

Average Building Elev. Calc.

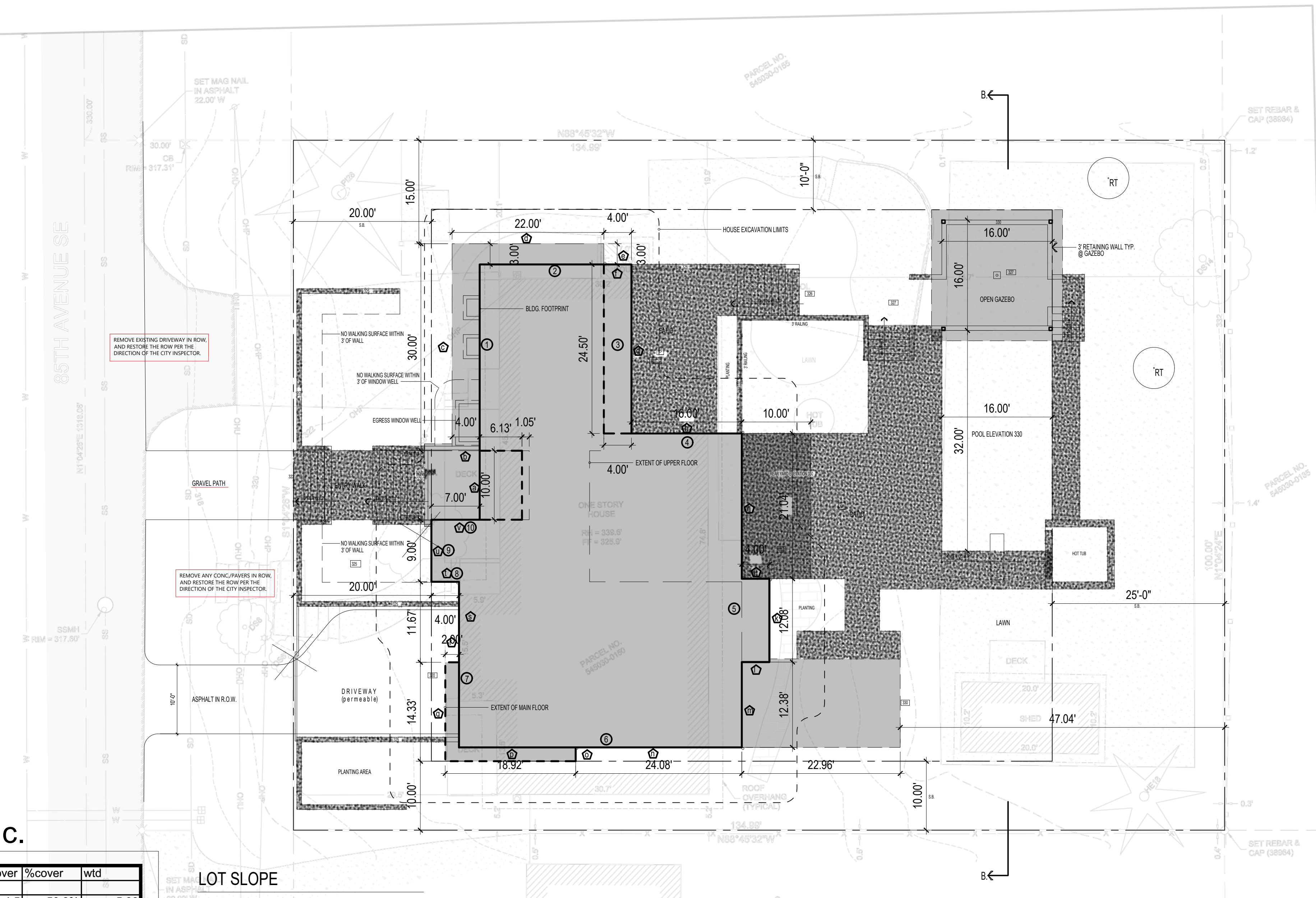
segment	length	elev @ mid	wtd segment
a	10	324.5	3245
b	4	324.5	1298
c	30	324	9720
d	22	324.5	7139
e	3	324.5	973.5
f	4	324.5	1298
g	24.5	320	7840
h	16	320	5120
i	20.04	325	6513
j	4	325.5	1302
k	12.08	325.5	3932.04
l	4	325.5	1302
m	12.36	325.5	4023.18
n	24.08	325	7826
o	2	325	650
p	18.92	324.5	6139.54
q	14.25	320	4560
r	2	320	640
s	11.66	320	3731.2
t	4	324.5	1298
u	9	324.5	2920.5
v	7	324.5	2271.5
perim=		258.89	83742.46
avg el =		323.4673	

BOLD elevations lower than existing grade

Basement FAR exception Calc.

segment	length	beginning elev.	end elev.	begin cov	end cover	avg cover	%cover	wtd
a	10	324.5	324.5	4.50	4.50	4.5	50.0%	5.00
b	4	324.5	324.5	4.50	4.50	4.5	50.0%	2.00
c	30	324.5	324.5	4.50	4.50	4.5	50.0%	15.00
d	22	324.5	325	4.50	5.00	4.75	52.8%	11.61
e	3	325	325	5.00	5.00	5	55.6%	1.67
f	4	325	325	5.00	5.00	5	55.6%	2.22
g	24.5	325	320	5.00	0.00	2.5	27.8%	6.81
h	16	320	325.5	0.00	5.50	2.75	30.6%	4.89
i	20.04	325.5	325.5	5.50	5.50	5.5	61.1%	12.25
j	4	325.5	325.5	5.50	5.50	5.5	61.1%	2.44
k	12.08	325.5	325.5	5.50	5.50	5.5	61.1%	7.38
l	4	325.5	325.5	5.50	5.50	5.5	61.1%	2.44
m	12.36	325.5	325	5.50	5.00	5.25	58.3%	7.21
n	24.08	325	325	5.00	5.00	5	55.6%	13.38
o	2	324.5	324.5	4.50	4.50	4.5	50.0%	1.00
p	18.92	324.5	324.5	4.50	4.50	4.5	50.0%	9.46
q	14.25	324.5	324.5	4.50	4.50	4.5	50.0%	7.13
r	2	324.5	324.5	4.50	4.50	4.5	50.0%	1.00
s	11.66	324.5	324.5	4.50	4.50	4.5	50.0%	5.83
t	4	324.5	324.5	4.50	4.50	4.5	50.0%	2.00
u	9	324.5	324.5	4.50	4.50	4.5	50.0%	4.50
v	7	324.5	324.5	4.50	4.50	4.5	50.0%	3.50
perim=		258.89						128.72
raw FAR		2403				avg.	49.7%	
basement slab elev =		320						
full cover =		9						
excepted area =		1194.724						

BOLD elevations are lower than existing grade
segment is footprint on the ground or projected overhanging living space



LOT SLOPE
HIGH POINT = 332'
LOW POINT = 320'
LOT SLOPE = 12'/168' = 7.14%

FAR CALCULATION
Main Floor = 2354.6 sf
Lower Floor = 2403 (with gar) sf
Upper Floor = 1938 sf

excepted FAR = (-1194.7) sf
stairs = (-110)

TOTAL = 5390.9 sf
allowable = 13,499 x .4 = 5399.6 sf

LOT COVERAGE
House Roof to eaves (shaded) = 3276.09 sf
Accessory Struct to eaves (shaded) = 361 sf
driveway = 383.66

TOTAL = 4020.75 sf
allowable = 13,499 x .4 = 5399.6 sf

amount available for hardscape = 1378.85 sf

HARDSCAPE
POOL + hot tub = 583.4 sf
PATIOS AND RETAINING = 1596.8 sf

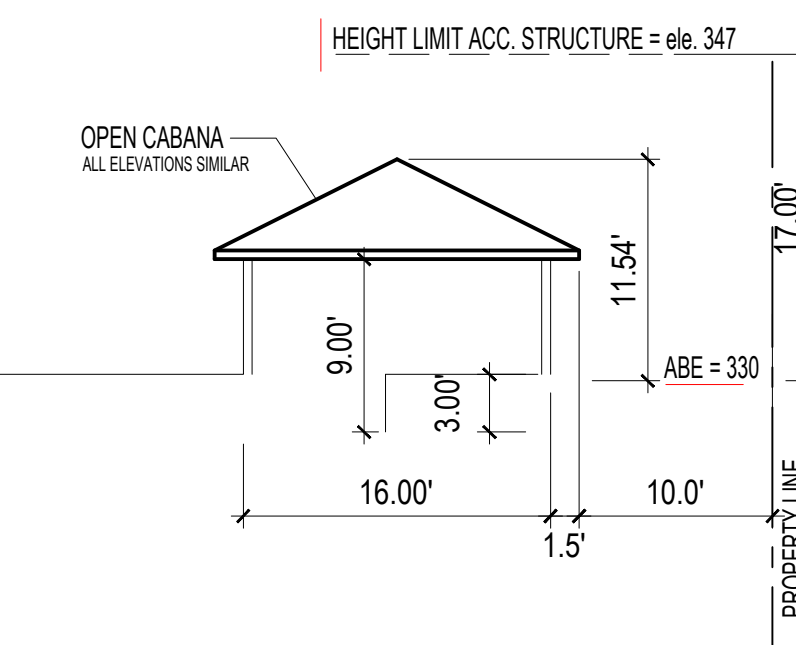
TOTAL = 2180.2sf
allowable = 13,499 x .09 = 1214.9 sf
extra lot cov. = 1378.85
TOTAL allow. = 2593.75 sf

A. SITE PLAN

- 1/10" = 1'-0"
- = SPOT ELEVATION, FINAL
- = WALL SEGMENT TAG FOR BASEMENT FAR EXCEPTION
- △ = WALL SEGMENT TAG FOR HEIGHT CALCULATION
- = EAVE/ROOF LINE
- = EXTENT OF MAIN FLOOR
- = BUILDING FOOTPRINT (FOUNDATION EXTENTS)
- = EXTENT OF UPPER FLOOR
- SHADED AREA = BLDG EXTENTS TO EAVE
- EXISTING HOUSE, DRIVEWAY AND ALL HARDSCAPE ON PROPERTY TO BE REMOVED
- = EXISTING TOPOGRAPHY
- RT = REPLACEMENT TREE PER ARBORIST'S REPORT

B. SITE SECTION

1/10" = 1'-0"
POOL CONSTRUCTION DRAWINGS TO PROVIDED BY DEFERRED SUBMISSION
ALL 4 CORNERS OF CABANA ARE AT ELEV. 330, BOTH FINISH AND FINAL GRADE, THEREFOR ABE = 330



NFPA 13D and NFPA 72 Monitored Fire Alarm System (per Chapter 29) Required.

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.

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

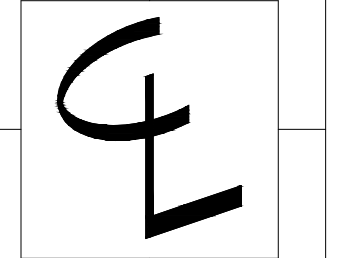
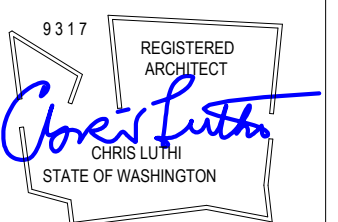
Demolish existing and build new single family residence.

Parcel Number/Legal

Parcel # = 5450300150
Legal Description:
MERCER CREST ADD
Plat Block: B
Plat Lot: 6
ZONING = R-9.6
lot size = 13,499 sf

Owner

SAHIL KUMAR
4034 85TH AVE SE 98040



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.935.4654
www.Centerline-Design.com

Kumar Residence
4034 85th Ave SE

CONTENTS

Site Plan

DRAWN BY

CRL

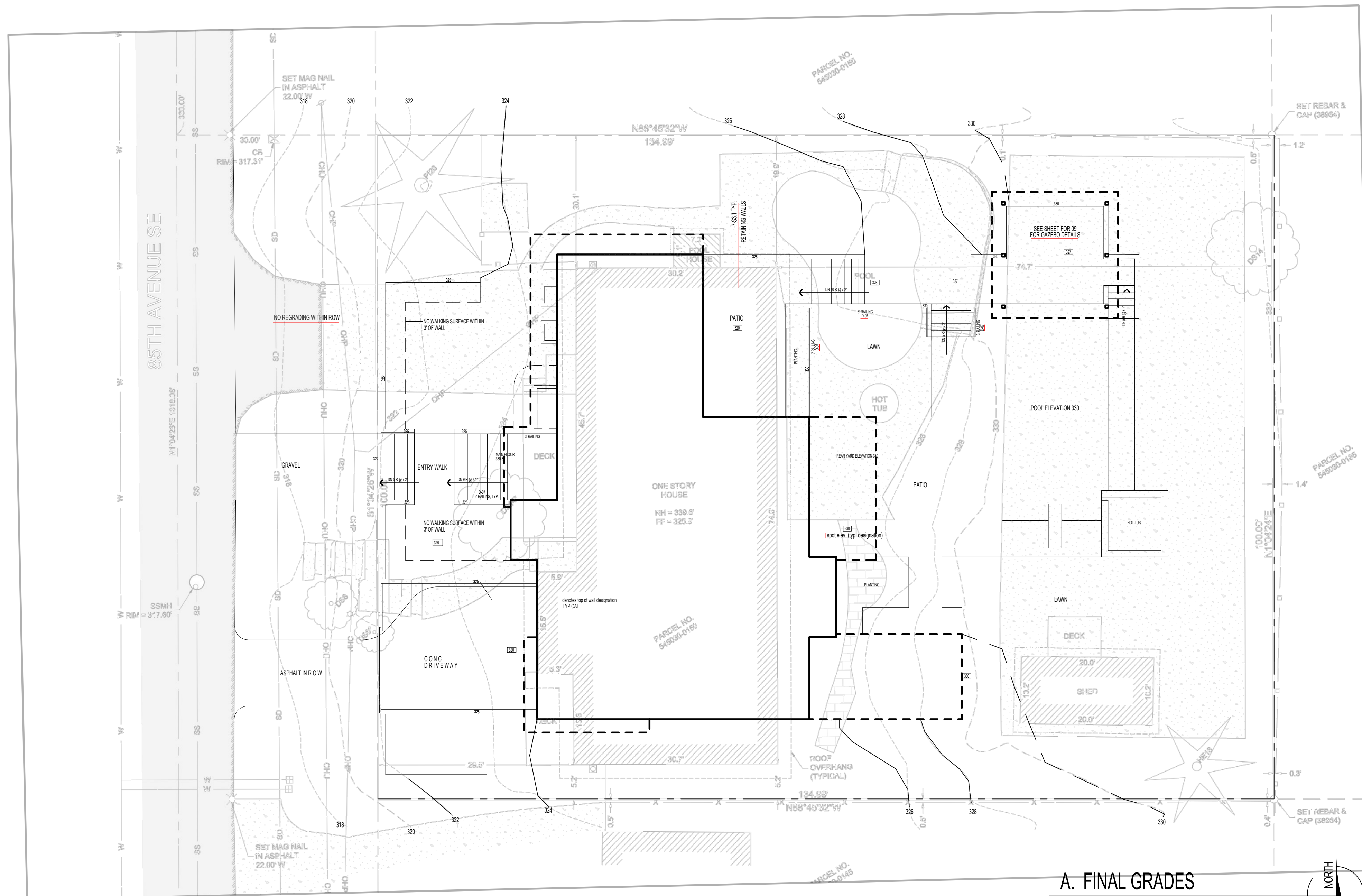
DATE

5.21.21

9.15.21

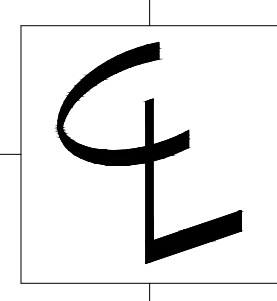
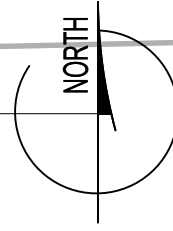
1.12.22

1a



A. FINAL GRADES

- 1/10" = 1'-0"
- = SPOT ELEVATION, FINAL
- - - = CANTILEVER/EAVE/ROOF LINE
- = BUILDING FOOTPRINT
- EXISTING HOUSE, DRIVEWAY AND ALL HARDSCAPE ON PROPERTY TO BE REMOVED
- = EXISTING TOPOGRAPHY
- = REVISED TOPO (FINISHED GRADES)



Kumar Residence
 4034 85th Ave SE

CONTENTS

Site Plan

DRAWN BY

CRL

DATE

5.2121

1.12.22

NOTES

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

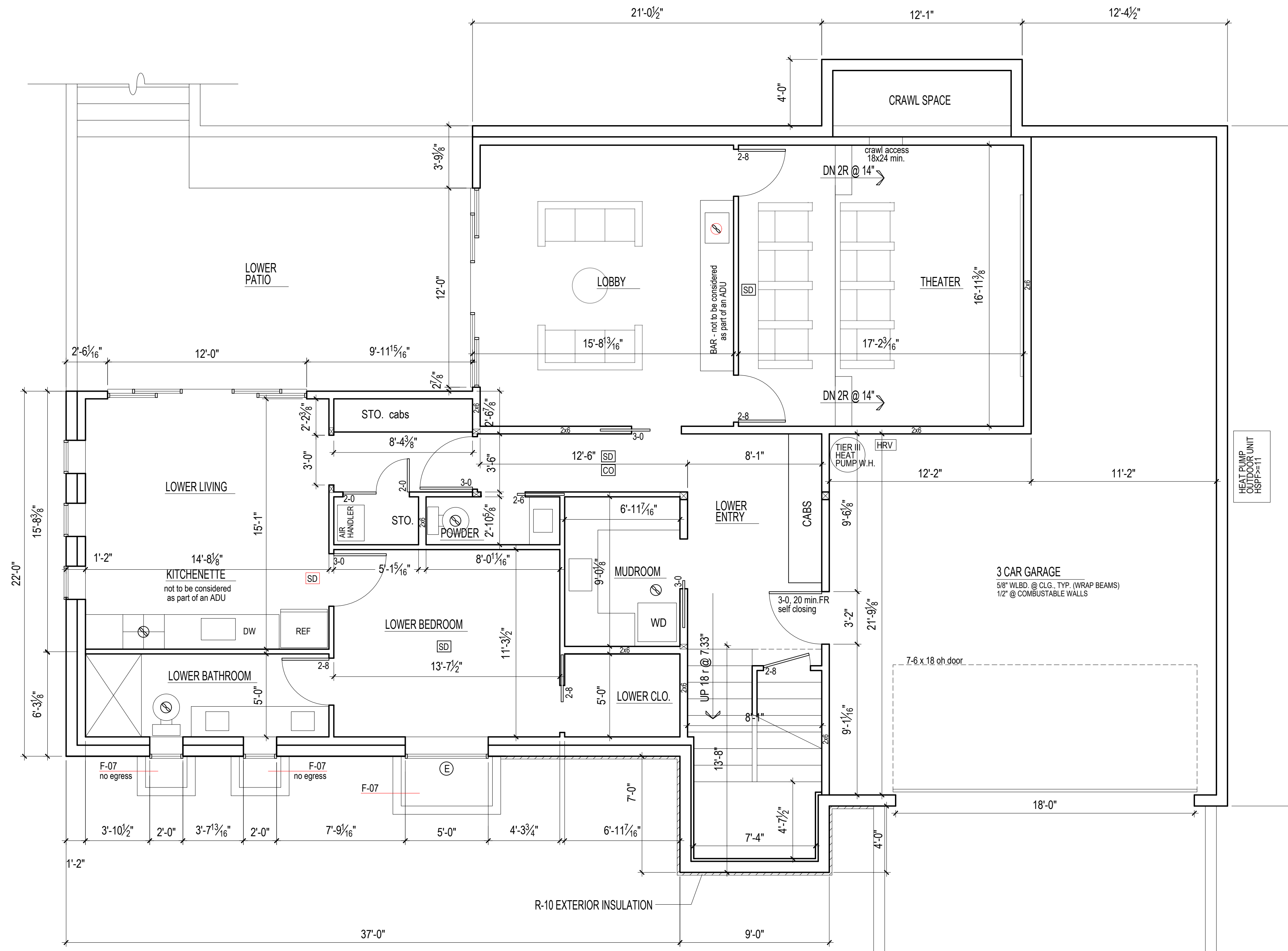
E = EGRESS WINDOWS

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 HEIGHT UNLESS OTHERWISE INDICATED

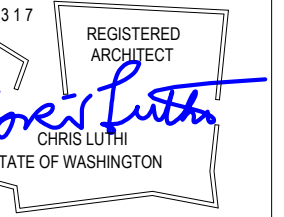
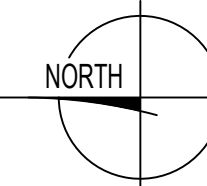
T = TEMPER/SAFETY GLAZE WINDOWS

ALL GAS F.P. TO BE APPROVED DIRECT VENT



LOWER FLOOR PLAN

1/4" = 1'-0"
 FLOOR AREA = 2403sf
 GARAGE = 758sf



Kumar Residence
 4034 85th Ave SE

CONTENTS

Lower Floor

DRAWN BY

CRL

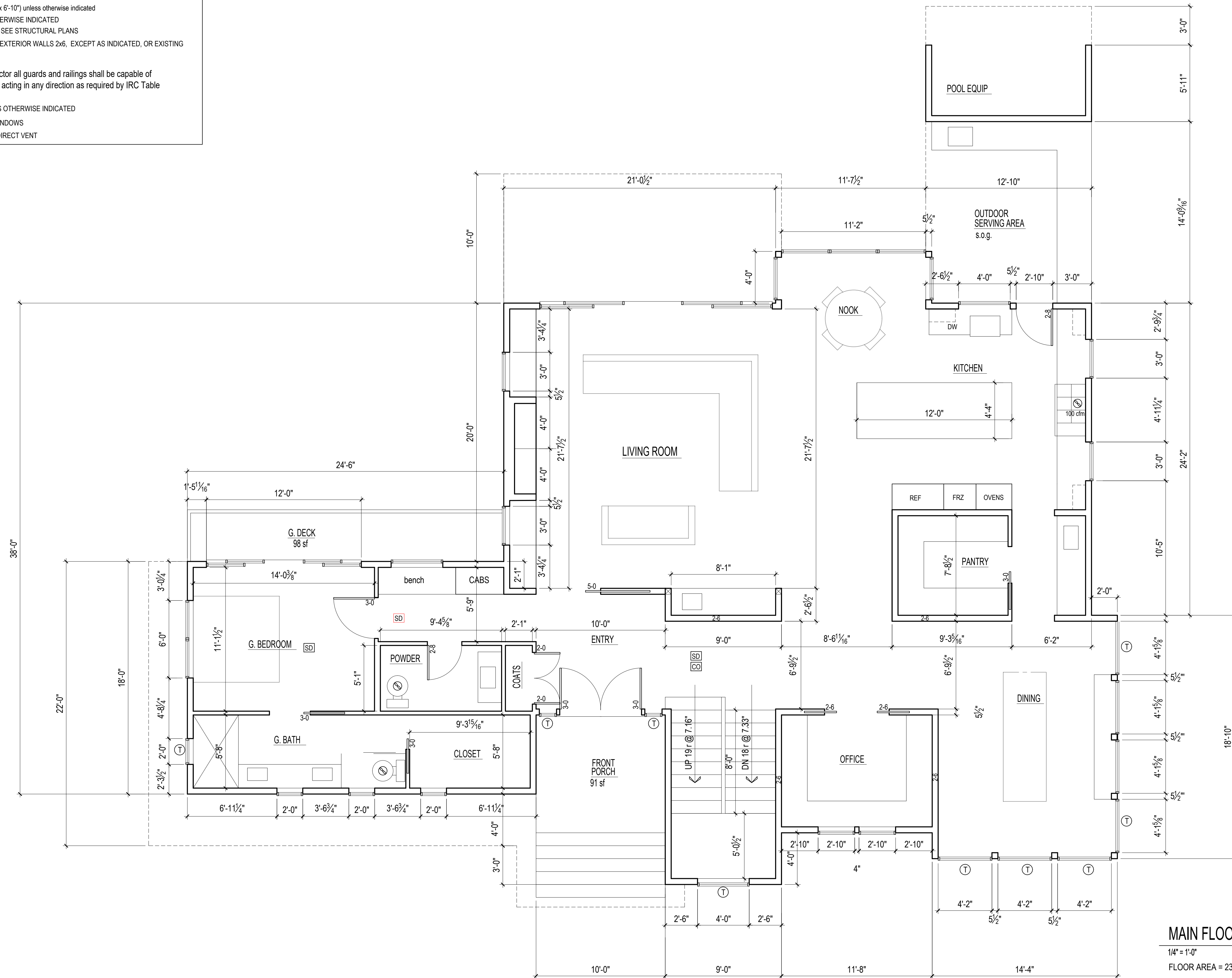
DATE

6.7.21
 1.12.22

NOTES

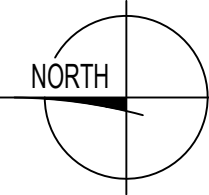
- SD = SMOKE DETECTOR, HARDWIRE, INTERCONNECTED w/ BATTERY BACK-UP
- CO = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP

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
 Ⓔ = 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 HEIGHT UNLESS OTHERWISE INDICATED
 Ⓙ = TEMPER/SAFETY GLAZE WINDOWS
 ALL GAS F.P. TO BE APPROVED DIRECT VENT



MAIN FLOOR PLAN

1/4" = 1'-0"
 FLOOR AREA = 2354.6sf



CONTENTS

Main Floor

DRAWN BY

CRL

DATE

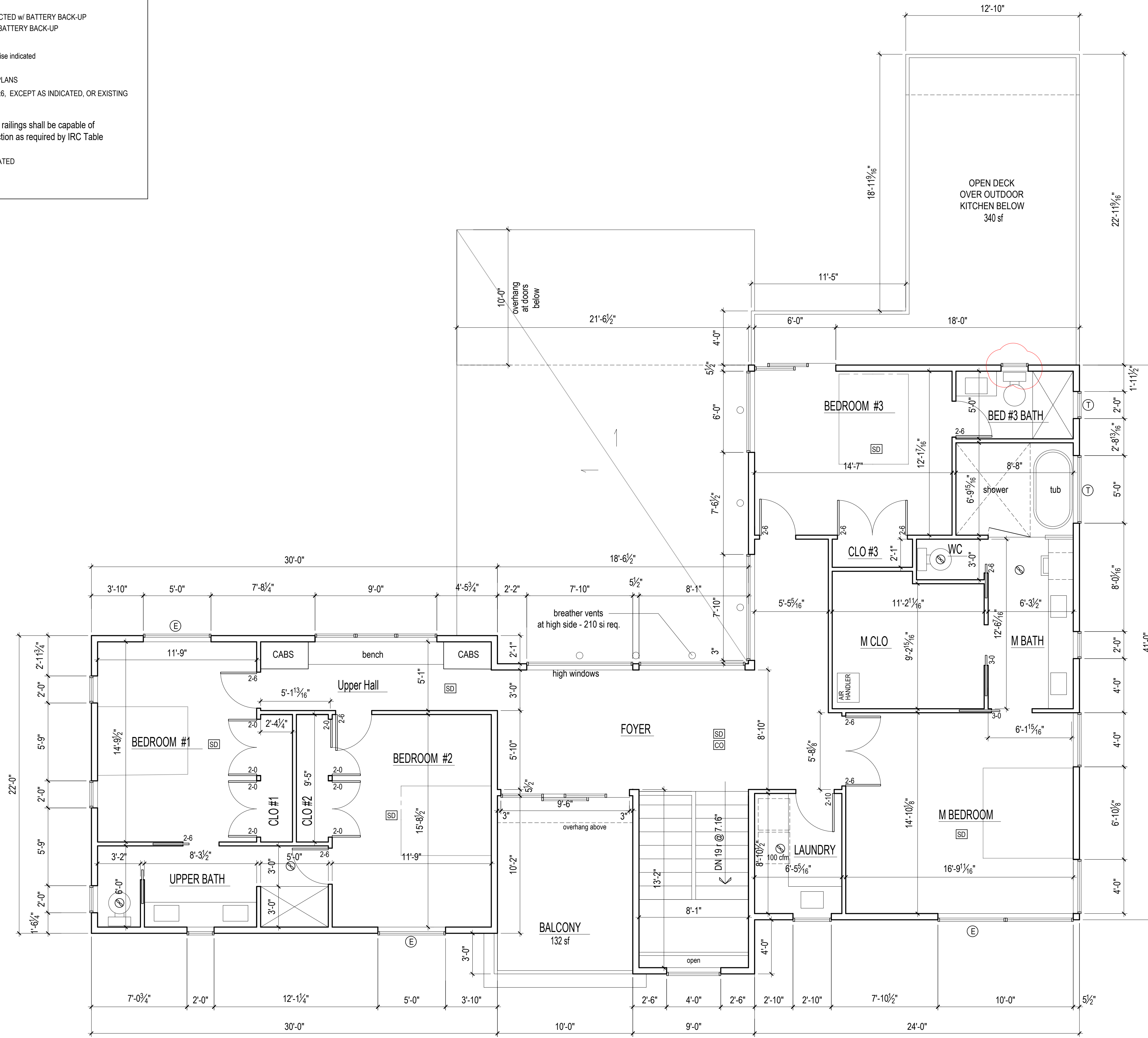
6.7.21

1.12.22

NOTES

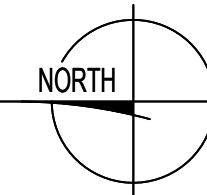
- SD = SMOKE DETECTOR, HARDWIRE, INTERCONNECTED w/ BATTERY BACK-UP
- CO = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP

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
 ⊕ = 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 HEIGHT UNLESS OTHERWISE INDICATED
 ⊕ = TEMPER/SAFETY GLAZE WINDOWS
 ALL GAS F.P. TO BE APPROVED DIRECT VENT



UPPER FLOOR PLAN

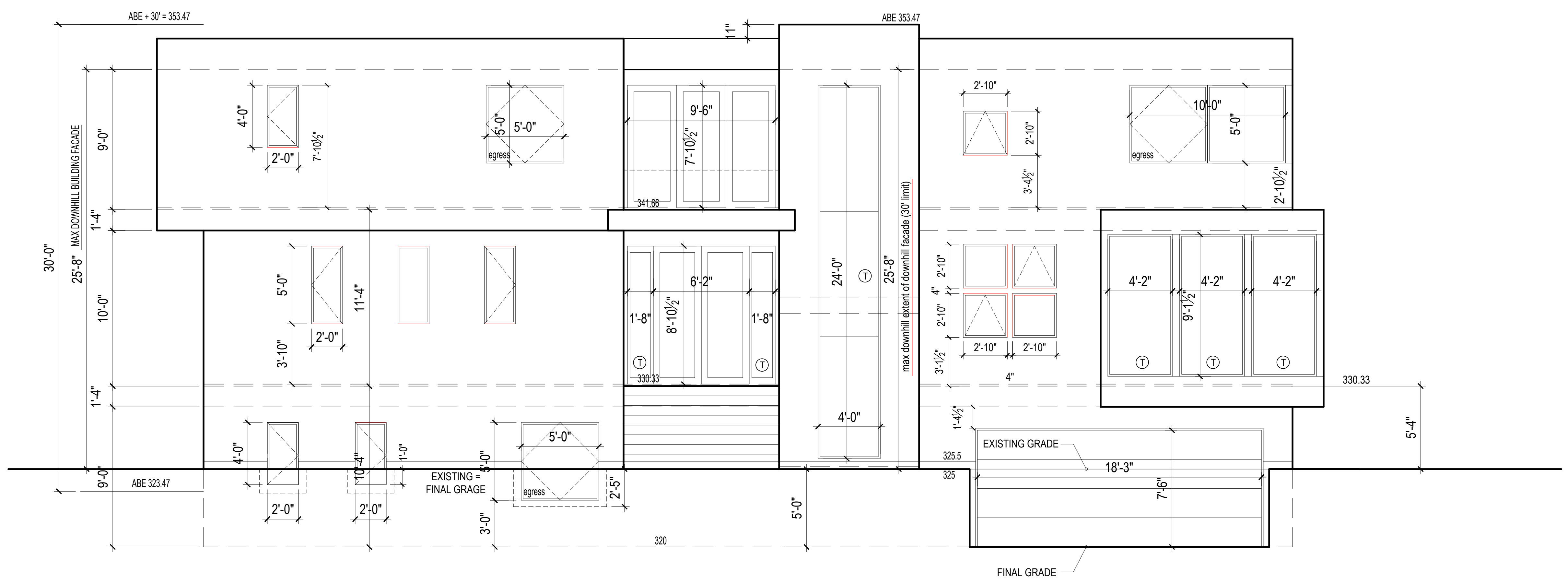
1/4" = 1'-0"
 FLOOR AREA = 1938sf



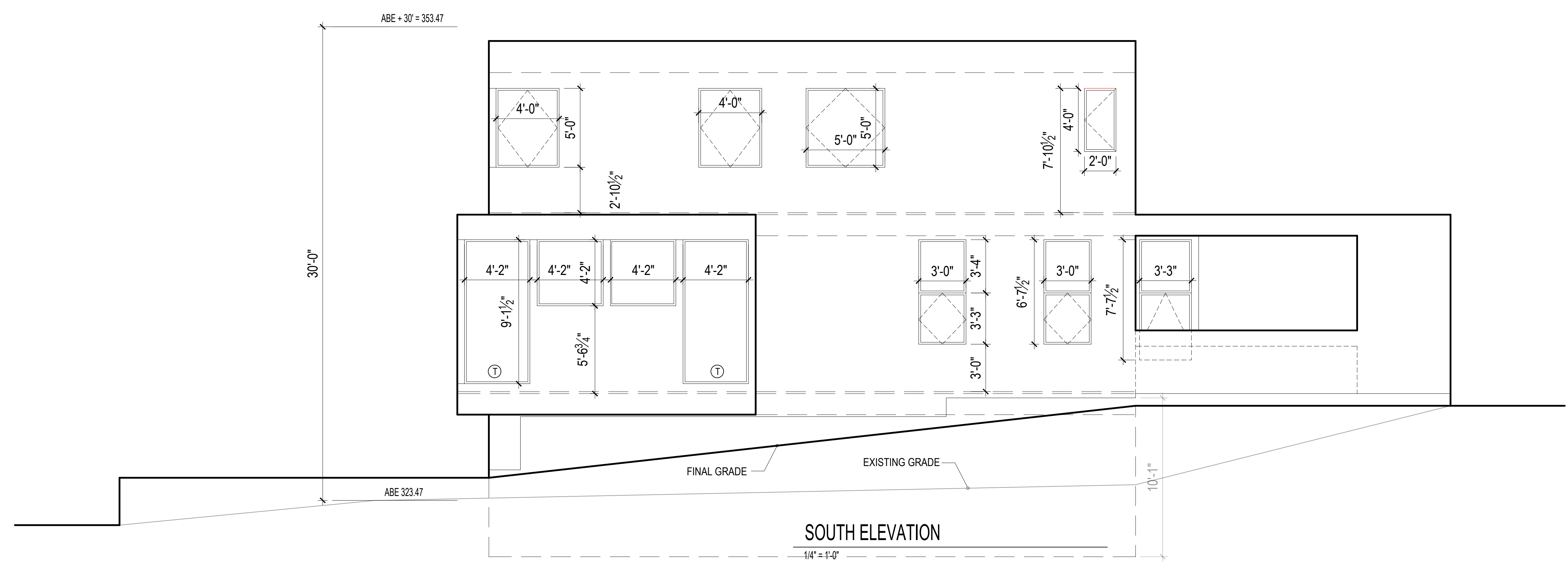
Kumar Residence
 4034 85th Ave SE

CONTENTS
 Upper Floor

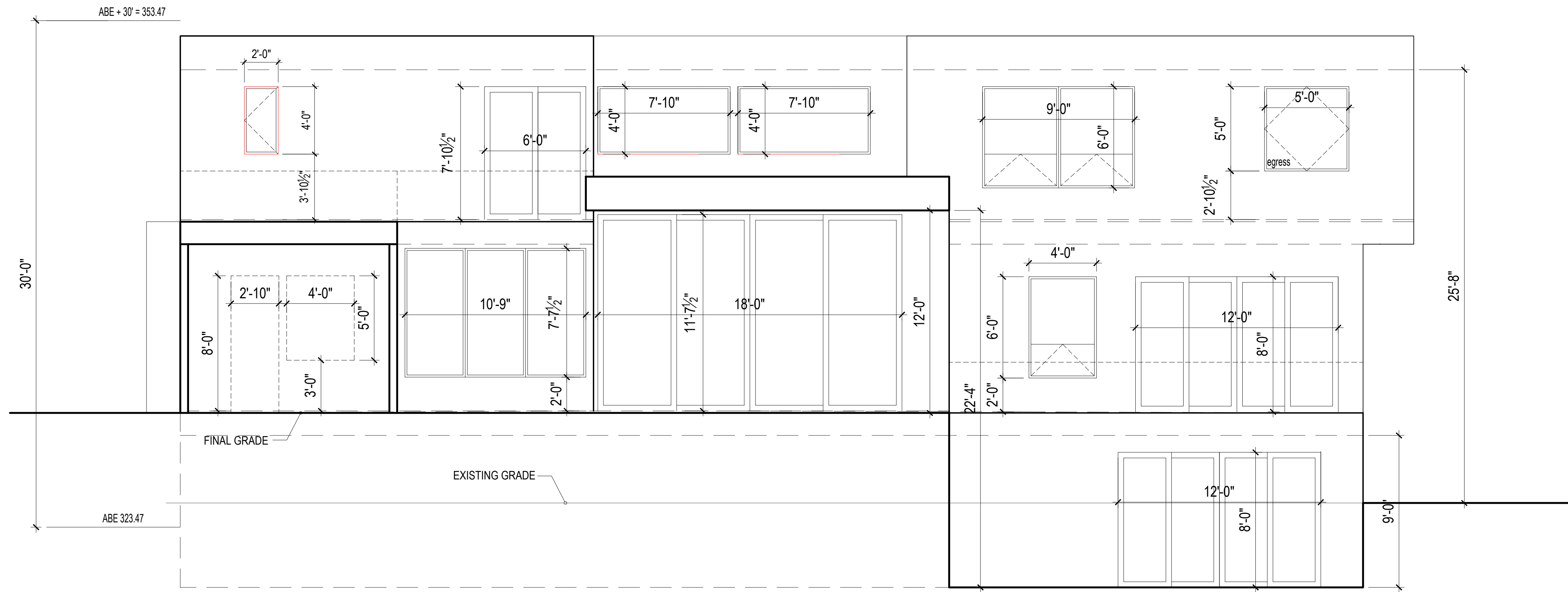
DRAWN BY
 CRL
 DATE
 6.7.21
 1.12.22



WEST ELEVATION
 1/4" = 1'-0"

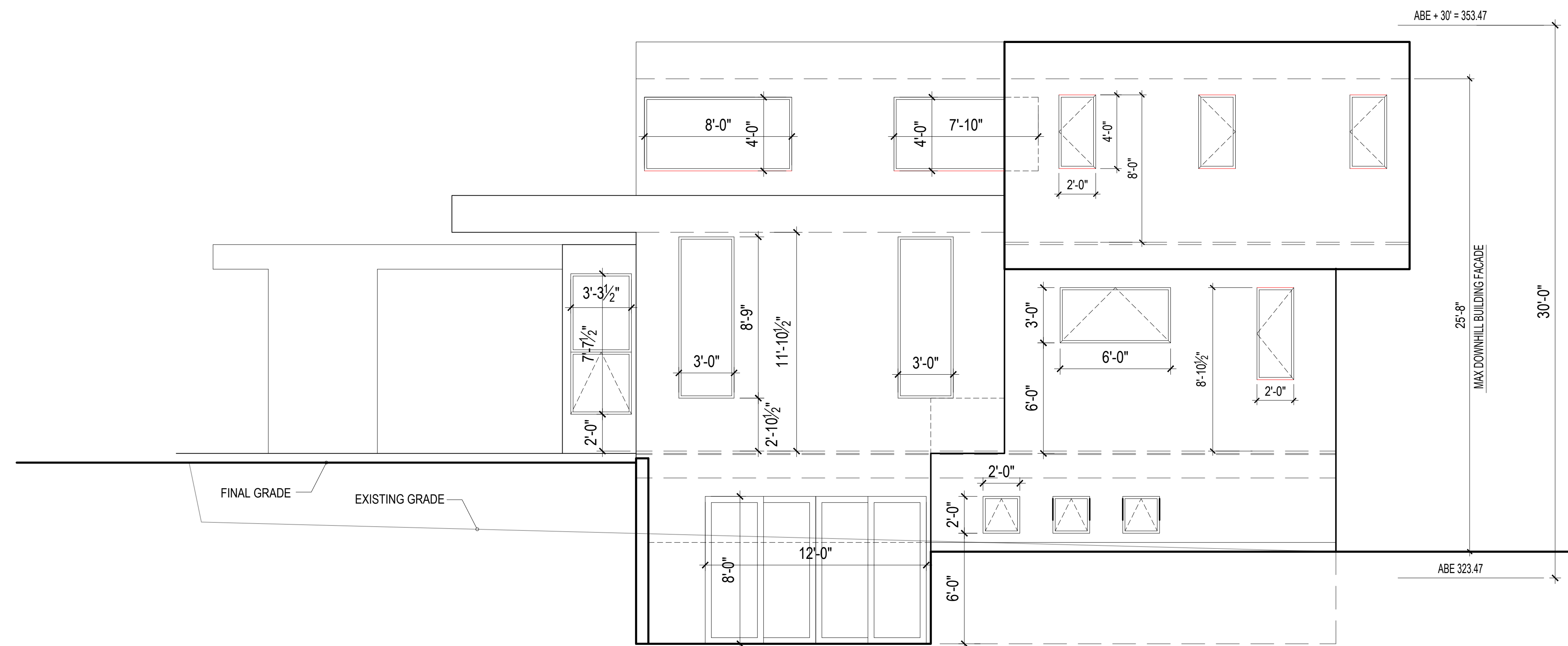


SOUTH ELEVATION
 1/4" = 1'-0"



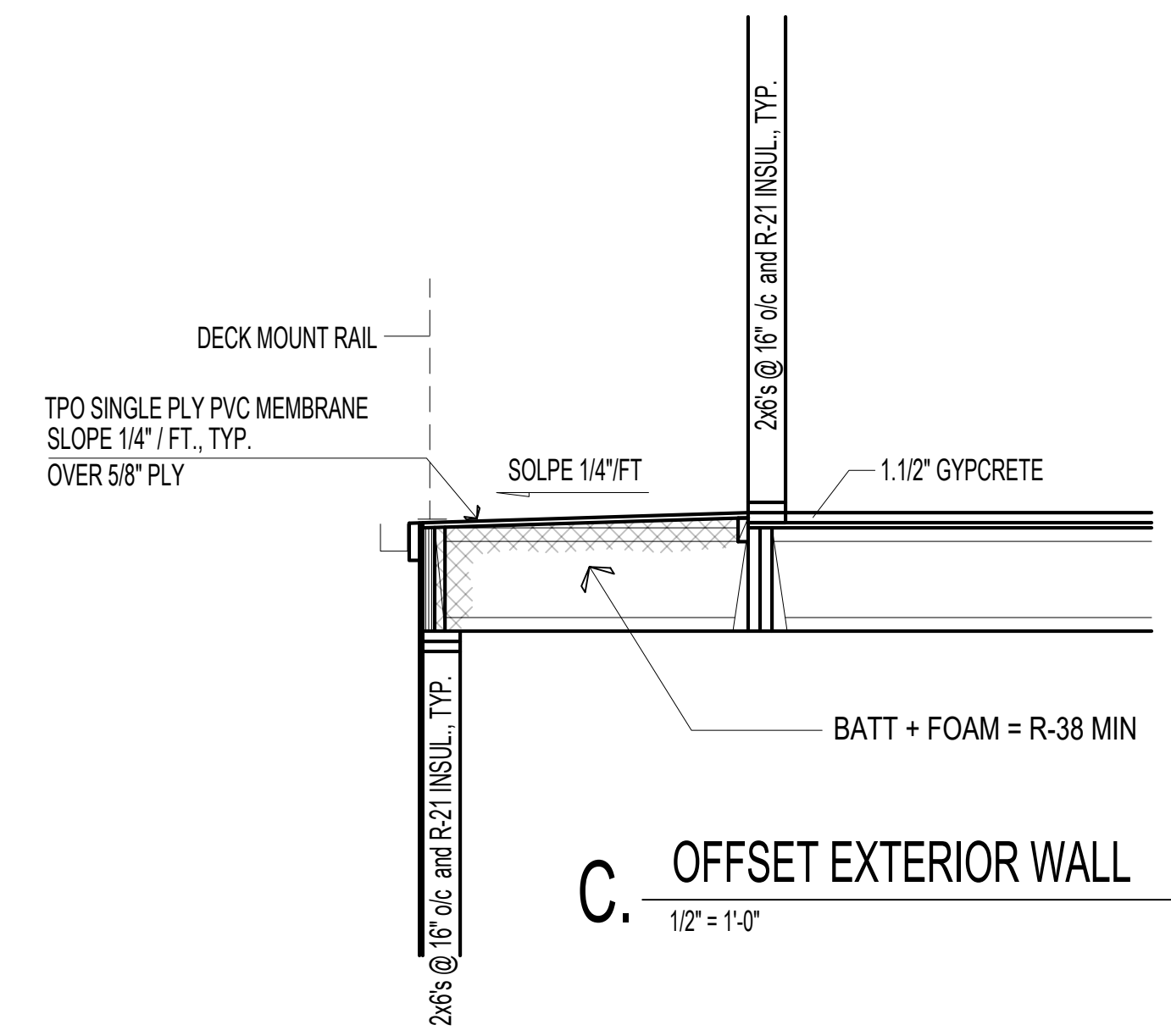
EAST ELEVATION

1/4" = 1'-0"



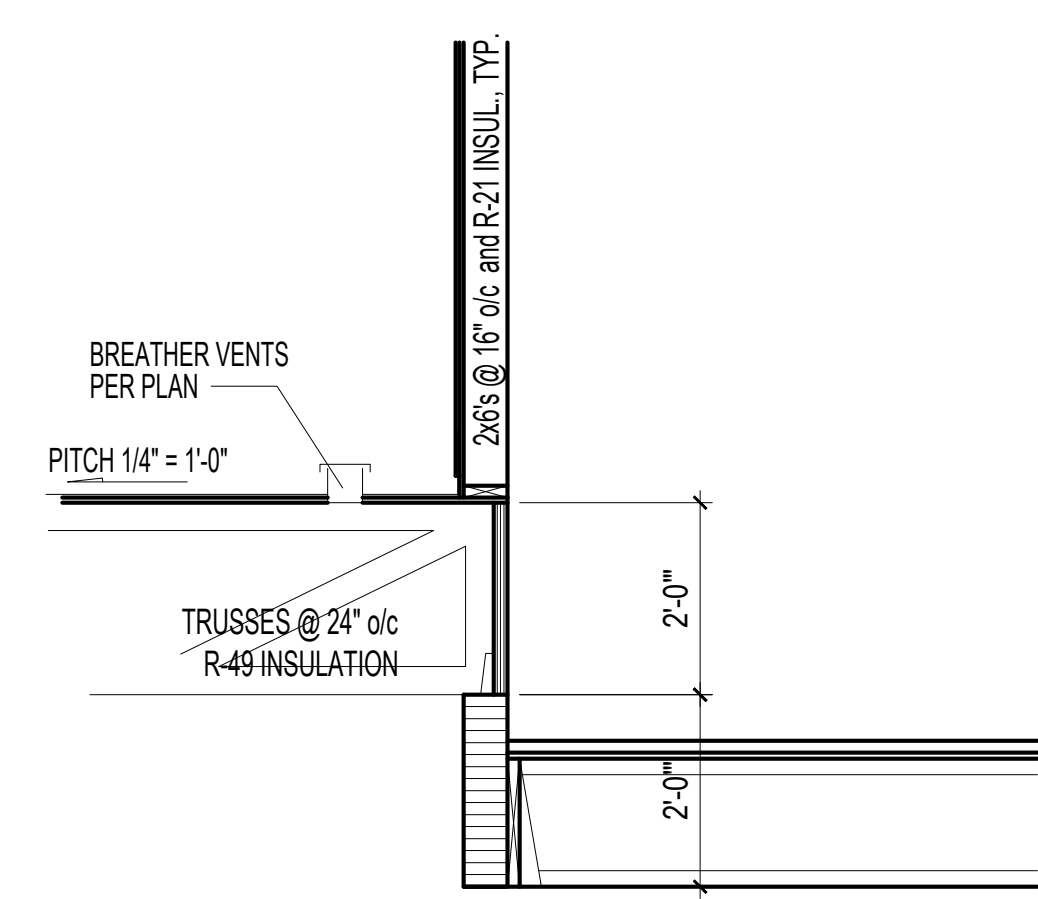
NORTH ELEVATION

1/4" = 1'-0"

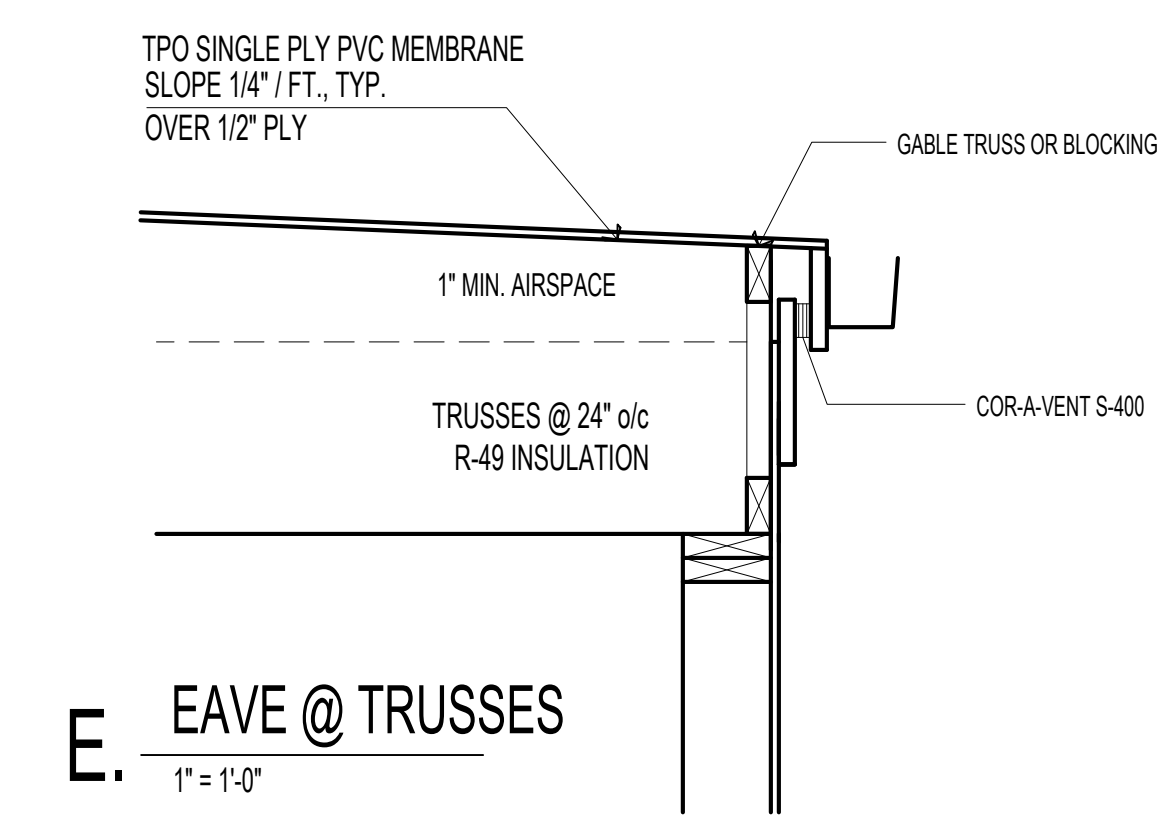


C. OFFSET EXTERIOR WALL
 1/2" = 1'-0"

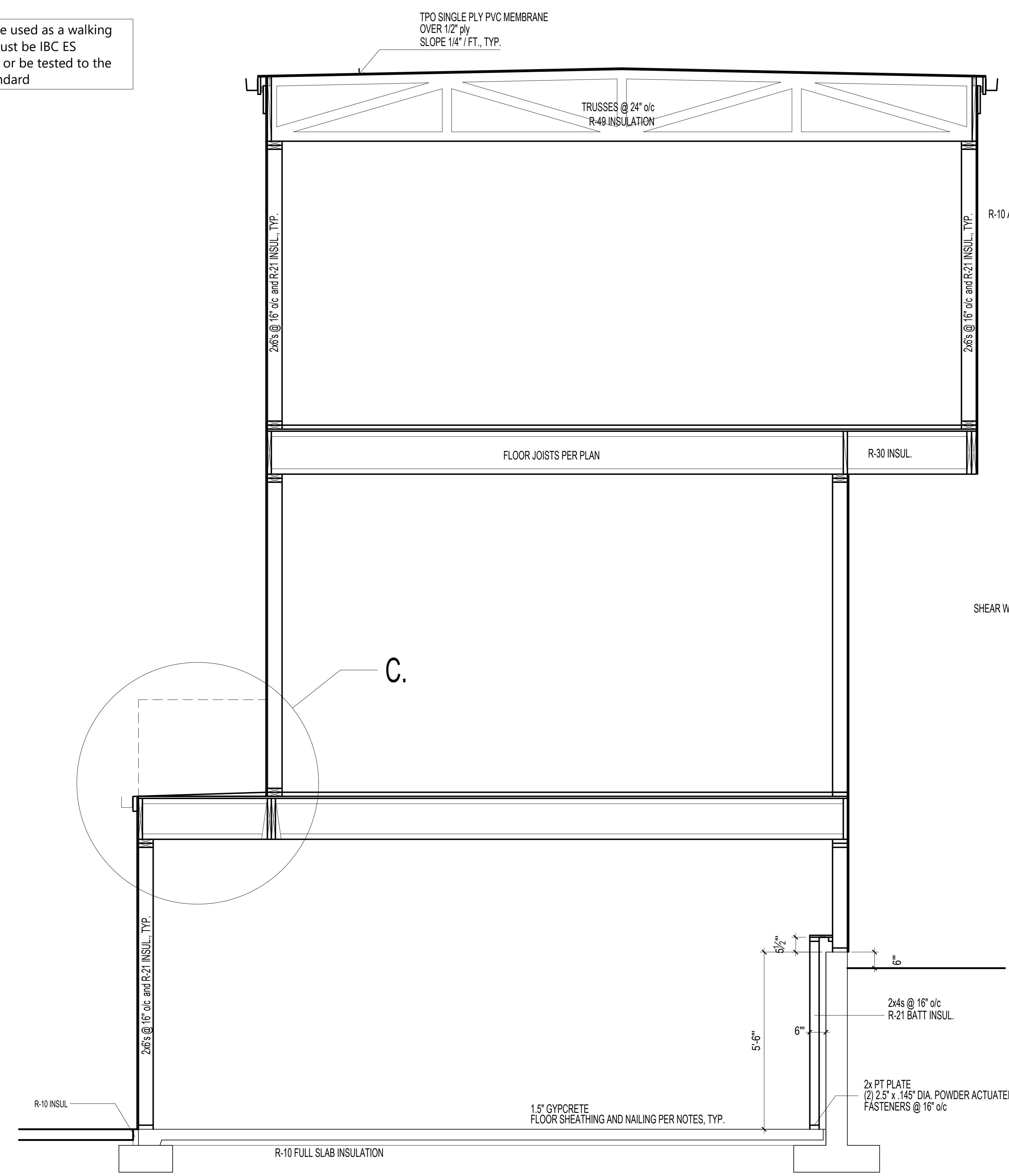
Membrane used as a walking surface must be IBC ES approved or be tested to the AC39 standard



D. UPPER FLOOR TO L.R. ROOF
 1/2" = 1'-0"

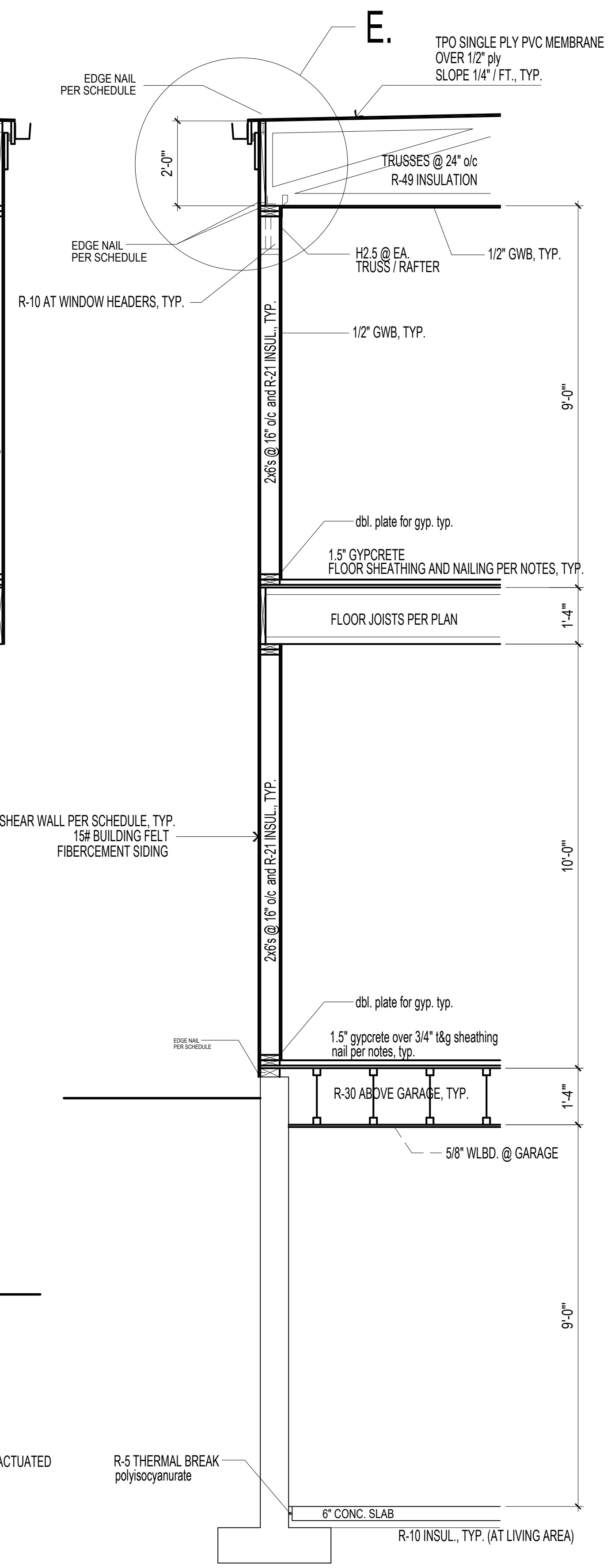


E. EAVE @ TRUSSES
 1" = 1'-0"

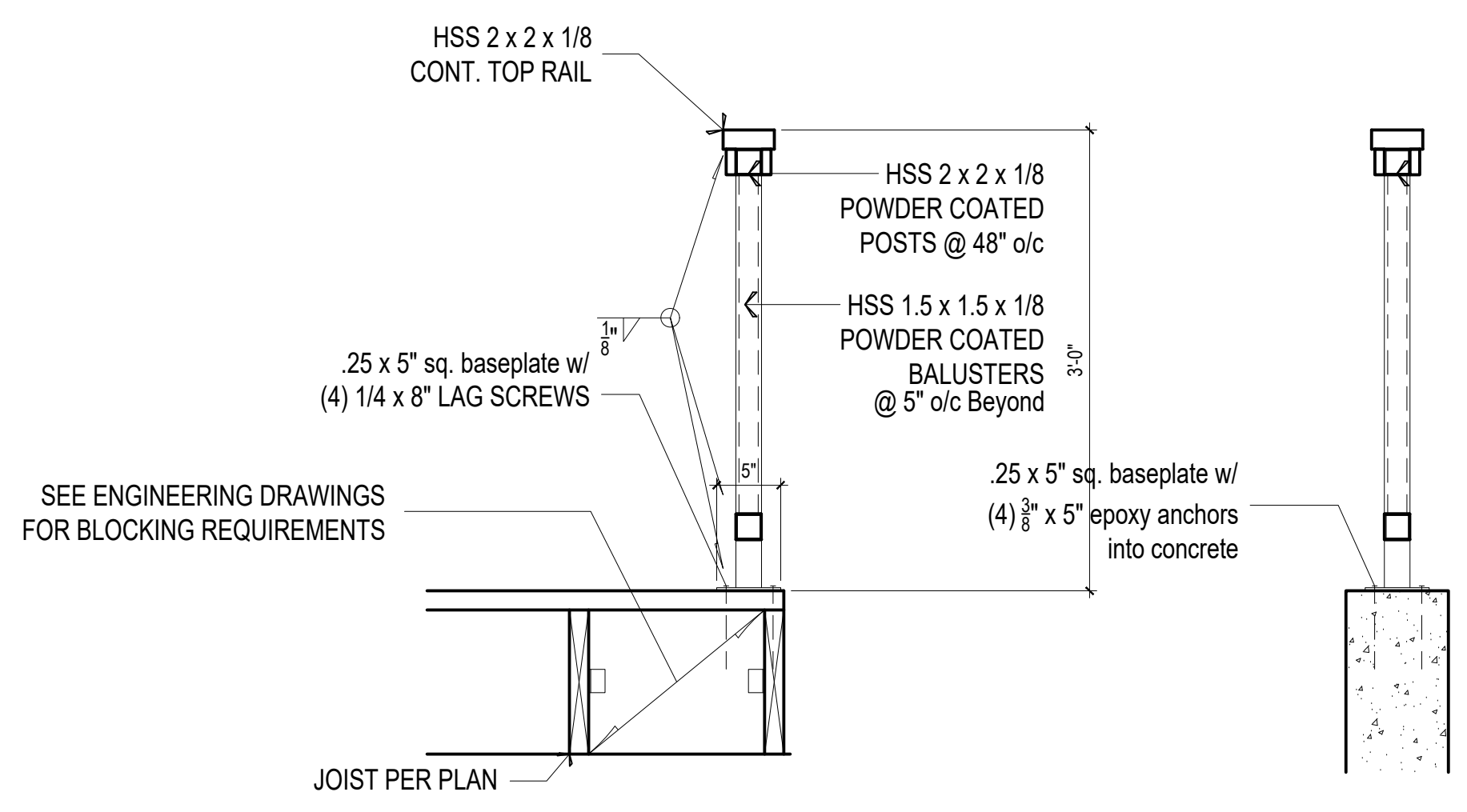


B. BUILDING SECTION
 1/2" = 1'-0"

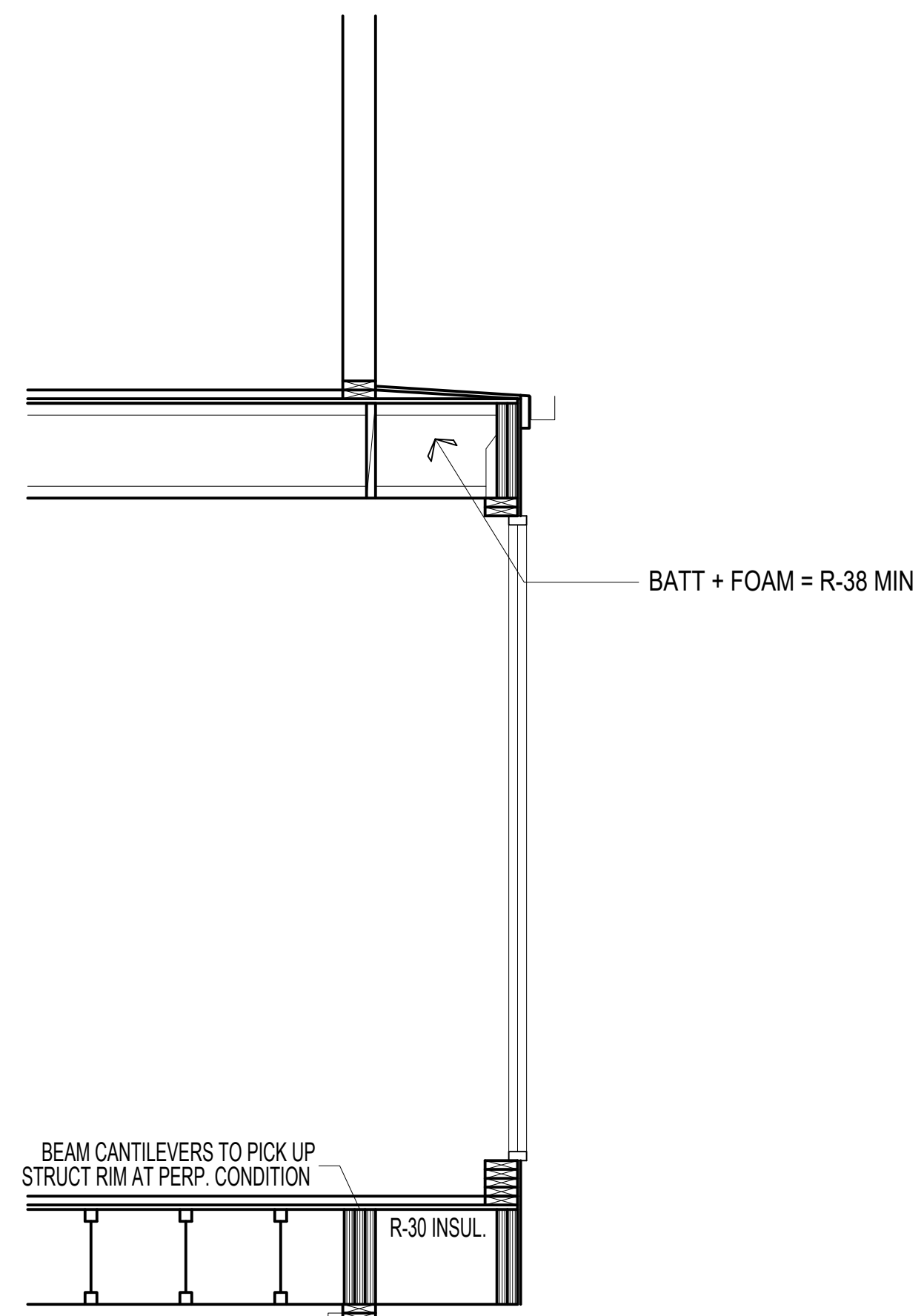
FOAM INSULATION NOTES
 Closed cell spray foam directly applied to underside of sheathing (min R-10) + batts to = r-49 (R-38 min. @ vaulted areas)
 Spray foam product to be "Spraytite 178" as manufactured by BASF (ESR-2642), or equal.
 Spray foam insulation shall be installed per IRC 806.5.1.3.
 A copy of the ICC ESR report for the product used must be provided on the job site for field inspector verification
 The applied spray foam must be installed by a certified installer.



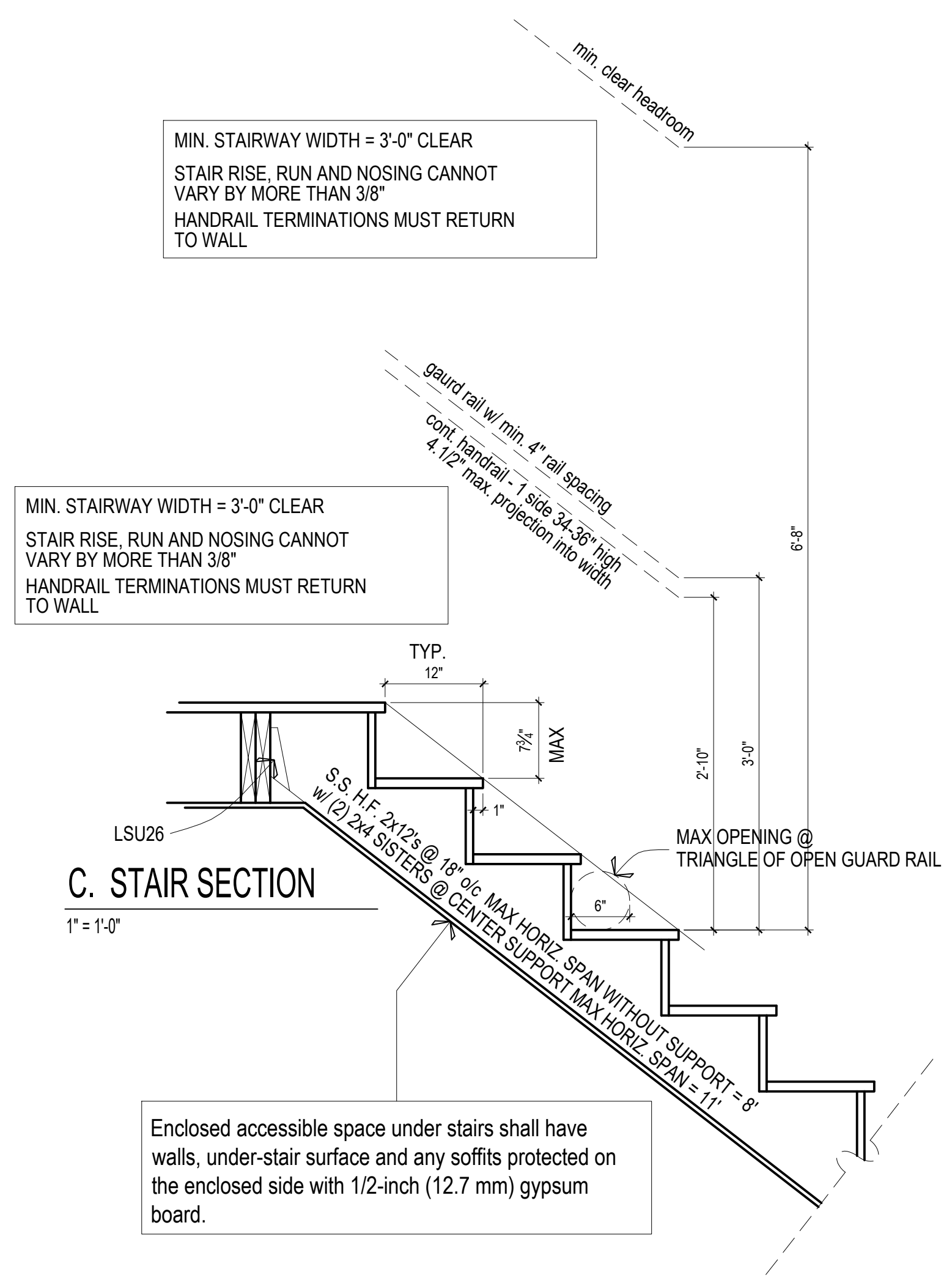
A. TYPICAL SECTION
 1/2" = 1'-0"



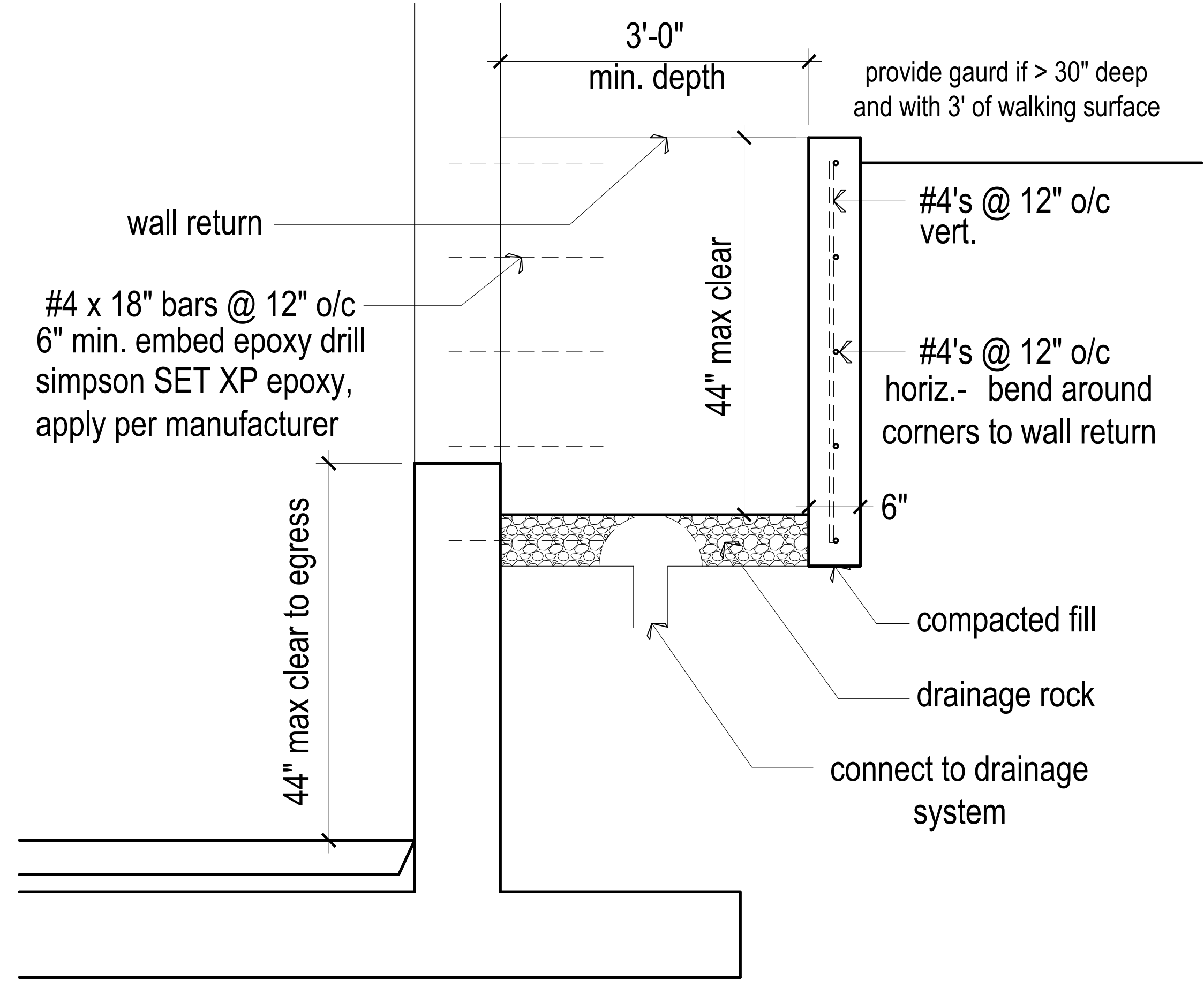
D. RAILING DETAIL
 1" = 1'-0"



E. DINING ROOM POP-OUT
 1/2" = 1'-0"



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



F. WINDOW WELL DETAIL
 1" = 1'-0"

Energy Code Info

2018 WA STATE PRESCRIPTIVE PATH

energy credit option credit value summary

1.7	0.5	ins. over wall, .28 windows
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
7.1	0.5	appliance package

total credits

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)
CONTROLLED 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 0.28
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 ^{e,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

1.7

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

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.

7.1

All of the following appliances shall be new and installed in the dwelling unit and shall meet the following standards:
Dishwasher Energy Star rated
Refrigerator (if provided) Energy Star rated
Washing machine Energy Star rated
Dryer Energy Star rated, ventless dryer with minimum CEF rating of 5.2

To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall show the appliance type and provide documentation of Energy Star compliance. At the time of inspection, all appliances shall be installed and connected to utilities. Dryer ducts and exterior dryer vent caps are not permitted to be installed in the dwelling unit.

Window, Skylight and Door Schedule

Project Information

Kumar

Contact Information

Exempt Swinging Door (24 sq. ft. max.)	Ref.	U-factor	Width		Height		Area	UA
			Qt.	Feet	Inch	Feet		
Exempt Glazed Fenestration (15 sq. ft. max.)							0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Width		Height		Area	UA
			Qt.	Feet	Inch	Feet		
entry		0.28	1	6	2	8	54.7	15.32
entry		0.28	2	1	0	8	29.6	8.28
stairs		0.28	1	4	0	24	96.0	26.88
office		0.28	1	2	0	2	6.3	1.75
dining		0.28	5	4	2	9	190.1	53.23
dining		0.28	2	4	2	4	34.7	9.72
kitchen		0.28	2	3	0	6	39.8	11.13
kitchen		0.28	1	2	10	8	22.7	6.35
kitchen		0.28	1	4	0	5	20.0	5.60
nook		0.28	1	10	0	7	82.0	22.95
nook		0.28	2	3	3	7	50.2	14.06
lr		0.28	1	18	0	11	209.3	58.59
lr		0.28	2	3	0	8	52.5	14.70
hall		0.28	1	4	0	6	24.0	6.72
g bed		0.28	1	12	0	8	96.0	26.88
g bed		0.28	1	6	0	3	18.0	5.04
g bath		0.28	4	2	0	5	40.0	11.20
laundry		0.28	1	2	10	2	8.0	2.25
m bed		0.28	1	10	0	5	50.0	14.00
m bed		0.28	2	4	0	5	40.0	11.20
m bath		0.28	1	5	0	5	25.0	7.00
bed3 bath		0.28	2	2	0	4	16.0	4.48
bed3		0.28	1	6	0	7	47.3	13.23
bed3		0.28	1	8	0	4	32.0	8.96
foyer		0.28	1	9	0	7	74.8	20.95
foyer		0.28	3	7	10	4	94.0	26.32
up hall		0.28	1	9	0	6	54.0	15.12
bed1		0.28	1	5	0	5	25.0	7.00
bed1		0.28	2	2	0	4	16.0	4.48
up bath		0.28	2	2	0	4	16.0	4.48
bed2		0.28	1	5	0	5	25.0	7.00
low bed		0.28	1	5	0	5	25.0	7.00
low bath		0.28	2	2	0	4	16.0	4.48

low liv		0.28	3	2	0	2	12.0	3.36
low liv		0.28	1	12	0	8	96.0	26.88
lobby		0.28	1	12	0	8	96.0	26.88
							0.0	0.00
							0.0	0.00
							0.0	0.00
							0.0	0.00
							0.0	0.00
							0.0	0.00

Sum of Vertical Fenestration Area and UA
Vertical Fenestration Area Weighted U = UA/Area

Overhead Glazing (Skylights)		Ref.	U-factor	Width		Height		Area	UA
Component Description	Qt.			Feet	Inch	Feet	Inch		
							0.0	0.00	
							0.0	0.00	
							0.0	0.00	
							0.0	0.00	
							0.0	0.00	

Sum of Overhead Glazing Area and UA
Overhead Glazing Area Weighted U = UA/Area

Total Sum of Fenestration Area and UA (for heating system sizing calculations)



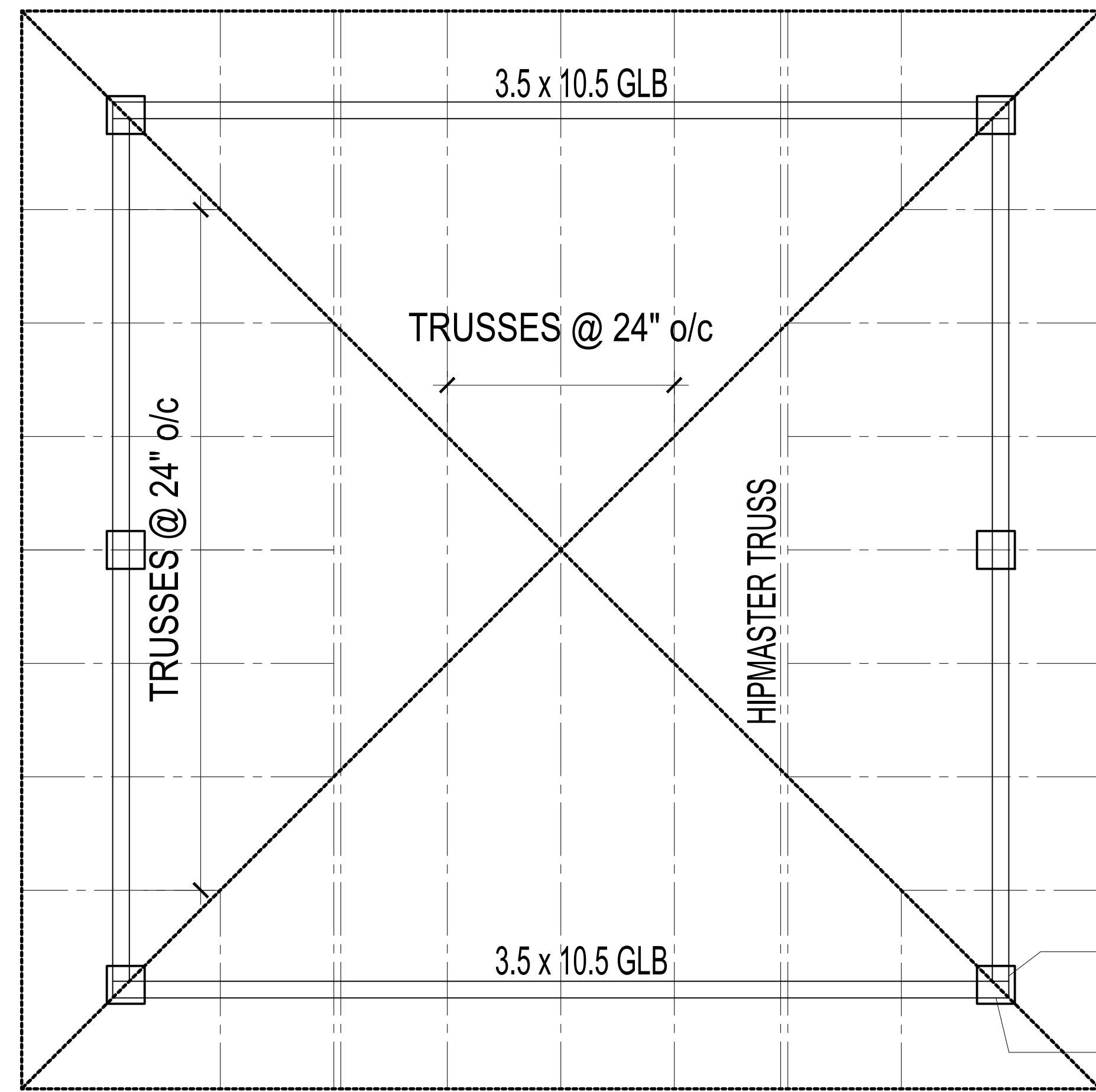
9317 REGISTERED ARCHITECT
Chris Latham
STATE OF WASHINGTON

Kumar Residence
4034 85th Ave SE

CONTENTS
Upper Floor

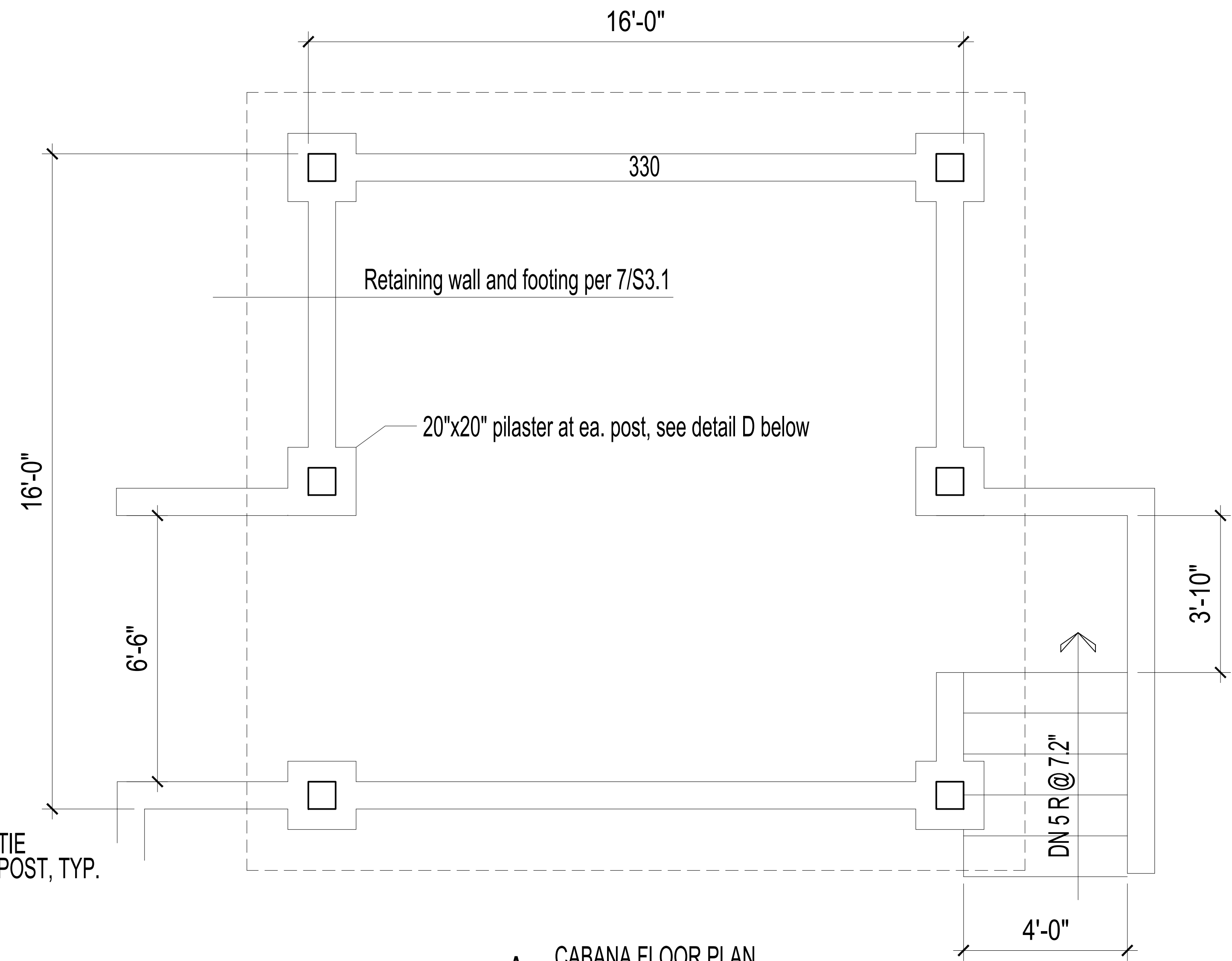
DRAWN BY
CRL
DATE
6.7.21

08

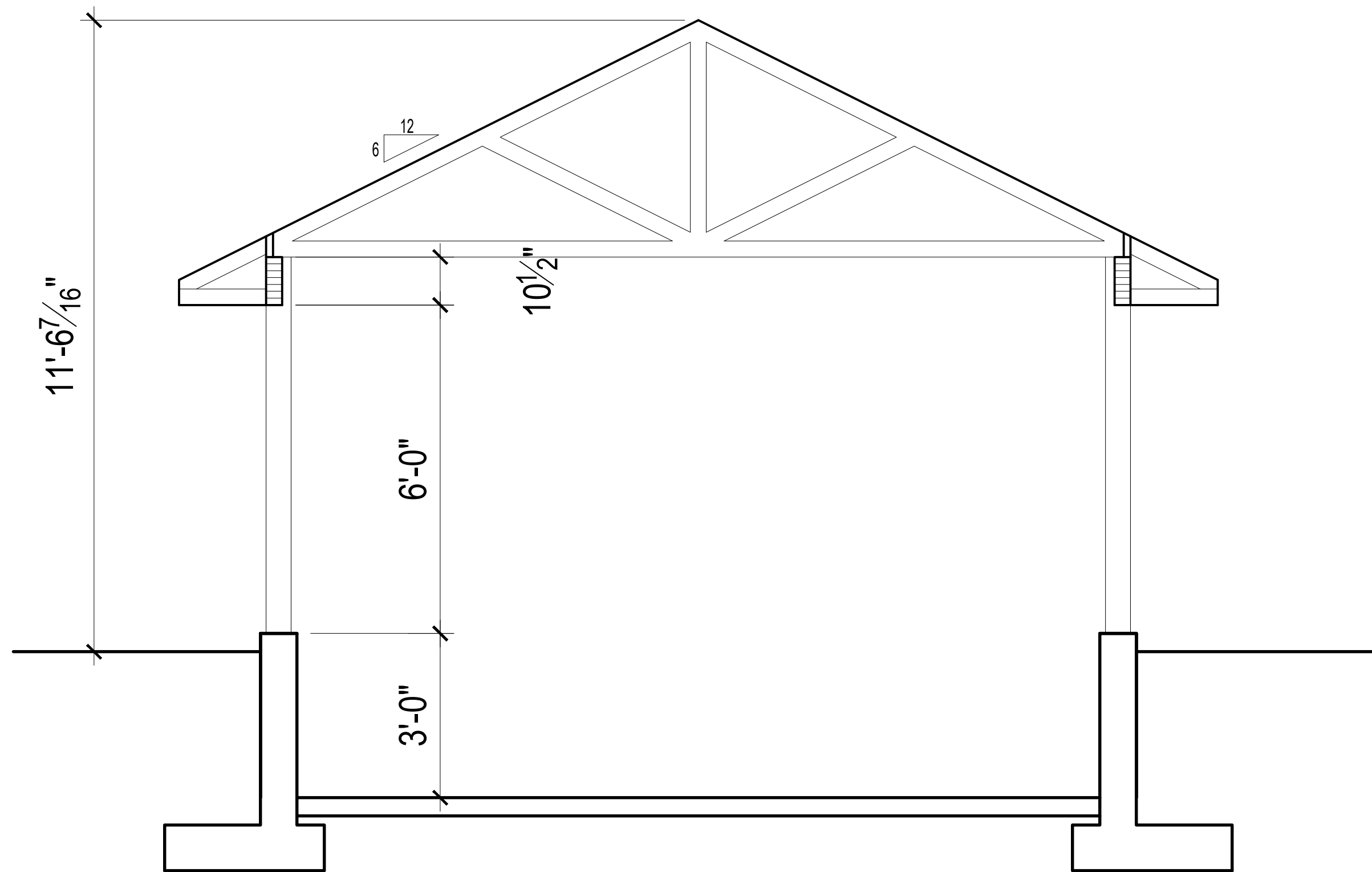


HUC412, TYP.
 CBT42 CONCEALED BEAM TIE FOR PRIMARY BEAM INTO POST, TYP.

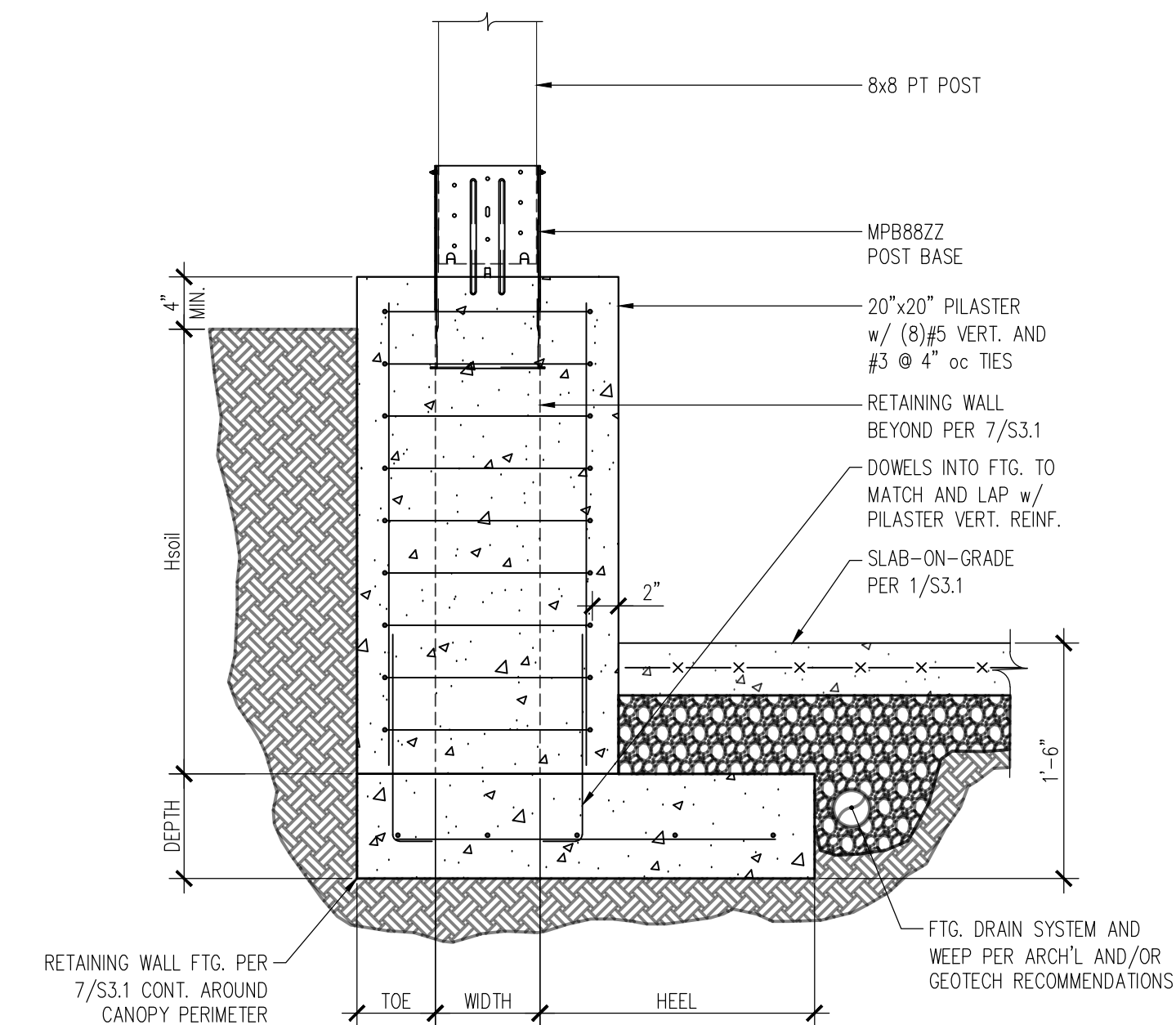
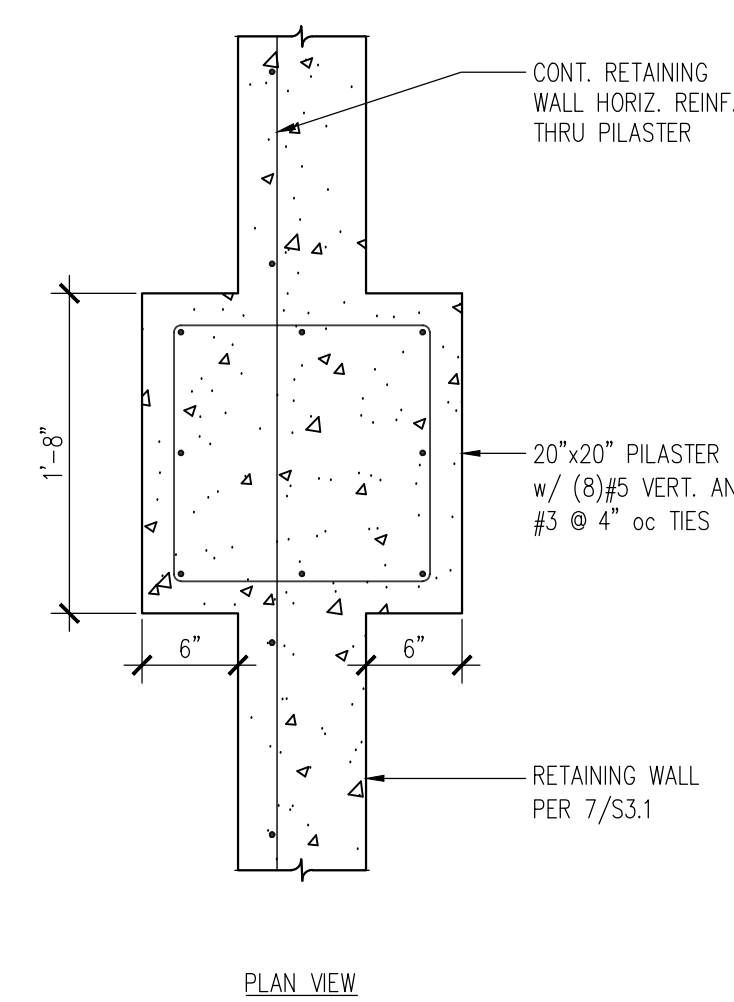
B. CABANA ROOF FRAMING PLAN
 1/2" = 1'-0"



A. CABANA FLOOR PLAN
 1/2" = 1'-0"



C. CABANA SECTION
 1/2" = 1'-0"



D. PILASTER DETAIL
 1" = 1'-0"

General Structural Notes (GSN's)

CRITERIA:

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2018 INTERNATIONAL BUILDING CODE (IBC).
2. DESIGN LOADING CRITERIA
RISK CATEGORY IBC TABLE 1604.5 II
ROOF SNOW LOAD 25 PSF ($f_g = 1.0$)
DECK DEAD LOAD 25 PSF
LIVE LOAD 40 PSF
DECK LIVE LOAD 60 PSF
FLOOR DEAD LOAD 36 PSF
- EARTHQUAKE SEISMIC DESIGN CATEGORY D
 $S_D = 1.14$, $S_1 = 0.492$, $S_{0.2} = 1.13$, $S_{0.05} = 0.993$
EQUIVALENT LATERAL FORCE PROCEDURE
LIGHT FRAME (WOOD) WALLS AND ROOFS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR
 $R = 6.5$, $O_2 = 2\frac{1}{2}$, $f_p = 1.0$, $C_d = 4$, $C_e = 0.174$
BASE SHEAR $V = 41.6$ K - LRFD
- WIND 110 MPH, EXPOSURE "C", $K_{zt} = 1.3$
COMPONENTS & CLADDING -39.4/-23.6 PSF MAX. AT WALLS (LRFD/ASD)
..... -66.5/-39.9 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 7-10 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 DRAWING 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 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 ROOF TRUSSES (SEE NOTE 23)
- GEOTECHNICAL:**
11. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH THE RECOMMENDATIONS GIVEN IN 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 18" BELOW LOWEST ADJACENT FINISHED GRADE AT THE EXTERIOR, AND 12" AT THE INTERIOR. THE OWNER APPOINTED GEOTECHNICAL ENGINEER SHALL APPROVE FOOTING EXCAVATION/PREPARATION PRIOR TO PLACEMENT OF ALL FOOTINGS. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SPECIFICATIONS OR AS DIRECTED BY THE OWNER APPOINTED GEOTECHNICAL ENGINEER
ALLOWABLE SOIL PRESSURE 2,000 PSF
REFERENCE: ASSUMED PER IBC TABLE 1806.2
- 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: "IE 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 318-14 CHAPTER 26 AND ACI 301. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF $f_c = 4,000$ PSI (4,500 PSI AT ALL CONCRETE EXPOSED TO WEATHER). 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 318-14 TABLES 19.3.1.1 AND 19.3.2.1 EXCEPT AS NOTED BELOW.
ALL CONCRETE EXPOSED TO EARTH (FOUNDATIONS, ETC.): (F1, S0, W0, C1)
ALL CONCRETE EXPOSED TO WEATHER: (F1, S0, W0, C1)
SEE SPECIFICATIONS FOR SURFACE REDUCING CONCRETE MIX CRITERIA WHERE INDICATED ON DRAWINGS. CONCRETE MIXES SHALL MEET OR EXCEED THE REQUIREMENTS SPECIFIED ABOVE. MIXES SHALL BE SUBMITTED TO THE ENGINEER AND BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE AND SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTitious MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES, AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318-14, CHAPTER 26 AND 27. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.
14. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, $f_y = 60,000$ 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 318-14 AND 318-14. LAP ALL CONTIGUOUS REINFORCEMENT IN ACCORDANCE WITH "REINFORCEMENT SPLICE AND DEVELOPMENT LENGTH SCHEDULE" OF 10/53.1. 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) 1 1/2"
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).
- WOOD:**
19. FRAMING LUMBER SHALL BE KILN DRIED OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.L.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17 OR W.N.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, $E = 1,400$ KSI
 $F_c = 775$ PSI, $F_t = 325$ PSI
JOISTS, BEAMS & POSTS: DOUGLAS FIR NO. 1
MIN. BASIC DESIGN STRESS, $F_b = 1,000$ PSI, $E = 1,700$ KSI
 $F_c = 1,500$ PSI, $F_t = 1,000$ 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 VANNER LUMBER (LVL, LAMINATED STRAND LUMBER (LSL), OR PARALLEL STRAND LUMBER (PSL)). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:
LVL - $F_b = 2,600$ $F_y = 290$ PSI $E = 2,000,000$ PSI
LSL - $F_b = 1,900$ $F_y = 150$ PSI $E = 1,300,000$ PSI
21. ENGINEERED WOOD I-JOISTS SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. PERMANENT AND TEMPORARY BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH ENGINEERED WOOD I-JOISTS PROVIDED. DESIGN SHOWN ON THE DRAWINGS IS BASED ON RESIDENTIAL JOISTS MANUFACTURED BY WERNER/HAUSER IN ACCORDANCE WITH ICC-ES REPORT NO. ESR-1153. ALTERNATE ENGINEERED WOOD I-JOISTS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER OF RECORD.
22. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND A.I.T.C. STANDARDS IN ACCORDANCE WITH IBC 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 INCLUDED MEMBERS OF LESS THAN 1:1 SLOPE SHALL HAVE A RADIUSSED CAMBER OF 3/500 FT. UNLESS OTHERWISE NOTED.
SIMPLE SPAN BEAMS DOUGLAS FIR COMBINATION 24F-VR
 $F_b = 2,400$ PSI, $F_y = 265$ PSI, $E = 1,800,000$ PSI
GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON-CORROSIVE, APPROVED PRESERVATIVE.
23. PREFABRICATED CONNECTOR PLATE WOOD TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH ANS/ITI 1-2007 AND IBC SECTION 2303.4 FOR THE SPANS AND CONDITIONS SHOWN ON THE DRAWINGS.
DESIGN LOADS SHALL BE AS FOLLOWS:
TOP CHORD LIVE LOAD 25 PSF, SNOW
BOTTOM CHORD LIVE LOAD 0 PSF
TOP CHORD DEAD LOAD 17.5 PSF
BOTTOM CHORD DEAD LOAD 2.5 PSF
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 ORDER 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.
24. ROOF & WALL SHEATHING SHALL BE APA RATED, EXTERIOR OR EXPOSURE 1 PLYWOOD OR ORIENTED STRAND BOARD (OSB) IN CONFORMANCE WITH IBC 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 POLICES FOR STRUCTURAL USE PANELS. SEE DRAWINGS FOR THICKNESS, SPAN RATING, AND NAILING REQUIREMENTS.
25. AT NON-SHEAR WALL EXTERIOR WALLS, UNLESS OTHERWISE NOTED, WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING OF 3/8" WITH 8d @ 6" oc PANEL NAILING (APPLIES TO ALL SHEATHING PANEL EDGES); AND 8d @ 12" oc TO INTERMEDIATE FRAMING.
26. 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 Na_2SO_4 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. AMMONIUM 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.
27. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR WOOD CONNECTION 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 Na_2SO_4 SHALL BE MANUFACTURED FROM 24mm STEEL BY SIMPSON (G185 STEEL PER ASTM A653), OR TYPE 304 OR 316 STAINLESS STEEL. ALTERNATIVELY, CONNECTORS CAN BE 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.

28. 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 IBC. MINIMUM NAILING SHALL CONFORM TO IBC TABLE 2308.3.1 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. 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 3/8" ANCHOR BOLTS @ 4'-0" oc PER IBC 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 AFAPA 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 GRAM PERPENDICULAR TO SUPPORTS AND NAILED AS SHOWN ON THE DRAWINGS. INSTALL APPROVED PANEL EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF LOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d@12" oc. IN ACCORDANCE WITH IBC 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.
- POST-INSTALLED ANCHORS AND EPOXY ADHESIVE**
29. EPOXY-GROUTED RODS OR REBAR TO CONCRETE SPECIFIED ON THE DRAWINGS SHALL BE ONE OF THE FOLLOWING INSTALLED IN STRICT ACCORDANCE WITH THE ICC-ES REPORTS INDICATED AND MANUFACTURER'S INSTRUCTIONS INCLUDING MINIMUM EMBED REQUIREMENTS: "SET-XP" AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. (ICC-ES NO. 2508); OR "HIT-HY 200" AS MANUFACTURED BY HILTI, INC. (ICC-ES NO. 3187); "SAFE-SET" INSTALLATION WITH HOLLOW CARBIDE DRILL BIT IS PERMITTED; OR "PURETIO110" AS MANUFACTURED BY DEWALT/POWERS (ICC-ES NO. 3298). SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH ICC-ES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. IN ADDITION, SUBSTITUTIONS SHALL MEET ICC-ES ACCEPTANCE CRITERIA AC308. SPECIAL INSPECTION OF EPOXY-GROUTED ANCHOR INSTALLATION IS REQUIRED. EPOXY GROUTED RODS OR REBAR SHALL NOT BE USED AS SUBSTITUTES FOR CAST-IN-PLACE ANCHOR BOLTS OR REINFORCING STEEL UNLESS SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. NOTIFY ENGINEER IF ANCHOR LOCATIONS CONFLICT WITH REINFORCING STEEL - DO NOT CUT REINFORCING OR REDUCE EMBEDMENT DEPTHS WITHOUT PRIOR APPROVAL. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCANTED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE PERFORMED BY CERTIFIED PERSONNEL IN CONFORMANCE TO ACI 318-14 SECTION 17.8.2.2. HOLES SHALL BE HAMMER DRILLED AND DRY.
30. EXPANSION ANCHORS SHALL BE ONE OF THE APPROVED PRODUCTS BELOW:
- KWIK BOLT TZ ANCHORS AS MANUFACTURED BY HILTI, INC. AND INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. 1947; OR
- STRONG-BOLT Z AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. AND INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. 3037
AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

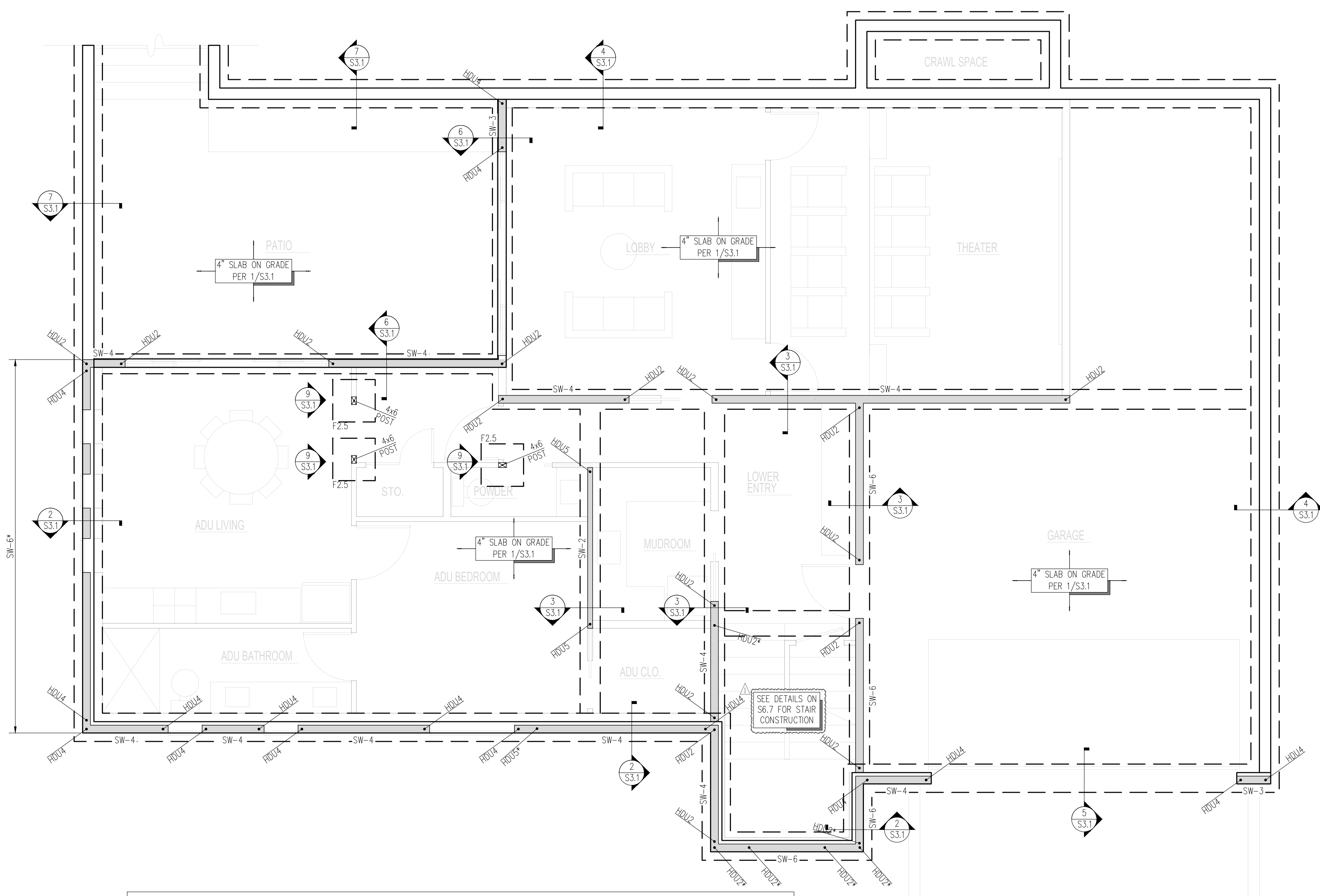
IBC TABLE 1705.3 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION					
REQUIRED?	VERIFICATION & INSPECTION	CONTINUOUS/PERIODIC	REF. STD.	IBC REF.	
N*	1. INSPECT REINFORCEMENT, INCLUDING TENDONS AND VERIFY PLACEMENT.	---	X	ACI 318 CH. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
N	2. REINFORCING 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	AWSD1.4 ACI 318 26.5.4	---
YES	3. INSPECT ANCHORS CAST IN CONCRETE.	---	X	ACI 318: 17.8.2	---
YES	4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCANTED 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 TEMPERATURE OF THE CONCRETE.	X	---	ASTM C 172 ASTM C 31 ASTM C 26.4, 26.4.2	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	9. INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES; AND B. GROUTING OF BONDED PRESTRESSING TENDONS	X	---	ACI 318: 26.8.2.1 ACI 218: 26.8.2.3	---
N	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 STRUCTURAL 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)	---

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

Minimum Connectors and Fasteners for Wood Members per IBC 2015

DESCRIPTION OF BUILDING ELEMENT	NUMBER AND TYPE OF FASTENERS	SPACING & LOCATION	DESCRIPTION OF BLDG. ELEMENT	NUMBER AND TYPE OF FASTENERS	SPACING & LOCATION
			FLOOR		
ROOF					
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS, OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3-8d COMMON (2 1/2" 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, 3/16" CROWN	EACH END, TOENAIL	22. JOIST TO SILL, TOP PLATE, OR GIRDER	3-8d COMMON (2 1/2" 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, 3/16" CROWN	TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131") 2-3" x 0.131" NAILS 2-3" x 14 GAGE STAPLES	EACH END, TOENAIL	23. RM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL, OR OTHER FRAMING BELOW	8d COMMON (2 1/2" x 0.131"); or 10d BOX (3" x 0.128"); or 3" x .131" NAILS; or 3" x 14 GAGE STAPLES, 3/16" CROWN	6" o.c., TOENAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	2-16d COMMON (3 1/2" x 0.162") 3-3" x 0.131" NAILS 3-3" x 14 GAGE STAPLES	END NAIL	24. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON (2 1/2" x 0.131"); or 2-10d BOX (3" x 0.128")	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	3-8d COMMON (2 1/2" 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, 3/16" CROWN	EACH JOIST, TOENAIL	25. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3 1/2" x 0.162")	FACE NAIL
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 (3 1/2" 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, 3/16" CROWN	FACE NAIL	26. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	2-16d COMMON (3 1/2" x 0.162")	EA. BEARING, FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT)	PER TABLE 2308.7.3.1	FACE NAIL	27. BUILT-UP GIRDS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" x 0.192")	32" o.c., FACE NAIL TOP & BOT. STAGGERED ON OPPOSITE SIDES
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, 3/16" CROWN	FACE NAIL	28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	10d BOX (3" x 0.128"); or 3" x 14 GAGE STAPLES, 3/16" CROWN	24" o.c., FACE NAIL AT TOP & BOT. STAGGERED ON OPP. SIDES.
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 (3 1/2" 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, 3/16" CROWN	TOENAIL	29. JOIST TO BAND JOIST OR RM JOIST	3-16d COMMON (3 1/2" 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, 3/16" CROWN	ENDS AND AT EACH SPLICE, FACE NAIL
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS, OR ROOF RAFTER TO 2" RIDGE BEAM	2-16d COMMON (3 1/2" x 0.162"); or 3-10d BOX (3" x 0.128"); or 3-3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, 3/16" CROWN	END NAIL	30. BRIDGING OR BLOCKING TO JOIST, RAFTER, OR TRUSS	3-16d COMMON (3 1/2" 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, 3/16" CROWN	EACH END, TOENAIL
WALL					
8. STUD TO STUD (NOT AT SHEARWALL CHORDS)	16d COMMON (3 1/2" x 0.162")	24" oc FACE NAIL	8. STUD TO STUD (NOT AT SHEARWALL CHORDS)	16d COMMON (3 1/2" x 0.162"); or 10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTION WALL CORNERS	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135"); or 3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL 12" oc FACE NAIL	9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTION WALL CORNERS	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135"); or 3" x 0.131" NAILS; or 3-3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL 12" oc FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HD.)	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135")	16" oc EA. EDGE, FACE NAIL 12" oc EA. EDGE, FACE NAIL	10. BUILT-UP HEADER (2" TO 2" HD.)	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135")	16" oc EA. EDGE, FACE NAIL 12" oc EA. EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2" x 0.131"); or 4-10d BOX (3" x 0.128")	TOENAIL	11. CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2" x 0.131"); or 4-10d BOX (3" x 0.128")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162"); or 10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL	12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162"); or 10d BOX (3" x 0.128"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2" 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, 3/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EA. SIDE OF END JOINT)	13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2" 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, 3/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EA. SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST, OR BLOCKING NOT AT SHEARWALL	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL	14. BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST, OR BLOCKING NOT AT SHEARWALL	16d COMMON (3 1/2" x 0.162"); or 16d BOX (3 1/2" x 0.135"); or 3" x 0.131" NAILS; or 3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL 12" oc FACE NAIL
15. BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST, OR BLOCKING AT SHEARWALL	2-16d COMMON (3 1/2" x 0.162"); or 3-16d BOX (3 1/2" x 0.135"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE NAIL	15. BOTTOM PLATE TO JOIST, RM JOIST, BAND JOIST, OR BLOCKING AT SHEARWALL	2-16d COMMON (3 1/2" x 0.162"); or 3-16d BOX (3 1/2" x 0.135"); or 4-3" x 0.131" NAILS; or 4-3" x 14 GAGE STAPLES, 3/16" CROWN	16" oc FACE

LEGEND	
	REINFORCED CONCRETE WALL
	REINFORCED CONCRETE FOOTING
	EXISTING CONCRETE FOOTING
	STRUCTURAL WOOD STUDWALL ABOVE
	EXISTING STRUCTURAL WOOD STUDWALL ABOVE
	POST ABOVE
	EXISTING POST ABOVE
	DENOTES EXTENT OF SHEARWALL TYPE SW- <u> </u> PER 1/S6.5
	DENOTES STRAPPED SHEARWALL PER 7/S6.5, WITH * DENOTING LOCATION OF STRAP ABOVE & BELOW OPENING
	DENOTES SHEARWALL TENSION TIE PER 4/S6.5
	* - DENOTES TRANSFER TIE FROM TIE ABOVE
	^ - DENOTES TIE ATOP FRAMING MEMBER
	E - DENOTES TIE AT EXIST. CONC. w/ EPOXY
	DENOTES CUSTOM TENSION TIE INTO EXIST. CONC. w/ EPOXY PER 6/S6.5
	DENOTES BOTTOM OF FOOTING ELEVATION



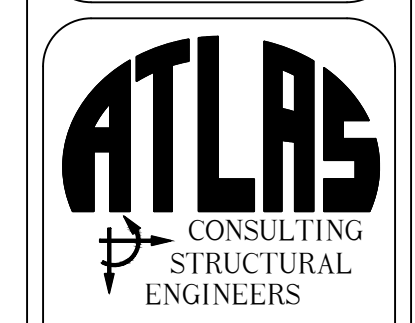
FOUNDATION AND LOWER FLOOR PLAN NOTES

- SOLID WALLS AND SHEARWALLS SHOWN IN PLAN ARE ABOVE LOWER FLOOR LEVEL (FROM LOWER FLOOR TO MAIN FLOOR).
- EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 24" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.1, 5/S6.1, AND 2/S6.1 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
- SEE STRUCTURAL GENERAL NOTES #11 - 16 FOR CONCRETE AND CONCRETE REINFORCING REQUIREMENTS.
- ALL HEADERS ABOVE (SEE 1/S2.2) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.0 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.0 AT LOAD BEARING EXTERIOR WALLS

1 LOWER FLOOR AND FOUNDATION PLAN
 S2.1 1/4" = 1'-0"
 NORTH



CENTERLINE DESIGN
 4737 37th Ave SW
 SEATTLE
 206.932.8706
 www.Centerline-Design.com



Kumar Residence
 4034 85th Ave SE
 Mercer Island, WA - 98040

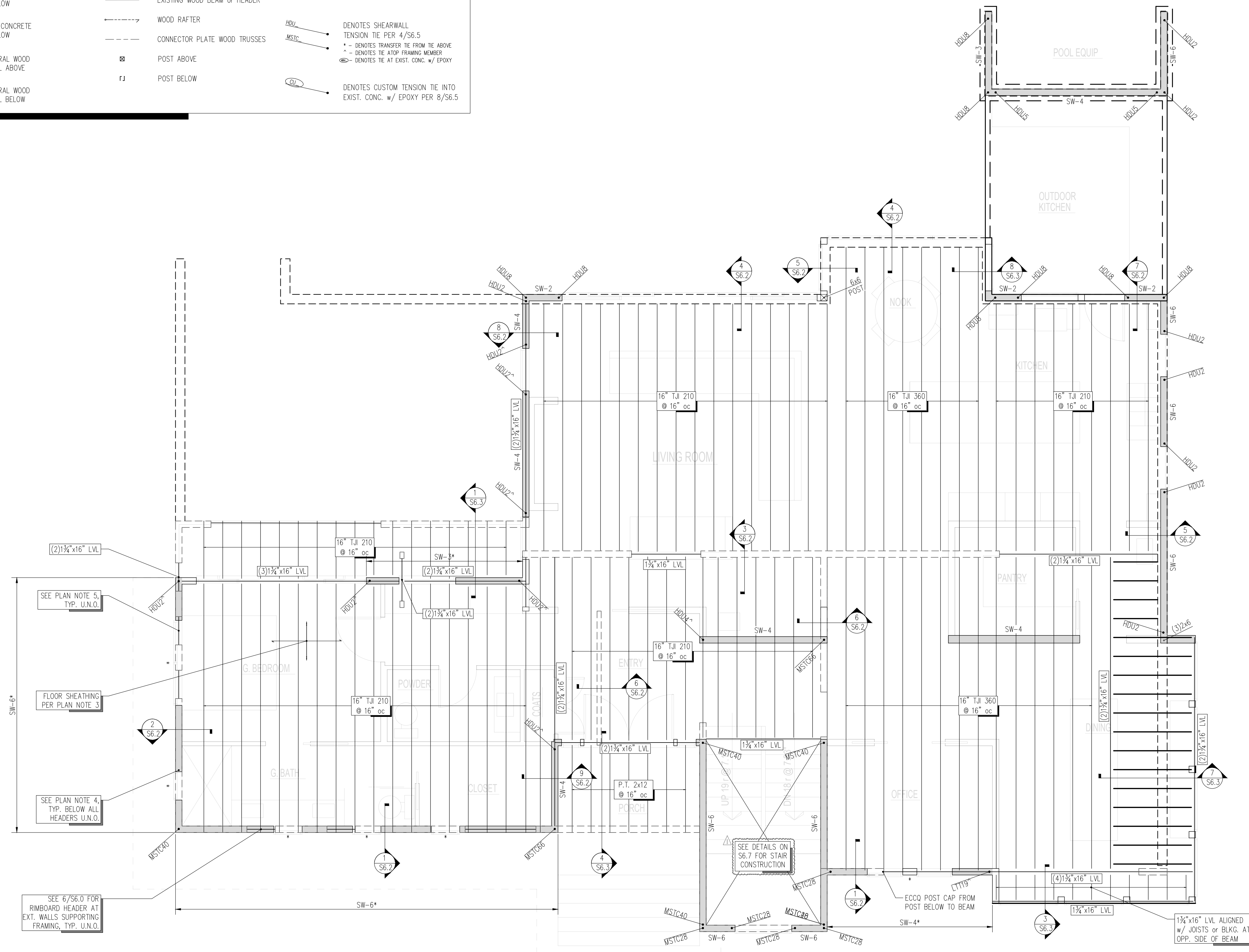
CONTENTS
 Foundation and Lower Floor Plan

DRAWN BY
 JDA
DATE
 08.04.2021
 01.04.2022

S2.1

LEGEND

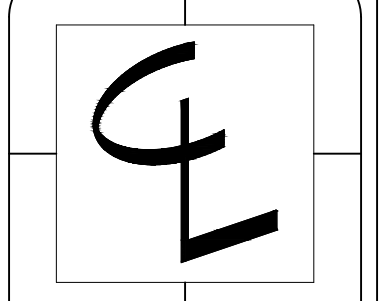
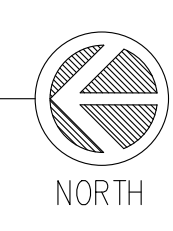
	REINFORCED CONCRETE WALL		WOOD JOIST		DENOTES EXTENT OF SHEARWALL TYPE SW- PER 1/S6.5
	REINFORCED CONCRETE WALL BELOW		EXISTING WOOD JOIST		DENOTES STRAPPED SHEARWALL PER 7/S6.5, WITH * DENOTING LOCATION OF STRAP ABOVE & BELOW OPENING
	EXISTING CONCRETE WALL BELOW		WOOD BEAM or HEADER		DENOTES SHEARWALL TENSION TIE PER 4/S6.5
	EXISTING CONCRETE WALL ABOVE		EXISTING WOOD BEAM or HEADER		* - DENOTES TRANSFER TIE FROM TIE ABOVE
	STRUCTURAL WOOD STUDWALL ABOVE		WOOD RAFTER		+ - DENOTES TIE AT TOP FRAMING MEMBER
	STRUCTURAL WOOD STUDWALL BELOW		CONNECTOR PLATE WOOD TRUSSES		- DENOTES TIE AT EXIST. CONC. w/ EPOXY
					DENOTES CUSTOM TENSION TIE INTO EXIST. CONC. w/ EPOXY PER 8/S6.5



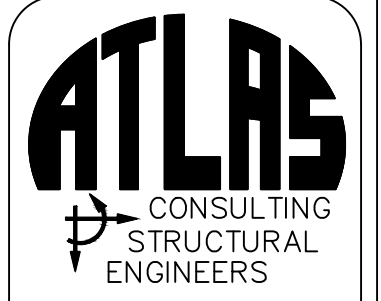
MAIN FLOOR PLAN NOTES

- SOLID WALLS AND SHEARWALLS SHOWN IN PLAN ARE ABOVE MAIN FLOOR LEVEL (FROM MAIN FLOOR TO UNDERSIDE OF UPPER FLOOR). DASHED WALLS SHOWN IN PLAN ARE BELOW MAIN FLOOR FRAMING ELEVATION (FROM LOWER FLOOR TO MAIN FLOOR).
- EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 24" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.1, 5/S6.1, AND 2/S6.1 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
- FLOOR SHEATHING SHALL CONSIST OF 3/4" T&G SHEATHING (PANEL SPAN RATING 48/24). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.1). NAIL SHEATHING TO ALL STRUTS AND SHEAR WALLS BELOW w/ TWO ROWS OF 10d @ 6" oc (STAGGER ROWS). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.
- ALL HEADERS ABOVE (SEE 1/S2.3) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/S6.0 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.0 AT LOAD BEARING EXTERIOR WALLS
- HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/S6.0 U.N.O. IN PLAN.

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



CENTERLINE DESIGN
4737 37th Ave SW
SEATTLE
206.932.8706
www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

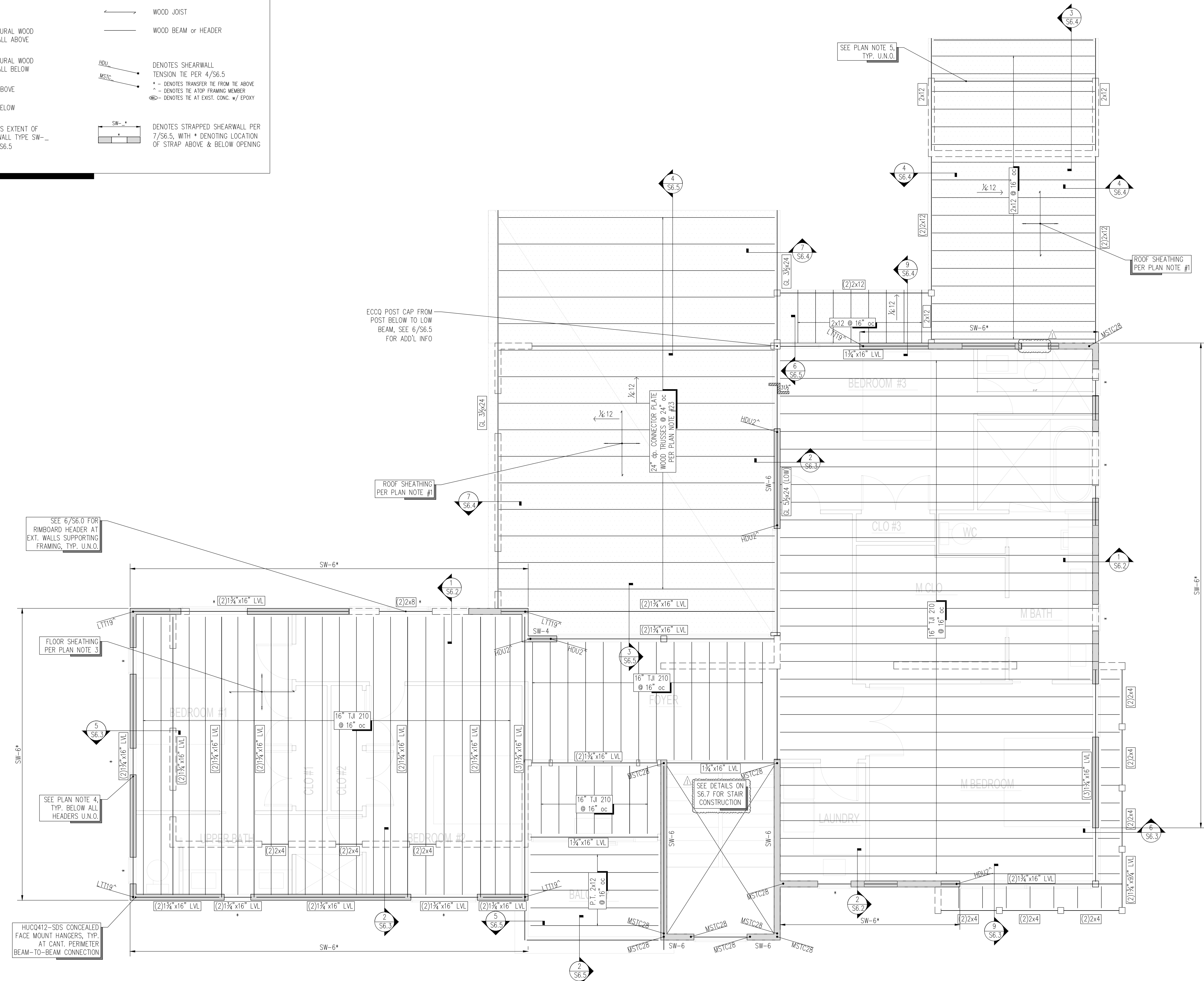
CONTENTS
Main Floor Framing Plan

DRAWN BY
JDA
DATE
08.04.2021
01.04.2022

S2.2

LEGEND

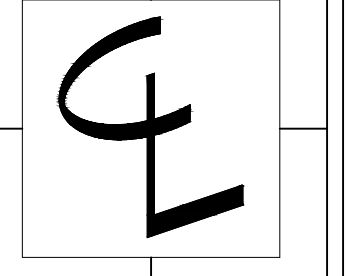
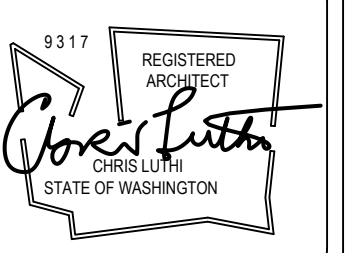
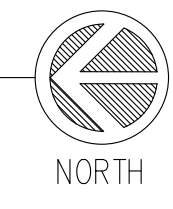
	STRUCTURAL WOOD STUDWALL ABOVE		WOOD JOIST
	STRUCTURAL WOOD STUDWALL BELOW		WOOD BEAM or HEADER
	POST ABOVE		DENOTES SHEARWALL TENSION TIE PER 4/56.5
	POST BELOW		* - DENOTES TRANSFER TIE FROM TIE ABOVE ^ - DENOTES TIE AT TOP FRAMING MEMBER @ - DENOTES TIE AT EXIST. CONC. w/ EPOXY
	DENOTES EXTENT OF SHEARWALL TYPE SW-- PER 1/56.5		DENOTES STRAPPED SHEARWALL PER 7/56.5, WITH * DENOTING LOCATION OF STRAP ABOVE & BELOW OPENING



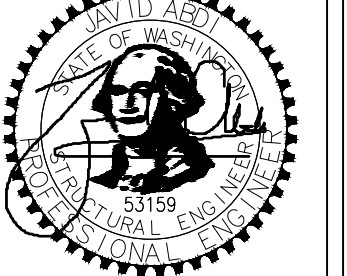
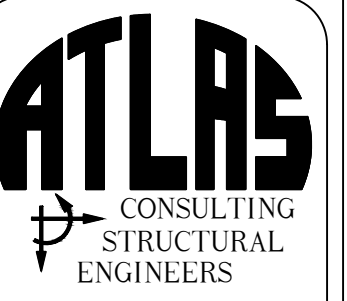
UPPER FLOOR PLAN NOTES

- SOLID WALLS AND SHEARWALLS SHOWN IN PLAN ARE ABOVE UPPER FLOOR LEVEL (FROM UPPER FLOOR TO UNDERSIDE OF ROOF). DASHED WALLS SHOWN IN PLAN ARE BELOW UPPER FLOOR FRAMING ELEVATION (FROM MAIN FLOOR TO UPPER FLOOR).
- EXTERIOR STUDWALLS SHALL BE 2x6 STUDS @ 24" oc (MAX). SEE ARCHITECTURAL FOR INTERIOR STUDWALLS. SEE 6/6.1, 5/56.1, AND 2/56.1 FOR ALLOWABLE HOLES & NOTCHES IN STUDWALL STUDS AND TOP & BOTTOM PLATES.
- FLOOR SHEATHING SHALL CONSIST OF 3/4" T&G SHEATHING (PANEL SPAN RATING 48/24). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/56.1). NAIL SHEATHING TO ALL STRUTS AND SHEAR WALLS BELOW w/ TWO ROWS OF 10d @ 6" oc (STAGGER ROWS). GLUE SHEATHING AT ALL SUPPORTS w/ ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.
- ALL HEADERS ABOVE (SEE 1/52.4) SHALL HAVE A MINIMUM NUMBER OF POSTS PER 4/56.0 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/56.0 AT LOAD BEARING EXTERIOR WALLS
- HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/56.0 U.N.O. IN PLAN.

1 UPPER FLOOR FRAMING PLAN
S2.3 1/4" = 1'-0"



CENTERLINE DESIGN
4737 37th Ave SW
SEATTLE
206.932.8706
www.Centerline-Design.com



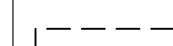

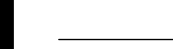

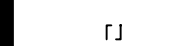
Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

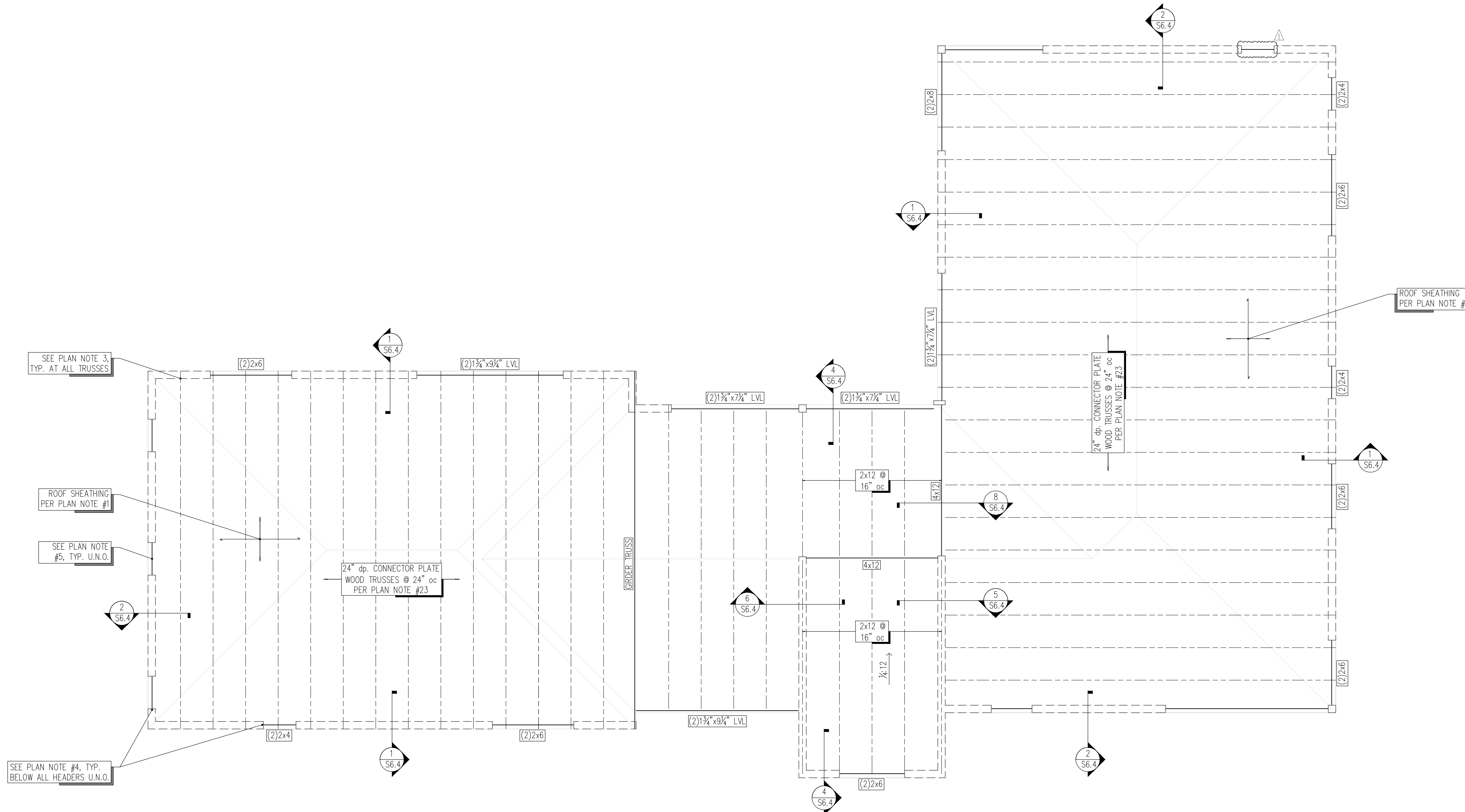
CONTENTS
Upper Floor Framing Plan

DRAWN BY
JDA
DATE
08.04.2021
01.04.2022

S2.3

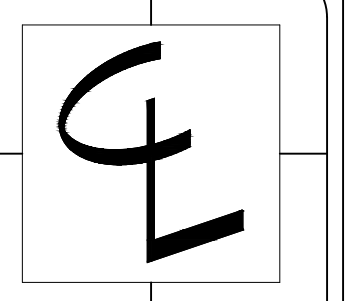
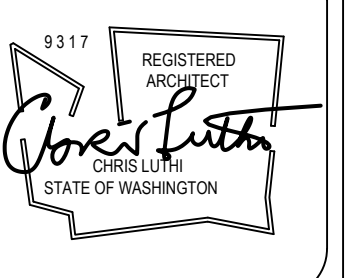
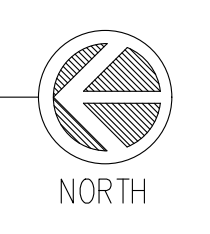
LEGEND

-  STRUCTURAL WOOD STUDWALL BELOW
-  WOOD JOIST
-  WOOD BEAM or HEADER
-  CONNECTOR PLATE WOOD TRUSSES
-  POST BELOW

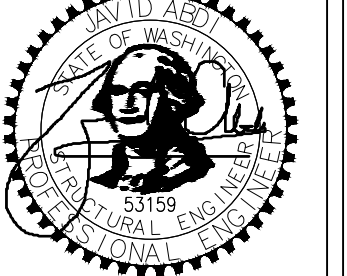
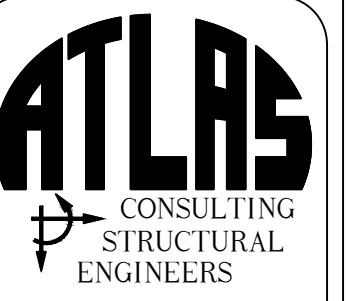


- ROOF PLAN NOTES**
1. ROOF SHEATHING SHALL CONSIST OF 5/8" SHEATHING (PANEL SPAN RATING 32/16) NAILED AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING, AND SHEAR WALLS w/ 10d @ 6" oc; AND AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" oc (SEE 3/S6.1). NAIL SHEATHING TO ALL STRUTS AND SHEAR WALLS BELOW w/ TWO ROWS OF 10d @ 6" oc (STAGGER ROWS).
 2. DASHED WALLS AND SHEARWALLS SHOWN IN PLAN ARE BELOW ROOF FRAMING ELEVATION (i.e. FROM UPPER FLOOR TO UNDERSIDE OF ROOF DECK).
 3. PROVIDE H2.5A HURRICANE TIES AT END OF ALL JOISTS.
 4. ALL HEADERS SHALL HAVE A MINIMUM OF POSTS PER 4/S6.0 AT NON-LOAD BEARING EXTERIOR WALLS, AND PER 6/S6.0 AT LOAD BEARING EXTERIOR WALLS.
 5. HEADERS IN EXTERIOR WALLS NOT SUPPORTING RAFTERS, JOISTS, OR BEAMS SHALL BE PER DETAIL 4/S6.0 U.N.O. IN PLAN.

1 ROOF FRAMING PLAN
S2.4 1/4" = 1'-0"



CENTERLINE
DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706
www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Roof Deck Framing Plan

DRAWN BY

JDA

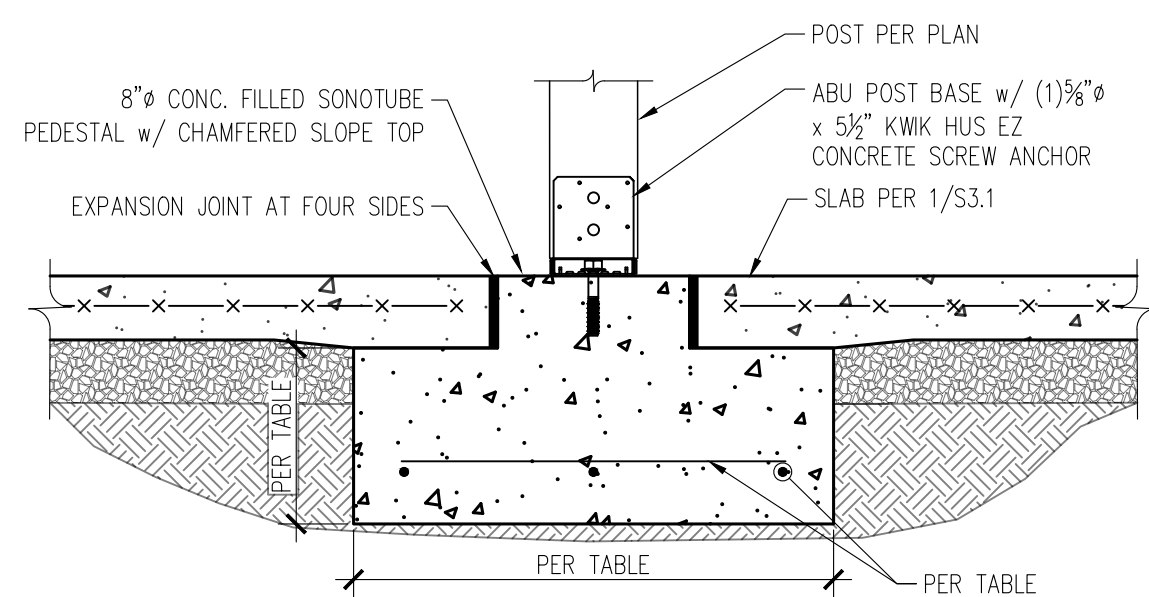
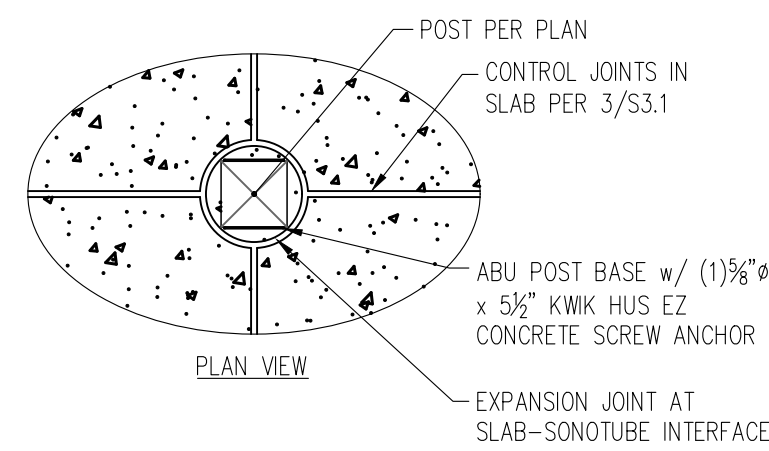
DATE

08.04.2021

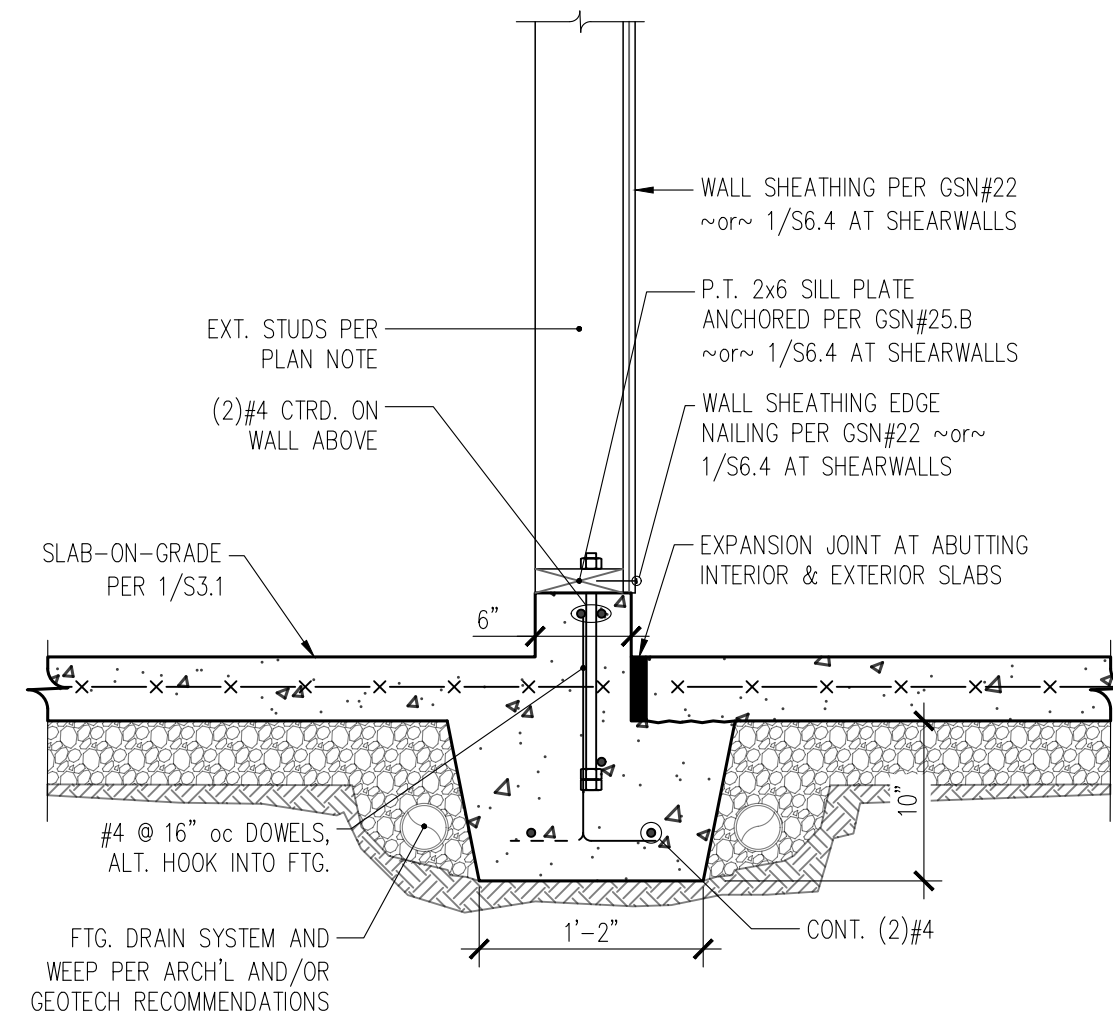
01.04.2022

S2.4

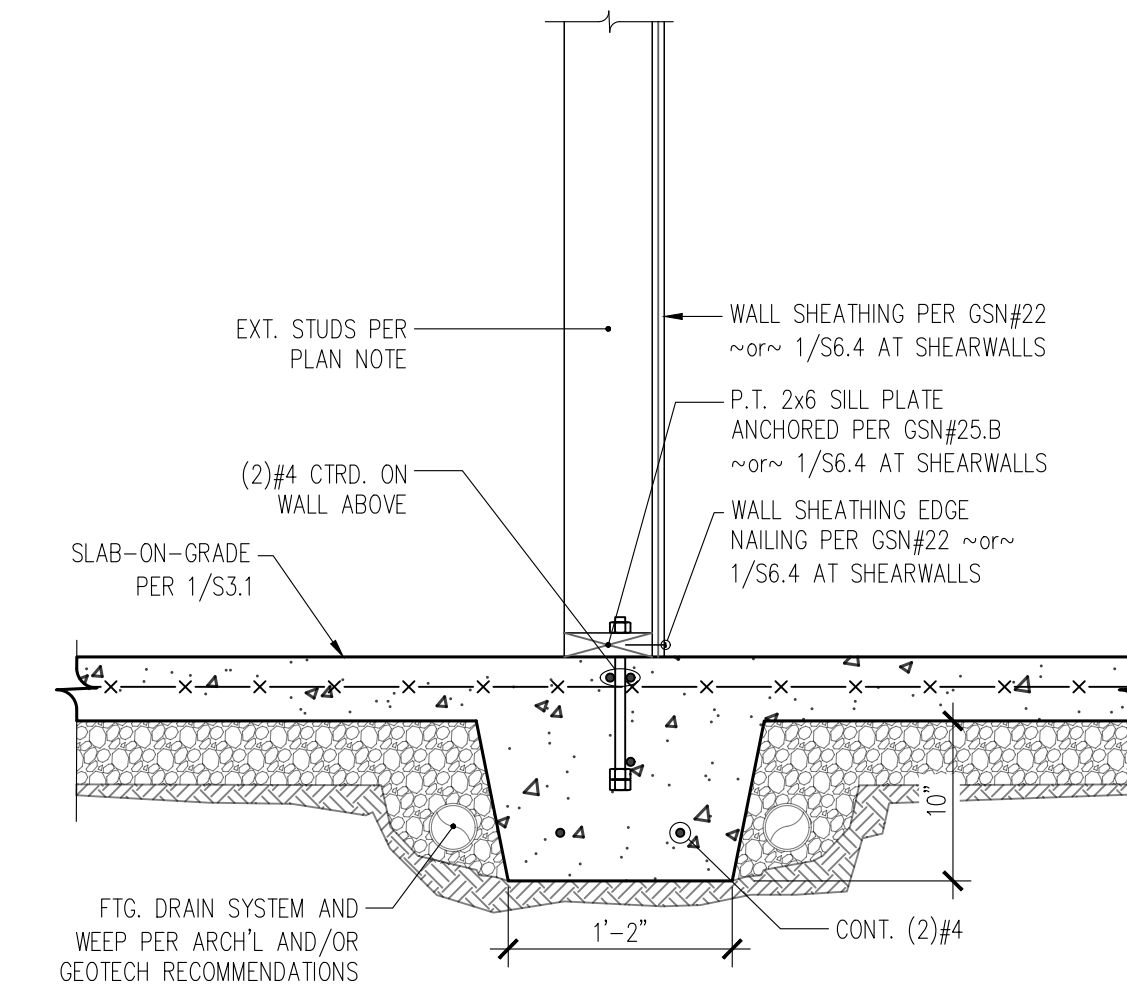
FTG. MARK	DIMENSIONS			REINFORCING DIRECTION	
	LENGTH	WIDTH	DEPTH	SHORT	LONG
F2.5	2'-6"	2'-6"	10"	(3)#4	(3)#4



9 SPREAD FOOTING
S3.1 1" = 1'-0"



6 SECTION THROUGH THICKENED SLAB AT CONCRETE STEM AND EXTERIOR STRUCTURAL WALL
S3.1 1" = 1'-0"

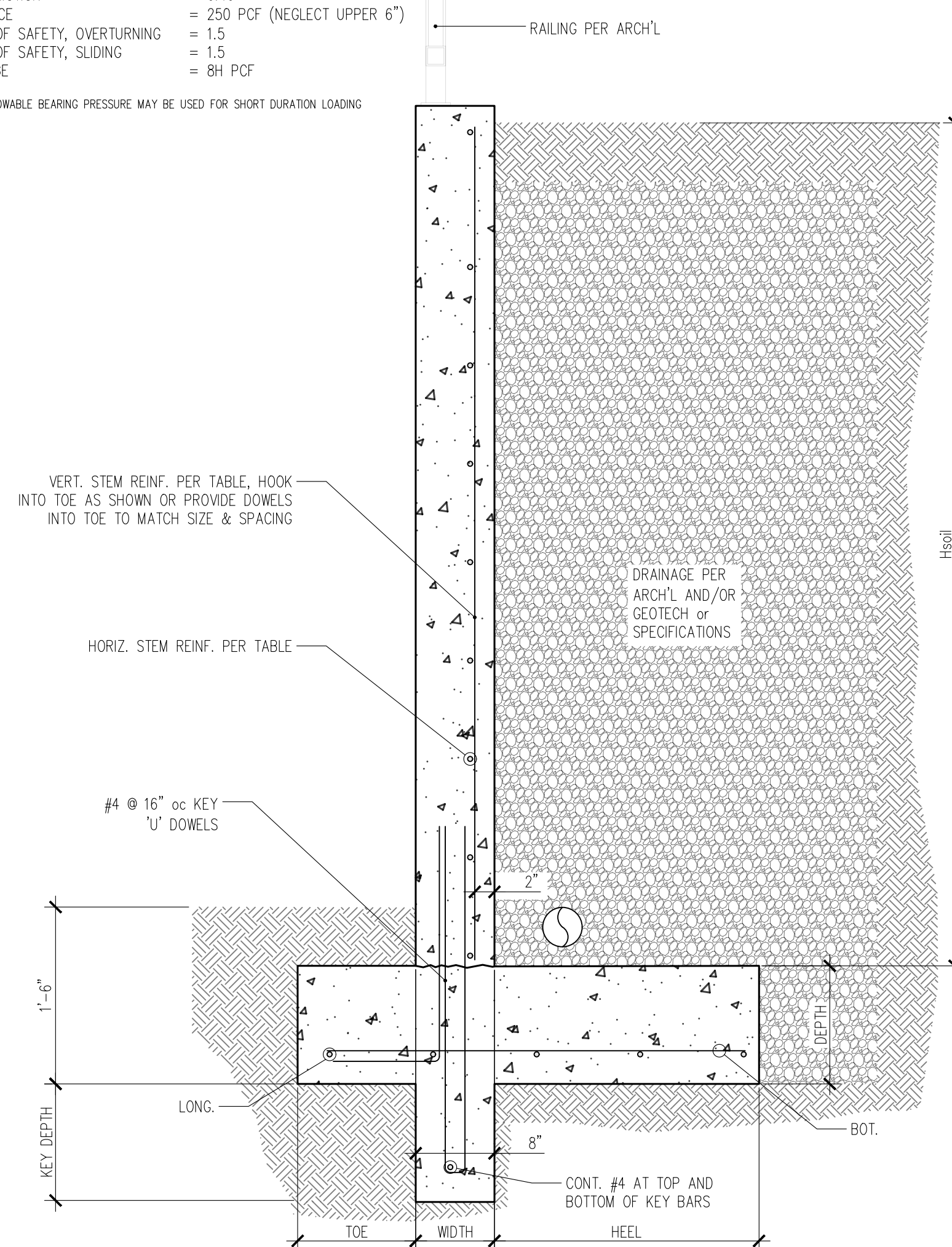


3 SECTION THROUGH THICKENED SLAB AT STRUCTURAL WALL
S3.1 1" = 1'-0"

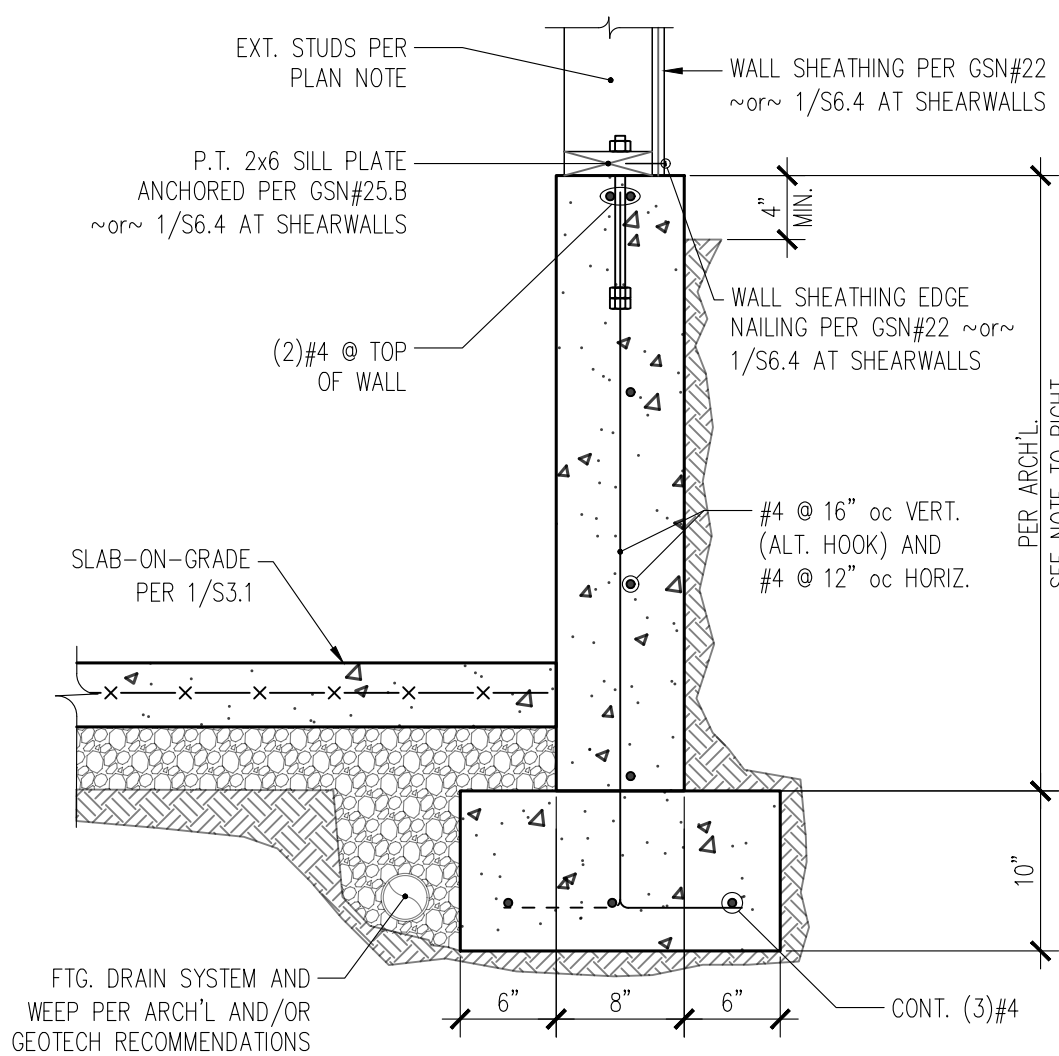
Hsoil	TOE	WIDTH	HEEL	DEPTH	STEM REINF.		FTG. REINF.		KEY DEPTH
					VERT.	HORIZ.	LONG.	BOT.	
$H_{soil} < 4'-6"$	0'-6"	8"	1'-9"	10"	#4 @ 16" oc	#4 @ 12" oc	(4) #4	#4 @ 10" oc	-
$4'-6" \leq H_{soil} \leq 5'-6"$	0'-6"	8"	2'-3"	10"	#4 @ 16" oc	#4 @ 12" oc	(5) #4	#4 @ 10" oc	-
$5'-6" < H_{soil} \leq 6'-6"$	0'-6"	8"	2'-9"	10"	#4 @ 12" oc	#4 @ 12" oc	(5) #4	#4 @ 10" oc	-
$5'-6" < H_{soil} \leq 7'-6"$	0'-6"	8"	3'-3"	10"	#5 @ 16" oc	#4 @ 12" oc	(4) #5	#5 @ 12" oc	-
$7'-6" < H_{soil} \leq 8'-6"$	0'-6"	8"	4'-0"	12"	#5 @ 12" oc	#4 @ 12" oc	(6) #5	#5 @ 12" oc	-
$8'-6" < H_{soil} \leq 9'-6"$	1'-0"	8"	4'-3"	12"	#5 @ 9" oc	#4 @ 12" oc	(6) #5	#5 @ 10" oc	-
$9'-6" < H_{soil} \leq 10'-6"$	1'-0"	8"	5'-3"	12"	#5 @ 8" oc	#4 @ 12" oc	(9) #5	#5 @ 8" oc	-

NOTE
MAXIMUM HORIZONTAL DESIGN PRESSURE = 35 PCF
MINIMUM ALLOWABLE BEARING PRESSURE = 2,000 PSF*
COEFFICIENT OF FRICTION = 0.40
PASSIVE RESISTANCE = 250 PCF (NEGLECT UPPER 6")
MINIMUM FACTOR OF SAFETY, OVERTURNING = 1.5
MINIMUM FACTOR OF SAFETY, SLIDING = 1.5
SEISMIC SURCHARGE = 8H PCF

* A 1/2 INCREASE IN ALLOWABLE BEARING PRESSURE MAY BE USED FOR SHORT DURATION LOADING (i.e. SEISMIC & WIND)

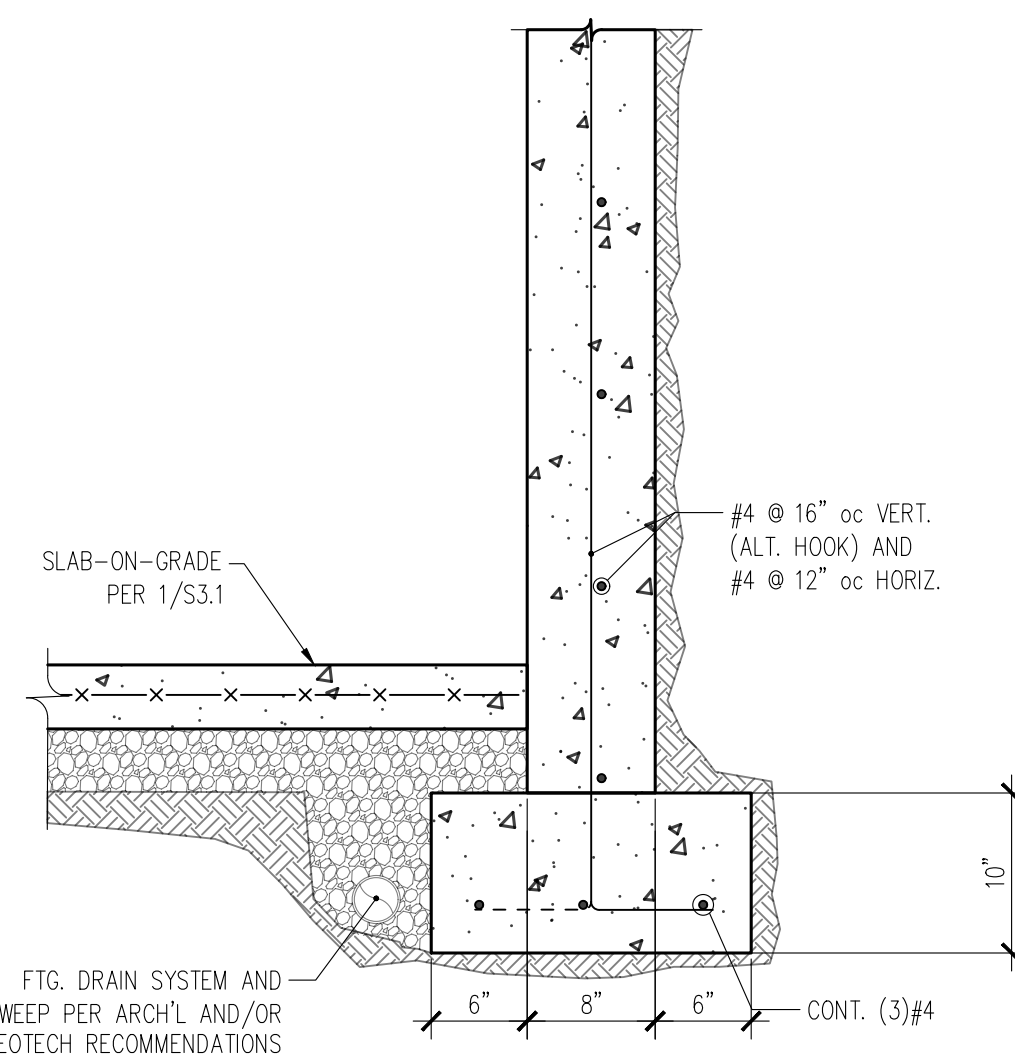


5 SECTION THROUGH FOUNDATION WALL AT NO STEM
S3.1 1" = 1'-0"



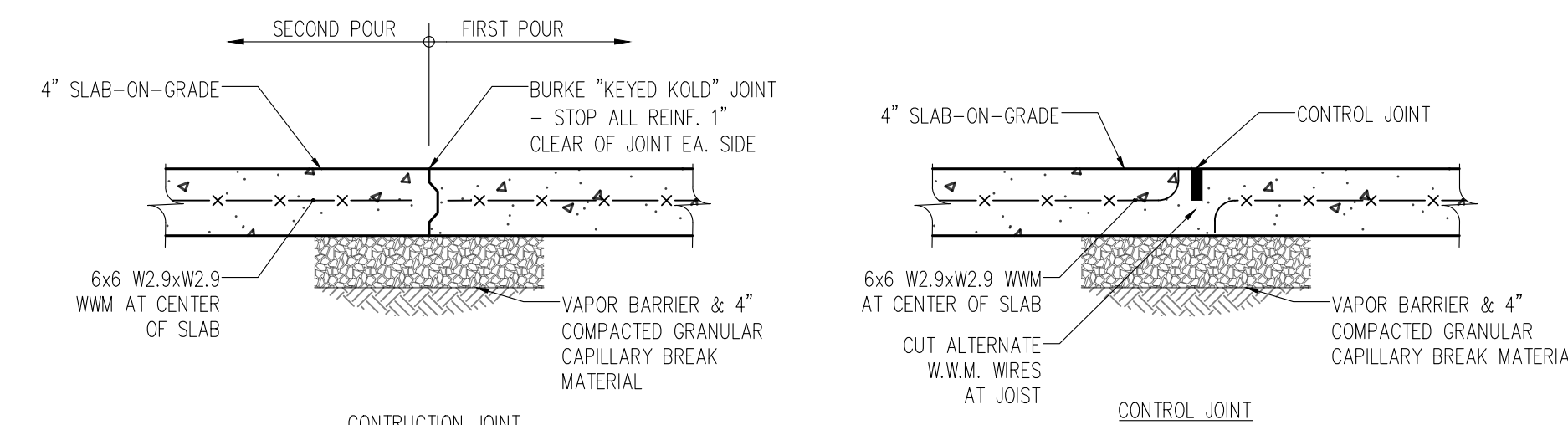
2 SECTION THROUGH PARTIAL HEIGHT FOUNDATION WALL
S3.1 1" = 1'-0"

MAX HEIGHT OF SOIL ALLOWED AT FACE OF CONCRETE WALL PRIOR TO STUDWALL/FRAMING BEING SET AND WALL CURING TO 75% OF DESIGN STRENGTH IS 4'-6". PROVIDE BRACING OR SHORING WALL IF MAX SOIL HEIGHT IS EXCEEDED.



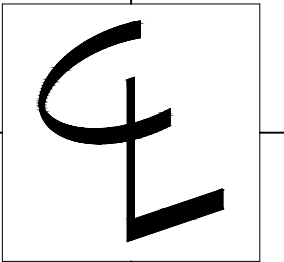
4 SECTION THROUGH FULL HEIGHT FOUNDATION WALL AT HIGH STEM
S3.1 1" = 1'-0"

MAX HEIGHT OF SOIL ALLOWED AT FACE OF CONCRETE WALL PRIOR TO STUDWALL/FRAMING BEING SET AND WALL CURING TO 75% OF DESIGN STRENGTH IS 4'-6". PROVIDE BRACING OR SHORING WALL IF MAX SOIL HEIGHT IS EXCEEDED.



1 TYPICAL SLAB-ON-GRADE JOINTING
S3.1 1" = 1'-0"

7 RETAINING WALL
S3.1 1" = 1'-0"



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706

www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Foundation
Details

DRAWN BY

JDA

DATE

08.04.2021

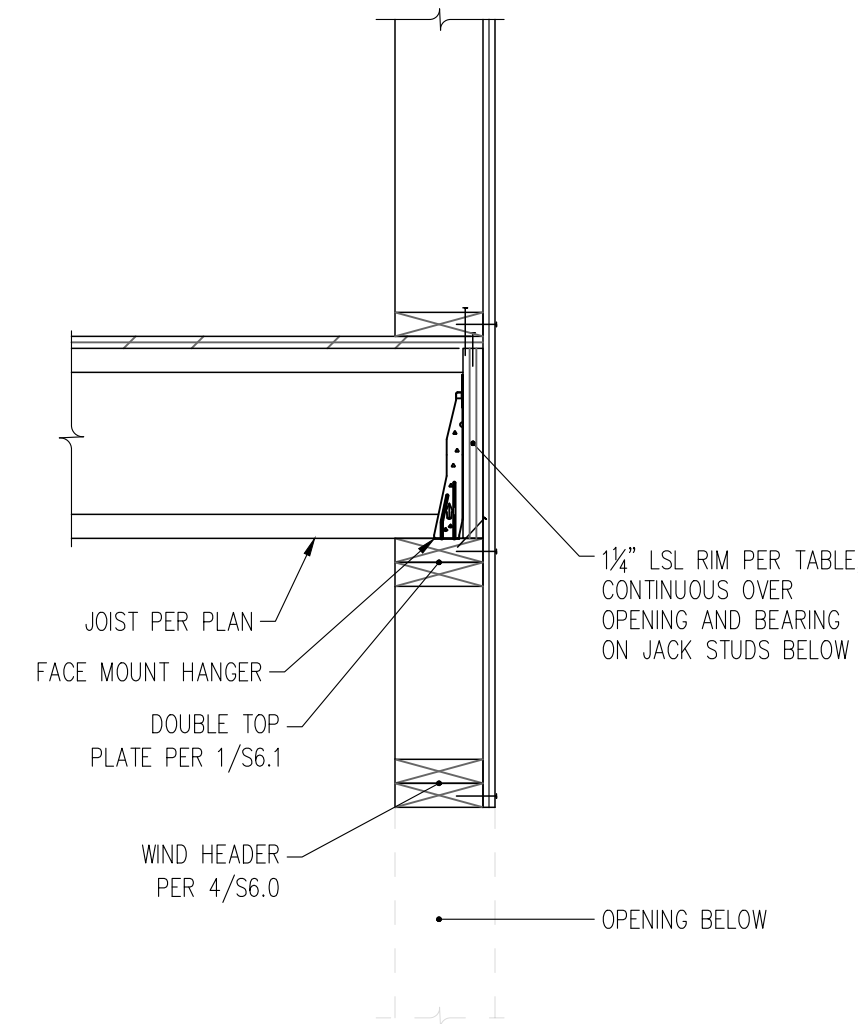
01.04.2022

S3.1

ROOF DECK		
OPENING WIDTH, L	RIM/HEADER SIZE	MINIMUM No. OF STUD
L ≤ 3'-0"	1 3/4" x 24" LVL	(1)2x6
L ≤ 5'-0"	1 3/4" x 24" LVL	(2)2x6
L ≤ 8'-0"	1 3/4" x 24" LVL	(3)2x6

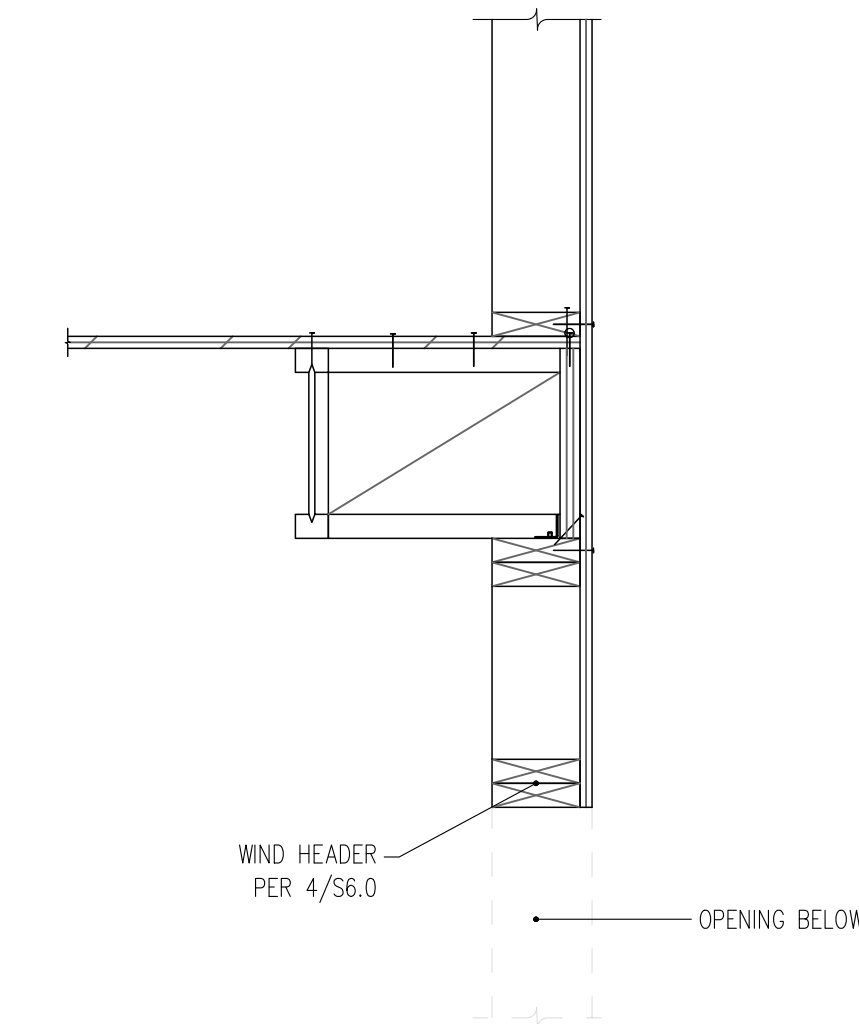
UPPER		
OPENING WIDTH, L	RIM/HEADER SIZE	MINIMUM No. OF STUD
L ≤ 3'-6"	1 1/2" x 11 3/8" LSL	(2)2x6
L ≤ 6'-0"	1 1/2" x 11 3/8" LSL	(4)2x6
L ≤ 7'-0"	(2)1 1/2" x 11 3/8" LSL	(3)2x6
L ≤ 10'-0"	(2)1 1/2" x 11 3/8" LSL	(4)2x6

MAIN		
OPENING WIDTH, L	RIM/HEADER SIZE	MINIMUM No. OF STUD
L ≤ 3'-6"	1 1/2" x 11 3/8" LSL	(2)2x6
L ≤ 6'-0"	1 1/2" x 11 3/8" LSL	(4)2x6
L ≤ 7'-0"	(2)1 1/2" x 11 3/8" LSL	(3)2x6
L ≤ 10'-0"	(2)1 1/2" x 11 3/8" LSL	(4)2x6



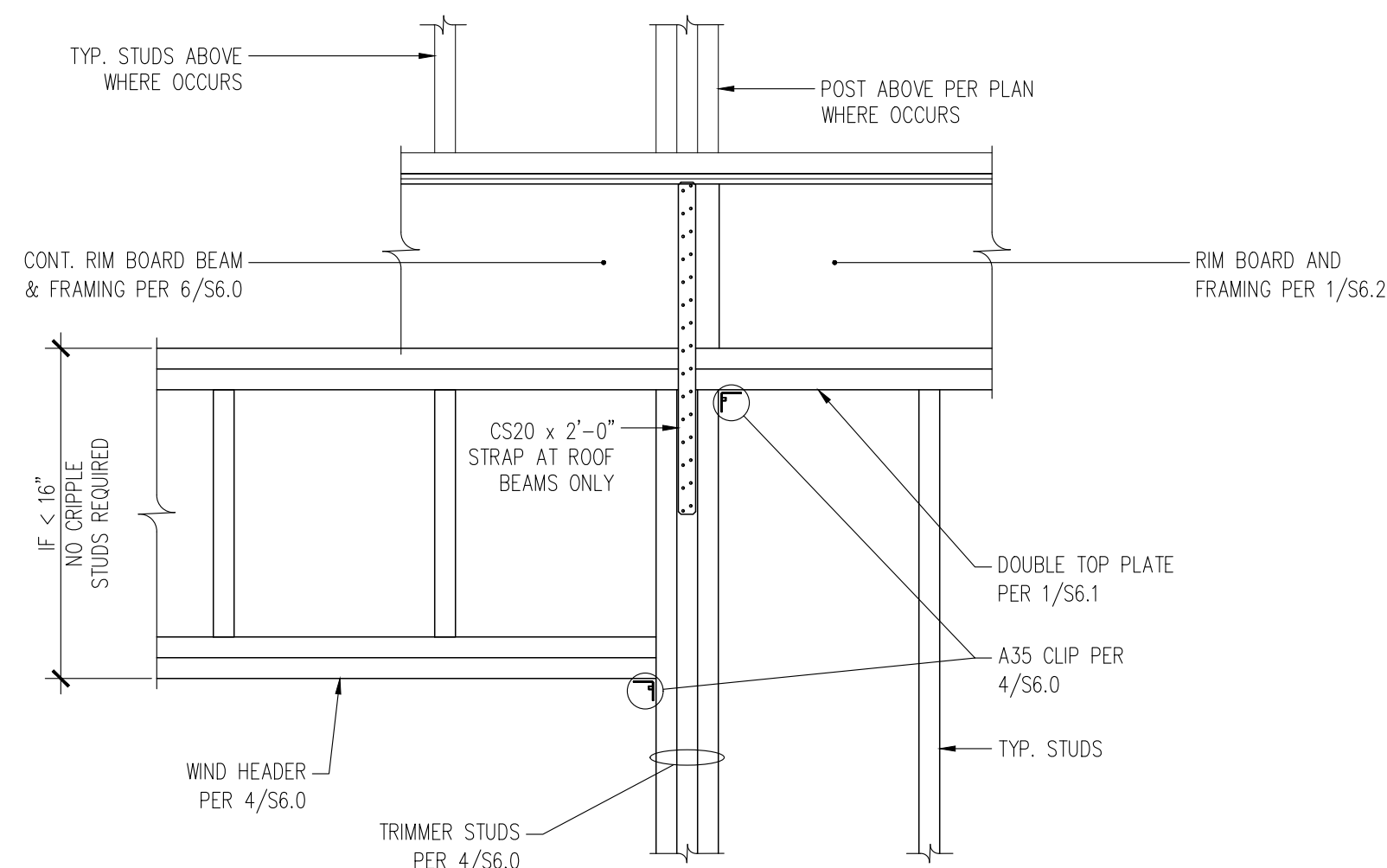
6 TYPICAL RIMBOARD HEADER & WIND HEADER IN LOAD BEARING EXTERIOR WALL
S6.0 NTS

SEE DETAIL 1/S6.2 FOR CALL OUTS IN COMMON

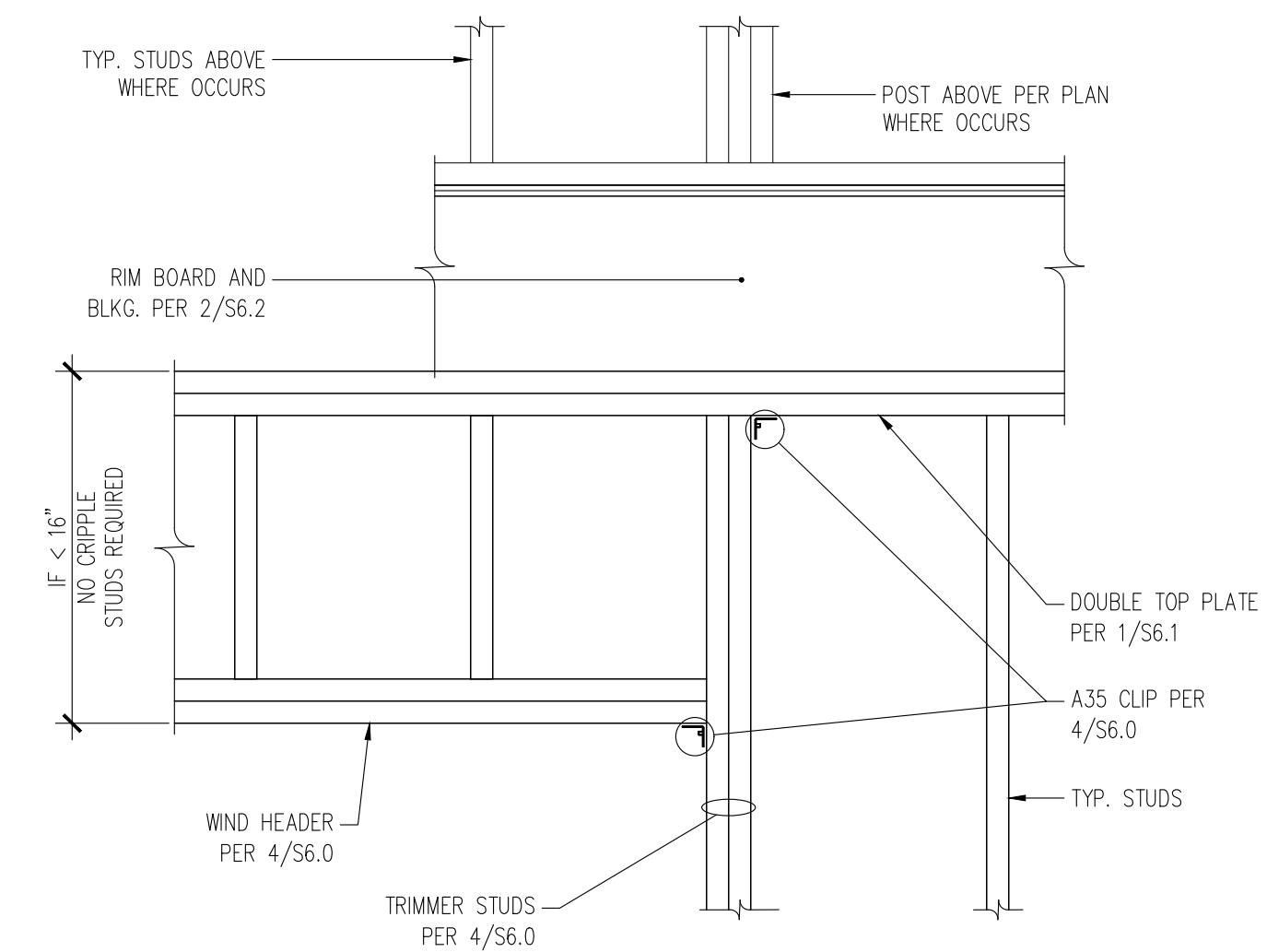


3 TYPICAL WIND HEADER IN NON-LOAD BEARING EXTERIOR WALL
S6.0 NTS

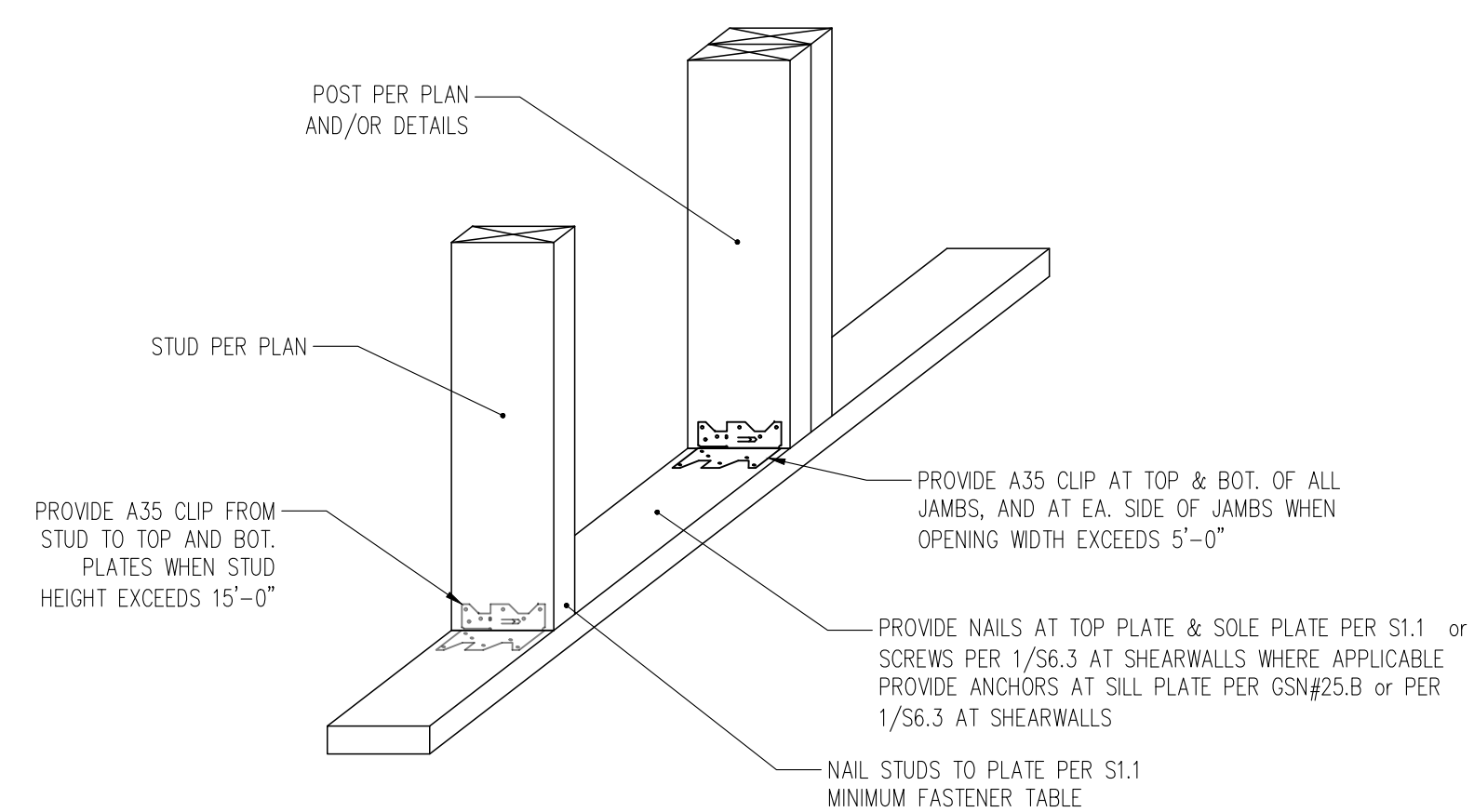
SEE DETAIL 2/S6.2 FOR CALL OUTS IN COMMON



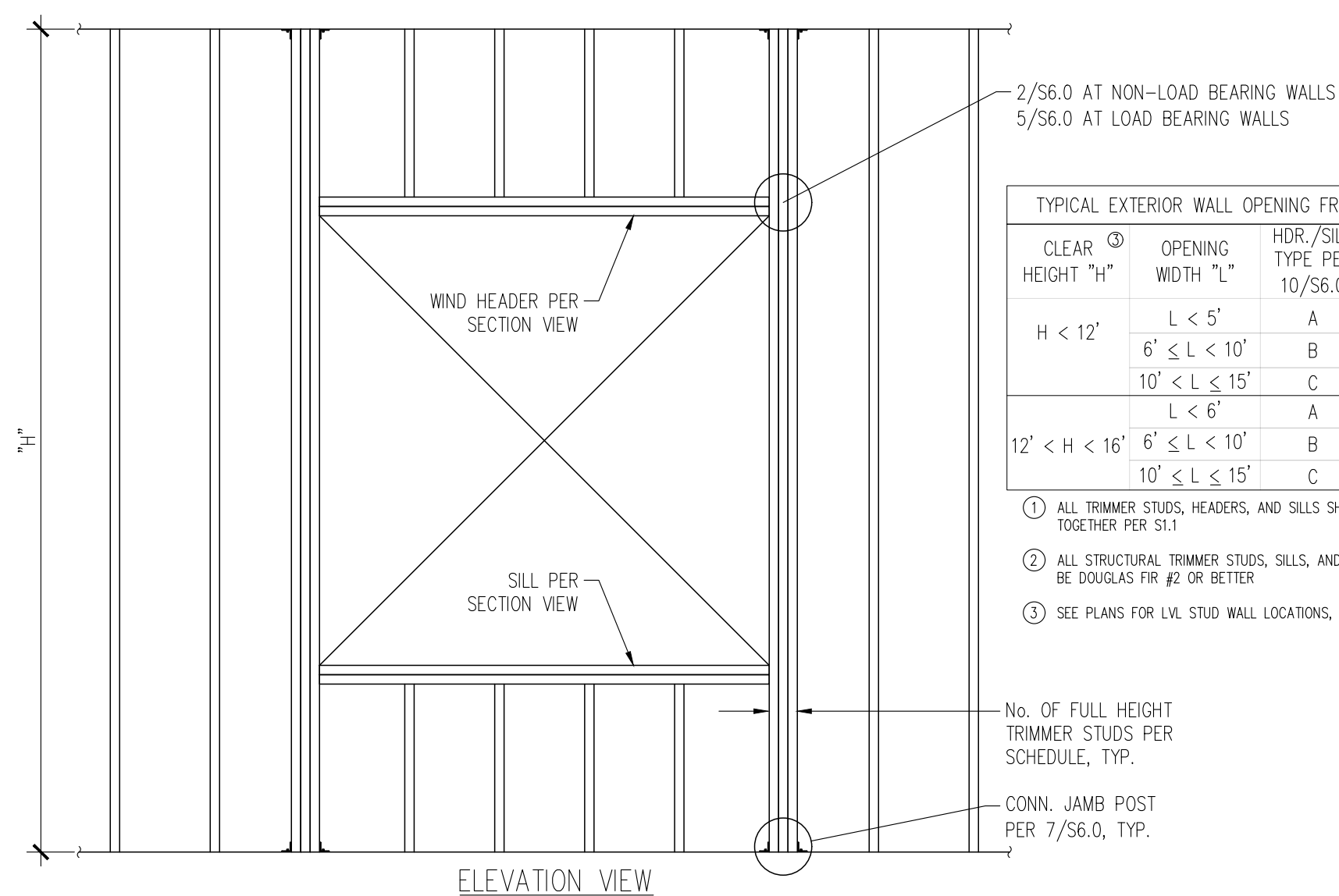
5 TYPICAL FLUSH BEAM/HEADER IN EXTERIOR WALL
S6.0 NTS



2 TYPICAL WIND HEADER DETAIL
S6.0 NTS



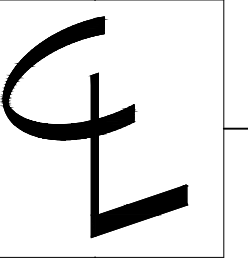
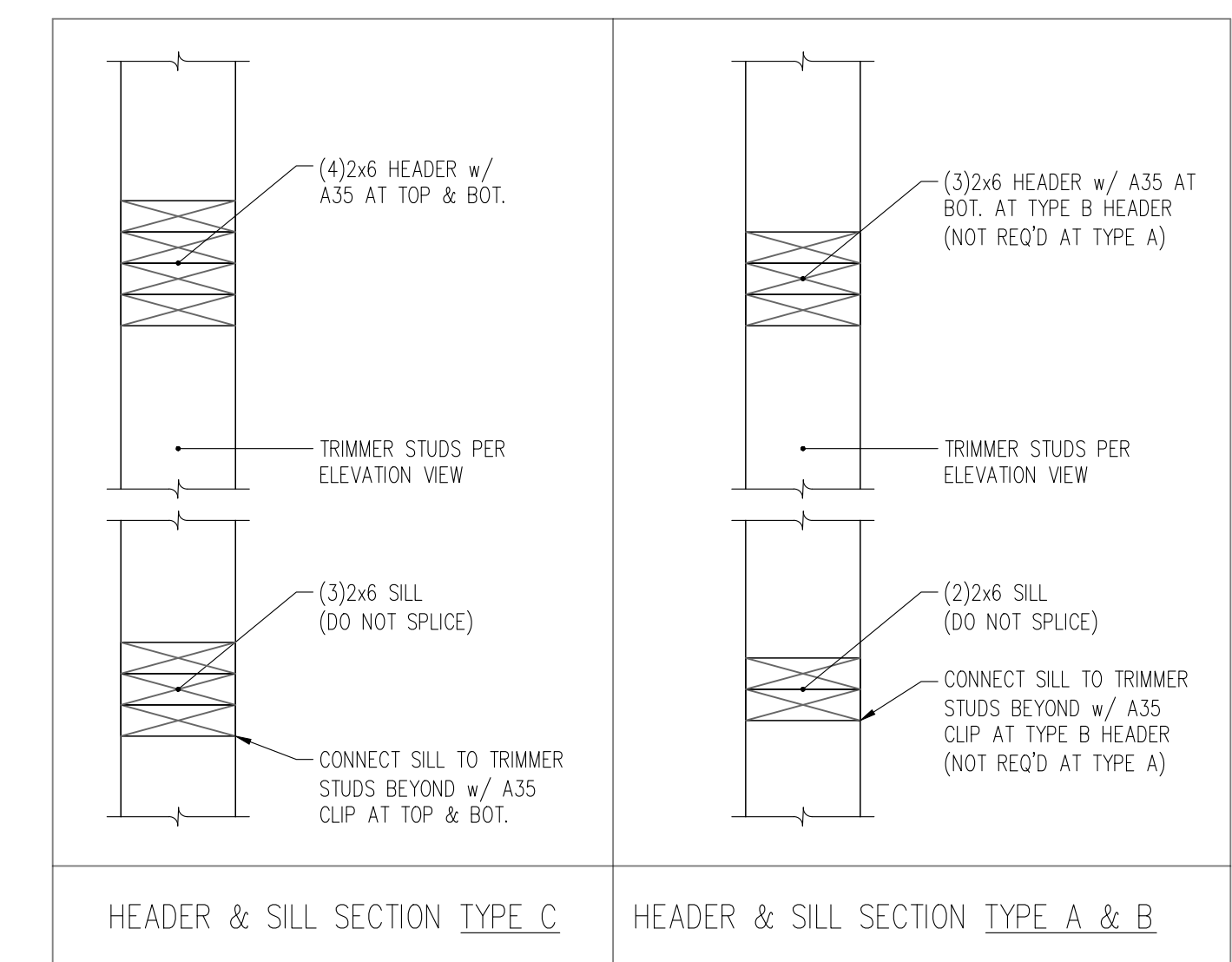
7 CONNECTION OF EXTERIOR STUDS AT TOP & BOTTOM PLATES
S6.0 NTS



4 TYPICAL WIND HEADER
S6.0 NTS

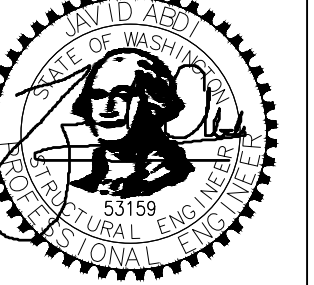
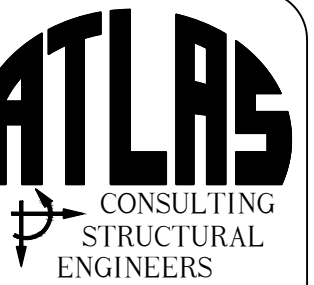
TYPICAL EXTERIOR WALL OPENING FRAMING SCHEDULE			
CLEAR HEIGHT "H"	OPENING WIDTH "L"	HDR./SILL TYPE PER 10/S6.0	No. OF FULL HEIGHT TRIMMER STUDS
H < 12'	L < 5'	A	2
	6' ≤ L < 10'	B	2
	10' ≤ L ≤ 15'	C	3
12' < H < 16'	L < 6'	A	2
	6' ≤ L < 10'	B	3
	10' ≤ L ≤ 15'	C	6x8

- ALL TRIMMER STUDS, HEADERS, AND SILLS SHALL BE NAILED TOGETHER PER S1.1
- ALL STRUCTURAL TRIMMER STUDS, SILLS, AND HEADERS SHALL BE DOUGLAS FIR #2 OR BETTER
- SEE PLANS FOR LVL STUD WALL LOCATIONS, WHERE APPLICABLE



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706

www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Wood Typical Details

DRAWN BY

JDA

DATE

08.04.2021

S6.0

CONTENTS

Wood Typical Details

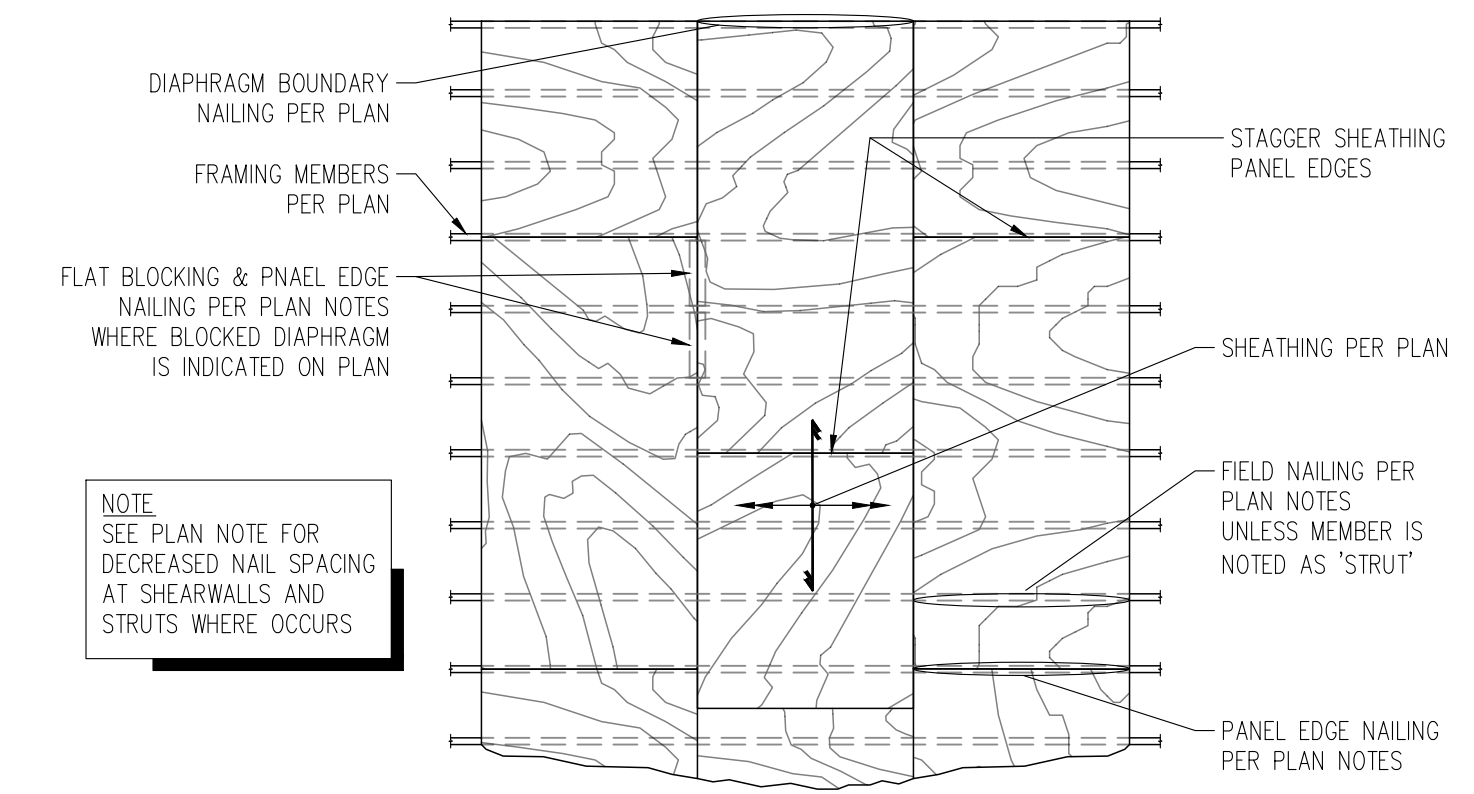
DRAWN BY

JDA

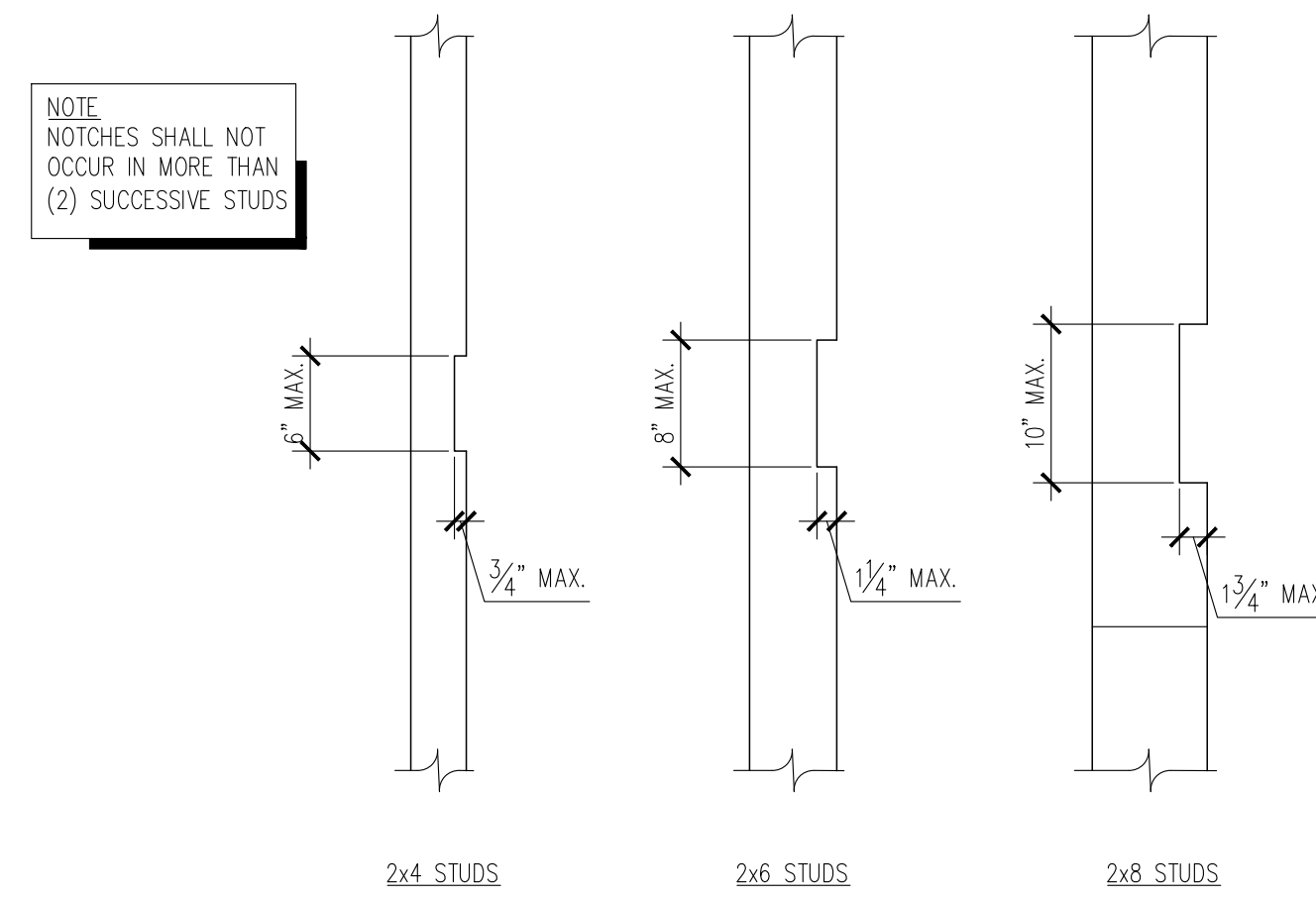
DATE

08.04.2021

S6.1



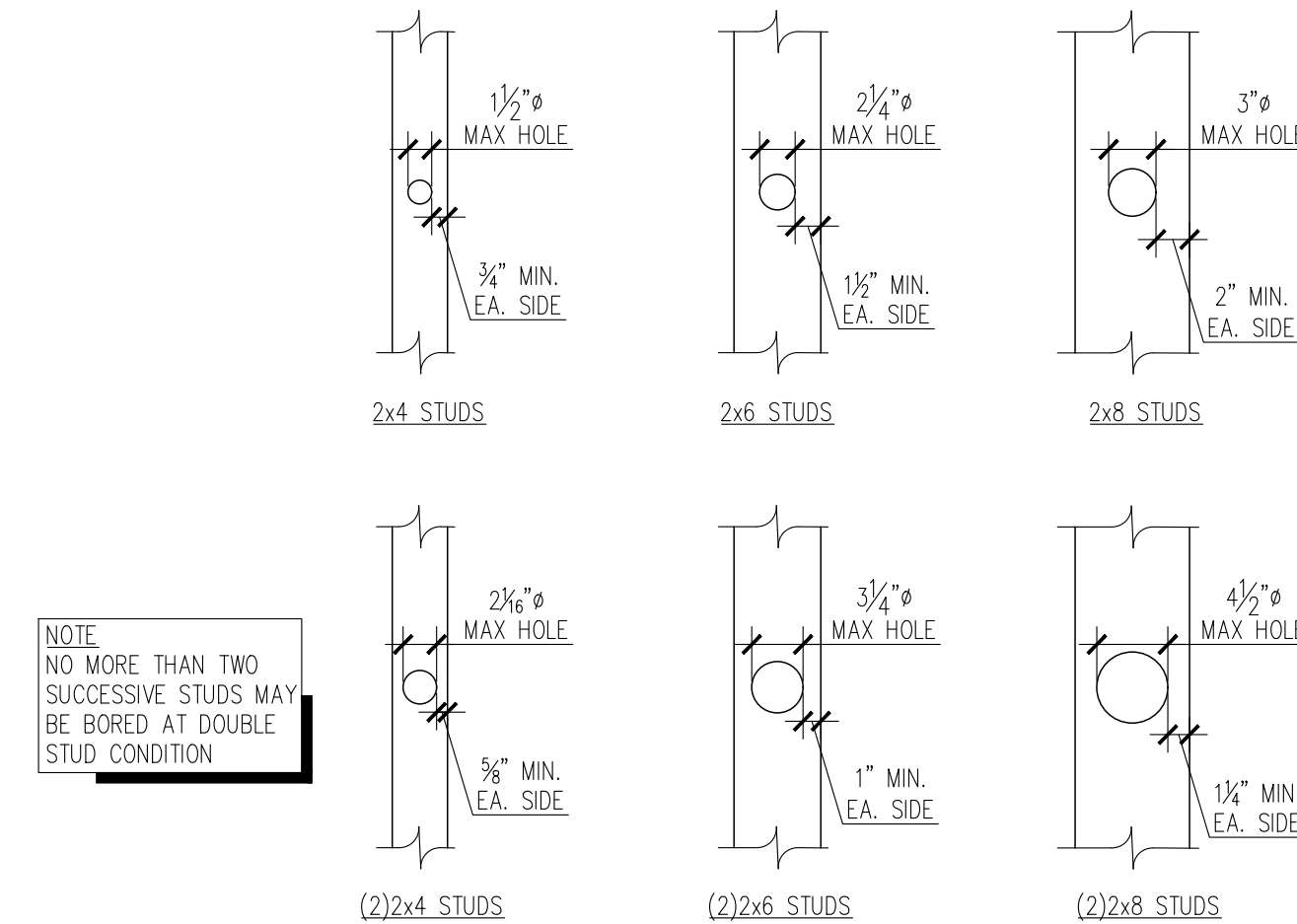
3 TYPICAL DIAPHRAGM NAILING
 S6.1 NTS



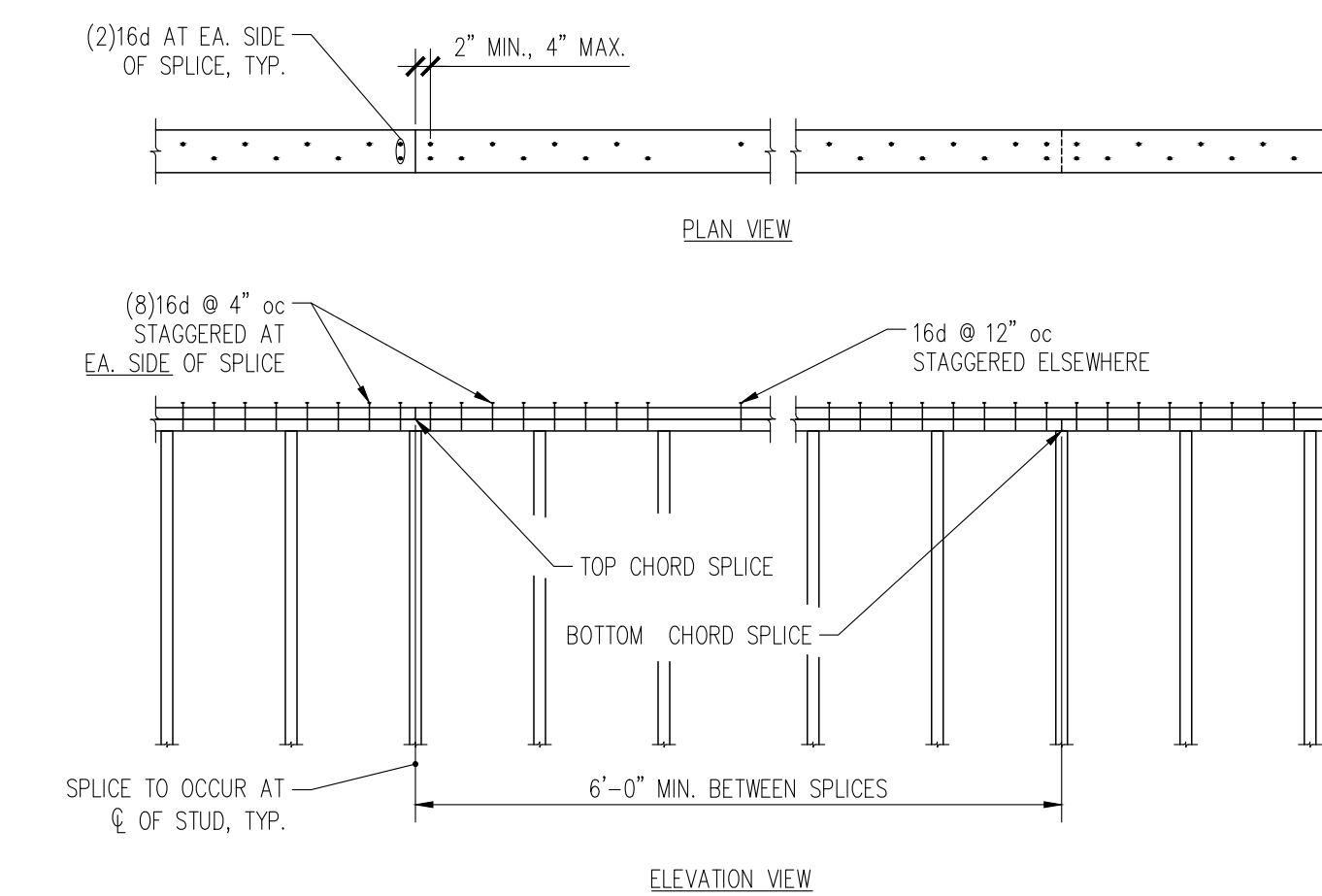
6 ALLOWABLE HOLES IN STUDWALL STUDS
 S6.1 NTS

	NO REINF. REQUIRED	STRAP REINF. REQUIRED
2x4 PLATES	1 1/2" MAX. HOLE 3/8" MIN. EA. SIDE	2 5/8" MAX. HOLE CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES) 3/8" MIN. EA. SIDE
2x6 PLATES	2 1/4" MAX. HOLE 1 1/2" MIN. EA. SIDE	3 3/4" MAX. HOLE CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES) 3/4" MIN. EA. SIDE
2x8 PLATES	3 1/4" MAX. HOLE 2" MIN. EA. SIDE	5" MAX. HOLE CMSTC16x3'-0" (CS16x2'-0" AT BOT. PLATES) 1 1/2" MIN. EA. SIDE

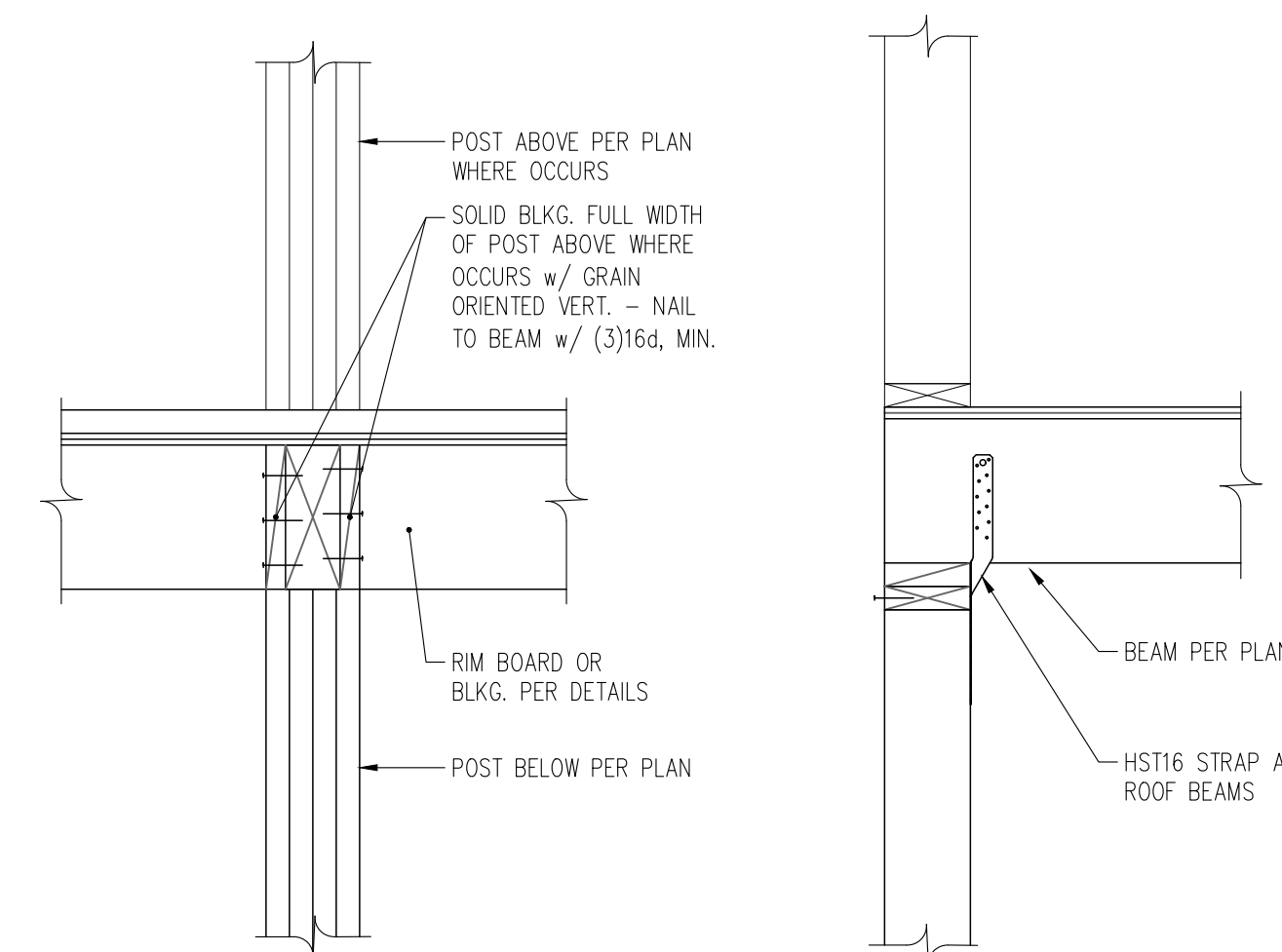
2 ALLOWABLE HOLES THROUGH TOP PLATES
 S6.1 NTS



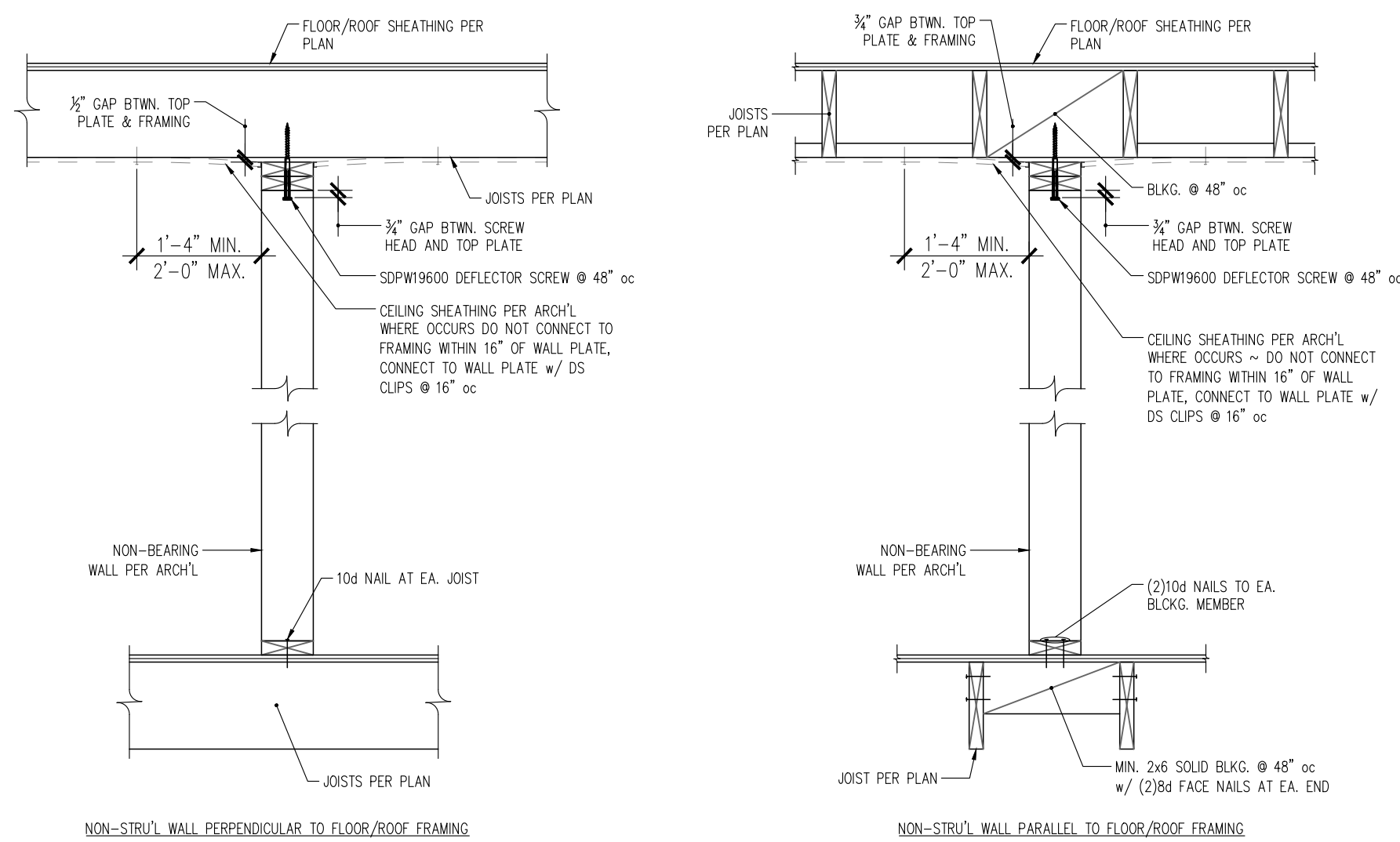
5 ALLOWABLE HOLES IN STUDWALL STUDS
 S6.1 NTS



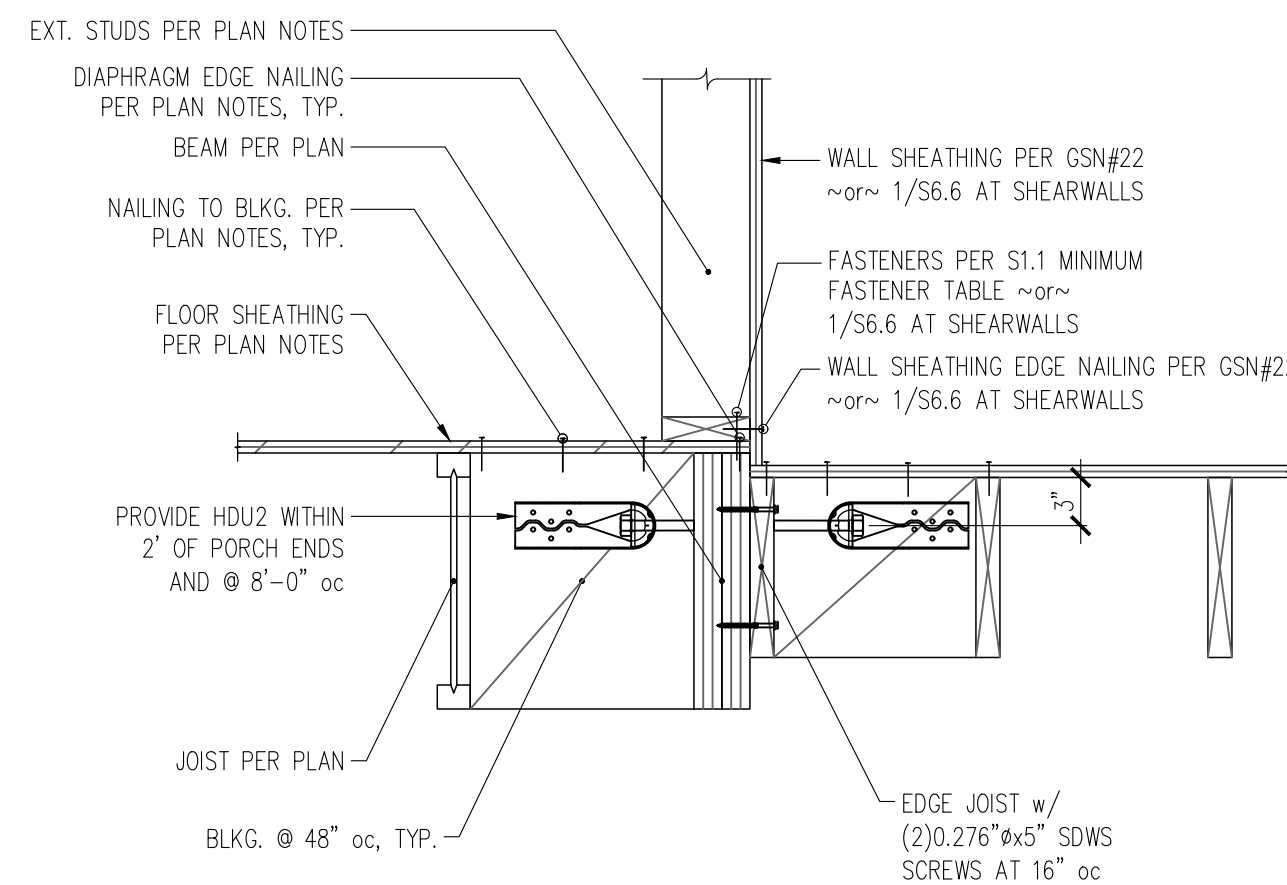
1 TOP PLATE SPLICE
 S6.1 NTS



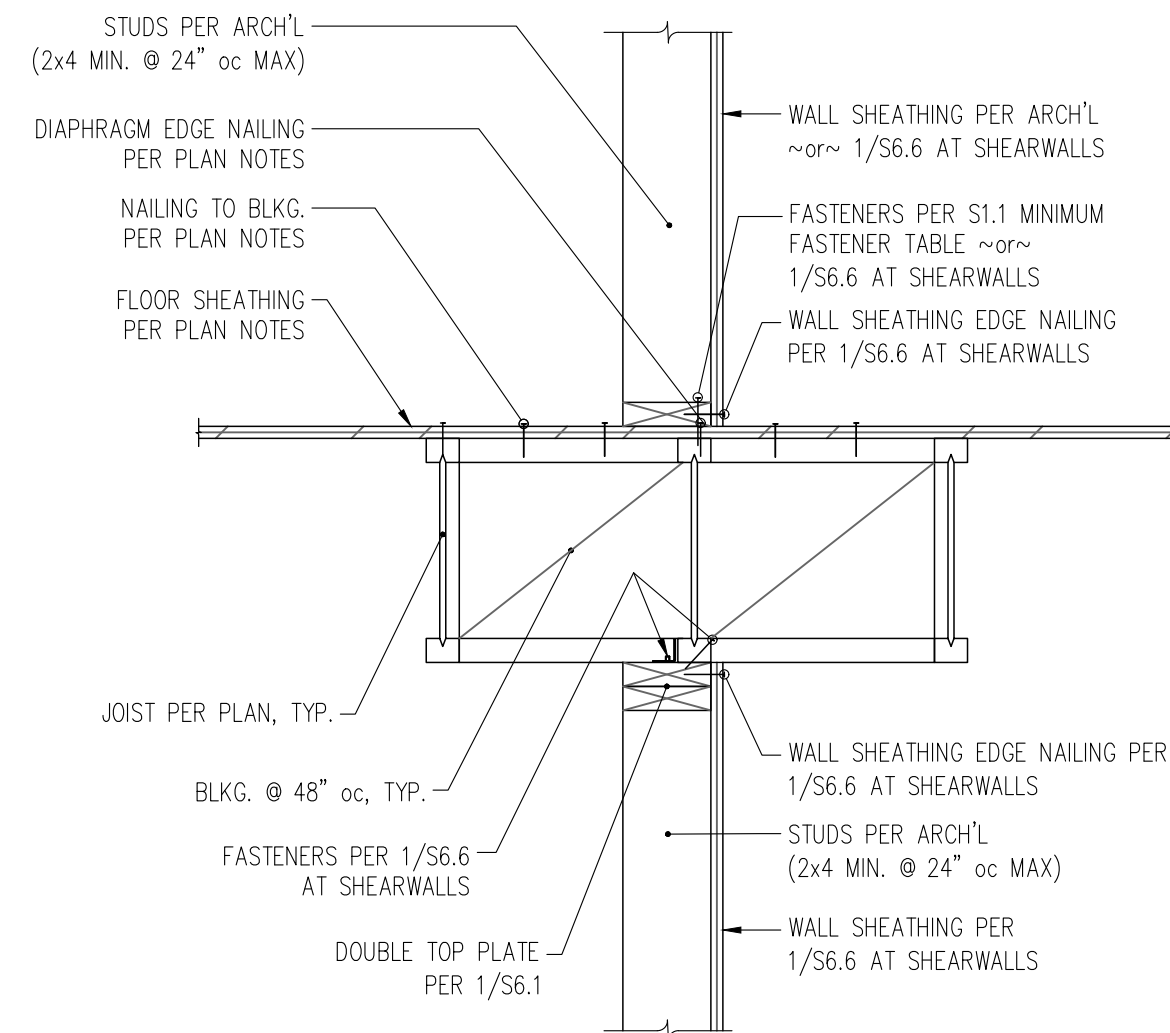
4 TYPICAL BEAM PERPENDICULAR TO WALL
 S6.1 NTS



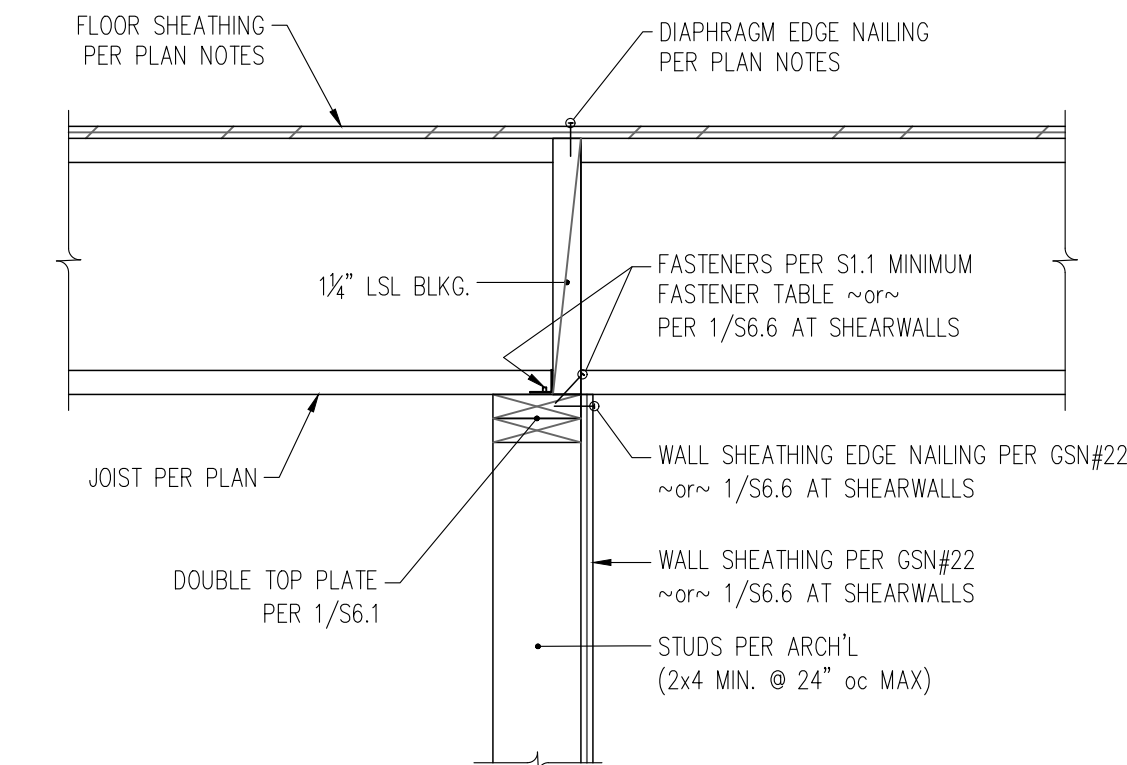
7 CONNECTION OF NON-STRUC'L PARTITION WALL TO STRUCTURE
 S6.1 NTS



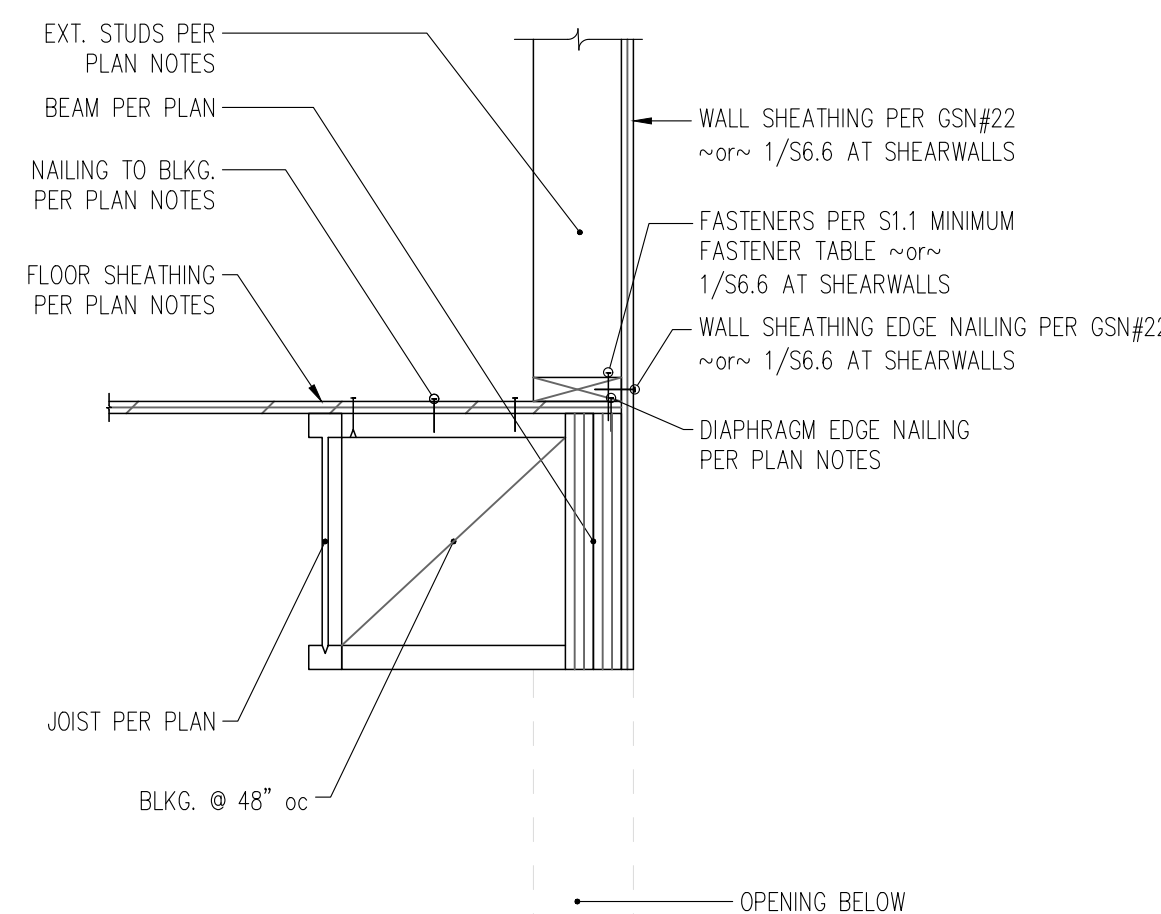
9 SECTION THROUGH PARALLEL JOISTS AND EXTERIOR WALL ABOVE BEAM AT PORCH AREA
S6.2 3/4" = 1'-0"



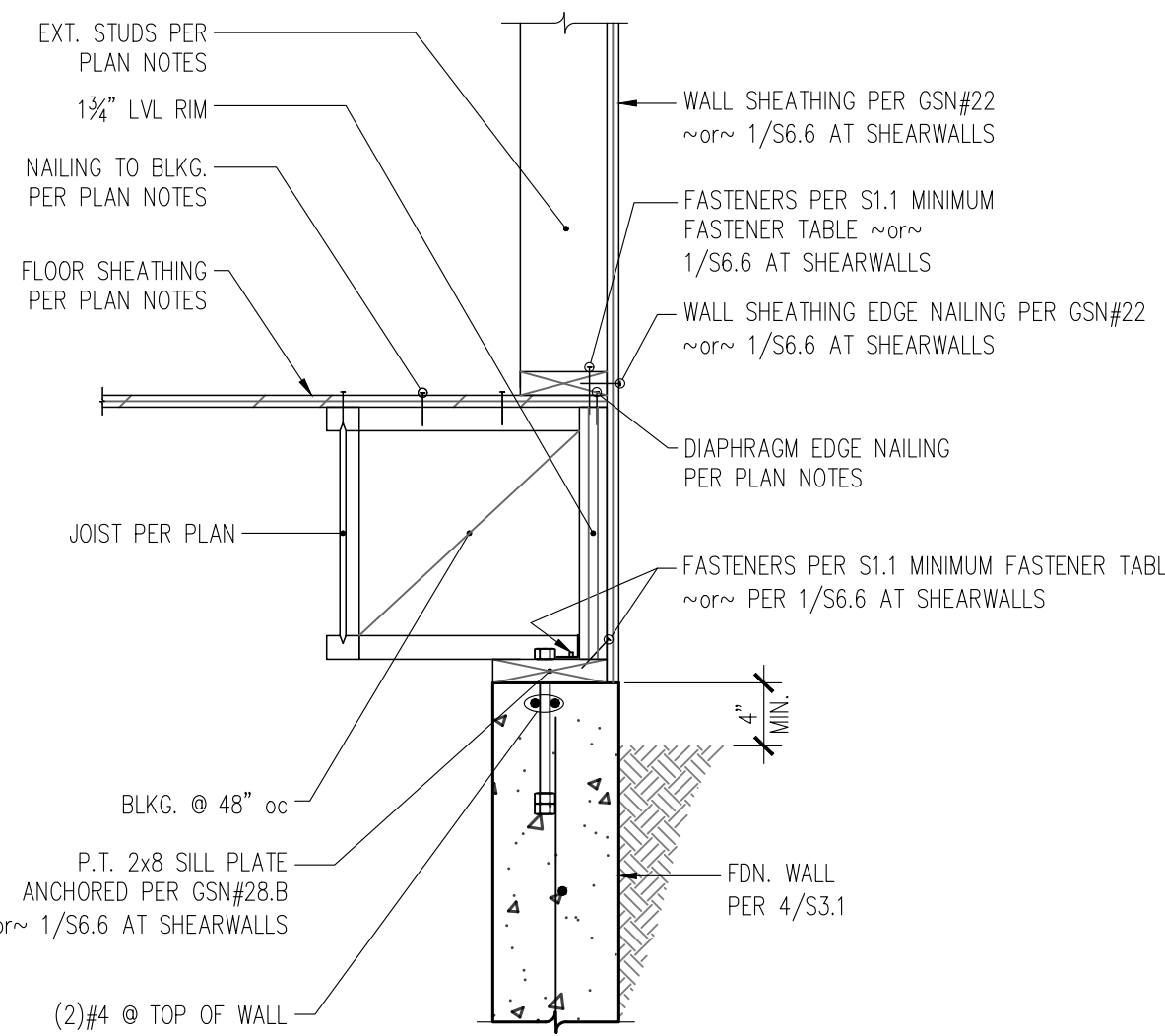
6 SECTION THROUGH INTERIOR SHEAR WALL w/ PERPENDICULAR JOISTS AT EA. SIDE
S6.2 1" = 1'-0"



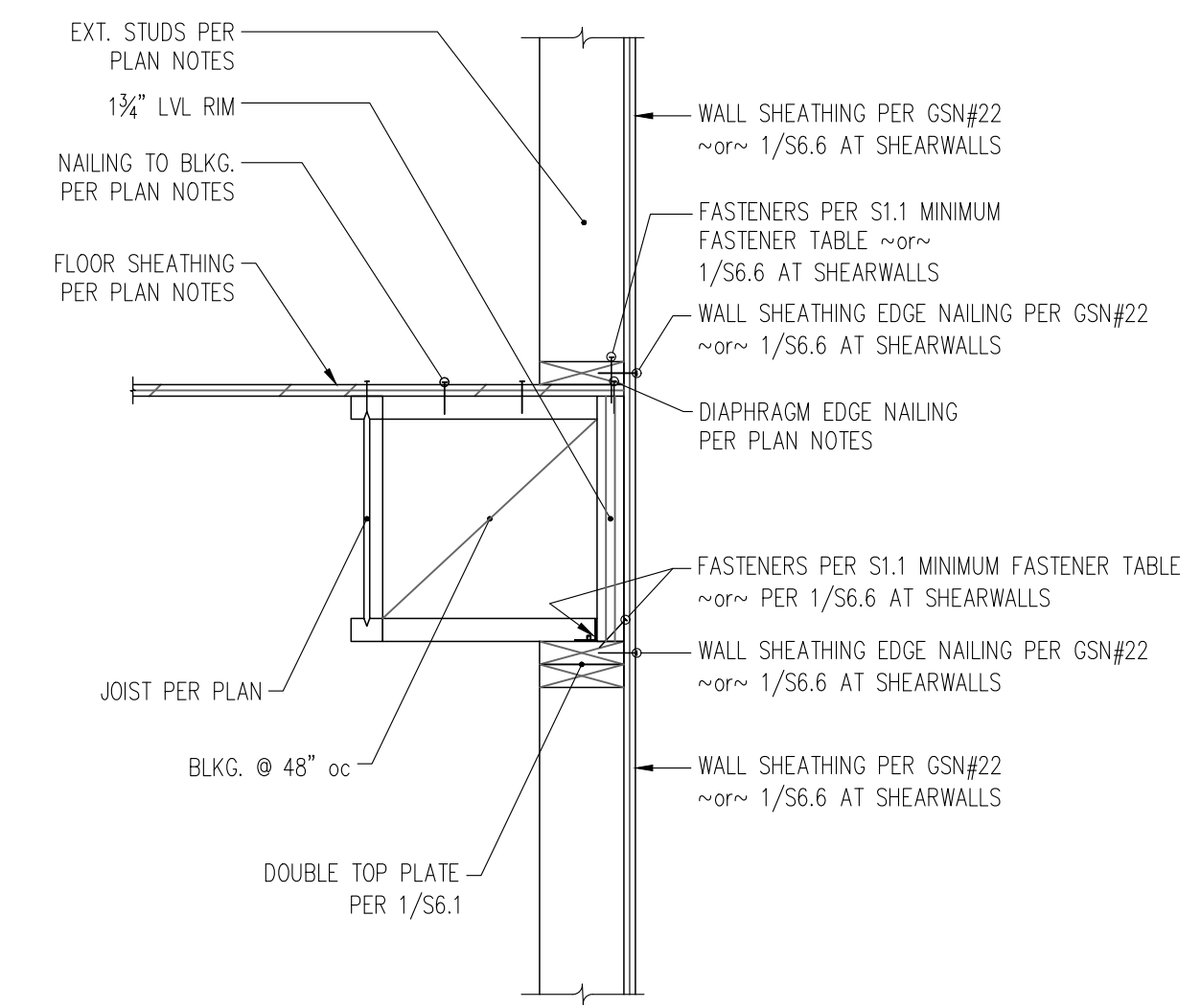
3 SECTION THROUGH INTERIOR BEARING WALL w/ PERPENDICULAR JOISTS AT EA. SIDE
S6.2 1" = 1'-0"



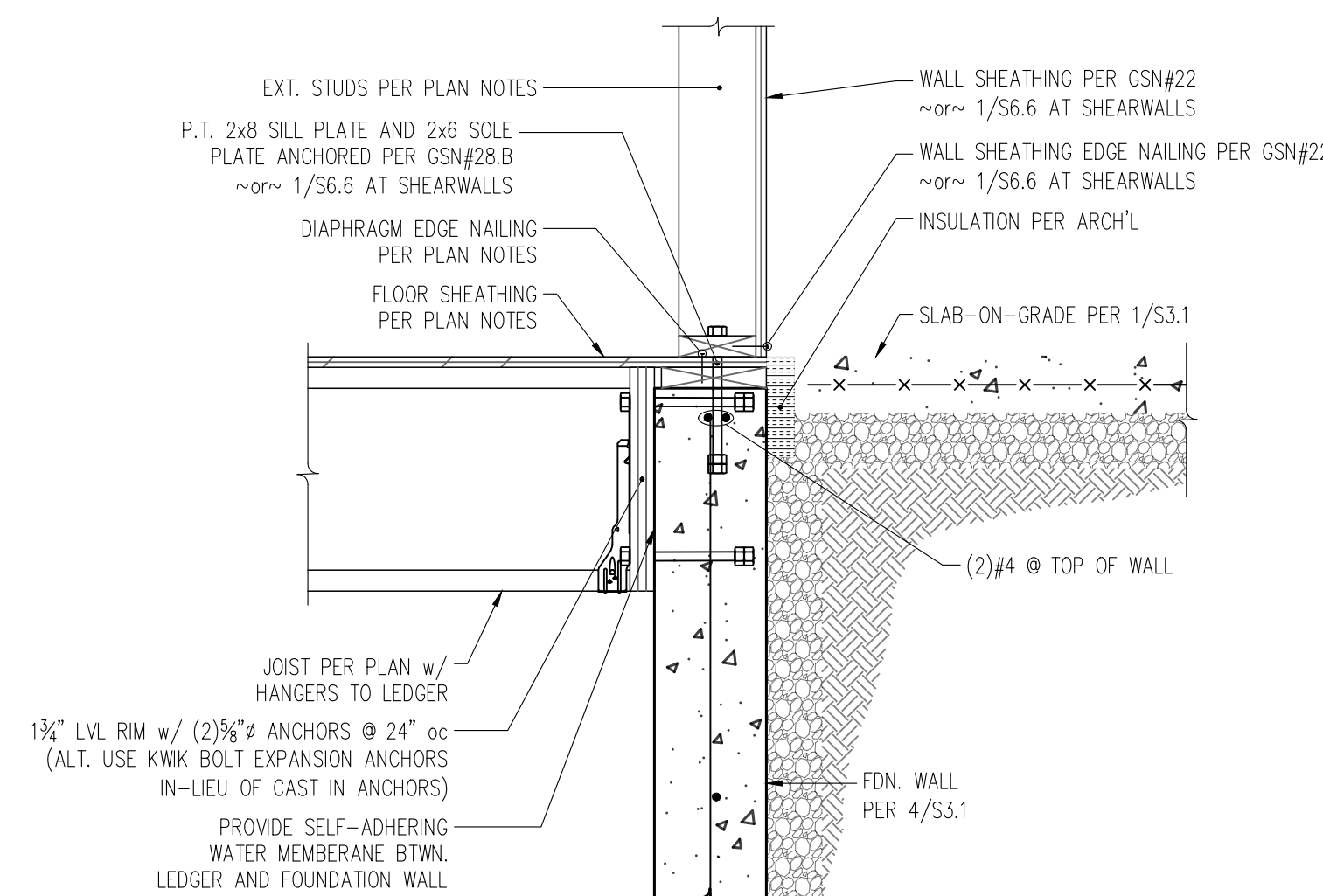
8 SECTION THROUGH EXTERIOR WALL ABOVE BEAM AND PARALLEL JOISTS
S6.2 1" = 1'-0"



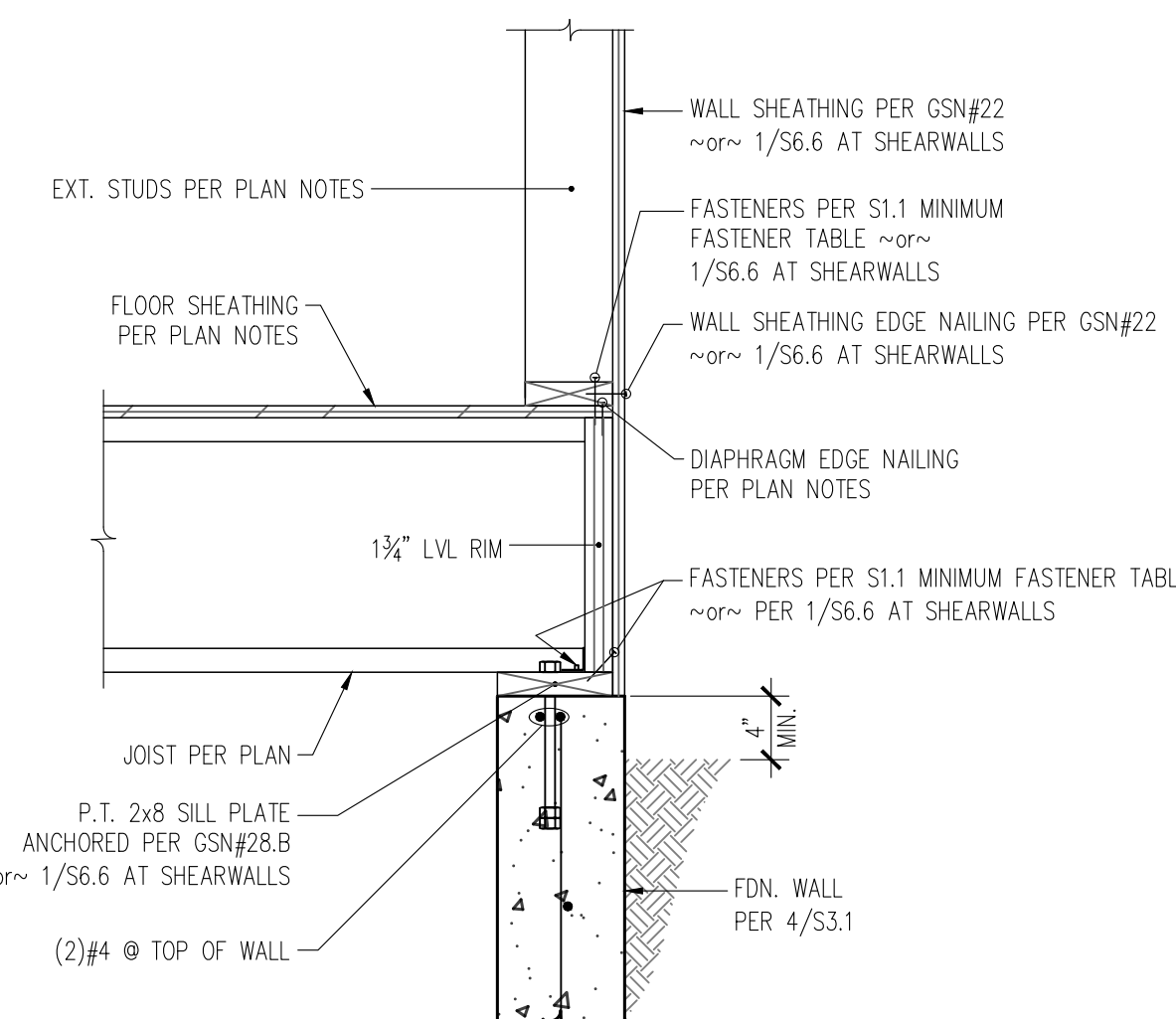
5 SECTION THROUGH FOUNDATION WALL AT PARALLEL JOISTS
S6.2 1" = 1'-0"



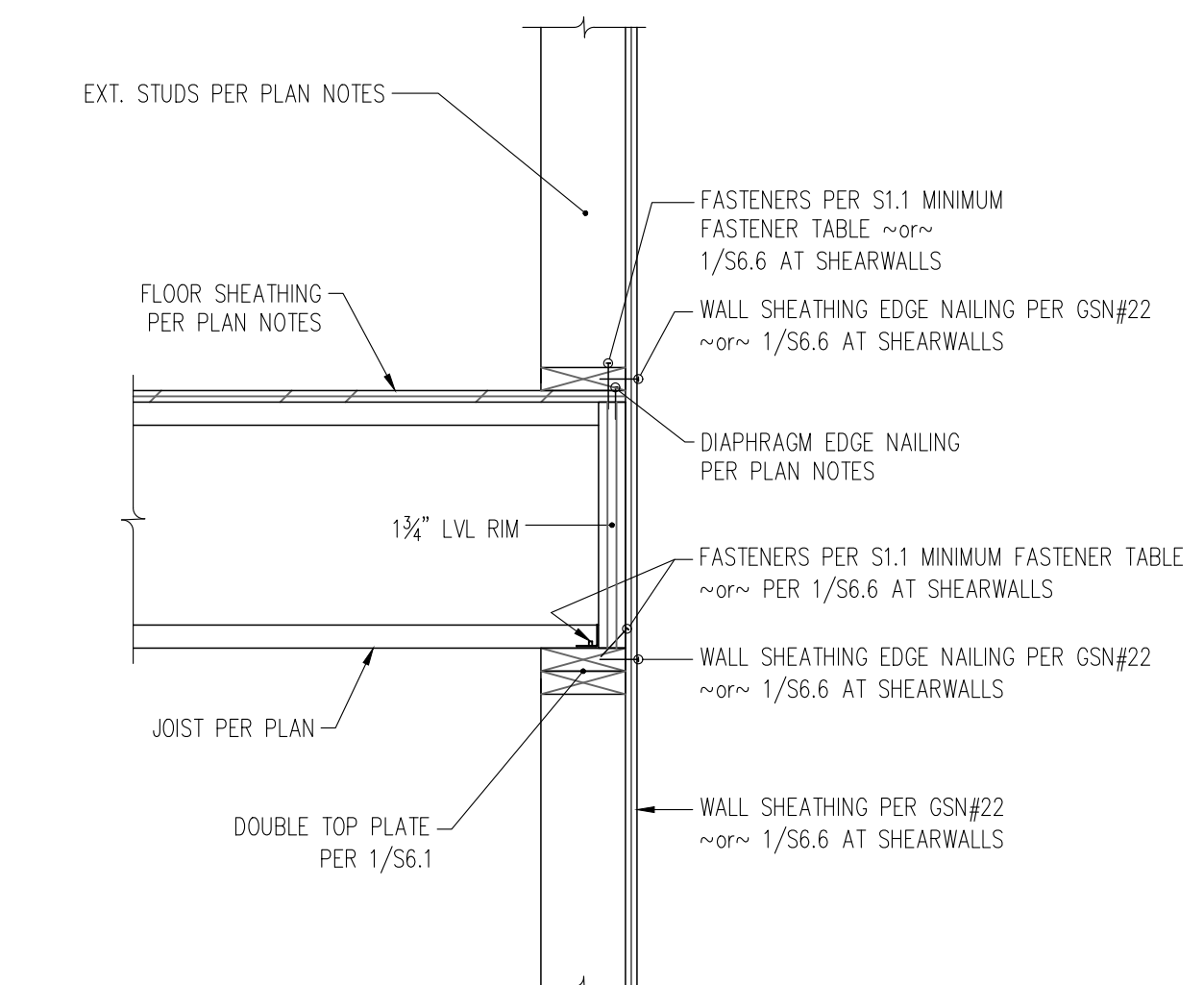
2 SECTION THROUGH EXTERIOR WALL AT PARALLEL JOISTS
S6.2 1" = 1'-0"



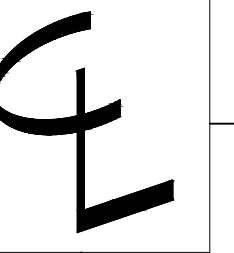
7 SECTION THROUGH FOUNDATION WALL AT PERPENDICULAR JOISTS AND OUTDOOR KITCHEN SLAB
S6.2 1" = 1'-0"



4 SECTION THROUGH FOUNDATION WALL AT PERPENDICULAR JOISTS
S6.2 1" = 1'-0"

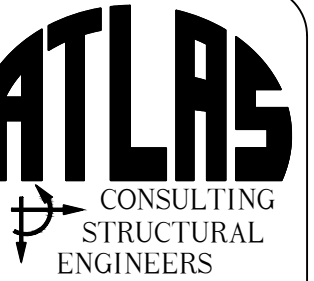


1 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR JOISTS
S6.2 1" = 1'-0"



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706

www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Wood Framing Details

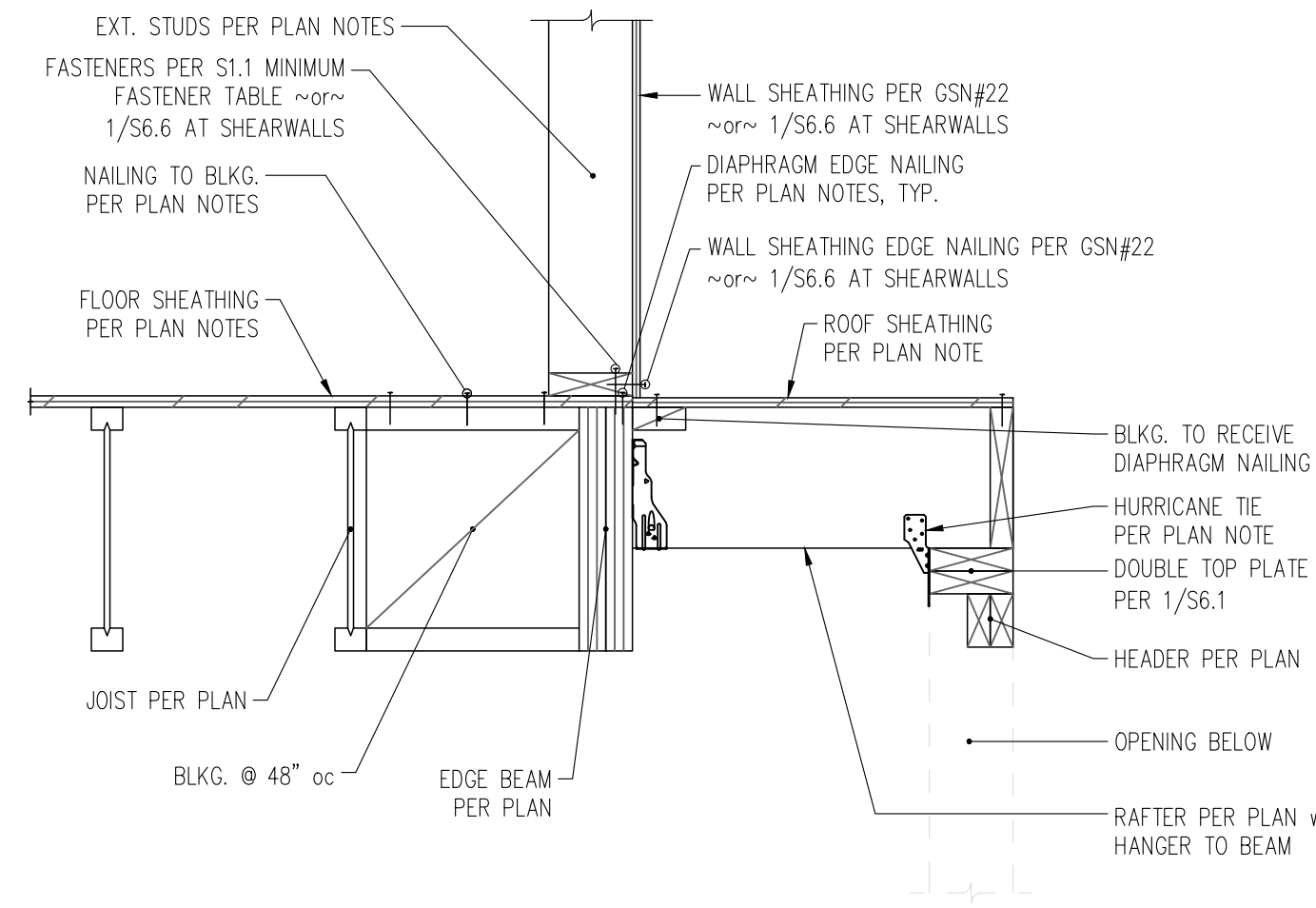
DRAWN BY

JDA

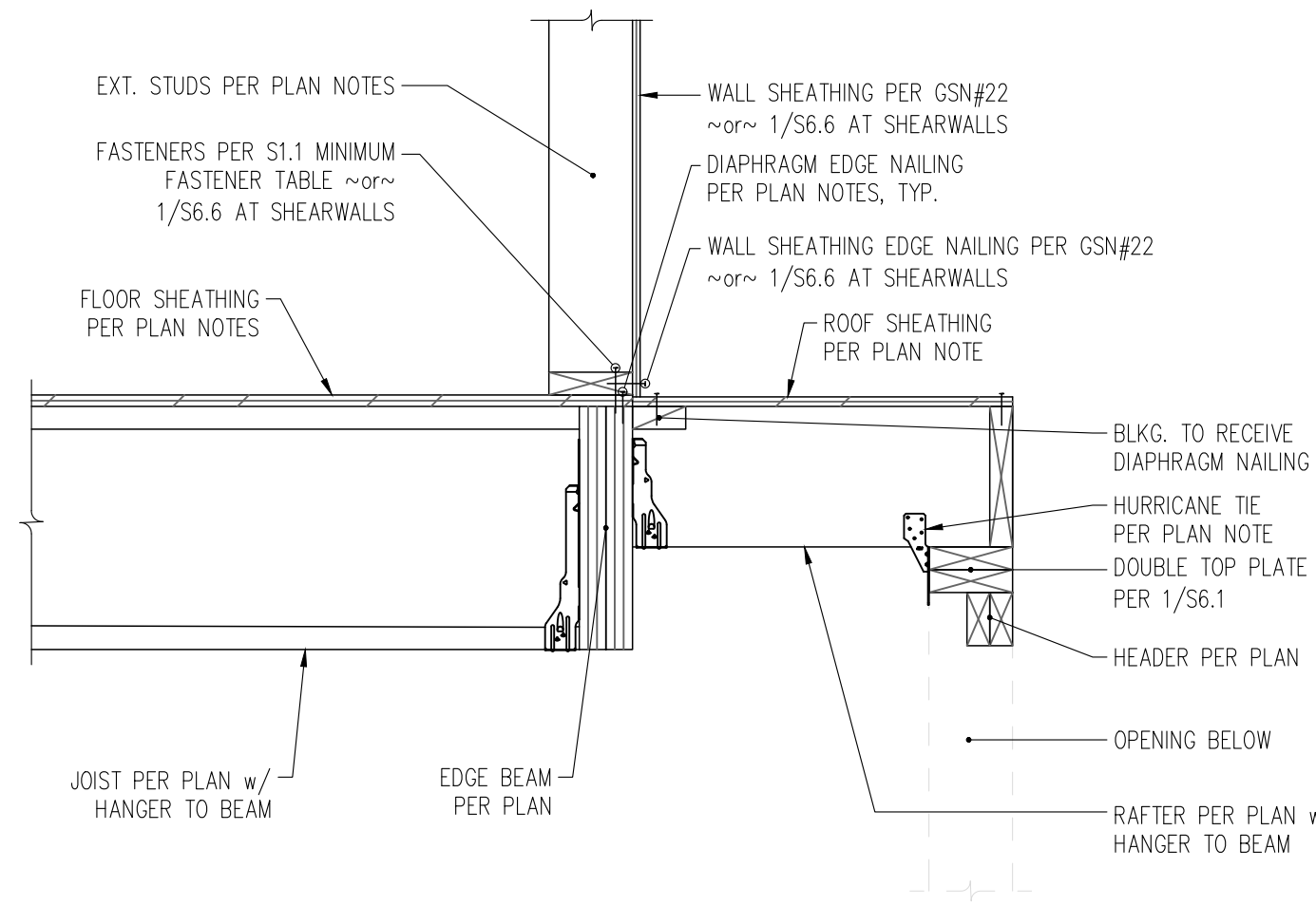
DATE

08.04.2021

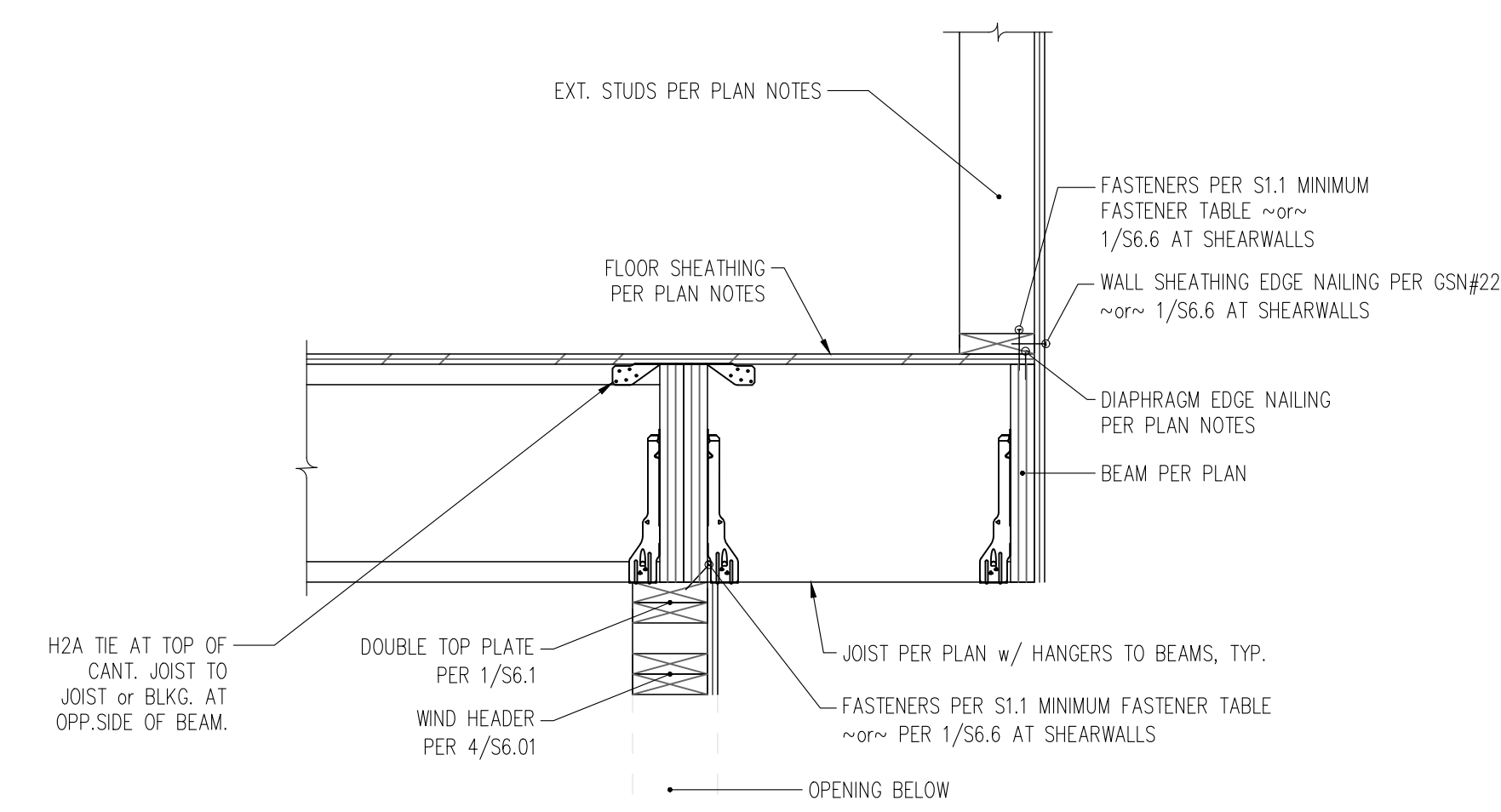
S6.2



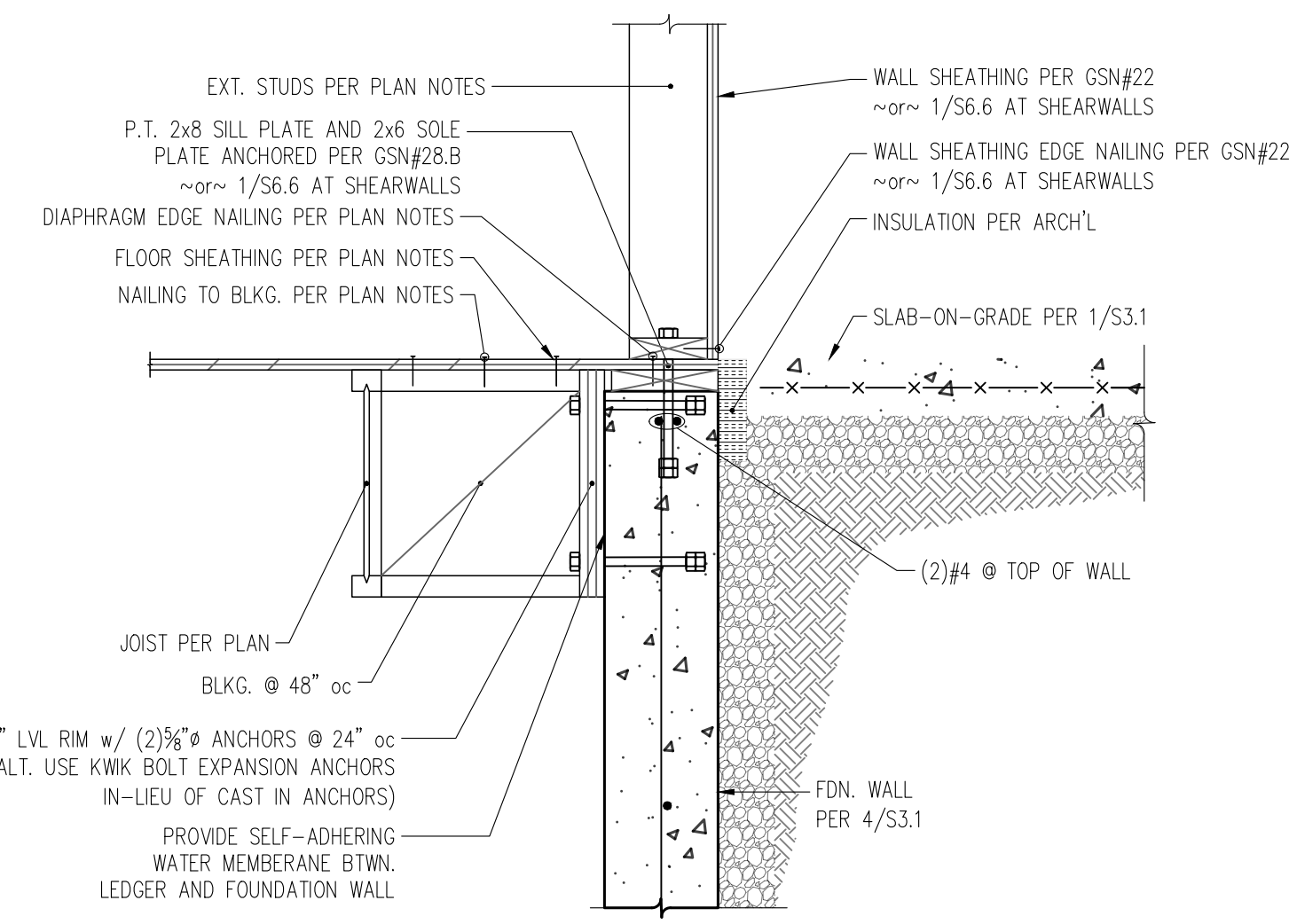
9 SECTION THROUGH EXTERIOR WALL AT EDGE BEAM, PARALLEL JOISTS & PERPENDICULAR RAFTERS
S6.3 1" = 1'-0"



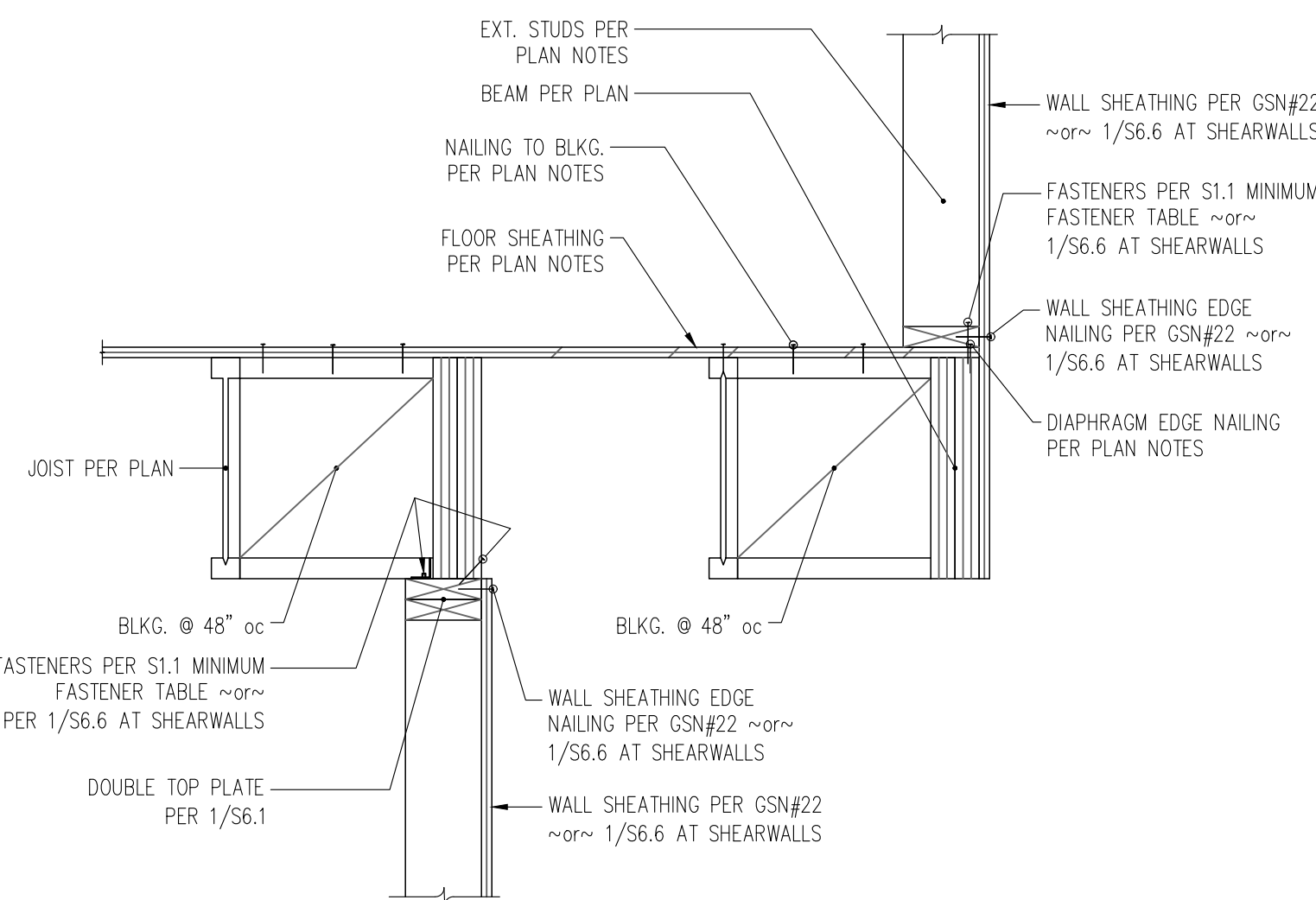
6 SECTION THROUGH EXTERIOR WALL AT EDGE BEAM, PERPENDICULAR JOISTS & RAFTERS
S6.3 1" = 1'-0"



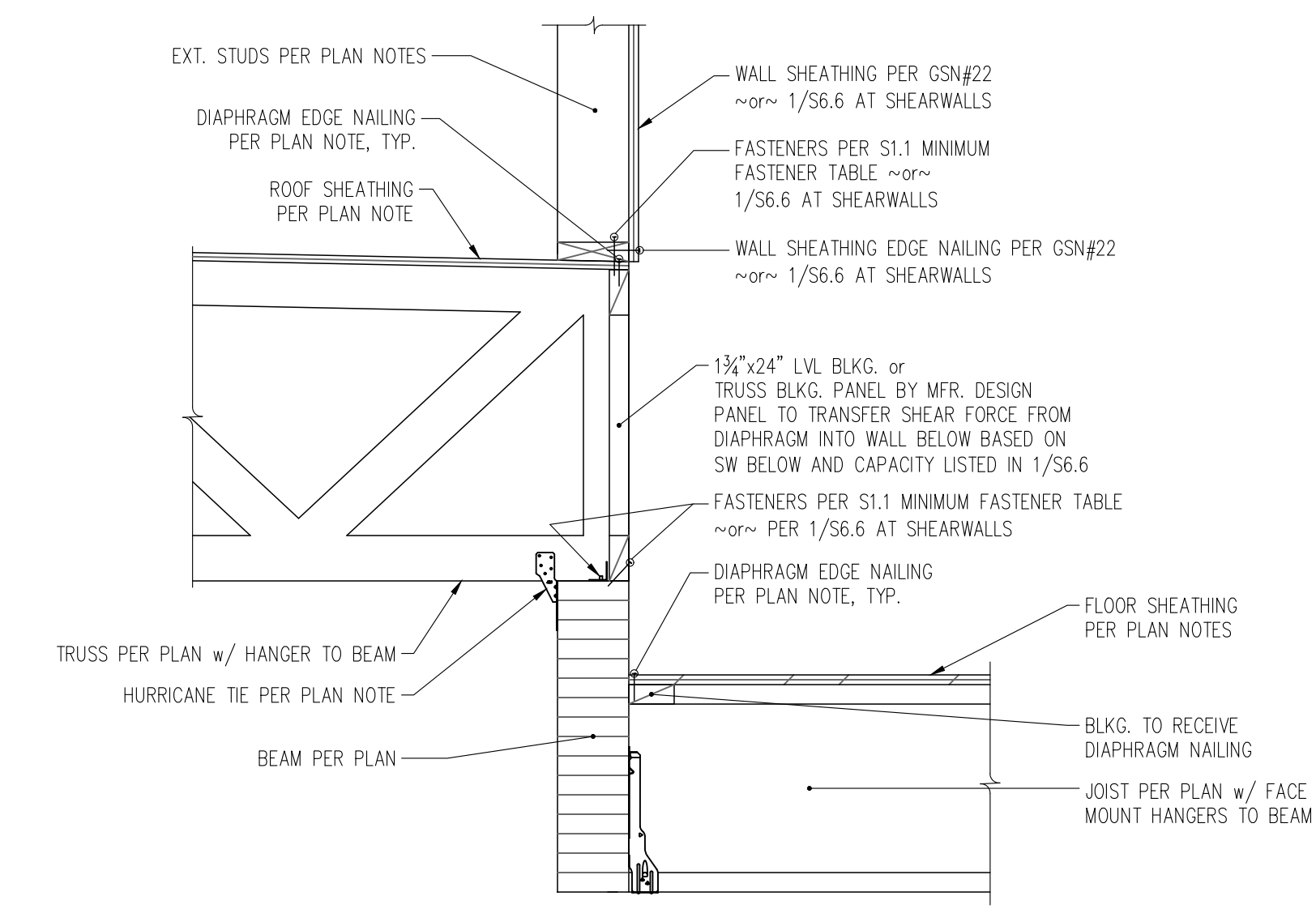
3 SECTION THROUGH CANTILEVERED MAIN FLOOR VOLUME AT PERPENDICULAR JOISTS
S6.3 1" = 1'-0"



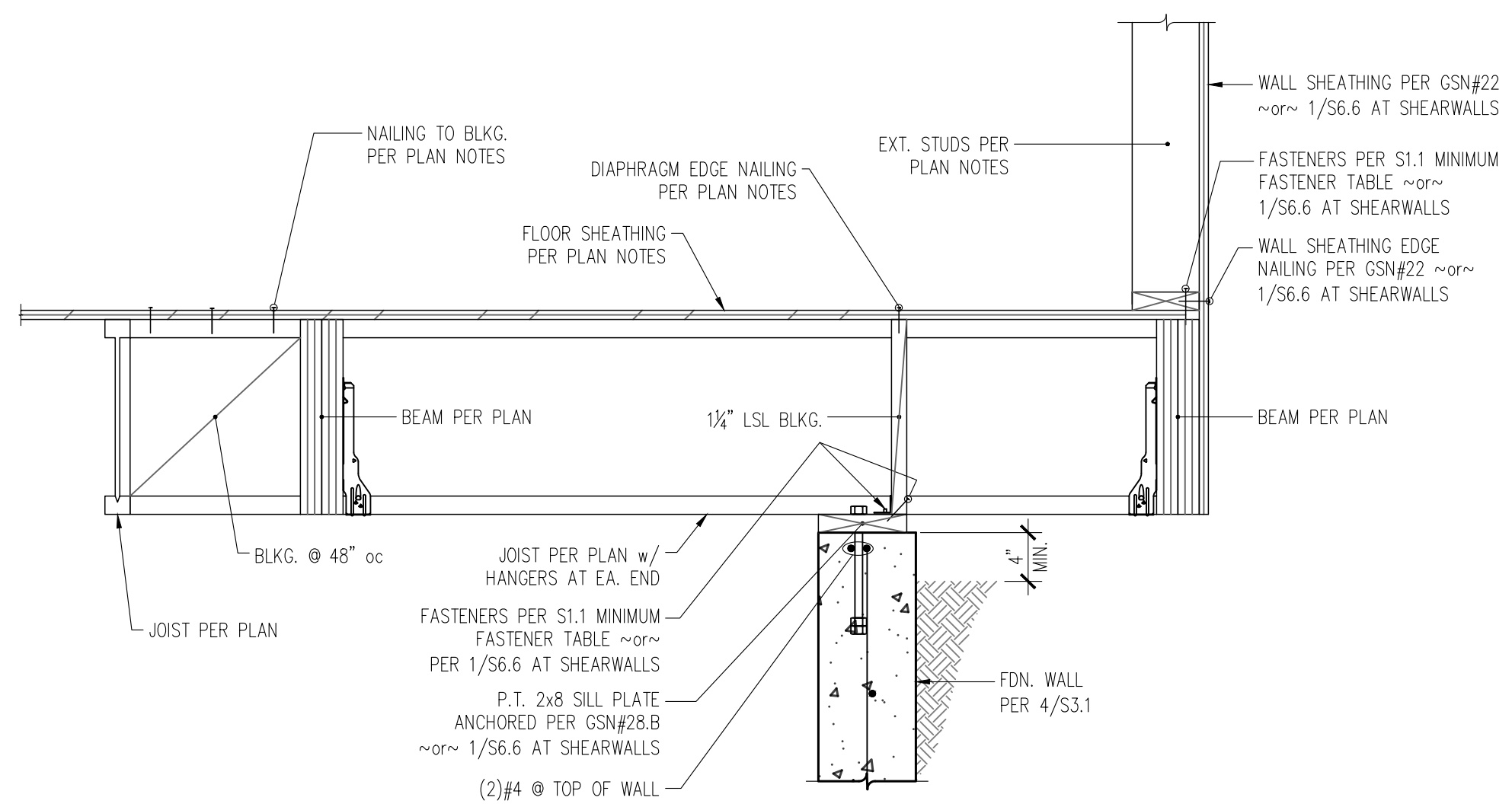
8 SECTION THROUGH FOUNDATION WALL AT PARALLEL JOISTS AND OUTDOOR KITCHEN SLAB
S6.3 1" = 1'-0"



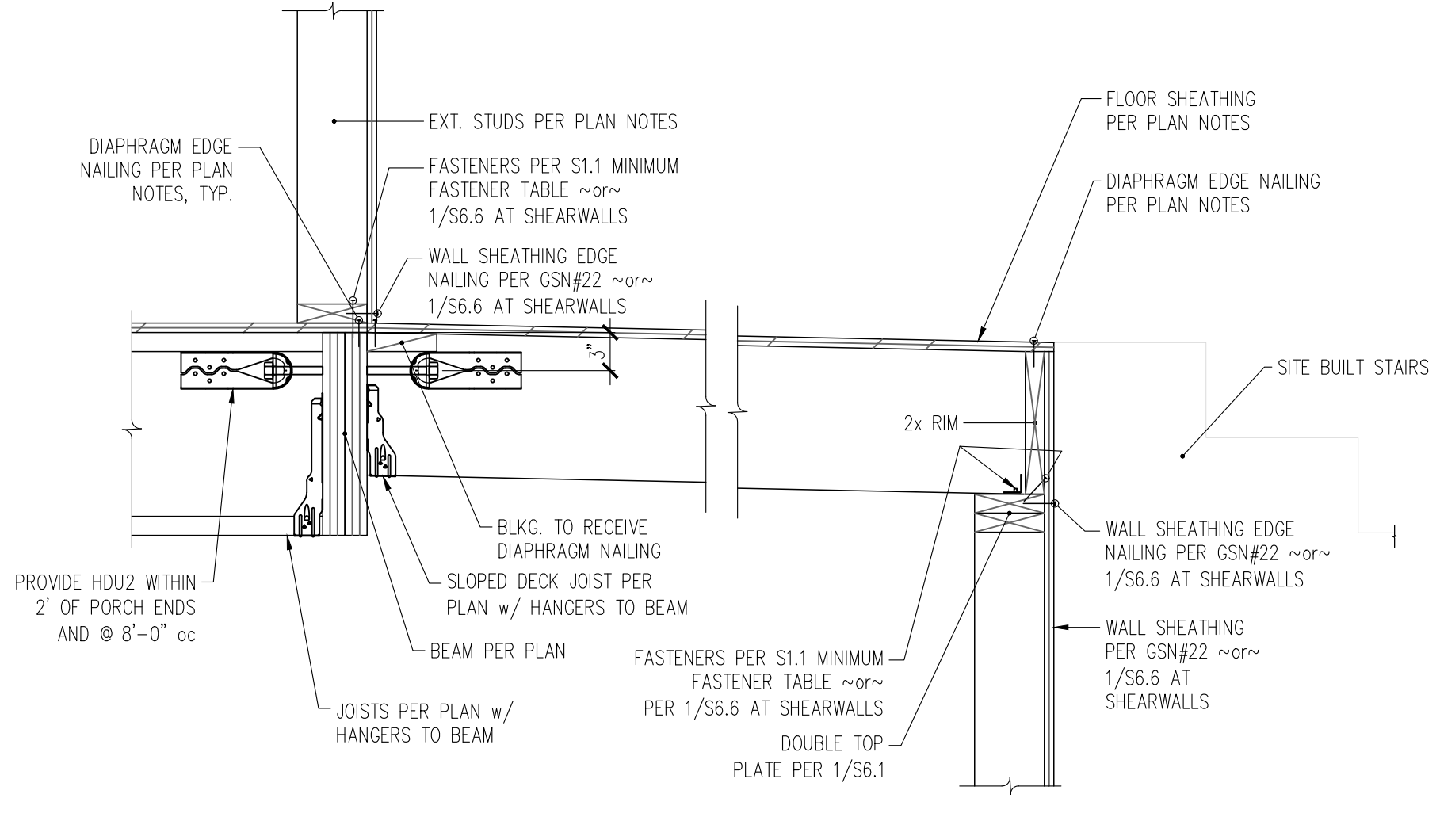
5 SECTION THROUGH CANTILEVERED JOISTS AND OFFSET WALL
S6.3 1" = 1'-0"



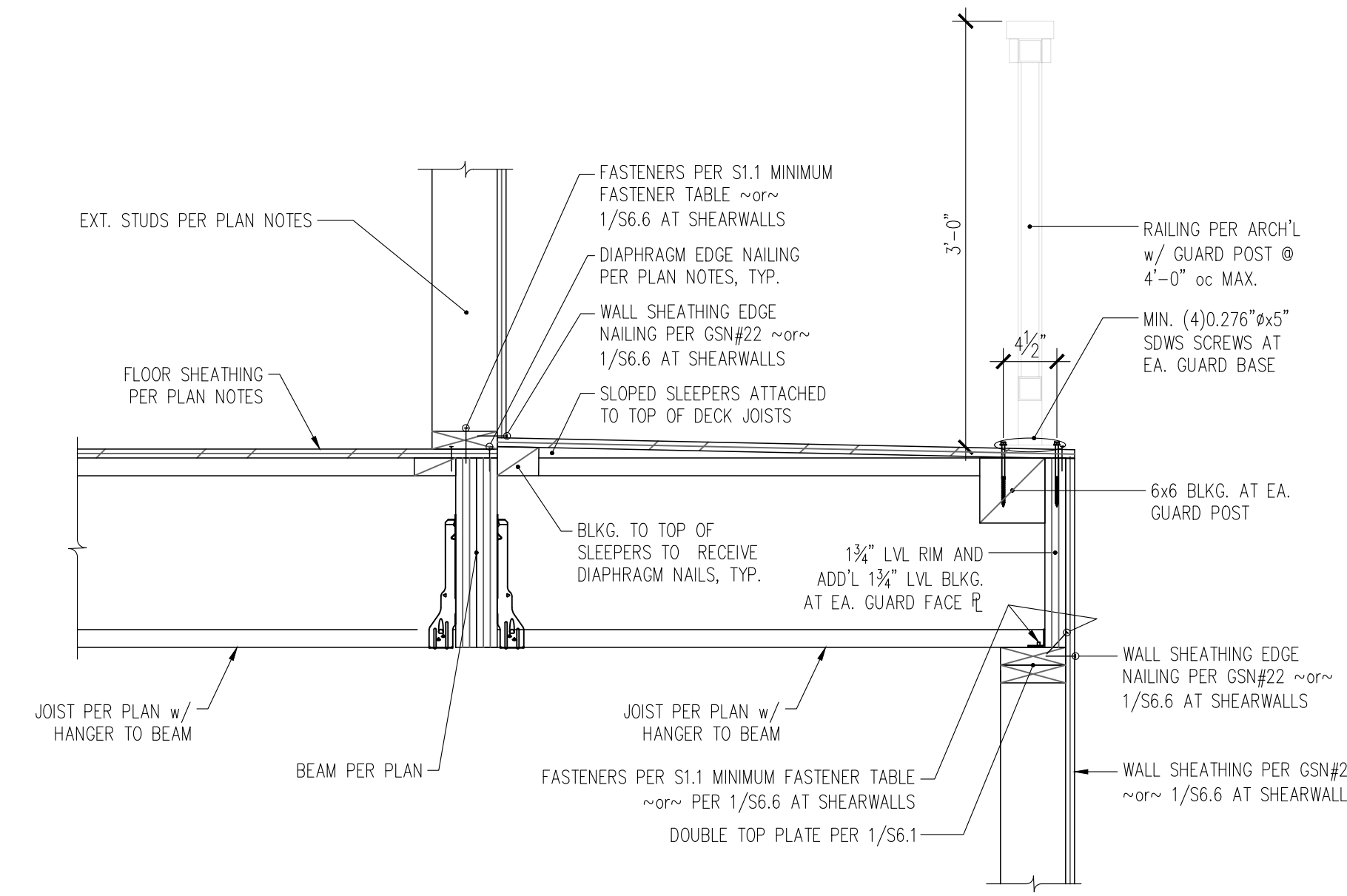
2 SECTION THROUGH ROOF BEAM AT PERPENDICULAR ROOF TRUSSES AND FLOOR JOISTS
S6.3 1" = 1'-0"



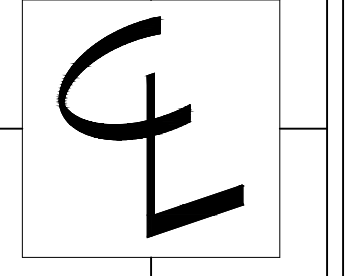
7 SECTION AT CANTILEVERED JOISTS ABOVE FOUNDATION WALL
S6.3 1" = 1'-0"



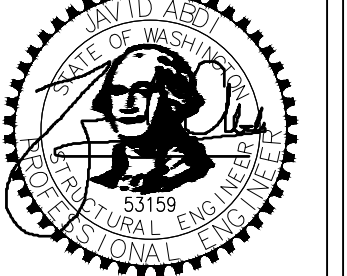
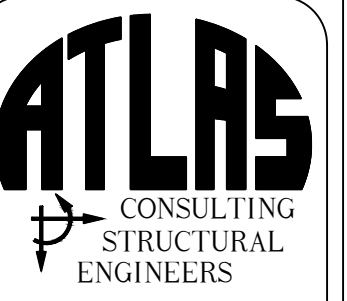
4 SECTION THROUGH PORCH AT PERPENDICULAR JOISTS
S6.3 1" = 1'-0"



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



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706
www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Wood Framing Details

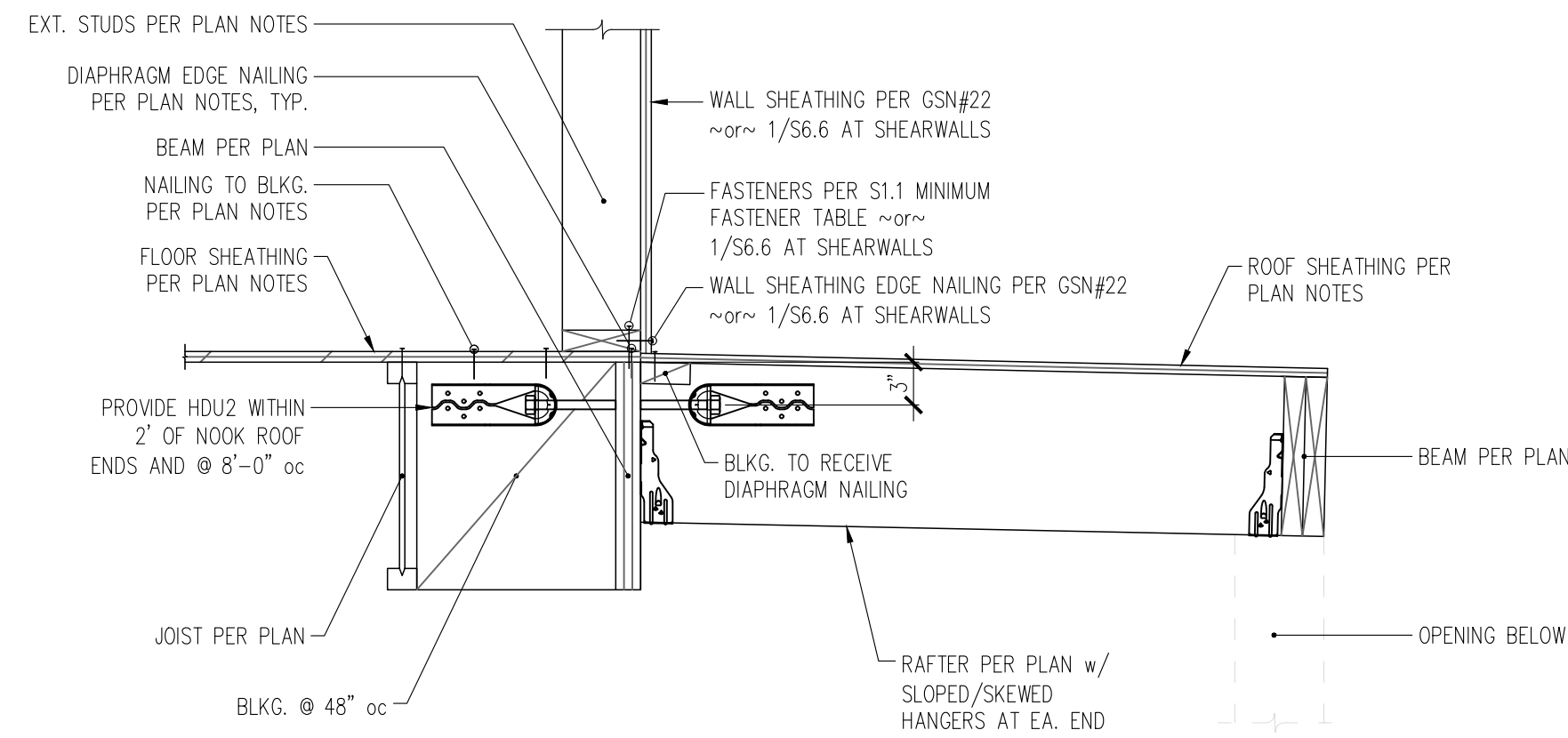
DRAWN BY

JDA

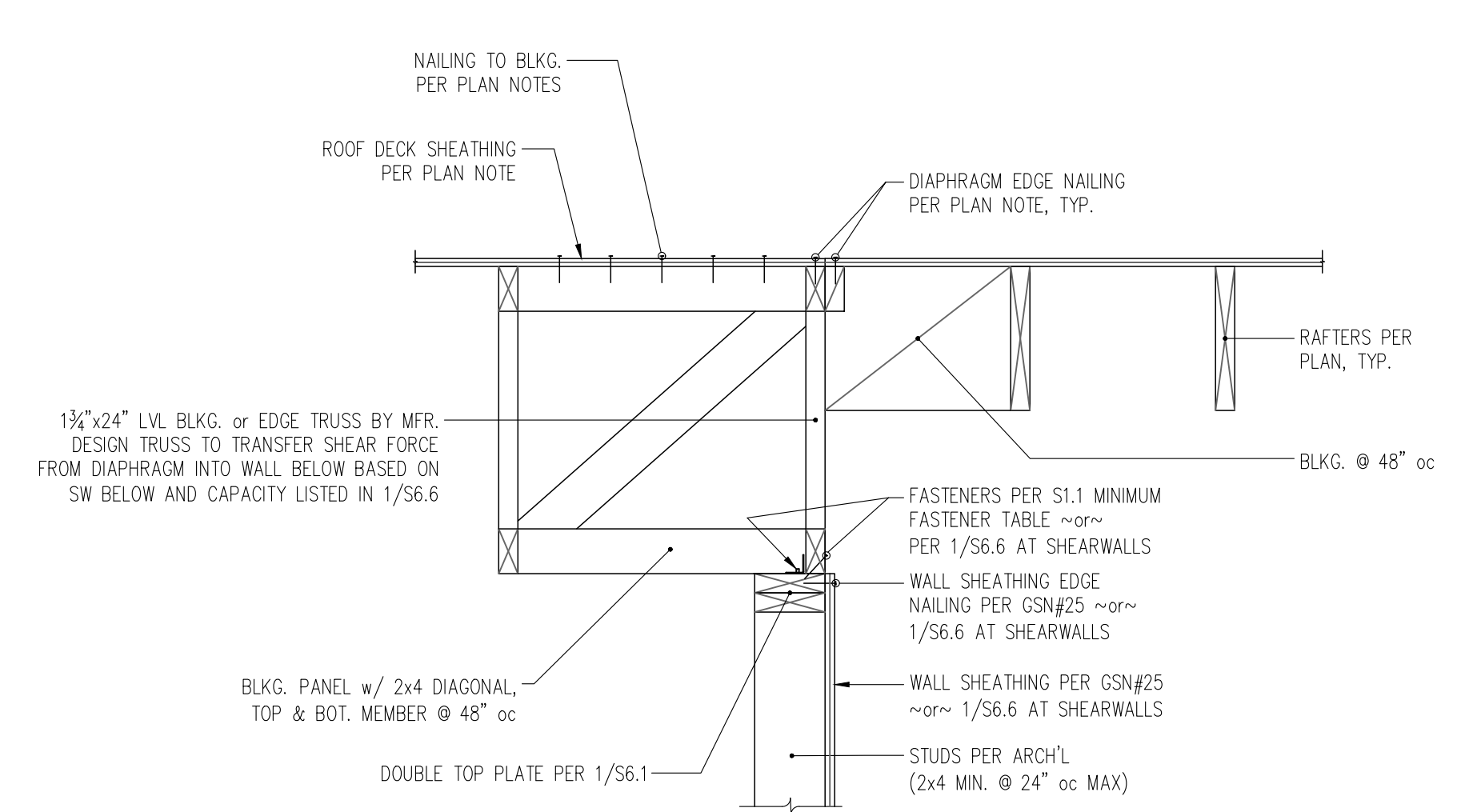
DATE

08.04.2021

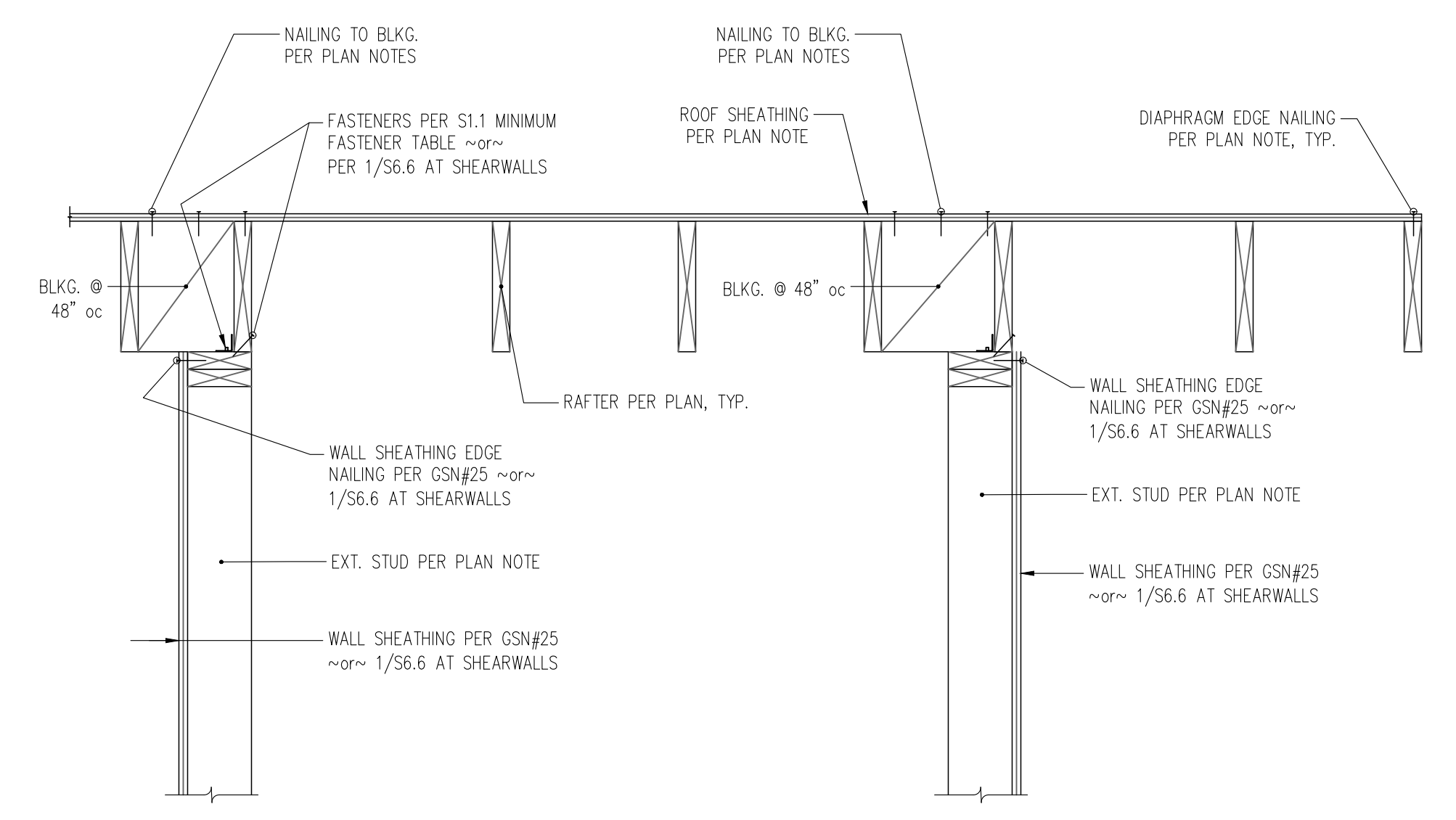
S6.3



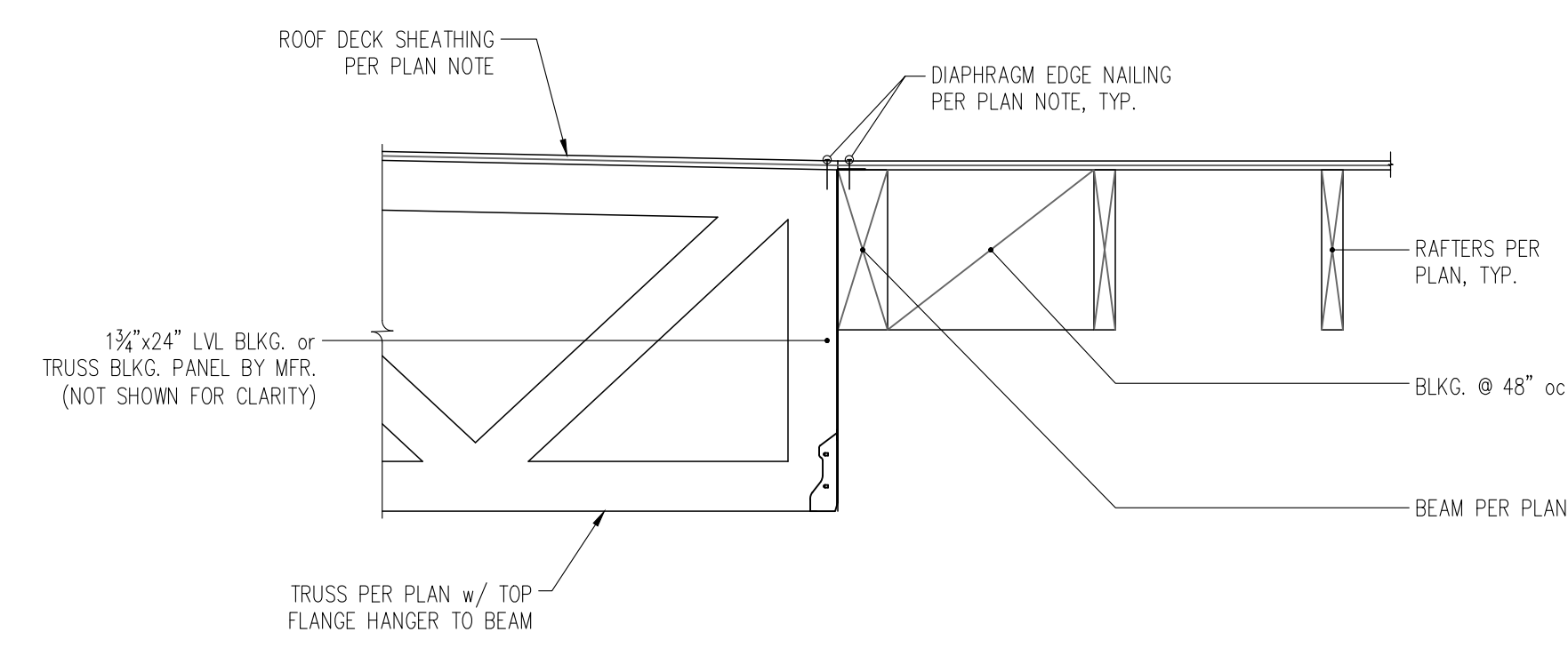
9 SECTION THROUGH NOOK ROOF
S6.4 1" = 1'-0"



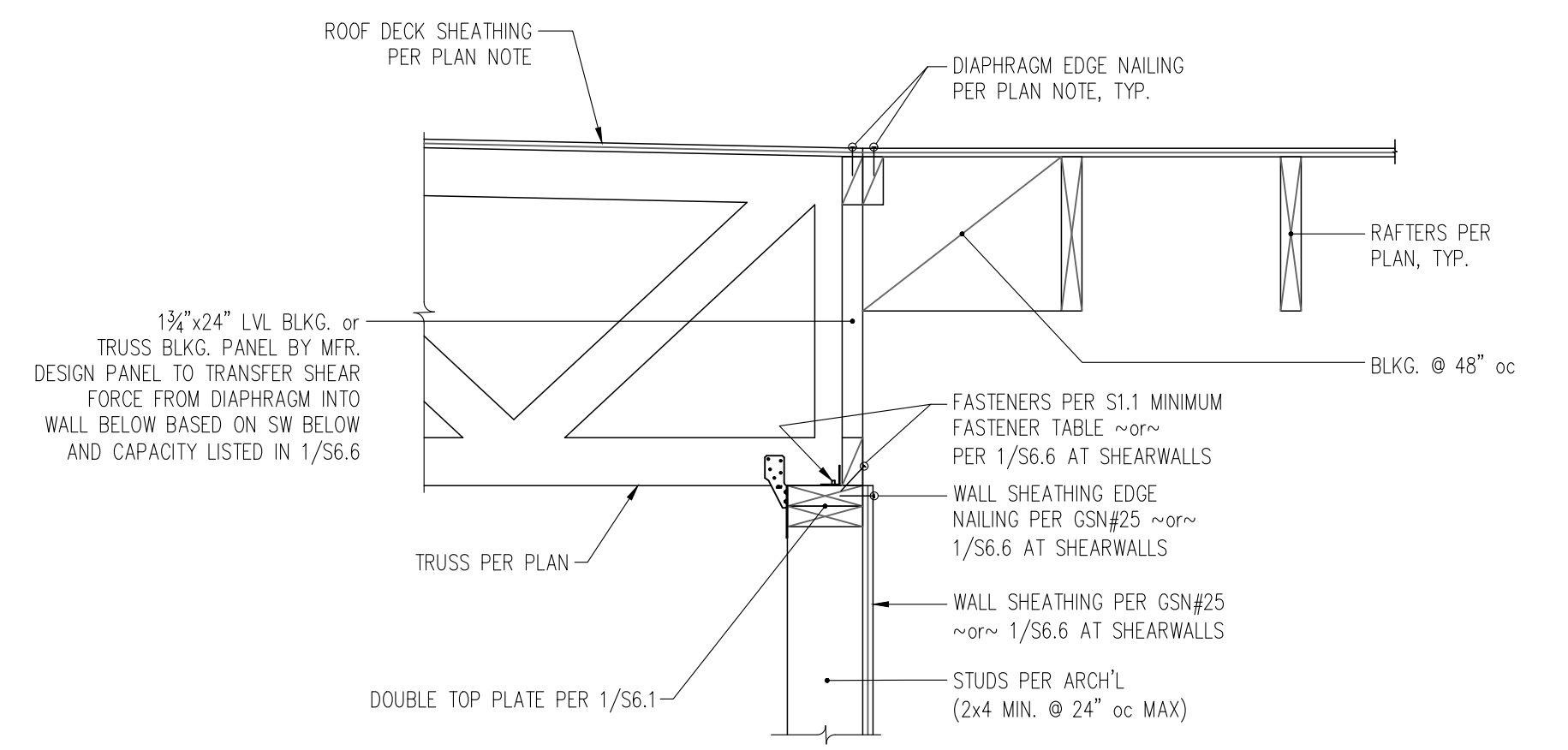
6 SECTION THROUGH INTERIOR WALL AT PARALLEL TRUSSES & PARALLEL RAFTERS
S6.4 1" = 1'-0"



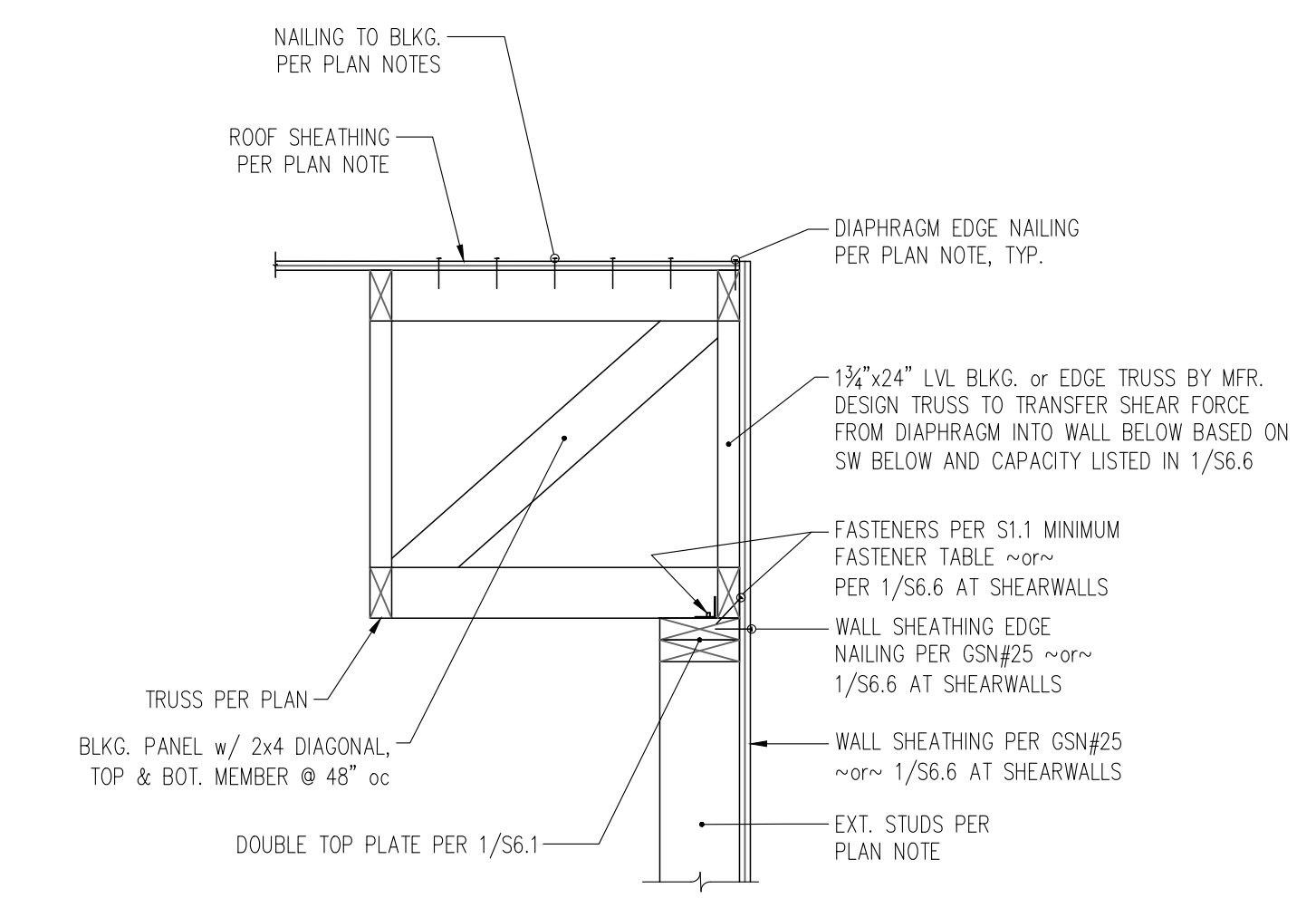
3 SECTION THROUGH DIMENSIONAL LUMBER CANTILEVERED LOW ROOF VOLUME
S6.4 1" = 1'-0"



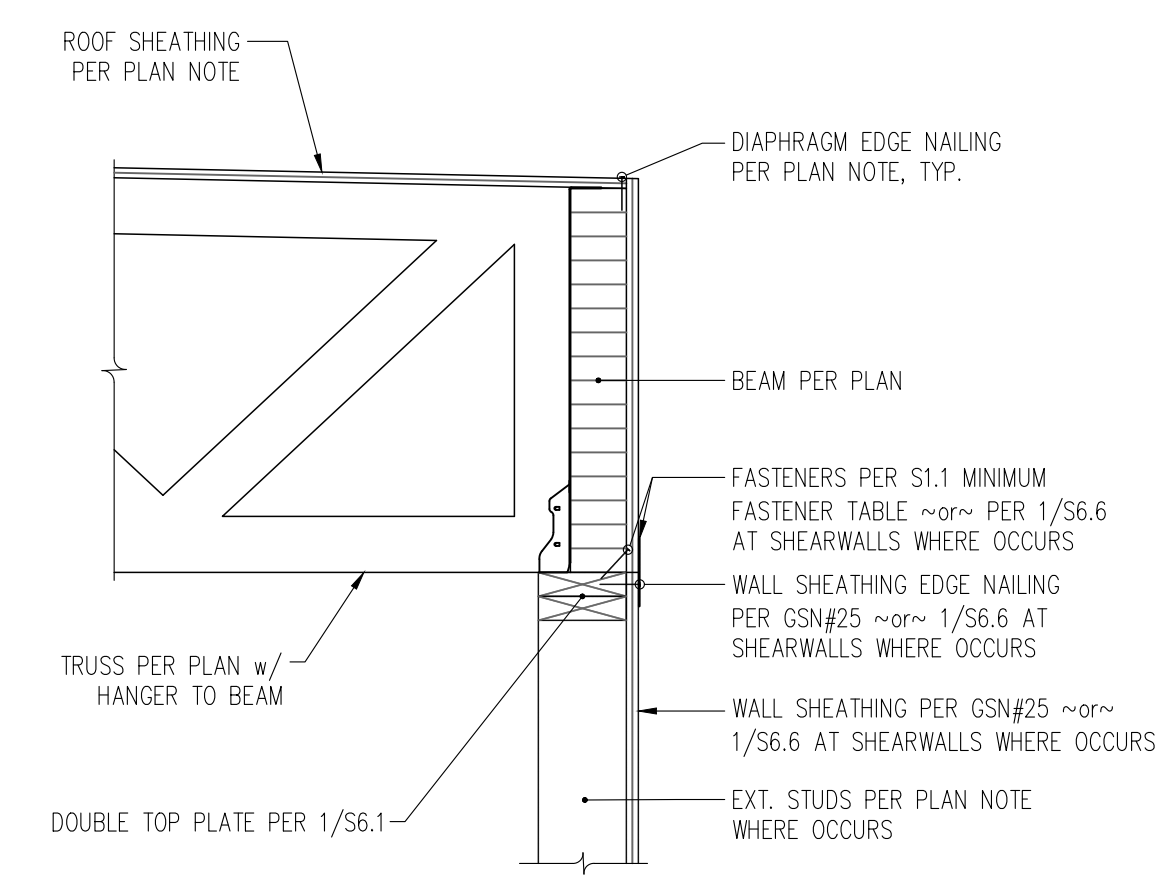
8 SECTION THROUGH INTERIOR WALL AT PERPENDICULAR TRUSSES & PARALLEL RAFTERS
S6.4 1" = 1'-0"



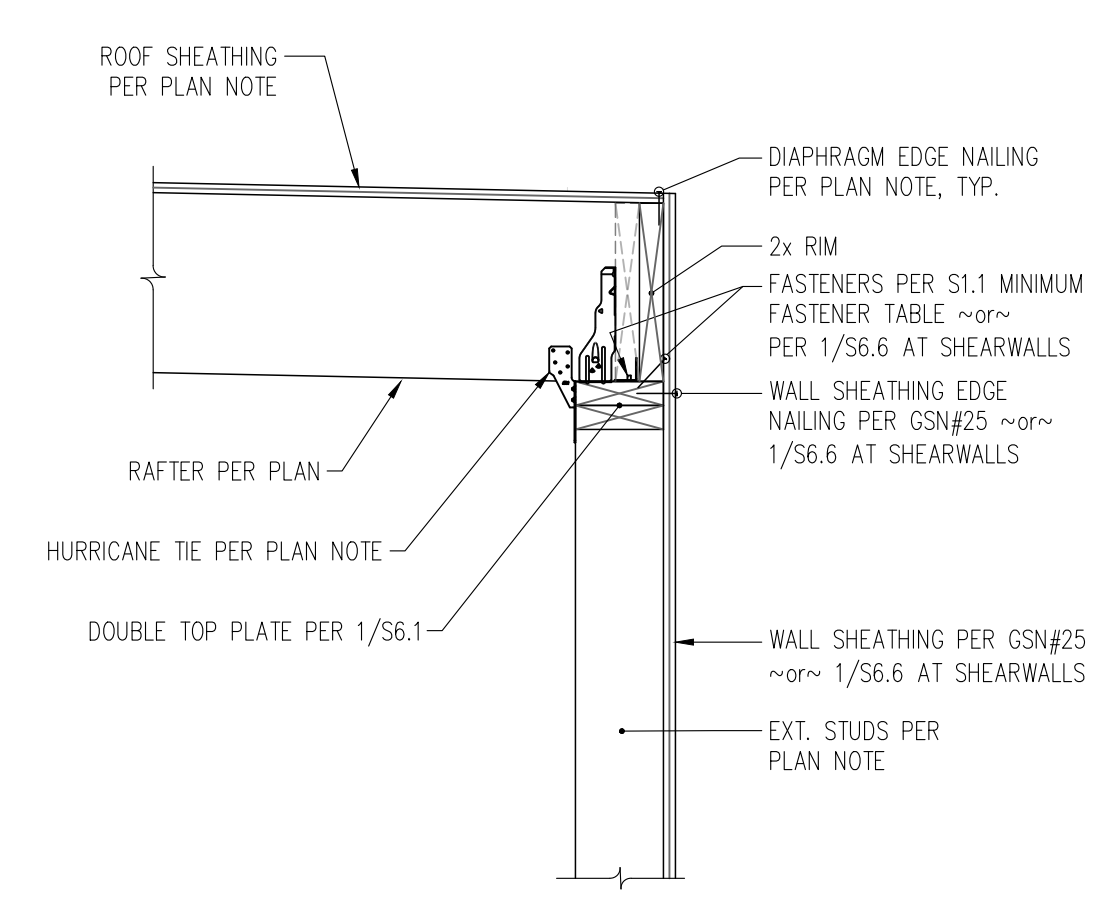
5 SECTION THROUGH INTERIOR WALL AT PERPENDICULAR TRUSSES & PARALLEL RAFTERS
S6.4 1" = 1'-0"



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

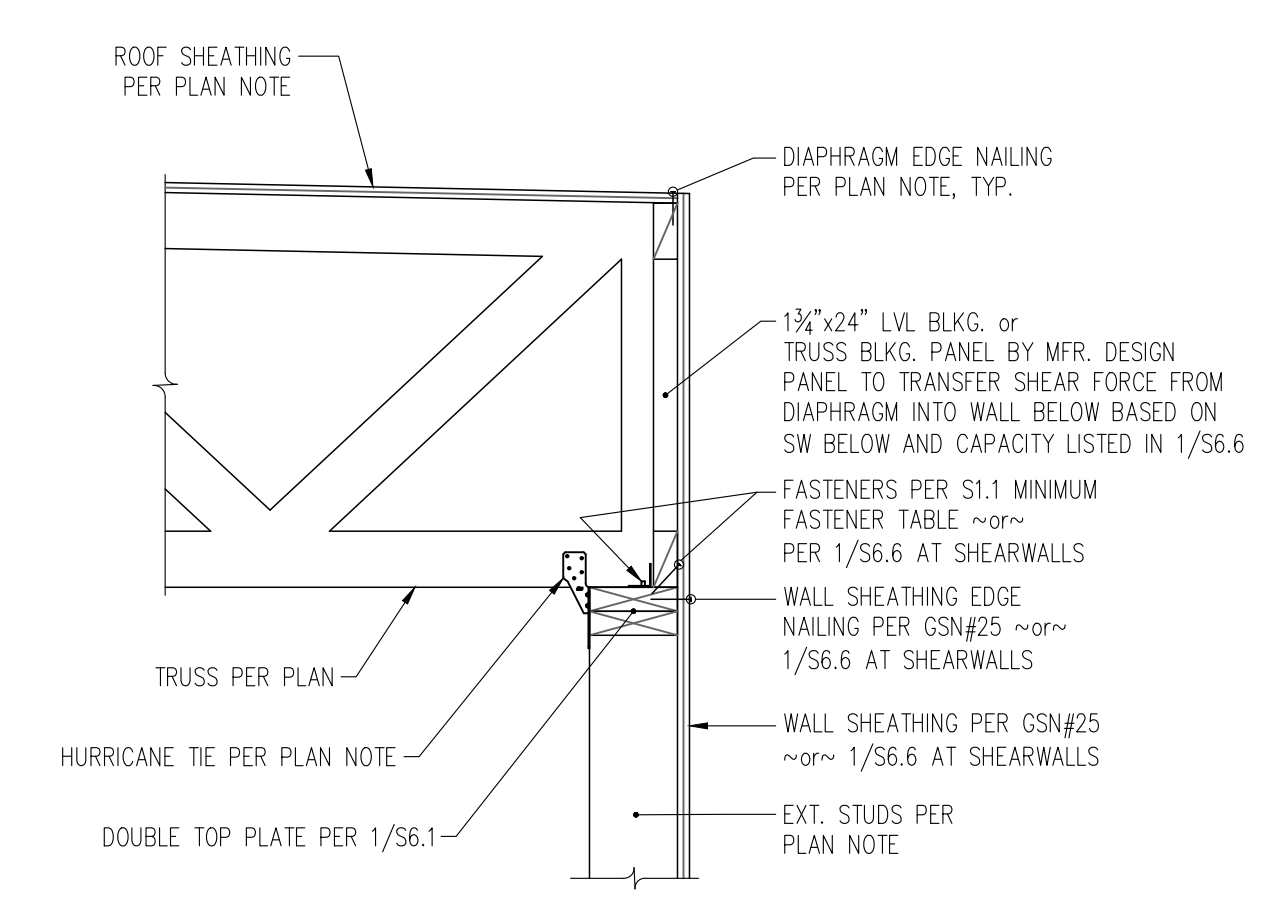


7 SECTION AT CANTILEVERED EDGE BEAM AND PERPENDICULAR ROOF TRUSSES
S6.4 1" = 1'-0"

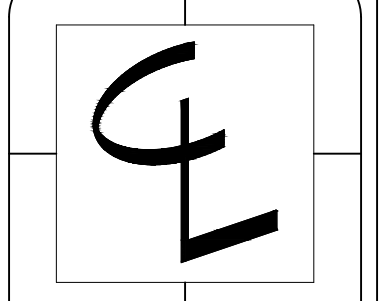


4 SECTION THROUGH EXTERIOR WALL AT PERPENDICULAR RAFTERS
S6.4 1" = 1'-0"

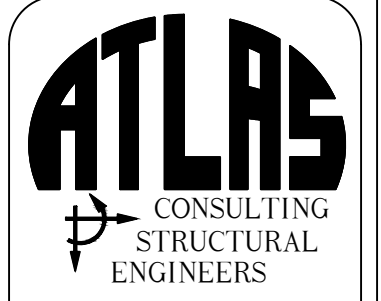
PROVIDE FLUSH BEAM PER PLAN AND SLOPED HANGERS FROM RAFTER AT OPENINGS BELOW



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



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706
www.Centerline-Design.com

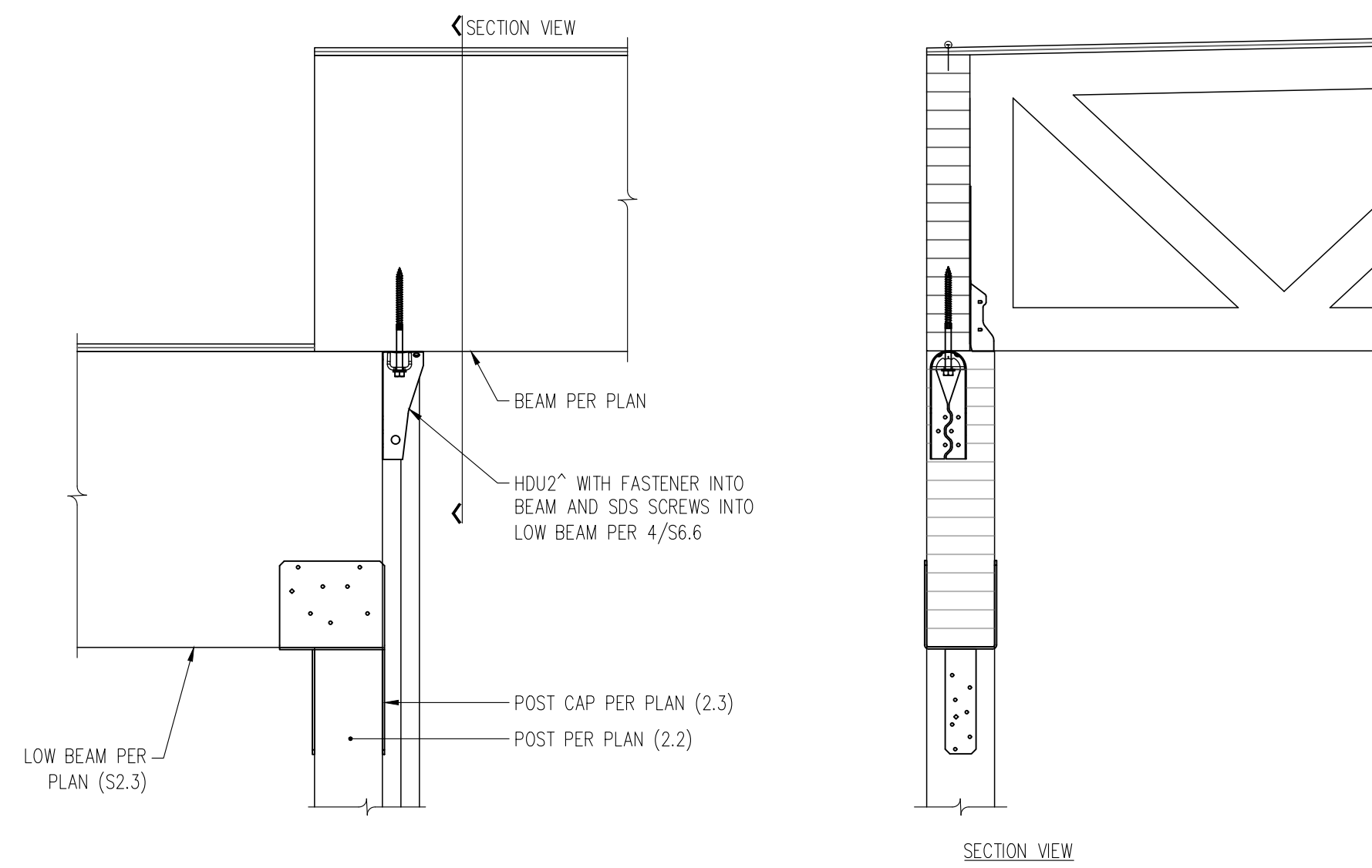


Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

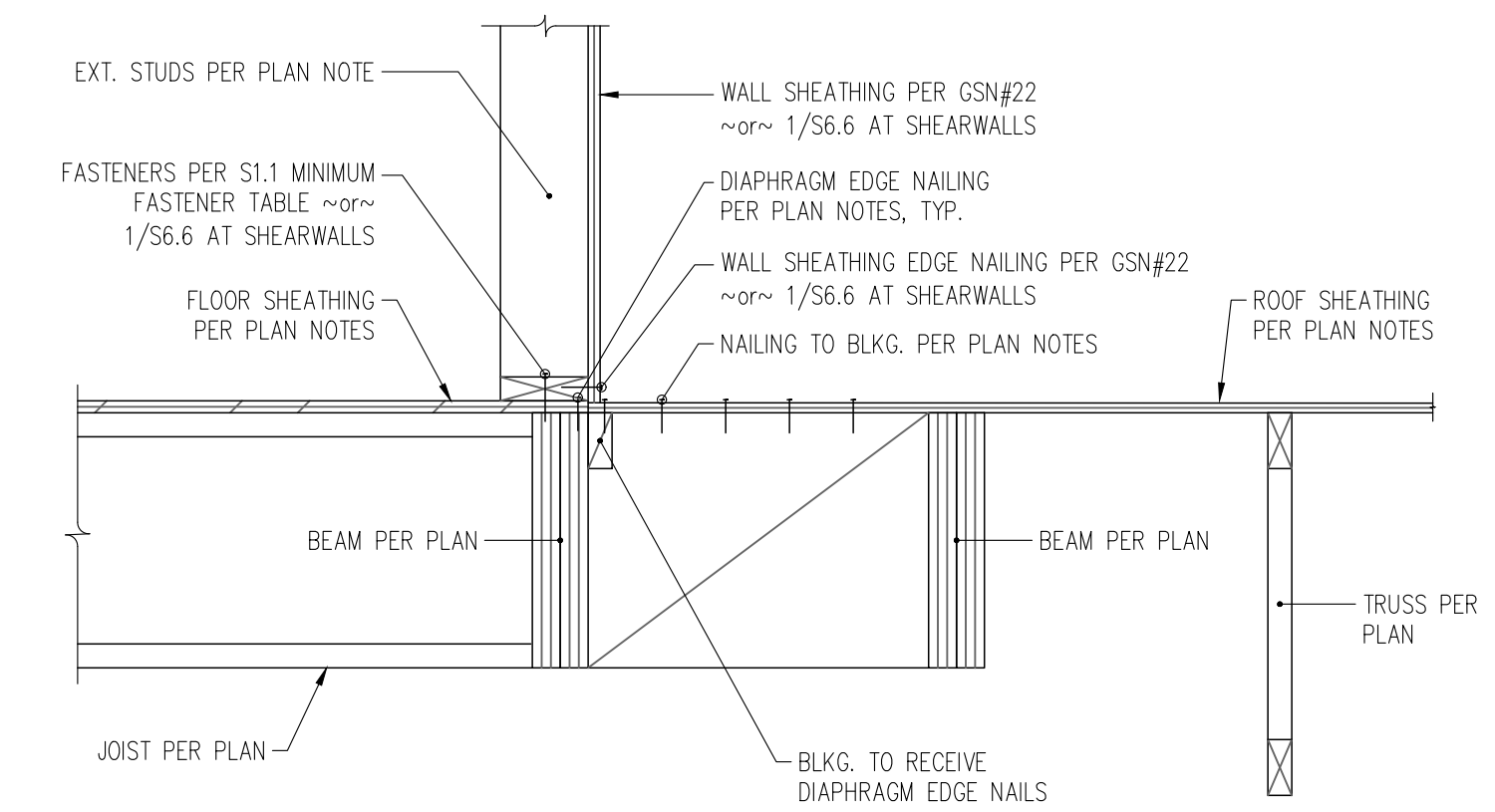
CONTENTS
Wood Framing Details

DRAWN BY
JDA
DATE
08.04.2021

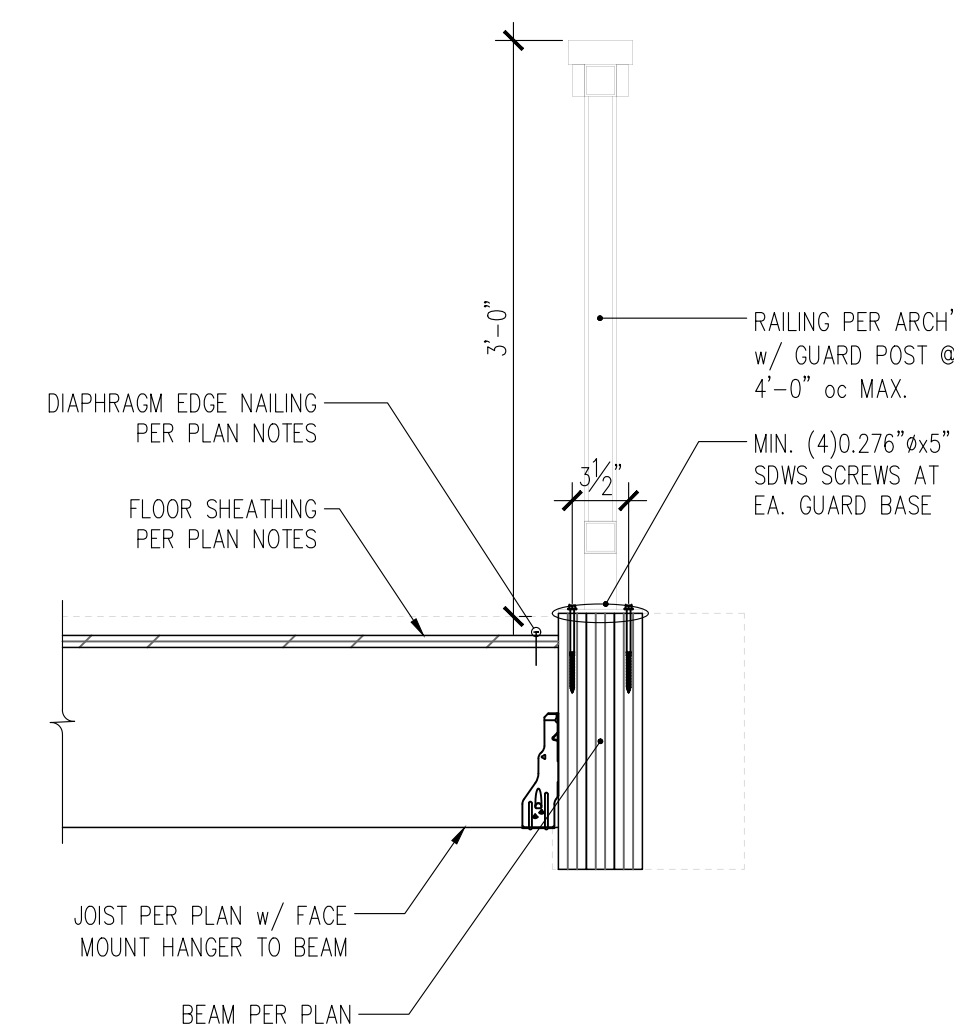
S6.4



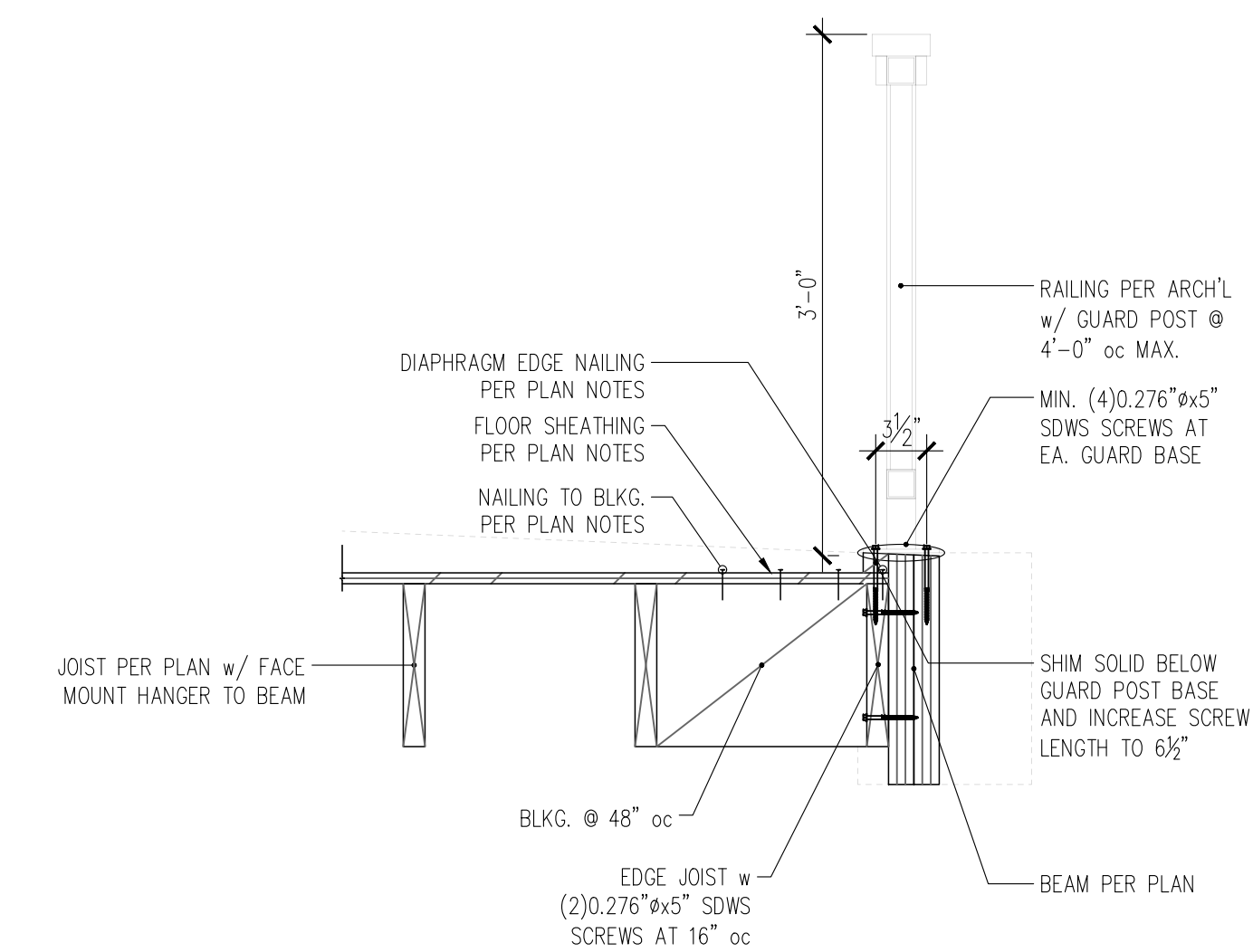
6 SECTION AT EXTERIOR WALL ABOVE BEAM, PERPENDICULAR JOISTS, AND PARALLEL ROOF TRUSSES
S6.5



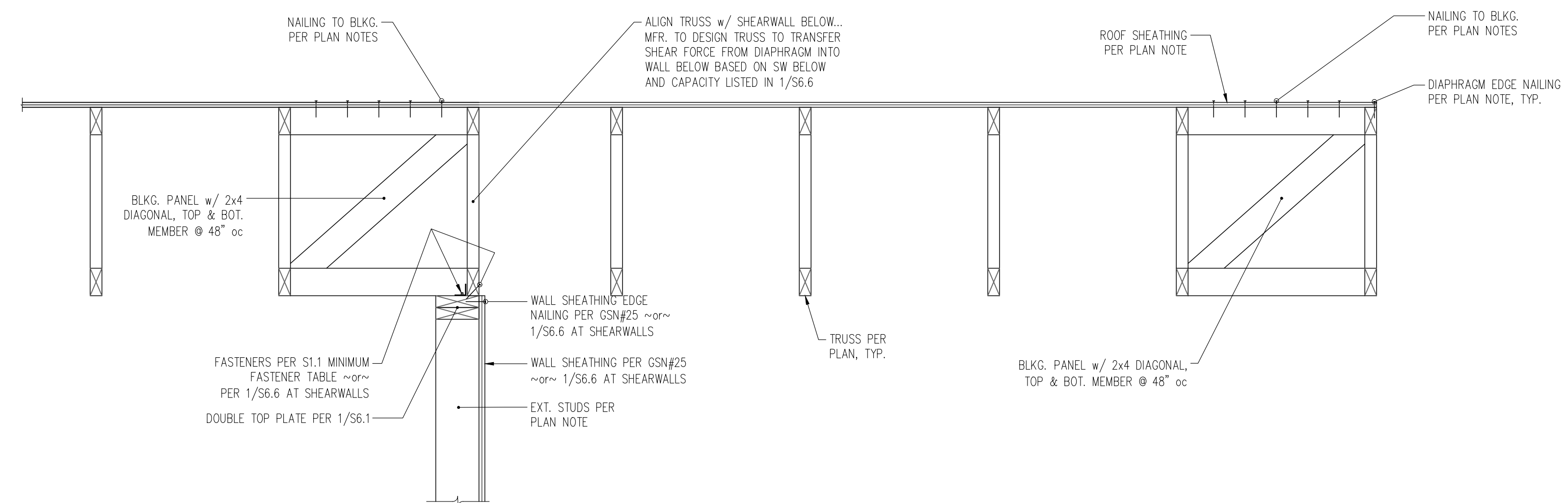
3 SECTION AT EXTERIOR WALL ABOVE BEAM, PERPENDICULAR JOISTS, AND PARALLEL ROOF TRUSSES
S6.5



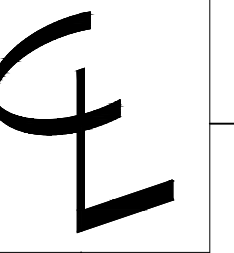
5 SECTION THROUGH EDGE OF BALCONY AT PERPENDICULAR JOISTS AND EXTERIOR WALL ABOVE
S6.5



2 SECTION AT EDGE OF BALCONY AND PARALLEL JOISTS
S6.5

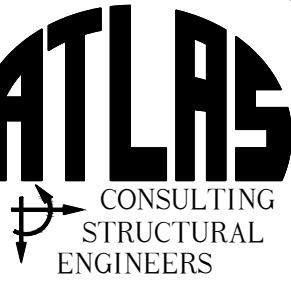


4 SECTION THROUGH TRUSS CANTILEVERED LOW ROOF VOLUME
S6.5 1\"/>



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706

www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Wood Framing Details

DRAWN BY

JDA

DATE

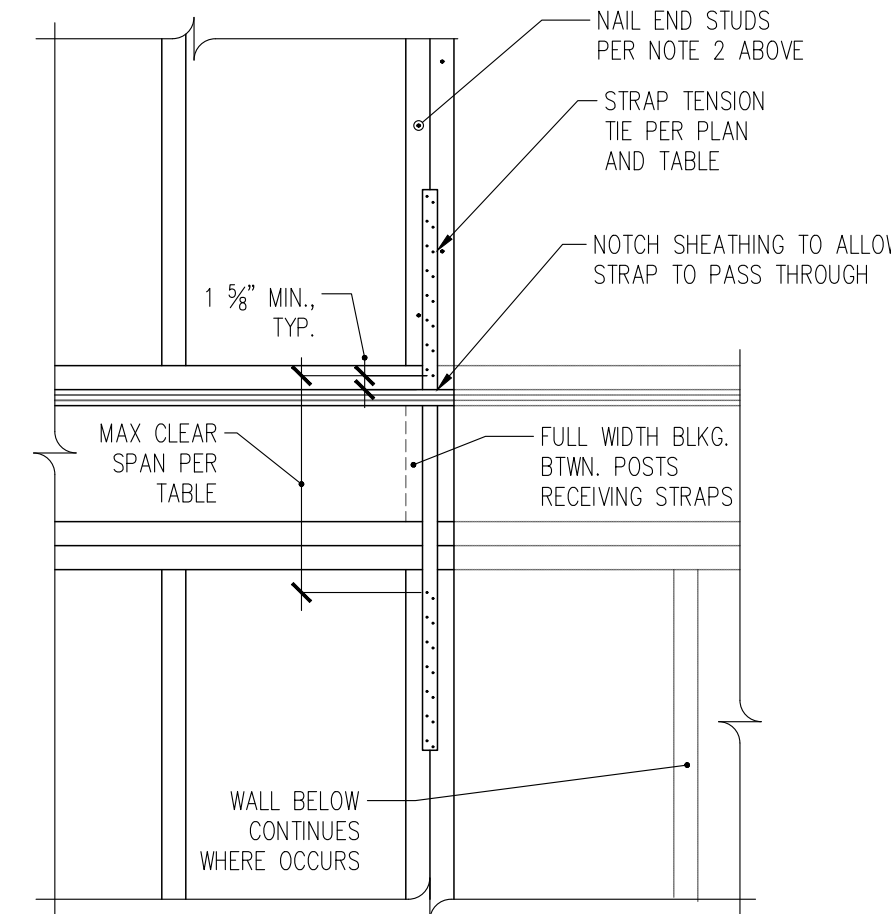
08.04.2021

S6.5

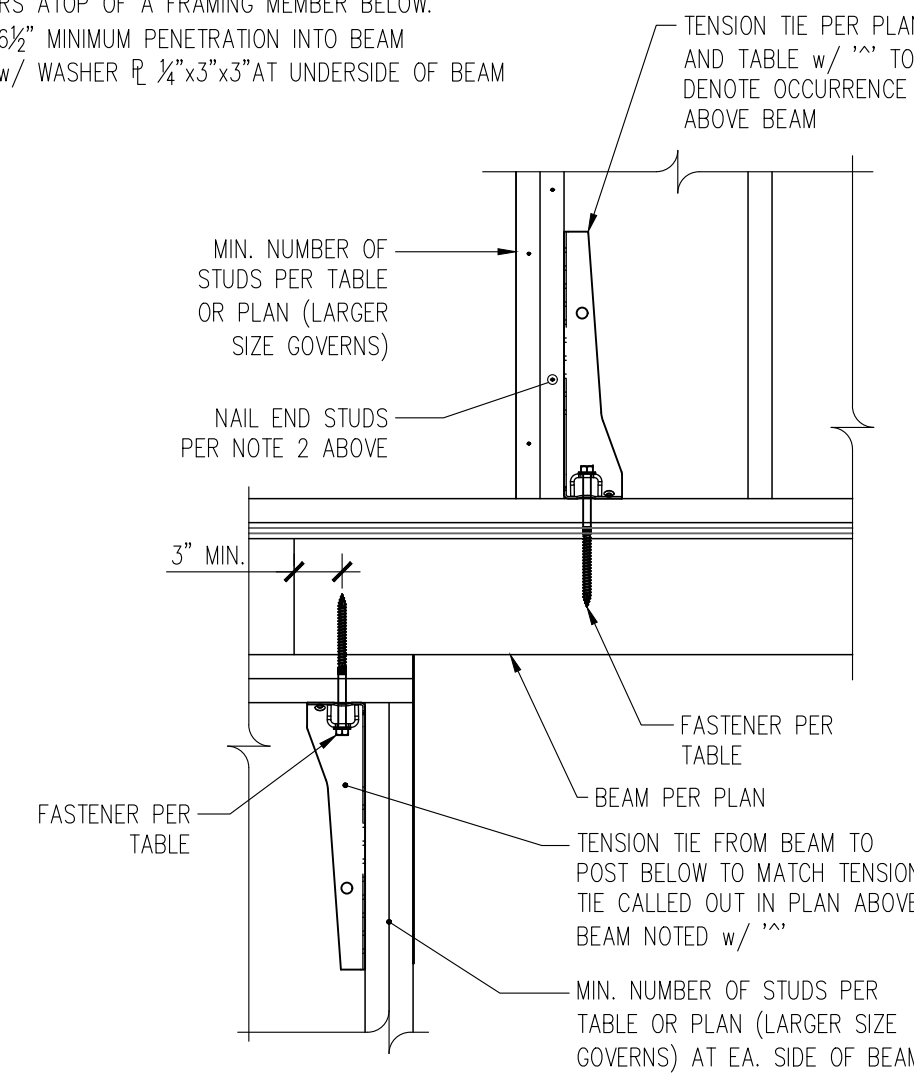
STRAP TENSION TIE SCHEDULE

TIE MARK	MIN. NUMBER OF STUDS	CLEAR SPAN - TOTAL FASTENERS	ASD CAPACITY
MSTC28	(2)2x	16" - (16)0.148" x 3/4" NAILS	1,330#
MSTC40	(2)2x	16" - (32)0.148" x 3/4" NAILS	2,655#
MSTC66	(2)2x	16" - (68)0.148" x 3/4" NAILS	5,850#
LTT19"	(2)2x	N/A - (8)0.148" x 3" NAILS	750#
HDU2"	(2)2x	N/A - (6)1/4"x2 1/2" SDS SCREWS	3,100#
HDU4"	(2)2x	N/A - (10)1/4"x2 1/2" SDS SCREWS	3,500#

- TENSION TIE TYPES REFER TO SIMPSON STRONG-TIE CATALOG CALLOUTS. NAIL PLYWOOD SHEATHING TO STUDS RECEIVING HOLDOWN WITH SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO THAT EACH STUD IS NAILED.
- FASTENERS NOTED IN TABLE ABOVE REPRESENT THE TOTAL AMOUNT. FOR STRAPS, HALF OF THE FASTENERS SHALL BE PROVIDED INTO EACH STUD.
- ^ DENOTES TENSION TIE THAT OCCURS ATOP OF A FRAMING MEMBER BELOW.
HDU2"...3/8" LAG SCREW w/ 6 1/2" MINIMUM PENETRATION INTO BEAM
HDU4"...3/8" THREADED ROD w/ WASHER & 1/4"x3"x3" AT UNDERSIDE OF BEAM



ELEVATION VIEW - TYPICAL CONDITION

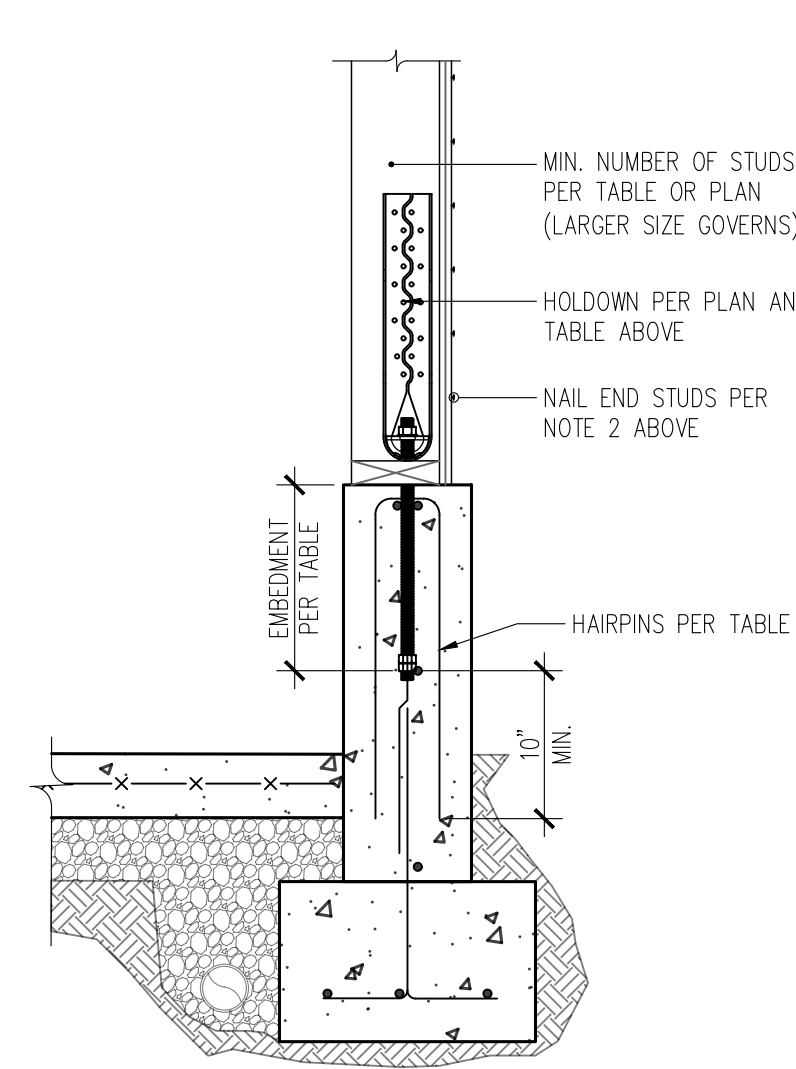


ELEVATION VIEW - TENSION TIE ABOVE BEAM

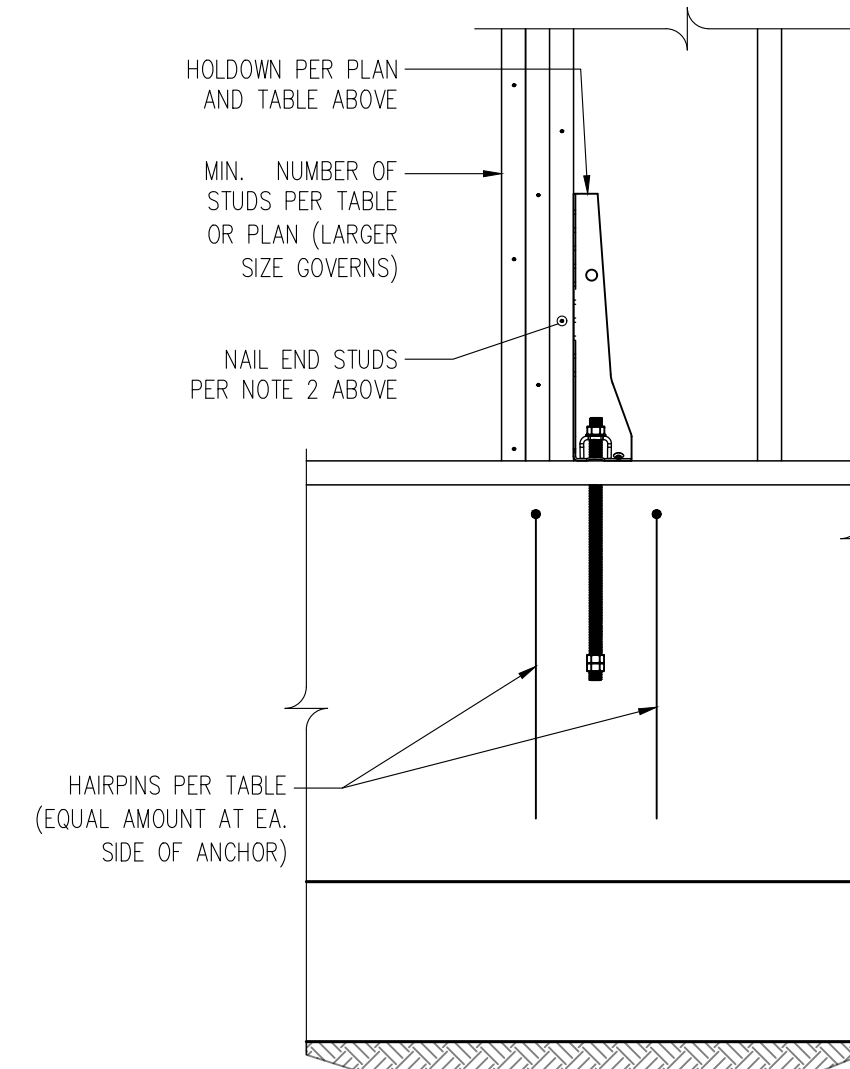
HOLDOWN TENSION TIE SCHEDULE

TIE MARK	MIN. NUMBER OF STUDS	ANCHOR (Ø x EMBEDMENT) and No. OF HAIRPIN DOWELS	FASTENERS FROM TIE TO STUD	ASD CAPACITY
HDU2	(2)2x	3/8"Ø x 20" - (2)#4 HAIRPIN	(6)1/4"Ø x 2 1/2" SDS SCREWS	3,075#
HDU4	(2)2x	3/8"Ø x 20" - (2)#4 HAIRPIN	(10)1/4"Ø x 2 1/2" SDS SCREWS	4,565#
HDU5	(3)2x	3/8"Ø x 20" - (2)#4 HAIRPIN	(14)1/4"Ø x 2 1/2" SDS SCREWS	5,645#
HDU8	(4)2x	3/8"Ø x 20" - (4)#4 HAIRPIN	(20)1/4"Ø x 2 1/2" SDS SCREWS	7,870#
HDU19	6x6	1 1/2"Ø x 20" - (4)#4 HAIRPIN	(5)1"Ø BOLTS	19,070#

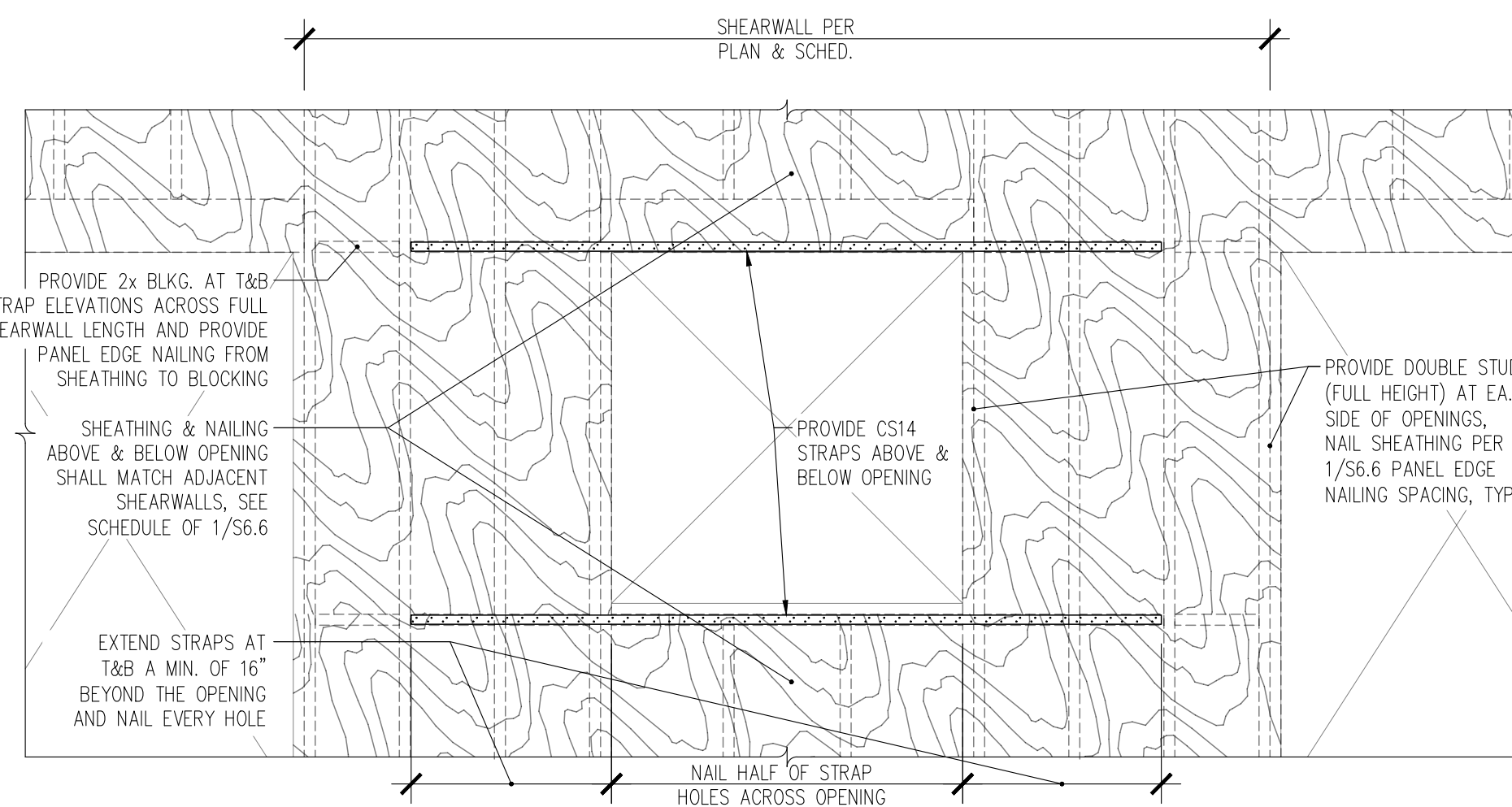
- TENSION TIE TYPES REFER TO SIMPSON STRONG-TIE CATALOG CALLOUTS.
- NAIL PLYWOOD SHEATHING TO STUDS RECEIVING HOLDOWN WITH SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO THAT EACH STUD IS NAILED.
- ANCHORS SHALL BE HEAVY HEX HEAD WITH DOUBLE NUT CAST INTO CONCRETE.
ASTM F 1554 Gr. 36 FOR 3/8"Ø ANCHOR
ASTM F 1554 Gr. 55 FOR 1"Ø ANCHOR



SECTION VIEW



ELEVATION VIEW

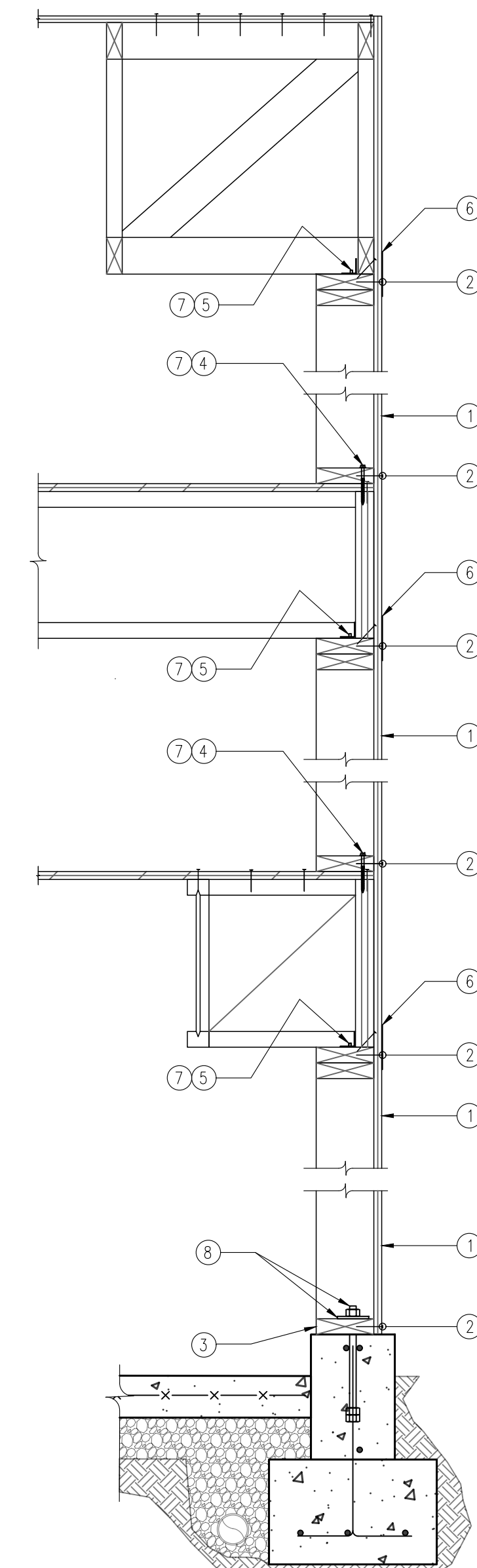


7 STRAPPED SHEARWALL DETAIL
S6.6 N.T.S.

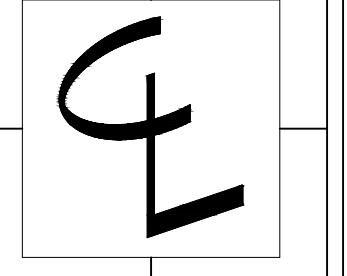
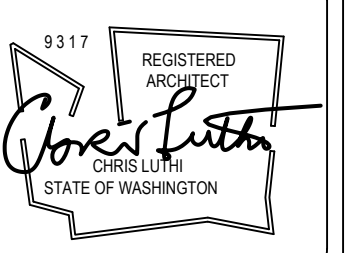
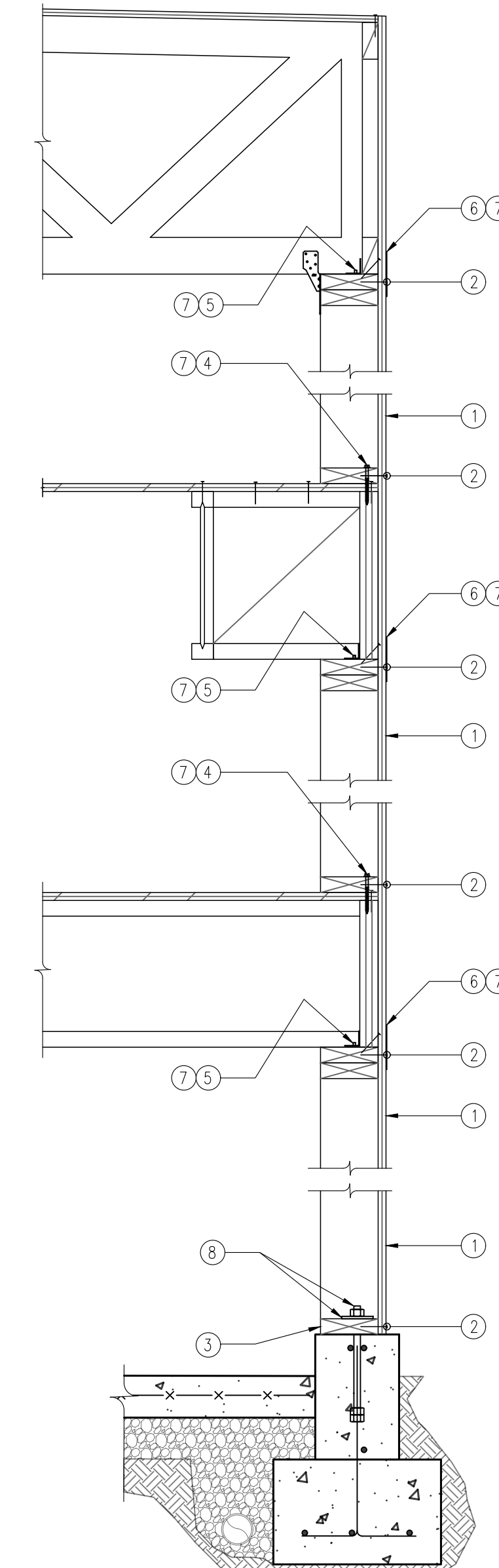
4 HOLDOWN DETAIL AND SCHEDULE
S6.6 1" = 1'-0"

SHEARWALL PANEL TYPE	① SHEATHING THICKNESS	② 0.148" x 2 1/2" (10#) PANEL NAILING	③ STUD/BLKG. AT ABUTTING PANEL EDGES & SILL PLATE THICKNESS	④ CONN. OF BLKG. OR FRAMING TO TOP PLATE; AND SOLE PLATE TO SILL FLOOR			⑤ ANCHOR BOLTS TO CONC.		⑥ ASD CAPACITY, PLF
				④ 1/2"Ø x 3 1/2" SDS SCREWS	⑤ A35 CLIPS	⑥ LTP4 PLATES	5/8"Ø	3/4"Ø	
SW-6	1/2"	6" oc	2x	15" oc	25" oc	24" oc	48" oc	48" oc	310
SW-4	1/2"	4" oc	3x	10" oc	16" oc	16" oc	38" oc	48" oc	460
SW-3	1/2"	3" oc	3x	8" oc	13" oc	12" oc	29" oc	40" oc	600
SW-2	1/2"	2" oc	3x	6" oc	10" oc	9" oc	23" oc	31" oc	770
SW-33	1/2"	3" oc EA. SIDE	3x	4" oc	6" oc	6" oc	14" oc	20" oc	1200

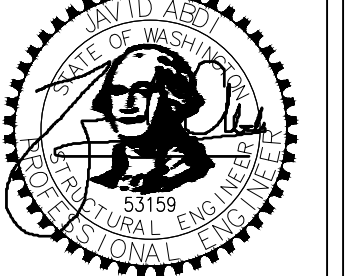
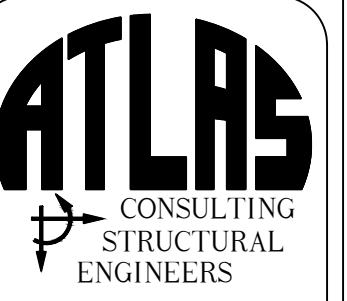
- SHEATHING SHALL CONSIST OF 1/2" PLYWOOD AND HAVE A MINIMUM SPAN RATING OF 2#.
- PANEL NAILING APPLIES TO ALL SHEATHING PANEL EDGES. IF RE-USING EXISTING SHEATHING PER NOTE 1 ABOVE, PROVIDE ADDITIONAL FASTENERS AS REQUIRED TO MEET SPACING REQUIREMENTS. INSTALL BLOCKING AT ALL UNFRAMED PANEL EDGES. ENSURE SHEATHING IS NAILED TO EXISTING INTERMEDIATE FRAMING WITH PANEL NAILS AT 12" oc.
- 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: Ø 5 1/2" oc FOR SW-6, Ø 3 1/2" oc FOR SW-4, (2) Ø 5" oc FOR SW-3, (2) Ø 4" oc FOR SW-2, AND (2) Ø 2 1/2" oc FOR SW-2 (148#/NAIL).
- ROWS OF NAILS AND SDS SCREWS SHALL BE OFFSET AT LEAST 1/2" AND STAGGERED. MINIMUM EDGE DISTANCE FOR NAILS AND SDS SCREWS INTO EDGE OF MEMBERS SHALL BE 3/8" (400#/SCREW).
- A35 CLIPS SHALL BE INSTALLED w/ (12)0.131 x 1 1/2" NAILS (650#/CLIP).
- LTP4 LATERAL TIE PLATES MAY BE INSTALLED OVER SHEATHING w/ (12)0.131 x 2 1/2" NAILS (625#/CLIP).
- CONTRACTOR SHALL USE A35 or LTP4 CLIPS TO CONNECT ROOF TO DOUBLE TOP PLATE AND SDS SCREWS or LTP4 CLIPS TO CONNECT SOLE PLATE TO RM BOARD AT MAIN FLOOR. EXTEND SHEATHING TO BOTTOM OF SOLE PLATE AT MAIN FLOOR FOUNDATION WALL AND PROVIDE EDGE FASTENING AS NOTED IN TABLE.
- PLATE WASHERS IN 2x4 STUD WALLS AND ALL SINGLE SIDED SHEAR WALLS SHALL BE 3"x3"x0.229". DOUBLE SIDED 2x6 SHEAR WALLS SHALL HAVE 4 1/2"x3"x0.229" PLATE WASHERS. THE EDGE OF PLATE WASHERS SHALL BE LOCATED WITHIN 1/2" OF THE EDGE OF BOTTOM PLATE ON THE SIDE WITH SHEATHING.
- CAST ANCHORS A MINIMUM OF 7" INTO CONCRETE. INSTALL ADDITIONAL ANCHOR BOLTS AT EACH SIDE OF PLATE BREAKS AND PENETRATIONS EXCEEDING THE "NO REINFORCING" HOLE SIZE PER 2/S6.1.



1 SHEARWALL SECTION AND SCHEDULE
S6.6 1" = 1'-0"



CENTERLINE DESIGN
4737 37th Ave SW
SEATTLE
206.932.8706
www.Centerline-Design.com



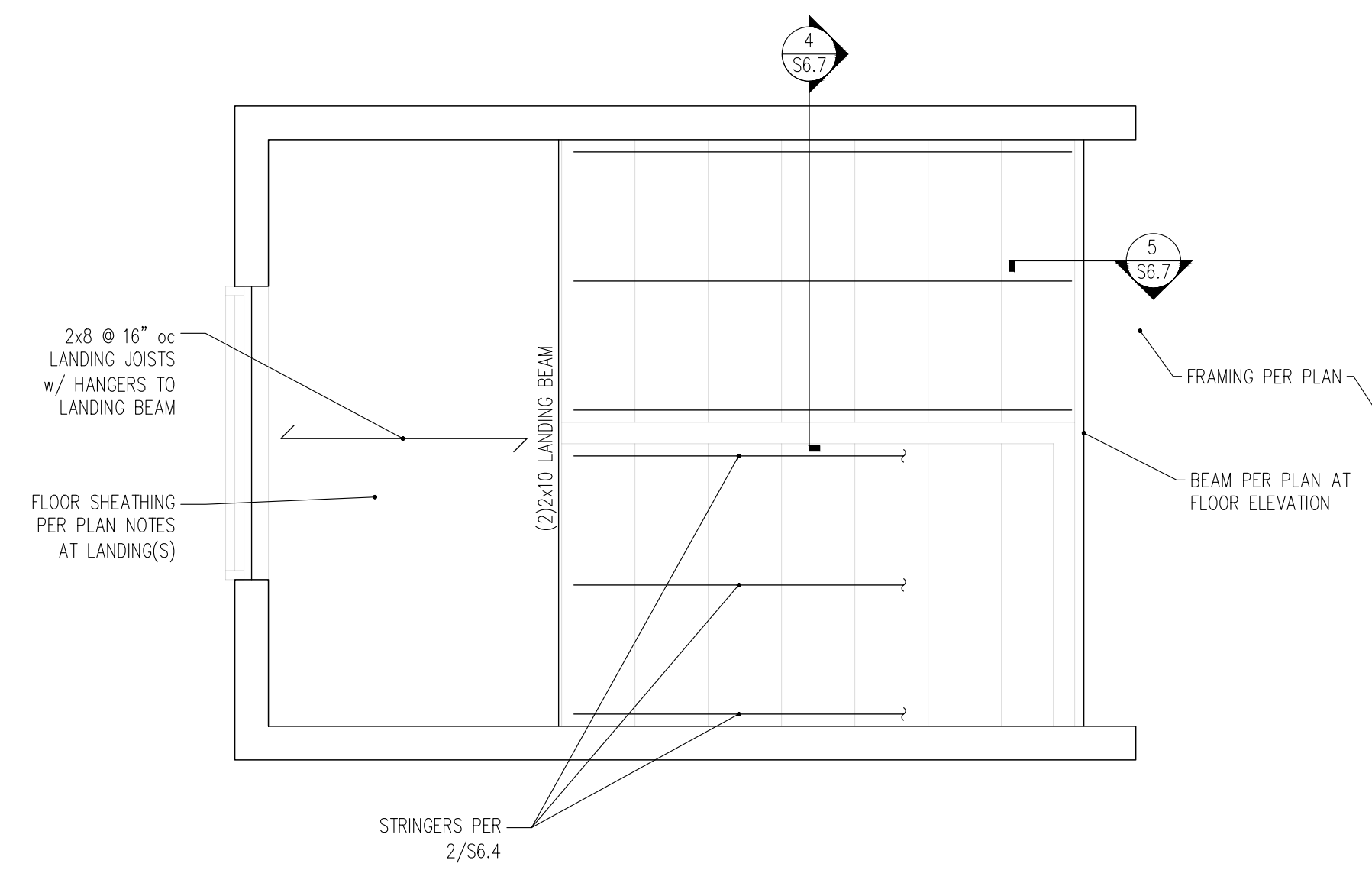
Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

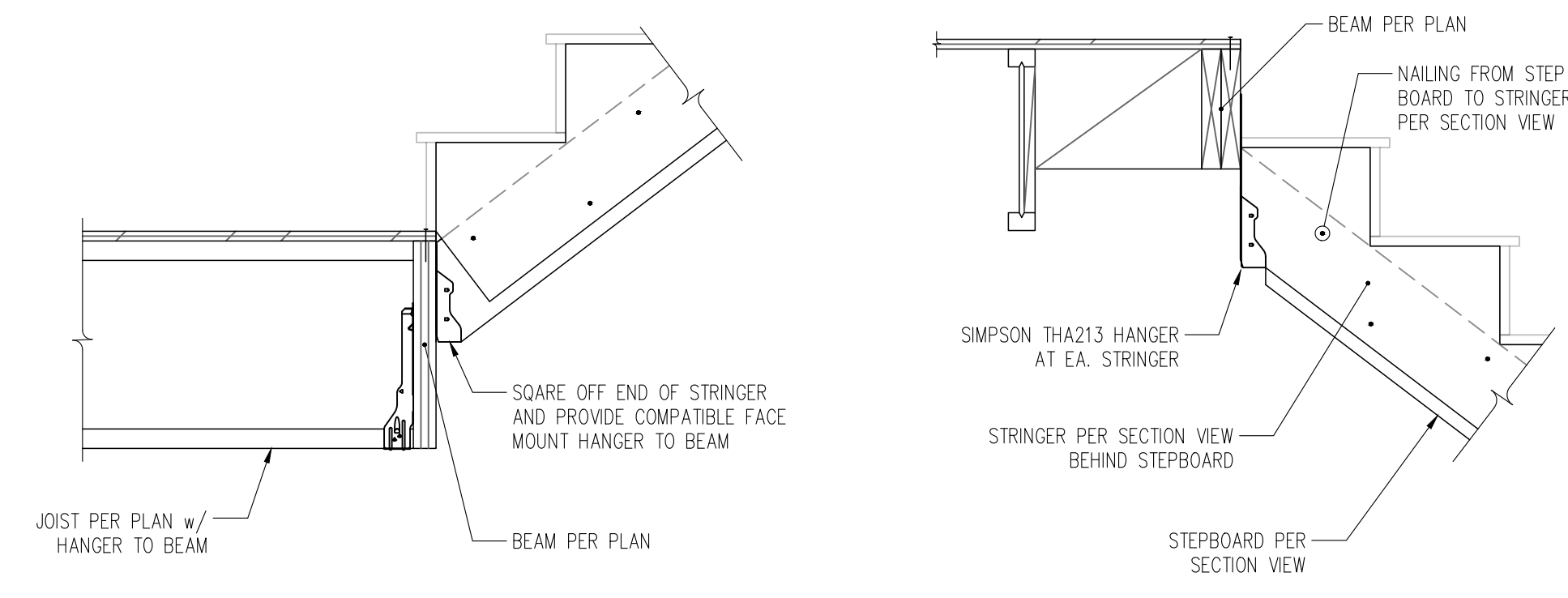
Lateral Details

DRAWN BY
JDA
DATE
08.04.2021

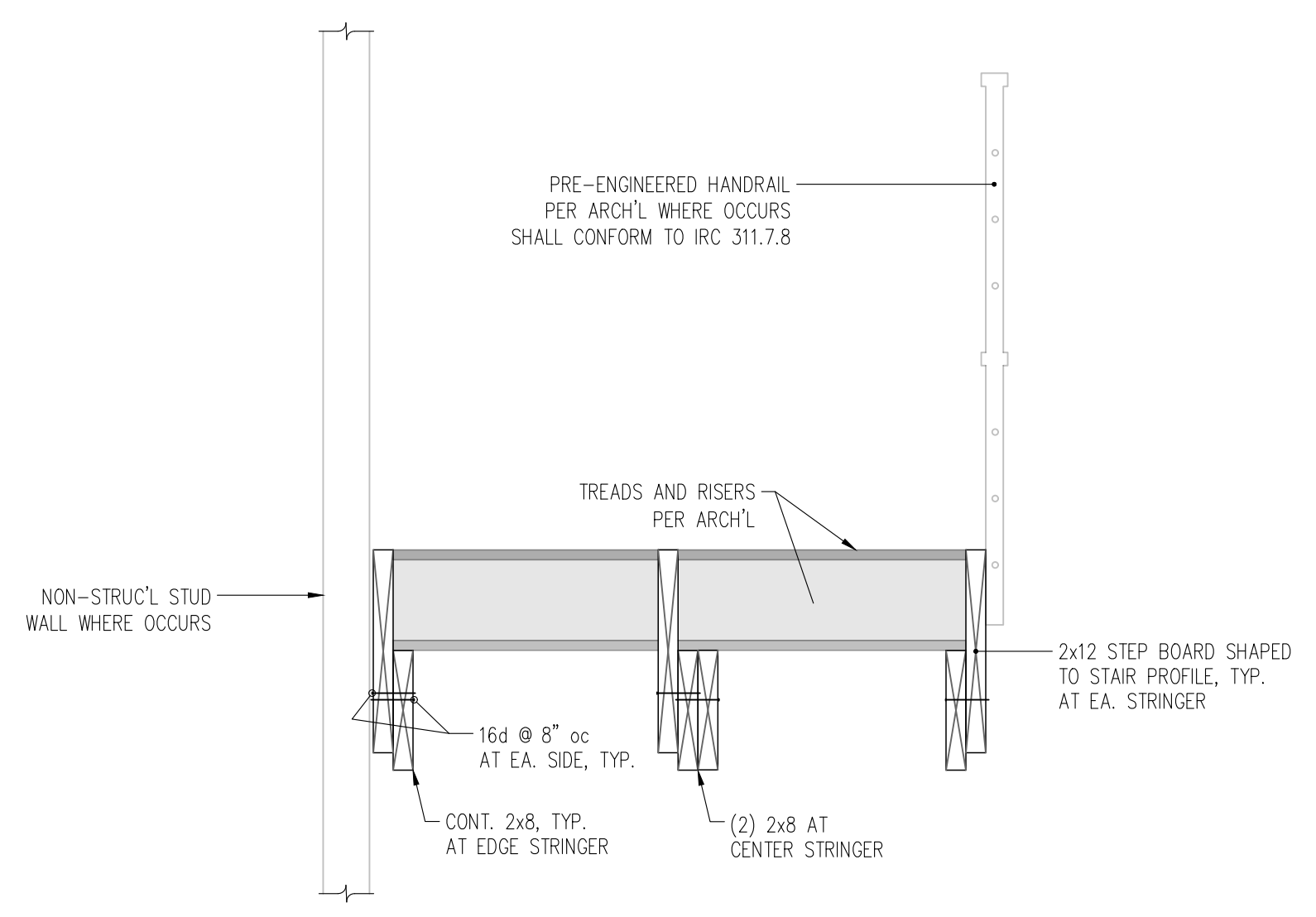
S6.6



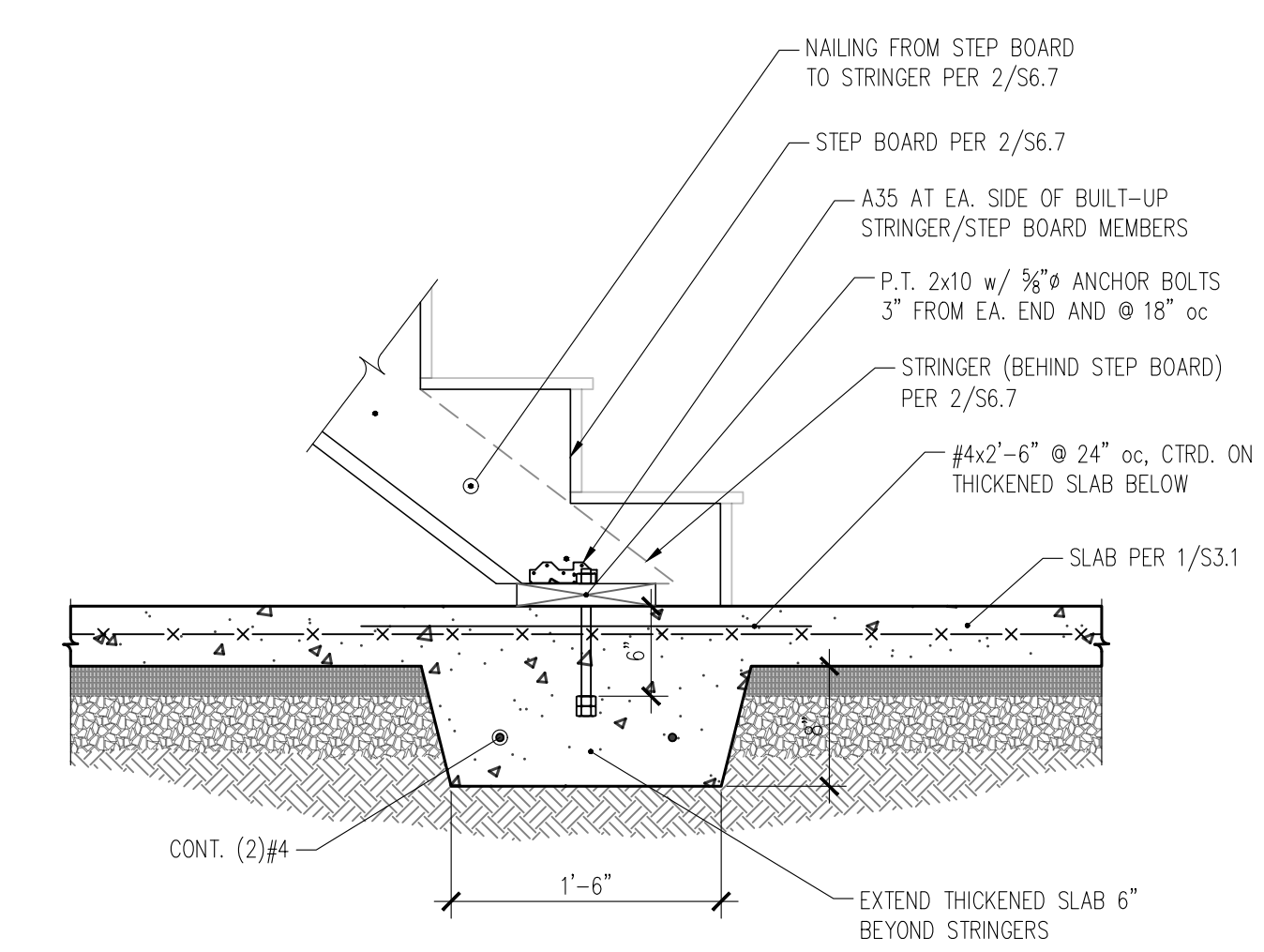
3 TYPICAL STAIR FRAMING/LANDING PLAN VIEW
S6.7 N.T.S.



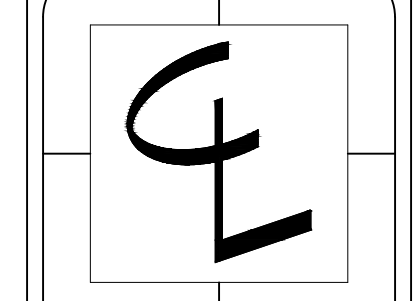
5 SECTION THROUGH LANDING
S6.7 1" = 1'-0"



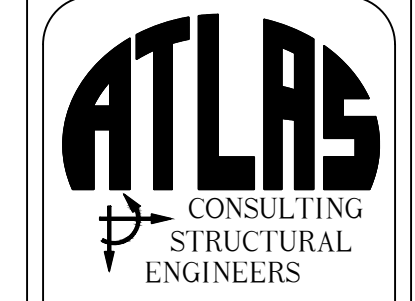
2 SECTION THROUGH STAIR FRAMING
S6.7 1" = 1'-0"



1 SECTION THROUGH THICKENED SLAB-ON-GRADE AT STAIR STRINGERS
S6.7 1" = 1'-0"



CENTERLINE DESIGN
4737 37th AVE SW
SEATTLE
206.932.8706
www.Centerline-Design.com



Kumar Residence
4034 85th Ave SE
Mercer Island, WA - 98040

CONTENTS

Typical Stair Details

DRAWN BY

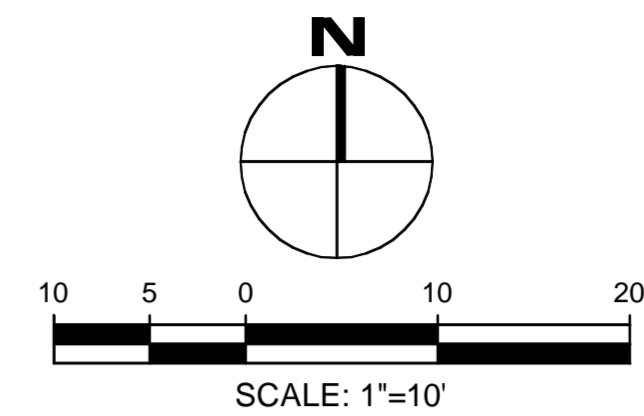
JDA

DATE

08.04.2021

01.04.2022

S6.7

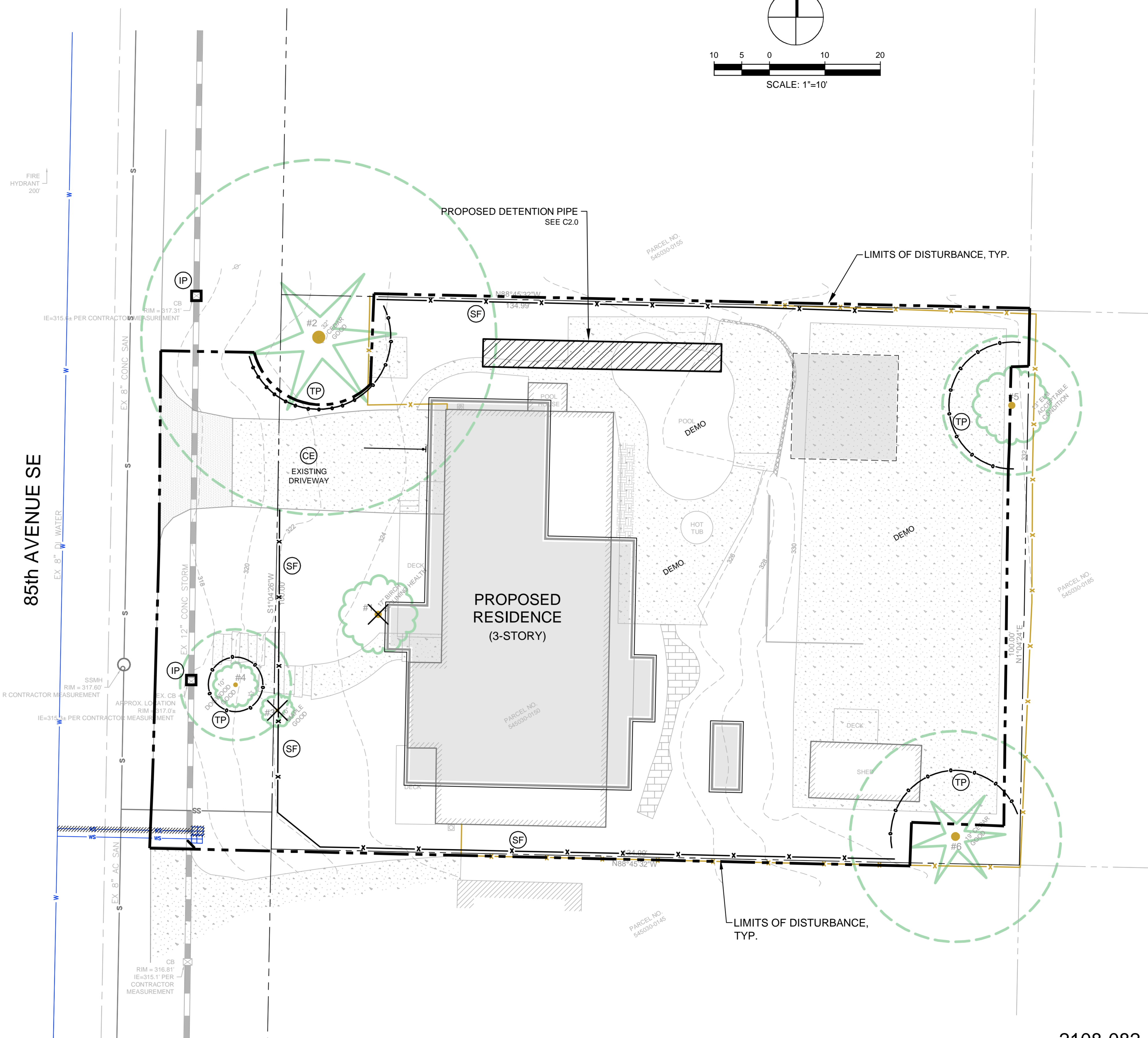


EROSION CONTROL LEGEND

LIMITS OF DISTURBANCE		
FILTER FABRIC FENCE (SILT FENCE)	CK E.03	(SF) ——— x ——— x ———
STABILIZED CONSTRUCTION ENTRANCE	CK E.01	(CE) [Pattern]
CATCH BASIN INLET PROTECTION	CK D.21	(IP) [Square]
INTERCEPTOR SWALE SEE COR DWG 504, TYPE A TEMPORARY SWALE	(IS)	[Double Arrow]
TREE PROTECTION FENCING	CK R.49	(TP) [Dashed Circle]
CHECK DAM	(CD)	[Dam Symbol]
STRAW WATTLES	(SW)	[Wattle Symbol]
		USE AS NEEDED

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION

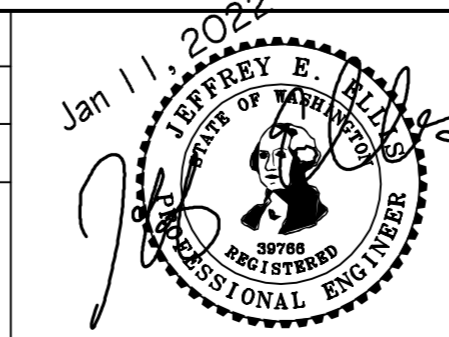


2108-082

NO.	DATE	BY	REVISIONS

APPLICANT
MIKE YEGENAH
ASPEN HOMES

DATE: Jan 11, 2022
JOB# 1989
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS

102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

**TESC PLAN
TREE RETENTION PLAN**

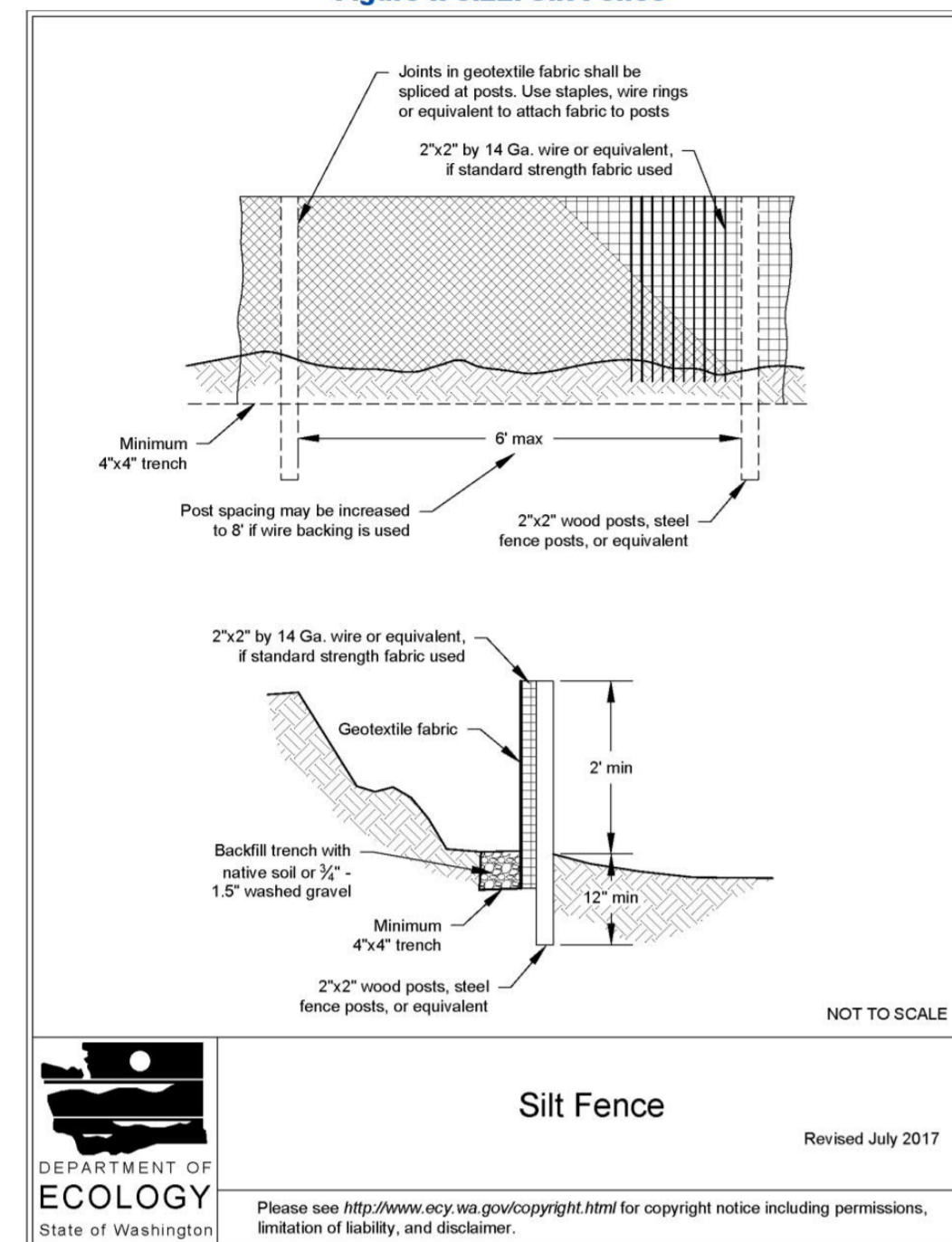
KUMAR RESIDENCE
4034 85th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C1.0
APN 545030-0150
2108-082

SILT FENCE DETAIL

DOE

Figure II-3.22: Silt Fence



Silt Fence

Revised July 2017



2019 Stormwater Management Manual for Western Washington
Volume II - Chapter 3 - Page 371

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:

- HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
- POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
- FLAG OR FENCE CLEARING LIMITS.
- INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
- GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
- INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
- CONSTRUCT SEDIMENT PONDS AND TRAPS.
- GRADE AND STABILIZE CONSTRUCTION ROADS.
- CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- RELOCATE 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.
- 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.
- STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
- SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPs IF APPROPRIATE.

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.
- 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.).
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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.).
 - ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
 - 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.
 - 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.
 - 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.
 - COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL
 - 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 WITH ONE WEEK OF THE BEGINNING OF THE WET SEASON.

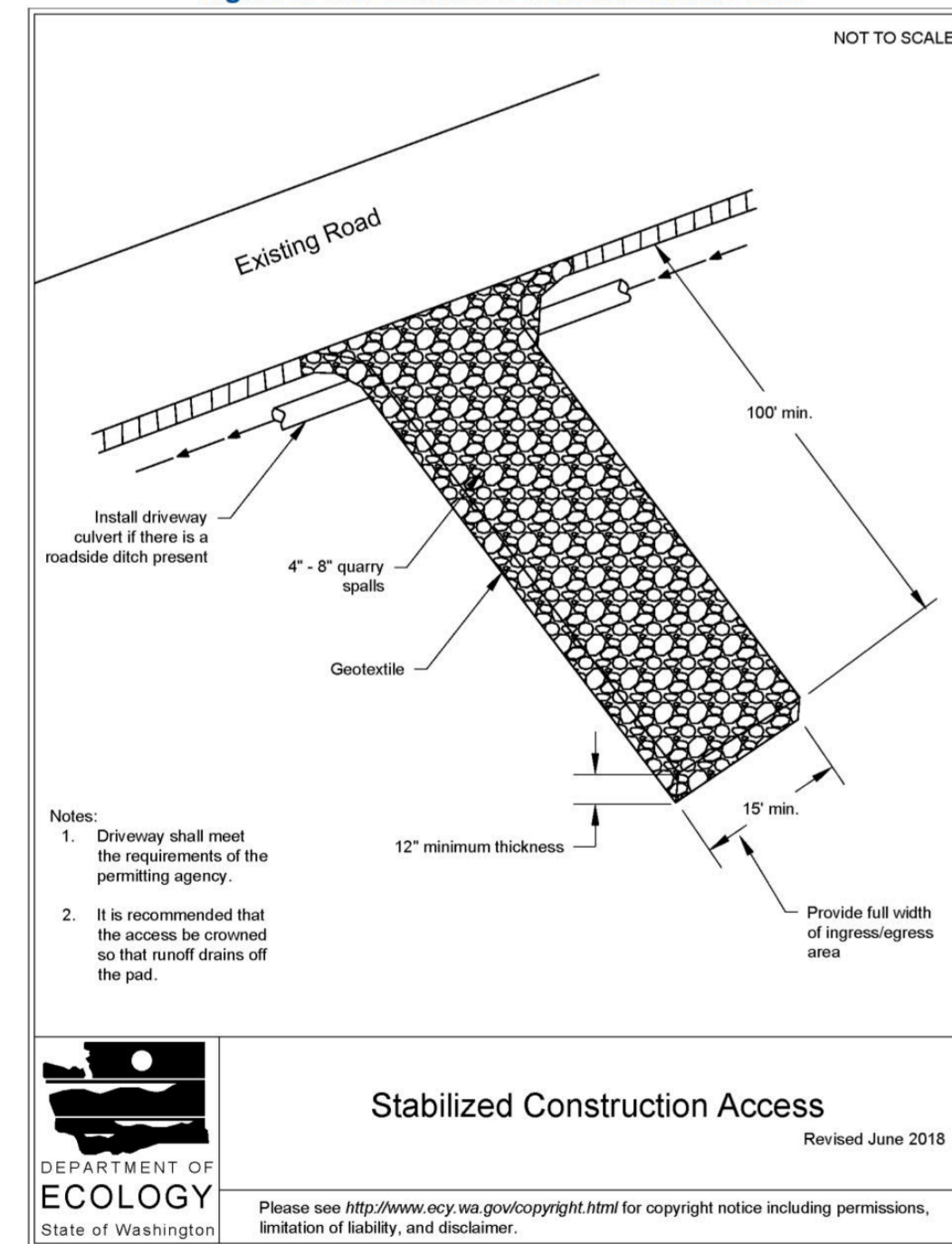
CITY NOTES

- ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
- APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
- 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.
- CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITIES.
- AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
- DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED
- 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:
- 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.
- 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.
- PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
- 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.
- 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.
- 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.
- 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.
- REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
- ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
- 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.
- WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
- REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
- 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.
- NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
- 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.
- 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.

CONSTRUCTION ENTRANCE

DOE

Figure II-3.1: Stabilized Construction Access



Stabilized Construction Access

Revised June 2018



2019 Stormwater Management Manual for Western Washington
Volume II - Chapter 3 - Page 279

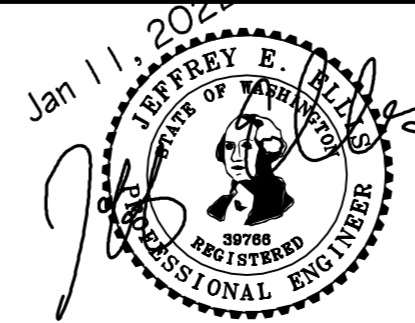
DENUDED AREAS REQUIREMENTS

- 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.

NO.	DATE	BY	REVISIONS

APPLICANT
MIKE YEGENAH
ASPEN HOMES

DATE: Jan 11, 2022
JOB# 1989
DRAFTED: SS DESIGN: DE
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
102 NW CANAL STREET SEATTLE, WA 98107
PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

TESC & CITY NOTES
TESC DETAILS
KUMAR RESIDENCE
4034 85th AVENUE SE, MERCER ISLAND, WA 98040

2108-082
DRAWING NO:
C1.2
APN 545030-0150
2108-082

SANITARY SEWER IMPROVEMENTS

- 1 -
- 2 - 6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0 %.
- 3 -
- 4 -
- 7 -

WATER IMPROVEMENTS

- 10 - RESIDENTIAL WATER SERVICE & METER PIT. CONFIRM REQUIRED SIZE WITH BUILDING PERMIT REVIEW. INSTALL PER MERCER ISLAND DETAIL W-13, W-14, OR W-14A DEPENDING ON SIZE REQUIREMENT.
- 11 - 1.5" 250 PSI PRIVATE HDPE WATER (ASTM D2239) FROM METER TO HOUSE. RECOMMENDED DEPTH=36". COORDINATE HOUSE ENTRY WITH BUILDER/OWNER.
- 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 2 % GRADE
- 23 -
- 24 -
- 25 -
- 26 -
- 28 -
- 29 -

STORM DRAIN STRUCTURES

- 30 - TYPE 1 CB WITH STANDARD GRATE. MAX 5' RIM TO FL DEPTH.
- 31 -
- 32 -
- 33 -
- 34 -
- 35 - 18" YARD DRAIN (OR EQUAL)
- 36 -
- 39 -
- 40 -
- 41 - 54" ID TYPE 2 MH CONTROL STRUCTURE WITH SOLID LID. SEE ALL DETAILS AND PROFILE C4.0.
- 43 -
- 46 -
- 47 - DETENTION PIPE: ALUMINIZED CMP @ 0.5 % GRADE. SEE PLAN FOR SIZE AND CONFIGURATION. SEE PROFILE, NOTES, AND DETAILS ON C4.0.
- 48 -

STORM BMP's

- 50 - COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 6" 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 (DRIVEWAY) PER DOE DETAIL. MIN. 4" DEEP RESERVOIR COURSE. SEE DETAIL ON C3.5.
- 58 -

SURVEYOR

TOPOGRAPHIC & BOUNDARY SURVEY BY:
 SITE SURVEYING, INC.
 21923 NE 11th STREET
 SAMMAMISH, WA 98074
 PHONE 425-298-4412
 www.sitesurveying.com

VERTICAL DATUM

NAVD 88 PER POINT ID NO. 2150
 SEE SURVEY

LEGAL DESCRIPTION

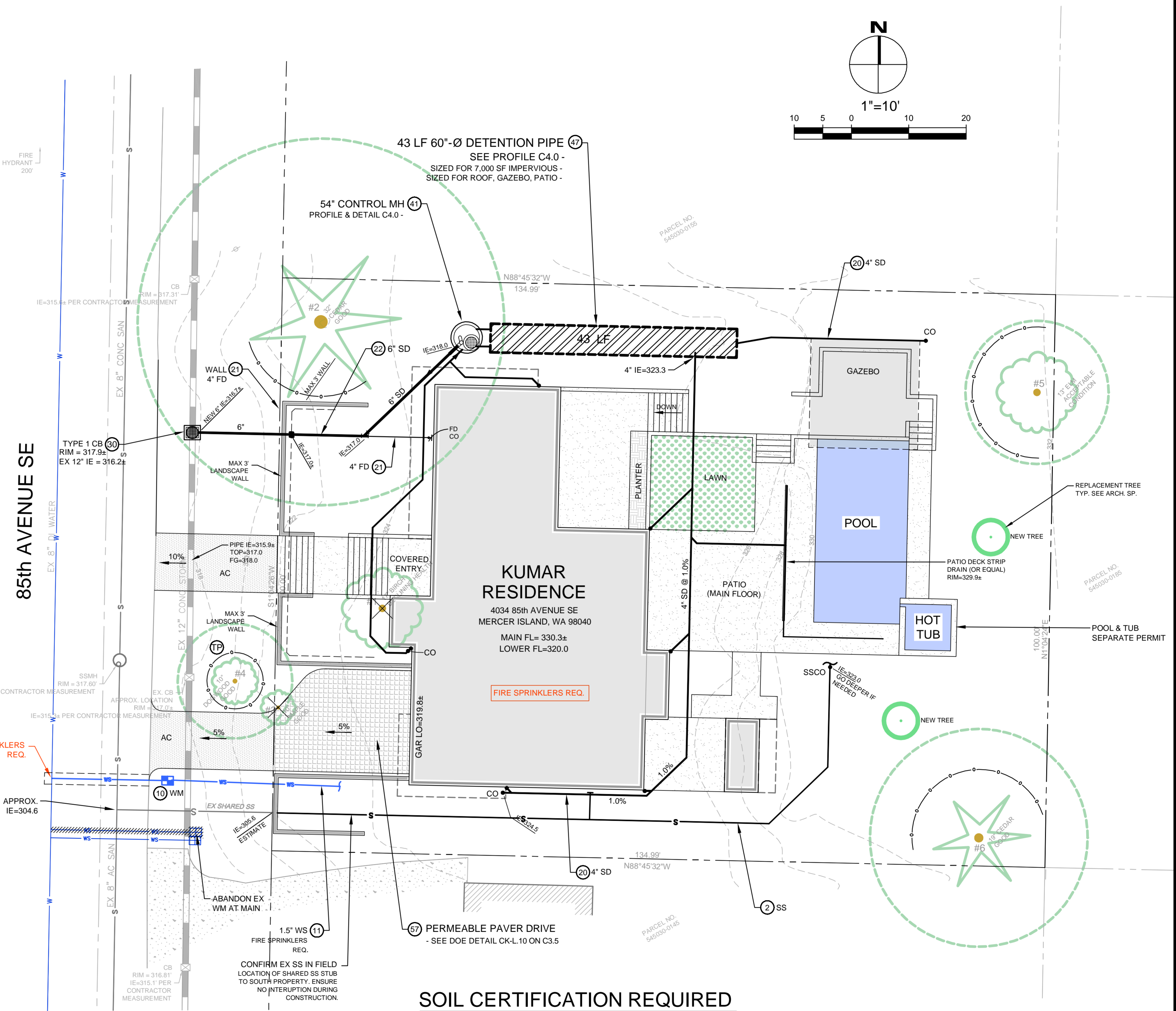
LOT 6 IN BLOCK B OF MERCER CREST, AS PER PLAT RECORDED IN VOLUME 42 OF PLATS, PAGE 26, RECORDS OF KING COUNTY AUDITOR;
 SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

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 SIGN-OFF BY CITY.



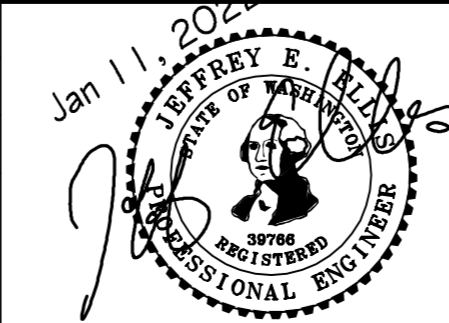
SOIL CERTIFICATION REQUIRED

CONTACT ENGINEER TOWARDS END OF PROJECT
 ALL DISTURB SOILS REQUIRE SOIL AMENDMENT
 GATHER ALL TOPSOIL & MULCH DELIVERY RECEIPTS
 ALL MULCH & TOPSOIL > 10 % ORGANICS

NO.	DATE	BY	REVISIONS

APPLICANT MIKE YEGENAH ASPEN HOMES
--

DATE: Jan 11, 2022
JOB#: 1989
DRAFTED: DE DESIGN: DE
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
 102 NW CANAL STREET SEATTLE, WA 98107
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

DRAINAGE / CIVIL PLAN
 KUMAR RESIDENCE
 4034 85th AVENUE SE, MERCER ISLAND, WA 98040

2108-082
 DRAWING NO:
C2.0
 APN 545030-0150
 2108-082

10% MIN ORGANICS REQUIRED FOR TOPSOIL & MULCH

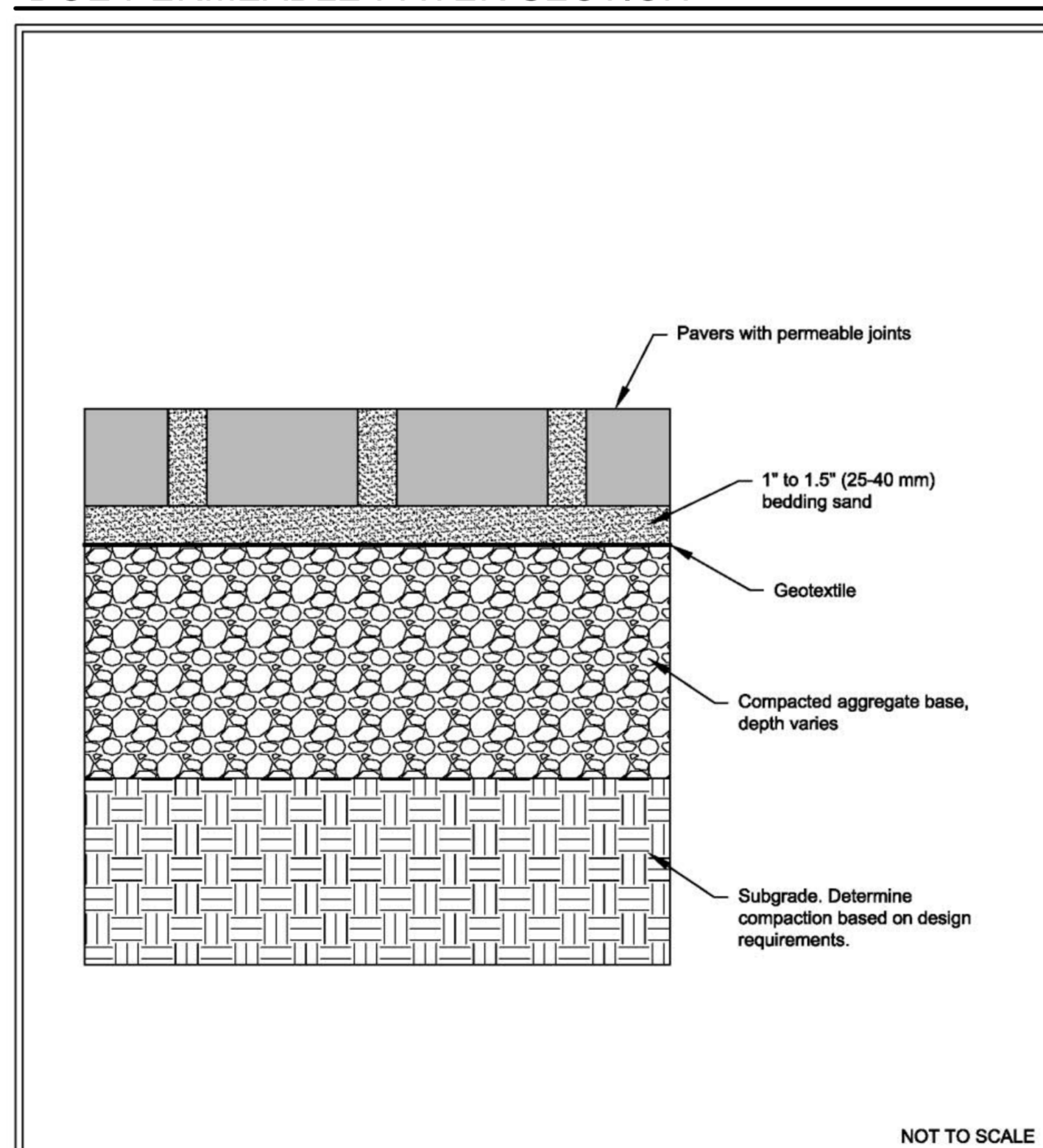
SOIL AMENDMENT REQUIRED

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

SOIL CERTIFICATION REQUIRED BY ENGINEER

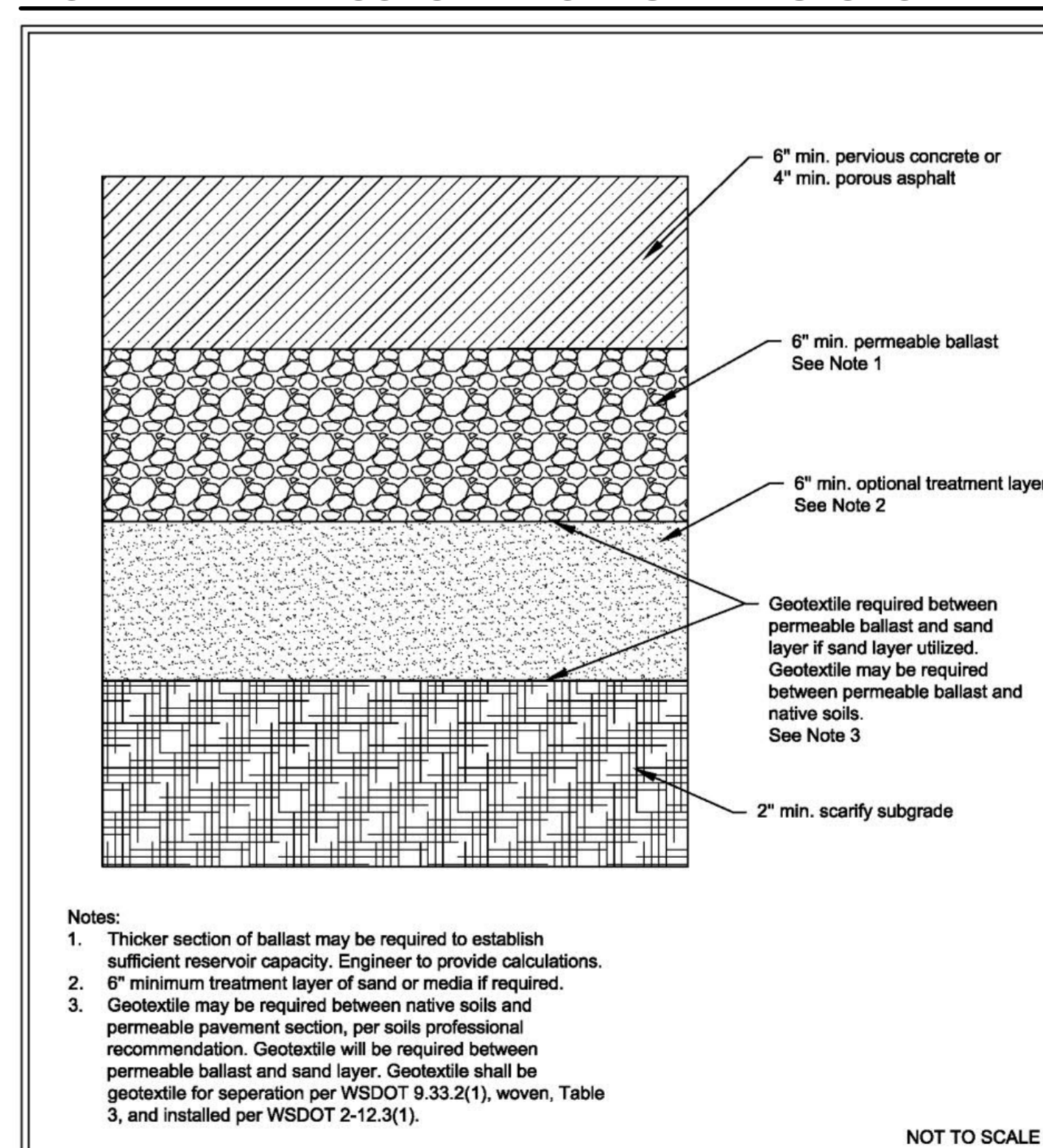
A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

DOE PERMEABLE PAVER SECTION



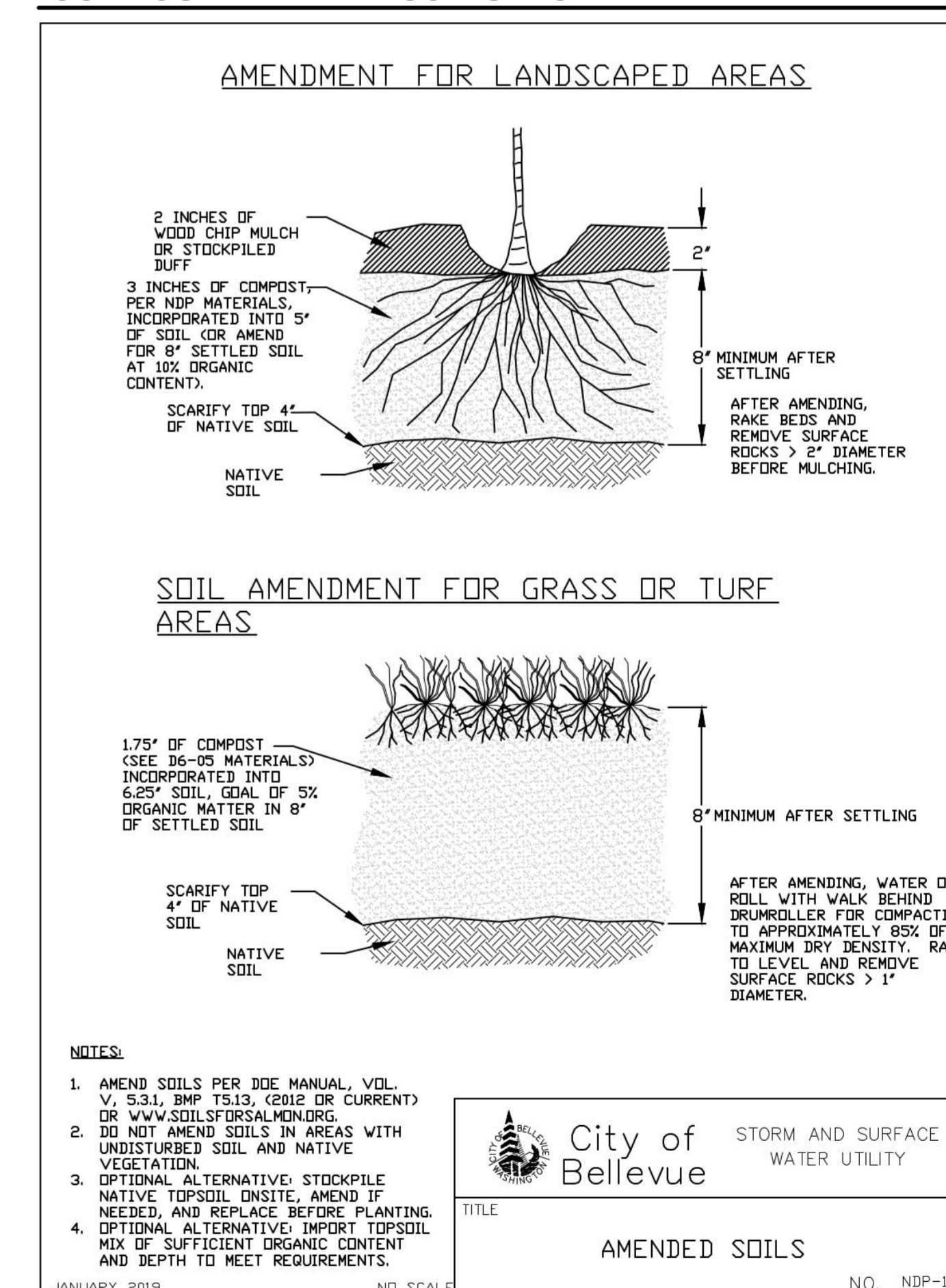
NOT TO SCALE
Example of a Permeable Paver Section
 Revised May 2019
 DEPARTMENT OF ECOLOGY State of Washington

DOE PERMEABLE CONCRETE OR ASPHALT SECTION



NOT TO SCALE
Example of a Permeable Pavement (Concrete or Asphalt) Section
 Revised May 2019
 DEPARTMENT OF ECOLOGY State of Washington

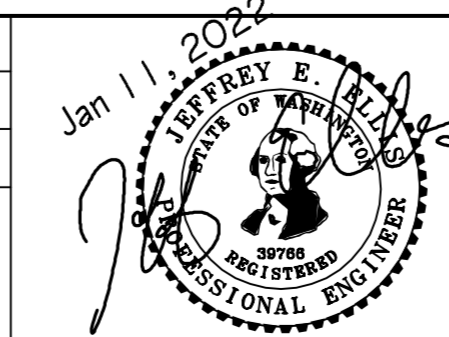
COMPOST AMENDED SOIL SPEC



NO.	DATE	BY	REVISIONS

APPLICANT
 MIKE YEGENAH
 ASPEN HOMES

DATE: Jan 11, 2022
 JOB# 1989
 DRAFTED: SS DESIGN: SS
 DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
 102 NW CANAL STREET SEATTLE, WA 98107
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

BMP DETAILS
 KUMAR RESIDENCE
 4034 85th AVENUE SE, MERCER ISLAND, WA 98040

2108-082
 DRAWING NO:
C3.5
 APN 545030-0150
 2108-082

MERCER ISLAND DETENTION "TABLE 1"

Table 1
ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in) ⁽¹⁾		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	31	0.5	0.5	4.6	3.5	1.6	1.3
5,001 to 6,000 sf	36"	162	109	0.5	0.5	2.7	2.2	1.8	1.6
	48"	90	59	0.5	0.5	3.5	2.9	1.7	1.5
	60"	54	37	0.5	0.5	4.6	3.6	1.6	1.4
6,001 to 7,000 sf	36"	192	128	0.5	0.5	2.7	2.2	1.9	1.8
	48"	102	68	0.5	0.5	3.7	2.9	1.9	1.6
	60"	64	43	0.5	0.5	4.6	3.6	1.8	1.5
7,001 to 8,000 sf	36"	216	146	0.5	0.5	2.8	2.2	2.0	1.9
	48"	119	79	0.5	0.5	3.8	2.9	2.2	1.7
	60"	73	49	0.5	0.5	4.5	3.6	2.0	1.6
8,001 to 8,500 sf ⁽¹⁾	36"	228	155	0.5	0.5	2.8	2.2	2.1	1.9
	48"	124	84	0.5	0.5	3.7	2.9	1.9	1.8
	60"	77	53	0.5	0.5	4.6	3.6	2.0	1.6
8,501 to 9,000 sf	36"	NA ⁽¹⁾	164	0.5	0.5	NA ⁽¹⁾	2.2	NA ⁽¹⁾	1.9
	48"	NA ⁽¹⁾	89	0.5	0.5	NA ⁽¹⁾	2.9	NA ⁽¹⁾	1.9
	60"	NA ⁽¹⁾	55	0.5	0.5	NA ⁽¹⁾	3.6	NA ⁽¹⁾	1.7
9,001 to 9,500 sf ⁽²⁾	36"	NA ⁽¹⁾	174	0.5	0.5	NA ⁽¹⁾	2.2	NA ⁽¹⁾	2.1
	48"	NA ⁽¹⁾	94	0.5	0.5	NA ⁽¹⁾	2.9	NA ⁽¹⁾	2.0
	60"	NA ⁽¹⁾	58	0.5	0.5	NA ⁽¹⁾	3.7	NA ⁽¹⁾	1.7

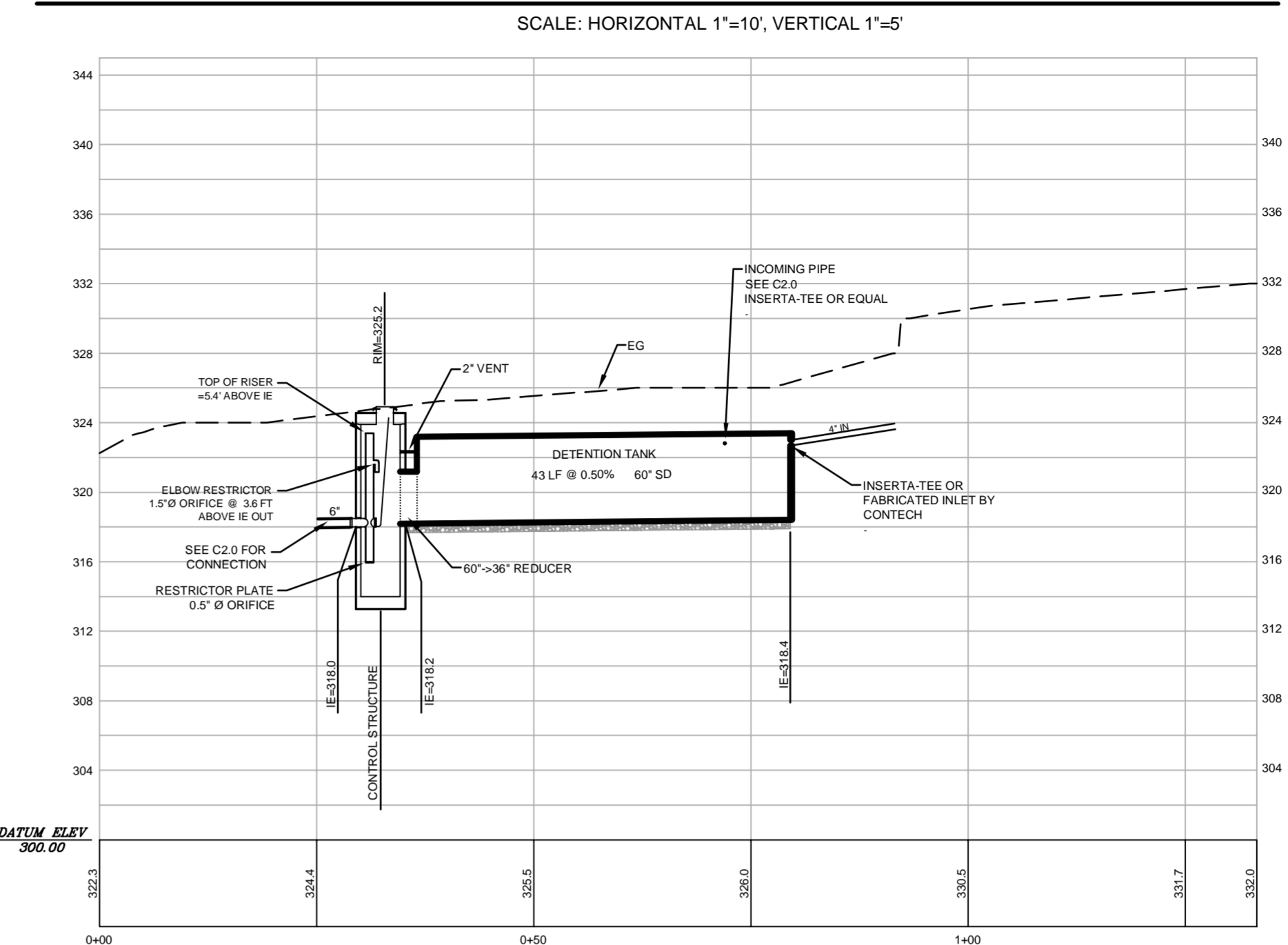
Notes:
 • Minimum Requirement #7 (Flow Control) is required when the 100-year flow frequency causes a 0.15 cubic feet per second increase (when modeled in WWHM with a 15-minute timestep). Breakpoints shown in this table are based on a flat slope (0-5%). The 100-year flow frequency will need to be evaluated on a site-specific basis for projects on moderate (5-15%) or steep (> 15%) slopes.
 • Soil type to be determined by geotechnical analysis or soil map.
 • Sizing includes a Volume Correction Factor of 120%.
 • Upper bound contributing area used for sizing.
⁽¹⁾ On Type B soils, new plus replaced impervious surface areas exceeding 8,500 sf trigger Minimum Requirement #7 (Flow Control)
⁽²⁾ On Type C soils, new plus replaced impervious surface areas exceeding 9,500 sf trigger Minimum Requirement #7 (Flow Control)
⁽³⁾ Minimum orifice diameter = 0.5 inches
 in = inch
 ft = feet
 sf = square feet

Basis of Sizing Assumptions:
 Sized per MR#5 in the Stormwater Management Manual for Puget Sound Basin (1992 Ecology Manual)
 SBUH, Type 1A, 24-hour hydrograph
 2-year, 24-hour storm = 2 in; 10-year, 24-hour storm = 3 in; 100-year, 24-hour storm = 4 in
 Predeveloped = second growth forest (CN = 72 for Type B soils, CN = 81 for Type C soils)
 Developed = impervious (CN = 98)
 0.5 foot of sediment storage in detention pipe
 Overland slope = 5%

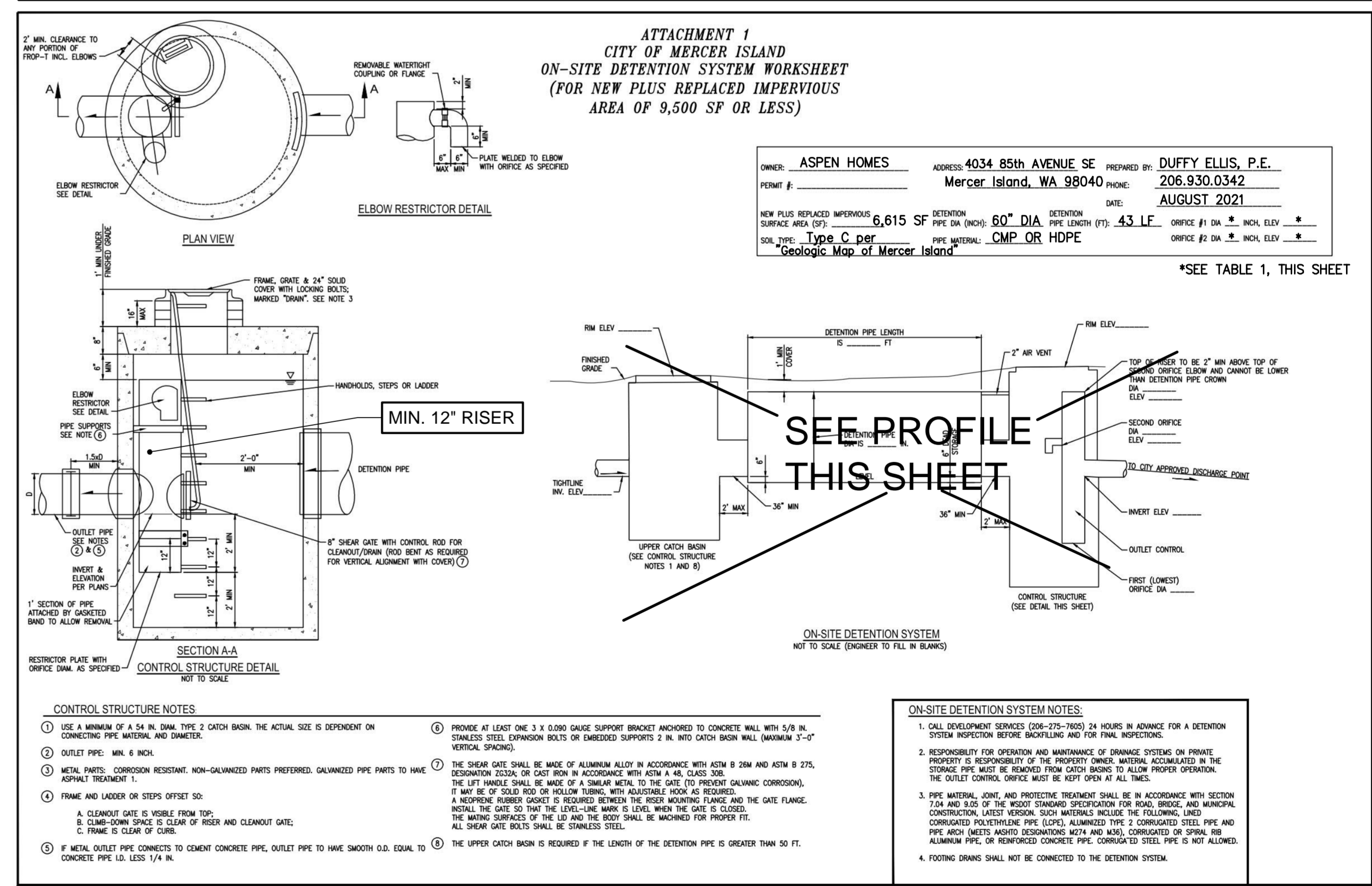
IMPERVIOUS TABLE

Impervious Area Spreadsheet	
Kumar Residence - 4034 85th Avenue SE, Mercer Island, WA 98040	
Gross Site area	13,499 sf
	0.310 acres
Existing Impervious Area	8,712 sf
total existing impervious area =	8,712 sf
total existing vegetated area =	4,787 sf
Proposed Impervious Area (on-site)	
Proposed house roof	3,276 sf
Proposed gazebo roof	361 sf
Proposed pool/hardscape, exposed	2,154 sf
Proposed driveway, on-site, exposed	381 sf
total on-site proposed =	6,172 sf
total new + replaced impervious =	(2,540) sf
new impervious area =	(2,540) sf
total proposed vegetated area =	7,327 sf

DETENTION PROFILE



MERCER ISLAND DETENTION DETAIL

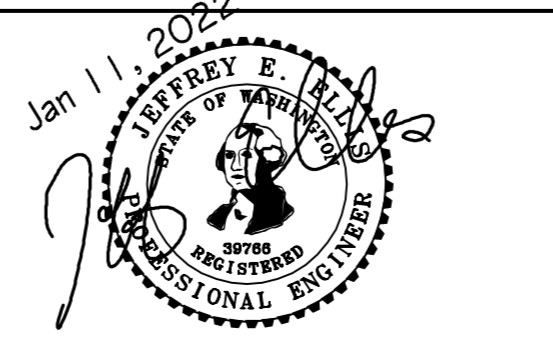


NO.	DATE	BY	REVISIONS

APPLICANT
MIKE YEGENAH
ASPEN HOMES

DATE: Jan 11, 2022
 JOB#: 1989
 DRAFTED: SS DESIGN: SS
 DIGITAL SIGNATURE

DATE: Jan 11, 2022
 JOB#: 1989
 DRAFTED: SS DESIGN: SS
 DIGITAL SIGNATURE



**CIVIL ENGINEERING
SOLUTIONS**

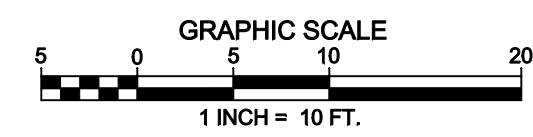
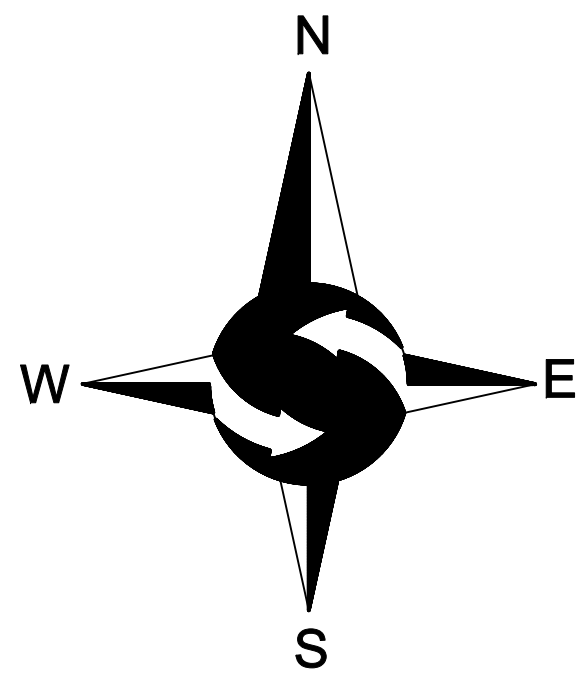
102 NW CANAL STREET SEATTLE, WA 98107
 PHONE: 206.930.0342 DUFFY@CESOLUTIONS.US

DETENTION PROFILE AND DETAIL

KUMAR RESIDENCE
4034 85th AVENUE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C4.0

APN 545030-0150
2108-082



LEGEND

- FOUND MONUMENT AS DESCRIBED
- SET MAG NAIL AS DESCRIBED
- SET 5/8" X 24" IRON ROD WITH YELLOW PLASTIC CAP
- POWER METER
- UTILITY POLE
- GAS METER
- CATCH BASIN
- YARD LIGHT
- SANITARY SEWER MANHOLE
- WATER VALVE
- FIRE HYDRANT
- WATER METER
- SS — APPROXIMATE LOCATION SANITARY SEWER LINE
- SD — APPROXIMATE LOCATION STORM DRAIN LINE
- W — APPROXIMATE LOCATION UNDERGROUND WATER LINE
- OHP — OVERHEAD POWER
- OHU — OVERHEAD UTILITIES
- X — CHAINLINK FENCE
- □ — WOOD FENCE
- ▨ CONCRETE WALL
- ▨ ASPHALT SURFACE
- ▨ CONCRETE SURFACE
- ▨ BRICK SURFACE
- DS DECIDUOUS
- HE HEMLOCK
- PI PINE
- * INDICATES MULTI-TRUNK

LEGAL DESCRIPTION

LOT 8 IN BLOCK B OF MERCER CREST, AS PER PLAT RECORDED IN VOLUME 42 OF PLATS, PAGE 26, RECORDS OF KING COUNTY AUDITOR;
SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

RECORD OF SURVEY BY TERRANE FOR DAVID COLEMAN, AS RECORDED UNDER RECORDING NO. 20160718900008, RECORDS OF KING COUNTY, WASHINGTON.

PROJECT INFORMATION

SURVEYOR: SITE SURVEYING, INC.
21923 NE 11TH ST
SAKIMAMISH, WA 98074
PHONE: 425.298.4412

PROPERTY OWNER: WILLIAM AND JENNISE TURNER
4034 85TH AVENUE SE
MERCER ISLAND, WA 98040

TAX PARCEL NUMBER: 545030-0150

PROJECT ADDRESS: 4034 85TH AVENUE SE
MERCER ISLAND, WA 98040

ZONING: R-9.6

JURISDICTION: CITY OF MERCER ISLAND

PARCEL ACREAGE: 13,499 S.F. (0.310 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 SS 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 APRIL 2021 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.

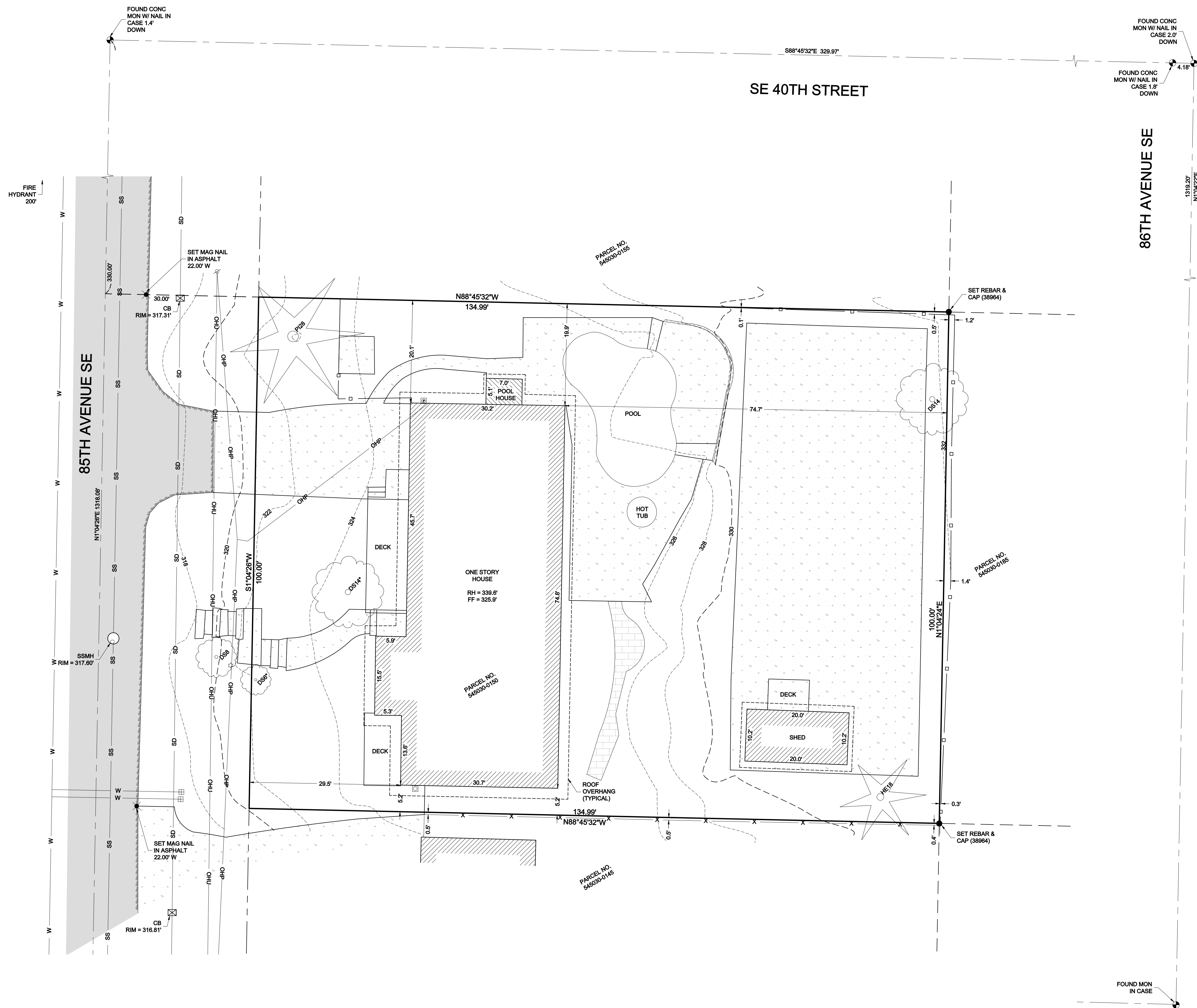
VERTICAL DATUM & CONTOUR INTERVAL

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

THE MARK IS A BRASS NAIL IN CONCRETE MONUMENT IN CASE AT THE INTERSECTION OF SE 40TH STREET AND 86TH AVENUE SE.

POINT ID NO. 2160;
ELEVATION: 325.718 FEET (99.279 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.



NW 1/4, NW 1/4, SEC 18, TWP 24N, RNG 5E, W.M.



TOPOGRAPHIC SURVEY
ASPEN HOMES
4034 85TH AVENUE SE
MERCER ISLAND, WA 98040

DATE	REVISION	DRN

PROJECT NO. 21-211

DRAWN BY: MTS
CHECKED BY: TNW
DATE: 4/8/2021

SHEET 1 OF 1