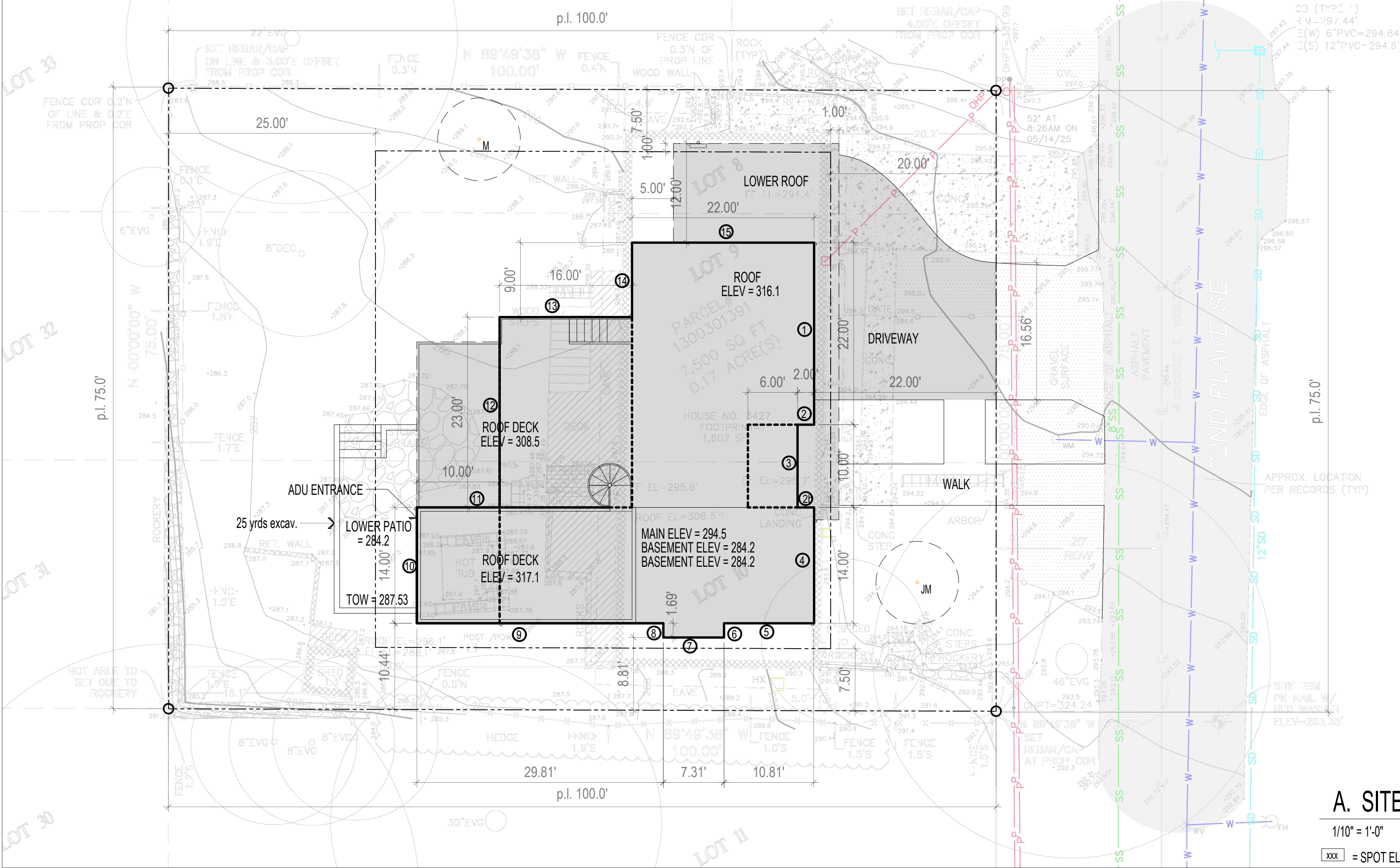


TREE PLANTING PLAN

1. NEW TREES WILL BE AT LEAST 6 FEET TALL FOR CONIFERS AND 1.5 INCHES IN CALIPER FOR DECIDUOUS SPECIES
2. NEW TREES WILL BE PLANTED BETWEEN OCTOBER AND MARCH
3. MINIMUM SPACING BETWEEN TREES AND DISTANCES FROM BUILDINGS OR INFRASTRUCTURE WILL BE 10 FEET
4. EACH NEW TREE WILL BE WATERED FOR THE FIRST 2 YEARS ON THE FOLLOWING SCHEDULE:
 - MINIMUM OF 5 GALLONS OF WATER PER WEEK FOR THE FIRST 4 WEEKS AFTER PLANTING
 - EVERY 2 WEEKS WHEN WEEKLY DAYTIME MAXIMUM TEMPERATURES ARE BELOW 70°
 - ONCE A WEEK WHEN WEEKLY DAYTIME MAXIMUM TEMPERATURES ARE OVER 70° (E.G. MAY THROUGH SEPTEMBER)

DF = DOUGLAS FIR (*Pseudotsuga menziesii*)
M = PACIFIC MADRONE (*Arbutus menziesii*)
- NON-NATIVES
JM = JAPANESE MAPLE (*Acer palmatum*)



A. SITE PLAN

1/10" = 1'-0"

xxx = SPOT ELEVATION, FINAL

--- = EXTENT OF OVERHANG

----- = EXTENT OF LIVING AREA @ upper floor

===== = BUILDING FOOTPRINT (FOUNDATION EXTENTS)

SHADED AREA = BLDG EXTENTS TO EAVE
EXISTING HOUSE, DRIVEWAY AND ALL HARDSCAPE ON PROPERTY TO BE REMOVED

--- = EXISTING TOPOGRAPHY

⊙ = WALL SEGMENT TAG FOR HEIGHT CALCULATION

SEE SHEET 03 FOR BASEMENT EXCEPTION CALC.

ww = WINDOW WELL

ELEVATION CALC.

	EL @ MIDPOINT	segment	lwd	sgmnt
1	294.00	22.00	6468.00	
2a	294.00	2.00	588.00	
2b	294.50	2.00	589.00	
3	294.50	10.00	2945.00	
4	293.80	14.00	4113.20	
5	289.70	10.81	3131.66	
6	289.20	1.69	488.75	
7	289.00	7.31	2112.59	
8	288.50	1.69	487.57	
9	288.00	29.81	8585.28	
10	284.50	14.00	3983.00	
11	284.50	10.00	2845.00	
12	287.60	23.00	6614.80	
13	288.20	16.00	4611.20	
14	288.20	9.00	2593.80	
15	294.00	22.00	6468.00	

195.31 56624.84

AVG. EL = 289.92
BOLD = NEW EL LOWER THAN EXIST

LOT SLOPE

HIGH POINT = 282'
LOW POINT = 297'
LOT SLOPE = 15/117' = 12.82%
LOT COVERAGE = 40%
7500 sf x .4 = 3000 sf total lot coverage allowed

F.A.R. CALCULATION

Main Floor FA= 1704 sf (inc. gar)
Basement FA = 1613 sf
Upper Floor FA = 1156 sf
4473 sf

excepted FA = (970.86 sf)
stairs = (64 sf x 2 = 128 sf)

TOTAL chargeable FA = 3374.14 sf
w/adu FAR = lesser of 4500sf or 45% of lot area
.45 x 7500 sf = FAR limit = 3375 sf

LOT COVERAGE (SHADED AREA)

LOT COVERAGE ALLOWABLE = 7500 x .40 = 3000 sf

HOUSE TO EAVES = 2296 sf
DRIVEWAY = 434 sf

2730 sf < 40% ok

HARDSCAPE

lower patio = 229 sf
walks = 134 sf
window well = 12 sf

TOTAL = 375 sf

allowable = 6237 sf x .09 = 675 sf

Code Data

2021 International Building Code (IBC) - struct.
2021 International Residential Code (IRC)
2021 International Mechanical Code (IMC)
2021 International Fuel Gas Code (IFGC)
2021 Uniform Plumbing Code (UPC)
2021 International Fire Code (IFC)
2021 International Existing Building Code
2021 International Swimming Pool and Spa Code
2921 Washington State Energy Code (WCEC)
ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, with statewide and City amendments

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

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

Civil Engineer

Duffy Ellis
CES Civil Engineering
701 N 36 Street #450 Seattle WA 98103
206.930.0342

Structural Engineer

RB Engineers, Inc.
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995

Contractor

Artoush Construction and Remodeling
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995

Project Description

Demolish existing and build new single family residence.

Legal/Parcel #

CALKINS C C 1ST TO EAST SEATTLE S 1/2 OF 8 & ALL OF 9-10

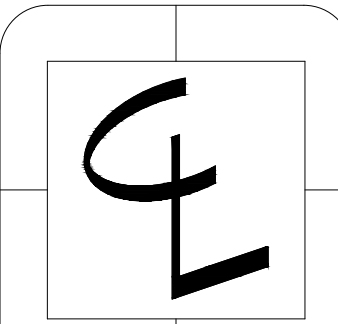
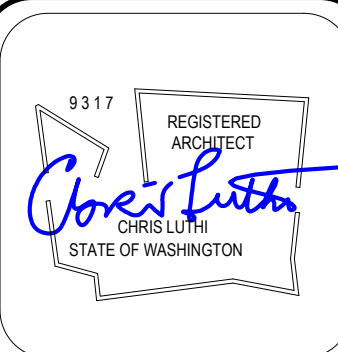
Zoning - R-8.4

Parcel Number : 1300301391

Owner

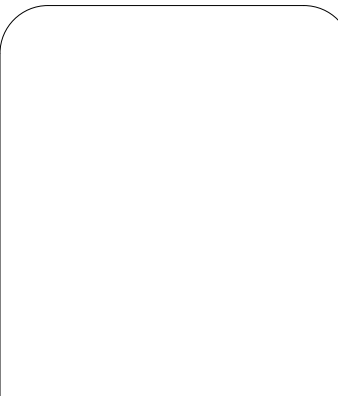
Artoush Fanaiyan

Artoush Construction and Remodeling
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995



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DESIGN
4737 37th AVE SW
SEATTLE
206.935.4684

www.Centerline-Design.com



DUFFY ELLIS
REGISTERED PROFESSIONAL ENGINEER
STATE OF WASHINGTON
NO. 34277

Duffy Ellis
CES Civil Engineering
701 N 36 Street #450 Seattle WA 98103
206.930.0342

RB Engineers, Inc.
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995

Artoush Construction and Remodeling
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995

CONTENTS

Site Plan

Zoning - R-8.4
Parcel Number : 1300301391

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DATE
9.29.25

Artoush Construction and Remodeling
13101 NE 50th ST Bellevue WA
(425) - 890 - 9995

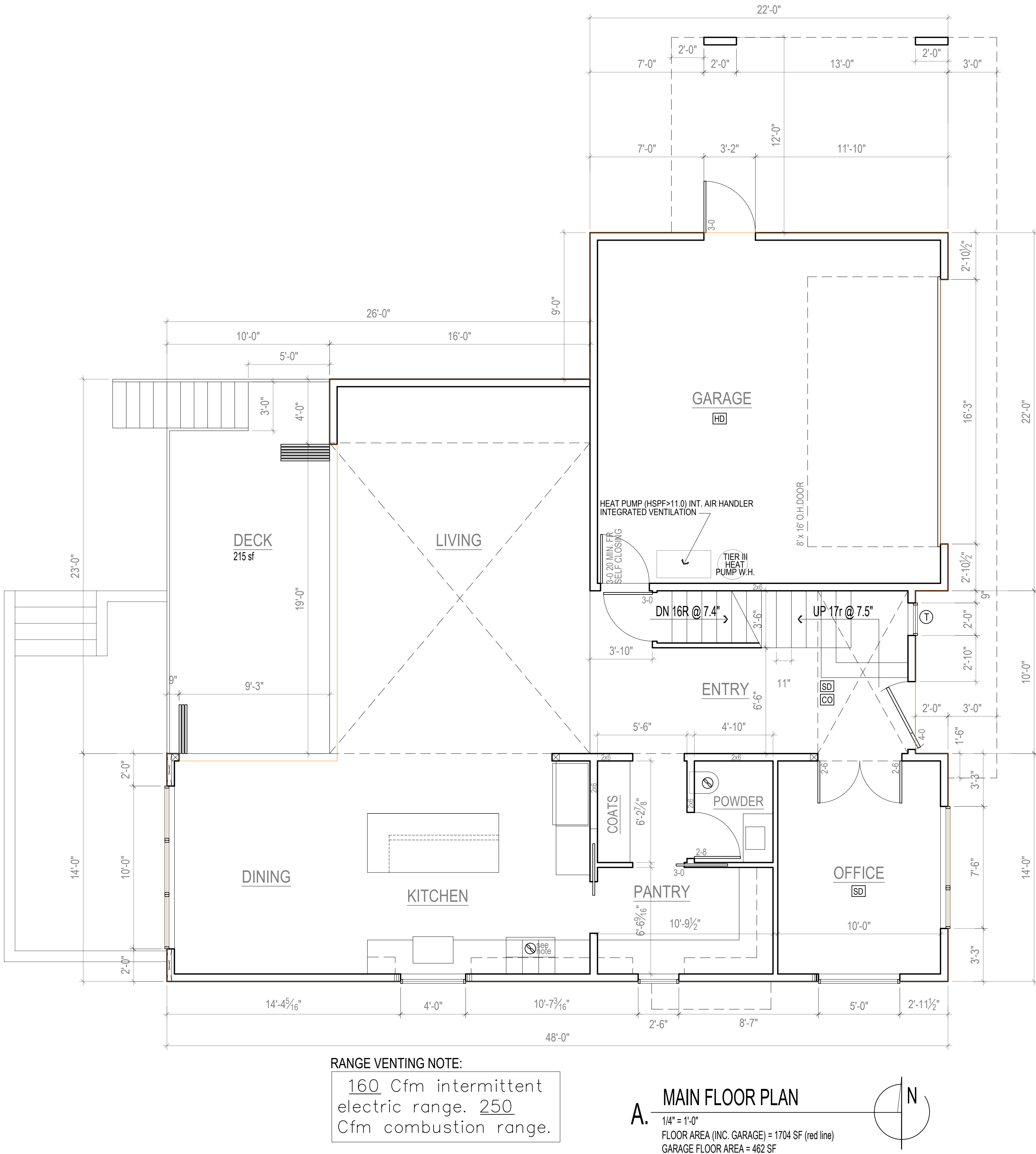
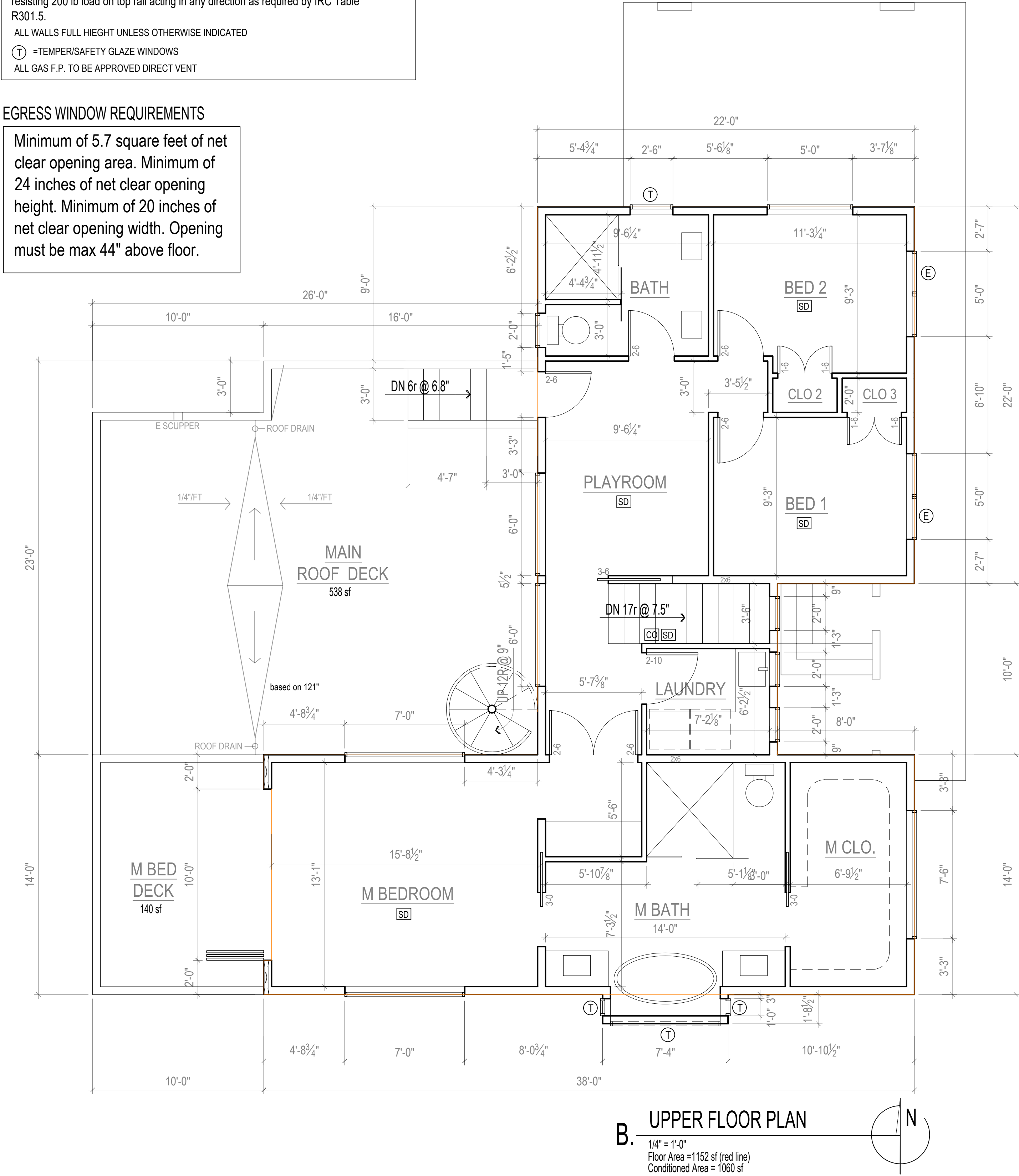
01

NOTES

[SD] = SMOKE DETECTOR, HARDWIRE, INTERCONNECTED w/ BATTERY BACK-UP
[CO] = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP
[HD] = HEAT DETECTOR, HARDWIRE w/ BATTERY BACK-UP
DOORS ARE 3'-0" x 7'-10" (r.o. = 3'-2" x 8'-0") unless otherwise indicated
[FAN] = 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

EGRESS WINDOW REQUIREMENTS

Minimum of 5.7 square feet of net clear opening area. Minimum of 24 inches of net clear opening height. Minimum of 20 inches of net clear opening width. Opening must be max 44" above floor.



8317
REGISTERED
ARCHITECT
Chris Luhn
CHRIS LUHN
STATE OF WASHINGTON

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

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Mercer Island WA

CONTENTS
Floor Plans

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02

NOTES

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

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

 = FAN, 50 CFM UNLESS OTHERWISE INDICATED

FOR SHEAR WALL INFORMATION SEE STRUCTURAL PLANS

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

Ⓔ =EGRESS WINDOWS

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

ALL WALLS FULL HIEGHT UNLESS OTHERWISE INDICATED

(T) =TEMPER/SAFETY GLAZE WINDOWS

ALL GAS F.P. TO BE APPROVED DIRECT VENT

EGRESS WINDOW REQUIREMENTS

Minimum of 5.7 square feet of net clear opening area. Minimum of 24 inches of net clear opening height. Minimum of 20 inches of net clear opening width. Opening must be max 44" above floor.

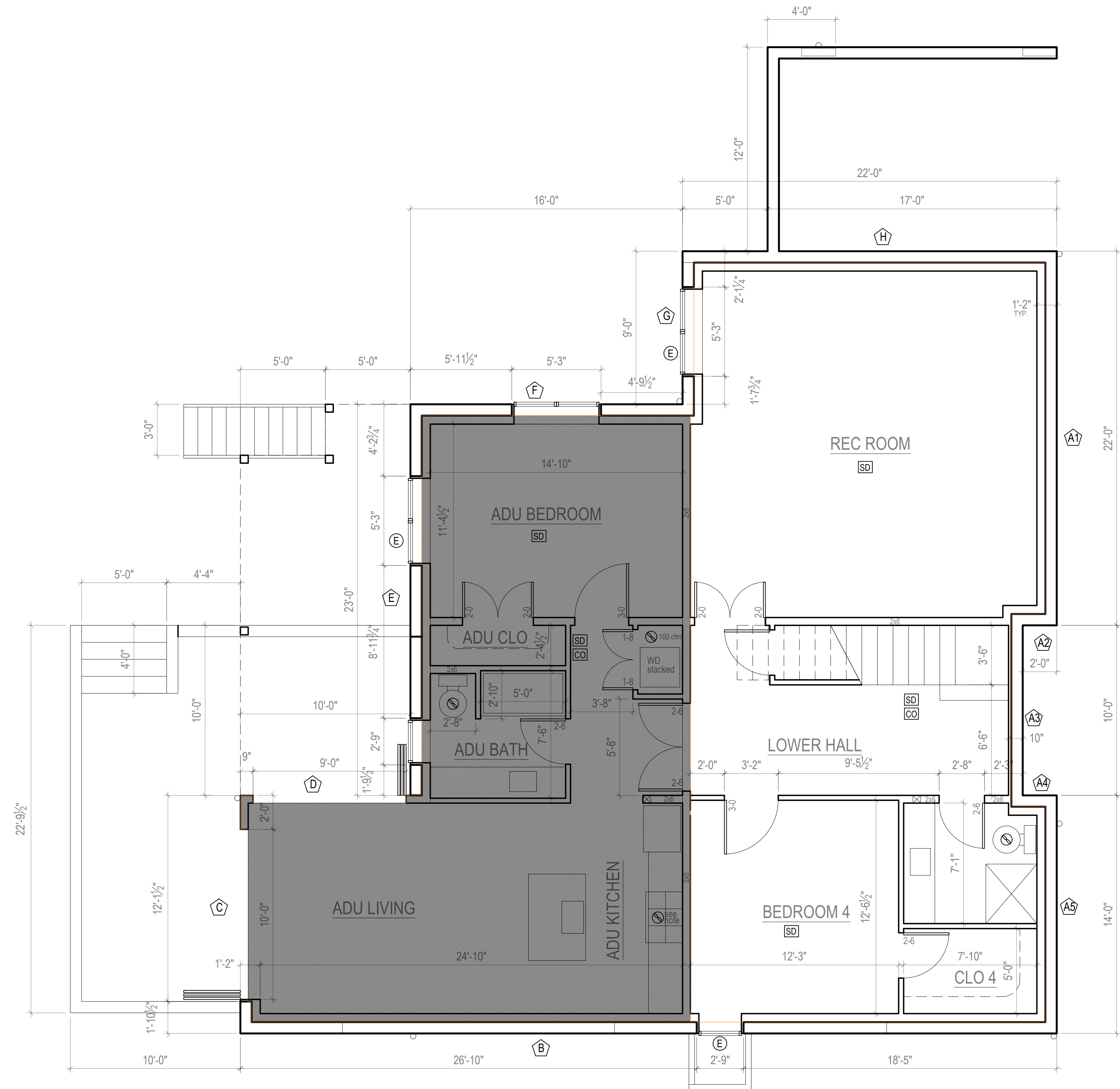
BASEMENT EXCEPTION CALC.

[illegible]

perim=	170	wtd avg	823.17
		full avg	1360.00
raw FAR	1604	%	60.53%

full cover = 8.0 ft (fin. clg.)

excepted area =	970.86
-----------------	--------



RANGE VENTING NOTE:

160 Cfm intermittent electric range. 250 Cfm combustion range.

BASEMENT FLOOR PLAN

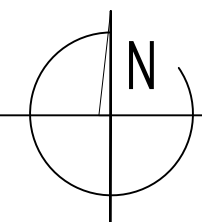
A. 1/4" = 1'-0"

FLOOR AREA = 1604 SF (red line)

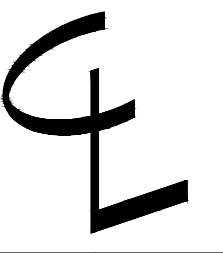
ADU FLOOR AREA = 696 SF (shaded)

 = BASEMENT WALL SEGMENTS FOR BASEMENT EXCEPTION CALC.

CONDITIONED AREA PRIMARY = 868 SF
CONDITIONED AREA ADU = 646 SF



9317
REGISTERED
ARCHITECT
Chris Luthi
CHRIS LUTHI
STATE OF WASHINGTON



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CONTENTS

Basement Plan

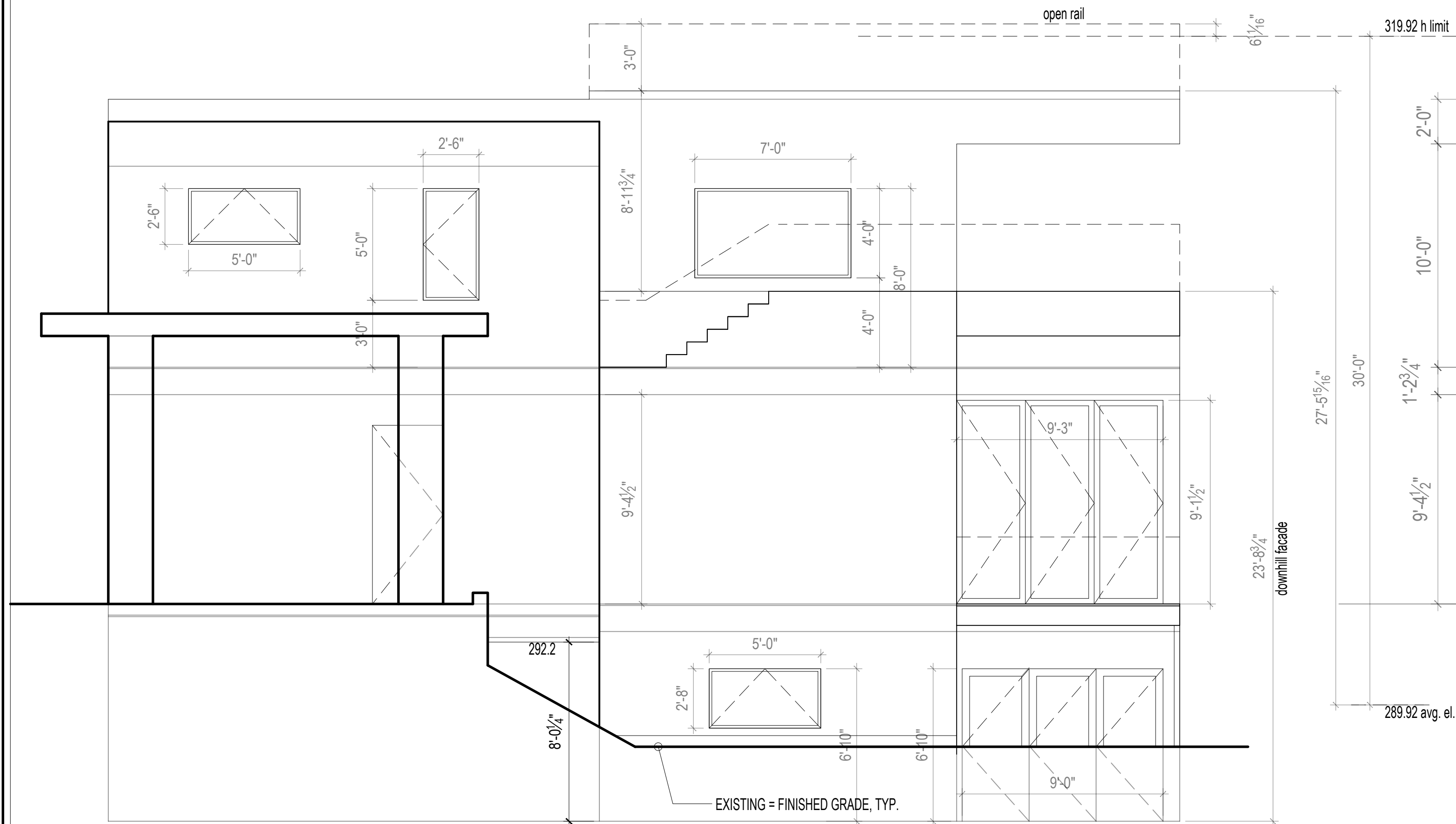
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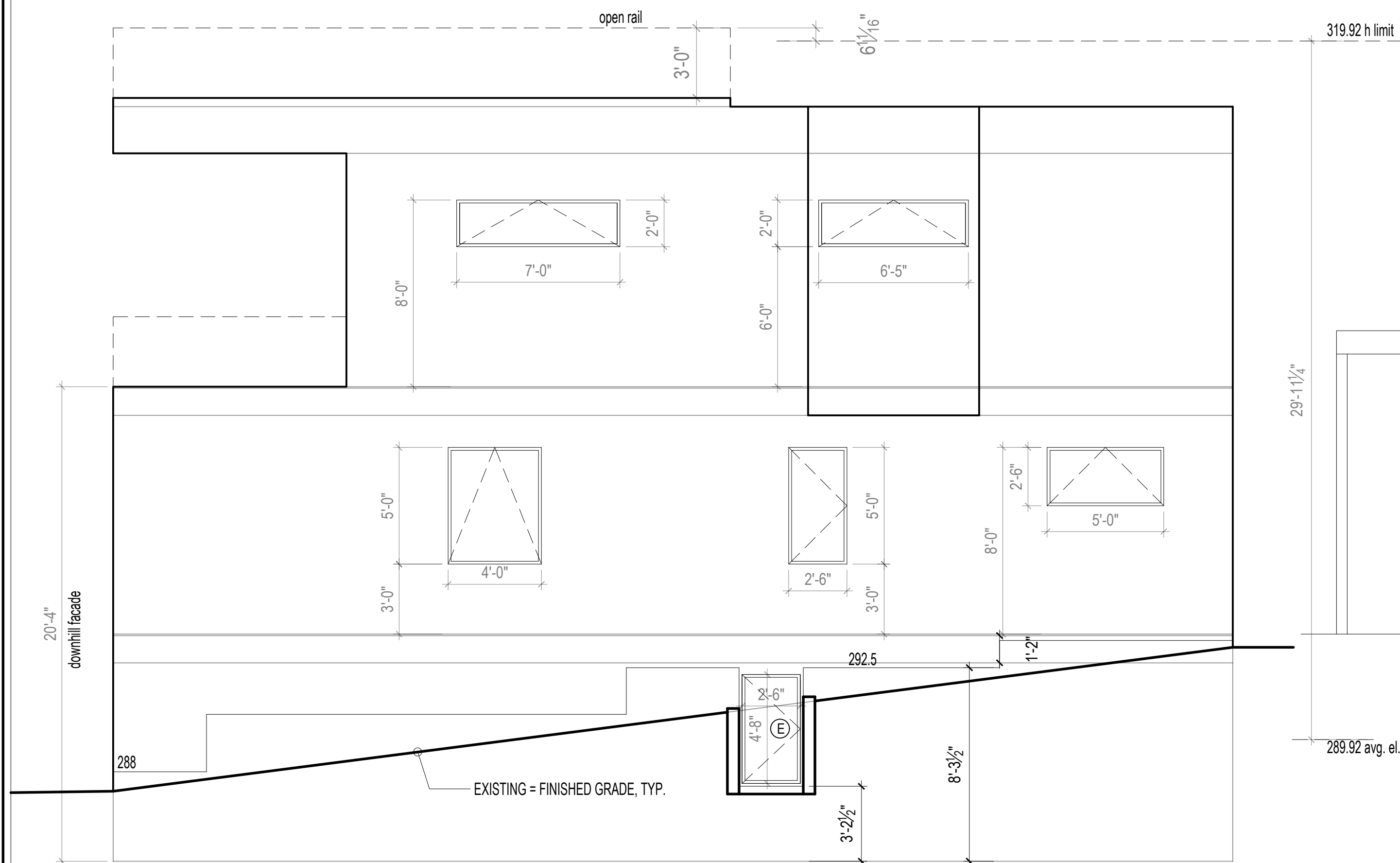
DATE _____

9.29.25

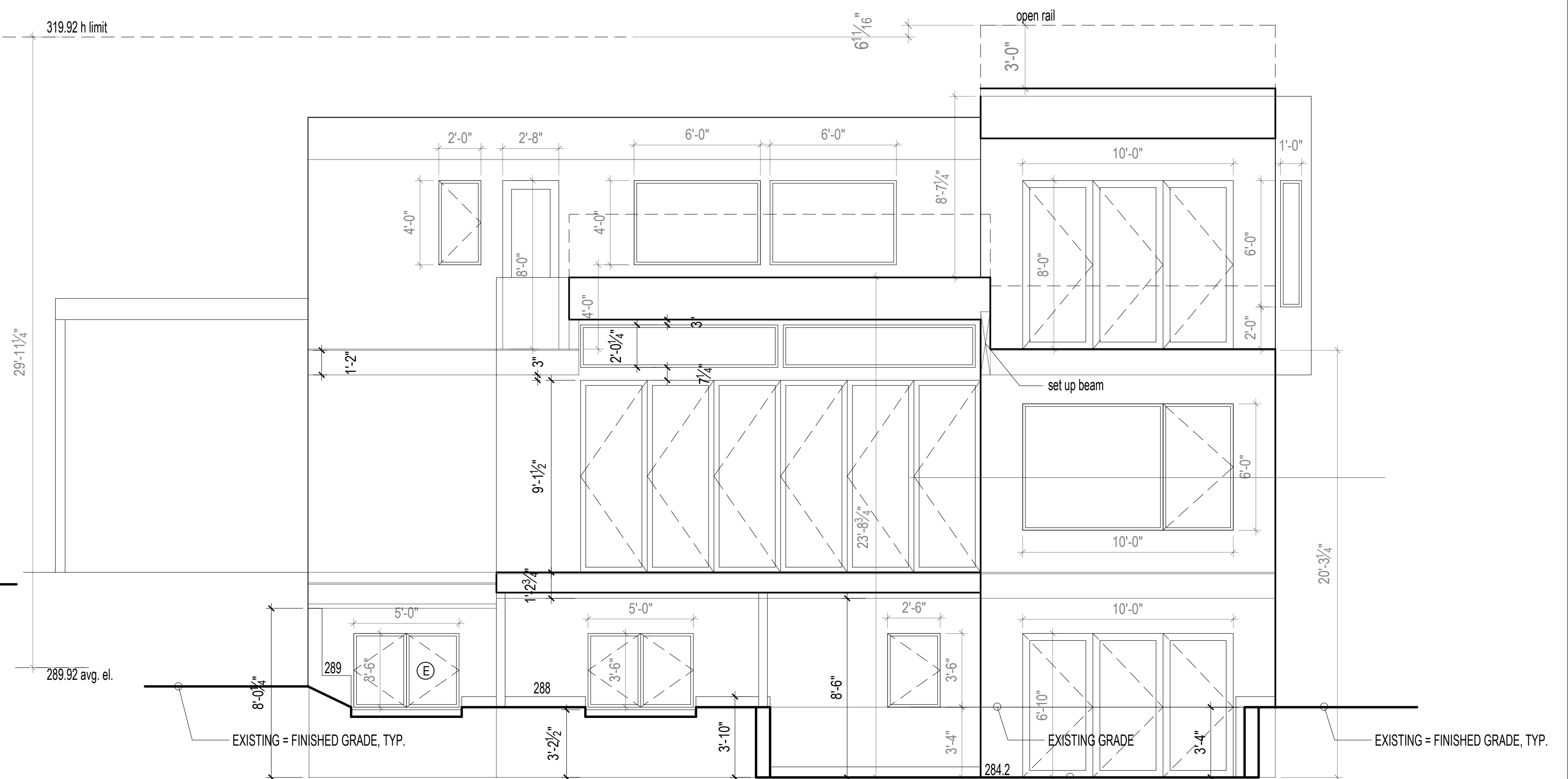
03



B. EAST ELEVATION
1/4" = 1'-0"



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



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

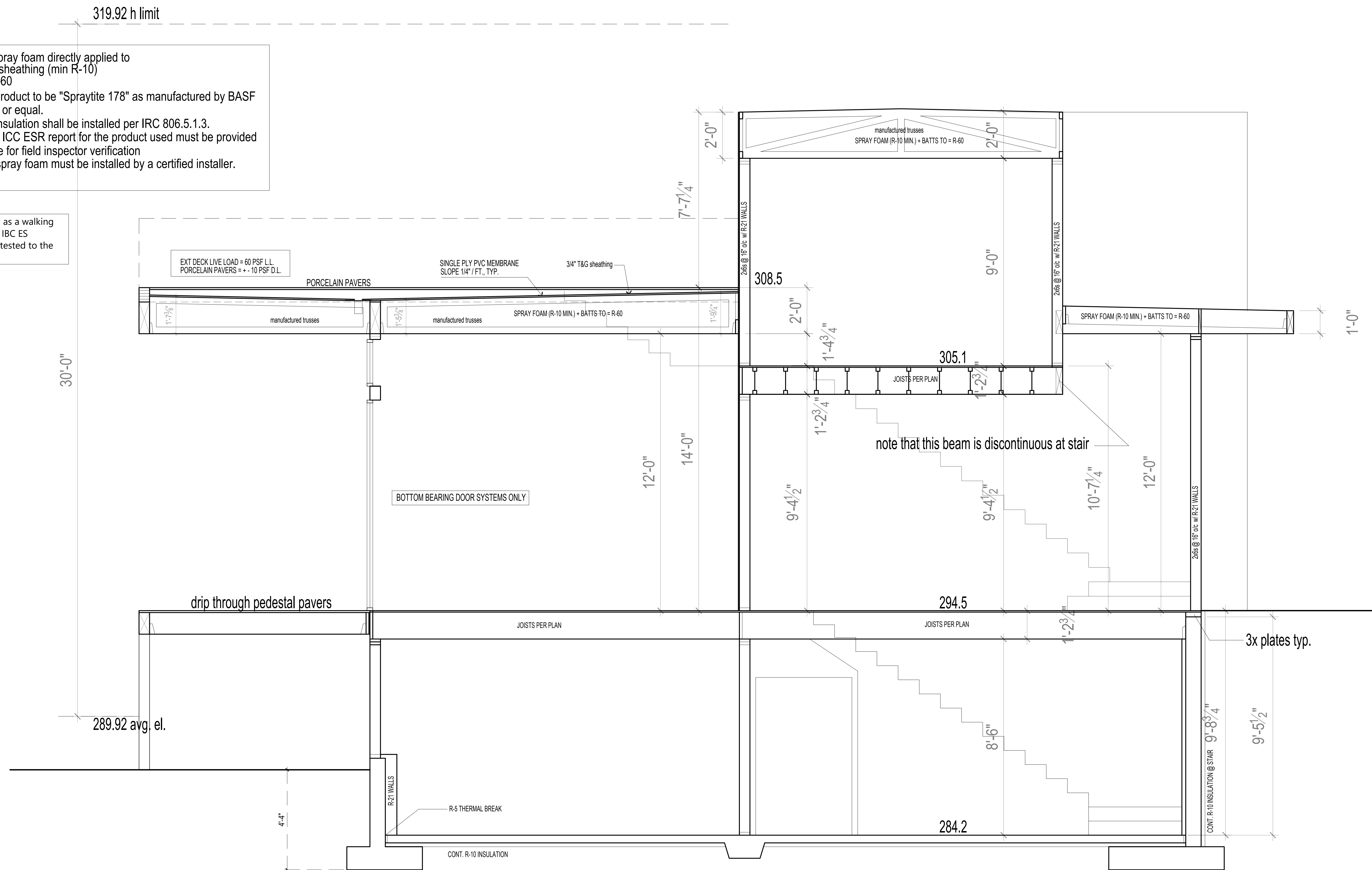
Closed cell spray foam directly applied to underside of sheathing (min R-10)
+ batts to = R-60

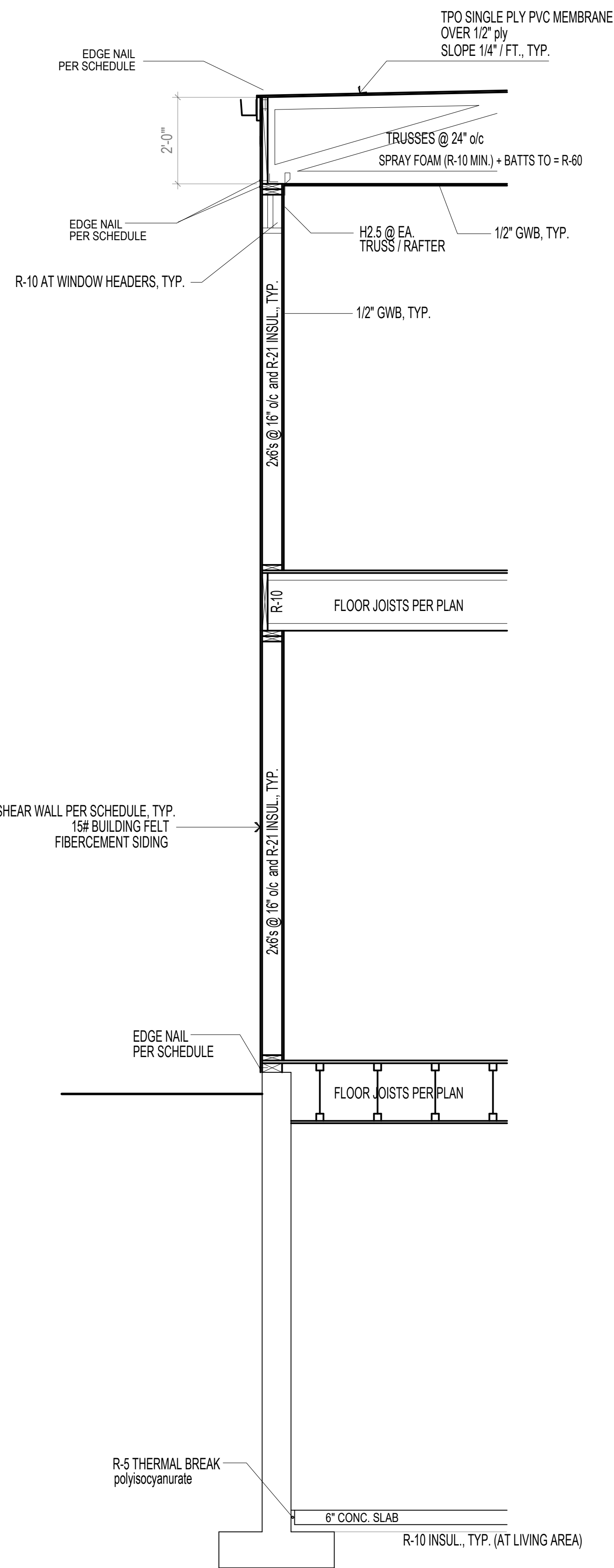
Spray foam product to be "Spraytite 178" as manufactured by BASF (ESR-2642), or equal.

Spray foam insulation shall be installed per IRC 806.5.1.3.

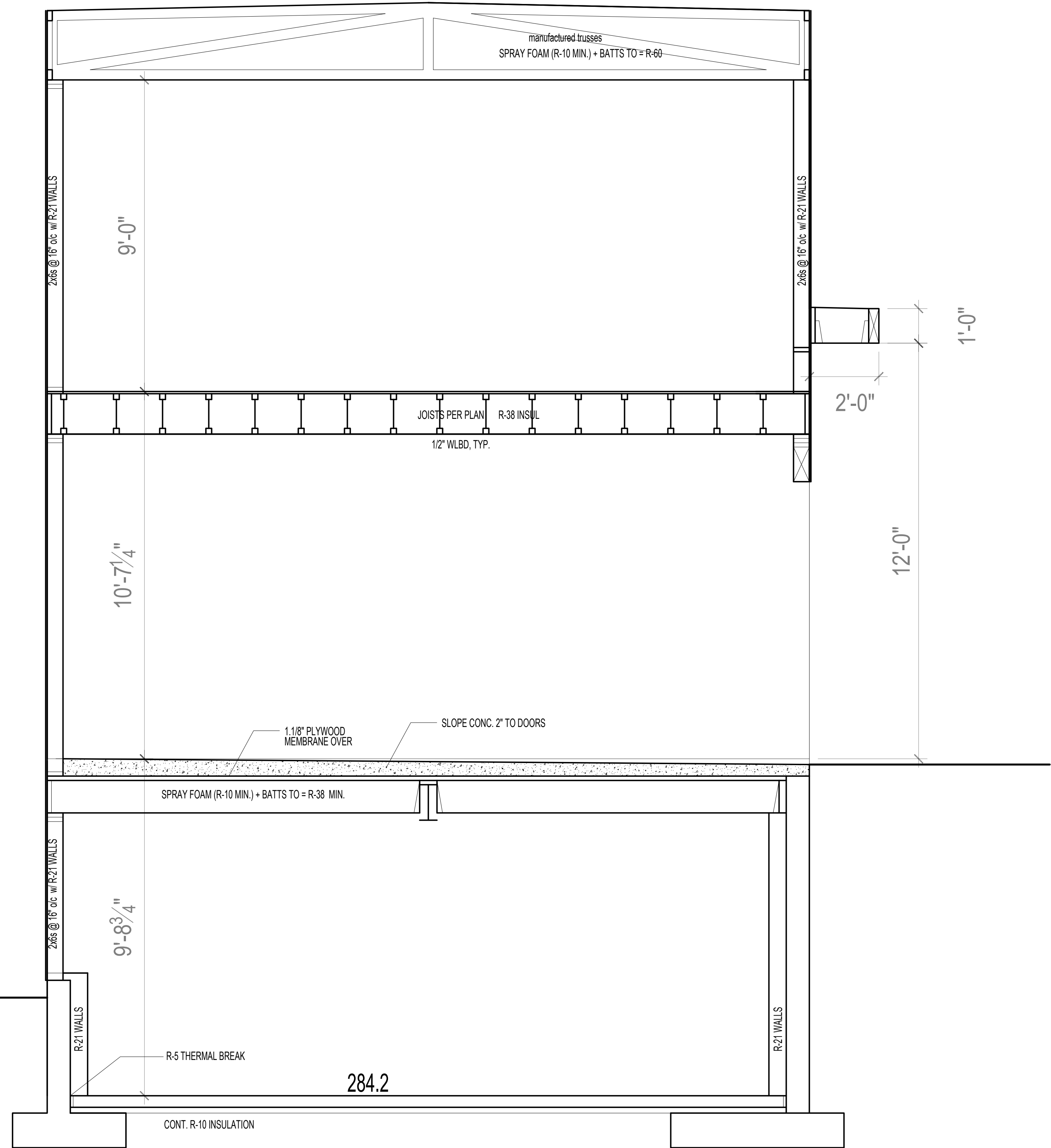
A copy of the ICC ESR report for the product used must be provided on the job site for field inspector verification

The applied spray foam must be installed by a certified installer.

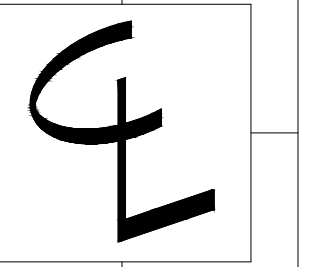
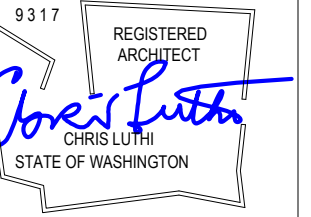




B. TYPICAL SECTION
1/2" = 1'-0"



A. SECTION B.B THRU GARAGE
1" = 1'-0"



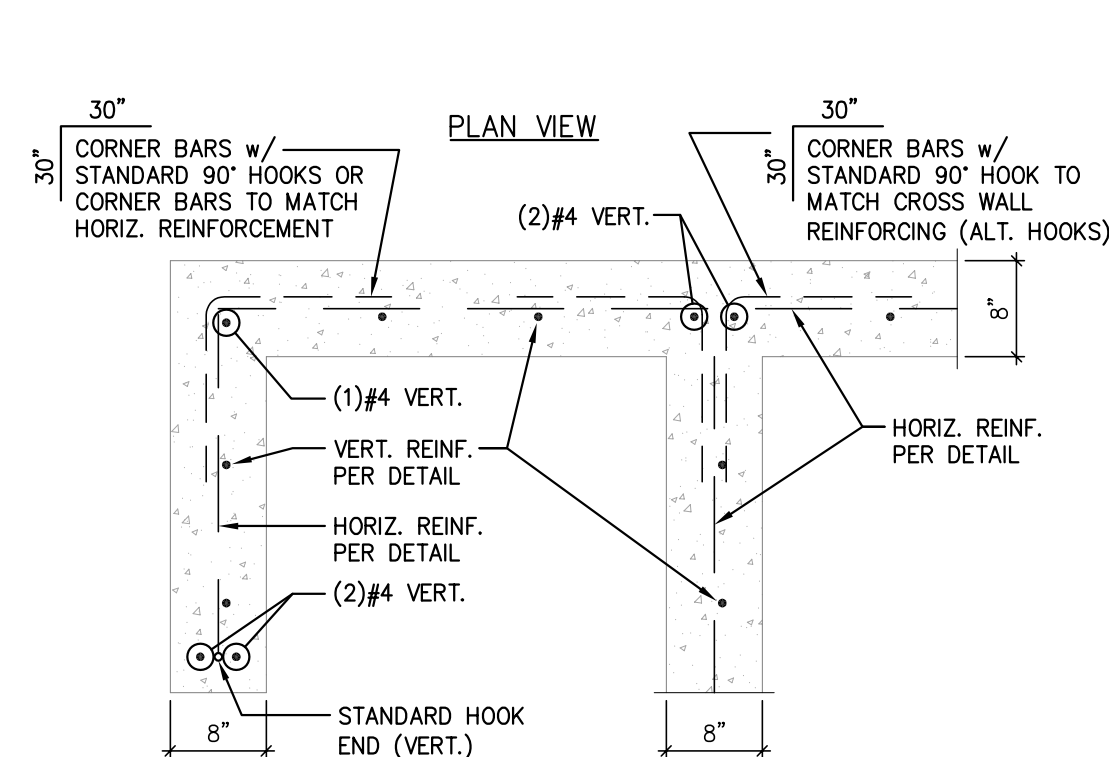
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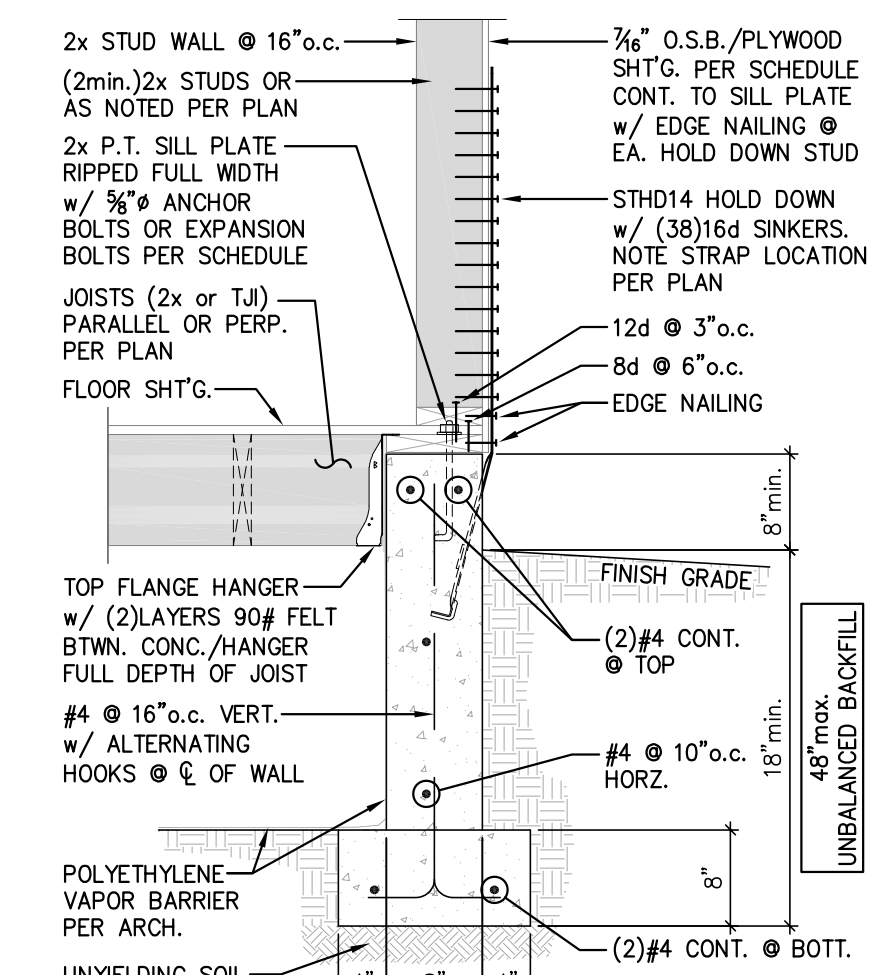
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Sections

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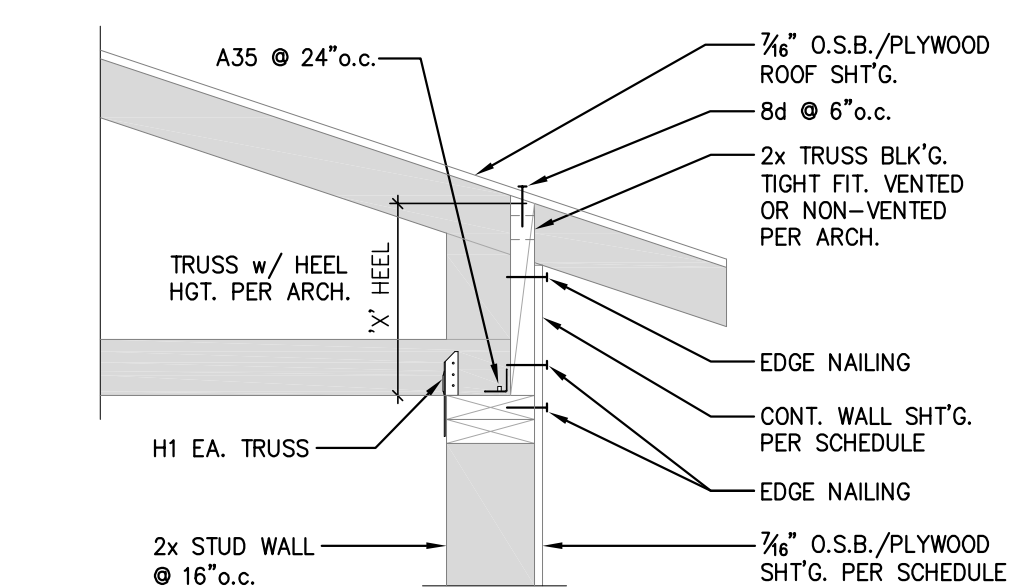
5.1



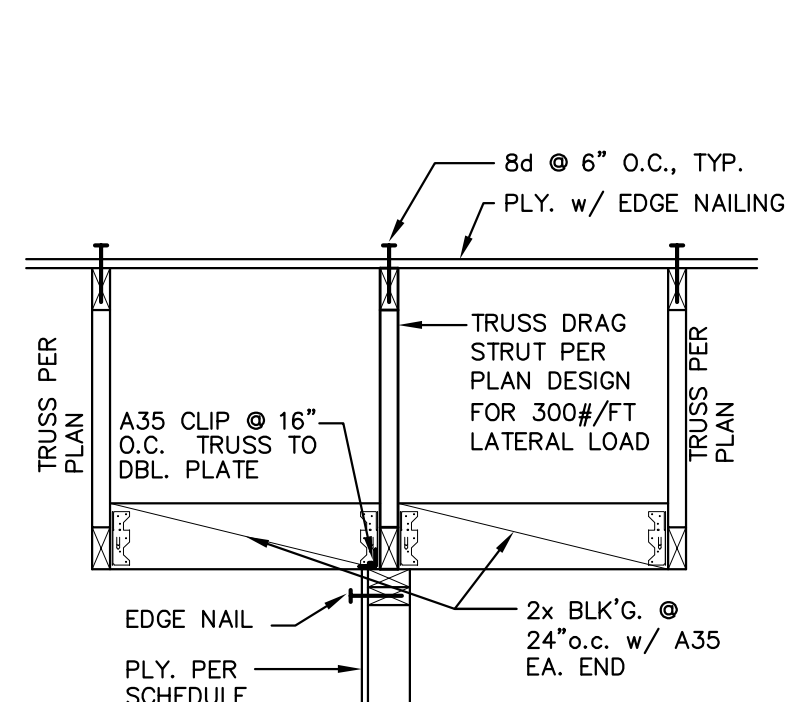
TYP. REINFORCEMENT @ CORNERS & INTERSECTIONS
A0 N.T.S.



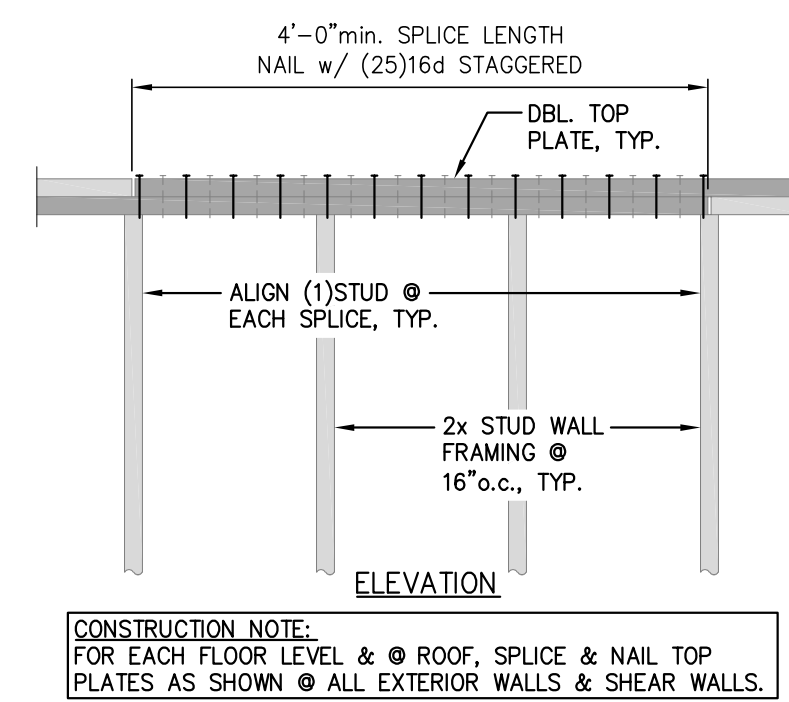
E1 EXT. SHEARWALL @ CRAWLSPACE
3/4"=1'-0" TYPICAL REINFORCEMENT @ CORNERS & INTERSECTIONS PER DETAIL A0/S1



Fb EAVE @ ROOF (TRUSS w/ RAISED HEEL)
1"=1'-0"



G DRAG STRUT TRUSS
3/4"=1'-0"

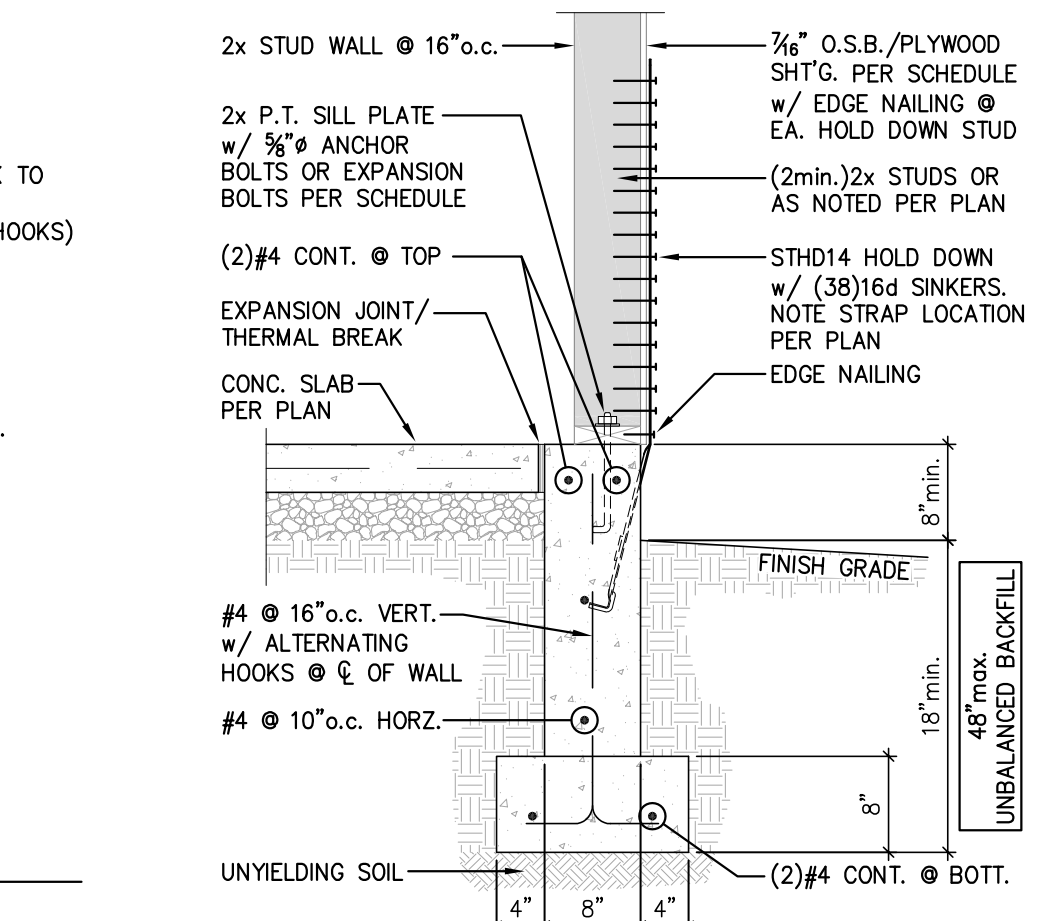


H DBL. TOP PLATE SPLICE
3/4"=1'-0"

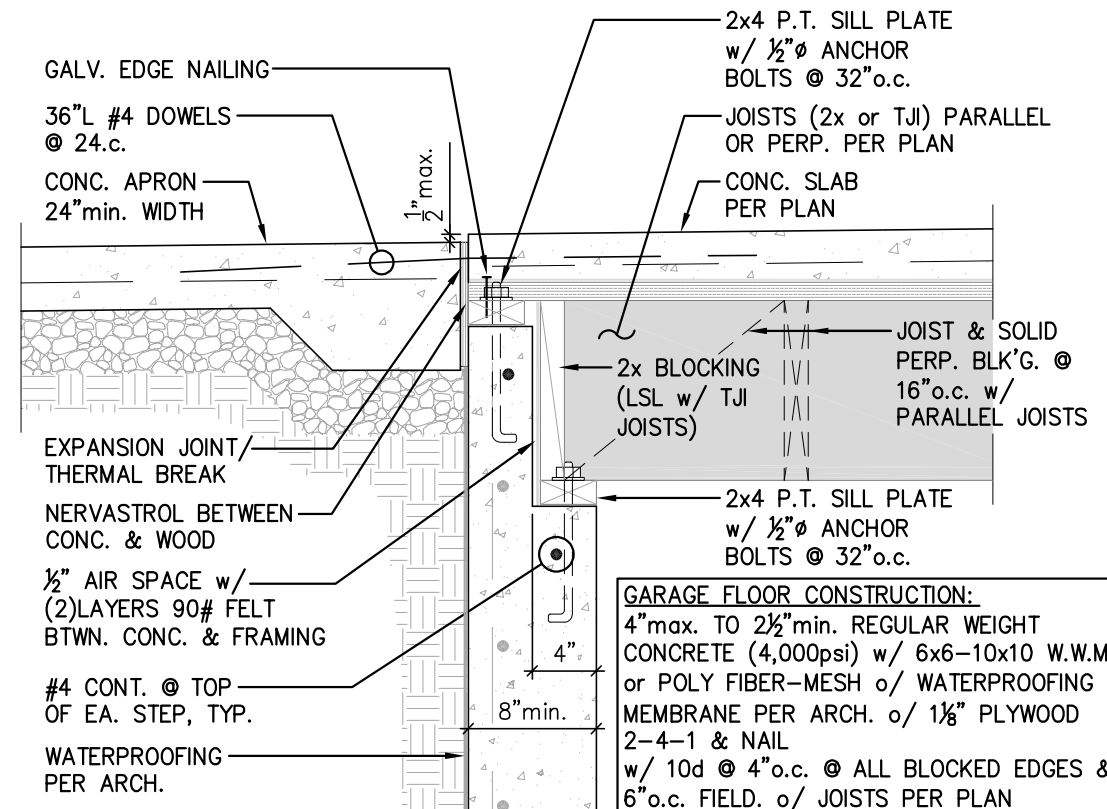
I JOIST PERP. TO EXT. WALL
1"=1'-0"

J JOIST PARALLEL TO EXT. WALL
1"=1'-0"

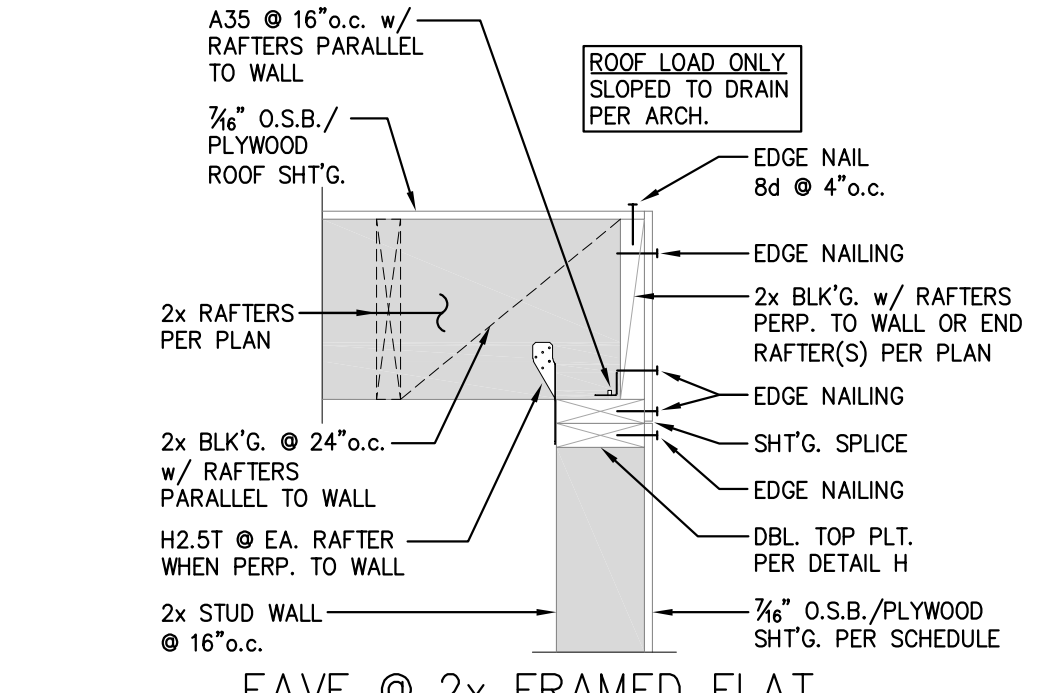
K CS16 STRAP @ FLOOR
3/4"=1'-0"



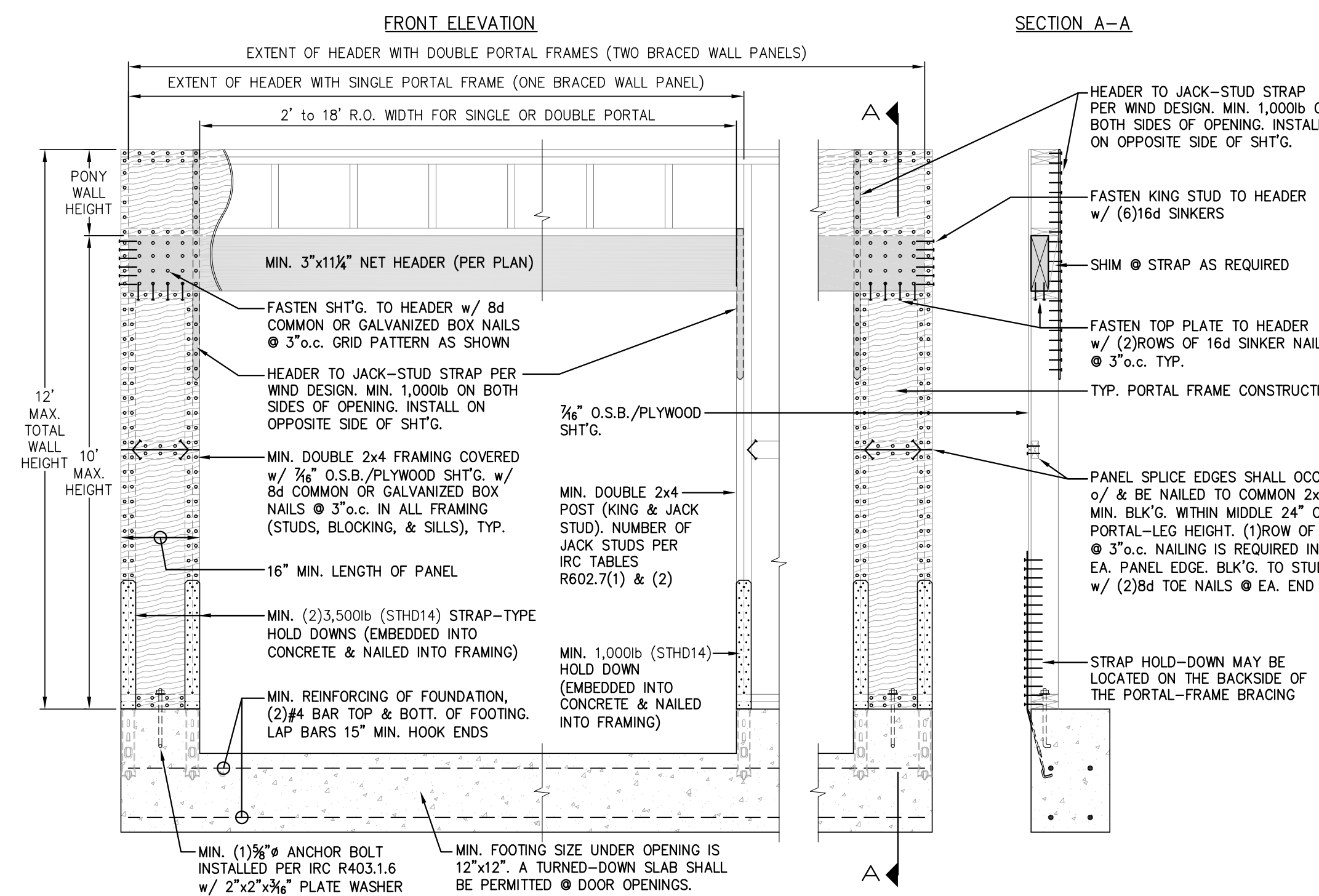
E EXT. SHEARWALL @ SLAB
3/4"=1'-0" TYPICAL REINFORCEMENT @ CORNERS & INTERSECTIONS PER DETAIL A0/S1



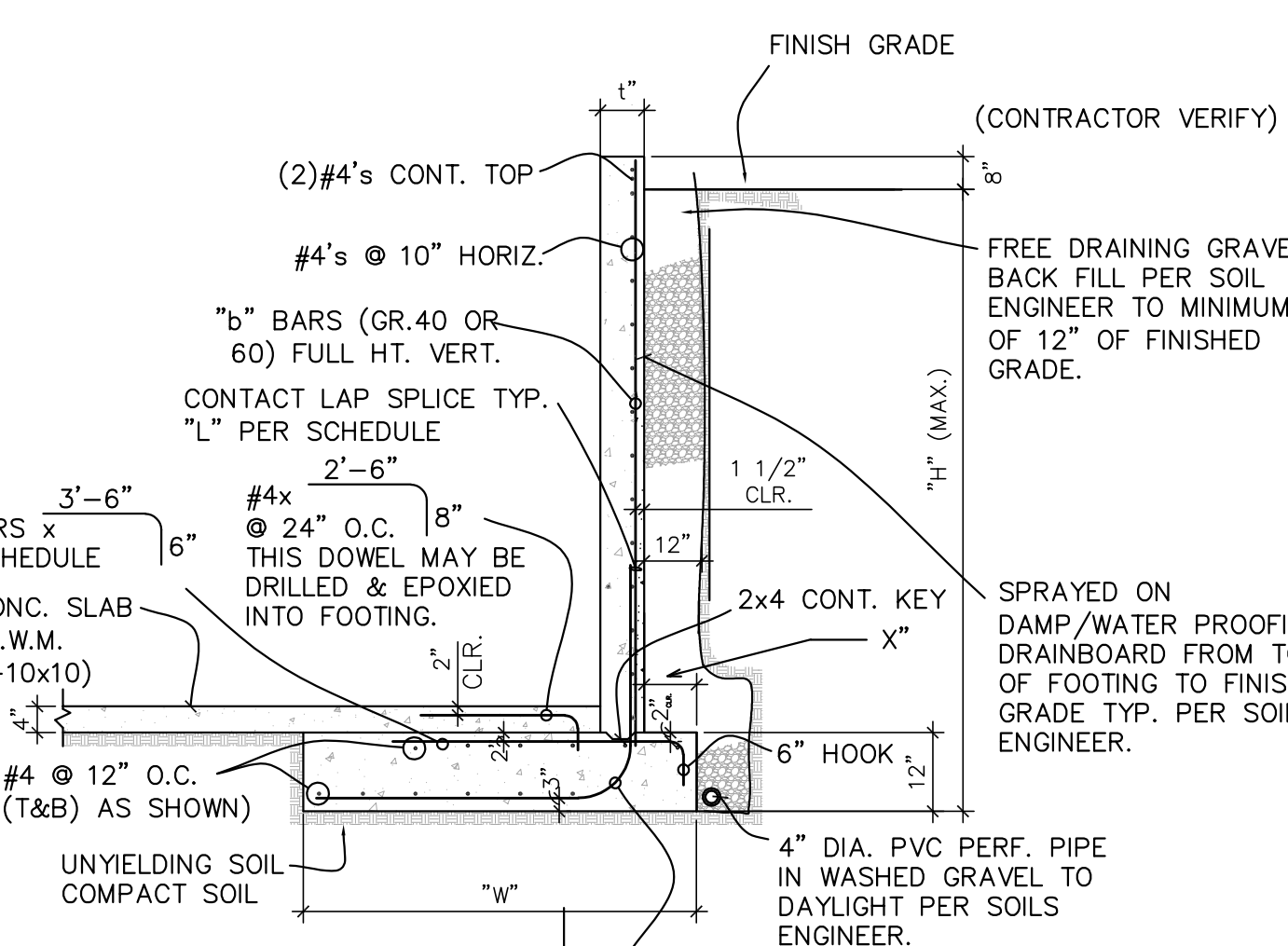
E2 CONC. SLAB o/ FRAMING @ GARAGE
1"=1'-0" TYPICAL REINFORCEMENT PER DETAIL C/S1 or C1/S1 or PER PLAN



EAVE @ 2x FRAMED FLAT
F4 ROOF w/ NO OVERHANG
1"=1'-0"



D APA PORTAL-FRAME w/ HOLD DOWNS
N.T.S.



C1 'L' SHAPED RETAINING WALL
IMPORTANT NOTES:
1. CONTRACTOR MAY BACKFILL "H"/2 MAX. BEHIND WALLS PRIOR TO PLACEMENT OF SLAB ON GRADE.
2. CONTRACTOR MAY NOT FULLY BACKFILL BEHIND WALL UNTIL REINF. SLAB IS IN PLACE & CURED.

- RETAINING WALL NOTES:
- 1,500 PSF SOIL BEARING, 0.4 CO. OF FRICTION (ASSUMED)
 - 35 PCF EQUIV. FLUID PRESSURE, 250 PCF PASSIVE PRESSURE. (ASSUMED)
 - 2,500 PSI CONCRETE.
 - GRADE 40 OR 60 REINF.
 - CONTRACTOR SHALL VERIFY ALL EXISTING & FINISH GRADES PRIOR TO CONSTRUCTION.
 - REINFORCING SHALL BE INSPECTED PRIOR TO POURING CONCRETE.
 - BUILDING INSPECTOR/SOILS ENGINEER TO INSPECT & APPROVE SOILS BELOW FOOTING PRIOR TO CONSTRUCTION OF FOOTINGS.
 - THIS DESIGN SHALL NOT BE CONSTRUCTED ON SILT OR CLAY BEARING SOILS, OR WITH SILT OR CLAY BACKFILL BEHIND WALLS.
 - CONTRACTOR SHALL COMPLY WITH ALL O.S.H.A. & W.I.S.H.A. HEALTH & SAFETY STANDARDS.
 - BACKFILL SHOULD BE PLACED WITH EXTREME CARE TO AVOID EXCESSIVE HORIZONTAL LOADS ON THE WALL. THIS REQUIREMENT SHOULD TAKE PRECEDENCE OVER COMPLETE ADHERENCE TO THE COMPACTION CRITERIA.

RETAINING WALL SCHEDULE							
"H" MAX. FT.	"W"	"a"	"b"	"c"	"L"	"t"	"X"
5'	2'-0"	#4@9"	4@9"	#4@9"	3'-6"	8"	6"
6'	2'-6"	#4@9"	4@9"	#4@9"	3'-9"	8"	6"
7'	3'-0"	#4@8"	#4@8"	#4@8"	4'-0"	8"	8"
8'	3'-6"	#4@8"	#4@8"	#4@8"	4'-3"	8"	8"
9'	4'-0"	#5@12"	#5@12"	#5@12"	4'-6"	8"	8"
10'	4'-6"	#5@12"	#5@12"	#5@12"	4'-9"	8"	8"
11'	5'-0"	#5@10"	#5@10"	#5@10"	5'-0"	10"	10"
12'	5'-6"	#5@10"	#5@10"	#5@10"	5'-3"	10"	10"
13'	6'-0"	#5@6"	#5@6"	#5@6"	5'-3"	10"	10"

SHEARWALL SCHEDULE:

SW-4

INDICATES SHEARWALL w/ SHEATHING ONE SIDE

1. SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., ONE SIDE, BLOCKED, NAIL w/ 8d @ 4" o.c. ALL EDGES & 6" o.c. FIELD.
2. BOLT SILL PLATE TO CONCRETE w/ 5/8 @ x 10" ANCHOR BOLTS @ 32" o.c.
3. NAIL BOTTOM PLATE TO FRAMING BELOW w/ 16d @ 3" o.c.
4. FASTEN DOUBLE TOP PLATE TO JOIST or BLOCKING ABOVE PER DETAILS AS PROVIDED.

SW-3

INDICATES SHEARWALL w/ SHEATHING ONE SIDE

1. SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., ONE SIDE, BLOCKED, NAIL w/ 8d @ 3" o.c. ALL EDGES & 6" o.c. FIELD.
 - a. BOLT (3)2x SILL PLATE TO CONCRETE w/ 5/8 @ x 12" ANCHOR BOLTS @ 16" o.c. PER DETAIL D/S1
 - b. BOLT (2)2x SILL PLATE TO CONCRETE w/ 5/8 @ x 12" ANCHOR BOLTS @ 16" o.c.
2. NAIL BOTTOM PLATE TO FRAMING BELOW w/ 16d @ 4" o.c.
3. FASTEN DOUBLE TOP PLATE TO JOIST or BLOCKING ABOVE PER DETAILS AS PROVIDED.
4. USE 3x or (2)2x @ ALL FRAMING MEMBERS RECEIVING END NAILING FROM ABUTTING PANELS.

(2)SW-3

INDICATES SHEARWALL w/ SHEATHING TWO SIDES

1. SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., TWO SIDES, BLOCKED, NAIL w/ 8d @ 3" o.c. ALL EDGES & 6" o.c. FIELD.
2. BOLT 3x SILL PLATE TO CONCRETE w/ 5/8 @ x 12" ANCHOR BOLTS @ 16" o.c.
3. FASTEN DOUBLE BOTTOM PLATE TO DOUBLE JOIST or BLOCKING BELOW w/ 2-ROWS & 2-LAYERS 16d @ 4" o.c. or 2-ROWS A35 CLIPS @ 16" o.c.
4. FASTEN DOUBLE TOP PLATE TO DOUBLE JOIST or BLOCKING ABOVE w/ 2-ROWS & 2-LAYERS 16d TOE NAILS @ 4" o.c. & 2-ROWS A35 CLIPS @ 16" o.c. or PER DETAILS AS PROVIDED.
5. USE 3x or DBL. STUDS @ ALL FRAMING MEMBERS RECEIVING END NAILING FROM ABUTTING PANELS.

TYPICAL ROOF SHEATHING:

7/16" O.S.B., INDEX 40/20, UNBLOCKED, w/ FACE GRAIN PERPENDICULAR TO FRAMING BELOW. NAIL AS FOLLOWS:

DIAPHRAGM BOUNDARY, OVER EXTERIOR WALLS, SHEAR WALLS, & DRAG STRUTS:	8d @ 6" o.c.
ALL SUPPORTED EDGES:	8d @ 6" o.c.
FIELD:	8d @ 6" o.c.

TYPICAL FLOOR SHEATHING:

3/4" T&G O.S.B., INDEX 40/20, UNBLOCKED, LAID w/ FACE GRAIN PERPENDICULAR TO FRAMING BELOW. STAGGER END JOINTS, GLUE & NAIL AS FOLLOWS:

DIAPHRAGM BOUNDARY, OVER EXTERIOR WALLS, SHEAR WALLS, & DRAG STRUTS:	8d @ 6" o.c.
ALL SUPPORTED EDGES:	8d @ 6" o.c.
FIELD:	8d @ 6" o.c.

NOTES:

1. USE 3"x3"x1/4" PLATE WASHERS ON ALL ANCHOR BOLTS.
2. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) w/ SHEATHING PER NDS 2021 EDITION (SDPS) 4.3.6.4.3.
3. 5/8" EXPANSION BOLTS MAY BE USED IN LIEU OF ANCHOR BOLTS w/ SAME SPACING & 4-1/2" min. EMBEDMENT.
4. ALL POWDER DRIVEN NAILS SHALL BE 2 3/4" LONG(min.) x 0.156 SHANK @. w/ MINIMUM 1-1/4" PENETRATION.
5. USE 20d NAILS @ 3x FRAMING MEMBERS.
6.
 - a. 8d NAILS SHALL BE .131 x 2-1/2" LONG
 - b. 10d NAILS SHALL BE .148 x 3" LONG
 - c. 16d NAILS SHALL BE .162 x 3-1/2" LONG
 - d. 20d NAILS SHALL BE .192 x 4" LONG

HANGER SCHEDULE (U.N.O.)			
BEAM	* SIMPSON HANGER	BEAM	* SIMPSON HANGER
3 1/2" x	HGUS	6 3/4" x	HGUG
5 1/4" x	HGUS	7" x	HGUS
5 1/2" x	HGUG		

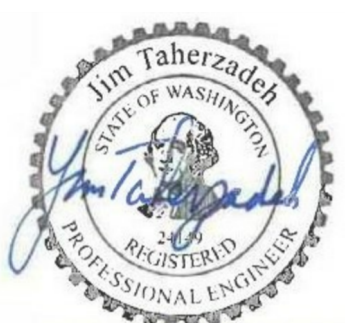
SPECIAL INSPECTION PROGRAM

ESTABLISHED PER CHAPTER 17 OF THE 2021 IBC, UNLESS NOTED OTHERWISE. ALL SPECIAL INSPECTIONS SHALL BE CONTINUOUS, UNLESS NOTED OTHERWISE.

TYPES OF WORK	PERIODIC	CONTINUOUS	COMMENTS
SOILS: GRADING, EXCAVATION, & FILL DRILLED PIERS / PIN PILES			REF. PROJECT SPECIFICATIONS REF. PROJECT SPECIFICATIONS
CONCRETE: PLACEMENT OF REINFORCING STEEL BOLTS CAST IN CONCRETE PLACING OF CONCRETE > 2,500 psi			
SPECIAL CASES: SHEAR WALL NAILING WOOD DIAPHRAGMS ADHESIVE ANCHOR INSTALLATION EXPANSION BOLT INSTALLATION HOLD DOWNS & STRAPS		X	PER ICC-ES EVALUATION REPORT PER ICC-ES EVALUATION REPORT PER FOOTNOTE #5

SPECIAL INSPECTION PROGRAM FOOTNOTES:

1. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
2. SPECIAL INSPECTOR SHALL BE HIRED BY THE PROJECT OWNER.
3. DUTIES OF THE SPECIAL INSPECTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - A. ACKNOWLEDGE THE SPECIAL INSPECTION PROGRAM & THE SPECIAL INSPECTION AND TESTING AGREEMENT, PROVIDED BY LOCAL JURISDICTION.
 - B. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED PERMIT PLANS & SPECIFICATIONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, TO THE ENGINEER & TO THE BUILDING OFFICIAL.
 - C. FOR EACH INSPECTION, THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, ARCHITECT, ENGINEER, CONTRACTOR, & OTHER DESIGNATED PARTIES IN A TIMELY MANNER.
 - D. THE SPECIAL INSPECTOR SHALL FURNISH A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, & WHETHER SAID WORK WAS IN CONFORMANCE WITH THE APPROVED PERMIT PLANS & SPECIFICATIONS, & THE APPLICABLE WORKMANSHIP PROVISIONS OF THE STATE OF WASHINGTON.
4. DUTIES OF THE CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - A. NOTIFY THE SPECIAL INSPECTOR AT LEAST 24 HOURS IN ADVANCE THAT THE WORK TO BE INSPECTED IS READY FOR SUCH INSPECTION.
 - B. ENSURE THAT ALL WORK REQUIRING SPECIAL INSPECTION REMAINS ACCESSIBLE & EXPOSED UNTIL IT HAS BEEN OBSERVED & INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR, & APPROVED BY THE BUILDING OFFICIAL.
 - C. PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED PERMIT PLANS & SPECIFICATIONS AT THE JOBSITE.
 - D. MAINTAIN AT THE JOBSITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.
5. ALL SPECIAL REQUIREMENTS FOR SEISMIC & WIND RESISTING SYSTEMS AS REQUIRED BY IBC SECTION 1704.3.2 & 1704.3.3.



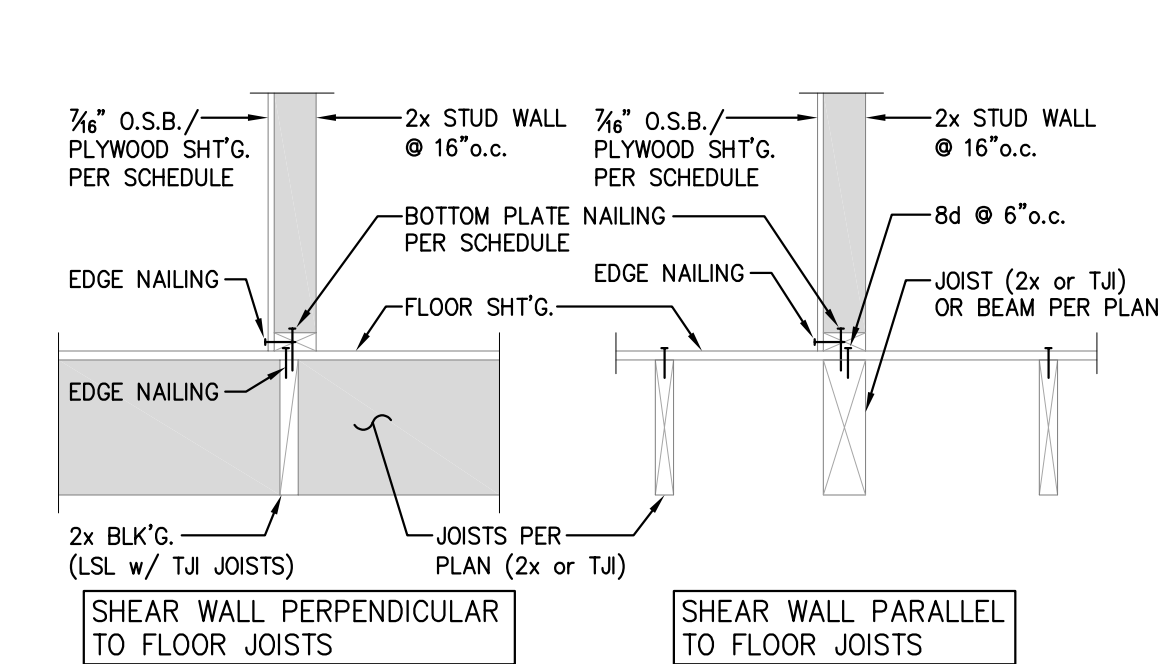
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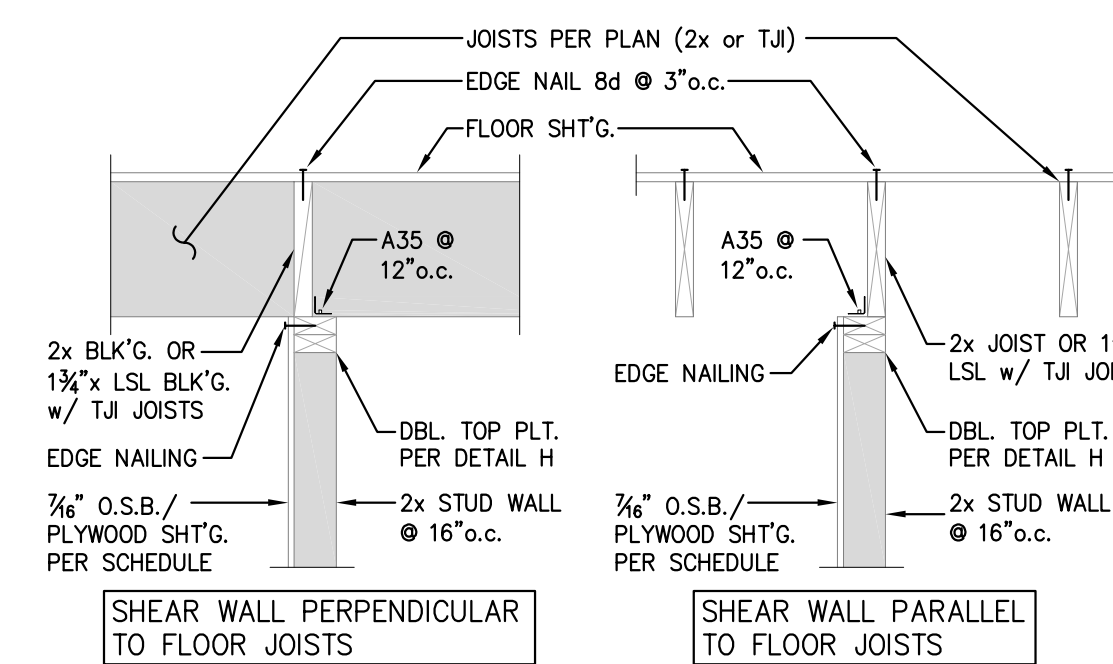
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S1



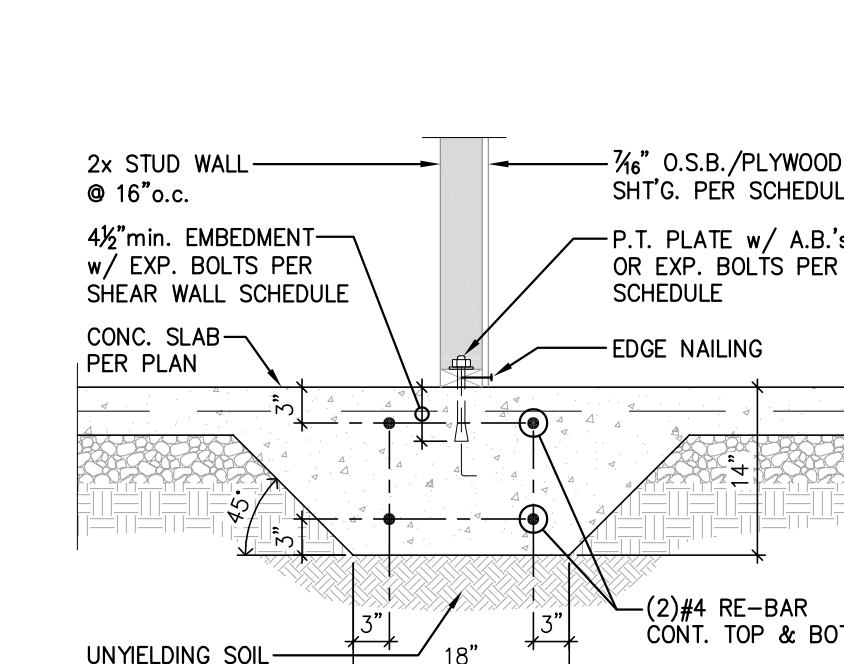
R-B-Engineers.com



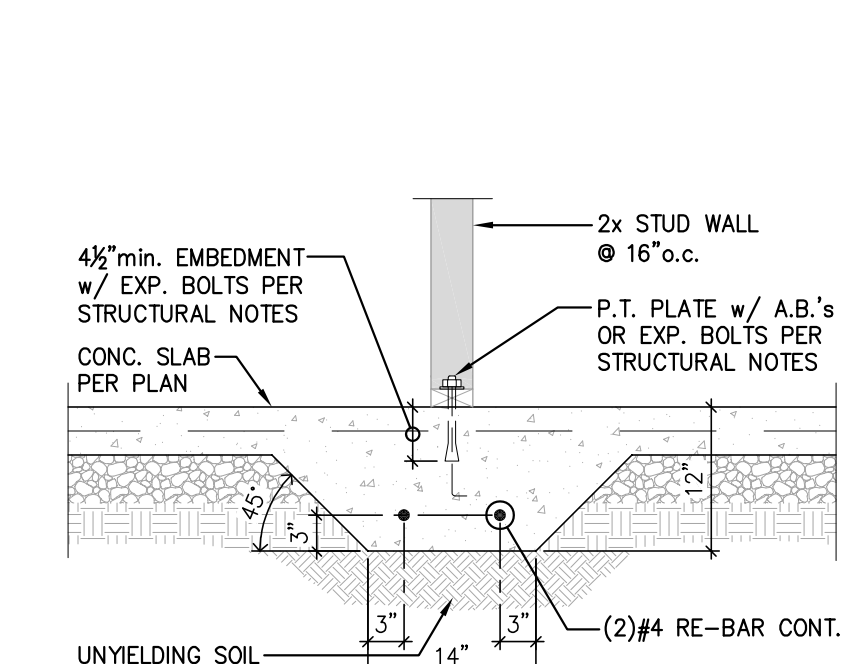
L INTERIOR SHEAR WALL TO FLOOR BELOW
3/4"=1'-0"



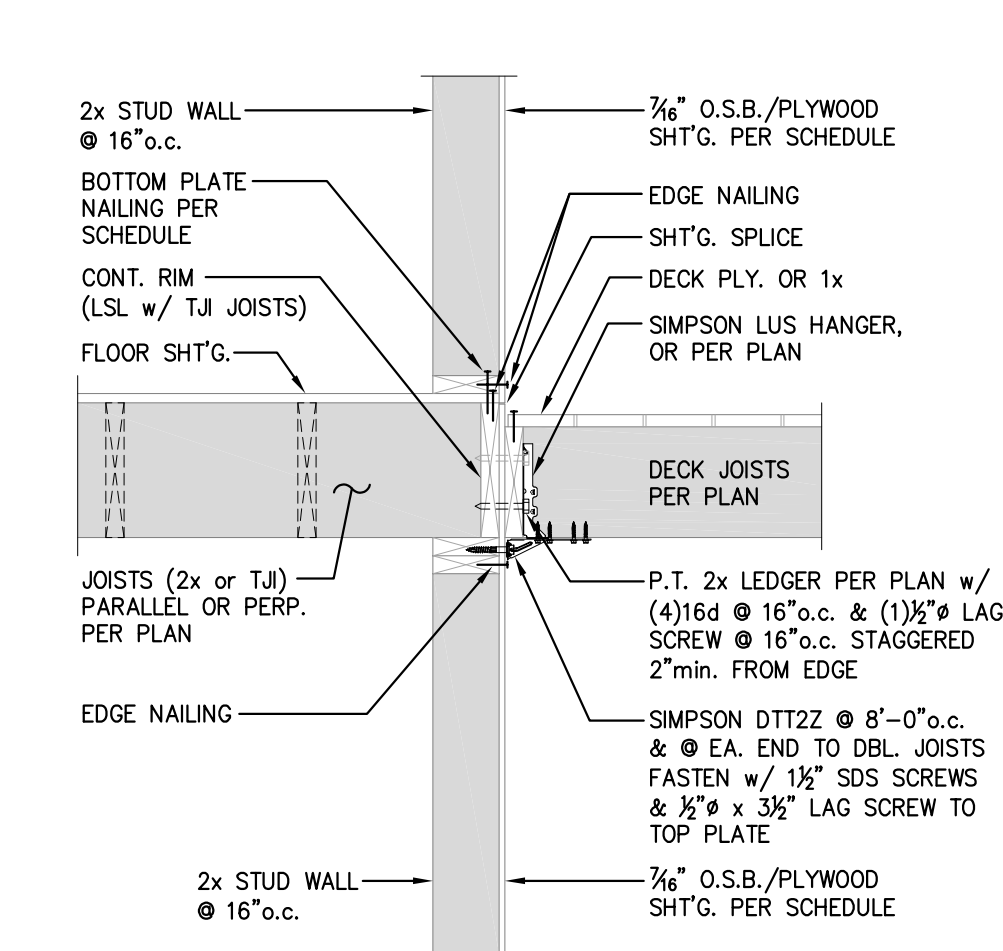
M INTERIOR SHEAR WALL TO FLOOR BELOW
3/4"=1'-0"



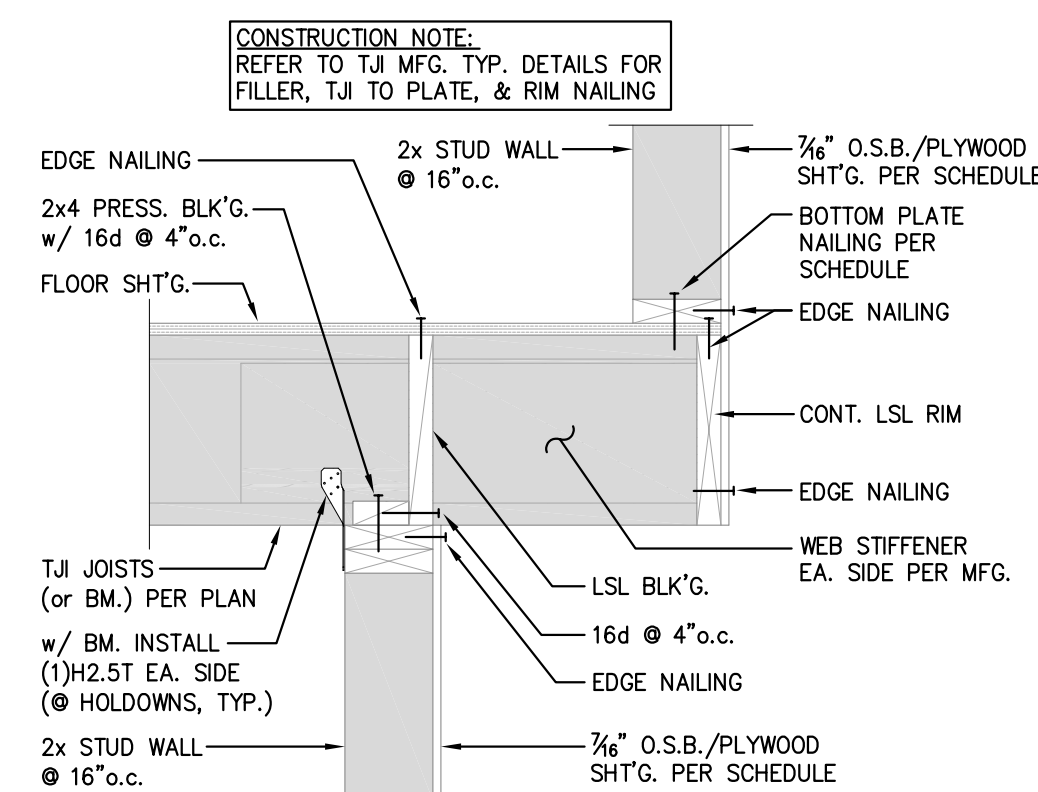
N THICKENED SLAB @ SHEAR WALL
3/4"=1'-0"



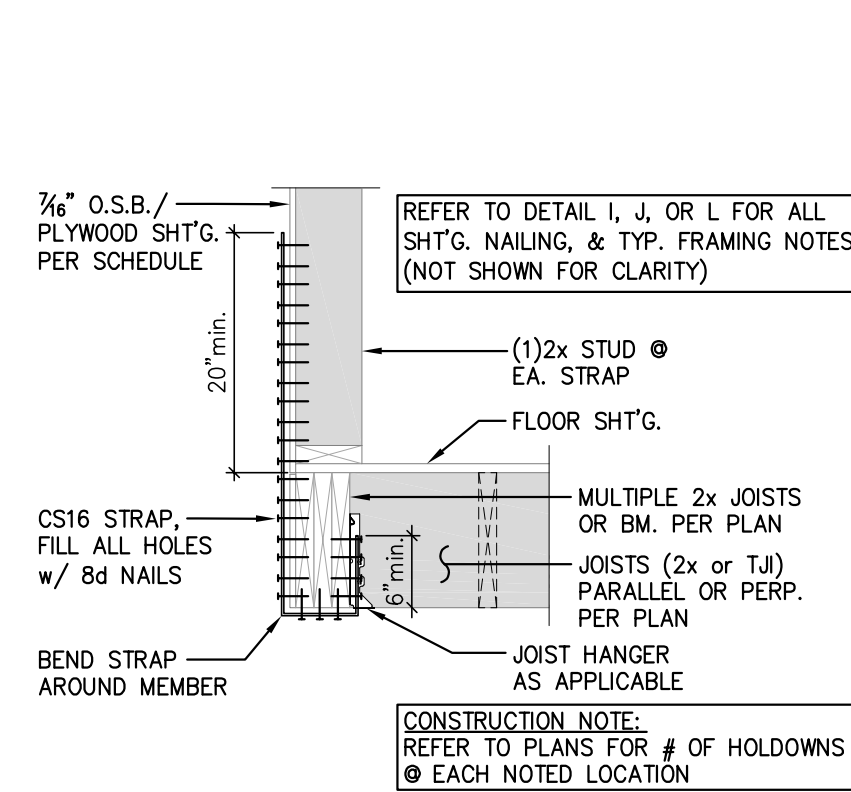
N1 THICKENED SLAB @ BEARING WALL
3/4"=1'-0"



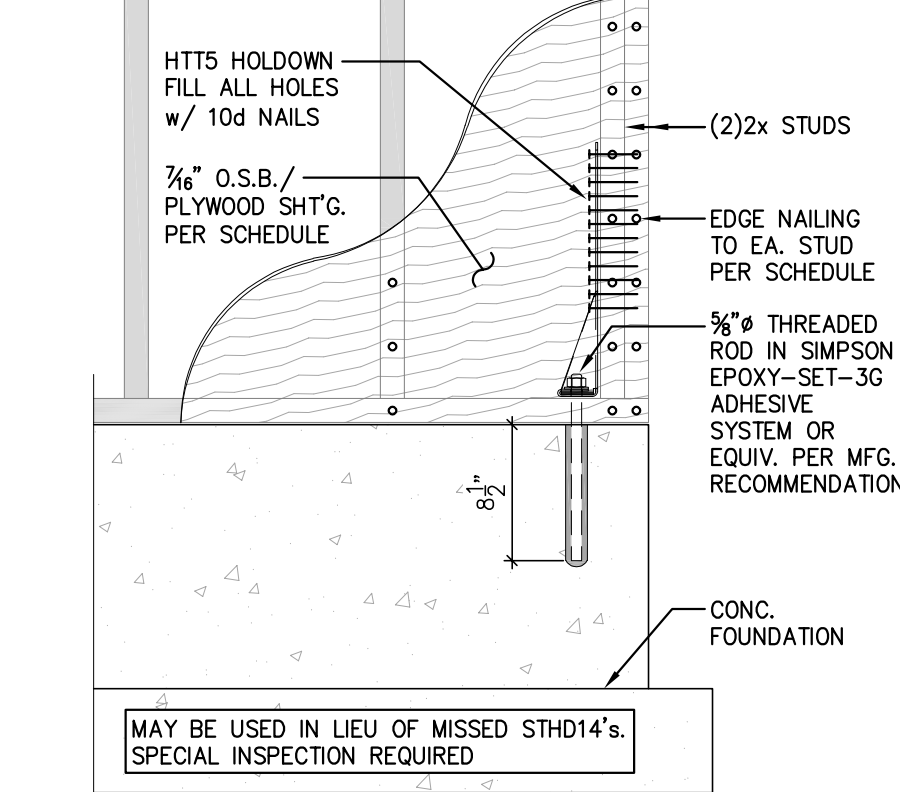
U DECK LEDGER
3/4"=1'-0"



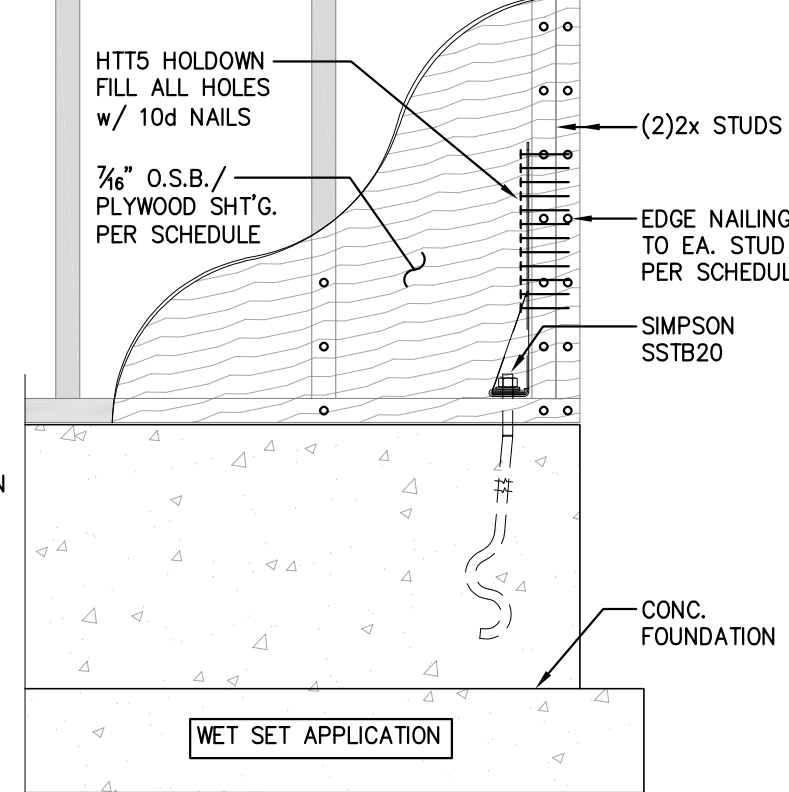
O1 CANTILEVERED TJI FRAMED FLOOR
1"=1'-0"



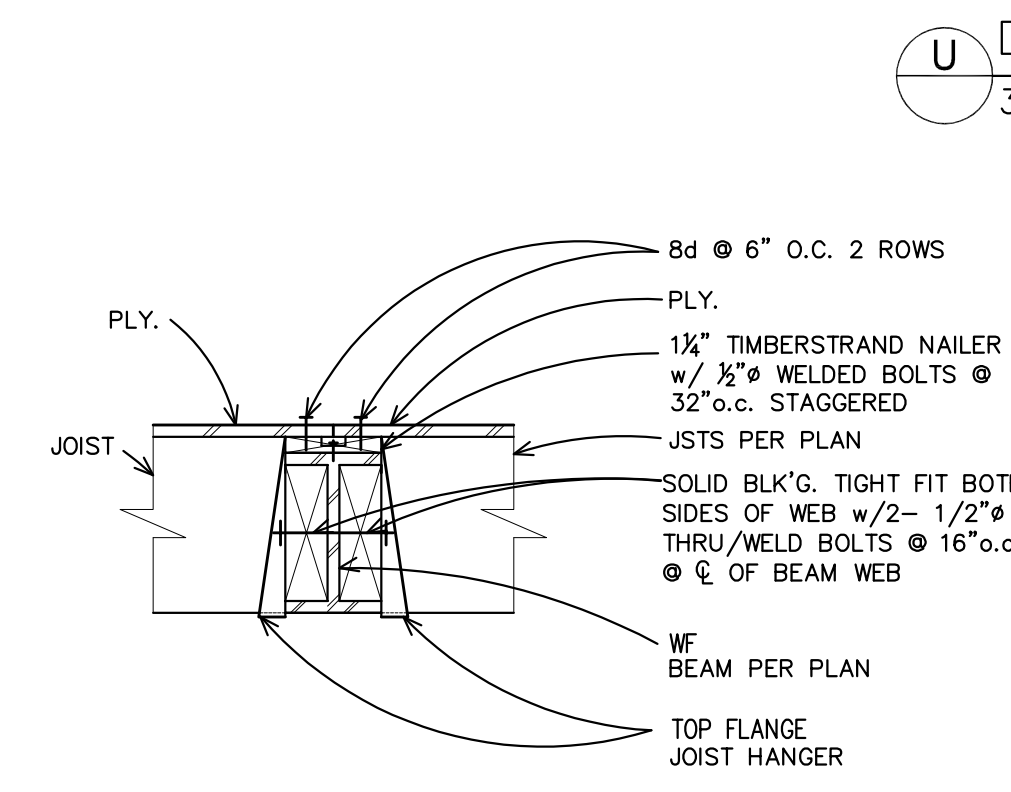
P CS16 STRAP @ HEADER OR BM.
3/4"=1'-0"



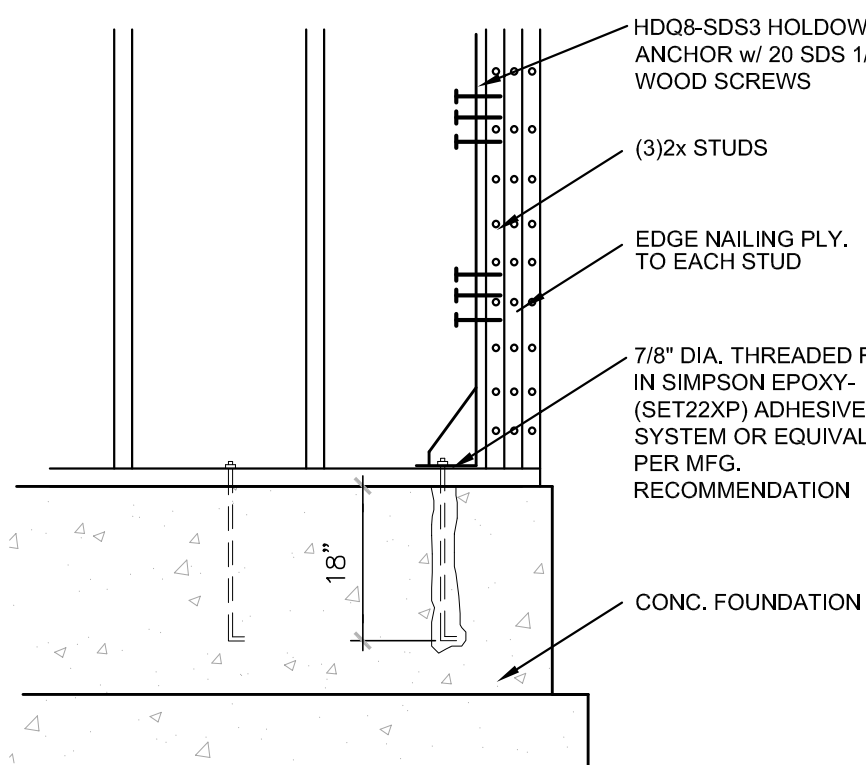
R TYP. HTT5 HOLDOWN
1"=1'-0"



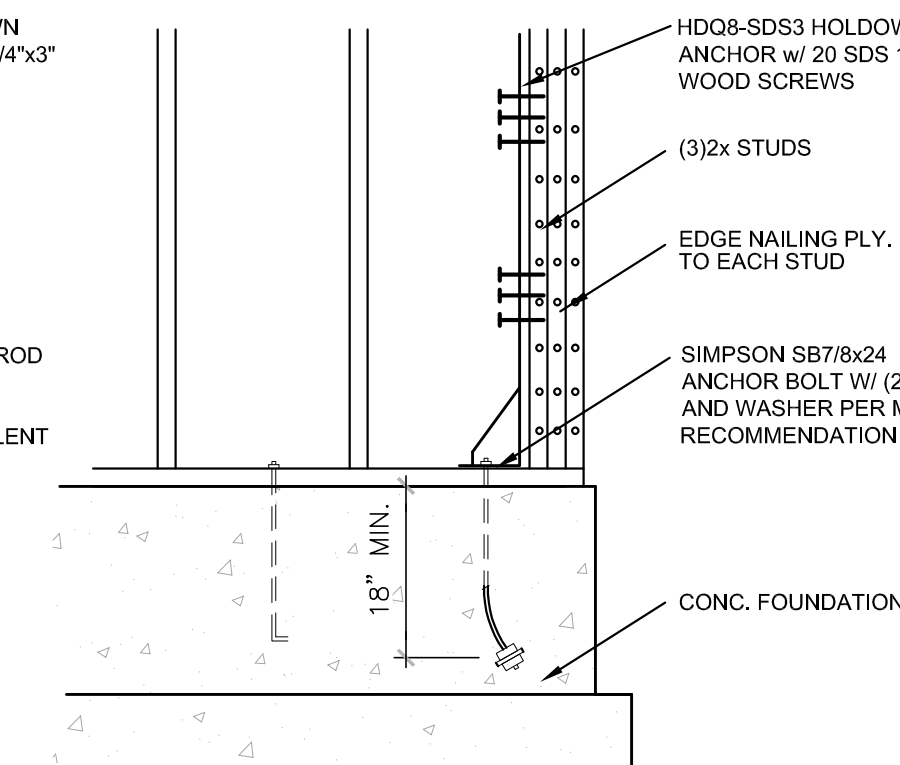
X1 STEEL BEAM TO T.F. JOIST
1"=1'-0"



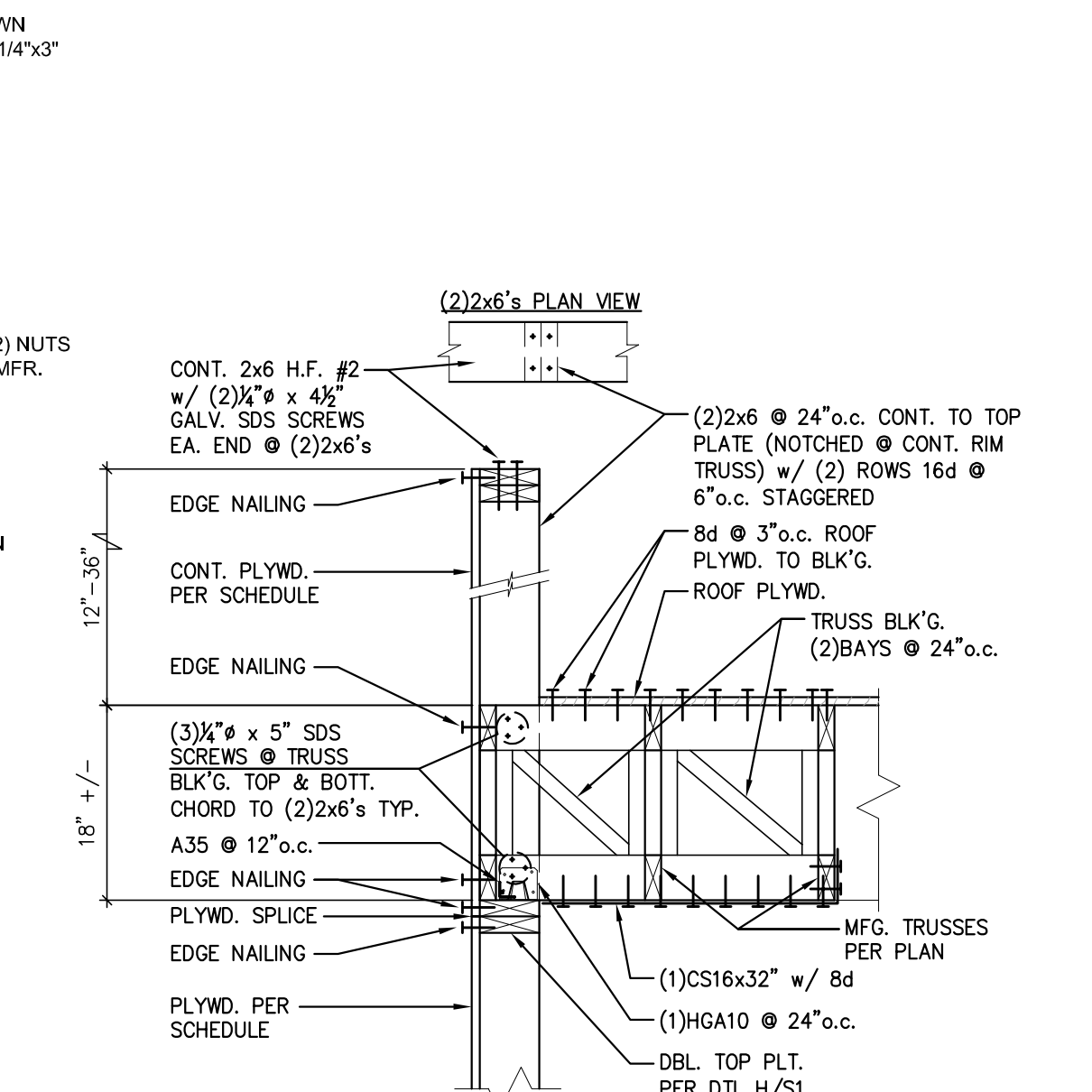
X2 STEEL BEAM DETAIL
1"=1'-0"



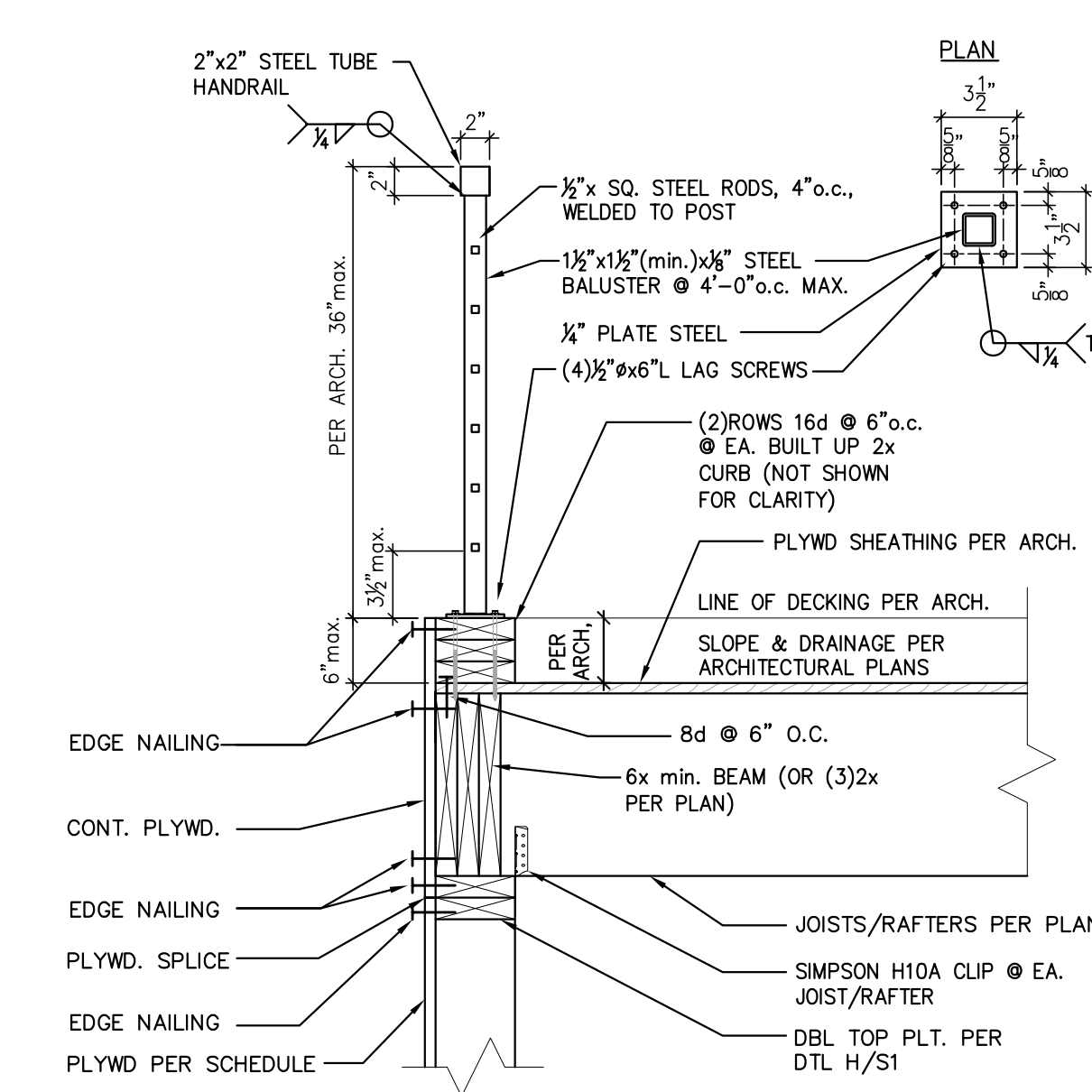
R1 TYP. HDQ8 HOLDOWN
3/4"=1'-0"



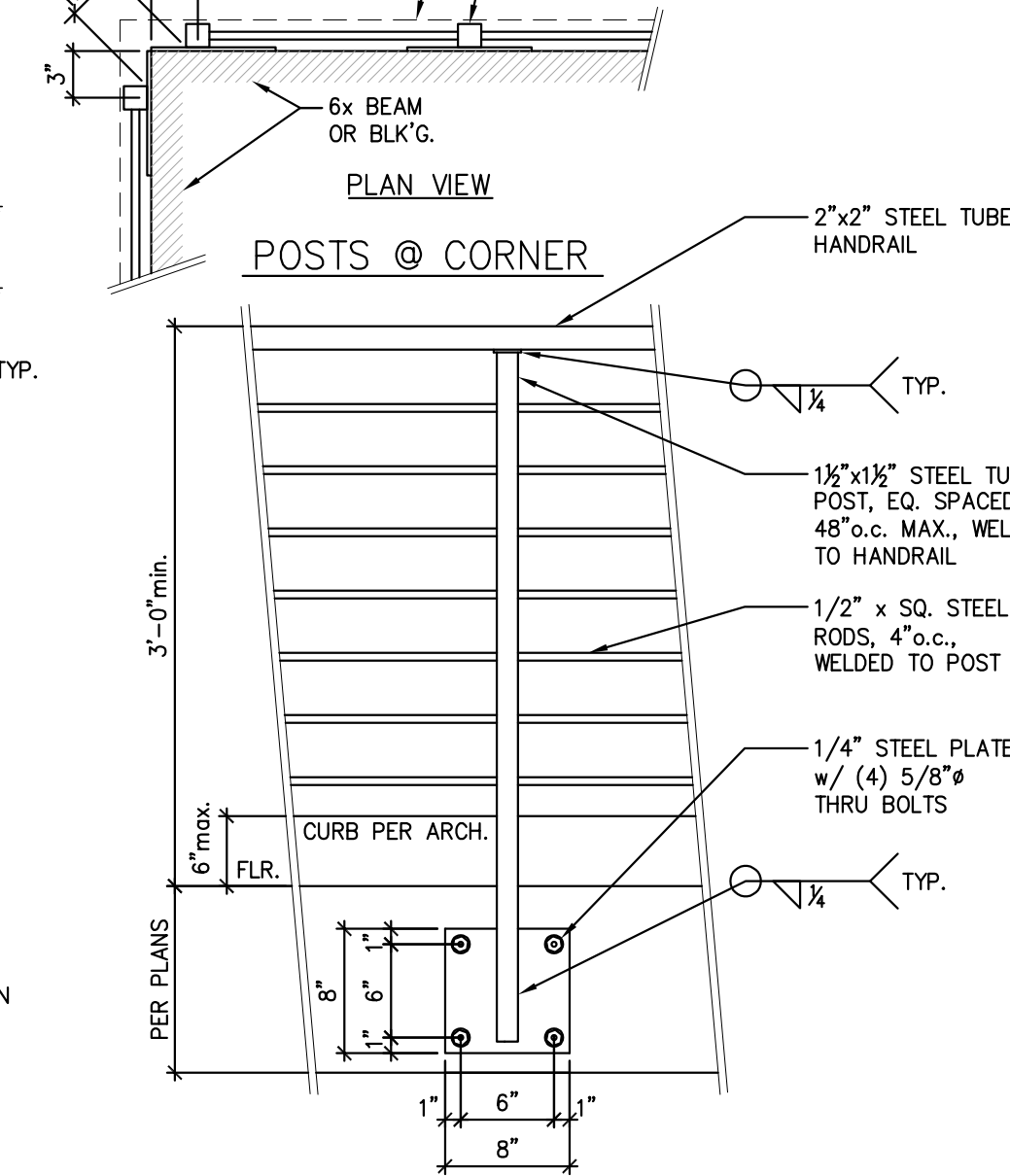
(WET-SET APPLICATION)



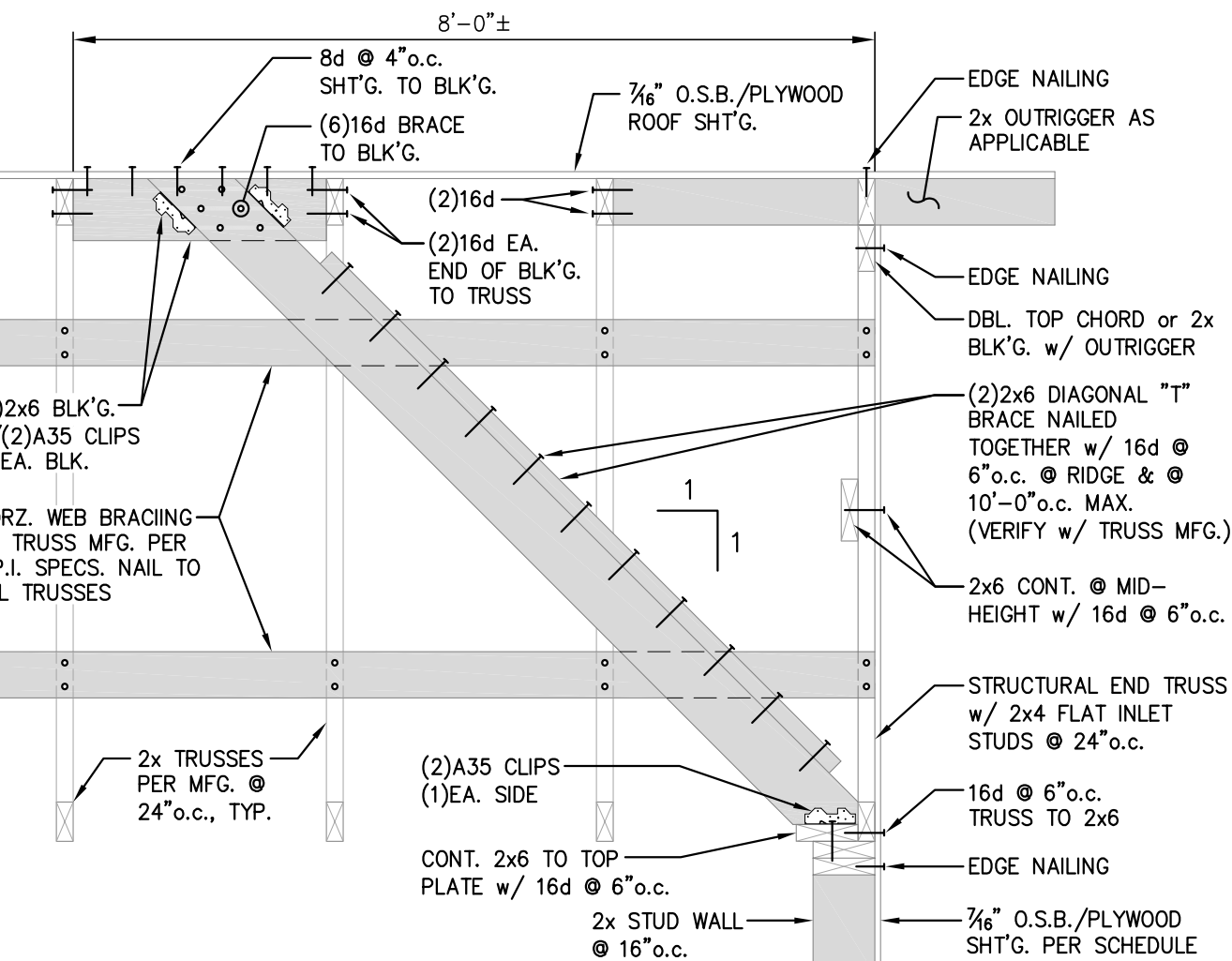
X3b PARAPET RAILING (TRUSSES PARALLEL)
3/4"=1'-0"



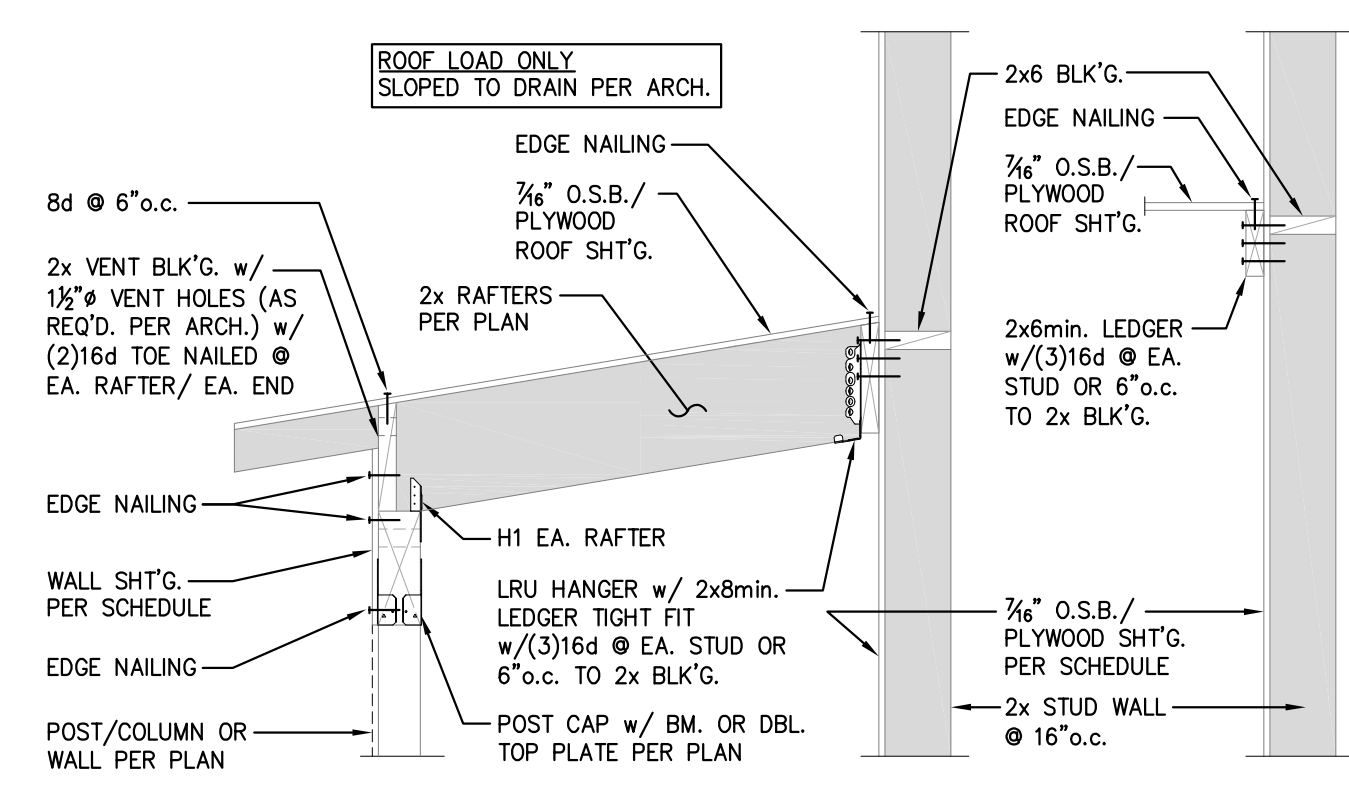
X4 TOP MOUNT RAILING @ 2x CURB
1"=1'-0"



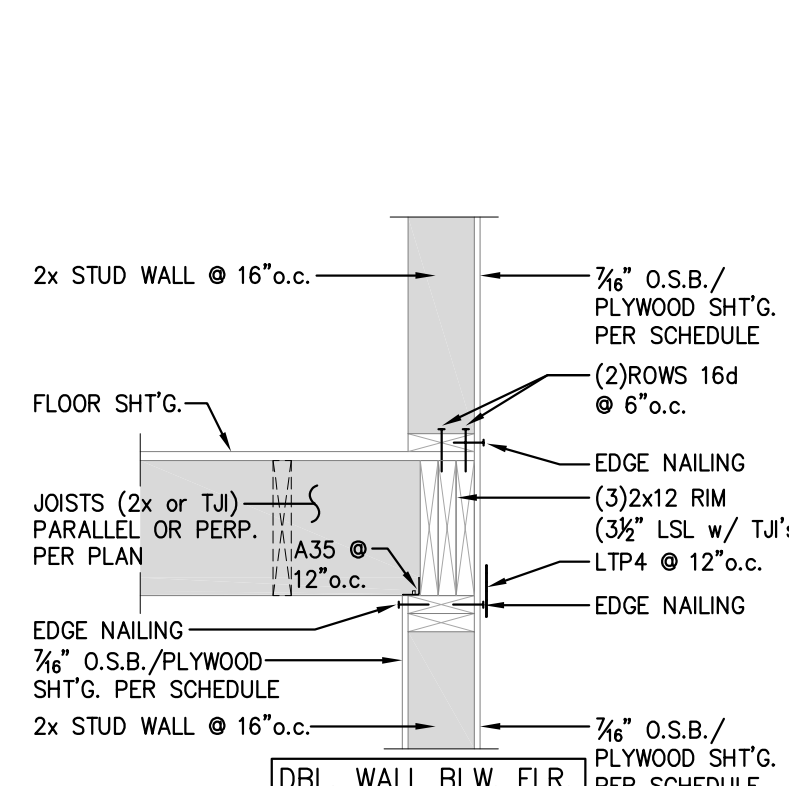
CS TYP. STAIRS ON GRADE
3/4"=1'-0"



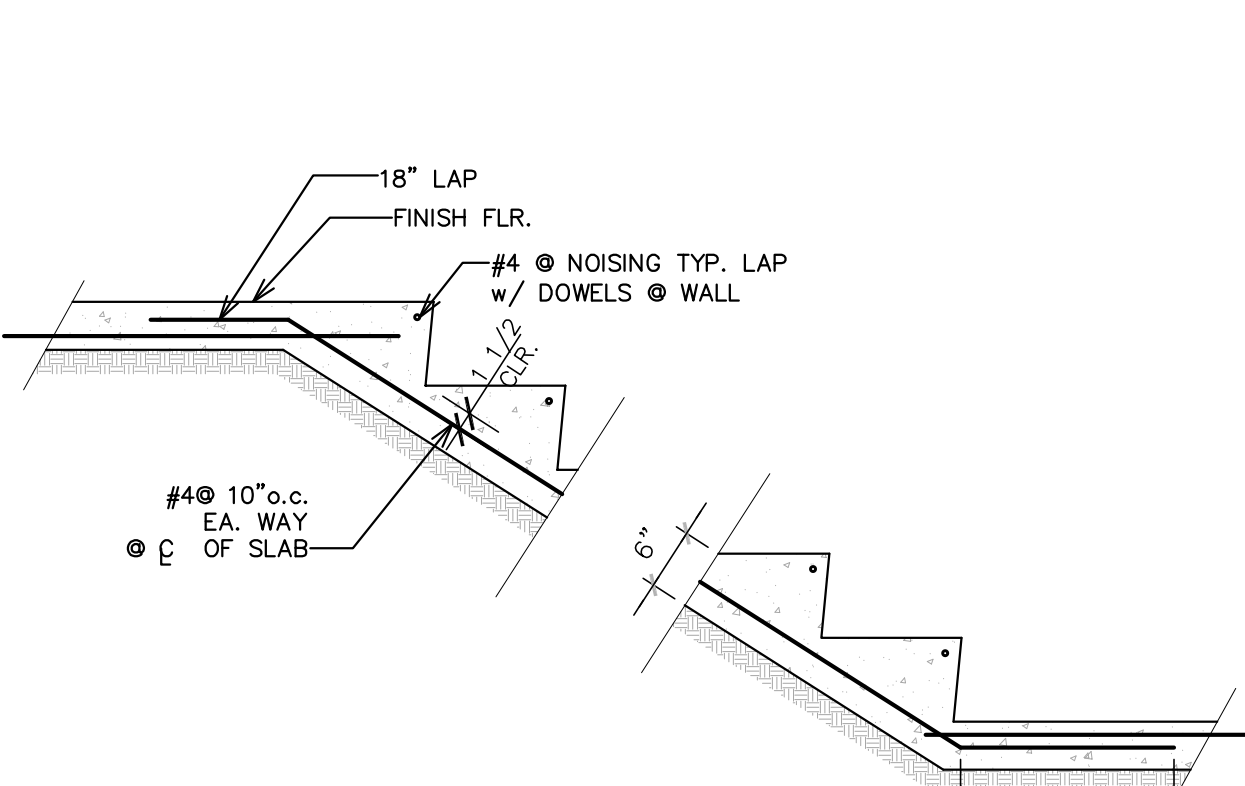
T TYP. GABLE END TRUSS DETAIL
3/4"=1'-0"



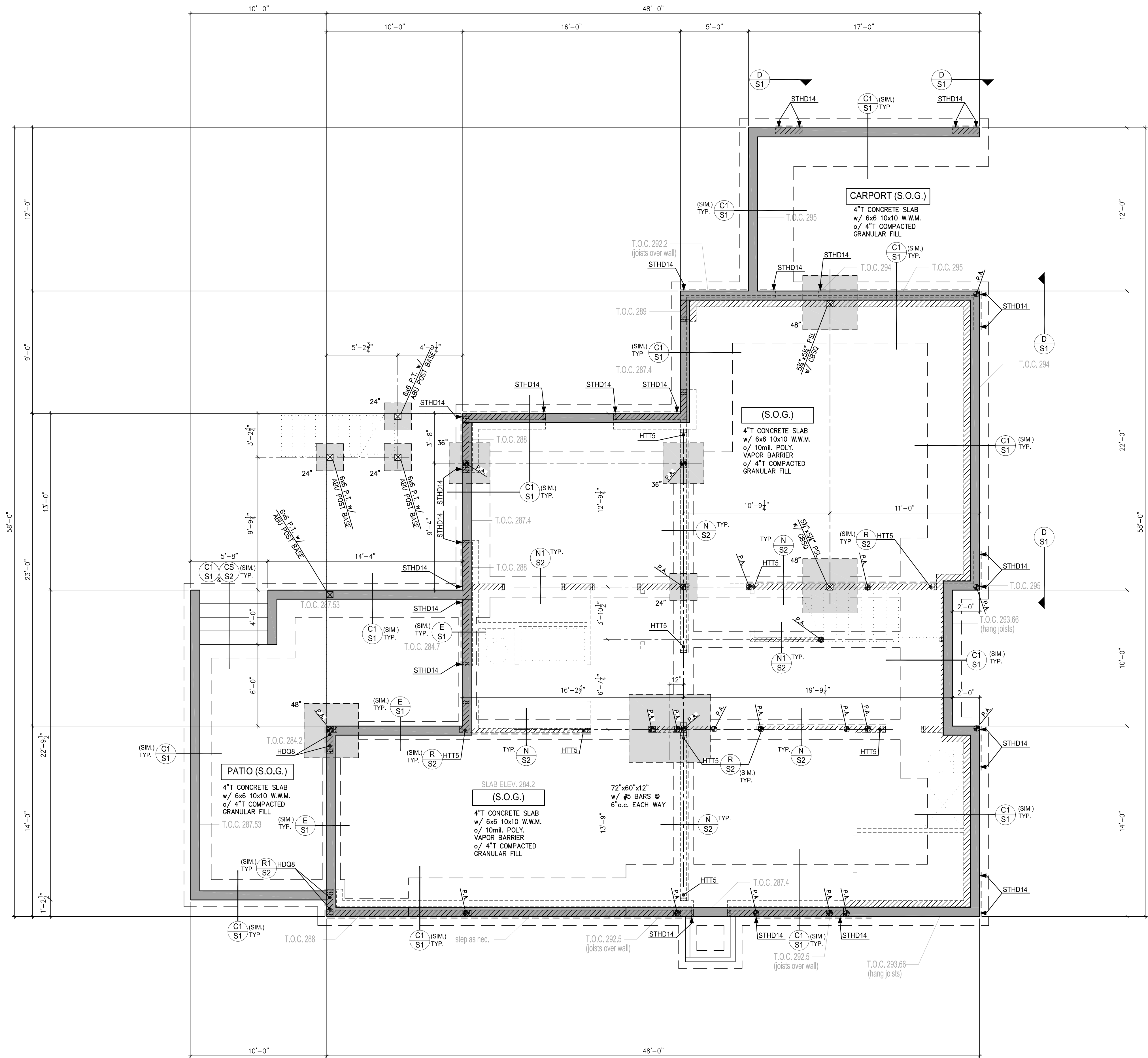
V1 2x FRAMING OR LEDGER TO WALL
3/4"=1'-0"



Z (2)SIDED SHEAR WALL FRAMING
3/4"=1'-0"



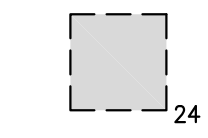
CS TYP. STAIRS ON GRADE
3/4"=1'-0"

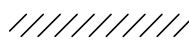


IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF
SLOPES AND PLATE HEIGHTS.

FOOTING SCHEDULE

	24" x 24" x 8" w/ (3) #4 BARS EACH WAY
	36" x 36" x 10" w/ (6) #5 BARS EACH WAY
	48" x 48" x 12" w/ (6) #4 BARS EACH WAY

-  - DENOTES POINT LOAD FROM ABV.
-  - DENOTES BEARING WALL. ABV. (EXTERIOR BEARING WALLS ASSUMED)

FOUNDATION CONSTRUCTION NOTES:
CONFIRM FOUNDATION TOP OF WALL STEPS & BOTTOM
OF FOOTING STEPS PER ARCHITECTURAL
(CONFIRM INDICATED NOTES)

PROVIDE CONTROL JOINTS @ ALL SLAB ON GRADE
(S.O.G.) LOCATIONS. LAYOUT PER ARCHITECT or
4" THICK CONCRETE = 10'-0"max. EACH WAY
5" THICK CONCRETE = 15'-0"max. EACH WAY

ALL METAL HARDWARE USED IN CONJUNCTION w/ PRESS.
TREATED WOOD SHALL BE SIMPSON Z-MAX OR HDG
GRADE ZINC COATING.

foundation plan

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

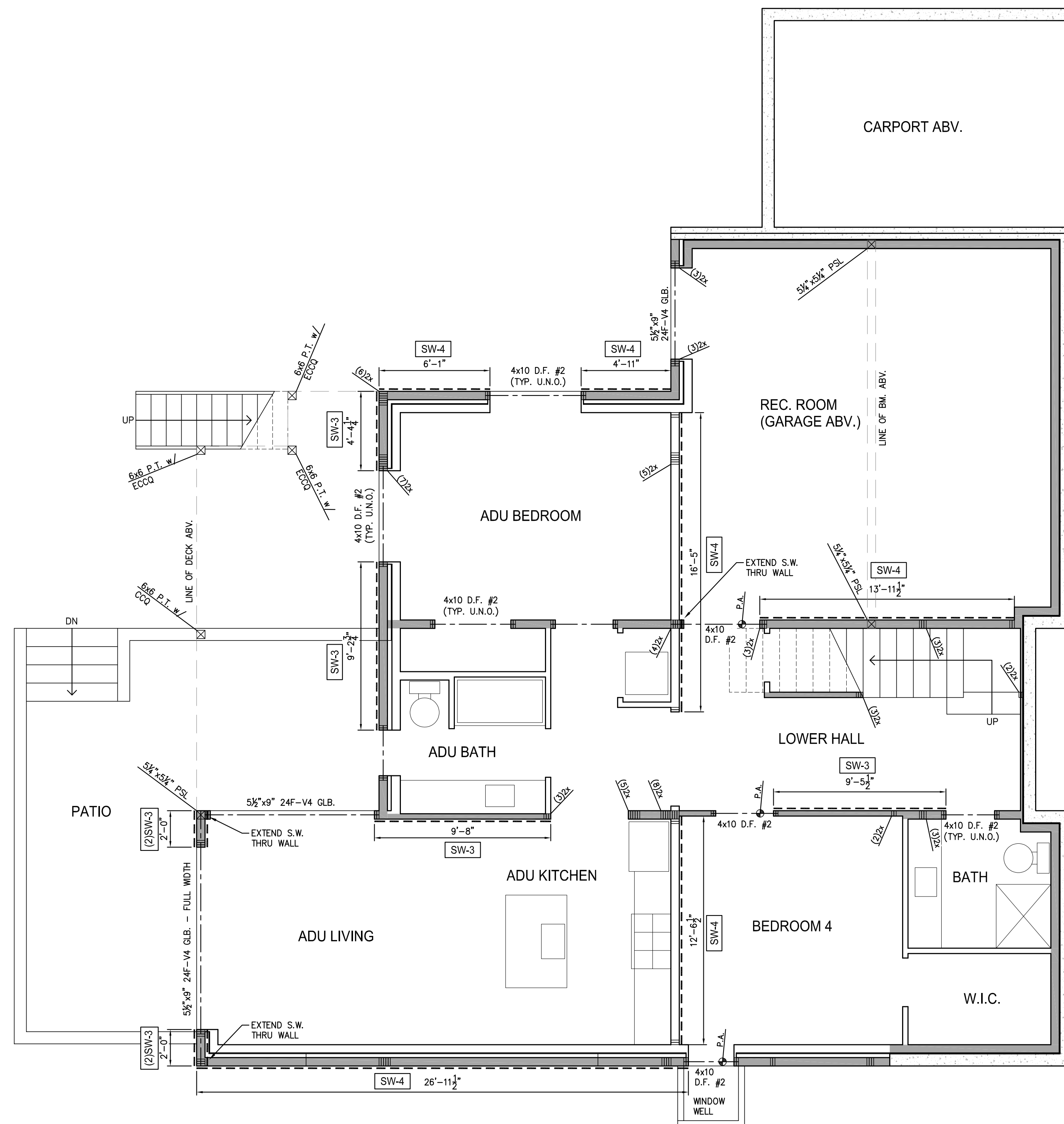
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3427 72nd PI SE, Mercer Island, WA 98040



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IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

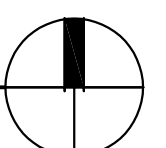
SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

 - DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

<u>FLOOR PLAN CONSTRUCTION NOTES:</u> ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.) USE (2)2x H.F. #2 TRIMMERS @ ALL HEADERS (U.N.O.) USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.) SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE SEE ALSO ARCHITECTURAL PLANS
--

basement floor plan

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



Artoush Co. & Remodeling LLC SFR
3427 72nd PI SE, Mercer Island, WA 98040



RBE  **RB ENGINEERS, INC.**
12733 Holmes Point Dr. NE, Kirkland, WA 98034
Tel: (425) 822-3009, Fax: (425) 822-2679
Email: RBE1992@GMAIL.COM
RBE-Engineers.com



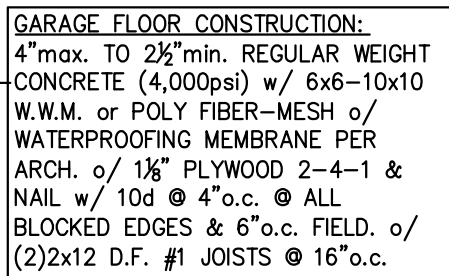
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City	2521
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S5

12"x18" PLOT = 1/2 SCALE



SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

TYPICAL FLOOR DESIGN (BY MFG.) NOTE: LL=40psf w/ L/600 Deflection LL=60psf @ DECK w/ L/600 Deflection DL=15psf w/ L/480 Total Load Deflection
--

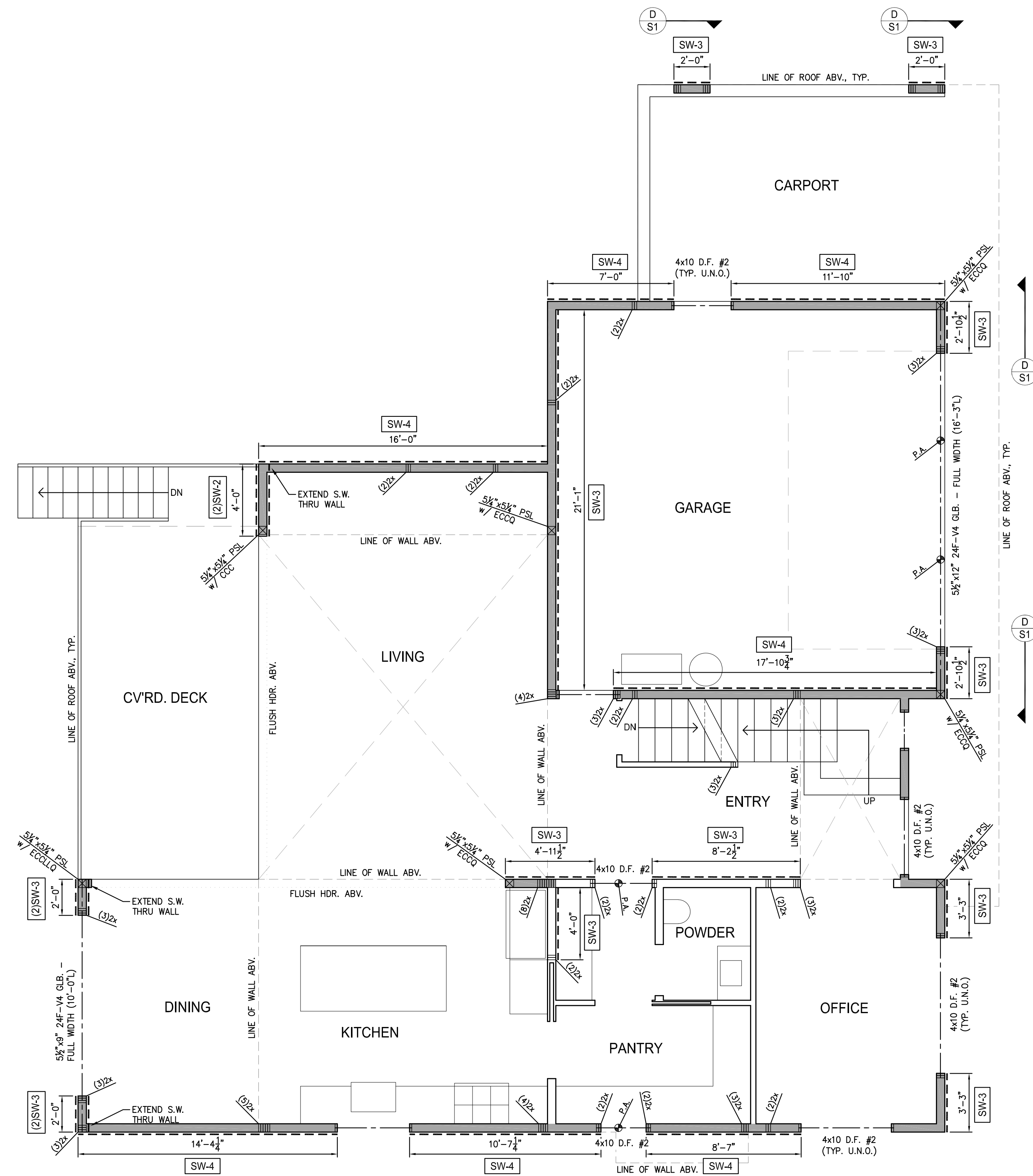
FLOOR FRAMING CONSTRUCTION NOTES:
14" 230 T.J.'s @ 16"o.c. TYPICAL FLOOR JOISTS (U.N.O.)
ALL FLOOR JOISTS TO BE BLOCKED @ BEARING
SEE FLOOR PLAN (BELOW) FOR HEADER SIZES (U.N.O.)
USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)

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



Sheet

S6



IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

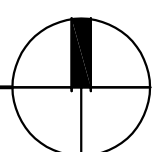
SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

 - DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

<u>FLOOR PLAN CONSTRUCTION NOTES:</u> ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.) USE (2)2x H.F. #2 TRIMMERS @ ALL HEADERS (U.N.O.) USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.) SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE SEE ALSO ARCHITECTURAL PLANS
--

main floor plan

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



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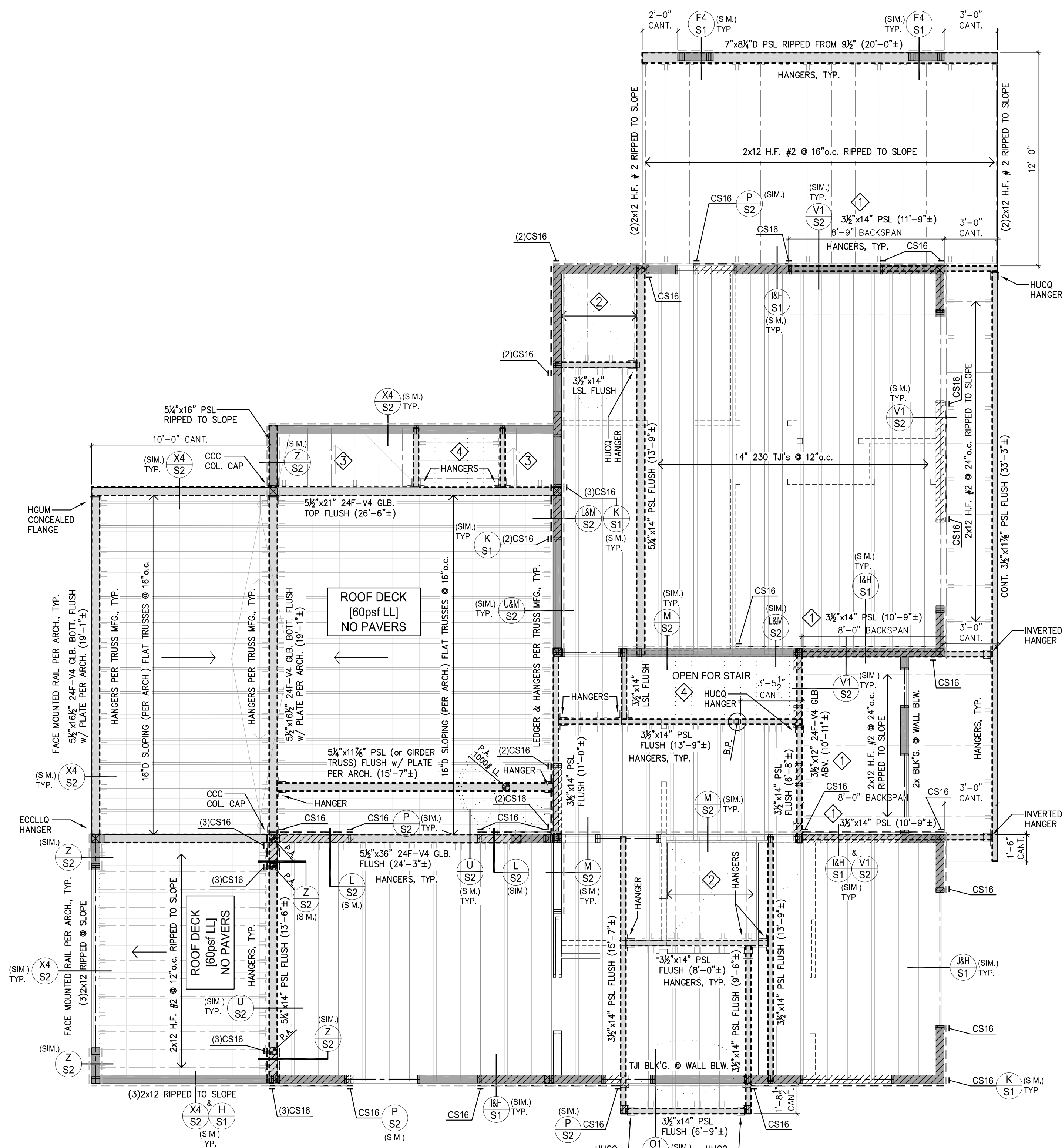
EXPIRES FEB 2026
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Project No.
*
Drawn By
 2521
Date
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12"x18" PLOT = 1/2 SCALE



IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

HANGER SCHEDULE (U.N.O.)			
BEAM	* SIMPSON HANGER	BEAM	* SIMPSON HANGER
(USE NOTED BM. WIDTH & DEPTH FOR HANGER SIZE)			
3 1/2" x	HGUS	6 3/4" x	HHGU
5 1/4" x	HGUS	7" x	HGUS
5 1/2" x	HHGU		

KEYNOTES

- ① FULL SPAN BEAM ABOVE. FRAMED INTO STUD WALL FRAMING
BOTTOM FLUSH w/ MAIN FLOOR ROOF FRAMING PER ARCH.
- ② 2x8min. H.F. #2 @ 16"o.c. w/ HANGERS @ CURBLESS
SHOWER
- ③ 2x12min. H.F. #2 @ 16"o.c. RIPPED TO SLOPE PER ARCH. w/
HANGERS
- ④ 2x12 H.F. #2 STRINGERS @ 12"o.c.

TYPICAL FLOOR DESIGN (BY MFG.) NOTE:

LL=40psf w/ L/600 Deflection
LL=60psf @ DECK w/ L/600 Deflection
DL=15psf w/ L/480 Total Load Deflection

-  - DENOTES POINT LOAD FROM ABV.
 - DENOTES FLUSH BEAM AS NOTED PER FLOOR FRAMING PLAN
 - DENOTES BEARING WALL BLW. (EXTERIOR BEARING WALLS ASSUMED)
 - DENOTES BEARING WALL ABV. (EXTERIOR BEARING WALLS ASSUMED)

FLOOR FRAMING CONSTRUCTION NOTES:

14" 230 TJI's @ 16"o.c. TYPICAL FLOOR JOISTS (U.N.O.)

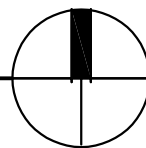
ALL FLOOR JOISTS TO BE BLOCKED @ BEARING

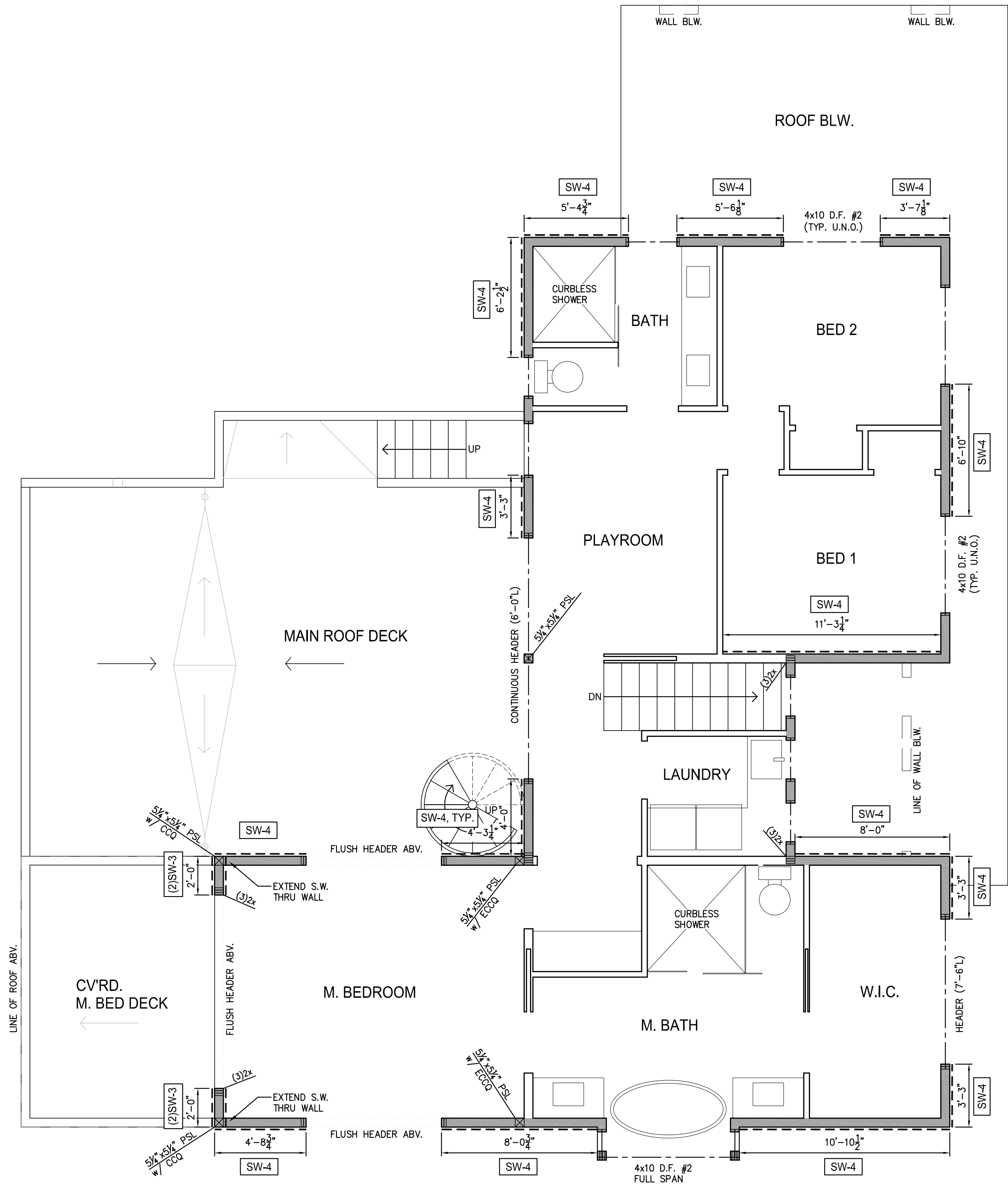
SEE FLOOR PLAN (BELOW) FOR HEADER SIZES (U.N.O.)

USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)

upper floor framing plan

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





upper floor plan
SCALE: 1/4" = 1'-0"

IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF
SLOPES AND PLATE HEIGHTS.

- DENOTES POINT LOAD FROM ABV.
- DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

FLOOR PLAN CONSTRUCTION NOTES:
ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.)

ALL HEADER SPANS 4'-0" OR LESS:
USE (1)2x H.F. #2 TRIMMERS EACH END (U.N.O.)

ALL HEADER SPANS GREATER THAN 4'-0":
USE (2)2x H.F. #2 TRIMMERS EACH END (U.N.O.)

USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)

SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE

SEE ALSO ARCHITECTURAL PLANS

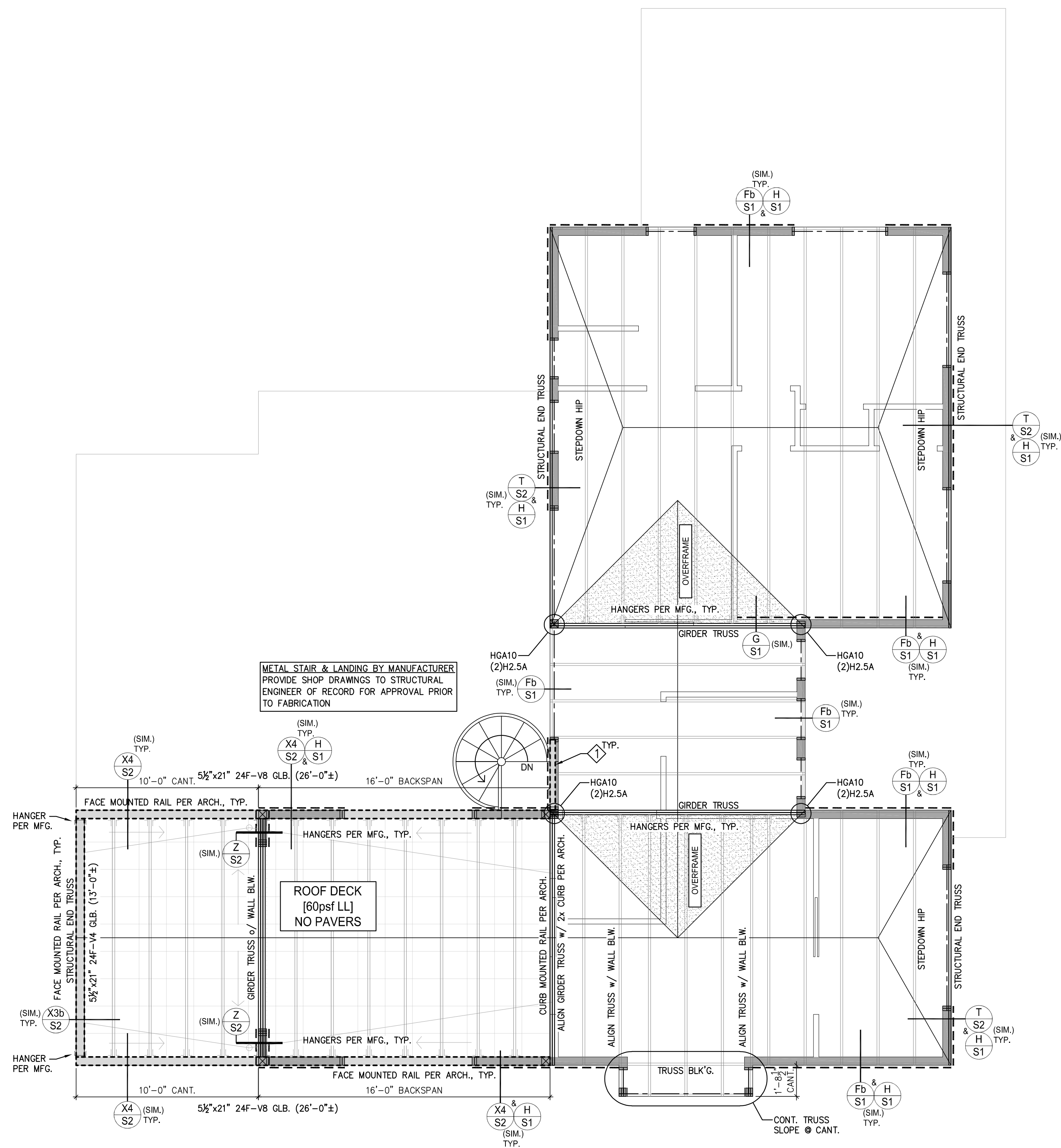
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IMPORTANT NOTES:
SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS &
VERIFY WITH STRUCTURAL PLANS

SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

TRUSS CONSTRUCTION NOTES:
ALL TRUSSES SHALL CARRY MFG. STAMP.

ALL TRUSSES SHALL BE INSTALLED & BRACED TO MFG. SPECIFICATIONS.

TRUSSES WILL NOT BE FIELD ALTERED WITHOUT PRIOR
BLDG. DEPT. APPROVAL OR MFG. ENGINEERING CALC'S.

ALL TRUSSES SHALL HAVE DESIGN DETAILS & DRAWINGS
ON SITE FOR FRAMING INSPECTION.

SEALED CALCULATION SHALL BE SUBMITTED BY STAMPED
BY AN ENGINEER REGISTERED IN THE STATE OF
WASHINGTON.

ALL NON-BEARING WALLS SHALL BE HELD AWAY FROM TRUSS BOTTOM CHORD w/ AN APPROVED FASTENER TO INSURE NON-BEARING OF TRUSS ON WALL.

SPECIFIED APPROVED HANGERS MUST BE USED @ ALL CONNECTIONS OF RAFTERS, JACK OR HIP TRUSSES TO THE MAIN GIRDER AS PROVIDED BY TRUSS MFG.

KEYNOTES

1. MODIFY TRUSS TO ALLOW 4x12 D.F. #2 RIM FOR SPIRAL STAIR LANDING ARCHITECT
2. HATCH INDICATES OVERFRAMING AND/OR CRICKETS PER ARCHITECT. DRILL 2x8 HOLES @ 24" c.c. EA. WAY IN CONTINUOUS ROOF SHEATHING B.L.W. TO ALLOW CROSS-VENTILATION
3. - DENOTES FLUSH BEAM AS NOTED PER FLOOR FRAMING PLAN
4. - DENOTES BEARING WALL B.L.W. (EXTERIOR BEARING WALLS ASSUMED)

ROOF CONSTRUCTION NOTES:

24"D TRUSSES w/ SLOPED TOP CHORD (1/4:12) PER PLAN
SPACED @ 24"o.c. (U.N.O.) w/ CONTINUOUS RIBBON
TRUSS @ EAVE AS APPLICABLE.

FINAL DESIGN BY TRUSS MFG.

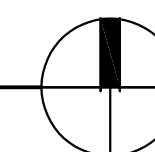
ALL SLOPES & DRAINAGE PER ARCHITECTURAL
DRAWINGS.

SEE FLOOR PLAN (BELOW) FOR HEADER SIZES (U.N.O.)

PROVIDE ROOF VENTILATION PER ARCHITECTURAL PLANS

roof framing plan

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



KEEP OUT!

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

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

Notes

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

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

2" x 6" steel posts or approved equal

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

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

LIMITS OF DISTURBANCE

FILTER FABRIC FENCE (SILT FENCE)

STABILIZED CONSTRUCTION ENTRANCE

CATCH BASIN INLET PROTECTION

TYPE A TEMPORARY SWALE

TREE PROTECTION FENCING

CHECK DAM

STRAW WATTLES

USE AS NEEDED

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

(PER PERSONAL REPRESENTATIVE'S DEED REC. NO. 20190510000378)

THE SOUTH HALF OF LOT 8, AND ALL OF LOTS 9 AND 10, BLOCK 5, C.C. CALKINS 1ST
ADDITION TO EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 4
OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON.

1. OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM THE CITY PRIOR TO COMMENCEMENT OF SITE WORK.

2. UPDATE SITE PLANS TO INCLUDE LIMITS OF DISTURBANCE.

3. TREE PROTECTION CONSISTING OF CHAIN-LINK FENCING SHOULD BE INSTALLED AT THE RLOD LISTED IN THE TABLE OF TREES (SEE ARBORIST REPORT).

4. ADD A 4" LAYER OF COARSE ARBORIST WOODCHIPS THROUGHOUT THE TREE PROTECTION AREA. KEEP WOODCHIPS ONE FOOT FROM THE TRUNK OF THE TREE.

5. ALL TREE RETENTION AND REMOVAL REGULATIONS MUST BE FOLLOWED. ANY PRUNING OF TREES ON PRIVATE PROPERTY MUST BE CONDUCTED BY AN ISA CERTIFIED ARBORIST TO THE STANDARDS OUTLINED IN THE ANSI A300 STANDARDS.

6. ENSURE TREE PROTECTION STANDARDS COMPLY WITH CITY CODE AND ISA BEST MANAGEMENT PRACTICES, MANAGING TREES DURING CONSTRUCTION .

MINIMUM 10% ORGANIC
MULCH &
COMPOST SOIL
REQUIRED

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

SCOTT SELBY

Tree #	Common Name	Scientific Name	*DSH	**CRZ	N	E	S	W	Dripline Avg Radius	***RLOD (TPZ)	Condition	Comments	Proposal	Exceptional
87	Sawara cypress	<i>Chamaecyparis pisifera</i>	11.4	11	9	7	8	6	7	n/a	good	MS:7x9	remove	no
A	Douglas-fir	<i>Pseudotsuga menziesii</i>	47	47	25	27	27	24	28	28	good		n/a	yes
B	Ponderosa pine	<i>Pinus ponderosa</i>	28	28			15		15	15	good		n/a	no
C	Douglas-fir	<i>Pseudotsuga menziesii</i>	25	25	6				6	6	good		n/a	yes
D	Big leaf maple	<i>Acer macrophyllum</i>	48	48	10				10	10	good		n/a	yes

Tree ID is numerical if on-site and alphabetical if off-site.

*Diameter at Standard Height (inches).

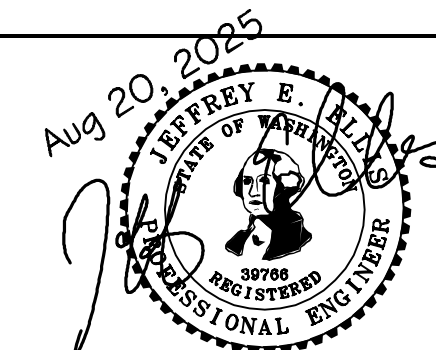
****Critical Root Zone (from ISA BMP), radial feet.**

***Recommended Limit of Disturbance, Tree Protection Zone or Average Dripline Radius (feet).

NO.	DATE	BY	REVISIONS
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APPLICANT:
ARTOUSH FANAIYAN
ARTOUSH CONSTRUCTION AND REMODELING
13101 NE 50th STREET
BELLEVUE, WA
(425) 890-9995

DATE: Aug 20, 2025
JOB# 2126
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE

CIVIL ENGINEERING
SOLUTIONS

701 N 36TH STREET
206.930.0342

SEATTLE, WA 98103
DUFFY@CESOLUTIONS.US

TESC PLAN
TREE RETENTION PLAN

PROPOSED RESIDENCE
3427 72nd PLACE SE, MERCER ISLAND, WA 98040

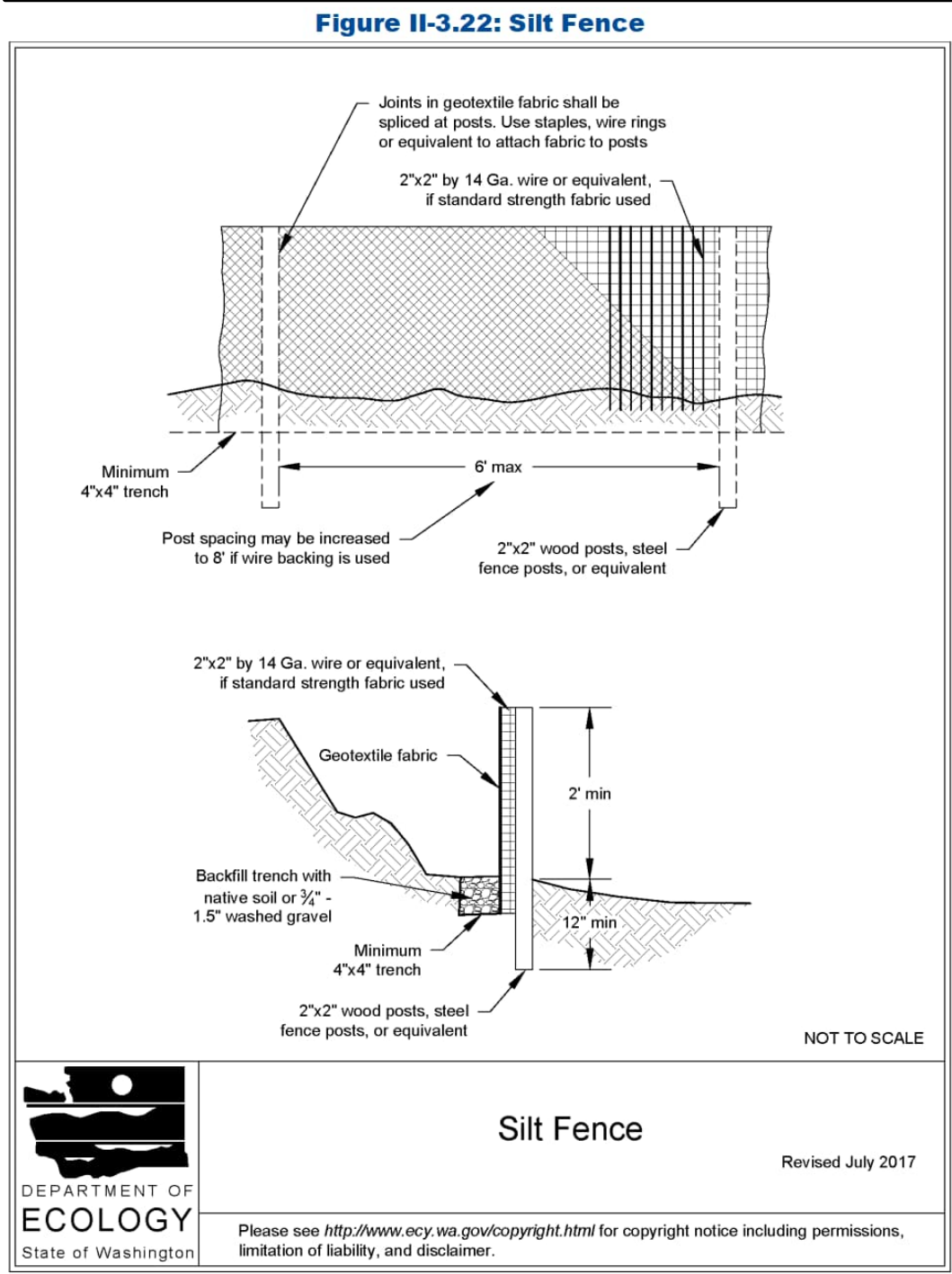
DRAWING NO:

C1.0

APN 130030-1391

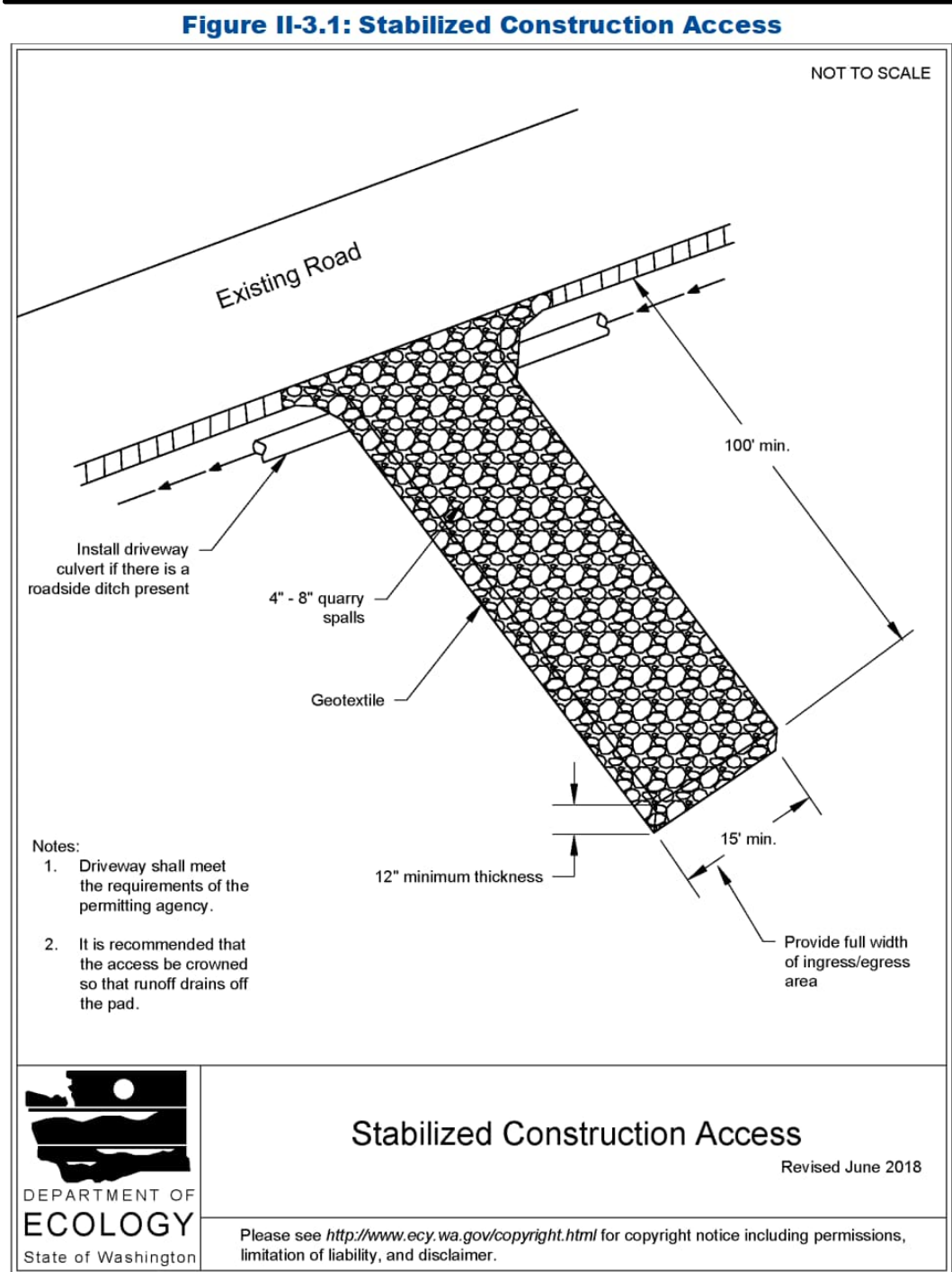
SILT FENCE DETAIL

DOE



CONSTRUCTION ENTRANCE

DOE



RECOMMENDED CONSTRUCTION SEQUENCE

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

1. HOLD AN ONSITE PRE-CONSTRUCTION MEETING.
2. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR (MAY BE CONSOLIDATED WITH THE REQUIRED NOTICE OF CONSTRUCTION SIGN).
3. FLAG OR FENCE CLEARING LIMITS.
4. INSTALL CATCH BASIN PROTECTION, IF REQUIRED.
5. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
6. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
7. CONSTRUCT SEDIMENT PONDS AND TRAPS.
8. GRADE AND STABILIZE CONSTRUCTION ROADS.
9. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE SURFACE WATER CONTROLS OR TESC MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE TESC IS ALWAYS IN ACCORDANCE WITH CITY OF MERCER ISLAND TESC REQUIREMENTS.
12. COVER ALL AREAS THAT WILL BE UN-WORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) OR TWO DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
14. SEED, SOD, STABILIZE, OR COVER ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.

DENUDED AREAS REQUIREMENTS

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

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

EROSION CONTROL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

CITY NOTES

1. ANY CHANGES TO THE APPROVED PLANS REQUIRES CITY APPROVAL THROUGH A REVISION.
2. APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO UNDERGROUND UTILITIES CAUSED FROM THIS CONSTRUCTION.
3. CATCH BASIN FILTERS SHOULD BE PROVIDED FOR ALL STORM DRAIN CATCH BASINS/INLETS DOWNSLOPE AND WITHIN 500 FEET OF THE CONSTRUCTION AREA. CATCH BASIN FILTERS SHOULD BE DESIGNED BY THE MANUFACTURER FOR USE AT CONSTRUCTION SITES AND APPROVED BY THE CITY INSPECTOR. CATCH BASIN FILTERS SHOULD BE INSPECTED FREQUENTLY, ESPECIALLY AFTER STORM EVENTS. IF THE FILTER BECOMES CLOGGED, IT SHOULD BE CLEANED OR REPLACED.
4. CONTRACTORS SHALL VERIFY LOCATIONS AND DEPTHS OF UTILITES.
5. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, CALL "ONE CALL" AT 1.800.424.5555
6. DO NOT BACKFILL WITH NATIVE MATERIAL ON PUBLIC RIGHT-OF-WAY. ALL MATERIAL MUST BE IMPORTED
7. EROSION CONTROL: ALL "LAND DISTURBING ACTIVITY" IS SUBJECT TO PROVISIONS OF MERCER ISLAND ORDINANCE 95C-118 "STORM WATER MANAGEMENT." SPECIFIC ITEMS TO BE FOLLOWED AT YOUR SITE:
8. PROTECT ADJACENT PROPERTIES FROM ANY INCREASED RUNOFF OR SEDIMENTATION DUE TO THE CONSTRUCTION PROJECT THROUGH THE USE OF APPROPRIATE "BEST MANAGEMENT PRACTICES" (BMP) EXAMPLES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT TRAPS, SEDIMENT PONDS, FILTER FABRIC FENCES, VEGETATIVE BUFFER STRIPS OR BIOENGINEERED SWALES.
9. CONSTRUCTION ACCESS TO THE SITE SHOULD BE LIMITED TO ONE ROUTE. STABILIZE ENTRANCE WITH QUARRY SPALLS TO PREVENT SEDIMENT FROM LEAVING THE SITE OR ENTERING THE STORM DRAINS.
10. PREVENT SEDIMENT, CONSTRUCTION DEBRIS, PAINTS, SOLVENTS, ETC., OR OTHER TYPES OF POLLUTION FROM ENTERING PUBLIC STORM DRAINS. KEEP ALL POLLUTION ON YOUR SITE.
11. ALL EXPOSED SOILS SHALL REMAIN DENUDED FOR NO LONGER THAN SEVEN (7) DAYS AND SHALL BE STABILIZED WITH MULCH, HAY, OR THE APPROPRIATE GROUND COVER. ALL EXPOSED SOILS SHALL BE COVERED IMMEDIATELY DURING ANY RAIN EVENT.
12. INSTALLATION OF CONCRETE DRIVEWAYS, TREES, SHRUBS, IRRIGATION, BOULDERS, BERMS, WALLS, GATES, AND OTHER IMPROVEMENTS ARE NOT ALLOWED IN THE PUBLIC RIGHT-OF-WAY WITHOUT PRIOR APPROVAL, AND AN ENCROACHMENT AGREEMENT AND RIGHT OF WAY PERMIT FROM THE SENIOR DEVELOPMENT ENGINEER.
13. OWNER SHALL CONTROL DISCHARGE OF SURFACE DRAINAGE RUNOFF FROM EXISTING AND NEW IMPERVIOUS AREAS IN A RESPONSIBLE MANNER. CONSTRUCTION OF NEW GUTTERS AND DOWNSPOUTS, DRY WELLS, LEVEL SPREADERS OR DOWNSTREAM CONVEYANCE PIPE MAY BE NECESSARY TO MINIMIZE DRAINAGE IMPACT TO YOUR NEIGHBORS. CONSTRUCTION OF MINIMUM DRAINAGE IMPROVEMENTS SHOWN OR CALLED OUT ON THIS PLAN DOES NOT IMPLY RELIEF FROM CIVIL LIABILITY FOR YOUR DOWNSTREAM DRAINAGE.
14. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
15. REMEMBER: EROSION CONTROL IS YOUR FIRST INSPECTION.
16. ROOF DRAINS MUST BE CONNECTED TO THE STORM DRAIN SYSTEM AND INSPECTED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY BACKFILLING OF PIPE.
17. SILENT FENCE: CLEAN AND PROVIDE REGULAR MAINTENANCE OF THE SILT FENCE. THE FENCE IS TO REMAIN VERTICAL AND IS TO FUNCTION PROPERLY THROUGHOUT THE TERM OF THE PROJECT.
18. WORK IN PUBLIC RIGHT OF WAY REQUIRES A RIGHT-OF-WAY USE PERMIT.
19. REFER TO WATER SERVICE PERMIT FOR ACTUAL LOCATION OF NEW WATER METER AND SERVICE LINE DETERMINED BY MERCER ISLAND WATER DEPARTMENT.
16. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN IS REQUIRED. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED. ALTERNATELY, A PRESSURE TEST OF THE SIDE SEWER, FROM SEWER MAIN TO POINT OF CONNECTION, MAY BE SUBSTITUTED FOR THE VIDEO INSPECTION.
20. NEWLY INSTALLED SIDE SEWER REQUIRES A 4 P.S.I. AIR TEST OR PROVIDE 10' OF HYDROSTATIC HEAD TEST.
21. POT HOLING THE PUBLIC UTILITIES IS REQUIRED PRIOR TO ANY GRADING ACTIVITIES LESS THAN 6" OVER THE PUBLIC MAINS (WATER, SEWER AND STORM SYSTEMS). IF THERE IS A CONFLICT, THE APPLICANT IS REQUIRED TO SUBMIT A REVISION FOR APPROVAL PRIOR TO ANY GRADING ACTIVITIES OVER THE PUBLIC MAINS.
22. THE LIMITS AND EXTENDS OF THE PAVEMENT IN THE PUBLIC RIGHT OF WAY SHALL BE DETERMINED BY THE CITY ENGINEER PRIOR TO FINALIZE THE PROJECT.

NO.	DATE	BY	REVISIONS	APPLICANT: ARTOUSH FANAIIYAN ARTOUSH CONSTRUCTION AND REMODELING 13101 NE 50th STREET BELLEVUE, WA (425) 890-9995	DATE: Aug 20, 2025 JOB# 2126 DRAFTED: SS DESIGN: DE DIGITAL SIGNATURE	Aug 20, 2025 JERRY E. DUFFY CIVIL ENGINEER STATE OF WASHINGTON LICENSED PROFESSIONAL ENGINEER	CIVIL ENGINEERING SOLUTIONS 701 N 36TH STREET 206.930.0342 SEATTLE, WA 98103 DUFFY@CESOLUTIONS.US	TESC & CITY NOTES TESC DETAILS PROPOSED RESIDENCE 3427 72nd PLACE SE, MERCER ISLAND, WA 98040	DRAWING NO: C1.2 APN 130030-1391
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SANITARY SEWER IMPROVEMENTS

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

WATER IMPROVEMENTS

- 10 -
11 -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 PIPE KEY NOTES

- 20 -4" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE. USE HDPE DUAL WALL OR EQUIVALENT WHEN PIPE COVER <24" IN PAVED AREAS.
21 -4" FOUNDATION DRAIN (3034 PVC) @ MIN 1 % GRADE
22 -6" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE. USE HDPE DUAL WALL OR EQUIVALENT WHEN PIPE COVER <24" IN PAVED AREAS.
23 -
24 -
25 -STORM DRAIN FORCE MAIN @ MIN. 30" DEPTH. SEE PLAN FOR DIAMETER. SUITABLE PIPE OPTIONS INCLUDE SDR-7 PE 250 PSI OR EQUAL.

STORM STRUCTURE KEY NOTES

- 30 -
31 -
32 -
33 -
34 -
35 -PRIVATE 18" YARD DRAIN (OR EQUAL) WITH SOLID LID
36 -6" WIDE NDS DURASLOPE CHANNEL DRAIN KIT OR EQUAL. CLASS B VEHICLE RATED GRATE.
38A -
37 -PRIVATE STORM CLEANOUT. PROVIDE PROTECTIVE COVER IF WARRANTED.
39 -SADDLE-TEE CONNECTION: ROMAC CB SEWER SADDLE (OR EQUAL)
40 -TYPE 40 PRIVATE CATCH BASIN OR EQUAL. PROVIDE RISOR WITH TURNED-DOWN ELBOW FOR IMPROVED WATER QUALITY FUNCTION.
41 -
43 -30" ID DUPLEX STORM PUMP STRUCTURE. SOLID LID. SEE PROFILE C4.0 FOR DEPTH CALCULATION. SEE PUMP CYCLE. SEE PUMP SPECS ON SHEET C5.0.
46 -PUMPS: DUPLEX 1/3 HP STORM PUMPS PLACED IN MINIMUM 30 INCH DIA PUMP BASIN. SEE 5.0 FOR PUMP CALCULATIONS & SPECIFICATIONS. COORDINATE PUMP PACKAGE, RAILS, HARDWARE, 122 CONTROLLER ETC WITH FOWLER PUMP OR EQUAL.
47 -
49 -

STORM BMP's

- 50 -COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 8" OF SOIL. LOOSEN COMPACTED SUBSOIL, IF NEEDED BY RIPPING TO 12" DEPTH. MULCH LANDSCAPE BEDS AFTER PLANTING.

- 51 -
52 -
53 -
54 -
55 -
56 -
57 -
58 -

SOILS

SEE AUGUST 2025 REPORT BY GEOTECH CONSULTANTS, INC.
SOIL IS GLACIAL TILL
INFILTRATION AND DISPERSION ARE NOT RECOMMENDED

SURVEYOR

TOPOGRAPHIC SURVEY BY:
TERRANE
11235 SE 6th STREET, SUITE 130
BELLEVUE, WA 98004
PHONE 425-458-4488
info@terrane.net

VERTICAL DATUM

NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457
SEE SURVEY

LEGAL DESCRIPTION

SEE C1.0

SOIL AMENDMENT REQUIRED

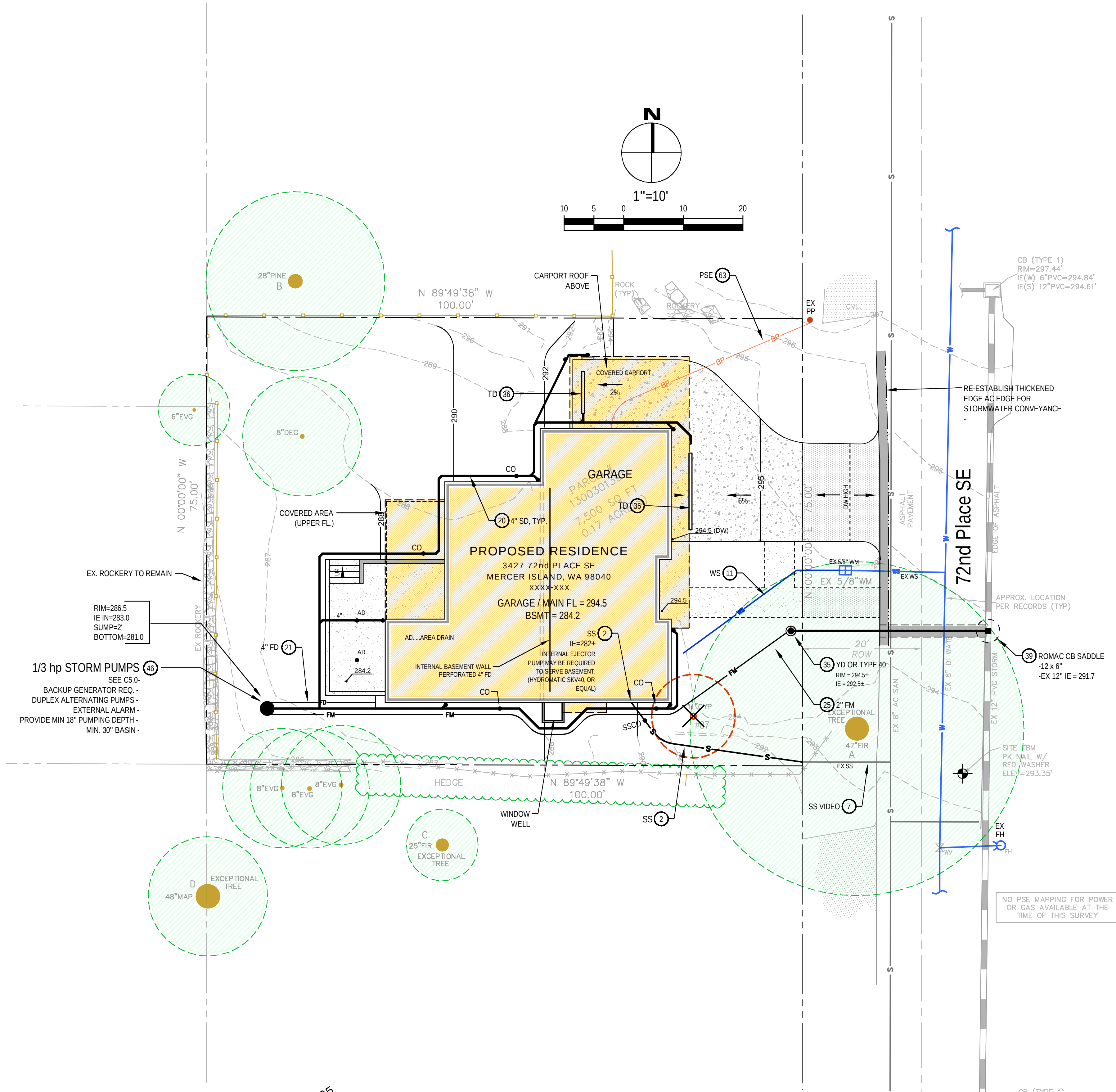
COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL CERTIFICATION REQUIRED

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

CRITICAL AREA NOTE

SITE HAS MAPPED LANDSLIDE AND EROSION HAZARD
SEE GEOTECH REPORT BY GEOTECH CONSULTANTS, INC. FOR DISCUSSION OF BOTH



NO.	DATE	BY	REVISIONS	APPLICANT: ARTOUSH FANAIYAN ARTOUSH CONSTRUCTION AND REMODELING 13101 NE 50th STREET BELLEVUE, WA (425) 890-9995	DATE: Aug 20, 2025		CIVIL ENGINEERING SOLUTIONS 701 N 36TH STREET 206.930.0342 SEATTLE, WA 98103 DUFFY@CESOLUTIONS.US	DRAINAGE / CIVIL PLAN PROPOSED RESIDENCE 3427 72nd PLACE SE, MERCER ISLAND, WA 98040	DRAWING NO: C2.0
					JOB#: 2126				APN 130030-1391
					DRAFTED: DE DESIGN: DE				
					DIGITAL SIGNATURE				

MINIMUM 10% ORGANIC -
COMPOST SOIL
REQUIRED

SOIL AMENDMENT REQUIRED

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

SOIL INSPECTION REQUIRED BY ENGINEER

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

COMPOST AMENDED SOIL SPEC

AMENDMENT FOR LANDSCAPED AREAS

2 INCHES OF WOOD CHIP MULCH OR STOCKPILED DUFF

3 INCHES OF COMPOST, PER NDP MATERIALS, INCORPORATED INTO 5" OF SOIL (OR AMEND FOR 8" SETTLED SOIL AT 10% ORGANIC CONTENT).

SCARIFY TOP 4" OF NATIVE SOIL

NATIVE SOIL

2"

8" MINIMUM AFTER SETTLING

AFTER AMENDING, RAKE BEDS AND REMOVE SURFACE ROCKS > 2" DIAMETER BEFORE MULCHING.

SOIL AMENDMENT FOR GRASS OR TURF AREAS

1.75" OF COMPOST (SEE D6-05 MATERIALS) INCORPORATED INTO 6.25" SOIL, GOAL OF 5% ORGANIC MATTER IN 8" OF SETTLED SOIL.

SCARIFY TOP 4" OF NATIVE SOIL

NATIVE SOIL

8" MINIMUM AFTER SETTLING

AFTER AMENDING, WATER OR ROLL WITH WALK BEHIND DRUMROLLER FOR COMPACTION TO APPROXIMATELY 95% OF MAXIMUM DRY DENSITY. RAKE TO LEVEL AND REMOVE SURFACE ROCKS > 1" DIAMETER.

NOTES:
1. AMEND SOILS PER DOE MANUAL, VOL. V, 5.3.1, BMP TS13, (2012 OR CURRENT) OR WWW.SOILSFORSALMOND.ORG
2. DO NOT AMEND SOILS IN AREAS WITH UNDISTURBED SOIL AND NATIVE VEGETATION.
3. OPTIONAL ALTERNATIVE: STOCKPILE NATIVE TOPSOIL ONSITE, AMEND IF NEEDED, AND REPLACE BEFORE PLANTING.
4. OPTIDNAL ALTERNATIVE: IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET REQUIREMENTS.

City of Bellevue

STORM AND SURFACE WATER UTILITY

TITLE

AMENDED SOILS

NO. NDP-1

JANUARY 2023

NO SCALE

NO.	DATE	BY	REVISIONS	APPLICANT: ARTOUSH FANAIYAN ARTOUSH CONSTRUCTION AND REMODELING 13101 NE 50TH STREET BELLEVUE, WA (425) 890-9995	DATE: Aug 20, 2025 JOB# 2126 DRAFTED: SS DESIGN: SS DIGITAL SIGNATURE	Aug 20, 2025 JEFFREY E. DUFFY PROFESSIONAL ENGINEER	CIVIL ENGINEERING SOLUTIONS 701 N 36TH STREET 206.930.0342 SEATTLE, WA 98103 DUFFY@CESOLUTIONS.US	BMP DETAILS PROPOSED RESIDENCE 3427 72nd PLACE SE, MERCER ISLAND, WA 98040	DRAWING NO: C3.5 APN 130030-1391
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MODEL 122 CONTROL PANEL CUT SHEET (OR EQUAL)

MODEL 122 CONTROL PANEL

The Model 122 control panel is designed to alternately control two 120, 208, or 240 VAC single phase pumps in water and sewage installations. The controller is provided with a pump selector switch that can be set to alternate the pumps to equalize wear or to call either pump to activate first with the other pump to activate in lag condition. If an alarm occurs, the alarm activates the audible visual system. The alarm conditions include: high water, float out-of-sequence, pump fail-to-run, seal failure (optional). Common applications include: lift stations, pump chambers, and irrigation systems.

Model 122 NEMA 4X Model Shown

PANEL COMPONENTS

- Newly designed larger NEMA 4X enclosure for indoor/outdoor use
 - Drip shield
 - Heavy duty wide clamping securable latches
 - Stainless steel 1/4 turn cover set screw
 - Low profile hinged padlockable cover
 - Integral mounting flanges
- Duplex Controller
 - Pump HDA switches with green/red LED indicators
 - Control Power ON/OFF switch
 - Power ON green LED indicators
 - Float status red LED indicators
 - Float push-to-test buttons
 - Pump selector switch
 - Auxiliary alarm contacts
 - Terminal blocks for incoming power and float switches
 - Option: adjustable seal failure circuits and red LED indicators (must select option 5E when ordering)
- Magnetic Motor Contactors control pumps by switching electrical lines.
- Circuit Breakers (optional) provides pump disconnect and branch circuit protection
- Ground Lugs
- Red LED Alarm Beacon
- Alarm Horn (not visible)
- Exterior Alarm Test/Normal/Silence Switch (not visible)

FEATURES

- Touch safe circuit board housing and low voltage 12 VDC float circuits
- Alarm (field programmable to flash)
- Alarm automatic reset (field programmable to manual alarm reset)
- Float out-of-sequence detection
- Pump fail-to-run detection (field programmable to deactivate)
- Controller protected by four auto resettable fuses (control, alarm, pump 1, and pump 2), no fuse replacement
- Three second lag pump delay time prevents simultaneous pump start-up
- Standard package includes three 20' control switches or EZconnect® float system
- Five-year limited warranty

MODEL 122

ALARM PACKAGE

0 = select options or no alarm package
1 = alarm package (includes test/normal/silence switch, fuse, red light, 6 horn)

ENCLOSURE RATING

1 = indoor, NEMA 1 (metal)
W = Weatherproof, NEMA 4X (engineered thermoplastic)

STARTING DEVICE

1 = magnetic motor contactor 120/208/240V
9 = magnetic motor contactor 120V only

PUMP FULL LOAD AMPS

0 = 0.7 FLA
1 = 7.5 FLA
2 = 15.20 FLA
3 = 20.30 FLA

PUMP DISCONNECTS

0 = no pump disconnect
4 = circuit breaker 120V (select STARTING DEVICE option 9 above)
120/208/240V (select STARTING DEVICE option 1 above)

FLAOT SWITCH APPLICATION

H or L = pump down or pump up (select T7 option)
S = EZconnect® float switch system (select 34 or 35 option)
X = no floats

OPTIONS Listed below

★ ENCLOSURE UPSIZE - If you selected one or more of the ★ options,

CODE	DESCRIPTION	CODE	DESCRIPTION
1A	Red beacon only / no audio (must select 10" for alarm package)	18A	10" cord in lieu of 20" (per float)
10	Horn only / no visual (must select 10" for alarm package)	18B	10" cord in lieu of 20" (per float)
10C	30" cord in lieu of 20" (per float)	18C	30" cord in lieu of 20" (per float)
10D	40" cord in lieu of 20" (per float)	18D	40" cord in lieu of 20" (per float)
3A	Alarm flasher (factory programmed)	17C	Sensor Float* / internally weighted ▲ (per float)
3B	Manual alarm reset (factory programmed)	17D	Sensor Float* / externally weighted ▲ (per float)
4A	Redundant off (select Option 4D if floats included)	17E	Sensor Float* Min / pipe clamp ▲ (per float)
4B	Redundant off indicator 6 alarm (must select Option 4A)	17F	Sensor Float* Max / externally weighted ▲ (per float)
4C	Redundant off float	17G	S/E MillingMaster™ pipe clamp ● (per float)
4D	Redundant off float	17H	S/E MillingMaster™ externally weighted ● (per float)
5A	Thermal cutoff/heat sensor auto reset (for pumps with thermal switch leads)	17J	Sensor Float* / pipe clamp ▲ (per float)
5E	Seal failure circuit 8 red indicator (2 wire)	18F	Least lag selector switch (included as standard)
6A	Auxiliary alarm contact, Form C (included as standard)	18G	Fourth float to separate alarm function from lag
8A	Elapsed time meter	18H	10A (Test/Off/Automatic) switches and pump run lights through door mounted
8B	Event cyclod counter	18I	HDA (Hand/Off/Automatic) switches and pump run lights through door mounted
8C	Pump overload (specify amperage after number 9 followed by letter "A". Example: 9D2A = 12 amp pump, 0.25 FLA)	18J	Door mounted pump run indicators
8D	25-30 FLA	34D	EZconnect® 4-Port, 25', w/10' floats (3) (pipe clamp, sealing plug) ★
10E	Lockable latch - NEMA 4X (included as standard)	34E	EZconnect® 4-Port, 50', w/10' floats (3) (pipe clamp, sealing plug) ★
10F	Lockable latch - NEMA 1	34F	EZconnect® 4-Port, 50', w/20' floats (3) (pipe clamp, sealing plug) ★
10G	Lighting arrester (select pump circuit breaker)	34G	EZconnect® 4-Port, 50', w/10' floats (4) (pipe clamp) ★
10H	Anti-condensation heater	34H	EZconnect® 4-Port, 50', w/10' floats (4) (pipe clamp) ★
10I	NEMA 1 alarm panel	35D	EZconnect® 4-Port, 25', w/10' floats (4) (pipe clamp) ★
10J	NEMA 4X alarm panel	35E	EZconnect® 4-Port, 50', w/10' floats (4) (pipe clamp) ★
10K	Main disconnect (ratchet style, mounted through door, non-fused, padlockable in the OFF position, door interlock in the ON position) (must select circuit breaker)	35F	EZconnect® 4-Port, 50', w/20' floats (4) (pipe clamp) ★
10L	0.20 FLA (total of both pumps)		
10M	20.80 FLA (total of both pumps)		

★ EZconnect® mechanically activated, narrow angle float switches with quick release connections. ● Mechanically activated ▲ Mercury activated

SEE BACK SIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.

STORM PUMP SPEC (LIBERTY FL31M OR EQUAL)

FL30-SERIES

Effluent Pumps

1/3 hp
3/4" Solids handling

Specifically designed for STEP Systems, LPP Systems, Mound Systems, Liquid Waste Transfer and Commercial Sump Applications

Features

- Vortex impeller, made of high temperature engineered polymer, permits passage of solids without clogging
- Cast iron construction with all stainless and brass fasteners
- Oil-filled, thermally protected motor
- Permanently lubricated ball bearings
- Unitized shaft seal
- 1-1/2" FNPT discharge
- Quick-connect 10' standard power cord allows replacement of cord in seconds without breaking seals to motor (25', 35', or 50' lengths optional)

Models

FL31M 115V, 10.5A, Manual
FL31A 115V, 10.5A, Automatic
FL32M 208-230V, 5.5A, Manual
FL32A 208-230V, 5.5A, Automatic

Automatic model features a mercury-free wide-angle float switch with series plug - allows for manual operation of pump separate from float switch.

FL30-Series

Impeller

Vortex style high temperature polymer

Paint

Powder coat

Max Fluid Temperature

140°F (60°C)

Motor

Class A windings, oil-filled, thermally protected

Power Cord Type

3JTW, Quick-connect 10' standard length (25', 35', or 50' lengths optional)

Motor Housing

Class 25 cast iron

Volute

Class 25 cast iron

Dimensional Data

Weight: FL31M, 32 lbs
Height: 9.6"
Major Width: 9.8" (manual model)

MODEL	HP	VOLTS	PHASE	AMPS	DISCHARGE	AUTOMATIC	IMPELLER
FL31M	1/3	115	1	10.5	1-1/2" FNPT	No	Vortex
FL31A	1/3	115	1	10.5	1-1/2" FNPT	Yes	Vortex
FL32M	1/3	208-230	1	5.5	1-1/2" FNPT	No	Vortex
FL32A	1/3	208-230	1	5.5	1-1/2" FNPT	Yes	Vortex

10' cord standard on above models, 25', 35', and 50' cord lengths available (50' cord not available on automatic models). Add "2", "3", and "5" suffix to model number. Example: FL31A-2 for 25' cord.

(BASED ON 30 INCH DIAMETER BASIN) PUMPING DEPTH CYCLE CALC

Storm Pump-Float Depth / Pump Interval Calculator			
7/18/2025			
	Value	Units	Comments
Input Pump Basin Diameter (feet)=	2.5	feet	recommended basin diameter for duplex pumps
Calculate pump basin radius=	1.3	feet	
Calculate cross section Area of basin=	4.91	sf	
Input a pump depth to achieve 2 min run time=	1.5	feet	Input pump depth here
Calculate volume of water per pump cycle=	7.4	cf	
Convert volume to gallons	55.1	gallons	convert to gallons pumped
Input pump rate based on pump curve and TDH	28	gpm	
Calculate time for pump to operate per cycle	2.0	minutes	ensure time is minimum 2 minutes

TOTAL DYNAMIC HEAD CALCULATOR

Pump Flow Rate	Pipe Diameter(ID)	Pipe Length	Differential Elevation	Pipe Material	Total Dynamic Head(TDH)
US GPM ▼	in. ▼	ft. ▼	ft. ▼	Plastic ▼	ft. ▼
18	2	90	14		14.637904463053985

Compute Total Dynamic Head(TDH) Reset

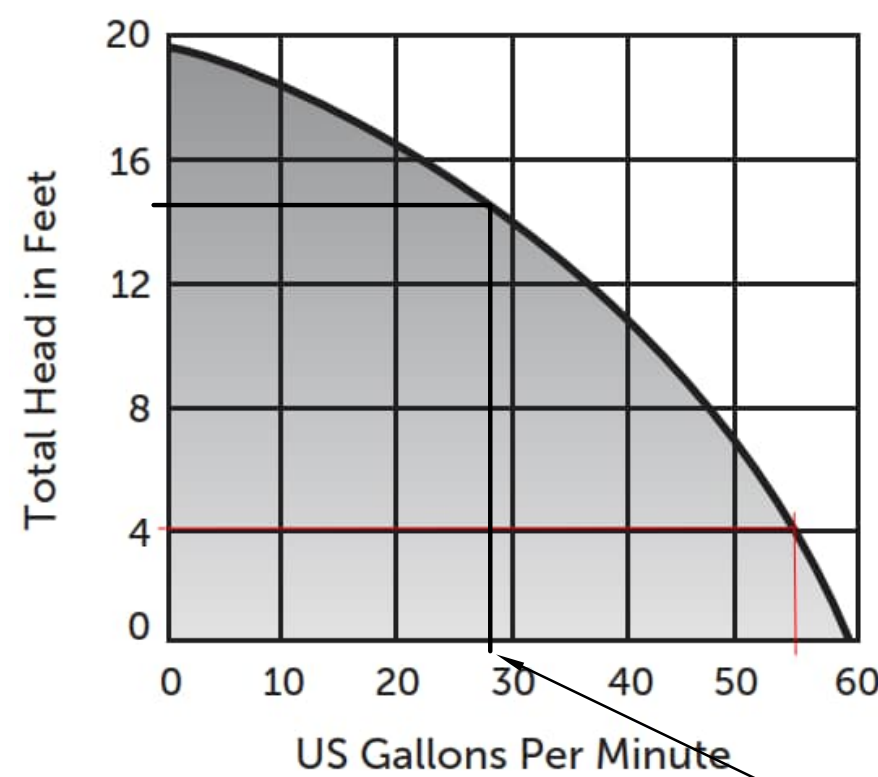
BASED ON 2 INCH DIAMETER FORCE MAIN SIZE

PUMP DESIGN HYDROLOGY

Peak Flow Rates in Puget Sound									
100 year, 24 hour storm event									
I=4.0 inches/24 hours per isopluvials									
Impervious Area	Acres	SBUH (CFS)	SBUH (GPM)	SBUH (CFS)	SBUH (GPM)	WVHM (cfs)	WVHM (gpm)	Average gpm	
		Tc=6.3	Tc=10						
1,000	0.023	0.02	9	0.023	10	0.0178	7.9	9	
2,000	0.046	0.041	18	0.045	20	0.0356	15.8	18	
3,000	0.069	0.062	28	0.067	30	0.0534	23.8	27	
4,000	0.092	0.082	36	0.09	40	0.0712	31.7	36	
5,000	0.115	0.103	46	0.112	50	0.089	39.6	45	
6,000	0.138	0.124	55	0.135	60	0.1068	47.5	54	
7,000	0.161	0.143	64	0.156	69	0.1246	55.4	62	

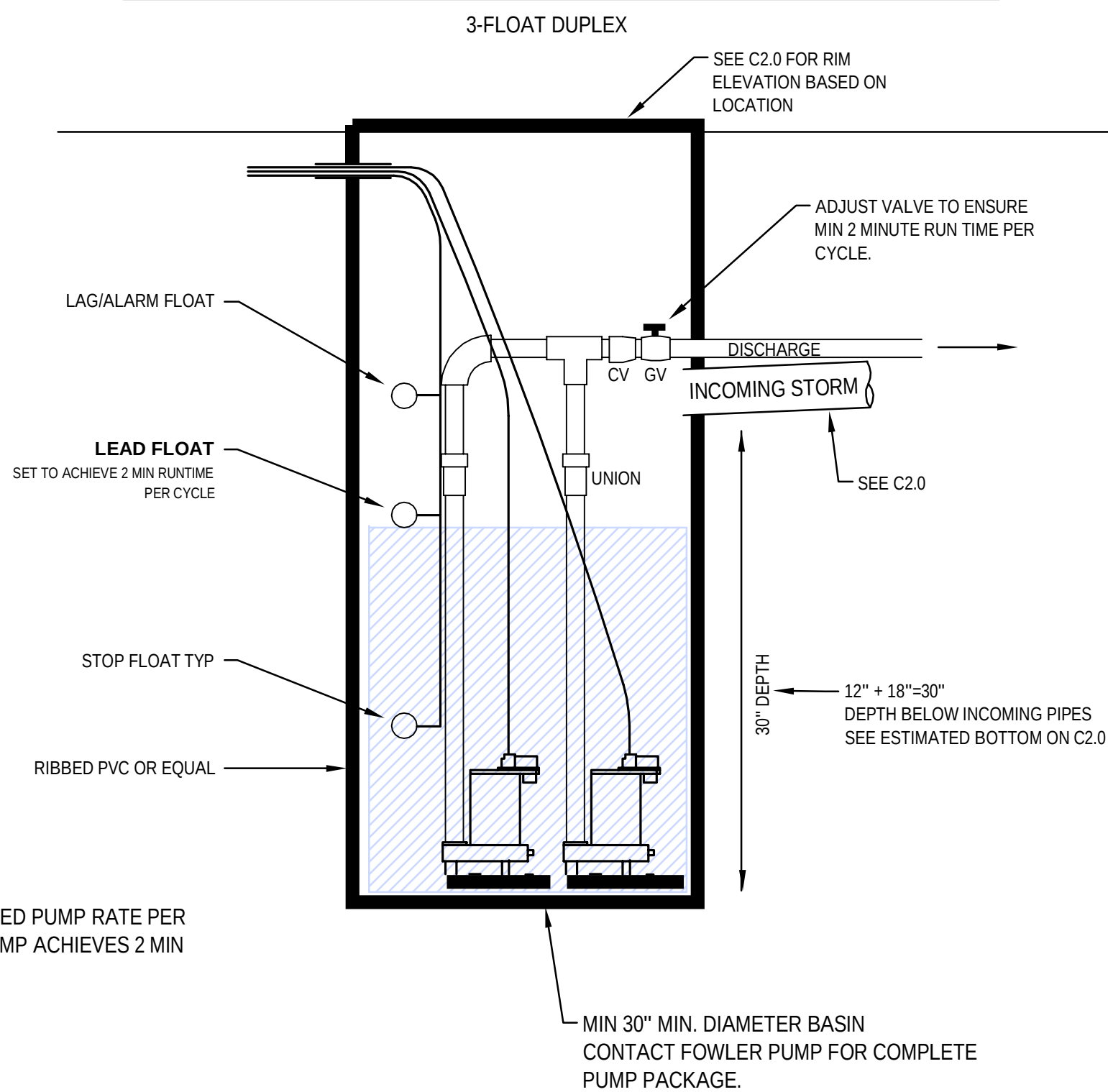
STORM PUMPS RECOMMENDATION:

- LIBERTY FL31M PUMPS, OR EQUAL
- 1/3 hp
- FORCE MAIN SIZE = 2.0"
- BASIN SIZE RECOMMENDATION = 30"-Ø
- DUPLEX PUMPS REQUIRED
- CONTACT FOWLER PUMP IN BELLEVUE FOR PUMP PACKAGE

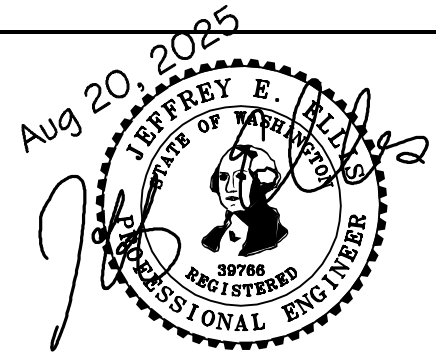


USE 28 GPM AS ESTIMATED PUMP RATE PER PUMP. SET DEPTH SO PUMP ACHIEVES 2 MIN RUNTIME PER CYCLE.

STORM PUMP & BASIN SCHEMATIC



NO.	DATE	BY	REVISIONS	APPLICANT:	DATE:	DRAWING NO.:
				ARTOUSH FANAYAN ARTOUSH CONSTRUCTION AND REMODELING 13101 NE 50th STREET BELLEVUE, WA (425) 890-9895	Aug 20, 2025 JOB# 2126 DRAFTED: SS DESIGN: DE DIGITAL SIGNATURE	C5.0
						APN 130030-1391



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

DUPLEX STORM PUMPS
PROPOSED RESIDENCE
3427 72nd PLACE SE, MERCER ISLAND, WA 98040

(PER PERSONAL REPRESENTATIVE'S DEED REC. NO. 20190510000378) THE SOUTH HALF OF LOT 8, AND ALL OF LOTS 9 AND 10, BLOCK 5, C.C. CALKINS 1ST ADDITION TO EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 4 OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON.
BASIS OF BEARINGS
ACCEPTED THE BEARING OF N 89°54'00" E, BETWEEN MONUMENTS FOUND ALONG THE CENTERLINE OF 32ND AVE SE, PER REFERENCE NO. 1.
REFERENCES
R1. BOUNDARY LINE ADJUSTMENT, VOL. 226, PG. 146, RECORDS OF KING COUNTY, WASHINGTON. R2. RECORD OF SURVEY, VOL. 207, PG. 33 RECORDS OF KING COUNTY, WASHINGTON. R3. C.C. CALKINS FIRST ADDITION, VOL. 7 OF PLATS, PG. 88 RECORDS OF KING COUNTY, WASHINGTON.
VERTICAL DATUM
NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457 DESCRIPTION: 2" BRASS CAP WITH CHISELED "X" IN CONC. MON (DN 1.0') LOCATION: 5' OFFSET MON AT INTX SE 32ND ST & 74TH AVE SE ELEVATION: 324.56' SITE TEMP. BENCHMARK DESCRIPTION: PK NAIL W/ RED WASHER LOCATION: 1.3'S & 26.9'E FROM THE SE PROPERTY COR ELEVATION: 293.35'

SURVEYOR'S NOTES

ACCEPTED THE BEARING OF N 89°54'00" E, BETWEEN MONUMENTS
FOUND ALONG THE CENTERLINE OF 32ND AVE SE, PER REFERENCE
NO. 1.

R1. BOUNDARY LINE ADJUSTMENT, VOL. 226, PG. 146,
RECORDS OF KING COUNTY, WASHINGTON.

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NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457
DESCRIPTION: 2" BRASS CAP WITH CHISELED "X" IN CONC. MON
(DN 1.0")
LOCATION: 5' OFFSET MON AT INTX SE 32ND ST & 74TH AVE SE
ELEVATION: 324.56'

SITE TEMP. BENCHMARK
DESCRIPTION: PK NAIL W/ RED WASHER
LOCATION: 1.3'S & 26.9'E FROM THE SE PROPERTY COR
ELEVATION: 293.35'

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN MAY OF 2025. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES. TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 1300301391
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 7,500 S.F. (0.17 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
8. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 3-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

	BENCHMARK		BUILDING
	CENTERLINE ROAD		BRICK SURFACE
	FENCE LINE (WOOD)		CONCRETE SURFACE
	MONUMENT (IN CASE, FOUND)		DECK
	MONUMENT (SURFACE, FOUND)		ROCKERY
	NAIL AS NOTED		GAS METER
	PROPERTY LINE (ADJACENT)		GAS VALVE
	PROPERTY LINE (SUBJECT)		GAS LINE
	REBAR & CAP (SET)		POWER METER
	REBAR AS NOTED (FOUND)		POWER (OVERHEAD)
	RETAINING WALL		CONC
	RIGHT-OF-WAY LINES		FF FINISH FLOOR
	SUBDIVISION LINES		G GAS
	TREE (AS NOTED)		OHT OVERHEAD TELEPHONE
	SIZE TYPE		PROP PROPERTY
	ASPHALT SURFACE		

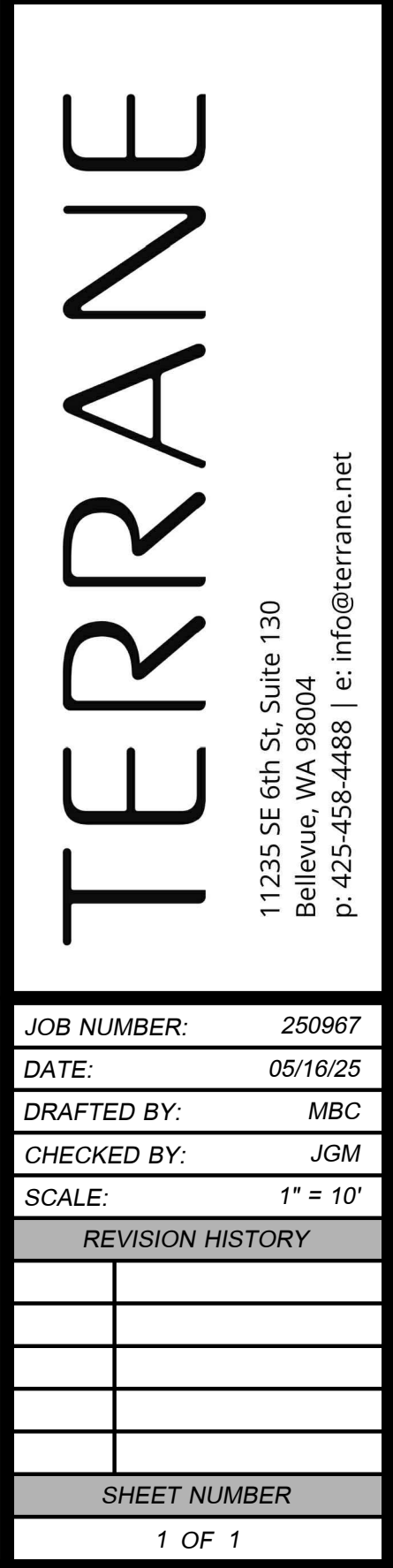
[illegible]

TOPOGRAPHIC & BOUNDARY SURVEY

PARCEL NO. 1300301381

3427 72ND PI SE

3427 72ND PLACE SOUTHEAST
MERCER ISLAND, WA 98040



JOB NUMBER:	250967
DATE:	05/16/25
DRAFTED BY:	MCB
CHECKED BY:	JGM
SCALE:	1" = 10'
REVISION HISTORY	
SHEET NUMBER	
1 OF 1	