

LEVEL DESIGN LLC



611 S YAKIMA AVE
TACOMA WA 98405

Tacoma Landmarks
Preservation Commission Planning and Development Services
City of Tacoma
747 Market Street

To Whom it May Concern,

The new accessory structure meets the guidelines for new construction exterior materials, windows and roof form and shape. The garage door is oriented to the alley and the structure maintains a simple roof plan.

The new detached accessory dwelling unit with a 2-car garage below utilizes a similar material palette and configuration to historic primary structures on the lot. The design elements are noted on the exterior elevation page 4/4.

Sincerely,

John Kilbourne
President

GENERAL NOTES

BUILDING CODE:

THE 2021 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY LOCAL JURISDICTION.
ROOF LIVE LOAD = 25 PSF (SNOW)
ROOF DEAD LOAD = 15 PSF
FLOOR LIVE LOAD = 40 PSF (REDUCIBLE)
FLOOR DEAD LOAD = 15 PSF
WIND LOAD = 25 MPH WIND SPEED, EXPOSURE 'B'
WIND LOAD = 110 MPH WIND SPEED, EXPOSURE 'B' PER IBC
SOIL SITE CLASS 'D'
CONSTRUCTION TYPE: VB
OCCUPANCY GROUP: R-3

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL OMISSIONS AND/OR DISCREPANCIES TO THE ARCHITECT PRIOR TO PROCEEDING WITH WORK. DIMENSIONS TAKE PRECEDENT OVER SCALED DRAWINGS.

DEFERRED SUBMITTAL ITEMS

THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN AND SHOULD BE PROVIDED BY THE BUILDER AT TIME OF APPLICATION FOR PERMIT OR AS A DEFERRED SUBMITTAL ITEM:
- ALTERNATIVE 1-JOIST/BEAM MANUFACTURER PLANS.
- MANUFACTURED TRUSS DESIGNS AND LAYOUTS
- HVAC SYSTEMS DESIGN
- ELECTRICAL PLANS & SPECIFICATIONS (IF REQUIRED)

SITE WORK

GENERAL

UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEARS ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACKFILL TO BE THOROUGHLY COMPACTED.
BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 1/4"x3"x3" PLATE WASHERS, WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.
FOUNDATION BOLT BOLTS TO BE 5/8" DIAMETER AT 6'-0" O.C. U.N.O. WITH MIN. 1" EMBEDMENT METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG-TIE OR USP STRUCTURAL CONNECTORS

INSULATION AND MOISTURE PROTECTION

GENERAL

MAINTAIN 1" CLEARANCE ABOVE INSULATION FOR FREE AIR FLOW.
INSULATION Baffles TO EXTEND 6" ABOVE BATT INSULATION
INSULATION ABOVE FLOOR TO EXTEND 12" ABOVE LLOOR TO CORNER FILL. INSULATION INSULATE BEHIND TUBS/SHOWERS, PARTITIONS AND CORNERS
FACE-STAPLE FACED BATTS
FRICTION-FIT UNFACED BATTS
USE 4 MIL POLY VAPOR RETARDER AT EXTERIOR WALLS
R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

INSULATION MATERIALS

INSULATION MATERIAL, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPOR PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES, AND ATTICS SHALL HAVE A FLAME-SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE-DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84

EXCEPTIONS:

- WHEN SUCH MATERIAL ARE INSTALLED IN CONCEALED SPACES, THE FLAME-SPREAD AND SMOKE-DEVELOPMENT LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING FLOOR, OR WALL FINISH.
- CELLULOSE LOOSE-FILL INSULATION, WHICH IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF IRC R302.10.3, SHALL ONLY BE REQUIRED TO MEET THE SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450.

INFILTRATION CONTROL

EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, PENETRATIONS IN FLOORS, ROOFS AND WALLS AND ALL SIMILAR OPENINGS SHALL BE SEALED, CAULKED, GASKETED OR WEATHERSTRIPPED TO LIMIT AIR LEAKAGE.

VAPOR BARRIERS / GROUND COVERS

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED CEILING SPACES AND AT EXTERIOR WALLS.
A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

WALL FLASHING

APPROVED CORROSION-RESISTANT FLASHING SHALL BE PROVIDED IN THE EXTERIOR WALL ENVELOPE IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. APPROVED CORROSION-RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWING LOCATIONS:

- AT TOP OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER AS TO BE LEAKPROOF, EXCEPT THAT SELF-FLASHING WINDOWS HAVING A CONTINUOUS LAP OF NOT LESS THAN 1-1/8" (28 mm) OVER THE SHEATHING MATERIAL AROUND THE PERIMETER OF THE OPENING, INCLUDING CORNERS, DOO NOT REQUIRE ADDITIONAL FLASHING; JAMB FLASHING MAY ALSO BE OMITTED WHEN SPECIFICALLY APPROVED BY THE BUILDING OFFICIAL.
- AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO OPENINGS.
- UNDER AND AT THE ENDS OF MASONRY, WOOD, OR METAL COPINGS AND SILLS.
- CONTINUOUSLY ABOVE ALLPROJECTING WOOD TRIM.
- WHERE EXTERIOR PORCHES, DECKS, OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD CONSTRUCTION.
- AT WALL AND ROOF INTERSECTIONS.
- AT BUILT-IN GUTTERS.

FOUNDATION WATERPROOFING & DAMPROOFING

DAMP-PROOFING

EXCEPT WHERE REQUIRED BY 2021 IRC R406.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE TOP OF THE FOOTING TO THE FINISHED GRADE. MASONRY WALLS SHALL HAVE NOT LESS THAN 1/2" PORTLAND CEMENT PARING APPLIED TO THE EXTERIOR OF THE WALL. PARINGS SHALL BE DAMPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:

- EMULSION COATING
 - 3 POUNDS PER SQ. YD. OF ACRYLIC MODIFIED CEMENT
 - 1/2" COAT OF SURFACE BONDING CEMENT COMPLYING WITH ASTM C 881
 - ANY MATERIAL APPROVED FOR WATERPROOFING IN 2021 IRC R406.2
 - OTHER APPROVED METHODS OR MATERIALS.
- EXCEPTION: PARING OF UNIT MASONRY WALLS IS NOT REQUIRED WHERE A MATERIAL IS APPROVED FOR DIRECT APPLICATION TO THE MASONRY.

FOUNDATION WATERPROOFING

& DAMPROOFING (CONTINUED)

WATERPROOFING

IN AREAS WHERE HIGH WATER TABLE OR OTHER SEVERE SOIL-WATER CONDITIONS ARE KNOWN TO EXIST, EXTERIOR FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED FROM THE TOP OF FOOTING TO FINISHED GRADE. WALLS SHALL BE WATERPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:

- 2-PLY HOT MOPPED FELT
 - 25 POUND ROOF ROLLING
 - 6-MIL POLYVINYL CHLORIDE
 - 6-MIL POLYETHYLENE
 - 40-MIL POLYMER-MODIFIED ASPHALT
 - 60-MIL FLEXIBLE POLYMER CEMENT
 - 1/2" CEMENT-BASED, FIBER-REINFORCED, WATERPROOF COATING
 - 60-MIL SOLVENT-FREE, LIQUID-APPLIED SYNTHETIC RUBBER
- EXCEPTION: ORGANIC-SOLVENT-BASED PRODUCTS SUCH AS HYDROCARBONS, CHLORINATED HYDROCARBONS, KETONS AND ESTERS SHALL NOT BE USED FOR ICF WALLS WITH EXPANDED POLYSTYRENE FOAM MATERIAL. USE OF PLASTIC ROOFING CEMENTS, ACRYLIC COATINGS, LATEX COATINGS, MORTARS AND PARINGS TO SEAL ICF WALLS IS PERMITTED. COLD-SETTING ASPHALT OR HOT ASPHALT SHALL CONFORM TO TYPE C OF ASTM D 449. HOT ASPHALT SHALL BE APPLIED AT A TEMPERATURE OF LESS THAN 200 DEG. F.
ALL JOINTS IN MEMBRANE WATERPROOFING SHALL BE LAPPED AND SEALED WITH AN ADHESIVE COMPATIBLE WITH THE MEMBRANE.

DRAFTSTOPPING & FIRE BLOCKING

DRAFTSTOPPING

WHEN THERE IS USABLE SPACE BOTH ABOVE & 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 SQUARE FEET. DRAFTSTOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE & A CEILING MEMBRANE BELOW, DRAFTSTOPPING SHALL BE PROVIDED IN FLOOR/CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:

- CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
- FLOOR FRAMING IS CONSTRUCTED OF TRUSS-TYPE OPEN-WEB OR PERFORATED MEMBERS.

DRAFTSTOPPING SHALL CONSIST OF MATERIALS LISTED IN 2021 IRC R302.12

FIREBLOCKING

FIREBLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:
 - VERTICALLY AT THE CEILING AND FLOOR LEVELS.
 - HORIZONTALLY AT INTERVALS NOT EXCEEDING 10ft.

- AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.
- IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH 2021 IRC R302.7.
- AT OPENINGS AROUND VENTS, PIPES, AND DUCTS AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
- FOR THE FIREBLOCKING OF CHIMNEYS AND FIREPLACES, SEE 2021 IRC R1003.19.
- FIREBLOCKING OF CORNICES OF A TWO-FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION.

FIREBLOCKING SHALL CONSIST OF MATERIALS LISTED IN 2021 IRC SECTION R302.11.3. 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.

LIGHTING

2021 WSEC SECTION R402- LIGHTING EQUIPMENT

R4021 LIGHTING EQUIPMENT. ALL PERMANENTLY INSTALLED LIGHTING FIXTURES, EXCLUDING KITCHEN APPLIANCE LIGHTING FIXTURES, SHALL CONTAIN ONLY HIGH-EFFICACY LIGHTING SOURCES.

R40212 LIGHTING EQUIPMENT.FUEL GAS LIGHTING SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHTS.

DRILLING AND NOTCHING STUDS.

R602.6 DRILLING AND NOTCHING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

- NOTCHING ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION SHALL BE PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH.
- DRILLING ANY STUD SHALL BE PERMITTED TO BE BORED OR DRILL, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NOT MORE THAN 60 PERCENT OF A SINGLE STUD WIDTH, THE EDGE OF THE HOLE IS NOT MORE THAN 5/8" INCH (16 mm) TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. STUDS LOCATED IN EXTERIOR WALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL BE DOUBLED WITH NOT MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED. SEE 2021 IRC FIGURES **R602.6(1)** AND **R602.6(2)**.
-EXCEPTION: USE OF APPROVED STUD SHOES IS PERMITTED WHEN THEY ARE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

R602.6 DRILLING AND NOTCHING OF TOP PLATE.

WHERE PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR LOAD-BEARING WALL, NECESSITATING CUTTING, DRILLING OR NOTCHING OF THE TOP PLATE BY MORE THAN 50 PERCENT OF ITS WIDTH, A GALVANIZED METAL TIE OF NOT LESS THAN 0.0254 INCH THICK (137 mm) (1/8") AND 1/2" INCHES (25 mm) WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT (8) (2148 INCH DIAMETER) NAILS HAVING A MINIMUM LENGTH OF 1 1/2" INCHES (38 MM) AT EACH SIDE OR EQUIVALENT. THE METAL TIE MUST EXTEND NOT LESS THAN 6 INCHES PAST THE OPENING. SEE 2021 IRC FIGURE **R602.6.1**.

-EXCEPTION: WHERE THE ENTIRE SIDE OF THE WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATHING.

DOORS, WINDOWS AND SKYLIGHTS

GENERAL

ALL SKYLIGHTS AND SKY WALLS TO BE LAMINATED GLASS UNLESS NOTED OTHERWISE. BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. WITH MINIMUM NET CLEAR OPENING WIDTH OF 20" AND MINIMUM NET CLEAR OPENING HEIGHT OF 24". FINISH SILL HEIGHT SHALL BE MAXIM 44" ABOVE FLOOR MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING WINDOW FLASHING TO BE FASTENED PER 2021 IRC R103.4 WINDOW GUARDS ARE REQUIRED PER 2021 IRC R312.

SAFETY GLAZING SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS OR AS OTHERWISE REQUIRED PER 2021 IRC R308.4.1:

- SIDE HINGED DOORS EXCEPT JALOUSIES
- SLIDING GLASS DOORS AND PANELS IN SLIDING & BI-FOLD CLOSET DOOR ASSEMBLIES OF A DOOR IN THE CLOSED POSITION & BOTTOM EDGE IS LESS THAN 60" ABOVE
- SHOWER AND BATH TUB, HOT TUB, WHIRLPOOL, SAUNA, STEAM ENCLOSURES
- GLAZING W/ THE EXPOSED EDGE WITHIN A 24" ARC OF EITHER VERTICAL EDGE
- STORE DOORS
- THE WALKING SURFACE
- GLAZING GREATER THAN 9 S.F. AND LESS THAN 18" ABOVE FINISHED FLOOR
- GLAZING IN GUARDRAILS
- GLAZING LESS THAN 18" ABOVE FINISHED FLOOR
- STAIRS AND RAMPS ADJACENT WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36" ABOVE THE PLANE OF ADJACENT WALKWAY SURFACE OF STAIRWAYS LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS SHALL BE CONSIDER A HAZARDOUS LOCATION. PER 2021 IRC R308.4.6

MECHANICAL

M1505.4.14 BALANCED WHOLE-HOUSE VENTILATION SYSTEM. A BALANCED WHOLE-HOUSE VENTILATION SYSTEM SHALL INCLUDE BOTH SUPPLY AND EXHAUST FANS. THE SUPPLY AND EXHAUST FANS SHALL HAVE AIRFLOW THAT IS WITHIN 10 PERCENT OF EACH OTHER, THE TESTED AND BALANCED TOTAL MECHANICAL EXHAUST AIRFLOW RATE IS WITHIN 10 PERCENT OR 5 CFM, WHICHEVER IS GREATER, OF THE TOTAL MECHANICAL SUPPLY AIRFLOW RATE. THE FLOW RATE TEST RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.11. THE EXHAUST FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.12. THE SUPPLY FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.13. BALANCED VENTILATION SYSTEMS WITH BOTH SUPPLY AND EXHAUST FANS IN A PACKAGED PRODUCT, SUCH AS AN ERV/HRV SHALL MEET THE REQUIREMENTS OF HV1 800 AS APPLICABLE. LOCAL EXHAUST SYSTEMS THAT ARE NOT A COMPONENT OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM ARE EXEMPT FROM THE BALANCED AIRFLOW CALCULATION.

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE TESTED, BALANCED AND VERIFIED TO PROVIDE A FLOW RATE NOT LESS THAN THE MINIMUM REQUIRED BY SECTIONS M1505.4.3 AND M1505.4.4.1. TESTING SHALL BE PERFORMED ACCORDING TO THE VENTILATION EQUIPMENT MANUFACTURER'S INSTRUCTIONS, OR BY USING A FLOW HOOD, FLOW GRID, OR OTHER AIRFLOW MEASURING DEVICE AT THE MECHANICAL VENTILATION FAN'S INLET TERMINALS, OUTLET TERMINALS OR GRILLES OR IN THE CONNECTED VENTILATION DUCTS WHERE REQUIRED BY THE BUILDING OFFICIAL. TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING OFFICIAL, AND BE POSTED IN THE DWELLING UNIT PER SECTION M1505.4.11.

WHOLE-HOUSE SYSTEM COMPONENT REQUIREMENTS. WHOLE-HOUSE VENTILATION SUPPLY AND EXHAUST FANS SPECIFIED IN THIS SECTION SHALL HAVE A MINIMUM EFFICACY AS PRESCRIBED IN THE WASHINGTON STATE ENERGY CODE. DESIGN AND INSTALLATION OF THE SYSTEM OR EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. WHOLE-HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MINIMUM AIRFLOW RATE REQUIRED BY SECTION M1505.4.3.1. VENTILATION FANS SHALL BE RATED FOR SOUND AT A MAXIMUM OF 10 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN. W.C. (25 PA) STATIC PRESSURE IN ACCORDANCE WITH HV1 PROCEDURES SPECIFIED IN SECTIONS M1505.4.12 AND M1505.4.13.

EXCEPTION: HVAC AIR HANDLERS, ERV/HRV UNITS, AND REMOTE MOUNTED FANS NEED NOT MEET THE SOUND REQUIREMENTS, TO BE CONSIDERED FOR THIS EXCEPTION, A REMOTE MOUNTED FAN MUST BE MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS, AND THERE MUST BE AT LEAST 4 FEET (13 M) OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE.

CONTROLS FOR THE WHOLE-HOUSE VENTILATION SYSTEM SHALL COMPLY WITH THE FOLLOWING:

1. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL BE CONTROLLED WITH MANUAL SWITCHES, TIMERS OR OTHER MEANS THAT PROVIDE FOR AUTOMATIC OPERATION OF THE VENTILATION SYSTEM THAT HAVE READY ACCESS FOR THE OCCUPANT.

2. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OFF OF THE SYSTEM DURING PERIODS OF POOR OUTDOOR AIR QUALITY. CONTROLS SHALL INCLUDE PERMANENT TEXT OR A SYMBOL, INDICATING THEIR FUNCTION. RECOMMENDED CONTROL PERMANENT LABELING TO INCLUDE TEXT SIMILAR TO THE FOLLOWING: 'LEAVE ON UNLESS OUTDOOR AIR QUALITY IS VERY POOR'. MANUAL CONTROLS SHALL HAVE READY ACCESS FOR THE OCCUPANT.

3. M1505.4.3.2 INTERMITTENT OFF OPERATION. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE PROVIDED WITH ADVANCED CONTROLS THAT ARE CONFIGURED TO OPERATE THE SYSTEM WITH INTERMITTENT OFF OPERATION SHALL OPERATE FOR A LEAST TWO HOURS IN EACH FOUR-HOUR SEGMENT. THE WHOLE-HOUSE VENTILATION AIRFLOW RATE DETERMINED IN ACCORDANCE WITH SECTION M1505.4.3 AS CORRECTED BY SECTION M1505.4.3.1 IS MULTIPLIED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3.2.

FACTORY-BUILT INTAKE/EXHAUST COMBINATION TERMINATIONS

PER 2021 IMC 401.4.3, ITEM 3, EXCEPTION, SEPARATION IS NOT REQUIRED BETWEEN INTAKE AIR OPENINGS AND LIVING SPACE RELIEF AIR EXHAUST AIR OPENINGS OF AN INDIVIDUAL DWELLING UNIT OR SLEEPING UNIT, NOT TO INCLUDE COMMON AREAS OUTSIDE OF THE DWELLING OR SLEEPING UNIT, WHERE A FACTORY-BUILT INTAKE/EXHAUST COMBINATION TERMINATION FITTING, LISTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, IS USED TO SEPARATE THE AIR STREAMS. A MINIMUM OF 5 FEET HORIZONTAL SEPRATION BETWEEN OTHER ENVIRONMENTAL AIR EXHAUST OUTLETS AND OTHER DWELLING OR SLEEPING UNIT FACTORY-BUILT INTAKE/EXHAUST COMBINATION TERMINATION FITTINGS SHALL BE MAINTAINED.

WHOLE HOUSE VENTILATION REQUIREMENTS: EACH DWELLING UNIT OR SLEEPING UNIT SHALL BE EQUIPPED WITH A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM THAT COMPLIES WITH SECTION M1505.4.1 THROUGH M1505.4.4.

BATHROOMS, TOILET ROOMS, AND KITCHENS SHALL INCLUDE A LOCAL EXHAUST SYSTEM SUCH LOCAL EXHAUST SYSTEMS SHALL HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE IN ACCORDANCE WITH TABLE M1505.4.4 FANS REQUIRED BY THIS SECTION SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OR AUTOMATIC OCCUPANCY SENSOR, HUMIDITY SENSOR OR POLLUTANT SENSOR CONTROLS. AN 'ON/OFF' SWITCH SHALL MEET THIS REQUIREMENT FOR MANUAL CONTROLS. MANUAL FAN CONTROLS SHALL BE READILY ACCESSIBLE IN THE ROOM SERVED BY THE FAN.

AREA TO BE EXHAUSTED	INTERMITTENT	CONTINUOUS
KITCHENS	100 CFM	25 CFM
BATHROOMS-TOILET ROOMS	50 CFM	20 CFM

BUILDING AIR LEAKAGE TESTING 2021 WSEC R402.4.12

THE BUILDING OR DWELLING UNIT SHALL BE TESTED FOR AIR LEAKAGE. TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH RESNET/ICC 380, ASTM E119, OR ASTM E182. TEST PRESSURE AND LEAKAGE RATE SHALL COMPLY WITH SECTION R402.13. A WRITTEN REPORT OF THE TEST RESULTS, INCLUDING VERIFIED LOCATION AND TIME STAMP OF THE DATE OF THE TEST, SHALL BE SIGNED BY THE TESTING AGENCY AND PROVIDED TO THE BUILDING OWNER AND CODE OFFICIAL. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING THERMAL ENVELOPE, ONCE VISUAL INSPECTION HAS CONFIRMED AIR SEALING HAS BEEN CONDUCTED IN ACCORDANCE WITH TABLE R402.4.11. OPERABLE WINDOWS AND DOORS MANUFACTURED BY SMALL BUSINESSES ARE PERMITTED TO BE SEALED OFF AT THE FRAME PRIOR TO THE TEST. TESTING OF SINGLE-FAMILY DWELLINGS AND TOWNHOUSES SHALL BE CONDUCTED IN ACCORDANCE WITH RESNET/ICC 380. TEST PRESSURE AND LEAKAGE RATE SHALL COMPLY WITH SECTION R402.13.1.

POSTING OF CERTIFICATE

2021 WSEC R401.3 A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL INDICATE THE FOLLOWING:

1. THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOWGRADE WALL, AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES.

2. U-FACTORS FOR FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION, WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL INDICATE THE AREA WEIGHTED AVERAGE VALUE.

3. THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING.

4. THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST.

5. THE TYPES, SIZES AND EFFICIENCIES OF HEATING, COOLING, WHOLE-HOUSE MECHANICAL VENTILATION, AND SERVICE WATER HEATING APPLIANCES. WHERE A GAS-FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE OR BASEBOARD ELECTRIC HEATER IS INSTALLED IN THE RESIDENCE, THE CERTIFICATE SHALL LIST GAS-FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE, OR 'BASEBOARD ELECTRIC HEATER,' AS APPROPRIATE. AN EFFICIENCY SHALL NOT BE LISTED FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD HEATERS.

6. WHERE ON-SITE PHOTOVOLTAIC PANEL SYSTEMS HAVE BEEN INSTALLED, THE ARRAY CAPACITY, INVERTER EFFICIENCY, PANEL TILT, ORIENTATION AND ESTIMATED ANNUAL ELECTRICAL GENERATION SHALL BE NOTED ON THE CERTIFICATE.

7. THE CODE EDITION UNDER WHICH THE STRUCTURE WAS PERMITTED, AND THE COMPLIANCE PATH USED.

THE CODE OFFICIAL MAY REQUIRE THAT DOCUMENTATION FOR ANY REQUIRED TEST RESULTS INCLUDE AN ELECTRONIC RECORD OF THE TIME, DATE AND LOCATION OF THE TEST, A DATE-STAMPED SMART PHONE PHOTO OR AIR LEAKAGE TESTING SOFTWARE MAY BE USED TO SATISFY THIS REQUIREMENT.

Gordon T. Jacob
REMODELING + RENOVATIONS

DADU

THE ENG RESIDENCE
808 N SHERIDAN AVE
Tacoma, WA

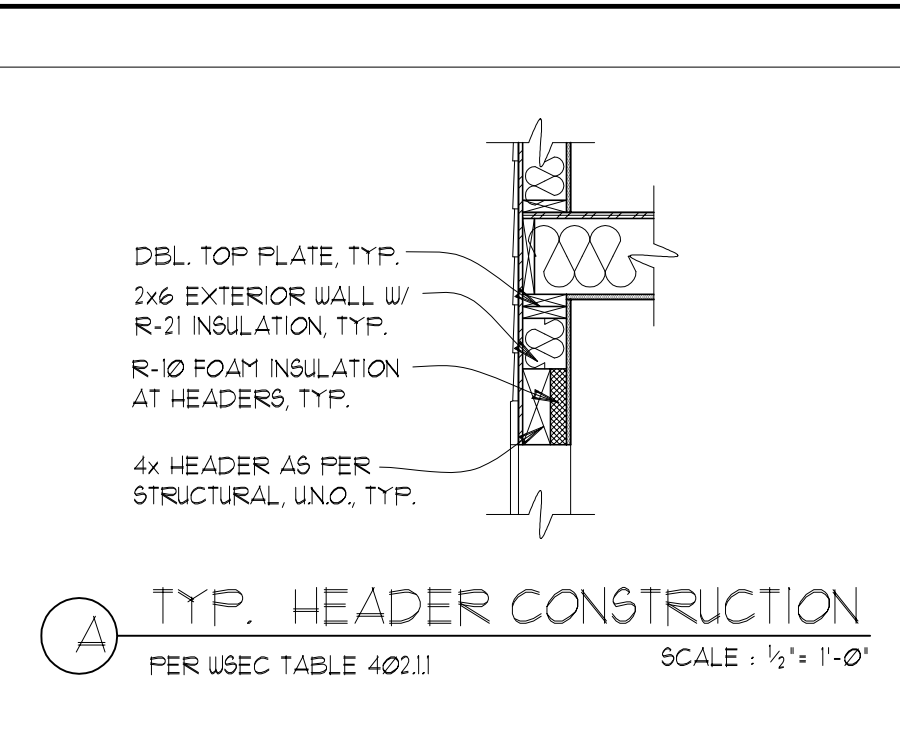
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REVISION DATE: INIT: PROJECT #:

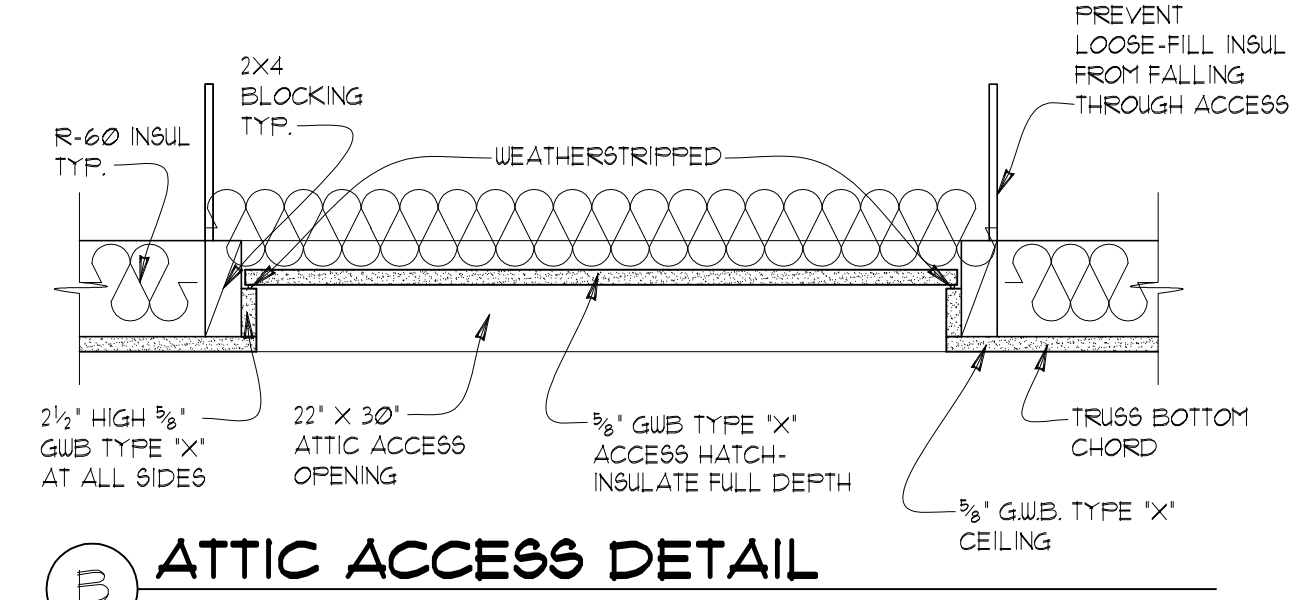
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INIT: MEY
PROJECT #:

PLEASE REFER TO SHEET E-1 FOR ENERGY U-FACTOR COMPLIANCE PATH

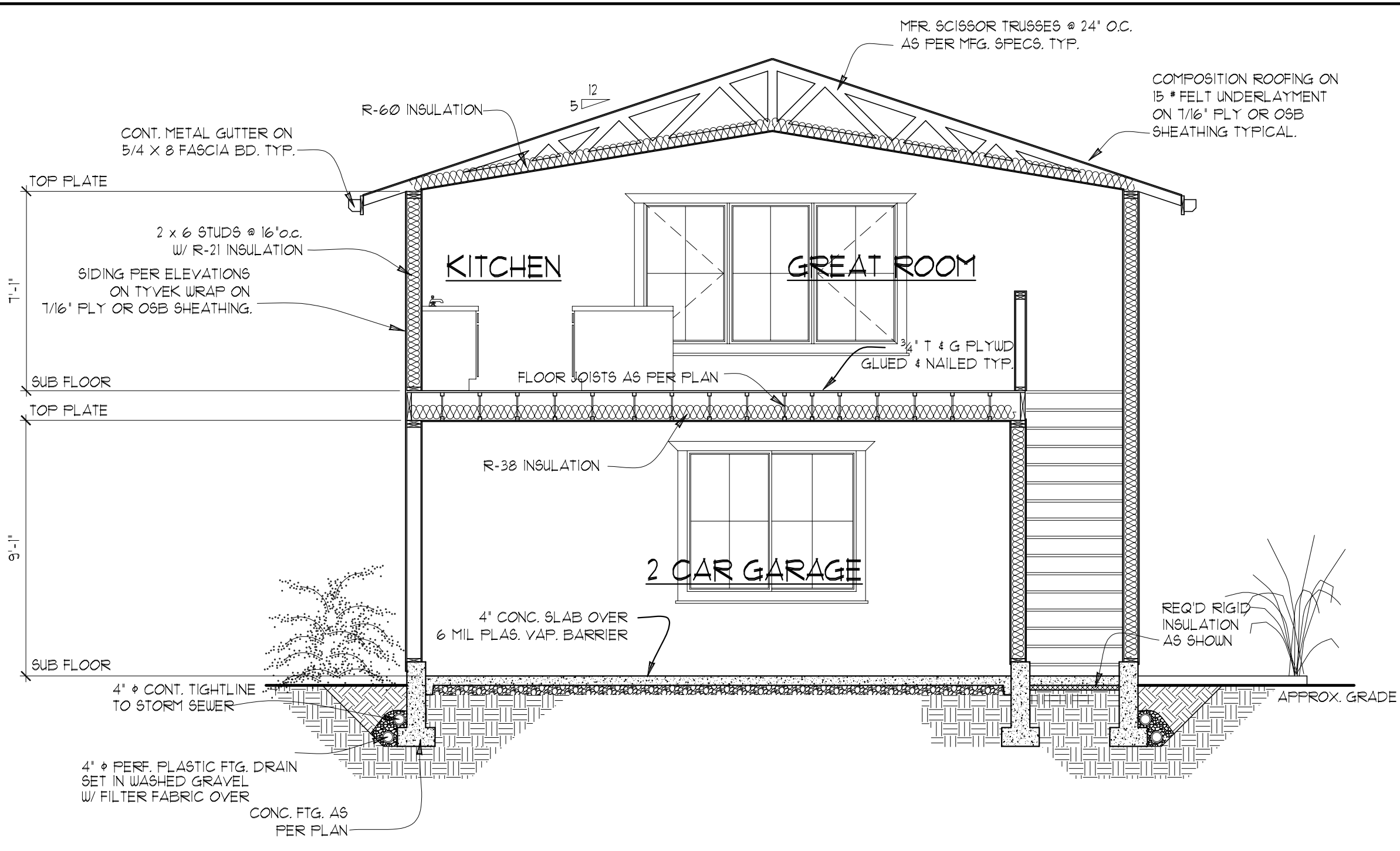


A TYP. HEADER CONSTRUCTION
PER USEC TABLE 402.11 SCALE: 1/2" = 1'-0"

2021 USEC R402.41 ACCESS HATCHES AND DOOR INSULATION INSTALLATION AND RETENTION. VERTICAL OR HORIZONTAL ACCESS HATCHES AND DOORS FROM CONDITIONED SPACES TO UNCONDITIONED SPACES SUCH AS ATTICS AND CRAWL SPACES SHALL BE WEATHERSTRIPPED. ACCESS THAT PREVENTS DAMAGING OR COMPRESSING THE INSULATION SHALL BE PROVIDED TO ALL EQUIPMENT. WHERE LOOSE-FILL INSULATION IS INSTALLED, A WOOD-FRAMED OR EQUIVALENT Baffle OR RETAINER, OR DAM SHALL BE INSTALLED TO PREVENT THE LOOSE-FILL INSULATION FROM SPILLING INTO THE LIVING SPACES FROM HIGHER TO LOWER SECTIONS OF THE ATTIC AND FROM ATTICS COVERING CONDITIONED SPACES TO UNCONDITIONED SPACES. THE Baffle OR RETAINER SHALL PROVIDE A PERMANENT MEANS OF MAINTAINING THE INSTALLED R-VALUE OF THE LOOSE-FILL INSULATION.



B ATTIC ACCESS DETAIL
SCALE: N.T.S.



SECTION "A"

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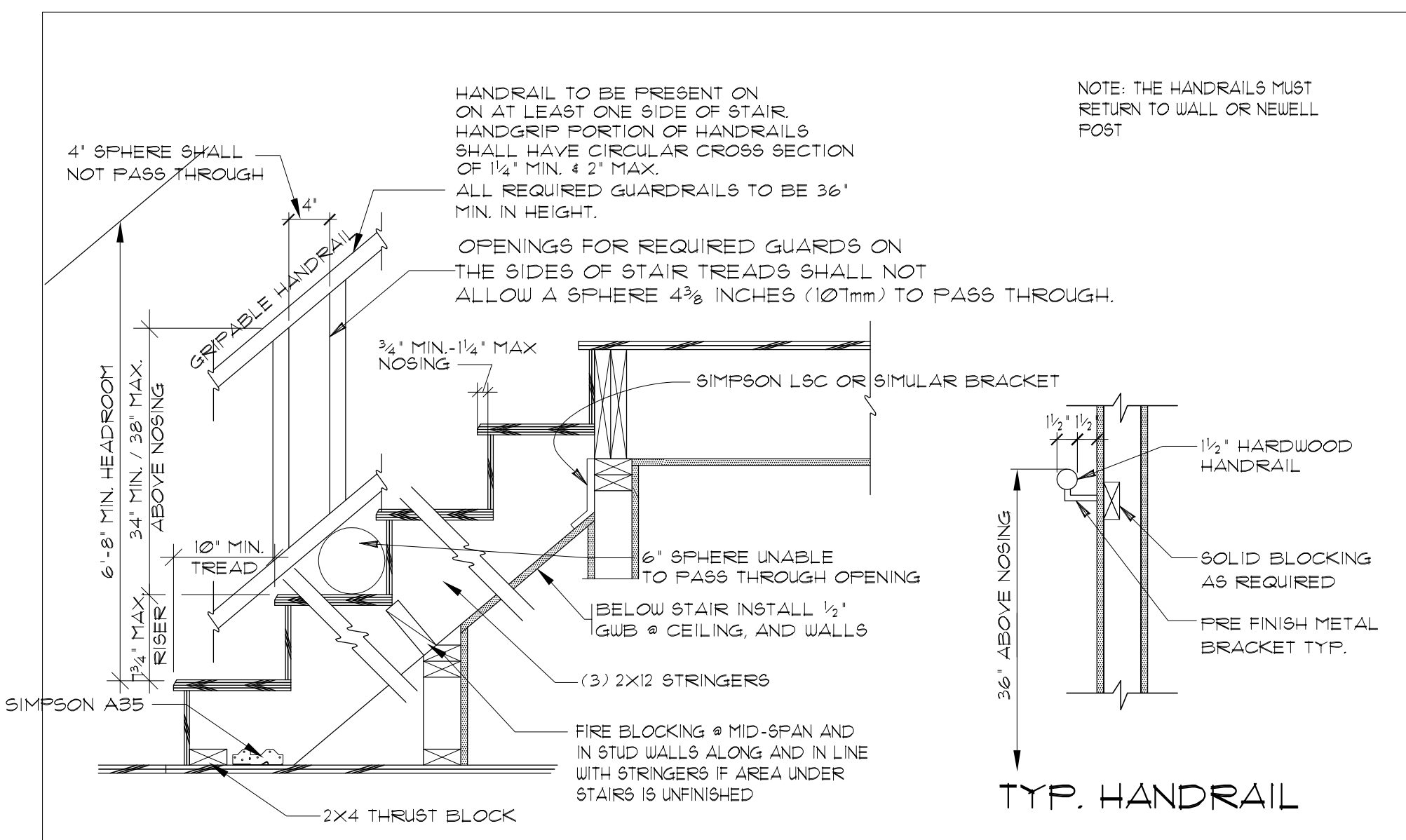
SCALE: 1/4" = 1'-0"

- TYPICAL ROOF CONSTRUCTION**
- COMPOSITION ROOF SHINGLES
 - 15" ROOFING FELT
 - 7/16" SHEATHING RATED 24/16
 - STRUCTURAL SYSTEM AS NOTED ON FRAMING PLAN
 - R-60 INSULATION
 - 5/8" GUB. CEILING
 - 1/8" TO 1/4" MESH SCREEN OVER OPENINGS
 - MINIMUM NET FREE VENTILATING AREA SHALL BE 1/50 OF VENTED AREA SPACE OR 1/300 IF 40-50% VENTING IN UPPER ATTIC OR RAFTER SPACE. PER IRC R206.2
 - PROVIDE 1" MINIMUM CLEARANCE BETWEEN INSULATION AND SHEATHING AT VENTS PER IRC SECTION R206.3

- TYPICAL WALL CONSTRUCTION**
- SIDING AND/OR VENEER PER ELEVATION
 - 7/16" PLY OR OSB SHTG (UNO)
 - TYVEK BUILDING WRAP OR EQ.
 - 2x6 STUDS @ 16" O.C. EXTERIOR WALLS UNO. EXTERIOR WALL NOTCH 25%, BORING 40% 60% BORING IF DOUBLED & NOT MORE THAN TWO SUCCESSIVE STUDS.
 - 2x4 STUDS @ 16" O.C., INTERIOR PARTITIONS (2x6 @ PLUMBING WALLS)
 - NON-BEARING WALL MAXIMUM NOTCH 40%, BORING 60% HOLES NO CLOSER THE 5/8" INCH TO FACE OF STUD
 - R-21 INSULATION WITH VAPOR BARRIER
 - 1/2" GUB. INTERIOR SHEATHING

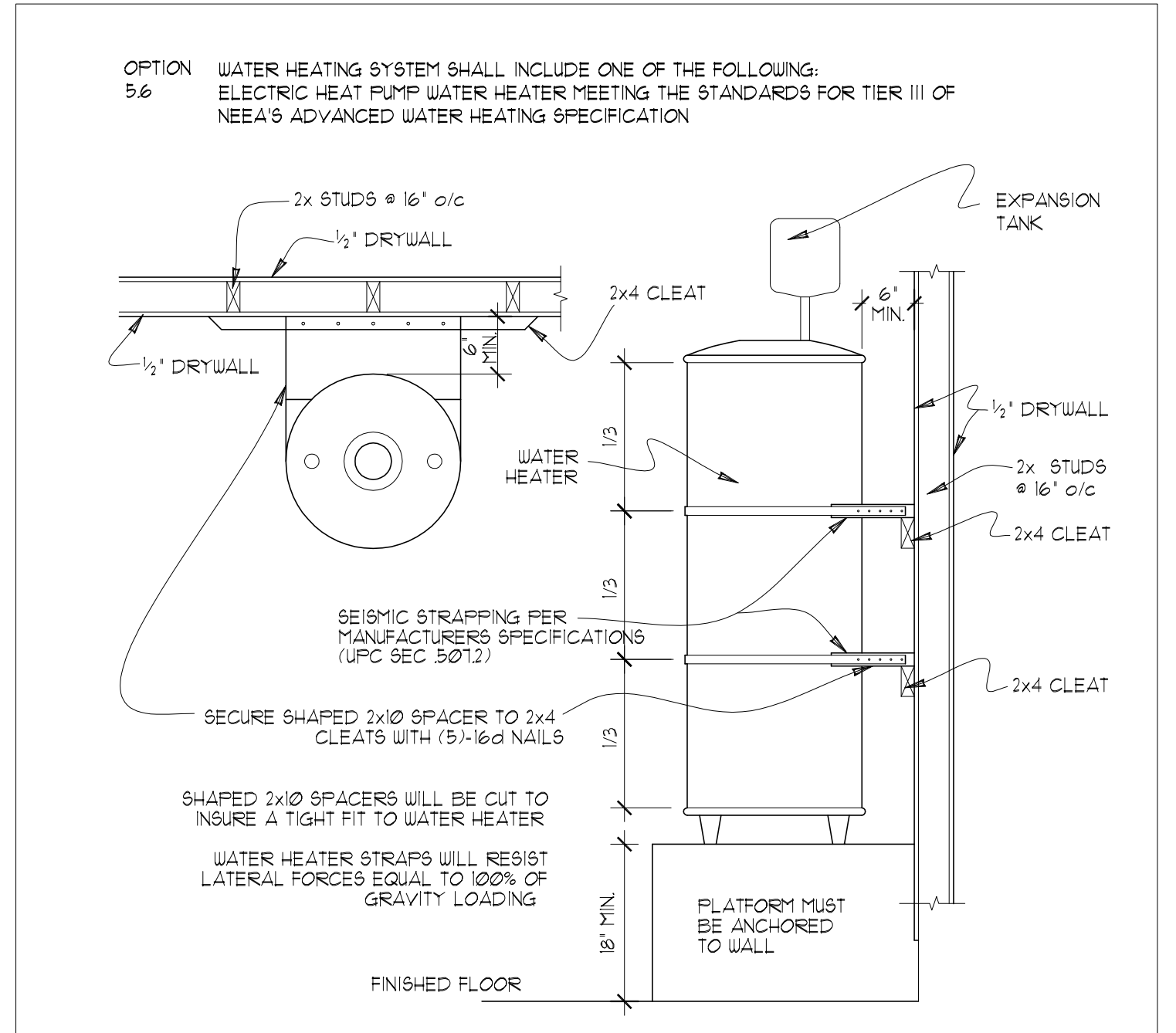
- TYPICAL FLOOR CONSTRUCTION**
- FINISHED FLOOR PER PLAN
 - 3/4" T&G PLYWOOD SUBFLOOR (GLUE AND NAIL)
 - FLOOR JOISTS PER PLAN
 - R-38 INSULATION OVER UNHEATED AREAS

SEE NOTE ON SHEET 1

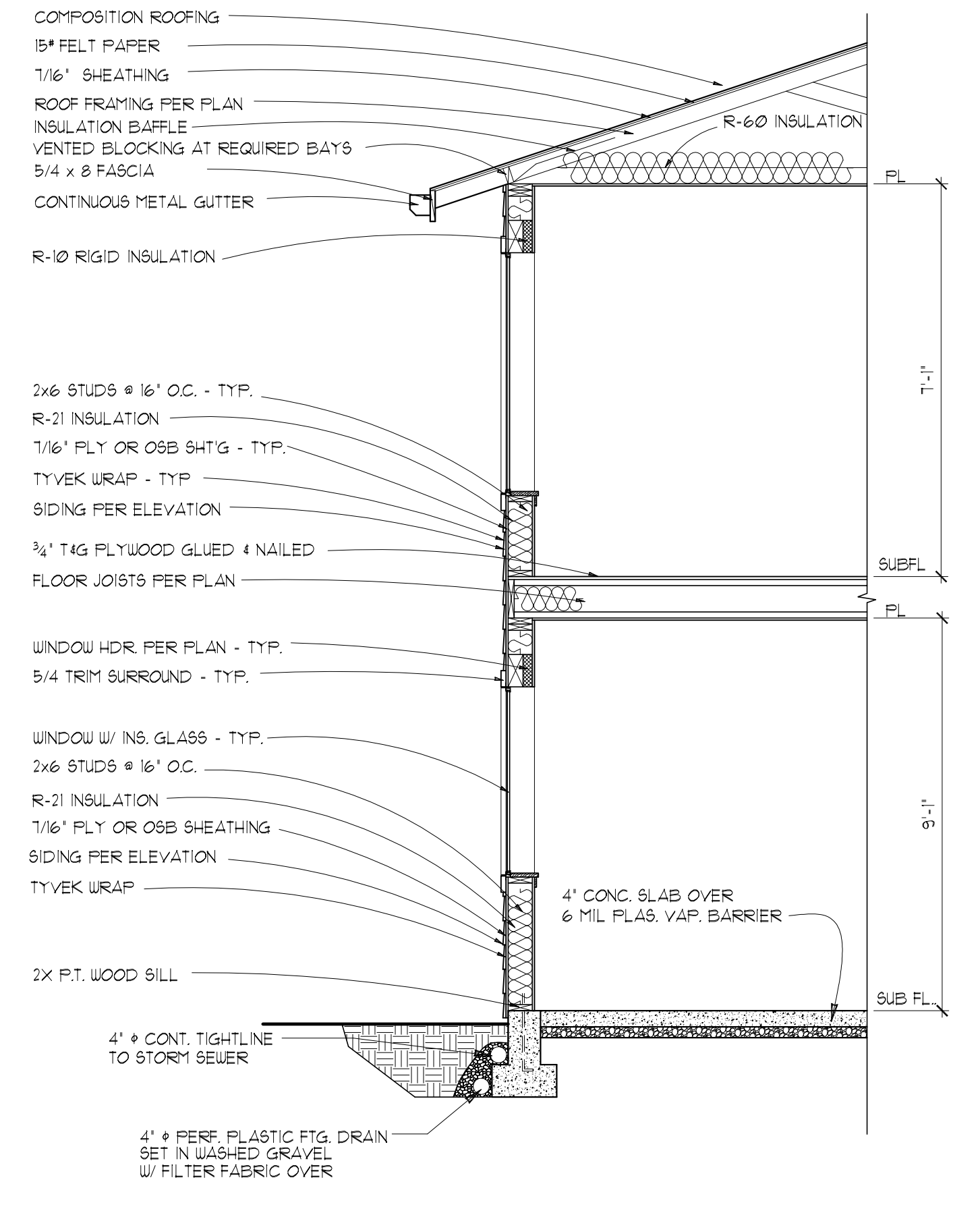


- INTERIOR/GUARDRAIL STAIR NOTES:**
- HANDRAILS MUST NOT PROJECT MORE THAN 4 1/2" (114 MM) INTO THE STAIRWAY. IRC SECTIONS R311.1.2
 - THE SPACING BETWEEN INTERMEDIATE HANDRAIL MEMBERS MUST NOT ALLOW A 4" SPHERE TO PASS THROUGH ANY OPENING. IRC SECTION R312.13
 - MINIMUM STAIRWAY WIDTH ABOVE HANDRAIL SHALL BE NO LESS THAN 36" INCHES. IRC SECTION R311.1
 - STAIR & STAIR LANDING MINIMUM WIDTH SHALL BE NO LESS THAN 36" (91 1/2") CLEAR IF ONE HANDRAIL, 42" CLEAR IF 2 HANDRAILS. IRC SECTION R311.1
 - THE TREADS LEADING EDGE CURVATURE CAN HAVE A MAX. RADIUS OF 3/16". THE MAX. BEVELING OF THE NOSING SHALL BE NO MORE THAN 1/2". IRC SECTION R311.15.3
 - RISER OR TREAD MAXIMUM DIFFERENTIAL SHALL BE NO MORE THAN 3/8". IRC SECTION R311.15.1
 - NOSING IS NOT REQUIRED FOR STAIRS WITH TREADS GREATER THAN 11". IRC SECTION R311.15.3
- EXTERIOR STAIR NOTES:**
- EXTERIOR STAIR LIGHTING AT TOP LANDING WITH CONTROLS INSIDE THE DWELLING. IRC SECTION R303.9
 - A MAXIMUM SLOPE OF 1:48 (2%) IS REQUIRED AT EXTERIOR LANDINGS AND TREADS FOR DRAINAGE. IRC SECTION R311.3
- INTERIOR UNDER STAIR NOTES:**
- UNDER TREADS ARE REQUIRED TO HAVE A MINIMUM OF 6" DEPTH AT INNER EDGE. IRC SECTION R311.15.2
 - UNDER TREAD DEPTH OF 10" WITH IN 12" OF THE INSIDE. IRC SECTION R311.15.2
- LANDING NOTES:**
- LANDING WIDTH SHALL NOT BE LESS THAN THAT OF STAIR SERVED. IRC R311.1.6
 - LANDING SHALL NOT BE LESS THAN 36" INCHES IN DIRECTION OF TRAVEL. IRC R311.1.6

C STAIR DETAIL
SCALE: N.T.S.



- D TYPICAL WATER HEATER DETAIL**
SCALE: N.T.S.
- USEC 2021 R403.5.3 HOT WATER PIPE INSULATION (PRESCRIPTIVE) INSULATION FOR HOT WATER PIPE BOTH WITHIN AND OUTSIDE THE CONDITIONED SPACE, SHALL HAVE A MINIMUM THERMAL RESISTANCE (R-VALUE) OF R-3
- 2021 UPC 312.6 FREEZING PROTECTION. NO WATER/SOIL OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING, IN ATTICS OR CRAWL SPACE, OR IN AN EXTERIOR WALL UNLESS, WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING. ALL HOT AND COLD WATER PIPES INSTALLED OUTSIDE THE CONDITIONED SPACE SHALL BE INSULATED TO A MINIMUM R-3



TYPICAL WALL SECTION
SCALE: N.T.S.
NOTE: 7/16" SHEATHING NOT REQUIRED ON EXT. WALLS WHERE T1-11 SIDING IS SPECIFIED (UNLESS NOTED OTHERWISE IN THE SHEAR WALL SPECIFICATIONS)

Gordon T. Jacob
REMODELING + RENOVATIONS
DADU
THE ENG RESIDENCE
808 N SHERIDAN AVE
Tacoma, WA

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611 S Yakima Ave. Tacoma, WA 98405
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REVISION DATE:	INTI:	PROJECT #:
3	DATE: 11/08/2024	
	INTI: MEY	
4		PROJECT #:

WSU Code Compliance Calculator, WSEC 2021

Project Information
 Owner: T. J. Jacob
 The Eng Residence DADU
 808 N Sheridan Ave
 Tacoma, WA

Level Design, LLC
 611 S Yakima Ave
 Tacoma, WA
 (253) 284-3170

Messages / Comments * **RESULTS PASS**
 UA Reduction = 10.94. Proposed UA is better than baseline by 6.2%
 Window area is 13% of floor area
 Whole House Mechanical Ventilation Airflow Rate: 35 CFM with Run Time Percent of 100%, Balanced, Distributed
 *Results require your trade and contractor. Results do not constitute an approval. Approval should be received by your AIA.

ANALYSIS SET UP
 What code compliance pathway are you using?
 Project Building Type? **Res. Construction**
 Occupancy Type? **03 Single Family Dwellings and Townhouses**
 Code Version? **WSEC 2021**
 Classification: **Small Dwelling Unit - 813 sq. ft.**
 Baseline Description: **Baseline and proposed window areas are input.**
 About Your Selection: **Up to 15 of exempt window and 24 of exempt door allowable.**

RESULTS - Comparison of Baseline and Proposed Design

Component	Baseline U	Baseline Area	Baseline UA	Proposed Design U	Proposed Design Area	Proposed Design UA
Doors U	0.350	461	159.4	0.350	461	159.4
Overhead Glazing U	0.500	0	0.0	0.500	0	0.0
Vertical Glazing U	0.300	105	31.5	0.300	105	31.5
Floor/Vertical Ceiling U	0.024	740	17.8	0.024	740	17.8
Wall (above grade) U	0.054	1,303	70.4	0.054	1,303	70.4
Floors over Crawlspace U	0.020	740	14.8	0.020	740	14.8
Slab on Grade F	0.150	0	0.0	0.150	0	0.0
Below Grade Wall F	N/A	0	0.0	0.000	0	0.0
Below Grade Slab F	N/A	0	0.0	0.000	0	0.0
Baseline UA Total			172.1			161.3
Proposed UA Total			161.3			150.3
UA Reduction			10.9			6.2
Required Credits			5.0			5.0

Table R602.2 Energy Equalization Credits

System No.	Full Description	Select System Type	Fuel Normalization Credits (406.2)	Energy Credits (406.3)	Total Credits (406.2 & 406.3)
5	For heating system based on electric resistance with (1) inverter driven ductless mini-split heat pump system installed in the largest zone in the dwelling OR (2) WH-DHW or hot water installed heating capacity per dwelling	Electric Resistance with Ductless Heat Pump OR electric resistance with max 2 kW installed capacity	2.0	3.5	5.5

Table R602.3 Energy Credits

Option No.	Category	Select Options	Energy Credits	Brief Description of Selected Options*
1	Efficient Building Envelope	Not Selected	0.0	
2	Air Leakage Control and Efficient Ventilation	Not Selected	0.0	0.00
3.1-3.0	High Efficiency HVAC	Option 3.0	1.5	Ductless Mini Split Heat Pump W/ Zoned Control, Min HSPF2 of 9 HSPF or 10 installed in largest zone of the home and primary heat is Zoned Electric Resist Heat
3.1.1	High Efficiency HVAC: Smart Thermostat	Not Selected	0.0	
4	High Efficiency HVAC Distribution System		0.0	
5.1	Efficient Water Heating: Drain Heat Recovery		0.0	

WSU_C32021_20241009-Manor Lot 6.dwg, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Code Compliance Calculator, WSEC 2021

Item	Description	Value	Energy Credits
5.2	Efficient Water Heating: Compact Hot Water Distribution	Not Selected	0.0
5.3.5.8	Efficient Water Heating	Option 5.6	2.0
6	Renewable Electric Energy	3,000 kWh	0.0
7	Appliance Package		0.0
Energy Credits			3.5

*Refer to WSEC 2021 Table R602.2 for complete option descriptions and requirements

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WSU Code Compliance Calculator, WSEC 2021

THERMAL ENVELOPE DETAILS - Proposed Design
 Conditioned Floor Area, Proposed Design: 813 sq. ft.
 Classification: Small Dwelling Unit

Exterior Doors

Plan ID	Component	Ref.	U	Area	UA
Exempt					
	Code Exemption, Unit 30		0.30	4	1.2
Sum of Area and UA					4
Exterior Doors Area Weighted U					0.296

Overhead Glazing

Plan ID	Component	Ref.	U	Area	UA
Sum of Area and UA					0.0
Overhead Glazing Area Weighted U					0.0

Vertical Glazing Schedule

Plan ID	Component	Ref.	U	Area	UA
1	U=0.25 (2021 1.3, 2018 1.6)	Table 406.2	0.25	3	0.75
2	U=0.25 (2021 1.3, 2018 1.6)	Table 406.2	0.25	4	1.00
3	U=0.25 (2021 1.3, 2018 1.6)	Table 406.2	0.25	4	1.00
4	U=0.25 (2021 1.3, 2018 1.6)	Table 406.2	0.25	4	1.00
Sum of Area and UA					36.0
Vertical Glazing Area Weighted U					0.250

Floor/Vertical Ceilings

Plan ID	Component	Ref.	U	Area	UA
2021 U=0.024 (2018 R602.1.2)	Table R602.1	0.024	740	17.8	
Sum of Area and UA					740
Floor/Vertical Ceilings Area Weighted U					0.024

Walls (Above Grade)

Plan ID	Component	Ref.	U	Area	UA
021 U=0.054 (2021 1.3, 2018 1.6)	Table 406.2	0.054	1,303	70.4	
Sum of Area and UA					1,303
Walls (Above Grade) Area Weighted U					0.054

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WSU Code Compliance Calculator, WSEC 2021

Floor (over level or exterior)

Plan ID	Component	Ref.	U	Area	UA
	RIB vented Joints (2021 1.3, 1.5, 2018 1.3-1.5)	103	0.025	740	18.5
Sum of Area and UA					740

Slab on Grade (less than 2 feet below grade)

Plan ID	Component	Ref.	U	Area	UA
Sum of Perimeter and FP					0

Below Grade Walls and Slabs

Plan ID	Component	Ref.	U	Area	UA
Sum of Area, Length and UA					0

Links to Download Forms, Checklists and Other Resources

Compliance Certificate: [Compliance Certificate](#) [Instructions](#)
 Insulation Certificate for Residential New Construction: [Insulation Certificate](#)
 Draft Testing Alternative: [Draft Testing Alternative](#)
 Ejecting Contribution: [Ejecting Contribution](#)
 New Construction: [Drafting Sheet](#)
 Prescriptive Checklist for 2018 WSEC: [Prescriptive Checklist](#)
 Alternative (Removal) Worksheet: [Worksheet](#)
 EER SER2 COP HSP2 Converter: [www.wsdcc.org/energy/alternatives/eer2-cop-hsp2.html](#)

Ventilation Requirements

Show Ventilation Calculator? [Show](#)
 Conditioned Floor Area: 813 sq. ft.
 Number of Bedrooms: 2
 Run-Time Percent in Each 4-Hour Segment: 100%
 Is the system Balanced? **Distributed**
 Is the system Distributed? **Distributed**
 Whole House Mechanical Ventilation Airflow Rate: 35 CFM

HVAC Thermal Distribution System

Show Distribution System Calculator? [Show](#)
 Is this a hydronic heating system? **No**
 Location of Duct: **Unducted**
 Location of Air Handler: **Unducted**
 Is Duct Testing Required? **No**

Heating System Sizing - Proposed Design

Show Heating System Sizing? [Show](#)
 Try Our BetterBuildW's HVAC Sizing Tool: [https://betterbuildw.com/resources/hvac-sizing-tool](#)
 Nearest Weather Station: **Tacoma CO**
 Indoor Design Temperature: 70 F
 Outdoor Design Temperature: 29 F
 Design Temperature Difference (ΔT): 41 F
 Conditioned Floor Area, Proposed Design: 813 sq. ft.
 Conditioned Volume: 6,220 cu. ft.
 HVAC System Type: **Heat Pump**
 Location of HVAC Distribution System: **Unducted**
 Sum of UA, including exempt door and window: 161.3
 Envelope Heat Load: 6,622 Btu / Hour

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WSU Code Compliance Calculator, WSEC 2021

Sum of UA x 1.1

Air Leakage Heat Load: 2,759 Btu / Hour
 Air Leakage Description: [Table 406.2, 2018 1.3-1.5](#)
 Building Design Heat Load: 9,379 Btu / Hour
 Air Leakage Description: [Table 406.2, 2018 1.3-1.5](#)
 Building and Duct Heat Load: 9,379 Btu / Hour
 For ducts located in conditioned space: Sum of Building Heat Load x 1.1
 For ducts located in unconditioned space or outdoor: Sum of Building Heat Load x 1.1
 Maximum Heat Equipment Output: 13,158 Btu / Hour
 Building and Duct Heat Load x 1.4 for all other systems: 3,842 Btu / Hour

WSU_C32021_20241009-Manor Lot 6.dwg, Version:10/9/2024 4:07:13 PM 10/16/2024

2021 ENERGY U-FACTOR COMPLIANCE PATH
Gordon T. Jacob
 REMODELING + RENOVATIONS
THE ENG RESIDENCE
 808 N SHERIDAN AVE
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REVISION DATE:	INIT:	PROJECT #:

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DESIGN CRITERIA

BUILDING CODE: 2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE LOCAL JURISDICTION.

VERTICAL LOADS
 ROOF LIVE LOAD: 25 PSF (SNOW)
 ROOF DEAD LOAD: 15 PSF
 RESIDENTIAL FLOOR LIVE LOAD: 40 PSF (REDUCIBLE) : 60 PSF (FOR DECKS)
 FLOOR DEAD LOAD: 15 PSF
SNOW DESIGN DATA (ASCE 7-16) WIND DESIGN DATA (ASCE 7-16)
 FLAT SNOW LOAD: N/A BASIC WIND SPEED (ASD) V= 85MPH
 SNOW EXPOSURE FACTOR, Ce=1.0, ULTIMATE WIND SPEED V= 110MPH
 SNOW IMPORTANCE FACTOR, Is=1.0, RISK CATEGORY: II EXPOSURE: B
 THERMAL FACTOR, Ct=1.1 IMPORTANCE FACTOR, Iw= 1.0
 TOPOGRAPHIC FACTOR, Kzt= 1.38

SEISMIC DESIGN DATA (ASCE7-16)
 SEISMIC RESPONSE SYSTEM: WOOD SHEARWALLS
 EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7-16)
 RISK CATEGORY: II SEISMIC IMPORTANCE FACTOR, Ie= 1.0
 MAPPED SPECTRAL RESPONSE ACCELERATION: Ss=1.5, S1=0.46
 DESIGN SPECTRAL RESPONSE ACCELERATION: Sds=1.08, Sd1=0.65
 SITE CLASS: D SEISMIC DESIGN CATEGORY: D
 SEISMIC RESPONSE COEFFICIENT: Cs= 0.119
 DESIGN BASE SHEAR: 6,108#
 SOIL PROPERTIES:
 BEARING CAPACITY: 1,500 PSF
 LATERAL CAPACITY: 250 PSF/FT

GENERAL REQUIREMENTS

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER PROJECT DRAWINGS BY OTHER DISCIPLINES. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CODES LISTED ABOVE.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS RELATING TO EXISTING CONDITIONS BY MAKING FIELD SURVEYS AND MEASUREMENTS PRIOR TO COMMENCING FABRICATION OR CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO ADJACENT BUILDINGS, UTILITIES, OR OTHER PROPERTY. THIS REQUIREMENT IS PARTICULARLY IMPORTANT DURING FOUNDATION INSTALLATION.
- THE GENERAL CONTRACTOR IS ADVISED TO CONSIDER PERFORMING PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE CONDITION OF ADJACENT BUILDINGS AND OTHER STRUCTURES BEFORE THE START OF CONSTRUCTION.
- THE GENERAL CONTRACTOR SHALL OBTAIN COPIES OF THE LATEST CONTRACT DOCUMENTS, INCLUDING ALL ADDENDA, AND PROVIDE THE RELEVANT PORTIONS TO ALL SUB-CONTRACTORS AND SUPPLIERS PRIOR TO SUBMITTAL OF SHOP DRAWINGS AND FABRICATION AND ERECTION OF STRUCTURAL MEMBERS.
- THE GENERAL CONTRACTOR SHALL COMPARE AND COORDINATE THE DRAWINGS OF ALL DISCIPLINES AND REPORT ANY DISCREPANCIES BETWEEN THE DRAWINGS TO THE ARCHITECT AND ENGINEER.
- DETAILS LABELED "TYPICAL" SHALL APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SEE DETAIL TITLES FOR APPLICABILITY OF A PARTICULAR DETAIL. TYPICAL DETAILS SHALL APPLY WHETHER OR NOT THEY ARE SPECIFICALLY KEYPED AT EACH LOCATION. THE ENGINEER SHALL HAVE FINAL AUTHORITY TO DETERMINE APPLICABILITY OF TYPICAL DETAILS.
- WHERE CONFLICTS EXIST BETWEEN STRUCTURAL DOCUMENTS THE STRICTEST REQUIREMENTS, AS INDICATED BY THE STRUCTURAL ENGINEER SHALL GOVERN.
- THE GENERAL CONTRACTOR SHALL REVIEW AND DETERMINE THAT DIMENSIONS ARE COORDINATED BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO FABRICATION OR START OF CONSTRUCTION.
- NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED OR OTHERWISE REDUCED IN STRENGTH UNLESS APPROVED BY THE STRUCTURAL ENGINEER.
- THE GENERAL CONTRACTOR SHALL COORDINATE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR ANCHORED, EMBEDDED OR SUPPORTED ITEMS. NOTIFY THE ARCHITECT / ENGINEER OF ANY DISCREPANCIES.

CONSTRUCTION RESPONSIBILITY

- THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE COMPLETED STRUCTURE, AND ARE NOT INTENDED TO INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCES, AND FOR JOB SAFETY.
- THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PERIODIC SITE OBSERVATION VISITS MAY BE PROVIDED BY THE STRUCTURAL ENGINEER. THE SOLE PURPOSE OF THESE OBSERVATIONS IS TO REVIEW THE GENERAL CONFORMANCE OF THE CONSTRUCTION WITH THE STRUCTURAL CONTRACT DOCUMENTS. THESE LIMITED OBSERVATIONS SHOULD NOT BE CONSTRUED AS CONTINUOUS OR EXHAUSTIVE TO VERIFY THAT ALL CONSTRUCTION IS IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING ALL WORK IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS.

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR	N.T.S.	NOT TO SCALE
CLR.	CLEAR	O.C.	ON CENTER
☒	CENTERLINE	PT	PRESSURE TREATED
CONC.	CONCRETE	REINF.	REINFORCEMENT
CONT.	CONTINUOUS	SIM	SIMILAR
C.J.	CONTROL JOINT	SF	SQUARE FEET
E.W.	EACH WAY	S.O.G.	SLAB ON GRADE
GLB	GLULAM BEAM	STL.	STEEL
LBW	LOAD BEARING WALL	T&G	TONGUE AND GROOVE
HD	HOLD DOWN	TYP.	TYPICAL
MFR.	MANUFACTURER	U.N.O.	UNLESS NOTED OTHERWISE
MIN.	MINIMUM	W/	WITH
MTL.	METAL		
N.T.S.	NOT TO SCALE		

DEFERRED SUBMITTALS

THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN AND SHOULD BE PROVIDED BY THE BUILDER AT TIME OF APPLICATION FOR PERMIT OR AS A DEFERRED SUBMITTAL ITEM:

- ALTERNATIVE I-JOIST/BEAM MANUFACTURER PLANS
- PRE-ENGINEERED TRUSS DESIGNS AND LAYOUTS

SITE WORK

UNLESS A SOILS INVESTIGATION BY A QUALIFIED GEOTECHNICAL ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1,500 PSF. EXTERIOR FOOTINGS SHALL BEAR 12" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS OR COMPACTED STRUCTURAL FILL.

CONCRETE

ITEM	DESIGN f'c (PSI)	MAX. W/C RATIO	MAX. AGGREGATE SIZE	MIN. CEMENT (SACKS/YARD)
FOUNDATIONS	2,500 @28 DAYS	0.45	3/4"	5 1/2
STEM WALLS	3,000 @28 DAYS	0.45	3/4"	5 1/2
SLAB ON GRADE	3,000 @28 DAYS	0.45	3/4"	5 1/2

- REINFORCING STEEL SHALL BE ASTM A615 GRADE 40 FOR #4 BARS AND SMALLER AND GRADE 60 FOR #5 BARS AND LARGER.
- MINIMUM SPLICE LENGTHS SHALL BE: 24" FOR #4, 30" FOR #5, 42" FOR #6
- CONCRETE COVER SHALL BE: 3" CAST AGAINST EARTH, 2" EXPOSED TO EARTH/WEATHER, 3/4" NOT EXPOSED TO EARTH/WEATHER.
- CORNER BARS ARE REQUIRED FOR ALL HORIZONTAL BARS IN FOOTINGS AND WALLS.
- ALL CONCRETE HAS BEEN DESIGNED FOR 2,500 PSI CONCRETE SO NO SPECIAL INSPECTION IS REQUIRED.

FRAMING

- ALL NAILING TO COMPLY WITH REQUIREMENTS OF IBC 2303.6 AND FASTENED PER TABLE 2304.10.1.
- ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4.
- FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.
- MAINTAIN 8" MINIMUM CLEARANCE BETWEEN WOOD AND EARTH.
- MAINTAIN 12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
- MAINTAIN 18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

LUMBER GRADES

FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY AND SHALL HAVE THE FOLLOWING UNADJUSTED DESIGN MINIMUM PROPERTIES:

JOISTS:	WOOD TYPE:
2X4	HF #2 - Fb=850 PSI, FV=75 PSI, Fc=1300 PSI, E=1200000 PSI
2X6 OR LARGER	HF #2 - Fb=850 PSI, FV=75 PSI, Fc=1300 PSI, E=1200000 PSI
BEAMS:	WOOD TYPE:
4X	DF-L#2 - Fb=900 PSI, FV=95 PSI, Fc=1350 PSI, E=1600000 PSI
6X OR LARGER	DF-L #2 - Fb=875 PSI, Fv=85 PSI, Fc=600 PSI, E=1300000 PSI
STUDS:	WOOD TYPE:
2X4	HF #2 - Fb=850 PSI, FV=75 PSI, Fc=1300 PSI, E=1200000 PSI
2X6 OR LARGER	HF #2 - Fb=850 PSI, Fv=75 PSI, Fc=1300 PSI, E=1200000 PSI
POSTS:	WOOD TYPE:
4X4	HF #2 - Fb=900 PSI, FV=95 PSI, Fc=1350 PSI, E=1600000 PSI
4X6 OR LARGER	HF #2 - FB=900 PSI, FV=95 PSI, FC=1350 PSI, E=1600000 PSI
6X6 OR LARGER	DF-L #1 - FB=700 PSI, FV=85 PSI, FC=475 PSI, E=1300000 PSI
6X6 OR LARGER	DF-L #2 - FB=700 PSI, FV=85 PSI, FC=475 PSI, E=1300000 PSI

FASTENERS

ALL NAILS SPECIFIED ON THIS PLAN SHALL BE COMMON OR GALVANIZED BOX (UNLESS NOTED OTHERWISE) OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX L OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS). ALL FASTENERS PLACE IN PRESSURE TREATED OR FIRE TREATED LUMBER/SHEATHING SHALL BE GALVANIZED.

- 8D COMMON (0.131" DIA., 2-1/2" LENGTH)
- 8D BOX (0.113" DIA., 2-1/2" LENGTH)
- 10D COMMON (0.148" DIA., 3" LENGTH)
- 10D BOX (0.128" DIA., 3" LENGTH)
- 16D COMMON (0.162" DIA., 3-1/2" LENGTH)
- 16D SINKER (0.148" DIA., 3-1/4" LENGTH)
- 5D COOLER (0.086" DIA., 1-5/8" LENGTH)
- 6D COOLER (0.092" DIA., 1-7/8" LENGTH)

SHEATHING

TYPICAL ROOF SHEATHING SHALL BE APA RATED 7/16" SHEATHING WITH A SPAN INDEX OF 24/16. FLOOR SHEATHING SHALL BE APA RATED 3/4" T&G SHEATHING WITH A SPAN INDEX OF 48/24 UNLESS NOTED OTHERWISE. STAGGER END LAPS AT ROOF AND FLOOR SHEATHING. WALL SHEATHING SHALL BE APA RATED 7/16" SHEATHING WITH A SPAN INDEX OF 24/0 UNLESS NOTED OTHERWISE.

GLULAM BEAMS (GLB)

GLULAM BEAMS SHALL BE 24F-V4 FOR SINGLE SPANS AND 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS WITH THE FOLLOWING MINIMUM PROPERTIES:
 Fb=2400 PSI, Fv=240 PSI, Fc=650 PSI (PERPENDICULAR), E=1,800,000 PSI.

ENGINEERED WOOD BEAMS AND I-JOIST

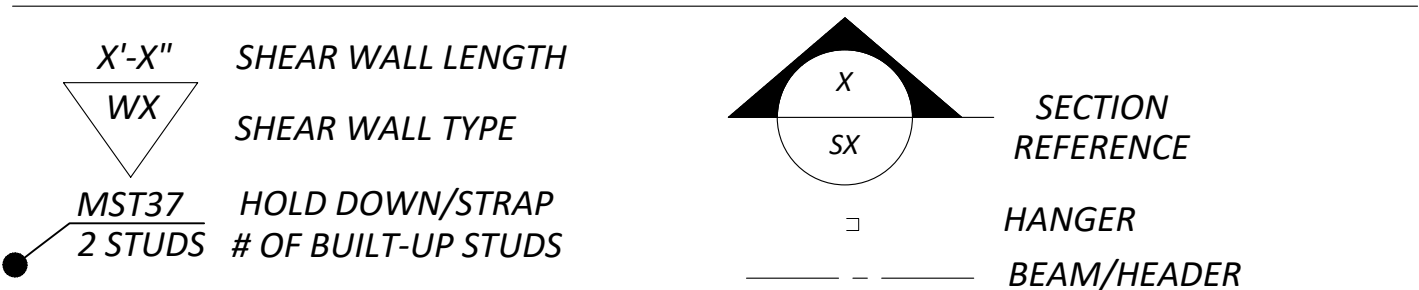
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT.

BEAMS DESIGNATED AS "PSL" SHALL HAVE THE MINIMUM PROPERTIES:
 Fb=2900 PSI, Fv=290 PSI, Fc=750 PSI (PERPENDICULAR), E=2,000,000 PSI.
 BEAMS DESIGNATED AS "LVL" SHALL HAVE THE MINIMUM PROPERTIES:
 Fb=2600 PSI, Fv=285 PSI, Fc=750 PSI (PERPENDICULAR), E=1,900,000 PSI.
 BEAMS DESIGNATED AS "LSL" SHALL HAVE THE MINIMUM PROPERTIES:
 Fb=1700 PSI, Fv=400 PSI, Fc=680 PSI (PERPENDICULAR), E=1,300,000 PSI.

PRE-ENGINEERED ROOF TRUSSES

PRE-ENGINEERED ROOF TRUSSES IS A DEFERRED SUBMITTAL ITEM AND IS TO BE DESIGNED, FABRICATED AND INSTALLED PER THE LATEST TRUSS PLATE INSTITUTE STANDARDS, AND IBC SECTION 2303.4. PREFABRICATED ITEMS TO BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER. THE FABRICATOR SHALL PROVIDE ALL CONNECTION DESIGN, DETAILS AND INSTALLATION INSTRUCTIONS, WHICH SHALL BE AVAILABLE ON SITE FOR INSPECTION. WHERE TRUSSES ARE NOT PROVIDED TO COMPLETE THE ROOF SYSTEM, OVERFRAMING MEMBERS AND CONNECTIONS SHALL BE PROVIDED. OVERFRAMING DETAILS SHALL BE INCLUDED IN THE TRUSS SHOP DRAWINGS IN ORDER TO PROVIDE LOADING CONDITIONS CONSISTENT WITH THE MODELING OF THE TRUSSES. THE OVERFRAMING AND RELATED DETAILS SHALL BE DESIGNED BY THE TRUSS ENGINEER. TRUSSES (OR DRAG TRUSSES) ALIGNING WITH SHEAR WALLS SHALL BE SPECIAL TRUSSES THAT HAS BEEN DESIGNED TO TRANSFER THE SPECIFIC WIND AND SEISMIC LOADS SHOWN ON THE PLANS. THE TRUSS SHALL BE DESIGNED TO TRANSFER THE LOAD BETWEEN THE ROOF SHEATHING AND THE SHEAR WALL BELOW. THE TRUSS SHALL BE DESIGNED TO TRANSFER A MINIMUM OF 100 PLF ALONG THE LENGTH OF THE TRUSS. TEMPORARY AND PERMANENT BRACING REQUIRED FOR THE STABILITY OF THE TRUSS ELEMENTS UNDER GRAVITY LOADS AND IN-PLANE WIND OR SEISMIC LOADS SHALL BE DESIGNED BY THE TRUSS ENGINEER WHERE THE TOP CHORD IS NOT DIRECTLY ATTACHED TO THE ROOF SHEATHING. THE TRUSS ENGINEER SHALL DESIGN AND SHOW THE PLACEMENT OF ALL REQUIRED TOP CHORD BRACING AND CONNECTIONS ON THE TRUSS SHOP DRAWINGS. ANY BRACING LOADS TRANSFERRED TO THE MAIN BUILDING SYSTEM SHALL BE IDENTIFIED AND SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW. DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER OF RECORD PRIOR TO SUBMITTING TO THE BUILDING OFFICIAL FOR APPROVAL. ROOF TRUSS TOP CORD MUST BE HF#2 OR BETTER.

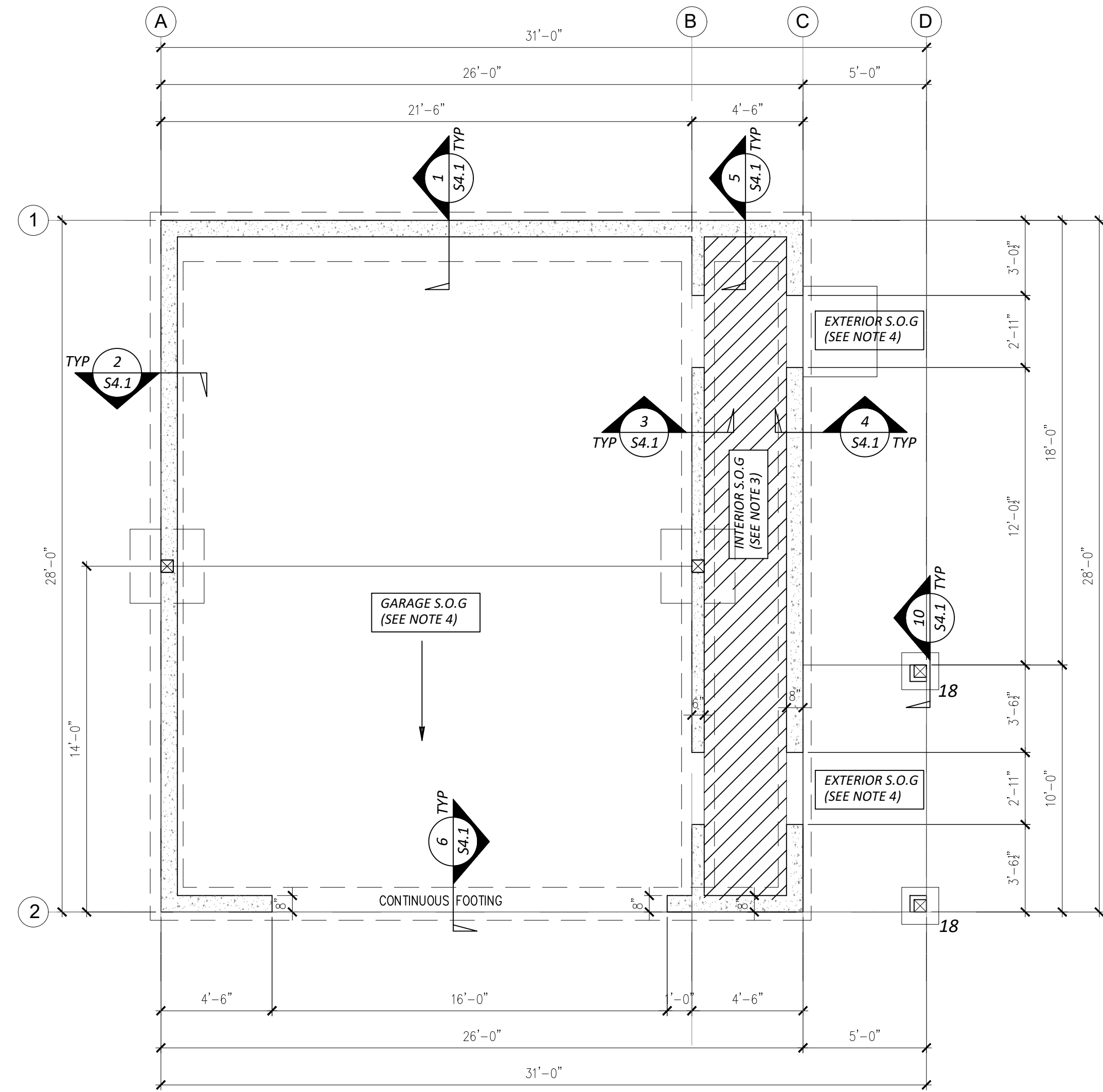
SYMBOL LEGEND



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PROJECT: ENG GARAGE/DADU
 808 N SHERIDAN AVE TACOMA WA 98403
 DRAWING TITLE: STRUCTURAL NOTES

DATE	11/4/2024
REVISED	
SHEET NO.	S1.0



FOUNDATION PLAN

1/4" = 1'-0"

NOTES:

1. SOIL BEARING OF 1,500 PSF IS ASSUMED. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT THE SITE SOILS PROVIDE THIS MINIMUM BEARING CAPACITY.
2. EXTERIOR FOOTINGS TO BE A MINIMUM OF 12" BELOW FINISHED GRADE BEARING ON NATIVE UNDISTURBED SOIL OR COMPACTED STRUCTURAL FILL.
3. INTERIOR S.O.G. SHALL BE 4" THICK SLAB ON GRADE OVER INSULATION (PER ARCH.), OVER VAPOR BARRIER (PER ARCH.) OVER 4" COMPACTED SAND OR GRAVEL. OPTIONAL SLAB REINFORCEMENT SHALL BE 6X6 W2.9XW2.9 WELDED WIRE, #3 BARS @ 24" O.C., OR HELIX FABRIC (5# PER CUBIC YARD).
4. GARAGE S.O.G. SHALL BE 4" THICK SLAB ON GRADE OVER 4" COMPACTED FILL, SLOPED AT 3/16"/FT TOWARDS GARAGE DOOR.
5. EXTERIOR S.O.G. SHALL BE 4" THICK SLAB ON GRADE SLOPED 3/16"/FT AWAY FROM STRUCTURE.
6. PROVIDE COPY OF CONCRETE "BATCH TICKET" ON SITE FOR REVIEW BY BUILDING OFFICIAL
7. SEE SHEAR WALL PLANS FOR SHEAR WALL ANCHOR BOLT AND HOLD DOWN LOCATIONS.

FOOTING SCHEDULE

18	POST ON 18" SQUARE X 8" THICK CONC. FOOTING
36	POST ON 36" SQUARE X 8" THICK CONC. FOOTING W/ 4-#4 BARS E.W.

NOTES:

1. USE MIN. 6" WIDE POST BELOW BEAM SPLICES
2. USE 4X4 POST BELOW 4X BEAMS, U.N.O.
3. USE 6X6 POST BELOW 6X BEAMS, U.N.O.
4. PT POST SHALL BE USED IN EXTERIOR CONDITIONS

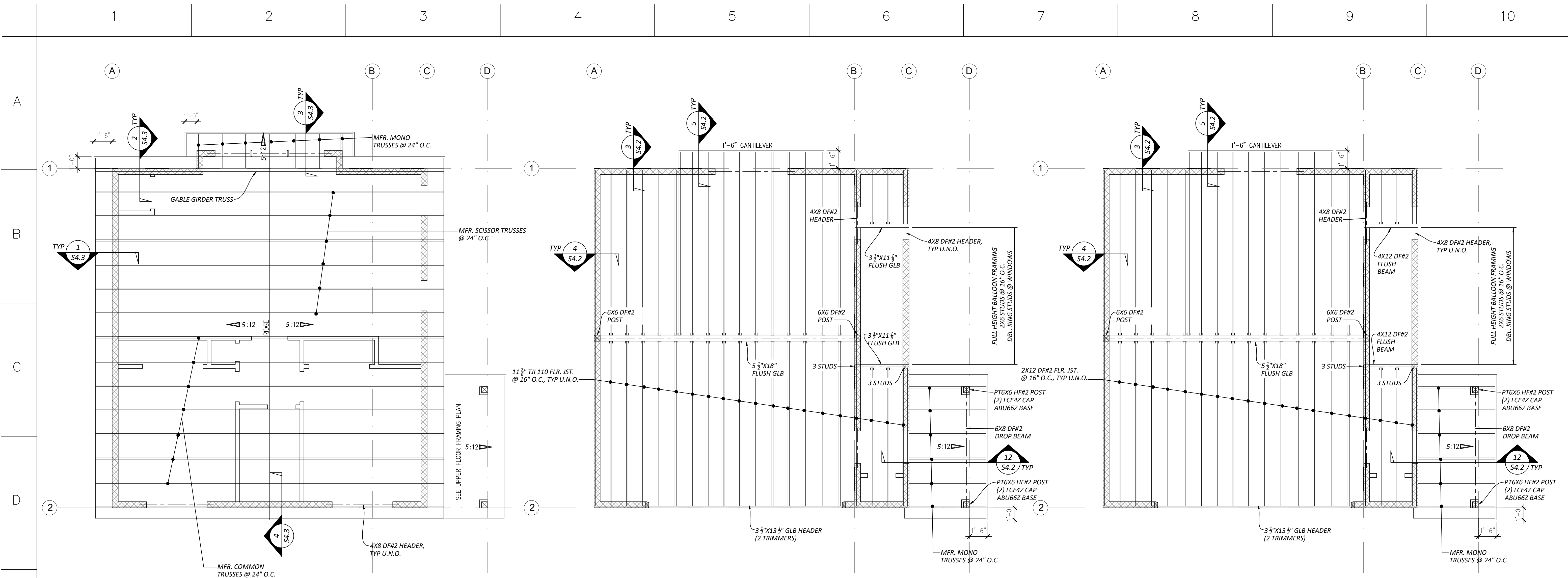


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DRAWING TITLE
FOUNDATION PLAN

DATE	11/4/2024
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SHEET NO.	S3.1



ROOF FRAMING PLAN
1/4" = 1'-0"

UPPER FLOOR FRAMING PLAN (TJI OPTION)
1/4" = 1'-0"

UPPER FLOOR FRAMING PLAN (2X12 OPTION)
1/4" = 1'-0"

NOTES:

- ALL COLUMNS/STUD PACKS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS ARE LAMINATED TOGETHER PER "TYPICAL BUILT-COLUMN DETAIL" ON SHEET S4.2. SOLID WOOD COLUMNS MAY BE SUBSTITUTED FOR BUILT-UP COLUMNS BY PROVIDING AN EQUIVALENT CROSS SECTIONAL AREA.
- ALL HEADERS UNLESS SPECIFIED ON THE PLANS ARE TO BE 4X8 DF-L #2 WITH AT LEAST ONE TRIMMER AND ONE KING STUD FOR EACH END FOR OPENINGS LESS THAN OR EQUAL TO 5'-0" WIDE AND TWO TRIMMERS AND ONE KING STUD FOR ALL OTHERS.
- ROOF SHEATHING SHALL BE APA RATED 5/8" CDX OR 7/16" OSB NAILED WITH 8d @ 6" O.C. ALONG PANEL EDGES, AND 12" O.C. FIELD. SPAN INDEX SHALL BE 24/0. STAGGER END LAPS. NAILS SHALL MINIMUM 1 1/2" EMBED INTO ROOF STRUCTURE BELOW.
- BEARING WALLS ARE INDICATED AS SHADED WALLS
- PROVIDE VENTED BLOCKING AT REQUIRED TRUSS/RAFTER BAYS
- SHADED AREAS INDICATE OVERFRAMING. ROOF OVER FRAMING (IRC SECTION R802.3): RAFTERS SHALL BE FRAMED TO 2X RIDGE BOARD PER PLAN. RIDGE BOARD SHALL NOT BE LESS IN DEPTH THAN THE CUT END OF THE RAFTER. AT ALL VALLEYS AND HIPS THERE SHALL BE A 2X VALLEY OR HIP RAFTER AND NOT LESS IN DEPTH THAN THE CUT END OR THE RAFTER. (FULL COVERAGE AT RIDGE, HIPS AND VALLEYS).
- IF AN ENGINEERED ROOF FRAMING LAYOUT IS PROVIDED BY THE TRUSS SUPPLIER, THAT TRUSS LAYOUT SHALL SUPERCEDE THE TRUSS LAYOUT INDICATED IN THE PLANS. PROVIDE TRUSS LAYOUT AND SPECS ON SITE FOR INSPECTION.
- PROVIDE SOLID FRAMING EQUAL TO THE WIDTH OF THE MEMBER BEING SUPPORTED (U.N.O.)
- ALL MANUFACTURED TRUSSES:
 - * SHALL NOT BE FIELD ALTERED WITHOUT ENGINEER'S APPROVAL
 - * SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION
 - * SHALL BE INSTALLED AND BRACED TO MANUFACTURER'S SPECIFICATION
 - * SHALL CARRY MANUFACTURER'S STAMP ON EACH TRUSS

NOTES:

- ALL BEAMS SHALL HAVE A POST OF BUILT-UP EQUAL TO THE WIDTH OF THE BEAM IT IS SUPPORTING AND BE CONTINUOUS DOWN TO THE FOUNDATION OR ANOTHER SUPPORTING BEAM. ALL POSTS/ MULTIPLE STUDS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS ARE LAMINATED TOGETHER PER "TYPICAL BUILT-UP COLUMN DETAIL" ON SHEET S4.2. SOLID WOOD COLUMNS MAY BE SUBSTITUTED FOR BUILT-UP COLUMNS BY PROVIDING AN EQUIVALENT CROSS SECTIONAL AREA. ALL BEAMS SHALL HAVE A MINIMUM OF 3X BUILT-UP COLUMN WITH CONTINUOUS LOAD PATH TO FOUNDATION.
- JOIST HANGERS SHALL BE IUS/MIU SERIES OR PER JOIST MANUFACTURER.
- RIM JOIST SHALL BE 1 1/4" X 11 3/8" LSL. RIM JOIST SHALL HAVE FULL WIDTH BLOCKING WHERE POST IS ABOVE IT.
- ALL HEADERS UNLESS SPECIFIED ON THE PLANS ARE TO BE 4X8 DF-L #2 WITH AT LEAST ONE CRIPPLE AND ONE STUD FOR EACH END FOR OPENINGS LESS THAN OR EQUAL TO 5'-0" WIDE AND TWO CRIPPLES AND ON KING STUD FOR ALL OTHERS.
- FLOOR SHEATHING SHALL BE APA RATED 5/8" T&G (48/24) GLUED AND NAILED WITH 8d @ 6" O.C. ALONG PANEL EDGES AND 12" O.C. FIELD. STAGGER END LAPS. NAILS SHALL EMBED 1 1/2" MINIMUM INTO FLOOR JOIST.
- STAIR STRINGERS SHALL ALL BE 2X12 DF #2 @ 16" O.C.
- PROVIDE FIREBLOCKING AS REQUIRED PER I.R.C.
- EXTERIOR WALLS TO BE 2X6 AT 16" O.C., U.N.O.
- INTERIOR PARTITIONS TO BE 2X4 AT 16" O.C. (2X6 @ PLUMBING WALLS) U.N.O.
- FLOOR JOISTS AND BEAMS OF EQUAL OR BETTER CAPACITY MAY BE SUBSTITUTED FOR THOSE SHOWN ON THIS PLAN, "EQUAL" IS DEFINED AS HAVING MOMENT CAPACITY, SHEAR CAPACITY, AND STIFFNESS WITHIN 3% OF THE SPECIFIED JOISTS OR BEAMS.

NOTES:

- ALL BEAMS SHALL HAVE A POST OF BUILT-UP EQUAL TO THE WIDTH OF THE BEAM IT IS SUPPORTING AND BE CONTINUOUS DOWN TO THE FOUNDATION OR ANOTHER SUPPORTING BEAM. ALL POSTS/ MULTIPLE STUDS NOT SPECIFIED OR OTHERWISE NOTED ON THE PLANS ARE LAMINATED TOGETHER PER "TYPICAL BUILT-UP COLUMN DETAIL" ON SHEET S4.2. SOLID WOOD COLUMNS MAY BE SUBSTITUTED FOR BUILT-UP COLUMNS BY PROVIDING AN EQUIVALENT CROSS SECTIONAL AREA. ALL BEAMS SHALL HAVE A MINIMUM OF 3X BUILT-UP COLUMN WITH CONTINUOUS LOAD PATH TO FOUNDATION.
- JOIST HANGERS SHALL BE LUS210 UNLESS NOTED OTHERWISE.
- RIM JOIST SHALL BE 2X12 DF#2. RIM JOIST SHALL HAVE FULL WIDTH BLOCKING WHERE POST IS ABOVE IT.
- ALL HEADERS UNLESS SPECIFIED ON THE PLANS ARE TO BE 4X8 DF-L #2 WITH AT LEAST ONE CRIPPLE AND ONE STUD FOR EACH END FOR OPENINGS LESS THAN OR EQUAL TO 5'-0" WIDE AND TWO CRIPPLES AND ON KING STUD FOR ALL OTHERS.
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- FLOOR JOISTS AND BEAMS OF EQUAL OR BETTER CAPACITY MAY BE SUBSTITUTED FOR THOSE SHOWN ON THIS PLAN, "EQUAL" IS DEFINED AS HAVING MOMENT CAPACITY, SHEAR CAPACITY, AND STIFFNESS WITHIN 3% OF THE SPECIFIED JOISTS OR BEAMS.



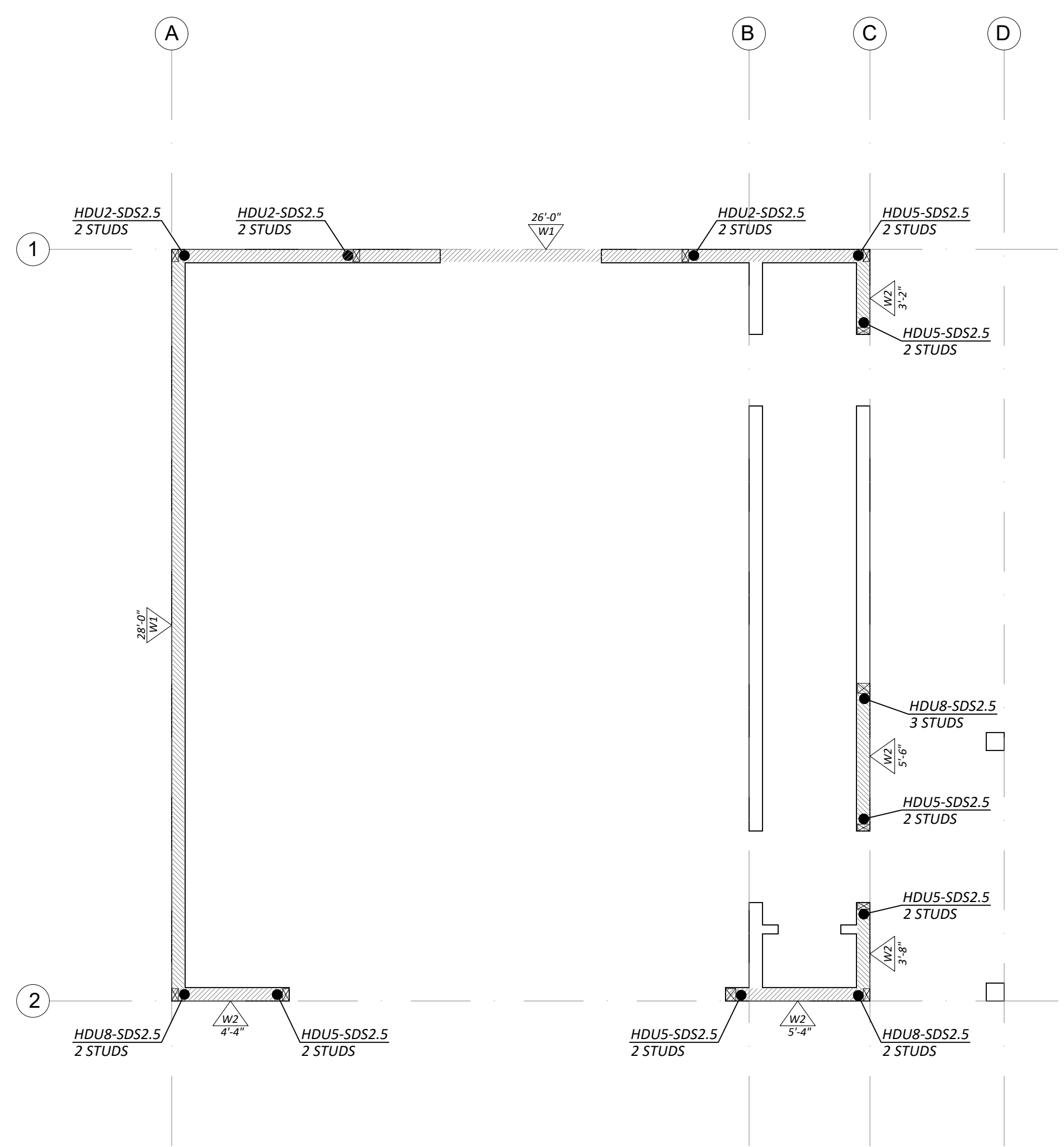
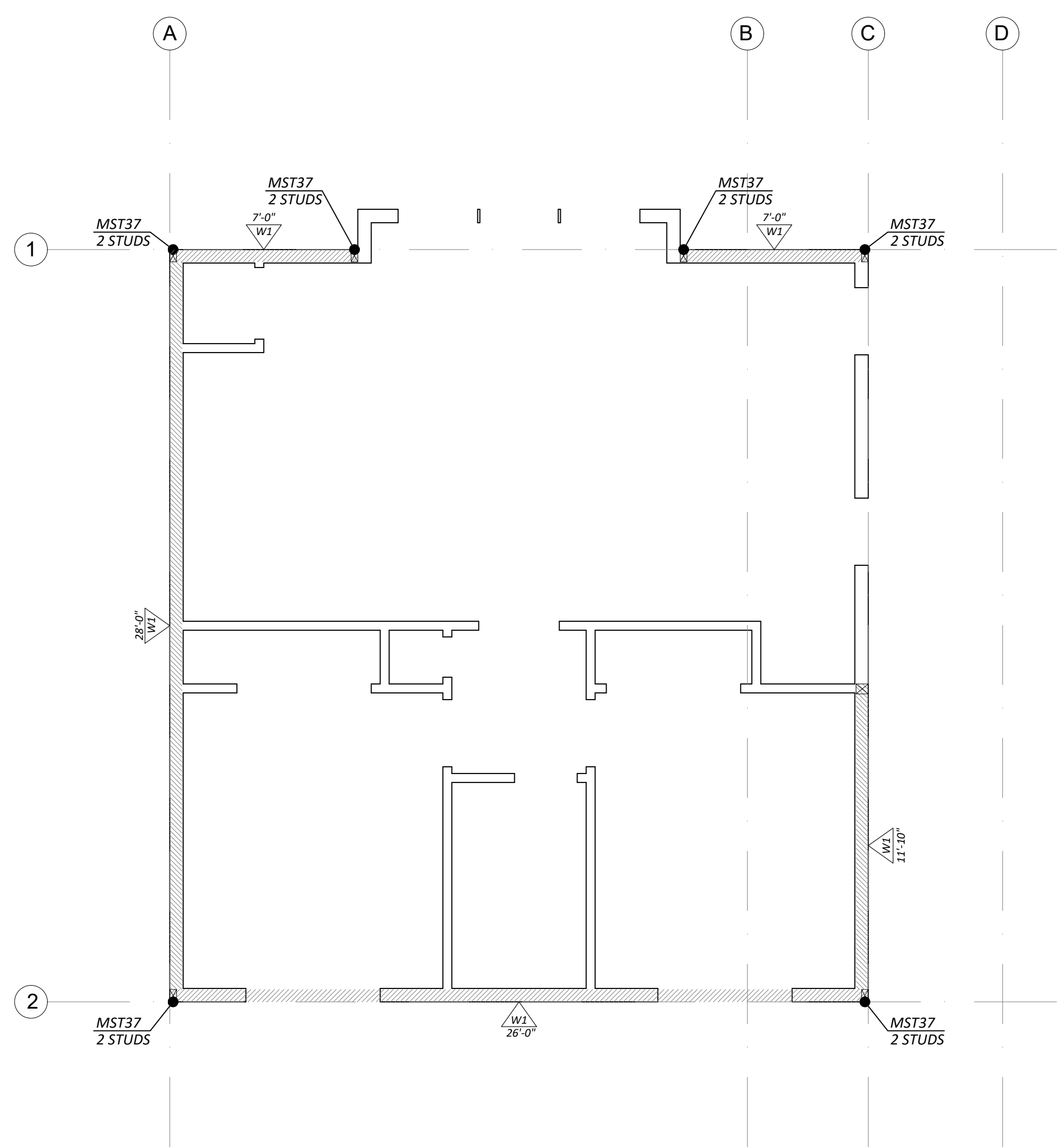
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ENG GARAGE/DADU
 808 N SHERIDAN AVE TACOMA WA 98403
FRAMING PLAN

DATE	11/4/2024
REVISED	
SHEET NO.	S3.2

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UPPER FLOOR SHEAR WALL PLAN
1/4" = 1'-0"

MAIN FLOOR SHEAR WALL PLAN
1/4" = 1'-0"

NOTES:
1. UNLESS SPECIFIED ON PLANS, ALL EXTERIOR WALL SHALL BE SHEAR WALL W1, SEE SHEAR WALL TABLE ON THIS SHEET.

NOTES:
1. UNLESS SPECIFIED ON PLANS, ALL EXTERIOR WALL SHALL BE SHEAR WALL W1, SEE SHEAR WALL TABLE ON THIS SHEET.

STRAP SCHEDULE

SIMPSON PRODUCT	FASTENERS		END LENGTH
	SCREWS OR BOLTS	NAILS	
MST37	--	(22) 0.162" X 2 3/8" INTO 2 STUDS	--

HOLD DOWN SCHEDULE

SIMPSON PRODUCT	FASTENERS		ANCHOR BOLTS
	SCREWS OR BOLTS	NAILS	
HDU2-SDS2.5	(6) 1/4" X 2 1/2" SDS INTO POST PER PLAN	--	SSTB16 (12 3/8" EMBED)
HDU5-SDS2.5	(14) 1/4" X 2 1/2" SDS INTO POST PER PLAN	--	SB 3/8" X 24 (18" EMBED)
HDU8-SDS2.5	(20) 1/4" X 2 1/2" SDS INTO POST PER PLAN	--	SB 3/8" X 24 (18" EMBED)

SHEAR WALL AND ANCHOR TABLE

WALL TYPE	APA RATED SHEATHING (b), (c)	MINIMUM NOMINAL THICKNESS (IN) (j)	MINIMUM NAIL PENETRATION IN FRAMING (IN) (i)	STUD & BLOCKING SIZE @ ADJOINING EDGES (k)	REQUIRED RIM JOIST THICKNESS	EDGE NAIL SIZE AND SPACING, COMMON OR GALV. BOX (d)	RIM JOIST OR BLOCK CONNECTION TO TOP PLATE (e), (f)	2x BOTTOM PLATE ATTACHMENT TO WOOD BELOW (g), (i)	ANCHOR BOLT SILL PLATE ATTACHMENT TO CONCRETE BELOW (h)	CAPACITY (PLF) SEISMIC/WIND
W1	OSB	7/16 (j)	1 3/8	2x	2x OR 1 1/2" LSL	0.131" X 2 1/2" @ 6" O.C. EDGE	LTP4 @ 20" O.C. OR A35 @ 16" O.C.	(1) 16d @ 8" O.C.	5/8" @ 48" O.C.	242/339
W2	OSB	7/16 (j)	1 3/8	2x	2x OR 1 1/2" LSL	0.131" X 2 1/2" @ 4" O.C. EDGE	LTP4 @ 14" O.C. OR A35 @ 11" O.C.	(1) 16d @ 6" O.C.	5/8" @ 36" O.C.	353/495

(a) FRAMING AT ADJACENT PANELS SHALL BE 3" NOMINAL OR GREATER AND NAILS SHALL BE STAGGERED.
 (b) WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON THE OPPOSITE SIDE ARE NOT LOCATED ON THE SAME STUDS.
 (c) BLOCKING IS REQUIRED AT ALL PANEL EDGES
 (d) PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY EXTERIOR OF THE BUILDING, CORRIDORS, WINDOW, OR DOORWAYS OR AS DESIGNATED ON THE PLANS. SEE PLANS FOR HOLD DOWN POSTS. SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLD DOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLD DOWN POSTS.
 (e) BASED ON 0.131x 1 1/2" LONG NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131x 2 1/2" NAILS WHERE INSTALLED OVER SHEATHING. USE A35 OR RBC CLIPS IN LIEU OF LTP4'S FOR ROOF BLOCKING TO TOP PLATE.
 (f) LTP4'S ARE NOT REQUIRED WHERE THE LOWER WALL SHEATHING IS OVERLAPPED ONTO THE RIM JOIST A MINIMUM OF 1 1/2" AND NAILED TO THE RIM JOIST PER THE SHEAR WALL PERIMETER NAIL SPACING. LTP4'S MAY BE SUBSTITUTED W/ A35'S.
 (g) CONTINUOUS SHEATHING IS REQUIRED OVER THE BOTTOM PLATE TO THE BOTTOM OF THE RIM JOIST OR SILL PLATE WITH EDGE NAILING AT EACH. WHERE TWO ROWS OF NAILING ARE REQUIRED AT RAISED FLOORS, PROVIDE BLOCKING PER PLAN, AND ATTACH WITH LTP4 PER SCHEDULE.
 (h) ANCHOR BOLTS SHALL BE PROVIDED WITH STEEL PLATE WASHERS 0.229"x3"x3". EMBED ANCHOR BOLTS MINIMUM 7" INTO THE CONCRETE. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE SILL PLATE EDGE ON THE SHEATHED WALL FACE.
 (i) PRESSURE TREATED MATERIALS CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT-DIPPED GALVANIZED (ELECTROPLATING IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC.) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS.
 (j) ALL SHEAR WALL STUDS MUST BE SPACED NO MORE THAN 16" O.C.
 (k) 3x MEMBERS MAY BE SUBSTITUTED WITH 2 STUDS NAILED TOGETHER PER TYPICAL BUILT-UP COLUMN DETAIL (SEE DETAILS).



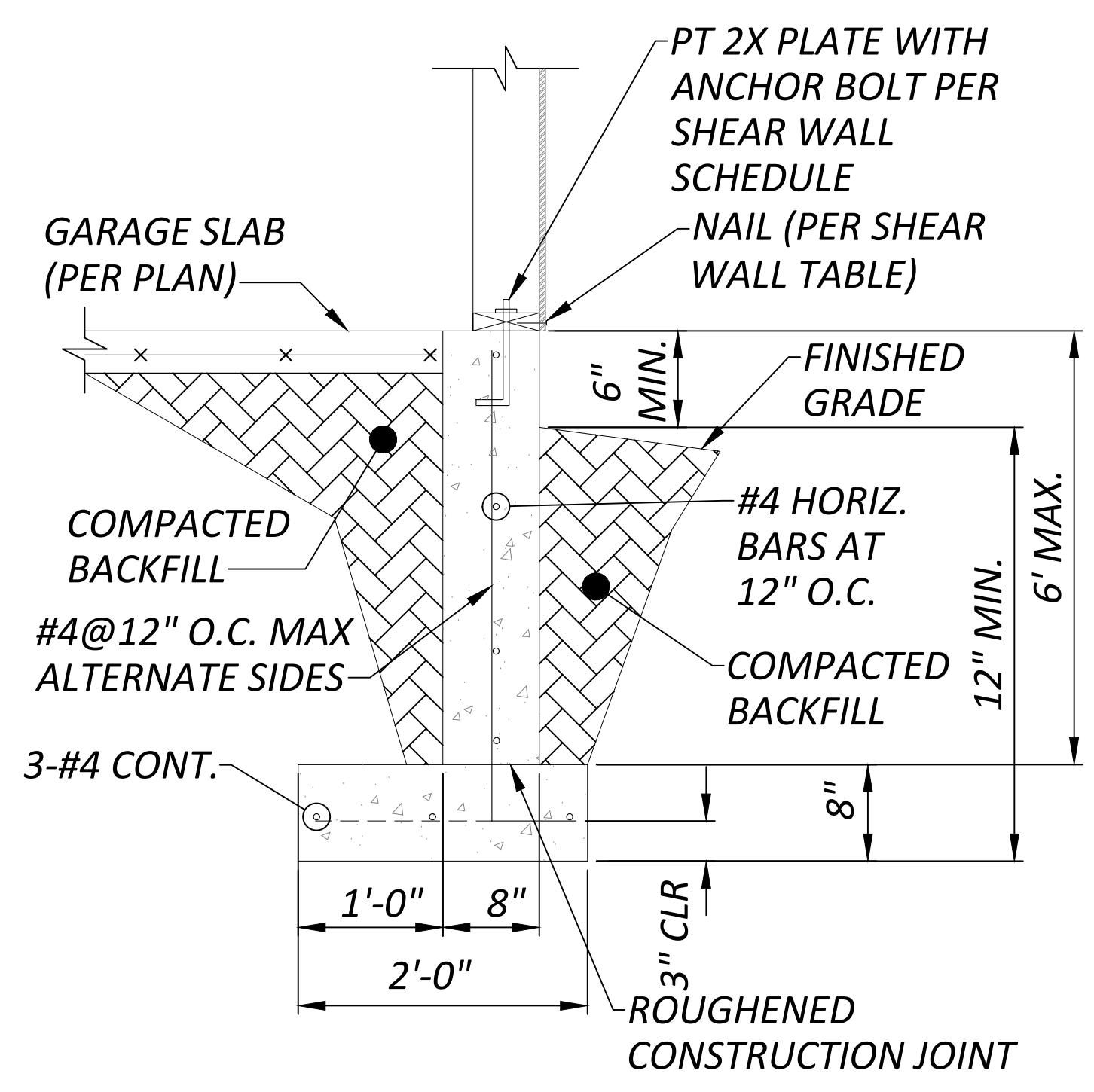
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 PROJECT
SHEAR WALL PLAN
 DRAWING TITLE

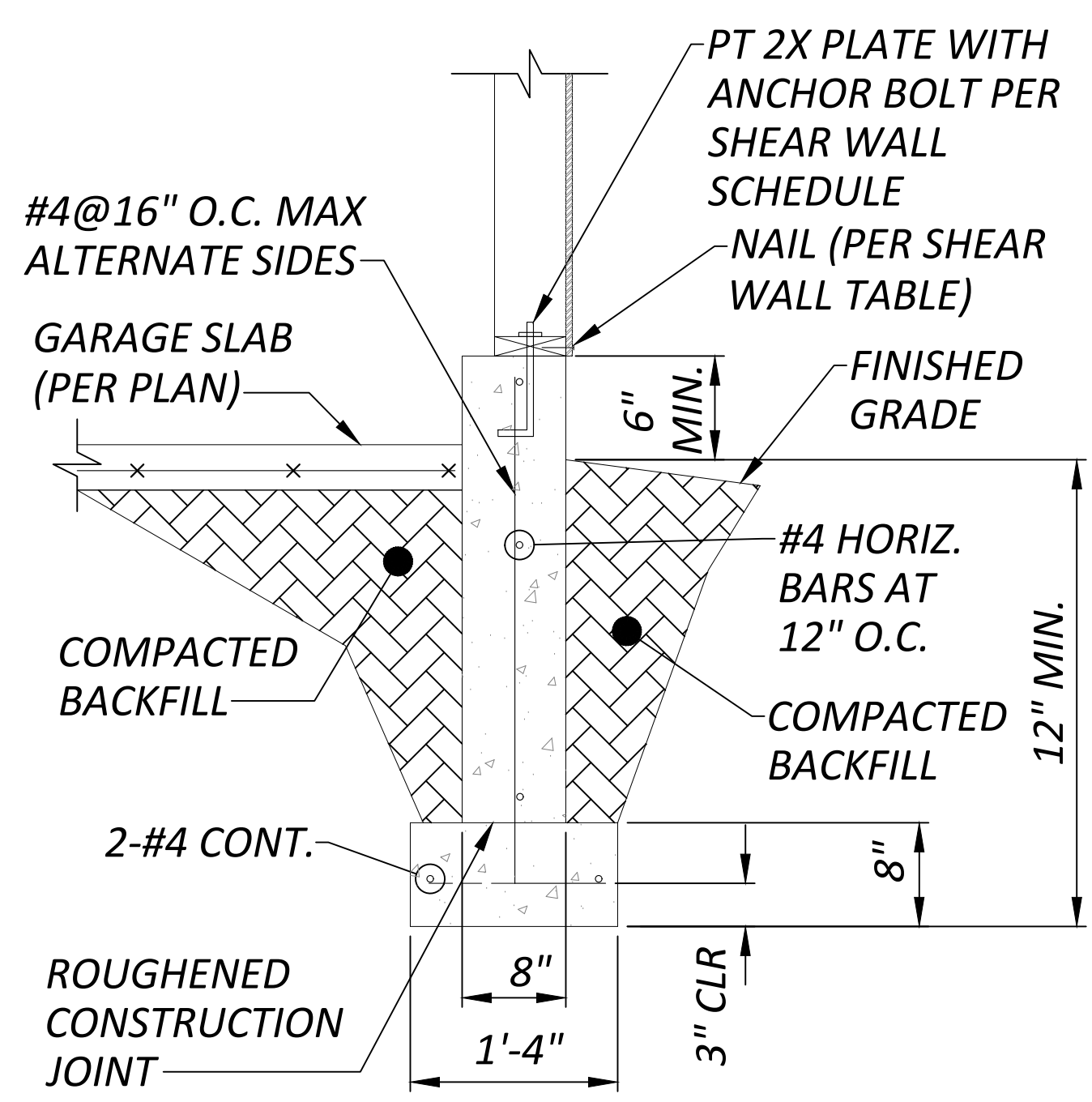
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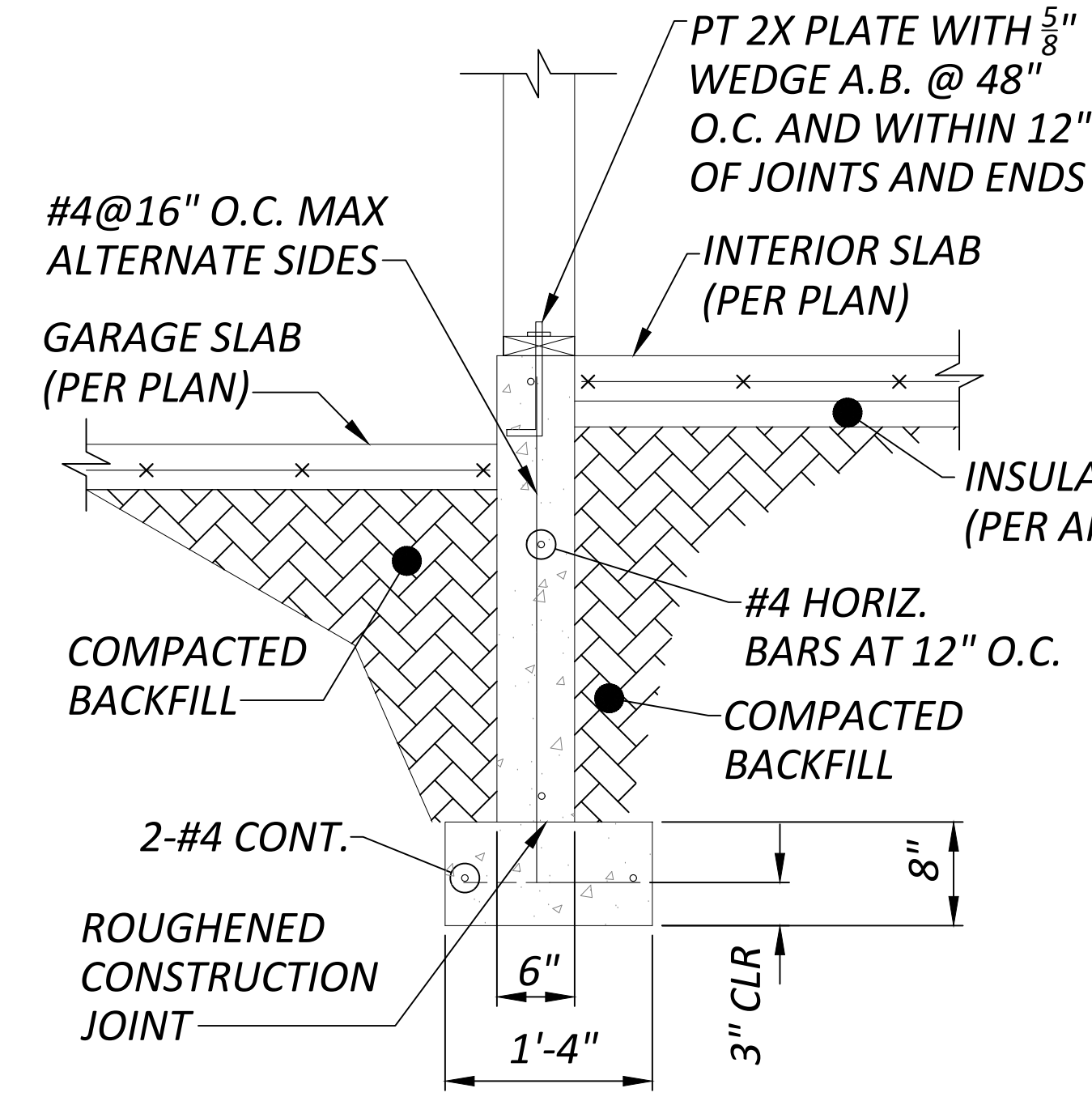
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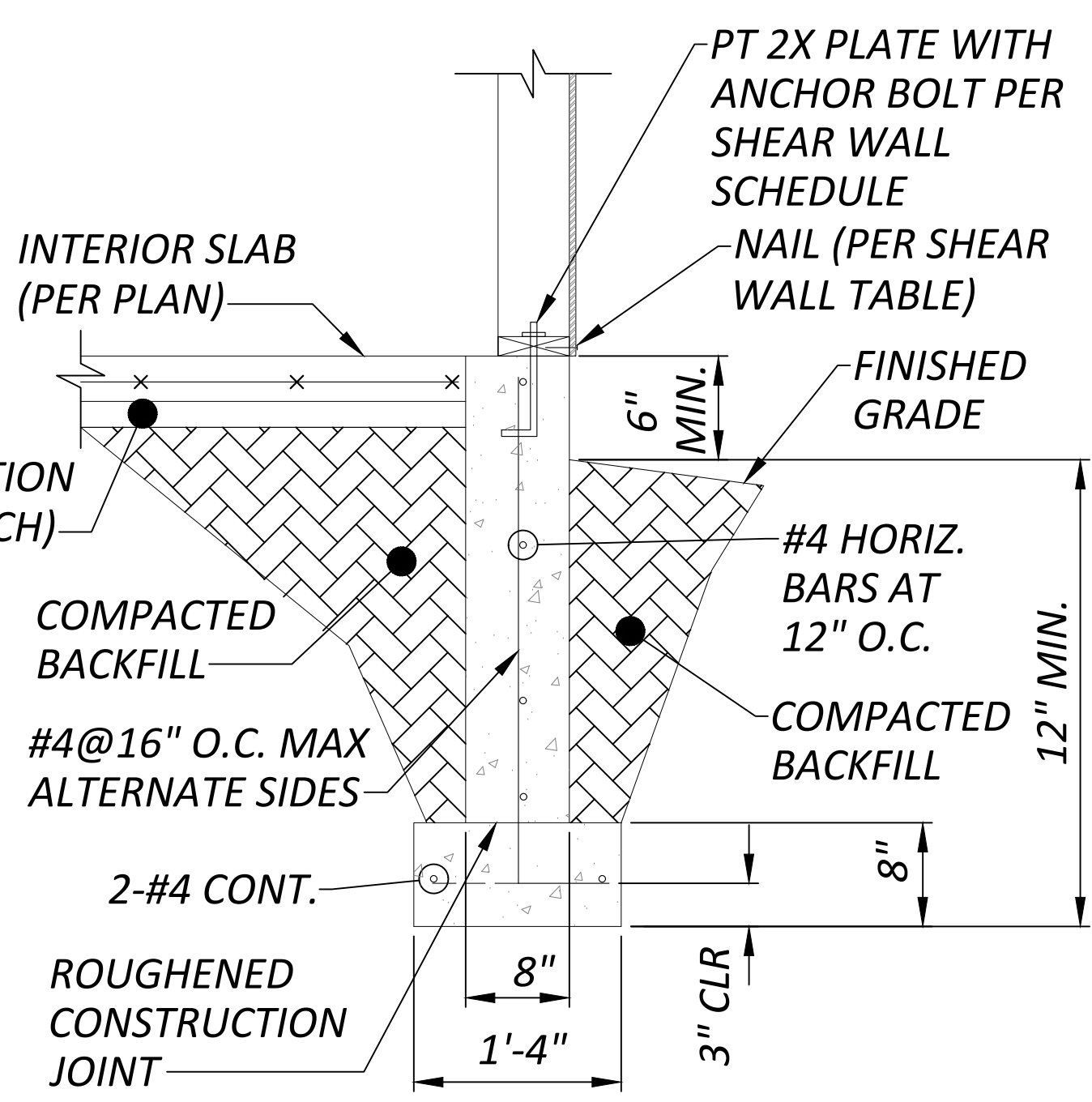
1 SECTION NTS



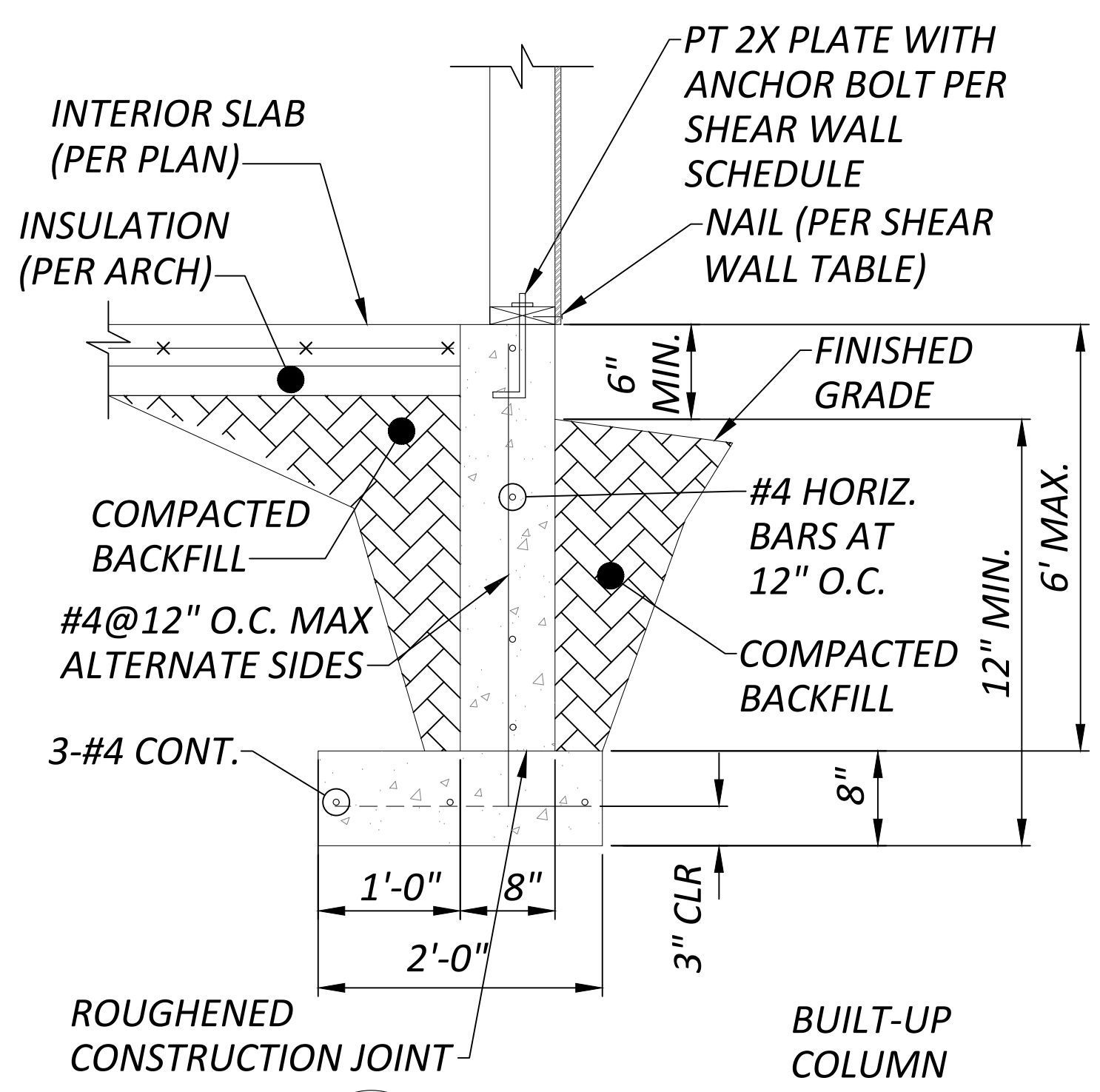
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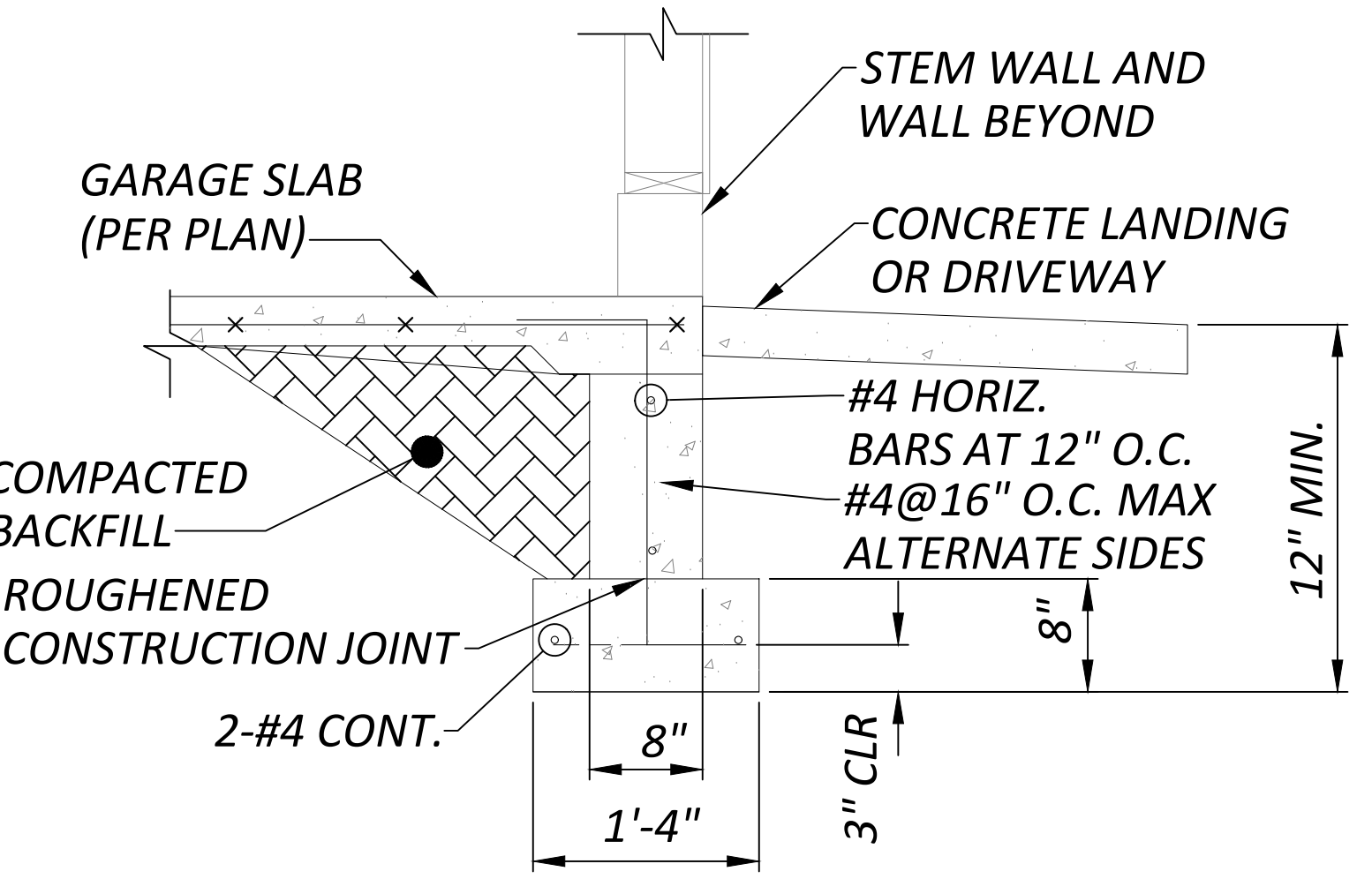
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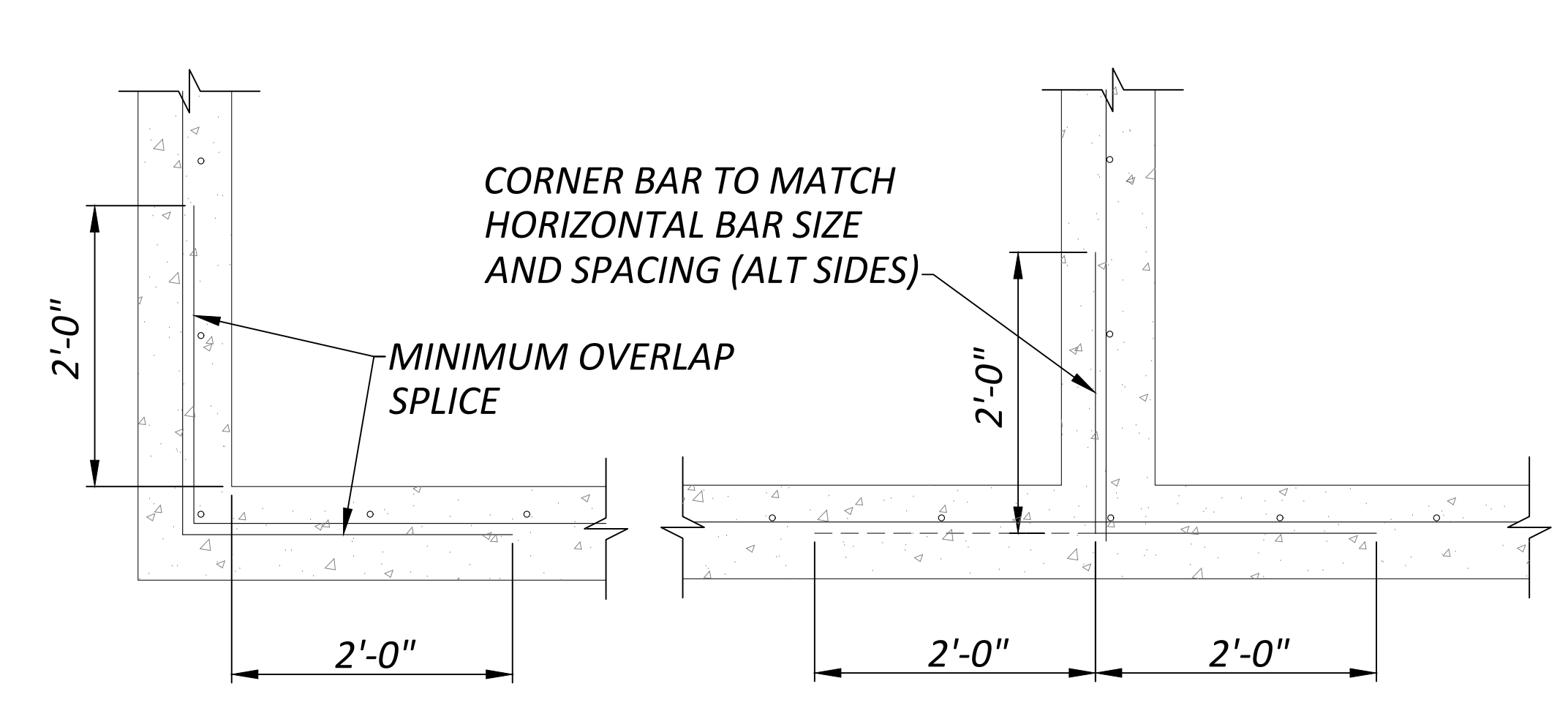
4 SECTION NTS



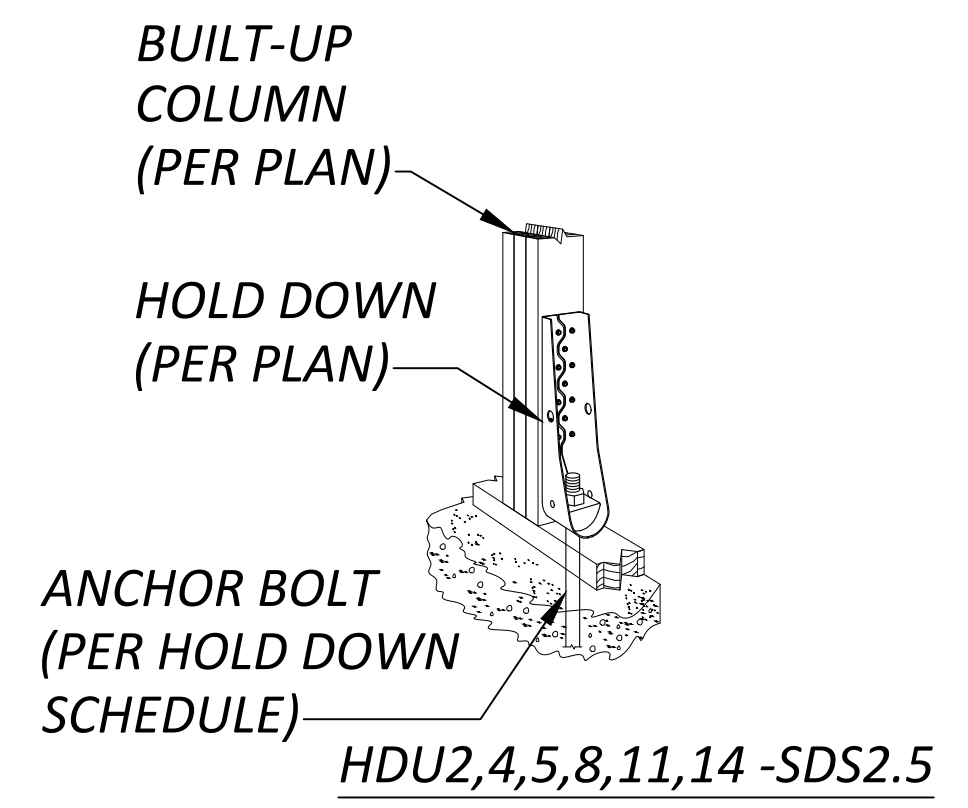
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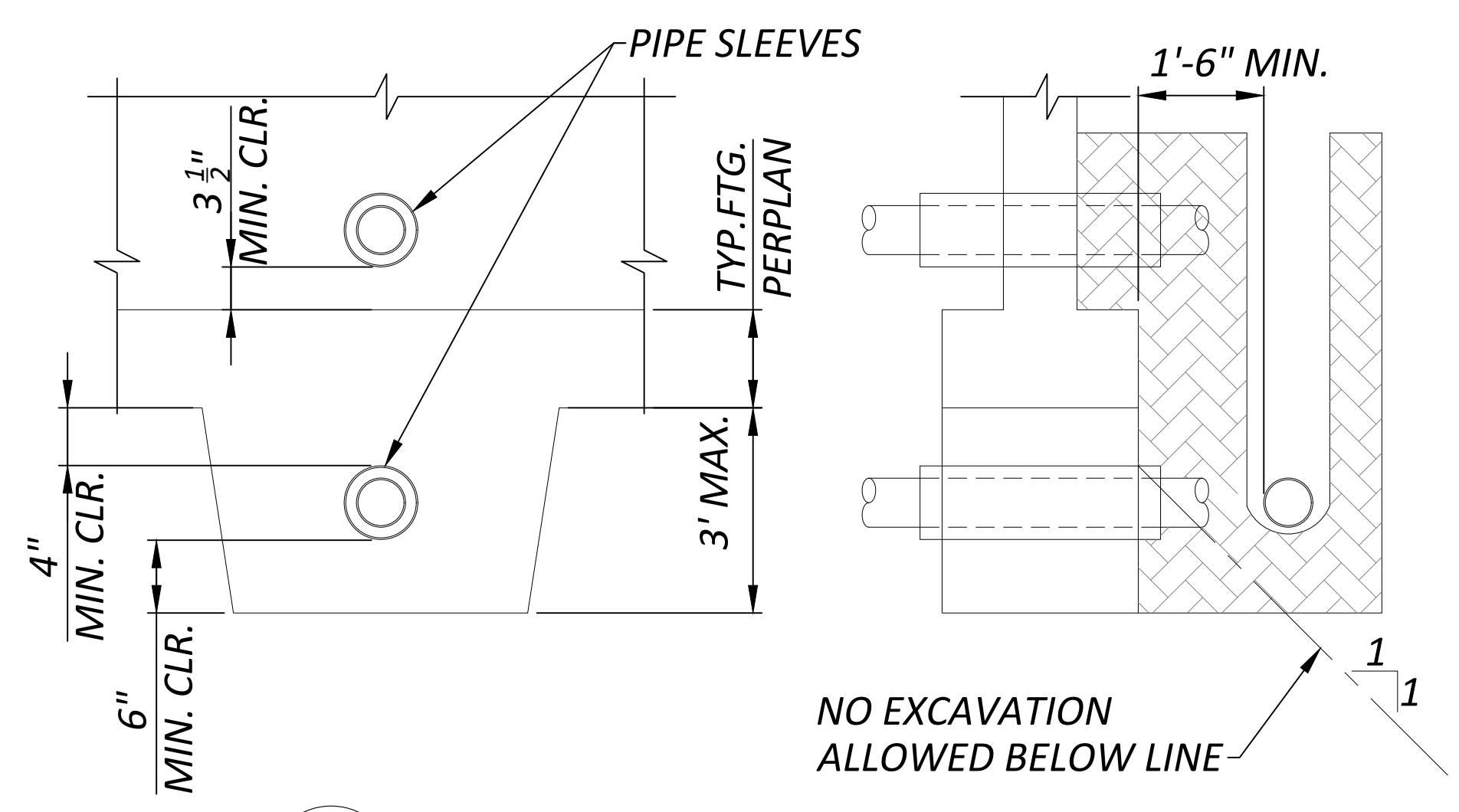
6 SECTION NTS



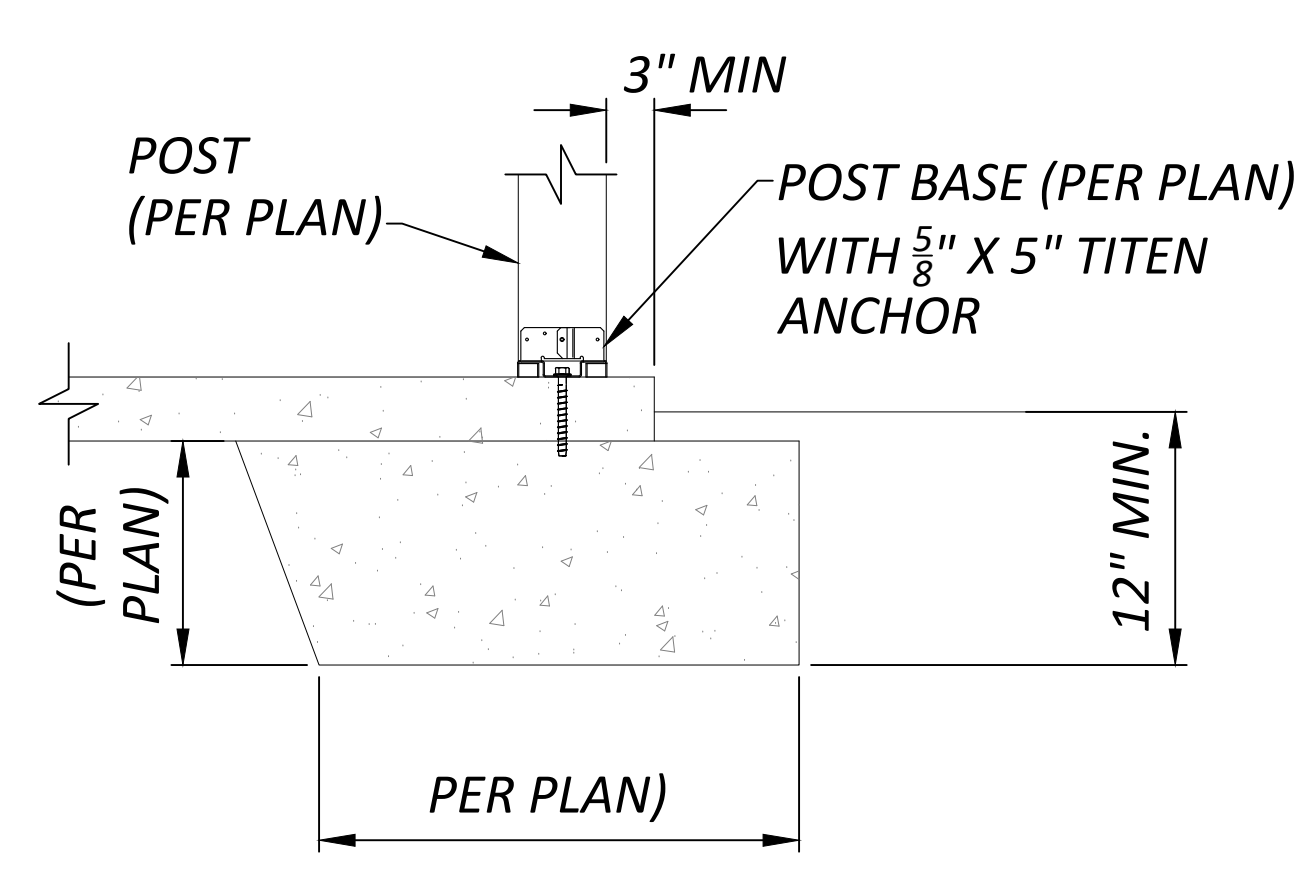
7 TYPICAL FOUNDATION CORNER & INTERSECTION DETAIL NTS



8 TYPICAL FOUNDATION HOLDDOWN DETAIL NTS



9 TYPICAL PIPER TRENCH DETAIL NTS



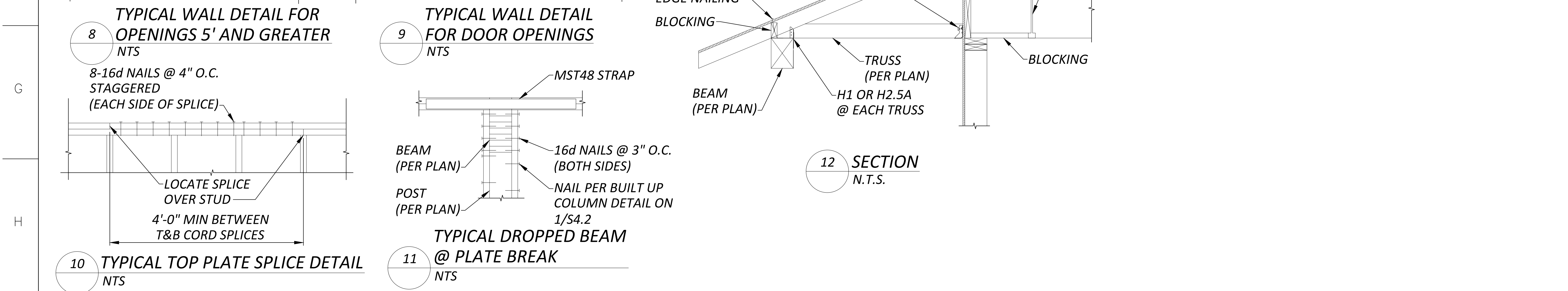
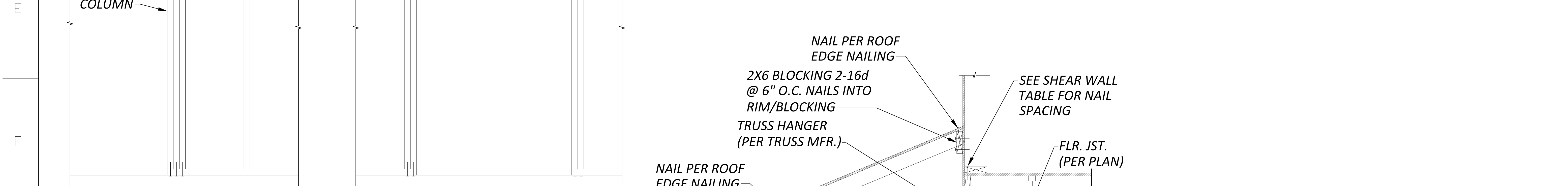
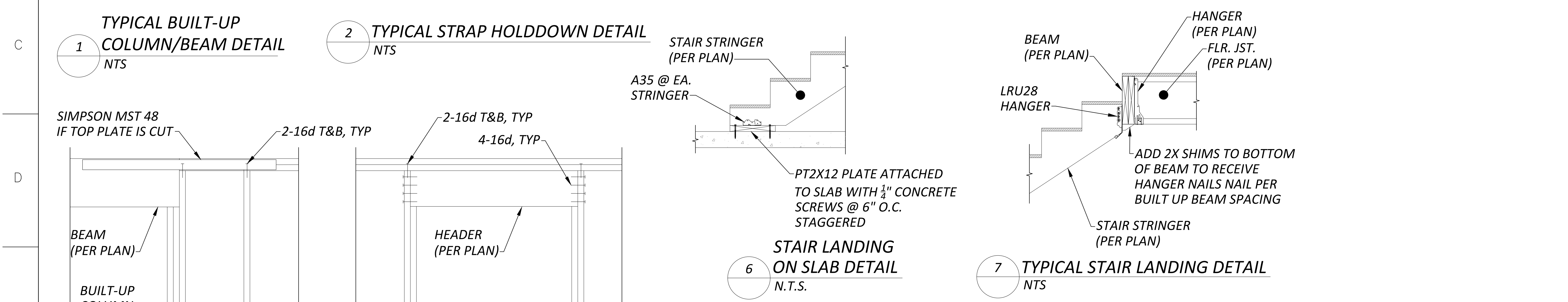
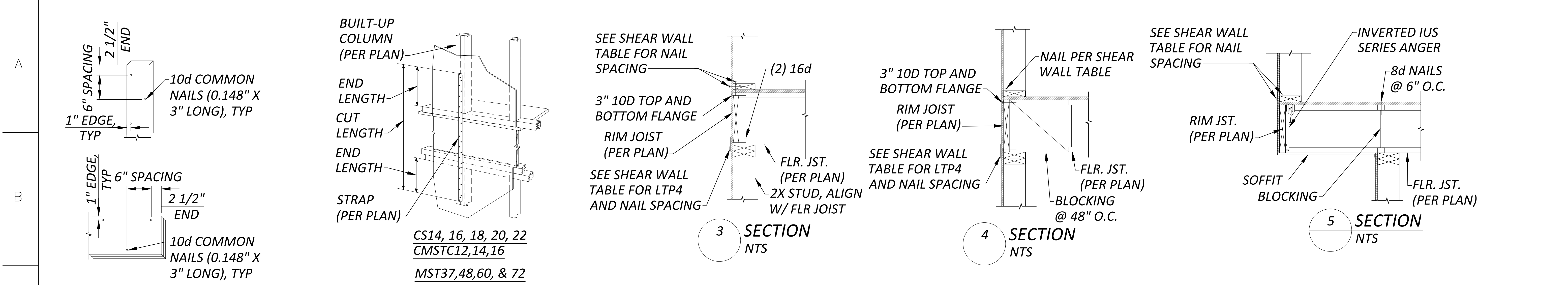
10 TYPICAL EXTERIOR FOOTING SECTION NTS



PIERUCCIONI E&C
CHON PIERUCCIONI, PE
3128 N. BENNETT ST. TACOMA WA 98407
PIERUCCIONIENGINEERING@GMAIL.COM
PHONE: (206) 949-7866

PROJECT
ENG GARAGE/DADU
808 N SHERIDAN AVE TACOMA WA 98403
DRAWING TITLE
DETAILS

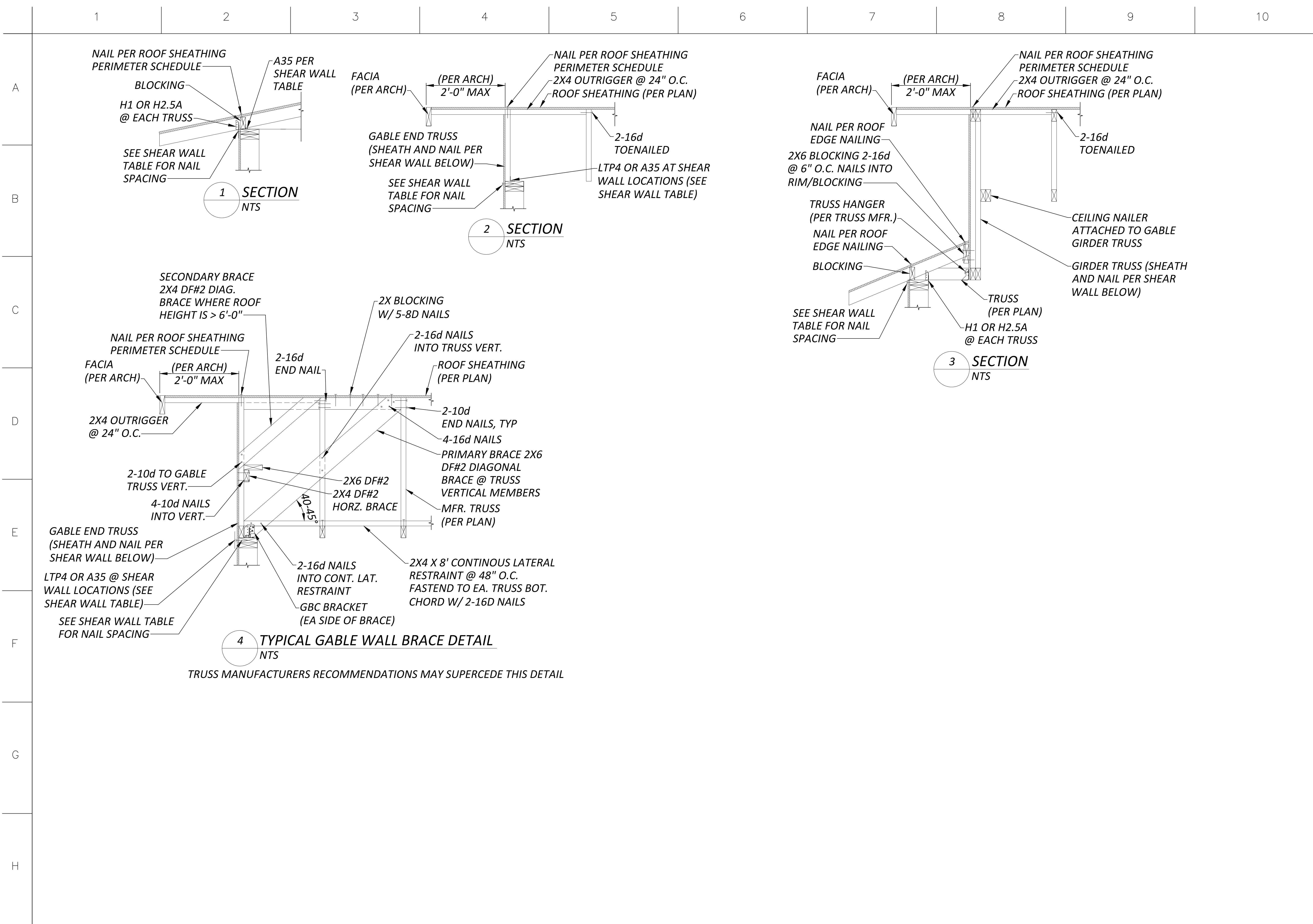
DATE 11/4/2024
REVISED
SHEET NO.
S4.1



PIERUCCIONI E&C
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PROJECT
ENG GARAGE/DADU
808 N SHERIDAN AVE TACOMA WA 98403
DRAWING TITLE
DETAILS

DATE	11/4/2024
REVISED	
SHEET NO.	S4.2



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PROJECT
 ENG GARAGE/DADU
 808 N SHERIDAN AVE TACOMA WA 98403
 DRAWING TITLE
 DETAILS

DATE	11/4/2024
REVISED	
SHEET NO.	S4.3

Gordon T Eng DADU

Number: 3113795
PO Number:
Total Lead Time: 8 weeks

Bill To:

Deliver To:

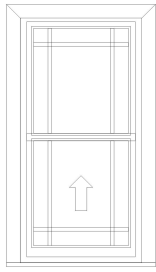
Quote Date: 2/10/2025
Printed: 02/10/25 6:26 PM

Price:	\$16,998.41
Tax 1:	\$0.00
Tax 2:	\$0.00
Misc. Charges:	\$0.00
Total Price:	\$16,998.41

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 100-1
QUANTITY: 1
LOCATION: Garage



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 24" x 26 1/2"

RATINGS

CPD Product Number: WEA-N-319-00367-00002
U-Factor: 0.32
Solar Heat Gain Coefficient (SHGC): 0.28
Visible Transmittance (VT): 0.47
FL #: FL38128.1

COST	PER UNIT	LINE TOTAL
Price:	\$1,494.53	\$1,494.53

- PRODUCT -

SIGNATURE SERIES, DOUBLE HUNG, TOP SASH STATIONARY, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, DOUBLE HUNG, 8122, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, TOP SASH STATIONARY UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: NON EGRESS UNIT

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2"
 VENTING FRAME PROPORTION = EVEN UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: GLASS WIDTH = 24"
 GLASS HEIGHT = 26 1/2"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

5 1/4"
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE
 JAMB LINER COLOR = WHITE VINYL

- GLASS OPTIONS -

UNIT 1: INSULATED LOW E
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS

- HARDWARE OPTIONS -

SINGLE LOCK
 SURFACE MOUNTED
 LIFT HANDLES (LOOSE)
 ONE
 WHITE
 NO LIMIT STOPS
 NO VENTING OPTIONS
 STANDARD BALANCES TOP & BOTTOM

- SCREEN OPTION -

W/HALF SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED

- GRILLES -

UNIT 1 GLASS 1: SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRB UNIT 1 GLASS 2: SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRT

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
EXTERIOR TRIM LOCATION = STANDARD
SILL NOSE = 1" BULLNOSE W/END CAPS
EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

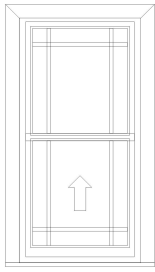
- WRAPPING - MISC. PKG -

STANDARD PACKAGING
NO CALIFORNIA WARNING LABEL
ESTIMATED UNIT WEIGHT = 75.80334
SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 200-1
QUANTITY: 1
LOCATION: Garage



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 24" x 26 1/2"

RATINGS

CPD Product Number: WEA-N-319-00367-00002
U-Factor: 0.32
Solar Heat Gain Coefficient (SHGC): 0.28
Visible Transmittance (VT): 0.47
FL #: FL38128.1

COST	PER UNIT	LINE TOTAL
Price:	\$1,494.53	\$1,494.53

- PRODUCT -

SIGNATURE SERIES, DOUBLE HUNG, TOP SASH STATIONARY, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, DOUBLE HUNG, 8122, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, TOP SASH STATIONARY UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: NON EGRESS UNIT

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2"
 VENTING FRAME PROPORTION = EVEN UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: GLASS WIDTH = 24"
 GLASS HEIGHT = 26 1/2"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

5 1/4"
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE
 JAMB LINER COLOR = WHITE VINYL

- GLASS OPTIONS -

UNIT 1: INSULATED LOW E
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 UPPER SASH UPPER GLASS, 1 LOWER SASH LOWER GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS

- HARDWARE OPTIONS -

SINGLE LOCK
 SURFACE MOUNTED
 LIFT HANDLES (LOOSE)
 ONE
 WHITE
 NO LIMIT STOPS
 NO VENTING OPTIONS
 STANDARD BALANCES TOP & BOTTOM

- SCREEN OPTION -

W/HALF SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED

- GRILLES -

UNIT 1 GLASS 1: SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRB UNIT 1 GLASS 2: SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRT

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
EXTERIOR TRIM LOCATION = STANDARD
SILL NOSE = 1" BULLNOSE W/END CAPS
EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

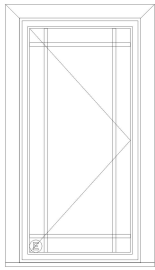
- WRAPPING - MISC. PKG -

STANDARD PACKAGING
NO CALIFORNIA WARNING LABEL
ESTIMATED UNIT WEIGHT = 75.80334
SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 300-1
QUANTITY: 1
LOCATION: Great Rm



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 25 3/8" x 55 3/8"

RATINGS

CPD Product Number: WEA-N-320-00401-00001
U-Factor: 0.23
Solar Heat Gain Coefficient (SHGC): 0.17
Visible Transmittance (VT): 0.34
FL #: FL30918.3

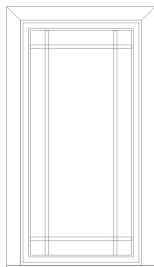
COST	PER UNIT	LINE TOTAL
Price:	\$1,565.95	\$1,565.95

- **PRODUCT** -
 SIGNATURE SERIES, CASEMENT, RIGHT, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, RIGHT UNIT 1 GLASS: EGRESS UNIT
- **WINDOWSET DIMENSIONS** -
 MEASUREMENT TYPE = ROUGH OPENING
- **DIMENSIONS** -
 UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 55 3/8"
- **EXTERIOR OPTIONS** -
 ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED
- **INTERIOR OPTIONS** -
 JAMB TYPE = STANDARD JAMB
 5 1/4"
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE
- **GLASS OPTIONS** -
 UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS
- **HARDWARE OPTIONS** -
 W/STANDARD HARDWARE
 DUAL ARM OPERATOR
 NESTED HANDLE
 TRADITIONAL
 WHITE
 10" ADJUSTABLE HINGE
 W/CONCEALED SNUBBER
 NO LIMIT STOPS
 NO VENTING OPTIONS
 HANDLE/COVER/KIT SHIP SEPARATE
- **SCREEN OPTION** -
 W/SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED
- **GRILLES** -
 SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB
- **WRAPPING - EXTERIOR OPTIONS** -
 FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED
- **WRAPPING - INTERIOR OPTIONS** -
 INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -
 STANDARD PACKAGING
 NO CALIFORNIA WARNING LABEL
 ESTIMATED UNIT WEIGHT = 83.65357
 SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project



(Viewed from Exterior)

NUMBER: 3113795
LINE #: 400-1
QUANTITY: 1
LOCATION: Great Rm

SIZING

CASING: 36.125" x 63.8125"
 R/O: 30" x 60"
 JAMB: W29 1/2" x H59 1/2"
 GLASS: 25 3/8" x 55 3/8"

RATINGS

CPD Product Number: WEA-N-322-00552-00001
 U-Factor: 0.21
 Solar Heat Gain Coefficient (SHGC): 0.19
 Visible Transmittance (VT): 0.38
 FL #: FL30918.4

- PRODUCT -

SIGNATURE SERIES, CASEMENT PICTURE, 29 1/2" X 59 1/2"
 COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 55 3/8"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

JAMB TYPE = STANDARD JAMB
 5 1/4
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE

- GLASS OPTIONS -

UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS

- GRILLES -

SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -

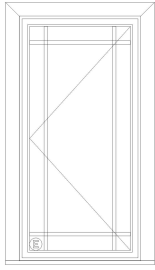
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 NO CALIFORNIA WARNING LABEL
 ESTIMATED UNIT WEIGHT = 93.44357
 SAMPLE = STANDARD UNIT

<u>COST</u>	<u>PER UNIT</u>	<u>LINE TOTAL</u>
Price:	\$1,638.44	\$1,638.44

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 500-1
QUANTITY: 1
LOCATION: Great Rm



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 25 3/8" x 55 3/8"

RATINGS

CPD Product Number: WEA-N-320-00401-00001
U-Factor: 0.23
Solar Heat Gain Coefficient (SHGC): 0.17
Visible Transmittance (VT): 0.34
FL #: FL30918.3

COST	PER UNIT	LINE TOTAL
Price:	\$1,565.95	\$1,565.95

- **PRODUCT** -
 SIGNATURE SERIES, CASEMENT, LEFT, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, LEFT UNIT 1 GLASS: EGRESS UNIT
- **WINDOWSET DIMENSIONS** -
 MEASUREMENT TYPE = ROUGH OPENING
- **DIMENSIONS** -
 UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 55 3/8"
- **EXTERIOR OPTIONS** -
 ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED
- **INTERIOR OPTIONS** -
 JAMB TYPE = STANDARD JAMB
 5 1/4"
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE
- **GLASS OPTIONS** -
 UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS
- **HARDWARE OPTIONS** -
 W/STANDARD HARDWARE
 DUAL ARM OPERATOR
 NESTED HANDLE
 TRADITIONAL
 WHITE
 10" ADJUSTABLE HINGE
 W/CONCEALED SNUBBER
 NO LIMIT STOPS
 NO VENTING OPTIONS
 HANDLE/COVER/KIT SHIP SEPARATE
- **SCREEN OPTION** -
 W/SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED
- **GRILLES** -
 SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB
- **WRAPPING - EXTERIOR OPTIONS** -
 FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED
- **WRAPPING - INTERIOR OPTIONS** -
 INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -

STANDARD PACKAGING

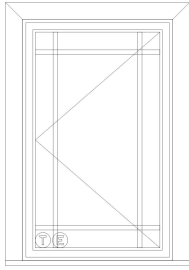
NO CALIFORNIA WARNING LABEL

ESTIMATED UNIT WEIGHT = 83.65357

SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project



(Viewed from Exterior)

NUMBER: 3113795
LINE #: 600-1
QUANTITY: 1
LOCATION: Top of stairs

SIZING

CASING: 36.125" x 51.8125"
R/O: 30" x 48"
JAMB: W29 1/2" x H47 1/2"
GLASS: 25 3/8" x 43 3/8"

RATINGS

CPD Product Number: WEA-N-320-00401-00001
U-Factor: 0.23
Solar Heat Gain Coefficient (SHGC): 0.17
Visible Transmittance (VT): 0.34
FL #: FL30918.3

COST	PER UNIT	LINE TOTAL
Price:	\$1,495.60	\$1,495.60

- PRODUCT -

SIGNATURE SERIES, CASEMENT, LEFT, 29 1/2" X 47 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, LEFT UNIT 1 GLASS: EGRESS UNIT

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 47 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 43 3/8"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

JAMB TYPE = STANDARD JAMB
 5 1/4
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE

- GLASS OPTIONS -

UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 TEMPERED GLASS

- HARDWARE OPTIONS -

W/STANDARD HARDWARE
 DUAL ARM OPERATOR
 NESTED HANDLE
 TRADITIONAL
 WHITE
 10" ADJUSTABLE HINGE
 W/CONCEALED SNUBBER
 NO LIMIT STOPS
 NO VENTING OPTIONS
 HANDLE/COVER/KIT SHIP SEPARATE

- SCREEN OPTION -

W/SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED

- GRILLES -

SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED

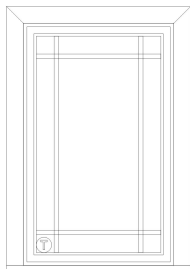
- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -
 STANDARD PACKAGING
 NO CALIFORNIA WARNING LABEL
 ESTIMATED UNIT WEIGHT = 68.73145
 SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project



(Viewed from Exterior)

NUMBER: 3113795
LINE #: 700-1
QUANTITY: 1
LOCATION: Stairswell

SIZING

CASING: 36.125" x 51.8125"
 R/O: 30" x 48"
 JAMB: W29 1/2" x H47 1/2"
 GLASS: 25 3/8" x 43 3/8"

RATINGS

CPD Product Number: WEA-N-322-00552-00001
 U-Factor: 0.21
 Solar Heat Gain Coefficient (SHGC): 0.19
 Visible Transmittance (VT): 0.38
 FL #: FL30918.4

<u>COST</u>	<u>PER UNIT</u>	<u>LINE TOTAL</u>
Price:	\$1,479.61	\$1,479.61

- PRODUCT -

SIGNATURE SERIES, CASEMENT PICTURE, 29 1/2" X 47 1/2"
 COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 47 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 43 3/8"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

JAMB TYPE = STANDARD JAMB
 5 1/4
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE

- GLASS OPTIONS -

UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 TEMPERED GLASS

- GRILLES -

SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

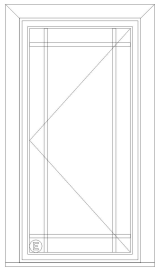
- WRAPPING - MISC. PKG -

STANDARD PACKAGING
 NO CALIFORNIA WARNING LABEL
 ESTIMATED UNIT WEIGHT = 77.20145
 SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 800-1
QUANTITY: 2
LOCATION: Bedrooms



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 25 3/8" x 55 3/8"

RATINGS

CPD Product Number: WEA-N-320-00401-00001
U-Factor: 0.23
Solar Heat Gain Coefficient (SHGC): 0.17
Visible Transmittance (VT): 0.34
FL #: FL30918.3

COST	PER UNIT	LINE TOTAL
Price:	\$1,565.95	\$3,131.90

- PRODUCT -

SIGNATURE SERIES, CASEMENT, LEFT, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, LEFT UNIT 1 GLASS: EGRESS UNIT

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 55 3/8"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

JAMB TYPE = STANDARD JAMB
 5 1/4
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE

- GLASS OPTIONS -

UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS

- HARDWARE OPTIONS -

W/STANDARD HARDWARE
 DUAL ARM OPERATOR
 NESTED HANDLE
 TRADITIONAL
 WHITE
 10" ADJUSTABLE HINGE
 W/CONCEALED SNUBBER
 NO LIMIT STOPS
 NO VENTING OPTIONS
 HANDLE/COVER/KIT SHIP SEPARATE

- SCREEN OPTION -

W/SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED

- GRILLES -

SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

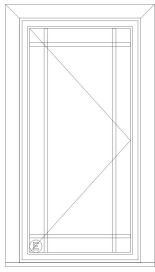
INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -
STANDARD PACKAGING
NO CALIFORNIA WARNING LABEL
ESTIMATED UNIT WEIGHT = 83.65357
SAMPLE = STANDARD UNIT

WEATHERSHIELD WINDOWS & DOORS
PACIFIC WINDOWS

Unassigned Project

NUMBER: 3113795
LINE #: 900-1
QUANTITY: 2
LOCATION: Bedrooms



(Viewed from Exterior)

SIZING

CASING: 36.125" x 63.8125"
R/O: 30" x 60"
JAMB: W29 1/2" x H59 1/2"
GLASS: 25 3/8" x 55 3/8"

RATINGS

CPD Product Number: WEA-N-320-00401-00001
U-Factor: 0.23
Solar Heat Gain Coefficient (SHGC): 0.17
Visible Transmittance (VT): 0.34
FL #: FL30918.3

COST	PER UNIT	LINE TOTAL
Price:	\$1,565.95	\$3,131.90

- PRODUCT -

SIGNATURE SERIES, CASEMENT, RIGHT, 29 1/2" X 59 1/2"
 UNIT 1: COMPLETE UNIT, 4/2/2018 TO PRESENT, CASEMENT/AWNING, 8219, CERTIFIED DESIGN PRESSURE REQUIRED, REQUIRED DESIGN PRESSURE = DP 25, RIGHT UNIT 1 GLASS: EGRESS UNIT

- WINDOWSET DIMENSIONS -

MEASUREMENT TYPE = ROUGH OPENING

- DIMENSIONS -

UNIT 1: FRAME WIDTH = 29 1/2"
 FRAME HEIGHT = 59 1/2" UNIT 1 GLASS: GLASS WIDTH = 25 3/8"
 GLASS HEIGHT = 55 3/8"

- EXTERIOR OPTIONS -

ALUMINUM CLAD
 ALUMINUM CLAD
 AAMA 2605
 SASH PROFILE = PUTTY
 EXTERIOR COLOR FRAME MATCH = ALL EXTERIOR COLORS MATCH
 WHITE
 EXTERIOR SASH WEATHERSTRIP COLOR = W/WHITE SASH WEATHERSTRIP
 5 1/2" INSTALLATION CLIPS
 FACTORY APPLIED

- INTERIOR OPTIONS -

JAMB TYPE = STANDARD JAMB
 5 1/4
 JAMB EXTENSION APPLICATION = FACTORY APPLIED
 INTERIOR SAW KERF = NO INTERIOR SAW KERF
 INTERIOR FRAME MATCH = ALL INTERIORS MATCH
 INTERIOR MATERIAL = PINE
 INTERIOR FINISH STAIN/SEAL = PREFINISHED WHITE

- GLASS OPTIONS -

UNIT 1: ZO-E SHIELD 7
 SILVER SPACER
 W/OUT NEAT CLEAN GLASS
 COLONIAL
 BACK SIDE GLZG BD MATCH INTERIOR FINISH
 NO SPECIALTY GLASS
 NO CAPILLARY TUBES
 W/ARGON GAS UNIT 1 GLASS: W/PRESERVE PROTECTIVE FILM
 NON TEMPERED GLASS

- HARDWARE OPTIONS -

W/STANDARD HARDWARE
 DUAL ARM OPERATOR
 NESTED HANDLE
 TRADITIONAL
 WHITE
 10" ADJUSTABLE HINGE
 W/CONCEALED SNUBBER
 NO LIMIT STOPS
 NO VENTING OPTIONS
 HANDLE/COVER/KIT SHIP SEPARATE

- SCREEN OPTION -

W/SCREEN
 FIBERGLASS SCREEN MESH
 WHITE
 FACTORY APPLIED

- GRILLES -

SDL W/GBG
 PRAIRIE
 7/8"
 COLONIAL
 PINE
 PREFINISHED WHITE
 LRTB

- WRAPPING - EXTERIOR OPTIONS -

FRAME NAILING FIN = W/FRAME NAILING FIN
 EXTERIOR TRIM OPTIONS = 3-5/16" HISTORICAL BRICKMOULD
 ALUMINUM TRIM NAIL FIN = W/ALUM TRIM NAIL FIN
 EXTERIOR TRIM LOCATION = STANDARD
 SILL NOSE = 1" BULLNOSE W/END CAPS
 EXTERIOR TRIM APPLICATION = FACTORY APPLIED

- WRAPPING - INTERIOR OPTIONS -

INTERIOR TRIM = NO INTERIOR TRIM

- WRAPPING - MISC. PKG -

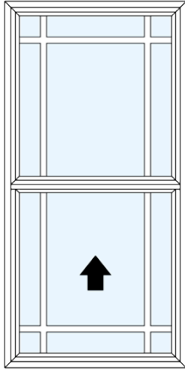
STANDARD PACKAGING
NO CALIFORNIA WARNING LABEL
ESTIMATED UNIT WEIGHT = 83.65357
SAMPLE = STANDARD UNIT

Thank you for choosing Weather Shield Windows & Doors

Quote Name:	GTJ Eng DADU	Quote Number:	SQPHYR001068_1
Customer:	0200	Created Date:	2/10/2025
Payment Terms:		Modified Date:	2/10/2025
Sales Representative:	Jason Cantley Mobile: jason@pacwindows.com	PO Number:	
Weighted Average:	U-Factor: .26, SHGC: .26, VT: .48	Total Windows:	11
Comments:		Total Doors:	
		Total Sq Ft:	145.00
		Total Perim Ft:	170
		Est. Delivery:	_____

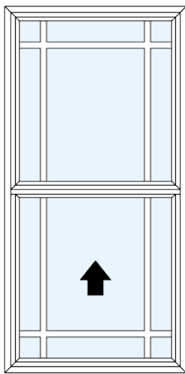
For warranty information please visit www.milgard.com/warranty/

Line:	1	Location:	Garage	
Quantity:	1	C650 Ultra, 3210U, SH, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .30, SHGC: .26, VT: .49		
		Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame		
		Argon Gas Filled		
		Tariff		
		Model = Single Hung	Item Total:	\$1,419.12
		Size = RO: 30" x 60"	Line Total:	\$1,419.12
		Net Frame: 29 1/2" x 59 1/2"		
		Dimensions = Sash Height: One Half		
		Energy Star Zone(s) = None		
		Glass = 1/8" SunCoat (Low-E) over 1/8" Clear with Gray Foam Spacer		
		Glazing = 7/8" OA Dual Glaze with Argon		
		Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame		
		Hardware = White, Cam Lock		
		Screen = Standard with Fiberglass Mesh		
		Ratings = STC: 28, OITC: 22, PG: LC-PG30		
		Clear Opening = W 27 5/16" x H 26 1/8" Sq. Ft. 4.96		
		Calculations = Unit Area (Sq. Ft.): 13, Unit Perimeter (nominal in lineal ft): 16'		
		Other Ratings = CPD: MIL-A-157-04709-00002		
			Customer Approval:	_____



Viewed From Exterior

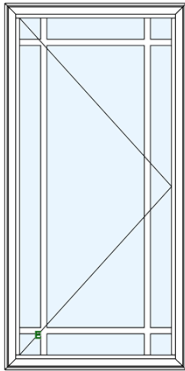
Line:	2	Location:	Garage	
Quantity:	1	C650 Ultra, 3210U, SH, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .30, SHGC: .26, VT: .49		
		Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame		
		Argon Gas Filled		
		Tariff		
		Model = Single Hung	Item Total:	\$1,419.12
		Size = RO: 30" x 60"	Line Total:	\$1,419.12
		Net Frame: 29 1/2" x 59 1/2"		
		Dimensions = Sash Height: One Half		
		Energy Star Zone(s) = None		
		Glass = 1/8" SunCoat (Low-E) over 1/8" Clear with Gray Foam Spacer		
		Glazing = 7/8" OA Dual Glaze with Argon		
		Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame		
		Hardware = White, Cam Lock		
		Screen = Standard with Fiberglass Mesh		
		Ratings = STC: 28, OITC: 22, PG: LC-PG30		
		Clear Opening = W 27 5/16" x H 26 1/8" Sq. Ft. 4.96		
		Calculations = Unit Area (Sq. Ft.): 13, Unit Perimeter (nominal in lineal ft): 16'		
		Other Ratings = CPD: MIL-A-157-04709-00002		
			Customer Approval:	_____



Viewed From Exterior

Line: 3
Quantity: 1

Location: Great Rm
C650 Ultra, 3510U, FC, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .26, SHGC: .25, VT: .45
1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

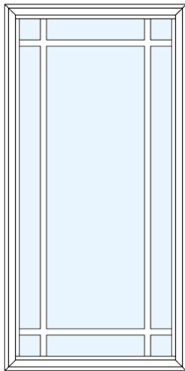
Model = Casement
Size = RO: 30" x 60"
Net Frame: 29 1/2" x 59 1/2"
Handing = Right
Energy Star Zone(s) = None
Glass = 1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Hardware = White, Nesting Fold Down Roto/Stainless Steel Operator Handle
Screen = Standard with Fiberglass Mesh and White Finish
Ratings = STC: 28, OITC: 23, PG: LC-PG35
Clear Opening = W 20 1/2" x H 55 1/4" Sq. Ft. 7.87, Egress: Yes
Calculations = Unit Area (Sq. Ft.): 13, Unit Perimeter (nominal in lineal ft): 16'
Other Ratings = CPD: MIL-A-167-12391-00002

Item Total: \$1,317.87
Line Total: \$1,317.87

Customer Approval: _____

Line: 4
Quantity: 1

Location: Great Rm
C650 Ultra, 3310U, PW, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .24, SHGC: .27, VT: .51
1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

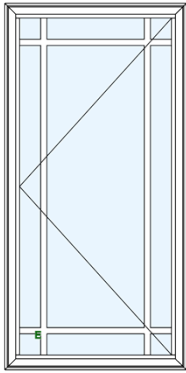
Model = Picture
Size = RO: 30" x 60"
Net Frame: 29 1/2" x 59 1/2"
Energy Star Zone(s) = North Central
Glass = 1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Ratings = STC: 28, OITC: 24, PG: CW-PG40
Calculations = Unit Area (Sq. Ft.): 13, Unit Perimeter (nominal in lineal ft): 16'
Other Ratings = CPD: MIL-A-150-04737-00002

Item Total: \$1,170.12
Line Total: \$1,170.12

Customer Approval: _____

Line: 5
Quantity: 1

Location: Great Rm
C650 Ultra, 3510U, FC, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .26, SHGC: .25, VT: .45
1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

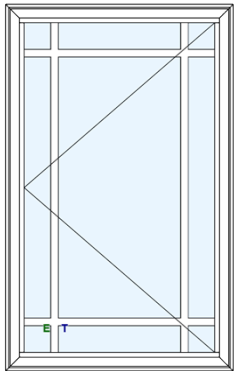
Model = Casement
Size = RO: 30" x 60"
Net Frame: 29 1/2" x 59 1/2"
Handing = Left
Energy Star Zone(s) = None
Glass = 1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Hardware = White, Nesting Fold Down Roto/Stainless Steel Operator Handle
Screen = Standard with Fiberglass Mesh and White Finish
Ratings = STC: 28, OITC: 23, PG: LC-PG35
Clear Opening = W 20 1/2" x H 55 1/4" Sq. Ft. 7.87, Egress: Yes
Calculations = Unit Area (Sq. Ft.): 13, Unit Perimeter (nominal in lineal ft): 16'
Other Ratings = CPD: MIL-A-167-12391-00002

Item Total: \$1,317.87
Line Total: \$1,317.87

Customer Approval: _____

Line: 6
Quantity: 1

Location: Top of Stairs
C650 Ultra, 3510U, FC, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .26, SHGC: .25, VT: .45
1/8" SunCoat (Low-E) Tempered over 1/8" 4th Surface HP Coating Tempered
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

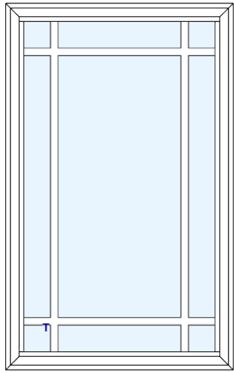
Model = Casement
Size = RO: 30" x 48"
Net Frame: 29 1/2" x 47 1/2"
Handing = Left
Energy Star Zone(s) = None
Glass = 1/8" SunCoat (Low-E) Tempered over 1/8" 4th Surface HP Coating Tempered with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Hardware = White, Nesting Fold Down Roto/Stainless Steel Operator Handle
Screen = Standard with Fiberglass Mesh and White Finish
Ratings = STC: 28, OITC: 23, PG: LC-PG35
Clear Opening = W 20 1/2" x H 43 1/4" Sq. Ft. 6.16, Egress: Yes
Calculations = Unit Area (Sq. Ft.): 10, Unit Perimeter (nominal in lineal ft): 13'
Other Ratings = CPD: MIL-A-167-12391-00002

Item Total: \$1,361.37
Line Total: \$1,361.37

Customer Approval: _____

Line: 7
Quantity: 1

Location: Stairwell
C650 Ultra, 3310U, PW, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .24, SHGC: .27, VT: .51
1/8" SunCoat (Low-E) Tempered over 1/8" 4th Surface HP Coating Tempered
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

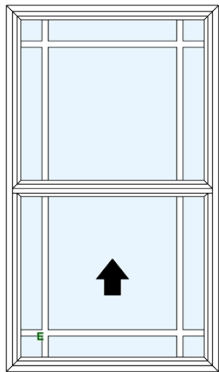
Model = Picture
Size = RO: 30" x 48"
Net Frame: 29 1/2" x 47 1/2"
Energy Star Zone(s) = North Central
Glass = 1/8" SunCoat (Low-E) Tempered over 1/8" 4th Surface HP Coating Tempered with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Ratings = STC: 28, OITC: 24, PG: CW-PG40
Calculations = Unit Area (Sq. Ft.): 10, Unit Perimeter (nominal in lineal ft): 13'
Other Ratings = CPD: MIL-A-150-04737-00002

Item Total: \$1,239.12
Line Total: \$1,239.12

Customer Approval: _____

Line: 8
Quantity: 4

Location: Bedrms
C650 Ultra, 3210U, SH, 1 3/8" Setback, Ext Frost / Int White, U-Factor: .26, SHGC: .26, VT: .48
1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating
Narrow Vintage, Ext Frost/Int Painted Wood, 4" Perimeter Per Frame
Argon Gas Filled
Tariff



Viewed From Exterior

Model = Single Hung
Size = RO: 35" x 60"
Net Frame: 34 1/2" x 59 1/2"
Dimensions = Sash Height: One Half
Energy Star Zone(s) = None
Glass = 1/8" SunCoat (Low-E) over 1/8" 4th Surface HP Coating with Gray Foam Spacer
Glazing = 7/8" OA Dual Glaze with Argon
Grids = Narrow Vintage, Ext Frost / Int Painted Wood, 4" Perimeter Per Frame
Hardware = White, Cam Lock
Screen = Standard with Fiberglass Mesh
Ratings = STC: 28, OITC: 22, PG: LC-PG30
Clear Opening = W 32 5/16" x H 26 1/8" Sq. Ft. 5.86, Egress: Yes
Calculations = Unit Area (Sq. Ft.): 15, Unit Perimeter (nominal in lineal ft): 16'
Other Ratings = CPD: MIL-A-157-04812-00002

Item Total: \$1,548.12
Line Total: \$6,192.48

Customer Approval: _____



Pacific Windows LLC
 3003 S Huson St Ste B
 Tacoma, WA 98409-2311
 www.pacwindows.com



Submitted By: _____	Material Subtotal:	\$15,437.07
Accepted By: _____	Grand Total (USD):	\$15,437.07
Date: _____		

For warranty information please visit www.milgard.com/warranty/

Please note that actual NFRC energy values may vary from those reported in CTB Quote Plus due to variations that may occur during the manufacturing process. In most cases variations will be minimal. Please contact your Milgard location with questions or concerns regarding this potential variation.

Painted Vinyl Note: For stucco applications, please follow the Milgard Stucco Tape Guidelines https://www.milgard.com/sites/milgard/files/u/u57666/stucco_taping_guidelines_0920.pdf.

Handing is viewed from outside looking in.

ADDITIONAL INFORMATION:

Product Sales: _____ PACIFIC WINDOWS IS NOT RESPONSIBLE FOR ANY MANUFACTURER RELATED ISSUES OR DELAYS. ALL SALES ARE FINAL. NO RETURNS. ALL DAMAGES AND DEFECTS MUST BE REPORTED WITHIN 2 DAYS. CUSTOMER CONFIRMS AND APPROVES SPECS AND SIZES OF EACH LINE ITEM.



ULTRA™ SERIES

C650

PREMIUM FIBERGLASS
WINDOWS & PATIO DOORS



STUNNING AND MODERN WITH VISUAL IMPACT
STRONG AND BUILT TO LAST



Modern design. Stunning visual impact.

Ultra™ Series is our contemporary premium fiberglass window and patio door line that is strong and built to last.

The fiberglass material resists swelling, rotting, and warping making it the perfect choice for long-lasting durability coupled with exceptional beauty.

Awarded Most Used window brand in the Western United States*, Ultra Series offers high performing and energy efficient windows and patio doors for an upscale look that can complement any home.

*2020 Builder Magazine Brand Use Study

ULTRA SERIES | C650 OFFERS:

- Fiberglass frames are resistant to temperature fluctuations making them a durable, low maintenance choice
- Window hardware is attractive, secure and easy to operate
- Four exterior frame colors to enhance the look of your home
- Use Black Bean or Bark to create the popular dark window look with matching interior and exterior frames
- The Milgard Lifetime Limited Warranty



Why Milgard Windows & Doors

Quality

Milgard offers award-winning windows and patio doors built for long-lasting comfort. For over 50 years, industry experts have consistently recognized Milgard as a trusted brand, ranking us as Most Used fiberglass window brand*.

*According to the 2020 Builder Magazine Brand Use Study in the western U.S.

Experience

Since 1962, Milgard has designed and assembled superior custom-made windows and patio doors for replacement, remodeling and new construction. Milgard is known for their industry-leading designs, using patented technologies, that help make your home more comfortable.

Service

We have always taken great pride in our ability to provide exemplary customer service. We believe that being close to our customers allows us to provide a better service experience. You'll find Milgard factory trained technicians near you in the Western U.S. and Canada.

Warranty

We have a dedication to quality and build our windows and patio doors to last. With Ultra™ Series, you're covered for as long as you own your home with our Lifetime Limited Warranty. See complete details at [MILGARD.COM/WARRANTY](https://www.milgard.com/warranty)



Create the home of your dreams with the ultimate, upscale window that's exceptionally beautiful

Define Your Home with Windows

Your style, envisioned. Ultra™ Series fiberglass windows offer the performance and energy efficiency you want coupled with a contemporary style that creates a visual impact. With four exterior frame colors and five window hardware finishes, you can create the perfect look to elevate and add value to your home.



Single Hung

HARDWARE

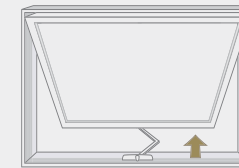
Positive Action™ Lock, Cam Lock, Sash Pull



Casement

HARDWARE

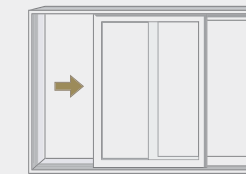
Folding Nesting Operator, Sash Lock



Awning

HARDWARE

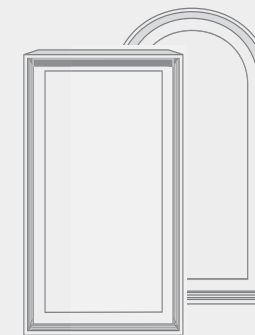
Folding Nesting Operator, Sash Lock



Horizontal Slider

HARDWARE

Positive Action Lock, Cam Lock, Sash Pull



Picture and Radius

HARDWARE

Non-operable



Bay and Bow

HARDWARE

Dependent on your window selection



Positive Action Lock, Clay



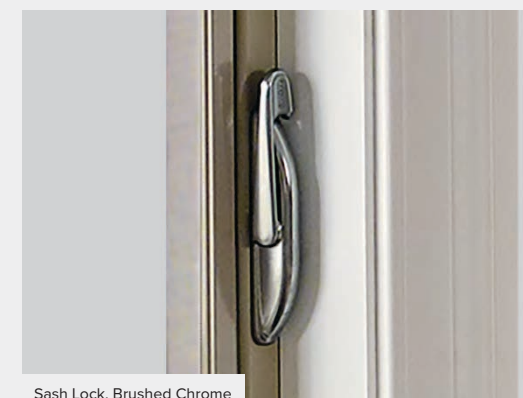
Cam Lock, Bronze



Sash Pull, White



Folding Nesting Operator, Black



Sash Lock, Brushed Chrome

Window hardware is available in white, clay, dark bronze, black, and brushed chrome for all operating styles. Satin Nickel is available for casement and awnings only. Clay not available in all areas.

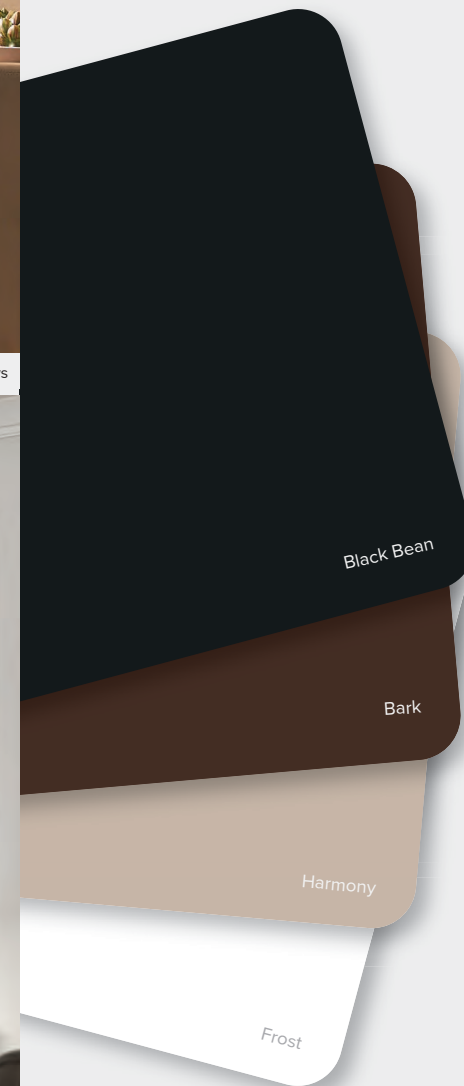


Modern Design Trend

Milgard brings you the latest in contemporary looks for your home. Ultra™ Series windows and patio doors can help you create the popular dark window look with matching interior and exterior frames in Black Bean or Bark. If you are designing a home with a modern aesthetic, Ultra Series is for you.



Make a Statement with Color



Exterior Colors
Choose white or color-matched interior

Colors shown are approximate. Visit your local Milgard Certified Dealer to see accurate finish samples.

Ultra™ Series | C650 Patio Doors

Create a grand entrance with Ultra Series fiberglass, French-style patio doors. These French doors are a simple addition that can add intricate detail in any room. Available in traditional swing style or sliding, you can enjoy a beautiful view of the outdoors while admiring the elegance of the door itself.

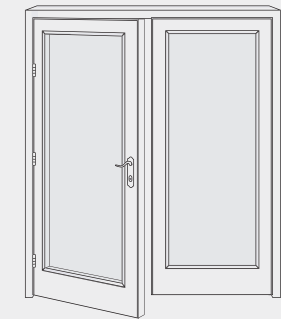
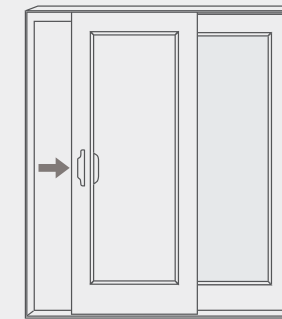


2 panel In-Swing Door, Black Bean



2 panel Sliding Door, Harmony

2 Panel Out-Swing Door, White



Sliding French Doors

- Engineered with a weather-strip system and top-quality rollers for impressively smooth and quiet operation
- Superior energy performance with SunCoat® Low-e glass coatings
- Stainless steel, multi-point locking hardware for security and high performance
- Available in 1, 2, 3, and 4 panel configurations
- Lifetime Limited Warranty

OPTIONS

- Exterior keyed lock
- Standard screens or optional PureView® screen mesh for enhanced visibility

SIZING (Can vary by location)

1 Panel	Min 2'6" w x 6'8" h	Max 4'0" w x 8'0" h (fixed)
2 Panel	Min 5'0" w x 6'8" h	Max 8'0" w x 8'0" h
3 Panel	Min 7'6" w x 6'8" h	Max 12'0" w x 8'0" h
4 Panel	Min 10'0" w x 6'8" h	Max 12'0" w x 8'0" h

HARDWARE

Standard and decorative upgrade options available

Swing French Doors

- Choose an in-swing or out-swing operating style with two-way adjustable hinges for easy door panel alignment
- Superior energy performance with SunCoat® Low-e glass coatings
- Stainless steel, multi-point locking hardware for security and high performance
- Available in 1, 2, 3, and 4 panel configurations
- Lifetime Limited Warranty

OPTIONS

- Choose from standard or PureView® screen mesh for enhanced visibility on in-swing sliding screens
- Retractable screen also available (Not available in all sizes)
- Expand your view with sidelites and transoms

SIZING (Can vary by location)

1 Panel	Min 2'6" w x 6'8" h	Max 3'0" w x 8'0" h (fixed or operable)
2 Panel	Min 5'0" w x 6'8" h	Max 6'0" w x 8'0" h
3 Panel	Min 7'6" w x 6'8" h	Max 9'0" w x 8'0" h
4 Panel	Min 10'0" w x 6'8" h	Max 12'0" w x 8'0" h

HARDWARE

Standard and decorative upgrade options available

Sizes can vary by location. Your Milgard Certified Dealer can provide more detail on sizes available in your area.



Choose Your Door Hardware

Sliding Door Hardware

STANDARD OPTIONS *(interior and exterior)*

- Standard handle available in white, oil rubbed bronze, and black
- Handle can come either keyed, or unkeyed

DECORATIVE UPGRADE OPTIONS

- Sliding door handle is available in brushed chrome or satin nickel finish as an upgraded option
- Keyed alike option available for multiple doors on the same order



STANDARD INTERIOR HANDLE, WHITE

STANDARD EXTERIOR HANDLE, BLACK

Swing Door Hardware

STANDARD OPTIONS *(interior and exterior)*

- Madrona™ swing door handle is available in white, oil rubbed bronze, and black
- ADA-compliant door handle and low-profile sill option available *See your Milgard Dealer for more information*

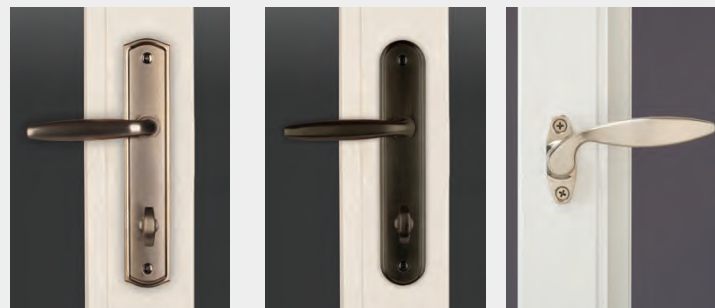


MADRONA SWING DOOR INTERIOR HANDLE, SATIN NICKEL UPGRADE

MADRONA SWING DOOR EXTERIOR HANDLE, WHITE

DECORATIVE UPGRADE OPTIONS

- Meridian™ and Mastri™ handle designs available in white, oil rubbed bronze, and black
- Decorative upgrade options for Madrona™, Mastri™, and Meridian™ handles include brushed chrome and satin nickel finishes
- Keyed alike option available for multiple doors on the same order



MASTRI INTERIOR HANDLE SATIN NICKEL

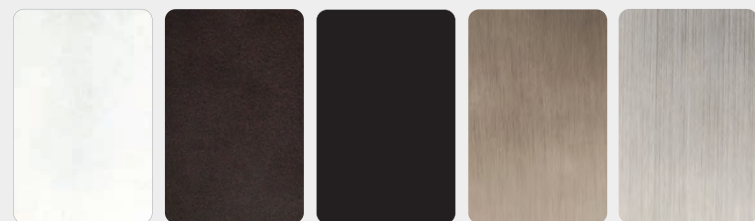
MERIDIAN INTERIOR HANDLE OIL RUBBED BRONZE

SIDELITE HANDLE BRUSHED CHROME

SIDELITE HANDLE

- Available for operable sidelites
- Sidelite handle finish will match interior door handle finish selection

Hardware Finishes



White

Oil Rubbed Bronze

Black

Satin Nickel

Brushed Chrome

Make it Your Own



Grids

Express your creativity and dramatically increase your home's curb appeal with our virtually endless grid options. Select grid choices placed inside our insulated glass units for easiest window cleaning.

VISIT MILGARD.COM/GRIDS TO SEE FULL COLLECTION OF OPTIONS



FLAT GRID



SCULPTURED GRID



3/4" VINTAGE

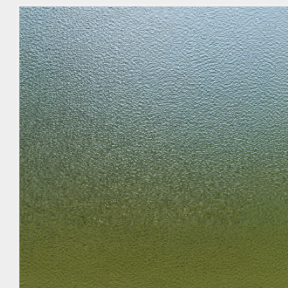


1-1/8" VINTAGE

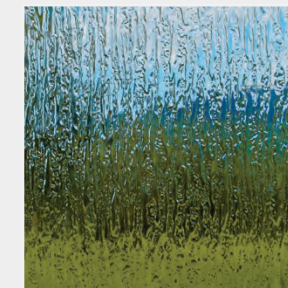
Decorative Glass

For rooms, such as the bathroom, we offer obscure glass for privacy or decorative flair. We also have tinted glass for additional shading from direct sunlight.

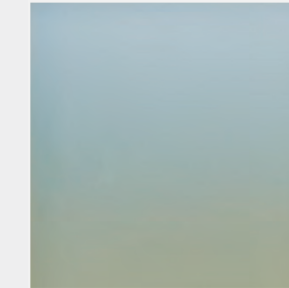
VISIT MILGARD.COM/GLASS TO SEE FULL COLLECTION OF OPTIONS



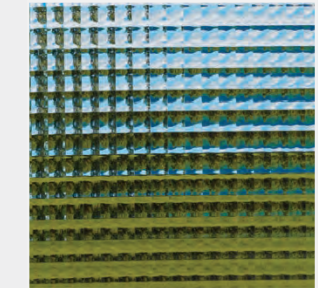
P516



RAIN



MATELUX



CROSS REED



Details That Matter

Exceptionally Strong

The strength of fiberglass protects your investment from the elements in all seasons. Because of its inherent properties, fiberglass won't swell like wood and it expands and contracts at the same minimal rate as the glass it holds for improved energy efficiency.

Fiberglass won't crack, peel, warp, split, pit or corrode and is virtually impervious to water. Milgard regularly tests its fiberglass lineals for color uniformity, gloss, film thickness and chemical resistance for quality and long-lasting performance you can count on.

Installation Configurations



Block

Nail Fin

Z-Bar

Energy Efficiency

Tested and Built for Your Climate

At Milgard, we help homeowners like you make an impact on their energy consumption by offering energy efficient windows and patio doors designed for your homes comfort.

We make it easy to meet local energy codes and green building efficiency standards with a selection of energy packages you can tailor to your specific climate. We conduct thermal simulations to improve energy performance and we adhere to ENERGY STAR® v6 requirements that meet or exceed U-Factor and Solar Heat Gain Coefficient (SHGC) criteria in the areas we serve.

Your energy efficient windows could include one or more of the following features based on your climate.

- SunCoat® or SunCoatMAX®
- EdgeGardMAX™ Spacer
- Foam Spacer
- Argon
- 4th Surface Low-e
- Triple Glaze





For more information including technical specifications and reviews, visit

[MILGARD.COM/ULTRA](https://www.milgard.com/ultra)

Ultra™, PureView®, Positive Action™, SunCoat® and SunCoatMAX® are trademarks of Milgard Manufacturing, LLC

ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency. Milgard Windows is proud to be an ENERGY STAR® partner, with all Ultra Series products ENERGY STAR® qualified for all U.S. zones.

Milgard Ultra Series windows and doors meet criteria for structural integrity and reliable performance established by the American Architectural Manufacturers Association (AAMA). Consult your Milgard representative for specific test information.

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