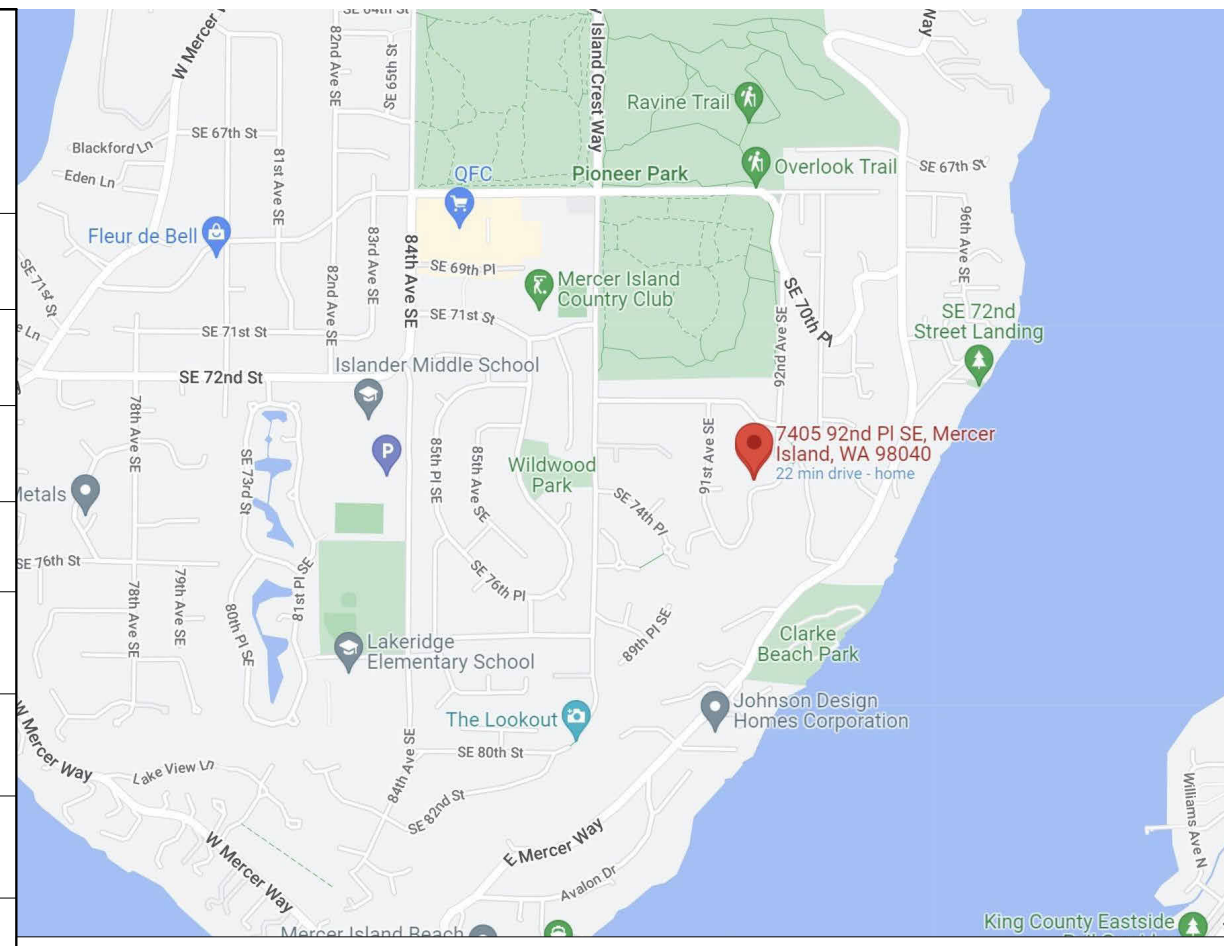
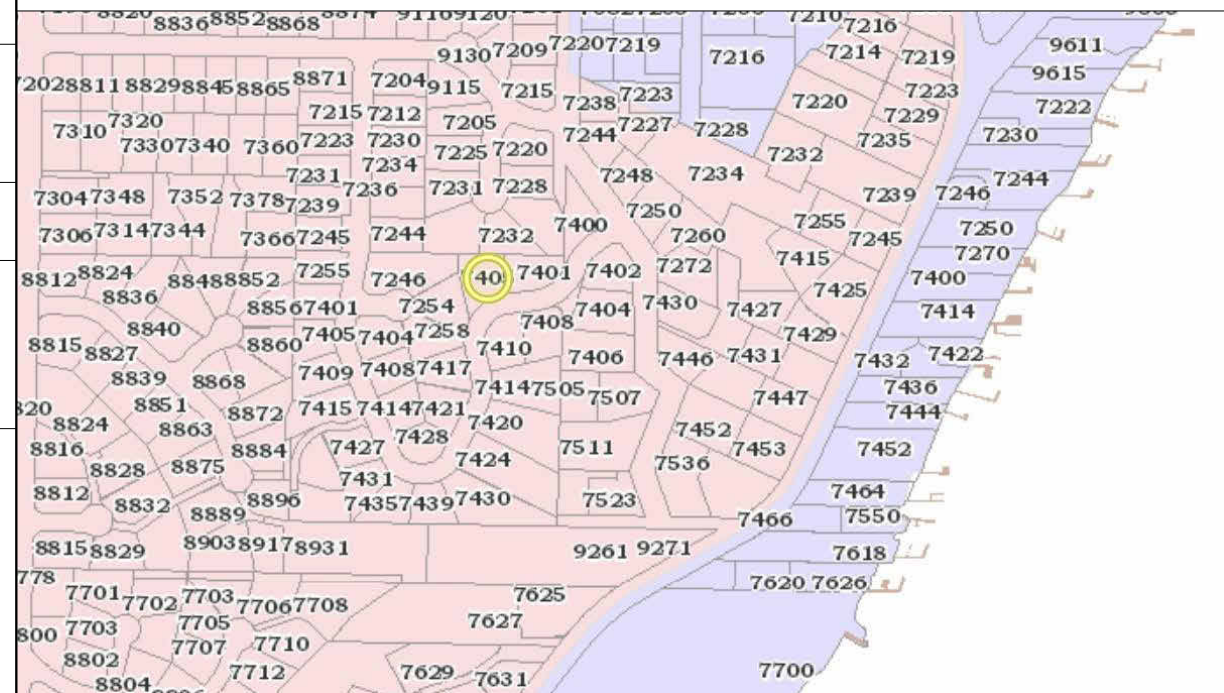


PROJECT INFORMATION

LEGAL DESCRIPTION	TARYWOOD HEIGHTS ADD Plat Block: Plat Lot: 22
PARCEL #	856610-0220
ZONING:	R-9.6
BUILDING CODE:	IRC 2018, IEBC 2018
YEAR BUILT:	1967
JURISDICTION:	MERCER ISLAND
PRESENT USE:	SINGLE FAMILY
PROJECT ADDRESS	7405 92nd Pl SE, Mercer Island, WA 98040
OWNER INFORMATION	Joanna Yee and Dinesh Narayan Mailing Address: 7405 92nd Pl Se, Mercer Island, WA 98040 Email: joanna_yee@hotmail.com Phone: 206-981-9313
ARCHITECT	5FT2 STUDIO ARCHITECTS Email: info@5ft2studio.com Phone: 425.287.1567
GENERAL CONTRACTOR	TBD
STRUCTURAL ENGINEER	Nabil Kausal-Hayes NKH Engineering Email: nabil@nkhengineering.com Phone: 206.601.9728
WORK DESCRIPTION	1) Reconfiguration of kitchen and dining. Interior re-lay-out of master bathroom 2) Foyer addition 3) Convert existing truss roof to roof joist to created vaulted space in the living space 4) Convert existing laundry to a wet kitchen 5) Create new laundry space out of existing garage space 6) Widen sliding door at new dining space.



VICINITY MAP



LOCATION MAP

ADOPTED CODES

- BUILDING: 2018 INTERNATIONAL RESIDENTIAL CODE W/ WASHINGTON
- ENERGY: 2018 WASHINGTON STATE ENERGY CODE
- ACCESSIBILITY: 2009 ICC A117.1, 2010 AMERICANS W/ DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN
- PLUMBING: 2018 UNIFORM PLUMBING CODE (UPC) W/ WASHINGTON STATE AMENDMENT, ALL PLUMBING WORK SHALL BE DONE BY LICENSE CONSTRUCTOR UNDER SEPARATE PERMIT
- ELECTRICAL: NATIONAL ELECTRICAL CODE (NEC) / WASHINGTON CITIES ELECTRICAL CODE (WCCE), ALL ELECTRICAL WORK SHALL BE DONE BY LICENSE CONSTRUCTOR UNDER SEPARATE PERMIT
- MECHANICAL: 2018 INTERNATIONAL MECHANICAL CODE

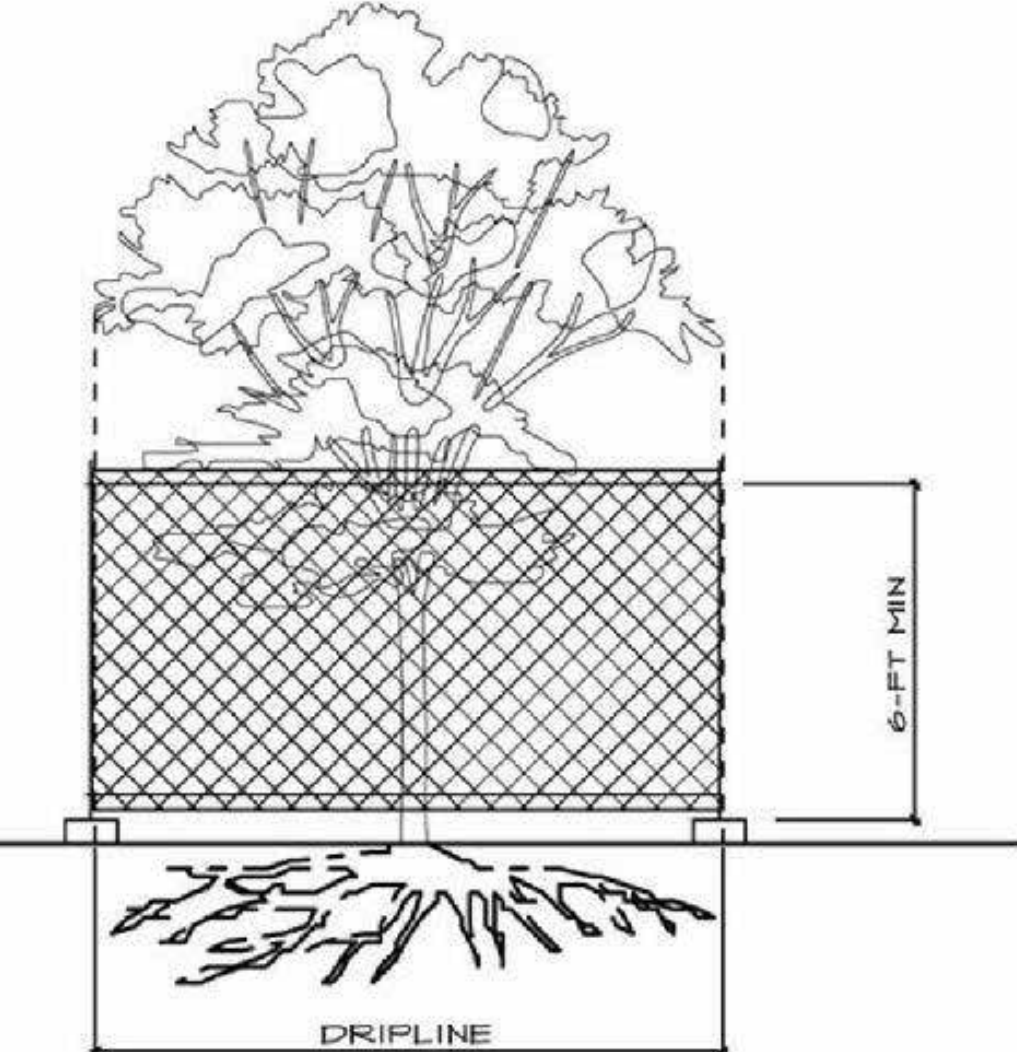
TREE NOTE

NO TREES TO BE REMOVED, EXISTING SOFTSCAPE AND TREES TO REMAIN ADDITION ONLY ON EXISTING FOOTPRINT WHICH WILL NOT DISTURB EXISTING TREE LOCATION

TREE PROTECTION:
1. 6-FT TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.

2. FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.

3. WORK WITH PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

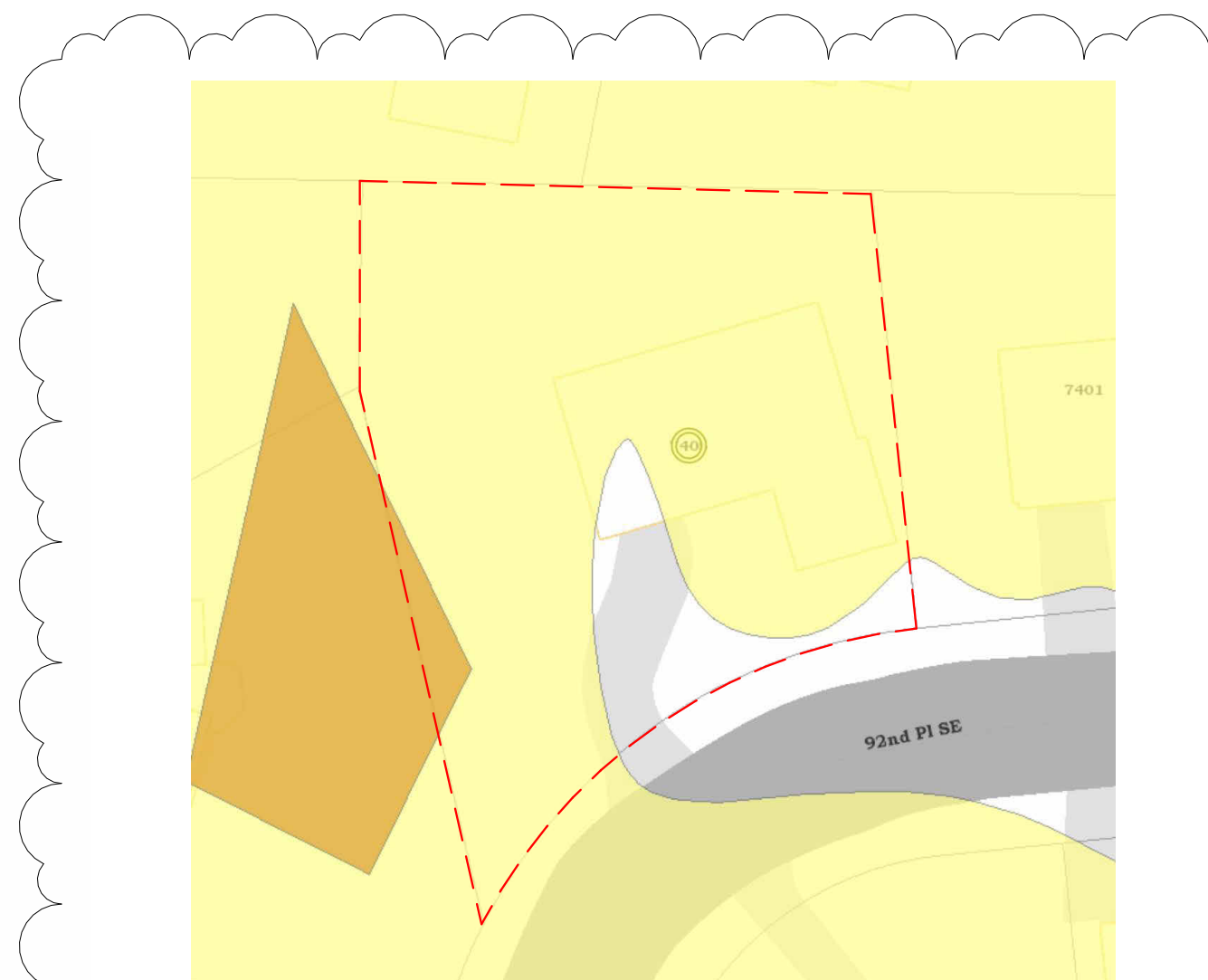
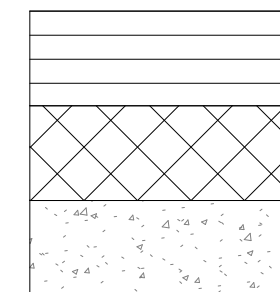


SITE PLAN LEGEND

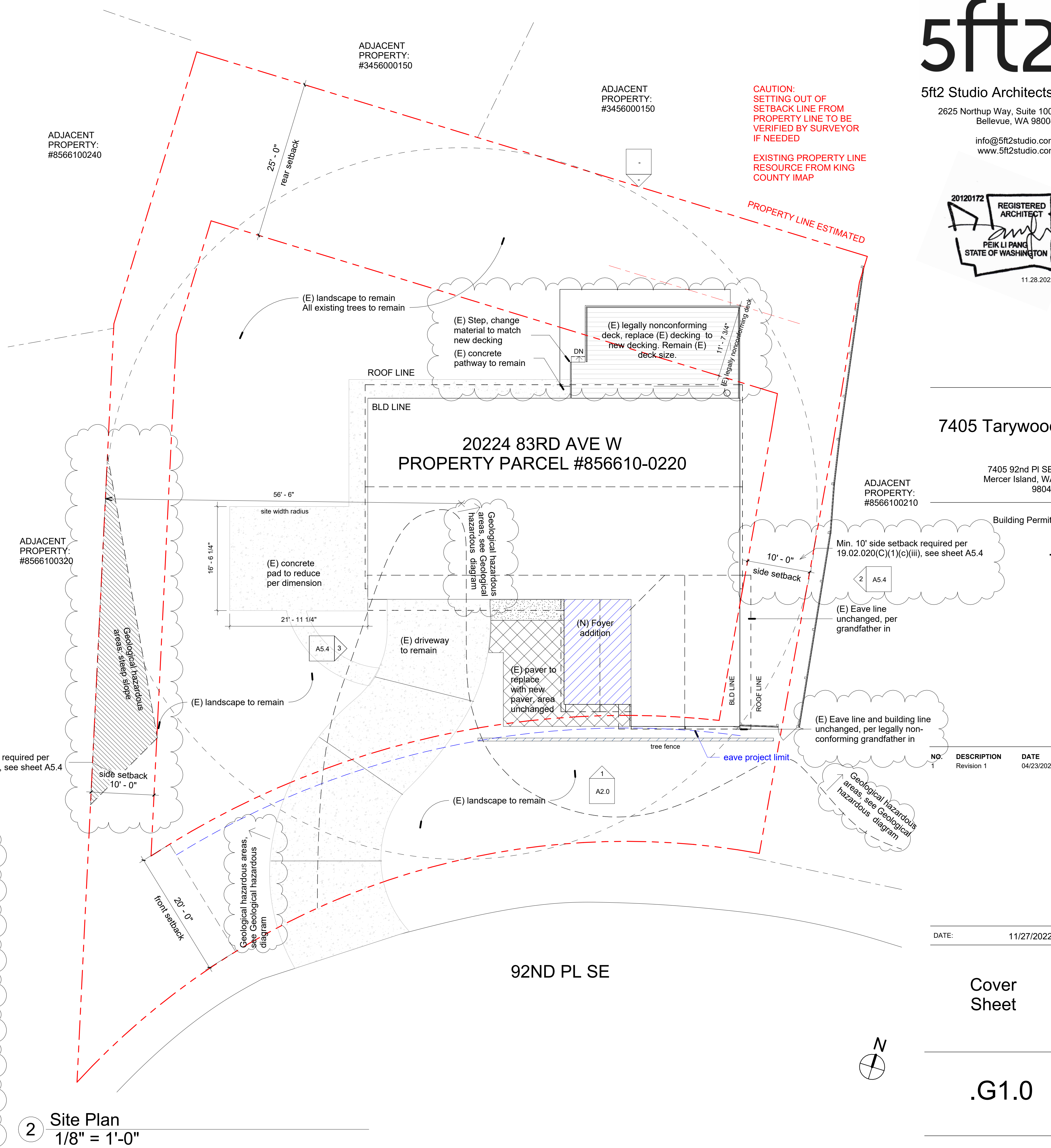
WOODEN DECK

HARDSCAPE - IMPERVIOUS PAVER

HARDSCAPE - CONCRETE



GEOLOGICAL HAZARDOUS AREAS DIAGRAM not to scale



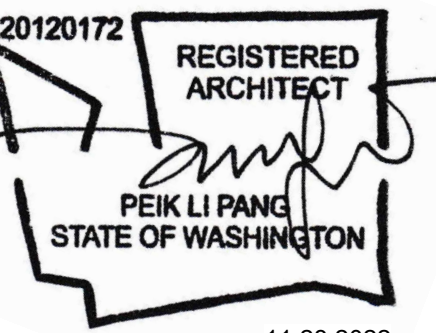
2 Site Plan 1/8" = 1'-0"

5ft2

5ft2 Studio Architects

2625 Northup Way, Suite 100, Bellevue, WA 98004

info@5ft2studio.com
www.5ft2studio.com



11.28.2022

7405 Tarywood

7405 92nd Pl SE, Mercer Island, WA 98040

Building Permit

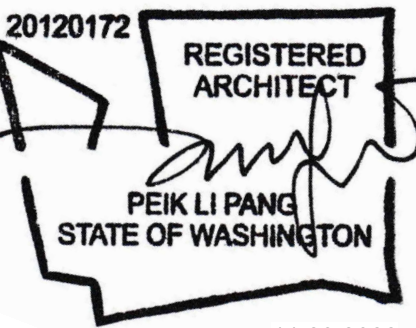
NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

DATE: 11/27/2022

Cover Sheet

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11.28.2022

MECHANICAL

A. HVAC and Plumbing work shall be performed in a "Bidder Design manner. The contractor shall submit such systems separately for permit.

B. It is the contractor's responsibility to design systems that meet all requirements and codes. Contractor shall submit drawings, pay and obtain permit and perform work in a manner that meets or exceeds the recognized workmanship standards for the industry.

C. All drawings are to be submitted for review and approval to the Owner before performing work.

D. Heating equipment shall be listed and labeled by an approved agency and installed to listed specifications.

E. Appliances installed in garages or other areas where they may be subject to mechanical damage shall be suitably guarded against such damage by being installed behind protective barriers or by being elevated or located out of the normal path of vehicles.

F. Equipment located in a garage and capable of igniting flammable vapors shall be installed with the pilots or burners or heating elements and switches at least 18 inches above the floor level.

G. Appliances designed to be in fixed positions shall be fastened or anchored in an approved manner Water heater shall be anchored or strapped to resist horizontal displacement caused by earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of the appliance's vertical dimensions. At the lower point, the strapping shall maintain a minimum distance of 4 inches above controls.

H. Verify types, manufacture, and locations of a plumbing, faucets with Owner prior to purchasing and/or installing

I. Vent outlet for gas appliances shall be 3' minimum away from operable windows, and 10' minimum away from fresh air intakes per WA VIAQ 303.4.1.5.

J. Protection of structure: the building or structure shall not be weakened by the installation of mechanical systems. Penetrations of floor/ceiling assemblies and assemblies required to have fire resistance rating shall be protected in accordance with IRC/IBC

K. The cutting, notching and boring of wood framing members shall comply with IRC/IBC
Joist notching shall be per IRC 502.8: Notches on the ends of members shall not exceed one-fourth the member depth. Holes bored in joists shall not be within 2 inches of the top or bottom of the joist, and the diameter of any such hole shall not exceed one-third the depth of the joist. Notches in the top or bottom of members shall not exceed one-sixth the depth, shall not be longer than one third of the depth of the member and shall not be located in the middle third of the span.

L. Stud cutting and notching shall be per IRC/IBC. In exterior walls and bearing partitions, any wood stud is permitted to be cut or notched not to exceed 25 percent of its depth Cutting or notching of studs not greater than 40 percent of a single stud depth is permitted in nonbearing partitions supporting no loads other than the weight of the partition. A hole not greater in diameter than 60 percent of the stud depth is permitted to be bored in any wood stud, provided that the resulting hole no more than 5/8 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% and up to 60% shall also be doubled with no more than two successive doubled studs bored.

M. Engineered wood products shall be cut and notched in accordance with IRC/IBC
Cuts, notches and holes bored in trusses, structural composite lumber, structural glue laminated members and I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a registered design professional.

N. Contractor shall submit shop drawings of ductwork and registers, including access panels if required; cuts of all fixtures, fittings, and accessories, to architect for review and action prior to proceeding with fabrication and/or installation or relocation.

O. Air balancing- air conditioning system throughout entire space is to be properly balanced after move in. air balance shall be performed by an independent air balance contractor who shall certify that the report is accurate. submit 2 copies to building owner.

P. Heat producing equipment- hvac contractor to refer to reflected ceiling and furniture drawings for occupancy figures and heat producing equipment.

Q. Ceiling diffusers - installation shall be coordinated with all trades as required for proper assembly. ceiling diffusers to be relocated to maintain new fixture patterns as required.

R. All peripheral shut-off valves shall be accessible at all times.

S. The contractor shall coordinate his plumbing work with manufacturer's specifications. the contractor shall coordinate plumbing work with that of all other trades.

T. The contractor shall plan installation of new plumbing work and connections to existing work to insure minimum interference with regular operations of existing facilities. submit to the building manager a date schedule for approval of necessary temporary shutdowns of existing services. all shutdowns shall be made at such time as will not interfere with regular operations of existing facilities and only after written approval of the building manager.

U. Penetrations - sleeves are to be provided for each pipe passing through walls, partitions, floors, and slabs. all penetrations of rated assemblies shall be fire stopped per code.

V. Testing - before being covered up or built-in, all piping shall be tested as required by the authorities having jurisdiction.

W. Contractor should fulfill mechanical ventilation requirement per IRC/IBC

ELECTRICAL

A. Electrical work shall be performed in a bidder design" manner. The Contractor shall submit such systems separately permit.

B. It is the contractor's responsibility to design systems that meet all requirements and codes. Contractor shall submit drawings, pay for, and obtain permit and perform work in a manner that meets or exceeds the recognized workmanship standards for the industry.

C. All drawings are to be submitted for review and approval to the owner before performing work. Specific attention is to be paid regarding owner requested locations of electrical, phone and computer cabling port locations

D. Proper protection shall be provided around recessed light fixtures per manufactures recommendations so that overheating will not occur. Recessed light fixtures to be C. rated.

DOOR NOTES

A. Refer to door schedule for all door/hardware specifications.

B. Field measure floor to ceiling doors for proper fit.

C. Exterior level landing may slope up to 1/4" per foot max. in any direction for surface drainage.

D. The floor or landing shall not be more than 1/2" lower than the threshold of the doorway. bevel (1:2 max. slope) where the threshold exceeds 1/4" in height.

E. Door openings in partitions not dimensioned are to be located within 4" of adjoining partition, unless otherwise noted.

F. All glass in doors shall be tempered safety glass, unless otherwise noted.

G. Hollow metal doors shall be finished with semi-gloss paint. refer to finish schedule for additional information.

H. Doors opening into required exit corridors do not restrict the required width when opened in any position.

I. All doors required as exits shall swing in the direction of travel.

J. Provide doors made with adhesives and composite wood products where possible that do not contain urea formaldehyde.

MILLWORK NOTES

A. All blocking required shall be anchored to wall or ceiling. general contractor to check job progress and coordinate with other trades involved. general contractor is responsible for all blocking required; under no circumstances will "extra" work be authorized for extra blocking.

B. The general contractor shall submit shop drawings and samples to the architect for review.

C. Field conditions prior to the start of fabrication, the general contractor shall check and verify all dimensions and conditions at job site and shall be responsible for the same.

D. Joinery, where members are mitered or butted, they shall be joined and secured in a manner to insure against the joint opening.

E. Fabrication, all of the work shall be fabricated, assembled, finished, and erected in the best method known to the cabinet trade. surfaces shall be true, straight, and free from all machine and tools markings, bruises, indentations, chips, or abrasions.

F. Field verification, it shall be the general contractor's responsibility to have examined the job site in conjunction with the project documents so as to be satisfied as to the conditions under which the work will be performed, including such matters as unloading facilities, locations and sizes of elevators, equipment, or facilities needed preliminary to and during the work, and other conditions which may affect the work.

G. Protection, the general contractor shall maintain reasonable protection to safeguard his work from damage and to protect building owner's property from injury or loss arising in connection with all project work.

H. The general contractor shall guarantee that all materials and workmanship shall be of the quality specified and shown and that any defect due to improper workmanship or materials discovered and made known within one year from the date of substantial completion of the installation shall be repaired or replaced with reasonable promptness without additional cost. architect will give notice of such observed defects with reasonable promptness.

I. Installation, general contractor will shim and level counter tops above files after files are installed by others. files in operations area to be shimmed and secured to millwork after they are set in place. general contractor to level floor under files in all areas where files are ganged or installed below fixed cabinetry. (plastic laminated shims as required at file cabinet area).

J. All millwork shall receive final finish at the shop or factory prior to delivery. general contractor shall protect all finished and installed millwork from damage by other trades. damaged or defective millwork shall be replaced by the general contractor. at his expense.

K. Millwork contractor to coordinate location of electrical, telephone, and communications outlets and install grommets in countertop surfaces as required to conceal cables.

L. Shelving, no unbraced length of shelving and or counterwork shall exceed 3'-0" without additional supports and blocking; all end conditions shall be properly blocked and or supported.

M. Overhead cabinets, all blocking and wood cleats for overhead cabinets to be screwed and secured to full height or braced ceiling height metal studs and wood grounds.

STRUCTURAL/FRAMING (SITE-SPECIFIC STRUCTURAL ENGINEERING SHALL GOVERN).

A. All structural matter refer to structural drawings provided by project structural drawings

B. All materials and workmanship shall conform to the requirements of the drawings, notes, specifications, and all applicable codes and ordinances.

C. All wood frame construction shall conform to the minimum standards of IRC/IBC, unless specified in the Structural Drawings, Structural Notes and Specifications.

D. Columns and posts located on concrete or masonry floors or decks exposed to the weather or to water splash or in basements and which support permanent structures shall be supported by concrete piers or metal pedestals projecting above floors unless approved wood of natural resistance to decay or treated wood is used. The pedestals shall project at least 6 inches above exposed earth and at least 1 inch above such floors.

E. Where installation includes manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation. Verify rough in dimensions for equipment and provide buck-outs, backing and jacks as required.

F. All wood exposed to the weather, such as wood used for deck framing including, decking railings, joists, beams and posts shall be pressure treated or of wood with natural resistance to decay per IRC/IBC
-Girder ends within 1/2 of exterior masonry walls below grade.
-Wood joists in crawl space closer than 18" to ground or girders closer than 12" to ground.
-Wood framing resting on the foundation within 8" of exposed earth.
-Wood framing or furring attached directly to below grade concrete.
-Sleeper or Sills on concrete slab on grade concrete.
-Wood siding within 6" of exterior ground.

G. Verify all rough-in dimensions for equipment, provide all buck-out, blocking, backing and jacks required for installation.

BUILDING ENVELOPE

A. Asphalt-saturated felt free from holes or breaks, weighing not less than 14 pounds per 100 square feet and complying with ASTM D 226 or other approved weather resistant material shall be applied over sheathing of all exterior walls. approved alternative weatherproof membranes shall be used for open joint rain screen siding, weather resistant materials shall be applied horizontally per manufacturers recommendations, with the upper layer lapped over the lower layer not less than 2 inches and not less than 6 inches where joints occur.

B. Approved corrosion-resistive 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 buildings structural framing components the flashing shall extend to the surface of the exterior wall surface and shall be installed to prevent water from reentering the exterior wall envelope. flashing shall be installed at, but not limited to the following locations:

- the top of all exterior window & door openings
- intersections of frame walls and masonry or stucco
- under masonry, wood or metal copings and sills
- continuously above all projecting wood trim
- where exterior porches, decks or stairs attach to a wall
- at wall and roof or soffit intersections
- at built-in gutters

FIREBLOCKING AND DRAFTSTOPPING

A. Floor Assemblies Fireblocking and Draftstopping shall be in stalled in accordance with IRC/IBC.

B. Wall Assemblies: Fireblocking shall be installed per IRC/IBC

C. Chimneys and fireplaces: All spaces between chimneys and floors and ceilings through which chimneys pass shall be reblocked with noncombustible material securely fastened in place. The fireblocking of spaced between chimneys and wood joists beams, or headers shall be self supporting or be placed on strips of metal or metal lath laid across the spaces between combustible material and the chimney.

DRYWALL FINISH

A. Provide 1/2" gypsum wall board for non-rated assemblies and 5/8" type x gypsum wall board for 1-hr rated assemblies with all exposed joints and fastener heads smooth and flush with the surface of the board. joints taped and prepared for a plication of finish. use water-resistant board at all wet areas to 4'-0" off.

B. When gypsum board is used as a base for tile or wall panels far tub, shower or water closet compartment walls, water resistant gypsum backing board shall be used.

C. All gypsum board partitions shall be taped and sanded smooth with no visible joints or lines. all screws or other attachment devices shall be patched and not visible. patch and repair surfaces to match adjacent or adjoining surfaces where required. all surfaces shall be aligned and sanded smooth.

REFLECTED CEILING PLAN NOTES

A. Coordinate the work of all trades involved in the ceiling work to insure clearances for fixtures, ducts, piping, ceiling suspension system, etc., necessary to maintain the finished ceiling heights. see reflected ceiling plans for finished ceiling heights. verify in field.

B. Perimeter ceiling angle, where occurs, shall be installed tight to vertical surfaces, free from curves, breaks, or other irregularities, and painted to match ceiling finish.

C. Furnish and install all fixtures, associated trim, fixture lamps, and seismic bracing as required.

D. Light fixtures, exit signs, sprinklers, and other ceiling elements shall be located in center of individual ceiling tile, unless otherwise noted. all switches and dimmers shall be located 48" above finished floor to center of switch, unless otherwise noted. Multiple switches at one location shall be ganged together and finished with one cover plate, unless otherwise noted.

E. Provide ceiling access as required for equipment and system maintenance, and match adjacent ceiling finish, unless otherwise noted. all soffits and ceiling heights are dimensioned from top of finished floor to bottom of finished gypsum board or ceiling tile and shall allow for thickness of all floor finishes.

F. The reflected ceiling plan indicates the location of ceiling heights, light types, light fixtures, switch locations, and associated items. refer to engineering drawing (lighting plan) for circuiting, wiring layout, and additional information.

G. In the event of discrepancies between the architect's reflected ceiling plan and the engineer's lighting plan, immediately notify the architect in writing before ordering materials or proceeding with work.

H. All specific information concerning installation of various above-ceiling elements are to be found in the hvac, plumbing, fire protection, electrical, and lighting drawings.

I. Notify architect of any conflicts of light fixture locations with main runners, ducts, structures, hvac, and/or (e) conduit, prior to framing for lights. any discrepancies between architect's ceiling grid location and actual field conditions are to be clarified with the architect prior to framing.

J. Submit grille, sprinkler, thermostat, and other fixture and element layouts to the architect for review at least 2 weeks prior to installation.

K. Verify field conditions and locations of all plumbing, mechanical ducts, structural elements, and any and all other applicable items; install applicable new plumbing, mechanical fans, ducts, conduits, and other related and appurtenant items so as to not conflict with luminaires and any and all field conditions.

L. Furnish and install underwriters laboratories inc. (ul) labelled devices throughout.

M. Install light fixtures with protective film or similar cover over louver, lens, baffle, and the like, to avoid fixture soiling or damage; fixtures shall be maintained clean and as new; lamps shall be new at project completion.

N. Refer to engineering drawings for all life safety devices required by code and all emergency light fixtures. architectural drawings shall govern location of these devices.

GENERAL NOTES

A. The drawings are intended to only partially describe the scope of work for the project, any work not shown here, but required by code, or the specifications, or to make the work complete, shall be provided as part of the work.

B. Refer to the list of abbreviations for common abbreviations used in the drawings. If an abbreviation is not on the list, or not commonly used, refer to the architect for clarification.

C. It is the intent of the documents that all work complies with all applicable local, state, and national codes and ordinances in effect at the date of permit submittal. Nothing in these drawings shall be construed to grant approval for any code violation. Any errors, omissions, or non-compliance with governing codes shall be brought to the attention of the architect immediately.

D. Before starting each portion of the work, the contractor shall carefully study and compare the various drawings and other contract documents related to that portion of the work, as well as owner-provided information, shall take field measurements of any existing conditions related to that portion of the work and shall observe any conditions at the site affecting it. Any errors, inconsistencies or omissions shall be reported promptly to the architect.

E. Do not scale the drawings. The contractor shall use dimensions shown on the drawings and verify actual field measurements. If discrepancies are found, the architect shall be notified at once.

F. Dimensions are shown to the face of concrete, face of stud at exterior walls, face of finished wall at interior walls, face of finished wall at existing walls, and edge of openings, unless detailed or noted otherwise on drawings. Refer to the architect if clarification is needed.

G. Repetitive features not indicated in the drawings everywhere they occur shall be provided as if drawn in full.

H. The contract documents are complementary, and what is required by one shall be as binding as if required by all. In case of discrepancy, refer to the architect for clarification.

I. The contractor shall verify the dimensions required for all equipment, appliances, fixtures, cabinets, ductwork, and openings before framing begins the contractor shall coordinate with the subcontractors of all trades to verify the sizes and locations of openings through the floors, walls, ceilings and roofs for ducts, pipes, conduits, and equipment. The contractor shall coordinate the location and installation of wood backing, blocking, furring and stripping as required for the installation and attachment of work of all trades.

J. The systems, including, but not limited to, mechanical, plumbing, and electrical work are bigger designed. The contractor shall be responsible for all work done on site (field). Work shown on the drawings is intended to illustrate the general design intent, scope, and location of work. All work not specifically drawn, but required for a complete, legal, and functioning system, shall be provided as part of the work.

K. The contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for proper execution and completion of the work, with the exception of the master use permit and the building permit.

L. Prior to the commencement of any construction or site development activity, the contractor and/or architect shall schedule a pre-construction meeting with the project team members for the purpose of answering initial questions, clarifying areas of concern, and formalizing a construction administration process. The meeting(s) shall include the architect, general contractor, owner, landscape architect, structural engineer, civil engineer, geotechnical engineer, and water intrusion consultant

M. All information contained in these documents represents a "basic limited architectural service" that requires the contractor to be knowledgeable and experienced with all aspects of construction including all building codes and regulations imposed by the city or county and any other agency having jurisdiction over the project.

N. It is the responsibility of the contractor to provide all construction necessary for the complete installation of all operating systems, materials and finishes in accordance with mfr.'s recommendation or written specifications. It is the responsibility of the contractor to ensure construction means and method and final construction technique. Contractor shall thoroughly review drawings, specifications and owner's requirements.

O. Safety, care of adjacent properties during construction, compliance with local, state, federal regulations regarding safety on site shall be the contractors responsibility

P. No deviation from these documents shall be made without written approval from the owner and architect. Any changes can affect the structural integrity and code related issues of the structure.

Q. All information contained in these documents is for the purpose of construction permit acquisition and construction only. The information provided is not intended for any other purpose and no other use is intended or implied, e.g. plan information is not intended to be used as a base for sale or transfer of real estate

R. The architect may assist in coordination with consultants (such as soils, structural, civil engineers etc) but under the terms of basic limited service, receives no compensation for, and assumes no responsibility or liability for the area of their (consultants) work and expertise.

S. This set of drawings shall not be copied in whole or in part without prior written consent from the owner. this document is considered as one unit and shall not be considered complete or whole if documents are separated in any manner. documents shall not be separated for the purpose of submitting proposals or for separate phases of construction.

T. These documents are prepared for use by the contractor and shall not, either in whole or in part constitute any direction or instruction to any contractor with regard to construction methods, means or techniques.

U. The contractor shall be responsible for demolition work including, but not limited to, sequence & temporary shoring of all existing structures & verification of existing utilities & services.

V. Construction Barricades: Provide construction barricade as required to keep public and employees safe, following all applicable federal, state and city codes and regulations.

Acceptance of these plans for construction constitutes an understanding of above mentioned terms and basic limited architectural service as described in agreement between owner/architect.

SITE NOTES

1. The contractor shall verify dimensions of existing site conditions, distances, and topographic contours. Site conditions shown are from owner-provided information, surveys by others, and public records. The architect is not responsible for the accuracy of the survey or existing site information.

2. The contractor shall verify dimensions of existing site conditions, distances, and topographic contours. Site conditions shown are from owner-provided information, surveys by others, and public records. The architect is not responsible for the accuracy of the survey or existing site information.

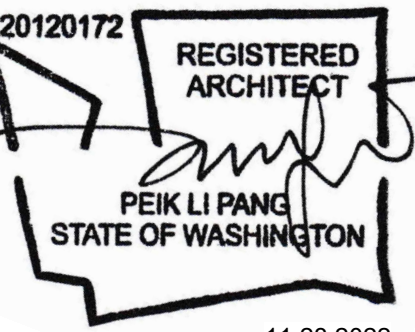
3. The Contractor shall order necessary site boundary and setback survey prior to commencement of all work.

4. The contractor shall execute and complete all work on adjacent properties and public rights-of-way that is required by construction easement agreements with neighboring property owners, private contract documents with the city department of transportation, street use permits, or any other agreement or contract. all improvements and repairs to sidewalks, alleys, streets and neighboring properties shall be coordinated to minimize the impact on the public and to maintain access to neighboring properties. the contractor shall make arrangements and secure necessary permits when construction requires street or sidewalk closures.

5. If any hazardous material, including but not limited to asbestos or polychlorinated biphenyl (pcb), is encountered on the site by the contractor, the contractor shall immediately notify the owner.

6. Prior to beginning any demolition work, the owner or contractor shall submit a "notice of intent" to the Puget Sound clean air agency (pscaa) and fulfill their requirements.

7. New water mains, fire hydrants, and temporary fire department access shall be installed, inspected, and approved by the fire department prior to the commencement of combustible construction.



7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

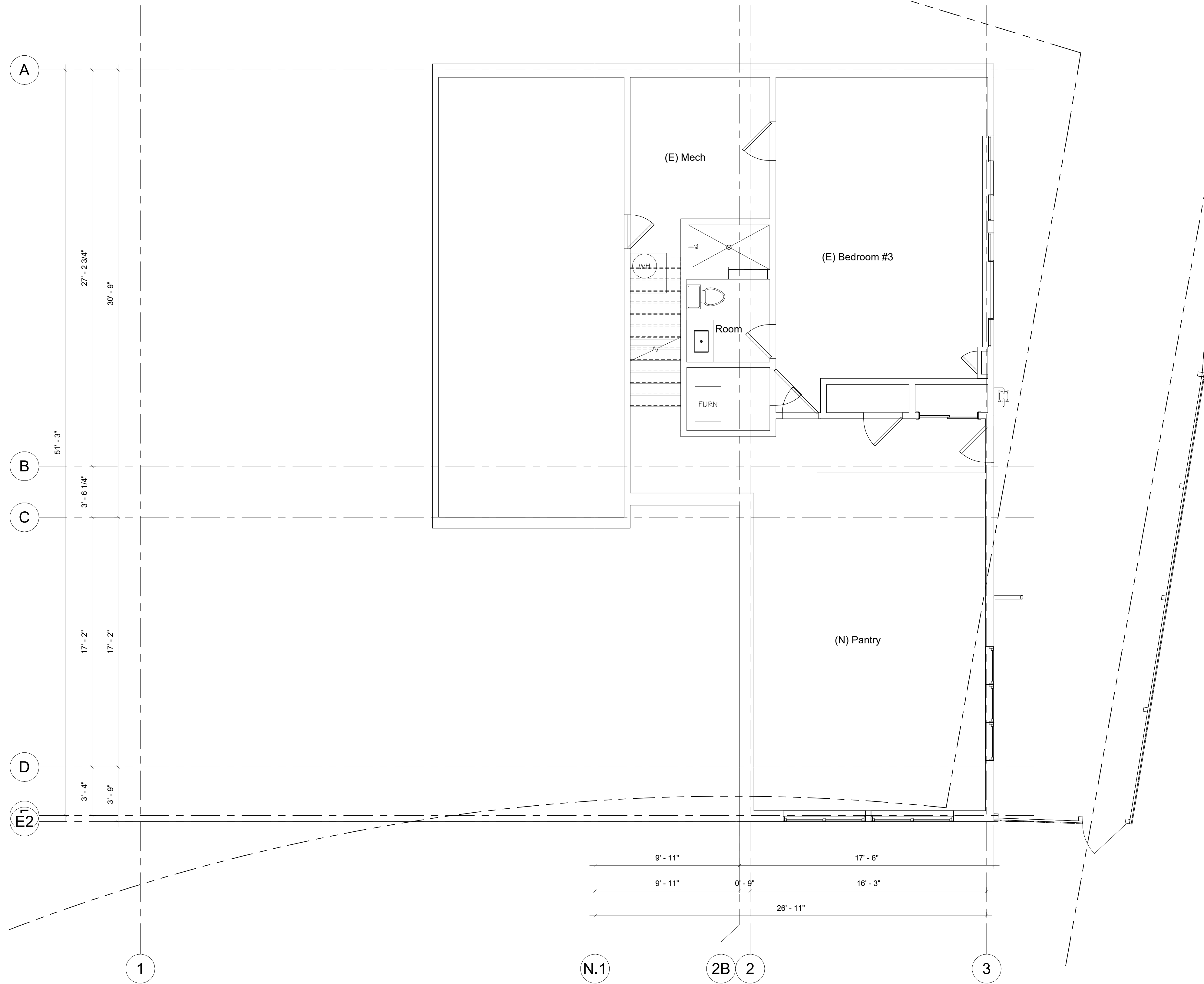
Building Permit

NO.	DESCRIPTION	DATE
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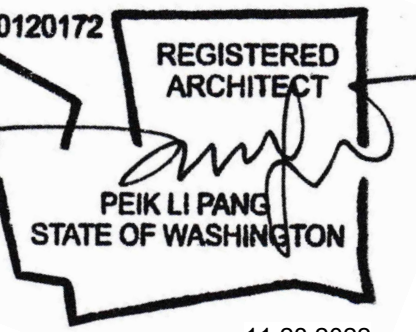
DATE: 11/27/2022

Basement
-
Existing

A1.0



1 Basement-existing
1/4" = 1'-0"



PLAN NOTES (IRC)

SG SAFETY GLAZING REQUIREMENT (S.G.) : (IRC R308)
 SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS

EE EMERGENCY ESCAPE AND RESCUE OPENING (E.E.) : (IRC R310)
 IRC R310.1. All sleeping rooms must have an emergency egress window or door that leads directly to a yard or public way
 Emergency egress windows must provide a minimum clear openable area of 5.7 square feet, 24 inches high and 20 inches wide.
 IRC R310.2.2 Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches above the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3

GUARDRAILS, HANDRAILS AND STAIRS

- All guardrails to be 36" high minimum above finished floor (a.f.f.) openings in railing assemblies are not to exceed 4 in one direction, guardrails to withstand a uniform load of 50 lbs/ft or a concentrated load of 200 lbs placed at the top of the handrail or guard, infill areas must be able to withstand a load of 50 lbs / square foot
- Handrails to be between 1 1/4" diameter to 2" diameter, with clearance of 1.5" between rail and wall surface, mount between 34" and 38" above stair nosing or @ 36" a.f.f., typ
- Riser: max 7 3/4", tread: min. 10"

MECHANICAL VENTILATION (IRC M1505)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION AND WHOLE HOUSE MECHANICAL VENTILATION

- 1 100 CFM ON SWITCH
- 2 50 CFM ON SWITCH

S SMOKE DETECTORS (IRC R314.3)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

M CARBON MONOXIDE ALARM (IRC R 315.1)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

DWELLING-GARAGE OPENING AND PENETRATION PROTECTION (IRC R302.5.1)

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-latching and equipped with a self-closing or automatic-closing device.

DWELLING-GARAGE SEPARATION: (IRC R302.6)

R302.6 Dwelling-garage fire separation
 The garage shall be separated as required by Table R302.6. Opening in garage walls shall comply with Section R302.5. Attachment of gypsum board shall comply with Table R702.3.5. The wall separation provisions of Table R302.6 shall not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

TABLE R302.6 DWELLING-GARAGE SEPARATION	
SEPARATION	MATERIAL
From the residence and attic	Not less than 1/2-inch gypsum board or equivalent applied to the garage side
From detached rooms above the garage	Not less than 1/2-inch gypsum board or equivalent
Structures supporting floor/ceiling assemblies used for separation required by this section	Not less than 1/2-inch gypsum board or equivalent
Garages located less than 3 feet from a deck/patio on the same lot	Not less than 1/2-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area.

For SI: 1 inch = 25.4 mm; 1 foot = 304.8 mm.

7405 Tarywood

7405 92nd PI SE,
 Mercer Island, WA
 98040

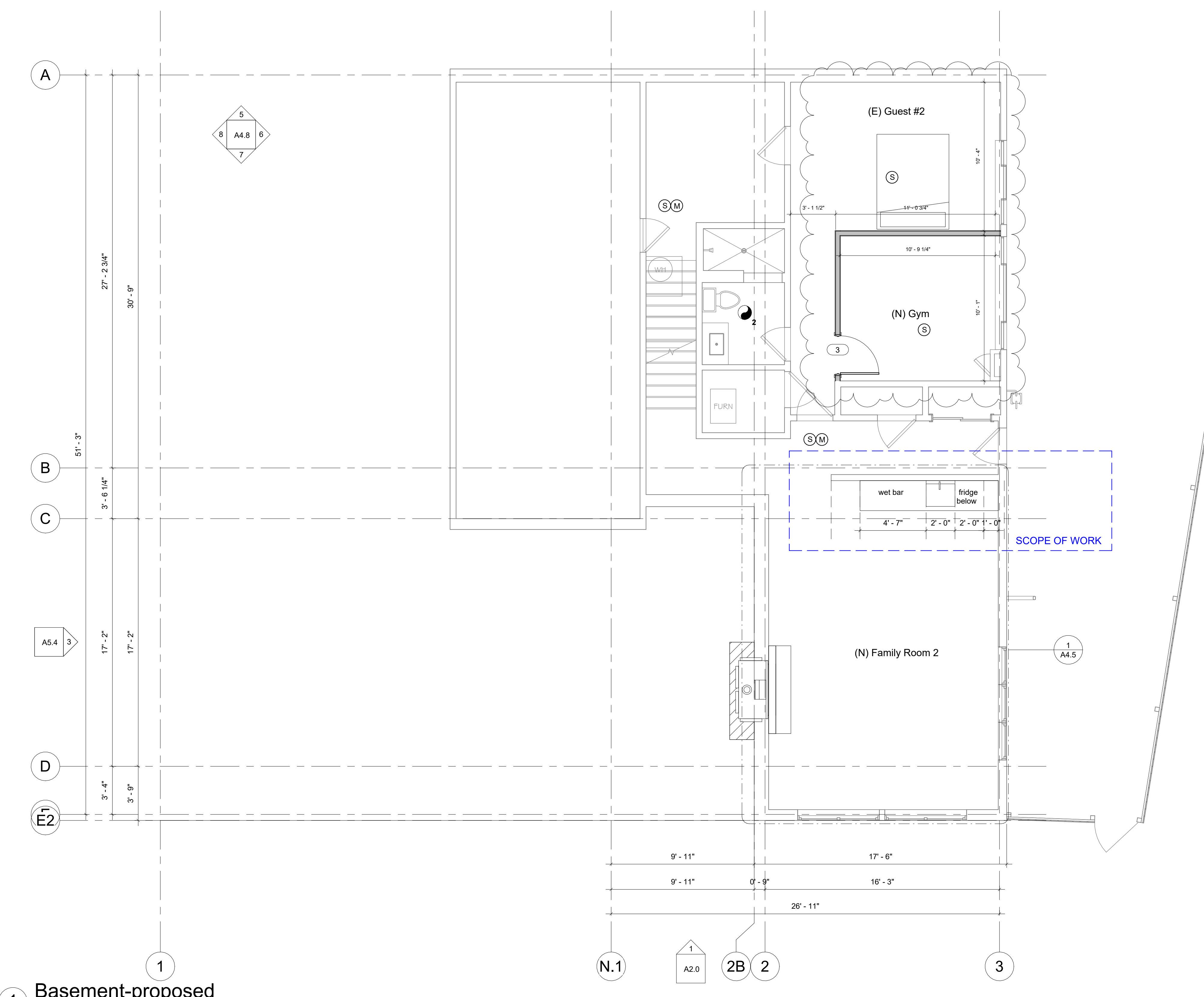
Building Permit

NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

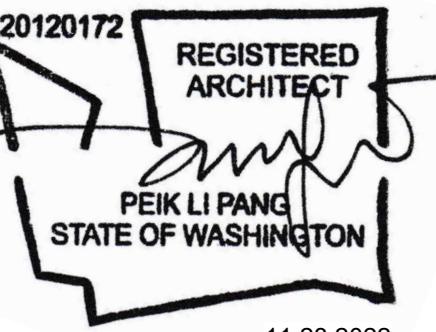
DATE: 11/27/2022

Basement
 -
 Proposed

A1.1



1 Basement-proposed
 1/4" = 1'-0"



11.28.2022

7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

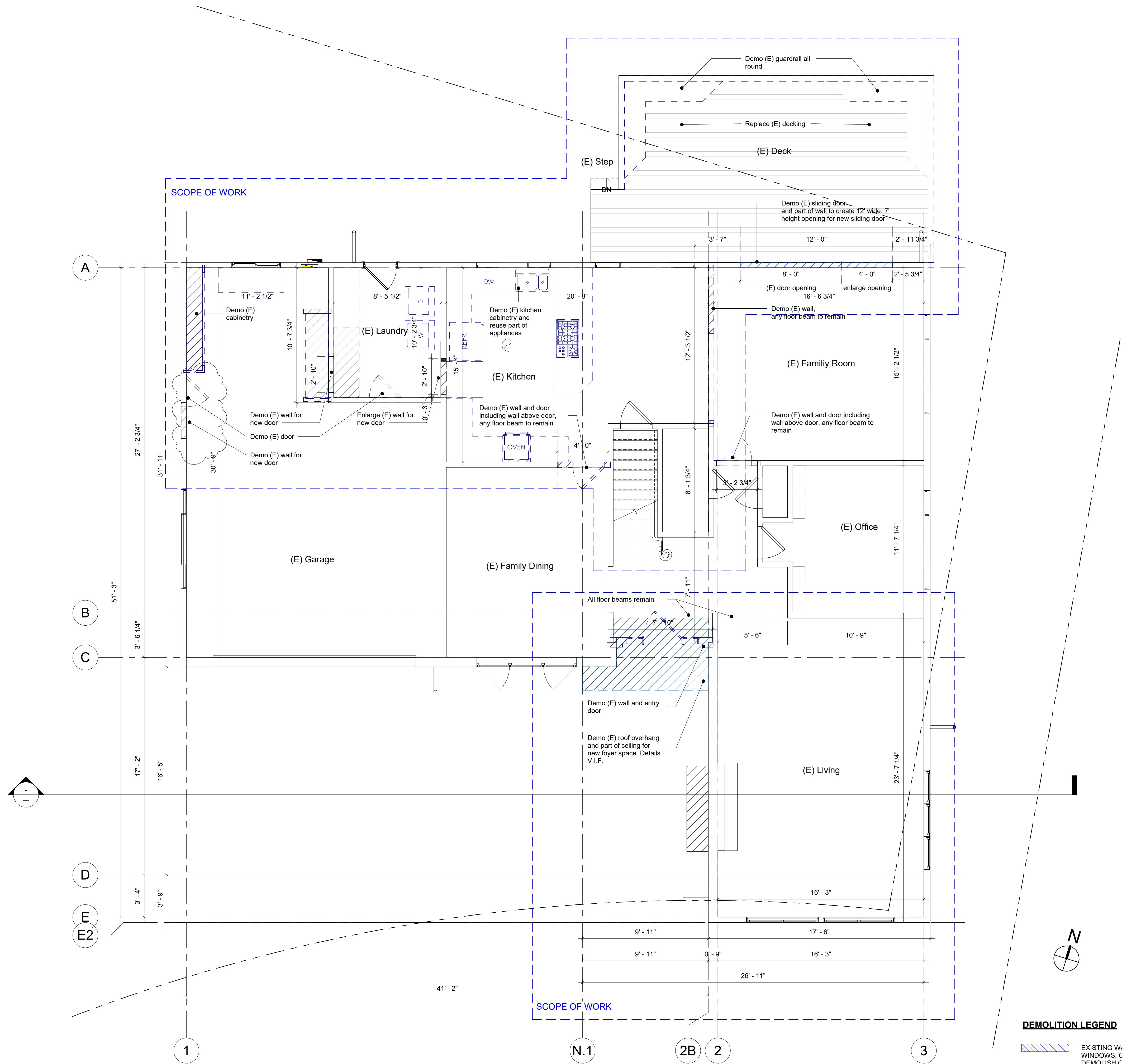
Building Permit

NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

DATE: 11/27/2022

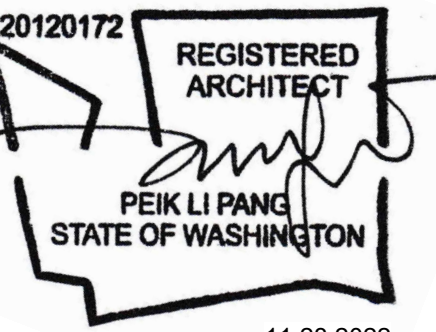
Level 1 -Exist. & Demolition Plan

A1.2



DEMOLITION LEGEND
 EXISTING WALLS TO DEMOLISH
 WINDOWS, CABINET, FIXTURES TO DEMOLISH OR REMOVE

② Level 1 - existing and demolition
1/4" = 1'-0"



PLAN NOTES (IRC)

SG SAFETY GLAZING REQUIREMENT (S.G.): (IRC R308)
SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS

EE EMERGENCY ESCAPE AND RESCUE OPENING (E.E.): (IRC R310)
IRC R310.1. All sleeping rooms must have an emergency egress window or door that leads directly to a yard or public way

Emergency egress windows must provide a minimum clear openable area of 5.7 square feet, 24 inches high and 20 inches wide.

IRC R310.2.2 Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches above the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3

GUARDRAILS, HANDRAILS AND STAIRS

1 All guardrails to be 36" high minimum above finished floor (a.f.f.), openings in railing assemblies are not to exceed 4 in one direction, guardrails to withstand a uniform load of 50 lbs/ft or a concentrated load of 200 lbs placed at the top of the handrail or guard. Infill areas must be able to withstand a load of 50 lbs / square foot

2 Handrails to be between 1 1/4" diameter to 2" diameter, with clearance of 1.5" between rail and wall surface, mount between 34" and 38" above stair nosing or @ 36" a.f.f., typ

3 Riser: max 7 3/4", tread: min 10"

MECHANICAL VENTILATION (IRC M1505)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION AND WHOLE HOUSE MECHANICAL VENTILATION

- 1** 100 CFM ON SWITCH
- 2** 50 CFM ON SWITCH

S SMOKE DETECTORS (IRC R314.3)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

M CARBON MONOXIDE ALARM (IRC R 315.1)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

DWELLING-GARAGE OPENING AND PENETRATION PROTECTION (IRC R302.5.1)

Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb-core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-latching and equipped with a self-closing or automatic-closing device.

DWELLING-GARAGE SEPARATION: (IRC R302.6)

R302.6 Dwelling-garage fire separation
The garage shall be separated as required by Table R302.6. Opening in garage walls shall comply with Section R302.5. Attachment of gypsum board shall comply with Table R702.3.5. The wall separation provisions of Table R302.6 shall not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

SEPARATION	MATERIAL
From the residence and attic	Not less than 1/2" thick gypsum board or equivalent applied to the garage side
From outside rooms above the garage	Not less than 1/2" thick Type X gypsum board or equivalent
Structures supporting floor/ceiling assemblies used for separation required by the section	Not less than 1/2" thick gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 1/2" thick gypsum board or equivalent applied to the interior side of exterior walls that are within this area.

FIG. 911-101-28-1001, 1-1001-302.6-001

7405 Tarywood

7405 92nd PI SE,
Mercer Island, WA
98040

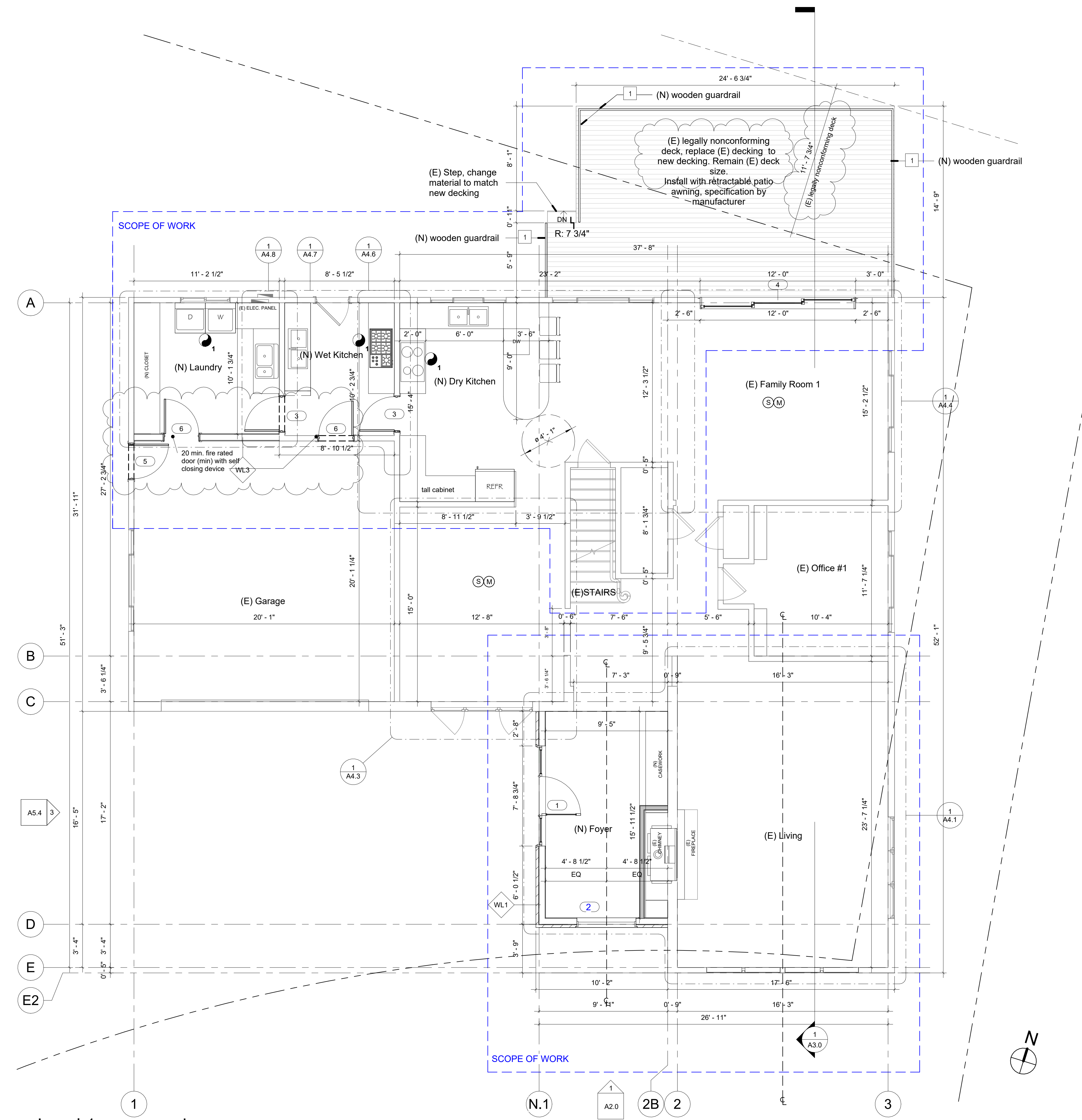
Building Permit

NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

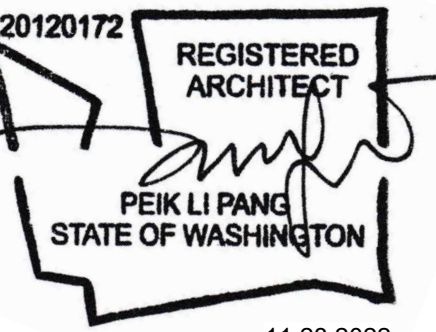
DATE: 11/27/2022

Level 1 -
Proposed

A1.3



1 Level 1 - proposed
1/4" = 1'-0"



7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

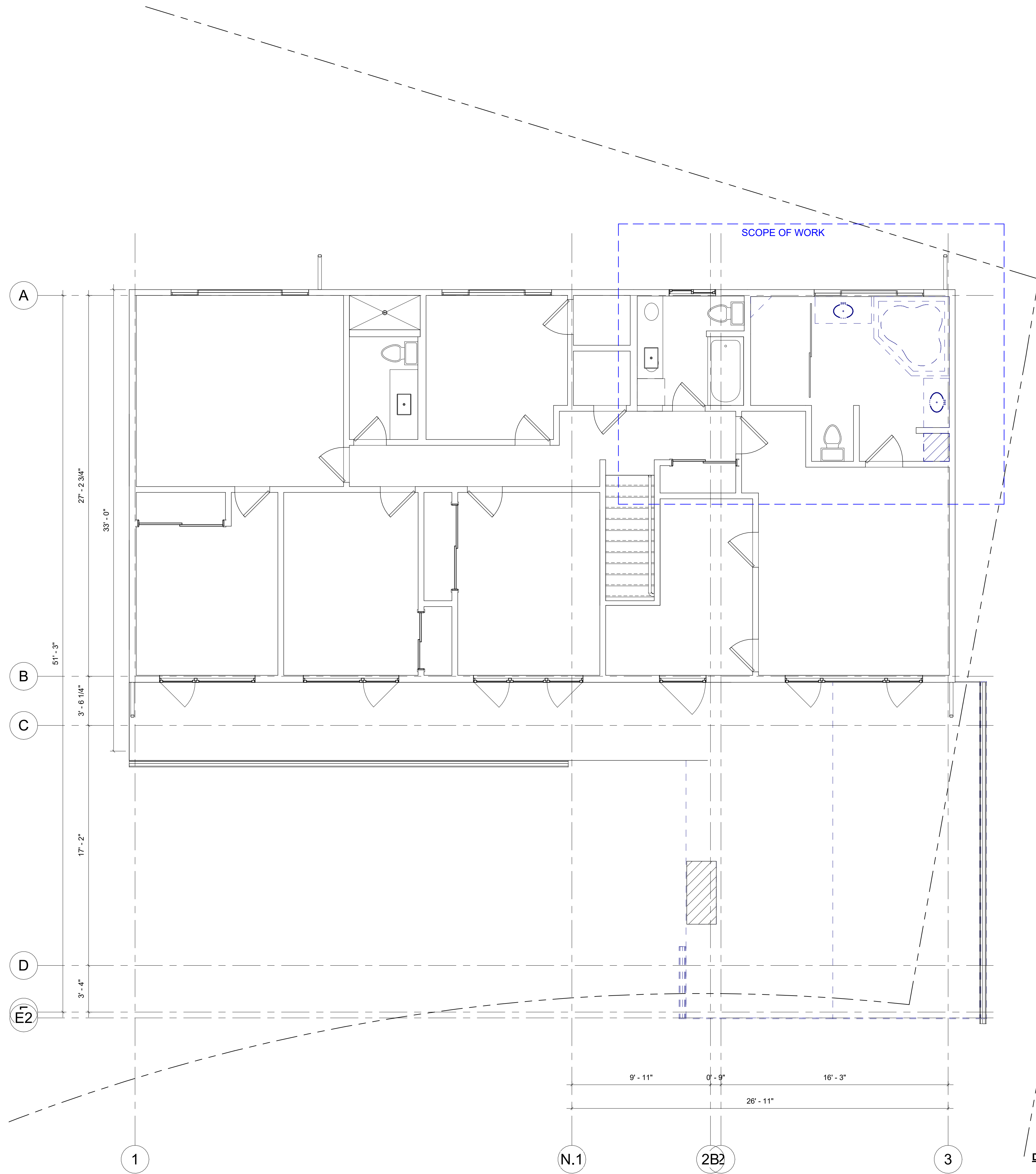
Building Permit

NO.	DESCRIPTION	DATE
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DATE: 11/27/2022

Level 2 - Existing & Demolition Plan

A1.4

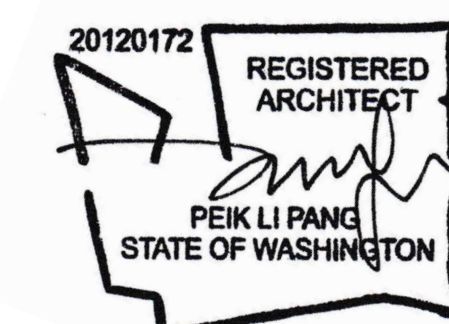


DEMOLITION LEGEND

 EXISTING WALLS TO DEMOLISH
 WINDOWS, CABINET, FIXTURES TO DEMOLISH OR REMOVE



1 Level 2 - existing
1/4" = 1'-0"



PLAN NOTES (IRC)

SG SAFETY GLAZING REQUIREMENT (S.G.) : (IRC R308)

SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS

EE EMERGENCY ESCAPE AND RESCUE OPENING (E.E.) : (IRC R310)

IRC R310.1. All sleeping rooms must have an emergency egress window or door that leads directly to a yard or public way

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1 GUARDRAILS, HANDRAILS AND STAIRS

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2 Handrails to be between 1 1/4" diameter to 2" diameter, with clearance of 1.5" between rail and wall surface, mount between 34" and 38" above stair nosing or @ 36" a.f.f., typ

3 Riser: max 7 3/4", tread: min.10"

MECHANICAL VENTILATION (IRC M1505)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION AND WHOLE HOUSE MECHANICAL VENTILATION

1 100 CFM ON SWITCH

2 50 CFM ON SWITCH

S SMOKE DETECTORS (IRC R314.3)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

M CARBON MONOXIDE ALARM (IRC R 315.1)

SEE SHEET A6.1 FOR COMPLIANCE - ALARMS AND VENTILATION

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DWELLING-GARAGE SEPARATION: (IRC R302.6)

R302.6 Dwelling-garage fire separation
The garage shall be separated as required by Table R302.6. Opening in garage walls shall comply with Section R302.5. Attachment of gypsum board shall comply with Table R702.3.5. The wall separation provisions of Table R302.6 shall not apply to garage walls that are perpendicular to the adjacent dwelling unit wall.

SEPARATION	MATERIAL
From the residence and attic	Not less than 5/8-inch gypsum board or equivalent applied to the garage side
From habitable rooms above the garage	Not less than 5/8-inch Type X gypsum board or equivalent
Structurally supporting floor/ceiling assemblies used for separation required by this section	Not less than 5/8-inch gypsum board or equivalent
Garages located less than 3 feet from a dwelling unit on the same lot	Not less than 5/8-inch gypsum board or equivalent applied to the interior side of exterior walls that are within this area

For SI: 1 inch = 25.4 mm; 1 foot = 304.8 mm.

7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

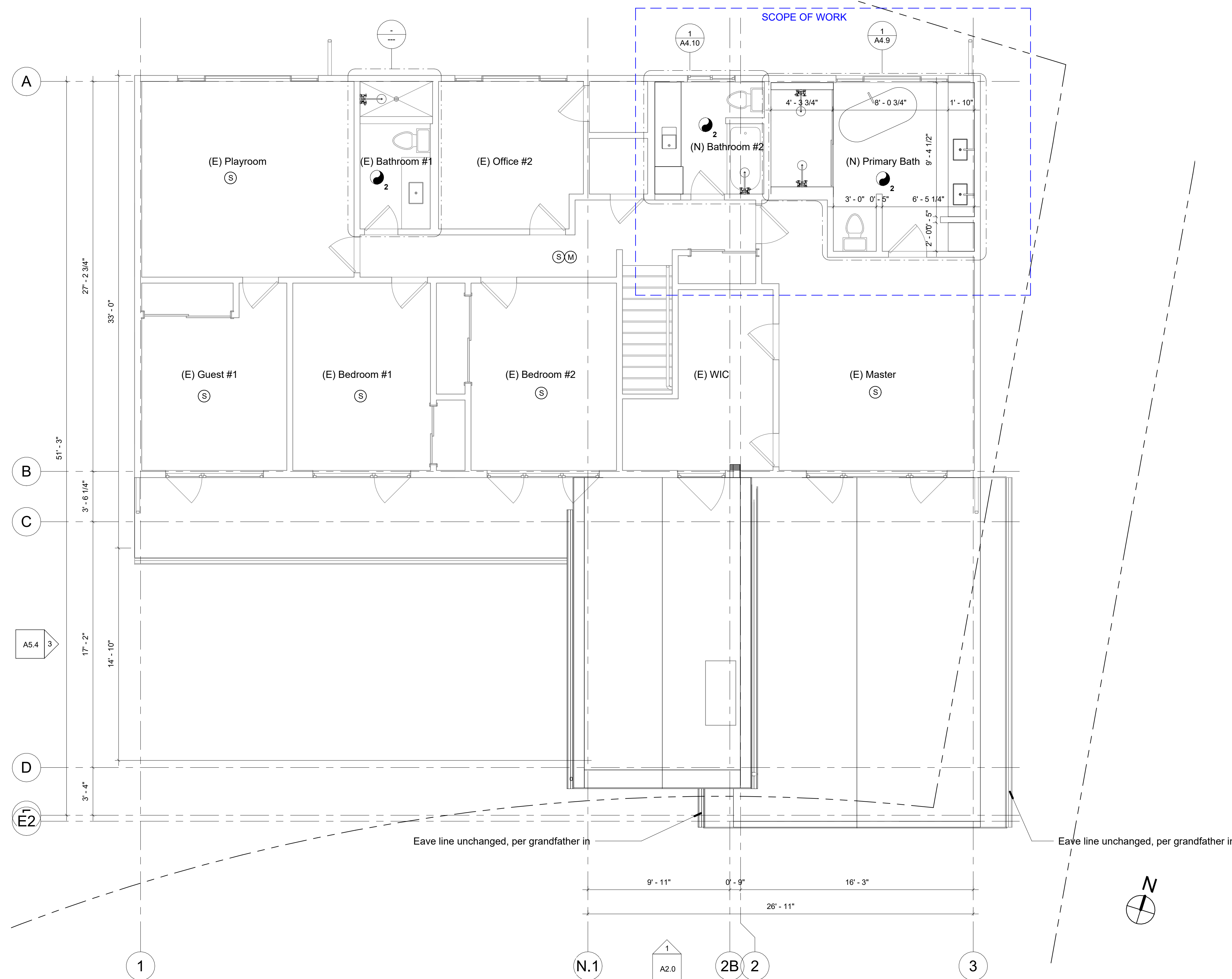
Building Permit

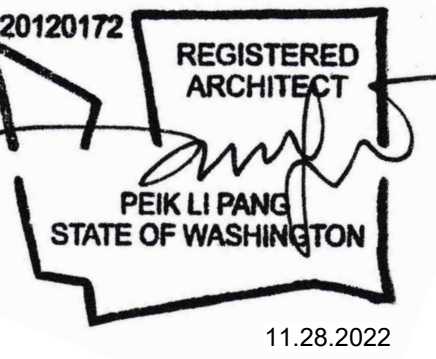
NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

DATE: 11/27/2022

Level 2-
Proposed

A1.5





7405 Tarywood

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Mercer Island, WA
98040

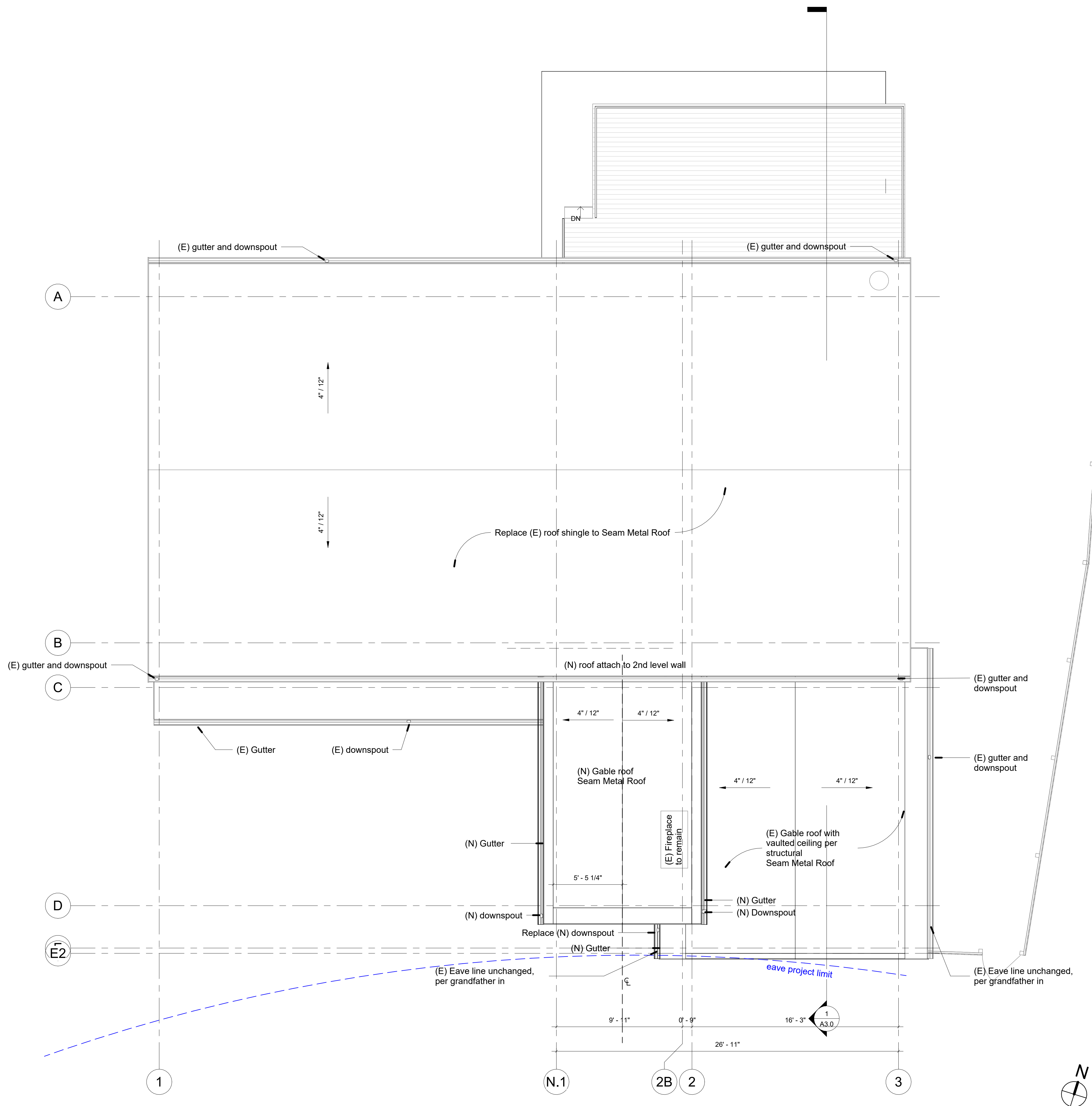
Building Permit

NO.	DESCRIPTION	DATE
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DATE: 11/27/2022

Roof Plan

A1.6



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1 Roof
1/4" = 1'-0"

ELEVATION NOTES (IRC)

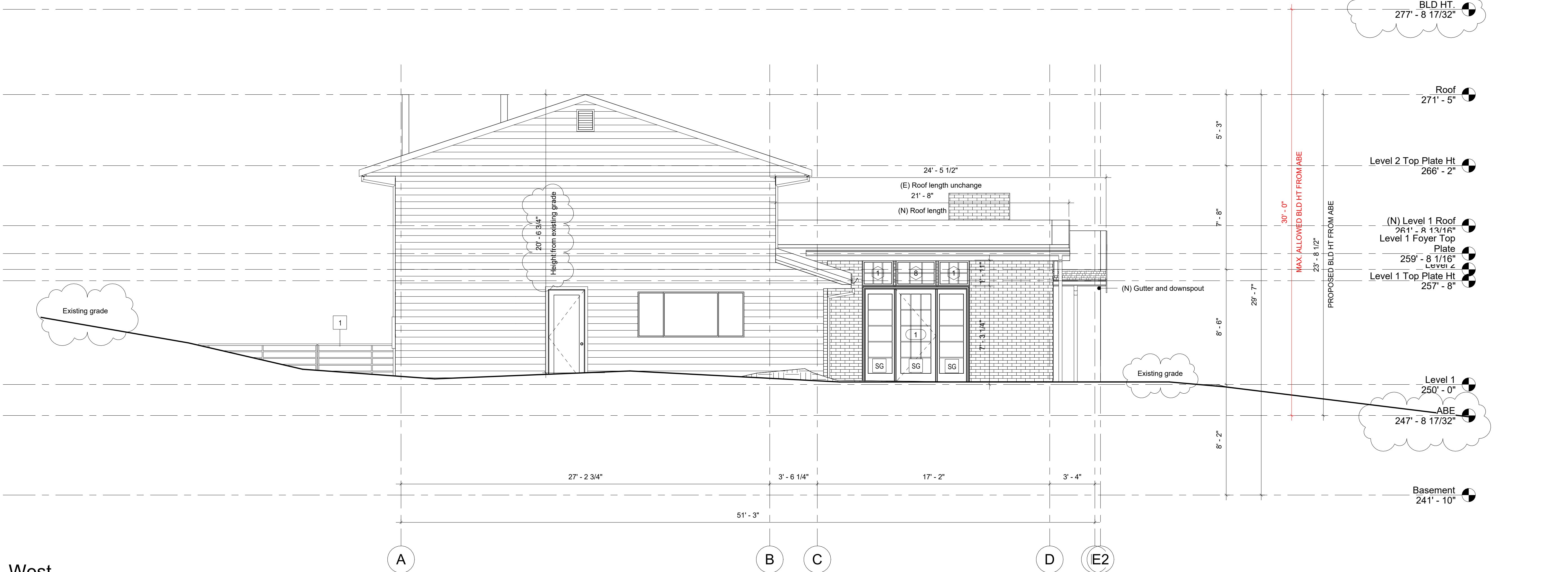
SG SAFETY GLAZING REQUIREMENT (S.G.) : (IRC R308)
SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS

1 GUARDRAILS, HANDRAILS AND STAIRS

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1 South
1/4" = 1'-0"



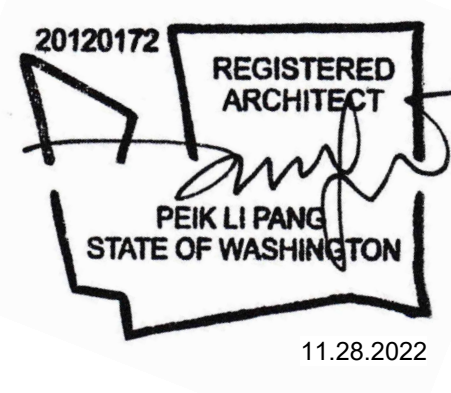
2 West
1/4" = 1'-0"

MAX. ALLOWED BLD HT. 277' - 8 17/32"

MAX. ALLOWED BLD HT. 277' - 8 17/32"

5ft2

5ft2 Studio Architects
2625 Northup Way, Suite 100,
Bellevue, WA 98004
info@5ft2studio.com
www.5ft2studio.com



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7405 92nd Pl SE,
Mercer Island, WA
98040

Building Permit

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1	Revision 1	04/23/2023

DATE: 11/27/2022

Elevations

A2.0

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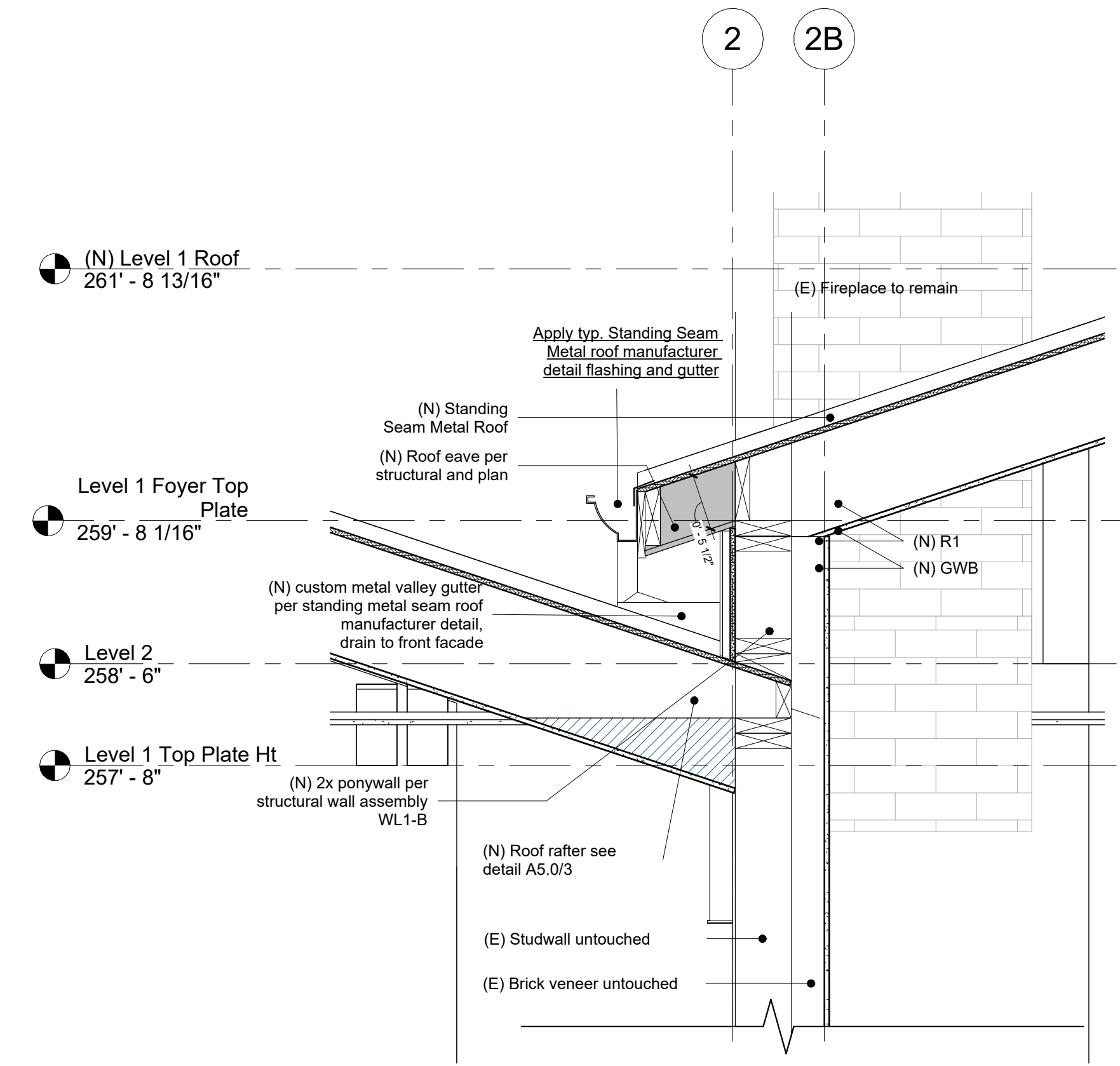
all dimension verify in field

NO.	DESCRIPTION	DATE
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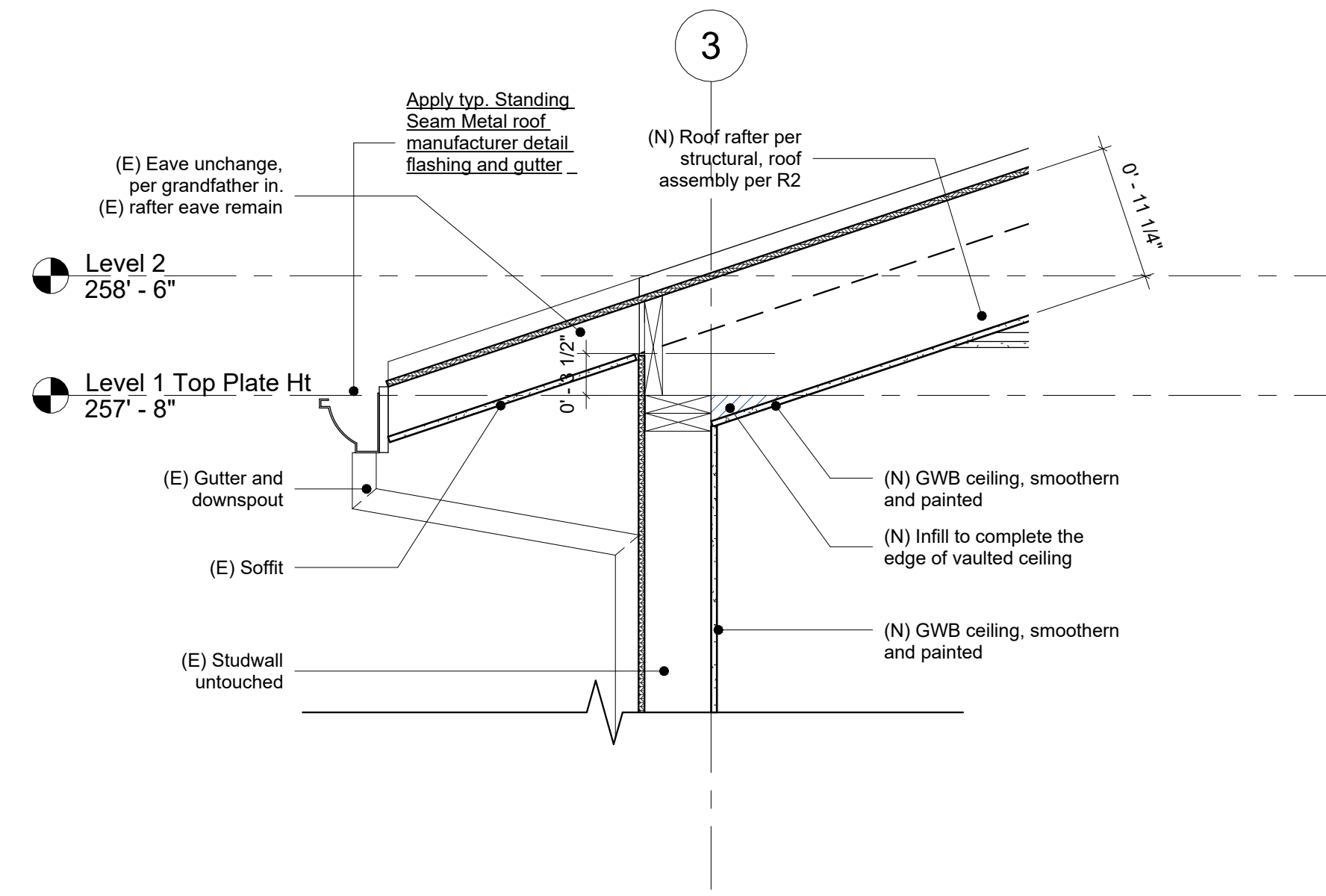
DATE:	11/27/2022
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Details

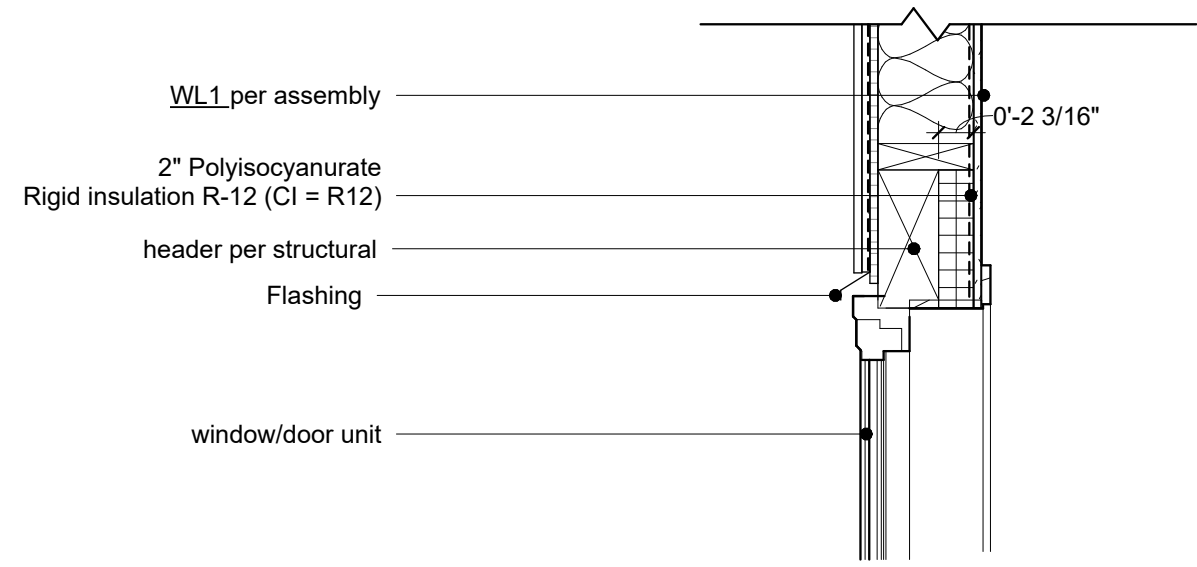
A5.0



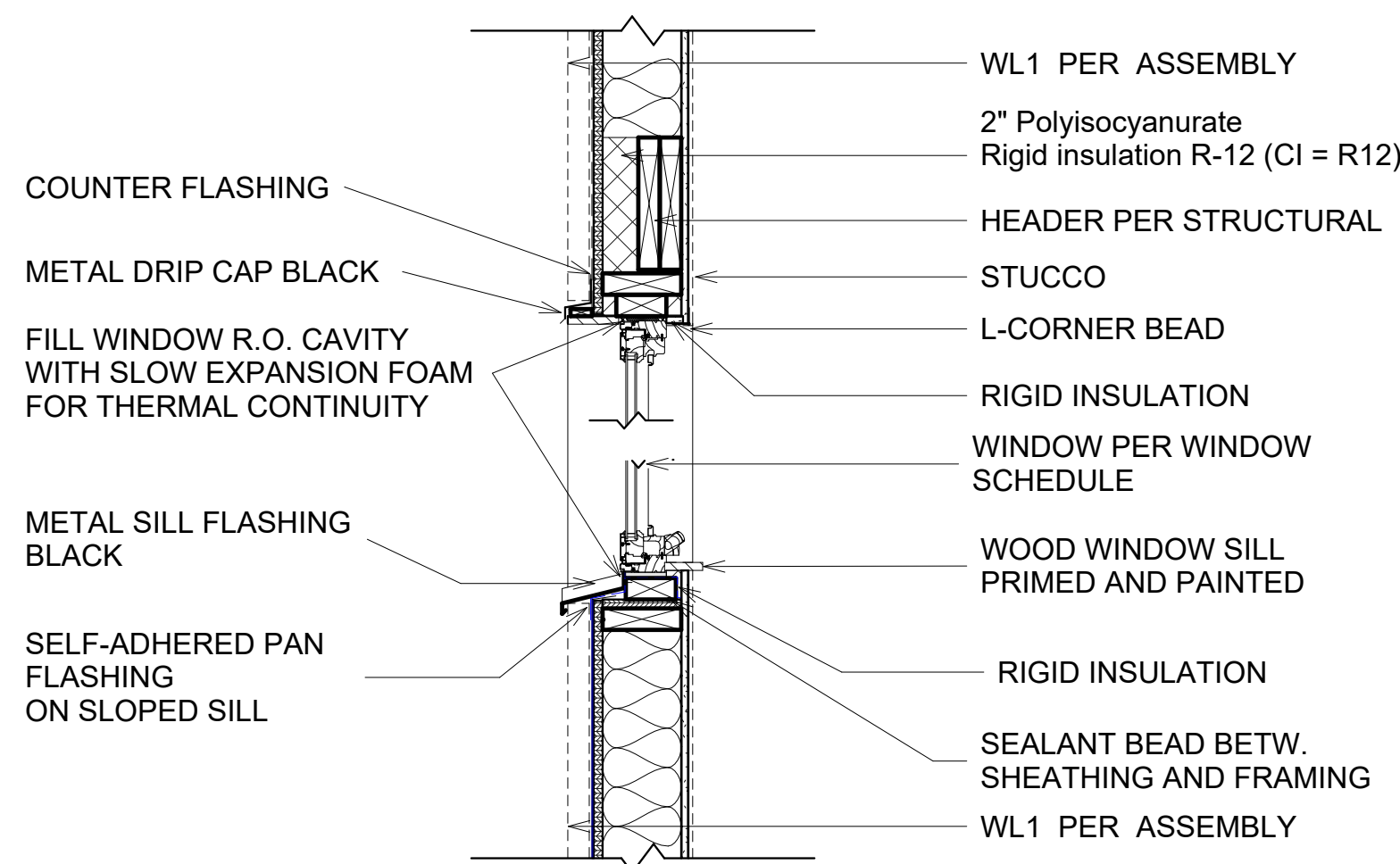
4 DETAIL - PONY WALL & ROOF EAVE
 1" = 1'-0"



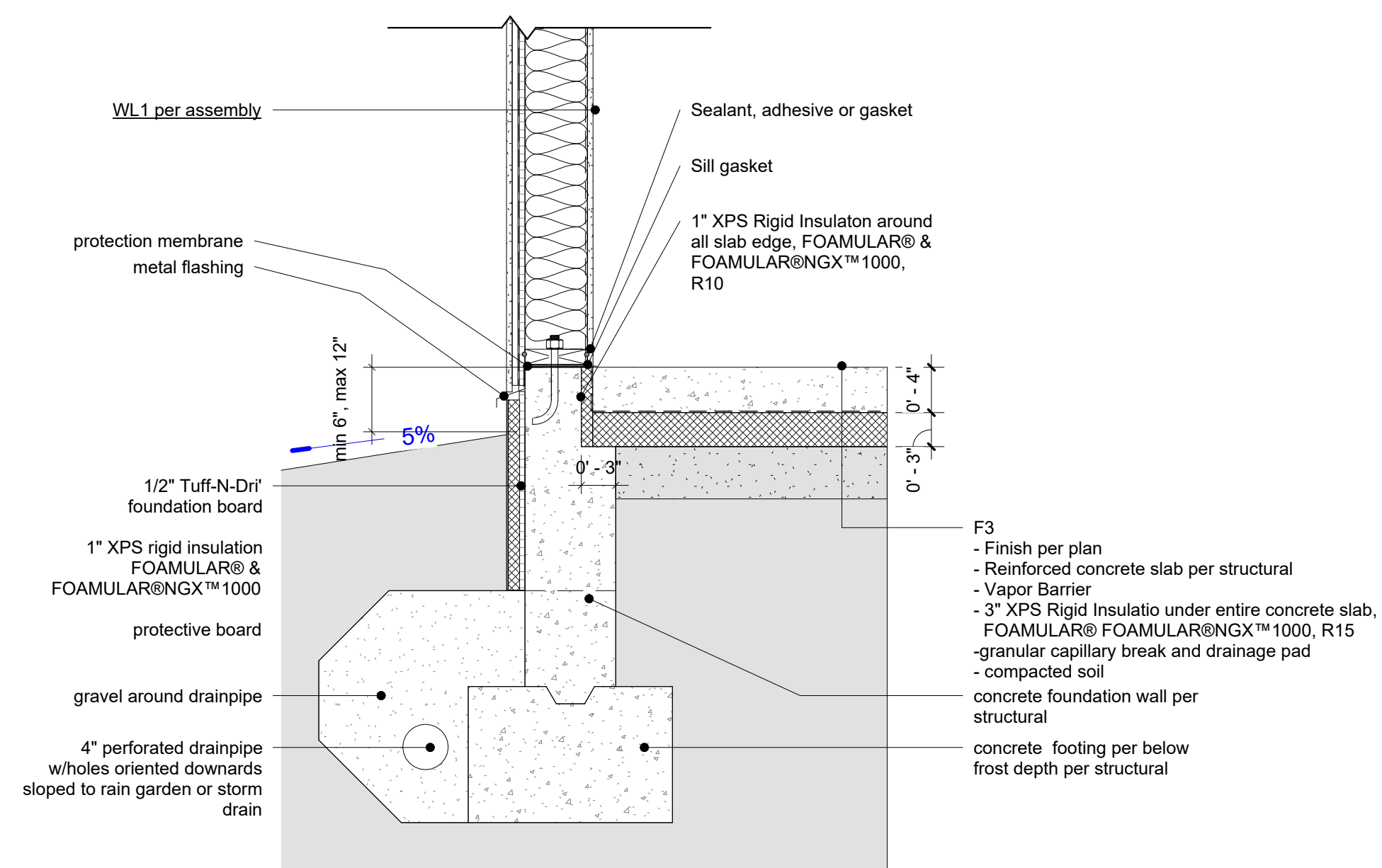
3 DETAIL - NEW RAFTER ROOF
 1" = 1'-0"



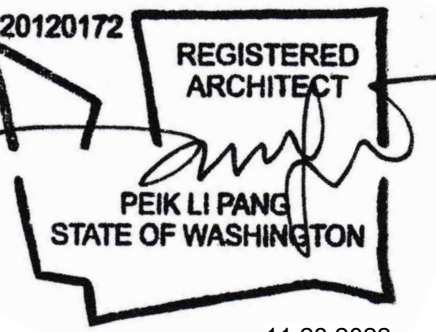
1 DETAIL-HEADER INSULATION, TYP.
 1" = 1'-0"



5 DETAIL TYP. WINDOW
 1" = 1'-0"



2 DETAIL-TYPICAL FOUNDATION AND EXTERIOR WALL
 1" = 1'-0"



7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

Building Permit

**ALL EXISTING AND NEW
DIMENSIONS VERIFY IN
FIELD**

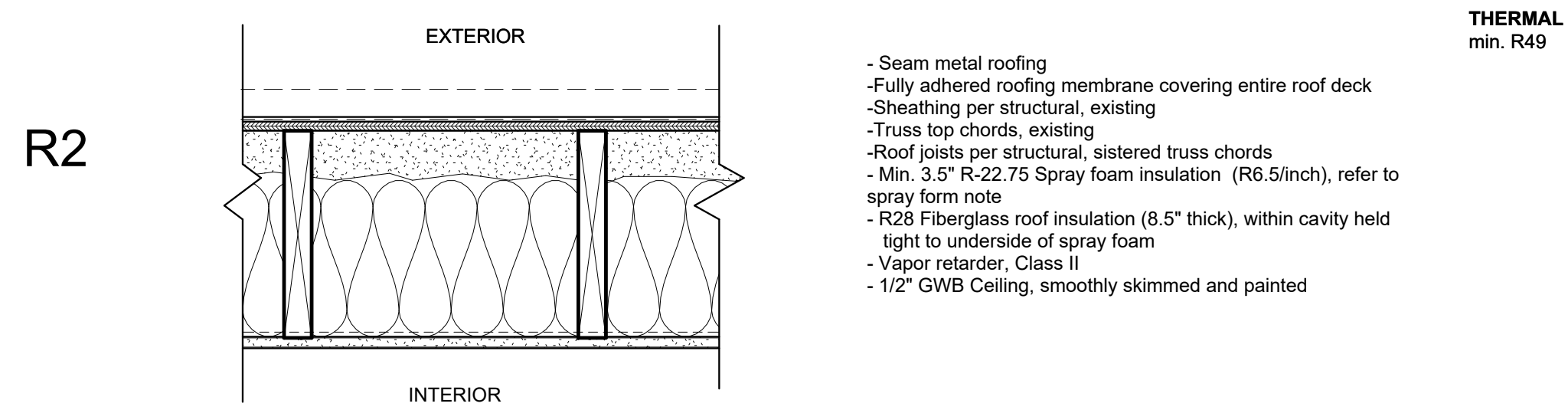
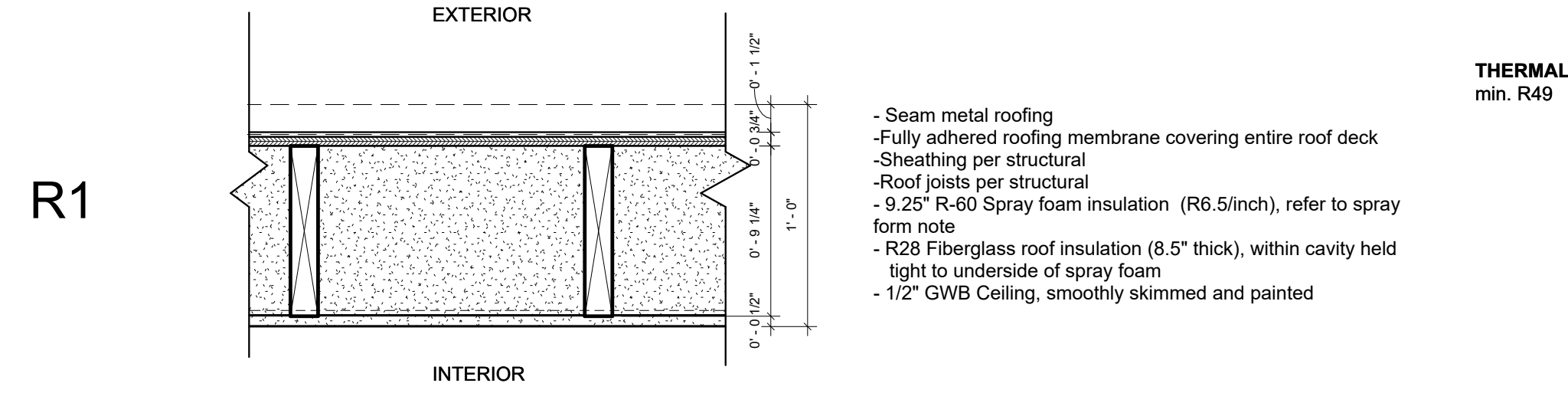
NO.	DESCRIPTION	DATE
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DATE: 11/27/2022

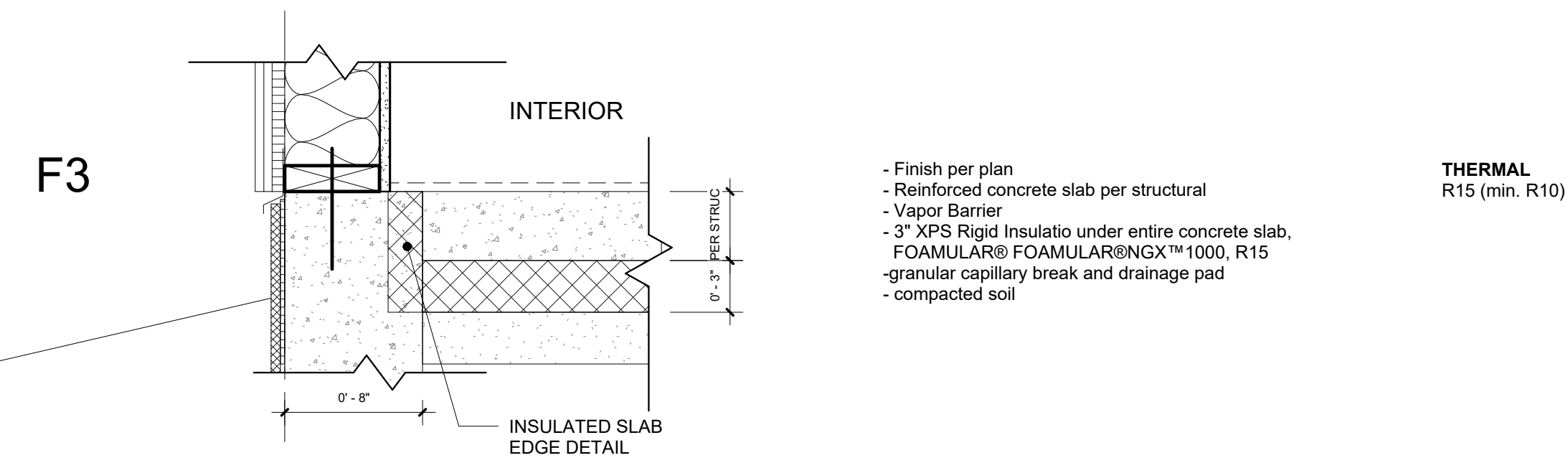
Assemblies

A5.1

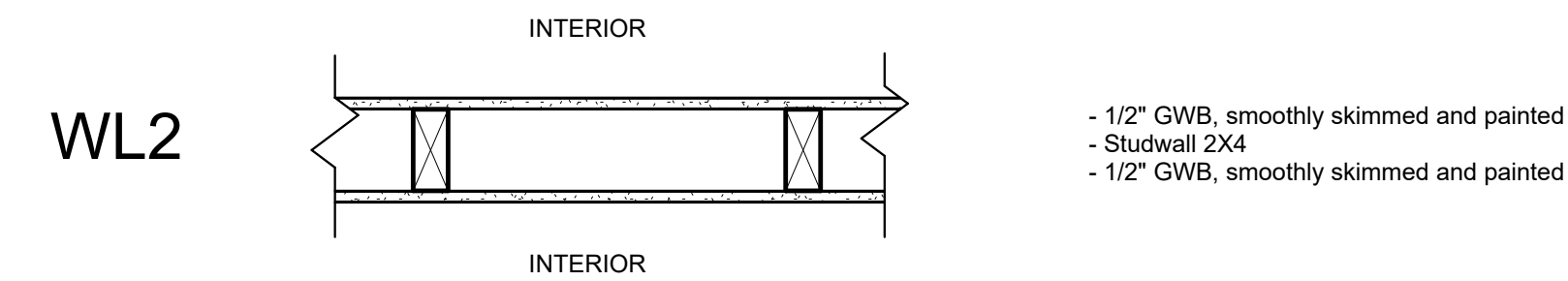
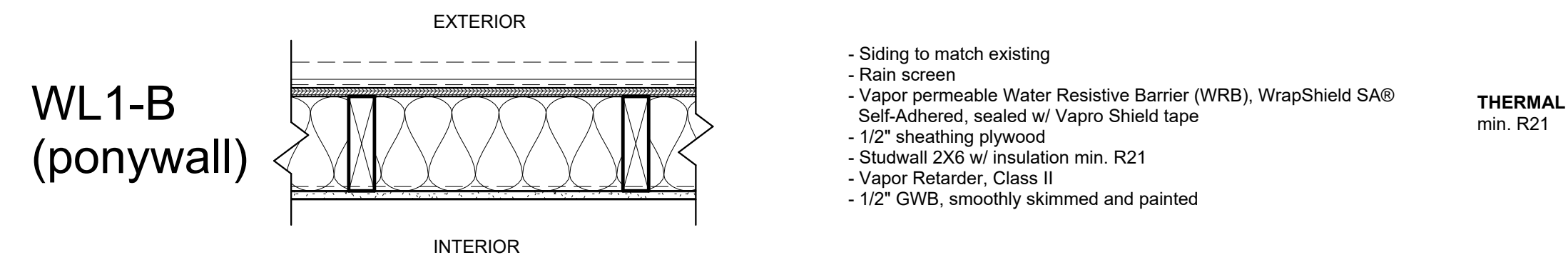
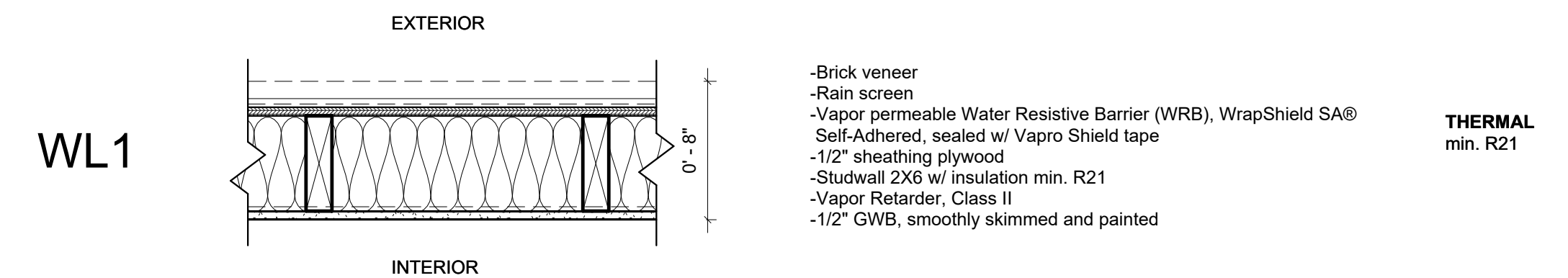
ROOF ASSEMBLIES



FLOOR ASSEMBLIES



WALL ASSEMBLIES



SPRAY FORM NOTE

SPRAY FORM PRODUCT NAME: CERTASPRAY CLOSED-CELL SPRAY FOAM INSULATION
MANUFACTURER: CERTAINTEED CORPORATION
ESR REPORT # : 2669

SPRAY FORM NOTES:
1) A copy of the ICC-ES Report for the insulation product must be provided on site for the field inspector
2) The applied spray foam must be installed in accordance with the manufacturer's instructions by a certified installer.

ENERGY CODE PATH

ENERGY CODE TO COMPLY WITH CHAPTER 51-11C WAC WASHINGTON STATE ENERGY CODE - RESIDENTIAL 2018 EDITION, SECTIONS R401 THROUGH R404 AND ADDITION OF SECTION R406

R401.2 COMPLIANCE

**TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT***

CLIMATE ZONE 5 AND MARINE 4	
Fenestration U-Factor ^b	0.30
Skylight ^b U-Factor	0.50
Ceiling R-Value ^g	49
Wood Frame Wall ^{g,h} R-Value	21 int
Floor R-Value	30
Below-Grade ^{e,h} Wall R-value	10/15/21 int + 5TB
Slab ^{d,f} R-Value & Depth	10, 2 ft

- For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.
- R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table.
 - The fenestration U-factor column excludes skylights.
 - "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
 - R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
 - For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
 - R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
 - For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
 - Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.

R406.3 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS COMPLIANCE

R406.3 Additional energy efficiency requirements. Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 so as to achieve the following minimum number of credits:

- Small Dwelling Unit: 3.0 credits
Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
- Medium Dwelling Unit: 6.0 credits
All dwelling units that are not included in #1, #3 or #4.
- Large Dwelling Unit: 7.0 credits
Dwelling units exceeding 5000 square feet of conditioned floor area.
- Dwelling units serving R-2 occupancies: 4.5 credits
- Additions less than or equal to 500 square feet: 1.5 credits

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

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

Project Information	Contact Information
7405 92nd Pl SE, Mercer Island, WA 98040	Joanna Yee
	7405 92nd Pl SE, Mercer Island, WA 98040

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

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

Authorized Representative		Date	11/28/2022
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All Climate Zones (Table R402.1.1)	R-Value ^a	U-Factor ^a
Fenestration U-Factor ^b	n/a	0.30
Skylight U-Factor ^b	n/a	0.50
Glazed Fenestration SHGC ^{b,c}	n/a	n/a
Ceiling ^e	49	0.026
Wood Frame Wall ^{g,h}	21 int	0.056
Floor	30	0.029
Below Grade Wall ^{i,j}	10/15/21 int + TB	n/a
Slab ^k R-Value & Depth	10, 2 ft	0.042

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

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

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

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

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

Heating Options	Fuel Normalization Descriptions	Credits - select ONE heating option	User Notes
1	Combustion heating minimum NAECA ^a	0.0	<input type="checkbox"/>
2	Heat pump ^b	1.0	<input type="checkbox"/>
3	Electric resistance heat only - furnace or zonal	-1.0	<input type="checkbox"/>
4	DHP with zonal electric resistance per option 3.4	0.5	<input type="checkbox"/>
5	All other heating systems	-1.0	<input type="checkbox"/>

Energy Options	Energy Credit Option Descriptions	Credits - select ONE energy option from each category ^f	User Notes
1.1	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.2	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.3	Efficient Building Envelope	0.5	<input type="checkbox"/>
1.4	Efficient Building Envelope	1.0	<input type="checkbox"/>
1.5	Efficient Building Envelope	2.0	<input type="checkbox"/>
1.6	Efficient Building Envelope	3.0	<input type="checkbox"/>
1.7	Efficient Building Envelope	0.5	<input type="checkbox"/>
2.1	Air Leakage Control and Efficient Ventilation	0.5	<input type="checkbox"/>
2.2	Air Leakage Control and Efficient Ventilation	1.0	<input type="checkbox"/>
2.3	Air Leakage Control and Efficient Ventilation	1.5	<input type="checkbox"/>
2.4	Air Leakage Control and Efficient Ventilation	2.0	<input type="checkbox"/>
3.1*	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.2	High Efficiency HVAC	1.0	<input type="checkbox"/>
3.3*	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.4	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.5	High Efficiency HVAC	1.5	<input type="checkbox"/>
3.6*	High Efficiency HVAC	2.0	<input type="checkbox"/>
4.1	High Efficiency HVAC Distribution System	0.5	<input type="checkbox"/>
4.2	High Efficiency HVAC Distribution System	1.0	<input type="checkbox"/>

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

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

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

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

For Building Officials Only

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

Table 406.3 - Energy Credits (Single Family)

1. EFFICIENT BUILDING ENVELOPE OPTIONS

Only one option from Items 1.1 through 1.7 may be selected in this category. Compliance with the conductive UA targets is demonstrated using Section R402.1.4, Total UA alternative, where [1- (Proposed UA Target / UA)] x the required %UA reduction.

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.1 Vertical fenestration U = 0.24

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.2 Vertical fenestration U = 0.20

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.3 Floor R-38
Slab on grade R-10 perimeter and under entire slab below grade slab R-10 perimeter and under entire slab or

Compliance based on Section R402.1.4: Reduce the Total conductive UA by 5%.

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.4 Vertical fenestration U = 0.25
Wall R-21 plus R-4 ci
Floor R-38
Basement wall R-21 int plus R-5 ci

Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab or

Compliance based on Section R402.1.4: Reduce the Total conductive UA by 15%.

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.5 Vertical fenestration U = 0.22
Ceiling and single-rafter or joist-vaulted R-49 advanced
Wood frame wall R-21 int plus R-12 ci Floor R-38
Basement wall R-21 int plus R-12 ci

Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab or

Compliance based on Section R402.1.4: Reduce the Total conductive UA by 30%.

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

1.6 Vertical fenestration U = 0.18
Ceiling and single-rafter or joist-vaulted R-60 advanced
Wood frame wall R-21 int plus R-16 ci

Floor R-48
Basement wall R-21 int plus R-16 ci
Slab on grade R-20 perimeter and under entire slab Below grade slab R-20 perimeter and under entire slab or

Compliance based on Section R402.1.4: Reduce the Total conductive UA by 40%.

Prescriptive compliance is based on Table R402.1.1 with the following modifications:

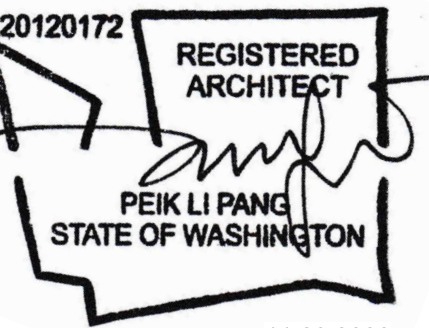
1.7 Vertical Glazing U=0.28
R-49 Advanced (U=0.020) as listed in Section A102.2.1, Ceilings below a vented attic and
R-49 vaulted ceilings with full height of uncompressed insulation extending over the wall top plate at the eaves.



5ft2 Studio Architects

2625 Northup Way, Suite 100,
Bellevue, WA 98004

info@5ft2studio.com
www.5ft2studio.com



11.28.2022

7405 Tarywood

7405 92nd Pl SE,
Mercer Island, WA
98040

Building Permit

**ALL EXISTING AND NEW
DIMENSIONS VERIFY IN
FIELD**

NO. DESCRIPTION DATE

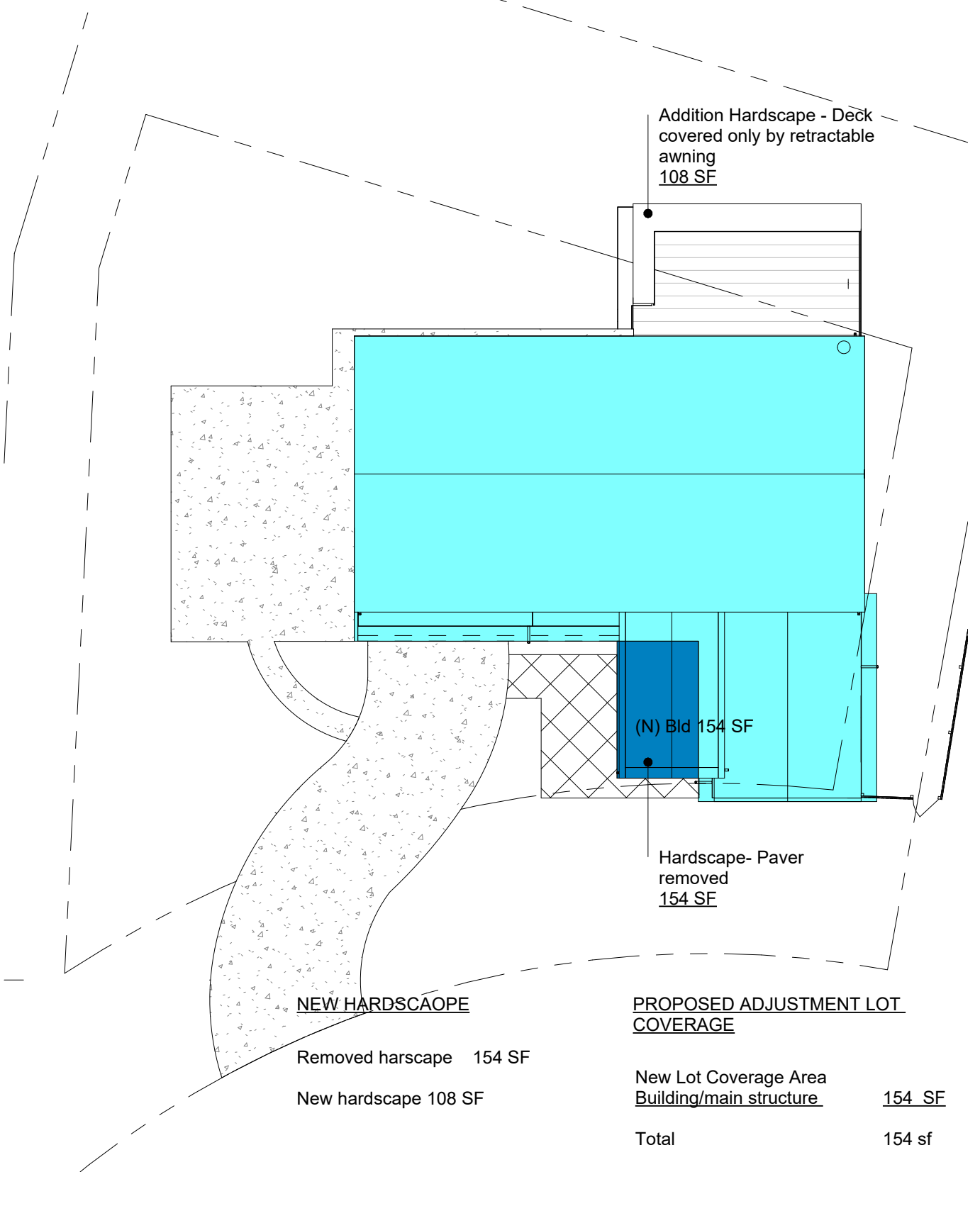
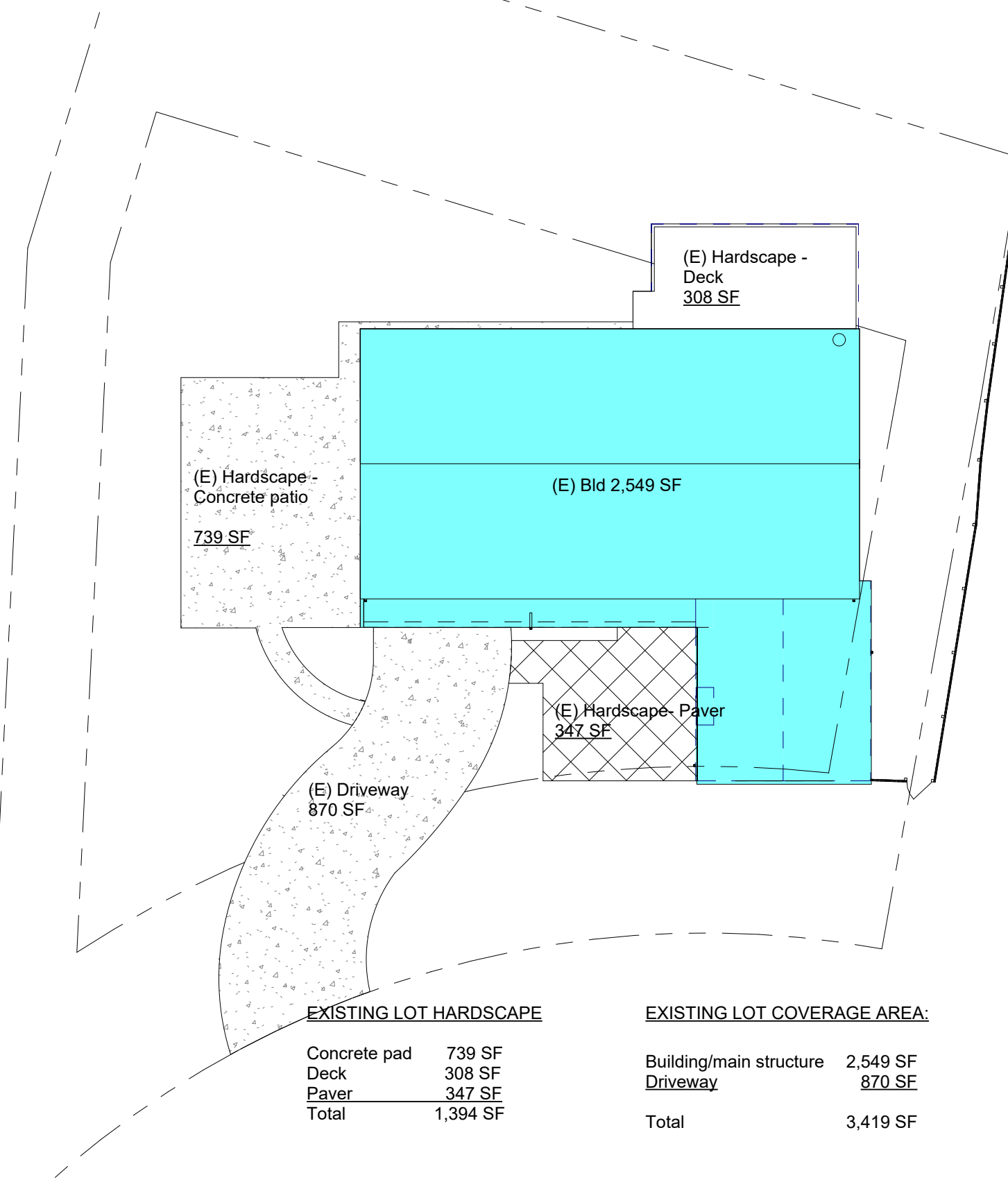
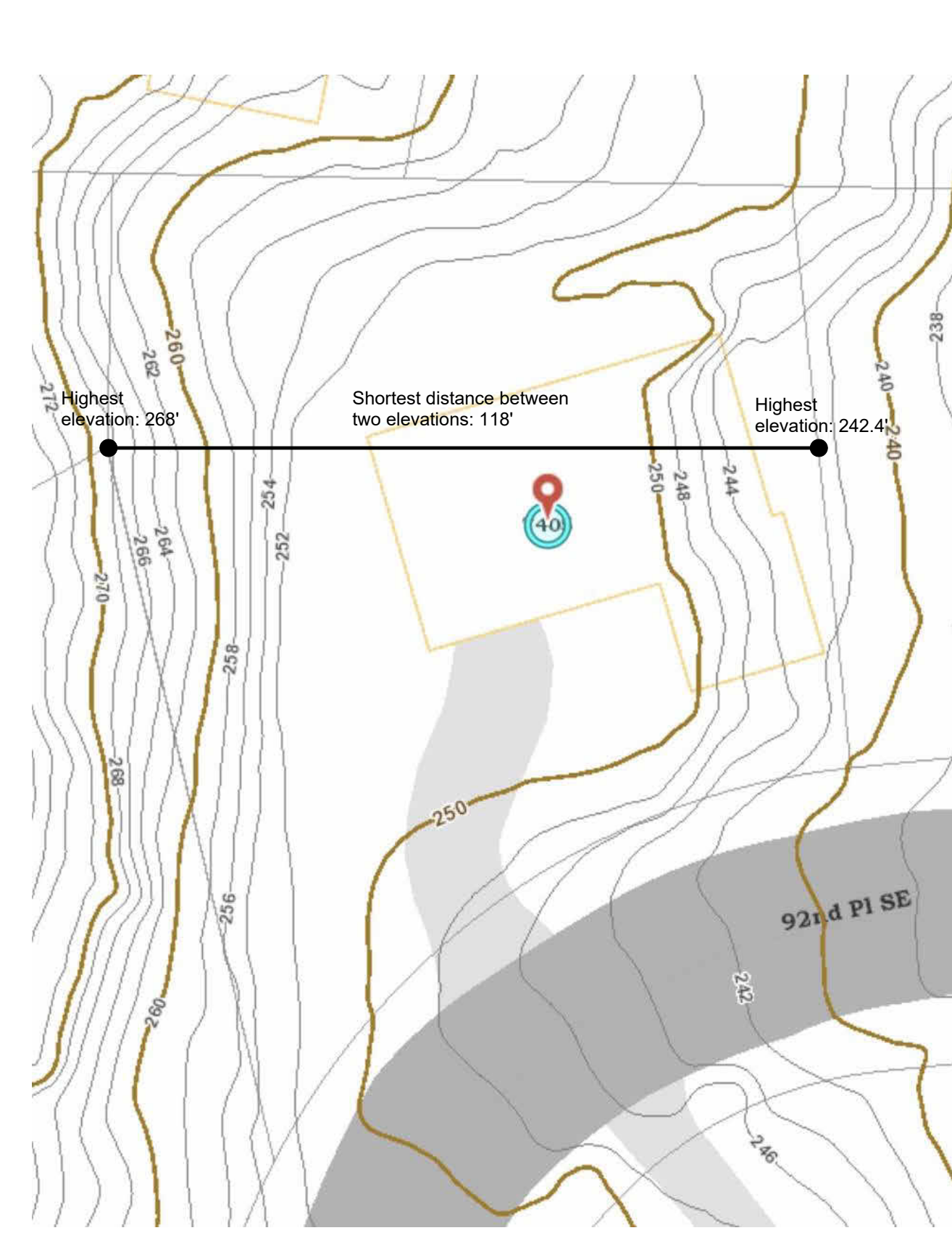
DATE: 11/27/2022

Compliance
- Energy

A5.2

SITE DATA AND ZONING

LOT AREA	13,366 SF																																																																								
SETBACK REQUIREMENT	<p>Front setback 20'</p> <p>Rear setback 25'</p> <p>Side setback (2 side yards) PER MICC 19.02.020.C.1.b Lot width = 111' > 90' per Mercer Island gis map, Side yard setbacks must sum to 17% of the lot width: $113 \times 17\% = 19.21'$</p> <p>Min. side setback shall be more than 33% of the required side yard width. $19.21' \times 33\% = 6.34'$</p> <p>East side setback = 10' > 6.34' (see sheet A5.4 for setback compliance) West side setback = 10'</p>																																																																								
MAXIMUM IN BUILDING HEIGHT	<p>ABE Allowed (30') 247.71'</p> <p>Proposed 247.71' + 30' = 277.71'</p> <p>271' - 5' < allowed [existing]</p>																																																																								
MAXIMUM LOT COVERAGE (House, driving surfaces, and accessory buildings)	<p>Per MICC 19.02.060.B</p> <p>Lot slope calculation: Highest elevation: 268' - lowest: 242.4' = 25.6' Shortest distance between two elevation: 118' $25.6' / 118' = 22\%$</p> <table border="1"> <tr> <th>Lot Slope</th> <th>Maximum Lot Coverage (House, driving surfaces, and accessory buildings)</th> <th>Required Landscaping Area</th> </tr> <tr> <td>Less than 15%</td> <td>40%</td> <td>50%</td> </tr> <tr> <td>15% to less than 30%</td> <td>35%</td> <td>55%</td> </tr> <tr> <td>30% to 50%</td> <td>30%</td> <td>70%</td> </tr> <tr> <td>Greater than 50% slope</td> <td>20%</td> <td>80%</td> </tr> </table> <p>MAX. allowed lot coverage: 35% 13,366 SF x 35% = 4,678.1 SF</p> <p>EXISTING LOT COVERAGE</p> <table border="1"> <tr> <td>Building/main structure</td> <td>2,549 SF</td> <td>PROPOSED ADJUSTMENT LOT COVERAGE</td> </tr> <tr> <td>Driveway</td> <td>870 SF</td> <td>New Lot Coverage Area</td> </tr> <tr> <td>Total</td> <td>3,419 SF</td> <td>Building/main structure</td> </tr> <tr> <td></td> <td></td> <td>Total</td> </tr> <tr> <td></td> <td></td> <td>154 sf</td> </tr> </table> <p>PROPOSED PROJECT LOT COVERAGE = 3,419 + 154 = 3,573 SF</p> <p>Proposed total: 3,573 SF (26.7%) < 4,678.1 SF allowed</p>	Lot Slope	Maximum Lot Coverage (House, driving surfaces, and accessory buildings)	Required Landscaping Area	Less than 15%	40%	50%	15% to less than 30%	35%	55%	30% to 50%	30%	70%	Greater than 50% slope	20%	80%	Building/main structure	2,549 SF	PROPOSED ADJUSTMENT LOT COVERAGE	Driveway	870 SF	New Lot Coverage Area	Total	3,419 SF	Building/main structure			Total			154 sf																																										
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GROSS FLOOR AREA [MICC 19.02.010.D.1]	<p>SITE AREA = 13,366 SF MAX. ALLOWABLE GFA = 40% of 13,366 SF = 5,346 SF</p> <p>BASEMENT CALCULATION</p> <table border="1"> <tr> <th>Wall Segment</th> <th>Length x</th> <th>Coverage</th> <th>Result</th> </tr> <tr> <td>A</td> <td>38.58'</td> <td>100%</td> <td>38.5</td> </tr> <tr> <td>B</td> <td>52.08'</td> <td>27%</td> <td>14</td> </tr> <tr> <td>C</td> <td>17.5'</td> <td>43%</td> <td>7.5</td> </tr> <tr> <td>D</td> <td>21.75'</td> <td>100%</td> <td>22</td> </tr> <tr> <td>E</td> <td>21.08'</td> <td>100%</td> <td>21</td> </tr> <tr> <td>F</td> <td>31.92'</td> <td>100%</td> <td>32</td> </tr> <tr> <td></td> <td>182.91'</td> <td></td> <td>135</td> </tr> </table> <p>1,572 SF X (135)/182.91' = 73.8%</p> <p>1,572 SF X 73.8% = 1,160 SF Excluded from the GFA</p> <p>GFA (exterior face of the building)</p> <table border="1"> <tr> <td>EXISTING:</td> <td>PROPOSED:</td> </tr> <tr> <td>Basement: 1,572 SF - 1,160 SF (excluded from gfa calculation) = 412 SF</td> <td>Basement: 1,572 SF - 1,160 SF (excluded from gfa calculation) = 412 SF</td> </tr> <tr> <td>Level 1: 2,226 SF</td> <td>Level 1: 2,407 SF</td> </tr> <tr> <td>Level 2: 1,659 SF</td> <td>Level 2: 1,659 SF</td> </tr> <tr> <td>Total: 4,297 SF</td> <td>Total: 4,478 SF (+181SF)</td> </tr> </table> <p>Proposed: 4,478 SF (33.5%) < 5,346 SF Allowed</p>	Wall Segment	Length x	Coverage	Result	A	38.58'	100%	38.5	B	52.08'	27%	14	C	17.5'	43%	7.5	D	21.75'	100%	22	E	21.08'	100%	21	F	31.92'	100%	32		182.91'		135	EXISTING:	PROPOSED:	Basement: 1,572 SF - 1,160 SF (excluded from gfa calculation) = 412 SF	Basement: 1,572 SF - 1,160 SF (excluded from gfa calculation) = 412 SF	Level 1: 2,226 SF	Level 1: 2,407 SF	Level 2: 1,659 SF	Level 2: 1,659 SF	Total: 4,297 SF	Total: 4,478 SF (+181SF)																														
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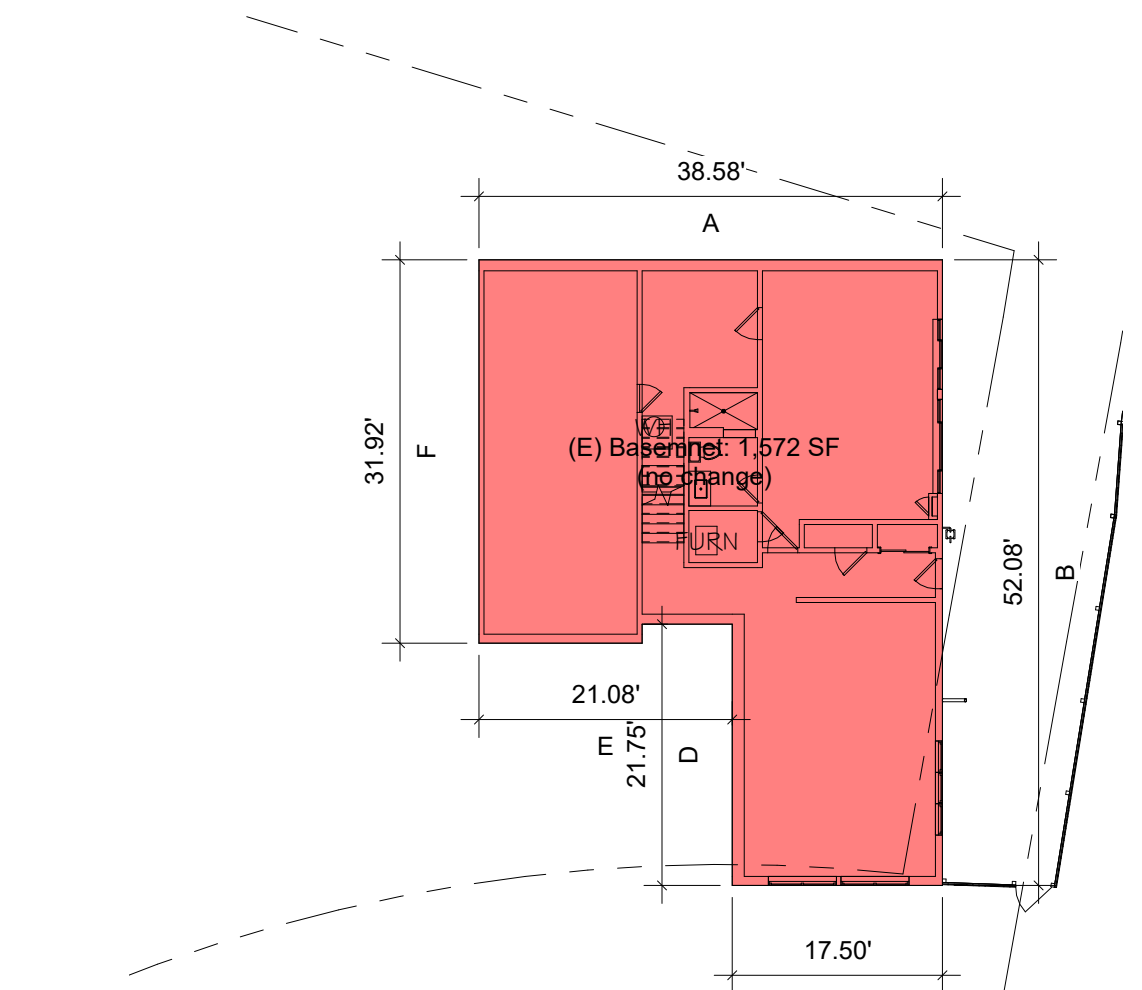
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 STATE OF WASHINGTON
 11.28.2022

7405 Tarywood

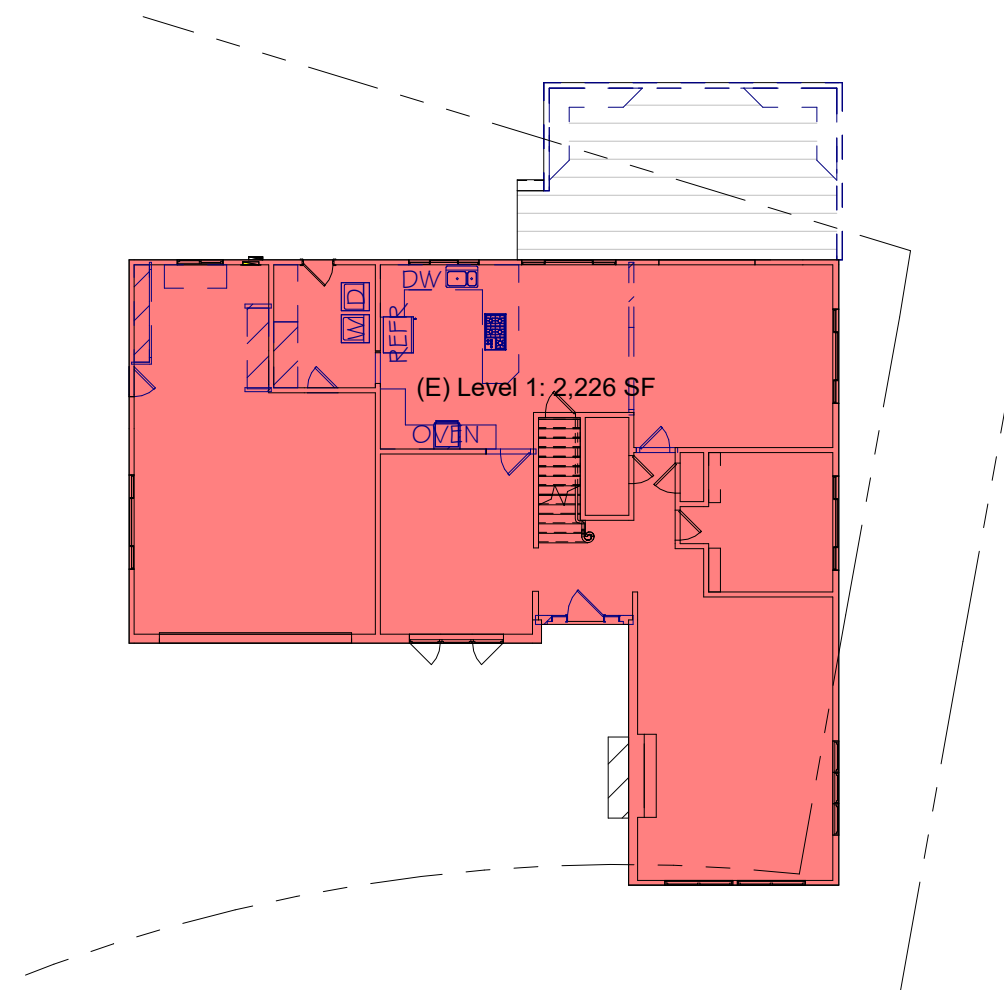
7405 92nd PI SE,
 Mercer Island, WA
 98040

3 (E) Lot Coverage and (E) Hardscape
 1/16" = 1'-0"

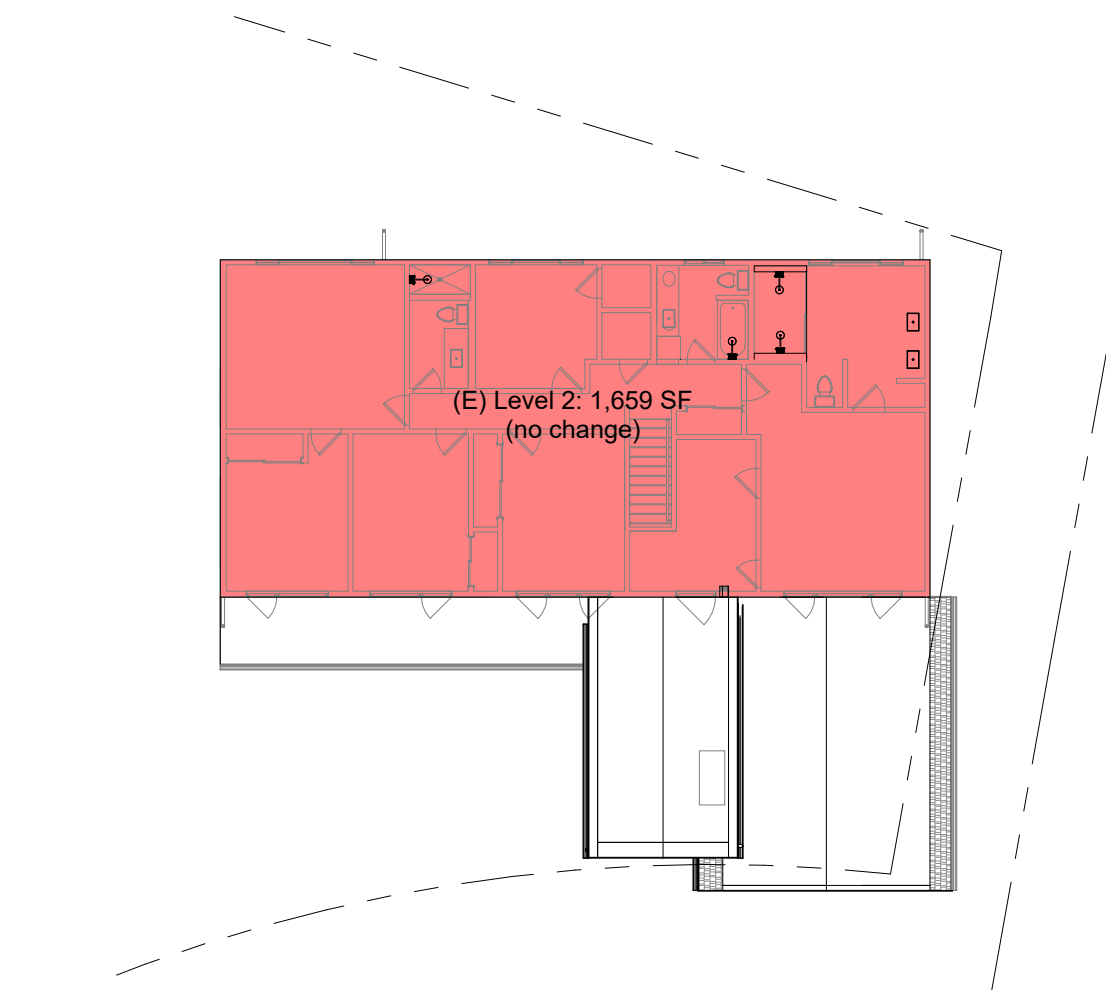
2 (N) Proposed adjustment Lot Coverage and (N) Hardscape
 1/16" = 1'-0"



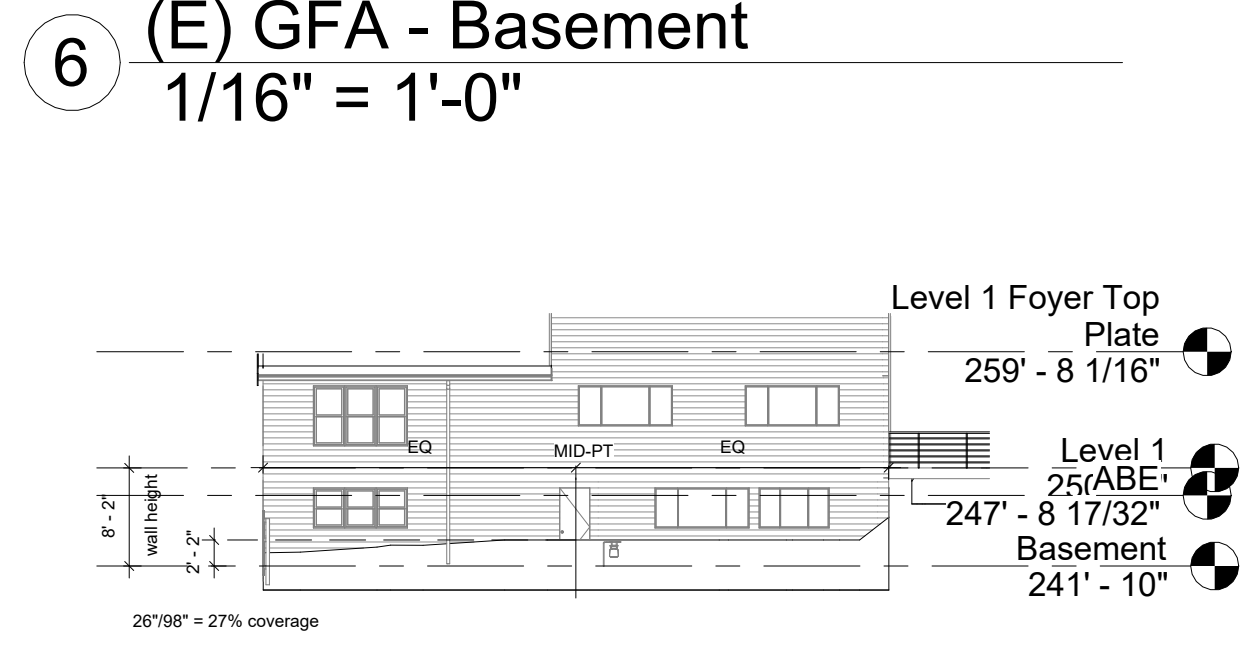
6 (E) GFA - Basement
 1/16" = 1'-0"



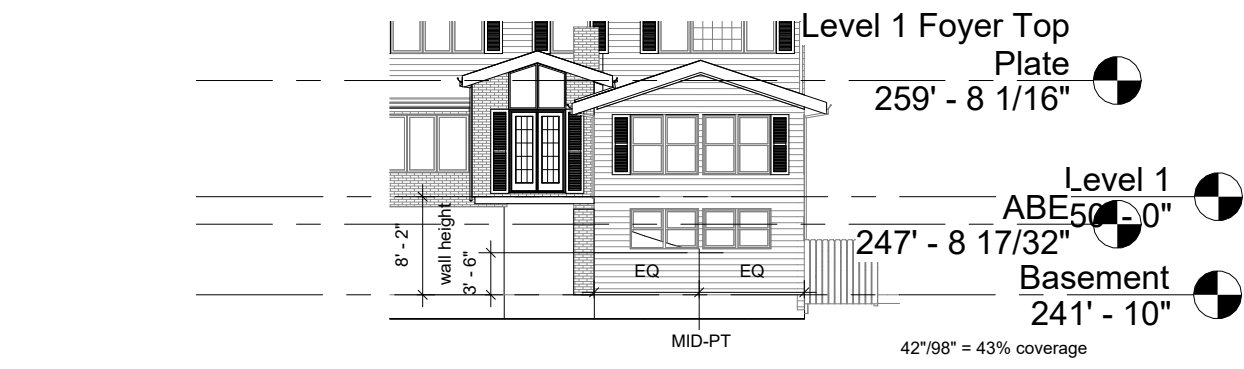
5 (E) GFA - Level 1
 1/16" = 1'-0"



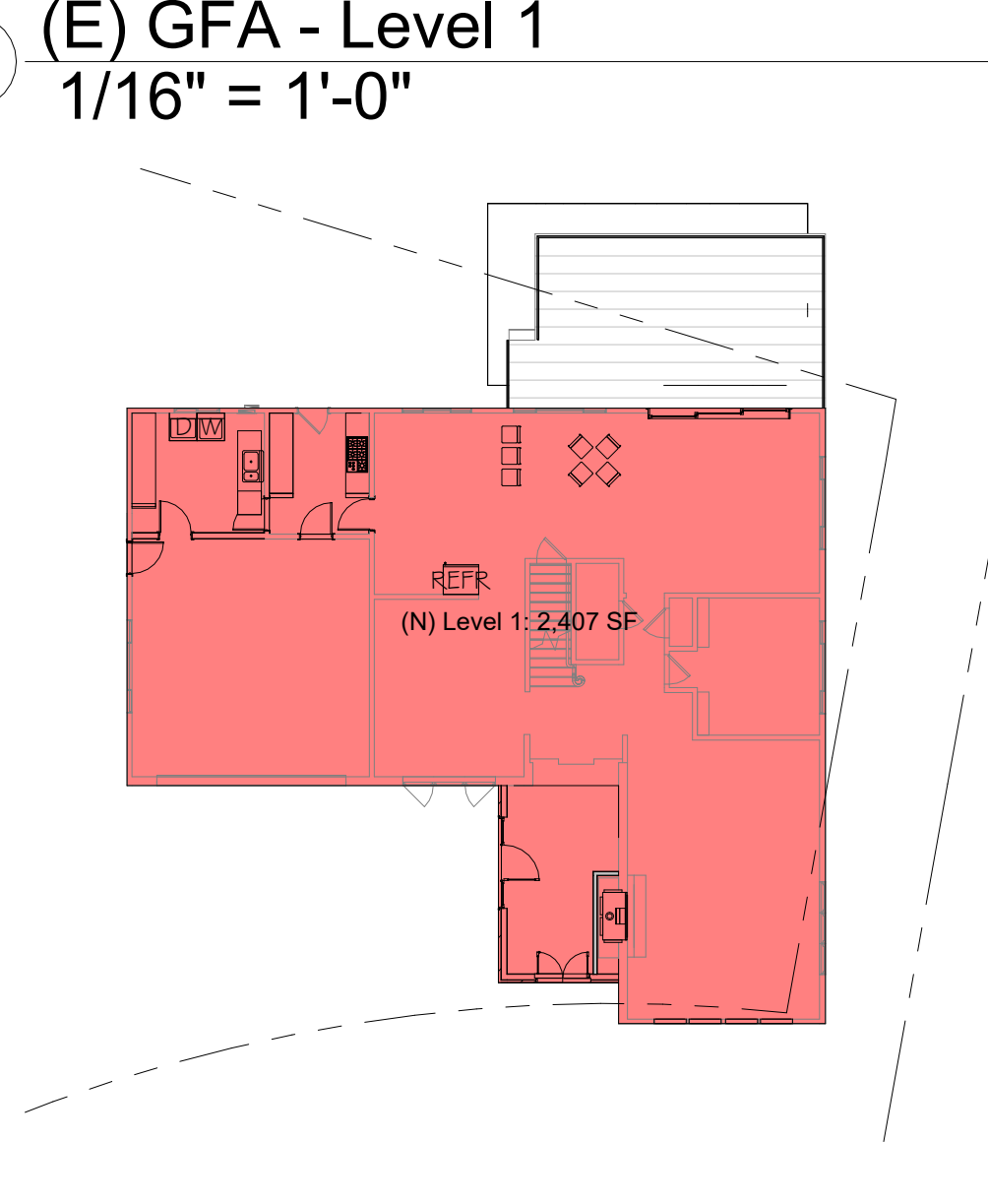
7 (E) GFA - Level 2
 1/16" = 1'-0"



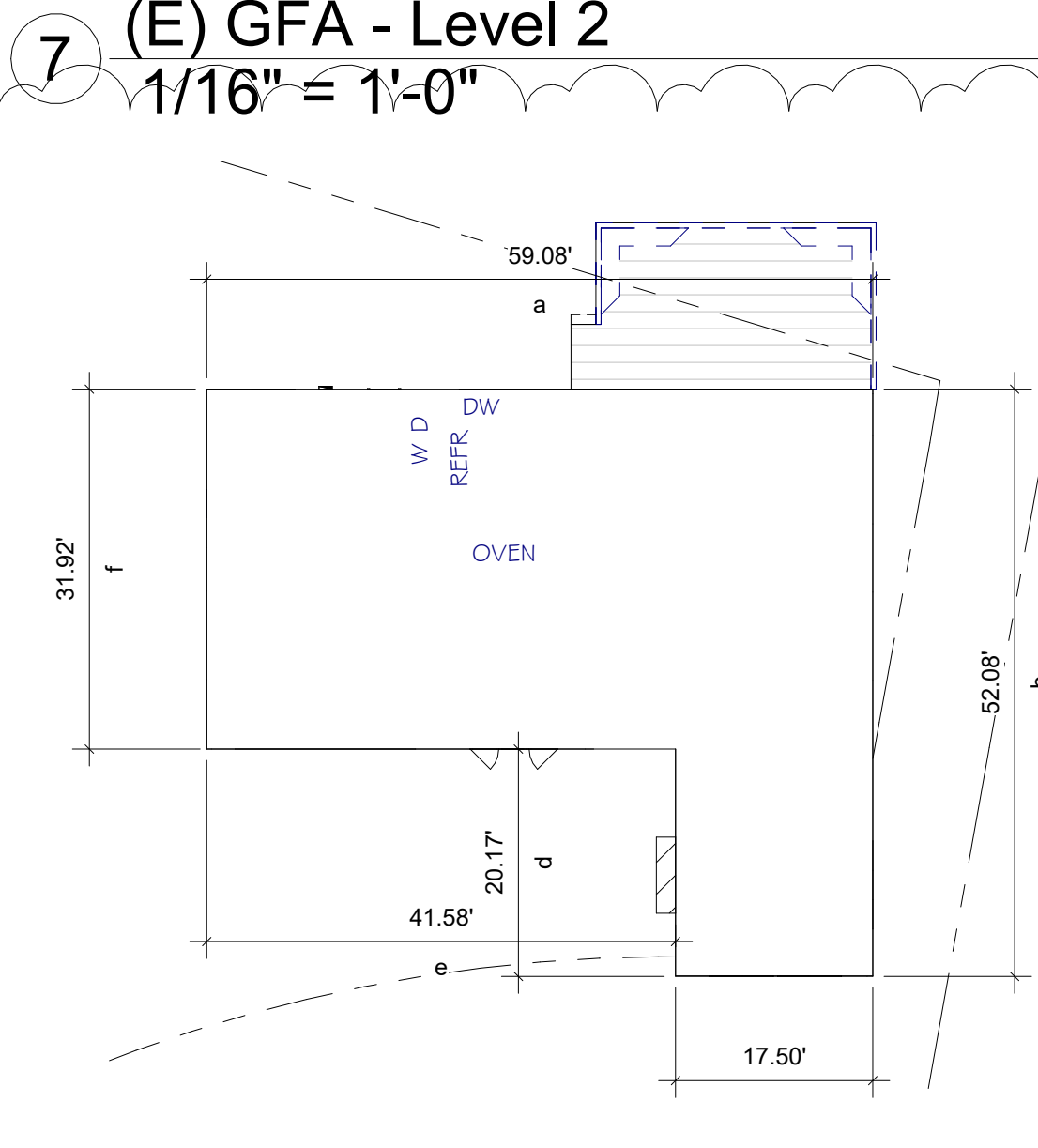
8 WALL B
 1/16" = 1'-0"



9 WALL C
 1/16" = 1'-0"



4 (N) GFA - Level 1
 1/16" = 1'-0"



10 Average Building Elevation
 1/16" = 1'-0"

Average Building Elevation [19.02.020.E.4]

Formula:
 $(A \times a) + (B \times b) + (C \times c) + (D \times d) + (E \times e) + (F \times f) + (G \times g) + (H \times h) + (I \times i) + (J \times j)$
 $a + b + c + d + e + f + g + h + i + j$

A: 248.35'	a: 59.08'
B: 244.00'	b: 52.08'
C: 245.38'	c: 17.50'
D: 249.74'	d: 20.17'
E: 250.00'	e: 41.58'
F: 249.60'	f: 31.92'

$(248.35 \times 59.08) + (244 \times 52.08) + (245.38 \times 17.5) + (249.74 \times 20.17) + (250 \times 41.58) + (249.6 \times 31.92)$
 $59.08 + 52.08 + 17.5 + 20.17 + 41.58 + 31.92$
 55073.68 / 222.33 = 247.71'

NO.	DESCRIPTION	DATE
1	Revision 1	04/23/2023

DATE: 11/27/2022

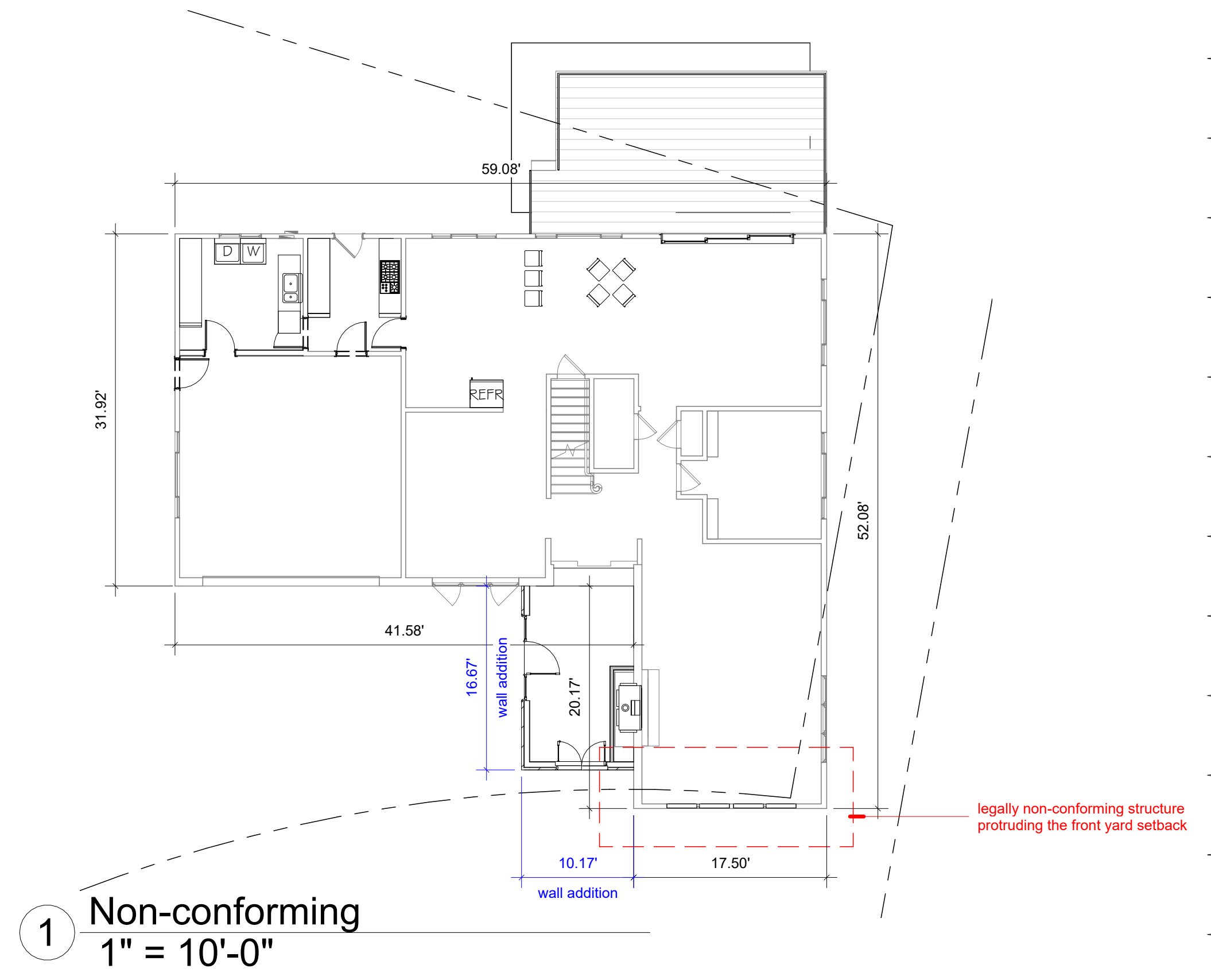
Compliance - Area

A5.3

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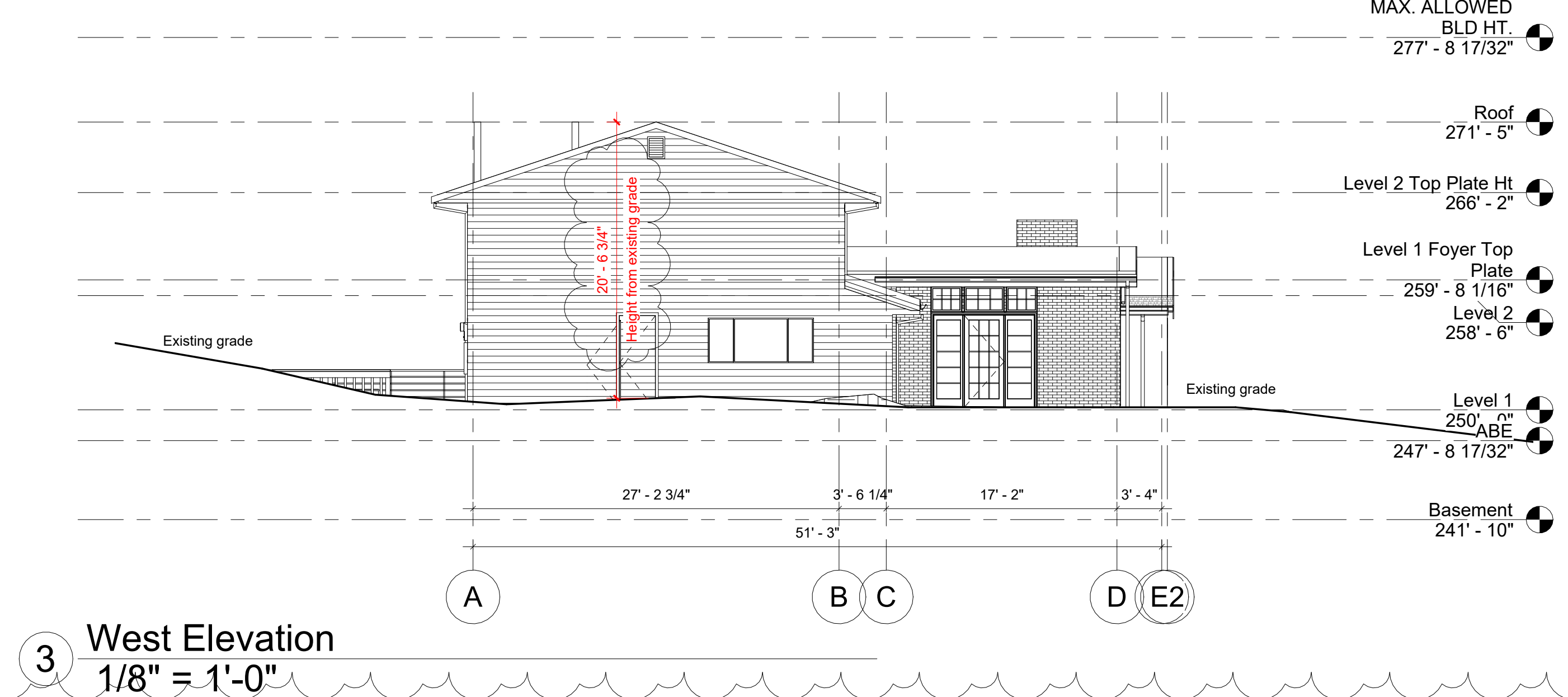
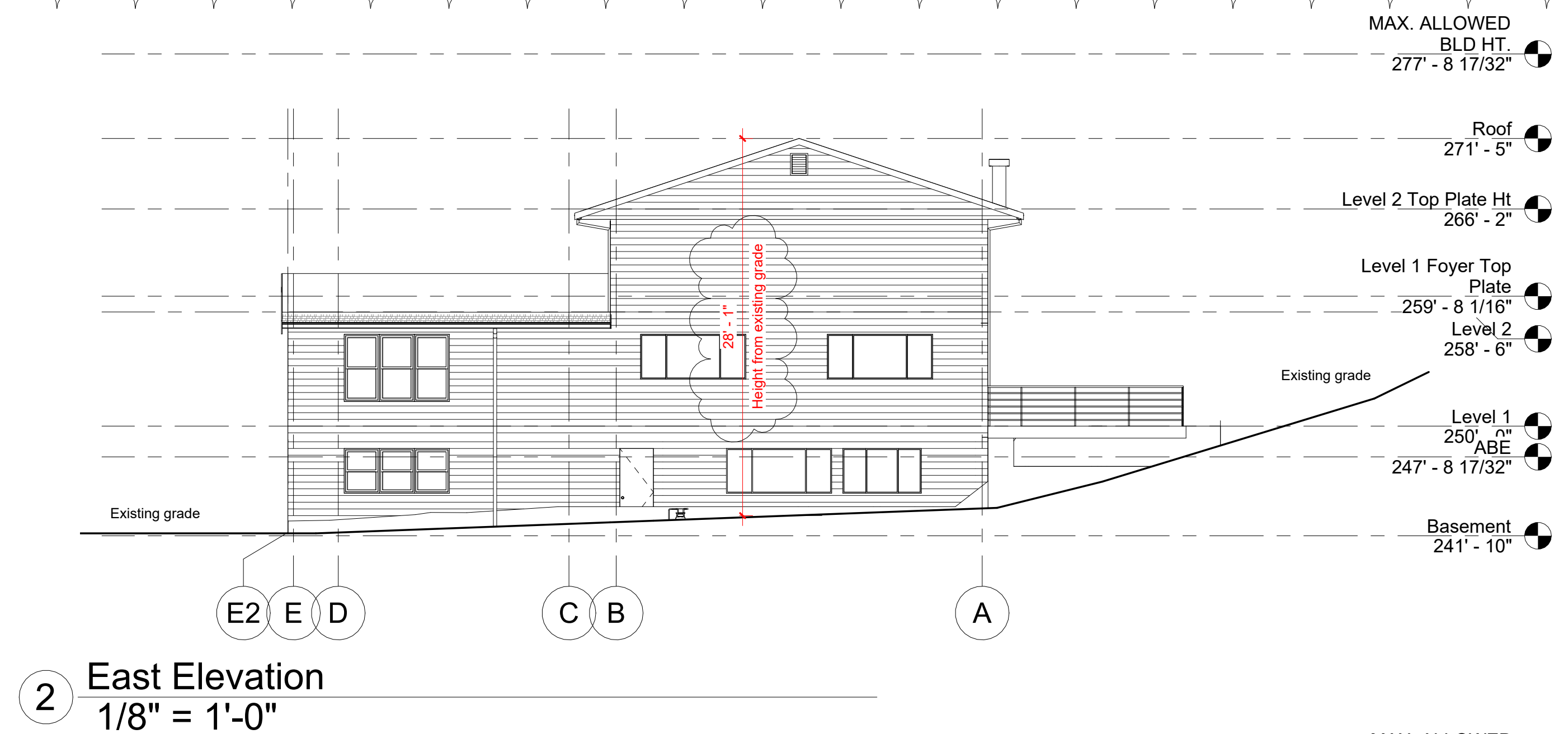
Structural alteration calculation [MICC 19.01.050(D)(1)(b)(iii)]

D.Exterior alteration or enlargement of nonconforming structures.
 1. Detached single-family residential structures.
 b. *Intentional exterior alteration or enlargement.*
 i. Detached single-family dwelling. A legally nonconforming detached single-family dwelling may be intentionally altered or enlarged without losing its legal nonconforming status as long as no more than **40 percent** of the length of the dwelling's existing exterior walls, excluding attached accessory buildings, is structurally altered. Any portion of the length of existing walls that is structurally altered shall be included in calculating the 40 percent threshold.
 iii. Structural alteration calculation. For the purposes of determining the percentage of exterior walls of a nonconforming structure that is being structurally altered, the following calculation applies:
 Formula: Percentage of exterior walls altered = (sum of the length of existing exterior walls to be structurally altered) ÷ (sum of the length of existing exterior walls)
 Sum of the length of existing exterior walls = 59.08'+52.08'+17.5'+20.17'+41.58'+31.92' = 222.33'
 Sum of the length of existing exterior walls to be structurally altered = 10.17'+16.67'=26.84'
 Percentage of exterior walls altered = 26.84'/222.33'x100% = 12%



Side Setback Compliance [MICC 19.02.020(C)(1)(c)(iii)]

C.Yard requirements.
 1. Minimum. Except as otherwise provided in this section, each lot shall have front, rear, and side yards not less than the depths or widths following:
 c. Side yards shall be provided as follows:
 iii. Variable side yard depth requirement. For lots with an area of 6,000 square feet or more, the minimum side yard depth abutting an interior lot line shall be the greater of the minimum side yard depth required under subsection (C)(1)(c)(i) of this section, or as follows:
 (a) Single-family dwellings shall provide a minimum side yard depth of **seven and one-half feet** if the building:
 (1) For non gabled roof end buildings, the height is more than 15 feet measured from existing or finished grade, whichever is lower, to the top of the exterior wall facade adjoining the side yard; or
 (2) For gabled roof end buildings, the height is more than 18 feet measured from existing or finished grade, whichever is lower, to the top of the gabled roof end adjoining the side yard.
 (b) Single-family dwellings with a height of more than 25 feet measured from the existing or finished grade, whichever is lower, to the top of the exterior wall facade adjoining the side yard shall provide a minimum side yard depth of **ten feet**.
 East exterior wall that adjoining the side yard = 28'-1", side yard setback shall comply with min.10 feet
 West exterior wall that adjoining the side yard = 20'-6 3/4", side yard setback shall comply with min.7.5 feet



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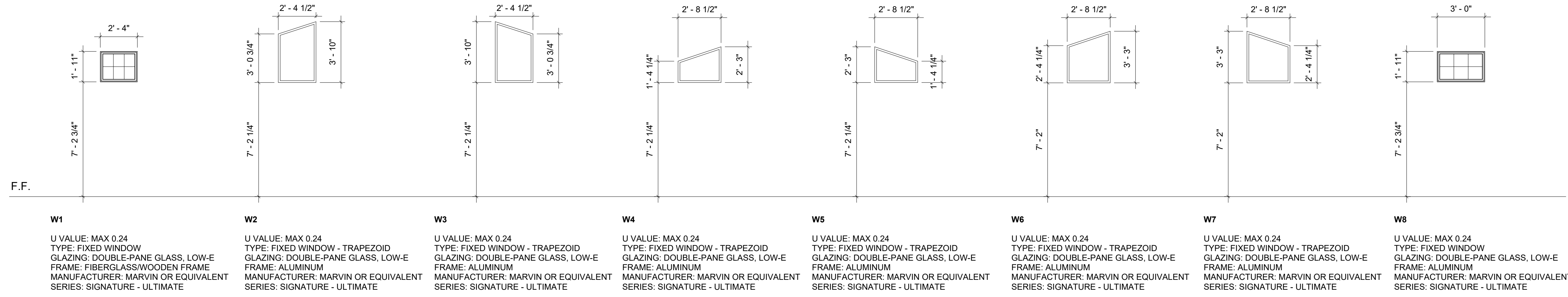
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Compliance
 -
 non-conforming

A5.4

ALL WINDOWS DIMENSION REPRESENT ROUGH OPENING

Window Schedule				
Type Mark	Count	Width	Height	Sill Height
1	2	2' - 4"	1' - 11"	7' - 3 1/4"
2	1	2' - 4 1/2"	3' - 10"	7' - 3 5/16"
3	1	2' - 4 1/2"	3' - 10"	7' - 3 5/16"
4	1	2' - 8 1/2"	2' - 3"	6' - 10"
5	1	2' - 8 1/2"	2' - 3"	6' - 10"
6	1	2' - 8 1/2"	3' - 3"	6' - 10"
7	1	2' - 8 1/2"	3' - 3"	6' - 10"
8	1	3' - 0"	1' - 11"	7' - 3 1/4"

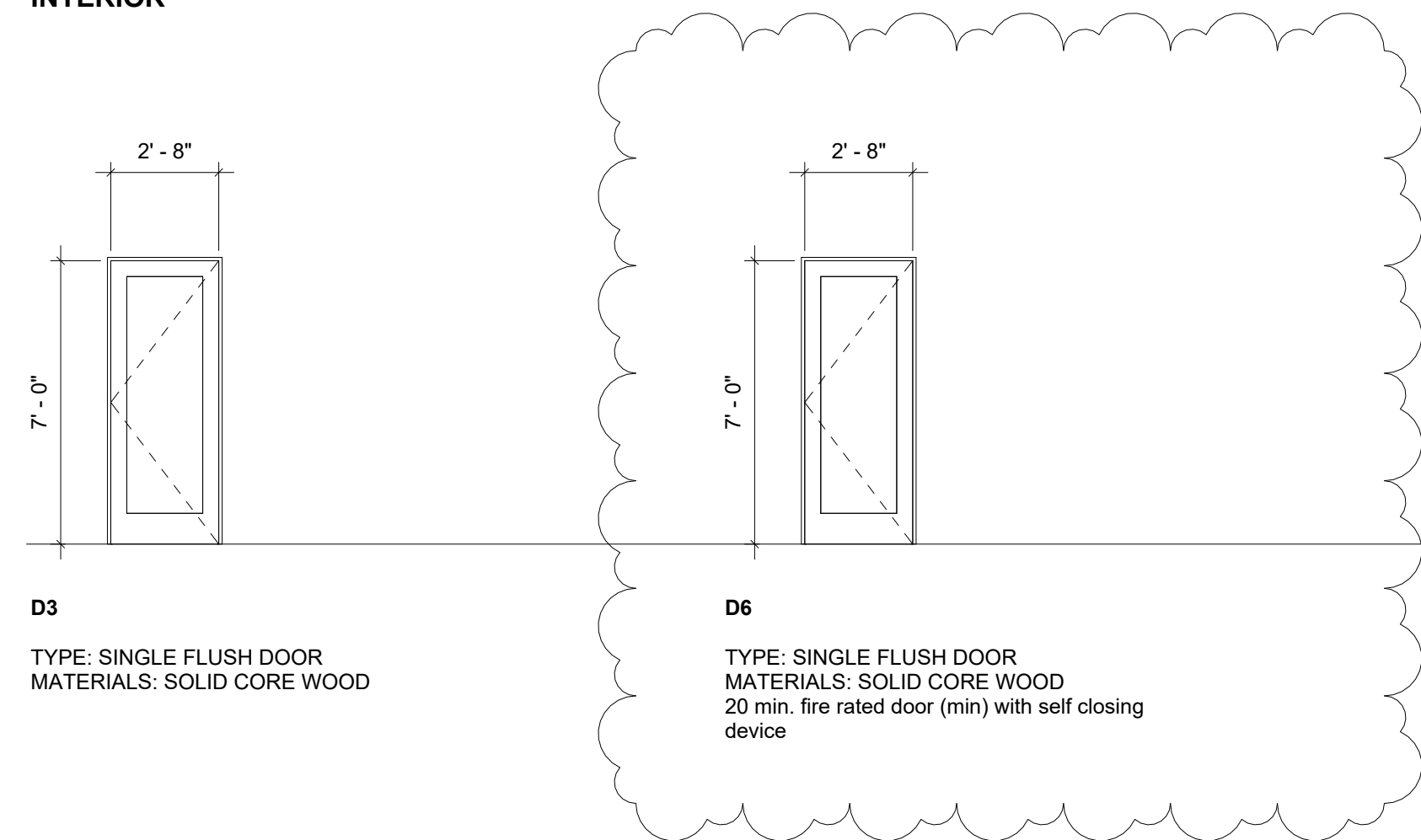


ALL DOORS DIMENSION REPRESENT ROUGH OPENING

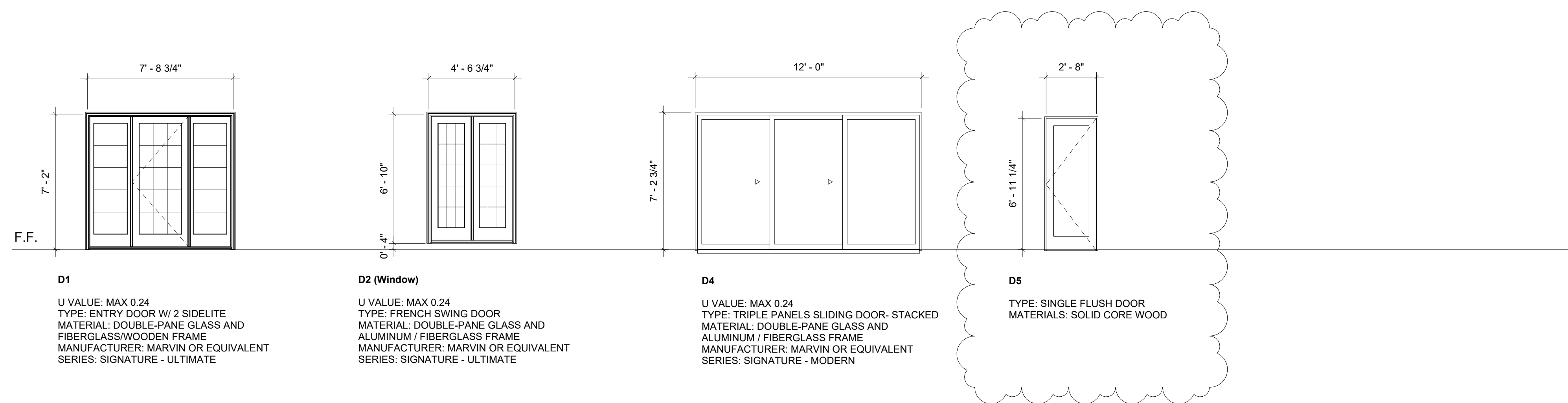
Door Schedule			
Door Type	Count	Width	Height
1	1	7' - 8 5/8"	7' - 2"
2	1	4' - 6 5/8"	6' - 10"
3	3	2' - 8"	7' - 0"
4	1	12' - 0"	7' - 3 1/2"
5	1	2' - 8"	7' - 0"
6	2	2' - 8"	7' - 0"

○ Schedule - Window
1/4" = 1'-0"

INTERIOR



EXTERIOR



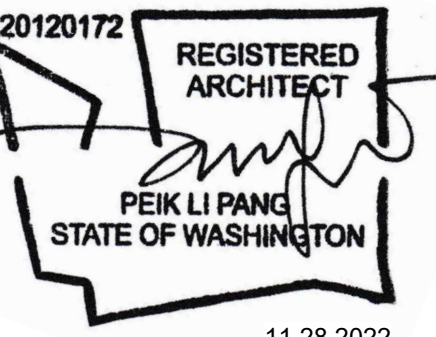
○ Schedule - Door
1/4" = 1'-0"

5ft2

5ft2 Studio Architects

2625 Northup Way, Suite 100,
Bellevue, WA 98004

info@5ft2studio.com
www.5ft2studio.com



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Window
and
Door
Schedule

A6.0

ALARMS IRC 2018:

(S) SMOKE DETECTORS (IRC R314.3)

R314.1.1 Listings. Smoke alarms shall be listed in accordance with UL 217. Heat detectors and heat alarms shall be listed for the intended application. Combination smoke and carbon monoxide alarms shall be listed in accordance with UL 217 and UL 2034.

R314.2 Where required. For new construction, smoke alarms shall be provided in dwelling units. A heat detector or hear alarm shall be provided in new attached garages.

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room or sleeping loft
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
4. Smoke alarms shall be installed not less than 3 feet horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.

R314.4 Interconnectivity. Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R 314.2, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

R314.5 Combination alarms. Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of carbon monoxide alarms.

(M) CARBON MONOXIDE ALARM (IRC R 315.1)

R315.1.1 Listings. Carbon monoxide alarms shall be listed in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be listed in accordance with UL 2034 and UL 217.

R315.2 Where required. For new construction, an approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedroom in dwelling units and each level of the dwelling in accordance with manufacturer's recommendation.

R315.3 Location. Carbon monoxide alarms in dwelling units shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and each level of the dwelling with the manufacturer's recommendations. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

R315.4 Combination alarms. Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms.

R315.5 Interconnectivity. Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R 315.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

MECHANICAL VENTILATION IRC 2018:

LOCAL EXHAUST RATES

- 1 100 CFM ON SWITCH
- 2 50 CFM ON SWITCH

TABLE M1505.4.4 MINIMUM REQUIRED LOCAL EXHAUST RATES FOR ONE- AND TWO-FAMILY DWELLINGS

AREA TO BE EXHAUSTED	EXHAUST RATES
Kitchens	100 cfm intermittent or 25 cfm continuous
Bathrooms-Toilet Rooms	Mechanical exhaust capacity of 50 cfm intermittent or 20 cfm continuous

For SI: 1 cubic foot per minute = 0.00473 m³/s.

**SECTION M1503
DOMESTIC COOKING EXHAUST EQUIPMENT**

M1503.1 General.

Domestic cooking exhaust equipment shall comply with the requirements of this section.

M1503.2 Domestic cooking exhaust.

Where domestic cooking exhaust equipment is provided, it shall comply with one of the following:

1. The fan for overhead range hoods and downdraft exhaust equipment not integral with the cooking appliance shall be listed and labeled in accordance with UL 507.
2. Overhead range hoods and downdraft exhaust equipment with integral fans shall comply with UL 507.
3. Domestic cooking appliances with integral downdraft exhaust equipment shall be listed and labeled in accordance with ANSI Z21.1 or UL 858.
4. Microwave ovens with integral exhaust for installation over the cooking surface shall be listed and labeled in accordance with UL 923.

M1503.2.1 Open-top broiler exhaust.

Domestic open-top broiler units shall be provided with a metal exhaust hood having a thickness of not less than 0.0157 inch (0.3950 mm) (No. 28 gage). Such hoods shall be installed with a clearance of not less than 1/4 inch (6.4 mm) between the hood and the underside of combustible material and cabinets. A clearance of not less than 24 inches (610 mm) shall be maintained between the cooking surface and combustible material and cabinets. The hood width shall be not less than the width of the broiler unit and shall extend over the entire unit.

Exception: Broiler units that incorporate an integral exhaust system, and that are listed and labeled for use without an exhaust hood, shall not be required to have an exhaust hood.

M1503.3 Exhaust discharge.

Domestic cooking exhaust equipment shall discharge to the outdoors through a duct. The duct shall have a smooth interior surface, shall be air tight, shall be equipped with a backdraft damper and shall be independent of all other exhaust systems. Ducts serving domestic cooking exhaust equipment shall not terminate in an attic or crawl space or areas inside the building.

Exception: Where installed in accordance with the manufacturer's instructions, and where mechanical or natural ventilation is otherwise provided, listed and labeled ductless range hoods shall not be required to discharge to the outdoors.

M1503.4 Duct material.

Ducts serving domestic cooking exhaust equipment shall be constructed of galvanized steel, stainless steel or copper.

Exception: Ducts for domestic kitchen cooking appliances equipped with down-draft exhaust systems shall be permitted to be constructed of schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:

1. The duct is installed under a concrete slab poured on grade.
2. The underfloor trench in which the duct is installed is completely backfilled with sand or gravel.
3. The PVC duct extends not more than 1 inch (25 mm) above the indoor concrete floor surface.
4. The PVC duct extends not more than 1 inch (25 mm) above grade outside of the building.
5. The PVC ducts are solvent cemented.

M1503.5 Kitchen exhaust rates.

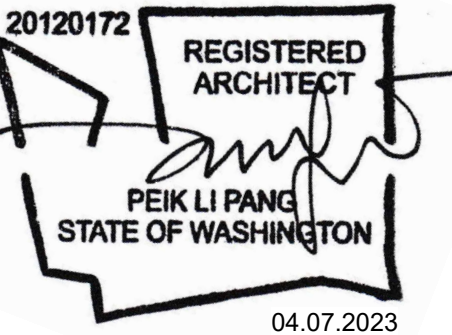
Where domestic kitchen cooking appliances are equipped with ducted range hoods or down-draft exhaust systems, the fans shall be sized in accordance with Section M1505.4.4.



5ft2 Studio Architects

2625 Northup Way, Ste 100,
Bellevue, WA 98004

info@5ft2studio.com
www.5ft2studio.com



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7405 92nd PI SE,
Mercer Island, WA
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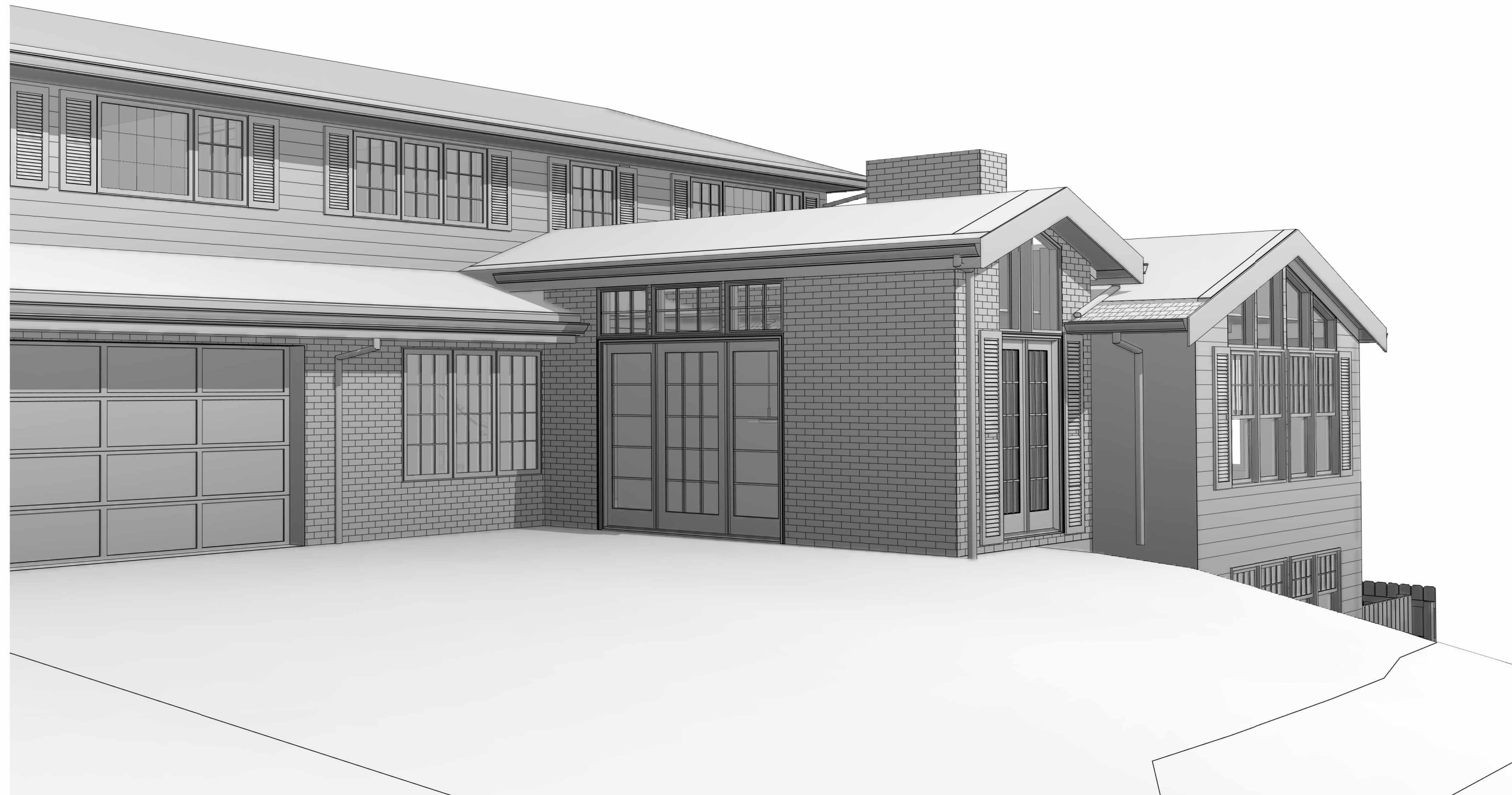
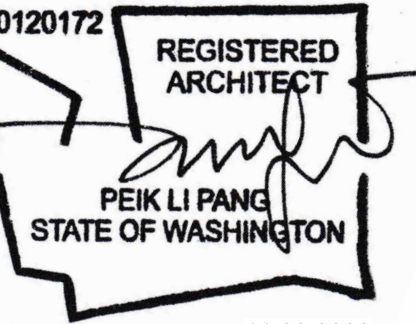
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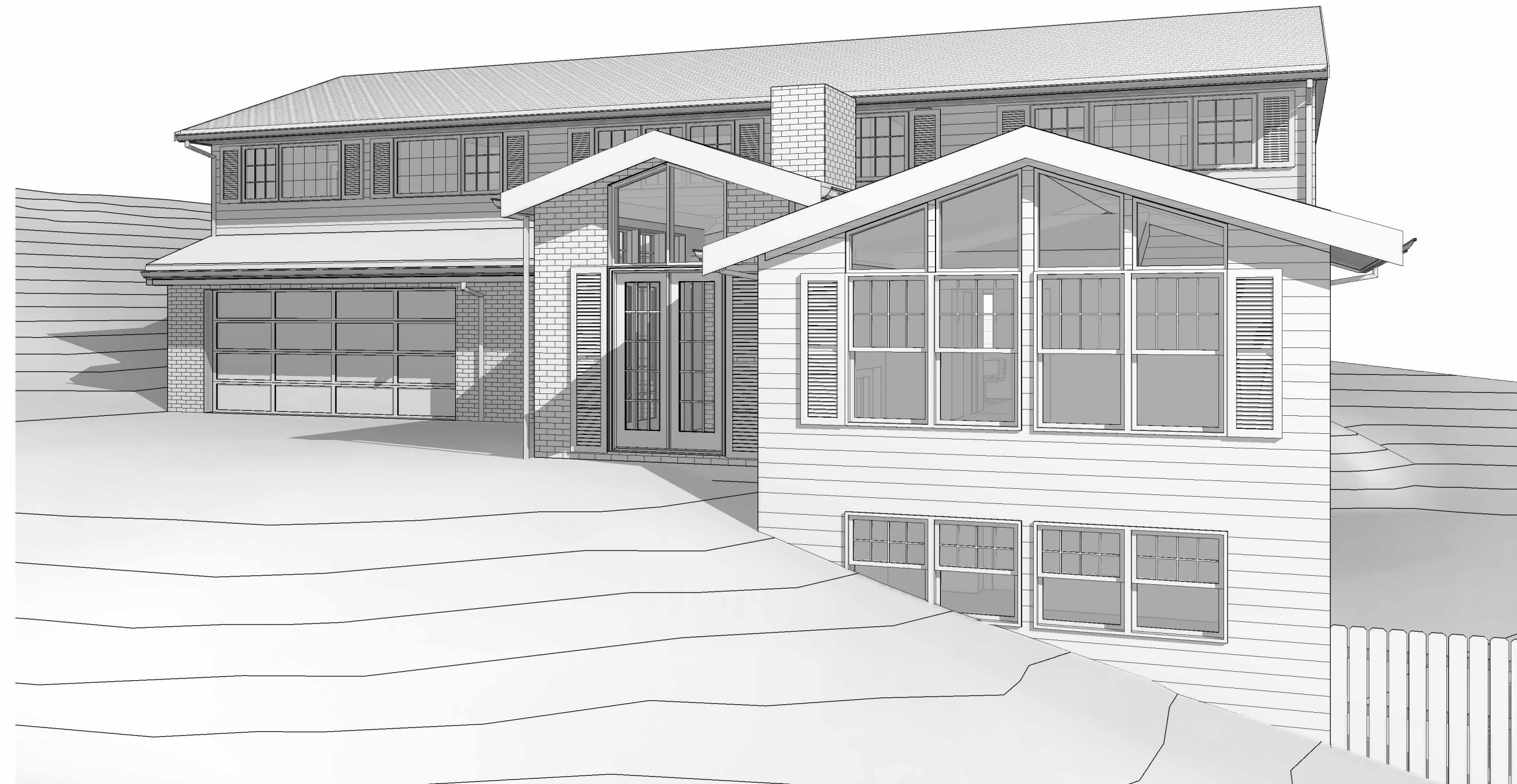
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Compliance-Alarms
&
Ventilation

A6.1



1 Exterior - 3D



2 Exterior - 3D 2

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DATE: 11/27/2022

3D
Views

A9.0

GENERAL STRUCTURAL NOTES

BUILDING CODE
2018 INTERNATIONAL BUILDING CODE

DESIGN METHOD
ALLOWABLE STRESS DESIGN (ASD)

FLOOR LOADS
DEAD LOAD: **15 psf**
LIVE LOAD: **40 psf**

ROOF LOADS
DEAD LOAD: **15 psf**
LIVE LOAD (SNOW): **25 psf**

WIND DESIGN DATA
1. BASIC WIND SPEED: **110 MPH**
2. RISK CATEGORY: **II**
3. WIND EXPOSURE: **B**
4. $K_{zt} = 1.0$
5. ANALYSIS PROCEDURE: ENVELOPE SIMPLIFIED

SEISMIC DESIGN DATA
1. SEISMIC IMPORTANCE FACTOR: **1.0**
2. RISK CATEGORY: **II**
3. SPECTRAL RESPONSE ACCEL (S_s): **1.456**
4. SITE CLASS: **C (ASSUMED)**
5. SPECTRAL RESPONSE COEFF (S_{DS}): **1.165**
6. SEISMIC DESIGN CATEGORY: **D**
7. LFRS: WOOD SHEATHED SHEARWALLS
8. SEISMIC RESPONSE COEFFICIENT (C_s): **0.179**
9. RESPONSE MODIFICATION FACTOR (R): **6.5**
10. ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

GENERAL

1. ANY DISCREPANCY FOUND AMONG THE DRAWINGS, THESE NOTES, AND THE SITE CONDITIONS SHALL BE REPORTED TO THE DESIGNER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE CONTRACTORS RISK.

2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CONTRACT DRAWINGS.

3. DURING THE CONSTRUCTION PERIOD THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING. THE CONTRACTOR SHALL PROVIDE ERECTION BRACING, FORMWORK, AND TEMPORARY CONSTRUCTION SHORING IN ACCORDANCE WITH ALL NATIONAL, STATE, AND LOCAL SAFETY ORDINANCES. ANY DEVIATION MUST BE APPROVED IN WRITING PRIOR TO ERECTION.

4. ALL ERECTION PROCEDURES SHALL CONFORM TO OSHA STANDARDS. ANY DEVIATION MUST BE APPROVED BY OSHA PRIOR TO ERECTION.

5. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION PROCEDURES.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AND SHALL CHECK ALL DIMENSIONS. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND BE RESOLVED PRIOR TO PROCEEDING WITH THE WORK.

7. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED SUBJECT TO REVIEW BY THE ENGINEER.

8. ALL DETAILS DESIGNATED AS STANDARD OR TYPICAL SHALL OCCUR IN ADDITION TO ANY OTHER SPECIFIC DETAIL CALLED OUT.

9. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE, BUT WITHOUT GUARANTEE OF ACCURACY. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, THEY SHALL BE REPORTED TO THE ENGINEER SO THE PROPER REVISIONS MAY BE MADE. MODIFICATIONS TO CONSTRUCTION DETAILS SHALL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.

FOUNDATIONS

1. THE FOUNDATION DESIGN IS BASED ON THE RECOMMENDATION IN THE **INTERNATIONAL** BUILDING CODE TABLE 1806.2. FOUNDATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 18 OF THIS CODE.

2. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING VALUES:
ALLOW. SOIL BEARING **1500PSF**
SOIL FRICTION .30
EQUIV. FLUID PRESSURES
ACTIVE PRESSURE 30 PCF
AT REST PRESSURE 50 PCF
PASSIVE PRESSURE 250 PCF

3. ALL FOOTINGS SHALL BE FOUNDED AT LEAST 12" BELOW THE UNDISTURBED GROUND SURFACE OR TO FROST DEPTH. ALL FOOTINGS SHALL BE FOUNDED ON COMPACTED FILL OR UNDISTURBED NATURAL GRADE UNLESS OTHERWISE NOTED.

4. COMPACTION: MATERIAL FOR FILLING AND BACKFILLING SHALL CONSIST OF THE EXCAVATED MATERIAL AND/OR IMPORTED BORROW AND SHALL BE FREE OF ORGANIC MATTER, TRASH, LUMBER, OR OTHER DEBRIS. ALL WALLS SHALL BE ADEQUATELY BRACED PRIOR TO BACKFILLING. FILL AND BACKFILL SHALL BE DEPOSITED IN LAYERS NOT TO EXCEED 8 INCHES THICK, PROPERLY MOISTENED TO APPROXIMATE OPTIMUM REQUIREMENTS AND THOROUGHLY ROLLED OR COMPACTED WITH APPROVED EQUIPMENT IN SUCH A MANNER AND EXTENT AS TO PRODUCE A RELATIVE COMPACTION OF 90% OF MAXIMUM POSSIBLE DENSITY AS DETERMINED BY ASTM D1557. HAND TAMPERS SHALL WEIGH AT LEAST 50 POUNDS EACH AND SHALL HAVE A FACE AREA NOT IN EXCESS OF 64 SQUARE INCHES. HAND TAMPERS MAY BE OPERATED EITHER MANUALLY OR MECHANICALLY AND SHALL BE USED WHERE LARGER POWER DRIVEN COMPACTION EQUIPMENT CANNOT BE USED.

CONCRETE

1. ALL CONCRETE UNLESS OTHERWISE NOTED SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150 PCF) AGGREGATES SHALL CONFORM TO ASTM C33 WITH PROVEN SHRINKAGE CHARACTERISTICS OF LESS THAN 0.05%.

2. ALL CONCRETE DESIGN IS BASED ON A 28 DAY COMPRESSIVE STRENGTH (f_c) OF 2500 PSI. WHERE 3000 PSI CONCRETE IS REQUIRED BY THE BUILDING DEPARTMENT FOR WEATHERING PURPOSES ONLY, NO SPECIAL INSPECTION IS REQUIRED.

3. CEMENT SHALL CONFORM TO ASTM C150, TYPE I, CSA NORMAL.

4. MAXIMUM SLUMP SHALL NOT EXCEED 4 INCHES IN FLATWORK.

5. PLACEMENT OF CONCRETE SHALL CONFORM WITH ACI 301.

6. CONCRETE SHALL BE MAINTAINED IN A MOIST CONDITION FOR A MINIMUM OF FIVE (5) DAYS AFTER PLACEMENT. ALTERNATE METHODS WILL BE APPROVED IF SATISFACTORY PERFORMANCE CAN BE ASSURED.

7. POUR JOINTS CAN BE USED TO MINIMIZE EFFECTS OF SHRINKAGE AS WELL AS PLACED AT POINTS OF LOW STRESS. RECOMMENDED MAXIMUM AREA OF POUR JOINTS IS 400 SF.

8. MINIMUM CONCRETE COVERAGE OF REINFORCING STEEL FOR FORMED WORK SHALL BE AS FOLLOWS:
INTERIOR WALL: 3/4"
EXT. WALLS, EXPOSED TO WEATHER: 1 1/2"
EXPOSED TO EARTH OR WEATHER (#5 OR SMALLER): 1 1/2"
*NOTE: CONCRETE CAST AGAINST GROUND SHALL HAVE 3" MIN. COVERAGE

9. PIPES AND CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED.

10. CONCRETE MIXES SHALL BE PROVIDED IN ACCORDANCE WITH ACI 318 (WHEN STRENGTH DATA FROM TRIAL BATCHES OR FIELD EXPERIENCE ARE NOT AVAILABLE). ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (F_c) OF 2500 PSI, WITH A MINIMUM CEMENT CONTENT OF 470 LBS/CUBIC YARD (5 SACKS PER CUBIC YARD). MIXES SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. NO MORE THAN A 1" PLUS TOLERANCE SHALL BE ALLOWED.

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 ($f_y = 60$ KSI) FOR BAR SIZES NO. 4 & LARGER, GRADE 40 ($f_y = 40$ KSI) FOR NO. 3 BARS.

2. ALL REINFORCING STEEL SHALL BE LAPPED AS NOTED ON THE PLANS. WHERE LAP OR SPLICE LOCATIONS ARE NOT SPECIFICALLY INDICATED ON THE CONSTRUCTION DOCUMENTS, LAPS AND/OR SPLICES SHALL BE 42 BAR DIA AND BE WELL STAGGERED. NO MORE THAN 50% OF HORIZONTAL OR VERTICAL BARS SHALL BE SPLICED AT ONE LOCATION.

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185 AND SHALL BE 6x6 W1.4xW1.4 UNLESS OTHERWISE NOTED. LAP REINFORCEMENT 6" MINIMUM.

4. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED. SLAB ON GRADE REINFORCEMENT SHALL BE PLACED AT MID-DEPTH OF SLAB AND SHALL BE HELD SECURELY IN PLACE WITH MECHANICAL DEVICES DURING PLACING OF THE CONCRETE.

FRAMING LUMBER

1. FRAMING LUMBER SHALL BE DOUG-FIR NO. 2 FOR STUDS AND JOISTS, DOUG-FIR NO. 1. FOR BEAMS AND POSTS. GRADES ARE TYPICAL UNLESS OTHERWISE NOTED ON PLANS. LUMBER TO BE GRADE MARKED PER WCLIB SPECIFICATIONS.

2. GLU-LAMINATED MEMBERS SHALL BE 24F-V4 (DF-L) FOR SINGLE SPAN AND 24F-V8 FOR CONTINUOUS SPAN & CANTILEVERED.

3. STRUCTURAL SHEATHING SHALL BE APA RATED PLYWOOD OR OSB, EXPOSURE 1 SHEATHING CONFORMING TO EITHER COMMERCIAL STANDARDS P51-83, APA PRP-108, OR VOLUNTARY PRODUCT STANDARD PSE-92. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE ON ALL NAILS AND 1/8" EXPANSION JOINT BETWEEN ALL PANEL EDGES. MINIMUM SHEATHING REQUIREMENTS ARE AS FOLLOWS, UNLESS NOTED OTHERWISE ON THE PLANS:

4. NAILING SHALL CONFORM TO TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE UNLESS NOTED OTHERWISE. USE COMMON NAILS THROUGHOUT UNLESS NOTED OTHERWISE.

5. NO STRUCTURAL MEMBER SHALL BE CUT OR NOTCHED UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.

6. PROVIDE PROPERLY SIZED WASHERS UNDER HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

7. PROVIDE 3"x3"x0.229" WASHERS AT ALL ANCHOR BOLTS.

8. BOLT HOLES SHALL BE NOMINAL DIAMETER OF BOLT PLUS 1/16" UNLESS NOTED OTHERWISE. LAG BOLT PILOT HOLES SHALL BE PRE-DRILLED TO 60% OF THE NOMINAL DIAMETER OF THE LAG BOLT UNLESS NOTED OTHERWISE.

9. ALL SILL PLATES SHALL BE BOLTED TO THE FOUNDATION WITH 3/8" MINIMUM DIAMETER BOLTS SPACED AT A MAXIMUM OF 48" ON CENTER. BOLTS MUST BE EMBEDDED A MINIMUM OF 7" INTO CONCRETE OR MASONRY. SEE PLANS AND DETAILS FOR SPECIFIC REQUIREMENTS WHERE APPLICABLE.

10. PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITION WALLS AND SOLID BLOCKING UNDER PERPENDICULAR PARTITION WALLS.

11. WHERE LEDGERS, SILL PLATES, POSTS, OR STUDS ARE IN DIRECT CONTACT WITH CONCRETE OR MASONRY, USE PRESERVE TREATED LUMBER OR PROVIDE GRACE VYCOR PLUS BARRIER BETWEEN WOOD MEMBERS AND CONCRETE OR MASONRY.

12. ALL FASTENERS IN CONTACT WITH PRESERVE TREATED LUMBER OR EXPOSED TO THE ELEMENTS SHALL BE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.

GLUED-LAMINATED TIMBER

1. ADHESIVE SHALL BE FOR WET USE.

2. LAMINATIONS SHALL BE OF DOUGLAS FIR/WESTER LARCH, COMBINATION 24F-V4 FOR SIMPLE SPAN BEAMS AND 24F-V8 FOR CONTINUOUS MULTIPLE SPAN AND CANTILEVERED BEAMS, FABRICATED IN ACCORDANCE WITH AITC A190.1 AND ASTM D 3737.

3. FABRICATION SHALL BE BY A LICENSED FABRICATOR.

4. GLULAM BEAMS EXPOSED TO WEATHER SHALL BE PROPERLY SEALED OR FLASHED TO PREVENT DECAY.

POST-INSTALLED ANCHORS

1. POST-INSTALLED ANCHOR SYSTEMS SHALL COMPLY WITH THE LATEST REVISION OF ICC-ES ACCEPTANCE CRITERIA AND HAVE A VALID ICC-ES REPORT (OR APPROVED EQUIVALENT) IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE.

2. UNLESS OTHERWISE NOTES ON THE DRAWINGS USE ANCHORS LISTED BELOW:
EXPANSION ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:

- HILTI HSL-3 CARBON STEEL HEAVY DUTY EXPANSION ANCHOR (ICC-ES ESR-1545)
 - HILTI HDA CARBON AND STAINLESS STEEL ANCHORS (ICC-ES ESR-1546)
 - HILTI KWIK BOLT TZ CARBON AND STAINLESS STEEL ANCHORS (ICC-ES ESR-1917)
 - POWERS POWER-STUD+SD2 ANCHOR (ICC-ES ESR-2502)
 - SIMPSON STRONG-TIE STRONG-BOLT 2 ANCHOR (ICC-ES ESR-3037)
- ADHESIVE ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:
- HILTI HIT-RE 500-SD ADHESIVE ANCHOR (ICC-ES ESR-2322)
 - HILTI HIT-HY 200 ADHESIVE ANCHOR (ICC-ES ESR-3187)
 - POWERS PURE 110+ EPOXY ADHESIVE ANCHOR (ICC-ES ESR-3298)
 - SIMPSON STRONG-TIE SET-XP EPOXY ADHESIVE ANCHOR (ICC-ES ESR-2508)
 - SIMPSON STRONG-TIE AT-XP EPOXY ADHESIVE ANCHOR (IAPMO UES ER-263)

SCREW ANCHORS IN CONCRETE SHALL BE ONE OF THE FOLLOWING:

- POWERS WEDGE-BOLT+ SCREW ANCHOR (ICC-ES ESR 2526)
- HILTI KWIK HUS-EZ SCREW ANCHOR (ICC-ES ESR-3027)
- SIMPSON STRONG-TIE TITEN HD SCREW ANCHOR (ICC-ES ESR-2713)

SPECIAL INSPECTIONS

IN ACCORDANCE WITH IBC CHAPTER 17, THE FOLLOWING TYPES OF WORK REQUIRE SPECIAL INSPECTION. SEE THE SPECIFICATIONS AND DRAWINGS FOR ADDITIONAL REQUIREMENTS FOR INSPECTION AND TESTING. SPECIAL INSPECTION SHALL BE PAID FOR AND PROVIDED BY THE OWNER.

MATERIAL	TASK	CONTINUOUS	PERIODIC	RESPONSIBLE FIRM
CONCRETE CONSTRUCTION	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE	-	X	SPECIAL INSPECTOR

ABBREVIATION LIST

A.B.	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION ANCHORAGE
ANCH	ARCHITECTURAL
ASD	ALLOWABLE STRESS DESIGN
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
BM	BEAM
BP	BASE PLATE
BRG	BEARING
CIP	CAST-IN-PLACE
CL	CENTER LINE
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONT	CONTINUOUS
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DL	DEAD LOAD
DP	DEEP
EA	EACH
EF	EACH FACE
EL	ELEVATION
EQ	EQUAL
EQUIP	EQUIPMENT
(E)	EXISTING
FLR	FLOOR
FS	FAR SIDE
FT	FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLU-LAMINATED BEAM
GYP	GYP SUM
HF	HEMLOCK FIR
HORIZ	HORIZONTAL
INCL	INCLUDE
K	KILOPOUND
L	ANGLE
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MISC	MISCELLANEOUS
MIN	MINIMUM
NS	NEAR SIDE
NTS	NOT TO SCALE
OF	OUTSIDE FACE
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
QTY	QUANTITY
REINF	REINFORCING
RF	ROOF
SCHED	SCHEDULE
SF	SQUARE FOOT
SHTG	SHEATHING
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SPECS	SPECIFICATIONS
SS	STAINLESS STEEL
STD	STANDARD
STRUCT	STRUCTURAL
T&B	TOP & BOTTOM
T&G	TONGUE & GROOVE
TOB	TOP OF BEAM
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TYP	TYPICAL
ULT	ULTIMATE
U.N.O	UNLESS NOTED OTHERWISE
VERT	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
WF	WIDE FLANGE
W/O	WITHOUT
WT	WEIGHT
WWW	WELDED WIRE FABRIC



Tarywood Mercer

7405 92nd PI SE,
Mercer Island, WA 98040

Owner:

Architect/Designer:

5ft2 Studio Architects
2625 Northrup Way
Suite 100
Bellevue, WA 98004

p: 425 287 1567
e: info@5ft2studio.com
w: 5ft2studio.com

Structural Engineer:

Nabil Kausal-Hayes, PE



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Revisions:

Revision	Issue Date

Issue Set: Permit

Issue Date: November 10th, 2022

Drawn By: XCH

Checked By: NKH

Sheet Name:

GENERAL STRUCTURAL NOTES

Sheet:

S1.0

Job Number: 22-123

Tarywood Mercer

7405 92nd Pl SE,
Mercer Island, WA 98040

Owner:

Architect/Designer:

5ft2 Studio Architects
2625 Northup Way
Suite 100
Bellevue, WA 98004

p: 425 287 1567
e: info@5ft2studio.com
w: 5ft2studio.com

Structural Engineer:

Nabil Kausal-Hayes, PE



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Sheet Name:

MAIN FLOOR FRAMING & FOUNDATION PLAN

Sheet:

S2.0

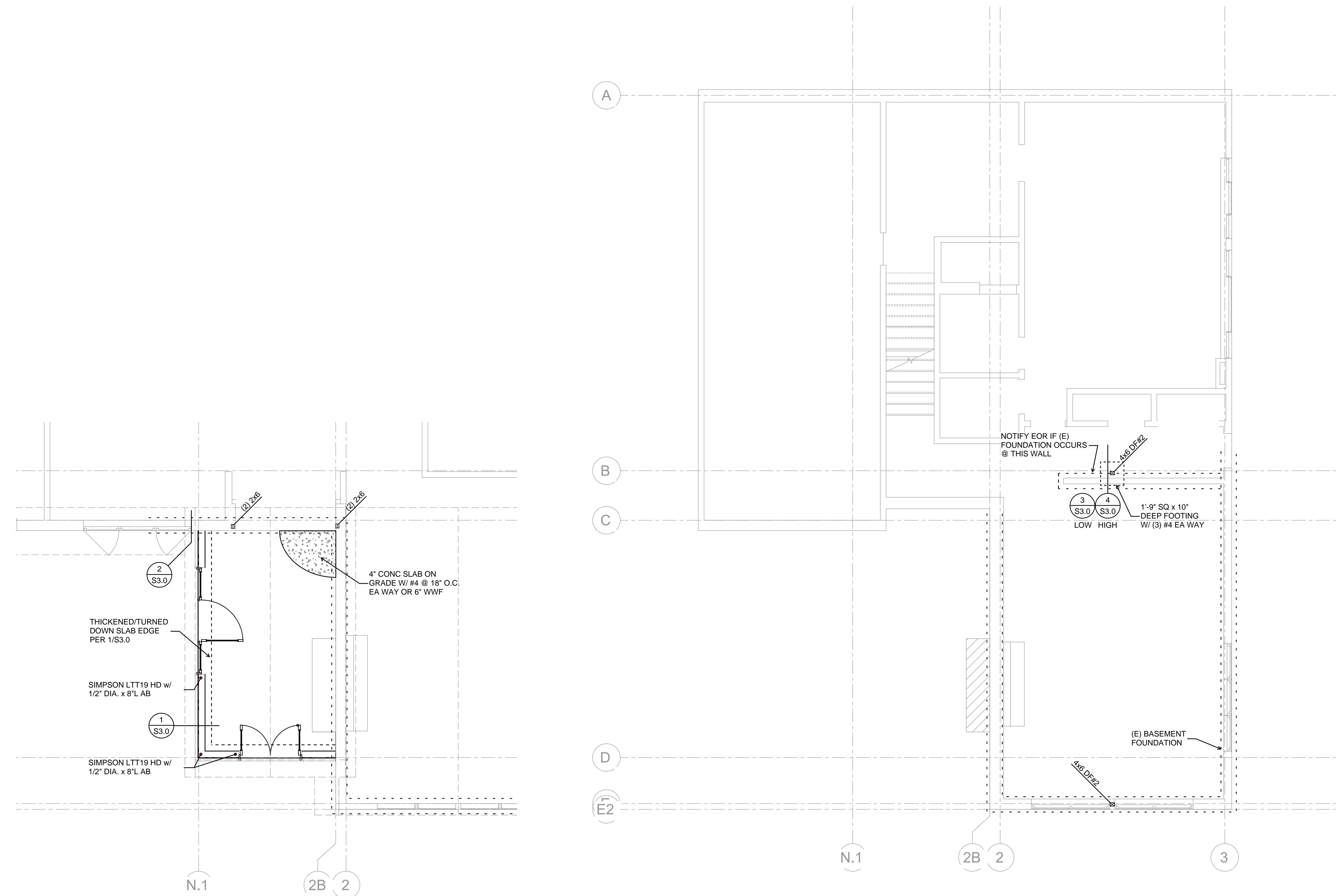
Job Number: 22-123

GENERAL NOTES

- DO NOT SCALE DRAWINGS - SCALE ONLY APPLICABLE WHEN PRINTED FULL SIZE AND SCALE IS LISTED.
- FOR GENERAL STRUCTURAL NOTES, SEE SHEET S1.0.
- ALL HEADERS SHALL BE (2)2x6 DFL #2 U.N.O. ON PLANS. SEE DETAIL 11/S6 FOR MORE INFORMATION.
- PROVIDE (1) 2x TRIM STUD AND (1) 2x KING STUD FOR CLEAR OPENINGS UP TO 4'-0".
PROVIDE (2) 2x TRIM STUD AND (2) 2x KING STUD FOR CLEAR OPENINGS UP TO 8'-0".
PROVIDE (3) 2x TRIM STUD AND (3) 2x KING STUD FOR CLEAR OPENINGS GREATER THAN 8'-0" U.N.O. ON PLANS.
- ROOF SHEATHING SHALL BE APA RATED 5/8" OSB OR PLYWOOD. NAIL PANEL EDGES W/ 10d @ 6" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP. U.N.O.
- FLOOR SHEATHING SHALL BE APA RATED 3/4" OSB OR PLYWOOD. NAIL PANEL EDGES W/ 10d @ 6" O.C., NAIL PANEL FIELD W/ 10d @ 12" O.C. TYP. U.N.O.
- PROVIDE SIMPSON CB POST BASE FOR ALL COLUMNS TO CONCRETE & BC POST BASE TO WOOD U.N.O. ON PLAN OR IN DETAILS. ORIENT BASE TO FASTENERS IN STUD WALL WHERE APPLICABLE. REFERENCE ARCH PLANS FOR LOCATION OF CUSTOM CONNECTIONS.

LEGEND

- NEW STUD WALL PER PLAN, 2x4 @ 16" O.C. MIN INTERIOR, 2x6 @ 16" O.C. MIN EXTERIOR (U.N.O.)
- NEW POST PER PLAN
- NEW FOOTING PER PLAN
- NEW FOOTING PER PLAN



1 VESTIBULE FOUNDATION PLAN
S2.0 1/4" = 1'-0"

2 MAIN FLOOR FRAMING & BASEMENT FOUNDATION PLAN
S2.0 1/4" = 1'-0"

Tarywood Mercer

7405 92nd Pl SE,
Mercer Island, WA 98040

Owner:

Architect/Designer:

5ft2 Studio Architects
2625 Northrup Way
Suite 100
Bellevue, WA 98004

p: 425 287 1567
e: info@5ft2studio.com
w: 5ft2studio.com

Structural Engineer:

Nabil Kausal-Hayes, PE



11/10/22

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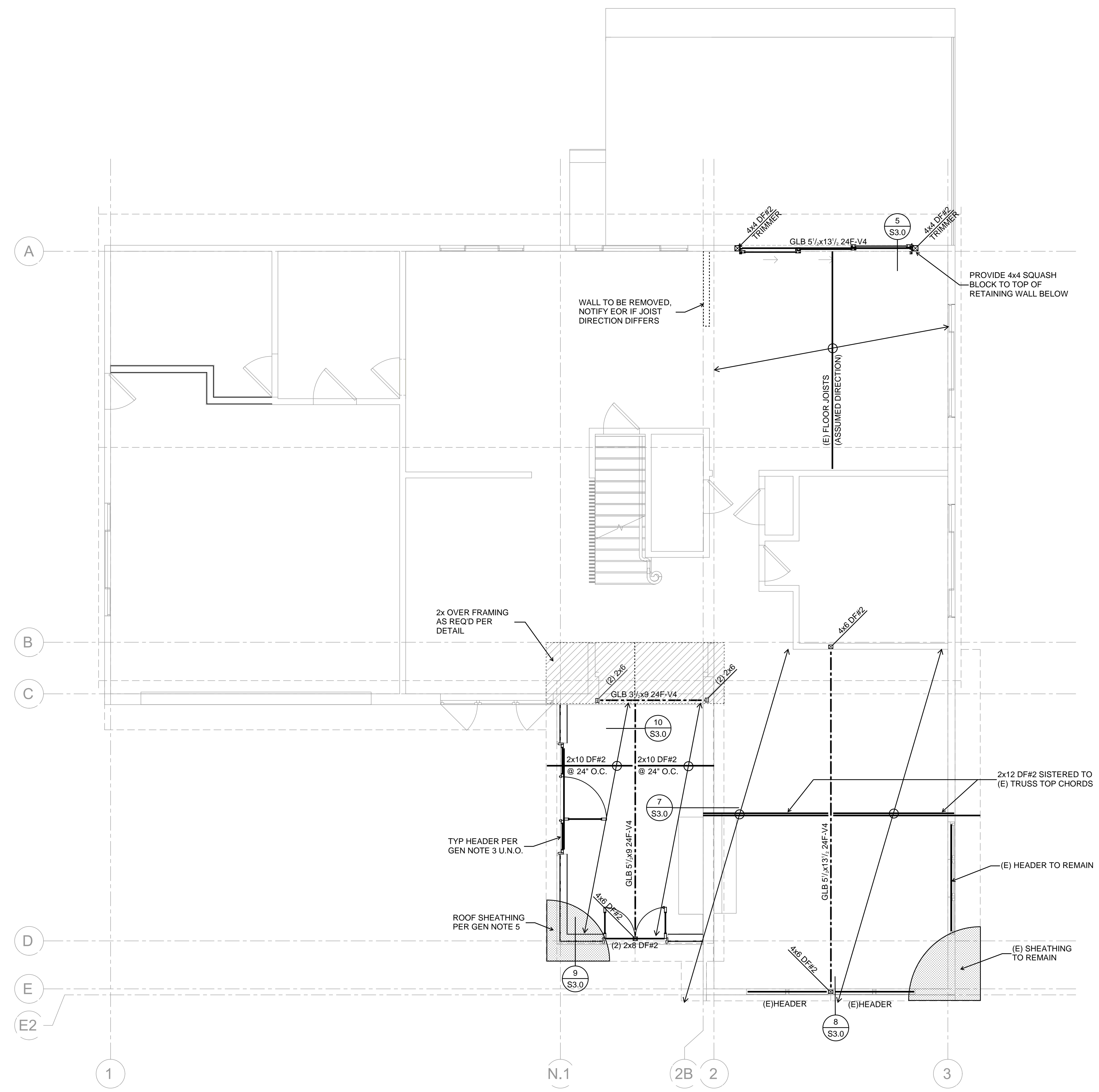
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**UPPER FLOOR
& LOW ROOF
FRAMING PLAN**

Sheet:

S2.1

Job Number: 22-123



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- PROVIDE SIMPSON CB POST BASE FOR ALL COLUMNS TO CONCRETE & BC POST BASE TO WOOD U.N.O. ON PLAN OR IN DETAILS. ORIENT BASE TO FASTENERS IN STUD WALL WHERE APPLICABLE. REFERENCE ARCH PLANS FOR LOCATION OF CUSTOM CONNECTIONS.

LEGEND

- NEW STUD WALL PER PLAN, 2x4 @ 16" O.C. MIN INTERIOR, 2x6 @ 16" O.C. MIN EXTERIOR (U.N.O.)
- NEW POST PER PLAN

1 2ND FLOOR FRAMING PLAN
S2.1 1/4" = 1'-0"



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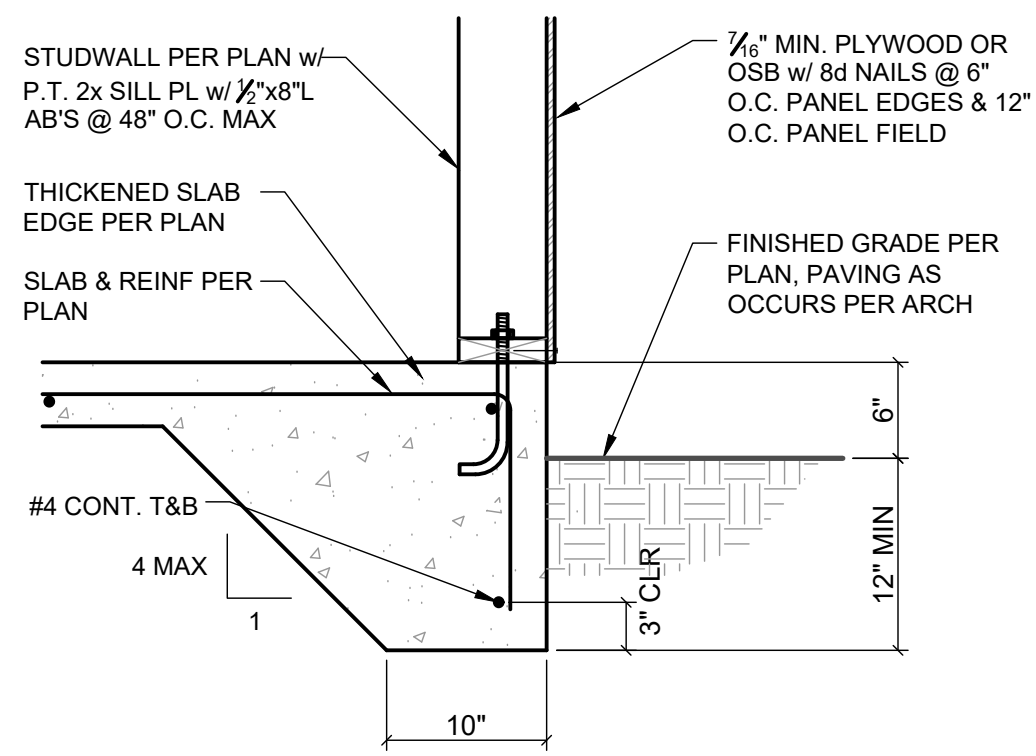
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**STRUCTURAL
DETAILS**

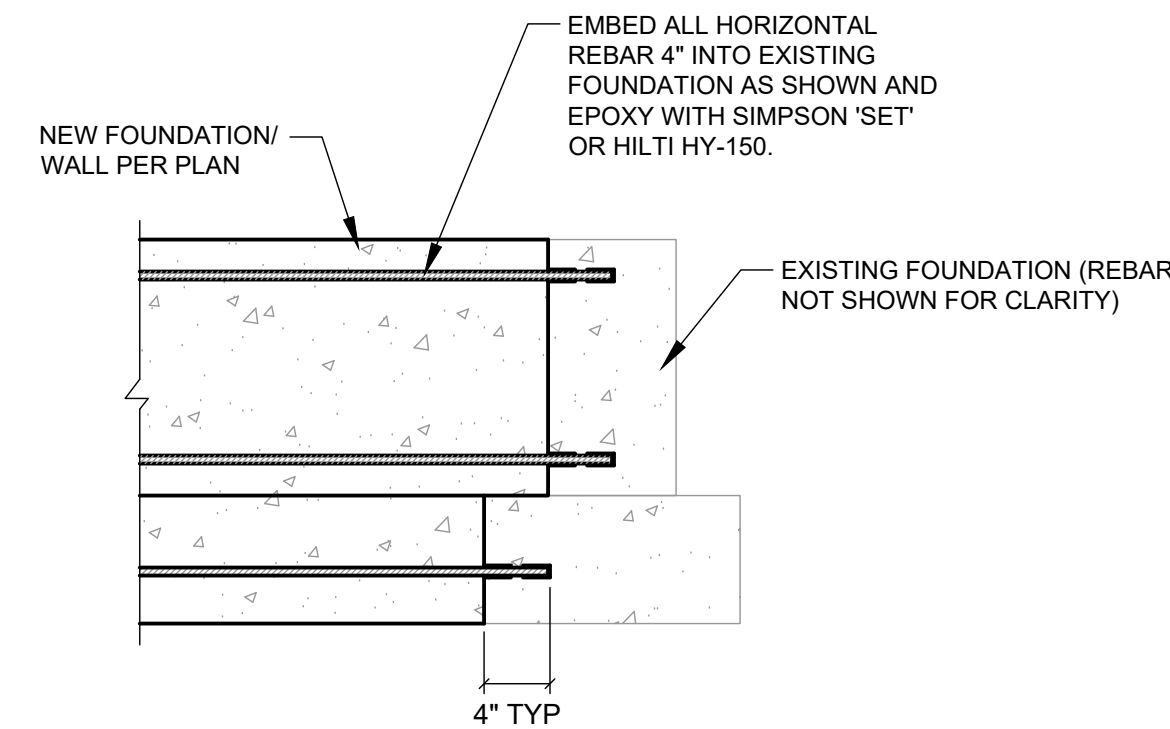
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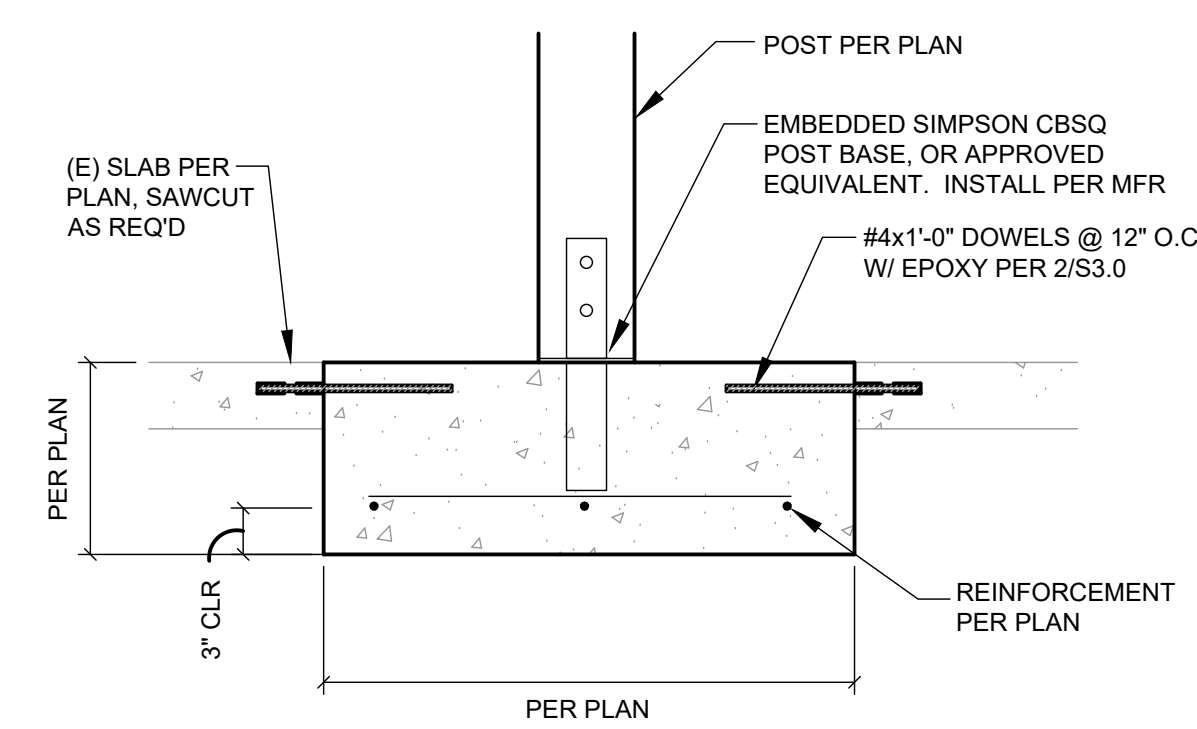
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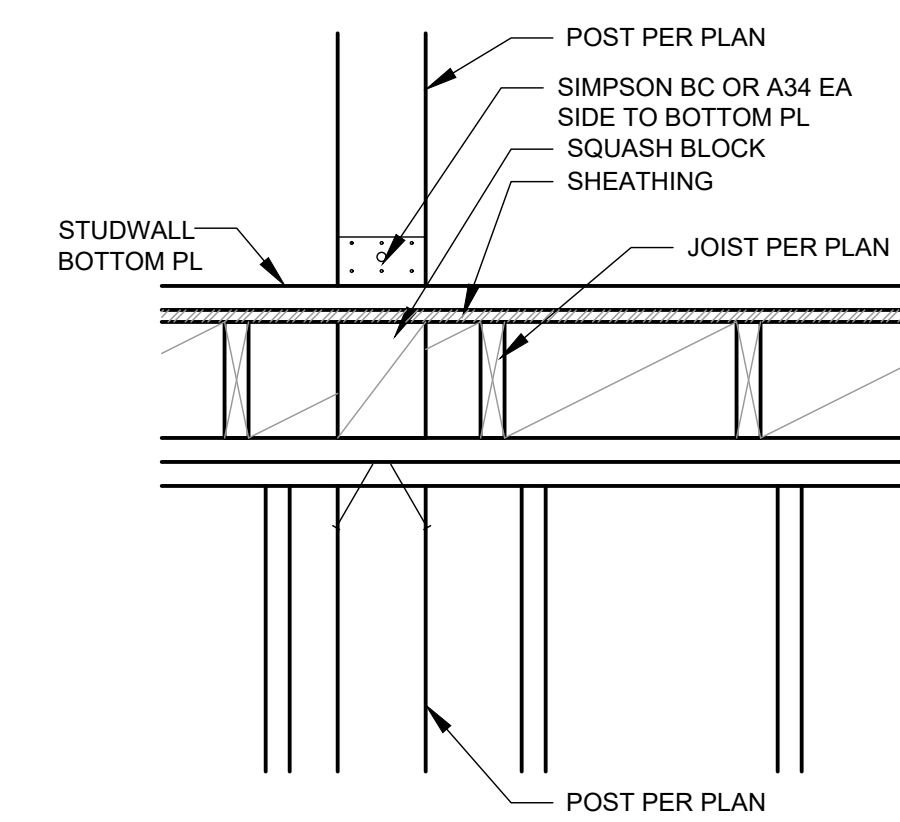
1 WALL TO THICKENED SLAB EDGE
S3.0 1" = 1'-0"



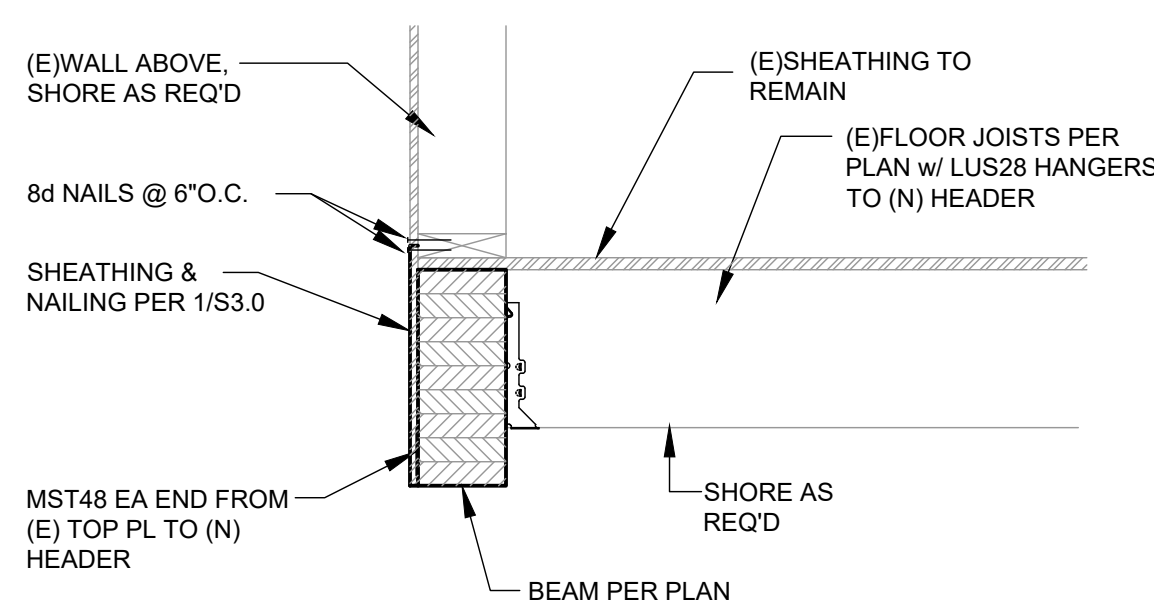
2 NEW TO EXISTING FOUNDATION
S3.0



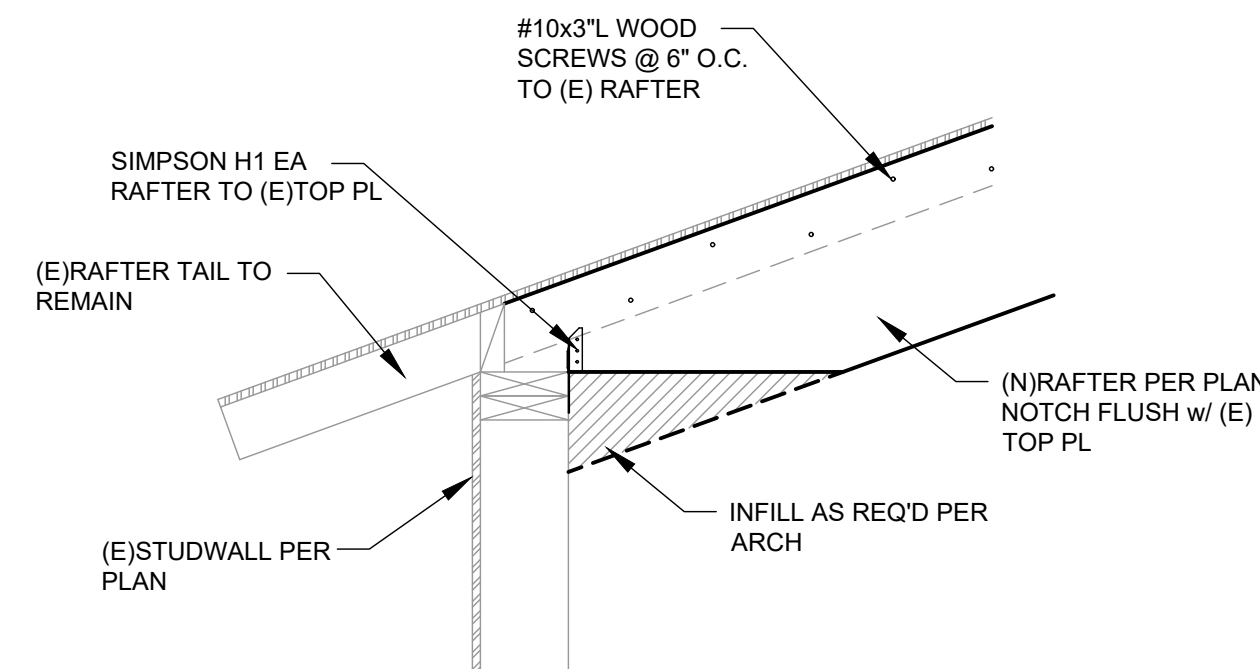
3 POST TO FOOTING
S3.0 1" = 1'-0"



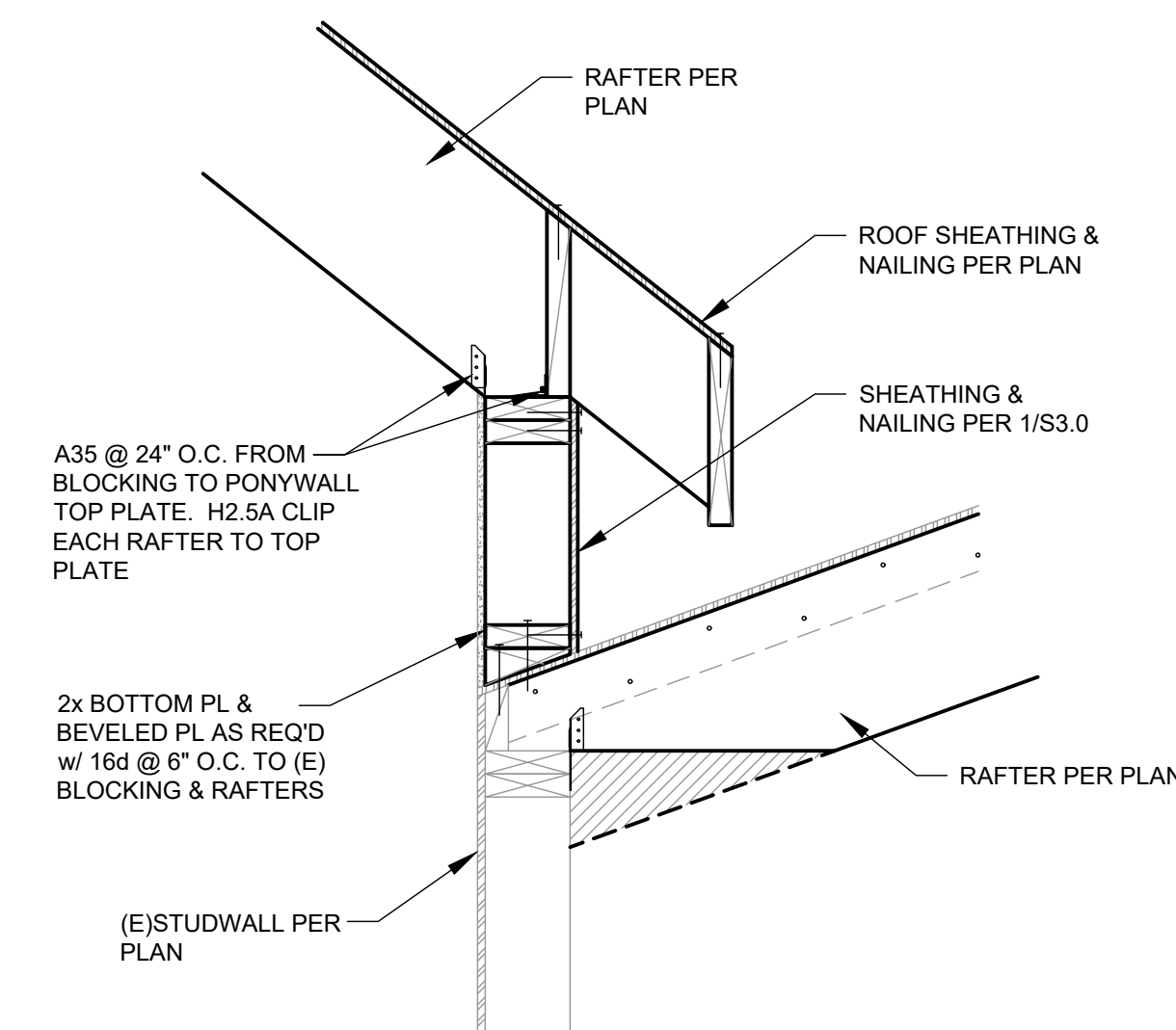
4 STACKED POST IN WALL
S3.0 1" = 1'-0"



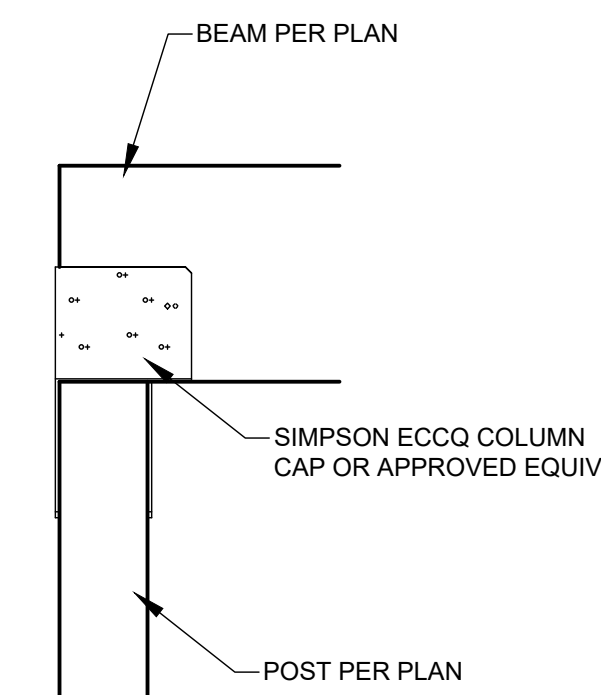
5 (E) WALL/FLOOR TO (N) HEADER
S3.0 1" = 1'-0"



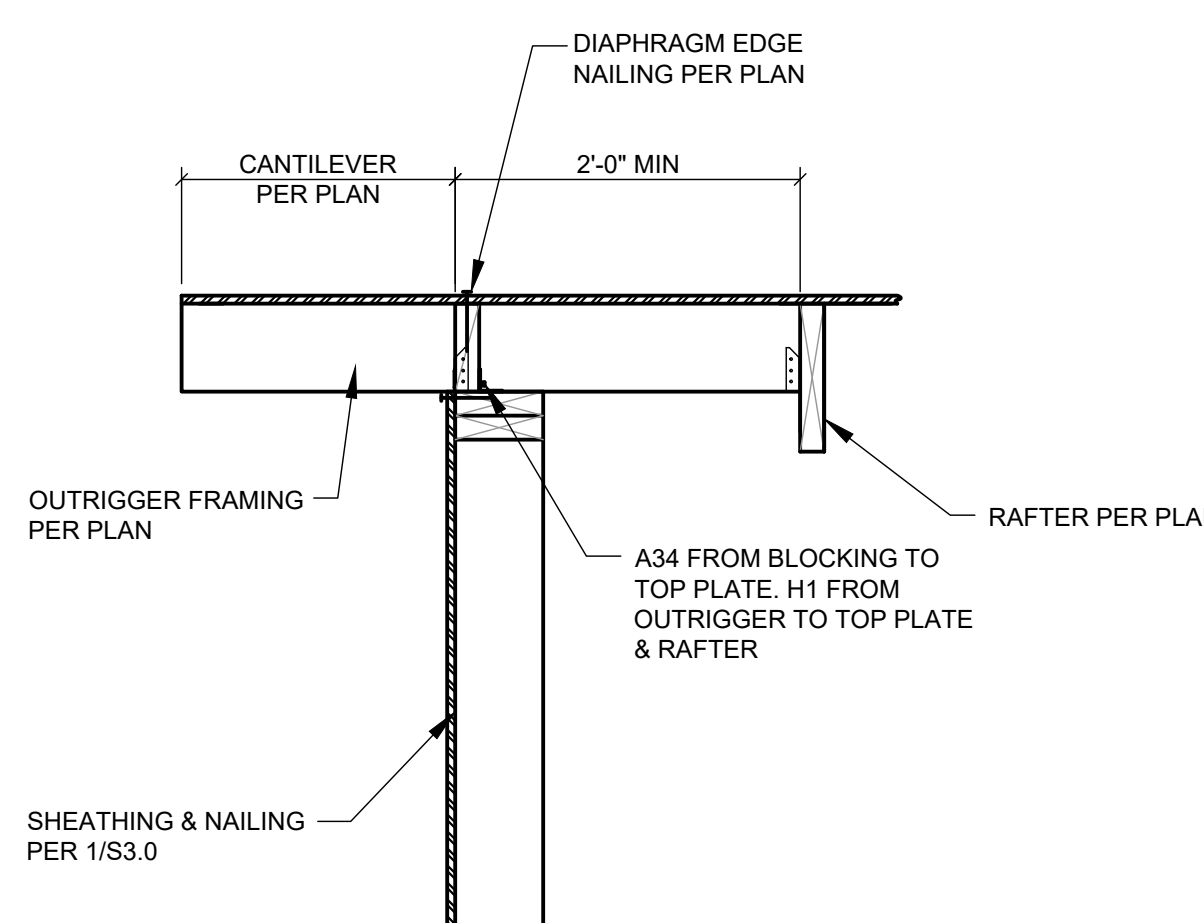
6 (N)/(E) RAFTERS TO WALL
S3.0 1" = 1'-0"



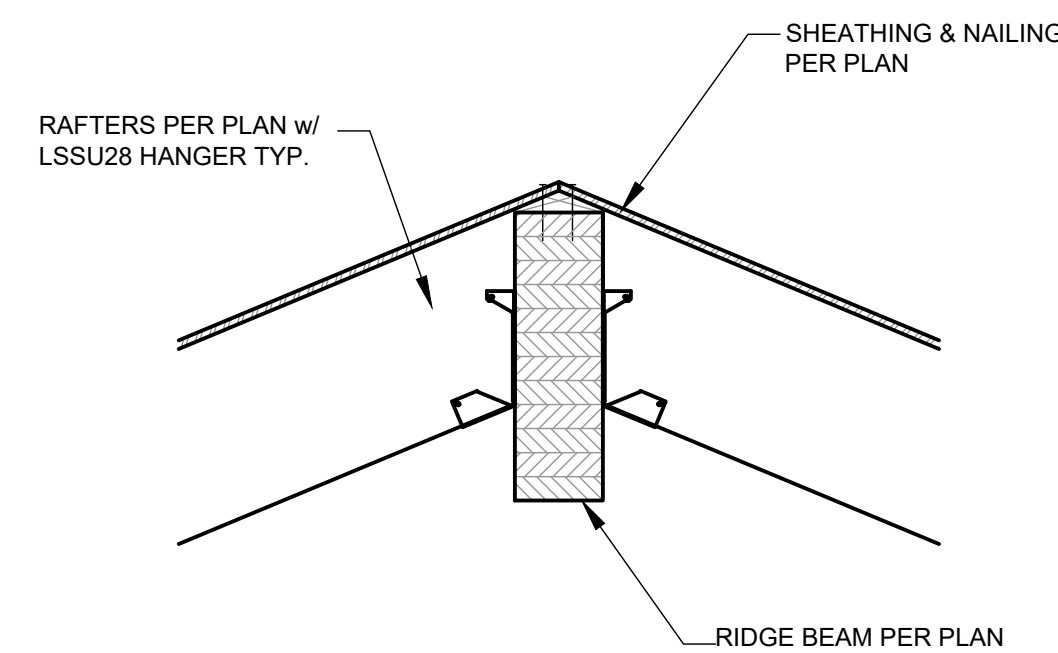
7 (N) TO (E) ROOF/WALL
S3.0 1" = 1'-0"



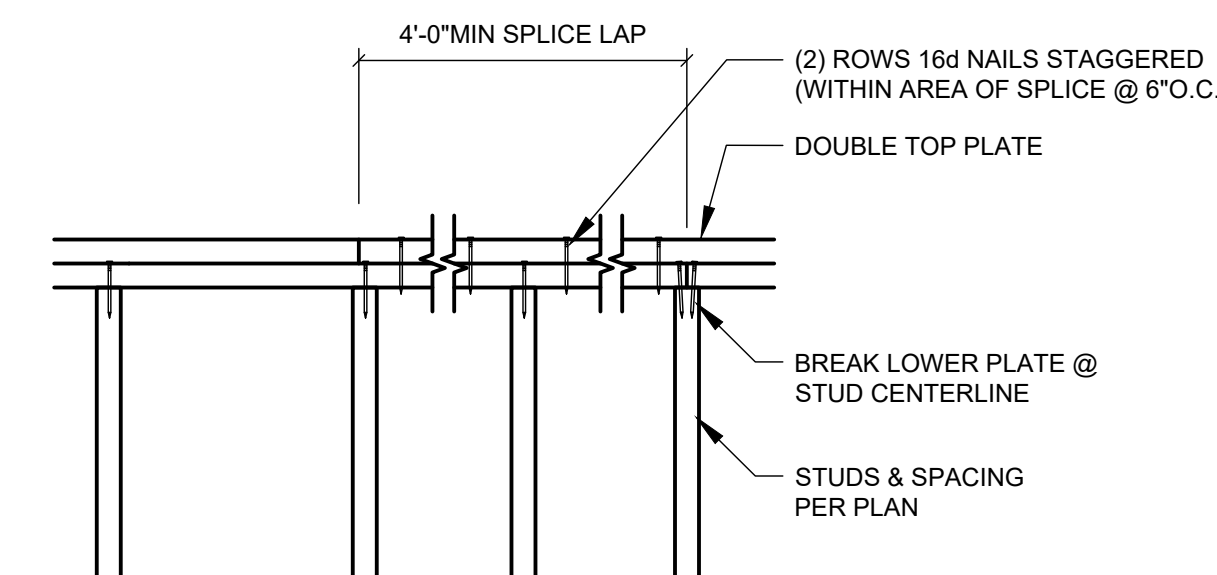
8 TYPICAL BEAM TO POST
S3.0 1" = 1'-0"



9 ROOF TO STUDYWALL CONNECTION
S3.0 1" = 1'-0"



10 RIDGE BEAM CONNECTION
S3.0 1" = 1'-0"



11 TYPICAL TOP PLATE SPLICE
S3.0 NTS