

LEGAL DESCRIPTION:	EAST SEATTLE ADD Plat Block: 24 Plat Lot: 32-33-34
PARCEL NUMBER:	217450-4040
ZONING:	R-8.4
JURISDICTION:	MERCER ISLAND
PROJECT ADDRESS:	2419 72ND AVE SE, MERCER ISLAND, WA 98040
OWNER INFORMATION:	NAME: 3H Development LLC MANAGER: Sisi Duan ADDRESS: 10023 NE 23rd St, Bellevue, WA 98004 EMAIL: sisi.d@neulandllc.com PHONE: 206-839-7206
ARCHITECT:	5FT2 STUDIO ARCHITECTS INFO@5FT2STUDIO.COM
GENERAL CONTRACTOR:	TBD
STRUCTURAL ENGINEER:	NAME: F.T. Engineering and Const. Mgmt LLC PHONE: 509 822 0489 ADDRESS: 19223 98th Pl S, Renton, WA 98055.
WORK DESCRIPTION:	CONSTRUCT ONE SINGLE-FAMILY HOME WITH 2 STORY ABOVE GRADE AND 1 STORY BELOW GRADE

Tree Protection Area (TPZ): to be fenced off prior to demolition. All work in area to be monitored by project arborist. 4-6 inches of wood-chip mulch to be installed in TPZ post demolition.

Tree Protection Zone (TPZ): to be fenced off prior to demolition. All work in area to be monitored by project arborist. 4-6 inches of wood-chip mulch to be installed in TPZ post demolition.

Tree #92: 11' - 7 3/16" MLOD, 8' - 6" drip L.

Tree #91: 13' - 11 13/32" MLOD, 8' - 8 13/32" drip L.

Tree #90: 10' - 1 13/16" MLOD, 12' - 11 13/32" drip L.

Tree #89: 9' - 2 13/32" MLOD, 15' - 1" drip L.

Tree #87: 9' - 3" MLOD, 9' - 3" drip L.

Tree #88: 13' - 3 9/32" MLOD, 21' - 0" drip L.

Tree #100: 228' - 0" MLOD, 21' - 0" drip L.

Tree #101: 228' - 0" MLOD, 21' - 0" drip L.

Tree #102: 228' - 0" MLOD, 21' - 0" drip L.

Tree #93: (to remove)

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4	CENTERLINE	LAM	LAMINATE/LAMINATED
#	POUND OR NUMBER	LAV	LAVATORY
(E)	EXISTING	LT	LENGTH
(N)	NEW	LTG	LIGHT
(2)	DOUBLE		
ABV	ABOVE	MAS	MASONRY
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
APPROX	APPROXIMATE	MECH	MECHANICAL
ARCH	ARCHITECTURAL	MEMB	MEMBRANE
A/C	AIR CONDITIONING	MTL	METAL
AVE	AVERAGE BUILDING ELEVATION	MFR	MANUFACTURER
ABE	APARTMENT	MIN	MINIMUM
APT	AVERAGE GRADE	MTRL	MATERIAL
AG		MUL	MULLION
AWN	AWNING		
		N/A	NOT APPLICABLE
BD	BOARD	NIC	NOT IN CONTRACT
BLKG	BLOCKING	NCS	NUMBER
BM	BEAM	NTS	NOT TO SCALE
BOT	BOTTOM OF		
		OC	ON CENTER
CAB	CABINET	OFF	OFFICE
CB	CATCH BASIN	OVH	OVERHEAD
CEM	CEMENT	OPP	OPPOSITE
CJ	CONTROL JOINT		
CLG	CEILING	PERF	PERFORATED
CLKG	CAULKING	PLAM	PLASTIC LAMINATE
CLO	CLOSET	PLAS	PLASTER
CLR	CLEAR	PLYWD	PLYWOOD
CMU	CONCRETE MASONRY UNIT	PNL	PANEL
CNTR	COUNTER	PAIR	PAIR
COL	COLUMN	PRCST	PRE-CAST
CONC	CONCRETE	PT	POINT
CI	CONTINUOUS INSULATION	PTD	PAINTED
CPT	CARPET/CARPETED	PTN	PARTITION
		PL	PROPERTY LINE
DEMO	DEMOLITION	PROJ	PROJECT
DF	DOUGLAS FIR	PSI	POUNDS/SQUARE INCH
DN	DOWN	PT	PRESSURE TREATED
DR	DOOR		
DSL	DOWN SPOUT	STBK	SETBACK
DTL	DETAIL	R	RISER
DW	DISHWASHER	RA	RETURN AIR
DWG	DRAWING	RAD	RADIUS
		RD	ROOF DRAIN
EA	EACH	REFR	REFRIGERATOR
EG	EGRESS	RCP	REFLECTED CEILING PLAN
EL	ELEVATION	REQ	REQUIRED
EF	EXHAUST FAN	RESIL	RESILIENT CHANNEL
ELEC	ELECTRICAL	REV	REVISION/REVISED
ELEV	ELEVATOR	RGRSTR	REGISTER
EQ	EQUAL	RM	ROOM
EST	ESTIMATE	RO	ROUGH OPENING
EXIST	EXISTING		
EXT	EXTERIOR	SD	SMOKE DETECTOR
		SEC	SECTION
FD	FLOOR DRAIN	SF	SQUARE FEET
FE	FIRE EXTINGUISHER	SG	SAFETY GLASS
FF	FINISH FLOOR	SH	SHEET
FLASH	FLASHING	SHGT	SHEATHING
FOS	FACE OF STUD	SHWR	SHOWER
FOF	FACE OF FINISH	SPEC	SPECIFICATION
FR	FRAME	SS	STAINLESS STEEL
FRPF	FIREPROOF	STL	STEEL
FP	FIREPLACE	STOR	STORAGE
FT	FOOT OR FEET	STRUC	STRUCTURAL
FURR	FURRING	SUSP	SUSPENDED
GAL	GAUGE	T	TREAD
GALV	GALVANIZED	TBD	TO BE DETERMINED
GC	GENERAL CONTRACTOR	T+G	TONGUE AND GROOVE
GL	GLASS	T+G	TEMPERED GLASS
GLB	GLUE-LAMINATED BEAM	THK	THICK
GR	GYPSUM WALL BOARD	TO	TOP OF
GRB		TYP	TYPICAL
HB	HOSE BIB	VB	VAPOR BARRIER
HC	HOLLOW CORE	VEN	VENEER
HDR	HEADER	VERT	VERTICAL
HORIZ	HORIZONTAL		
HT	HEIGHT		
HVAC	HEATING/VENTILATION/	WC	WATER CLOSET
	AIR CONDITIONING	WD	WOOD
HW	HOT WATER	WF	WIDE FLANGE
		WG	WIRED GLASS
		WH	WATER HEATER
		WL	WATER LINE
IN	INCH	W/O	WITHOUT
INCL	INCLUDING/INCLUDED	WINO	WINDOW
INSUL	INSULATION	WP	WATERPROOF
INT	INTERIOR	WR	WATER RESISTANT
		WT	WEIGHT

.G1.0

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.

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 wall surface and 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" aff.

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.

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 ascribed 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 countertops 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 or 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.

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 l-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered n 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

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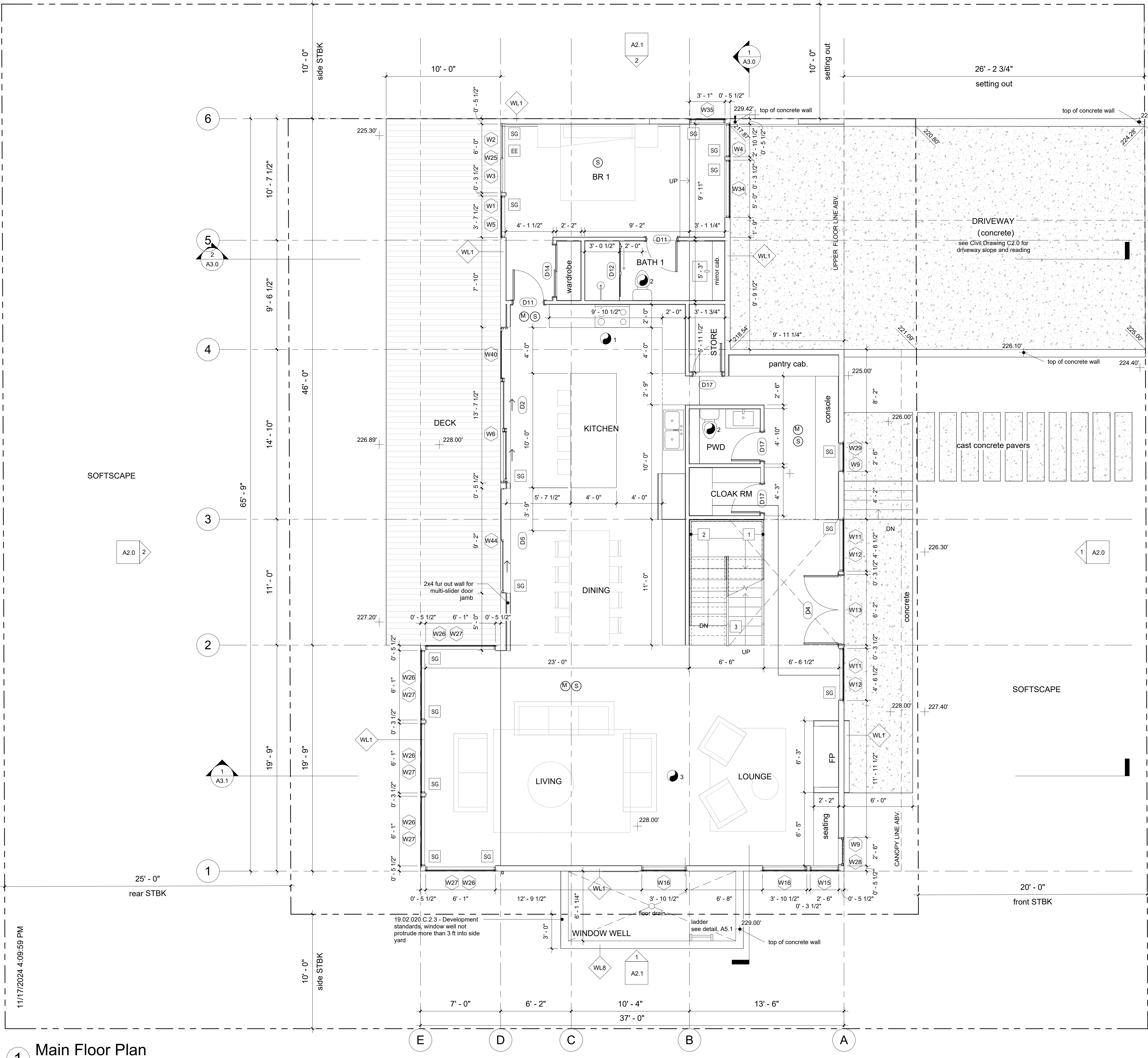
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DATE: 06.05.24		

General Notes



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

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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"

- FG FROSTED GLASS**
- MECHANICAL VENTILATION (IRC M1505)**
SEE SHEET A6.3 FOR COMPLIANCE - ALARMS AND VENTILATION AND WHOLE HOUSE MECHANICAL VENTILATION

- 1** 250 CFM ON SWITCH
2 50 CFM ON SWITCH
3 95 CFM per TABLE M1505.4.3(1)

- S SMOKE DETECTORS (IRC R314.3)**
SEE SHEET A6.3 FOR COMPLIANCE - ALARMS AND VENTILATION
- M CARBON MONOXIDE ALARM (IRC R 315.1)**
SEE SHEET A6.3 FOR COMPLIANCE - ALARMS AND VENTILATION
- HD NEW ATTACHED GARAGES (IRC R 314.2.3)**
SEE SHEET A6.3 FOR COMPLIANCE - ALARMS AND VENTILATION

- DWELLING-GARAGE OPENING AND PENETRATION PROTECTION (IRC R302.5.1)**
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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-inch gypsum board or equivalent applied to the garage side
From habitable rooms above the garage	Not less than 1/2-inch Type X gypsum board or equivalent
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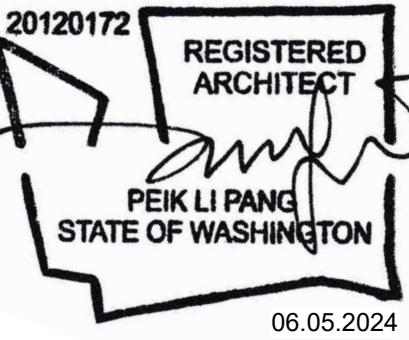
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A NFPA 13D Fire Sprinkler System in compliance with NFPA 13D and CoMi standards shall be installed throughout the residence.
A separate FIRE permit is required."

A NFPA 72- Chapter 29 Monitored Fire Alarm System in compliance with NFPA 72 and CoMi standards shall be installed throughout the residence.
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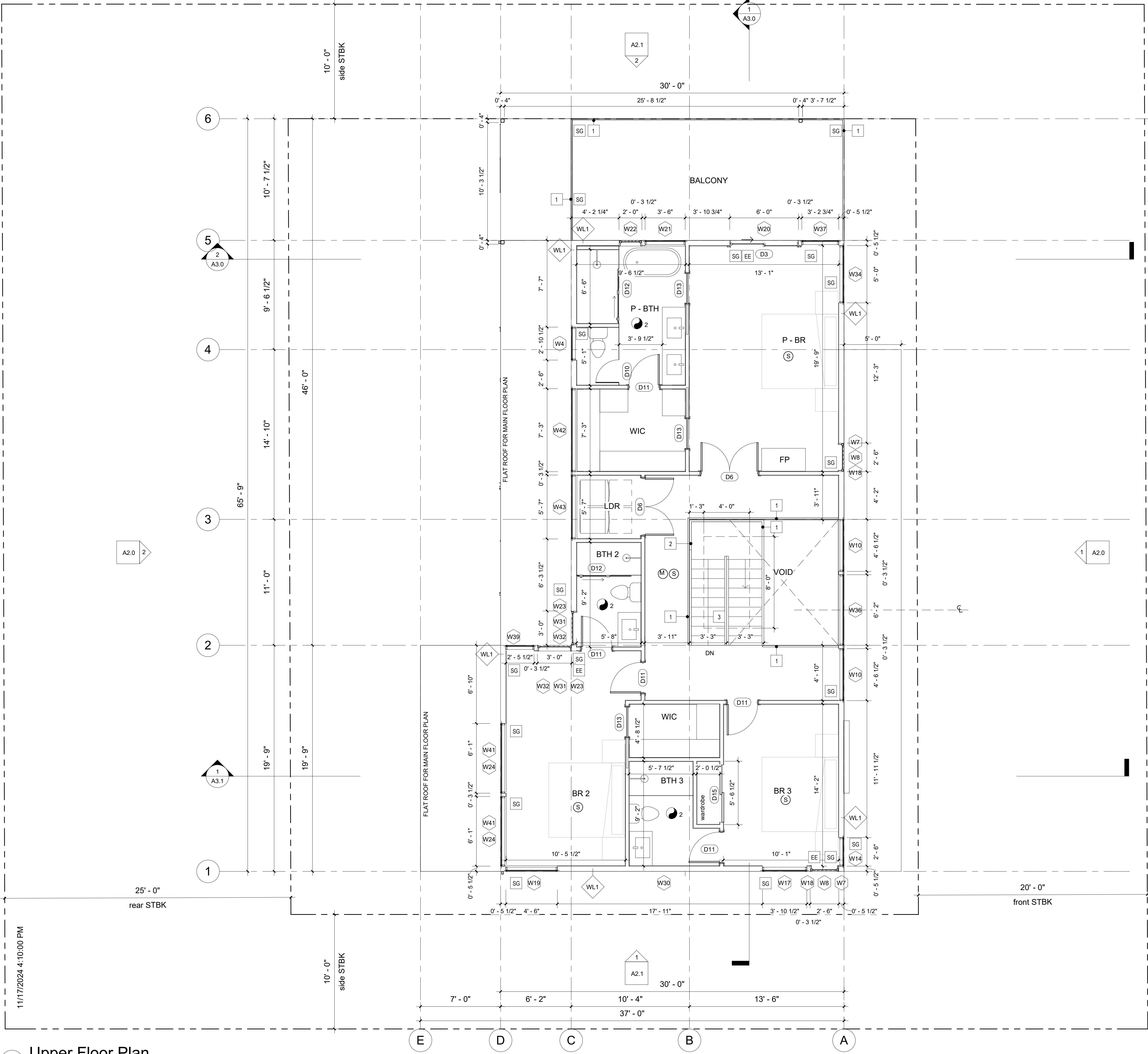
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NO.	DESCRIPTION	DATE
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DATE: 06.05.24

Main
Floor
Plan

A1.1



PLAN NOTES (IRC)

- SG SAFETY GLAZING REQUIREMENT (S.G.) : (IRC R308)**
SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS
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ARCHITECT
PEIK LI PANG
STATE OF WASHINGTON
06.05.2024

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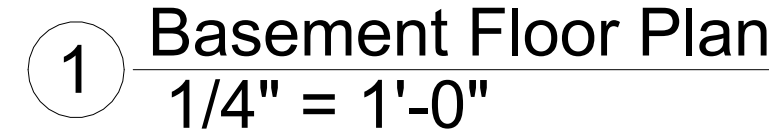
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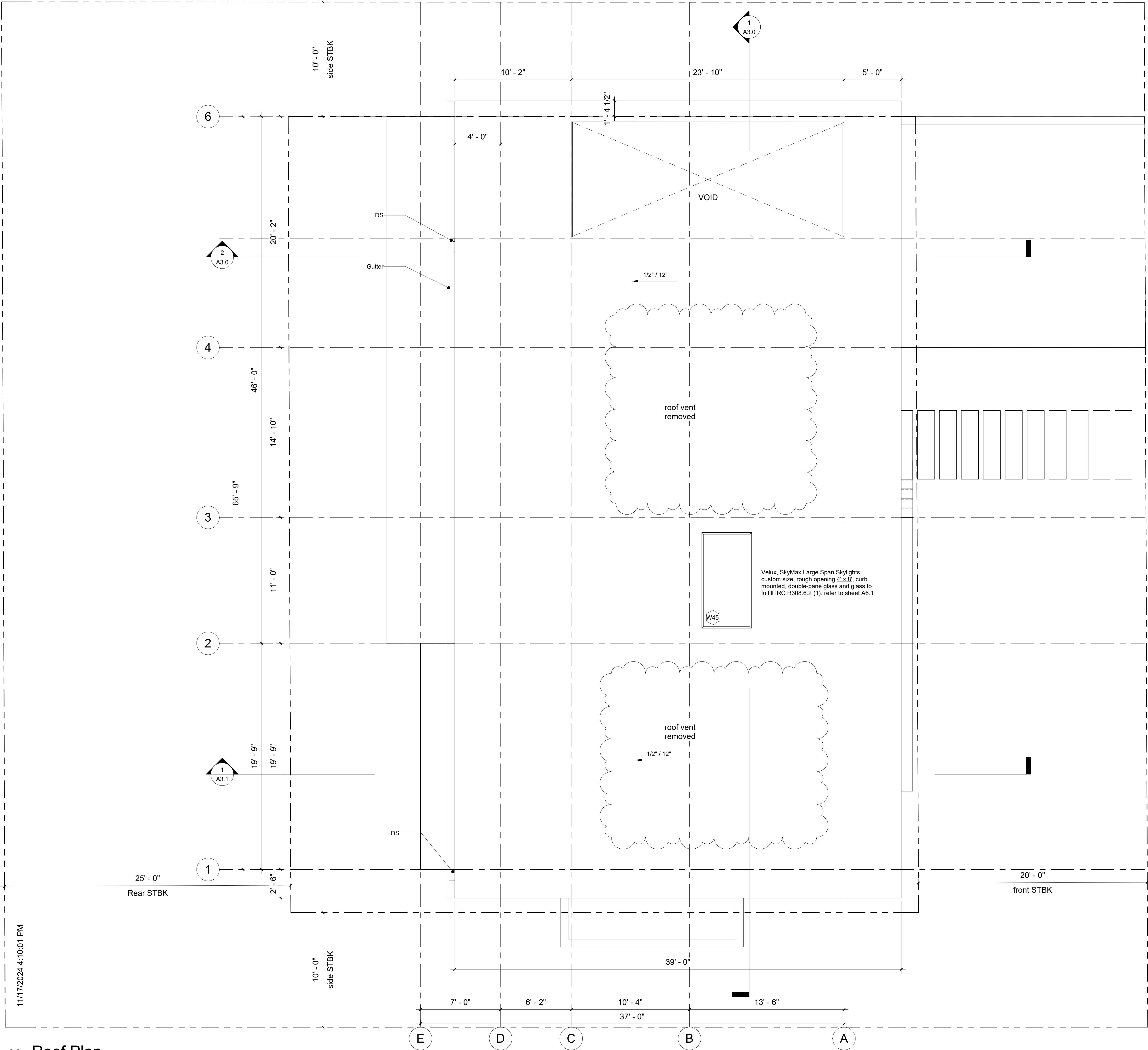
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Upper
Floor
Plan

A1.2



A1.3



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

PLAN NOTES (IRC)

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

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For 15' x 15' or less, 1 hour x 2-hour min.

Fire sprinkler and Alarm system

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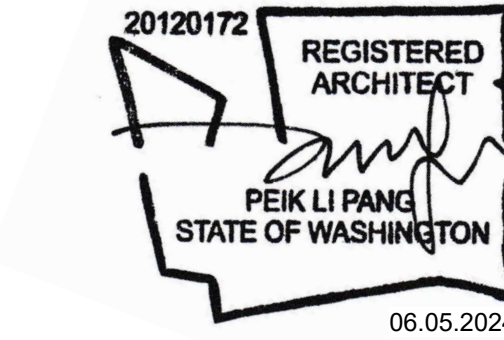
A NFPA 72- Chapter 29 Monitored Fire Alarm System in compliance with NFPA 72 and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required.

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Building Permit

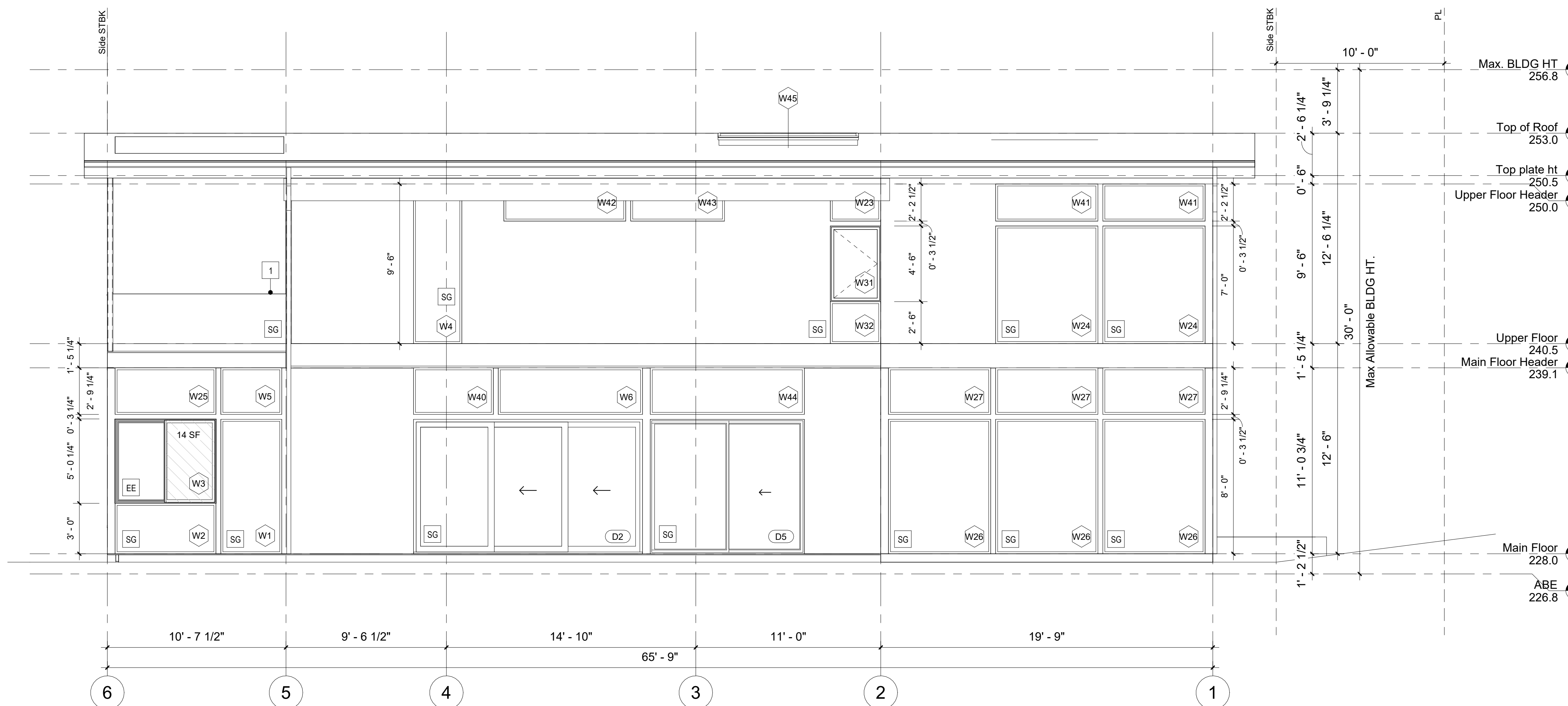
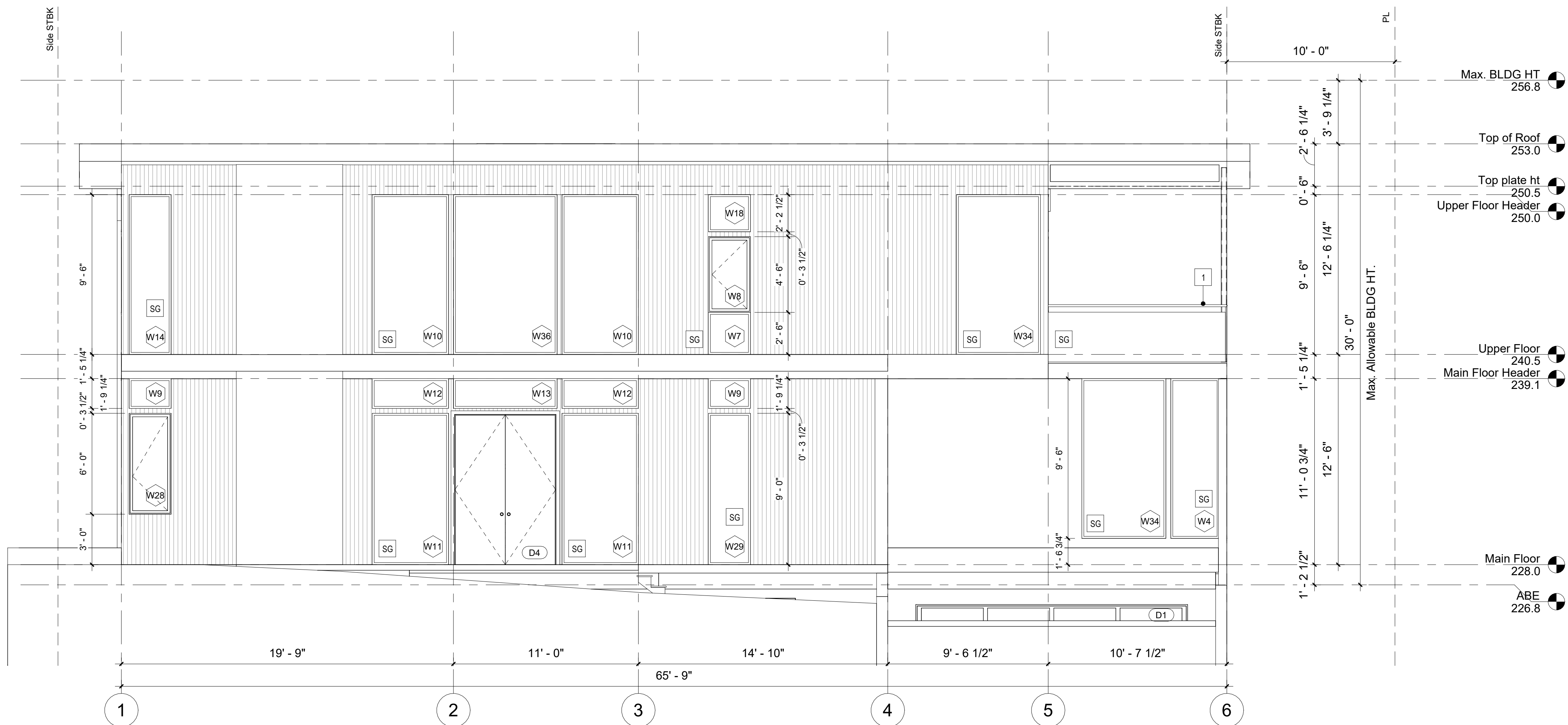
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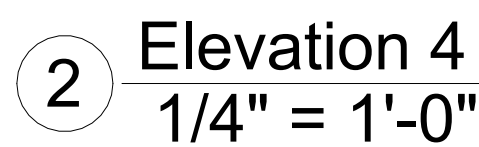
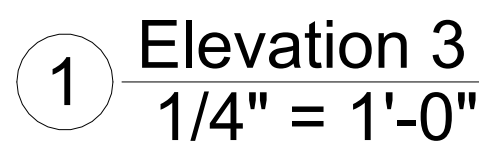
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1	PL redline	05.14.24

DATE: 06.05.24

Roof
Plan

A1.4





- ### **GUARDRAILS, HANDRAILS AND STAIRS**

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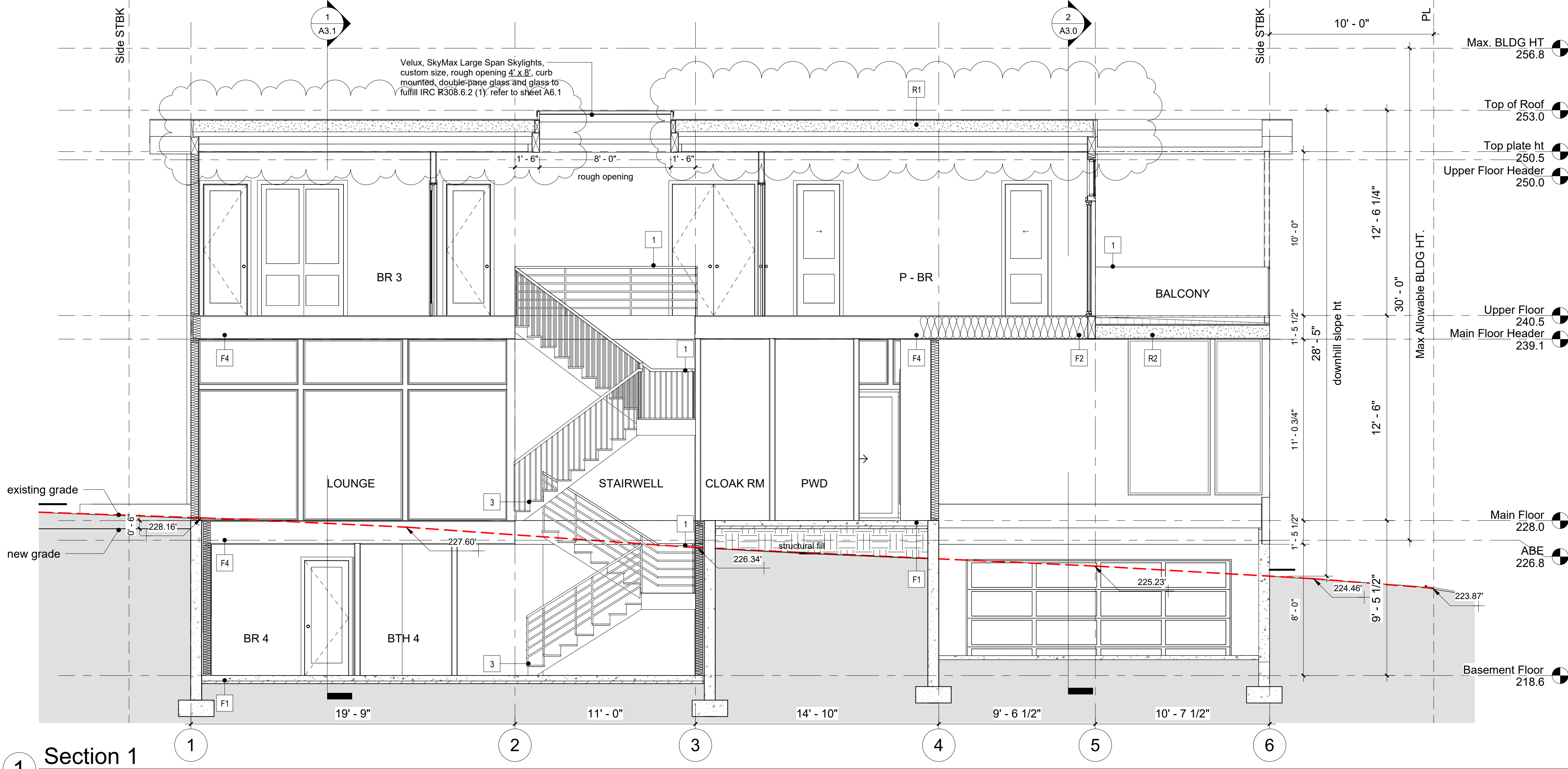
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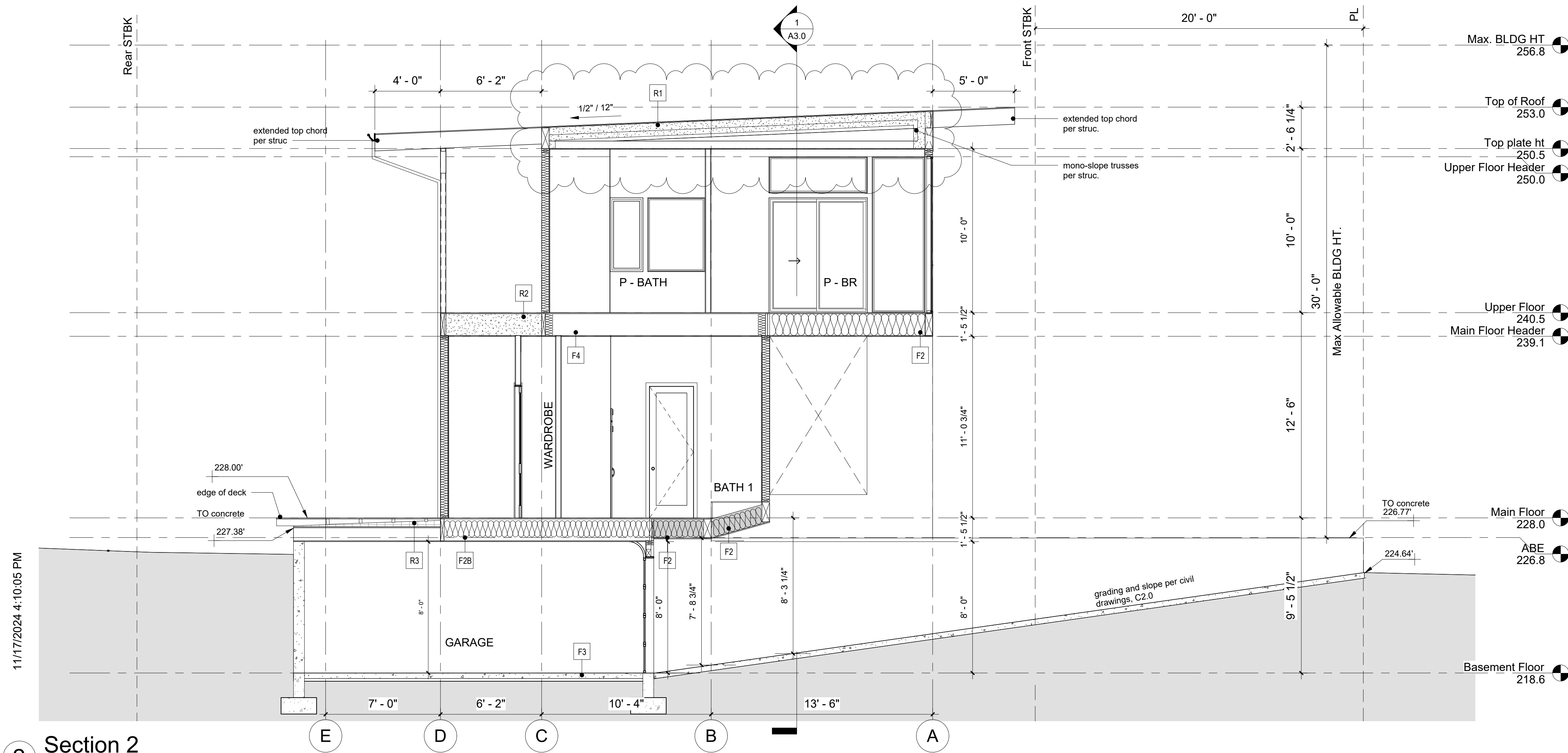
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Elevation
2

A2.1



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



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

ELEVATION & SECTION NOTES (IRC)

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

SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS

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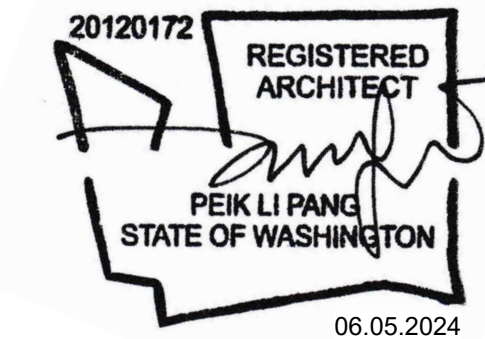
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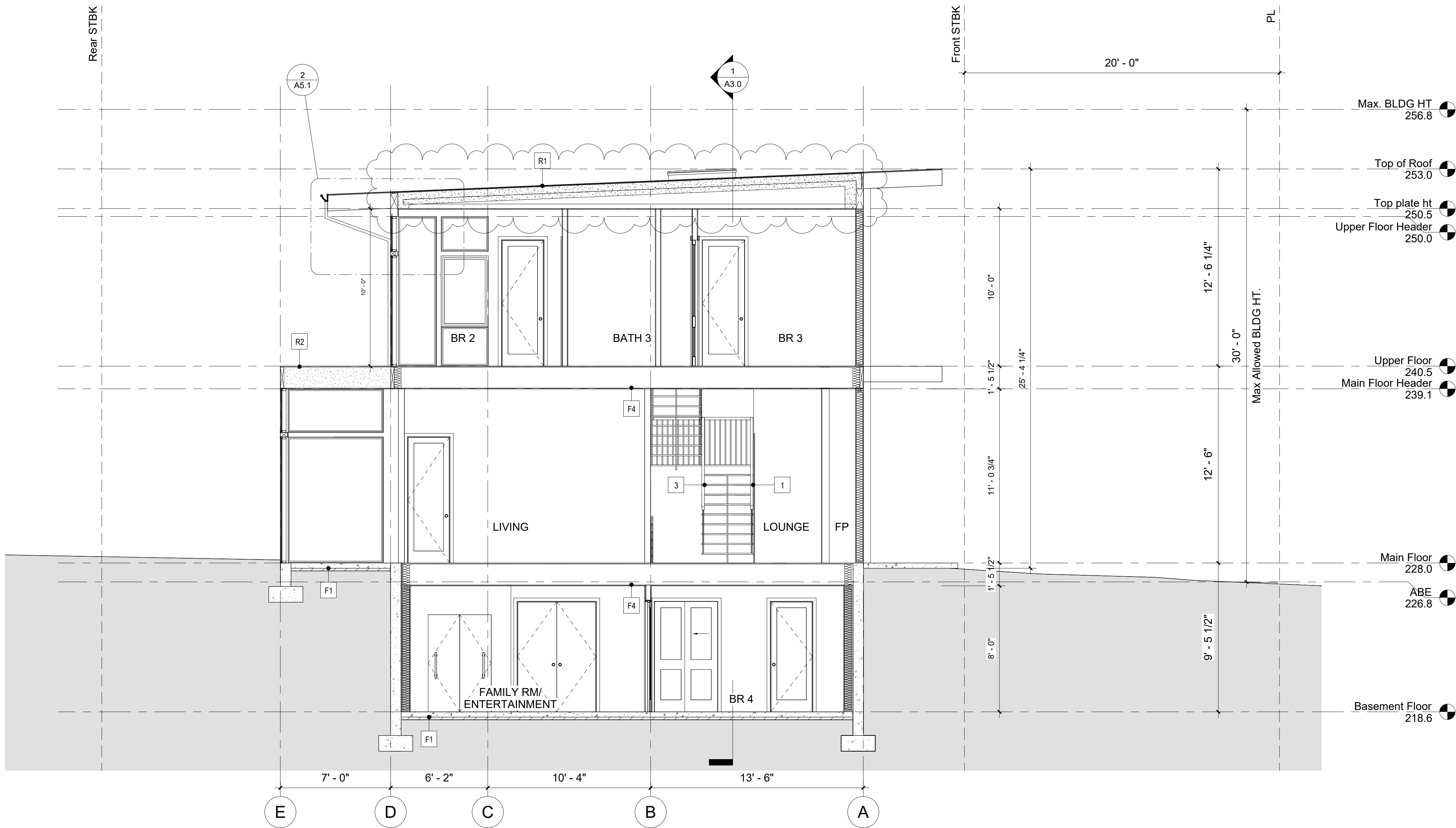
DATE: 06.05.24

Section 1

A3.0

11/17/2024 4:10:05 PM

1 Section 3
1/4" = 1'-0"



ELEVATION & SECTION NOTES (IRC)

- SG

SAFETY GLAZING REQUIREMENT (S.G.) : (IRC R308)
SAFETY GLAZING PER IRC R308 IN WINDOWS AND DOORS
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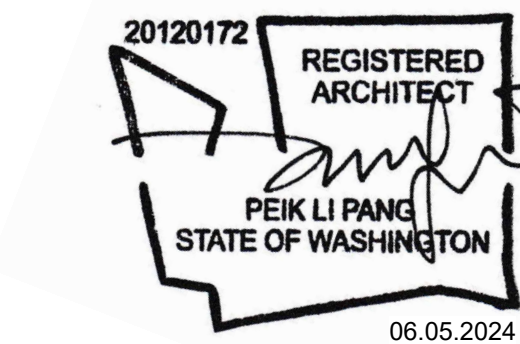
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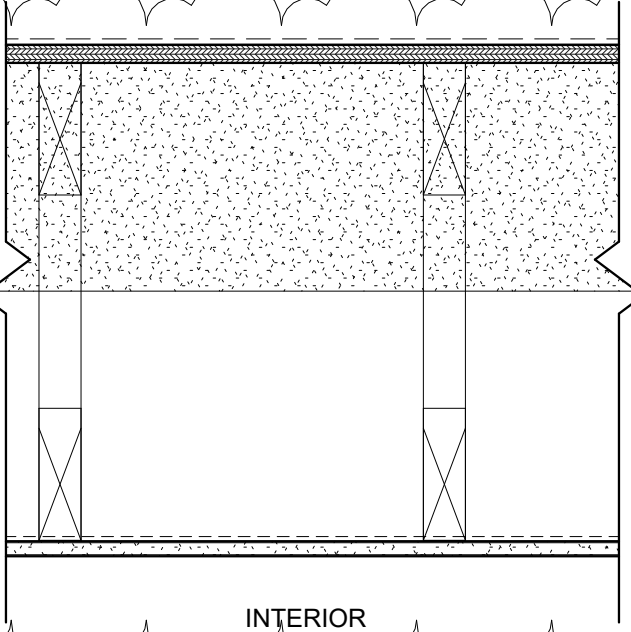
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Section
2

A3.1

ROOF ASSEMBLIES

R1

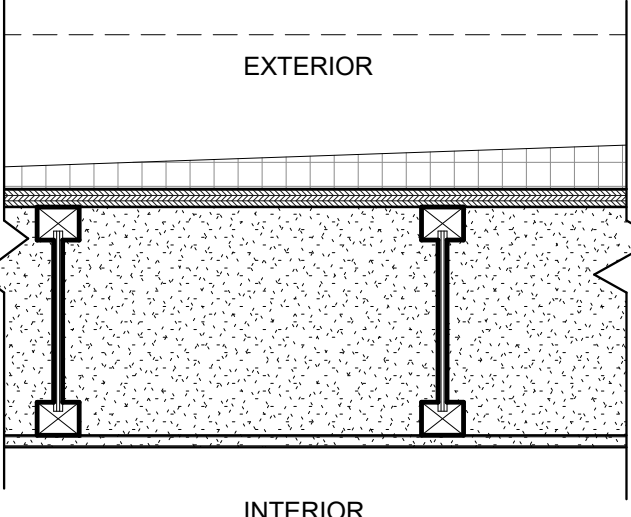


VENTILATED ROOF

- Fully adhered roofing membrane (TPO)
- 15# Felt
- Sheathing per structural
- Mono truss per structural
- Min. 9.5" R-61 Spray foam insulation (R6.5/inch), refer to spray form note
- 5/8" GWB Ceiling, smoothly skimmed and painted

THERMAL
min. R60

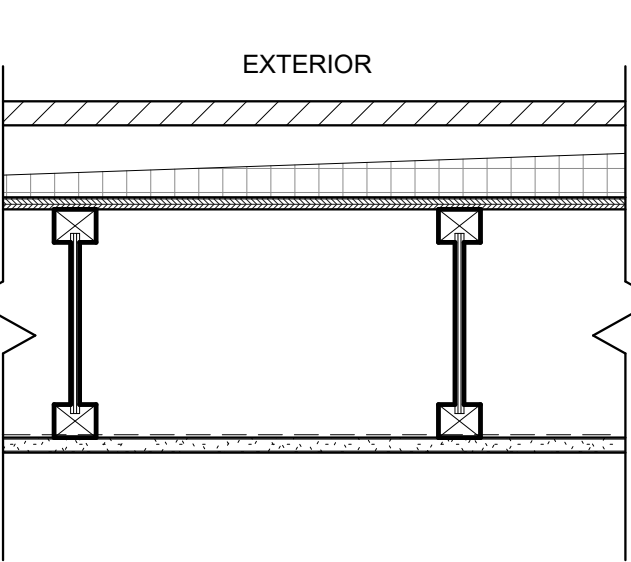
R2



- Fully adhered roofing membrane covering entire roof deck
- 15# Roofing Felt
- 65 psi tapered insulation @ 1/4" per 1'
- Sheathing per structural
- TJI per structural
- Min. 9.5" R-61 Spray foam insulation (R6.5/inch), refer to spray form note
- 5/8" GWB Ceiling, smoothly skimmed and painted

THERMAL
min. R60

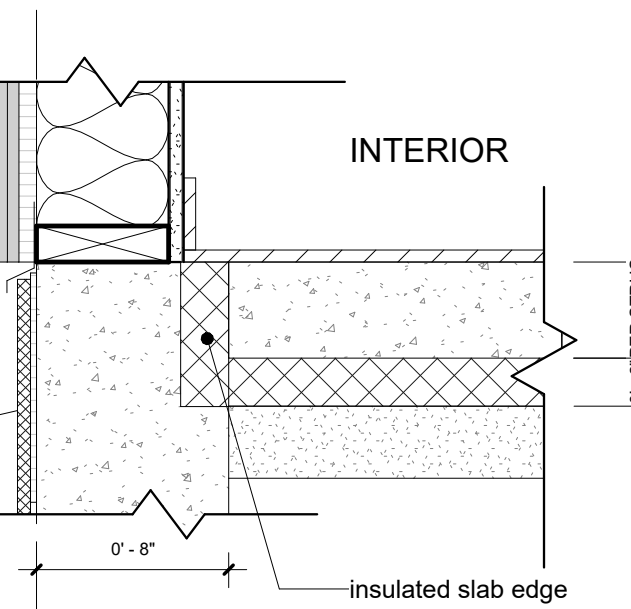
R3



- Deck assembly per plan
- Fully adhered roofing membrane (TPO)
- 15# Roofing Felt
- 65 psi tapered insulation @ 1/4" per 1'
- Sheathing per structural
- TJI per structural
- Vapor retarder - class I or class II
- 5/8" GWB ceiling

FLOOR ASSEMBLIES

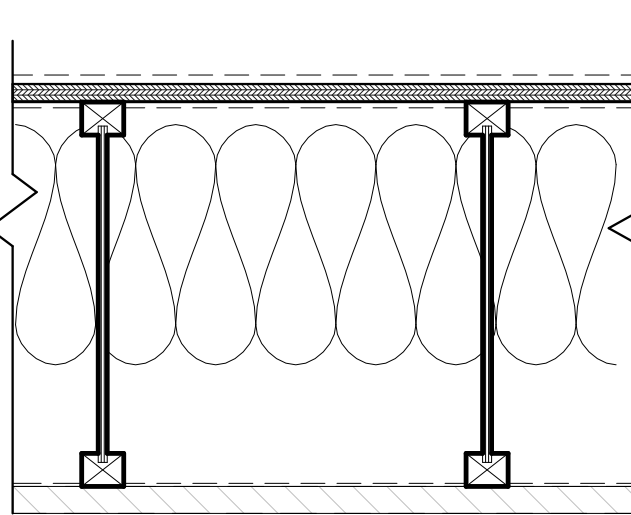
F1



- Finish per plan
- Reinforced concrete slab per structural
- Vapor Barrier
- 2" XPS Rigid Insulation under entire concrete slab, FOAMULAR® FOAMULAR®NGX™ 1000, R15
- granular capillary break and drainage pad
- compacted soil

THERMAL
min. R10

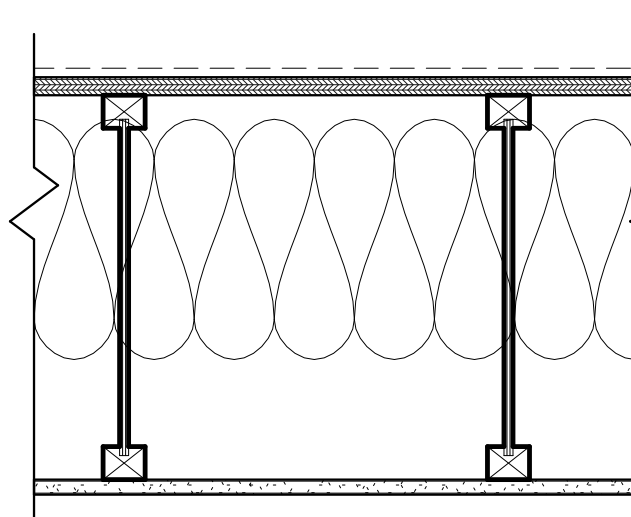
F2



- Finish per plan
- Sheathing per structural
- Vapor retarder - class I or class II
- TJI per structural
- Batt Insulation between joists, thick12", R38
- Vapor permeable Water Resistive Barrier (WRB), WrapShield SA® Self-Adhered, sealed w/ Vapro Shield tape
- Soffit per plan

THERMAL
min. R38

F2B

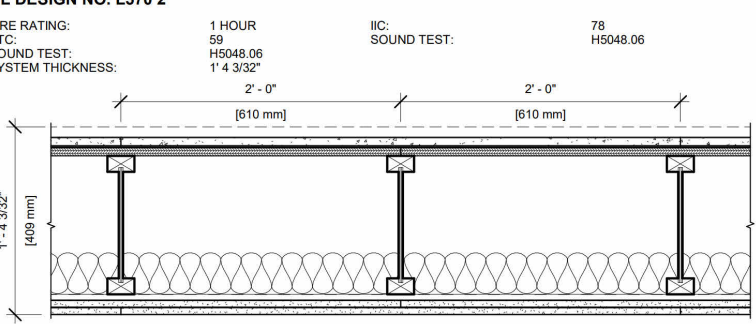


- Finish per plan
- Sheathing per structural
- TJI per structural
- Batt Insulation between joists, thick 12", R-38
- seams taped and sealed
- GWB-X ceiling

THERMAL
min. R38

1-hr Fire Rate
L570 assembly typical

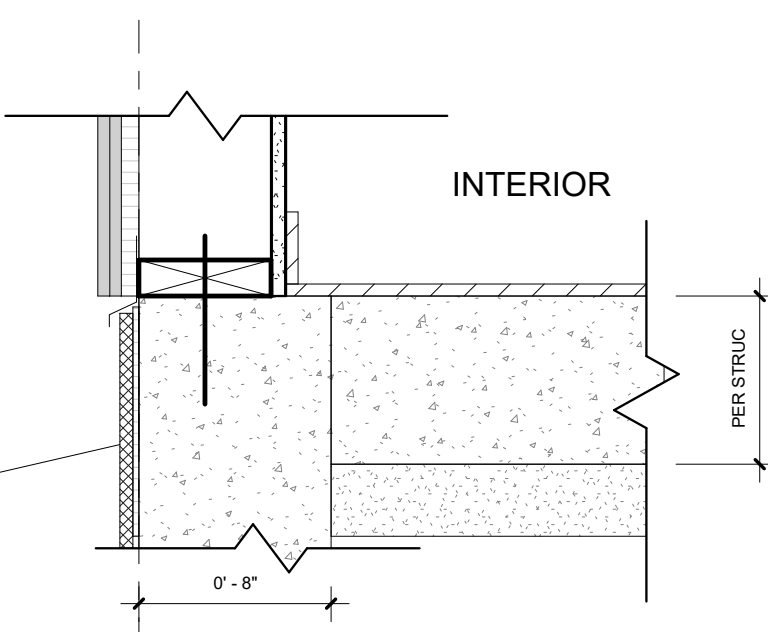
UL DESIGN NO. L570 2



ASSEMBLY OPTIONS:

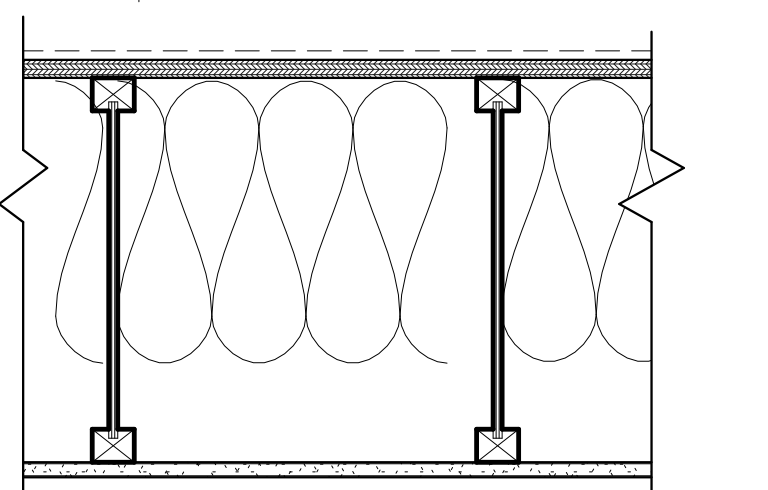
FINISH FLOORING:	CARPET & PAD (BY OTHERS)
FLOOR TOPPING MIXTURE:	3/4" USG LEVELROCK® BRAND 2000 SERIES UNDERLAYMENT
FLOOR MAT:	1/8" USG LEVELROCK® BRAND 84M N12™ SOUND ATTENUATION MAT
SUBFLOORING:	23/32" PLYWOOD PANEL
STRUCTURAL WOOD MEMBERS:	11-1/8" WOOD JOISTS, SPACED 24" O.C.
INSULATION:	3-1/2" UNFACED GLASS FIBER
RESILIENT CHANNELS:	25 GA. RESILIENT CHANNELS SPACED 18" O.C. (SOUND TESTED WITH R1C DELINE®)
GYPSUM BOARD:	TWO LAYERS 5/8" USG SHEETROCK® BRAND ECOMART PANELS FIRECODE® X (A TYPE USA7)

F3



- Finish per plan
- Reinforced concrete slab per structural
- Vapor Barrier
- Granular capillary break and drainage pad
- Compacted soil

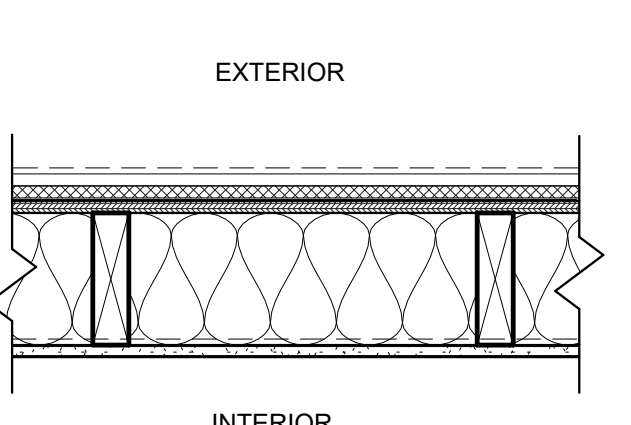
F4



- Finish per plan
- Sheathing per structural
- TJI per structural
- Batt Insulation between joists for acoustic attenuation
- 5/8" GWB Ceiling, smoothly skimmed and painted

WALL ASSEMBLIES

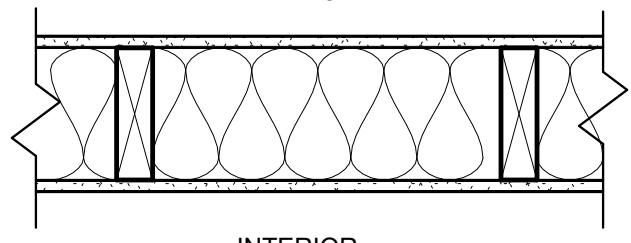
WL1



- Siding to per specification
- Rain screen
- 1" Polyisocyanurate Rigid Insulation min R5-ci
- Vapor permeable Water Resistive Barrier (WRB), WrapShield SA® Self-Adhered, sealed w/ Vapro Shield tape
- Sheathing plywood per structural
- Studwall 2X6 w/ insulation R20
- Vapor Retarder, Class II
- 1/2" GWB, smoothly skimmed and painted

THERMAL
R20+R5-ci

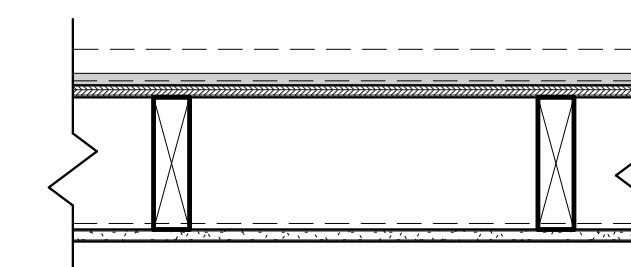
WL2



- 1/2" GWB, smoothly skimmed and painted
- Studwall 2X6 w/ insulation min. R21
- 1/2" GWB, smoothly skimmed and painted

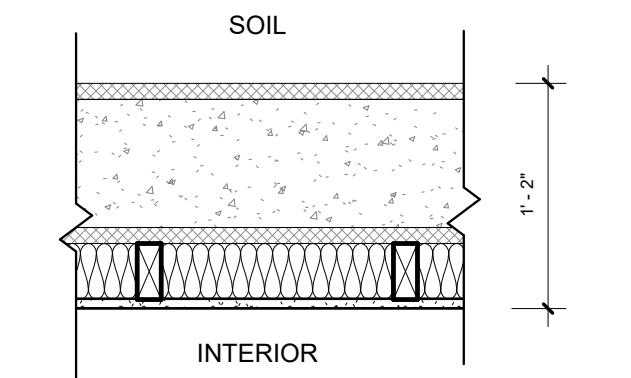
THERMAL
min. R21

WL3



- Siding to per specification
- Rain screen
- Vapor permeable Water Resistive Barrier (WRB), WrapShield SA® Self-Adhered, sealed w/ Vapro Shield tape
- 1/2" sheathing plywood
- Studwall 2X6
- Vapor Retarder, Class II
- 1/2" GWB, smoothly skimmed and painted

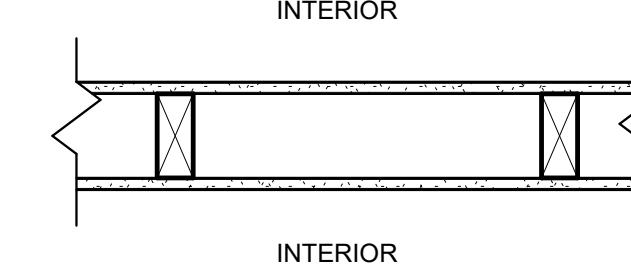
WL4



- 1" Polyisocyanurate Rigid Insulation R-6
- Concrete Retainer per structural
- 1" Polyisocyanurate Rigid insulation R-6
- Studwall 2x4 w/ rigid insulation, min. R15
- 1/2" GWB, smoothly skimmed and painted

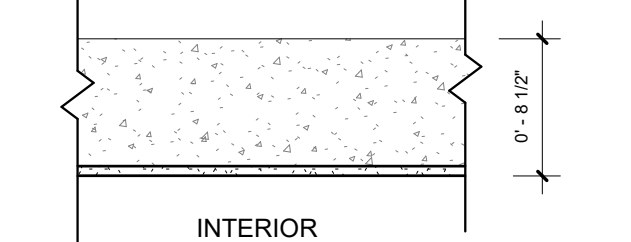
THERMAL
min. R21

WL5



- 1/2" GWB, smoothly skimmed and painted
- Studwall 2X4
- 1/2" GWB, smoothly skimmed and painted

WL8



- Concrete Retainer per structural
- 1/2" GWB, smoothly skimmed and painted

SPRAY FORM NOTE

SPRAY FORMPRODUCT 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.

5ft2

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20120172

REGISTERED
ARCHITECT

PEIK LI PANG

STATE OF WASHINGTON

06.05.2024

Mercer Firsthill
2419

2419 72nd Ave
SE, Mercer Island,
WA 98040

Building Permit

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NO.	DESCRIPTION	DATE
1	PL redline	05.14.24

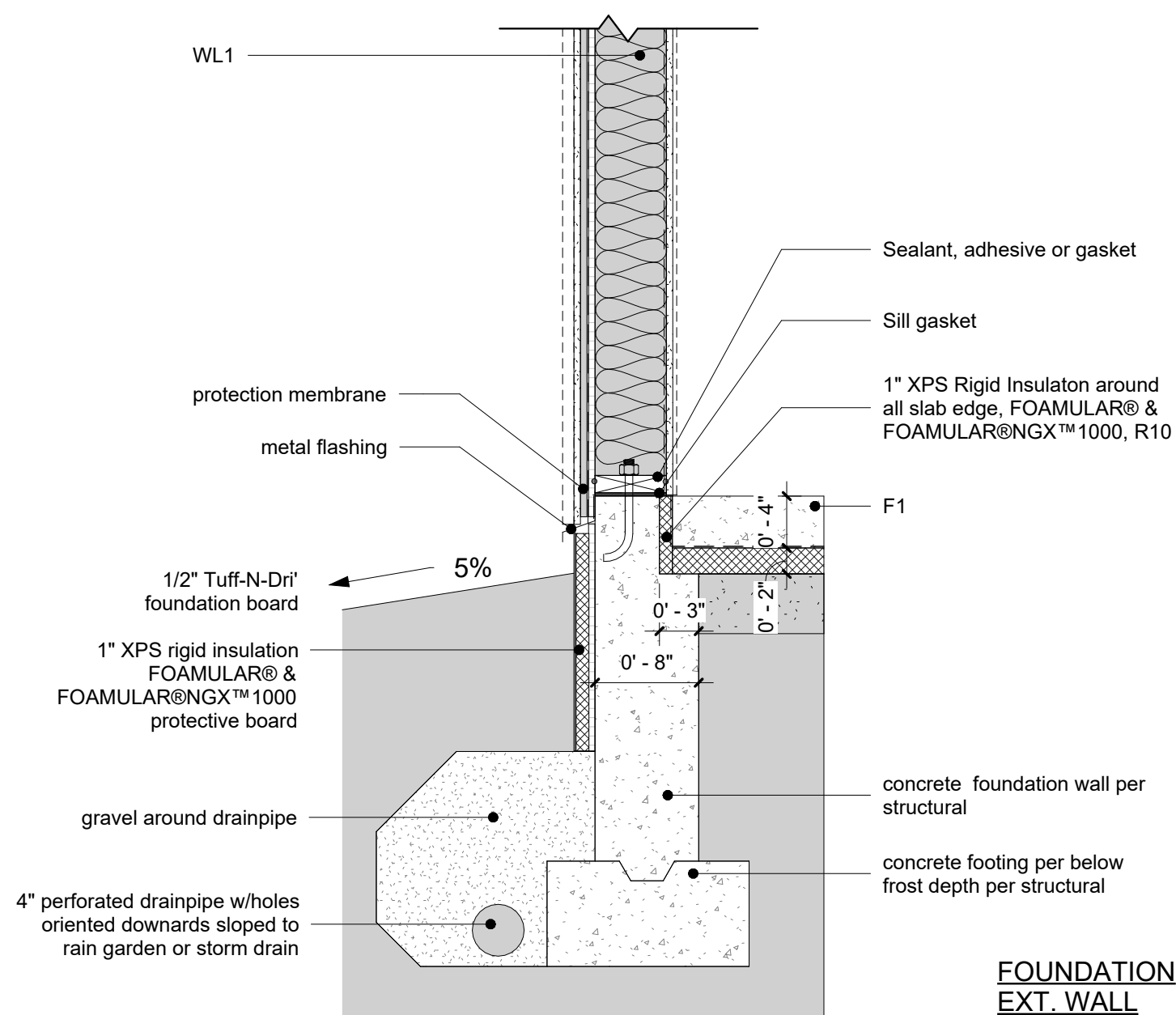
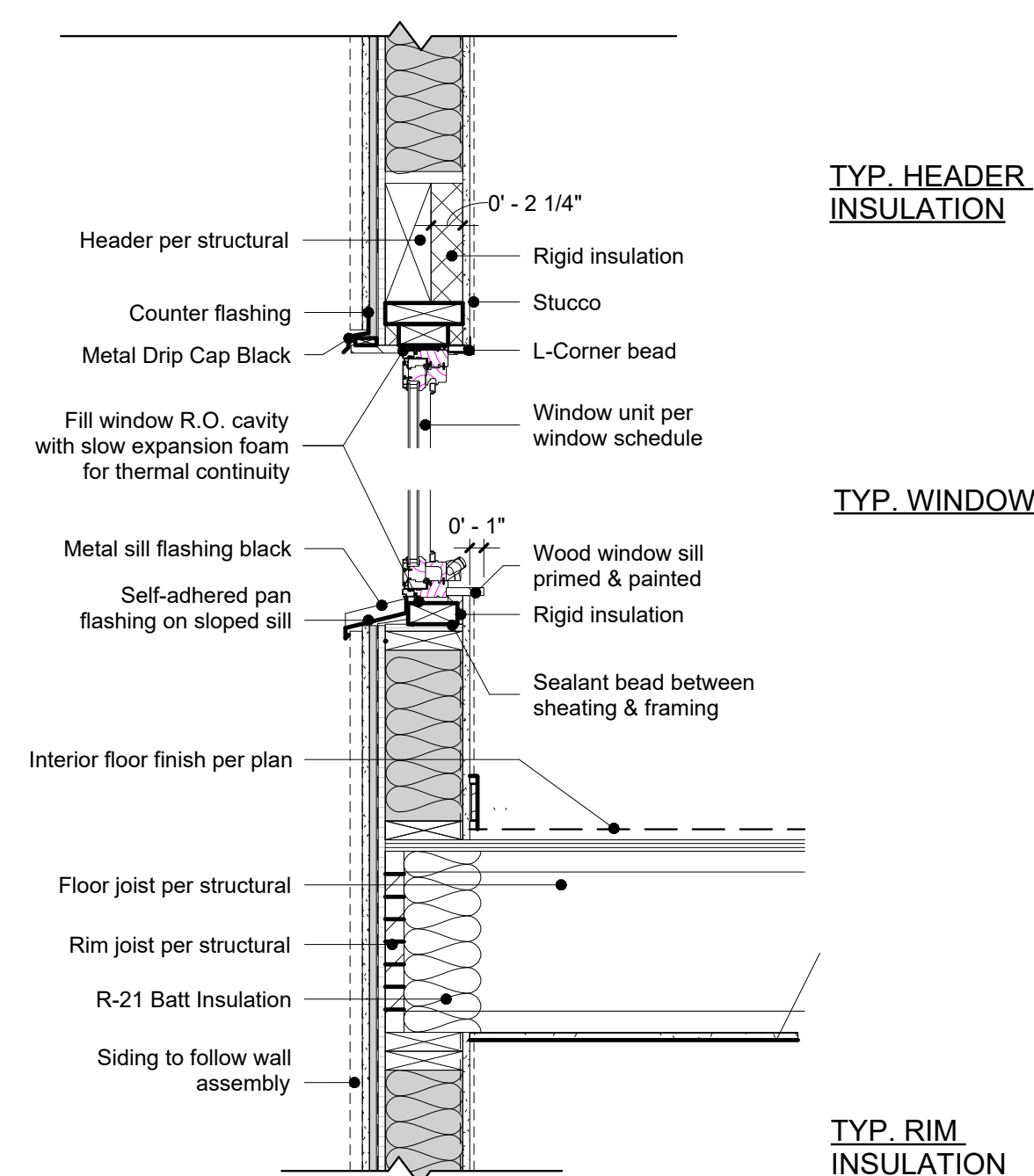
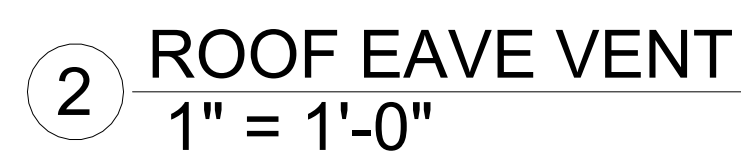
DATE: 06.05.24

Assemblies

A5.0

NO.	DESCRIPTION	DATE
1	PL redline	05.14.24

DATE: 06.05.24

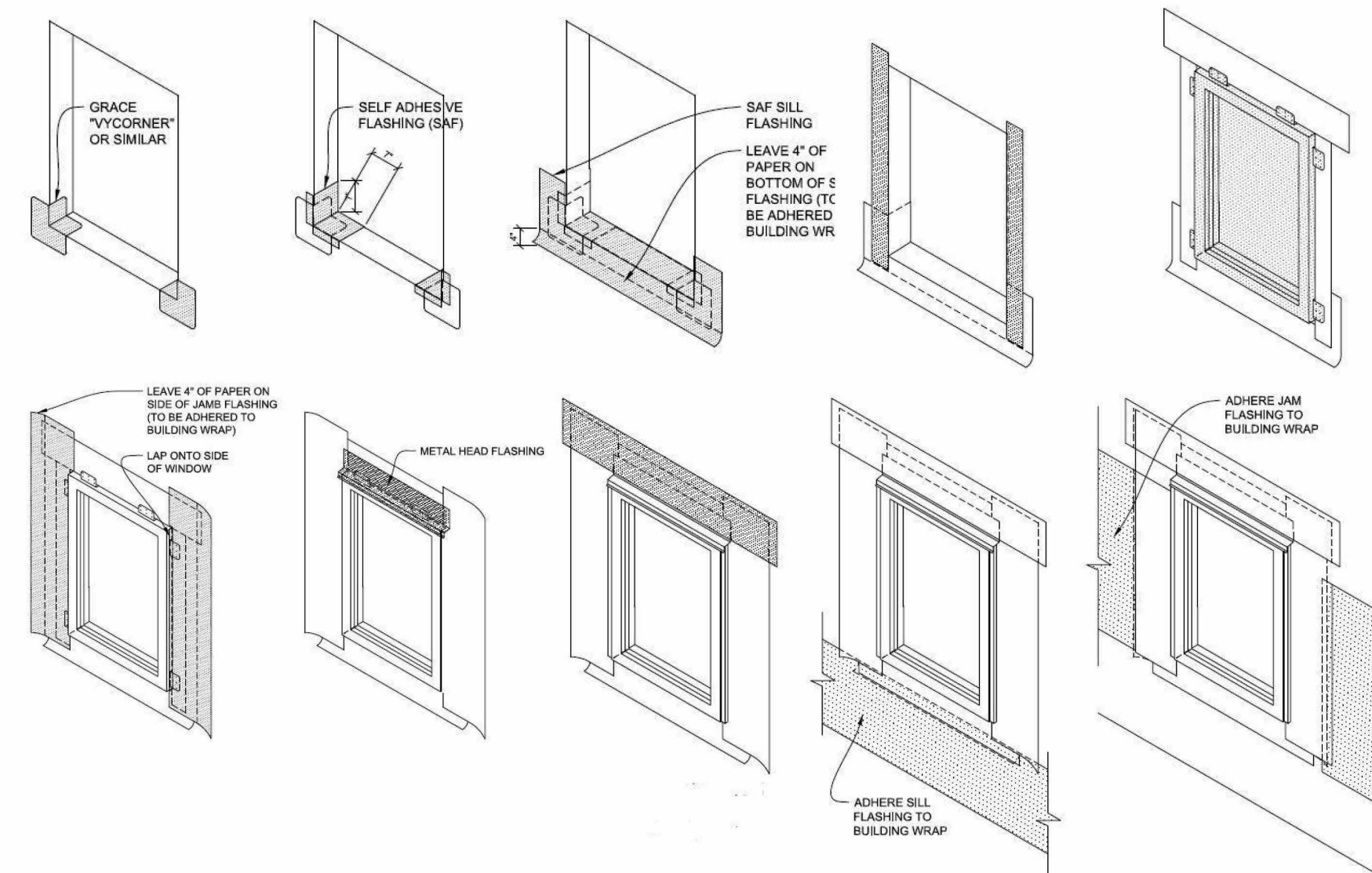
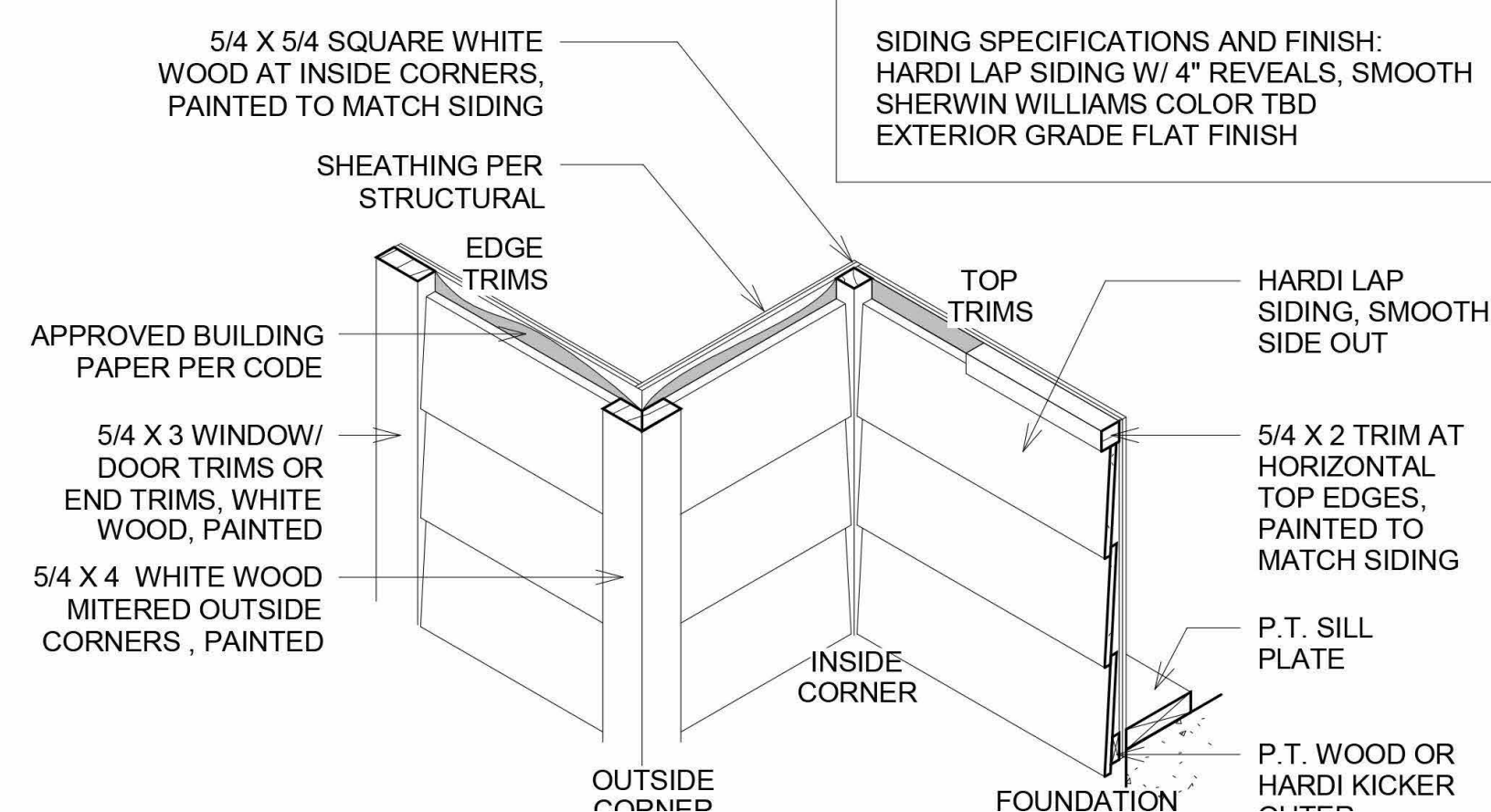
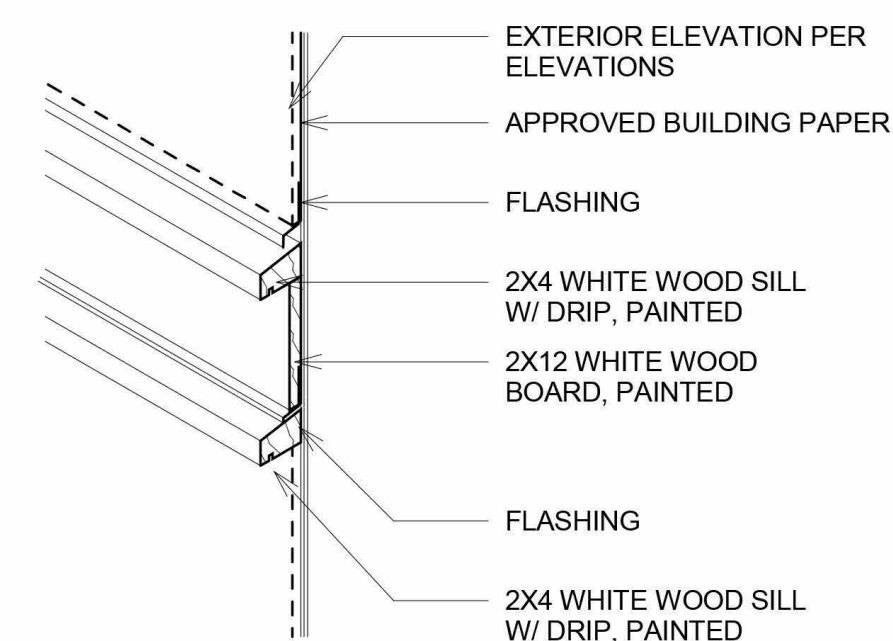


4 TYPICAL WALL SECTION
1" = 1'-0"

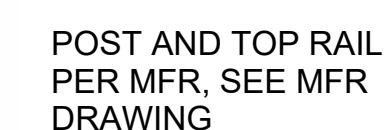
EXTERIOR TRIMS INCLUDE:

- FASCIAS
- BARGES
- WINDOW AND DOOR TRIMS, LINERS AND JAMBS
- BELLY BANDS
- OUTSIDE CORNER TRIMS (BUT NOT INSIDE)

EXTERIOR TRIMS FINISH:
WHITE WOOD PAINTED
SHERWIN WILLIAMS SW7504 "KEYSTONE GREY"
EXTERIOR GRADE FLAT FINISH



1 DETAIL-EXTERIOR FINISH
NOT-TO-SCALE

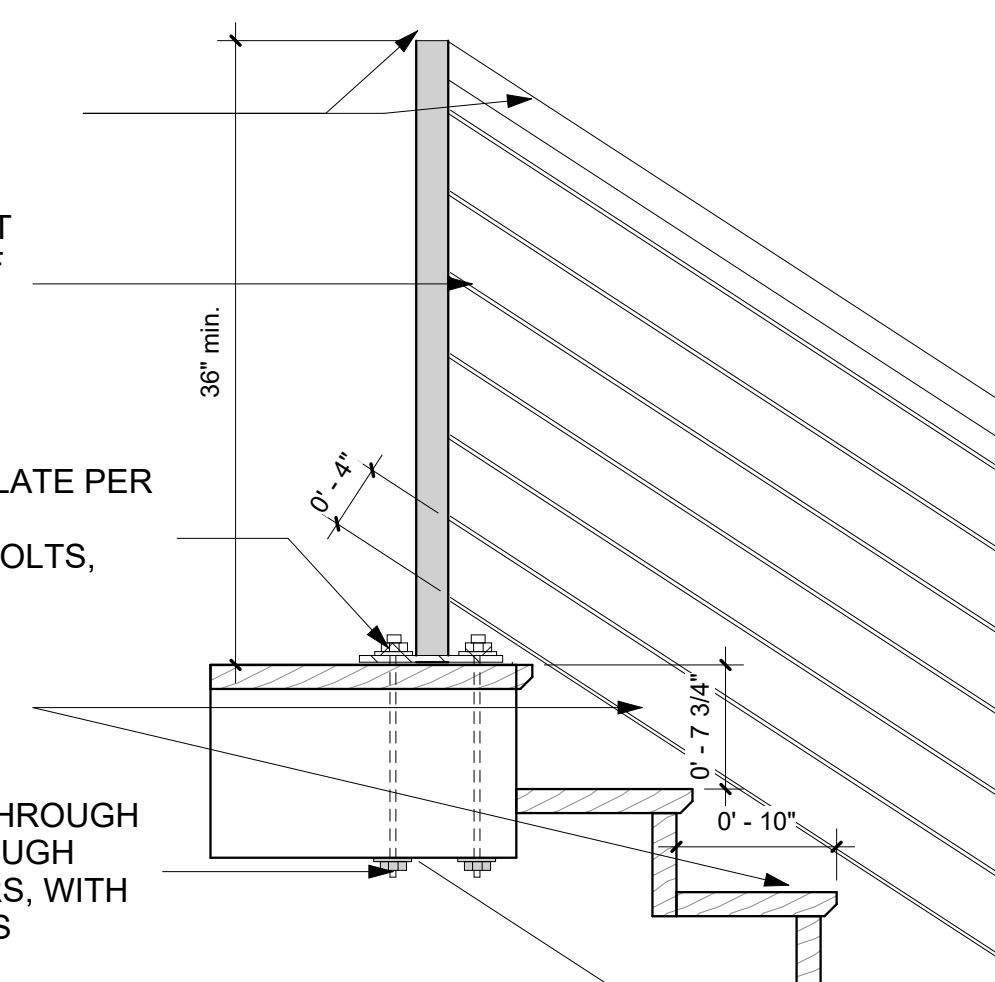


OPENING SHALL NOT
ALLOW PASSAGE OF
4" DIAMETER
SPHERE

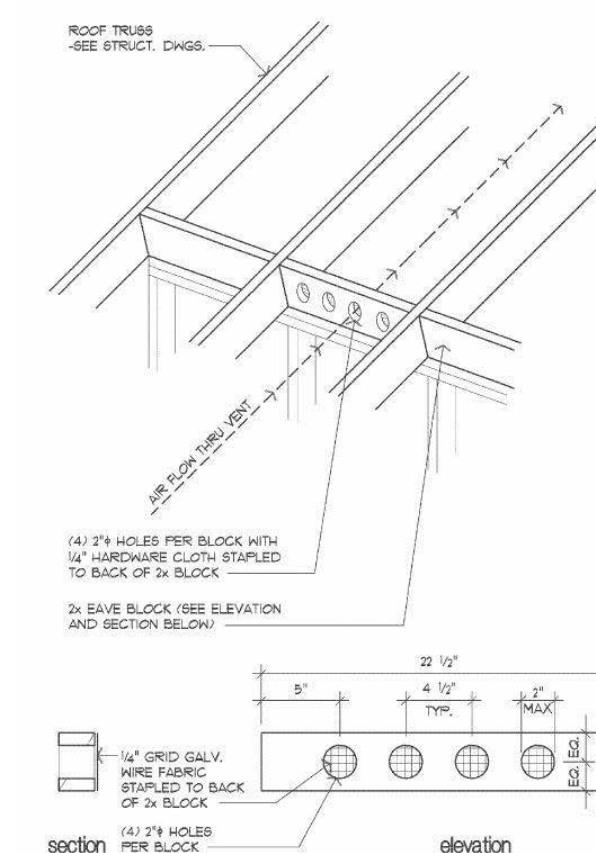
BOLT-SIZE, STEEL PLATE PER
MFR
(4x) 1/4" THROUGH-BOLTS,
SEE MFR DRAWING

PER IRC
TREAD MIN. 10"
RISER MAX. 7 3/4"

THROUGH-BOLTS, THROUGH
ON FLOOR OR THROUGH
STRINGER ON STAIRS, WITH
NUTS AND WASHERS



5 TYP. STAIR GUARDRAIL
1" = 1'-0"

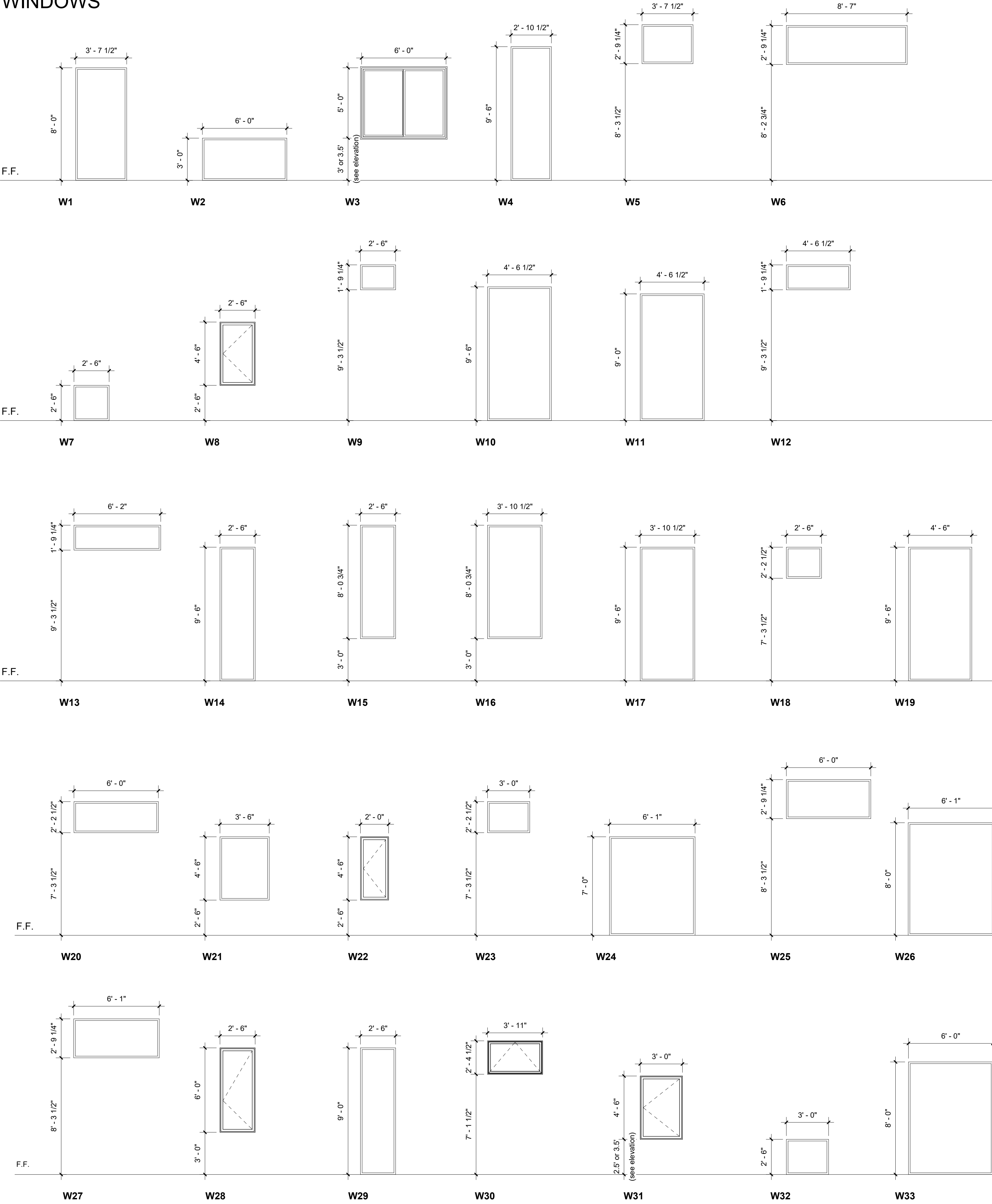


NOTES:

1. SEE GENERAL NOTES AND PLAN SPECIFICATIONS FOR VENTILATION REQUIREMENTS
2. SEE STRUCTURAL DRAWING FOR BLOCKING DETAIL
3. EACH BLOCK PROVIDES APPROXIMATELY 0.9 SQ. INCHES OF VENTILATION
4. MINIMUM BLOCK SIZE: 7x 4x 14"
5. TYPICAL ATTIC: 1 VENT BLOCK AT EVERY THIRD BAY
6. SEE ROOF PLAN FOR VENT AREA REQUIREMENTS
7. BLOCKING CEILING: 1 VENT BLOCK AT EACH BAY

3 EAVE VENT BLOCK
NOT-TO-SCALE

WINDOWS



Window Schedule										
Type Mark	Level	Count	Width	Height	Sill Height	U-Value	Type Comments	Glazing Material	Frame	Manufacturer
W1	Main Floor	1	3' - 7 1/2"	8' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W2	Main Floor	1	6' - 0"	3' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W3	<varies>	2	6' - 0"	5' - 0"	<varies>	0.25	Sliding Window			Marvin Windows and Doors
W4	<varies>	2	2' - 10 1/2"	9' - 6"	<varies>	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W5	Main Floor	1	3' - 7 1/2"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W6	Main Floor	1	8' - 7"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W7	Upper Floor	2	2' - 6"	2' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W8	Upper Floor	2	2' - 6"	4' - 6"	2' - 6"	0.25	Casement Window			Marvin Windows and Doors
W9	Main Floor	2	2' - 6"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W10	Upper Floor	2	4' - 6 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W11	Main Floor	2	4' - 6 1/2"	9' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W12	Main Floor	2	4' - 6 1/2"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W13	Main Floor	1	6' - 2"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W14	Upper Floor	1	2' - 6"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W15	Main Floor	1	2' - 6"	8' - 0 3/4"	3' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W16	Main Floor	2	3' - 10 1/2"	8' - 0 3/4"	3' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W17	Upper Floor	1	3' - 10 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W18	Upper Floor	2	2' - 6"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W19	Upper Floor	1	4' - 6"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W20	Upper Floor	1	6' - 0"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W21	Upper Floor	1	3' - 6"	4' - 6"	2' - 6"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W22	Upper Floor	1	2' - 0"	4' - 6"	2' - 6"	0.25	Casement Window			Marvin Windows and Doors
W23	Upper Floor	2	3' - 0"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W24	Upper Floor	2	6' - 1"	7' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W25	Main Floor	1	6' - 0"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W26	Main Floor	5	6' - 1"	8' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W27	Main Floor	5	6' - 1"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W28	Main Floor	1	2' - 6"	6' - 0"	3' - 0"	0.25	Casement Window			Marvin Windows and Doors
W29	Main Floor	1	2' - 6"	9' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W30	Upper Floor	1	3' - 11"	2' - 4 1/2"	7' - 1 1/2"	0.25	Awning Window	Glass-Marvin-IG Low E II with Argon	Wood Ultrex	Marvin Windows and Doors
W31	<varies>	3	3' - 0"	4' - 6"	<varies>	0.25	Casement Window			Marvin Windows and Doors
W32	Upper Floor	2	3' - 0"	2' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W34	<varies>	2	5' - 0"	9' - 6"	<varies>	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W35	Main Floor	1	3' - 1"	9' - 6"	1' - 6 3/4"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W36	Upper Floor	1	6' - 2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W37	Upper Floor	1	3' - 2 3/4"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W38	Basement Floor	1	3' - 10 1/2"	4' - 6"	3' - 6"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W39	Upper Floor	1	2' - 5 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W40	Main Floor	1	4' - 9"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W41	Upper Floor	2	6' - 1"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W42	Upper Floor	1	7' - 3"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W43	Upper Floor	1	5' - 7"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W44	Main Floor	1	9' - 2"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W45	Top plate ht	1	4' - 0"	8' - 0"		0.25	Skylight			VELUX

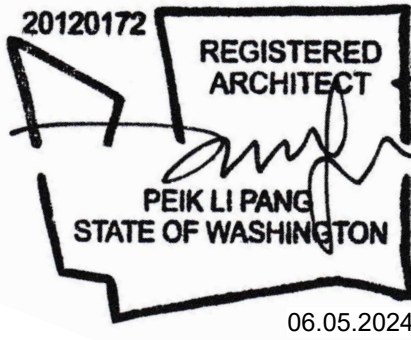
ALL WINDOWS DIMENSIONS ARE REPESENTING
ROUGH OPENING (RO)

5ft2

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Bellevue, WA 98004

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Mercer Firsthill
2419

2419 72nd Ave
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WA 98040

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variations and
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NO. DESCRIPTION DATE

DATE: 06.05.24

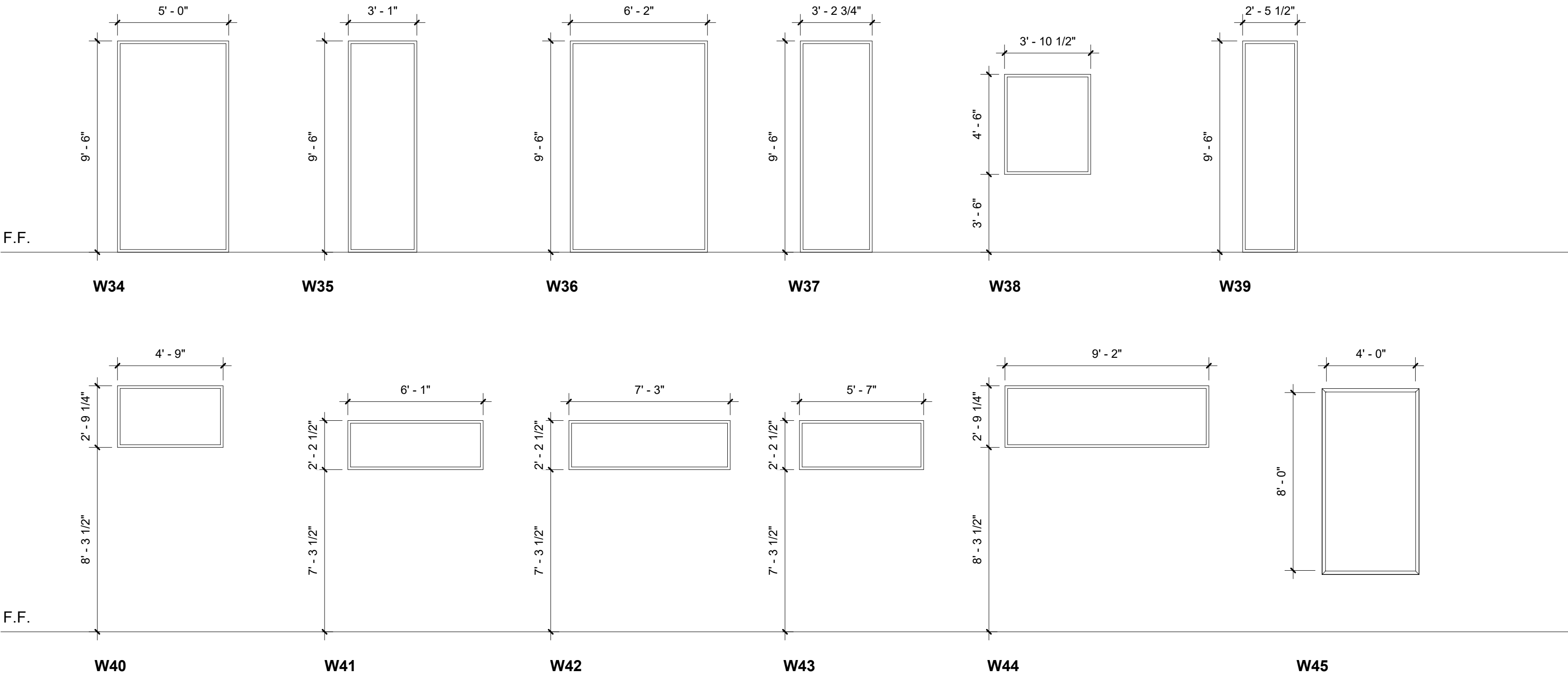
Window
Schedule

A6.0

11/17/2024 4:10:07 PM

Window Schedule
1/4" = 1'-0"

WINDOWS



U VALUE: MAX 0.28
TYPE: VELUX, SKYMAX LARGE SPAN SKYLIGHTS, Skylights, custom size, rough opening 4' x 8', curb mounted, double-pane glass and glass to fulfill SRC R308.6.2 (1).

- the glazing material is laminated glass with the interlayer thickness of at least 0.030 inch

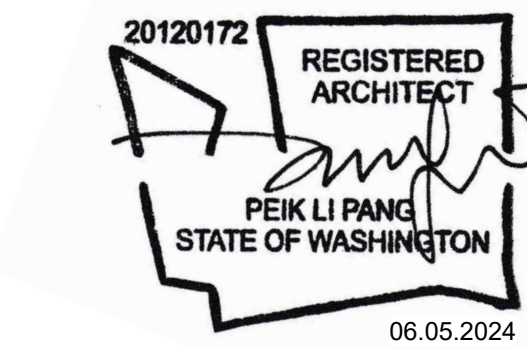
FRAME: ALUMINUM FRAME
MANUFACTURER: VELUX, SKYMAX

Window Schedule										
Type Mark	Level	Count	Width	Height	Sill Height	U-Value	Type Comments	Glazing Material	Frame	Manufacturer
W1	Main Floor	1	3' - 7 1/2"	8' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W2	Main Floor	1	6' - 0"	3' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W3	<varies>	2	6' - 0"	5' - 0"	<varies>	0.25	Sliding Window			Marvin Windows and Doors
W4	<varies>	2	2' - 10 1/2"	9' - 6"	<varies>	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W5	Main Floor	1	3' - 7 1/2"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W6	Main Floor	1	8' - 7"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W7	Upper Floor	2	2' - 6"	2' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W8	Upper Floor	2	2' - 6"	4' - 6"	2' - 6"	0.25	Casement Window			Marvin Windows and Doors
W9	Main Floor	2	2' - 6"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W10	Upper Floor	2	4' - 6 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W11	Main Floor	2	4' - 6 1/2"	9' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W12	Main Floor	2	4' - 6 1/2"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W13	Main Floor	1	6' - 2"	1' - 9 1/4"	9' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W14	Upper Floor	1	2' - 6"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W15	Main Floor	1	2' - 6"	8' - 0 3/4"	3' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W16	Main Floor	2	3' - 10 1/2"	8' - 0 3/4"	3' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W17	Upper Floor	1	3' - 10 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W18	Upper Floor	2	2' - 6"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W19	Upper Floor	1	4' - 6"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W20	Upper Floor	1	6' - 0"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W21	Upper Floor	1	3' - 6"	4' - 6"	2' - 6"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W22	Upper Floor	1	2' - 0"	4' - 6"	2' - 6"	0.25	Casement Window			Marvin Windows and Doors
W23	Upper Floor	2	3' - 0"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W24	Upper Floor	2	6' - 1"	7' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W25	Main Floor	1	6' - 0"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W26	Main Floor	5	6' - 1"	8' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W27	Main Floor	5	6' - 1"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W28	Main Floor	1	2' - 6"	6' - 0"	3' - 0"	0.25	Casement Window			Marvin Windows and Doors
W29	Main Floor	1	2' - 6"	9' - 0"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W30	Upper Floor	1	3' - 11"	2' - 4 1/2"	7' - 1 1/2"	0.25	Awning Window	Glass-Marvin-IG Low E II with Argon	Wood Ultrex	Marvin Windows and Doors
W31	<varies>	3	3' - 0"	4' - 6"	<varies>	0.25	Casement Window			Marvin Windows and Doors
W32	Upper Floor	2	3' - 0"	2' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W34	<varies>	2	5' - 0"	9' - 6"	<varies>	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W35	Main Floor	1	3' - 1"	9' - 6"	1' - 6 3/4"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W36	Upper Floor	1	6' - 2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W37	Upper Floor	1	3' - 2 3/4"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W38	Basement Floor	1	3' - 10 1/2"	4' - 6"	3' - 6"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W39	Upper Floor	1	2' - 5 1/2"	9' - 6"	0' - 0"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W40	Main Floor	1	4' - 9"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W41	Upper Floor	2	6' - 1"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W42	Upper Floor	1	7' - 3"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W43	Upper Floor	1	5' - 7"	2' - 2 1/2"	7' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W44	Main Floor	1	9' - 2"	2' - 9 1/4"	8' - 3 1/2"	0.25	Direct Glaze Rectangle	Glass-Marvin-IG Low E II with Argon	High Density Fiberglass	Marvin Windows and Doors
W45	Top plate ht	1	4' - 0"	8' - 0"		0.25	Skylight			VELUX

ALL WINDOWS DIMENSIONS ARE REPRESENTING
ROUGH OPENING (RO)



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NO.	DESCRIPTION	DATE
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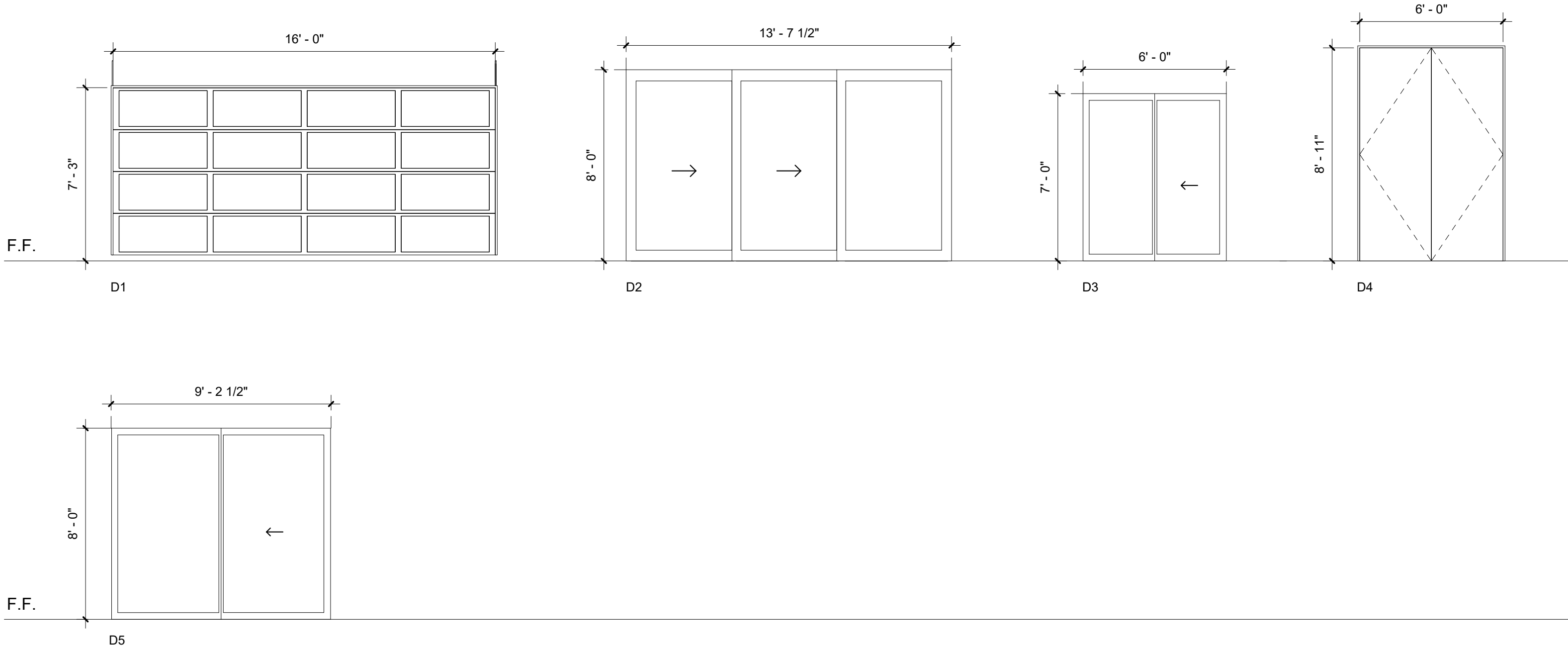
DATE: 06.05.24

Window
Schedule
2

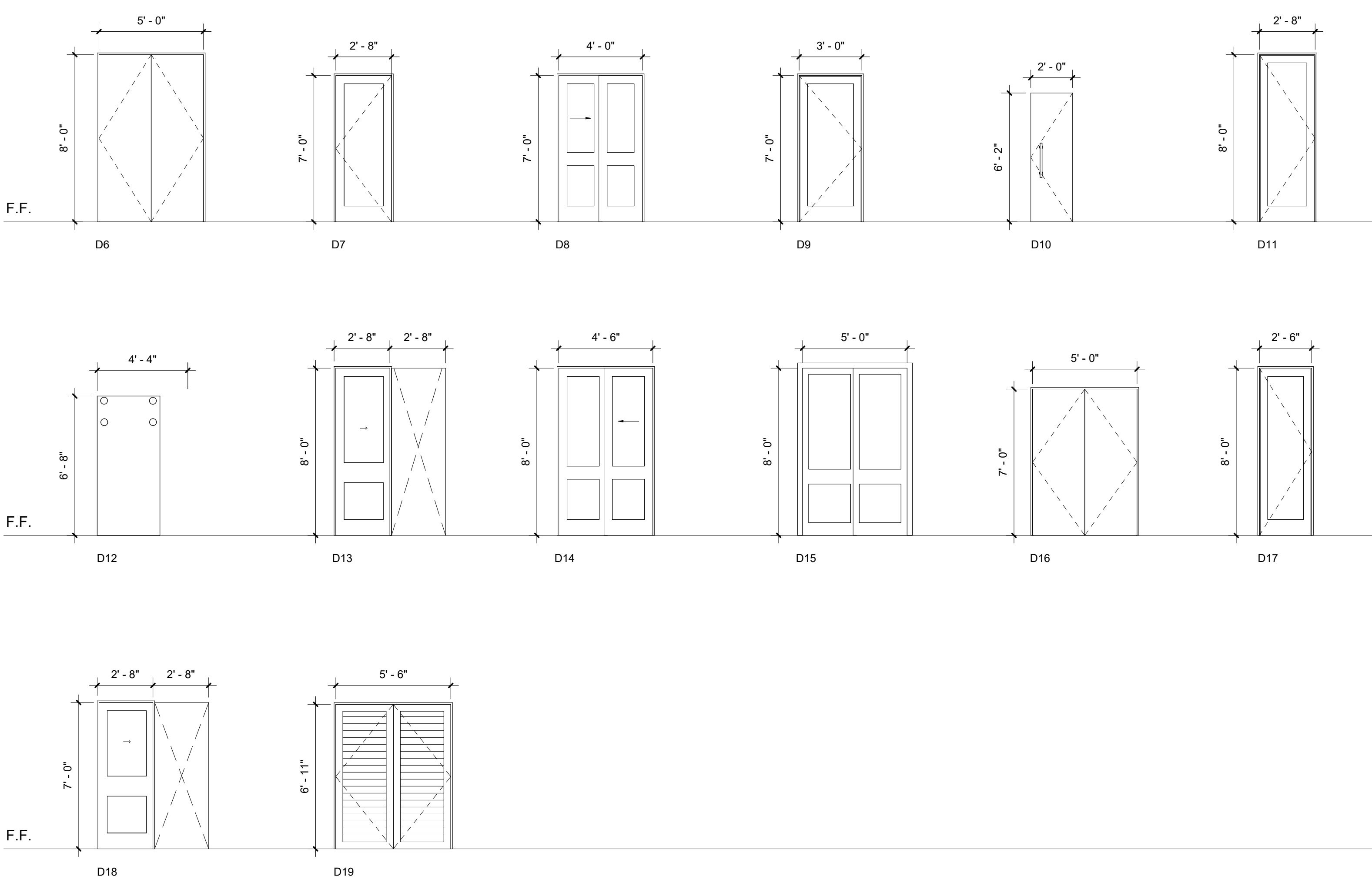
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EXTERIOR



INTERIOR



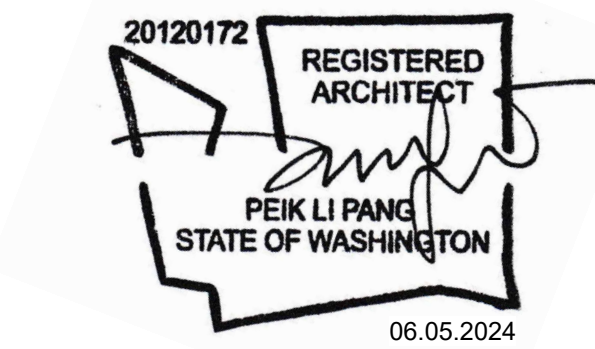
Door Schedule						
Door Type	Count	Width	Height	U-Values	Type Comments	Panel Material
D1	1	16' - 0"	7' - 0"		Sectional Garage Door	
D2	1	13' - 7 1/2"	8' - 0"	0.25	Triple Panel Sliding Door	Glass
D3	1	6' - 0"	7' - 0"	0.25	Exterior Double Slider	Glass
D4	1	6' - 0"	8' - 11"	0.25	Double Flush Door	Solid Core Wood
D5	1	9' - 2"	8' - 0"	0.25	Exterior Double Slider	Glass
D6	2	5' - 0"	8' - 0"		Double Flush Door	Solid Core Wood
D7	3	2' - 8"	7' - 0"		Single Flush Door	Solid Core Wood
D8	1	4' - 0"	7' - 0"		Double Pocket Sliding Door	Solid Core Wood
D9	1	3' - 0"	7' - 0"		Single Flush Door	Solid Core Wood
D10	3	2' - 0"	6' - 2"		Shower Glass Door	Glass
D11	7	2' - 8"	8' - 0"		Single Flush Door	Solid Core Wood
D12	3	4' - 4"	6' - 8"		Shower Glass Sliding Door	Glass
D13	3	2' - 8"	8' - 0"		Single Pocket Sliding Door	Solid Core Wood
D14	1	4' - 6"	8' - 0"		Double Pocket Sliding Door	Solid Core Wood
D15	1	5' - 0"	8' - 0"		Double Pocket Sliding Door	Solid Core Wood
D16	1	5' - 0"	7' - 0"		Double Flush Door	Solid Core Wood
D17	3	2' - 6"	8' - 0"		Single Flush Door	Solid Core Wood
D18	1	2' - 8"	7' - 0"		Single Pocket Sliding Door	Solid Core Wood
D19	1	5' - 6"	6' - 11"		Double Louvred Flush Door	Solid Core Wood

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DATE:	06.05.24
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Door
Schedule

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○

Schedule - Door
1/4" = 1'-0"

ALARMS IRC 2021

⑨ SMOKE ALARM AND HEAT DETECTION (IRC R314)

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 additinal story of the dwelling, including basements and habitabe 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 ful 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.
5. In napping areas in a family home child care.
6. In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches (610 mm) or more.
7. Within the room to which a loft is open, in the immediate vicinity of the loft.

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.

R314.4.1 Heat detection interconnection. Heat detectors and heat alarms shall be connected to an alarm or a smoke alarm that is installed in the dwelling. Alarms and smoke alarms that are installed for this purpose shall be located in a hallway, room, or other location that will provide occupant notification.

R314.5 Power source. Smoke alarms, heat alarms, and heat detectors shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

EXCEPTIONS:
1. Smoke alarms shall be permitted to be battery operated where installed in buildings without commercial power.

2. Smoke alarms installed in accordance with Section R314.2.2 shall be permitted to be battery powered.

⑩ 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 wehre listed wireless alarms are installed and all alarms sound upon activation of one alarm.

⑪D NEW ATTACHED GARAGES (IRC R314.2.3)

R314.2.3 New Attached Garages
A heat detector or heat alarm rated for the ambient outdoor temperatures and humidity shall be installed in new garages that are attached to or located under new and existing dwellings. Heat detectors and heat alarms shall be installed in a central location and in accordance with the manufacturer's instructions.

• **R314.3- Smoke alarm locations now include:**
5. In the hallway and in the room open to the hallway in dwelling units where the ceiling height of a room open to a hallway serving bedrooms exceeds that of the hallway by 24 inches or more.
• **R314.3.1-Smoke alarm near cooking appliances now include:**
1. Smoke alarms listed and marked "helps reduce cooking nuisance alarms" shall not be installed less than 6 feet horizontally from permanently installed cooking appliance.

MECHANICAL VENTILATION IRC 2021

LOCAL EXHAUST RATES

-  **1**
- 250 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 B1: 1 cubic foot per minute = 0.000473 m³/s

M1505 MECHANICAL VENTILATION
Whole-House Mechanical Ventilation System Selected - Exhaust Ventilation System

THE WHOLE HOUSE VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR TO EACH HABITABLE SPACE AT A CONTINUOUS RATE OF NOT LESS THAN DETERMINED IN ACCORDANCE WITH IRC 2021 TABLE M1505.4.3(1).

-  **3**
- 95 CFM per TABLE M1505.4.3(1)

Table M1505.4.3(1) Whole-House Mechanical Ventilation Airflow Rate					
Dwelling Unit Floor Area (square feet)	Number of Bedrooms				
	0 - 1	2	3	4	5 or more
	Airflow in cfm				
< 500	30	30	35	45	50
501 - 1,000	30	35	40	50	55
1,001 - 1,500	30	40	45	55	60
1,501 - 2,000	35	45	50	60	65
2,001 - 2,500	40	50	55	65	70
2,501 - 3,000	45	55	60	70	75
3,001 - 3,500	50	60	65	75	80
3,501 - 4,000	55	65	70	80	85
4,001 - 4,500	60	70	75	85	90
4,501 - 5,000	65	75	80	90	95

Certified on 3/27/2024

WAC 51-51-1505

Page 3

Table M1505.4.4.1
Minimum Local Exhaust Rates

Area to Be Exhausted	Exhaust Rates	
	Intermittent	Continuous
Open Kitchens	In accordance with Section M1505.4.4.3	Not Permitted
Enclosed Kitchens	In accordance with Section M1505.4.4.3	5 ACH based on kitchen volume
Bathrooms - Toilet rooms	50 cfm	20 cfm

M1505.4.4.3 Local intermittent kitchen exhaust system. Kitchen range hoods for domestic cooking appliances shall meet or exceed either the minimum airflow or the minimum capture efficiency in accordance with Table M1505.4.4.3. Capture efficiency ratings shall be determined in accordance with ASTM E3087.

EXCEPTION: Other intermittent kitchen exhaust fans, including downdraft, shall meet or exceed 300 cfm airflow.

Table M1505.4.4.3
Kitchen Range Hood Airflow Rates (cfm) and ASTM E3087 Capture Efficiency (CE) Ratings According to Kitchen Range Fuel Type

Hood Over Electric Range	Hood Over Combustion Range
65% CE or 160 cfm	80% CE or 250 cfm

M1504.3 EXHAUST OPENINGS

Exhaust openings shall terminate as follows:

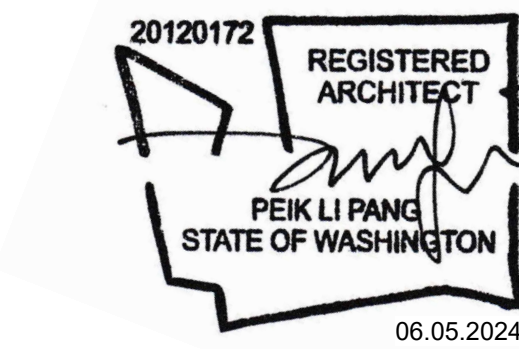
1. Not less than 3 feet (914mm) from property lines
2. Not less than 3 feet (914mm) from gractly air intake openings, operabe windows and doors.
3. Not less than 10 feet (3048 mm) from mechanical air intake openings except where the exhaust opening is located not less than 3 feet (914mm) above the air intake opening shall comply with Section R303.5.2 and R303.6.



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NO.	DESCRIPTION	DATE
1	PL redline	05.14.24

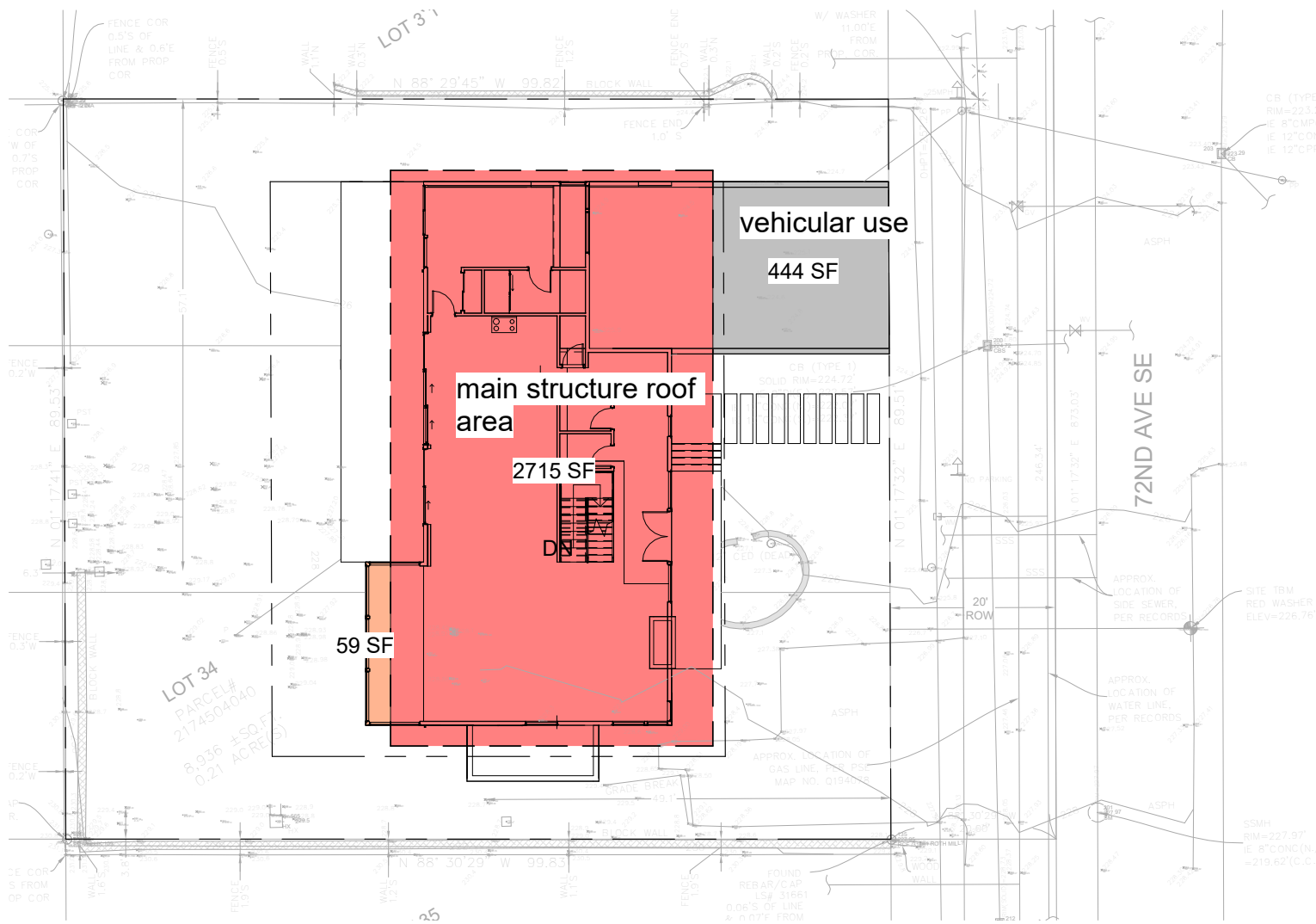
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Compliance
- Alarms
and
Ventilation
(IRC)

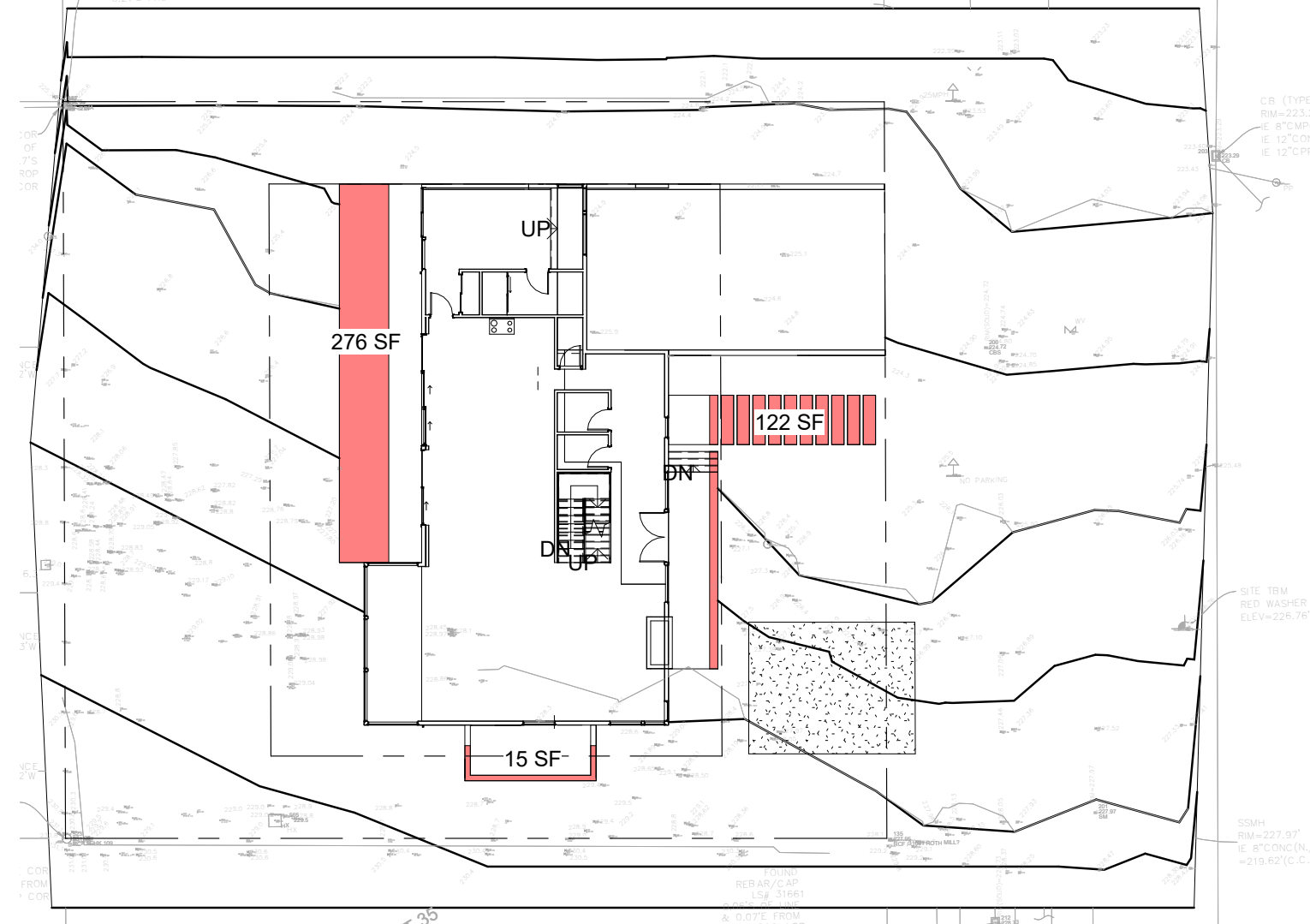
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SITE DATA AND ZONING

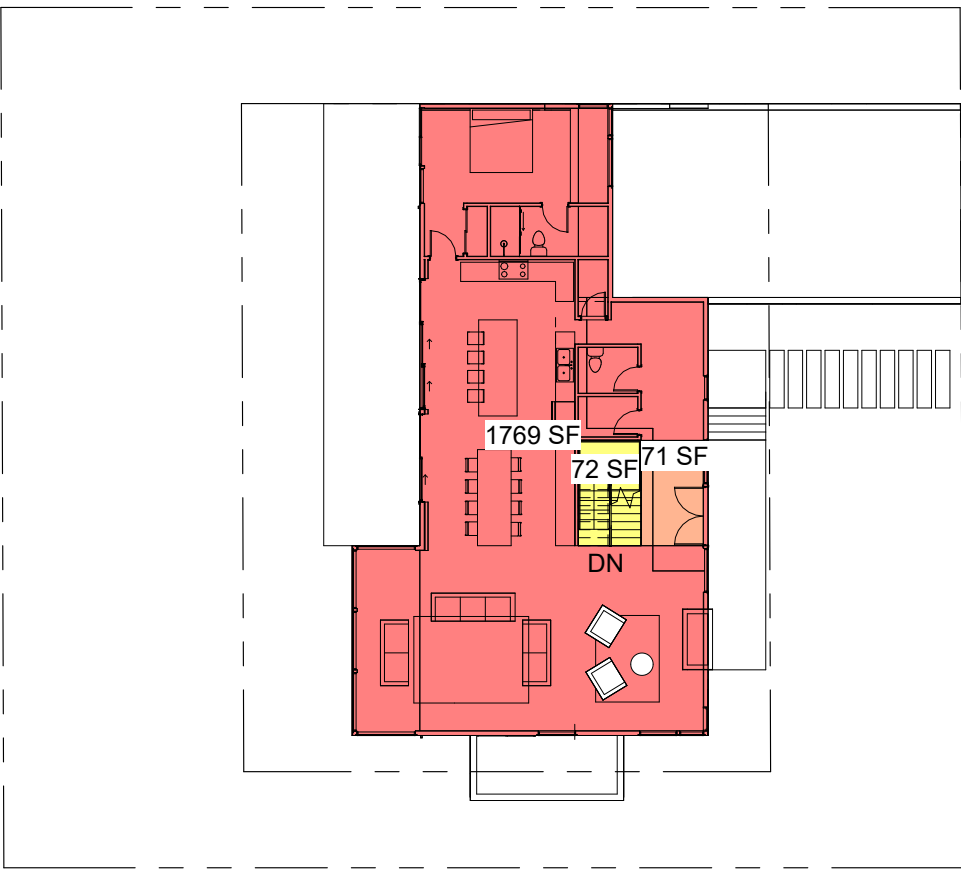
ZONING	R-8.4	
LOT AREA	8,936 SF	
SETBACK REQUIREMENT	FRONT SETBACK	20 FT
	REAR SETBACK	25 FT
	SIDE SETBACK	10 FT
For lots with a lot width of 90 feet or less, the sum of the side yards' width shall be at least 15 feet. Site width is 89.51'		
Variable side yard depth requirement (a) Single-family dwellings shall provide a minimum side yard depth of seven and one-half feet if the building: (1)For nongabled 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. The building more than height is 25 feet, hence the minimum side yard depth is 10 feet		



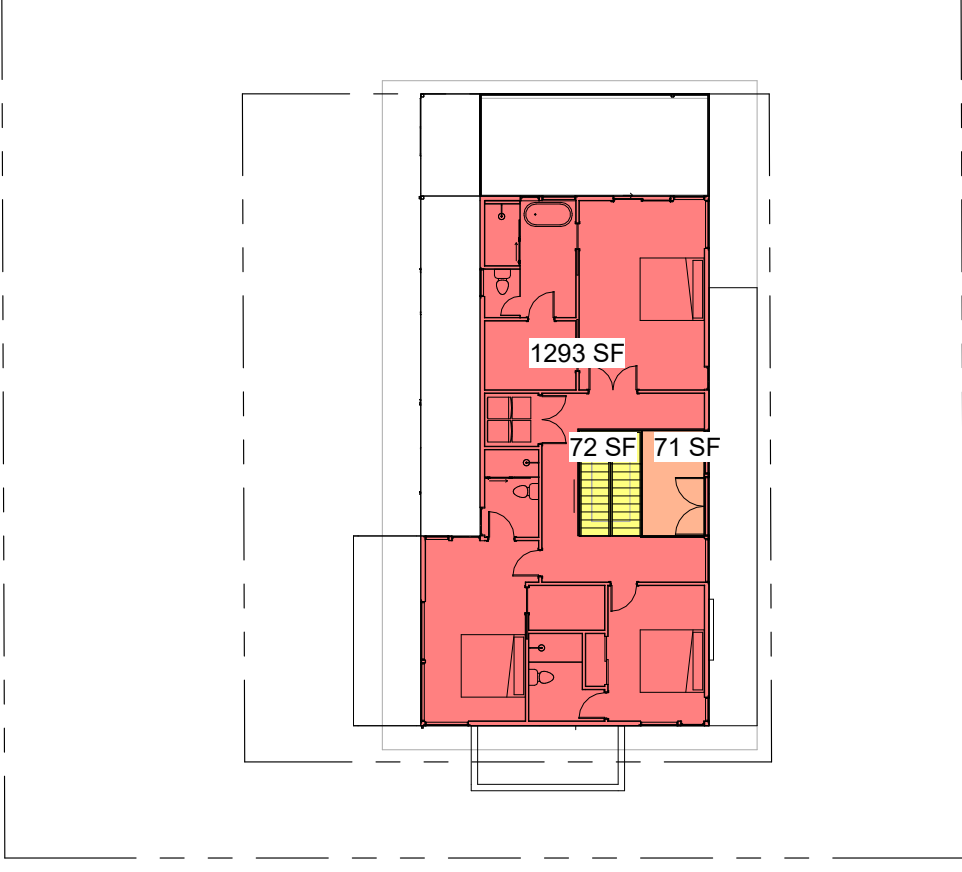
3 D- Lot Coverage
1" = 20'-0"



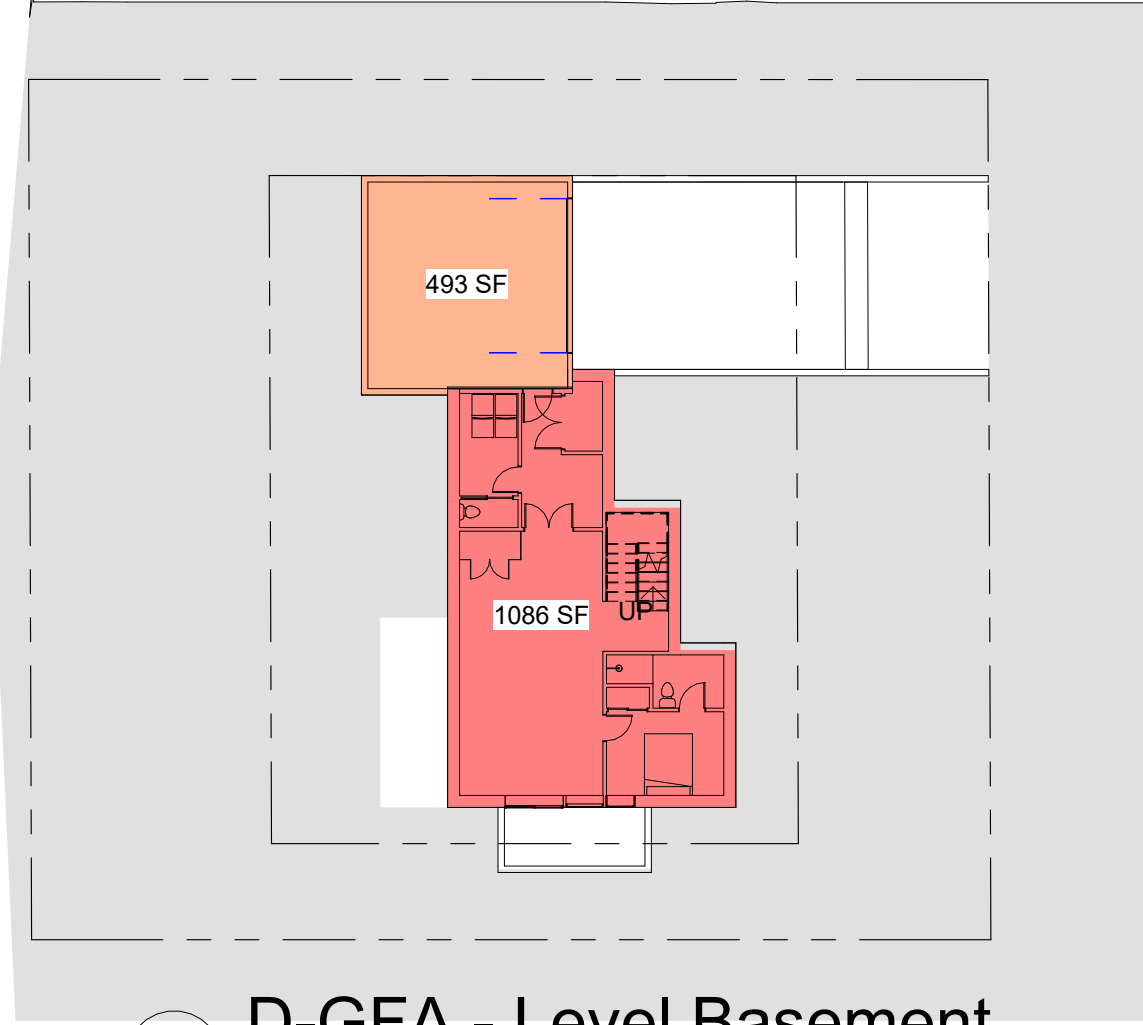
4 D- Hardscape
1" = 20'-0"



5 D-GFA - Level 1
1" = 20'-0"



6 D-GFA - Level 2
1" = 20'-0"



7 D-GFA - Level Basement
1" = 20'-0"

LOT COVERAGE CALCULATIONS		
A.	Gross Lot Area	8,936 Square Feet
B.	Net Lot Area	8,936 Square Feet
C.	Allowed Lot Coverage Area	3574.4 Square Feet
D.	Allowed Lot Coverage	40 % of Lot
E.	Existing Lot Coverage:	
	1 Main Structure Roof Area	NA Square Feet
	2 Accessory Building Roof Area	NA Square Feet
	3 Vehicular Use (driveway, paved access, easements [portion used by the lot for access], parking	
		NA Square Feet
	4 Covered Patios and Covered Decks	NA Square Feet
	5 Total Existing Lot Coverage Area (E1+E2+E3+E4)	NA Square Feet
F.	(Total Lot Coverage Area Removed)	NA Square Feet
G.	Proposed Adjustment for Single Story (Area)	NA Square Feet
H.	Proposed Adjustment for Flag Lot	NA Square Feet
I.	Total New Lot Coverage Area:	
	1 Main Structure Roof Area	2,715 Square Feet
	2 Accessory Structure Roof Area	0 Square Feet
	Vehicular Use (driveway, paved access, easement [portion used by the lot for access], parking	
		444 Square Feet
	4 Covered Patios and Covered Decks	59 Square Feet
	5 Total New Lot Coverage Area (I1 + I2 + I3 + I4)	3,218 Square Feet
J.	Total Project Lot Coverage Area = (E5 - F) + I5	3,218 Square Feet
K.	Proposed Lot Coverage Area = (I/J) x 100	36.0% % of Lot
Lot Coverage calculations shown on Plan Sheet #		A7.2: Compliance - Zoning 1

HARDSCAPE CALCULATIONS		
A.	Gross Lot Area	8936 Square Feet
B.	Net Lot Area	8936 Square Feet
C.	Area Borrowed from Lot Coverage	356 Square Feet
D.	Allowed Hardscape Area = 9% of lot area + C	13.0 % of Lot
E.	Allowed Hardscape Area	1160.6 Square Feet
F.	Total Existing Hardscape Area	
	1 Uncovered Decks	NA Square Feet
	2 Uncovered Patios	NA Square Feet
	3 Walkways	NA Square Feet
	4 Stairs	NA Square Feet
	5 Rockeries and Retaining Walls	NA Square Feet
	6 Other [INSERT TEXT HERE]	NA Square Feet
	7 Total Existing Hardscape Area (F1 + F2 + F3 + F4 + F5 + F6)	0 Square Feet
G.	(Total Hardscape Area Removed)	0 Square Feet
H.	Total New Hardscape Area	
	1 Uncovered Decks	276 Square Feet
	2 Uncovered Patios	0 Square Feet
	3 Walkways	122 Square Feet
	4 Stairs	0 Square Feet
	5 Rockeries and Retaining Walls	15 Square Feet
	6 Other [INSERT TEXT HERE]	0 Square Feet
	7 Total New Hardscape Area (H1 +H2 +H3 +H4 + H5 + H6)	413 Square Feet
I.	Total Project Hardscape Area = (F7-G) + H7	413 Square Feet
J.	Total Project Hardscape Area = (I/J) x 100	4.6 % of Lot
Hardscape calculations shown on Plan Sheet #		A7.2: Compliance - Zoning 1

GROSS FLOOR AREA CALCULATIONS					
	Building Area	Existing Area (Sq. Ft.)	Removed Area (Sq. Ft.)	New/Addition Area (Sq. Ft.)	Total (Sq. Ft.)
	Upper Floor	0	0	1,293	
	Main Floor	0	0	1,769	
	Gross Basement Area (including 1x staircase)	0	0	1,086	
	Garage / Carport	0	0	493	
	Total Floor Area	0	0	4,641	4,641
	Accessory Buildings	0	0	0	
	Accessory Dwelling Unit	0	0	0	
	2nd and 3rd Story Roof Decks	0	0	0	
	Basement Area Excluded	0	0	1291.5	-1291.5
	150% GFA Modifier* (main and upper floor x2)	0	0	0	0
	200% GFA Modifier* (main and upper floor x2)	0	0	70.8	141.5
	Staircase GFA Modifier* (x2 for a three story staircase, x3 for a four story stericase)	0	0	71.7	71.7
					*1 x included in basement
	TOTAL Building Area				3,562.7
A.	Lot Area				8,936 Square Feet
B.	Zone R-8.4 (x)	R-9.6 ()	R-12 ()	R-15 ()	
C.	Allowed Gross Floor Area (refer to "allowed GFA")				3574.4 Square Feet
D.	Allowed Gross Floor Area				40 % of Lot
E.	Proposed Gross Floor Area				3562.7 Square Feet
F.	Proposed Gross Floor Area				39.87% % of Lot

5ft2

5ft2 Studio Architects

2625 Northup Way, Ste 100,
Bellevue, WA 98004

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



Mercer Firsthill
2419

2419 72nd Ave
SE, Mercer Island,
WA 98040

Building Permit

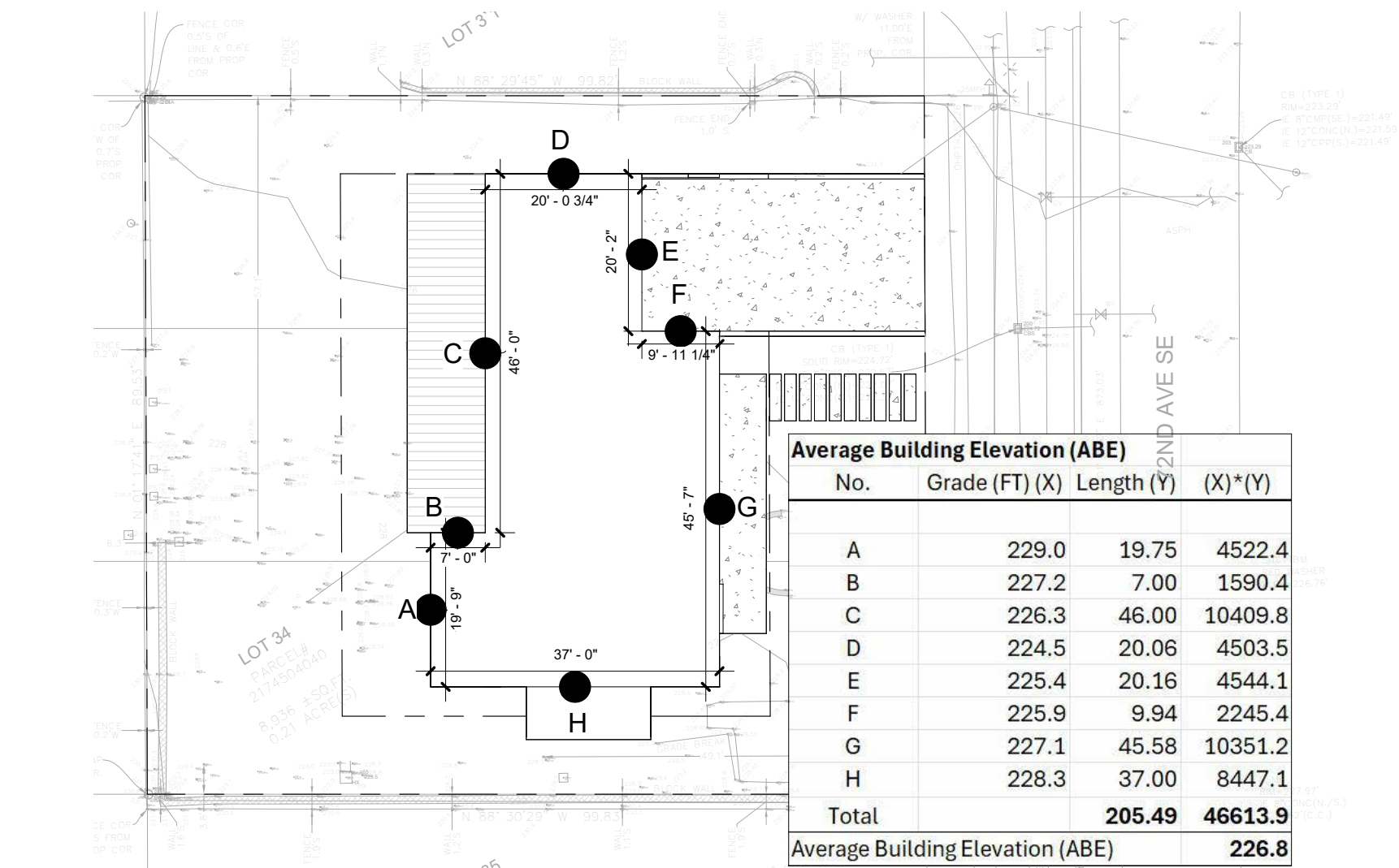
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NO. DESCRIPTION DATE

DATE: 06.05.24

Compliance
-Zoning
1

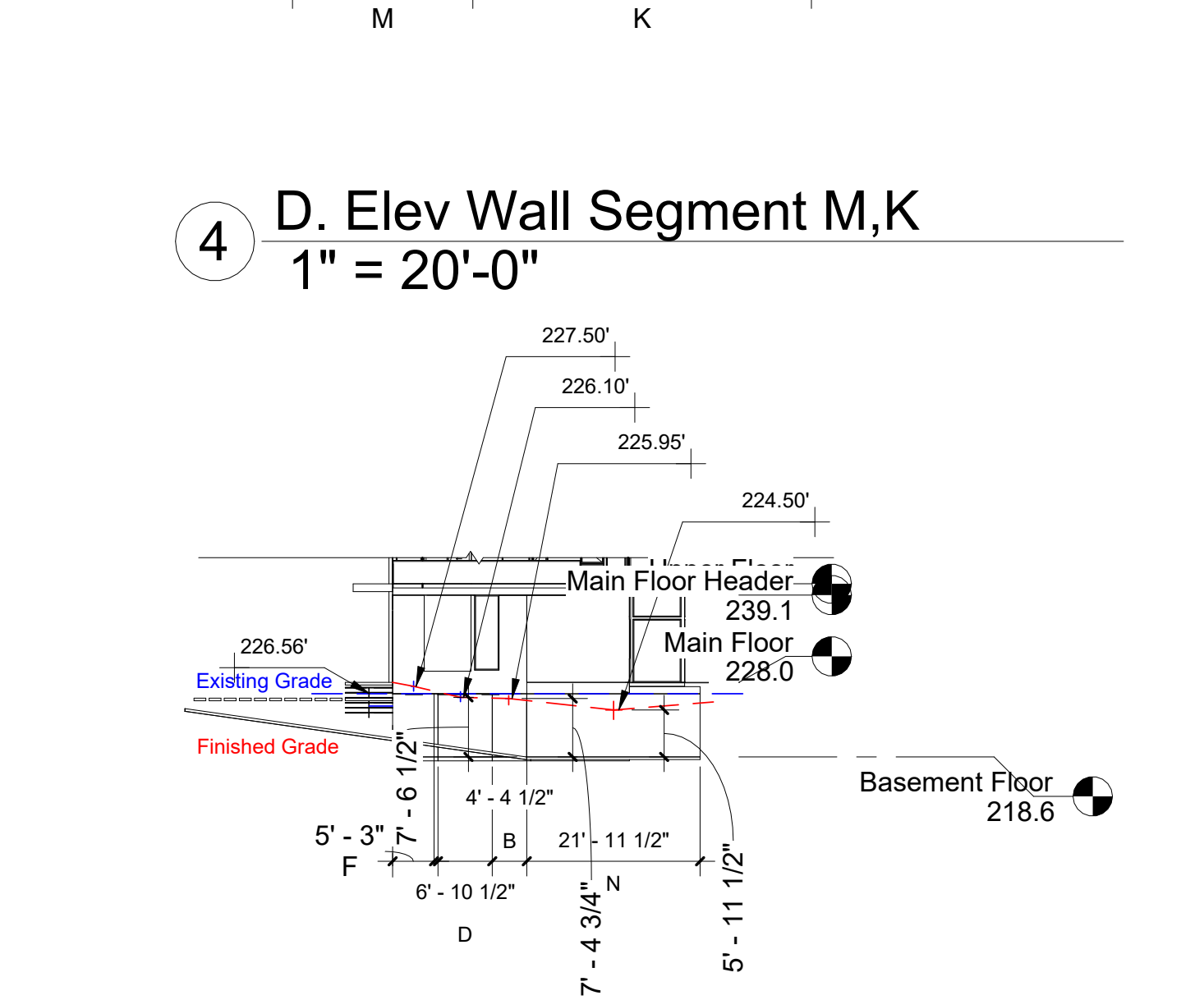
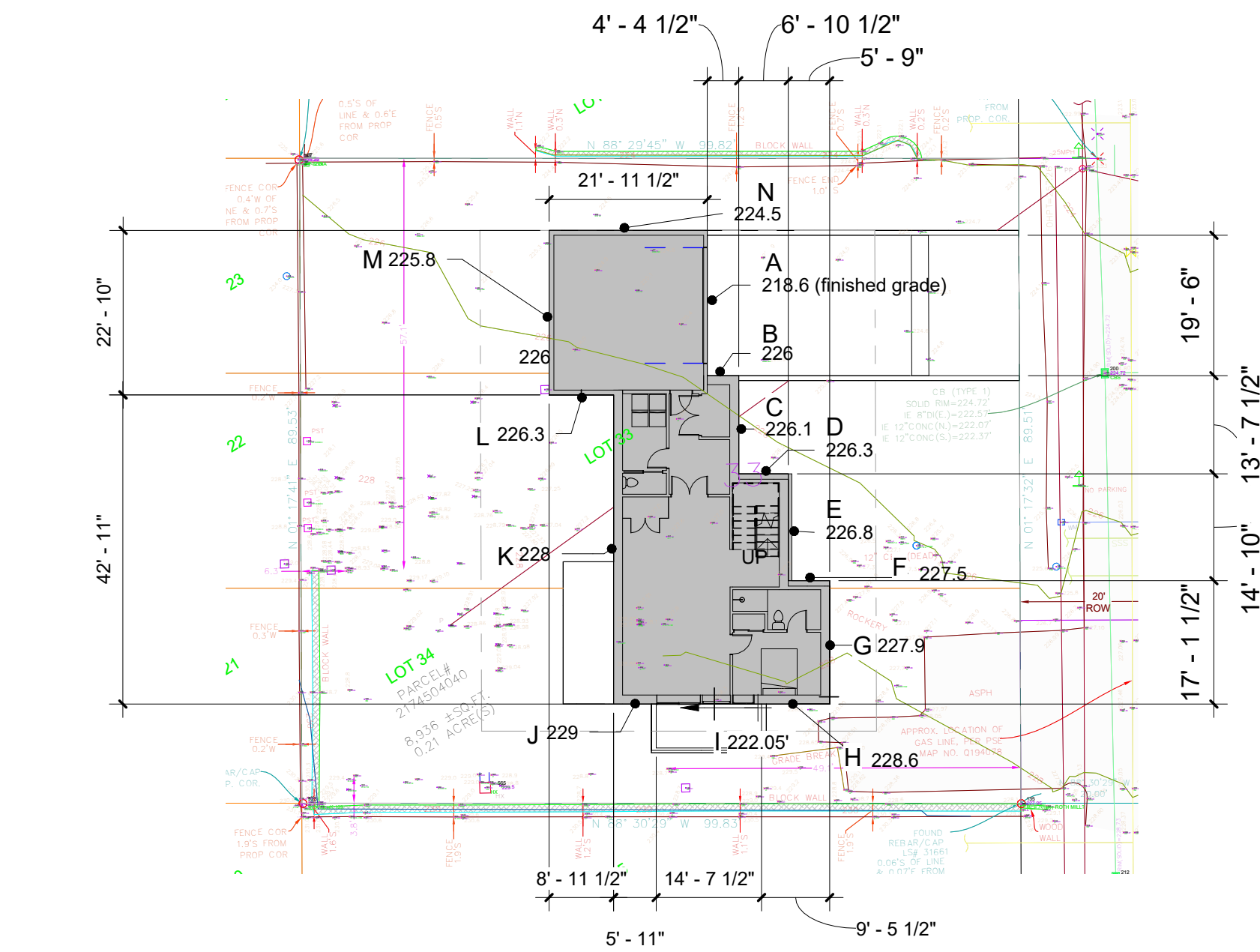
A7.2



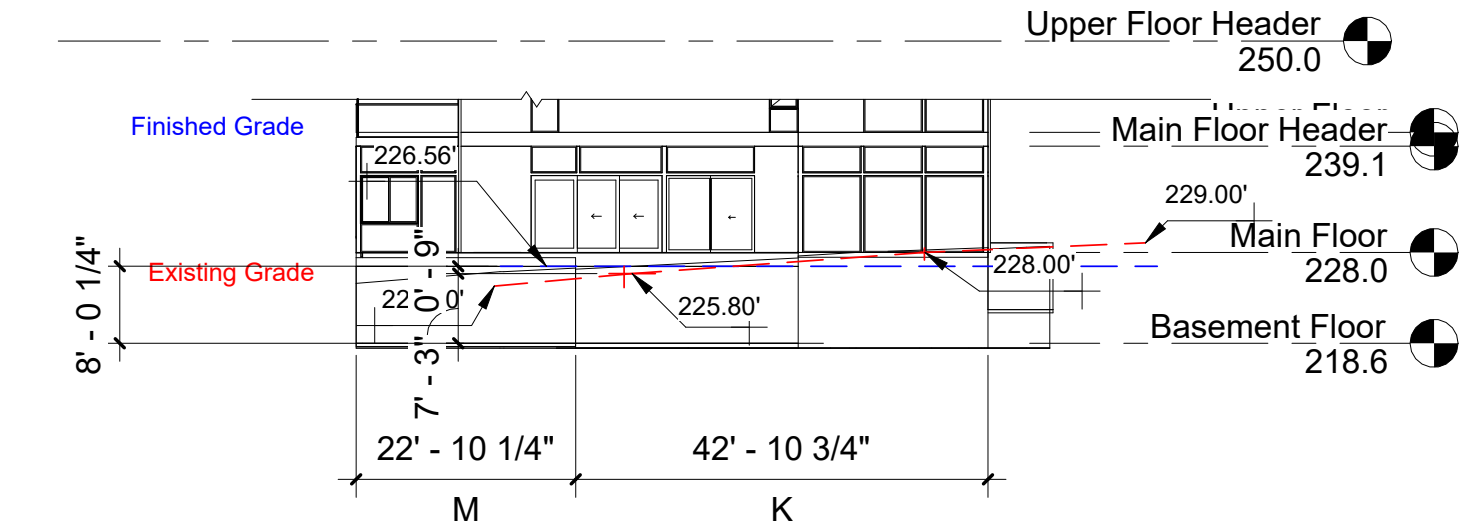
1 D- Average Grade
1" = 20'-0"

	WALL SEG LENGTH (FT)		celing ht	COVERAGE	RESULT
1 A	19.5	0	8.02	0%	0.0%
2 B	4.375	7.39	8.02	92%	4.0%
3 C	13.625	7.57	8.02	94%	12.9%
4 D	7.375	7.59	8.02	95%	7.0%
5 E	14.83	8.02	8.02	100%	14.8%
6 F	5.25	8.02	8.02	100%	5.3%
7 G	17.125	8.02	8.02	100%	17.1%
8 H	9.45	8.02	8.02	100%	9.5%
9 I	14.6	3	8.02	37%	5.5%
10 J	5.9	8.02	8.02	100%	5.9%
11 K	42.9	8.02	8.02	100%	42.9%
12 L	8.96	8.02	8.02	100%	9.0%
13 M	22.85	7.25	8.02	90%	20.7%
14 N	21.85	5.95	8.02	74%	16.2%
(X)	208.59	na			170.6% (Y)
		Y/X			81.79% excluded

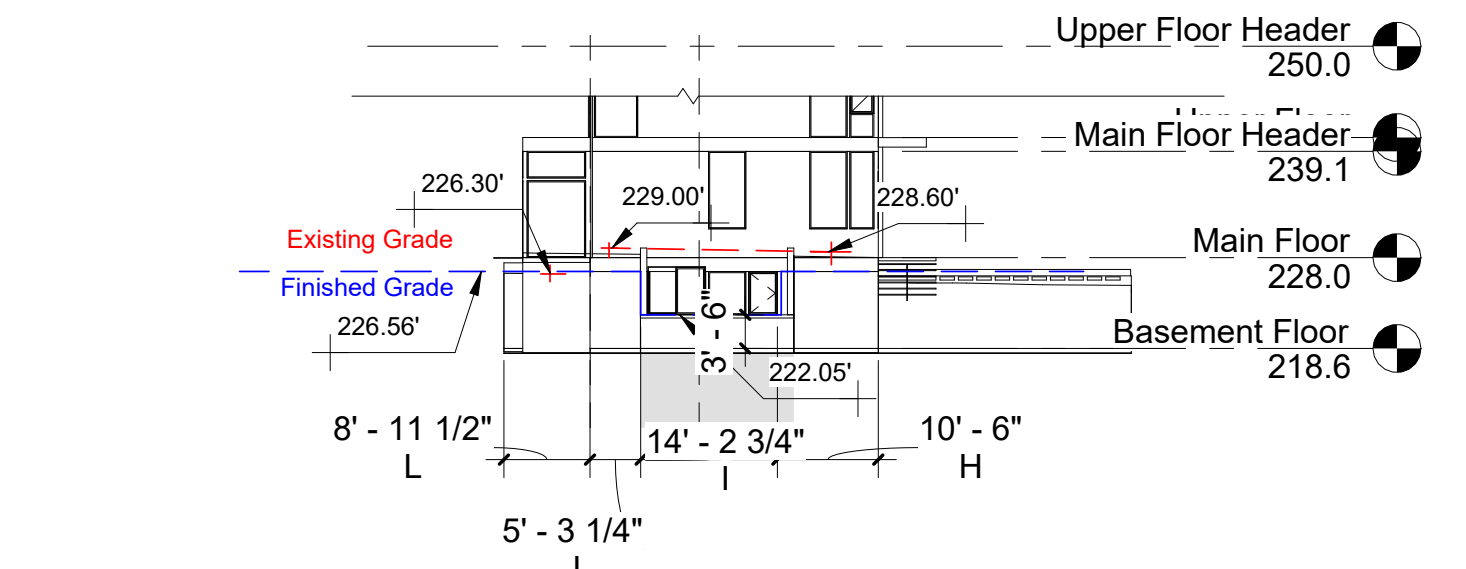
2 D-GFA exemption Basement
1" = 20'-0"



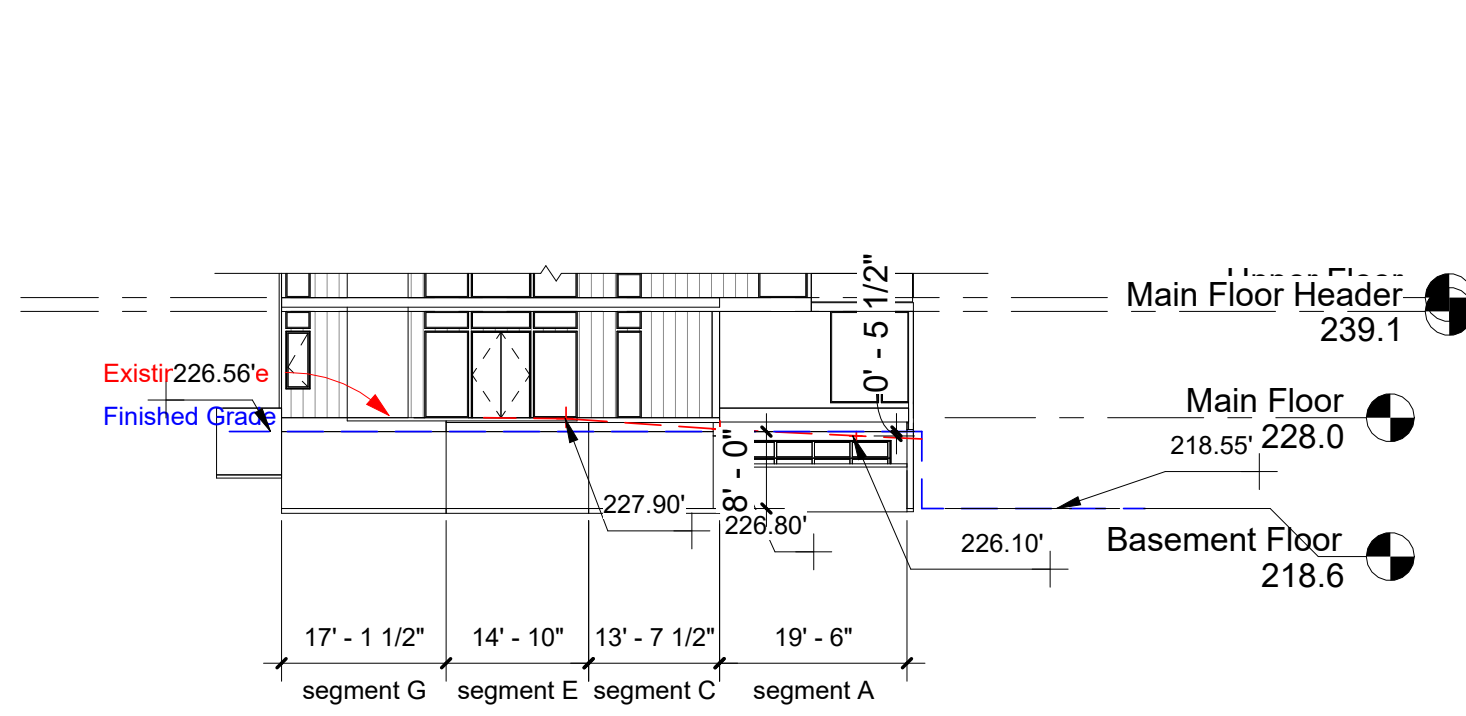
4 D. Elev Wall Segment M,K
1" = 20'-0"



X D. Elev Wall Segment H,I,J,L
1" = 20'-0"

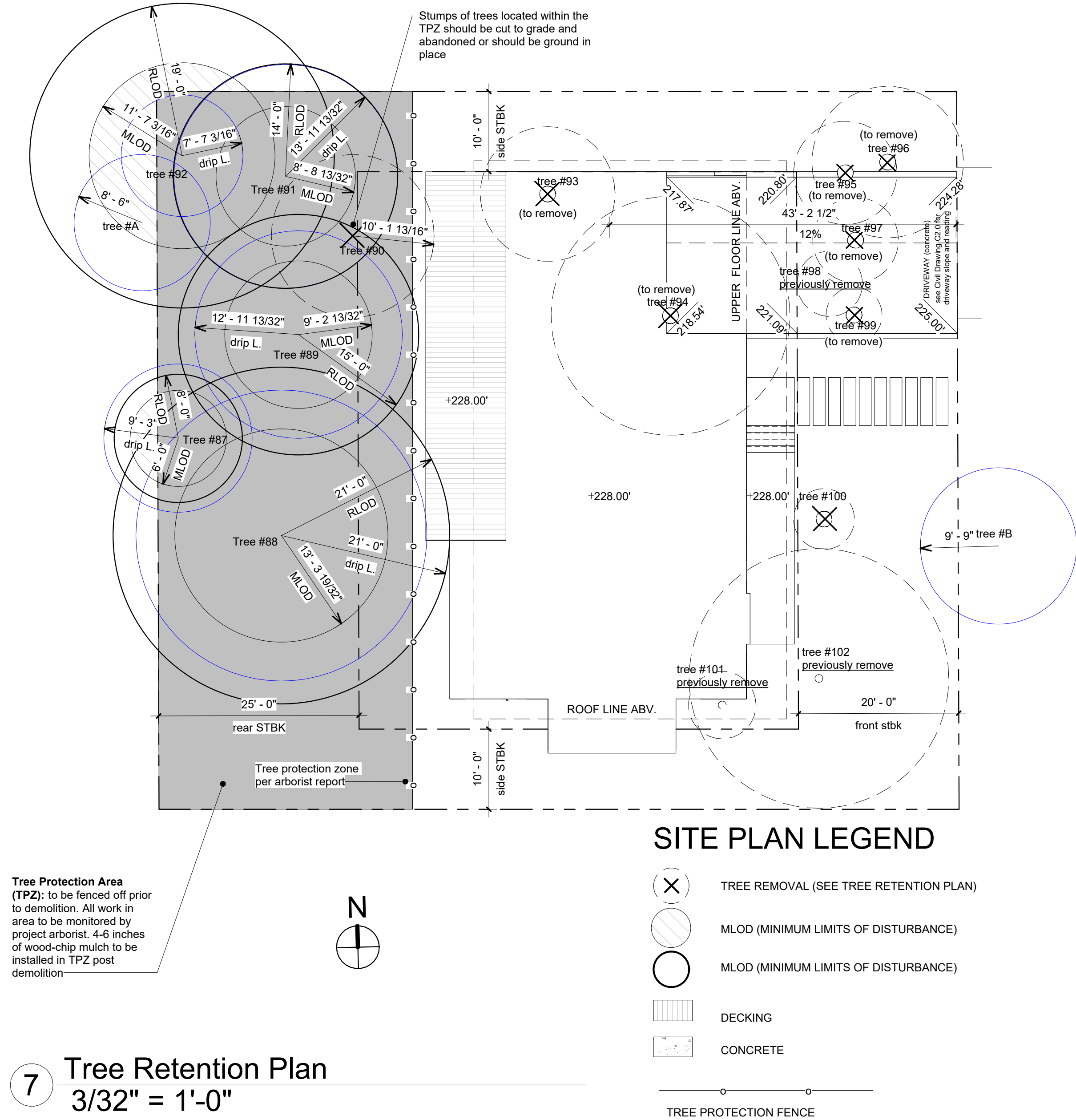


3 D. Elev Wall Segment A ,C, E, G
1" = 20'-0"

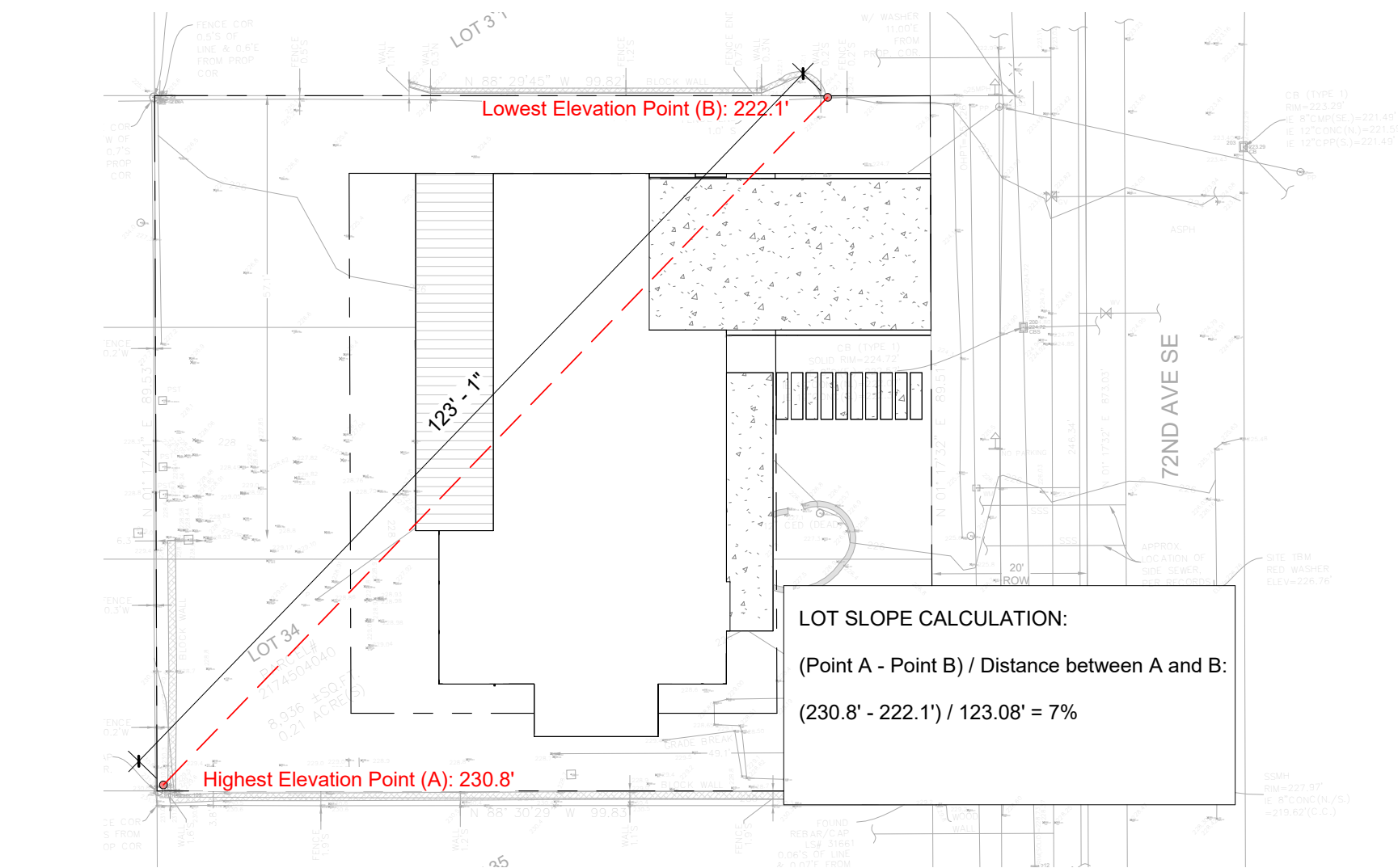


5 D. Elev Wall Segment N, B, D, F
1" = 20'-0"

7 Tree Retention Plan
3/32" = 1'-0"



6 D- Lot Slope
1" = 20'-0"



LOT SLOPE CALCULATIONS			
A.	Highest Elevation Point of Lot:	230.8 Feet	
B.	Lowest Elevation Point of Lot:	222.1 Feet	
C.	Elevation Difference	8.7 Feet	
D.	Horizontal Distance Between High and Low Points	123.1 Feet	
E.	Lot Slope*	7.1 %	
* Lot slope is the elevation difference divided by horizontal distance multiplied by 100. *			
Lot Slope calculations shown on Plan Sheet #		A7.3: Compliance - Zoning 2	

NOTE: ALL THE PERSPECTIVES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY AND NOT FOR CONSTRUCTION PURPOSES.

5ft2

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Bellevue, WA 98004
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Mercer Firsthill
2419

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Building Permit

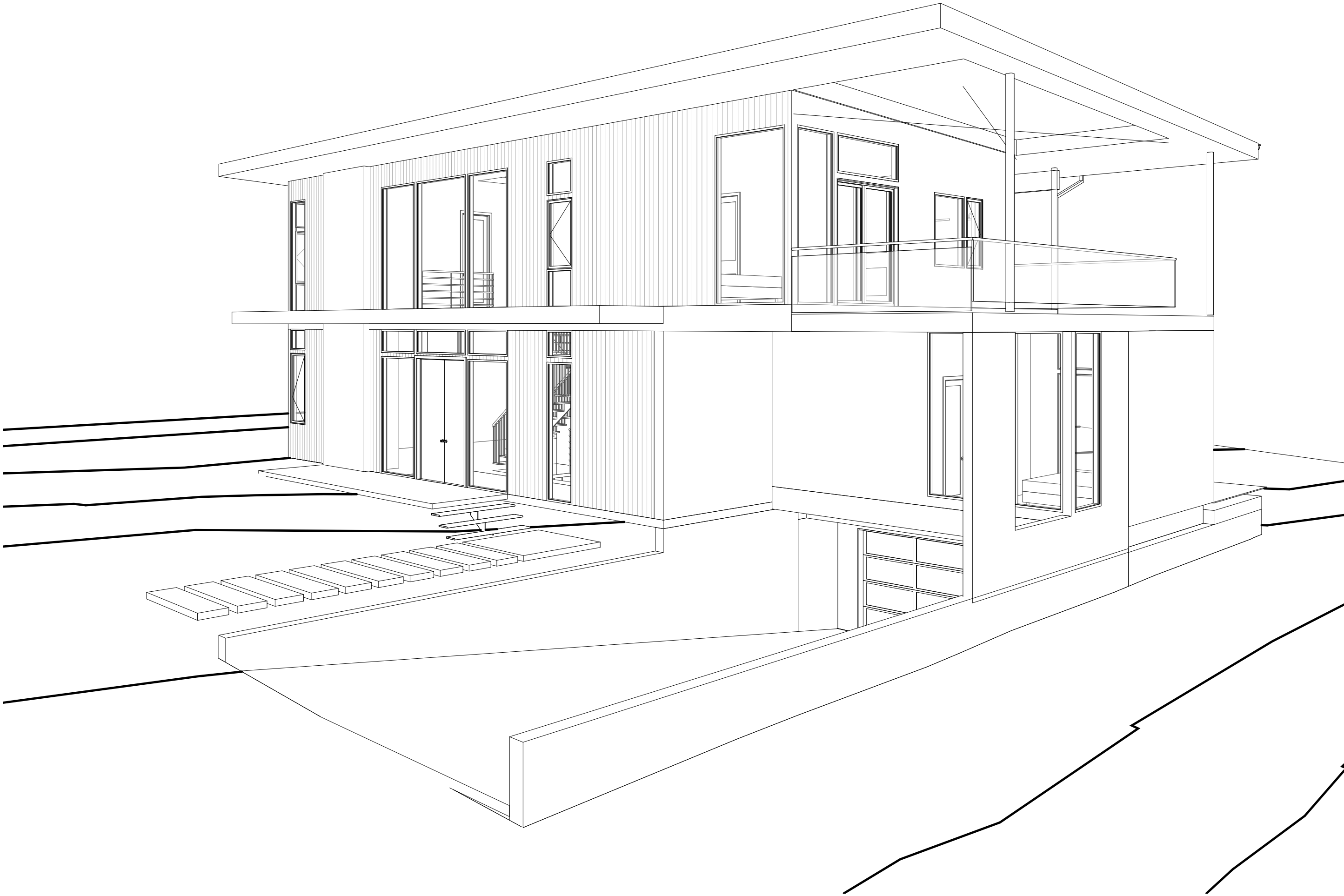
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NO.	DESCRIPTION	DATE
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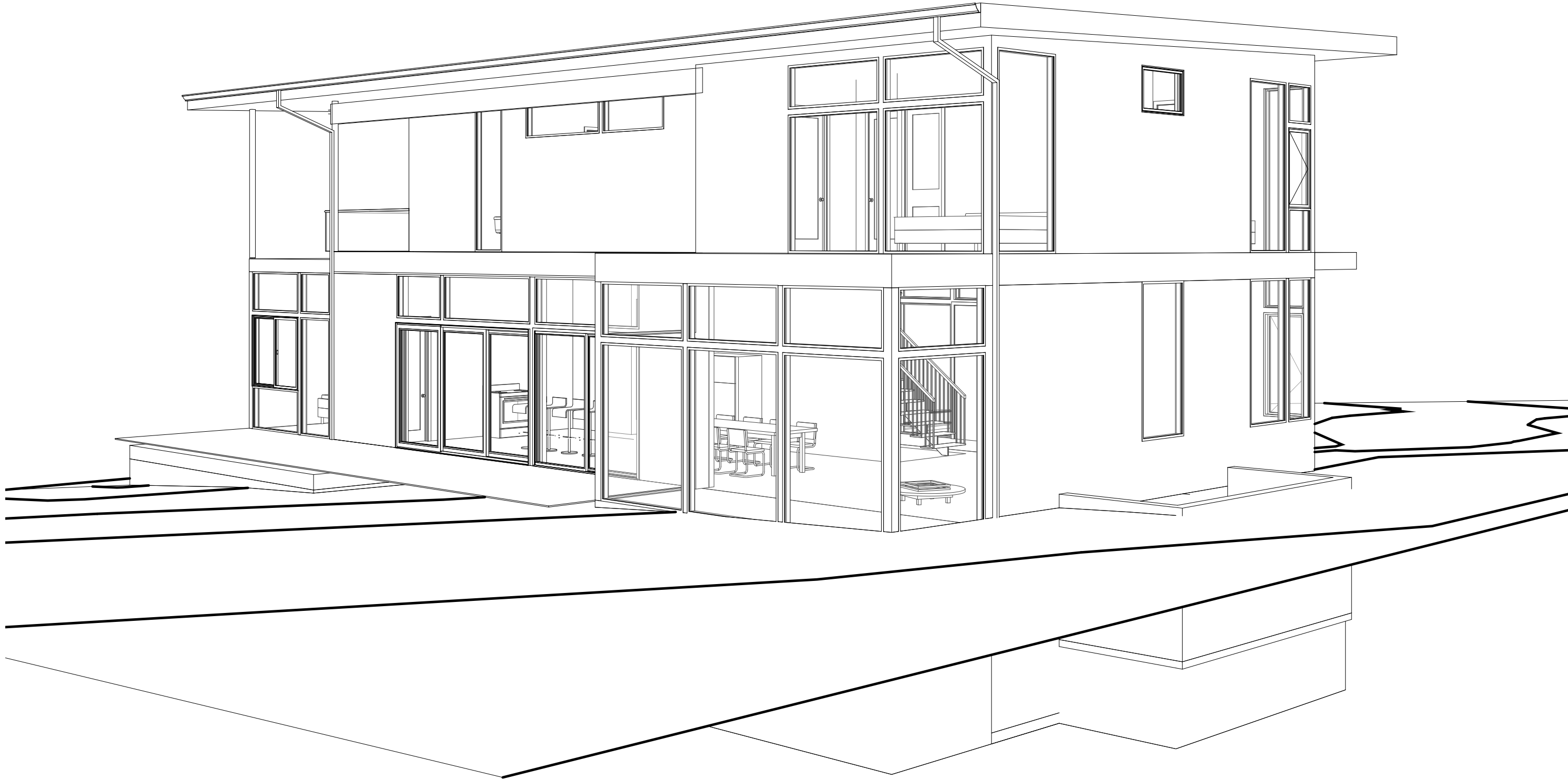
DATE:	06.05.24
-------	----------

3D
Views

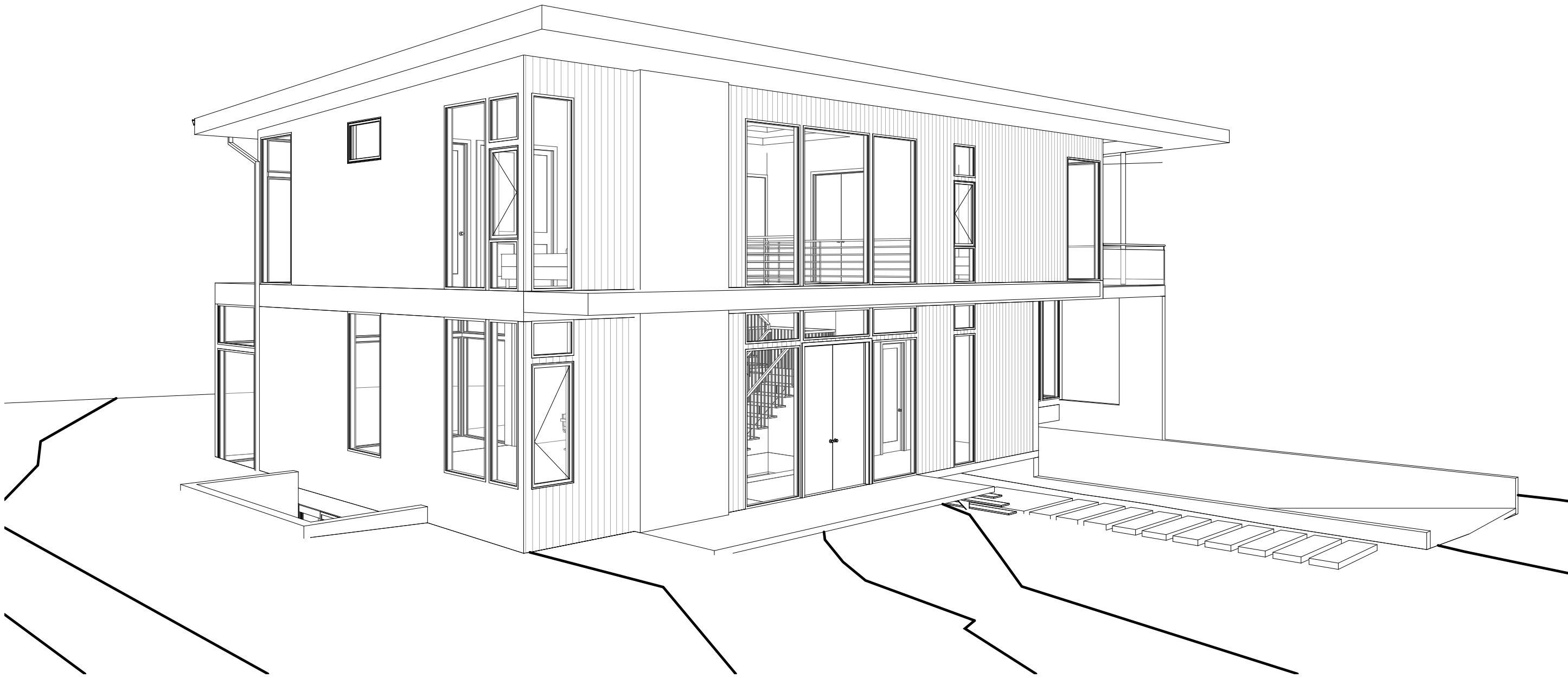
A9.0



1 Perspective View 1



2 Perspective View 2

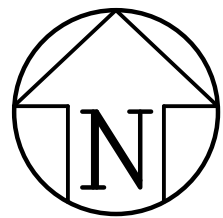
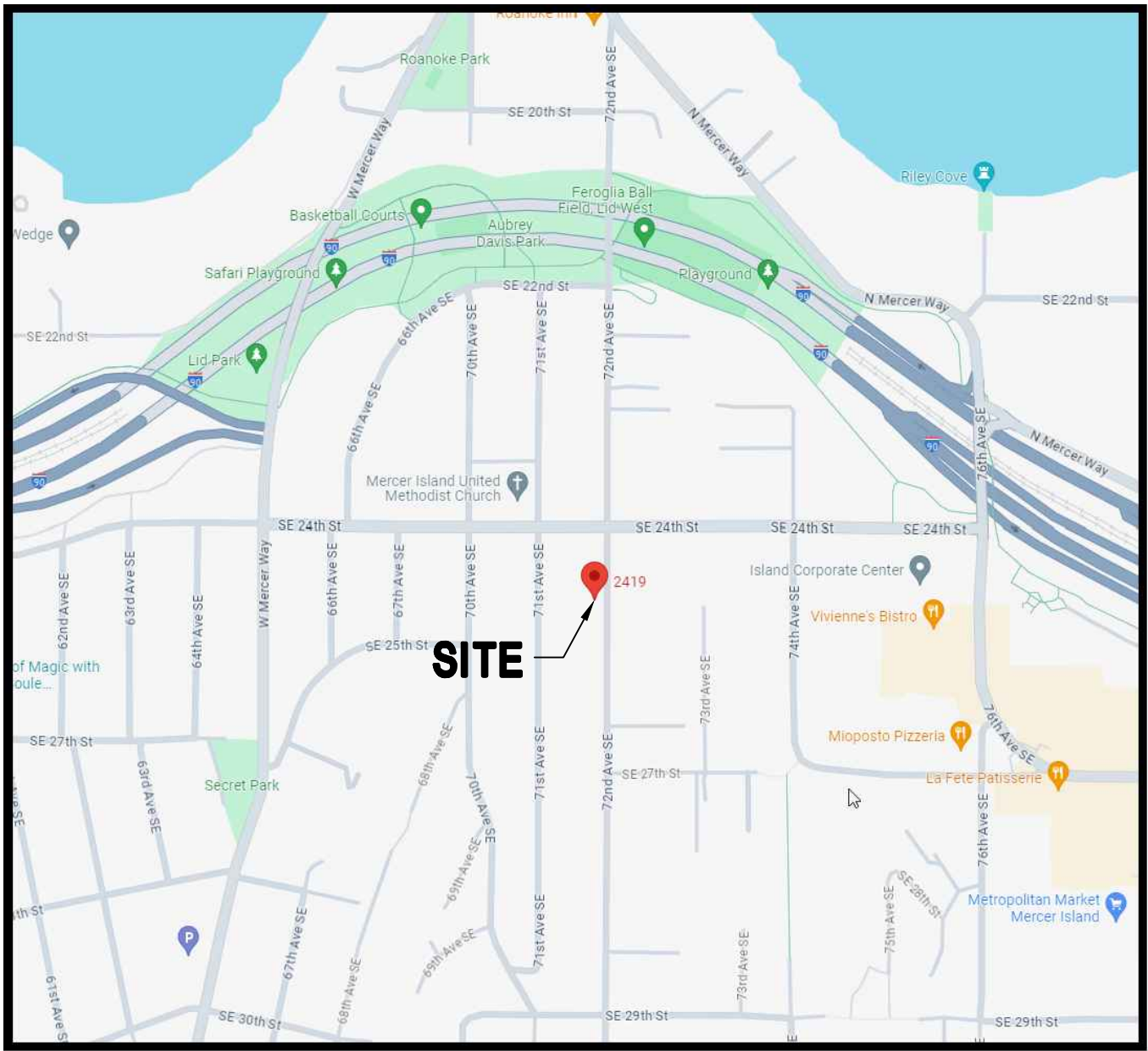
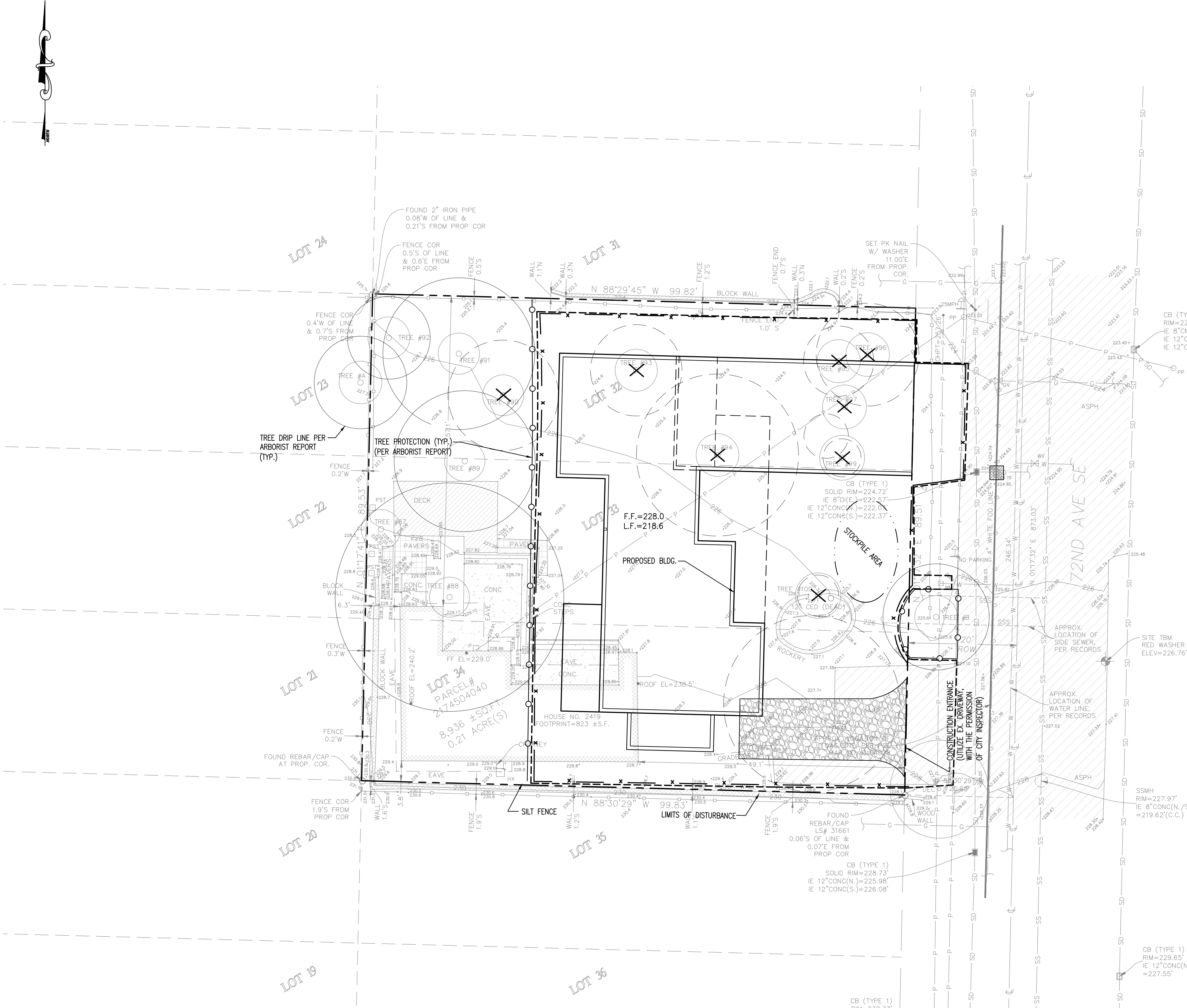


3 Perspective View 3



4 Perspective View 4

NW 1, NW 1, SEC 12, TWP. 24N., RGE 4E., W.M.



VICINITY MAP
(NTS)

LEGEND:

- CB INSERTS (STREAM GUARD, EMCON ENVIRODRAIN OR EQUIVALENT.
- TEMPORARY CONSTRUCTION ENTRANCE (USING EX. ASP. DRWY.)
- SILT FENCE/CLEARING LIMITS
- LIMITS OF DISTURBANCE
- PROPOSED BUILDING
- TREE TO BE REMOVED

SURVEY LEGEND:

- ASPHALT SURFACE
- BENCHMARK
- CONCRETE SURFACE
- DECK
- GAS LINE
- GAS VALVE
- HEAT EXCHANGER
- INLET (TYPE 1)
- INLET (TYPE 1, SOLID)
- MONUMENT (SURFACE, FOUND)
- OHP TRANSMISSION ELEVATION
- PAVER SURFACE
- POST
- POWER METER
- POWER (OVERHEAD)
- POWER POLE
- REBAR & CAP (SET)
- REBAR / IRON PIPE (FOUND)
- RETAINING WALL
- ROCKERY
- SEWER LINE
- SEWER MANHOLE
- SIGN (AS NOTED)
- SD - STORM DRAIN LINE
- SIZE TYPE
- TREE (AS NOTED)
- W - WATER LINE
- WM - WATER METER
- WV - WATER VALVE

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED RECORDING# 20230518000717)

LOTS 32, 33 AND 34, BLOCK 24, EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 3 OF PLATS, PAGE 22, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

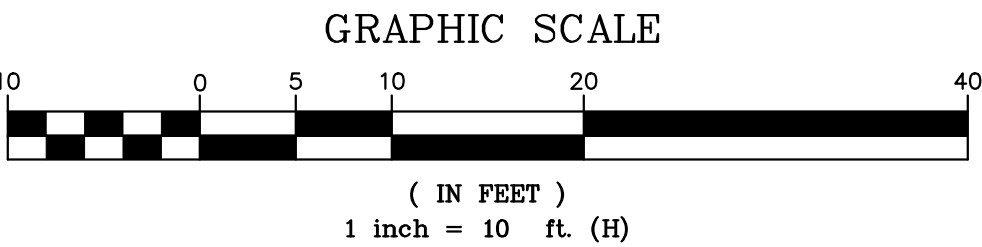
BENCHMARK AND DATUM PER SURVEY

NAD(88) PER WGS SURVEY DATA WAREHOUSE:
POINT DESIGNATION 7007; MON IN CASE @ INTX. 70TH AVE. S.E. & S.E. 24TH ST.
EL: 208.21'

SITE TEMP. BENCHMARK
DESCRIPTION: PK NAIL W RED WASHER
LOCATION: 36.3'E & 25.4'N
ELEVATION: 228.76'

EARTHWORK QUANTITIES:

CUT = 70 CY.
FILL = 50 CY.



Know what's below.
Call before you dig.

REVISION

NO. DATE

DATE: 05-17-24

PROJECT: MERCER FIRSHILL 2419 - 6FR 2419 12ND AVENUE SE MERCER ISLAND, WA 98040

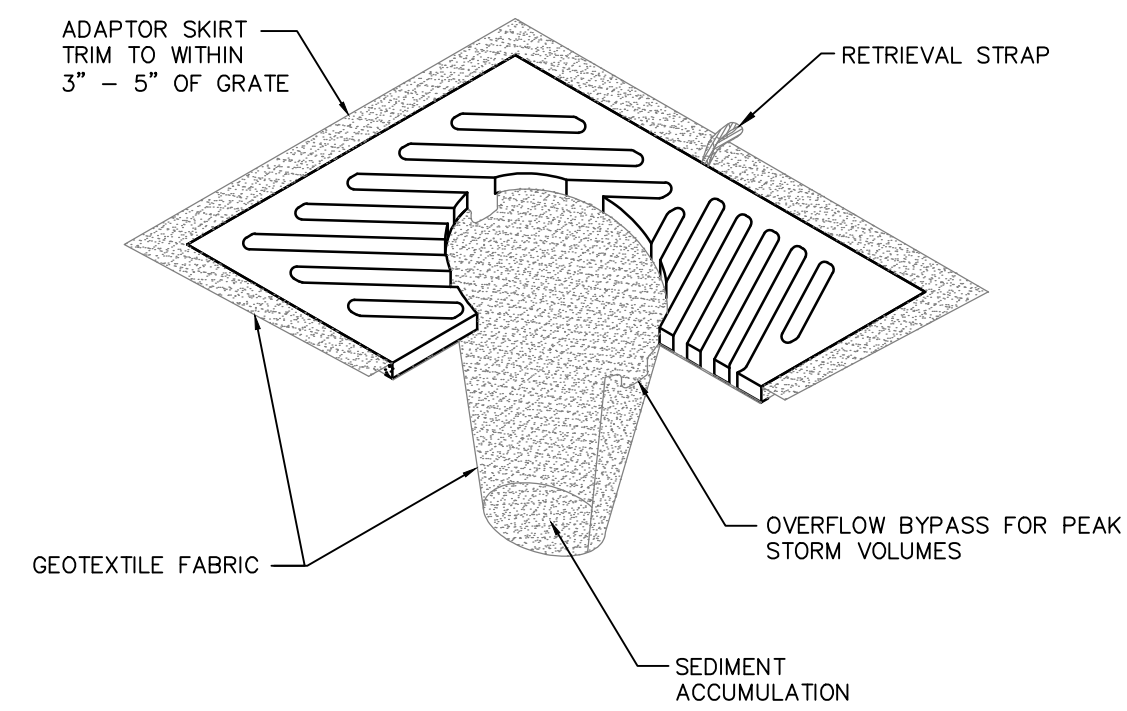
TESC PLAN

FILE NO: 2406 DWS

SHEET C1.0

C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9376
cmchnc2my@gmail.com

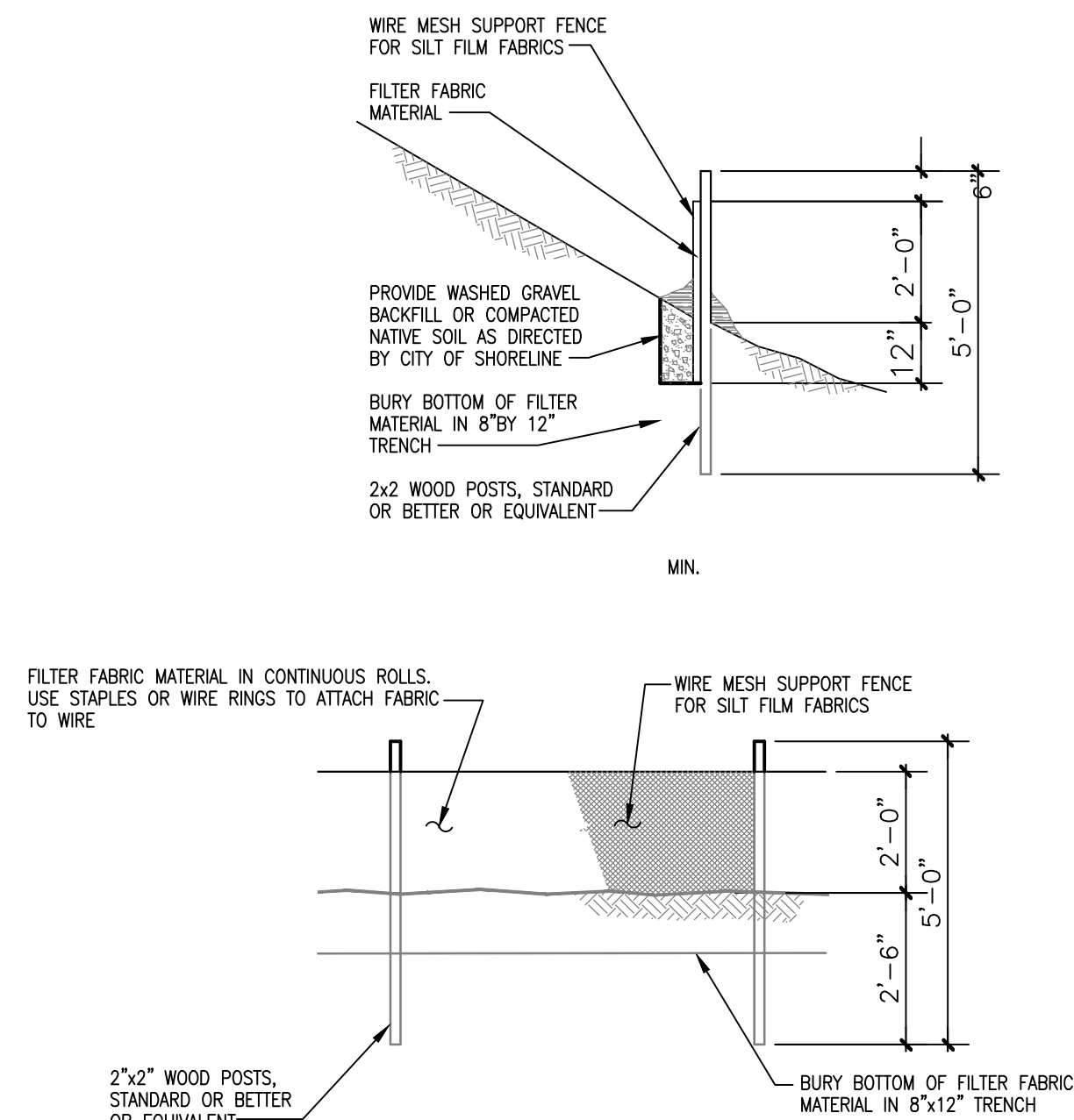
NW $\frac{1}{4}$, NW $\frac{1}{4}$, SEC 12, TWP. 24N., RGE 4E., W.M.



- NOTES
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL .
 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

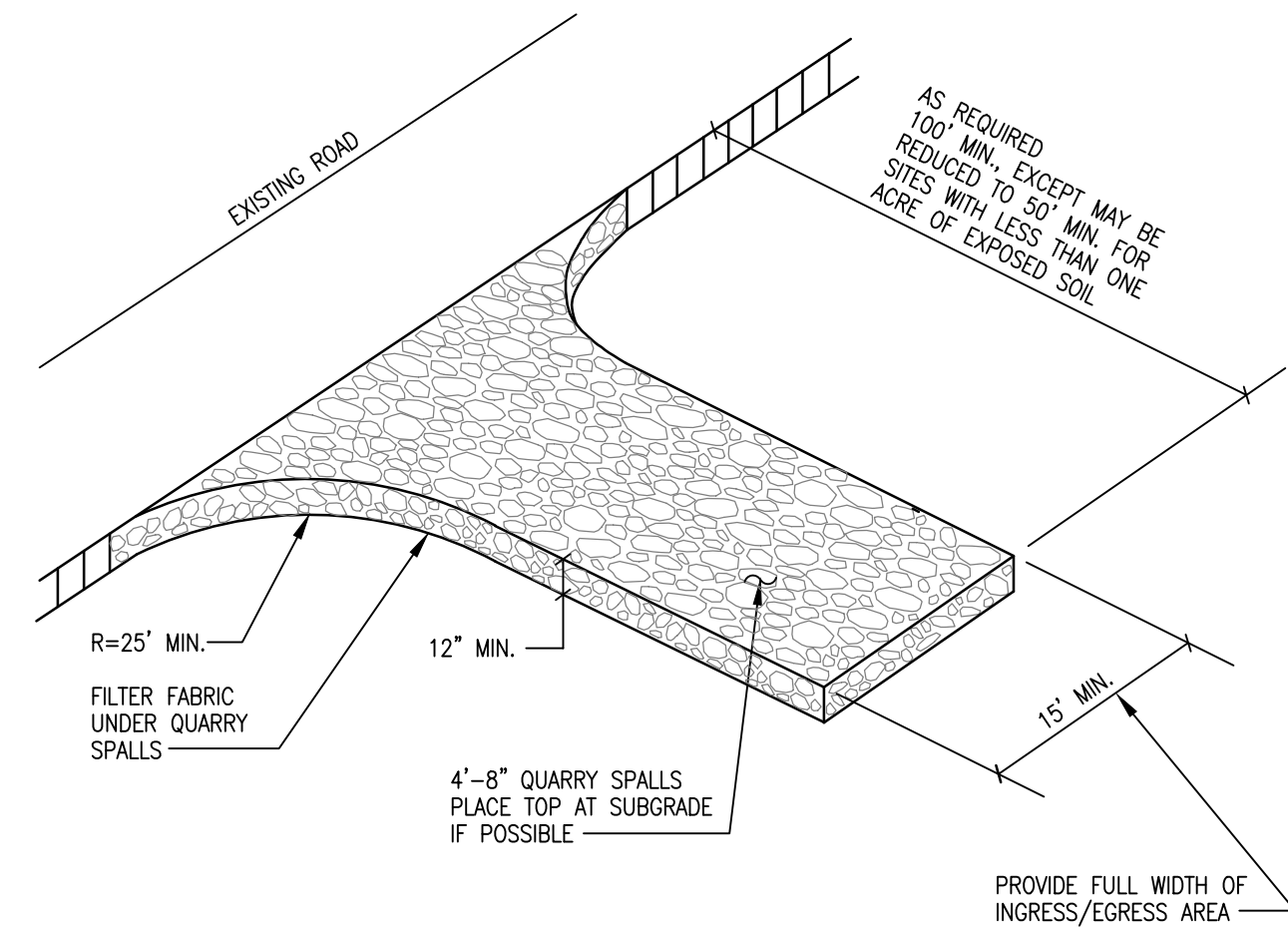
CATCH BASIN INLET
PROTECTION INSERT

NTS



SILT FENCE

NO SCALE

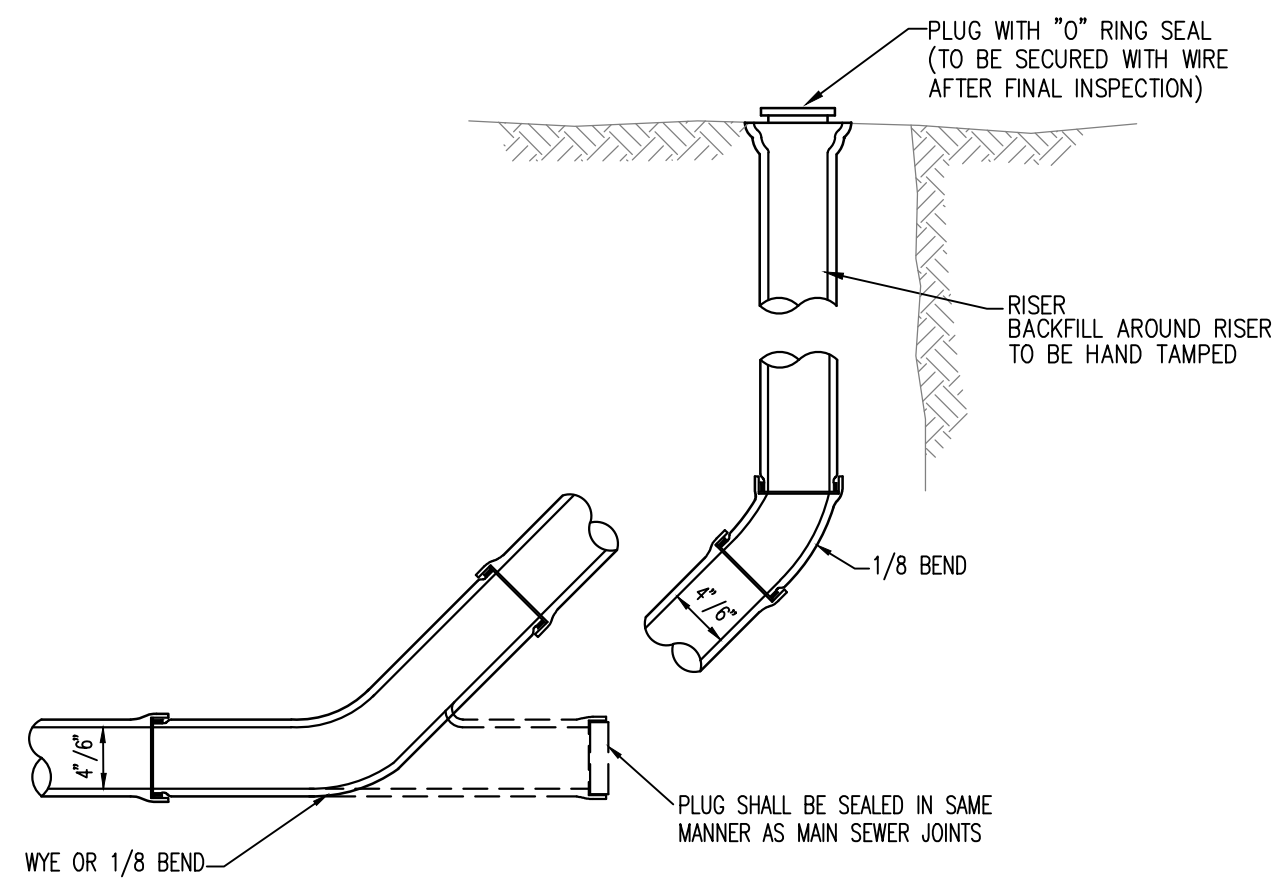


STABILIZED CONSTRUCTION ENTRANCE

NO SCALE

NOTES:

1. STONE SIZE - USE 4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 12"
4. WIDTH - 15 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INCREASES OR DECREASES OCCUR.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE-FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANUP OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A PAD STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



NOTE:
1. FOR SIDE SEWER AND SERVICE DRAINS ON UNPAVED AREA.

CLEANOUT DETAILS

NTS

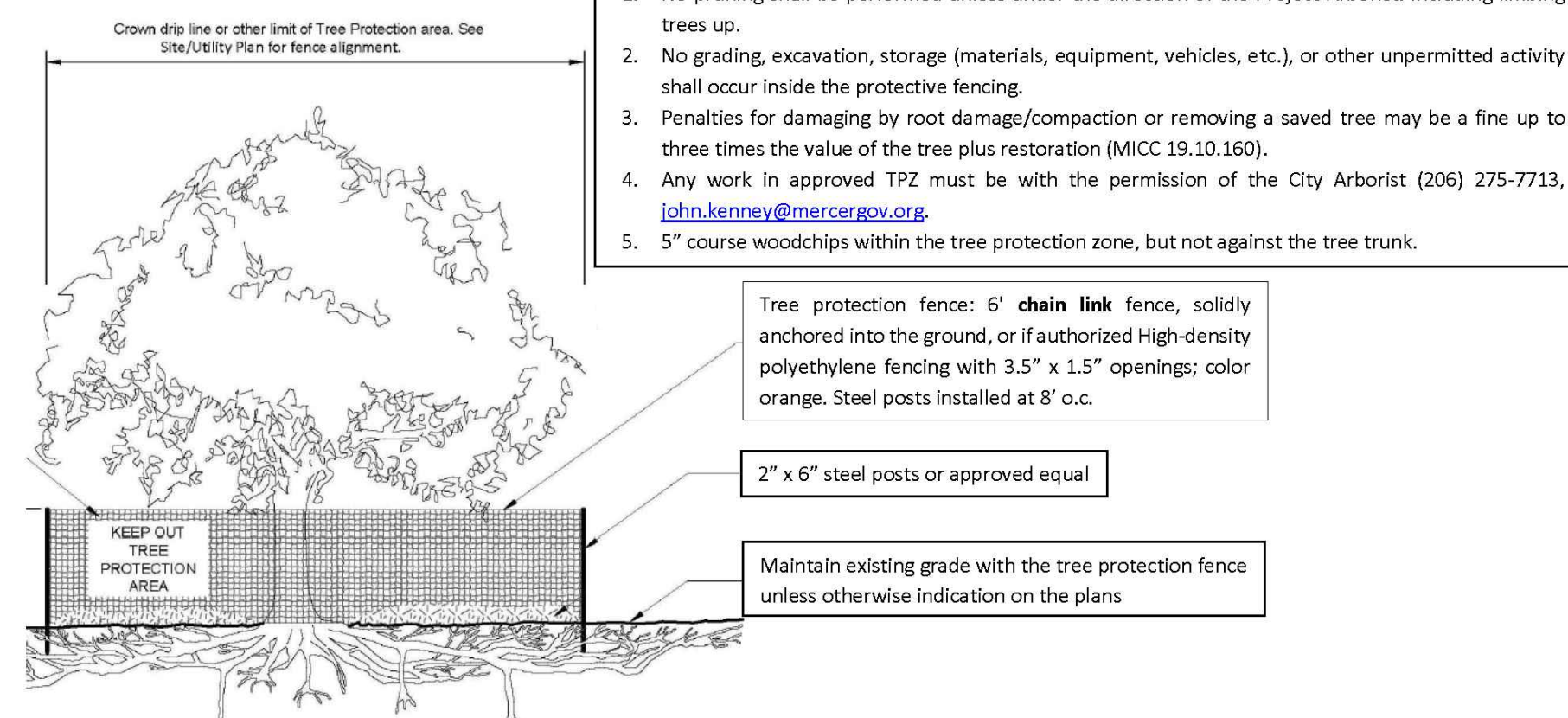
TREE PROTECTION AREA (TPZ)

KEEP OUT!

DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Correction Notices or Stop Work Orders until compliance is achieved 2. RE Inspection Fees/financial penalties 3. Arborist reports recommending mitigation | <p>Notes</p> <ol style="list-style-type: none"> 1. No pruning sh |
|--|---|



Any Work in the protected area must be with the permission of the City Arborist john.kenney@mercergov.org

[illegible]

PROJECT: MERCER FIRSTHILL 2419 - 9FR
2419 T2ND AVENUE SE
MERCER ISLAND, WA 98040

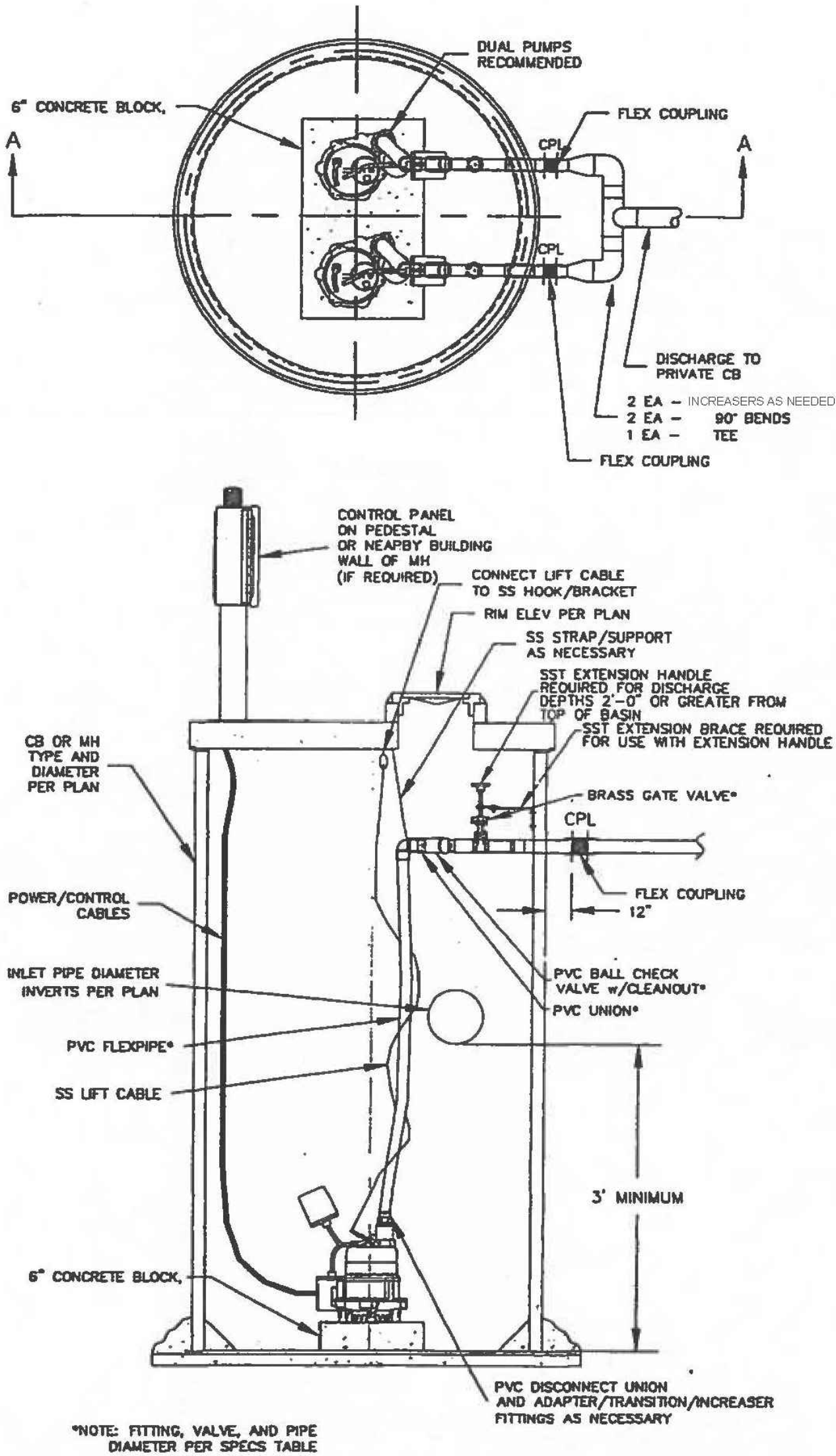
DATE: 05-11-24

TESC AND DRAINAGE DETAILS

FILE NO:
2406
DWG

SHEET
C1.1

NW 1/4, NW 1/4, SEC 12, TWP. 24N., RGE 4E., W.M.

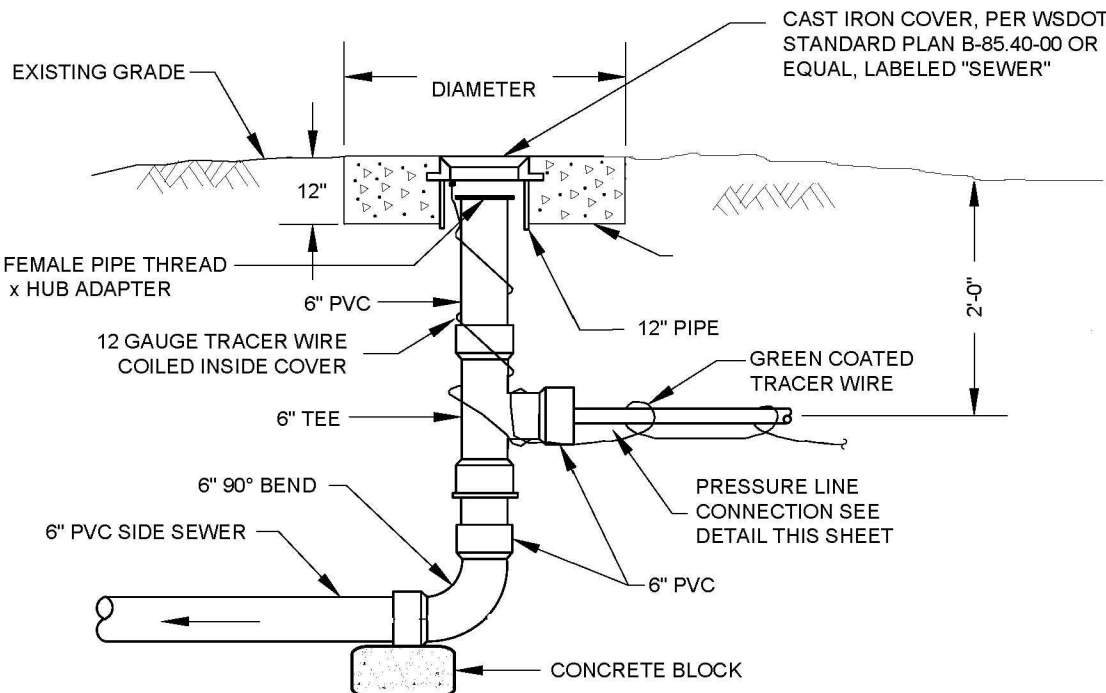
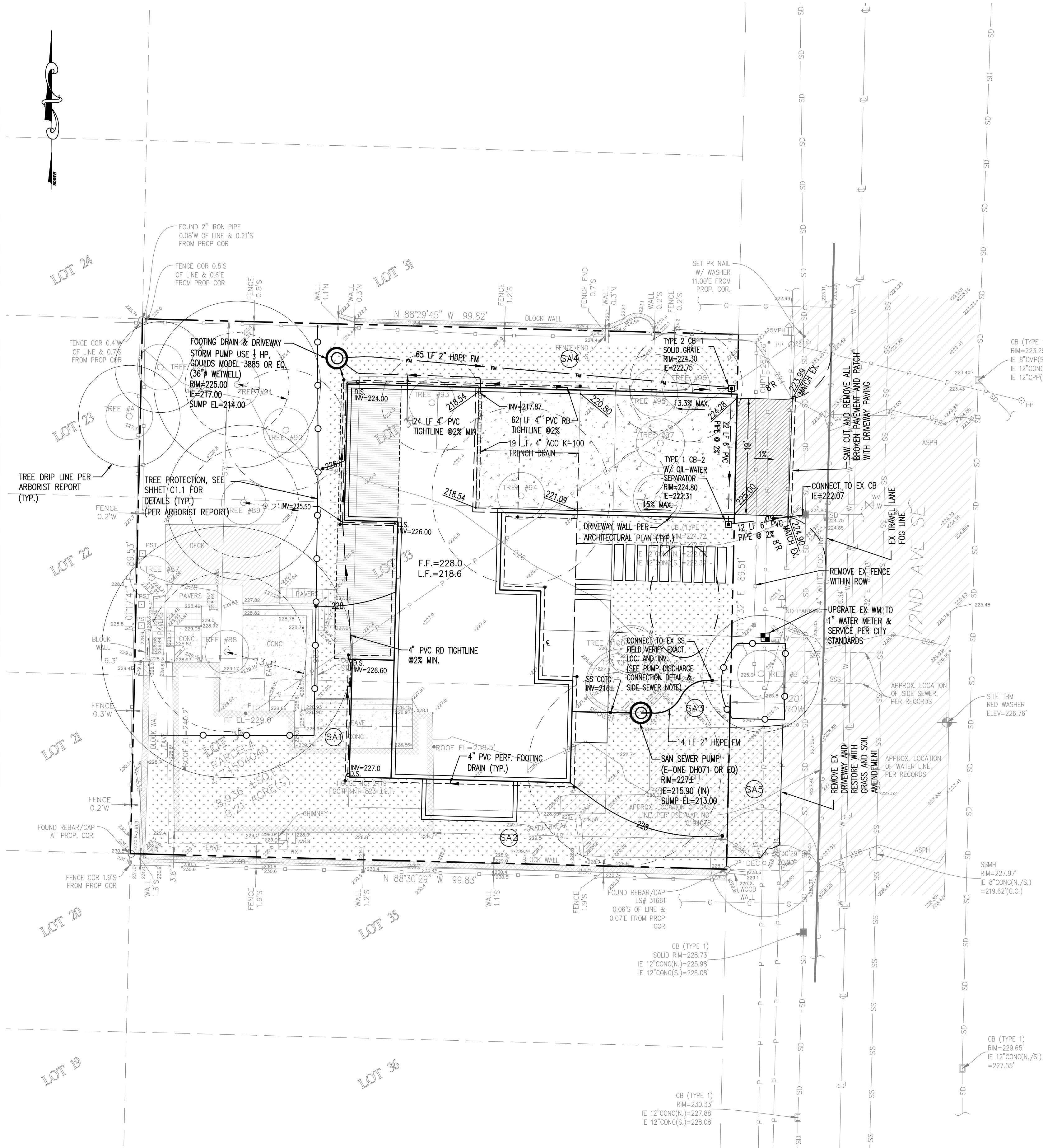


STORM DRAIN DUPLEX PUMP STATION SPECIFICATIONS:

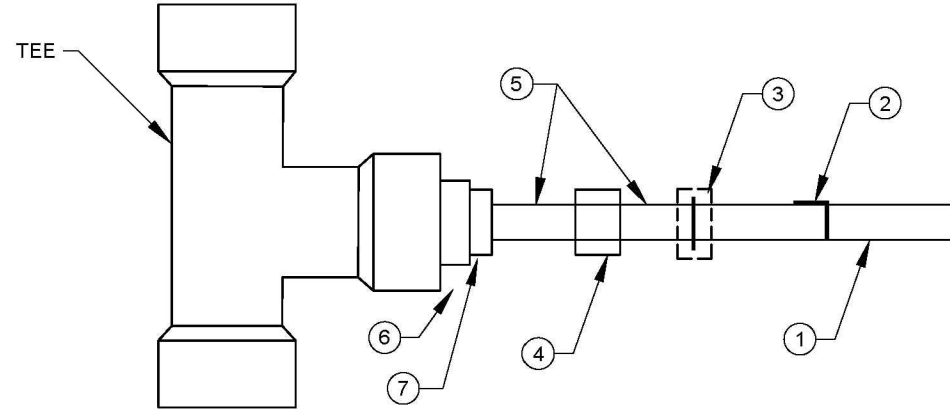
GENERAL DESCRIPTION	DUPLEX PARALLEL SUBMERSIBLE GRINDER PUMPS
DESIGN CALCULATIONS	FROM SBH FLOW CALCULATIONS: PEAK FLOWS: (INCLUDING 2GPM FOR FTG. DRAIN FLOW) 25-YR = 5.4 GPM 100-YR = 5.9 GPM
DESIGN FLOW AND TDH	1ST PUMP: 5.9 GPM @ 13' TDH 2ND PUMP: 5.9 GPM @ 13' TDH
PUMP ELECTRICAL	1/3 HP, 1 PHASE, 208 V COULD WE 3885 SERIES, MODEL # WE0318L OR EQ.
PUMP CONTROLS	ALTERNATE PUMP STARTS, LOW AND HIGH LEVEL ALARM LIGHT
PUMP MOUNTING AND DISCHARGE	INCREASE TO 2" DISCHARGE WITH 2" UNION, CHECK VALVE, AND GATE VALVE FROM EACH PUMP
DISCHARGE MANIFOLD	DISCHARGE TO FORCEMAIN 1.5" NPT
FORCE MAIN & FITTING	2"
REDUNDANT OFF AND LOW LEVEL ALARM	PER MANUFACTURE'S REQUIREMENTS
OFF	PER MANUFACTURE'S REQUIREMENTS
ON (1ST PUMP)	1.5' ABOVE OFF
ON (2ND PUMP)	2.5' ABOVE OFF
HIGH LEVEL ALARM	0.5' ABOVE 2NF PUMP ON
MIN. HEIGHT FROM HIGH LEVEL ALARM TO LOWEST INLET	0.5'
NOTES:	
1.	THESE SPECIFICATIONS ARE SCHEMATIC IN NATURE AND SHALL BE CONFIRMED BY SUPPLIER AND CONTRACTOR.
2.	PUMP FLOATS/CONTROL SHALL BE FIELD TESTED AND ADJUSTED TO ACHIEVE OPTIMUM PUMP CYCLE TIMES PER MANUFACTURE'S RECOMMENDATIONS
3.	EXPLOSIVE PROOF PUMPS, CONTROLS AND ELECTRICAL COMPONENTS SHALL BE INSTALLED IF REQUIRED BY CODE.

STORM PUMP NOTES:

- THE PUMP SYSTEM SHALL HAVE DUAL, ALTERNATING PUMPS WITH EMERGENCY ON-SITE, BACK-UP POWER SUPPLY AND AN EXTERNAL ALARM SYSTEM FOR SYSTEM FAILURE AND HIGH WATER LEVEL INDICATOR.
- PUMP SYSTEMS SHALL BE OWNED, OPERATED, MAINTAINED, REPAIRED, AND REPLACED (AS NEEDED) BY PROPERTY OWNER(S) SERVED BY SUCH SYSTEM.
- THE PRIVATE PROPERTY OWNER(S) SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM.



PRESSURE LINE CONNECTION TO GRAVITY SANITARY SEWER DETAIL



- POLYETHYLENE PRESSURE PIPE SDR 11 (LENGTH TO SUIT)
- MPT 316 SS IP x HDPE BUTT FUSION TRANSITION FITTING
- PFT x SLIP PVC ADAPTER
- COMPRESSION COUPLING PVC
- NIPPLE PVC (SIZE TO SUIT)
- 6 x 2 (SPIGOT x SLIP OR SPIGOT x PFT) OR 6 x 4 PVC REDUCER
- 4 x 2 SPIGOT x PFT (IF SERVICE IS 1 1/4\"/>

**SEWER PUMP DISCHARGE TO GRAVITY SIDE
SEWER CONNECTION DETAILS**

NTS

SITE IMPERVIOUS AREA SUMMARY:

EXISTING LOT AREA = 8,936 S.F.
EXISTING BUILDING ROOF: 1,047 S.F.
EXISTING DRIVEWAY: 414 S.F.
EXISTING DECK: 210 S.F.
EXISTING PATIO: 381 S.F.
TOTAL EXISTING HARD SURFACES AREA = 2,062 S.F.
EXISTING IMPERVIOUS IS 23.07% < 35% (NEW DEVELOPMENT FLOW CHART)

PROPOSED DRIVEWAY WITHIN ROW: 1785 S.F.
PROPOSED DRIVEWAY WITHIN PROPERTY: 396 S.F.
PROPOSED WALKWAY: 122 S.F.
PROPOSED BUILDING ROOF: 3,101 S.F.
PROPOSED DECK: 138 S.F. (OUTSIDE OF ROOF AREA)
TOTAL NEW HARD SURFACES AREA: 3,925 S.F. < 5000 S.F.

PER FIGURE 1-3.1 FLOW CHART FOR DETERMINING REQUIREMENT FOR NEW DEVELOPMENT:
MINIMUM #1 TO #5 APPLIED TO NEW AND REPLACED HARD SURFACES AND THE LAND DISTURBED.

NET INCREASE IN IMPERVIOUS AREA ON-SITE = 1,861 S.F.

LEGEND

- EX. SANITARY SEWER
- EX. WATER LINE
- EX. STORM DRAIN
- CONCRETE DRIVEWAY
- SOIL AMENDMENT-SA
(FOR ALL DISTURBED UNPAVED AREA)
- SAW CUT LINE
- ROOF DRAIN TIGHTLINE
WITH C.O.T.G.(4\"/>
- FOOTING DRAIN
W/ CLEANOUT TO GRADE
(C.O.T.G.)

NOTES:

- SEE ARCHITECTURE SITE PLAN FOR OTHER PROPOSED INFORMATION NOT SHOWN ON THIS SHEET.

DRAINAGE GENERAL NOTES:

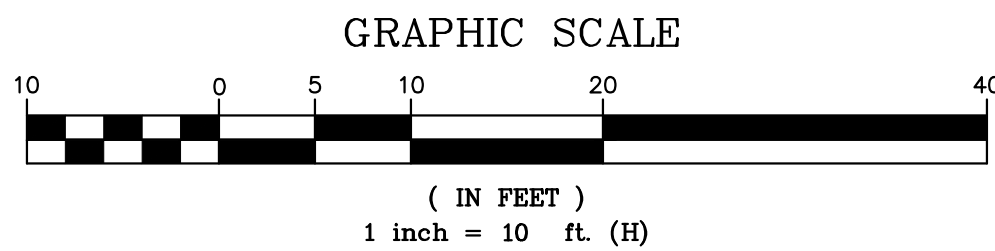
- DOWNSPOUTS SHALL BE TIED INTO A NON-PERFORATED, RIGID, SMOOTH-BORE PIPE WHICH DRAINS TO AN APPROVED STORM SYSTEM
- PROVIDE CLEANOUTS AT THE UPPER END OF THE SYSTEM AND AT EACH CUMULATIVE CHANGE OF DIRECTION IN EXCESS OF 135 DEGREES.
- ALL PIPE FITTINGS SHALL BE MADE OF THE SAME MATERIAL AS THE STRAIGHT PIPE. GLEUED JOINTS SHALL USE A BONDING AGENT RECOMMENDED BY THE PIPE MANUFACTURER.
- FOOTING DRAINS SHALL BE INSTALLED AROUND ALL NEW FOUNDATIONS AND SHALL BE TIGHTENED TO DISCHARGE TO THE SPLASH BLOCK. FOOTING DRAINS SHALL BE CONSTRUCTED OF PERFORATED PIPE AT THE BASE OF THE FOOTING, AND SHALL MEET MATERIAL STANDARDS OF D2729 FOR PVC PIPE, WITH THE PERFORATIONS DIRECTED DOWNWARD. PLACE GRANULAR BACKFILL AROUND AND ABOVE THE FOOTING DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. PROVIDE FILTER FABRIC WRAP AROUND BETWEEN THE GRANULAR BACKFILL AND THE NATIVE SOIL.

SIDE SEWER NOTE:

THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.



Know what's below.
Call before you dig.



NO. 1
DATE 2024.11.13
REVISION REVISED PER CITY COMMENTS

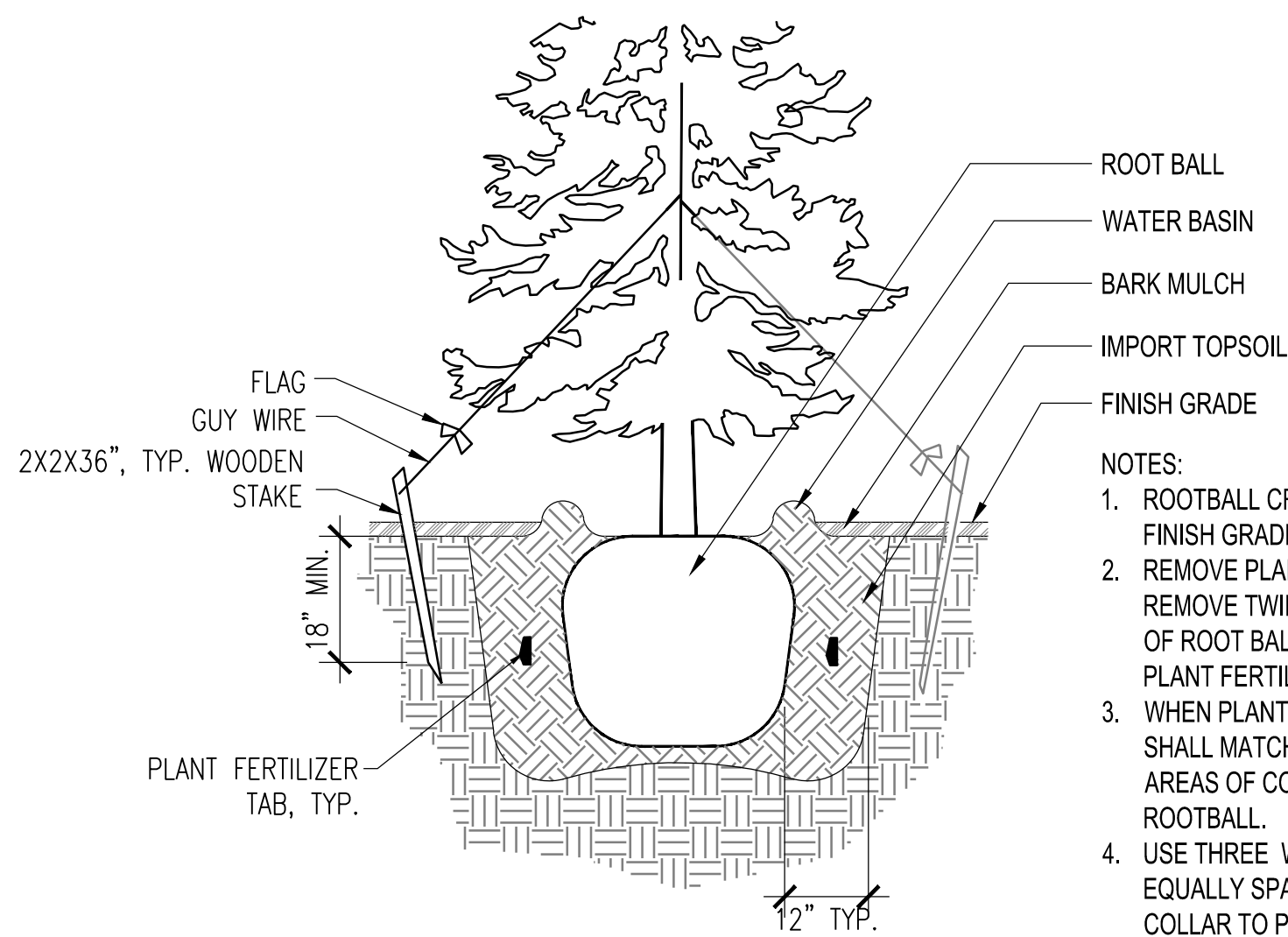
C2MY ENGINEERS, LLC
PO BOX 52883
BELLEVUE, WA 98015
(206) 922-9376
cmchnc2my@gmail.com

PROJECT: MERCER FIRSHILL 2419 - 6FR
2419 72ND AVENUE SE
MERCER ISLAND, WA 98040
Paving, Grading, Drainage Plan

FILE NO:
2406
DWS

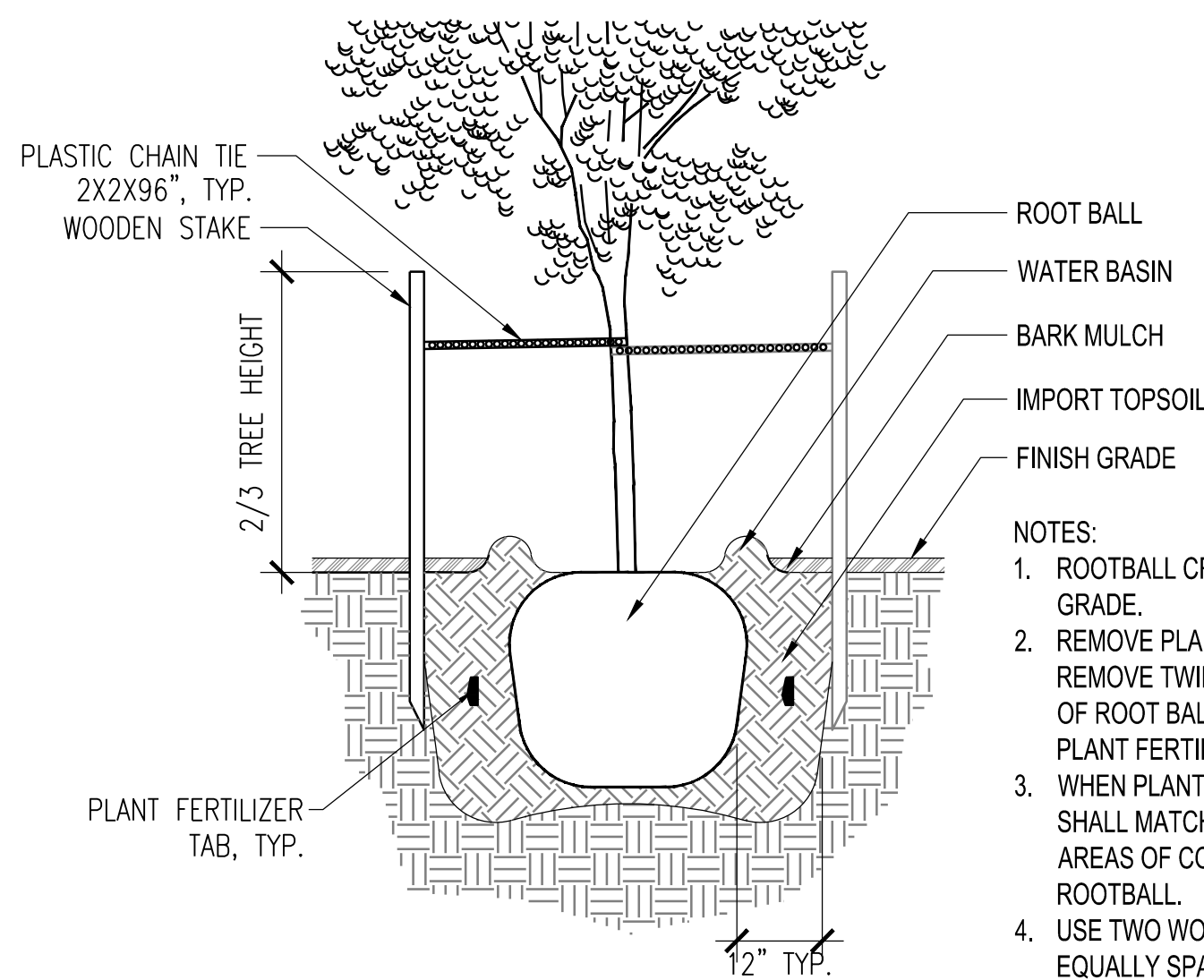
SHEET
C2.0

Scale 1/2" = 1'-0"



1. ROOTBALL CROWN TO BE FLUSH WITH FINISH GRADE.
2. REMOVE PLANT FROM CONTAINER OR REMOVE TWINE AND BURLAP FROM TOP 1/2" OF ROOT BALL. SEE SPECIFICATION FOR PLANT FERTILIZER TAB REQUIREMENTS.
3. WHEN PLANTING ON A SLOPE FINISH GRADE SHALL MATCH PREVIOUS GRADE EXCEPT IN AREAS OF COMPACTED FILL AND TOP OF ROOTBALL.
4. USE THREE WOODEN STAKES PER TREE, EQUALLY SPACED. PROVIDE RUBBER COLLAR TO PREVENT INJURY TO THE BARK OF TREE. REMOVE ALL SUPPORTS WITHIN 1 YEAR FROM PLANTING.

Scale 1/2" = 1'-0"



1. ROOTBALL CROWN TO BE FLUSH WITH FINISH GRADE.
2. REMOVE PLANT FROM CONTAINER OR REMOVE TWINE AND BURLAP FROM TOP 1/2 OF ROOT BALL. SEE SPECIFICATIONS FOR PLANT FERTILIZER TAB REQUIREMENTS.
3. WHEN PLANTING ON A SLOPE FINISH GRADE SHALL MATCH PREVIOUS GRADE EXCEPT IN AREAS OF COMPACTED FILL AND TOP OF ROOTBALL.
4. USE TWO WOODEN STAKES PER TREE, EQUALLY SPACED. REMOVE ALL SUPPORTS WITH IN 1 YEAR FROM PLANTING.

A diagram showing a smooth circular gear meshing with a rack and pinion. The gear is at the top, and the rack is at the bottom. The rack is represented by a series of small, evenly spaced teeth.

% AREA	BOTANICAL NAME	COMMON NAME	SPACING	SIZE/CONT.
TREES:				
44%	ACER CIRCINATUM	VINE MAPLE	AS SHOWN	1.5" CAL.
56%	PINUS CONTORTA	SHORE PINE	AS SHOWN	6' MIN. HT.
NOTE: BOTH TREES SPECIES ARE PNW NATIVE TREES.				

REQUIRED REPLACEMENT TREES PER INVENTORY AND REPLACEMENT FORM: 26 EA
TOTAL REPLACEMENT TREES PROVIDED: 17 EA

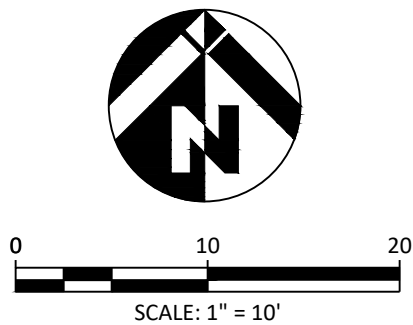
FREE IN LIEU: TO PRESERVE KEY TERRITORIAL VIEWS, THE PROJECT OWNER REQUESTS TO PAY A 'FREE IN LIEU' OF FOR (9) REPLACEMENT TREES ON THE PROJECT (MMC SECTION 19.10.070.C).

PLANTING TIMING: REPLACEMENT TREES SHALL BE PLANTED IN THE WET SEASON (OCTOBER 1 THROUGH APRIL 1) WHERE POSSIBLE OR AS CITY ARBORIST APPROVES.

MAINTENANCE OF REPLACEMENT TREES: THE PARCEL OWNER SHALL MAINTAIN ALL REPLACEMENT TREES IN A HEALTHY CONDITION FOR A PERIOD OF FIVE YEARS AFTER PLANTING. THE APPLICANT SHALL BE OBLIGATED TO REPLANT ANY REPLACEMENT TREE THAT DIES, BECOMES DISEASED, OR IS REMOVED DURING THIS FIVE-YEAR TIME PERIOD.

IMPORT TOPSOIL: CONTRACTOR TO REMOVE COMPACTED NATIVE SOILS AROUND TREE ROOTBALLS AND INSTALL WINTERMIX TOPSOIL OR COMPOST/TOPSOIL BLEND FOR IMPORT TOPSOIL AREAS SHOWN IN THE PROJECT DETAILS. SEE DETAILS #1 AND #2 BELOW TYPICAL.

TREE PROTECTION/RETENTION: SEE TREE FENCING AND PROTECTION DETAIL SHEET G1.0 FOR TREE FENCING AND PROTECTION REQUIREMENTS FOR TREES TO REMAIN, TYPICAL.



Know what's below.
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GENERAL NOTES

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE 2018 EDITION.

CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS AND EXISTING CONDITIONS IN FIELD BEFORE PROCEEDING WITH ANY CONSTRUCTION OR DEMOLITION. CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR FIELD CHANGES.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION AND SOIL EXCAVATIONS AS REQUIRED, IN A MANNER SUITABLE TO THE WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH. FOUNDATIONS WALLS GREATER THAN 4 FEET SHALL NOT BE BACKFILLED UNTIL THE FLOOR FRAMING AND ALL CONNECTIONS TO THE FLOOR FRAMING PER THESE DETAILS ARE COMPLETE.

CHANGES: NO CHANGES TO THESE STRUCTURAL DRAWINGS ARE PERMITTED WITHOUT WRITTEN CONSENT OF THE ENGINEER. CHANGES WILL BE BILLED TO THE CLIENT, OWNER OR CONTRACTOR AT THE ENGINEER'S HOURLY RATE.

SUBMITTALS: SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL THE FOLLOWING: STRUCTURAL STEEL, STEEL CANOPIES, GLUED-LAMINATED MEMBERS AND PRE-MANUFACTURED WOOD MEMBERS.

DESIGN DRAWINGS AND CALCULATIONS, FOR PRE-MANUFACTURED WOOD TRUSSES AND JOISTS SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN, AND SHALL BE SUBMITTED TO THE ARCHITECT AND BUILDING OFFICIAL FOR REVIEW PRIOR TO FABRICATION.

DESIGN LOADS

LIVE LOADS: LIVE LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7
L = 40 PSF (RESIDENTIAL)

SNOW LOADS: SNOW LOADS ARE DETERMINED IN ACCORDANCE WITH ASCE CH. 7 WITH THE FOLLOWING FACTORS:
GROUND SNOW LOAD PG = 25 PSF CT = 1.0 CE = 1.0
ROOF SNOW LOAD PS = 25 PSF IS = 1.0

WIND LOADS: WIND LOADS ARE BASED ON ASCE 7-16 CH. 28 (ENVELOPE PROCEDURE) WITH THE FOLLOWING FACTORS:
EXPOSURE CATEGORY = B IW = 1.0
VELOCITY (3 SEC) = 110 MPH (ULT) KZT = 1.60

DESIGN WIND PRESSURED FOR DETERMINING FORCES ON COMPONENTS AND CLADDING ARE DETERMINED IN ACCORDANCE WITH ASCE 7-16 CHAPTER 30.

SEISMIC LOADS: SEISMIC LOADS ARE BASED ON THE EQUIVALENT LATERAL FORCE PROCEDURE IN ASCE 7-16 SECTION 12.8 WITH THE FOLLOWING FACTORS:
RISK CATEGORY = II SS = 1.393
SITE CLASS = D S1 = 0.485
DESIGN CATEGORY = D SDS = 0.929
IE = 1.0
R = 6.5 (WOOD SHEAR WALL) CS = 0.143 (ULT.)

FOUNDATIONS

CONCRETE FOUNDATIONS SHALL BEAR ON STIFF, COMPETENT, UNDISTURBED NATIVE SOIL. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN CONFIRMATION FROM THE BUILDING OFFICIAL THAT THE NATIVE SOIL AT THIS PROJECT IS ADEQUATE TO SUPPORT THE FOLLOWING BEARING PRESSURE: PER GEO REPORT BY NGA, INC (NOT1502724), ALLOWABLE BEARING PRESSURE USED FOR STRUCTURAL DESIGN = 2500 PSF.

WHERE FOOTINGS MUST BEAR ON STRUCTURAL FILL DUE TO INADEQUATE SOIL CONDITIONS, THE FILL SHALL BE MIXED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS PROVIDED BY A GEOTECHNICAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.

BOTTOM OF FOOTING ELEVATION SHALL BE LOCATED AT MINIMUM FROST DEPTH 18" BELOW TOP OF FINISHED GRADE UNLESS REQUIRED OTHERWISE BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL CONFIRM THE MINIMUM FROST DEPTH WITH THE BUILDING OFFICIAL PRIOR TO EXCAVATION.

CONCRETE

CONCRETE WORK SHALL COMPLY, IN GENERAL, WITH ACI 301 (LATEST EDITION) "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS.

CONCRETE MIXES: CONCRETE MIXES SHALL CONFORM ACI 318 CH. 5. MINIMUM CONCRETE STRENGTH F'C AT 28 DAYS SHALL BE AS FOLLOWS:
SLAB-ON-GRADE, CURBS AND PADS = 2500 PSI
FOOTINGS = 5000 PSI
WALLS, STEMS = 5000 PSI

WATER/CEMENT RATIO SHALL BE MEASURED BY WEIGHT AND SHALL BE BASED ON THE TOTAL CEMENTITIOUS MATERIAL. WATER/CEMENT RATIO SHALL BE DETERMINED BY THE SUPPLIER BASED ON STRENGTH REQUIREMENTS AND SHALL NOT EXCEED 0.55. WATER-REDUCING ADMIXTURES MAY BE INCORPORATED IN CONCRETE MIX DESIGNS, BUT SHALL CONFORM TO ASTM C 464 AND BE USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CACL AND OTHER WATER-SOLUBLE CHLORIDE ADMIXTURES SHALL NOT BE USED.

REINFORCING STEEL: ALL REINFORCING SHALL BE DEFORMED BAR (REBAR) WITH BAR DIAMETERS SPECIFIED IN THESE DRAWINGS AND PROPERTIES BELOW:
ALL REINFORCING UNLESS NOTED OTHERWISE = ASTM A615, GRADE 60
#3 STIRRUPS AND TIES = ASTM A615, GRADE 40
WELDED REBAR = ASTM A706, GRADE 60
GALVANIZED WELDED WIRE FABRIC = ASTM A165

REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES."

REINFORCING STEEL SHALL BE LAPPED AS NOTED ON THE DRAWINGS. WHERE LAP LENGTH IS NOT SHOWN, REINFORCING BARS SHALL BE LAPPED AS FOLLOWS:
#5 AND SMALLER = 48 BAR DIAMETERS
#6 AND LARGER = 60 BAR DIAMETERS

MINIMUM CONCRETE COVER OVER REINFORCING SHALL BE AS FOLLOWS:
NONSTRUCTURAL SLAB-ON-GRADE = MID-DEPTH
WALL BARS: INTERIOR FACE = 3/4"
EXPOSED TO EARTH/WEATHER = 1-1/2" (#5 AND SMALLER), 2" (#6 AND LARGER)
FOOTINGS: BOTTOM BARS = 3" (CAST AGAINST EARTH)
TOP BARS = 1-1/2"
SIDE BARS = 2"

PROVIDE SUPPORTS AS REQUIRED FOR PROPER ALIGNMENT AND CONCRETE COVER AROUND THE REINFORCEMENT. CONSULT THE CRSI MANUAL OF STANDARD PRACTICE MSP-1 FOR SPECIFIC INFORMATION.

DRYPACK

DRYPACK SHALL BE 5,000 PSI NON-SHRINK GROUT, FIVE STAR OR EQUIVALENT. INSTALL DRYPACK UNDER BEARING PLATES BEFORE FRAMING MEMBER IS INSTALLED.

ANCHORS

USE OF DRILLED CONCRETE ANCHORS, INCLUDING EXPANSION BOLTS AND ADHESIVE ANCHORS, WHERE NOT SPECIFIED IN THESE DOCUMENTS SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER, ARCHITECT AND THE BUILDING INSPECTOR

EXPANSION BOLTS: EXPANSION BOLTS IN SOLID CONCRETE SHALL BE WEDGE-TYPE ANCHORS MADE OF CARBON STEEL. BOLT SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. BOLTS SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS WITH INSPECTION PER SCHEDULE. EXPANSION BOLTS SHALL BE SIMPSON STRONG BOLT 2 OR APPROVED EQUAL. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR ALTERNATES.

ADHESIVE ANCHORS: ADHESIVE OR EPOXY TYPE ANCHORS IN SOLID CONCRETE SHALL BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. ANCHOR SIZE, SPACING AND EMBEDMENT LENGTH SHALL BE AS DESIGNATED IN THESE DRAWINGS. ADHESIVE SHALL BE SIMPSON SET 3G. A CURRENT ICBO OR ICC REPORT SHALL BE SUBMITTED FOR ALTERNATES.

THREADED RODS SHALL BE CONFORM WITH F1554, GRADE 55. DOWELS SHALL CONFORM WITH ASTM A615, GRADE 60. ALL ADHESIVE (EPOXY) BOLTS SHALL HAVE I.C.C. RATING FOR MATERIAL INTO WHICH INSTALLATION TAKES PLACE. ANCHORS AT EXTERIOR LOCATIONS SHALL BE HOT DIPPED GALVANIZED.

WOOD

SAWN LUMBER: STRUCTURAL SAWN LUMBER SHALL BE KILN DRIED AND BE OF THE SPECIES AND GRADE NOTED BELOW OR BETTER:

USE	GRADE	FB (PSI)
WALL STUDS	HEM FIR STUD	675
PLATES	DOUGLAS #2	900
4X BEAMS	HEM FIR #2	850
6X BEAMS	HEM FIR #2	675
6X COLUMNS	DOUGLAS FIR #1	1200
4X COLUMNS	DOUGLAS FIR #1	1000

ALL WOOD CONNECTORS SHALL BE MANUFACTURED BY SIMPSON STRONG TIE COMPANY (OR APPROVED EQUAL), AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL WOOD CONNECTORS IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE TRIPLE ZINC G-185 GALVANIZED (1.85 OZ/SQ FT COATING).

MINIMUM WOOD NAILING REQUIREMENTS: UNLESS OTHERWISE NOTED ON THE DRAWINGS, TYPICAL WOOD FRAMING SHALL BE FASTENED PER IBC 2018 TABLE 2304.10.1.

RATED SHEATHING: STRUCTURAL PANELS SHALL BEAR THE APA TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. SHEATHING SHALL BE AS FOLLOWS:

SHEAR WALL SHTG MIN. 7/16" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)
ROOF SHTG MIN. 15/32" 32/16 MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)
SUB FLOOR SHTG MIN. 3/4" 48/24 T&G MIN. C-D INT APA WITH EXTERIOR GLUE (CDX)

SHEATHING SHALL BE ORIENTATED OVER THE SUPPORTS AS SHOWN ON THE DRAWINGS. SHEAR WALL SHEATHING SHALL BE BLOCKED AT ALL PANEL EDGES AS SHOWN IN THE SHEAR WALL SCHEDULE.

PREMANUFACTURED OPEN WEB WOOD TRUSSES: TRUSSES SHALL BE DESIGN BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON, WHO IS REGULARLY ENGAGED IN THE DESIGN OF PLATE-CONNECTED WOOD TRUSSES. TRUSS DESIGN SHALL BE ACCORDANCE WITH IBC SECTION 2303.4.

	TOP CHORD	BOTTOM CHORD	TOTAL
ROOF TRUSSES	15 PSF	5 PSF	20 PSF

IN ADDITION TO DEAD LOADS, THE DESIGN SHALL INCLUDE THE LIVE, WIND, SNOW AND SNOW DRIFT LOADS AS IDENTIFIED IN THE "DESIGN LOADS" SECTION OF THESE DRAWINGS. IN ADDITION, THE TRUSS DESIGN SHALL INCLUDE CONCENTRATED AND AXIAL LOADS SHOWN ON FRAMING PLANS AND HANGER SCHEDULES IN THESE DRAWINGS. ROOF TRUSSES SHALL BE DESIGNED FOR WIND NET UPLIFT OF 10 PSF UNLESS OTHERWISE NOTED ON THE DRAWINGS. FLOOR TRUSSES SHALL BE DESIGN FOR MAXIMUM LIVE LOAD DEFLECTION = 1/2" AND MINIMUM LIVE LOAD DEFLECTION RATIO = L/480.

TRUSSES SHALL BE FABRICATED BY A MANUFACTURER WHO IS A MEMBER OF THE TRUSS PLATE INSTITUTE. TRUSSES SHALL BE SUPPLIED WITH THE PROPER HANGERS, END CONNECTIONS, BRIDGING, BRACING TO PROVIDE LATERAL STABILITY OF ALL TRUSS MEMBERS, AND TIE-DOWN CONNECTIONS TO BEAMS AND TOPS OF WALLS. TRUSSES SHALL BE SUPPLIED WITH TAPERED HARDWOOD SHIMMING SO THAT EVERY CHORD BEARS ON THE FULL WIDTH OF EVERY SUPPORT. WITHOUT NOTCHING THE TRUSS MEMBERS, THE TRUSS MANUFACTURER IS RESPONSIBLE FOR ENSURING THE BEARING SEAT DOES NOT EXCEED THE SILL PLATE CAPACITY OF THE SUPPORTING ELEMENT.

BUILDING OFFICIAL INSPECTIONS

THE FOLLOWING RECOMMENDED MINIMUM ITEMS SHALL BE INSPECTED BY A QUALIFIED INDIVIDUAL PROVIDED BY THE BUILDING OFFICIAL:
-FOOTINGS BEAR ON COMPETENT NATIVE SOIL PER THE "FOUNDATIONS" SECTION ABOVE
-FOOTING REINFORCEMENT
-SHEAR WALL SILL PLATE ANCHORS AND WASHERS PER SCHEDULE
-SHEAR WALL NAILING AND SHEAR CLIPS PER SCHEDULE
-SHEAR WALL HOLD-DOWNS
-VERIFY TYPE, SIZE AND GRADE OF STRUCTURAL STEEL MEMBERS AND BOLTS

SHEET INDEX
S1.0 STRUCTURAL NOTES
S2.0 FOUNDATION PLANS
S2.1 MAIN FLOOR FRAMING PLANS
S2.1 UPPER FLOOR FRAMING PLANS
S2.2 ROOF FRAMING PLANS
S3.0 TYPICAL STRUCTURAL DETAILS
S3.1 TYPICAL STRUCTURAL DETAILS
S3.2 TYPICAL STRUCTURAL DETAILS
S3.3 SHEAR WALL DETAILS
S3.4 TYPICAL STRUCTURAL DETAILS

ROOF			
	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
1.	Blocking between ceiling joists, rafters or trusses to top plate or other framing below	3-8d common (2 5/8" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	Each end, toenail
	Blocking between rafters or truss not at the wall top plate, to rafter or truss	2-8d common (2 5/8" x 0.131") 2-3" x 0.131" nails 2-3/14 gage staples	Each end, toenail
	Flat blocking to truss and web filler	2-16 d common (3 5/8" x 0.162") 3-3" x 0.131" nails 3-3" 14 gage staples	End nail
		16d common (3 5/8" x 0.162") @ 6" o.c. 3" x 0.131" nails @ 6" o.c. 3" x 14 gage staples @ 6" o.c.	Face nail
2.	Ceiling joists to top plate	3-8d common (2 5/8" x 0.131"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	Each joist, toenail
3.	Ceiling joist not attached to parallel rafter, laps over partitions (no thrust) (see Section 2308.7.3.1, Table 2308.7.3.1)	3-16d common (3 5/8" x 0.162"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 16" crown	Face nail
4.	Ceiling joist attached to parallel rafter (heel joint) (see Section 2308.7.3.1, Table 2308.7.3.1)	Per Table 2308.7.3.1	Face nail
5.	Collar tie to rafter	3-10d common (3" x 0.148"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 16" crown	Face nail
6.	Rafter or roof truss to top plate (See Section 2308.7.5, Table 2308.7.5)	3-10 common (3" x 0.148"); or 3-16d box (3 5/8" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131 nails; or 4-3" 14 gage staples, 16" crown	Toenail ^c
		2-16d common (3 5/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown; or	End nail
7.	Roof rafters to ridge valley or hip rafters; or roof rafter to 2-inch ridge beam	3-10d common (3 5/8" x 0.148"); or 3-16d box (3 5/8" x 0.135"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 16" crown	Toenail
WALL			
8.	Stud to stud (not at braced wall panels)	16d common (3 5/8" x 0.162") 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	24" o.c. face nail 16" o.c. face nail
		16d common (3 5/8" x 0.162"); or	16" o.c. face nail
9.	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3 5/8" x 0.135"); or 3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	12" o.c. face nail 12" o.c. face nail
10.	Build-up header (2" to 2" header)	16d common (3 5/8" x 0.162"); or 16d box (3 5/8" x 0.135")	16" o.c. each edge, face nail 16" o.c. each edge, face nail
11.	Continuous header to stud	4-8d common (2 5/8" x 0.131"); or 4-10d box (3" x 0.128")	Toenail
12.	Top plate to top plate	16d common (3 5/8" x 0.162"); or 10d box (3" x 0.128"); or 3" x 0.131" nails; or 3" 14 gage staples, 16" crown	16" o.c. face nail 12" o.c. face nail
13.	Top plate to top plate, at end joints	6-16d common (3 5/8" x 0.162"); or 12-10d box (3" x 0.128"); or 12-3" x 0.131" nails; or 12-3" 14 gage staples, 16" crown	Each side of end joint, face nail (minimum 24" lap splice length each side of end joint)
		16d common (3 5/8" x 0.162"); or	16" o.c. face nail
14.	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d box (3 5/8" x 0.135"); or 3" x 0.131" nails; or 3" 14 gage staples, 16" crown	12" o.c. face nail
15.	Bottom plate to joist, rim joist, band joist or blocking at braced wall panels	2-16d common (3 5/8" x 0.162"); or 3-16d box (3 5/8" x 0.135"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 16" crown	16" o.c. face nail
16.	Stud to top or bottom plate	4-8d common (2 1/2" x 0.131"); or 4-10d box (3" x 0.128"); or 4-3" x 0.131" nails; or 4-3" 14 gage staples, 16" crown; or	Toenail
		2-16d common (3 1/2" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	End nail
17.	Top plates, laps at corners and intersections	2-16d common (3 5/8" x 0.162"); or 3-10d box (3" x 0.128"); or 3-3" x 0.131" nails; or 3-3" 14 gage staples, 16" crown	Face nail
18.	1" brace to each stud and plate	2-8d common (2 5/8" x 0.131"); or 2-10d box (3" x 0.128"); or 2-3" x 0.131" nails; or 2-3" 14 gage staples, 16" crown	Face nail
19.	1" x 6" sheathing to each bearing	2-8d common (2 1/2" x 0.131"); or 2-10d box (3" x 0.128")	Face nail
20.	1" x 8" and wider sheathing to each bearing	2-8d common (2 1/2" x 0.131"); or 3-10d box (3" x 0.128")	Face nail

WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING ^a				
		Edges (inches)	Intermediate supports (inches)	
30.	$\frac{3}{8}$ " - $\frac{1}{2}$ "	6d common or deformed ($2\frac{1}{2}$ " x 0.113") (subfloor and wall)	6	12
		8d box or deformed ($2\frac{5}{8}$ " x 0.113") (roof)	6	12
		$2\frac{5}{8}$ " x 0.113" nail (subfloor and wall)	6	12
		$1\frac{1}{2}$ " 16 gage staple, $\frac{16}{16}$ " crown (subfloor and wall)	4	8
		$2\frac{5}{8}$ " x 0.113" nail (roof)	4	8
		$1\frac{1}{2}$ " 16 gage staple, $\frac{16}{16}$ " crown (roof)	3	6
31.	$1\frac{9}{32}$ " - $\frac{3}{4}$ "	8d common ($2\frac{5}{8}$ " x 0.131"); or 8d deformed ($2\frac{1}{2}$ " x 0.113")	6	12
		$2\frac{5}{8}$ " x 0.113" nail; or 2" 16 gage staple, $\frac{16}{16}$ " crown	4	8
32.	$\frac{7}{8}$ " - $1\frac{1}{4}$ "	10d common ($3\frac{1}{2}$ " x 0.148"); or 8d deformed ($2\frac{5}{8}$ " x 0.131")	6	12
OTHER EXTERIOR WALL SHEATHING				
33.	$\frac{1}{2}$ " fiberboard sheathing ^b	$1\frac{1}{2}$ " galvanized roofing nail ($\frac{16}{16}$ " head diameter); or $1\frac{1}{2}$ " 16 gage staple with $\frac{16}{16}$ " or 1" crown	3	6
34.	$\frac{25}{32}$ " fiberboard sheathing ^b	$1\frac{1}{2}$ " galvanized roofing nail ($\frac{16}{16}$ " diameter head); or $1\frac{1}{2}$ " 16 gage staple with $\frac{16}{16}$ " or 1" crown	3	6
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING				
		Edges (inches)	Intermediate supports (inches)	
35.	$\frac{3}{4}$ " and less	8d common ($2\frac{5}{8}$ " x 0.131"); or 8d deformed ($2\frac{1}{2}$ " x 0.113")	6	12
36.	$\frac{7}{8}$ " - 1"	8d common ($2\frac{5}{8}$ " x 0.131"); or 8d deformed ($2\frac{5}{8}$ " x 0.131")	6	12
37.	$\frac{3}{4}$ " and less	8d common ($2\frac{5}{8}$ " x 0.131"); or 8d deformed ($2\frac{1}{2}$ " x 0.113")	6	12
PANEL SIDING TO FRAMING				
38.	$\frac{1}{2}$ " or less	6d corrosion-resistant siding ($1\frac{1}{2}$ " x 0.106"); or 6d corrosion-resistant casing ($2\frac{1}{2}$ " x 0.099")	6	12
39.	$\frac{5}{8}$ "	8d corrosion-resistant siding ($2\frac{1}{2}$ " x 0.128"); or 8d corrosion-resistant casing ($2\frac{1}{2}$ " x 0.113")	6	12
INTERIOR PANELING				
40.	$\frac{1}{4}$ "	4d casing ($1\frac{1}{2}$ " x 0.080"); or 4d finish ($1\frac{1}{2}$ " x 0.072")	6	12
41.	$\frac{3}{8}$ "	6d casing ($2\frac{1}{2}$ " x 0.099"); or 6d finish (Panel supports at 24 inches)	6	12
For S1: 1 inch = 25.4 mm.				
a. Nails spaced at 6 inches at intermediate supports where spans are 48 inches or more. For nailing of wood structural panel and particleboard diaphragms and shear walls, refer to Section 2305. Nails for wall sheathing are permitted to be common, box or casing. b. Spacing shall be 6 inches on center on the edges and 12 inches on center at intermediate supports for nonstructural applications. Panel supports at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked). c. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule and the ceiling joist is fastened to the top plate in accordance with this schedule, the number of toenails in the rafter shall be permitted to be reduced by one nail.				

5/29/2024

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2419 MERCER FIRS THILL

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MERCER ISLAND, WA 98040

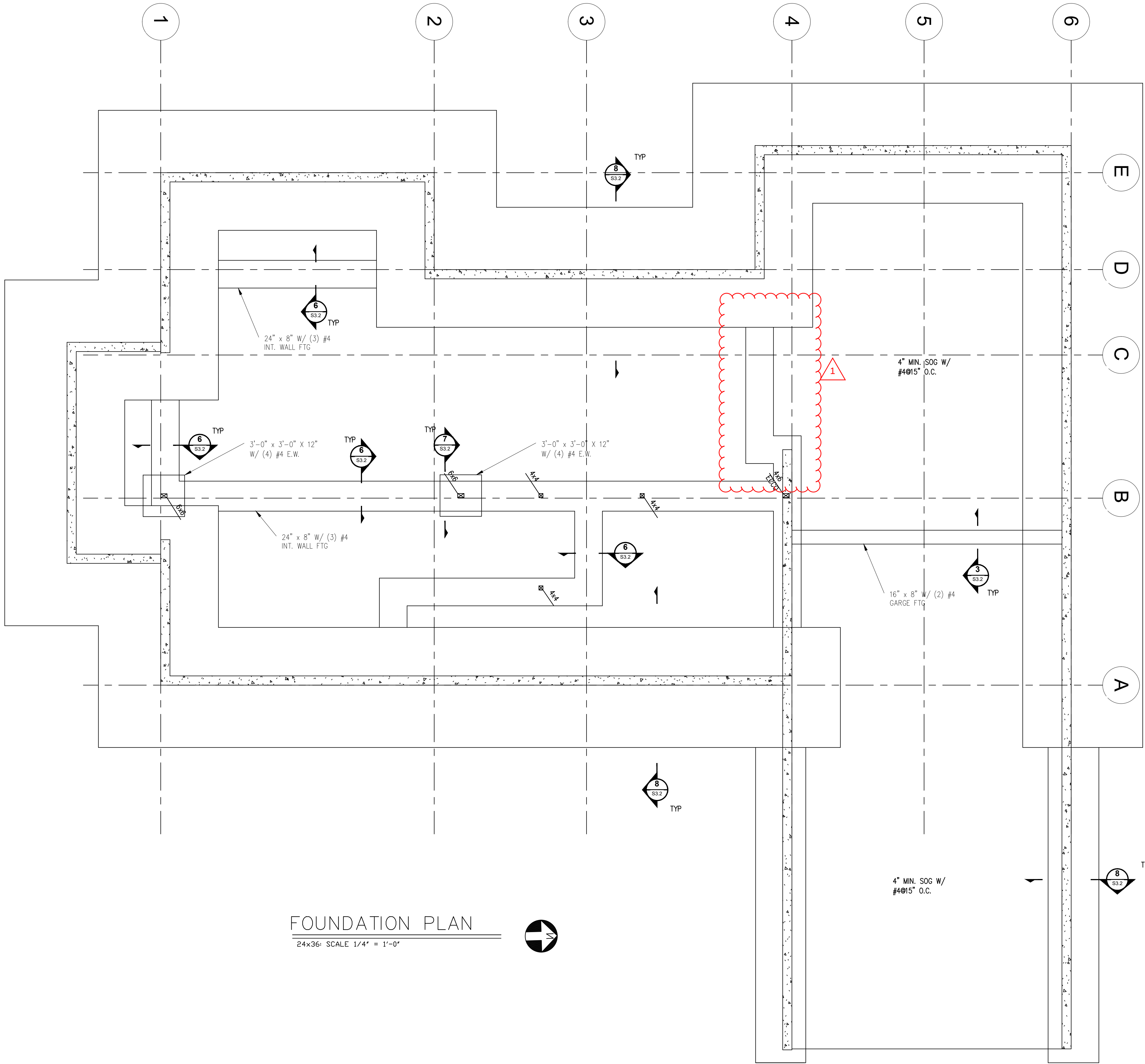
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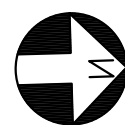
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Drawing Title:

STRUCTURAL
NOTES

Sheet
S1.0



FOUNDATION PLAN
24x36 SCALE 1/4" = 1'-0"



FLOOR PLAN LEGEND

	LOAD BEARING WALL
	BEAM/HEADER, U.N.O
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

PLAN NOTES:

- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS ARE SCHEMATIC. DO NOT SCALE. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR THE DEMOLITION.
- DIMENSIONS AND LOCATION OF EXISTING FOUNDATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- ALL LOAD BEARING WALL WITH OUT SHEAR WALL TYPE SHOULD BE TYPE A.
- ALL 4" LOAD BEARING WALL SHOULD BE 2X4 HF#2 @ 16" O.C.
- ALL 6" LOAD BEARING WALL SHOULD BE 2X6 HF#2 @ 16" O.C.
- ALL POST SHALL BE DF#1 U.N.O.
- ALL BEAM AND HEADER SHOULD BE HF#2 U. N. O.
- ALL SHEAR WALL DOES NOT LINE UP ABOVE, HOLDDOWN SHOULD BE CONTINUOUS AND CONNECTED TO BEAM OR FOUNDATION .
- ALL BEAM AT TOP PLATE/WALL CONNECTION SEE DETAIL 5/S3.3.
- TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1

REV	DESCRIPTION	DATE
1	REVIEW 1	11/11/2024

Drawn By: _____
Drawing Title: _____

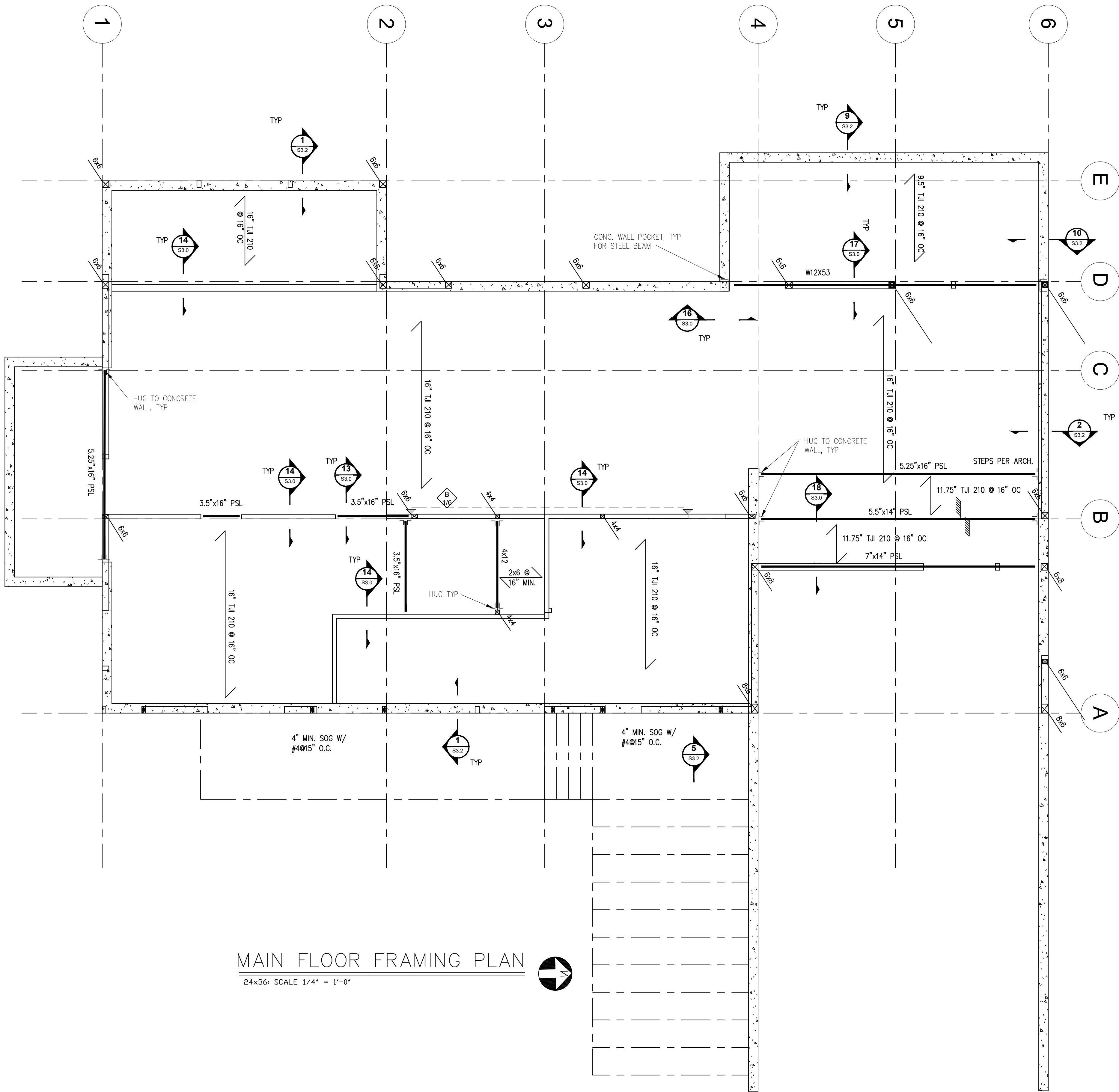
FOUNDATION PLAN
Sheet
S2.0

2419 MERCER FIRSTHILL
2419 72ND AVE SE
MERCER ISLAND, WA 98040



F.T. ENG. & CONST. MGMT., LLC
PHONE: 509220489
EMAIL: F.T.ENG.CM@GMAIL.COM

11/11/2024



MAIN FLOOR FRAMING PLAN
24x36' SCALE 1/4" = 1'-0"

FLOOR PLAN LEGEND

	LOAD BEARING WALL
	BEAM/HEADER, U.N.O.
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

- PLAN NOTES:**
- SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS ARE SCHEMATIC. DO NOT SCALE. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR THE DEMOLITION.
 - DIMENSIONS AND LOCATION OF EXISTING FOUNDATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
 - ALL LOAD BEARING WALL WITH OUT SHEAR WALL TYPE SHOULD BE TYPE A.
 - ALL 4" LOAD BEARING WALL SHOULD BE 2X4 HF#2 @ 16" O.C.
 - ALL 6" LOAD BEARING WALL SHOULD BE 2X6 HF#2 @ 16" O.C.
 - ALL POST SHALL BE DF#1 U.N.O.
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 - TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1

5/29/2024

F.T. ENG. & CONST. MGMT., LLC

PHONE: 509220489
EMAIL: F.T.ENG.CM@GMAIL.COM

YUK KWAN TSU
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
54334
9/04/2024

2419 MERCER FIRSTHILL

2419 72ND AVE SE
MERCER ISLAND, WA 98040

JOB # 2024020

REV	DESCRIPTION	DATE

Drawn By:

Drawing Title:

MAIN FLOOR FRAMING PLAN

Sheet S2.1

F.T. ENG. & CONST. MGMT., LLC
PHONE: 5098220489
EMAIL: F.T.ENG.CM@GMAIL.COM

[illegible]

Structural floor plan of the second floor. The plan is bounded by grid lines 1 through 6 horizontally and A through E vertically. Key features include:

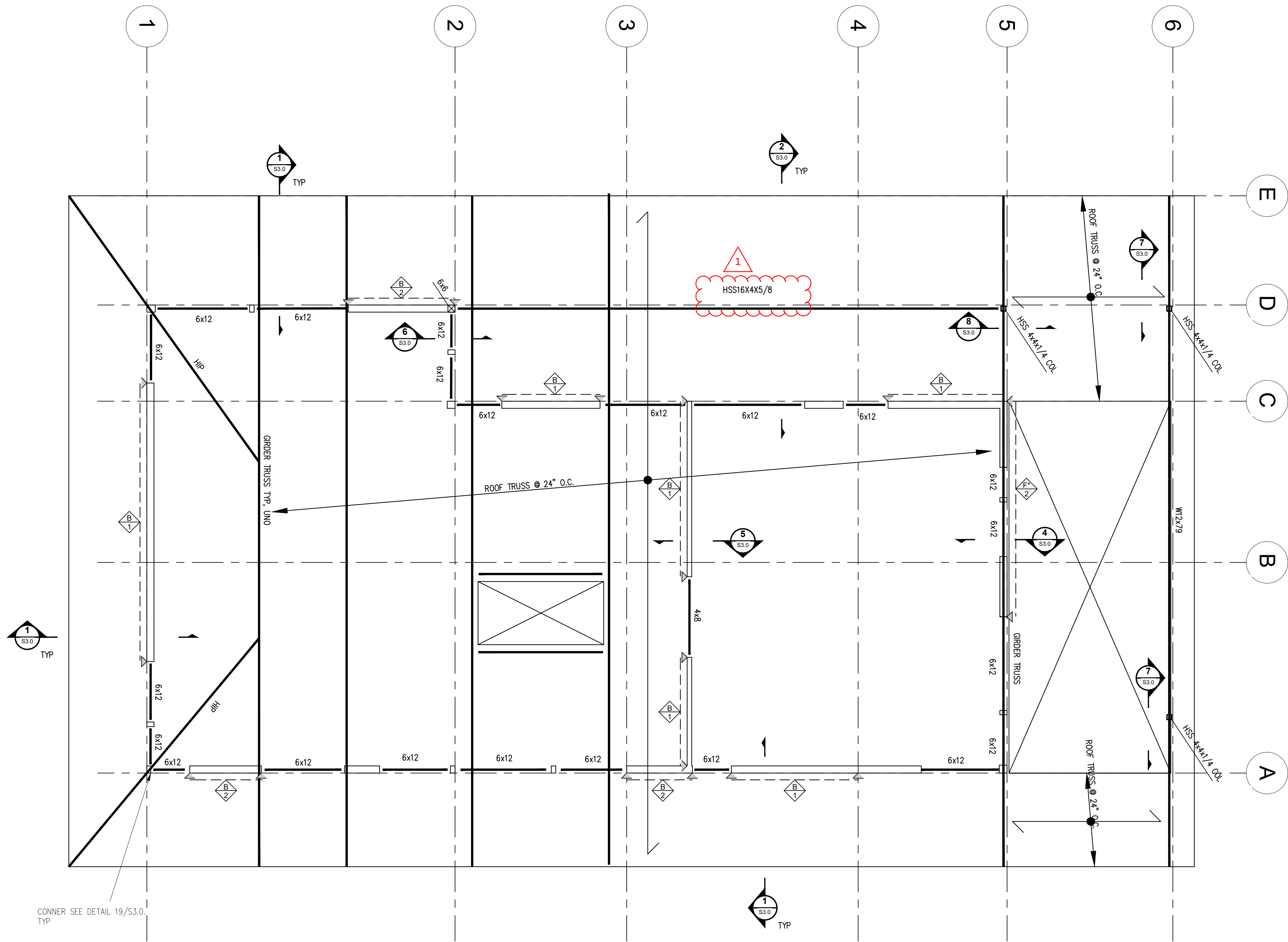
- Columns:** 12 columns labeled 9 through 15, with typical section S3.0.
- Beams:** Various beam sizes including 5.25"x16" PSL, 7"x16" PSL, 3.5x16 PSL, and 16" TJI 110 @ 16" OC.
- Stairs:** A central staircase labeled "DN" with a "HUC TYP" and "4x12" joists.
- Annotations:**
 - "WALL ABOVE, TYP." pointing to a wall section.
 - "SA STRAP E.S. OF BEAM TO TOP PLATE & POST BELOW" pointing to a connection detail.
 - "HU416 TYP" and "HU616 TYP" pointing to hanger details.
 - "CANTD 1.75"x16" LVL" pointing to a cantilevered level.
 - "HUC HANGER" and "HUC TYP" pointing to hanger details.
- Other Details:**
 - "9.5" TJI 210 @ 16" OC" for a section on the right.
 - "16" TJI 110 @ 16" OC" for various sections.
 - "6"x6 W/ECOL" and "6"x6 W/CC" for edge conditions.

CONNER SEE DETAIL 19/S3.0. TYP

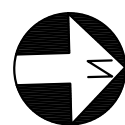
FLOOR PLAN LEGEND	
	LOAD BEARING WALL
	BEAM/HEADER, U.N.O
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

PLAN NOTES:

1. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS NOT SHOWN. ALL DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS ARE SCHEMATIC. DO NOT SCALE. CONTRACTOR TO PROVIDE TEMPORARY SUPPORT FOR THE DEMOLITION.
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7. ALL BEAM AND HEADER SHOULD BE HF#2 U.N.O.
8. ALL SHEAR WALL DOES NOT LINE UP ABOVE. HOLDDOWN SHOULD BE CONTINUOUS AND CONNECTED TO BEAM OR FOUNDATION.
9. AI BEAM AT TOP PLATE/WALL CONNECTION SEE DETAIL 5/13.3.
10. TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1



ROOF FRAMING PLAN
24x36 SCALE 1/4" = 1'-0"



FLOOR PLAN LEGEND	
	LOAD BEARING WALL
	BEAM/HEADER, U.N.O.
	POST
	HOLD-DOWN LOCATION
	HANGER
	INDICATES SHEAR WALL AND HOLD-DOWN TYPE. SEE SCHEDULE ON SHEET S3.3
	FORCE TRANSFER SHEAR WALL SEE DETAIL S6/3.3

- PLAN NOTES:
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 - TYPICAL STAIR AND STAIR LANDING DETAIL SEE DWG 10/S3.1 - 15/S3.1

REV	DESCRIPTION	DATE
1	REVIEW 1	11/11/2024

Drawn By: _____
Drawing Title: _____
ROOF FRAMING PLAN
Sheet S2.3

2419 MERCER FIRSTHILL
2419 72ND AVE SE
MERCER ISLAND, WA 98040



F.T. ENG. & CONST. MGMT., LLC
PHONE: 5092220489
EMAIL: F.T.ENG.CM@GMAIL.COM

11/11/2024

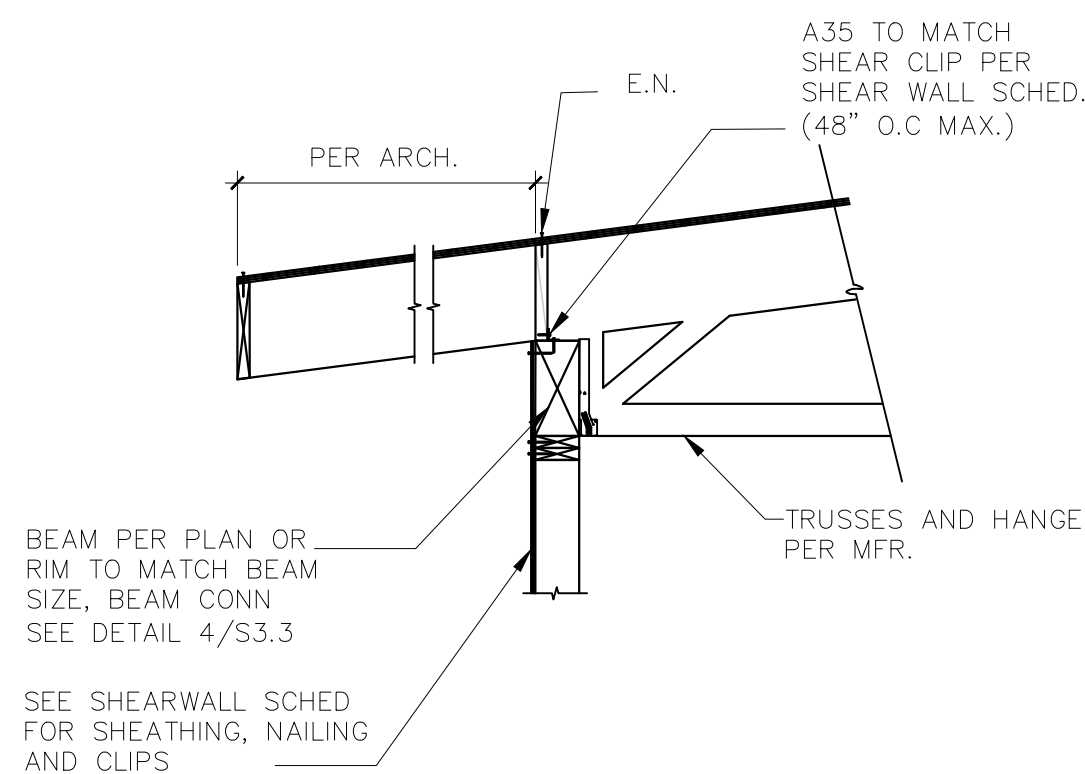
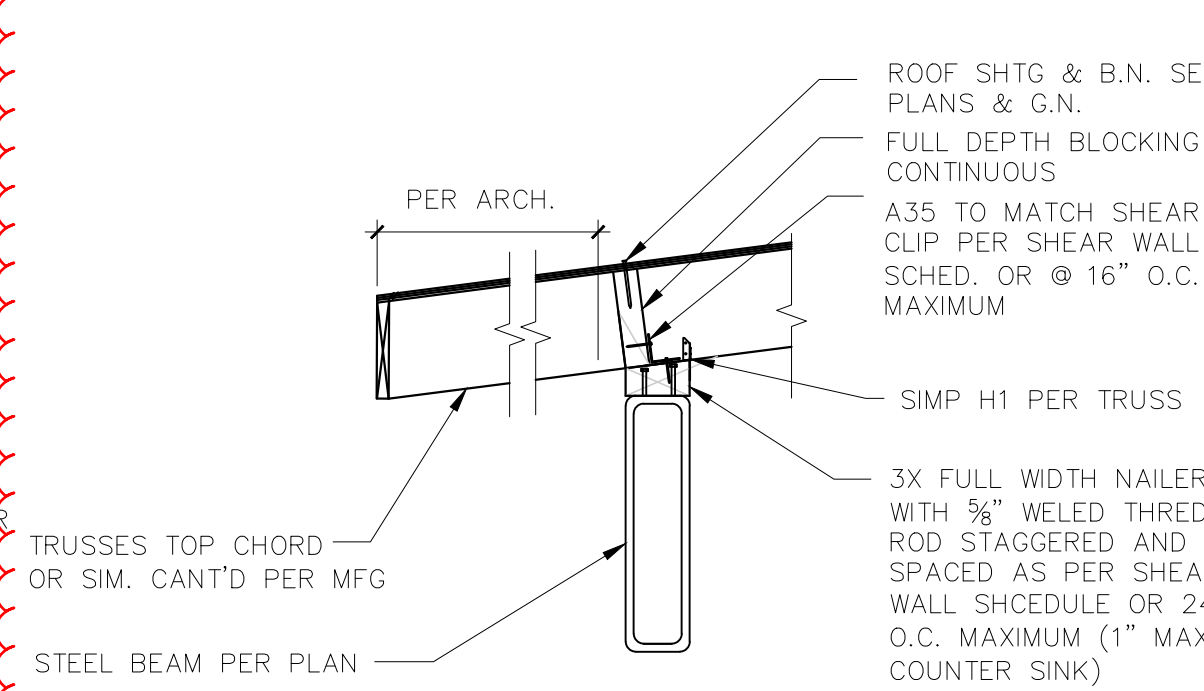
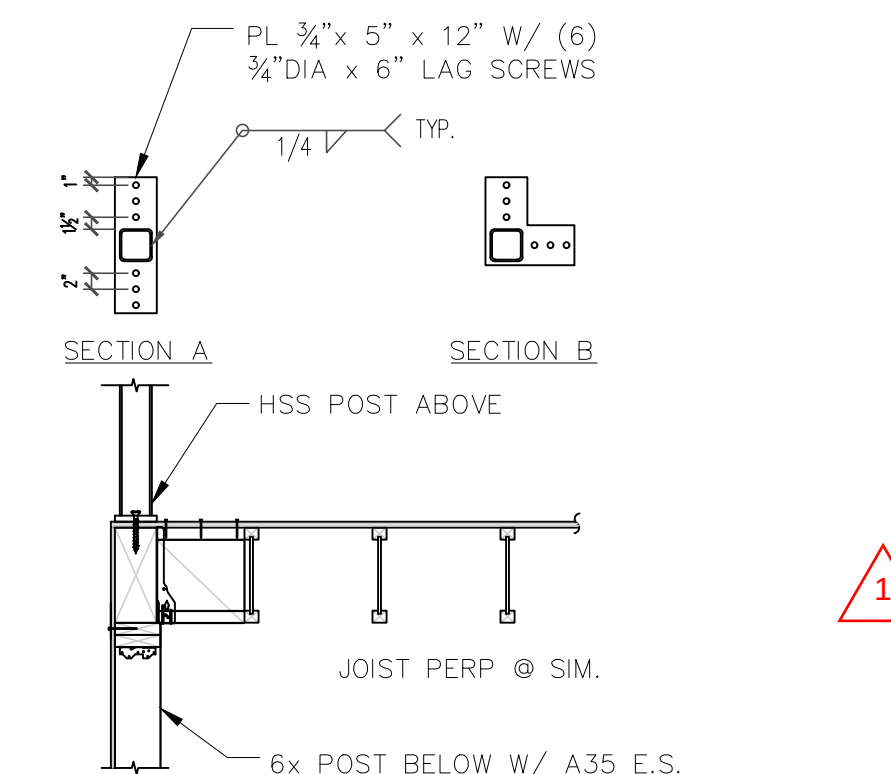
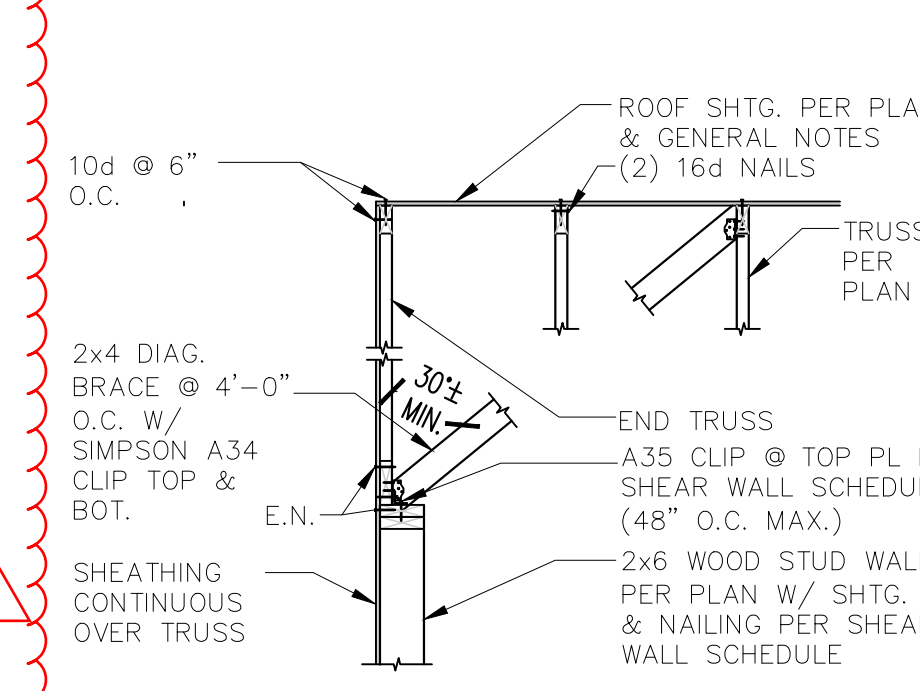
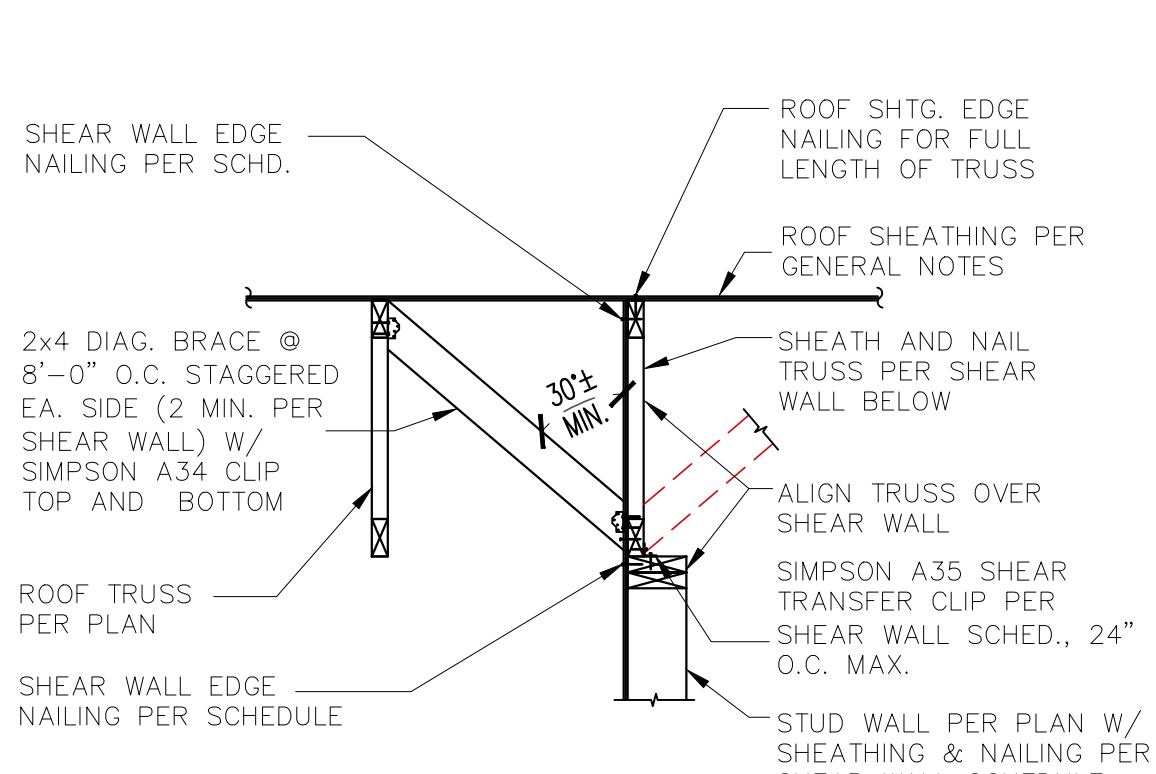
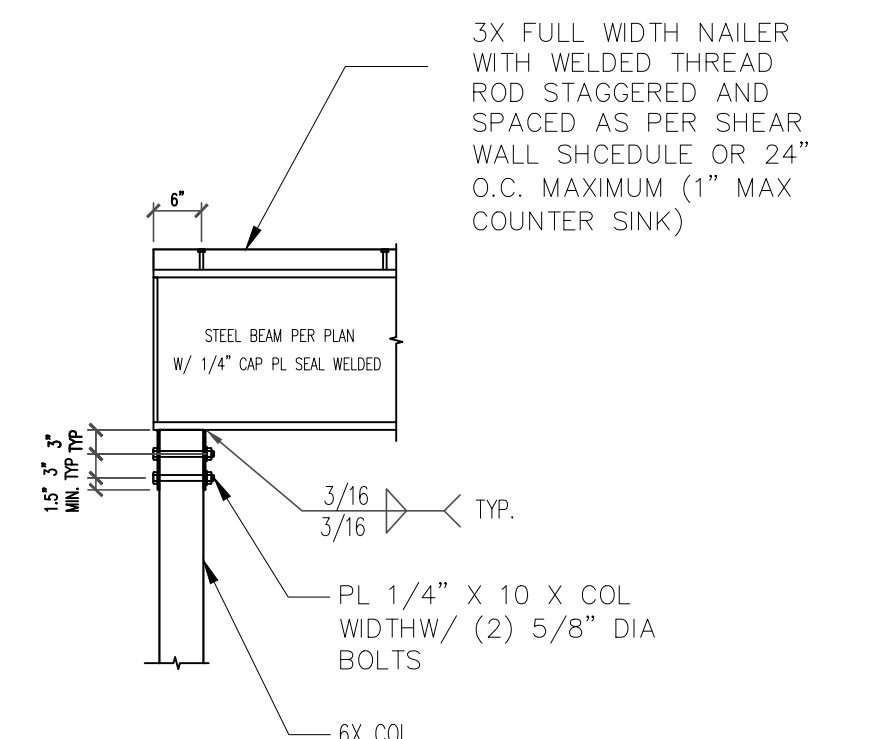
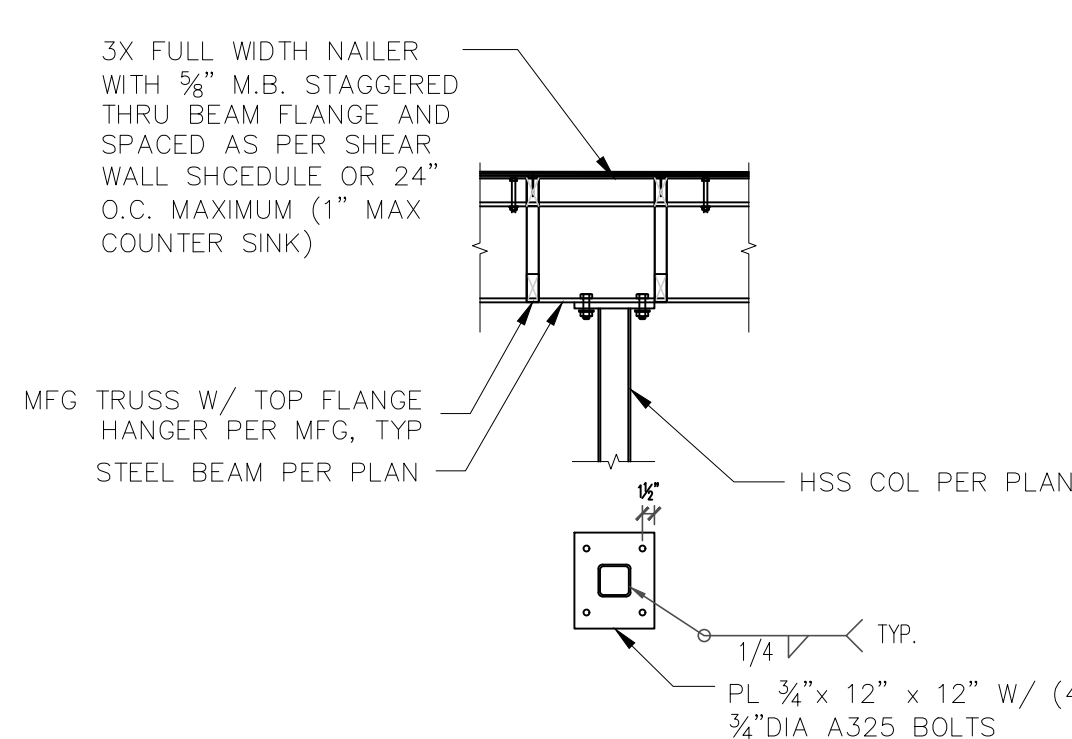
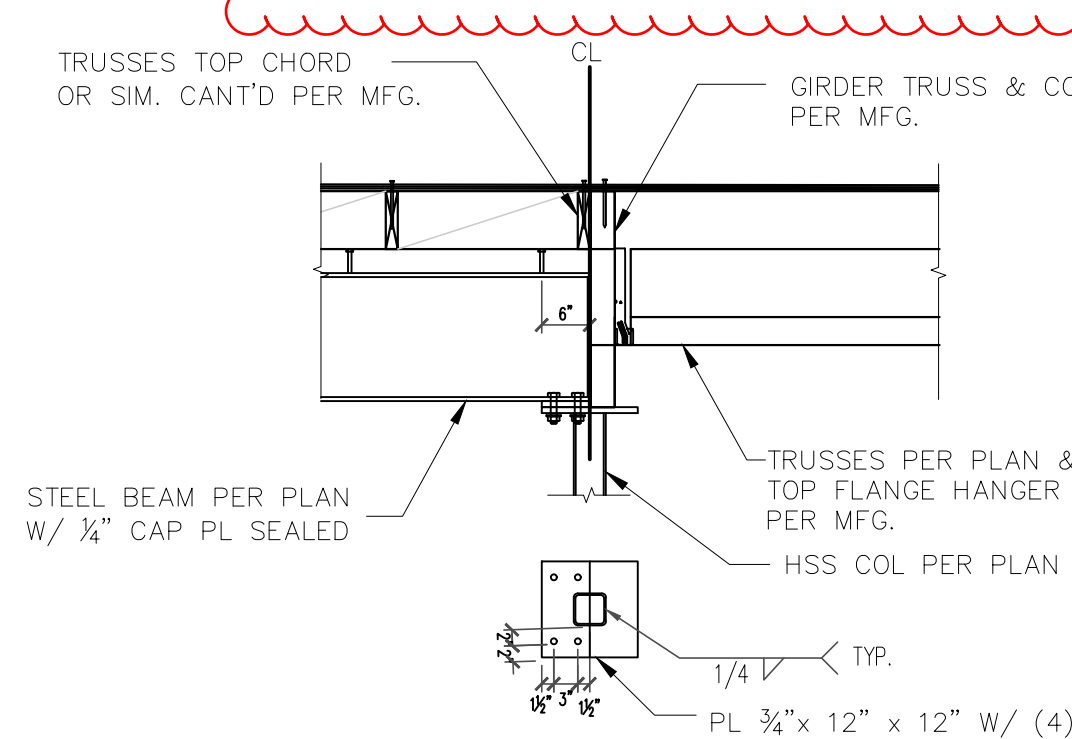
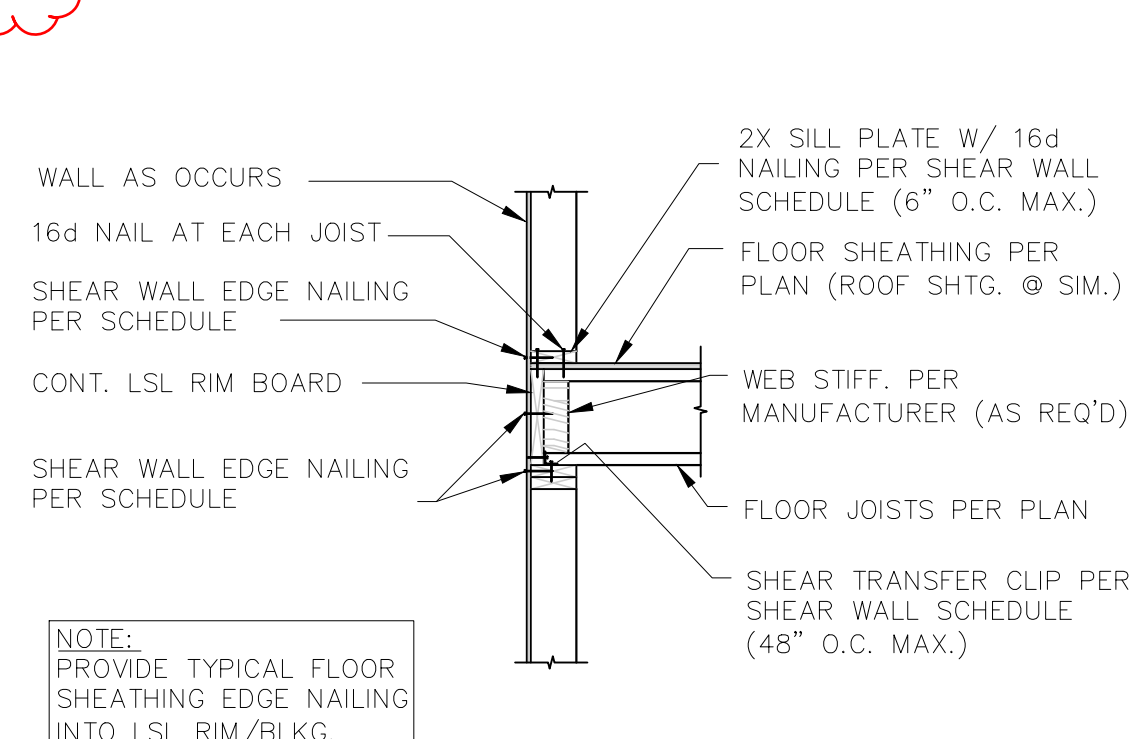
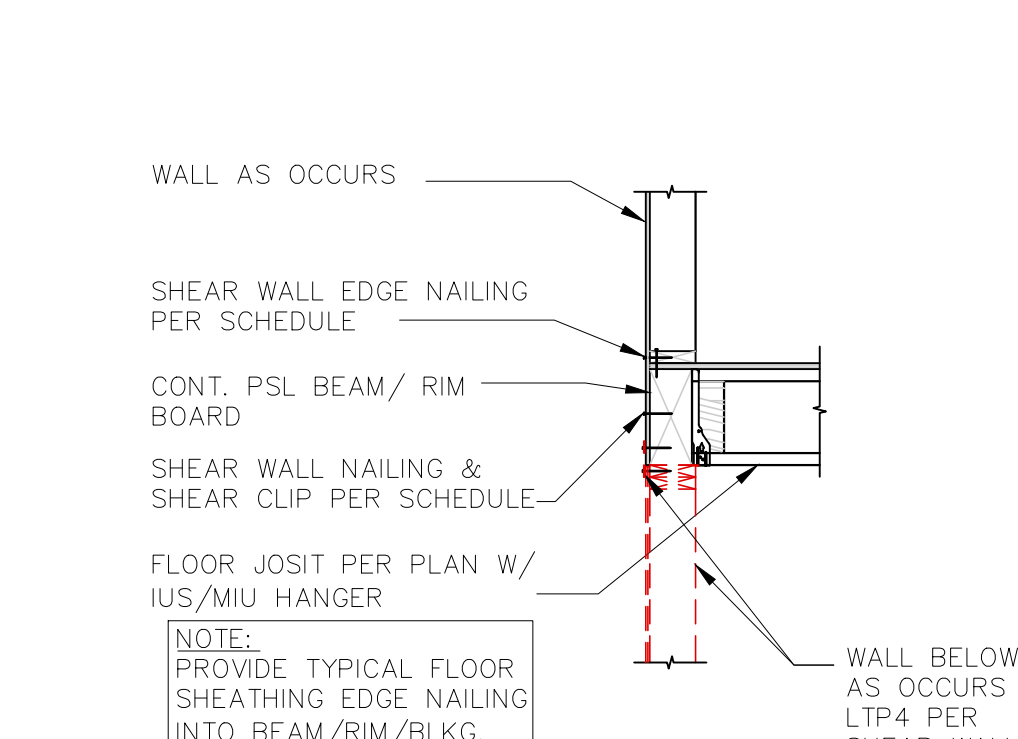
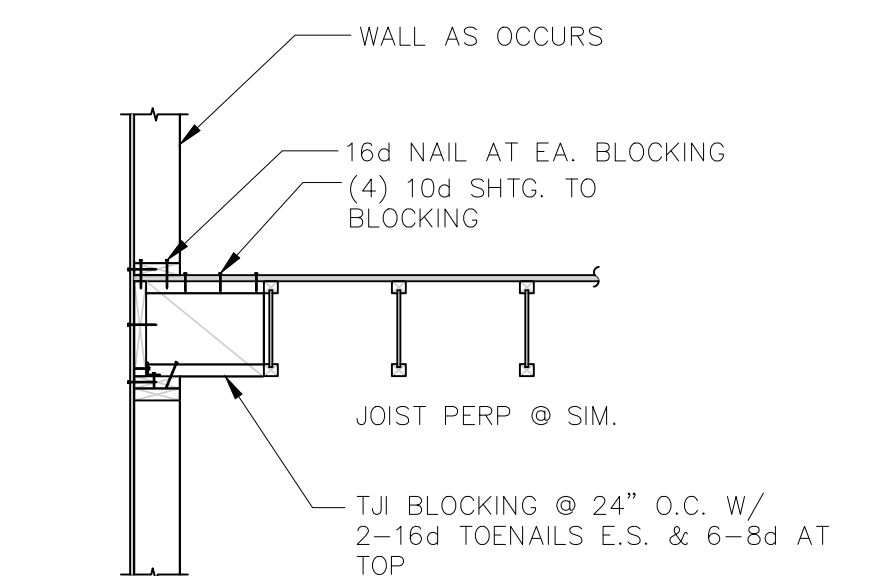
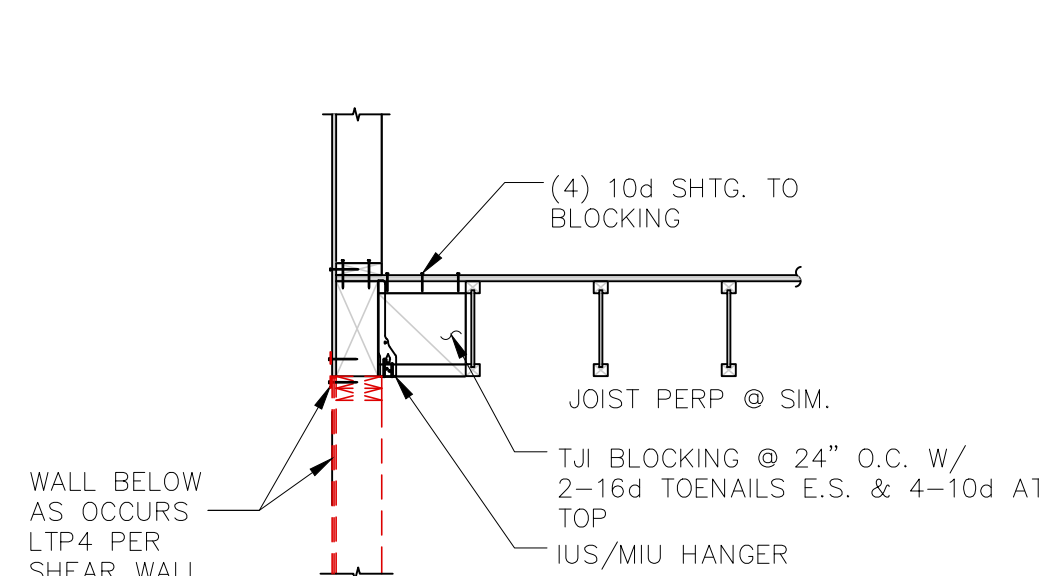
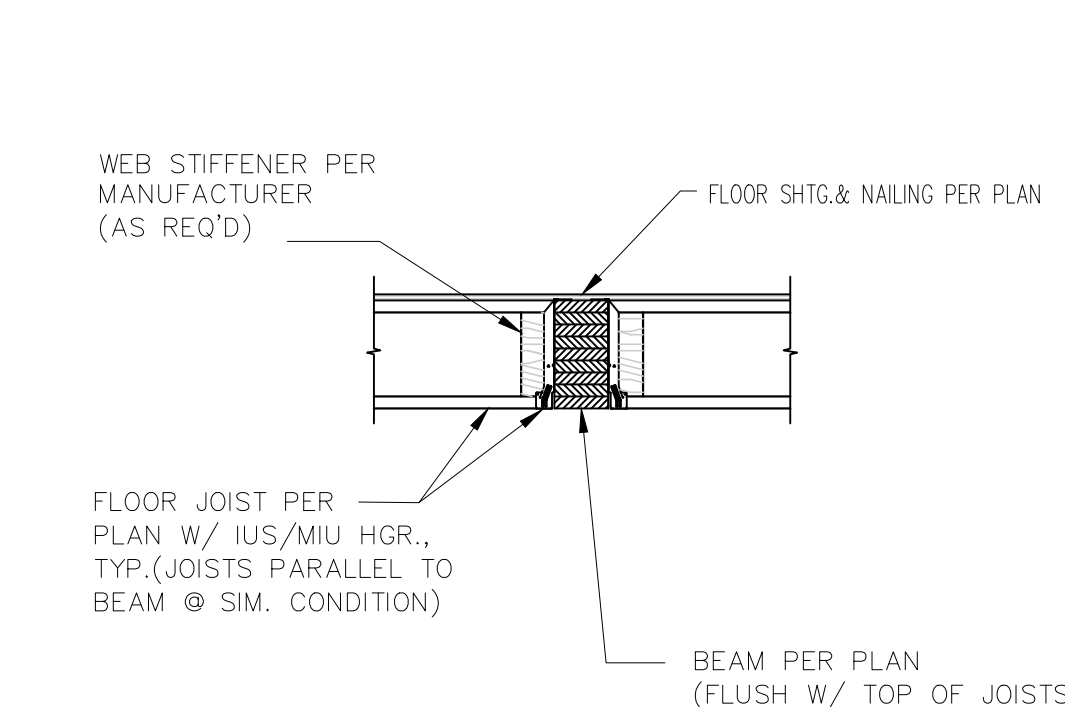
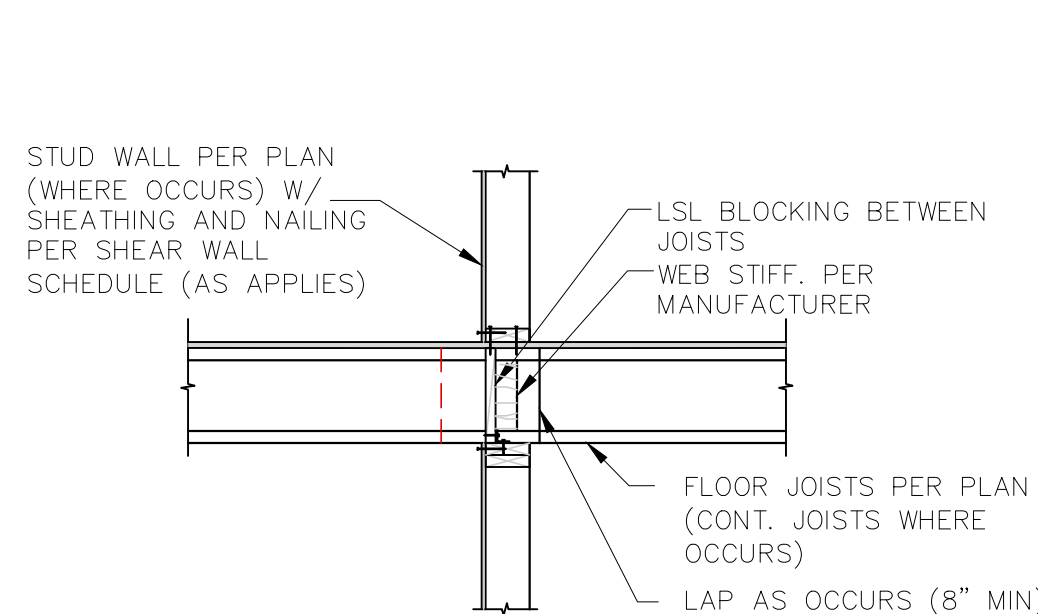
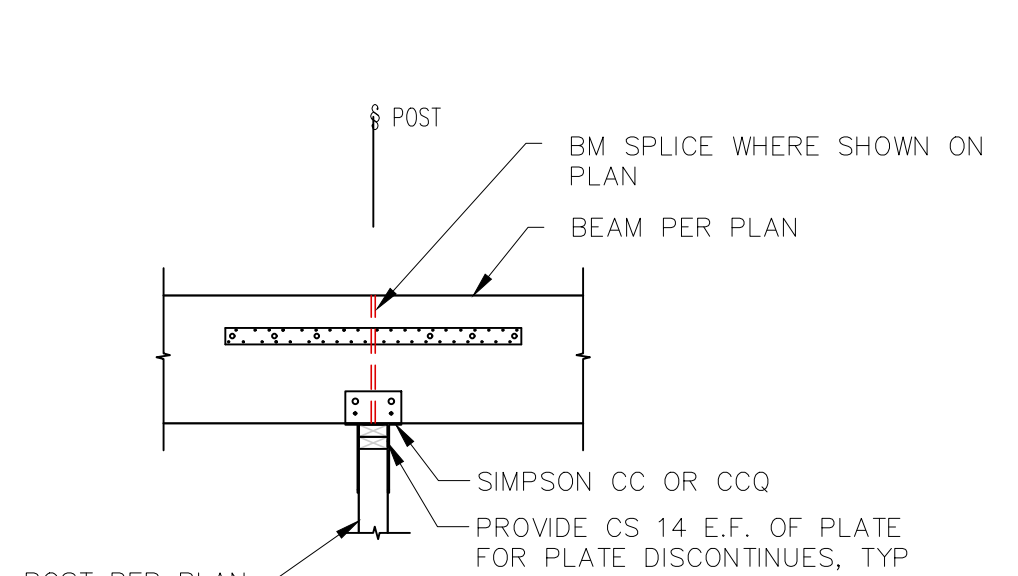
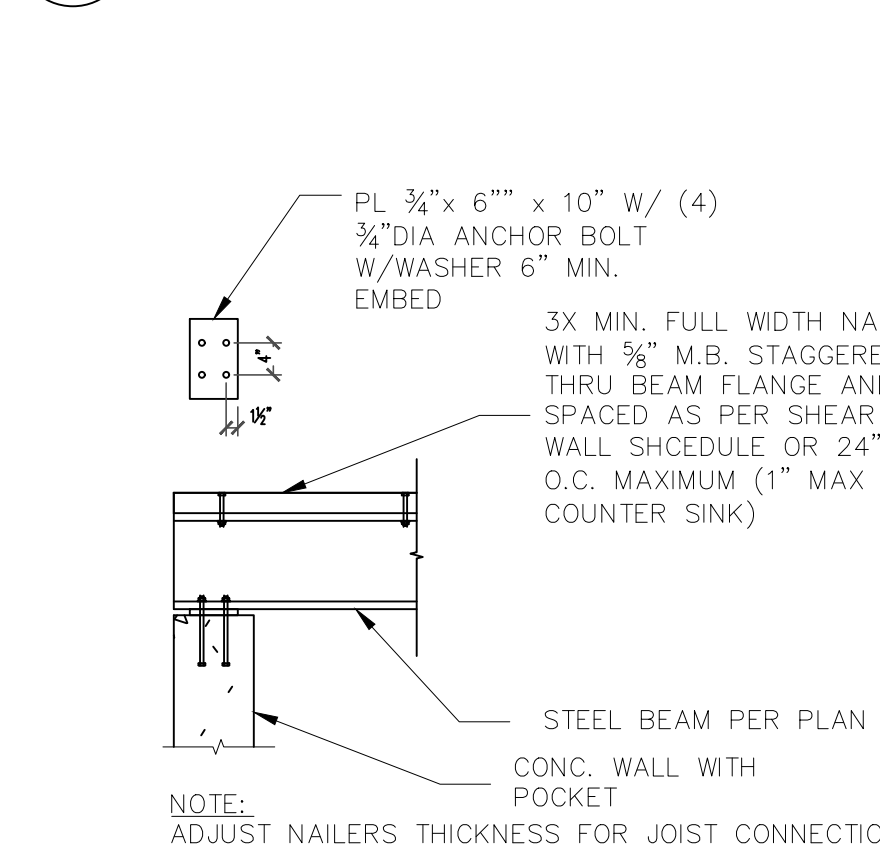
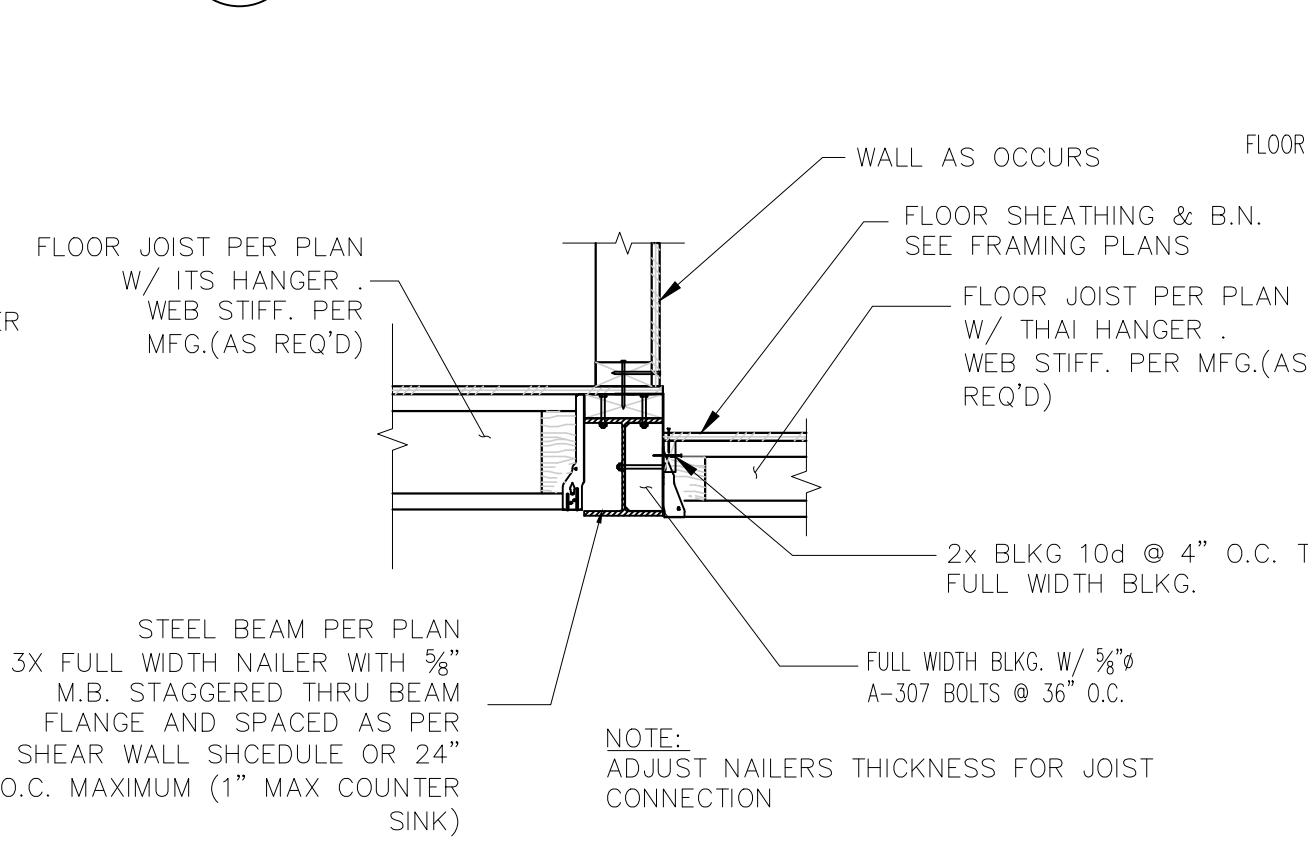
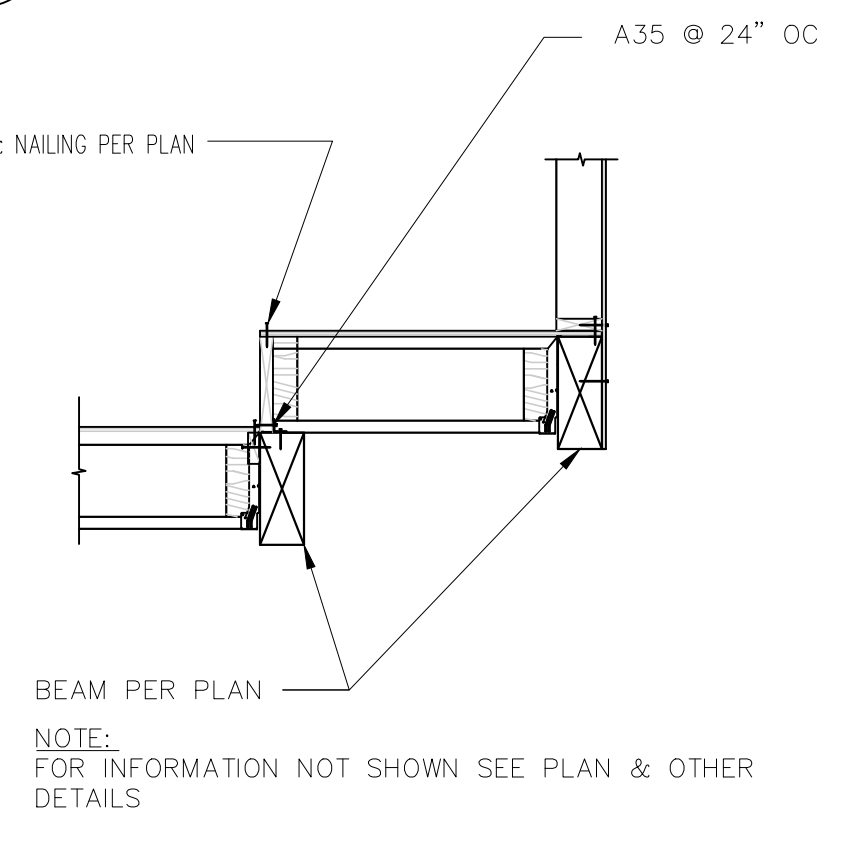
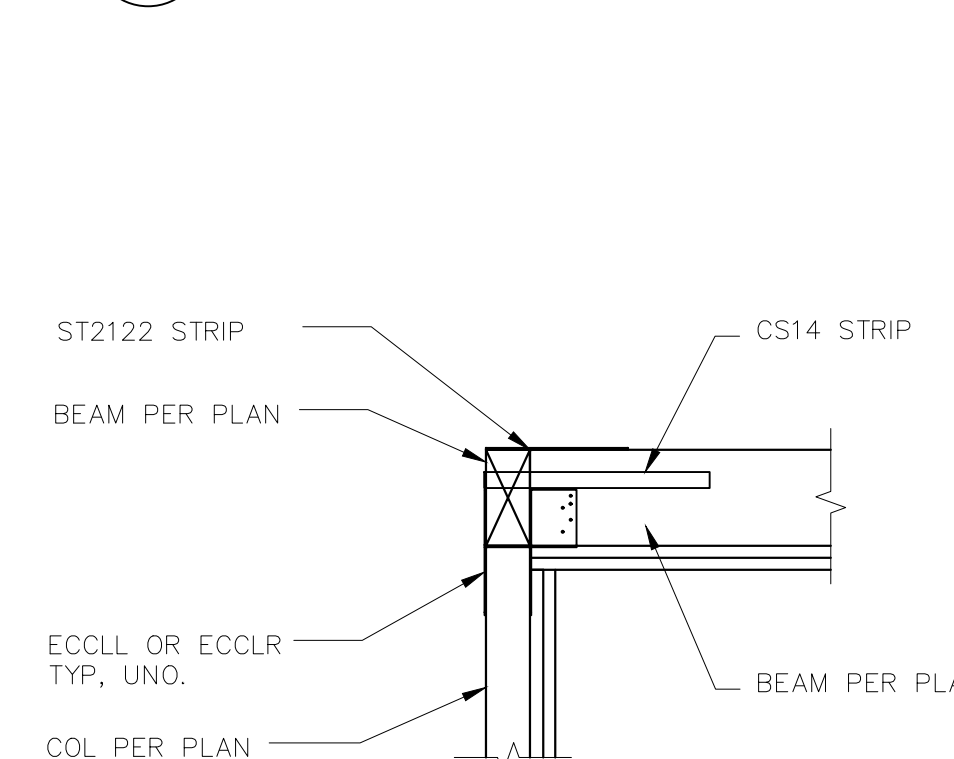
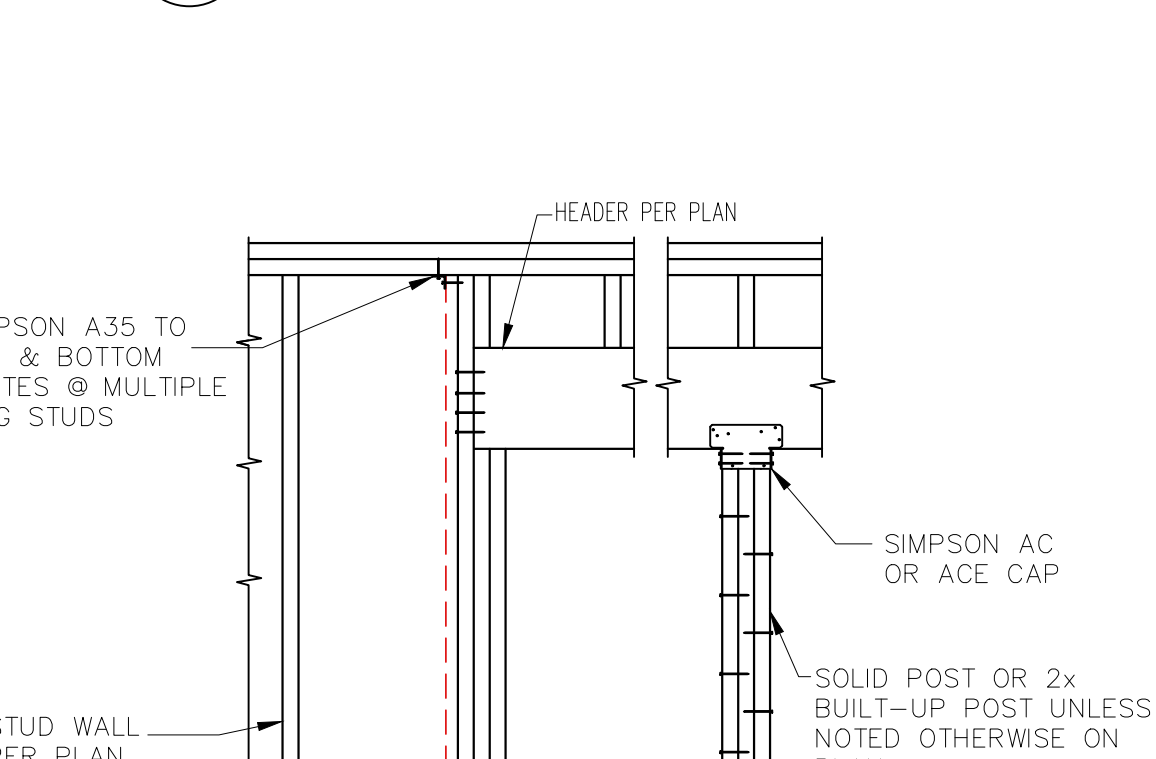


2419 MERCER FIRSITHILL

2419 72ND AVE SE
MERCER ISLAND, WA 98040

JOB # 2024020

DATE	DESCRIPTION
11/11/2024	REVIEW 1
1	

Drawn By:
Drawing Title:TYPICAL STRUCTURAL
DETAILSSheet
S3.01 TYP. ROOF TRUSS // TO WALL
S3.0 SCALE: 1/2"=1'-0"2 TYP. ROOF TRUSS @ HSS BEAM
S3.0 SCALE: 1/2"=1'-0"3 TYP. EXT. WALL JST. PARALLEL
S3.0 SCALE: 1/2"=1'-0"4 GABLE END ROOF CONNECTION
S3.0 SCALE: 3/4"=1'-0"5 TYP. TRUSSES PAR. TO INT. SHEAR WALL
S3.0 SCALE: 3/4"=1'-0"6 HSS BEAM TO WOOD POST CONN
S3.0 SCALE: 3/4"=1'-0"7 CANT'D W BEAM TO HSS CONN.
S3.0 SCALE: 1/2"=1'-0"8 HSS BEAM TO HSS CONN @ END TRUSS
S3.0 SCALE: 1/2"=1'-0"9 TYP. EXT. WALL JSTS. PERP.
S3.0 SCALE: 1/2"=1'-0"10 TYP. EXT. BEAM JSTS. PERP.
S3.0 SCALE: 1/2"=1'-0"11 TYP. EXT. WALL JST. PARALLEL
S3.0 SCALE: 1/2"=1'-0"12 TYP. EXT. BEAM JST. PARALLEL
S3.0 SCALE: 1/2"=1'-0"13 TYP. FLOOR JOISTS TO WOOD BEAM
S3.0 SCALE: 1/2"=1'-0"14 TYP. INT. WALL, JSTS. PERP.
S3.0 SCALE: 1/2"=1'-0"15 TYP. COL TO BEAM CONN.
S3.0 SCALE: 1/2"=1'-0"16 W BEAM TO FTG WALL CONN
S3.0 SCALE: 1/2"=1'-0"17 JOIST TO W BEAM CONN.
S3.0 SCALE: 1/2"=1'-0"18 STEP @ LOWER FLOOR
S3.0 SCALE: 1/2"=1'-0"19 TYP. BEAM @ CONRNER
S3.0 SCALE: 1/2"=1'-0"20 TYP. HEADER DETAIL
S3.0 SCALE: 3/4"=1'-0"



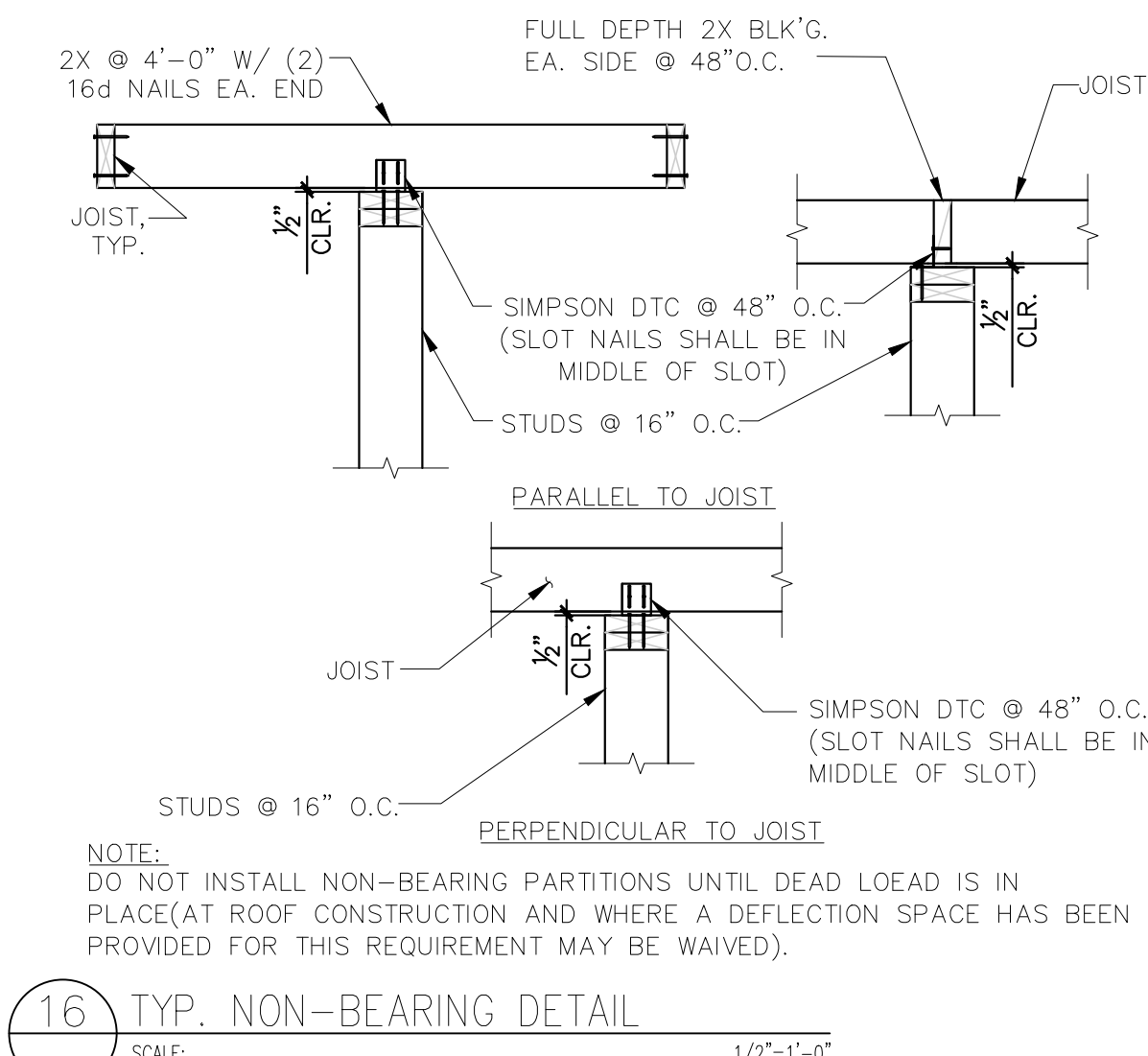
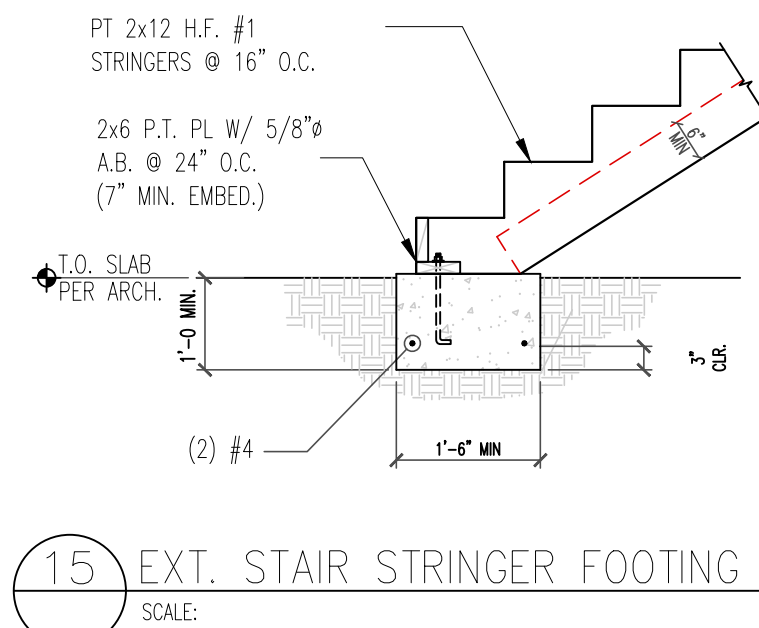
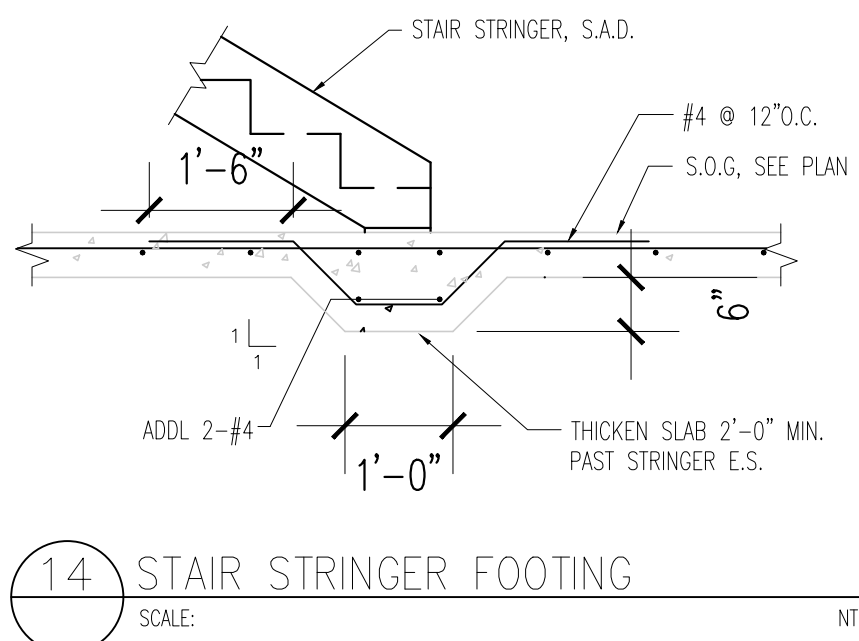
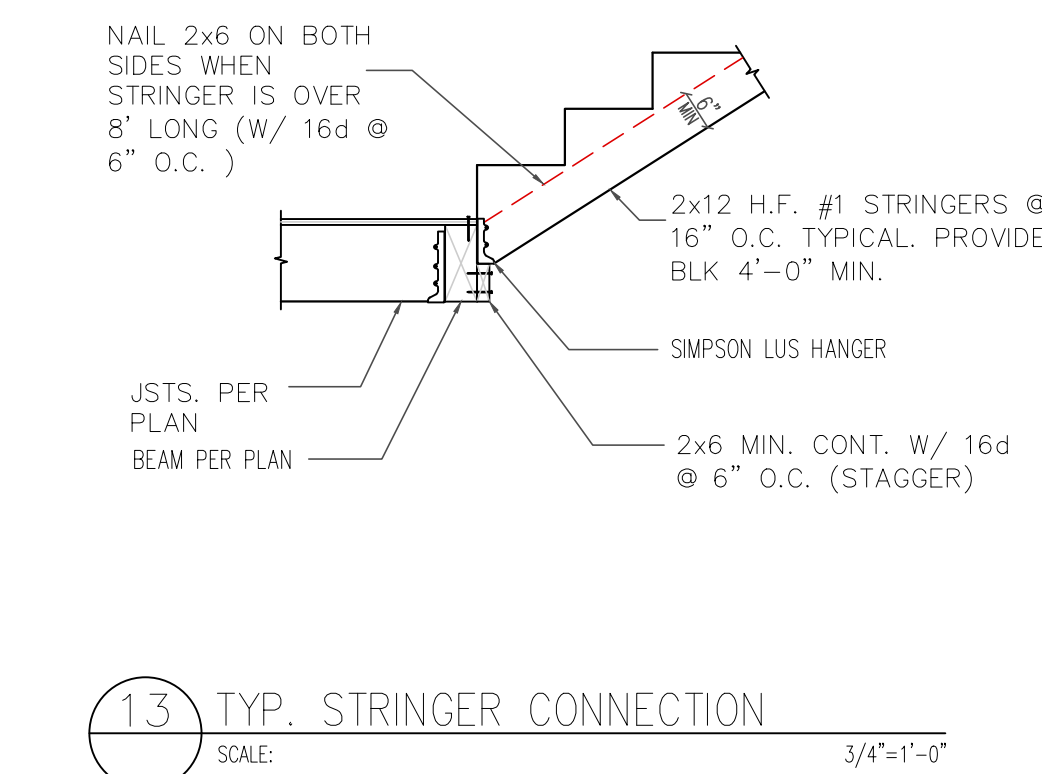
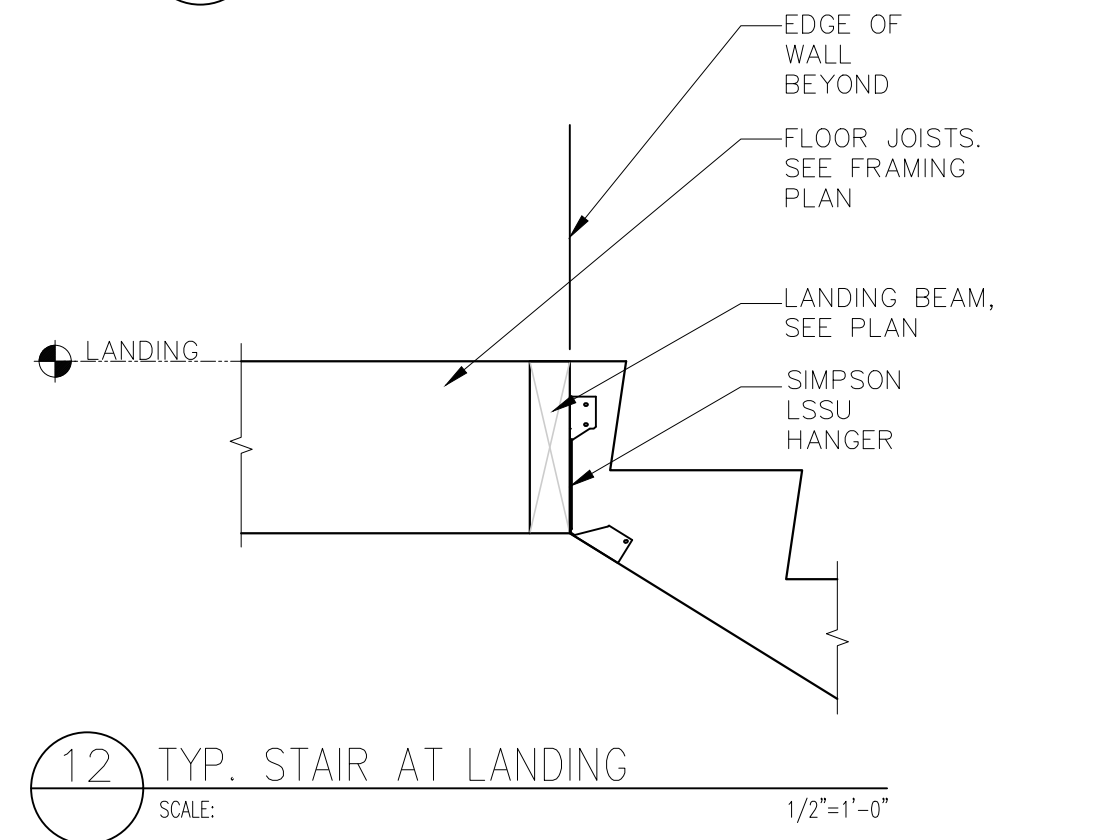
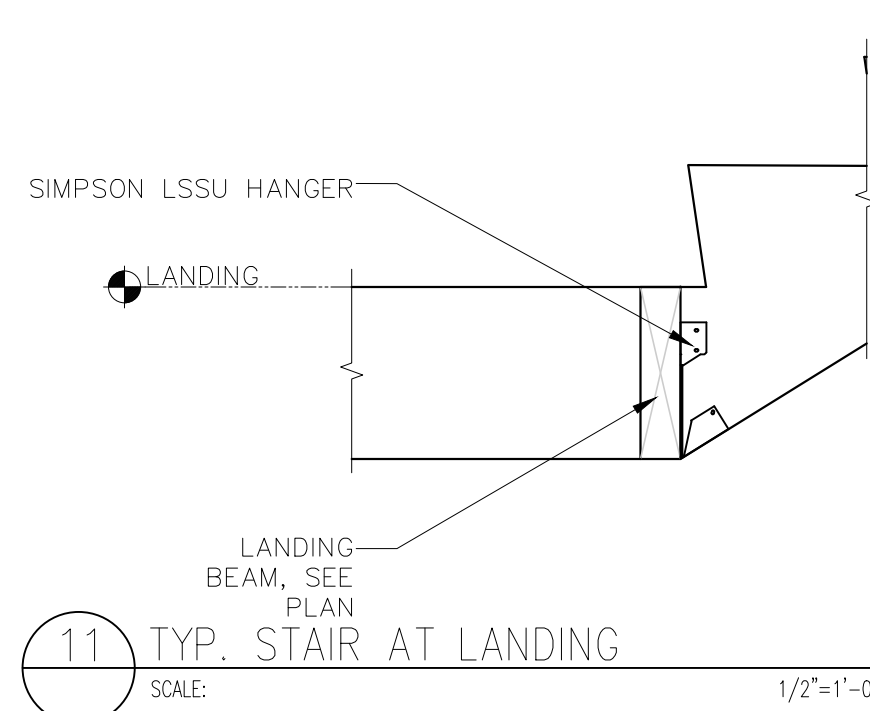
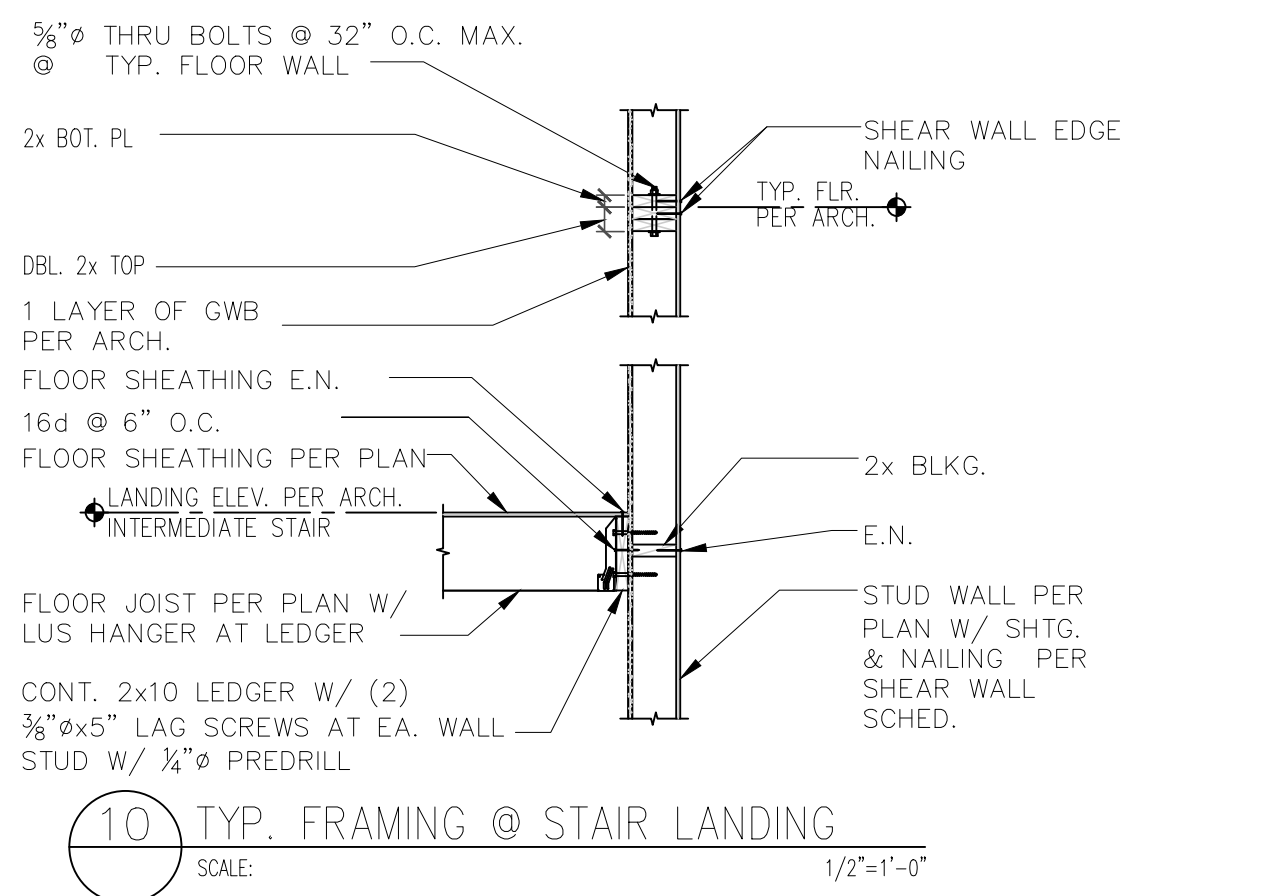
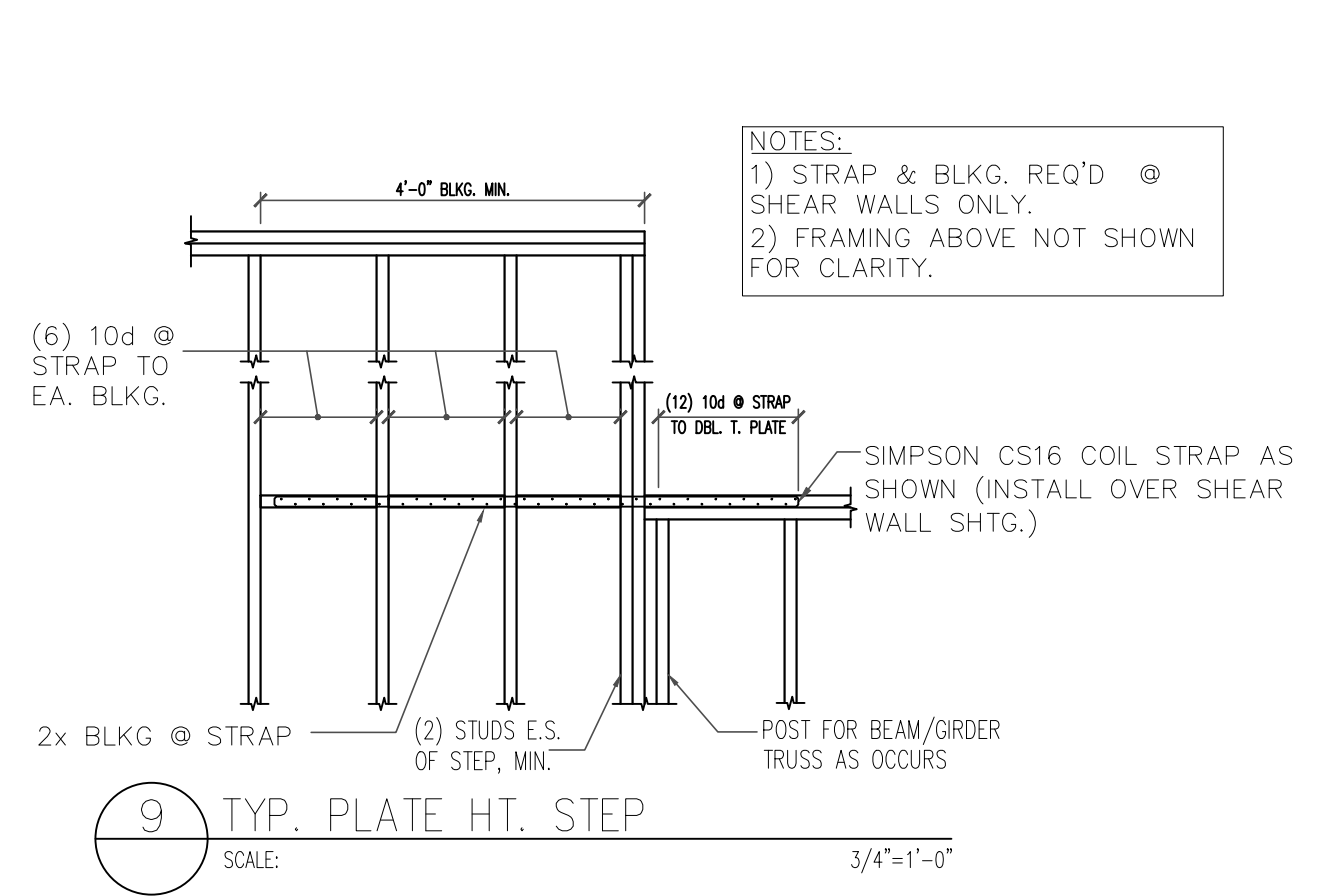
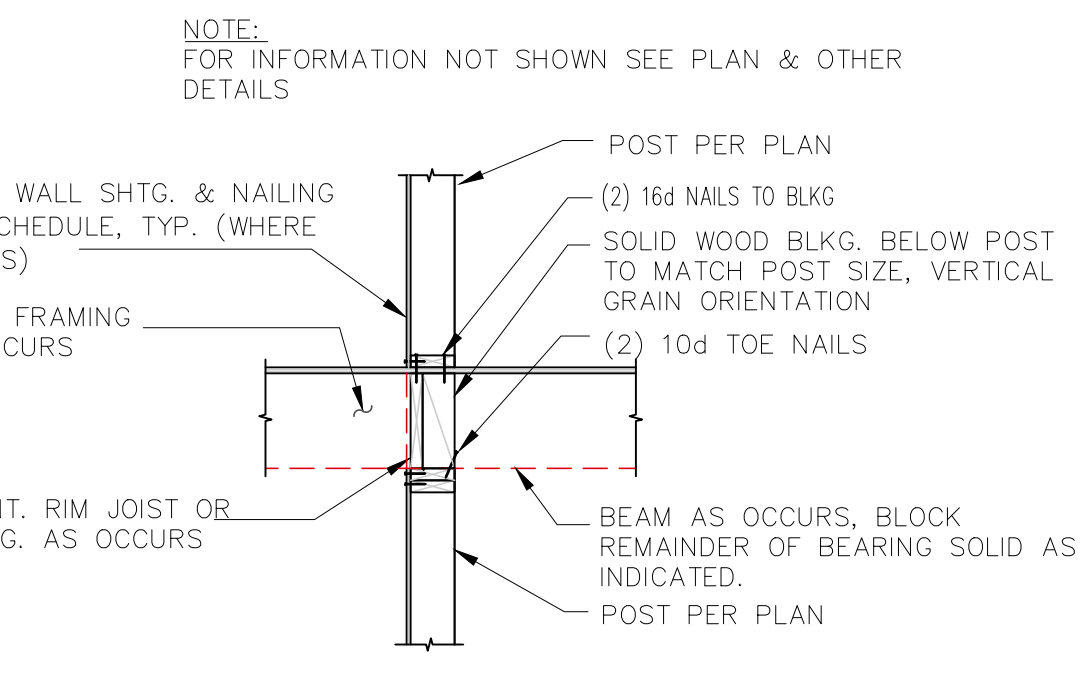
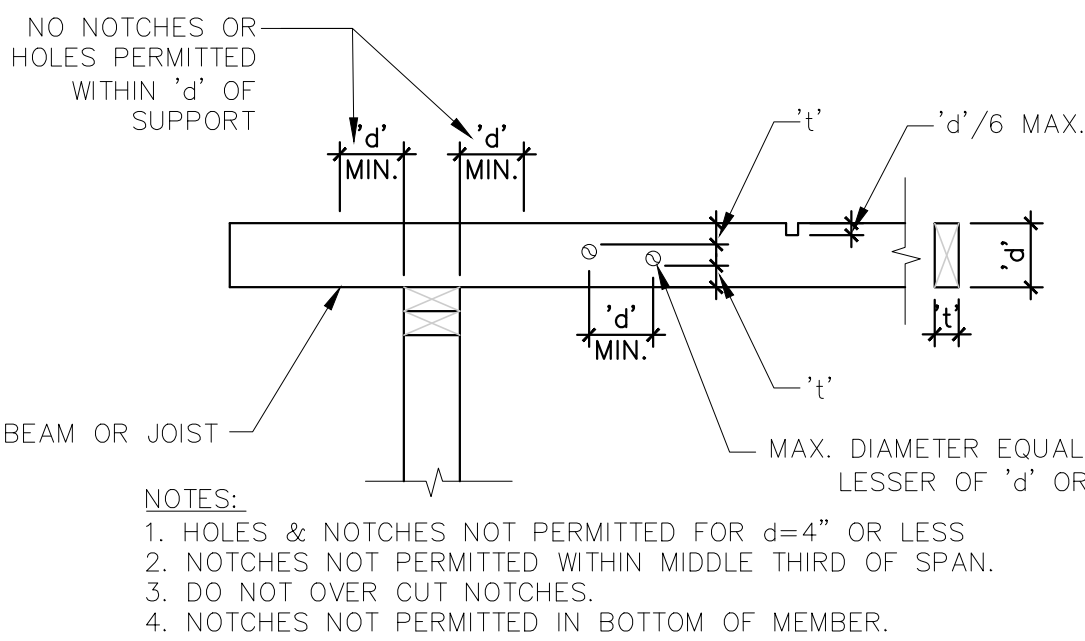
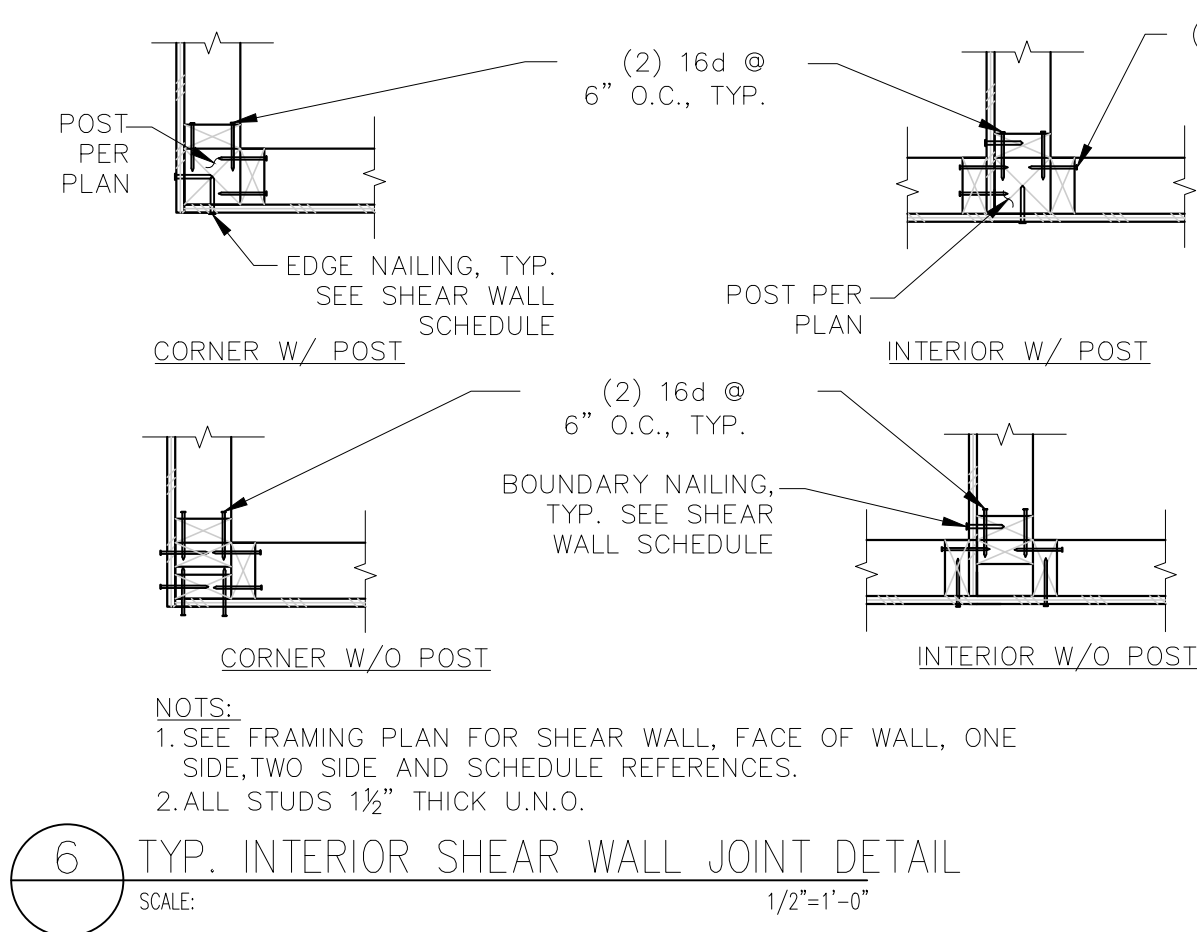
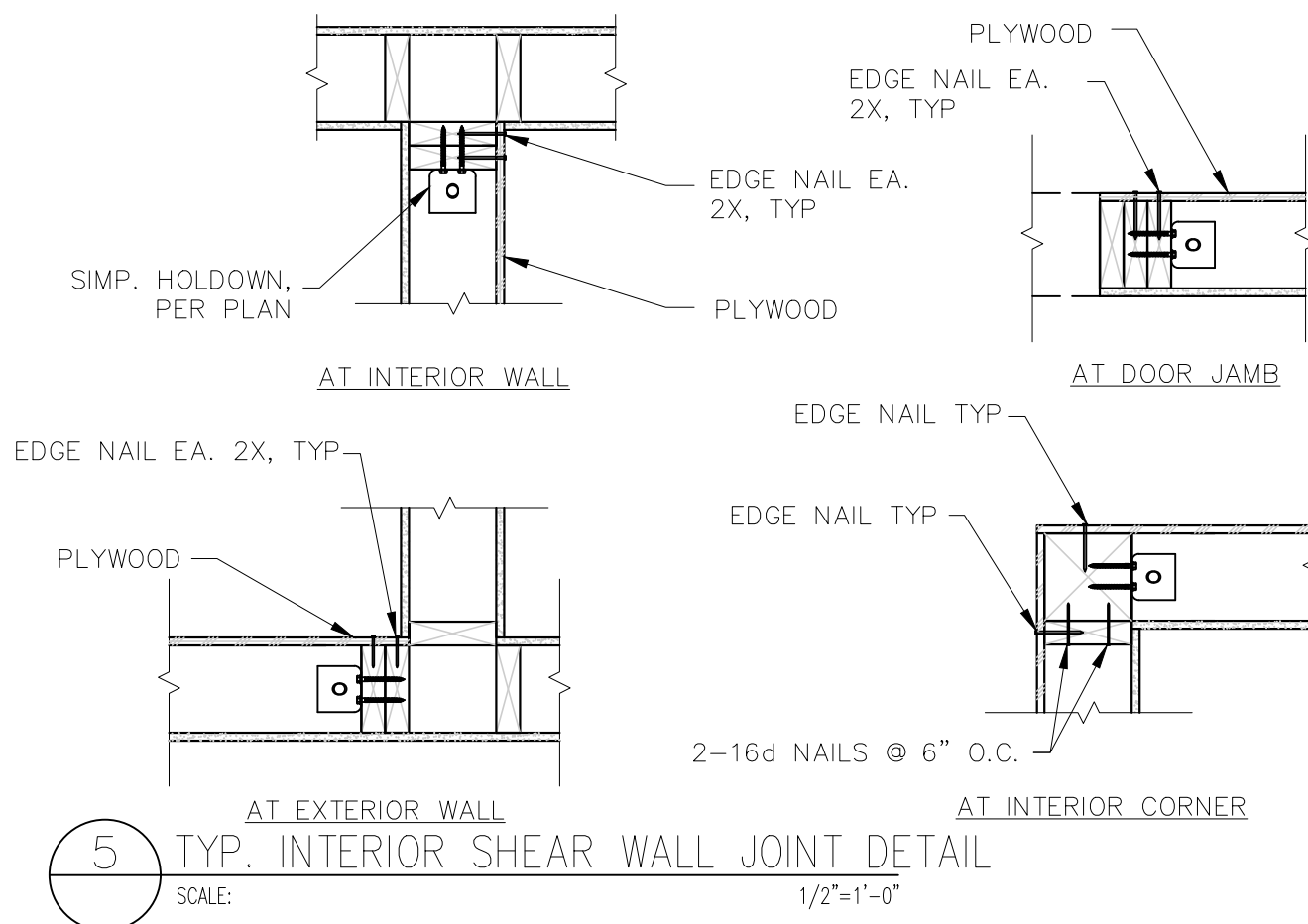
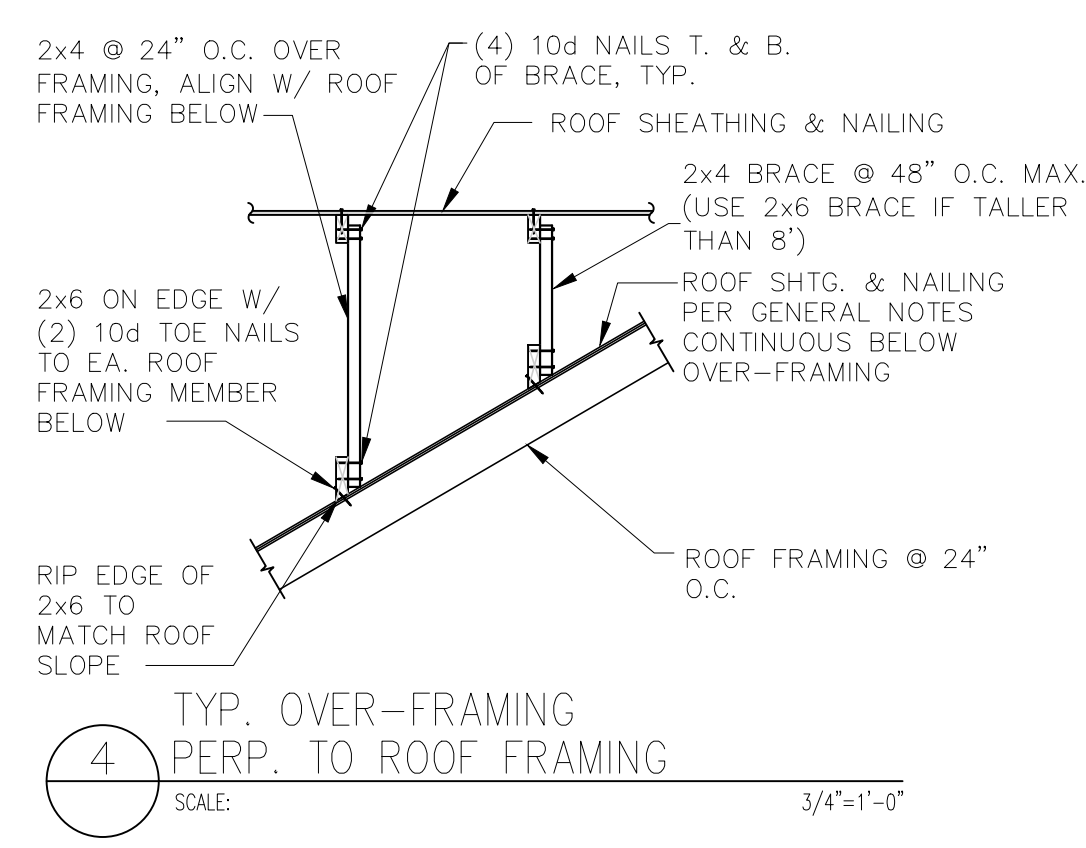
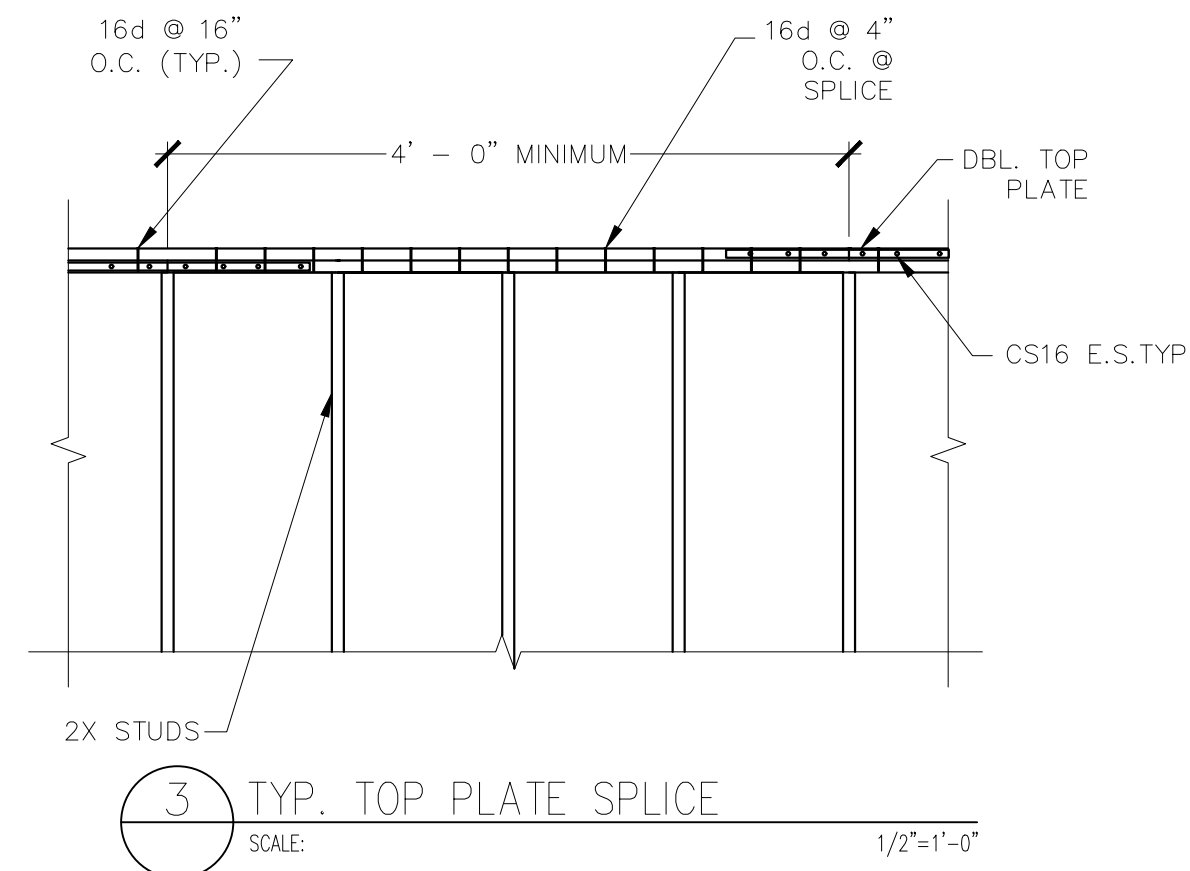
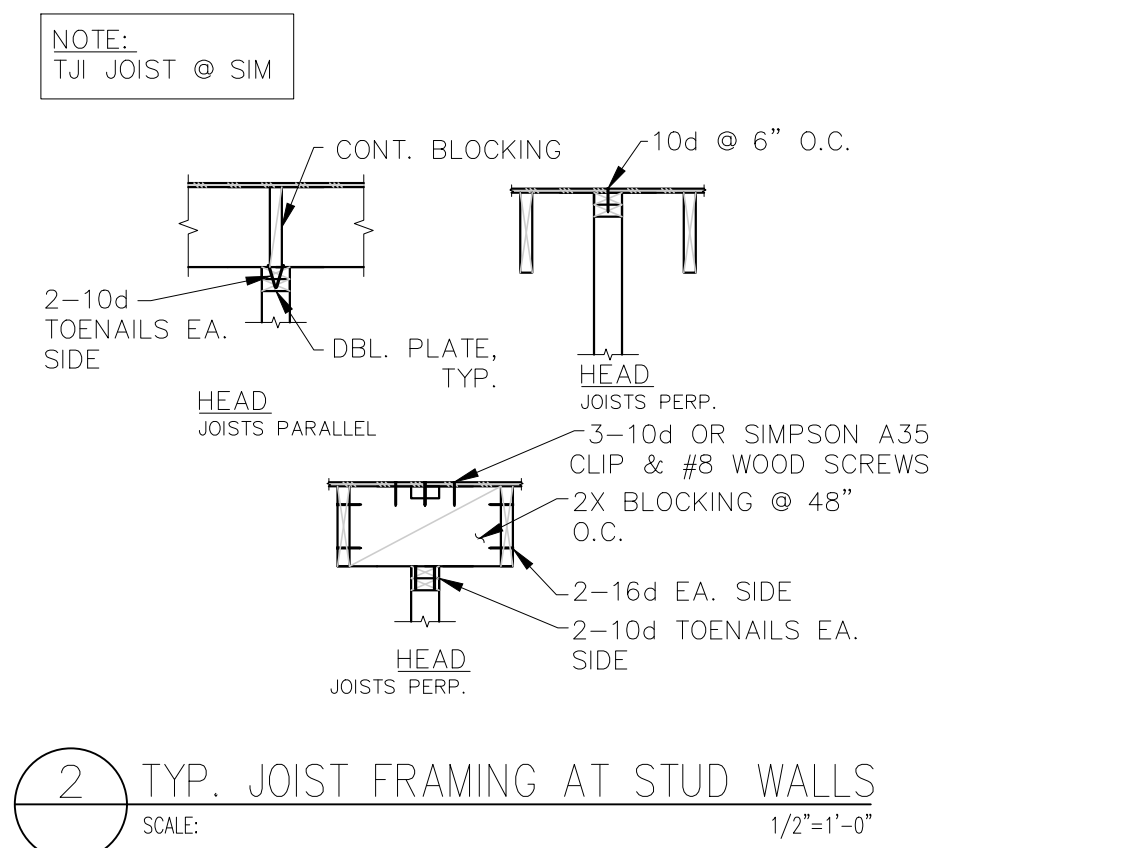
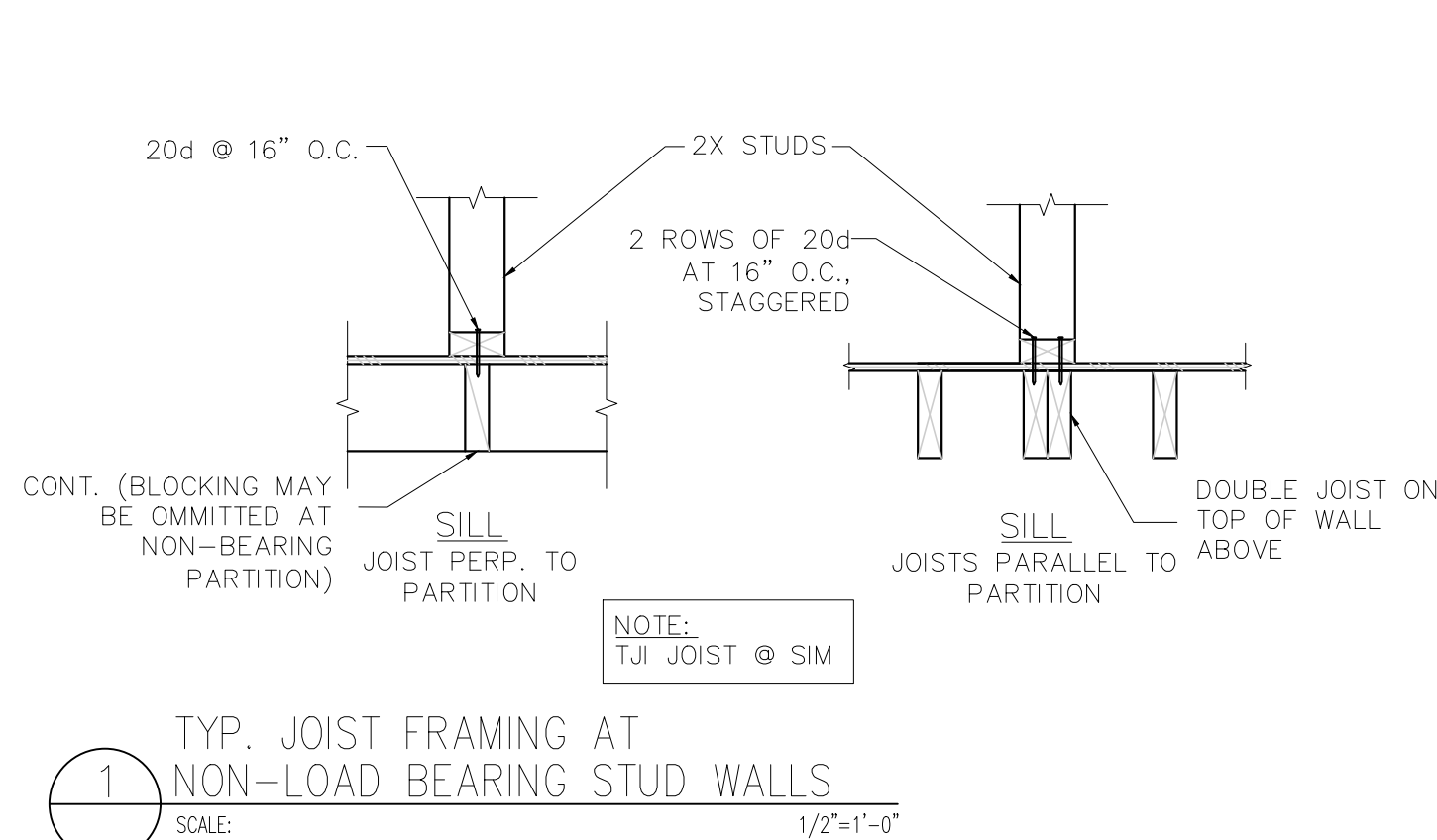
2419 MERCER FIRSTHILL

2419 72ND AVE SE
MERCER ISLAND, WA 98040

JOB # 2024020

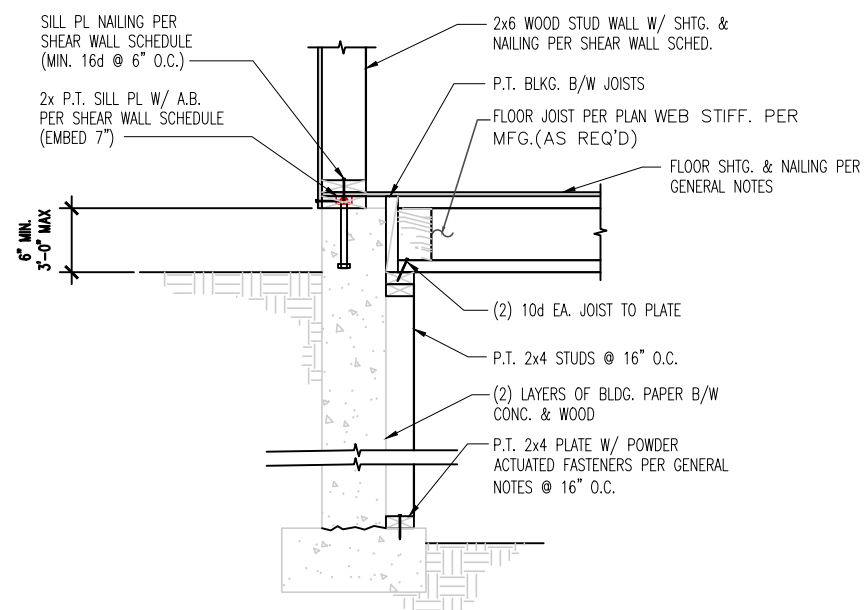
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Drawn By:
Drawing Title:
TYPICAL STRUCTURAL
DETAILS
Sheet
S3.1



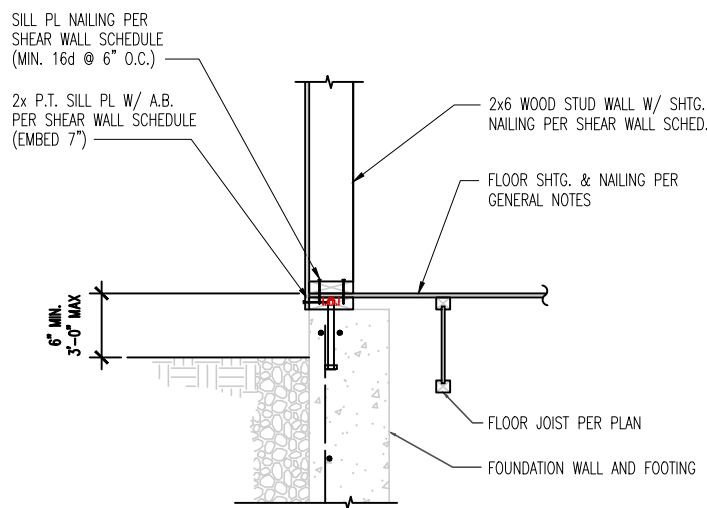


REV	DESCRIPTION	DATE
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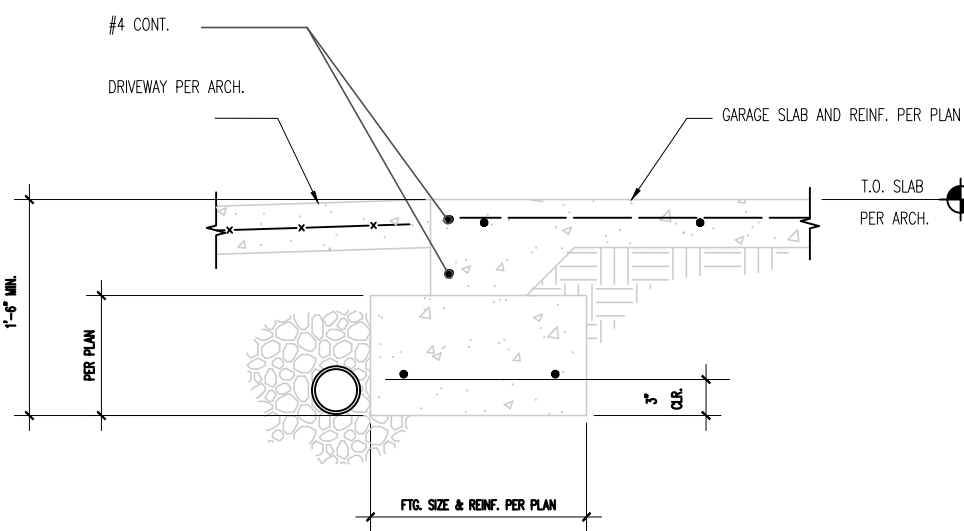


NOTE:
CONC. WALL AND FOUNDATION PER PLAN AND DETAIL

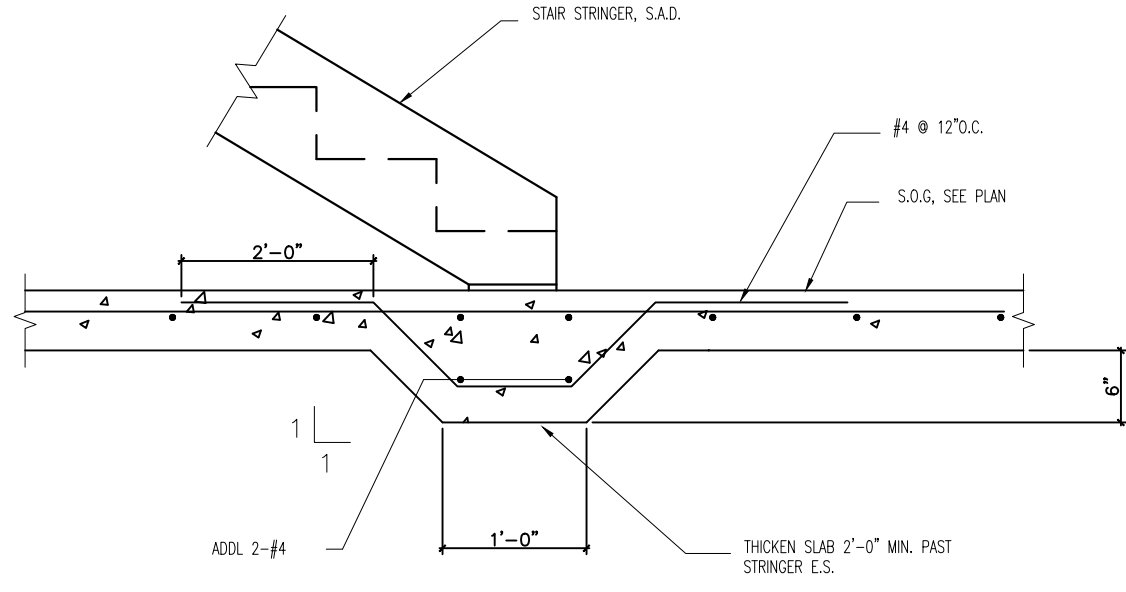
1 TYP. EXTERIOR FOUNDATION PERP. TO JOIST
S3.2 SCALE: 3/4"=1'-0"



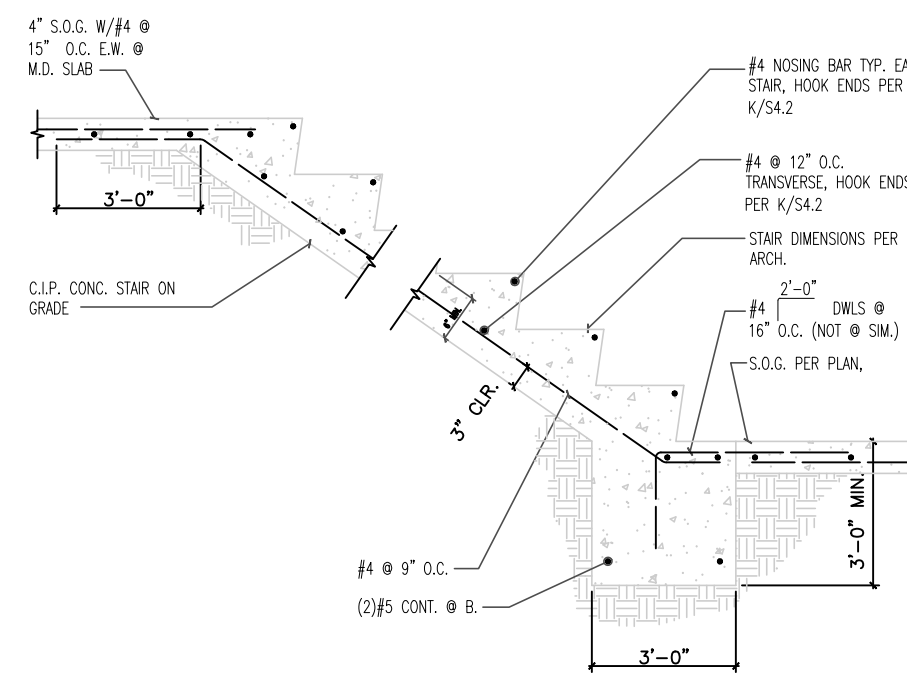
2 TYP. EXTERIOR FOUNDATION // TO JOIST
S3.2 SCALE: 3/4"=1'-0"



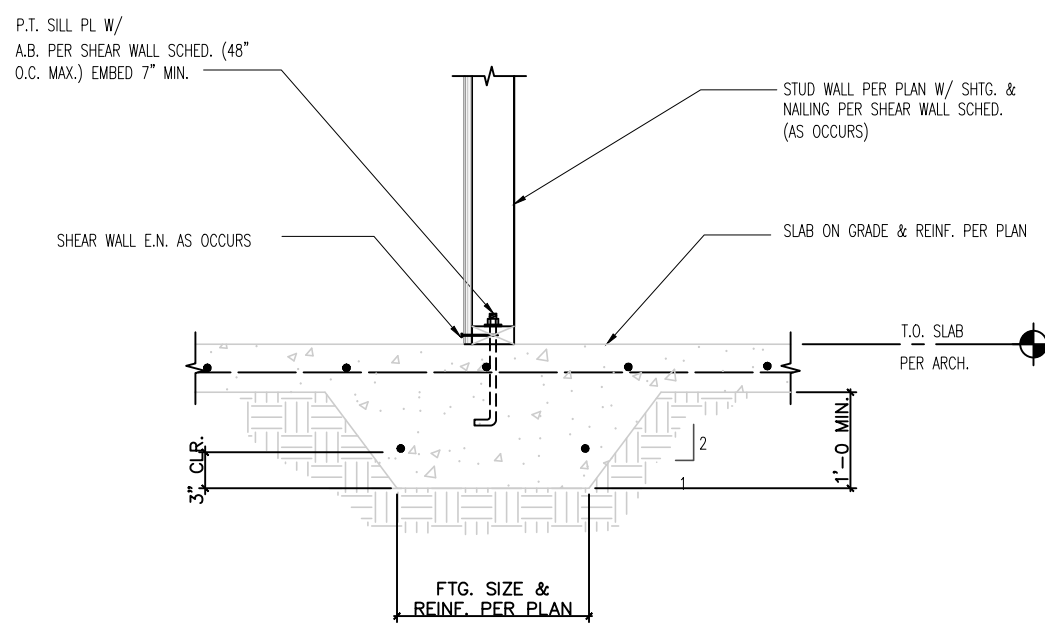
3 FOOTING @ GARAGE DOOR
S3.2 SCALE: 1/2"=1'-0"



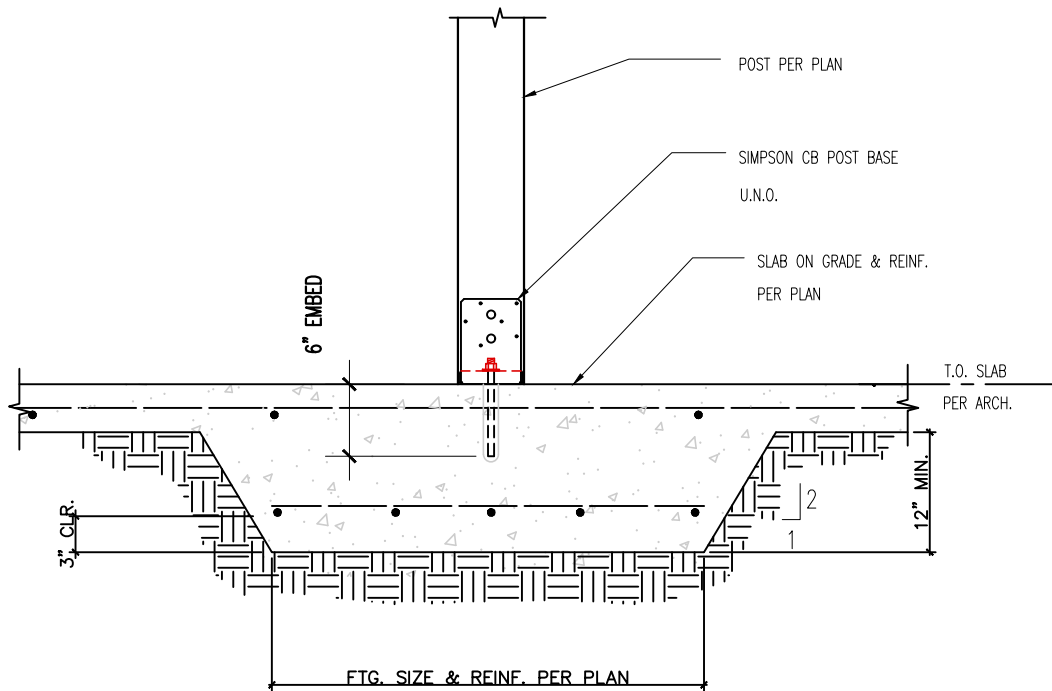
4 TYP. STAIR FOUNDATION
S3.2 SCALE: 3/4"=1'-0"



5 TYP. STAIR SECTION @ FOUNDATION
S3.2 SCALE: 3/4"=1'-0"



6 TYP. INT. STUD WALL FOOTING
S3.2 SCALE: 1/2"=1'-0"

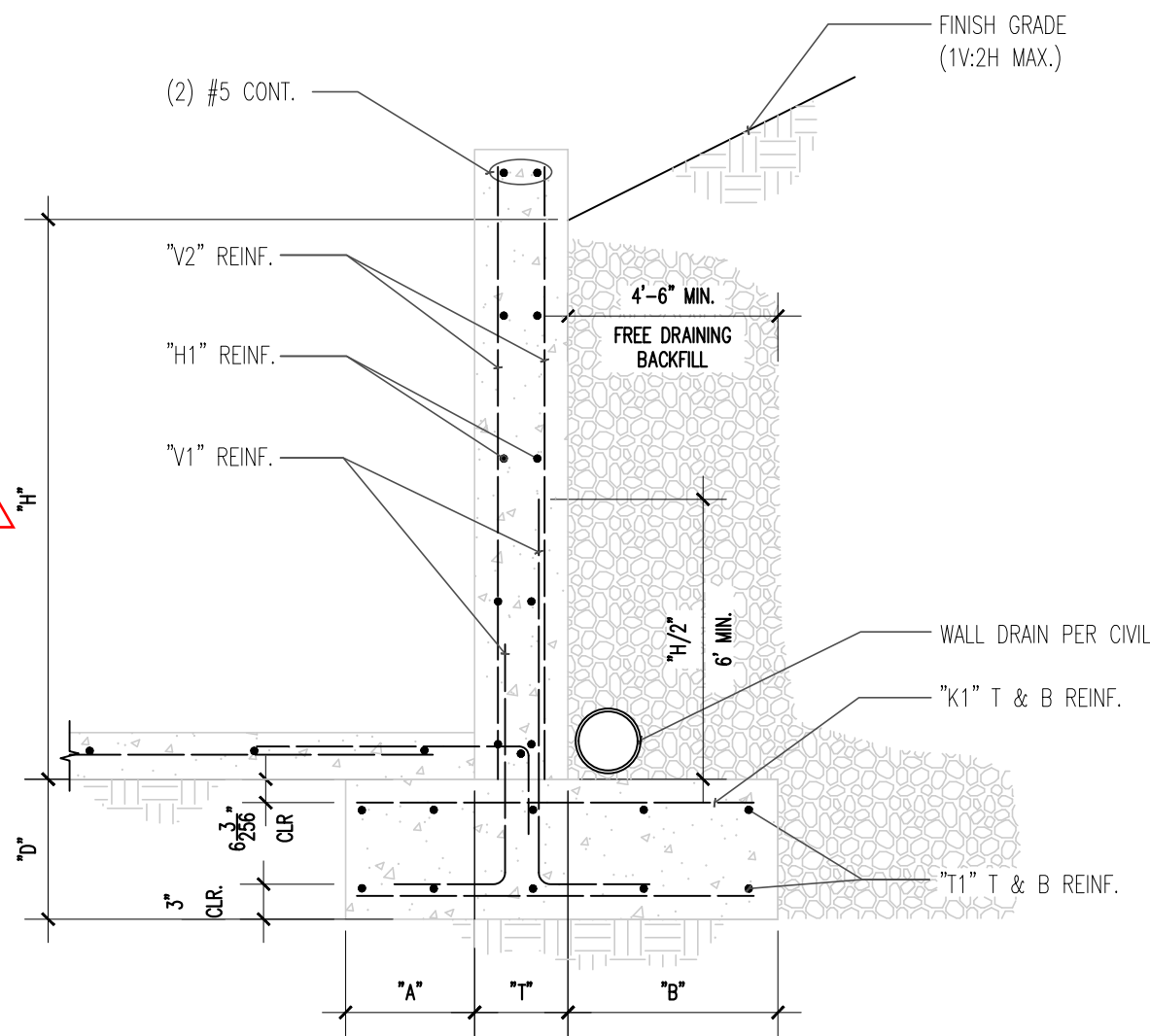


7 TYP. INTERIOR POST SPREAD FTG.
S3.2 SCALE: 1/2"=1'-0"

RETAINING WALL REINFORCING SCHEDULE										
DIMENSIONS					REINFORCING					
"1"	"2"	"3"	"4"	"5"	"6"	"7"	"8"	"9"	"10"	"11"
9'-6"	3'-6"	5'-0"	12"	20"	#5 @ 12" O.C.	#7 @ 6" O.C.	#7 @ 6" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.
8'-6"	3'-6"	4'-6"	10"	20"	#5 @ 12" O.C.	#7 @ 6" O.C.	#7 @ 6" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.
4'-0"	1'-0"	2'-0"	10"	10"	#4 @ 16" O.C.	#4 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 12" O.C.	#4 @ 12" O.C.

GEO. SOIL REPORT PROVIDED BY NGA, INC.(NO. 1502724):
ALLOWABLE SOIL BEARING = 2500 PSF
ACTIVE PRESSURE = 40 PCF
AT REST PRESSURE = 60 PCF
PASSIVE PRESSURE = 200 PCF
SEISMIC LOAD = 8H

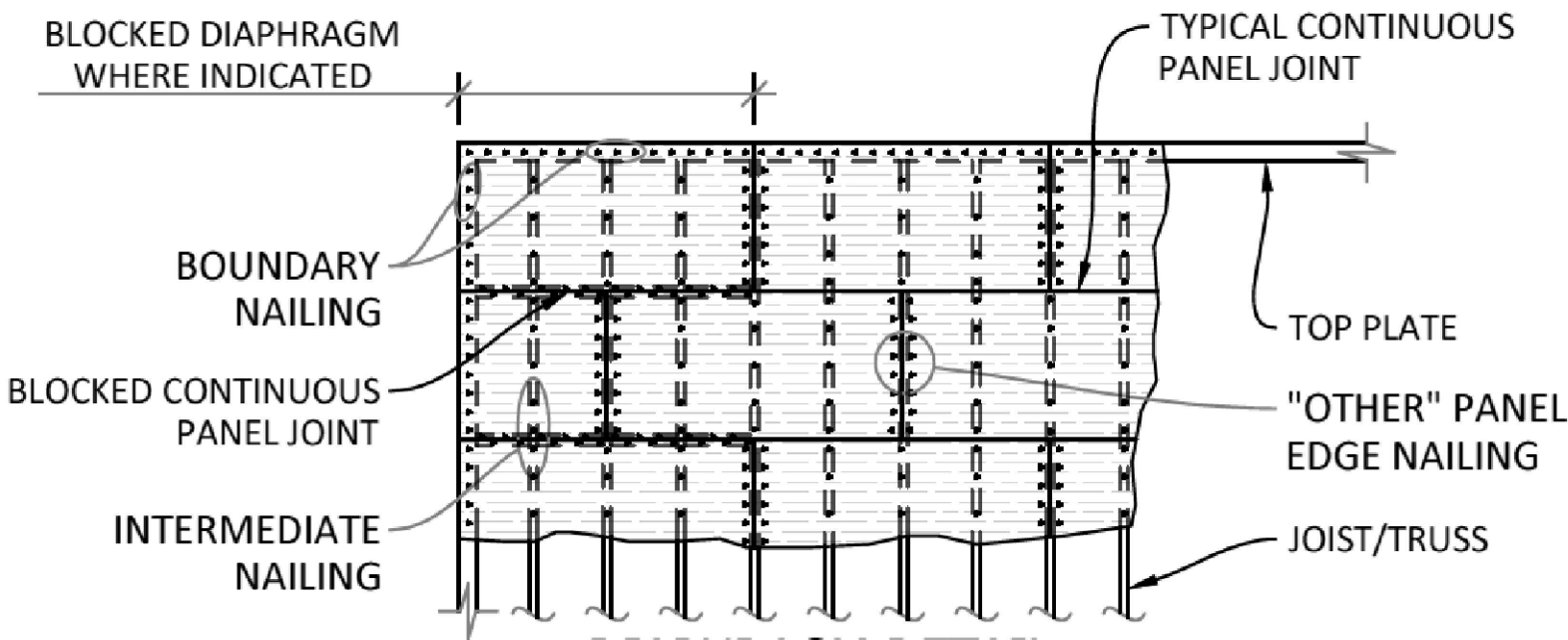
8 RETAINING WALL
S3.2 SCALE: NTS



NOTE:
TYP. DETAILS SEE DETAIL 1

9 TYP. EXTERIOR FOUNDATION PERP. TO JOIST
S3.2 SCALE: 3/4"=1'-0"

10 TYP. EXTERIOR FOUNDATION // TO JOIST
S3.2 SCALE: 3/4"=1'-0"



DIAPHRAGM NAILING SCHEDULE						
LOCATION	SHEATHING	BLKG REQD	SIZE OF NAIL	NAIL SPACING AT BOUNDARIES AND "OTHER" PANEL EDGES	NAIL SPACING AT INTERMEDIATE FRAMING MEMBERS	NAIL SPACING AT BLOCKED PANEL JOINTS
ROOF	SEE STRUCT	NO	10d	6" OC	12" OC	6" OC
SUB-FLR	NOTES	NO	10d & GLUE	4" OC	12" OC	4" OC

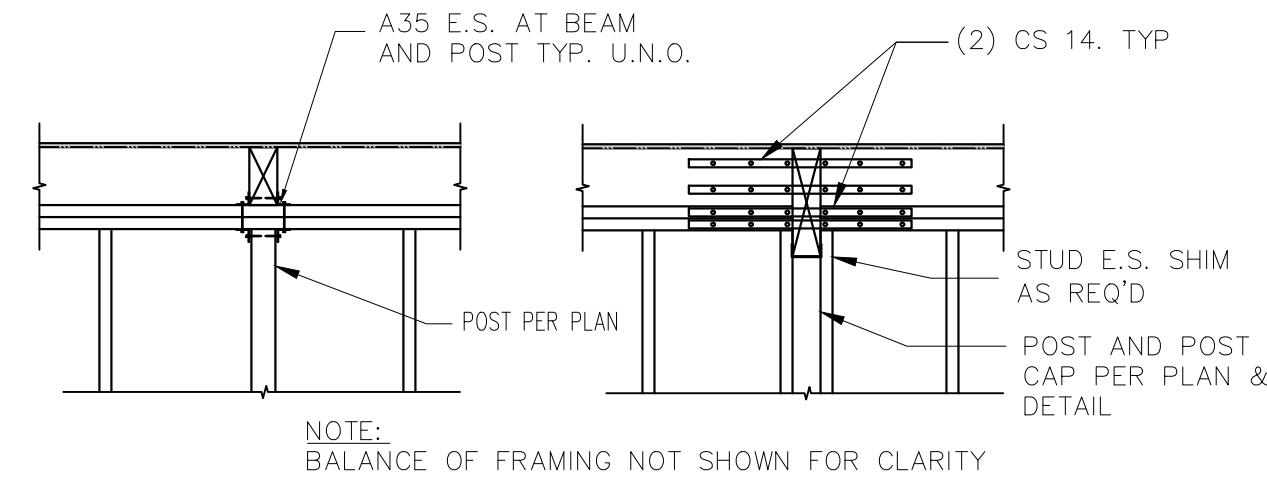
DIAPHRAGM NOTES

- ALL DIAPHRAGM SHEATHING IS TO BE STAGGERED IN THE DIRECTION OF THE PLYWOOD SPAN PER DIAPHRAGM DETAIL.
- PROVIDE BOUNDARY NAILING CONTINUOUS AROUND THE ENTIRE PERIMETER OF THE DIAPHRAGM
- NAILS SHALL BE COMMON OR GALVANIZED BOX
- ALL FRAMING MEMBERS SHALL BE 2x MINIMUM NOMINAL WIDTH

NOTE:
*PROVIDE 1/8" GAP @ TYP. PANEL JOINT

1 TYP. PLY. DIAPHRAGM NAILING

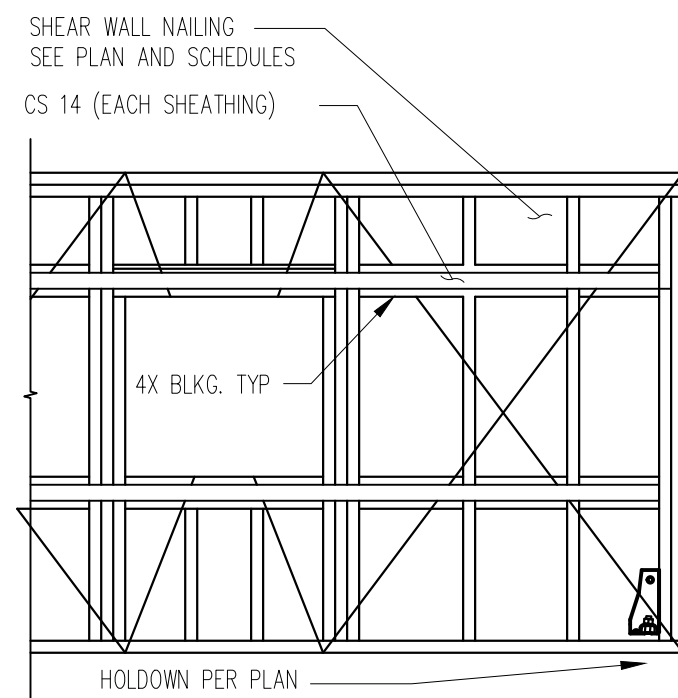
SCALE 1/4" = 1'-0"



NOTE:
BALANCE OF FRAMING NOT SHOWN FOR CLARITY

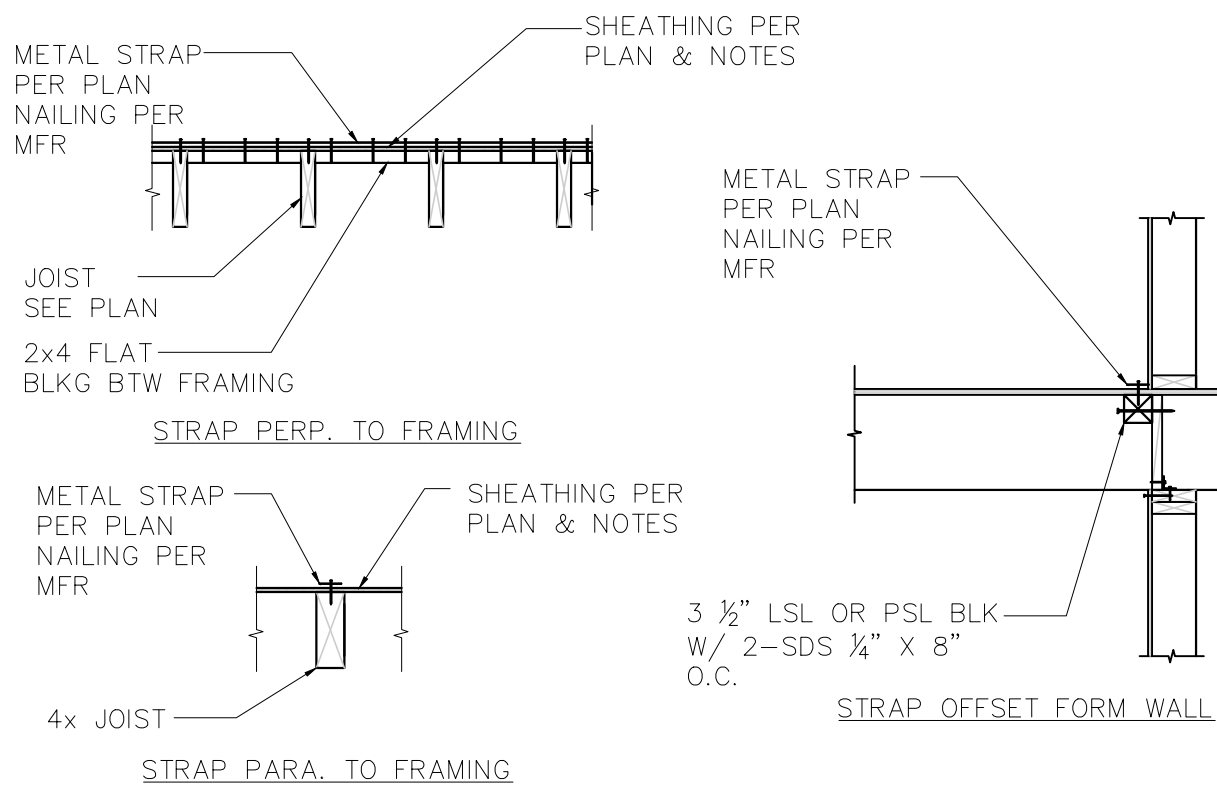
5 TYP. BEAM @ WALL CONNECTION

SCALE NTS



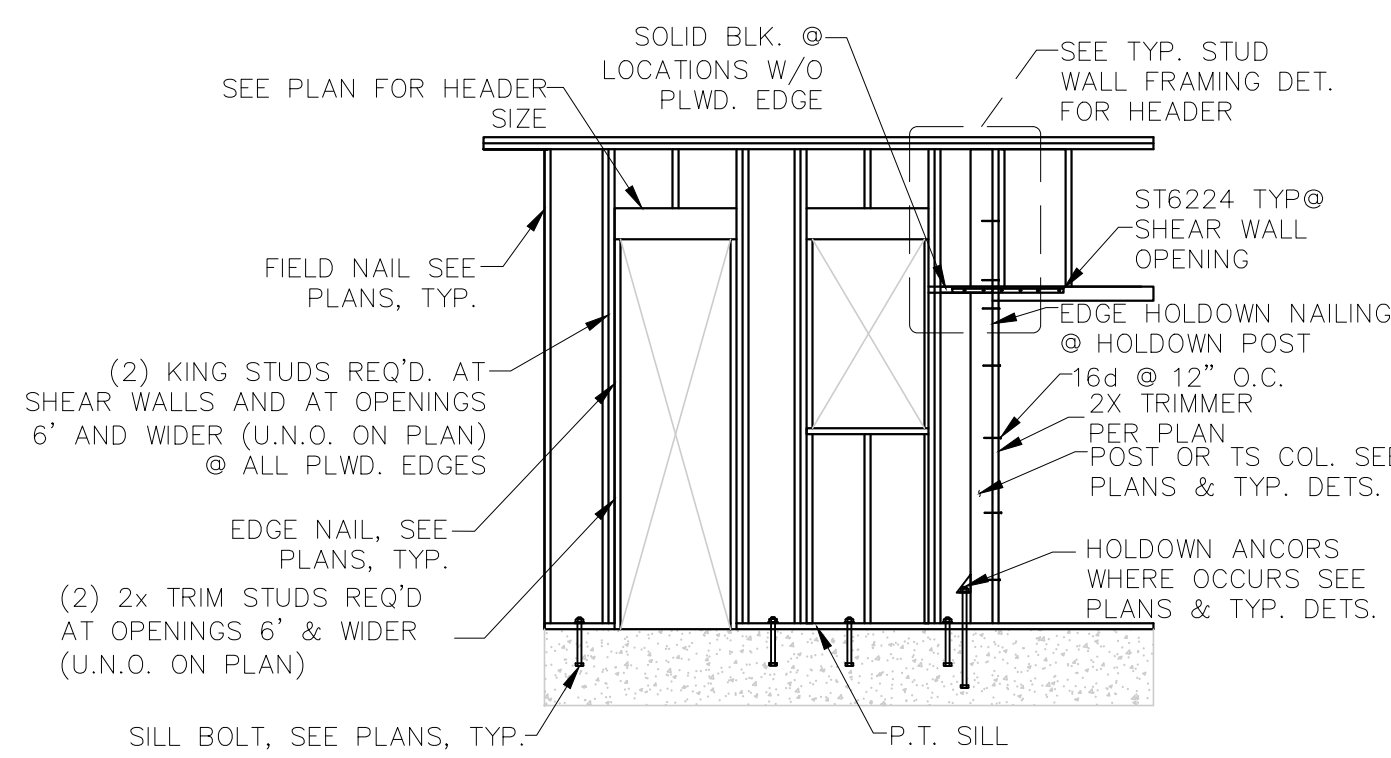
6 TYP. PERFORATED SHEAR WALL

SCALE NTS



7 TYP. COIL STRAP AT FRAMING

SCALE NTS



TYP MINIMUM KING STUD AND TRIM			
WIDTH OF OPENING	8'-0"	6'-0"	4'-0"
NUMBER OF TRIMMERS	3	2	1
NUMBER OF KING STUD	4	3	2

NOTES:

- USE 2x6 AT 16" O.C. AT ALL EXTERIOR WALLS.
- SEE PLANS FOR SPECIAL FRAMING REQUIREMENTS.
- HEADER SIZES SHOWN IN SCHEDULES ABOVE ARE MINIMUM HEADER SIZES, SEE PLANS FOR WHERE LARGER HEADER SIZES ARE REQUIRED.
- IF CALLED OUT STUD HEIGHTS AT ANY GIVEN FLOOR LEVEL EXCEED LIMITATIONS, CONTACT STRUCTURAL ENGINEER FOR CLARIFICATION.
- TRIMMERS AT 4x4 USE 1-4x4 AND 1-2x4 AND AT 3x4 USE 1-3x4 AND 1-2x4.
- NAIL TRIMMERS TOGETHER W/ 16d NAILS @ 12" O.C. STAGGERED EACH FACE.
- SEE PLANS FOR SHEAR WALL FRAMING REQUIREMENTS.

2 TYP. SHEAR WALL FRAMING

SCALE NTS

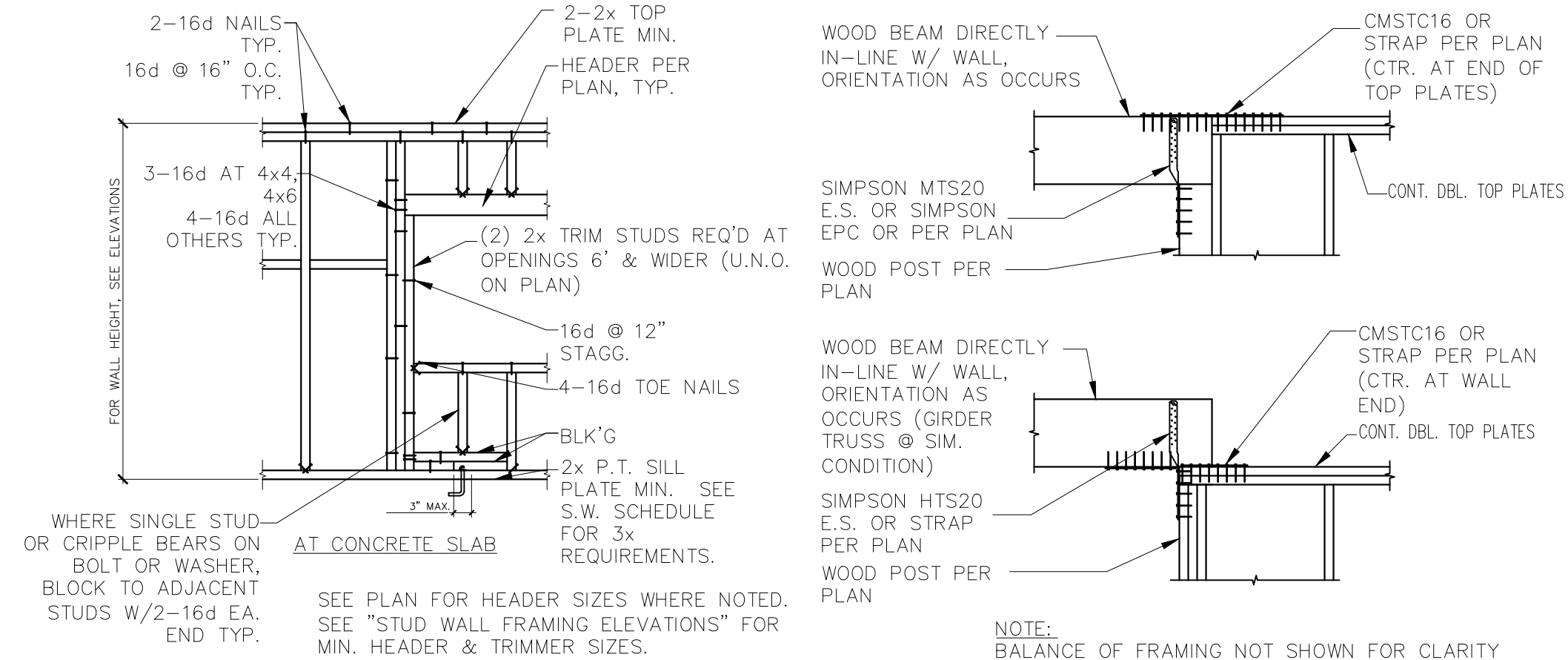
SHEAR WALL SCHEDULE											
MARK	SHEATHING	SIDE	PANEL NAILING			PANEL BLOCKING	BOT PLATE FASTENING	SILL PLATE	ANCHOR BOLTS (MIN. 7" EMBED)	SHEAR CLIP	VALUE (PLF)
			SIZE	EDGE	FIELD						
A	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	6" O.C.	12" O.C.	2x	16d @ 6"OC	2x	5/8" x 10" @ 48" O.C. OR UFP10-SDS3 @ 48" O.C.	SIMPSON LTP4/A35 @ 18" O.C.	230
B	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	4" O.C.	12" O.C.	3x	16d @ 4"OC	3x (2) 2x	5/8" x 12" @ 42" O.C. OR UFP10-SDS3 @ 42" O.C.	SIMPSON LTP4/A35 @ 18" O.C.	380
C	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	8d	3" O.C.	12" O.C.	3x	16d @ 3"OC	3x (2) 2x	5/8" x 12" @ 36" O.C. OR UFP10-SDS3 @ 36" O.C.	SIMPSON LTP4/A35 @ 16" O.C.	420
D	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	ONE	10d	3" O.C.	12" O.C.	3x	16d @ 3"OC	3x (2) 2x	5/8" x 12" @ 24" O.C. OR UFP10-SDS3 @ 24" O.C.	SIMPSON LTP4/A35 @ 12" O.C.	560
E	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	6" O.C.	12" O.C.	3x	(2) ROW 16d @ 6"OC	3x (2) 2x	5/8" X 12" @ 32" O.C.	SIMPSON LTP4 & A35. @ 24" O.C.	520
F	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	4" O.C.	12" O.C.	3x	(2) ROW 16d @ 4"OC	3x (2) 2x	5/8" x 12" @ 24" O.C.	SIMPSON LTP4 & A35. @ 16" O.C.	760
G	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	8d	3" O.C.	12" O.C.	3x	(2) ROW 16d @ 3"OC	3x (2) 2x	5/8" x 12" @ 16" O.C.	SIMPSON LTP4 & A35. @ 12" O.C.	980
H	15/32" APA RATED SHEATHING WITH STUDS @ 16" O.C.	TWO	10d	3" O.C.	12" O.C.	3x	(2) ROW 16d @ 3"OC	3x (2) 2x	5/8" x 12" @ 12" O.C.	SIMPSON LTP4 & A35. @ 9" O.C.	1,200

NOTES:

- SOME SHEAR WALLS LISTED MAY NOT BE USED IN THIS PROJECT. REFER TO PLAN FOR TYPES USED.
- 8d Nail = 2 1/2" x 0.131" COMMON OR 2 1/2" x 0.113" GALVANIZED BOX. 10d Nail = 3" x 0.148" COMMON OR 3" x 0.128" GALVANIZED BOX.
- IF ANCHOR BOLT SPACING IS GREATER THAN SHEAR WALL LENGTH INSTALL (1) ANCHOR BOLT WITHIN 12" OF EACH END.
- NAIL SIZES SHOWN ARE FOR COMMON NAILS OR GALVANIZED BOX. POWER DRIVEN NAILS SHALL COMPLY WITH ESR 1539 FOR RECOMMENDED SPACING AND INSTALLATION TO COMPLY WITH THE ABOVE SHEAR WALL SCHEDULE.
- SILL PLATE ANCHORS SHALL INCLUDE A STEEL PLATE WASHER NOT LESS THAN 0.229"x3"x3" IN SIZE PER AF&PA SDPWS SECTION 4.3.6.4.3. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.
- IN SEISMIC DESIGN CATEGORY D, E, OR F, WHERE SHEAR DESIGN VALUES EXCEED 700 POUNDS PER LINEAR FOOT (350 PLF ASD), ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER, OR TWO 2-INCH NOMINAL MEMBERS FASTENED TOGETHER IN ACCORDANCE WITH SECTION 2306.1 TO TRANSFER THE DESIGN SHEAR VALUES BETWEEN FRAMING MEMBERS. WOOD STRUCTURAL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
- WHERE PANELS ARE APPLIED TO BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS. ALTERNATIVELY, THE WIDTH OF THE NAILED FACE OF FRAMING MEMBERS SHAL BE 3" NOMINAL OR GREATER AT ADJOINING PANEL EDGES AND NAILS AT ALL PANEL EDGES SHALL BE STAGGERED.
- SHEAR WALL NAILING MUST BE INSTALLED SUCH THAT THE NAIL HEAD OR CROWN IS FLUSH WITH THE SURFACE OF SHEATHING. OVERDRIVEN OR OVER PENETRATED NAILS WILL NOT BE ALLOWED OR COUNTED AS APPROPRIATE NAILING.

SHEAR WALL SCHEDULE

SCALE NTS



3 TYP. STUD WALL OPENING FRAMING

SCALE NTS

4 TYP. TIE STRAP CONN. DETAILS

SCALE NTS

HOLDOWN SCHEDULE							
MARK	HOLDOWN	WOOD MEMBER	WOOD FASTENER	ANCHOR BOLT	ANCHOR BOLT EMBEDMENT (IN)	COMMENTS SEE NOTES BELOW	VALUE (LBS)
0	NONE REQUIRED						
1	SIMPSON MST37	(2) 2x	(22) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	2,135
2	SIMPSON MST48	(2) 2x	(32) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	3,425
3	SIMPSON MST60	(2) 2x	(48) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED	4,830
4	SIMPSON CMST12	(1) 4x	(86) 16d NAILS 1/2 TOP & BOT.	N/A	N/A	WRAP & NAIL STRAP TO BEAM/HEADER BELOW AS REQUIRED .39" END LENGTH	9,215
5	SIMPSON LSTHD8 OR LSTHDBRJ	(2) 2x SEE NOTES	(24) 16d SINKERS	N/A	8"	SEE NOTES 1, 2, 3, AND 4 USE (3) 2x AT CORNERS	1,220
6	SIMPSON HDU2-SDS2.5	(2) 2x	(6) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB16	12-5/8"	SEE NOTES 1, 2, 3, AND 4	2215
7	SIMPSON HDU4-SDS2.5	(2) 2x	(14) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB20	16-5/8"	SEE NOTES 1, 2, 3, AND 4	3285
8	SIMPSON HDU5-SDS2.5	(2) 2x	(14) SIMPSON SDS SCREWS	5/8" DIA. SIMP. SSTB24	20-5/8"	SEE NOTES 1, 2, 3, AND 4	4340
9	SIMPSON HDU8-SDS2.5	(1) 4x	(20) SIMPSON SDS SCREWS	7/8" DIA. SIMP. SB7/8x24	18"	SEE NOTES 1, 2, 3, AND 4	5820
10	SIMPSON HHQ11-SDS2.5	(1) 6x	(24) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	8030
11	SIMPSON HHQ14-SDS2.5	(1) 6x	(30) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	12375
12	SIMPSON HDU14-SDS2.5	(1) 6x	(36) SIMPSON SDS SCREWS	1" DIA. A307 THREADED ROD	de = 16" W = 48"	SEE NOTES 1, 2, 3, 4 AND 5	12425

NOTES:

- DOUBLE STUDS ARE REQUIRED AT HOLDOWNS UNLESS NOTED OTHERWISE. DOUBLE STUDS SHALL BE LAMINATED TOGETHER WITH 16d NAILS AT 6" O.C. FULL HEIGHT (TYPICAL).
- PROVIDE HOLDOWN NOTED WITHIN 6" FROM EACH END OF EACH SHEAR WALL SHOWN ON PLANS.
- ADD (2) EXTRA VERTICAL DOWEL WITH STANDARD HOOK IN FOOTING AT EACH ANCHOR BOLT LOCATION.
- ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS.
- ADJUST FOOTING AND STEM WALL HEIGHT TO ACCOMMODATE ANCHOR BOLT EMBEDMENT REQUIREMENTS.
- SEE THREADED ROD ANCHOR DETAIL.
- FOR EXISTING STEM WALL, DRILL AND EPOXY ANCHOR. USE A307 THREADED ROD WITH SIMPSON SET-XP EPOXY. SEE PLANS AND DETAILS FOR REQUIRED EMBEDMENT.
- ALL HOLDOWN ANCHORS AND BOLTS SHALL BE INSTALLED IN THE CORRECT LOCATION IN THE TOP OF THE CONCRETE WALL AND SECURED TO THE FORMS PRIOR TO CONCRETE INSTALLATION. THERE IS NO PRACTICAL SOLUTION TO POST-INSTALLED HOLDOWN ANCHORS IN THE TOP OF THE 8" CONCRETE STEM WALL. NO EPOXY OR MECHANICAL ANCHOR BOLT ALTERNATIVES WILL BE OFFERED FOR MISSING OR MISPLACED EMBEDDED ANCHORS. CONCRETE FOOTINGS AND STEM WALLS MAY HAVE TO BE REMOVED AT CONTRACTOR'S EXPENSE TO MITIGATE MISPLACED, MISALIGNED, OR MISSING HOLDOWN ANCHORS OR BOLTS.

HOLDOWN SCHEDULE

SCALE NTS

5/29/2024

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2419 MERCER FIRSTHILL

2419 72ND AVE SE
MERCER ISLAND, WA 98040

JOB # 2024020

DATE	DESCRIPTION	REV

Drawn By:

Drawing Title:

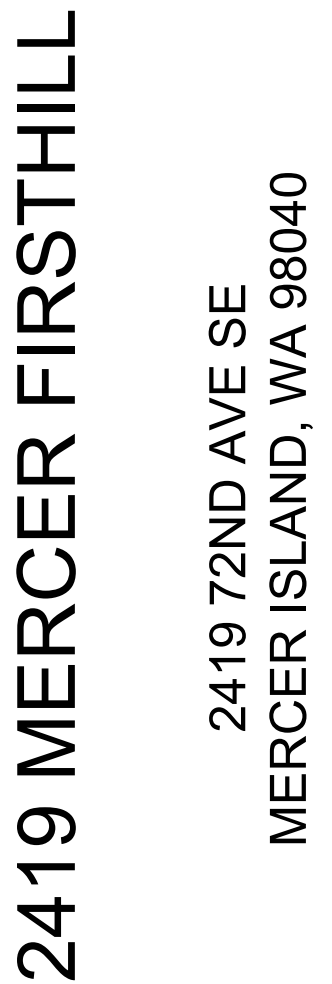
SHEAR WALL DETAILS

Sheet

S3.3

F.T. ENG. & CONST. MGMT., LLC

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CLEAN GRANULAR MATERIAL

10-MIL VAPOR BARRIER BELOW SLAB

CONC. S.O.G., SEE PLAN

11' 0"

11' 0"

11' 0"

CLEAN CRUSHED ROCK

NOTES:

1. SEE GEOTECHNICAL REPORT.
2. SEE SPECIFICATIONS FOR GRANULAR MATERIAL & CRUSHED ROCK.
3. SEE PLANS FOR LOCATIONS OF COLUMN BLOCKOUTS, CONSTRUCTION JOINTS, CONTROL JOINTS AND SLAB DEPRESSIONS.

MIN. BAR SPACING: (NON-SPliced BARS) $1\frac{1}{2}"$ OR $1\frac{1}{2}d$ WHICHEVER IS LARGER

MAX BAR SPACING FOR NONCONTACT LAP SPLICES SEE NOTE #3

-
- Figure 1: Reinforcement details for slabs with openings. The figure includes three diagrams: a longitudinal section of a slab with an opening, a plan view of a slab with a square opening, and a detail of diagonal corner reinforcement.
- Longitudinal Section:** Shows a slab with a central opening. Reinforcement bars are shown with a diameter d . The distance from the edge of the slab to the center of the opening is $12" < d \leq 42"$. The reinforcement bars are labeled $\#4 @ 12" O.C. 1 BAR MIN.$. A pipe sleeve is shown with a diameter of 12 inches. The slab is supported by a wall with a height of 8 inches, U.O.N. (Under One Nook).
- Plan View:** Shows a square opening with a side length of 2 feet 0 inches. The reinforcement bars are labeled $\#4 @ 8" O.C.$. The distance from the edge of the slab to the center of the opening is $12" < d \leq 42"$. The reinforcement bars are shown with standard hooks. The distance from the edge of the slab to the center of the opening is $12" < d \leq 42"$.
- Diagonal Corner Reinf.:** Shows a detail of the diagonal corner reinforcement. The reinforcement bars are labeled $\#4 @ 8" O.C.$. The distance from the edge of the slab to the center of the opening is $12" < d \leq 42"$.

1/8" TO 1/4" SAW CUT OR PRE-MOLDED STRIP WIDTH

SLAB REINF. SEE PLAN

SEE TYP. S.O.G. DETAIL FOR SUBGRADE PREPARATION

3" TYP

AT CONTRACTOR'S OPTION, STOP SLAB REINF. E.A. SIDE OF CONTROL JOINT.

SLAB REINF. SEE PLAN

EDGE TO 1/8", & FILL TO MATCH CONTROL JOINTS. SEE CONTROL JOINT DETAIL

SEE TYP. S.O.G. DETAIL FOR SUBGRADE PREPARATION

3/4"x2'-0" SMOOTH DOWEL @ 12' O.C. SEE NOTE 1 BELOW

NOTES:

1. WHEN USED, MAKE SAW CUT AS SOON AS SLAB CAN SUPPORT WEIGHT OF WORKERS & EQUIPMENT WITHOUT DAMAGE TO SLAB FINISH, & CUTS CAN BE MADE WITHOUT DAMAGE TO THE CONCRETE MAKE CUTS AS REQUIRED.
2. JOINT TO BE THOROUGHLY CLEANED PRIOR TO FILLING.
3. PROVIDE FILLER MATERIAL IN ACCORDANCE WITH THE SPECIFICATIONS & APPLY STRICTLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. FILLER MATERIAL SHALL BE APPLIED WHEN SLAB IS UNDER PERMANENT TEMPERATURE CONTROL, SUCH AS AT THE COMPLETION OF THE BUILDING SHELL, WHENEVER POSSIBLE. IF PERMANENT TEMPERATURE CONTROL IS NOT ESTABLISHED, A MINIMUM OF 90 DAYS AFTER THE COMPLETION OF SLAB CONSTRUCTION SHALL ELAPSE PRIOR TO APPLYING THE JOINT

NOTES:

1. BREAK BOND BETWEEN NEW AND PREVIOUSLY POURED SLAB ON GRADE BY SPRAYING OR PAINTING EXPOSED SIDE OF KEY WITH CURING COMPOUND OR FORM OIL.
2. LONG STRIP CONSTRUCTION METHOD SHALL BE USED FOR ALL SLAB ON GRADE, UNLESS OTHERWISE APPROVED BY RESIDENT ENGINEER.
3. SUBGRADE SHALL BE FREE OF STANDING WATER AT TIME OF CONCRETE PLACEMENT.

5 CONTROL JOINTS AT SLAB ON GRADE

SCALE: $1/2" = 1'-0"$

KEY TYPE #1
TYPICAL FOR WALLS

KEY TYPE #2
FOR SLABS & EXTERIOR
WALLS BELOW GRADE

-
- STAIR STRINGER,
S.A.D.
- #4 @ 12" O.C.
S.O.G., SEE PLAN
- 2'-0"
- 1'-0"
- 1'-0"
- 1-1
- ADDL 2-#4
- THICKEN SLAB 2'-0" MIN.
PAST STRINGER E.S.

LAP SPlice LENGTHS (INCHES)(1,2)										
GRADE 60 REINFORCING BARS, NORMAL WEIGHT CONCRETE										
BAR SIZE		#3	#4	#5	#6	#7	#8	#9	#10	#11
f _c '=3000PSI	TOP BAR (3)	21	28	35	46	62	82	104	132	162
	OTHER BAR	16	21	27	35	48	63	80	101	124
f _c '=4000PSI	TOP BAR (3)	20	24	30	40	54	71	90	114	140
	OTHER BAR	16	19	23	30	41	55	69	88	108
f _c '=5000 PSI	TOP BAR (3)	20	22	27	35	48	63	80	102	125
	OTHER BAR	16	17	21	27	37	49	62	79	96

- NOTES:**
1. LAP SPlice LENGTHS, WHERE PERMITTED, SHALL BE IN ACCORDANCE WITH THIS TABLE UNLESS SPECIFICALLY SHOWN OR NOTED OTHERWISE.
 2. EMBEDMENT LENGTHS OF DOWELS SHALL BE EQUAL TO LENGTHS FOR "OTHER" BARS.
 3. TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

BAR DIAMETERS

24 BAR DIAMETER

90° HOOKS WITH 24 DIAM. EXTENSIONS TURNED VERTICAL

TYP. WALL REINF.

ADD TRIM BARS TO MATCH WALL REINF.

STD. HOOK ROTATE TO PROVIDE MIN. CLEARANCE

#2 SPREADERS 3'- 0" O.C. E.A. WAY MIN., 4" HP AT ENDS.

2" CLR MAX. (TO END OF HOOKED BARS ONLY)

-
- Diagram illustrating the reinforcement details for a slab and wall connection. The diagram shows a cross-section of a wall and a slab. The wall has a thickness of 16 inches. The slab has a thickness of 12 inches. The reinforcement includes #4 bars at 12 inches on center (O.C.) typical, and #4 bars at 12 inches O.C. for corners and ends per 10/S5.1. The diagram also shows the placement of #4 bars at 12 inches O.C. for the slab and #4 bars at 12 inches O.C. for the wall. The diagram is labeled with dimensions and notes.
- Notes:
- #4 @ 12" O.C., TYP.
 - ALT. #4 @ 12" O.C.
 - CONT. HK @ CORNERS & ENDS PER 10/S5.1
 - * SEE "A" FOR INFO NOT SHOWN.

SHORT BEND

$R_S = 3d$ FOR #3 THRU #8
 $4d$ FOR #9 THRU #11
 $5d$ FOR #14 & #18

LONG BEND

$R_L = 8d$ FOR ALL BARS

TIES & HOOPS

$6d$ EQUAL OR GREATER THAN $2 \frac{1}{2}''$ FOR #3-#5
 $12d$ FOR #6-#8

$R = 2d$ FOR #3 THRU #5
 $= 3d$ FOR #6 THRU #8

BENDS & STD HOOKS

BAR OFFSETS

NOTES:

STIRRUPS

10 CONSTRUCTION JOINTS IN WALLS & SLABS
SCALE: $1/2" = 1'-0"$

11 STAIR STRINGER FOOTING
SCALE: 1/2" = 1'-0"

12 WALL DETAIL REINF. @ CORNERS & INTER. SCALE: NTS