLF/ 1724 PLF |
| SW44 | 15/32" PLY/OSB TWO SIDES | 10d COM AT 4" | 2x | 5/8" AT 18" O.C.-3x | SIMPSON LTP4 AT 16" O.C. B.S. | (2) 16d COM AT 4" O.C.-WIDE | 1472 PLF/ 2064 PLF |
| SW33 | 15/32" PLY/OSB TWO SIDES | 10d COM AT 3" | 3x | 5/8" AT 16" O.C.-3x | SIMPSON LTP4 AT 12" O.C. B.S. | (2) 16d COM AT 3" O.C.-WIDE | 1920 PLF/ 2688 PLF |
| SW22 | 15/32" PLY/OSB TWO SIDES | 10d COM AT 2" | 3x | 5/8" AT 12" O.C.-3x | SIMPSON LTP4 AT 8" O.C. B.S. | (2) 16d COM AT 2" O.C.-WIDE | 2464 PLF/ 3448 PLF |

- SHEARWALL SCHEDULE NOTES:**
- ALL PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING AT WALLS
 - NAIL SHEATHING TO INTERMEDIATE SUPPORTS/ FIELD NAILING 10d AT 12" O.C.
 - ALL NAILS INTO 3x MEMBERS SHALL BE STAGGERED.
(2)2x STUDS MAY BE USED IN LIEU OF 3x STUDS AT PANEL JOINTS.
NAIL STUDS TOGETHER W/2 ROWS 16d COMMON AT 6" O.C. AT SINGLE SIDE SHEATHING AND NAIL WITH 2 ROWS OF 16d COMMON AT 3" O.C. AT DOUBLE SHEATHED WALLS.
 - COM DENOTES COMMON NAILS. MIN. NAIL PENETRATION INTO PLATE, RIM OR BLOCKING SHALL BE 1 5/8". STAGGER BOTTOM PLATE NAILING
 - FOR SHEARWALL SW4, ALL FRAMING MEMBERS RECEIVING EDGE NAILINGS FROM ABUTTING PANELS SHALL BE 3x OR (2) 2x NAILED TOGETHER WITH 16d AT 6"
 - WHERE SHEATHING IS APPLIED TO BOTH SIDES OF WALL, OFFSET PANEL EDGES TO FALL ON DIFFERENT STUDS
 - PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF WALLS NOTED ON PLAN. PROVIDE HOLDOWNS PER PLAN AT EACH END OF WALL. UNO. PROVIDE (2) 2x STUDS AT ENDS OF ALL SHEARWALL. FACE NAIL MULTIPLE STUDS WITH 16d AT 12" PROVIDE PANEL EDGE NAILING IN EACH HOLDOWN STUD AT END OF WALL.
 - ALL FOUNDATION SILL PLATES SHALL BE PT MEMBERS AND THE ANCHOR BOLTS SHALL HAVE MIN. OF 7" EMBEDMENT WITH SIMPSON'S BP/ BPS WASHER PLATE. END OF WALL ANCHOR BOLTS SHALL BE LOCATED MAX 12" AND MIN 5" FROM END OF THE PLATE.
 - WHERE NOTED IN DETAILS, USE SIMPSON A35 IN LIEU OF LTP4 PLATES SPACE AT 2/3 OF LTP4 SPACING.
- | SIMPSON HOLDOWN | SIMPSON CAST IN PLACE ANCHOR BOLTS* | SIMPSON EPOXY ALL THREAD ANCHORS* |
|-----------------|---|---|
| HDU2 | SSTB16 (5/8" ANCHOR WITH 12 5/8" MIN. EMBED.) | 5/8" (12" EMBED WITH SET-3G) |
| HDU4 | SB 5/8X 24 (5/8" ANCHOR WITH 18" MIN. EMBED.) | 5/8" (14" EMBED WITH SET-3G) |
| HDU5 | SB 5/8X 24 (5/8" ANCHOR WITH 18" MIN. EMBED.) | 5/8" (16" EMBED WITH SET-3G) |
| HDU6 | SB 7/8X 24 (7/8" ANCHOR WITH 18" MIN. EMBED.) | |
| HDU11 | SB 1X 30 (1" ANCHOR WITH 24" MIN. EMBED.) | * ALL ANCHORS SHALL BE 2.5" MIN. FROM EDGE OF CONCRETE WALL |
| HDU14 | SB 1X 30 (1" ANCHOR WITH 24" MIN. EMBED.) | |

E SHEARWALL SCHEDULE
3/4" = 1'-0"



F TYP. WALL OPENING FRAMING
3/4" = 1'-0"



G Section 6
1/2" = 1'-0"

TSO ADDITION

8802 SE 37TH ST
MERCER ISLAND, WA
98040

DRAWING INFO

ISSUE DATE 07-20-22

ISSUED FOR PERMIT

PROJECT NO.22126

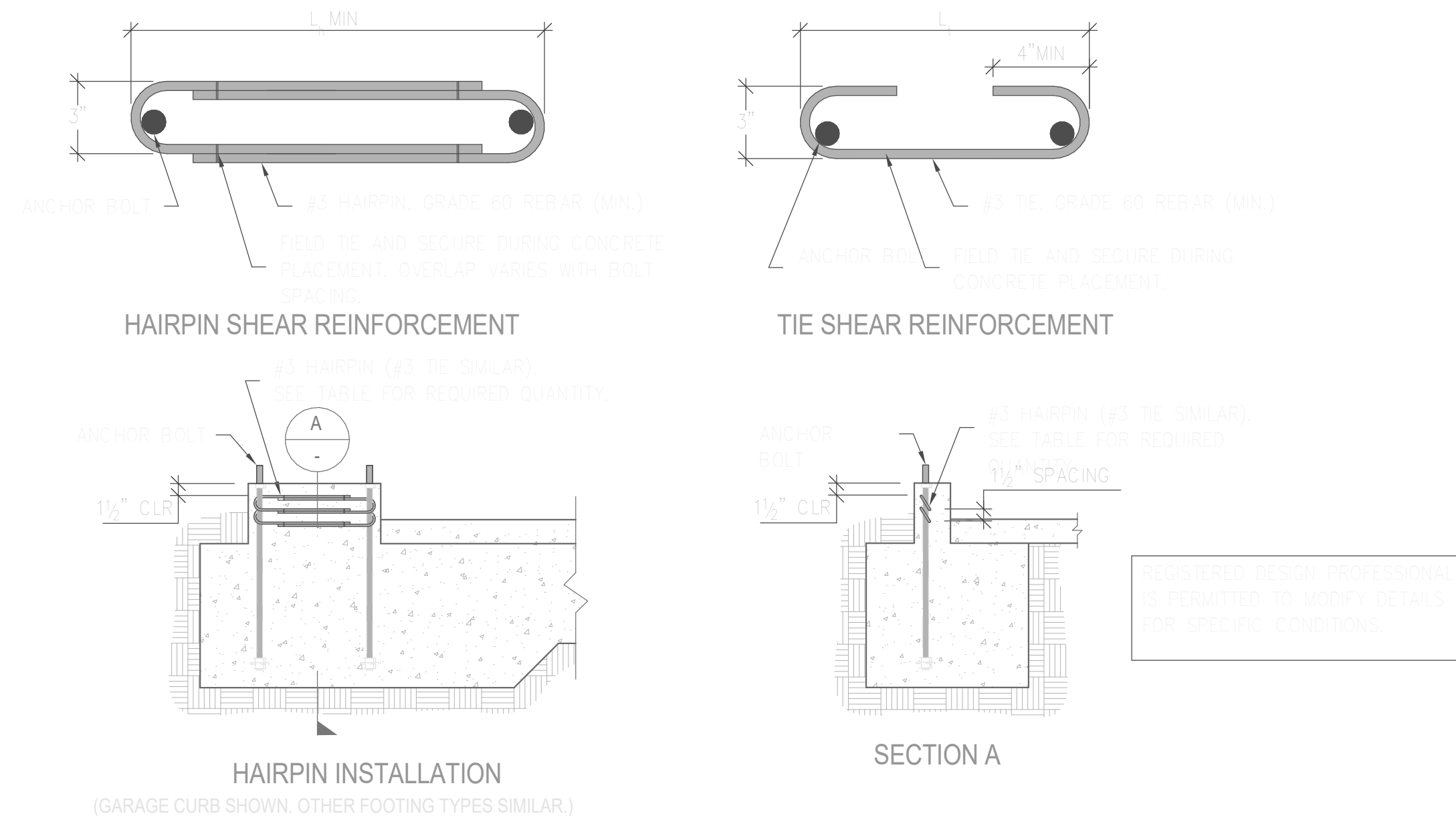
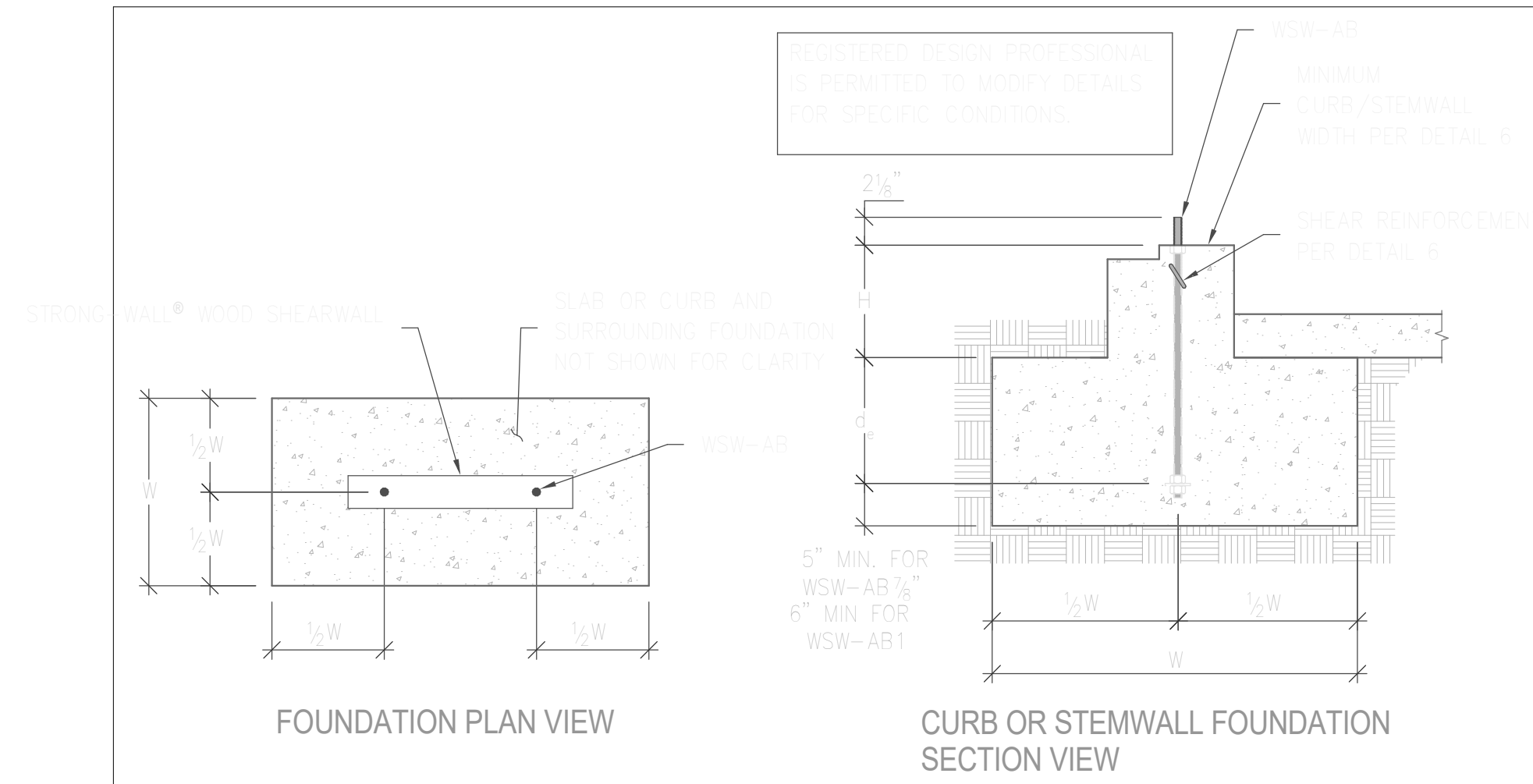
ENGINEER BB

REVISION SCHEDULE

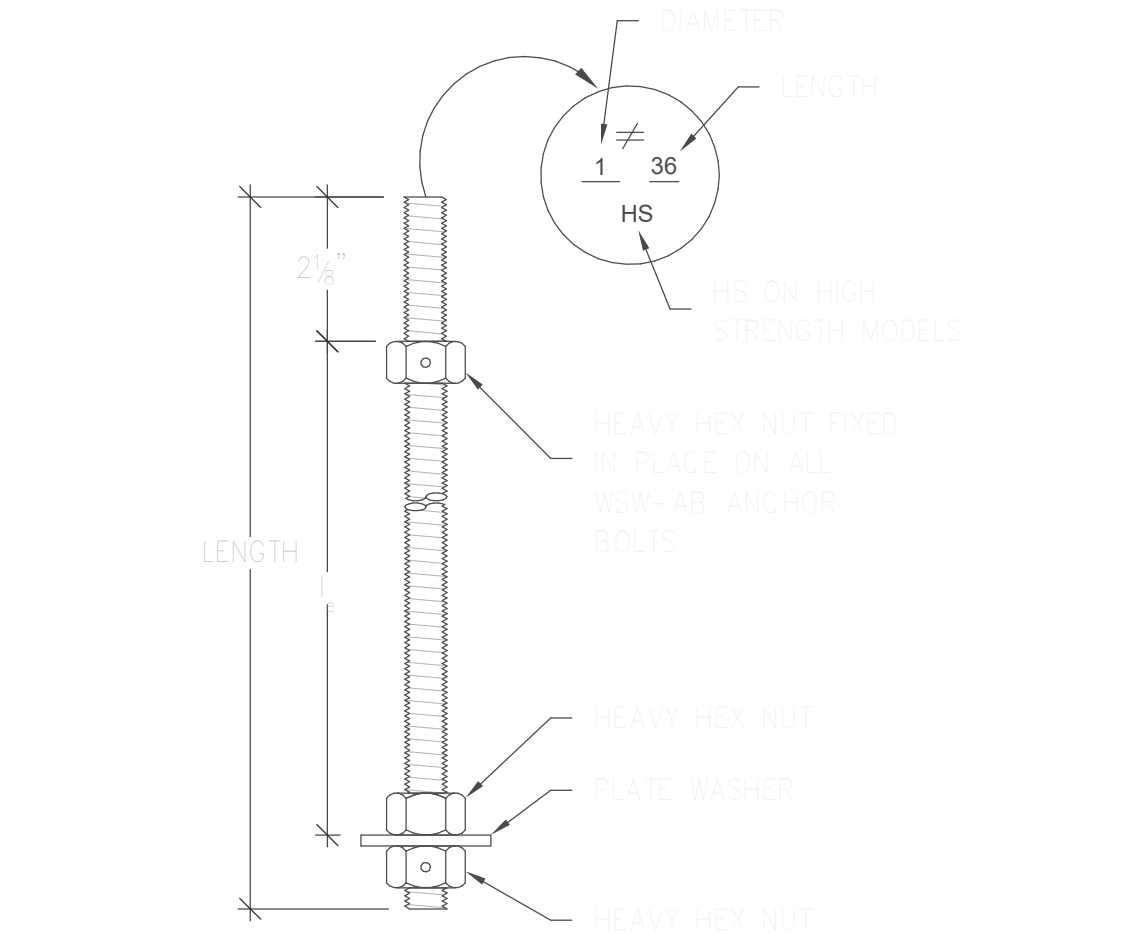
| NO. | DATE | DESCRIPTION |
|-----|----------|-------------|
| 1 | 03-20-23 | Revision 1 |

FRAMING DETAILS

S-2



| WSW ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE | | | | | | | | |
|---|--------------------|---|-------------------------|---------|----------------------------|---------------------|---------|-----|
| DESIGN CRITERIA | CONCRETE CONDITION | ANCHOR STRENGTH ¹ ASD ALLOWABLE UPLIFT | WSW-AB 1/8" ANCHOR BOLT | | | WSW-AB1 ANCHOR BOLT | | |
| | | | W (lbs) (in) | de (in) | ASD ALLOWABLE UPLIFT (lbs) | W (in) | de (in) | |
| SEISMIC | CRACKED | STANDARD | 1000 | 1/2 | 1000 | 1/2 | 1000 | 1/2 |
| | | HIGH STRENGTH | 1500 | 3/4 | 1500 | 3/4 | 1500 | 3/4 |
| | UNCRACKED | STANDARD | 1000 | 1/2 | 1000 | 1/2 | 1000 | 1/2 |
| | | HIGH STRENGTH | 1500 | 3/4 | 1500 | 3/4 | 1500 | 3/4 |
| WIND | CRACKED | STANDARD | 1000 | 1/2 | 1000 | 1/2 | 1000 | 1/2 |
| | | HIGH STRENGTH | 1500 | 3/4 | 1500 | 3/4 | 1500 | 3/4 |
| | UNCRACKED | STANDARD | 1000 | 1/2 | 1000 | 1/2 | 1000 | 1/2 |
| | | HIGH STRENGTH | 1500 | 3/4 | 1500 | 3/4 | 1500 | 3/4 |



| WSW PANEL MODEL | MODEL NO. | DIAMETER | LENGTH | l _e |
|-----------------|-----------|----------|--------|----------------|
| WSW1 | WSW-AB1 | 1/8" | 12" | 12" |
| WSW2 | WSW-AB2 | 1/4" | 12" | 12" |
| WSW3 | WSW-AB3 | 3/8" | 12" | 12" |
| WSW4 | WSW-AB4 | 1/2" | 12" | 12" |

| STRONG-WALL® WOOD SHEARWALL SHEAR ANCHORAGE | | | | | | | |
|---|--------------------------|--|------------------------------|---------------------------------------|------------------------------|--|---------|
| MODEL | L OR L ₁ (in) | SEISMIC ² SHEAR REINFORCEMENT | MIN CURB/STEMWALL WIDTH (in) | WIND ⁴ SHEAR REINFORCEMENT | MIN CURB/STEMWALL WIDTH (in) | ASD ALLOWABLE SHEAR LOAD V (lbs.) ⁶ | |
| | | | | | | 6" MIN CURB/STEMWALL | |
| | | | | | | UNCRACKED | CRACKED |
| WSW5 | 10 | (1) #3 HARPIN | 6" | (1) #3 HARPIN | 6" | 1000 | 1000 |
| WSW6 | 12 | (1) #3 HARPIN | 6" | (1) #3 HARPIN | 6" | 1500 | 1500 |
| WSW7 | 14 | (1) #3 HARPIN | 6" | (1) #3 HARPIN | 6" | 2000 | 2000 |

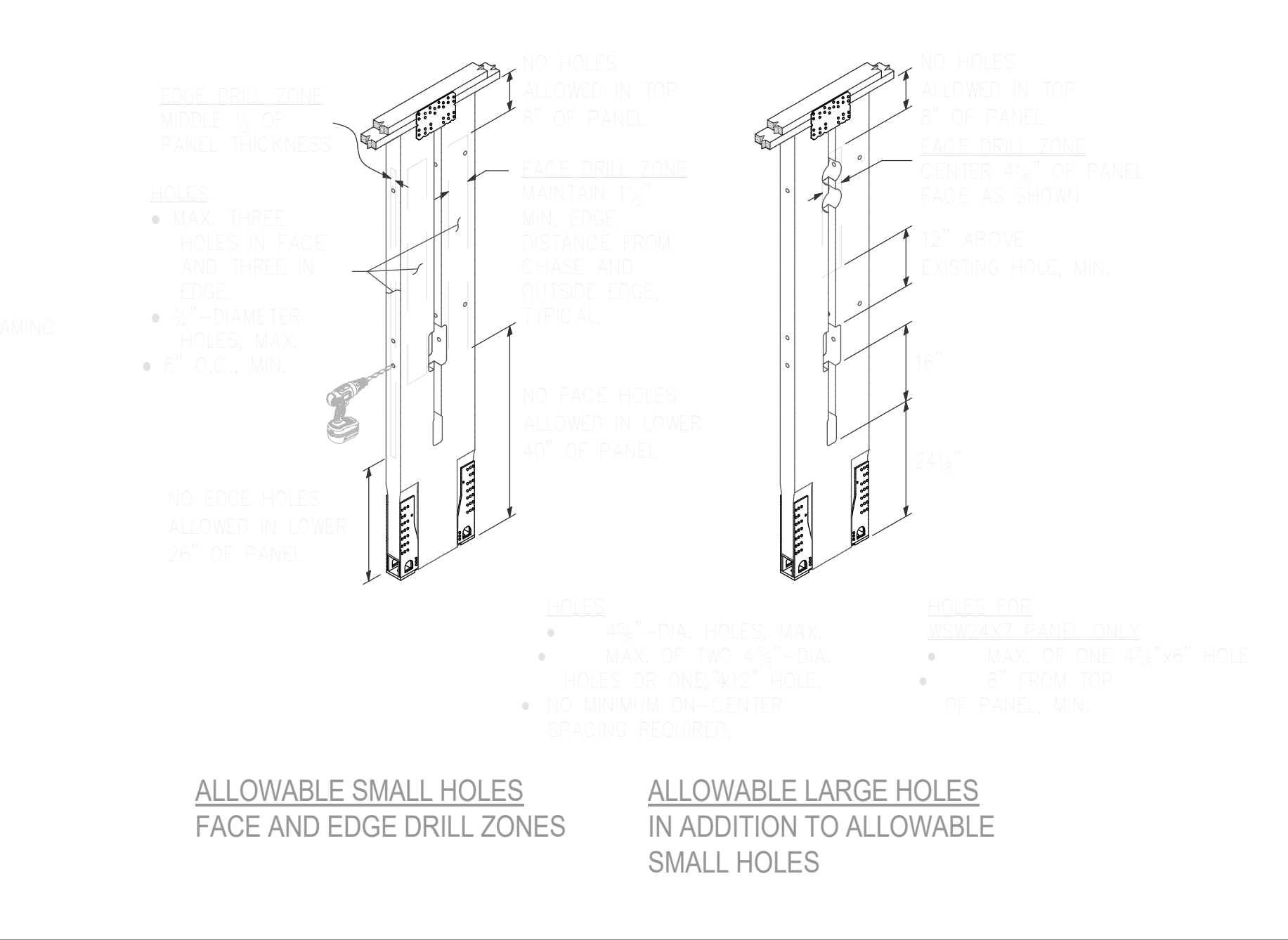
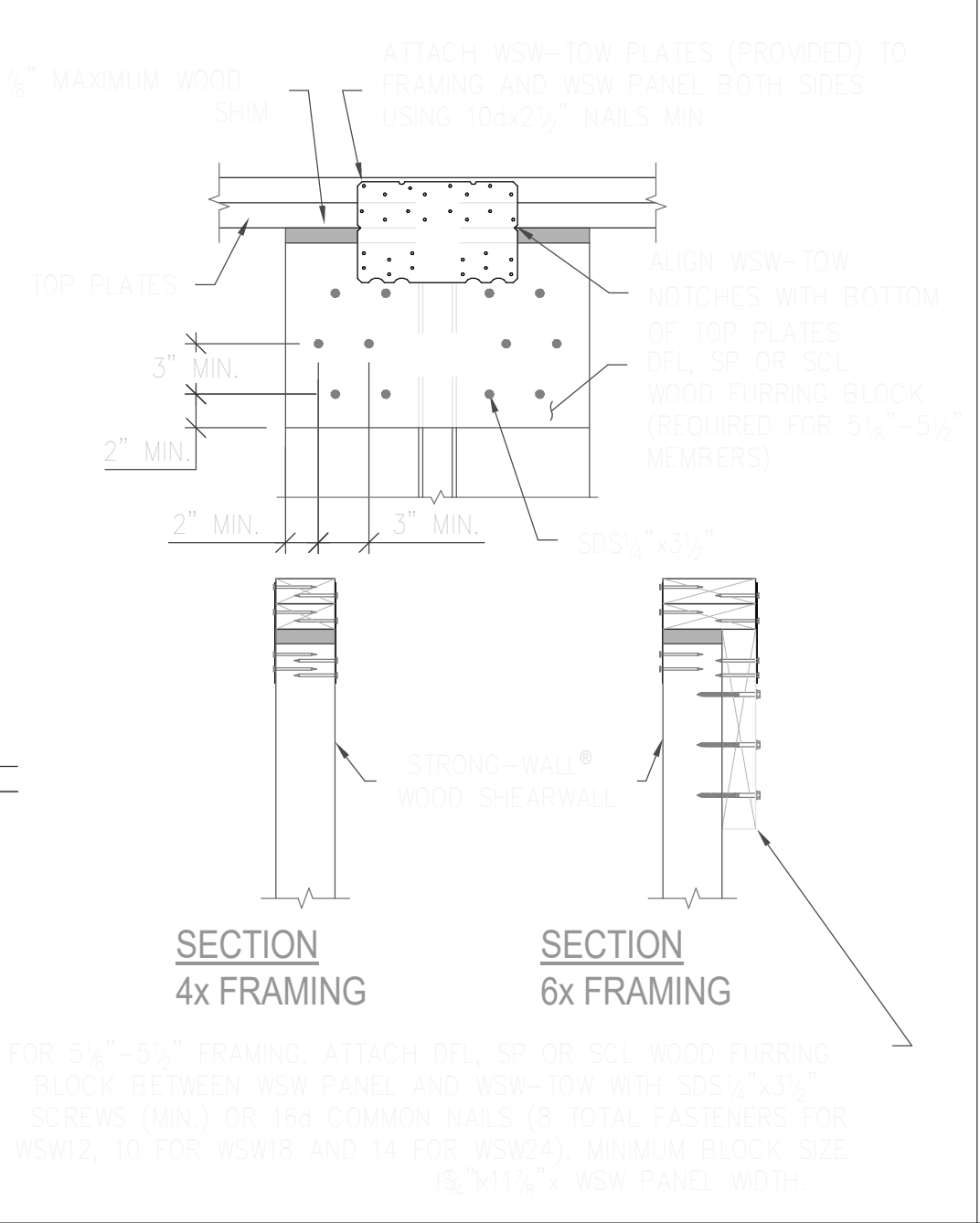
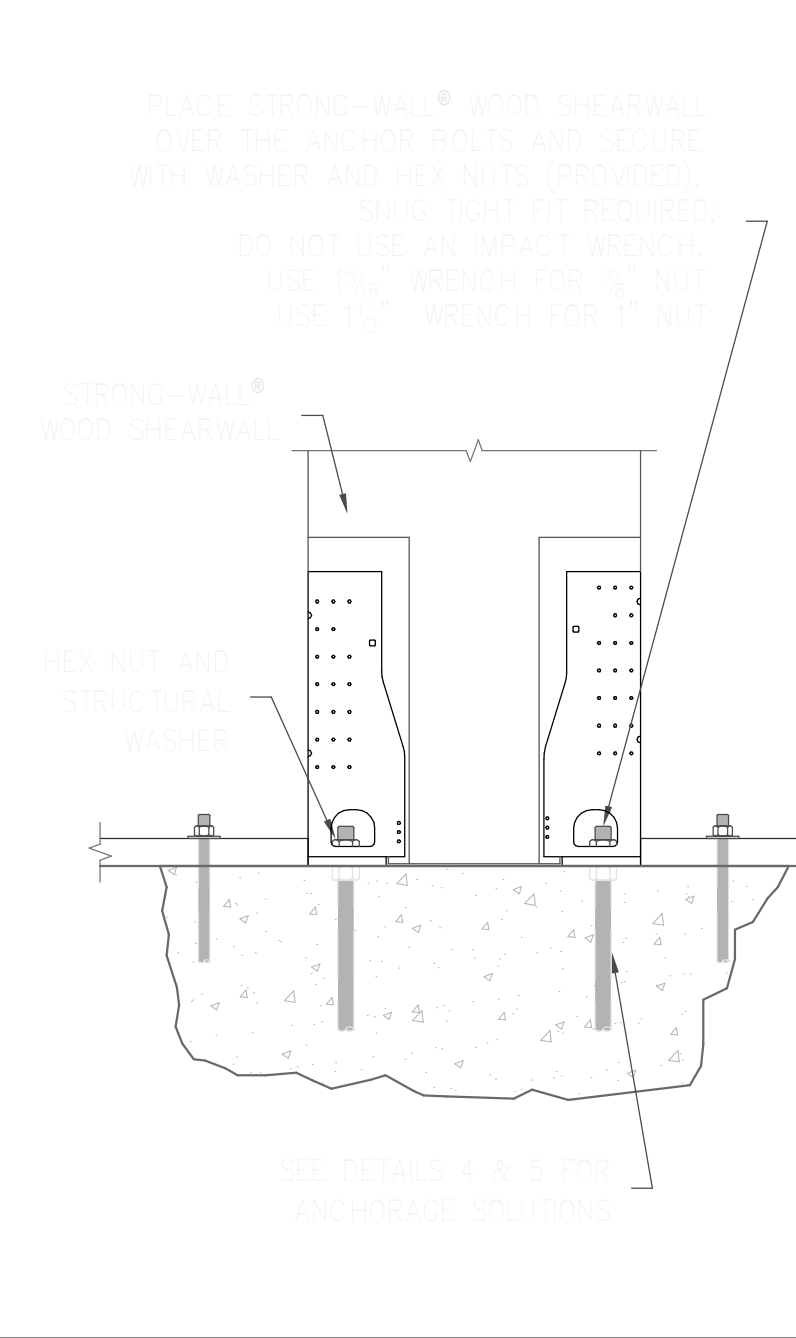
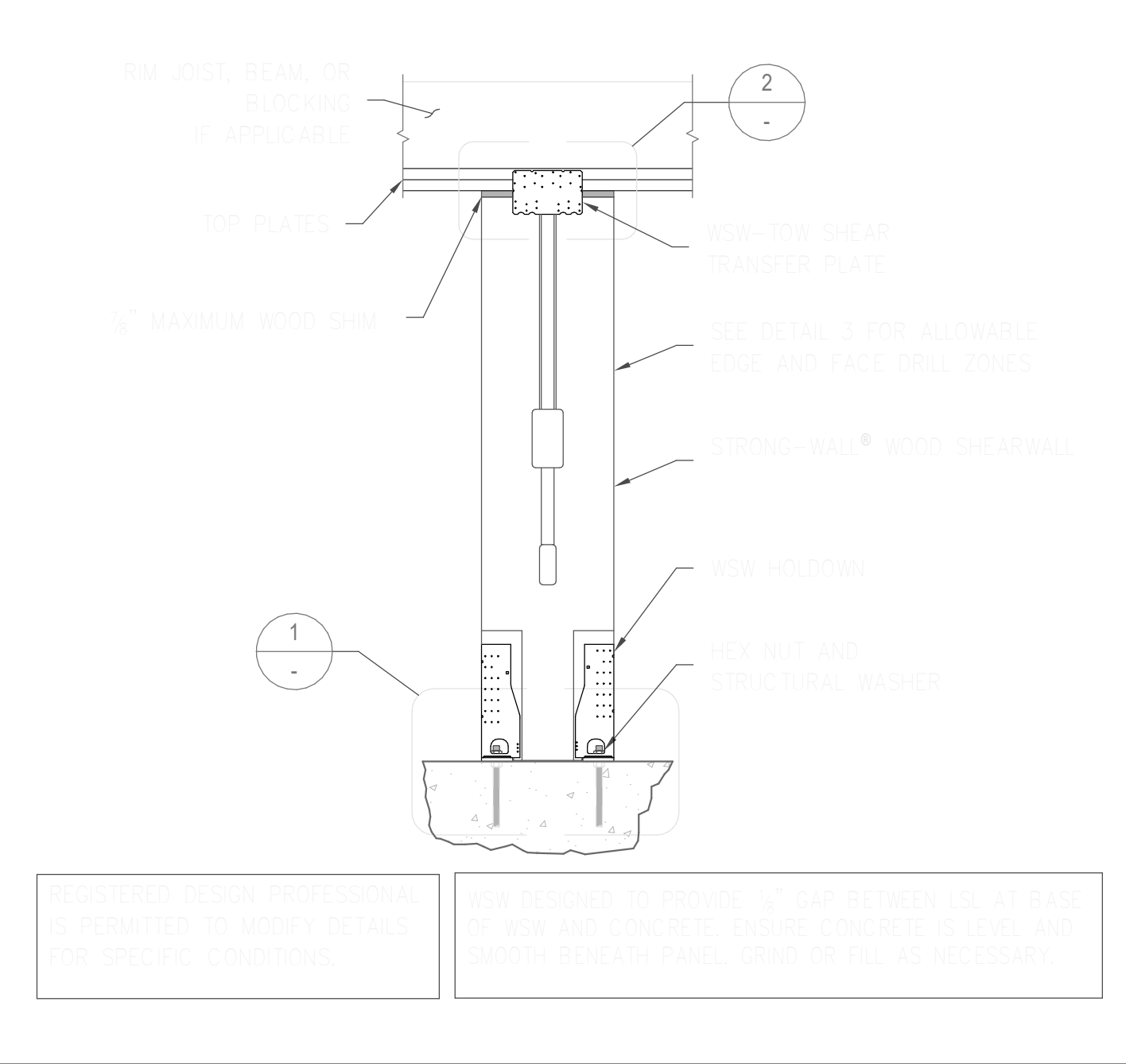
- NOTES:
- ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D AND ACI 318-14 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.
 - ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSW-AB ANCHOR BOLT: STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A449).
 - SEISMIC INDICATES SEISMIC DESIGN CATEGORY (C-F); DETACHER 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3 AND ACI 318-14 SECTION 17.2.3.4.3.
 - 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 (USE AND REINFORCEMENT) BY OTHERS. THE REGISTERED DESIGN PROFESSIONAL MAY SPECIFY ALTERNATE EMBODIMENT, FOOTING SIZE OR ANCHOR BOLT.
 - REFER TO SECTION VIEW FOR 4.

- NOTES:
- SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2500 PSI CONCRETE.
 - SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE) OR BRACED WALL PANEL APPLICATIONS.
 - SEISMIC INDICATES SEISMIC DESIGN CATEGORY D THROUGH F; DETACHER 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS.
 - WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.
 - WHERE WIND MINIMUM CURB/STEMWALL WIDTH IS 6 INCHES WHEN STANDARD STRENGTH ANCHOR BOLT IS USED.
 - USE (1) #3 RE FOR WSW7 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.
 - #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSW SHEAR ANCHORAGE SOLUTIONS.

2500 PSI CONCRETE ANCHORAGE SOLUTIONS 4

WSW ANCHOR BOLTS 5

STRONG-WALL® WSW SHEAR ANCHORAGE SCHEDULE AND DETAILS 6



SINGLE STORY WSW ON CONCRETE 0

STANDARD INSTALLATION 1

STANDARD TOP CONNECTION 2

TRIM ZONE AND ALLOWABLE HOLES 3

TSO ADDITION

8802 SE 37TH ST
MERCER ISLAND, WA
98040

| DRAWING INFO | | |
|-------------------|----------|-------------|
| ISSUE DATE | 07-20-22 | |
| ISSUED FOR | PERMIT | |
| PROJECT NO. | 22126 | |
| ENGINEER | BB | |
| REVISION SCHEDULE | | |
| NO. | DATE | DESCRIPTION |

WSW DETAILS