Code Data

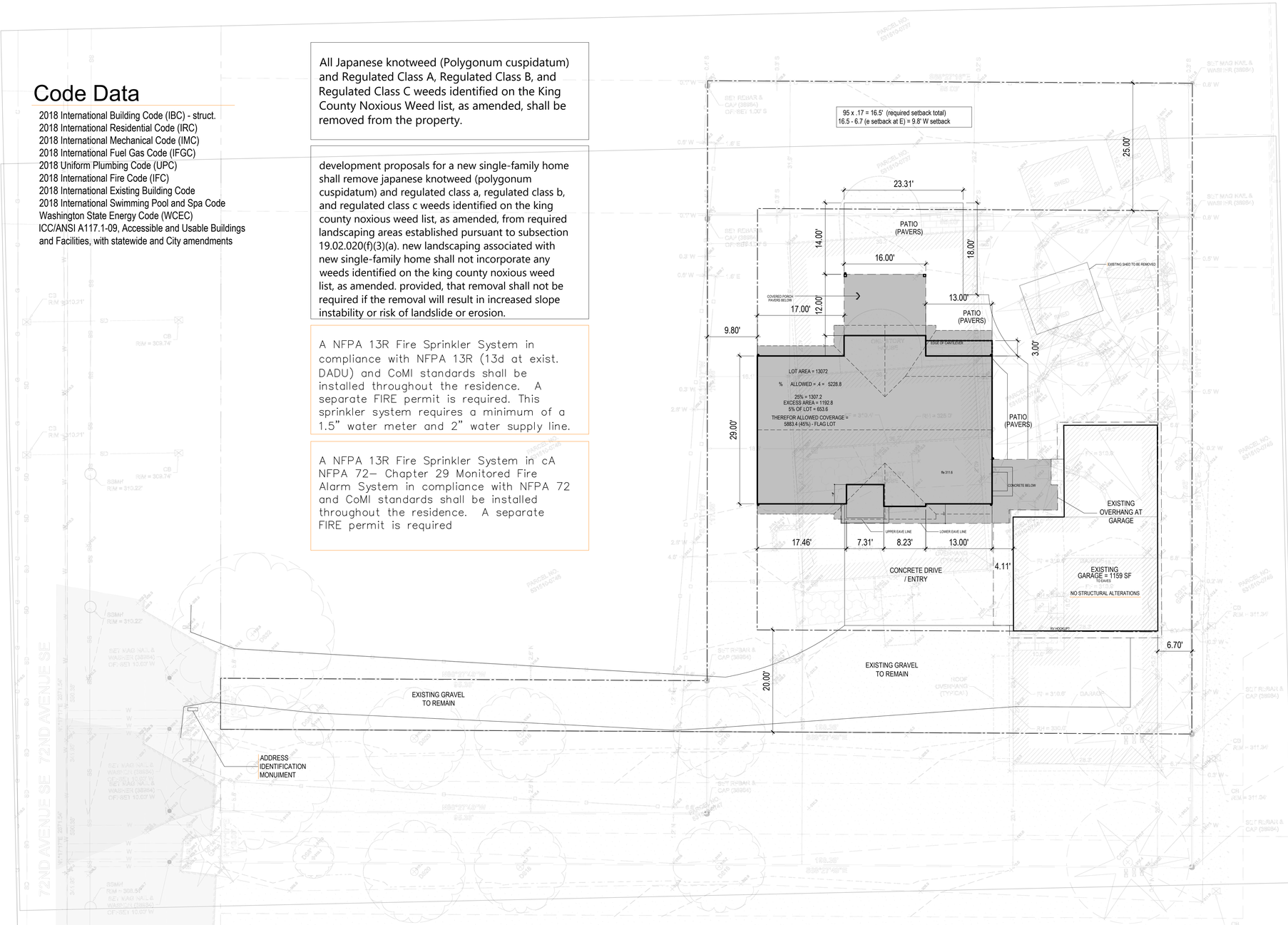
2018 International Building Code (IBC) - struct.
2018 International Residential Code (IRC)
2018 International Mechanical Code (IMC)
2018 International Fuel Gas Code (IFGC)
2018 Uniform Plumbing Code (UPC)
2018 International Fire Code (IFC)
2018 International Existing Building Code
2018 International Swimming Pool and Spa Code
Washington State Energy Code (WCEC)
ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, with statewide and City amendments

All Japanese knotweed (Polygonum cuspidatum) and Regulated Class A, Regulated Class B, and Regulated Class C weeds identified on the King County Noxious Weed list, as amended, shall be removed from the property.

development proposals for a new single-family home shall remove japanese knotweed (polygonum cuspidatum) and regulated class a, regulated class b, and regulated class c weeds identified on the king county noxious weed list, as amended, from required landscaping areas established pursuant to subsection 19.02.020(f)(3)(a). new landscaping associated with new single-family home shall not incorporate any weeds identified on the king county noxious weed list, as amended. provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

A NFPA 13R Fire Sprinkler System in compliance with NFPA 13R (13d at exist. DADU) and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required. This sprinkler system requires a minimum of a 1.5" water meter and 2" water supply line.

A NFPA 13R Fire Sprinkler System in cA 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



AVERAGE ELEVATION

ALL SEGMENTS LOCATED AT EL. 310

LOT COVERAGE (new shaded)

House roof to eaves = 2092.5 sf
(includes covered porches/decks = 452 sf)
Existing garage / ADU = 1159 sf
driveway = 2540 sf
TOTAL = 5791.5 sf
allowable = 13072 x .45 = 5882.4 sf

amount available for hardscape = 90.9 sf

HARDSCAPE

PATIO AND WALK = 600 sf
allowable = 13072 sf x .09 = 1176.5 sf

F.A.R. CALCULATION

Main Floor FA= 1374 sf
Upper Floor FA = 1413.4 sf
(e) ADU and garage = 960.4 sf
roof eave over 2nd floor porch = 32 sf
LESS stair modifier = (-92.3)

TOTAL = 3686.7 sf

allowable = 13072 x .4 = 5288.8

LOT SLOPE

HIGH POINT = 311'
LOW POINT = 309.7
LOT SLOPE = 1.3'/223.25' = 0.6%

Civil Engineer

Duffy Ellis
CES Civil Engineering
102 NW Canal St Seattle WA 98107
206.930.0342

Structural Engineer

Javid Abdi, PE, SE Atlas Consulting Structural Engineers
6810 NE 149th St Kenmore WA 98028
Phone: (206) 427-7233

Contractor

Aspen Homes NW
Mike Yeganeh
P.O. BOX # 1056
Mercer Island, WA 98040
Lic # ASPPENHN870MK

Project Description

Demolish existing and build new single family residence. Existing garage/ADU to remain.

Parcel Number/Legal

Parcel # = 5315100744
Legal Description:
MCGILVRAS ISLAND ADD LOT B CITY OF MERCER ISLAND SHORT PLAT 76-6-021 REC UNDER AF #7607020565 SD PLAT DAF N 127.67 FT OF W 190.36 FT OF SD LOT 4 BLK 9

ZONING = R-9.6
lot size =13,072 sf

Owner

LEI WU & INGRID CHANG
2956 72nd Ave SE Mercer Island

A. SITE PLAN

1/10" = 1'-0"

N

327 = SPOT ELEVATION, FINAL
= EAVE/ROOF LINE
= EXTENT OF LIVING AREA
= BUILDING FOOTPRINT (FOUNDATION EXTENTS)
SHADED AREA = BLDG EXTENTS TO EAVE
= EXISTING TOPOGRAPHY

9317 REGISTERED ARCHITECT CHRIS LUTHI STATE OF WASHINGTON

Wu-Chang Residence

2956 72nd Ave SE Mercer Island

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Site Plan

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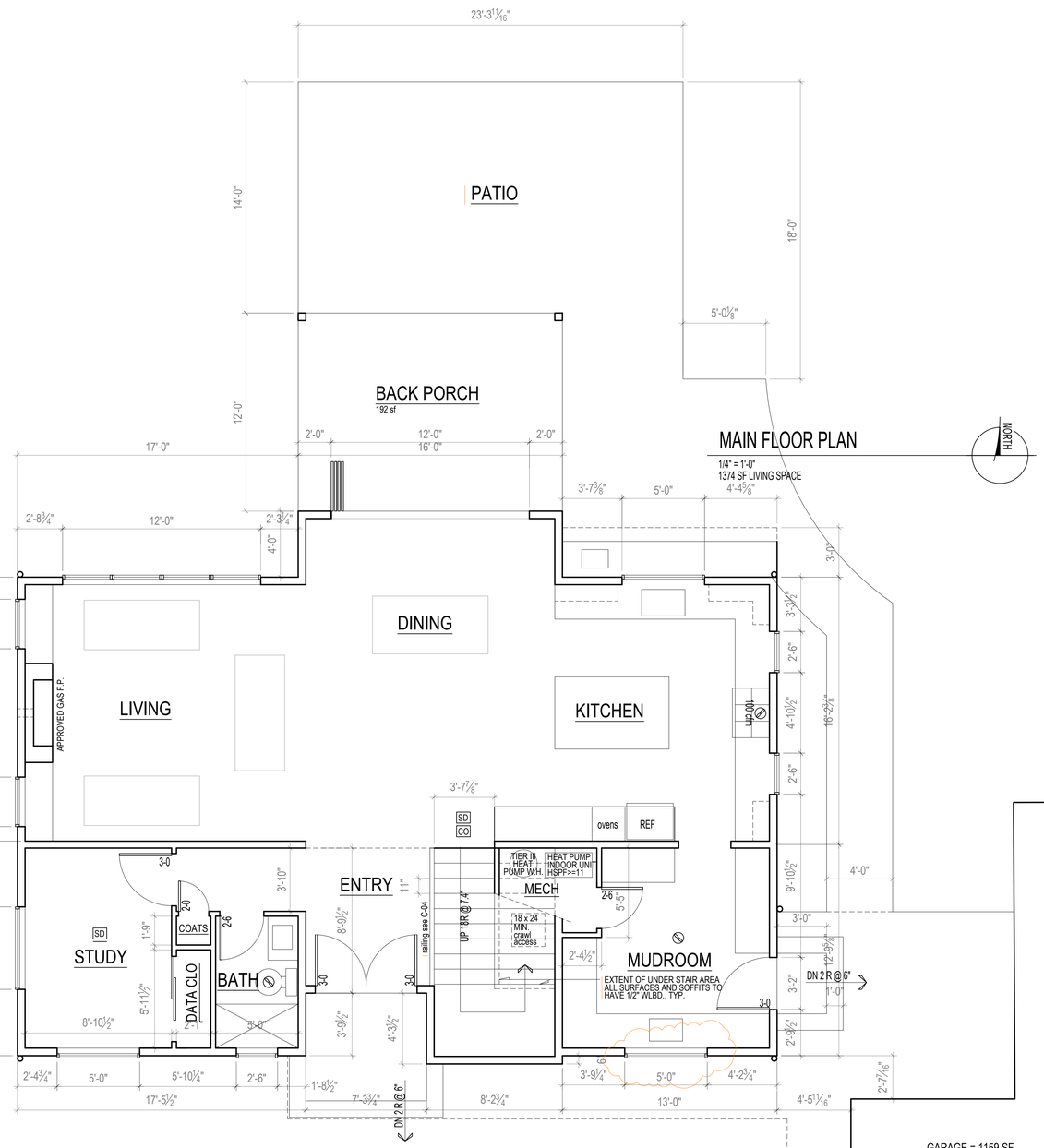
01

UPPER FLOOR PLAN

1/4" = 1'-0"
1413.4 SF LIVING SPACE

NORTH



MAIN FLOOR PLAN

1/4" = 1'-0"
1374 SF LIVING SPACE

NORTH

GARAGE = 1159 SF

NOTES

SD = SMOKE DETECTOR, HARDWIRE, INTERCONNECTED w/ BATTERY BACK-UP
CO = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP
HD = HEAT DETECTOR, HARDWIRE w/ BATTERY BACK-UP

DOORS ARE 3-0 x 6-8 (r.o. = 3'-2" x 6'-10") unless otherwise indicated

⊘ = FAN, 50 CFM UNLESS OTHERWISE INDICATED

FOR SHEAR WALL INFORMATION SEE STRUCTURAL PLANS

ALL INTERIOR WALLS TO BE 2x4, EXTERIOR WALLS 2x6, EXCEPT AS INDICATED, OR EXISTING

(E) =EGRESS WINDOWS

Contractor shall verify to Inspector all guards and railings shall be capable of resisting 200 lb load on top rail acting in any direction as required by IRC Table R301.5.

ALL WALLS FULL HIEGHT UNLESS OTHERWISE INDICATED

(T) =TEMPER/SAFETY GLAZE WINDOWS

ALL GAS F.P. TO BE APPROVED DIRECT VENT

9317 REGISTERED ARCHITECT CHRIS LUTHI STATE OF WASHINGTON

Wu-Chang Residence

2956 72nd Ave SE Mercer Island

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Floor Plans

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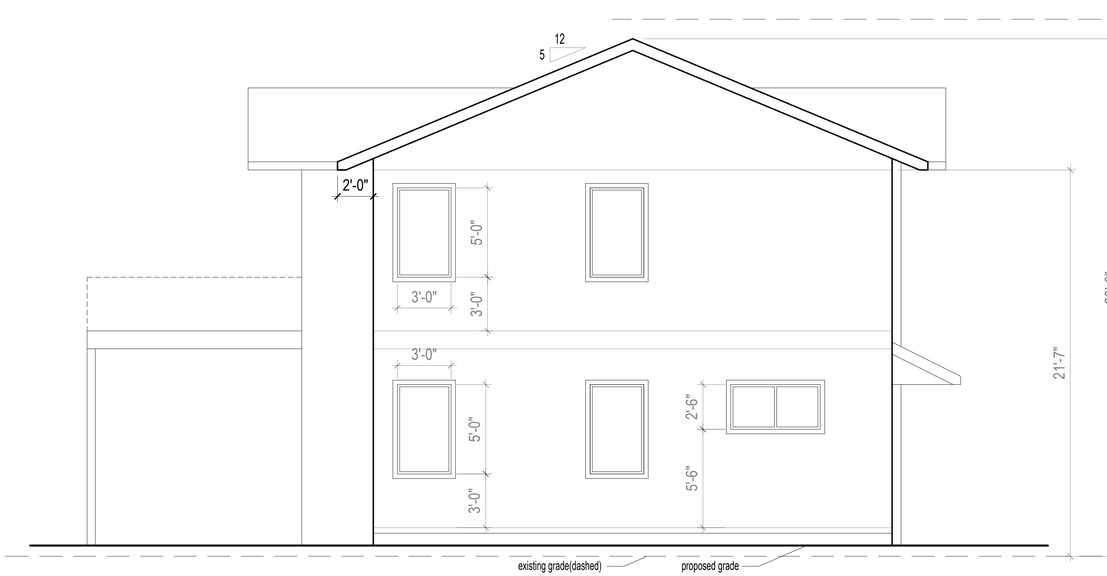
02

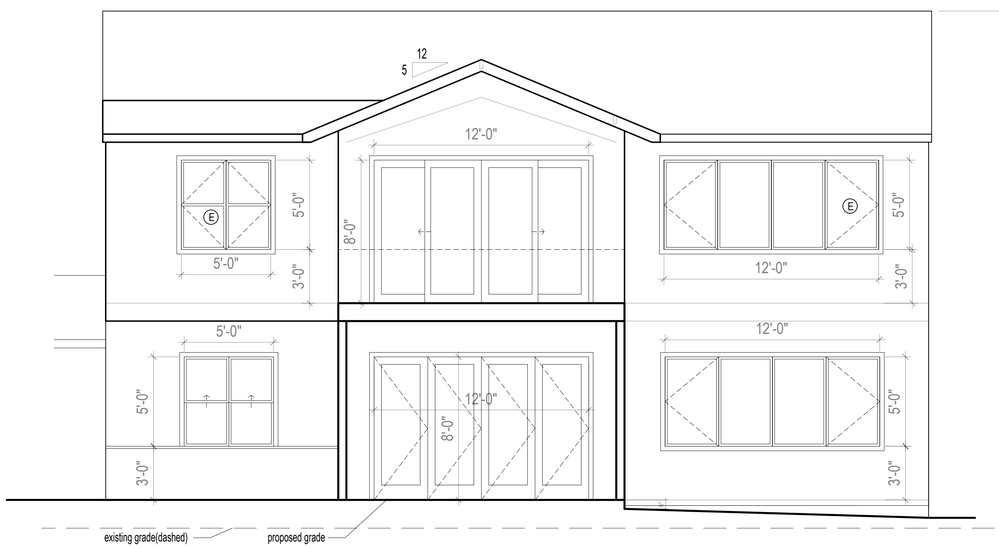


WEST ELEVATION

1/4" = 1'-0"

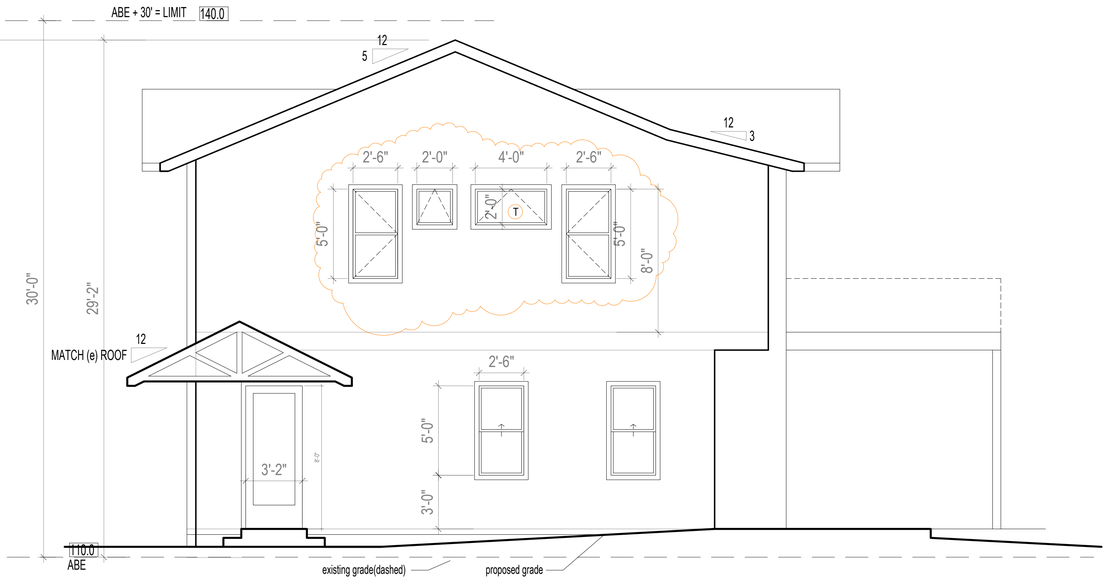
SOUTH ELEVATION

1/4" = 1'-0"



NORTH ELEVATION

1/4" = 1'-0"



EAST ELEVATION

1/4" = 1'-0"

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2956 72nd Ave SE Mercer Island

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Elevations

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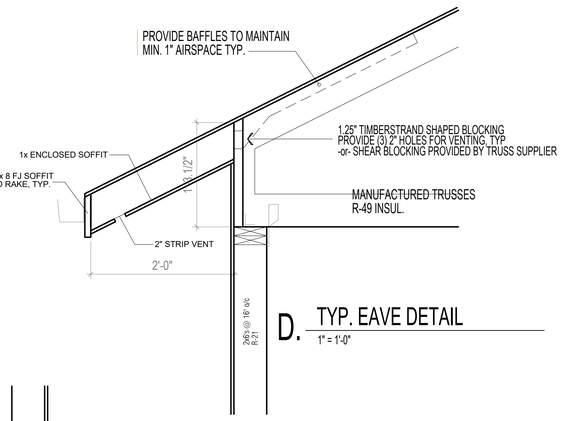
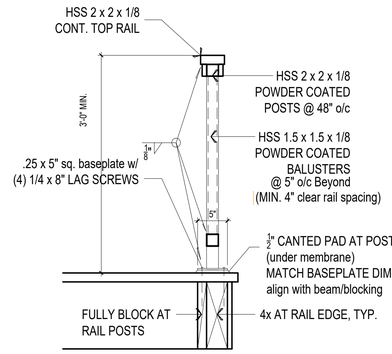
03

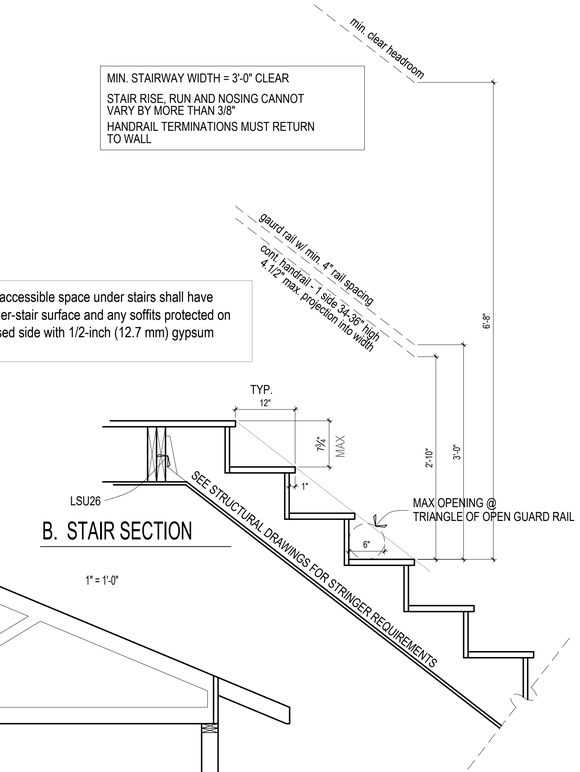


D. TYP. EAVE DETAIL
1" = 1'-0"



C. RAILING DETAIL
1" = 1'-0"

Contractor shall verify to Inspector all guards and railings shall be capable of resisting 200 lb load on top rail acting in any direction as required by IRC Table R301.5.



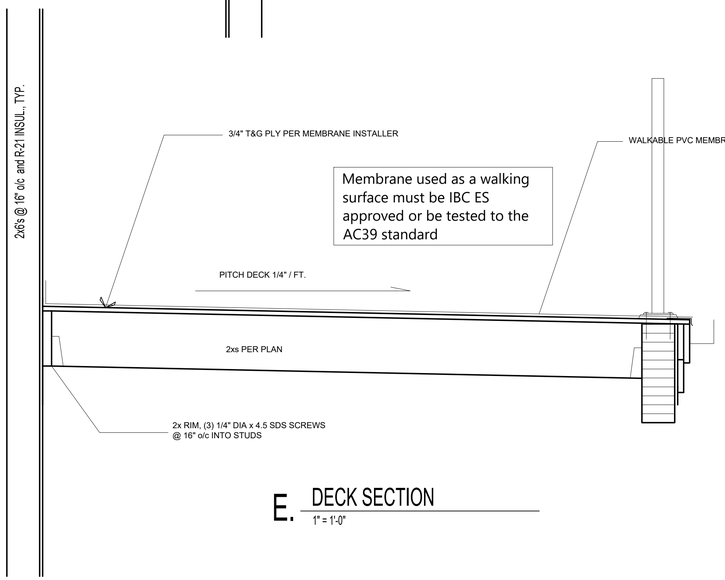
B. STAIR SECTION
1" = 1'-0"

MIN. STAIRWAY WIDTH = 3'-0" CLEAR

STAIR RISE, RUN AND NOSING CANNOT VARY BY MORE THAN 3/8"

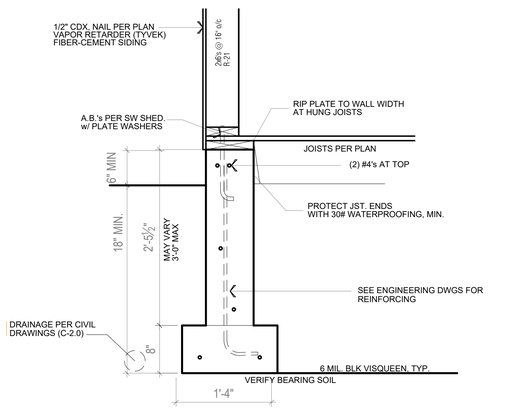
HANDRAIL TERMINATIONS MUST RETURN TO WALL

Enclosed accessible space under stairs shall have walls, under-stair surface and any soffits protected on the enclosed side with 1/2-inch (12.7 mm) gypsum board.

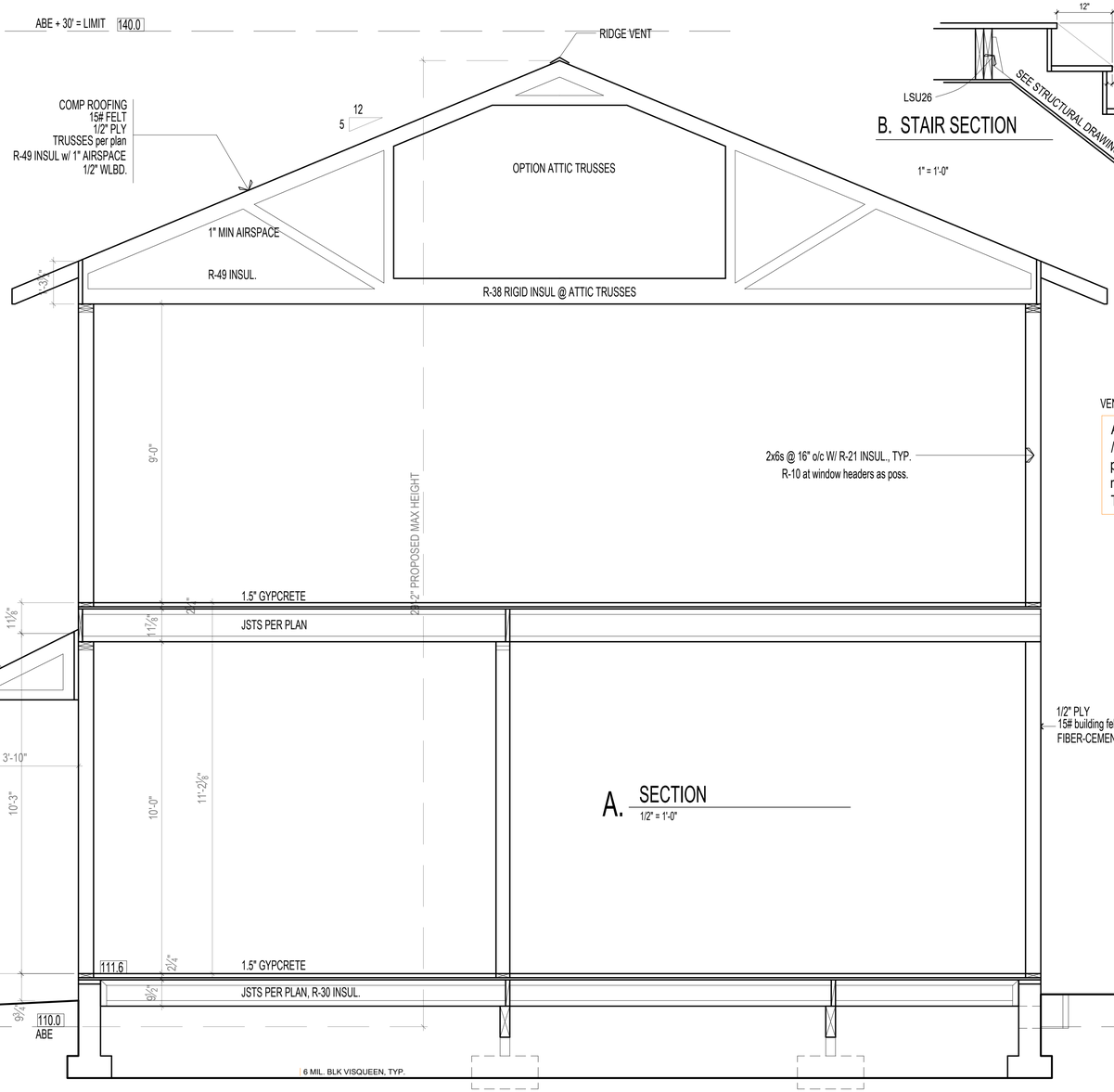


Membrane used as a walking surface must be IBC ES approved or be tested to the AC39 standard

E. DECK SECTION
1" = 1'-0"



F. TYP. FOUNDATION SECTION
1" = 1'-0"



A. SECTION
1/2" = 1'-0"

VENTING CALCS:

Attic area = 1334 sf, therefor venting required = 1334 sf / 150 = 8.9 sf
provided venting = 9.42 si/bay low x 36 bays = 339 si
ridge = 15 si/lnft x 67 lnft = 1005 si
TOTAL VENTING = 1344 si /144 si/sf = 9.3 sf > 8.9, ok

9317 REGISTERED ARCHITECT CHRIS LUTH STATE OF WASHINGTON

Wu-Chang Residence
2956 72nd Ave SE Mercer Island

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Sections & Details

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04

Energy Code Info - Primary

2018 WA STATE PRESCRIPTIVE PATH
HEATED FLOOR AREA = 2787.4 SF
LESS THAN 5000 SF HEATED SPACE - 6 CREDITS REQ.

energy credit option	credit value	summary
2	1	heat pump
2.2	1	2.0 ACH + HRV
3.5	1.5	central HP, HSPF>=11
4.1	0.5	AH in heated space
5.5	2	elec. HP WH
total credits	6	

PRIMARY RESIDENCE HVAC NOTES

DUCTED HEAT PUMP (HSPF>11.0) INT. AIR HANDLER
HEAT RECOVERY VENTILATION
REQUIRED VENTING = CONTINUOUS 120CFM
SET TO OPERATE AT 240 CFM FOR 2 HOURS IN EA. 4 HR PERIOD (50%)
PROVIDED BY VARIABLE SPEED HIGH EFF. FAN (MAX .35 WATTS/CFM)
CONTOLLED TO OPERATE AT LOW SPEED IN VENTILATION
MODE ONLY.

design professional or builder shall complete and post an "Insulation Certificate for Residential Construction" within 3' of the electrical panel prior to final inspection.

Maximum flow rates for shower heads and kitchen sink - 1.75 GPM or less. All other lavatory faucets - 1.0 GPM or less.

Per WSEC R402.4, The building thermal Envelope shall be constructed to limit air leakage to 2.0 air changes per hour maximum. The results of the test shall be signed by the party conducting the test and provided to the code official (R402.4.1.2). Per WSEC R403.1.1, at least one thermostat per dwelling unit shall be capable of controlling the heating and cooling system on a daily schedule. Per WSEC R403.2.2, Ducts, air handlers, and filter boxes shall be sealed. Per WSEC R404.1, A minimum of 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps.

All Climate Zones (Table R402.1.1)		
	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Glazed Fenestration SHGC [b,e]	n/a	n/a
Ceiling [e]	49	0.026
Wood Frame Wall [g,h]	21 int	0.056
Floor	30	0.029
Below Grade Wall [c,h]	10/15/21 int + TB	0.042
Slab [d,f] R-Value & Depth	10, 2 ft	n/a

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

ENERGY CREDIT DESCRIPTIONS

2.2

Compliance based on Section R402.4.1.2: Reduce the tested air leakage to 2.0 air changes per hour at maximum 50 Pascals or
For R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.25 cfm/sf maximum at 50 Pascals and
All whole house ventilation requirements as determined by Section M1507.3 of the International Residential Code or Section 403.8 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.65.

3.5

Air-source, centrally ducted heat pump with minimum HSPF of 11.0.

4.1

All supply and return ducts located in an unconditioned attic shall be deeply buried in ceiling insulation in accordance with Section R403.3.7.

For mechanical equipment located outside the conditioned space, a maximum of 10 linear feet of return duct and 5 linear feet of supply duct connections to the equipment may be outside the deeply buried insulation. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices.

Duct leakage shall be limited to 3 cfm per 100 square feet of conditioned floor area.
Air handler(s) shall be located within the conditioned space.

5.5

Water heating system shall include one of the following: Electric heat pump water heater meeting the standards for Tier III of NEEA's advanced water heating specification or
For R-2 Occupancy, electric heat pump water heater(s), meeting the standards for Tier III of NEEA's advanced water heating specification, shall supply domestic hot water to all units. If one water heater is serving more than one dwelling unit, all hot water supply and recirculation piping shall be insulated with R-8 minimum pipe insulation.

Window, Skylight and Door Schedule

Project Information: Mastan

Contact Information

Component Description	Ref.	U-factor	Qt.	Width Feet	Width Inch	Height Feet	Height Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)								0.0	0.00
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00
Vertical Fenestration (Windows and doors)									
ENTRY		0.30	1	6	2	8	0	49.3	14.80
STUDY		0.30	1	7	6	5	0	37.5	11.25
STUDY		0.30	1	5	0	5	0	25.0	7.50
KITCHEN		0.30	1	5	0	5	0	25.0	7.50
LR		0.30	2	2	6	2	6	12.5	3.75
LR		0.30	2	2	6	5	0	25.0	7.50
LR		0.30	1	6	6	2	8	16.3	4.88
LR		0.30	1	16	0	8	0	128.0	38.40
LR		0.30	2	8	0	2	6	40.0	12.00
DINING		0.30	1	12	0	8	0	96.0	28.80
LAUNDRY		0.30	1	3	2	8	0	25.3	7.60
HALL		0.30	2	6	2	3	1	38.0	11.41
MBED		0.30	3	3	0	1	8	13.5	4.05
MBED		0.30	2	5	0	6	0	60.0	18.00
MBED		0.30	1	5	0	8	0	40.0	12.00
MBATH		0.30	1	6	6	5	0	32.5	9.75
UP BATH		0.30	1	2	0	2	0	4.0	1.20
2BED		0.30	1	5	0	2	0	10.0	3.00
2BED		0.30	1	5	0	5	0	25.0	7.50
1BED		0.30	1	5	0	2	0	10.0	3.00
1BED		0.30	1	7	6	5	0	37.5	11.25
RECROOM		0.30	2	5	0	2	6	25.0	7.50
GUEST		0.30	1	5	0	4	8	23.3	7.00
								TOTALS: AREA	UA
Total Sum of Fenestration Area and UA *(for heating system sizing calculations)*								798.8	239.63

Per Table R303.1.3(5),default values of double glazed, lowE-b, argon filled, wood or vinyl or fiberglass frames of any frame type U=.30

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CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.935.4684
www.Centerline-Design.com

Wu-Chang Residence
2956 72nd Ave SE Mercer Island

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Energy Info

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General Structural Notes (GSN's)

CRITERIA:

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE ADMINISTRATIVE CODE AMENDMENTS, 2018 EDITION.

2. DESIGN LOADING CRITERIA
   RISK CATEGORY SBC TABLE 1604.5 II
   ROOF SNOW LOAD . . . . 25 PSF (I_S = 1.0)
   + 5 PSF RAIN SURCHARGE
   ROOF DEAD LOAD . . . . 15 PSF (20 PSF @ ATTIC)
   RESIDENTIAL LIVE LOAD . . . . 40 PSF
   DECK LIVE LOAD . . . . 60 PSF
   ATTIC LIVE LOAD . . . . 20 PSF
   FLOOR DEAD LOAD . . . . 25 PSF
   DECK DEAD LOAD . . . . 15 PSF

   EARTHQUAKE . . . . SEISMIC DESIGN CATEGORY D
   $S_S = 1.56$, $S_1 = 0.64$, $S_{DS} = 1.17$, $S_{D1} = 0.73$
   EQUIVALENT LATERAL FORCE PROCEDURE
   LIGHT FRAME (WOOD) WALLS AND ROOFS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR
   $R = 6.5$, $\Omega_0 = 2\frac{1}{2}$, $I_E = 1.0$, $C_d = 4$, $C_s = 0.180$
   BASE SHEAR V = 18.0 K – LRFD
   WIND . . . . 110 MPH, EXPOSURE "B", Kzt = 1.0
   COMPONENTS & CLADDING . . . . –29.2/–17.5 PSF MAX. AT WALLS (LRFD/ASD)
   –34.7/–20.8 GROSS UPLIFT AT ROOF (LRFD/ASD)
   WIND PRESSURES BASED ON LESS THAN 10 SQUARE FOOT TRIBUTARY AREAS NEAR WALL CORNERS OR ROOF EDGES (EXCLUDING CORNER ZONES AT ROOF). REDUCED DESIGN PRESSURES MAY BE CALCULATED IN ACCORDANCE WITH ASCE 7–16 CHAPTER 30.

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ENGINEER OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE BUILDING LAYOUT DIMENSIONS (GRID LAYOUTS, SITE COORDINATES, ETC.) AMONGST ALL TRADES, INCLUDING SHOP FABRICATED ITEMS.

4. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING, BOTH FOR VERTICAL LOADS AND LATERAL STABILITY, FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS.

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

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

7. ALL STRUCTURAL SYSTEMS COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

8. SEISMIC BRACING AND/OR GRAVITY SUPPORT AND ANCHORAGE OF ALL MECHANICAL OR ELECTRICAL EQUIPMENT SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON, EXCEPT FOR ELEMENTS SPECIFICALLY SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. THE MECHANICAL/ELECTRICAL CONTRACTOR MUST HIRE THE ENGINEER AND IS RESPONSIBLE FOR ALL COSTS RELATED TO THE PURCHASE AND INSTALLATION OF NECESSARY SUPPORTS, BRACING AND ANCHORAGE. SEISMIC BRACING AND ANCHORAGE DESIGN AND CONSTRUCTION SHALL COMPLY WITH CHAPTER 13 OF ASCE 7–10.

9. SHOP DRAWING REVIEW: SHOP DRAWINGS FOR TRUSSES SHALL BE SUBMITTED TO THE CONTRACTOR, ARCHITECT, AND ENGINEER OF RECORD FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS. DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY. THE REPRODUCIBLE SHALL BE MARKED AND RETURNED. SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

10. DEFERRED SUBMITTALS SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF WASHINGTON. THE COMPONENT DESIGNER SHALL BE A REGISTERED STRUCTURAL ENGINEER IF REQUIRED BY THE BUILDING OFFICIAL OF THE LOCAL JURISDICTION. BUILDING COMPONENT SUBMITTALS SHALL INCLUDE THE DESIGNING PROFESSIONAL ENGINEER'S STAMP AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE INCLUDING ACCOMMODATION FOR STRUCTURAL DISPLACEMENT PER ASCE 7–10 SECTION 13.3.2. AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE INCLUDED IN THE SUBMITTAL. THE CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL AND HAVE THE DEFERRED SUBMITTALS ON SITE FOR THE GOVERNING JURISDICTIONS INSPECTORS USE AND REFERENCE. THE FOLLOWING BUILDING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:
    - PREFABRICATED CONNECTOR PLATE WOOD TRUSSES (SEE GENERAL NOTE #22)

GEOTECHNICAL:

11. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH THE SPECIFICATIONS OR AS DIRECTED BY THE OWNER APPOINTED GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH OR CONTROLLED, COMPACTED STRUCTURAL FILL AT LEAST 12" BELOW LOWEST ADJACENT FINISHED GRADE. THE OWNER APPOINTED GEOTECHNICAL ENGINEER SHALL APPROVE FOOTING EXCAVATION/PREPARATION PRIOR TO PLACEMENT OF ALL FOOTINGS.
    ALLOWABLE SOIL PRESSURE . . . . 1,500 PSF
    REFERENCE: ASSUMED PER IBC TABLE 1806.2
    ALL BOTTOM OF EXTERIOR FOOTINGS, AND INTERIOR FOOTINGS IN AN UNCONDITIONED SPACE, SHALL BE SET 12" BELOW GRADE AT A MINIMUM TO REACH FROST DEPTH.

ANCHORAGE:

12. DRIVE PINS AND OTHER POWDER–ACTUATED FASTENERS SHALL BE ONE OF THE FOLLOWING INSTALLED IN STRICT ACCORDANCE WITH THE ICC–ES REPORTS INDICATED AND MANUFACTURER'S INSTRUCTIONS INCLUDING MINIMUM EMBED REQUIREMENTS: "TE SERIES" (0.157" DIAMETER) AS MANUFACTURED BY ITW RAMSET (ICC–ES NO. 1799); OR "X–U" (0.157" DIAMETER) AS MANUFACTURED BY HILTI, INC. (ICC–ES NO. 2269); OR "STRONG–TIE PDPA" (0.157" DIAMETER) AS MANUFACTURED BY SIMPSON STRONG–TIE COMPANY, INC. (ICC–ES NO. 2138); OR "CSI PIN" (0.157" DIAMETER) AS MANUFACTURED BY DEWALT/POWERS (ICC–ES NO. 2024); OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3–1/2" TO NEAREST CONCRETE EDGE.

CONCRETE:

13. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 318–19 CHAPTERS 20 AND 26 AND ACI 301. CONCRETE SHALL ATTAIN A 28–DAY STRENGTH OF f'c = 3,000 PSI, HOWEVER STRUCTURAL DESIGN ASSUMES A COMPRESSIVE STRENGTH OF 2,500 PSI TO OMIT SPECIAL INSPECTION REQUIREMENTS PER IBC 1705.3. MAXIMUM WATER–CEMENTITIOUS MATERIAL RATIO FOR INTERIOR SLABS SHALL BE BETWEEN 0.40 AND 0.44. ALL CONCRETE SHALL BE EXPOSURE CLASSES F0, S0, W0, AND C0 PER ACI 318–19 TABLES 19.3.1.1 AND 19.3.2.1 EXCEPT AS NOTED BELOW.
    ALL CONCRETE EXPOSED TO EARTH (FOUNDATIONS, ETC.): (F0, S0, W0, C1)
    ALL CONCRETE EXPOSED TO WEATHER: (F1, S0, W0, C1)
    CONCRETE MIXES SHALL MEET OR EXCEED THE REQUIREMENTS ABOVE. ALTERNATIVELY, PER SRC R402.2 CODE ALTERNATE, 5½ SACK 2500 PSI CONCRETE MIX IN ACCORDANCE WITH IBC 1904.2 MAY BE USED.

14. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60,000 PSI. GRADE 60 REINFORCING BARS WHICH ARE TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCEMENT COMPLYING WITH ASTM A615(S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D1.4 ARE SUBMITTED. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.

15. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315–99 AND 318–14. LAP ALL CONTINUOUS REINFORCEMENT IN ACCORDANCE WITH "REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH SCHEDULE" OF 10/S3.1. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 12" AT SIDES AND ENDS. NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS OTHERWISE NOTED ON THE DRAWINGS OR APPROVED BY THE STRUCTURAL ENGINEER.

16. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
    FOOTINGS AND OTHER UNFORMED SURFACES
    CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . 3"
    FORMED SURFACES EXPOSED TO EARTH
    (i.e. WALLS BELOW GROUND)OR WEATHER (#5 BARS OR SMALLER). . . . . 1½"

17. BONDING AGENT SHALL BE "MASTEREMACO ADH 326" BY BASF CORPORATION. OR EQUIVALENT, AND SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST HARDENED CONCRETE. PLACE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, INCLUDING PREPARATION OF EXISTING SURFACES. CONCRETE SHALL BE CONSIDERED HARDENED AFTER 56 DAYS.

18. NON–SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (6,000 PSI MINIMUM).

IBC TABLE 1705.3 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

REQUIRED?	VERIFICATION & INSPECTION	CONTINUOUS	PERIODIC	REF STD.	IBC REF.
N/A	1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS AND VERIFY PLACEMENT.	---	X	ACI 318 CH. 20, 25.2, 25.3, 26.5.1–26.5.3	1908.4
N/A	2. REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706. B. INSPECT SINGLE–PASS FILLET WELDS, MAXIMUM 5/16"; AND C. INSPECT ALL OTHER WELDS	--- X	X X	AWSD1.4 ACI 318 26.5.4	---
N*	3. INSPECT ANCHORS CAST IN CONCRETE.	---	X	ACI 318: 17.8.2	---
N/A	4. INSPECT ANCHORS POST–INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A	X	X	ACI 318: 17.8.2.4 ACI 318:17.8.2	---
N*	5. VERIFY USE OF REQUIRED DESIGN MIX.	---	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
N*	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	ASTM C 172 ASTM C 31 ACI 318: 26.4.5, 26.12	1908.10
N*	7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
N*	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 26.4.7–26.4.9	1908.9
N/A	9. INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES; AND B. GROUTING OF BONDED PRESTRESSING TENDONS	X X	--- ---	ACI 318: 26.9.2.1 ACI 218: 26.9.2.3	---
N/A	10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	---	X	ACI 318: CH. 26.8	---
N*	11. VERIFY IN–SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST–TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUC'L SLABS.	---	X	ACI 318: 26.10.2	---
N*	12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI318: 26.10.1(b)	---

* EXCEPTIONS 2 PER IBC SECTION 1705.3 APPLIES TO CONCRETE WORK ON THIS PROJECT.

WOOD:

19. FRAMING LUMBER SHALL BE KILN DRIED OR MC–19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17 OR W.W.P.A. WESTERN LUMBER GRADING RULES. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

PLATES, LEDGERS & MISC.	DOUGLAS FIR NO. 3 OR STUD GRADE
LIGHT FRAMING:	MIN. BASIC DESIGN STRESS, F_b = 525 PSI, E = 1400 KSI F_c = 775 PSI, F_t = 325 PSI
JOISTS & RAFTERS:	DOUGLAS FIR NO. 2 MIN. BASIC DESIGN STRESS, F_b = 900 PSI, E = 1600 KSI F_c = 1350 PSI, F_t = 575 PSI
BEAMS:	DOUGLAS FIR NO. 1
4x_	MIN. BASIC DESIGN STRESS, F_b = 1000 PSI, E = 1700 KSI F_c = 1500 PSI, F_t = 675 PSI
6x_	MIN. BASIC DESIGN STRESS, F_b = 1350 PSI, E = 1600 KSI F_c = 925 PSI, F_t = 675 PSI
COLUMNS:	DOUGLAS FIR NO. 1
4x_	MIN. BASIC DESIGN STRESS, F_b = 1000 PSI, E = 1700 KSI F_c = 1500 PSI, F_t = 675 PSI
6x_	MIN. BASIC DESIGN STRESS, F_b = 1200 PSI, E = 1600 KSI F_c = 1000 PSI, F_t = 825 PSI

20. MANUFACTURED LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST OR APPROVED EQUAL. REQUESTS FOR APPROVAL AS EQUAL WILL REQUIRE SUBMITTAL OF ICC REPORT EQUIVALENT TO ESR–1387 FOR LAMINATED VENEER LUMBER (LVL, LAMINATED STRAND LUMBER (LSL), OR PARALLEL STRAND LUMBER (PSL). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

LVL –	F_b = 2,600	F_v = 290 PSI	E = 2,000,000 PSI
LSL –	F_b = 1,900	F_v = 150 PSI	E = 1,300,000 PSI

21. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND A.I.T.C. STANDARDS IN ACCORDANCE WITH SBC SECTION 2303.1.3. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. HORIZONTAL MEMBERS AND INCLINED MEMBERS OF LESS THAN 1:1 SLOPE SHALL HAVE A RADIUSED CAMBER OF 3,500 FT. UNLESS OTHERWISE NOTED.

SIMPLE SPAN BEAMS	DOUGLAS FIR COMBINATION 24F–V4 F_b = 2400 PSI; F_v = 265 PSI; E = 1,800,000 PSI
CONTINUOUS OR CANTILEVERED BEAMS	DOUGLAS FIR COMBINATION 24F–V8 F_b = 2400 PSI; F_v = 265 PSI; E = 1,800,000 PSI THESE MEMBERS ARE NOTED AS '*' IN PLAN

GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON–CORROSIVE, APPROVED PRESERVATIVE.

22. PREFABRICATED CONNECTOR PLATE WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH ANSI/TPI I–2007 AND IBC SECTION 2303.4 FOR THE SPANS AND CONDITIONS SHOWN ON THE DRAWINGS. DESIGN LOADS SHALL BE AS FOLLOWS:

ROOF TRUSSES

TOP CHORD LIVE LOAD	25 PSF, SNOW
BOTTOM CHORD LIVE LOAD	0 PSF ~or~ 20 PSF AT ATTIC TRUSSES
TOP CHORD DEAD LOAD	7.5 PSF
BOTTOM CHORD DEAD LOAD	7.5 PSF ~or~ 12.5 PSF AT ATTIC TRUSSES
WIND UPLIFT (TOP CHORD)	SEE NOTE#2 COMPONENTS & CLADDING ROOF LOADS

THE TRUSS MANUFACTURER SHALL COORDINATE LOCATIONS AND SUPPORT CONFIGURATIONS OF PLUMBING, MECHANICAL UNITS, DUCTS, AND/OR OTHER MISCELLANEOUS ITEMS WITH THE CONTRACTOR PRIOR TO TRUSS FABRICATION. THE TRUSS MANUFACTURER SHALL DESIGN TRUSSES TO SUPPORT ALL LOADS ASSOCIATED WITH SUCH ITEMS. THE TRUSS SHOP DRAWINGS SHALL INCLUDE ALL DESIGN LOADS AND APPROVED HANGER CONNECTION DETAILS TO TRUSS CHORDS FOR SUPPORT OF HUNG MECHANICAL SYSTEM COMPONENTS AS APPLICABLE.

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SHOP DRAWINGS AND CALCULATIONS SHALL BE PROVIDED AS A DEFERRED SUBMITTAL TO THE CONTRACTOR AND STRUCTURAL ENGINEER OF RECORD PER GENERAL STRUCTURAL NOTE 13. SHOP DRAWINGS SHALL INDICATE SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP–DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS OTHERWISE NOTED ON THE DRAWINGS. THE TRUSS MANUFACTURER SHALL PROVIDE ALL TRUSS–TO–TRUSS BEAM/JOIST CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. THE TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE DETAILS FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

23. ROOF & WALL SHEATHING SHALL BE APA RATED, EXTERIOR OR EXPOSURE 1 PLYWOOD OR ORIENTED STRAND BOARD (OSB) IN CONFORMANCE WITH SBC SECTION 2303.1.5. SHEATHING SHALL BE MANUFACTURED UNDER THE PROVISIONS OF VOLUNTARY PRODUCT STANDARDS DOC PS 1–09, PS 2–10, OR APA PRP–108 PERFORMANCE STANDARDS AND POLICIES FOR STRUCTURAL USE PANELS. SEE DRAWINGS FOR THICKNESS, SPAN RATING, AND NAILING REQUIREMENTS.

24. AT NON–SHEARWALL EXTERIOR WALLS, UNLESS OTHERWISE NOTED, WALL SHEATHING SHALL BE ½" (NOMINAL) WITH SPAN RATING OF 24/0; WITH 8d @ 6" oc PANEL NAILING (APPLIES TO ALL SHEATHING PANEL EDGES); AND 8d @ 12" oc TO INTERMEDIATE FRAMING.

25. ALL PRESSURE–TREATED (P.T.) WOOD MEMBERS SPECIFIED ON THE DRAWINGS THAT OCCUR ABOVE GROUND AND CONTINUOUSLY PROTECTED FROM MOISTURE (INTERIOR LOCATIONS) SHALL BE PRESSURE–TREATED WITH DOT SODIUM BORATE (SBX) WITHOUT $NaSiO_2$. AT LOCATIONS PERMANENTLY EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, WOOD MEMBERS SHALL BE PRESSURE–TREATED WITH ALKALINE COPPER QUAT (ACQ–C FOR DOUGLAS–FIR) PRESERVATIVE UNLESS OTHERWISE NOTED. AMMONIACAL COPPER ZINC ARSENATE (ACZA) PRESERVATIVE OR OTHER PRESERVATIVES WITH AMMONIA CARRIERS, SHALL NOT BE USED.
    GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON–CORROSIVE, APPROVED PRESERVATIVE.
    SEE NOTE #27 FOR MATERIAL REQUIREMENTS OF CONNECTORS AND FASTENERS IN CONTACT WITH PRESSURE–TREATED MEMBERS.

26. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG–TIE" BY SIMPSON COMPANY, AS SPECIFIED N THEIR WOOD CONSTRUCTION CONNECTORS CATALOG NO. C–C–2017–18. INSTALL NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, CENTER STRAP ON JOINT AND INSTALL NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER, WITH EQUAL NUMBER AND SIZE OF FASTENERS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. INSTALL WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

    ALL TIMBER CONNECTORS IN CONTACT WITH PRESSURE–TREATED WOOD THAT USED PRESERVATIVE CHEMICALS OTHER THAN DOT SODIUM BORATE (SBX) WITHOUT $NaSiO_2$ SHALL BE MANUFACTURED FROM Z_{MAX} STEEL BY SIMPSON (G185 STEEL PER ASTM A653), OR TYPE 304 OR 316 STAINLESS STEEL. ALTERNATIVELY, CONNECTORS CAN BE POST HOT DIP GALVANIZED PER ASTM A123 OR MECHANICALLY GALVANIZED PER ASTM B695, CLASS 55 OR GREATER. STAINLESS STEEL FASTENERS SHALL BE USED WITH STAINLESS STEEL CONNECTORS, AND HOT DIP GALVANIZED FASTENERS PER ASTM A153 SHALL BE USED WITH GALVANIZED CONNECTORS.

27. WOOD FRAMING NOTES: THE FOLLOWING SHALL APPLY UNLESS OTHERWISE NOTED ON THE DRAWINGS:
    A. ALL WOOD FRAMING DETAILS SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE SBC. MINIMUM NAILING SHALL CONFORM TO SBC TABLE 2304.9.1 OR CURRENT ICC–ES REPORT NER–272. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. INSTALL WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO 2012 NDS SECTION 11.1.4, AND INSTALLATION OF BOLTS SHALL CONFORM TO 2012 NDS SECTION 11.1.3.

    B. WALL FRAMING: TWO STUDS MINIMUM SHALL BE INSTALLED AT THE ENDS OF ALL WALLS, UNLESS NOTED OTHERWISE NOTED. INSTALL SOLID BLOCKING FOR WOOD COLUMN THROUGH FLOOR SPACES TO SUPPORTS BELOW.
    ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS @ 12" oc STAGGERED OR BOLTED TO CONCRETE WITH ⅝"ø ANCHOR BOLTS @ 4'–0" oc PER SBC SECTION 2308.6 (EMBED 7"), UNLESS OTHERWISE NOTED. 3" x 3" x 0.229" PLATE WASHERS SHALL BE USED WITH ALL SILL PLATE ANCHOR BOLTS AND INSTALLED PER AF&PA SDPWS–2008 SECTION 4.3.6.4.3. INDIVIDUAL MEMBERS OF BUILT–UP STUD POSTS SHALL BE NAILED TO EACH OTHER WITH 16d @ 12" oc STAGGERED.

    C. FLOOR AND ROOF FRAMING: INSTALL SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH (2)16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI–JOIST BEAMS TOGETHER WITH 16d@12"oc STAGGERED.
    ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AS SHOWN ON THE DRAWINGS. INSTALL APPROVED PANEL EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE–AND–GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING ALLOW ⅛" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d@12"oc. IN ACCORDANCE WITH SBC SECTION 1604.8.3, DECKS SHALL BE POSITIVELY ANCHORED TO THE STRUCTURE BY MEANS OTHER THAN NAILS SUBJECT TO WITHDRAWAL. ANCHOR WITH MINIMUM (1) CS16 STRAP AT EACH END ATTACHED TO DECK JOISTS AND TO A SOLID BLOCKING MEMBER WITHIN THE BUILDING.

    D. NAILING: A MINIMUM NAIL DIAMETER AND LENGTH SHALL BE AS FOLLOWS:

	NAIL SIZE ON DRAWINGS	DIAMETER x LENGTH
SHEATHING NAILS	8d	0.131" x 2¼"
	10d	0.148" x 2½"
FRAMING NAILS	10d	0.148" x 3"
	16d	0.148" x 3¼"

    E. WOOD SHRINKAGE: THE PLUMBING, FIRE PROTECTION, DRAINAGE, MECHANICAL, ELECTRICAL, CLADDING, AND OTHER SYSTEMS INSTALLED WITHIN THE BUILDING SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE VERTICAL SHRINKAGE AT ALL WOOD FRAMING LEVELS. THE WOOD SHRINKAGE AMOUNT SHALL BE ASSUMED TO EQUAL ⅜" FOR EACH WOOD FRAMED FLOOR LEVEL.

Minimum Connectors and Fasteners for Wood Members per IBC 2018

DESCRIPTION OF BLDG. ELEMENT	NUMBER AND TYPE OF FASTENERS	SPACING & LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS, OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3–8d COMMON (2½" x 0.131"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2–8d COMMON (2½" x 0.131") 2–3" x 0.131" NAILS 2–3" x 14 GAGE STAPLES	EACH END, TOENAIL
	2–16d COMMON (3½" x 0.162") 3–3" x 0.131" NAILS 3–3" x 14 GAGE STAPLES	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3½" x 0.162") @ 6" oc 3" x 0.131" NAILS @ 6" oc 3" x 14 GAGE STAPLES @ 6" oc	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	3–8d COMMON (2½" x 0.131"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITION (NO THRUST) (SEE 2308.7.3.1, TABLE 2308.7.3.1)	3–16d COMMON (3½" x 0.162"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	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" x 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE 2308.7.5, TABLE 2308.7.5)	3–10d COMMON (3" x 0.148"); or 3–16d BOX (3½" x 0.135"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2" RIDGE BEAM	2–16d COMMON (3½" x 0.162"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131 NAILS; or 3–3" x 14 GAGE STAPES, 7/16" CROWN	END NAIL
	3–10d COMMON (3½" x 0.148"); or 3–16d BOX (3½" x 0.135"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131 NAILS; or 4–3" x 14 GAGE STAPES, 7/16" CROWN	TOENAIL
WALL		
8. STUD TO STUD (NOT AT SHEARWALL CHORDS)	16d COMMON (3½" x 0.162")"	24" oc FACE NAIL
	10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	16" oc FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTION WALL CORNERS	16d COMMON (3½" x 0.162")"; or	16" oc FACE NAIL
	16d BOX (3½" x 0.135")"; or	12" oc FACE NAIL
	3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	12" oc FACE NAIL
10. BUILT–UP HEADER (2" TO 2" HDR.)	16d COMMON (3½" x 0.162")"; or	16" oc EA. EDGE, FACE NAIL
	16d BOX (3½" x 0.135")	12" oc EA. EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4–8d COMMON (2½" x 0.131"); or 4–10d BOX (3" x 0.128")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3½" x 0.162"); or	16" oc FACE NAIL
	10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 7/16" CROWN	12" oc FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8–16d COMMON (3½" x 0.162"); or 12–10d BOX (3" x 0.128"); or 12–3" x 0.131" NAILS; or 12–3" x 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EA. SIDE OF END JOINT
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING NOT AT SHEARWALL	16d COMMON (3½" x 0.162")"; or	16" oc FACE NAIL
	16d BOX (3½" x 0.135")"; or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 7/16" CROWN	12" oc FACE NAIL
WALL (CONTINUED)		
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING AT SHEARWALL	2–16d COMMON (3½" x 0.162"); or 3–16d BOX (3½" x 0.135"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	16" oc FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	4–8d COMMON (2½" x 0.131"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
	2–16d COMMON (3½" x 0.162"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	END NAIL
17. TOP OR BOTTOM PLATE TO STUD	2–16d COMMON (3½" x 0.162"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	END NAIL
18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2–16d COMMON (3½" x 0.162"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1" BRACE TO EACH STUD AND PLATE	2–8d COMMON (2½" x 0.131"); or 2–10d BOX (3" x 0.128"); or 2–3" x 0.131" NAILS; or 2–3" x 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
20. 1" x 6" SHEATHING TO EACH BEARING	2–8d COMMON (2½" x 0.131"); or 2–10d BOX (3" x 0.128"); or	FACE NAIL
21. 1" x 8" AND WIDER SHEATHING TO EACH BEARING	3–8d COMMON (2½" x 0.131"); or 3–10d BOX (3" x 0.128"); or	FACE NAIL
FLOOR		
22. JOIST TO SILL, TOP PLATE, OR GIRDER	3–8d COMMON (2½" x 0.131"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL, OR OTHER FRAMING BELOW	8d COMMON (2½" x 0.131"); or 10d BOX (3" x 0.128"); or 3" x .131" NAILS; r 3" x 14 GAGE STAPLES, 7/16" CROWN	6" o.c., TOENAIL
24. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2–8d COMMON (2½" x 0.131"); or 2–10d BOX (3" x 0.128")	FACE NAIL
25. 2" SUBFLOOR TO JOIST OR GIRDER	2–16d COMMON (3½" x 0.162")	FACE NAIL
26. 2" PLANKS (PLANK & BEAM – FLOOR & ROOF)	2–16d COMMON (3½" x 0.162")"	EA. BEARING, FACE NAIL
27. BUILT–UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" x 0.192")	32" o.c., FACE NAIL TOP & BOT. STAGGERED ON OPPOSITE SIDES
	10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 7/16" CROWN	24" o.c., FACE NAIL AT TOP & BOT. STAGGERED ON OPP. SIDES
	AND: 2–20d COMMON (4" x 0.192"); or 3–10d BOX (3" x 0.128"); or 3–3" x 0.131" NAILS; or 3–3" x 14 GAGE STAPLES, 7/16" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3–16d COMMON (3½" x 0.162"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	3–16d COMMON (3½" x 0.162"); or 4–10d BOX (3" x 0.128"); or 4–3" x 0.131" NAILS; or 4–3" x 14 GAGE STAPLES, 7/16" CROWN	END NAIL
30. BRIDGING OR BLOCKING TO JOIST, RAFTER, OR TRUSS	2–8d COMMON (2½" x 0.131"); or 2–10d BOX (3" x 0.128"); or 2–3" x 0.131" NAILS; or 2–3" x 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL

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STRUCTURAL
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JAVID ABDI
53159

Wu-Chang Residence
2956 72nd Ave SE - Mercer Island

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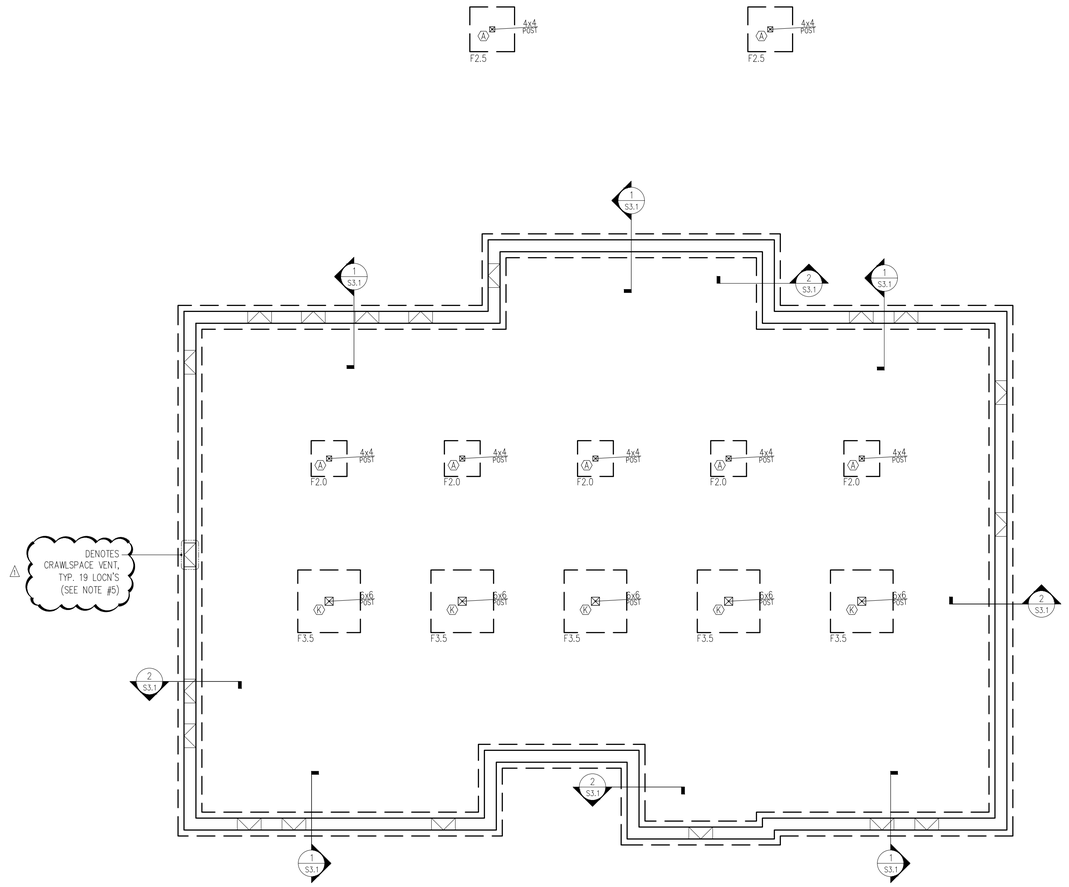
03.05.24

S1.1

LEGEND

	CONCRETE FOOTING
	CONCRETE WALL
⊠	POST
F_._	SPREAD FOOTING PER 3/S3.1
xx'-xx"	DENOTES TOP OF FOOTING ELEVATION (±)

CONNECTOR TABLE		
	SIMPSON DESIGNATION	NOTES
Ⓐ	PBS	POST BASE
Ⓑ	CCQ	COLUMN CAP
Ⓒ	AC4	COLUMN CAP
Ⓓ	JBZ10A	TOP FLANGE HANGER
Ⓔ	HQLT	HEAVY DUTY TOP FLANGE HANGER
Ⓕ	LUS410Z	TOP FLANGE HANGER
Ⓖ	ITS ~or~ IUS	HANGER
Ⓗ	ITS ~or~ IUS	INVERTED HANGER



FOUNDATION PLAN NOTES

1. SOLID WALLS SHOWN IN PLAN ARE ABOVE FOUNDATION LEVEL (FROM FOUNDATION TO UNDERSIDE OF MAIN FLOOR FRAMING).
2. EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 16" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
3. SEE STRUCTURAL GENERAL NOTES #14 – 19 FOR CONCRETE AND CONCRETE REINFORCING REQUIREMENTS.
4. SEE GENERAL STRUCTURAL NOTE #11 FOR FOUNDATION CRITERIA.
5. CRAWL SPACE = 1260.5 SF, REQUIRED VENTING = 8.4 SF or 1210 SQ-IN, 64 SQ-IN/VENT = 19 VENTS

1 S2.1 FOUNDATION PLAN

1/4" = 1'-0"

NORTH

ATLAS CONSULTING STRUCTURAL ENGINEERS

JAVID ABDI — STATE OF WASHINGTON — 53199 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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Foundation Plan

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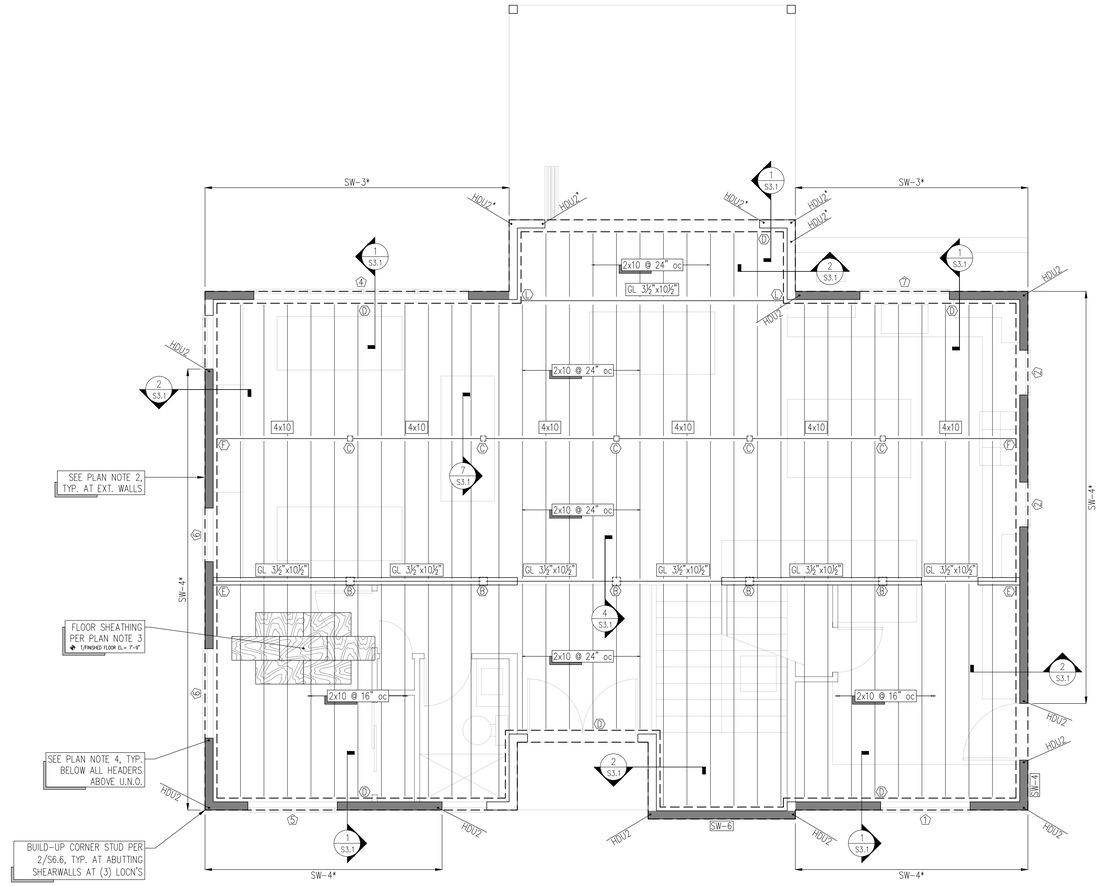
S2.1

LEGEND

CONCRETE WALL BELOW	DENOTES EXTENT OF SHEARWALL TYPE SW-_ PER 1/S6.5
CONCRETE WALL	
STRUCTURAL WOOD STUDWALL	DENOTES STRAPPED SHEARWALL PER 7/S6.6, WITH ⬠ DENOTING STRAP PER SCHEDULE ABOVE & BELOW OPENING
POST BELOW	
POST	DENOTES SHEARWALL TENSION TIE PER 4/S6.6 or 8/S6.6
HEADER or BEAM	* – DENOTES TRANSFER TIE FROM TIE ABOVE $ – DENOTES TIE ATOP STEEL BEAM, SEE 8/S6.6
JOIST	

CONNECTOR TABLE

	SIMPSON DESIGNATION	NOTES
Ⓐ	PBS	POST BASE
Ⓑ	CCQ	COLUMN CAP
Ⓒ	AC4	COLUMN CAP
Ⓓ	JB210A	TOP FLANGE HANGER
Ⓔ	HGLT	HEAVY DUTY TOP FLANGE HANGER
Ⓕ	LUS410Z	TOP FLANGE HANGER
Ⓖ	ITS ~or~ IUS	HANGER
Ⓗ	ITS ~or~ IUS	INVERTED HANGER
Ⓘ	HHUS5.50/10	HANGER
Ⓙ	HUC412	CONCEALED FLANGE HANGER
Ⓚ	CBS	POST BASE
Ⓛ	BA3.56	TOP FLANGE HANGER
Ⓜ	LUS26	FACE MOUNT HANGER
Ⓝ	HU1.81/5	INVERTED HANGER
Ⓞ	HHUS46	INVERTED HANGER
Ⓟ	JB ~or~ LUS	HANGER
Ⓠ	EPC6Z	END POST CAP



MAIN FLOOR FRAMING PLAN NOTES

1. SOLID WALLS SHOWN IN PLAN ARE ABOVE MAIN FLOOR FRAMING ELEVATION (FROM MAIN FLOOR TO UNDERSIDE OF UPPER FLOOR). DASHED WALLS SHOWN IN PLAN ARE BELOW MAIN FLOOR FRAMING ELEVATION (FROM FOUNDATION TO UNDERSIDE OF MAIN FLOOR FRAMING)
2. EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 16" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
3. FLOOR SHEATHING SHALL CONSIST OF ¾" T&G SHEATHING (PANEL SPAN RATING 48/24). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.1). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.
4. ALL HEADERS ABOVE (SEE 1/S2.3) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.2 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.2 AT LOAD BEARING EXTERIOR WALLS

1 S2.2 MAIN FLOOR FRAMING PLAN

1/4" = 1'-0"

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ATLAS CONSULTING STRUCTURAL ENGINEERS

JAVID ABDI
STATE OF WASHINGTON
53199
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

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Main Floor Framing Plan

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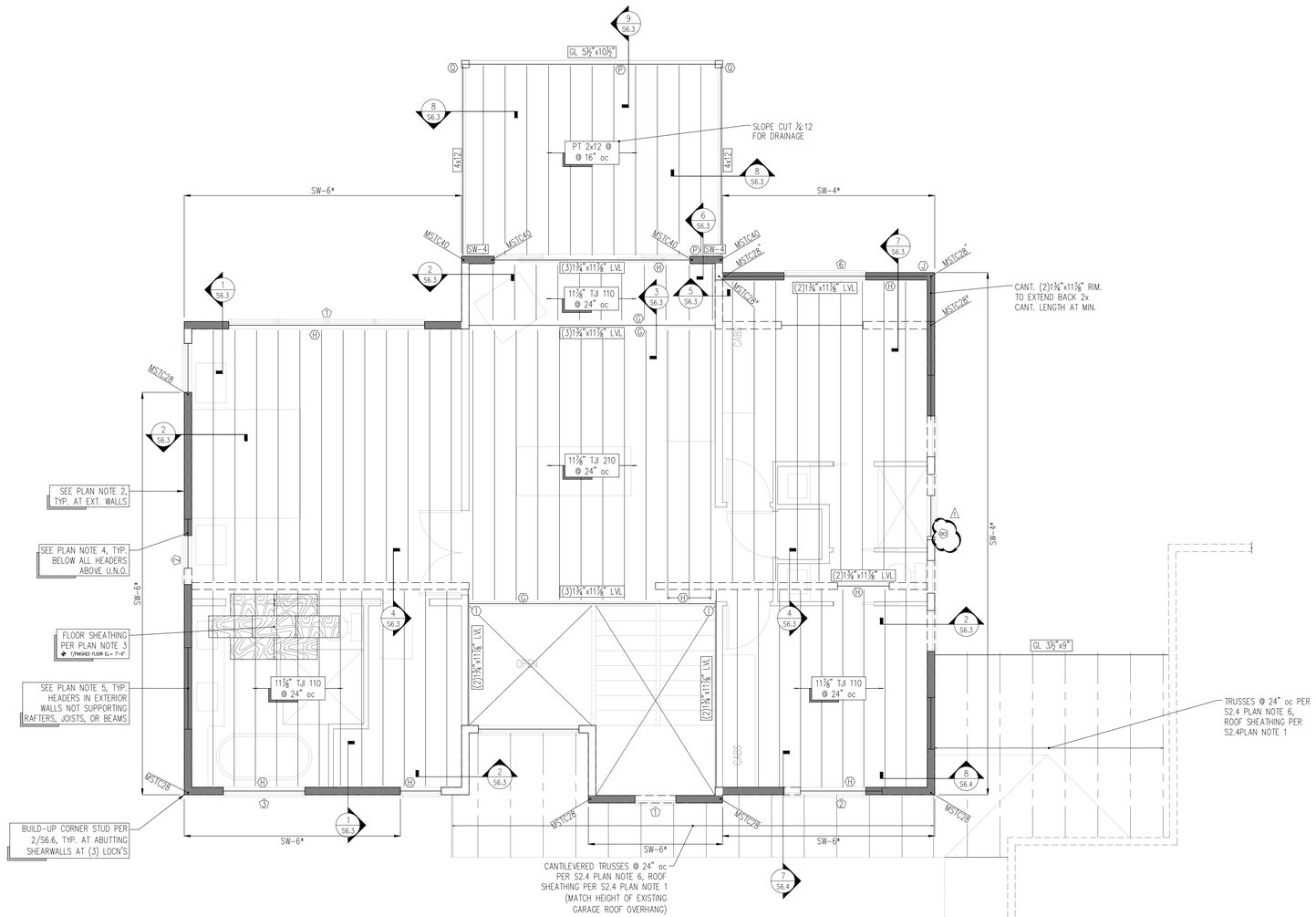
S2.2

LEGEND

STRUCTURAL WOOD STUDWALL BELOW	DENOTES EXTENT OF SHEARWALL TYPE SW-_ PER 1/S6.5
STRUCTURAL WOOD STUDWALL	DENOTES STRAPPED SHEARWALL PER 7/S6.6, WITH ⬠ DENOTING STRAP PER SCHEDULE ABOVE & BELOW OPENING
POST BELOW	DENOTES SHEARWALL TENSION TIE PER 4/S6.6 or 8/S6.6
POST	* – DENOTES TRANSFER TIE FROM TIE ABOVE
HEADER or BEAM	$ – DENOTES TIE ATOP STEEL BEAM, SEE 8/S6.6
JOIST	

CONNECTOR TABLE		
	SIMPSON DESIGNATION	NOTES
(A)	PBS	POST BASE
(B)	CCQ	COLUMN CAP
(C)	AC4	COLUMN CAP
(D)	JB210A	TOP FLANGE HANGER
(E)	HQLT	HEAVY DUTY TOP FLANGE HANGER
(F)	LUS410Z	TOP FLANGE HANGER
(G)	ITS ~or~ IUS	HANGER
(H)	ITS ~or~ IUS	INVERTED HANGER
(I)	HHUS5.50/10	HANGER
(J)	HUC412	CONCEALED FLANGE HANGER
(K)	CBS	POST BASE
(L)	BA3.56	TOP FLANGE HANGER
(M)	LUS26	FACE MOUNT HANGER
(N)	HU1.81/5	INVERTED HANGER
(O)	HHUS46	INVERTED HANGER
(P)	JB ~or~ LUS	HANGER
(Q)	EPC6Z	END POST CAP



MAIN FLOOR FRAMING PLAN NOTES

1. SOLID WALLS SHOWN IN PLAN ARE ABOVE MAIN FLOOR FRAMING ELEVATION (FROM UPPER FLOOR TO UNDERSIDE OF ROOF). DASHED WALLS SHOWN IN PLAN ARE BELOW UPPER FLOOR FRAMING ELEVATION (FROM MAIN FLOOR TO UNDERSIDE OF UPPER FLOOR FRAMING)
2. EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 16" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.2, 5/S6.2, AND 2/S6.2 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
3. FLOOR SHEATHING SHALL CONSIST OF ¾" T&G SHEATHING (PANEL SPAN RATING 48/24). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.1). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.
4. ALL HEADERS ABOVE (SEE 1/S2.3) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.2 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.2 AT LOAD BEARING EXTERIOR WALLS
5. HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/S6.1 U.N.O. IN PLAN.

1 S2.3 UPPER FLOOR FRAMING PLAN

1/4" = 1'-0"

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ATLAS CONSULTING STRUCTURAL ENGINEERS

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Upper Floor Framing Plan

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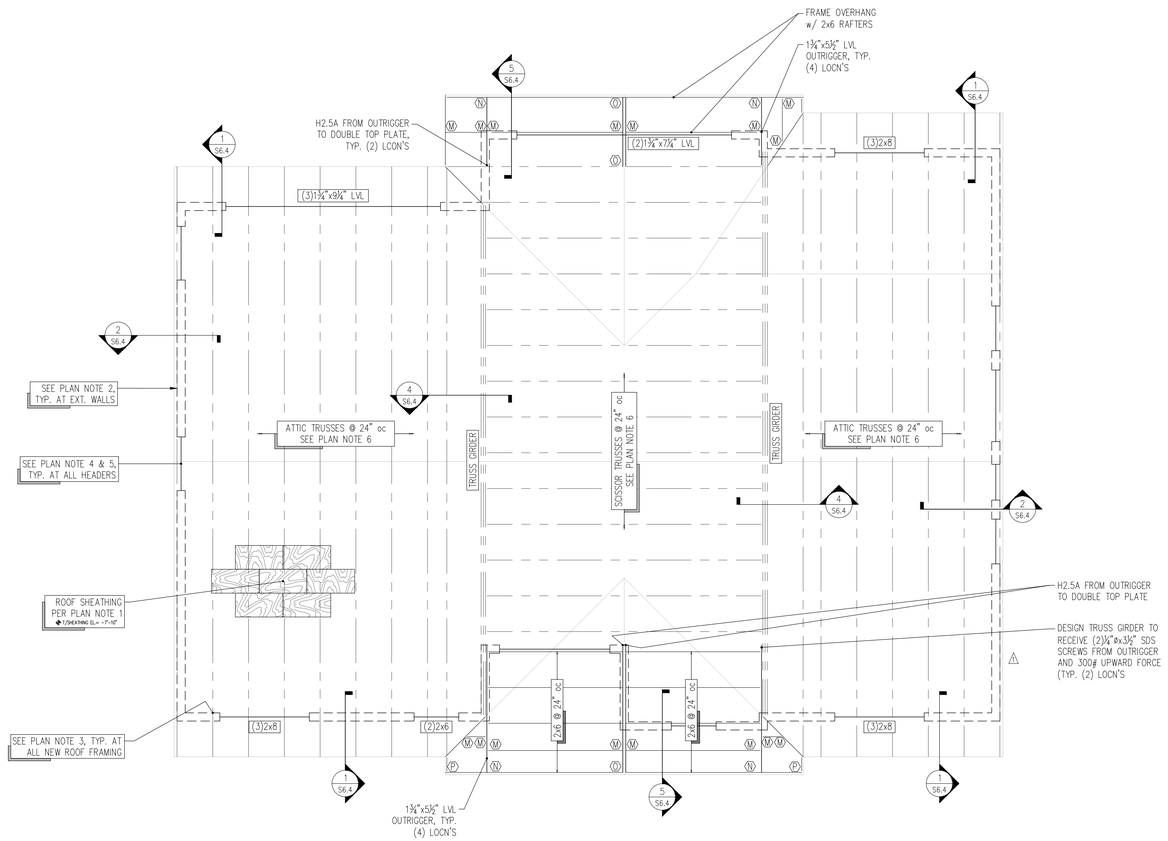
S2.3

LEGEND

STRUCTURAL WOOD STUDWALL BELOW	
POST BELOW	
HEADER or BEAM	
CONNECTOR PLATE WOOD TRUSS	
ROOF FRAMING	

CONNECTOR TABLE		
	SIMPSON DESIGNATION	NOTES
(A)	PBS	POST BASE
(B)	CCQ	COLUMN CAP
(C)	AC4	COLUMN CAP
(D)	JBZ10A	TOP FLANGE HANGER
(E)	HGLT	HEAVY DUTY TOP FLANGE HANGER
(F)	LUS410Z	TOP FLANGE HANGER
(G)	ITS ~or~ IUS	HANGER
(H)	ITS ~or~ IUS	INVERTED HANGER
(I)	HHUS5.50/10	HANGER
(J)	HUC412	CONCEALED FLANGE HANGER
(K)	CBS	POST BASE
(L)	BA3.56	TOP FLANGE HANGER
(M)	LUS26	FACE MOUNT HANGER
(N)	HU1.81/5	INVERTED HANGER
(O)	HHUS46	INVERTED HANGER
(P)	JB ~or~ LUS	HANGER
(Q)	EPC6Z	END POST CAP



ROOF FRAMING PLAN NOTES

1. ROOF SHEATHING SHALL CONSIST OF ⅝" SHEATHING (PANEL SPAN RATING 32/16) NAILED AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.2).
2. DASHED WALLS AND SHEARWALLS SHOWN IN PLAN ARE BELOW ROOF FRAMING ELEVATION.
3. PROVIDE H2.5A HURRICANE TIES AT EACH END OF ALL ROOF FRAMING.
4. ALL HEADERS SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.1 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.1 AT LOAD BEARING EXTERIOR WALLS.
5. HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/S6.1 U.N.O. IN PLAN.
6. SEE GENERAL STRUCTURAL NOTE #9, 10, AND 22 FOR CONNECTOR PLATE ROOF TRUSS REQUIREMENTS.

1 S2.4 ROOF FRAMING PLAN

1/4" = 1'-0"

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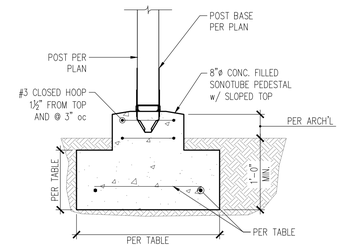
S2.4

NOTES
1. VALUES FOR UNCOATED REINFORCING AND NORMAL WEIGTH CONCRETE WITH CLEAR SPACING > db, CLEAR COVER > db, AND MINIMUM STIRRUPS OR TIES THROUGHOUT Ld OR CLEAR SPACING > 2db AND CLEAR COVER > db
2. DEVELOP ALL REINFORCING IN STRUCTURAL SLABS WITH MINIMUM DEVELOPMENT LENGTH Ld
3. Ldh = DEVELOPMENT LENGTH OF BAR WITH STANDARD HOOK
4. TOP BAR = HORIZONTAL BAR WITH MORE THAN 12" OF FRESH CONCRETE BELOW (EXCLUDING WALL HORIZONTAL REINFORCING) OR AS NOTED ON DOCUMENTS AS "TOP BAR"
5. ALL TABULATED VALUES ARE IN INCHES

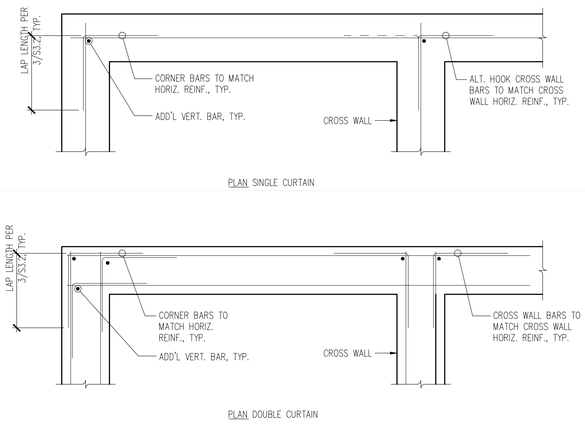
f_c 3000 psi	MISCELLANEOUS BARS		TOP BARS		HOOKED BARS
f_c = 3000 psi	BAR SIZE	Ld	SPLICE	Ld	SPLICE	Ldh
	#3	17"	23"	22"	29"	9"
	#4	22"	29"	29"	38"	11"
	#5	28"	37"	36"	47"	14"
	#6	33"	43"	43"	56"	17"
f_c = 4000 psi	BAR SIZE	Ld	SPLICE	Ld	SPLICE	Ldh
	#3	15"	20"	19"	25"	8"
	#4	19"	25"	25"	33"	10"
	#5	24"	32"	31"	41"	12"
	#6	29"	38"	37"	49"	15"
f_c = 5000 psi	BAR SIZE	Ld	SPLICE	Ld	SPLICE	Ldh
	#3	13"	17"	17"	23"	7"
	#4	17"	23"	23"	30"	9"
	#5	22"	29"	28"	37"	11"
	#6	26"	34"	34"	45"	13"
f_c = 6000 psi	BAR SIZE	Ld	SPLICE	Ld	SPLICE	Ldh
	#3	12"	16"	16"	21"	6"
	#4	16"	21"	21"	28"	8"
	#5	20"	26"	26"	34"	10"
	#6	24"	32"	31"	41"	12"

9 / S3.1 CONCRETE REINFORCING DEVELOPMENT AND SPLICE LENGTH TABLES
N/A

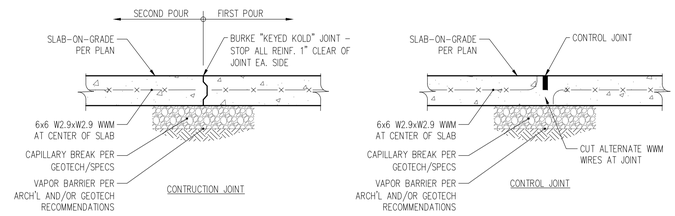
FTG. MARK	DIMENSIONS LENGTH	WIDTH	DEPTH	REINFORCING SHORT	LONG
F1.5	1'-6"	1'-6"	10"	(2)#4	(2)#4
F2.0	2'-0"	2'-0"	10"	(2)#4	(2)#4
F3.5	3'-6"	3'-6"	10"	(4)#4	(4)#4



3 / S3.1 SPREAD FOOTING
1" = 1'-0"

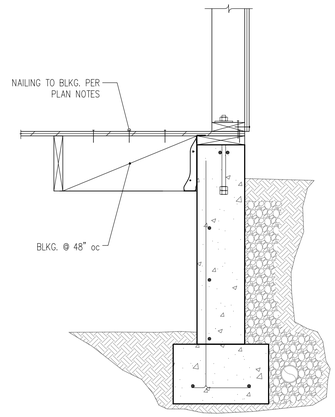


8 / S3.1 WALL CORNER REINFORCING
N/A

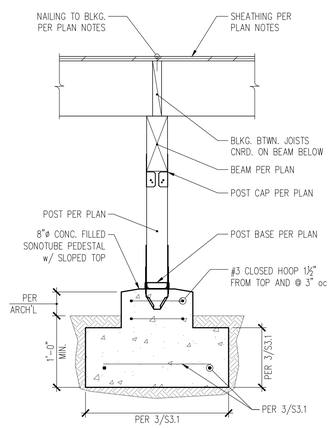


4 / S3.1 TYPICAL SLAB-ON-GRADE JOINTING
N/A

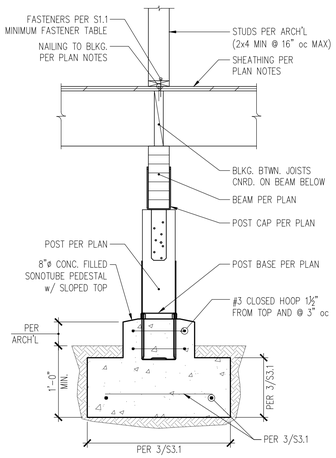
SEE DETAIL 1/S3.1 FOR CALL OUTS IN COMMON



2 / S3.1 SECTION AT NEW FOUNDATION WALL AND PARALLEL JOISTS
1" = 1'-0"



7 / S3.1 SECTION THROUGH CRAWLSPACE BEAM AND POST
NTS



4 / S3.1 SECTION THROUGH CRAWLSPACE BEAM AND POST
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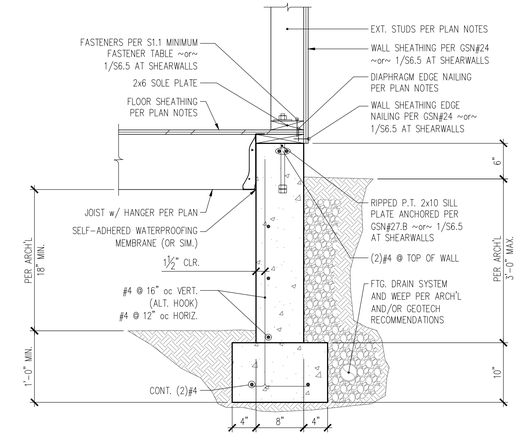

1 / S3.1 SECTION AT NEW FOUNDATION WALL AND PERPENDICULAR JOISTS
1" = 1'-0"

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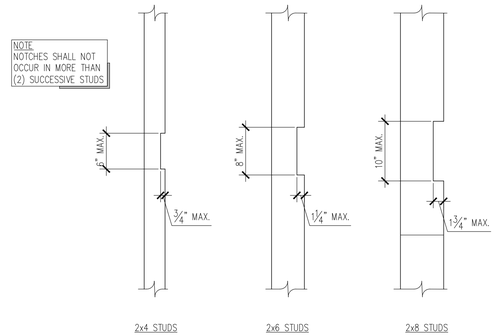
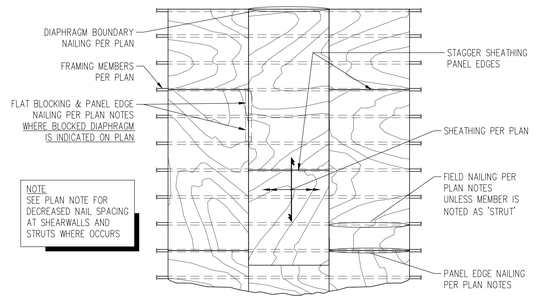
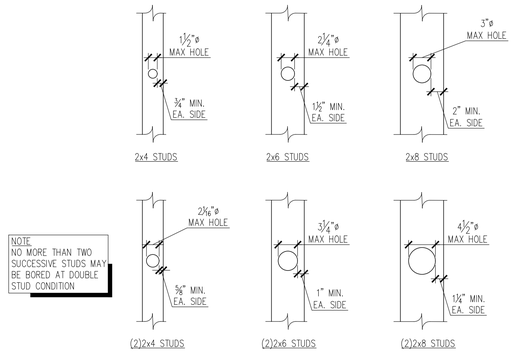


6 S6.1 ALLOWABLE HOLES IN STUDWALL STUDS
NTS



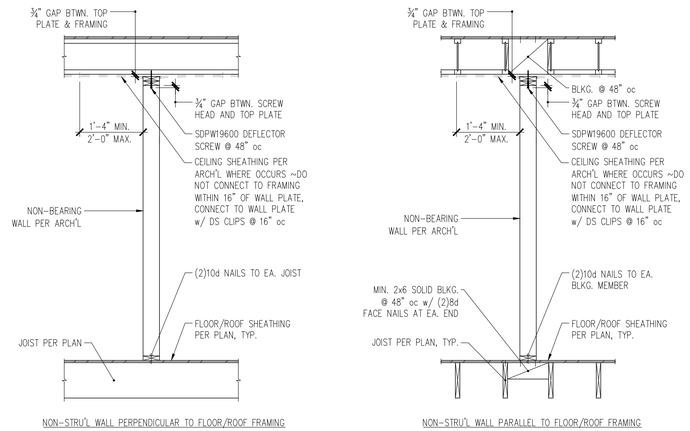
3 S6.1 TYPICAL DIAPHRAGM NAILING
NTS



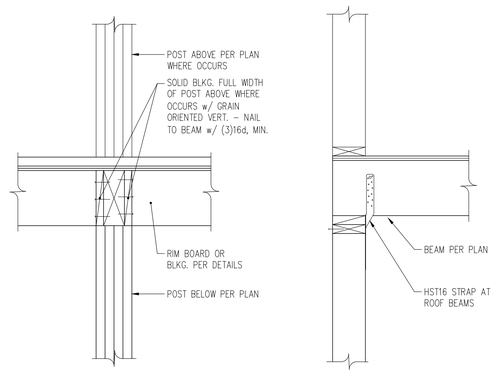
5 S6.1 ALLOWABLE HOLES IN STUDWALL STUDS
NTS

	NO REINF. REQUIRED	STRAP REINF. REQUIRED
2x4 PLATES	1½"ø MAX. HOLE, ¾" MIN. EA. SIDE	2⅝"ø MAX. HOLE, CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES), ⅜" MIN. EA. SIDE
2x6 PLATES	2¼"ø MAX. HOLE, 1½" MIN. EA. SIDE	3¾"ø MAX. HOLE, CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES), ¾" MIN. EA. SIDE
2x8 PLATES	3¼"ø MAX. HOLE, 2" MIN. EA. SIDE	5"ø MAX. HOLE, CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES), 1¼" MIN. EA. SIDE

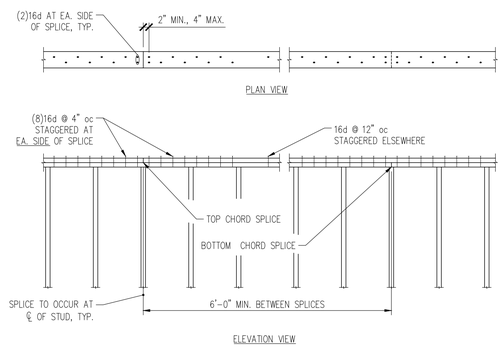
2 S6.1 ALLOWABLE HOLES THROUGH TOP PLATES
NTS



7 S6.1 CONNECTION OF NON-STRUC'L PARTITION WALL TO STRUCTURE
NTS



4 S6.1 TYPICAL BEAM PERPENDICULAR TO WALL
NTS



1 S6.1 TOP PLATE SPLICE
NTS

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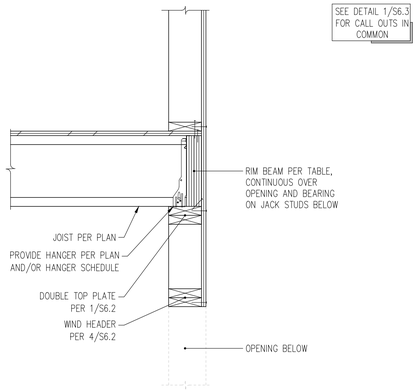
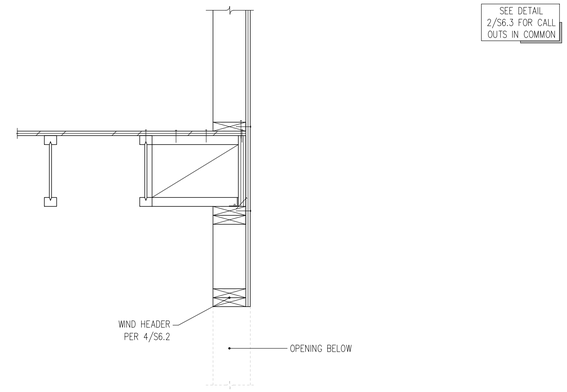
S6.1

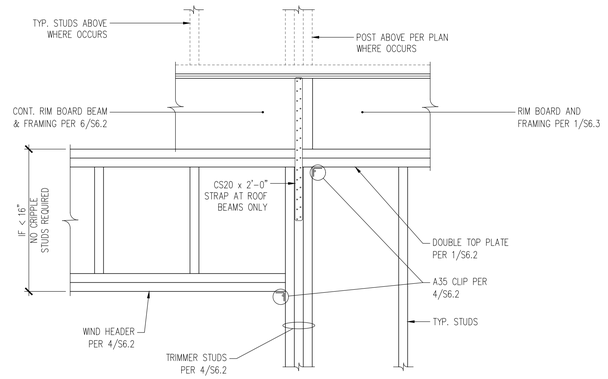
OPENING WIDTH, L	RIM/HEADER SIZE	MINIMUM No. OF STUD
UPPER FLOOR		
L ≤ 2'-6"	1¾"x11⅞" LVL	(2)2x6
L ≤ 5'-0"	1¾"x11⅞" LVL	(3)2x6
L ≤ 12'-0"	(2)1¾"x11⅞" LVL	(3)2x6



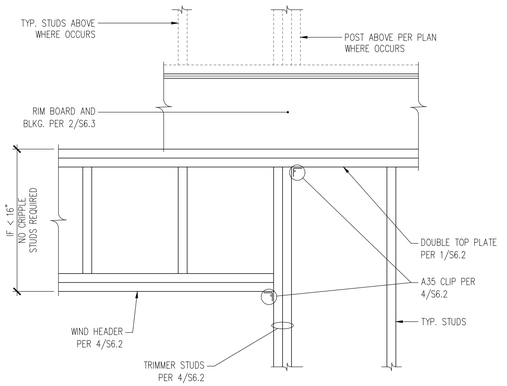
6 S6.2 TYPICAL RIMBOARD HEADER & WIND HEADER IN LOAD BEARING EXTERIOR WALL
NTS



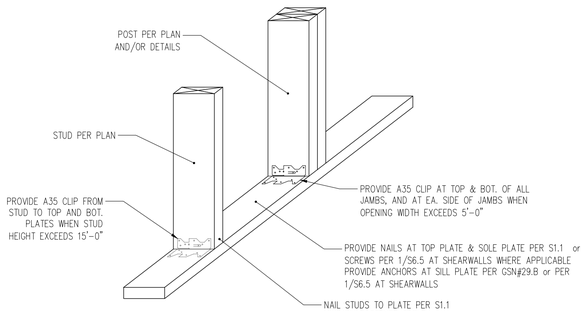
3 S6.2 TYPICAL WIND HEADER IN NON-LOAD BEARING EXTERIOR WALL
NTS



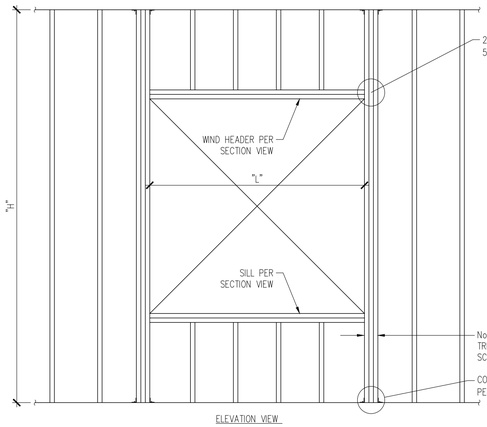
5 S6.2 TYPICAL FLUSH BEAM/HEADER IN EXTERIOR WALL
NTS



2 S6.2 TYPICAL WIND HEADER DETAIL
NTS



7 S6.2 CONNECTION OF EXTERIOR STUDS AT TOP & BOTTOM PLATES
NTS



ELEVATION VIEW

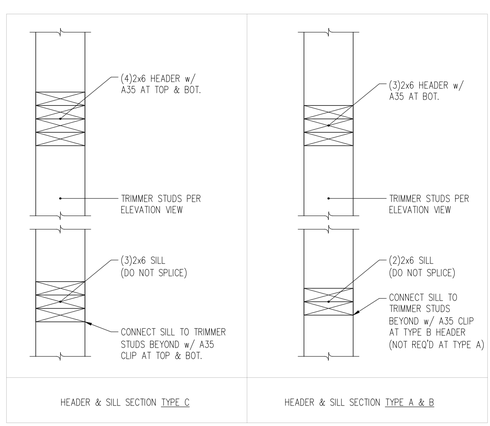
TYPICAL EXTERIOR WALL OPENING FRAMING SCHEDULE ②			
CLEAR ① HEIGHT "H"	OPENING WIDTH "L"	HDR./SILL TYPE PER SECTION AT RIGHT	No. OF FULL HEIGHT TRIMMER STUDS ①
H < 12'	L ≤ 6'-0"	A	2
	6' < L < 10'	B	2
	10' ≤ L ≤ 15'	C	3
12' < H < 16'	L ≤ 10'	B	3
	10' ≤ L ≤ 15'	C	6x8

① ALL TRIMMER STUDS, HEADERS, AND SILLS SHALL BE NAILED TOGETHER PER S1.1

② ALL STRUCTURAL TRIMMER STUDS, SILLS, AND HEADERS SHALL BE DOUGLAS FIR #2 OR BETTER

③ SEE PLANS FOR LVL STUD WALL LOCATIONS, WHERE APPLICABLE

4 S6.2 TYPICAL WIND HEADER
NTS



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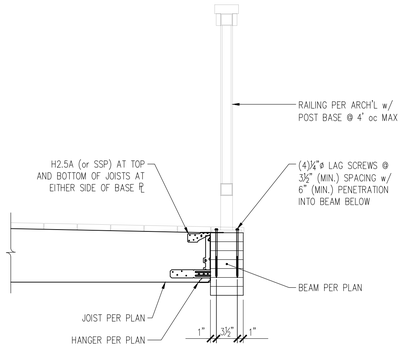
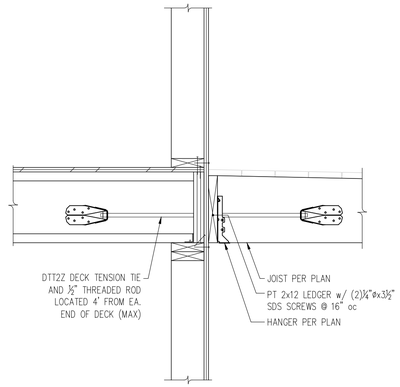
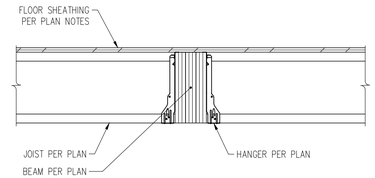
S6.2



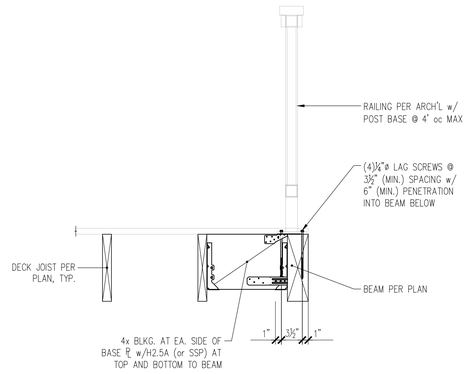
9 S6.3 SECTION THROUGH EDGE OF DECK AT PERPENDICULAR JOISTS
1" = 1'-0"



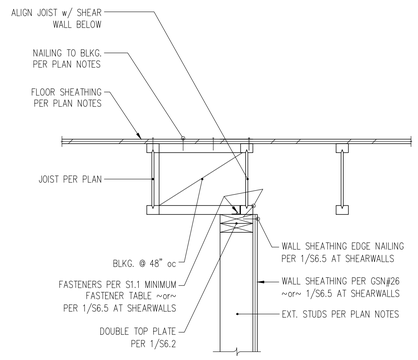
6 S6.3 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR INTERIOR AND DECK JOISTS
1" = 1'-0"



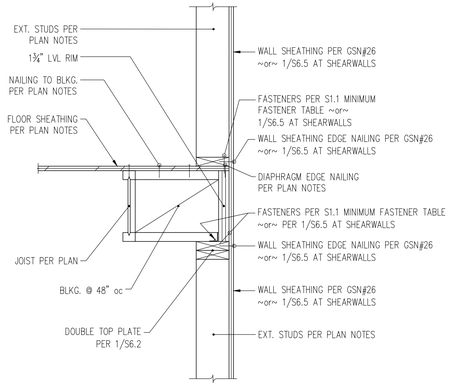
3 S6.3 SECTION THROUGH INTERIOR BEAM AT PERPENDICULAR JOISTS
1" = 1'-0"



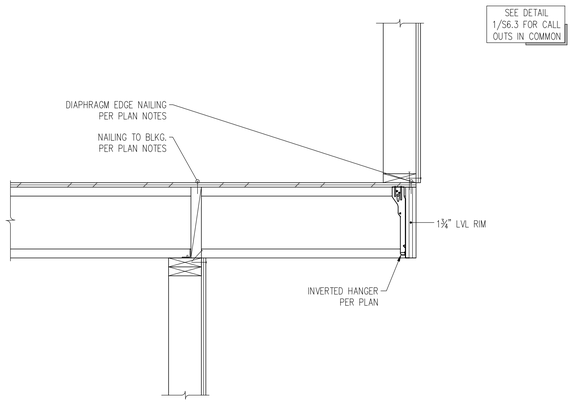
8 S6.3 SECTION THROUGH EDGE OF DECK AT PARALLEL JOISTS
1" = 1'-0"



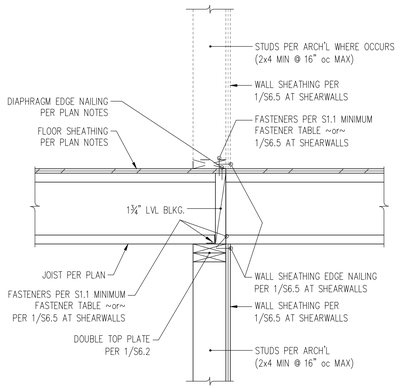
5 S6.3 SECTION THROUGH EXTERIOR WALL AT PARALLEL JOISTS AT EACH SIDE
1" = 1'-0"



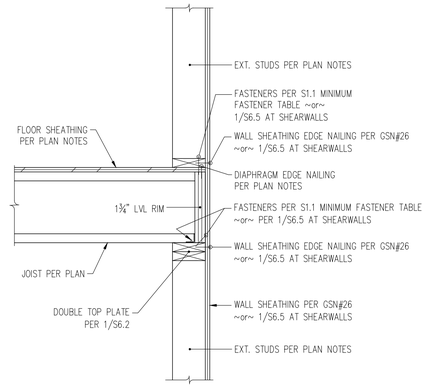
2 S6.3 SECTION THROUGH EXTERIOR WALL AT PARALLEL JOISTS
1" = 1'-0"



7 S6.3 SECTION THROUGH OFFSET EXTERIOR WALL AT CANTILEVERED PERPENDICULAR JOISTS
1" = 1'-0"



4 S6.3 SECTION THROUGH INTERIOR SHEAR WALL AT PERPENDICULAR JOISTS
1" = 1'-0"



1 S6.3 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR JOISTS
1" = 1'-0"

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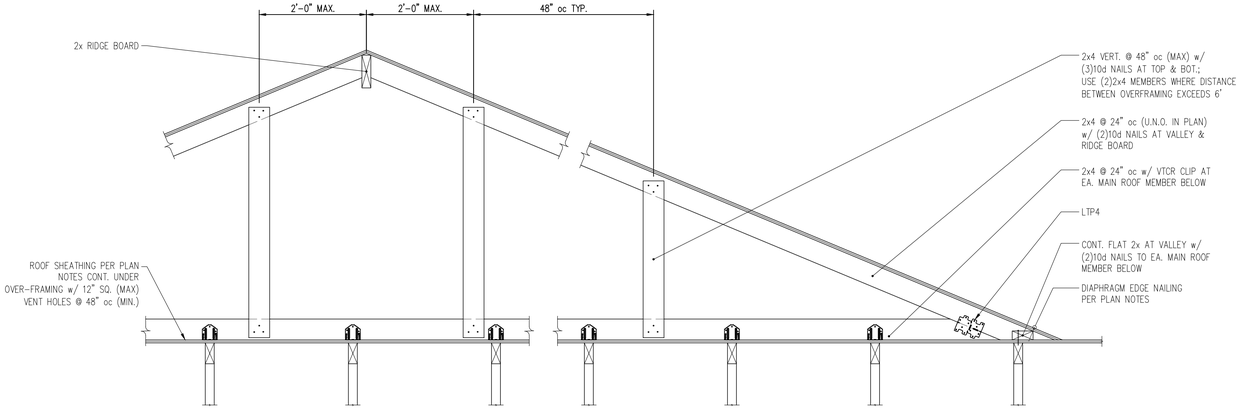
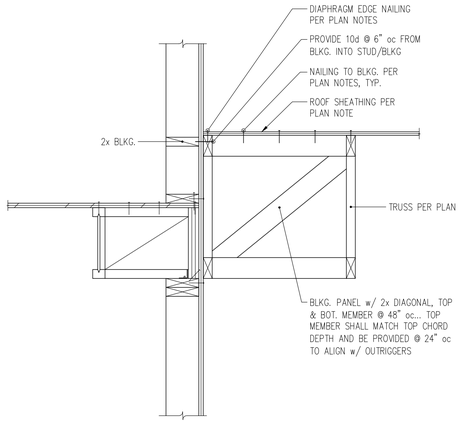
S6.3

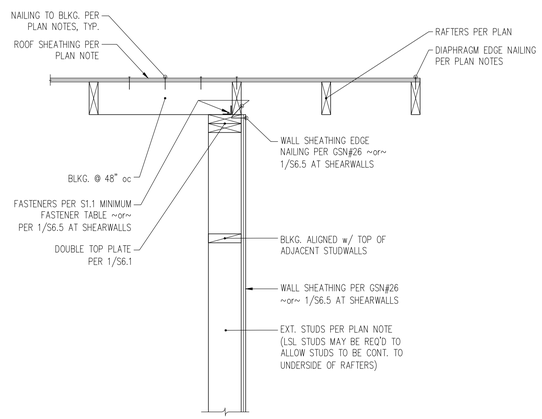


6 S6.4 TYPICAL ROOF OVERFRAMING
1" = 1'-0"

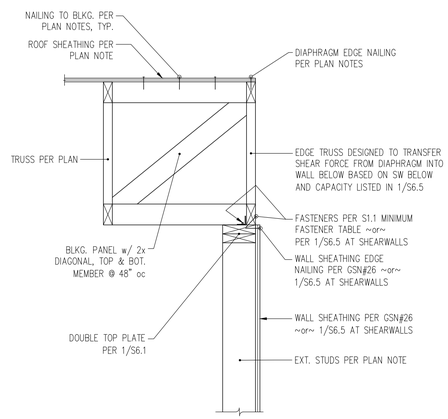


SEE DETAIL 2/S6.3 FOR CALL OUTS IN COMMON

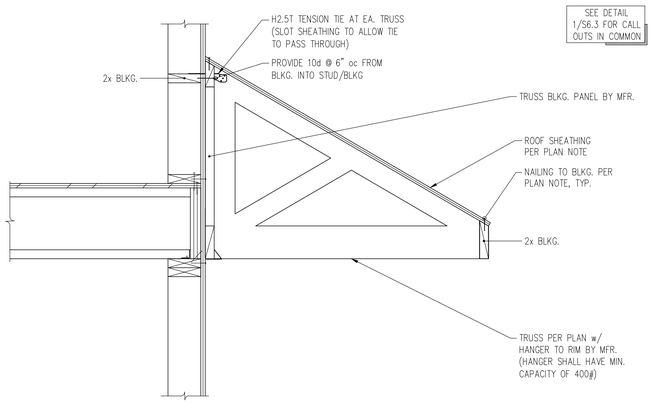
8 S6.4 SECTION THROUGH EXTERIOR WALL AT PARALLEL JOISTS AND CONNECTOR TRUSSES
1" = 1'-0"



5 S6.4 SECTION THROUGH EXTERIOR WALL AT PARALLEL RAFTERS
1" = 1'-0"

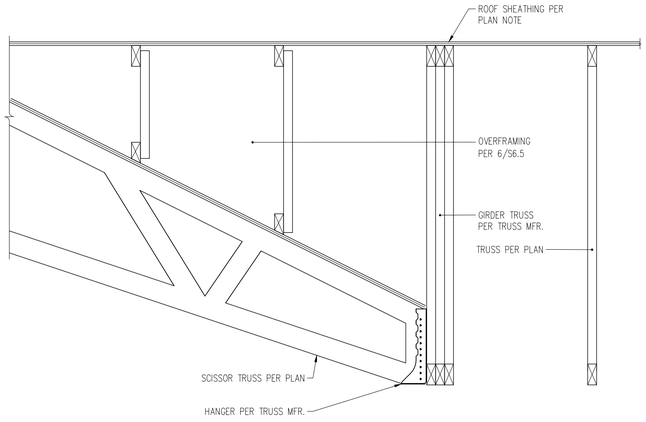


2 S6.4 SECTION THROUGH EXTERIOR WALL AT PARALLEL ROOF TRUSSES
1" = 1'-0"

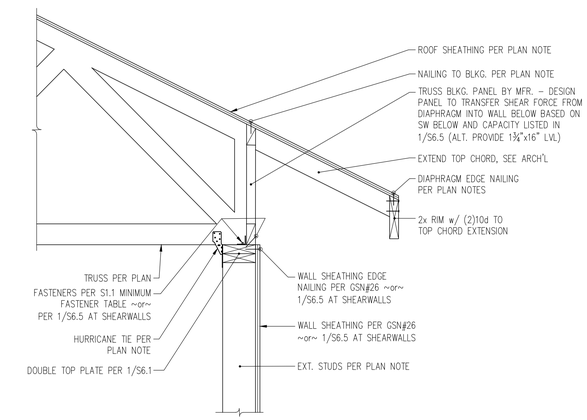


SEE DETAIL 1/S6.3 FOR CALL OUTS IN COMMON

7 S6.4 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR JOISTS AND CANTILEVERED TRUSSES
1" = 1'-0"



4 S6.4 SECTION THROUGH INTERIOR GIRDER TRUSS AT PERPENDICULAR SCISSOR TRUSSES
NTS



1 S6.4 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR ROOF TRUSSES
1" = 1'-0"

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S6.4

STRAP TENSION TIE SCHEDULE

TIE ① MARK	Min. # of studs	CLEAR SPAN AND TOTAL FASTENERS ②	ASD③ CAPACITY	BUILT-UP STUD FACE NAILS or SCREWS ④
MSTC28	(2)2x	18" – (12)0.148"ø x 3¼"	1,150#	10d @ 6" oc
MSTC40	(2)2x	18" – (28)0.148"ø x 3¼"	2,690#	10d @ 4" oc
MSTC52	(3)2x	18" – (44)0.148"ø x 3¼"	4,225#	(8)¼"ø x 4½" SDS
MSTC66	(3)2x	18" – (64)0.148"ø x 3¼"	5,850#	(12)¼"ø x 6" SDS
(2)MSTC52	(4)2x	18" – (64)0.148"ø x 3¼"	7,750#	(14)¼"ø x 6" SDS
(2)MSTC66	6x6	18" – (64)0.148"ø x 3¼"	9,800#	(12)¼"ø x 6" SDS

TENSION TIE ABOVE BEAM

TIE ① MARK	Min. # of studs	FASTENERS ②	ASD③ CAPACITY	BUILT-UP STUD ④ FACE NAILS or SCREWS
MSTC28^ ø,v	(2)2x	(16)0.148"ø x 3¼"	1,439#	10d @ 4" oc

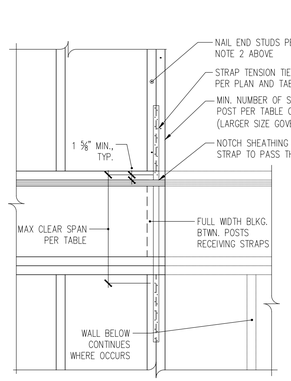
① TENSION TIE TYPES REFER TO SIMPSON STRONG-TIE CATALOG CALLOUTS.

② NAIL PLYWOOD SHEATHING TO STUDS RECEIVING HOLDOWN WITH SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO THAT EACH STUD IS NAILED.

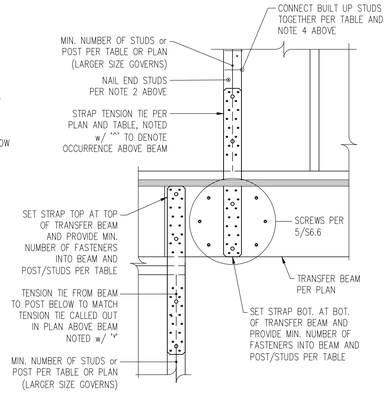
③ FASTENERS NOTED IN TABLE ABOVE REPRESENT THE TOTAL AMOUNT. FOR STRAPS, HALF OF THE FASTENERS SHALL BE PROVIDED INTO EACH STUD.

④ SCREWS SHALL BE SPACED EQUALLY ALONG FULL HEIGHT OF STUD ABOVE TENSION TIE. PROVIDE SCREWS AS NOTED IN TABLE AT ONE FACE OF BUILT-UP STUD, AND 10d @ 6" oc NAILS AT OPPOSITE FACE OF BUILT UP STUD.

^ DENOTES TENSION TIE THAT OCCURS ATOP OF A FRAMING MEMBER BELOW.
FOR MSTC28^ ø,v PROVIDE 4 TOTAL SDW EWP-PLY SCREWS TO FASTEN TRANSFER BEAM TOGETHER, SEE 5/S6.6



ELEVATION VIEW – TYPICAL CONDITION



ELEVATION VIEW – TENSION TIE ABOVE BEAM

HOLDOWN TENSION TIE SCHEDULE

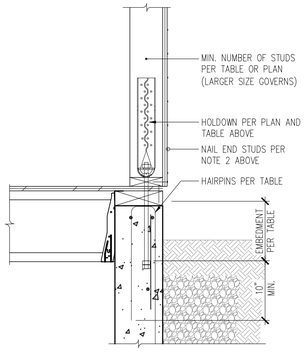
TIE ① MARK	MIN. NUMBER ② OF STUDS	ANCHOR (ø x EMBEDMENT) ③ and No. OF HAIRPIN DOWELS	FASTENERS FROM TIE TO STUD	ASD CAPACITY	BUILT-UP STUD FACE NAILS or SCREWS ④
HDU2	(2)2x	⅝"ø x 10" – (2)#4 HAIRPIN	(6)¼"ø x 2½" SDS SCREWS	3,075#	10d @ 4" oc
HDU4	(3)2x	⅝"ø x 10" – (2)#4 HAIRPIN	(10)¼"ø x 2½" SDS SCREWS	4,565#	(9)¼"ø x 4½" SDS
HDU5	(3)2x	⅝"ø x 10" – (2)#4 HAIRPIN	(14)¼"ø x 2½" SDS SCREWS	5,645#	(10)¼"ø x 4½" SDS
HDU8	(4)2x	⅞"ø x 10" – (4)#4 HAIRPIN	(20)¼"ø x 2½" SDS SCREWS	7,870#	(15)¼"ø x 6" SDS
HDU11	6x6	1"ø x 10" – (4)#4 HAIRPIN	(30)¼"ø x 2½" SDS SCREWS	11,175#	N/A
HDU14	6x6	1"ø x 10" – (6)#4 HAIRPIN	(36)¼"ø x 2½" SDS SCREWS	14,445#	N/A

① TENSION TIE TYPES REFER TO SIMPSON STRONG-TIE CATALOG CALLOUTS.

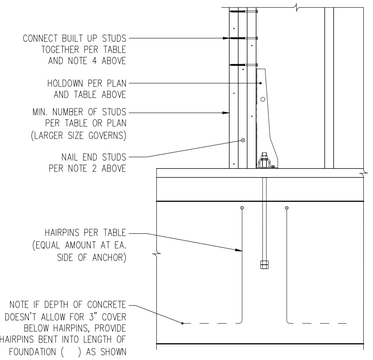
② NAIL PLYWOOD SHEATHING TO STUDS RECEIVING HOLDOWN WITH SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO THAT EACH STUD IS NAILED.

③ ANCHORS SHALL BE HEAVY HEX HEAD WITH DOUBLE NUT CAST INTO CONCRETE.
ASTM F 1554 Gr. 36 FOR ⅝"ø ANCHOR
ASTM F 1554 Gr. 55 FOR ⅞"ø AND 1"ø ANCHORS

④ SCREWS SHALL BE SPACED EQUALLY ALONG FULL HEIGHT OF STUD ABOVE TENSION TIE. PROVIDE SCREWS AS NOTED IN TABLE AT ONE FACE OF BUILT-UP STUD, AND 10d @ 6" oc NAILS AT OPPOSITE FACE OF BUILT UP STUD.



SECTION VIEW



ELEVATION VIEW

4 S6.5 HOLDOWN DETAIL AND SCHEDULE
1" = 1'-0"

SHEARWALL PANEL TYPE	① SHEATHING THICKNESS	② 0.148" x 2¼" PANEL NAILING	③ STUD/BLKG. AT ABUTTING PANEL EDGES & SILL PLATE THICKNESS	⑦ CONN. OF BLKG. OR FRAMING to TOP PLATE; AND SOLE PLATE TO SILL PLATE			⑧ ⑨ ANCHOR BOLTS TO CONC.		ASD CAPACITY, PLF
				④ ¼"ø x 3½" SDS SCREWS	⑤ A35 CLIPS	⑥ LTP4 PLATES	⅝"ø	¾"ø	
SW-6	½"	6" oc	2x	15" oc	25" oc	24" oc	48" oc	48" oc	310
SW-4	½"	4" oc	3x	10" oc	16" oc	16" oc	38" oc	48" oc	460
SW-3	½"	3" oc	3x	8" oc	13" oc	12" oc	29" oc	40" oc	600
SW-2	½"	2" oc	3x	6" oc	10" oc	9" oc	19" oc	26" oc	770
SW-44	½"	4" oc EA. SIDE	3x	5" oc	8" oc	8" oc	14" oc	20" oc	920
SW-33	½"	3" oc EA. SIDE	3x	4" oc	6" oc	6" oc	14" oc	20" oc	1200
SW-22	½"	2" oc EA. SIDE	3x	3" oc	4" oc	4" oc	11" oc	15" oc	1540

① SHEATHING SHALL CONSIST OF ½" PLYWOOD AND HAVE A MINIMUM SPAN RATING OF 24/0. AT INTERIOR SHEARWALLS ONLY, 15/32" OSB SHALL BE USED

② PANEL NAILING APPLIES TO ALL SHEATHING PANEL EDGES. INSTALL BLOCKING AT ALL UNFRAMED PANEL EDGES. ENSURE SHEATHING IS NAILED TO ALL INTERMEDIATE STUDS/BLOCKING WITH PANEL NAILS AT 12"oc.

③ DOUBLE 2x MEMBERS MAY BE SUBSTITUTED FOR 3x MEMBERS AT WALLS WITH ONLY ONE LAYER OF SHEATHING. 2x MEMBERS SHALL BE NAILED TOGETHER WITH 10d FACE: @ 3" oc FOR SW-4 AND @ 2¾" oc FOR SW-3 (116#/NAIL)

④ ROWS OF NAILS AND SDS SCREWS SHALL BE OFFSET AT LEAST ½" AND STAGGERED. MINIMUM EDGE DISTANCE FOR NAILS AND SDS SCREWS INTO EDGE OF MEMBERS SHALL BE ⅜" (400#/SCREW)

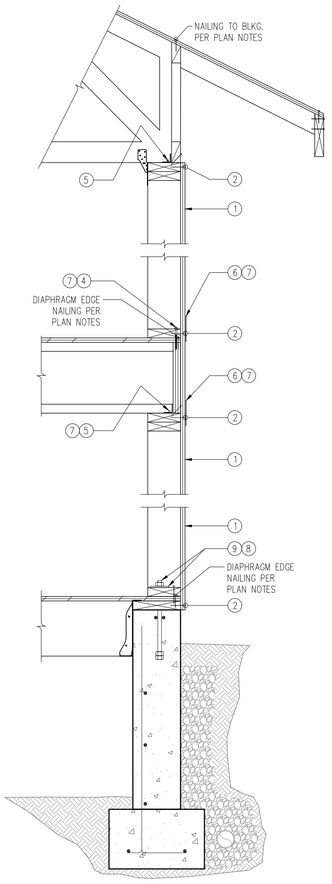
⑤ A35 CLIPS SHALL BE INSTALLED w/ (12)0.131 x 1½ " NAILS (650#/CLIP)

⑥ LTP4 LATERAL TIE PLATES MAY BE INSTALLED OVER SHEATHING w/ (12)0.131 x 2½" NAILS (625#/CLIP)

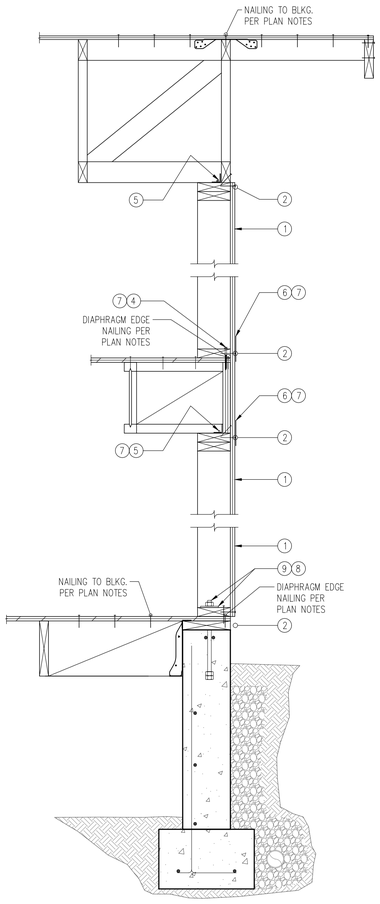
⑦ CONTRACTOR SHALL USE LTP4 PLATES FROM SHEATHING TO RIM ~or~ SDS SCREWS FROM SHEATHING TO RIM
CONTRACTOR SHALL USE A35 CLIPS FROM RIM TO STUDWALL DOUBLE TOP PLATE ~or~ LTP4 PLATES FROM SHEATHING TO STUDWALL DOUBLE TOP PLATE.

⑧ PLATE WASHERS IN 2x4 STUD WALLS AND ALL SINGLE SIDED SHEARWALLS SHALL BE 3"x3"x0.229". DOUBLE SIDED 2x6 SHEARWALLS SHALL HAVE 4½"x3"0.229" PLATE WASHERS. THE EDGE OF PLATE WASHERS SHALL BE LOCATED WITHIN ½" OF THE EDGE OF BOTTOM PLATE ON THE SIDE WITH SHEATHING.

⑨ CAST ANCHORS A MINIMUM OF 7" INTO CONCRETE. PROVIDE ADDITIONAL ANCHOR BOLTS AT EACH SIDE OF PLATE BREAKS AND PENETRATIONS EXCEEDING THE "NO REINFORCING" HOLE SIZE PER 2/S6.1.



FRAMING PARALLEL TO SW



FRAMING PERPENDICULAR TO SW

1 S6.5 SHEARWALL SECTION AND SCHEDULE
1" = 1'-0"

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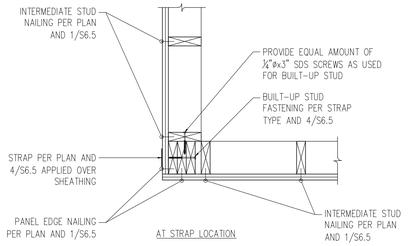
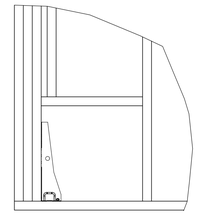
03.05.24

S6.5



AT STRAP LOCATION



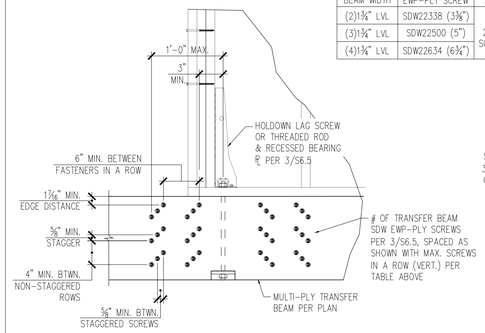
ELEVATION VIEW

AT HOLDOWN LOCATION

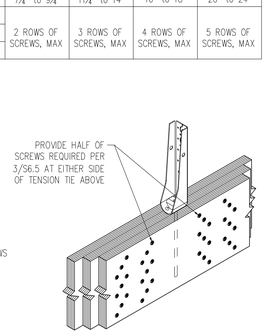
2 S6.6 SHEAR WALL INTERSECTION AND TENSION TIE POSITIONING

N.T.S.

TRANSFER BEAM WIDTH	SIMPSON SDW EWP-PLY SCREW	TRANSFER BEAM DEPTH			
		7¼" to 9¼"	11¼" to 14"	16" to 18"	20" to 24"
(2)1¾" LVL	SDW22338 (3⅜")	2 ROWS OF SCREWS, MAX	3 ROWS OF SCREWS, MAX	4 ROWS OF SCREWS, MAX	5 ROWS OF SCREWS, MAX
(3)1¾" LVL	SDW22500 (5")				
(4)1¾" LVL	SDW22634 (6¾")				



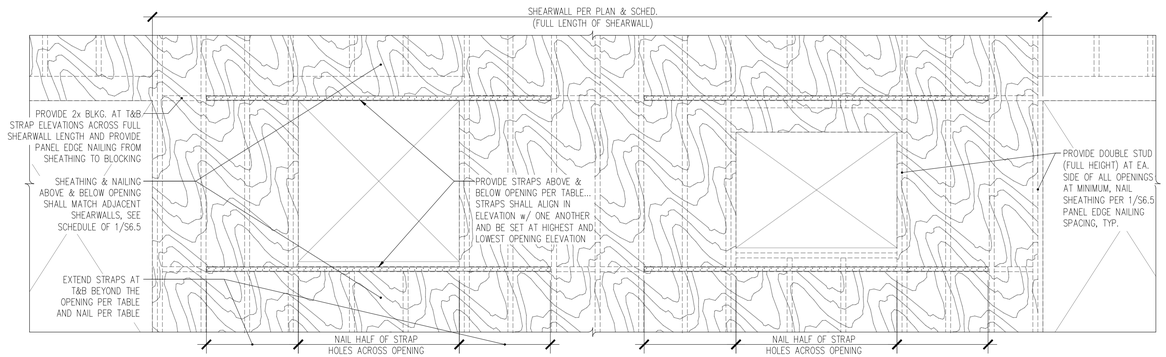
TRANSFER BEAM ELEVATION VIEW



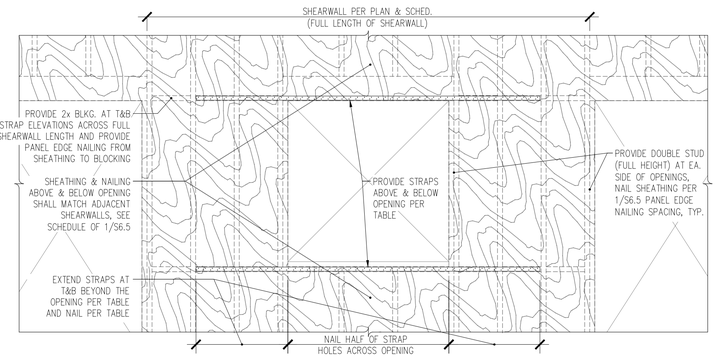
ISOMETRIC VIEW

5 S6.6 MULTI-PLY TRANSFER BEAM CONNECTION DETAILS

1" = 1'-0"



MULTIPLE OPENINGS



ONE OPENING

TYPE	STRAP	END LENGTH	NAILS
1	CS20	16"	(12)0.148"x2½"
2	CS20	24"	(12)0.148"x2½"
3	CS20	30"	(12)0.148"x2½"
4	CS18	24"	(16)0.148"x2½"
5	CS18	30"	(16)0.148"x2½"
6	CS18	34"	(16)0.148"x2½"
7	CS16	30"	(20)0.148"x2½"
8	CS16	45"	(20)0.148"x2½"

STRAP TABLE

7 S6.6 STRAPPED SHEARWALL DETAIL

N.T.S.

ATLAS CONSULTING STRUCTURAL ENGINEERS

JAVID ABDI — STATE OF WASHINGTON — 53199 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

Wu-Chang Residence

2956 72nd Ave SE - Mercer Island

CONTENTS

Lateral Details

DRAWN BY

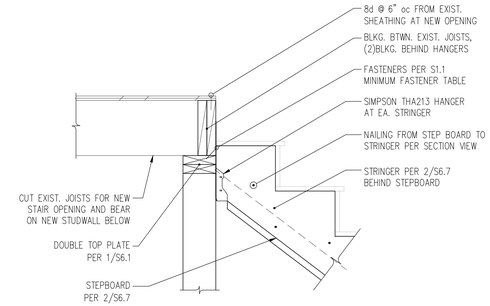
JDA

DATE

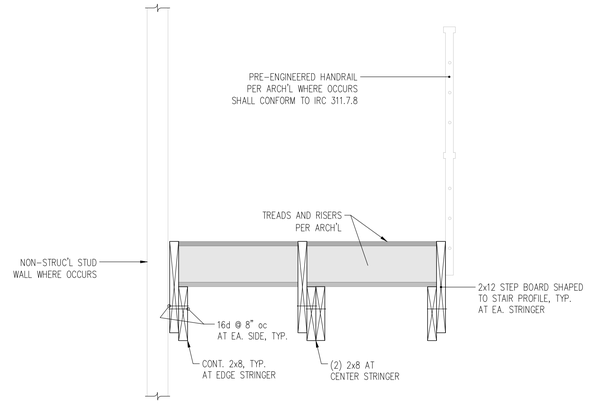
03.05.24

05.28.24 ⚠

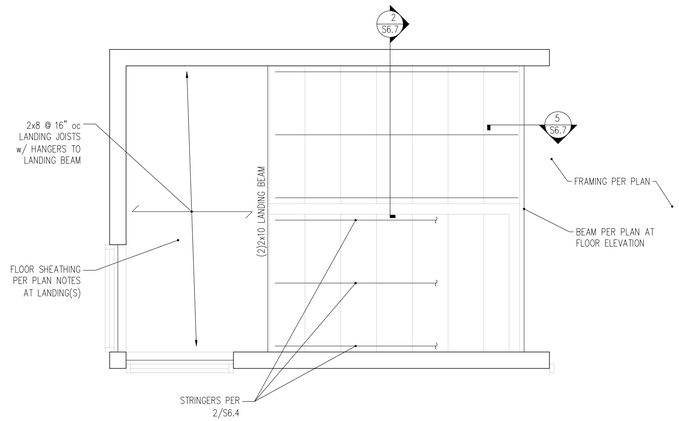
S6.6



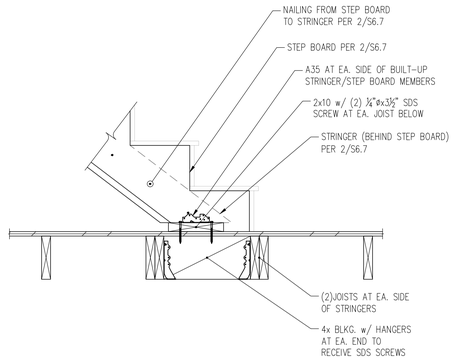
5 S6.7 ELEVATION OF STRINGER TO SUPPORT MEMBER
1" = 1'-0"



2 S6.7 SECTION THROUGH STAIR FRAMING
1" = 1'-0"



4 S6.7 TYPICAL STAIR FRAMING/LANDING PLAN VIEW
1" = 1'-0"



1 S6.7 ELEVATION VIEW OF STAIR STRINGERS BEARING ATOP FRAMING
1" = 1'-0"

ATLAS CONSULTING STRUCTURAL ENGINEERS

JAVID ABDI STATE OF WASHINGTON 53159 STRUCTURAL ENGINEER PROFESSIONAL ENGINEER

Wu-Chang Residence

2956 72nd Ave SE - Mercer Island

CONTENTS

Typical Stair Details

DRAWN BY

JDA

DATE

03.05.24

S6.7

LEGAL DESCRIPTION

LOT B, CITY OF MERCER ISLAND SHORT PLAT NO. ML 76-6-021, AS RECORDED UNDER RECORDING NO. 7607020565, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

ORGANIC SOIL REQUIREMENT

MINIMUM 10% ORGANIC MULCH & COMPOST SOIL REQUIRED

TREE PROTECTION DETAIL

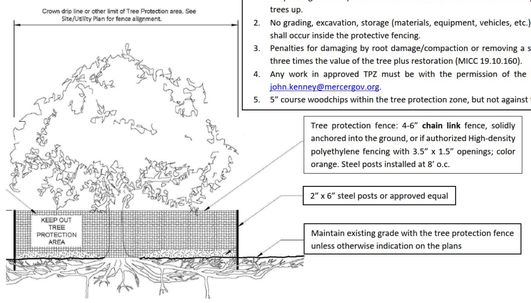
TREE PROTECTION AREA (TPZ)

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:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation



Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, john.kenney@mercergov.org.
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

Tree protection fence: 4-6" **chain link** fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

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

PROJECT ARBORIST

DOUGLAS SMITH
SEATTLE TREE CONSULTING
REPORT DATE: FEBRUARY 27, 2024

EROSION CONTROL LEGEND

LIMITS OF DISTURBANCE		
FILTER FABRIC FENCE (SILT FENCE)	SF	
STABILIZED CONSTRUCTION ENTRANCE	CE	
CATCH BASIN INLET PROTECTION	IP	
INTERCEPTOR SWALE SEE COR DWG 504, TYPE A TEMPORARY SWALE	IS	
TREE PROTECTION FENCING	TP	
CHECK DAM	CD	
STRAW WATTLES	SW	USE AS NEEDED
PLASTIC COVERING	PC	COVER EXPOSED AREAS WITHIN MERCER ISLAND TIME LIMIT
COMPOST SOCK	CS	SEDIMENT CONTROL OPTION RECOMMEND OF SILT FENCE
COMPOST BERM	CB	SEDIMENT CONTROL OPTION RECOMMEND LIEU OF SILT FENCE
DUST CONTROL	DC	
MULCHING, MATTING, & COMPOST BLANKETS	MU	

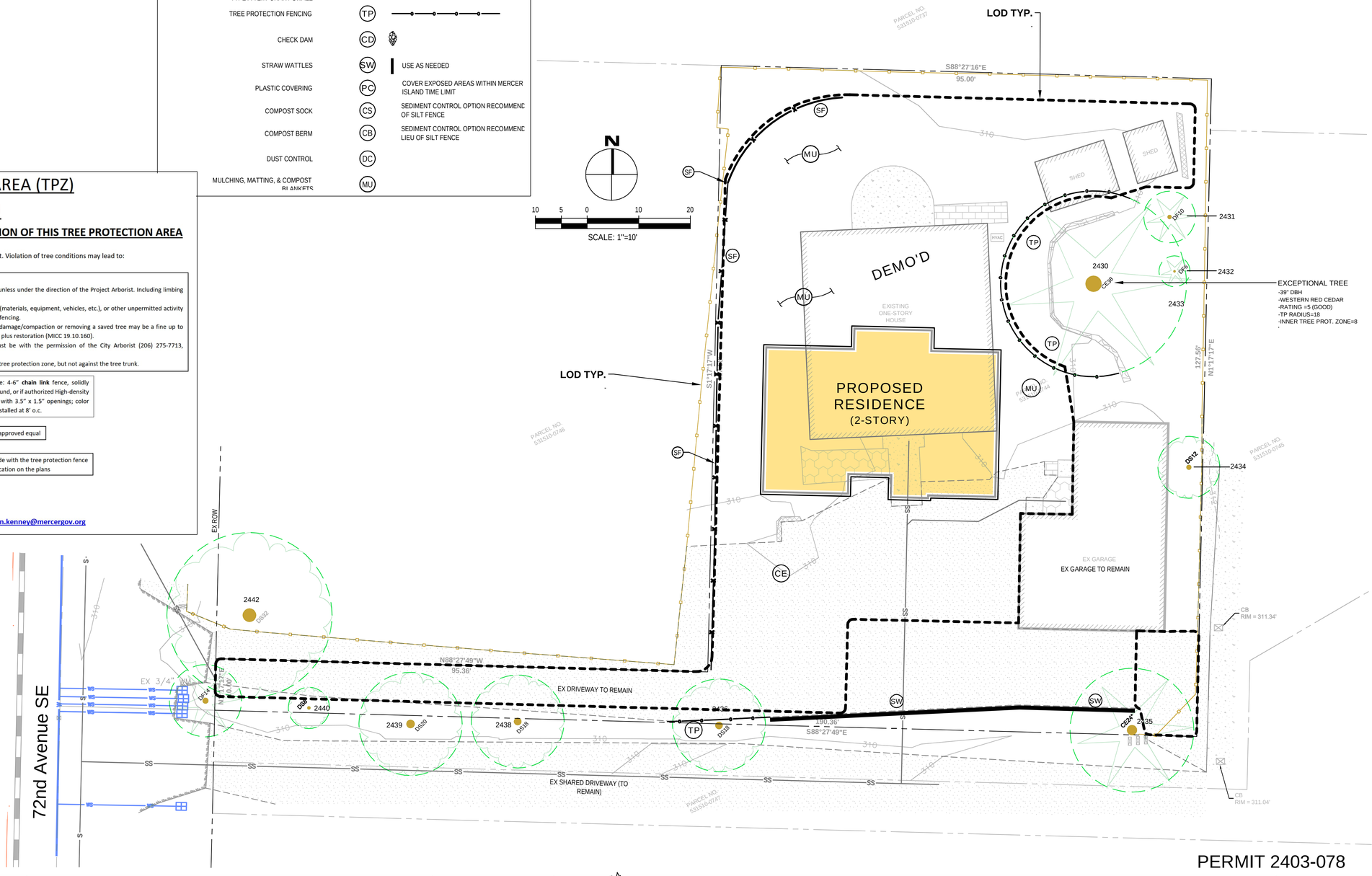
SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

ESTIMATED TOPSOIL IMPORT = 45 CY

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.



PERMIT 2403-078

NO.	DATE	BY	REVISIONS

APPLICANT
LEI WU AND INGRID CHANG
2956 72nd AVENUE SE
MERCER ISLAND, WA 98040

DATE: Jul 10, 2024
JOB# 2094
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE

Jul 10, 2024
JEFFREY E. DUFFY
STATE OF WASHINGTON
39756
REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
701 N 36th STREET, SUITE 450 SEATTLE, WA 98103
206.930.0342 DUFFY@CESOLUTIONS.US

TESC PLAN

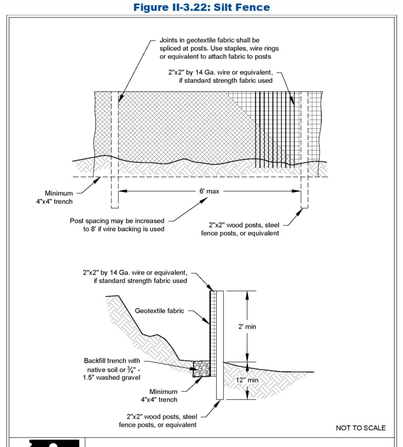
WU/CHANG RESIDENCE
2956 72nd AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C1.0

APN 531510-0744

SILT FENCE DETAIL DOE

Figure II-3.22: Silt Fence



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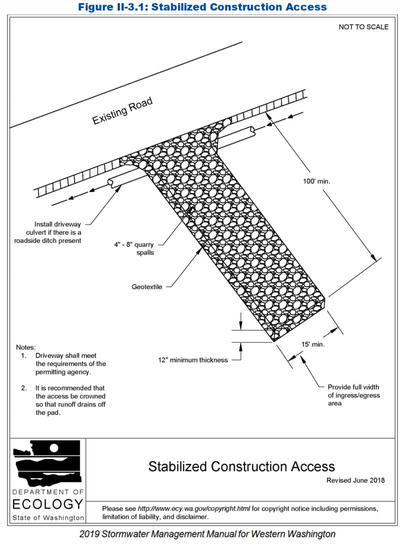
CONSTRUCTION ENTRANCE DOE

Figure II-3.1: Stabilized Construction Access



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RECOMMENDED CONSTRUCTION SEQUENCE

A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.

2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).

3. FLAG OR FENCE CLEARING LIMITS.

4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.

5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).

6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).

7. CONSTRUCT SEDIMENT PONDS AND TRAPS.

8. GRADE AND STABILIZE CONSTRUCTION ROADS.

9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.

10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.

11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.

12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.

13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.

15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

DENUDED AREAS REQUIREMENTS

APRIL 1 TO SEPT 30
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 7 DAYS OF CONSTRUCTION. PLEASE READ ALL CITY TESC NOTES ON SHEET C1.2.

OCT 1 TO MARCH 31
ALL DENUDED AREAS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. IF AN EROSION PROBLEM ALREADY EXISTS ON THE SITE, OTHER COVER PROTECTION AND EROSION CONTROL WILL BE REQUIRED.

EROSION CONTROL NOTES

D.8.2 STANDARD ESC PLAN NOTES
THE STANDARD ESC PLAN NOTES MUST BE INCLUDED ON ALL ESC PLANS. AT THE APPLICANT'S DISCRETION, NOTES THAT IN NO WAY APPLY TO THE PROJECT MAY BE OMITTED; HOWEVER, THE REMAINING NOTES MUST NOT BE RENUMBERED. FOR EXAMPLE, IF ESC NOTE #3 WERE OMITTED, THE REMAINING NOTES SHOULD BE NUMBERED 1, 2, 4, 5, 6, ETC.

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).

2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND
UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.

3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.

4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.

5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.

6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY CITY OF MERCER ISLAND.

7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.

8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).

9. ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.

10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH DURING THE DRY SEASON, BI-MONTHLY DURING THE WET SEASON, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.

11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.

12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.

13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL

14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON.

CITY NOTES

1. ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.

2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.

3. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.

4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITES.

5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555

6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED

7. EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:

8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.

9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.

10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.

11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.

12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.

13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.

14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.

15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.

16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.

17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.

18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.

19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.

16. 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. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.

20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.

21. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.

22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

PERMIT 2403-078

NO.	DATE	BY	REVISIONS

APPLICANT
LEI WU AND INGRID CHANG
2956 72nd AVENUE SE
MERCER ISLAND, WA 98040

DATE: Jul 10, 2024
JOB# 2094
DRAFTED: SS DESIGN: DE
DIGITAL SIGNATURE

Jul 10, 2024
JEFFREY E. RUFF
STATE OF WASHINGTON
39709
REGISTERED
PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
701 N 36th STREET, SUITE 450 SEATTLE, WA 98103
206.930.0342 DUFFY@CESOLUTIONS.US

TESC & CITY NOTES
TESC DETAILS

WU/CHANG RESIDENCE
2956 72nd AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C1.2

APN 531510-0744

SANITARY SEWER IMPROVEMENTS

1. -
2. -6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0 %.
3. -
4. -
7. -LOCATE AND VIDEO CONDITION OF EXISTING SANITARY SIDE SEWER. REPLACE LINE IF FOUND DEFECTIVE AS DETERMINED BY CITY INSPECTOR.

WATER IMPROVEMENTS

10. -
11. -2" WATER SERVICE REQUIRED DUE TO FIRE FLOW REQUIREMENT (LACK OF NEARBY FH). USE 250 PSI PRIVATE HDPE WATER (ASTM D2239) OR PEXa 3306 (CTS), SIDR 9, AWWA C904 OR EQUAL FROM METER TO HOUSE. RECOMMENDED DEPTH=36".
12. -
14. -

STORM DRAIN

20. -4" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE
21. -4" FOUNDATION DRAIN (3034 PVC) @ MIN 1 % GRADE
22. -6" STORM DRAIN (3034 PVC) @ MIN 1 % GRADE
23. -
24. -
25. -
26. -
28. -
29. -

STORM DRAIN STRUCTURES

30. -TYPE 1 CB WITH STANDARD GRATE.
31. -
32. -TYPE 1 CB WITH SOLID LID
33. -
34. -
35. -MIN 18" ID YARD DRAIN (OR EQUAL) WITH SOLID LID
36. -
36A. -
39. -
40. -PRIVATE TYPE 40 CATCH BASIN OR EQUAL. INCLUDE OIL TEE (OR INVERTED ELBOW) IN DRIVEWAY LOCATIONS.
41. -
43. -
46. -
47. -
48. -FOOTING DRAIN SUMP PUMP: USE 1/3 HP HYDROMATIC SUMP PUMP OR EQUAL. 120V, 1/3 HP, SINGLE PHASE, 8.0 AMP 1-1/2" DISCHARGE. PLACE IN 24" GREEN ULTRA-RIB PVC PIPE OR EQUAL.

STORM BMP's

50. -COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 8" OF SOIL. LOOSEN COMPACTED SUBSOIL, IF NEEDED BY RIPPING TO 12" DEPTH. MULCH LANDSCAPE BEDS AFTER PLANTING.
51. -
52. -
53. -
54. -
55. -
56. -
57. -PERMEABLE PAVER SURFACE (PATIO) PER DOE DETAIL. MIN. 4" DEEP RESERVOIR COURSE. SEE DETAIL ON C3.5.
58. -

STREET IMPROVEMENTS

71. -PAVEMENT RESTORATION - COORDINATE SCOPE OF PAVEMENT RESTORATION WITH CITY INSPECTOR

MINIMUM 10% ORGANIC - COMPOST & MULCH REQUIRED

SOILS

NO REPORT FOR THIS PROJECT, TO ENGINEER'S KNOWLEDGE

MERCER ISLAND SHOWS GLACIAL TILL

MERCER ISLAND INFILTRATION MAP SHOWS MODERATE POTENTIAL

SURVEYOR

TOPOGRAPHIC SURVEY BY:
SITE SURVEY
2123 NE 11th STREET
SAMMAMISH, WA 98074
PHONE 425-298-4412
www.sitesurveymapping.com

VERTICAL DATUM

NAVD 88 PER WCCS SURVEY CONTROL DATABASE
SEE SURVEY

LEGAL DESCRIPTION

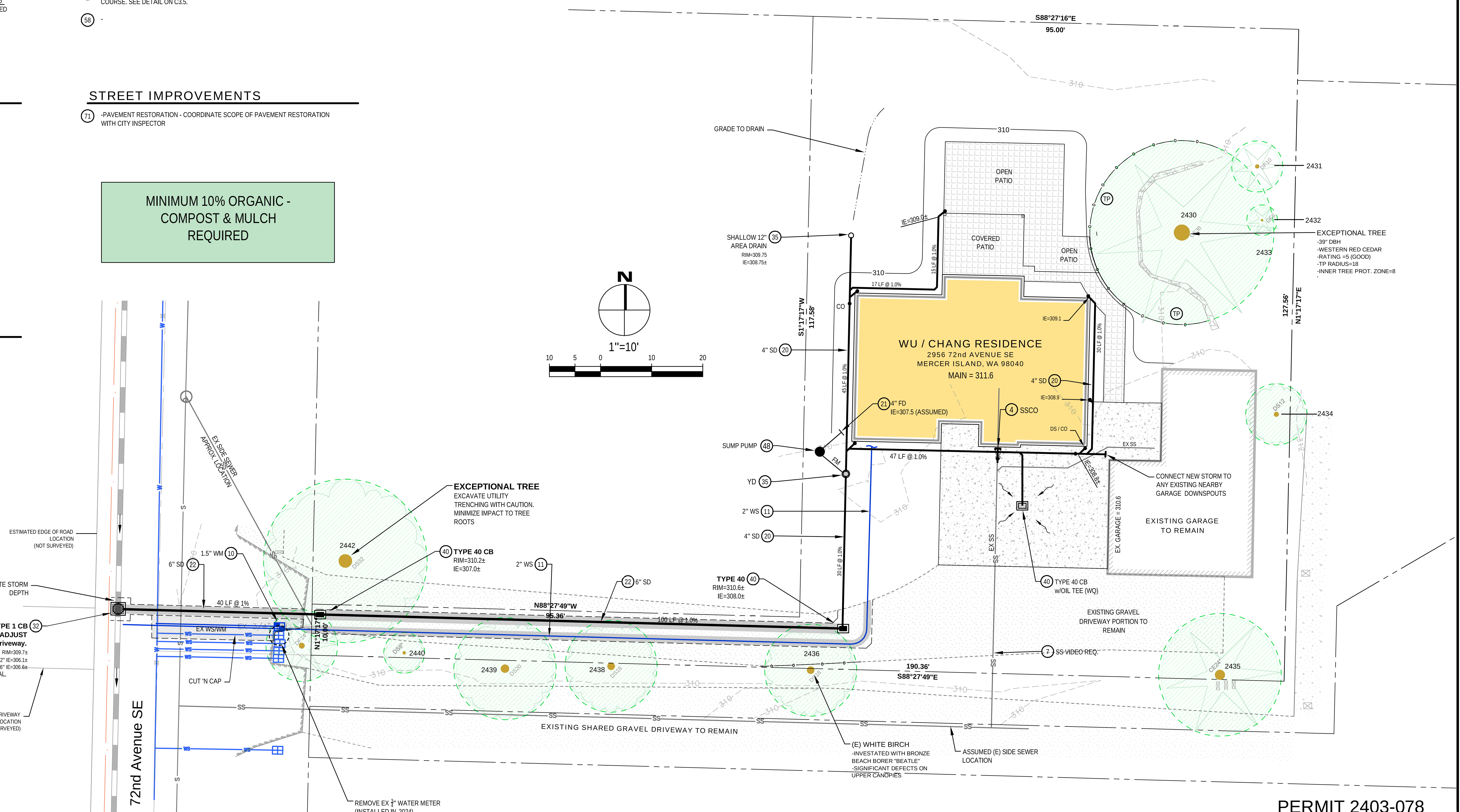
SEE C1.0

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL PERMITSIGN-OFF AND CERTIFICATE OF OCCUPANCY.



PERMIT 2403-078

NO.	DATE	BY	REVISIONS

APPLICANT
LEI WU AND INGRID CHANG
2956 72nd AVENUE SE
MERCER ISLAND, WA 98040

DATE: Jul 10, 2024
JOB# 2094
DRAFTED: DE DESIGN: DE
DIGITAL SIGNATURE

Jul 10, 2024

JEFFREY E. ... STATE OF WASHINGTON ... REGISTERED PROFESSIONAL ENGINEER

CIVIL ENGINEERING SOLUTIONS
701 N 36th STREET, SUITE 450 SEATTLE, WA 98103
206.930.0342 DUFFY@CESOLUTIONS.US

DRAINAGE / CIVIL PLAN

WU/CHANG RESIDENCE
2956 72nd AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C2.0

APN 531510-0744

MINIMUM 10% ORGANIC - COMPOST SOIL REQUIRED

SOIL AMENDMENT REQUIRED

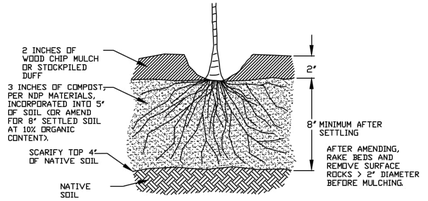
COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL BELOW.

SOIL INSPECTION REQUIRED BY ENGINEER

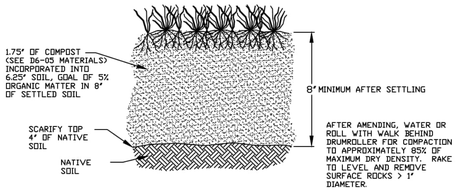
A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

COMPOST AMENDED SOIL SPEC

AMENDMENT FOR LANDSCAPED AREAS



SOIL AMENDMENT FOR GRASS OR TURF AREAS



NOTES:

1. AMEND SOILS PER DOE MANUAL, VOL. V, S.3.1, BMP T5.13, (2012 OR CURRENT) OR WWW.SOILSFORSALMON.ORG.
2. DO NOT AMEND SOILS IN AREAS WITH UNDISTURBED SOIL AND NATIVE VEGETATION.
3. OPTIONAL ALTERNATIVE: STOCKPILE NATIVE TOPSOIL ONSITE, AMEND IF NEEDED, AND REPLACE BEFORE PLANTING.
4. OPTIONAL ALTERNATIVE: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET REQUIREMENTS.

JANUARY 2023 NO SCALE

City of Bellevue — STORM AND SURFACE WATER UTILITY

TITLE: AMENDED SOILS

NO. ~~NDP-1~~

PERMIT 2403-078

NO.	DATE	BY	REVISIONS

APPLICANT
LEI WU AND INGRID CHANG
2956 72nd AVENUE SE
MERCER ISLAND, WA 98040

DATE: Jul 10, 2024
JOB# 2094
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE

Jul 10, 2024
JEFFERY E. DUFFY — STATE OF WASHINGTON — 39760 — REGISTERED PROFESSIONAL ENGINEER

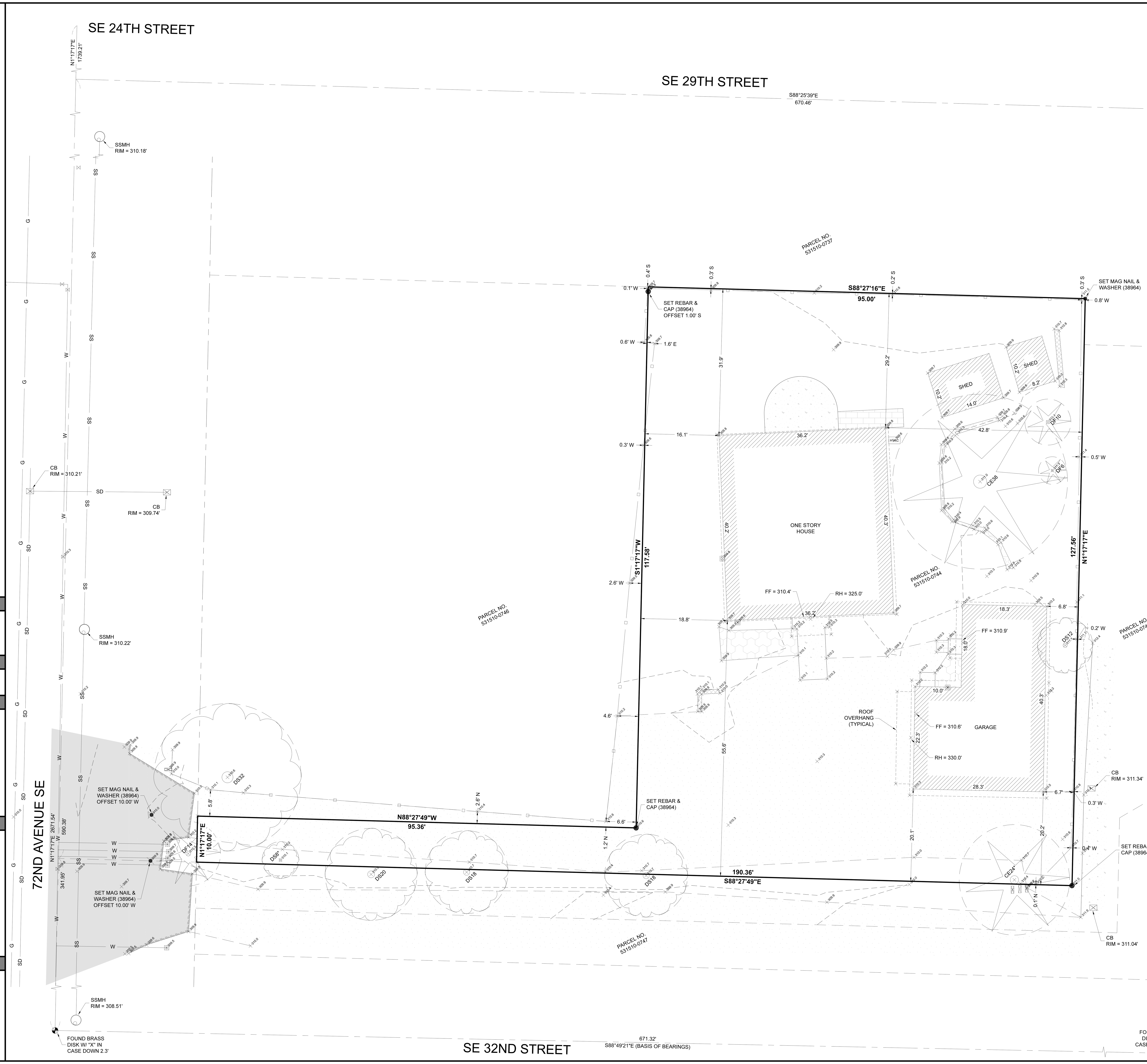
CIVIL ENGINEERING SOLUTIONS
701 N 36th STREET, SUITE 450 SEATTLE, WA 98103
206.930.0342 DUFFY@CESOLUTIONS.US

STORM, BMP DETAILS

WU/CHANG RESIDENCE
2956 72nd AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO: C3.5

APN 531510-0744



GRAPHIC SCALE

5 0 5 10 20

1INCH = 10 FT.

LEGEND

Symbol	Description	Symbol	Description
	FOUND MONUMENT AS DESCRIBED		WOOD FENCE
	FOUND REBAR AS DESCRIBED		CONCRETE WALL
	SET MAG NAIL AS DESCRIBED		ROCKERY
	SET 5/8" X 24" IRON ROD W/1" YELLOW PLASTIC CAP		ASPHALT SURFACE
	POWER METER		CONCRETE SURFACE
	GAS METER		GRAVEL SURFACE
	CATCH BASIN		BRICK SURFACE
	SANITARY SEWER MANHOLE		FLAGSTONE SURFACE
	WATER VALVE	CE	CEDAR
	FIRE HYDRANT	DF	DOUGLAS FIR
	WATER METER	DS	DECIDUOUS
	MAILBOX		* INDICATES MULTI-TRUNK
SS	APPROXIMATE LOCATION SANITARY SEWER LINE		
SD	APPROXIMATE LOCATION STORM DRAIN LINE		
G	APPROXIMATE LOCATION UNDERGROUND GAS LINE		
W	APPROXIMATE LOCATION UNDERGROUND WATER LINE		

LEGAL DESCRIPTION

LOT B, CITY OF MERCER ISLAND SHORT PLAT NO. ML 76-6-021, AS RECORDED UNDER RECORDING NO. 7607020565, RECORDS OF KING COUNTY, WASHINGTON.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

THE MCGILVRA'S ISLAND ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 16 OF PLATS, PAGE 358, RECORDS OF KING COUNTY, WASHINGTON.

PROJECT INFORMATION

PROPERTY OWNER:	LEI WU & INGRID CHANG 2956 72ND AVENUE SE MERCER ISLAND, WA 98040
TAX PARCEL NUMBER:	531510-0744
PROJECT ADDRESS:	2956 72ND AVENUE SE MERCER ISLAND, WA 98040
ZONING:	R-9.6
JURISDICTION:	CITY OF MERCER ISLAND
PARCEL ACREAGE:	13,072 SF (± 0.300 ACRES) AS SURVEYED

GENERAL NOTES

1. THIS SURVEY WAS COMPLETED WITHOUT BENEFIT OF A CURRENT TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
2. INSTRUMENTATION FOR THIS SURVEY WAS A 3-SECOND SPECTRAPRECISION FOCUS 35 TOTAL STATION. PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET BY WAC 332-130-090.
3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN NOVEMBER 2023 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. UTILITIES SHOWN ON THIS SURVEY ARE BASED UPON ABOVE GROUND OBSERVATIONS AND AS-BUILT PLANS WHERE AVAILABLE. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THIS SITE.
5. ALL MONUMENTS WERE LOCATED DURING THIS SURVEY UNLESS OTHERWISE NOTED.

VERTICAL DATUM & CONTOUR INTERVAL

DATUM

ELEVATIONS SHOWN ON THIS DRAWING WERE DERIVED FROM INFORMATION PROVIDED BY WCCS SURVEY CONTROL DATABASE.

THE MARK IS A BRASS CAP IN CONCRETE MONUMENT CASE AT THE INTERSECTION OF SE 32ND AVENUE AND 72ND AVENUE SE.

POINT ID NO. CASC13;
ELEVATION: 310.1 FEET (94.531 METERS) NAVD 88

2.0' CONTOUR INTERVAL - THE EXPECTED VERTICAL ACCURACY IS EQUAL TO 1/2 THE CONTOUR INTERVAL OR PLUS / MINUS 1.0' FOR THIS PROJECT.

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

Site Surveying, Inc.
www.sitesurveymapping.com
21923 NE 11th Street Sammamish, WA 98074
Phone: 425.298.4412

THOMAS N. WOLDENDORP
STATE OF WASHINGTON
38964
REGISTERED PROFESSIONAL LAND SURVEYOR

DRN	REVISION	DATE

TOPOGRAPHIC SURVEY

LEI WU & INGRID CHANG
2956 72ND AVENUE SE
MERCER ISLAND, WA 98040

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PROJECT NO. 23-608

DRAWN BY:	MTS
CHECKED BY:	TNW
DATE:	11/22/23
SHEET	1 OF 1