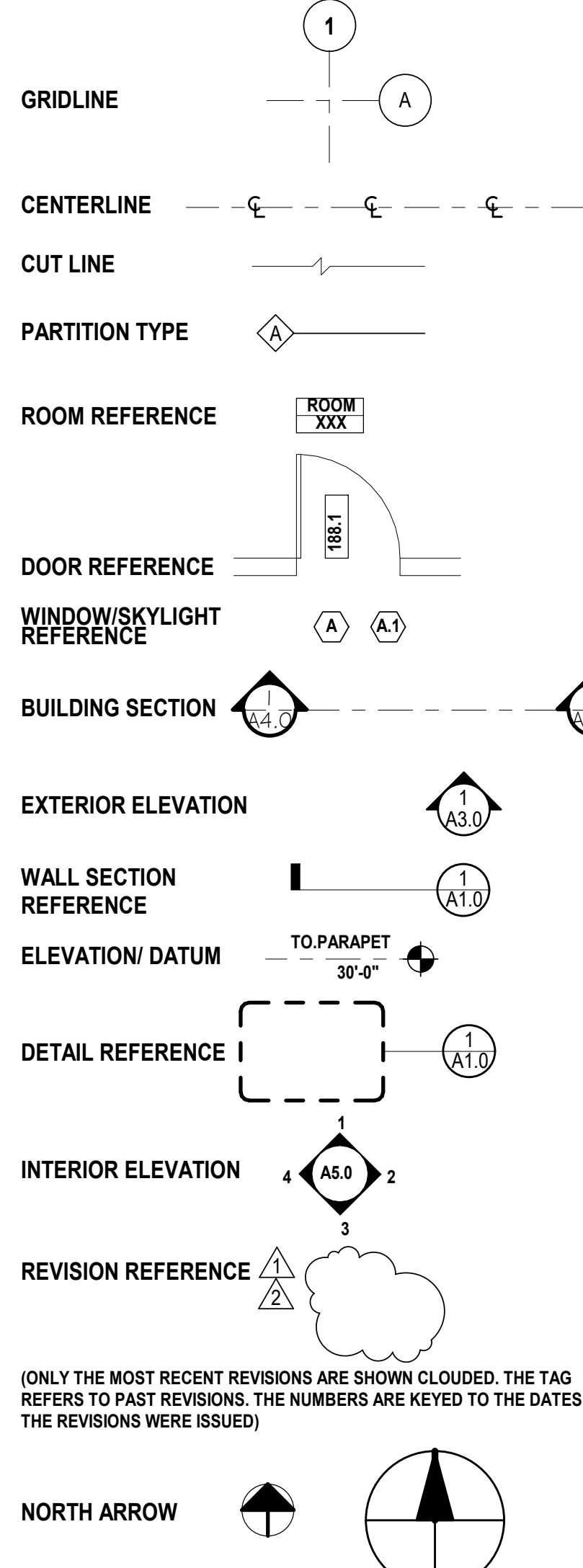


ABBREVIATIONS

AB	ANCHOR BOLT	F.H.M.S	FLAT HEAD MACHINE SCREW	P.B.	PARTICLE BOARD
ABV	ABOVE	F.H.W.S	FLAT HEAD WOOD SCREW	P.C.	PRE-CAST CONCRETE
ACC	ACCESS	FIN.	FINISH	PCF.	POUNDS PER CUBIC FOOT
ACOUS.	ACOUSTICAL	FF.	FINISH TO FINISH	PERF.	PERFORATED
A.C.P.	ASPHALT CONCRETE PAVEMENT	FF.	FACE TO FINISH	PERP.	PERPENDICULAR
ACT	ACOUSTICAL TILE	FL; FLR	FLOOR; FLOORING	P.G.WB.	PAINTED GYPSUM WALL BOARD
A.D.	AREA DRAIN	FLASH.	FLASHING	PL.	PROPERTY LINE, PLATE
ADD	ADDITIVE	FLUOR.	FLUORESCENT	P.LAM.	PLASTIC LAMINATE
ADJ.	ADJUSTABLE	F.O.	FACE OF	PLAS.	PLASTER
A.F.F.	ABOVE FINISHED FLOOR	F.O.C.	FACE OF CONCRETE	PLYWD.	PLYWOOD
AGGR.	AGGREGATE	F.O.F.	FACE OF FINISH	PNL.	PANEL
A.H.J.	AUTHORITY HAVING JURISDICTION	F.O.I.C.	FURNISHED BY OWNER AND	PR.	PAIR
A.I.B.	AIR & MOISTURE BARRIERS	F.O.I.O.	INSTALLED BY CONTRACTOR	PS.	POUNDS PER SQUARE FOOT
ALT.	ALTERNATE	FURNISHED BY OWNER AND		PSI.	POUNDS PER SQUARE INCH
ALUM.	ALUMINUM	INSTALLED BY OWNER		PT.	POINT
AP	ACCESS PANEL	F.O.M.	FACE OF MASONRY	P.T.	PRESSURE TREATED
APPROX.	APPROXIMATE	F.O.S.	FACE OF STUDS	PTD.	PAINT
ARCH.	ARCHITECTURAL	F.O.W.	FACE OF WALL	P.T.D.	PAPER TOWEL DISPENSER
ASB.	ASBESTOS	FRPL.	FIREPROOF	PTN.	PARTITION
A.S.L.	ABOVE SEA LEVEL	FRPL.	FIREPLACE	PVC.	POLYVINYL CHLORIDE
ASPH.	ASPHALT	F.R.	FRAME	P.WD.	PAINTED WOOD
AUTO.	AUTOMATIC	F.R.T.	FIRE RETARDANT TREATED	Q.T.	QUARRY TILE
		F.S.	FLOOR SINK	QUAN.	QUANTITY
		FT.	FOOT OR FEET	R	RISERS
BD.	BOARD	FTG.	FOOTING	RA	RETURN AIR
BITUM.	BITUMINOUS	FURR.	FURRING	RAD.	RADIUS
BLDG.	BUILDING	FURT.	FURTURE	RB.	RUBBER BASE
BLK.	BLOCK	FW	FULL WIDTH	R.D.	ROUGH OPENING
BLKG.	BLOCKING	F.V.	FIELD VERIFY	REF.	REFERENCE
BM.	BEAM	GA.	GAUGE	REFR.	REFRIGERATOR
B.O.	BOTTOM OF	GAL.	GALLON	REFR.	REFINISHED, REINFORCING
BOT.	BOTTOM	GALV.	GALVANIZED	REQ.	REQUIRED
BSMT.	BASEMENT	G.C.	GENERAL CONTRACTOR	RESIL.	RESILIENT
BRG.	BEARING	G.L.B.	GLUE LAM BEAM	REV.	REVISION; REVISED
BUR.	BUILT UP ROOFING	GRADE	GRADE	RGTR.	REGISTER
		G.R.	GUARD RAIL	RH.	ROUND-HEAD; RIGHT HAND
CAB.	CABINET	G.S.B.	GYPSUM SHEATHING BOARD	RM.	ROOM
C.B.	CATCH BASIN	G.W.B.	GYPSUM WALL BOARD	R.O.	ROUGH OPENING
CB.	CHALK BOARD	GYP.	GYPSUM	RWL.	RAIN WATER LEADER
CC.	CENTER TO CENTER			S.	SOUTH
CEM.	CEMENT	H.B.	HOSE BIBB	S.B.C.	SEATTLE BUILDING CODE
CER.	CERAMIC	H.C.	HOLLOW CORE	S.CONC.	SCOURED CONCRETE
CG.	CORNER GUARD	H.D.GALV	HOT DIPPED GALVANIZED	SAF.	SELF ADHERED FLASHING
C.I.	CAST IRON	HDR.	HEADER	SC.	SOLID CORE
C.I.P.	CAST IN PLACE	HDWD.	HARDWOOD	SC.ALUM.	SOLID CORNER ALUMINUM
C.J.	CONTROL JOINT	HDWE.	HARDWARE	SCHED.	SCHEDULE
CLG.	CEILING	HEM.	HEMLOCK	S.D.	SMOKE DETECTOR
CLG.	CAULKING	H.M.	HOLLOW METAL	SEC.	SEALED CONCRETE
CLO.	CLOSET	HORIZ.	HORIZONTAL	SECT.	SECTION
CLR.	CLEAR	HP.	HIGH POINT	S.G.	SAFETY GLASS
C.M.U.	CONCRETE MASONRY UNIT	HR.	HOUR	SH.SHLF	SHelf
CNTR.	COUNTER	HT.	HEIGHT	SHR.	SHOWER
COL.	COLUMN	HVAC.	HEATING/VENTILATION/AIR CONDITIONING	SHT.	SHEET
CONC.	CONCRETE	HW.	HOT WATER	SHTH.	SHEATHING
CONN.	CONNECTION	H.W.H.	HOT WATER HEATER	SIM.	SIMILAR
CONSTR.	CONSTRUCTION	I.B.C.	INTERNATIONAL BUILDING CODE	SIM.	SHEET METAL
CONT.	CONTINUOUS	I.D.	INSIDE DIAMETER	SMS.	SHEET METAL SCREW
CONTR.	CONTRACTOR	I.N.	INCH	S.O.G.	SLAB ON GRADE
CORR.	CORRIDOR	INCL.	INCLUDED; INCLUDING	SPEC.	SPECIFICATION
C.P.	CONCRETE PAVEMENT	INCL.	INCLUDING; INCLUDING	S.P.M.	SINGLE-PLY MEMBRANE
CPT.	CARPET, CARPETED	INSUL.	INSULATION	SQ.	SQUARE
CPT SQRS.	CARPET SQUARES	INT.	INTERIOR	SQ.FT.	SQUARE FEET
CRS.	COURSE; COURSES	INV.	INVERT	SQ.IN.	SQUARE INCH (ES)
C.S.	CRAWL SPACE	JAN.	JANITOR	SS.	STAINLESS STEEL
CTSK.	COUNTERSINK	J.B.	JUNCTION BOX	ST.	STONE
C.T.	CERAMIC TILE	JT.	JOINT	STA.	STATION
CTR.	CENTER	KIT.	KITCHEN	STD.	STANDARD
CU.FT.	CUBIC FEET	K.O.	KNOCK-OUT	STL.	STEEL
C.V.G.	CLEAR VERTICAL GRAIN	LAM.	LAMINATE	STOR.	STORAGE
C.W.C.	CHILLED WATER CABINET	LAV.	LAVATORY	STRUCT.	STRUCTURAL
		L.F.	LINEAL FEET	SUSP.	SUSPENDED
		LL.	LIVE LOAD	SYM.	SYMMETRICAL
		LP.	LOW POINT	T.; TRD.	TREADS
		LOC.	LOCATION	TB.	TACK BOARD
		LT.	LIGHT	T.B.	TOWEL BAR
				T.C.	TOP OF CURB
				TEMP.	TEMPERED
				T.G.	TEMPERED GLASS
				T.G.G.	TONGUE AND GROOVE
				T/T;O	TOP OF
				T.O.S	TOP OF SLAB; TOP OF STEEL
				T.O.W.	TOP OF WALL
				TEL.	TELEPHONE
				T.P.H.	TOILET PAPER HOLDER
				T.S.	TUBULAR STEEL
				TYP.	TYPICAL
				U.N.O.	UNLESS NOTED OTHERWISE
				U.S.K.	UTILITY SINK
				V.B.	VAPOR BARRIER
				W.C.	WATER CLOSET
				WD.	WOOD
				W.	WITH
				WO	WITHOUT
				WP.	WATERPROOF OR WATERPROOFING
				WR	WATER RESISTANT
				WSCT.	WAINSCOT

SYMBOLS LEGEND



GENERAL CONDITIONS

- DO NOT SCALE DIMENSIONS FROM DRAWINGS. USE CALCULATED DIMENSIONS ONLY. NOTIFY THE ARCHITECT IMMEDIATELY IF ANY CONFLICT EXIST.
- ALL DIMENSIONS ARE TO FACE OF FINISH UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL VERIFY ALL CONDITIONS PRIOR TO INITIATING THE WORK. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT. PROVIDE ALL BUCK-OUT, BLOCKING, BACKING AND JACKS REQUIRED FOR INSTALLATION.
- VERIFY LOCATIONS OF ALL EXISTING UTILITIES AND SLEEVING: CAP, MARK, AND PROTECT AS NECESSARY TO COMPLETE THE WORK.
- ALL WOOD IN CONTACT WITH CONCRETE IS PRESSURE TREATED.
- PROVIDE AS-BUILT PLAN OF ALL UTILITY LOCATIONS.
- SERVICE WATER PIPES IN UNHEATED SPACES TO BE INSULATED.

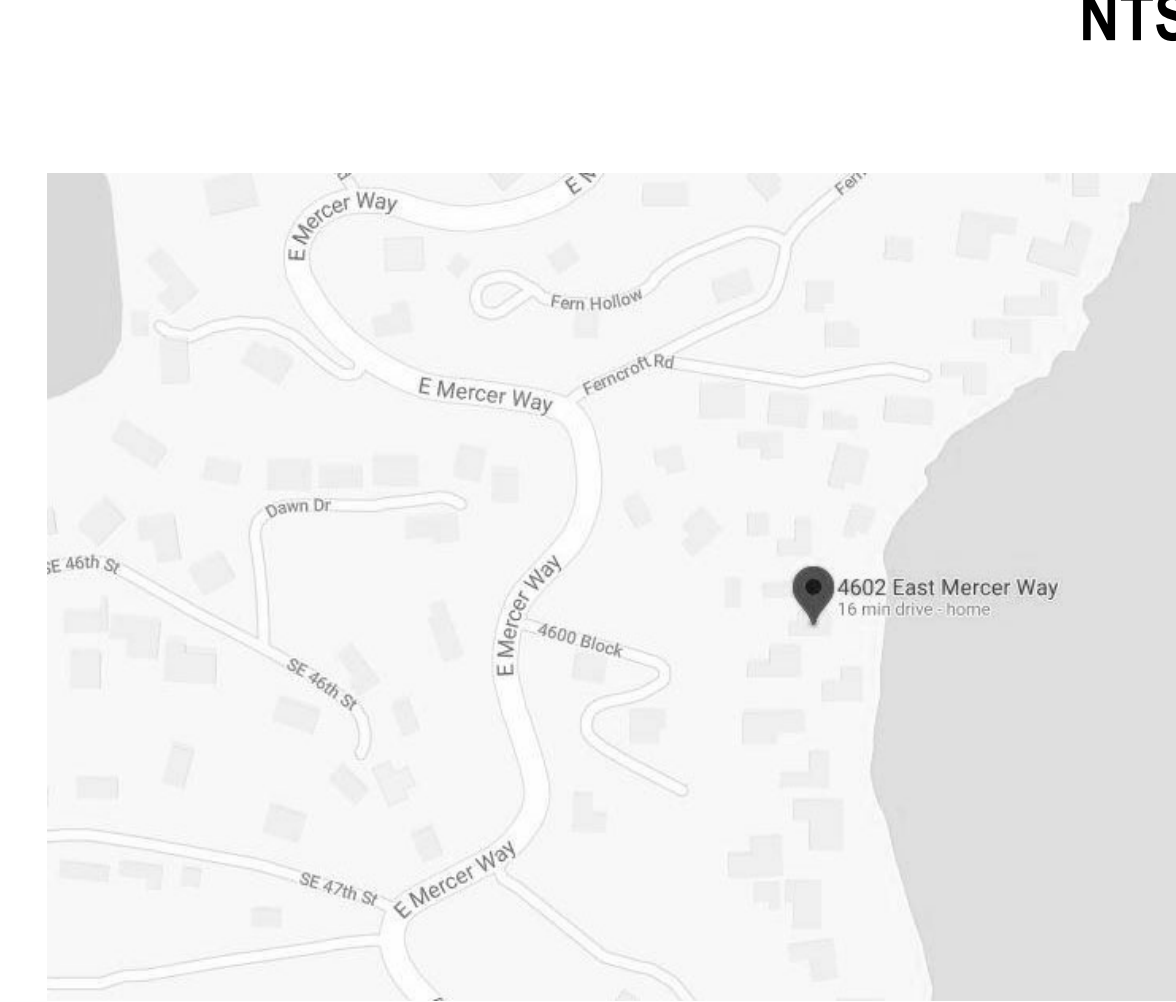
APPLICABLE CODES

ALL WORK SHALL CONFORM TO:

- 2015 INTERNATIONAL BUILDING CODE WITH STATEWIDE AND CITY AMENDMENTS
- ICC/ANSI A17.1-09, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, WITH STATEWIDE AND CITY AMENDMENTS
- 2015 INTERNATIONAL RESIDENTIAL CODE WITH STATEWIDE AND CITY AMENDMENTS
- 2015 INTERNATIONAL MECHANICAL CODE WITH STATEWIDE AND CITY AMENDMENTS
- 2015 INTERNATIONAL FIRE CODE WITH STATEWIDE AND CITY AMENDMENTS
- 2015 WASHINGTON STATE ENERGY CODE
- WASHINGTON CITIES ELECTRICAL CODE [HTTP://WWW.CODEPUBLISHING.COM/WA/MERCERISLAND/HTML/MERCERISLAND17/MERCERISLAND17.HTML](http://WWW.CODEPUBLISHING.COM/WA/MERCERISLAND/HTML/MERCERISLAND17/MERCERISLAND17.HTML)
- ALL CODES, AS MODIFIED BY LOCAL JURISDICTIONS AND ALL OTHER GOVERNING LAWS, CODES, ORDINANCES AND REGULATIONS

CITY OF MERCER ISLAND ZONING:
- SINGLE FAMILY R-15

VICINITY MAP



AERIAL VIEW



PROJECT DIRECTORY

OWNER
SARA TRUMBLE
THOMAS TRUMBLE

PROJECT ADDRESS
4602 E MERCER WAY
MERCER ISLAND, WA 98040

LOCAL JURISDICTION
CITY OF MERCER ISLAND
9611 SE 36TH STREET
MERCER ISLAND, WA 98040
P: (206) 275-7605

APPLICANT / ARCHITECT
SUZANNE ZAHR INC.,
2441 76TH AVE SE, SUITE 160
MERCER ISLAND, WA 98040
P: (206) 354-1567
CONTACT: SUZANNE ZAHR
EMAIL: INFO@SUZANNEZAHR.COM

GENERAL CONTRACTOR
TBD

STRUCTURAL ENGINEER
JOHN AND EVAN APOLIS
CONSULTING STRUCTURAL ENGINEERING SERVICES
8311 17TH AVE NE
SEATTLE, WA 98115
P: (206) 527-1288
CONTACT: EVAN APOLIS
EMAIL: EPISEEN@GMAIL.COM

CIVIL ENGINEER
D.R. STRONG
CONSULTING ENGINEERS INC.
CIVIL ENGINEERS PLANNERS SURVEYORS
620 7TH AVENUE
KIRKLAND, WA 98033
CONTACT: YOSHIO L. PIEDISCALZI, P.E.
P: (425) 827-3063
EMAIL: YOSHIO.PIEDISCALZI@DRSTRONG.COM

GEOTECH
PANGEO
3215 EASTLAKE AVE E, STE B
SEATTLE, WA 98102-7127
CONTACT: H. MICHAEL XUE, P.E.
P: (206)282-0370
EMAIL: MXUE@PANGEOINC.COM

SURVEYOR
TERRANE
10801 MAIN STREET, SUITE 102
BELLEVUE, WA 98004
CONTACT: DANNY SLAGER
EMAIL: DANNYS@TERRANE.NET

ARBORIST
SUPERIOR NW
CONTACT: ANTHONY MORAN
EMAIL: ANTHONY@SUPERIORNW.COM

PARCEL NUMBER: 755870-0045

LEGAL DISCRPTION:
SANDY BEACH TRS UNREC & SH LDS
ADJ
Plat Block:
Plat Lot: 9

DRAWING INDEX

SHEET #	SHEET NAME
A0.0	COVERSHEET
A0.1	GENERAL NOTES
A0.2	SCHEDULES
SURVEY	TOPOGRAPHIC & BOUNDARY SURVEY
TESC	TESC PLAN
DRAINAGE	DRAINAGE PLAN
TSCE & DRAINAGE	TSCE & DRAINAGE DETAILS
A1.0	SITE PLAN
A1.1	LAND USE CALCS
A2.0	GARAGE FLOOR DEMO PLAN
A2.1	GARAGE CONSTRUCTION FLOOR PLAN
A2.2	DADU CONSTRUCTION FLOOR PLAN
A2.3	ROOF CONSTRUCTION PLAN
A2.4	GARAGE POWER & DATA PLAN
A2.5	DADU POWER & DATA PLAN
A3.0	GARAGE REFLECTED CEILING PLAN
A3.1	DADU REFLECTED CEILING PLAN
A4.0	BUILDING ELEVATIONS
A4.1	BUILDING ELEVATIONS
A5.0	BUILDING SECTIONS
S1	STRUCTURAL DRAWINGS
S2	STRUCTURAL DRAWINGS
S3	STRUCTURAL DRAWINGS
S4	STRUCTURAL NOTES

PROJECT DESCRIPTION

THE SCOPE OF WORK INCLUDES DEMOLISHING THE EXISTING DETACHED GARAGE AND STORAGE AND ADDING A DETACHED GARAGE WITH AN ACCESSORY DWELLING UNIT ABOVE.



SUZANNE ZAHR INC.

2441 SE 76TH AVE, SUITE 160
MERCER ISLAND, WASHINGTON 98040
T. 206 354 1567
WWW.SUZANNEZAHR.COM

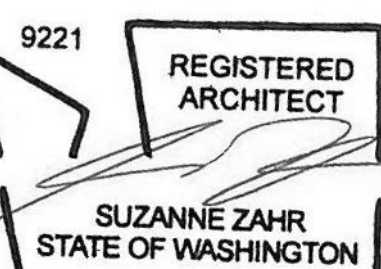
TRUMBLE RESIDENCE

ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
MERCER ISLAND, WA 98040

PROJECT NUMBER

20004



ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20
DRAWN BY: SA
CHECKED BY: SZ

COVERSHEET

SHEET NUMBER

A0.0

PERMIT SET

SZ

SUZANNE ZAHR INC.

2441 SE 76TH AVE, SUITE 160
MERCER ISLAND, WASHINGTON 98040
T. 206 354 1567
WWW.SUZANNEZAHR.COM

TRUMBLE RESIDENCE
ACCESSORY DWELLING UNIT ADDITION
4602 E MERCER WAY
MERCER ISLAND, WA 98040

PROJECT NUMBER

20004

9221



ISSUED / REVISIONS DATE

ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20

DRAWN BY: SA

CHECKED BY: SZ

SCHEDULES

SHEET NUMBER

A0.2

PERMIT SET

NOTE:

U-FACTORS OF FENESTRATION PRODUCTS TO BE DETERMINED IN ACCORDANCE WITH NFRC 100 PER SEC R303.1.3



Building Air Leakage Testing

2012 Washington State Energy Code (WSEC) section R402.4.1.2 requires air leakage testing for all new houses and additions. The requirement is met if the structure has a leakage rate of 5 air changes per hour when depressurized with a blower door to 50 Pascals or less (ACH₅₀). A Pascal is a measurement of pressure. 249 Pascals are equal to 1" of water column. The test must be performed using a Blower Door device which consists of a large fan, a frame and panel. A manometer (pressure gauge) is used to read house and fan pressures.



WSEC states that the test may be performed at any time after rough in. All penetrations in the building envelope must be sealed including those for utilities, plumbing, electrical, ventilation and combustion appliances. The code also states that when required by the building official, the test shall be conducted by an approved third party.

To conduct the test:

1. Close all windows, doors and fireplace and stove doors.
2. Close all dampers including exhaust, intake, make-up air, backdraft and flue dampers. Since you will be depressurizing the house, dampers in bath fans, etc. will be sucked closed during the test and will therefore not negatively affect the results.
3. Make sure plumbing traps are filled with water.
4. Leave doors between heated areas open.
5. Open access hatches to conditioned attics and/or conditioned crawl spaces. Leave hatches closed if these are unconditioned areas.
6. Seal exterior openings for continuously operating ventilation systems and heat recovery ventilators.
7. Turn off heating and cooling systems but do not seal supply or return registers.
8. Adjust all combustion appliances so that they do not turn on during the test.
9. Install the blower door in an exterior door opening and connect hoses from the manometer to the blower door fan and the exterior pressure tap. See manufacturer's instructions for correct set-up.
10. Depressurize the house to -50 Pascals.



11. Record the flow rate (with simple manometers, the fan pressure (Pa) is converted to CFM₅₀ using a flow table. Many digital manometers sold with blower doors can automatically perform this conversion, and display CFM₅₀ directly.) Consult your blower door and manometer manuals.

You now must convert the flow rate (CFM₅₀) to ACH₅₀. Use the following formula:

$$ACH_{50} = (CFM_{50} \times 60) / \text{Volume}$$

Where: ACH₅₀ = Air Changes per Hour at -50 Pascals
CFM₅₀ X 60 = Converts Cubic Feet per Minute to Cubic Feet per Hour
Volume = Conditioned floor area of the housing unit multiplied by the ceiling height

Example: A blower door test has been done on a 2,000 square foot house and the fan flow (CFM₅₀) rate is 1100 CFM.

$$ACH_{50} = (CFM_{50} \times 60) / \text{Volume}$$

$$ACH_{50} = (1100 \times 60) / (2000 \times 8)$$

$$ACH_{50} = 66,000 / 16,000$$

$$ACH_{50} = 4.1$$

Since the code requires the ACH₅₀ to be less than 5, this house complies with an ACH₅₀ of 4.1. Record the ACH₅₀ on the energy certificate on or near the electrical panel.

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Residential Building Air Leakage Test (Blower Door Test) Results

Permit # _____
House address or lot number: _____
City: _____ Zip: _____
Cond. Floor Area (ft²): _____ Age of house: _____
Source (circle one): Plans Estimated Measured

Results shall be reported as Air Changes per Hour at 50 Pascals (ACH₅₀) and shall be calculated as follows:
ACH₅₀ = (CFM₅₀ x 60) / Volume
Where:
CFM₅₀ = Blower door fan flow at 50 Pascal pressure difference
Volume = Conditioned Floor Area of the housing unit x ceiling height

Blower Door Test Result: _____ ACH₅₀
_____ CFM@50Pa

Ring (circle one if applicable): Open A B C

Blower Door Fan Location: _____ Weather Conditions: _____

I certify that these blower door results are accurate and determined using standard industry protocol.

Company Name: _____ Technician: _____

Technician Signature: _____ Date: _____ Phone Number: _____

2015 Washington State Energy Code reference:

R402.4.1.2 Testing. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the code official, testing shall be conducted by an approved third party. A written report of the results of the test shall be placed in the parts connecting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building normal envelope. Once visual inspection has confirmed sealing (see Table R402.4.1.1), operable windows and doors manufactured by small business shall be permitted to be sealed off at the frame prior to the test.



During testing:

1. Interior windows and doors, fireplace and stove doors shall be closed, but not sealed, beyond the intended weatherstripping or other infiltration control measures.
2. Dampers including exhaust, intake, make-up air, backdraft and flue dampers shall be closed, but not sealed beyond intended infiltration control measures.
3. Interior doors, if installed at the time of the test, shall be open, access hatches to conditioned crawl spaces and conditioned attics shall be open.
4. Interior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
5. Heating and cooling systems, if installed at the time of the test, shall be turned off; and
6. Supply and return registers, if installed at the time of the test, shall be fully open.

EXTERIOR DOOR SCHEDULE											
IMAGE	NUMBER	LOCATION	MANUFACTURER	Count	DOOR WIDTH	DOOR HEIGHT	SAFETY GLASS	U-VALUE	GLASS AREA	UA VALUE	Type
	101.1	GARAGE	TBD	1	3' - 0"	6' - 10"	YES	n/a	14 SF	n/a	SINGLE SOLID DOOR
	101.2	GARAGE	TBD	1	8' - 0"	6' - 10"	YES	n/a	38 SF	n/a	GLAZED GARAGE DOOR
	101.2	GARAGE	TBD	1	8' - 0"	6' - 10"	YES	n/a	38 SF	n/a	GLAZED GARAGE DOOR
	101.2	GARAGE	TBD	1	8' - 0"	6' - 10"	YES	n/a	38 SF	n/a	GLAZED GARAGE DOOR
	201.1	ENTRY	TBD	1	3' - 0"	9' - 0"	YES	0.28	18 SF	5.04	SINGLE FULL-LITE DOOR
	203.1	LIVING/DINING	TBD	1	15' - 0"	9' - 0"		0.28	110 SF	30.8	SLIDING GLASS DOOR
SUM OF VERTICAL FENESTRATION AREA & UA									128 SF	35.84	
AREA WEIGHTED U = UA/AREA									0.28		

INTERIOR DOOR SCHEDULE								
IMAGE	NUMBER	LOCATION	MANUFACTURER	Count	DOOR WIDTH	DOOR HEIGHT	AREA	TYPE
	202.1	BATHROOM	TBD	1	2' - 6"	9' - 0"	23 SF	SINGLE SOLID DOOR
	201.2	ENTRY CLOSET	TBD	1	7' - 0"	8' - 0"	56 SF	DOUBLE SLIDING CLOSET DOOR
	205.1	BEDROOM	TBD	1	2' - 6"	9' - 0"	23 SF	SINGLE SOLID DOOR
	205.2	BEDROOM	TBD	1	6' - 6"	8' - 0"	52 SF	DOUBLE BARN DOOR

WINDOW SCHEDULE												
IMAGE	TAG	LOCATION	MANUFACTURER	QTY.	WIDTH	HEIGHT	SAFETY GLASS	EGRESS	U-VALUE	AREA	UA-VALUE	TYPE
	W-1	BEDROOM	TBD	1	3' - 2"	8' - 0"	N/A		0.28	25 SF	7	SINGLE FIXED WINDOW
	W-2	LIVING ROOM & BEDROOM	TBD	3	5' - 1"	5' - 6"	N/A		0.28	28 SF	23.52	SINGLE FIXED WINDOW
	W-3	LIVING ROOM & BEDROOM	TBD	3	2' - 6"	5' - 6"	N/A		0.28	14 SF	11.76	SINGLE CASEMENT WINDOW
	W-4	ENTRY	TBD	1	4' - 0"	6' - 0"	N/A		0.28	24 SF	6.72	SINGLE FIXED WINDOW
SUM OF VERTICAL FENESTRATION AREA & UA										175 SF	49	
AREA WEIGHTED U = UA/AREA										0.28		

2015 WSEC Residential Energy Compliance Certificate

Property Address: _____
Conditioned Floor Area _____ Date: / /
Builder or registered design professional: _____
Signature: _____

R-Values

Ceiling: Vaulted R-____ Floors: Over unconditioned space R-____
Attic R-____ Slab on grade floor R-____
Walls: Above grade R-____ Doors: _____ R-____
Below, int. R-____ _____ R-____
Below, ext. R-____ _____ R-____

U-Factors and SHGC

NRFC rating (or) _____ Windows U-____ SHGC- N/A
Default rating (Appendix A WSEC 2015) Skylights U-____ SHGC- N/A

Table 406.2 Option(s) _____ Total 406.2 Credits _____

System	Type	Efficiency
Heating		
Cooling		
DHW		

Duct & Building Air Leakage

All ducts & HVAC in conditioned space (yes / no) Insulation R-____
Air handler present (yes / no)
Test Target _____ CFM@25Pa Test Result _____ CFM@25Pa
Building air leakage target: ACH₅₀ < 5.0 - Tested leakage: ACH₅₀ = _____

Onsite Renewable Energy Electric Power System

System type: _____ Rated annual generation _____ Kwh

SUM OF AREA FOR VERTICAL FENESTRATION 303 SF

SUM OF UA FOR VERTICAL FENESTRATION 84.84

SUM OF WEIGHTED U FOR VERTICAL FENESTRATION 0.28

LEGAL DESCRIPTION

(PER QUIT CLAIM DEED RECORDING# 20171212000158)

THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER AND OF GOVERNMENT LOT 3, SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING EAST OF MERCER ISLAND BOULEVARD AND BETWEEN LINES PARALLEL WITH AND DISTANT 24.1 FEET AND 74.1 FEET, RESPECTIVELY, SOUTH OF THE NORTH LINE OF SAID GOVERNMENT SUBDIVISION;

(BEING KNOWN AS LOT 9, SANDY BEACH TRACTS, ACCORDING TO THE UNRECORDED PLAT THEREOF);

TOGETHER WITH SECOND CLASS SHORELANDS, AS CONVEYED BY THE STATE OF WASHINGTON, SITUATE IN FRONT OF AND LYING BETWEEN SAID PARALLEL LINES PRODUCED EASTERLY;

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS TO AND FROM SAID PREMISES UPON AND ACROSS ALL EXISTING ROADS AS CONVEYED BY DEED RECORDED MAY 02, 1942, UNDER RECORDING NUMBER 3237836.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

A BEARING OF N 88°06'10" E BETWEEN FOUND MONUMENTS ON DAWN DRIVE CALCULATED PER R1.

REFERENCES

- R1. DAWN VISTA, VOL. 82, PG. 78&79.
 - R2. SHORT PLAT, VOL. 10, PG. 118.
 - R3. RECORD OF SURVEY, VOL. 138, PG. 176.
 - R4. RECORD OF SURVEY, VOL. 279, PG. 41.
- ALL RECORDS OF KING COUNTY, WASHINGTON.

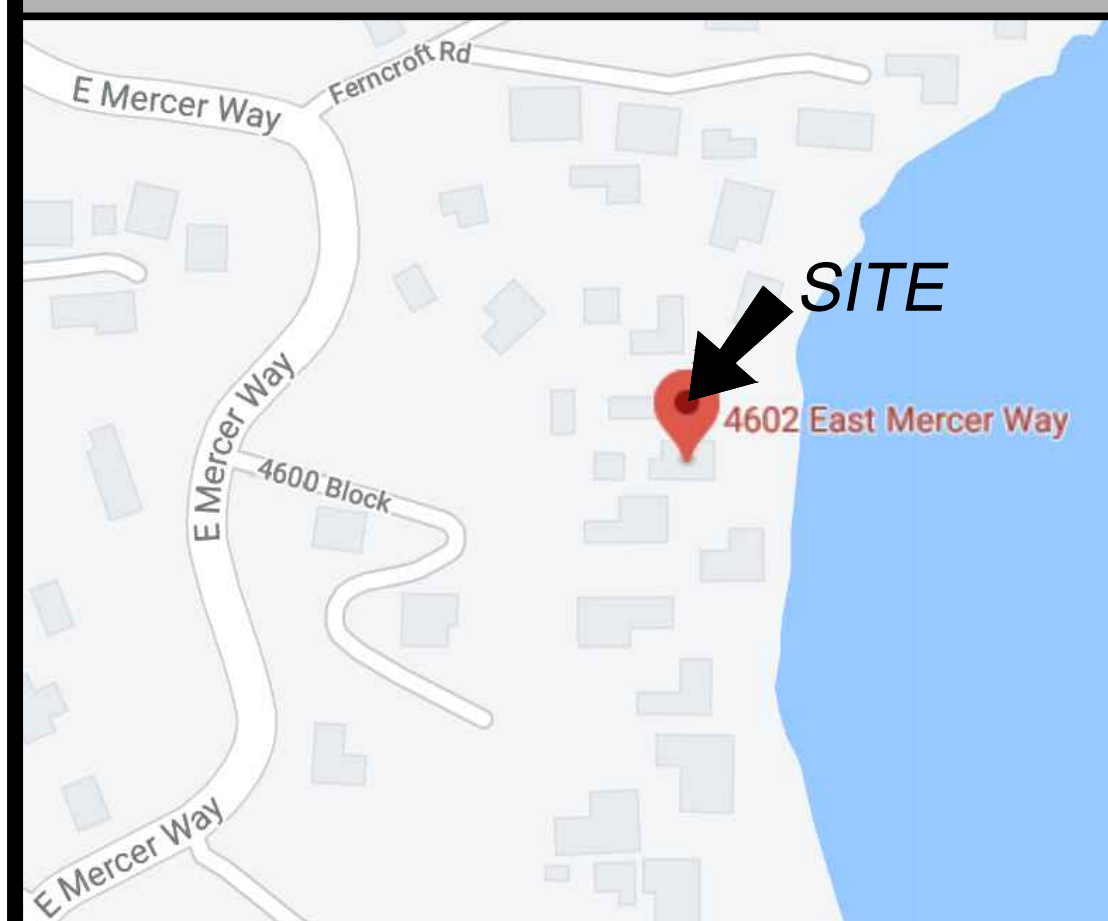
VERTICAL DATUM

NAVD88 PER GPS OBSERVATIONS.

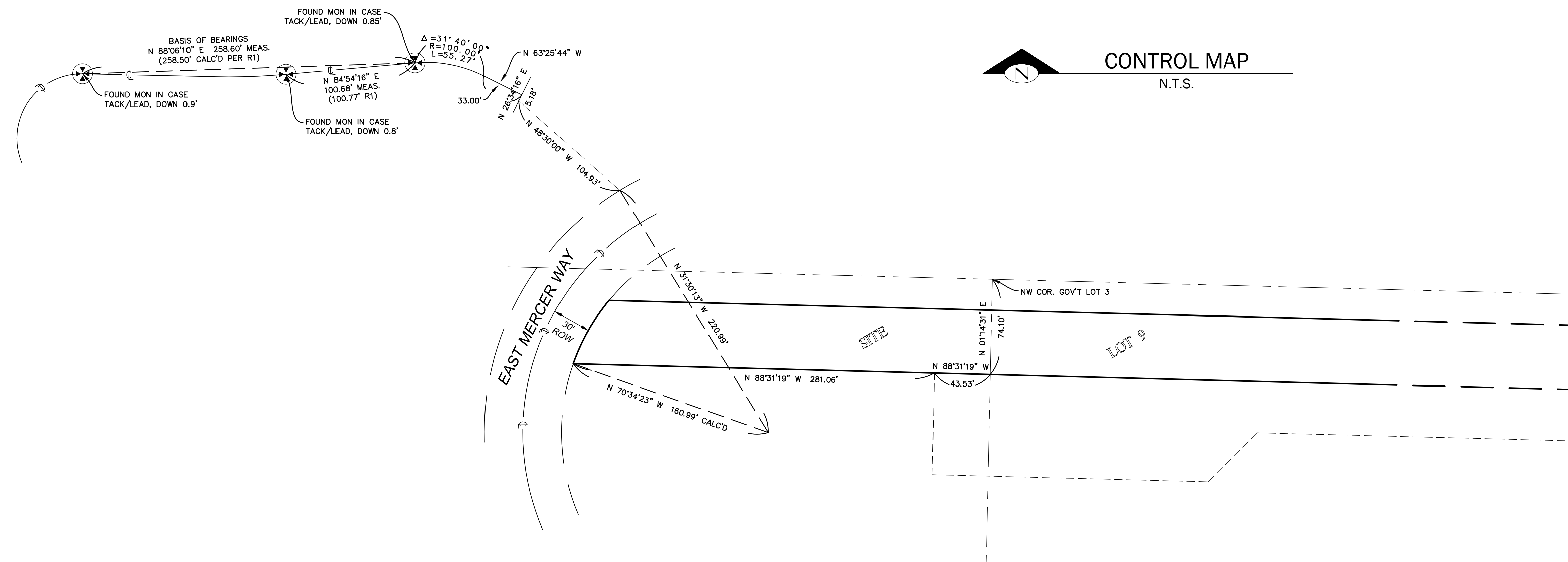
SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN AUGUST OF 2020. 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. 755870-0045.
5. SUBJECT PROPERTY UPLAND AREA PER THIS SURVEY IS 30,726± S.F. (0.71 ACRES)
6. THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN CHICAGO TITLE COMPANY, COMMITMENT NO. 0188037-ETU, WITH AN EFFECTIVE DATE OF AUGUST 26, 2020 AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE PROPERTY OR OTHERWISE KNOWN TO ME HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE PROPERTY.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-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.

VICINITY MAP
N.T.S.



TOPOGRAPHIC & BOUNDARY SURVEY



SCHEDULE B ITEMS

1. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:
PURPOSE: INGRESS AND EGRESS
RECORDING DATE: MAY 2, 1942
RECORDING NO.: 3237836
AFFECTS: THE DESCRIPTION CONTAINED IN THE ABOVE INSTRUMENT IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED (AS CONSTRUCTED, NOT PLOTTED)
2. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:
IN FAVOR OF: MERCER ISLAND SEWER DISTRICT
PURPOSE: SEWER PIPELINES AND NECESSARY APPURTENANCES
RECORDING DATE: JUNE 19, 1964
RECORDING NO.: 5750985
AFFECTS: 5 FEET ON EITHER SIDE OF THE PIPELINE AS INSTALLED IN THE SECOND CLASS SHORELANDS (AS CONSTRUCTED, NOT PLOTTED)
3. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:
IN FAVOR OF: WASHINGTON NATURAL GAS COMPANY
PURPOSE: GAS PIPELINE OR PIPELINES
RECORDING DATE: JANUARY 27, 1987
RECORDING NO.: 8701270845
AFFECTS: THE DESCRIPTION CONTAINED IN THE ABOVE INSTRUMENT IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED (AS CONSTRUCTED, NOT PLOTTED)
4. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:
IN FAVOR OF: WASHINGTON NATURAL GAS COMPANY
PURPOSE: GAS PIPELINE OR PIPELINES
RECORDING DATE: JANUARY 27, 1987
RECORDING NO.: 8701270845
AFFECTS: THE DESCRIPTION CONTAINED IN THE ABOVE INSTRUMENT IS NOT SUFFICIENT TO DETERMINE ITS EXACT LOCATION WITHIN THE PROPERTY HEREIN DESCRIBED (AS CONSTRUCTED, NOT PLOTTED)
5. COVENANTS, CONDITIONS AND RESTRICTIONS BUT OMITTING ANY COVENANTS OR RESTRICTIONS, IF ANY, INCLUDING BUT NOT LIMITED TO THOSE BASED UPON RACE, COLOR, RELIGION, SEX, SEXUAL ORIENTATION, FAMILIAL STATUS, MARITAL STATUS, DISABILITY, HANDICAP, NATIONAL ORIGIN, ANCESTRY, OR SOURCE OF INCOME, AS SET FORTH IN APPLICABLE STATE OR FEDERAL LAWS, EXCEPT TO THE EXTENT THAT SAID COVENANT OR RESTRICTION IS PERMITTED BY APPLICABLE LAW, AS SET FORTH IN THE DOCUMENT
RECORDING DATE: MAY 2, 1942
RECORDING NO.: 3237836
(BLANKET IN NATURE)
6. PROPERTY LINE AGREEMENT EXECUTED BY: GERALD AND PEGGY GERON; AND JEFFERSON AND NANCY DAVIS
RECORDING DATE: MARCH 1, 1990
RECORDING NO.: 9003010658
(NOTHING TO PLOT)

SCHEDULE B ITEMS

7. ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING SURVEY MATTERS DISCLOSED BY:
WARRANTY DEED RECORDED UNDER RECORDING NO. 9905121223:
A) CONCRETE DRIVE APPURTENANT TO SUBJECT PREMISES ENCLOSES ONTO THE NORTHERLY ADJOINER;
B) WOOD FENCE MEANDERS ALONG THE NORTHERLY PROPERTY LINE;
C) DECIDUOUS TREE STRADDLES TO THE NORTH PROPERTY LINE;
D) WOOD & PICKETT FENCE MEANDER ALONG THE SOUTH PROPERTY LINE;
E) FIR TREE STRADDLES SOUTH PROPERTY LINE
F) ROCKERY EXTENDS ALONG THE WEST PROPERTY LINE (CURRENT CONDITIONS SHOWN)
8. ANY RIGHTS, INTERESTS, OR CLAIMS WHICH MAY EXIST OR ARISE BY REASON OF THE FOLLOWING MATTERS DISCLOSED BY SURVEY:
RECORDING DATE: JUNE 26, 2000
RECORDING NO.: 20000626900004
MATTERS SHOWN:
a) WIRE FENCE AND RETAINING WALL MEANDERS ALONG THE SOUTHERLY PROPERTY LINE;
b) ROCKERY ALONG THE EAST PROPERTY LINE EXTENDS ONTO THE SOUTHERLY ADJOINER;
c) YARD DRAIN AND HAND HOLE EXTEND ONTO THE SOUTHERLY ADJOINER. (CURRENT CONDITIONS SHOWN)

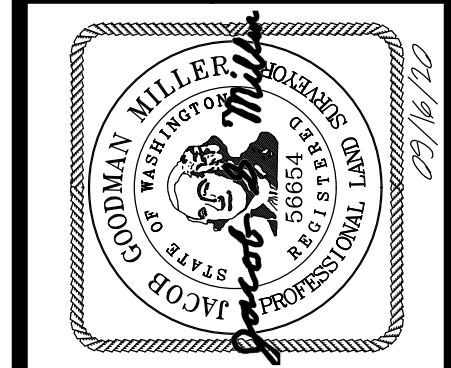
LEGEND

AREA DRAIN	POST
ASPHALT SURFACE	BOLLARD
BUILDING	FIRE HYDRANT
CENTERLINE ROW	GAS METER
CLEANOUT	GUY ANCHOR
CULVERT PIPE	INLET (TYPE 2)
CONCRETE SURFACE	SIGN (AS NOTED)
WALL	COLUMN
DECK	AC UNIT
FENCE LINE (CHAIN LINK)	YARD LIGHT
FENCE LINE (IRON)	WATER VALVE
FENCE LINE (WOOD)	TV HAND HOLE
ROCKERY	TREE (AS NOTED)
SEWER LINE	HEDGE FOLIAGE LINE
SEWER MANHOLE	POWER HAND HOLE
STORM DRAIN LINE	POWER METER
TELEPHONE (OVERHEAD)	POWER POLE
WATER LINE	POWER POLE W/ LIGHT
POWER (OVERHEAD)	REBAR AS NOTED (FOUND)
MONUMENT IN CASE (FOUND)	OHP TRANSMISSION LINE
FLAGSTONE SURFACE	HOSE BIB RISER
REBAR & CAP (SET)	NAIL AS NOTED

STEEP SLOPE/BUFFER DISCLAIMER:
THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

TOPOGRAPHIC & BOUNDARY SURVEY
SW 1/4 & SE 1/4 OF SE 1/4 SEC 18, TWP. 24N., RGE 5E., W.M.
PARCEL NO. 755870-0045

TRUMBLE RESIDENCE
4602 E MERCER WAY
MERCER ISLAND, WA 98040



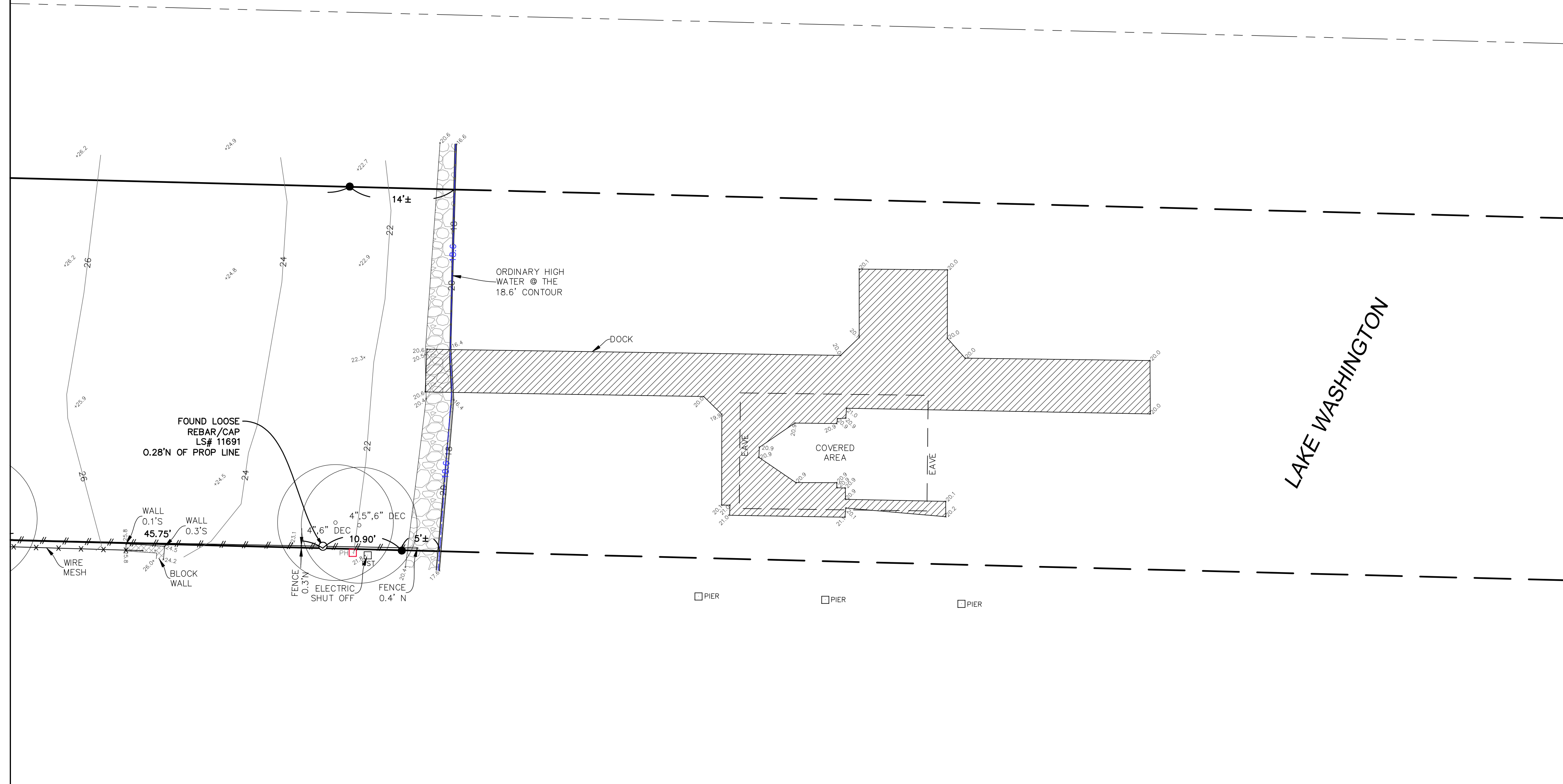
Terrane
10801 Main Street, Suite 102, Bellevue, WA 98004
phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	201215
DATE:	08/10/2020
DRAFTED BY:	RSN
CHECKED BY:	JGM
SCALE:	1" = 10'
REVISION HISTORY	
08/12/20	SET CORNERS
09/16/20	TITLE REVIEW
SHEET NUMBER	
1 OF 4	

measure success

TOPOGRAPHIC & BOUNDARY SURVEY

MATCHLINE - SEE SHEET 3

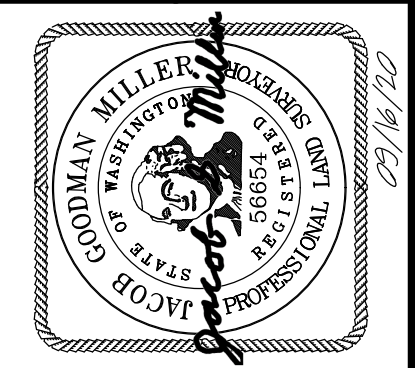


LEGENDS

	AREA DRAIN		POST
	ASPHALT SURFACE		BOLLARD
	BUILDING		FIRE HYDRANT
	CENTERLINE ROW		GAS METER
	CLEANOUT		GUY ANCHOR
	CULVERT PIPE		INLET (TYPE 2)
	CONCRETE SURFACE		SIGN (AS NOTED)
	WALL		COLUMN
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	WATER LINE		POWER POLE W/ LIGHT
	POWER (OVERHEAD)		REBAR AS NOTED (FOUND)
	MONUMENT IN CASE (FOUND)		OHP TRANSMISSION LINE
	FLAGSTONE SURFACE		HOSE BIB RISER
	REBAR & CAP (SET)		NAIL AS NOTED

TOPOGRAPHIC & BOUNDARY SURVEY
 SW 1/4 & SE 1/4 OF SE 1/4 SEC 18, TWP. 24N., RGE 5E., W.M.
 PARCEL NO. 755870-0045

TRUMBLE RESIDENCE
 4602 E MERCER WAY
 MERCER ISLAND, WA 98040

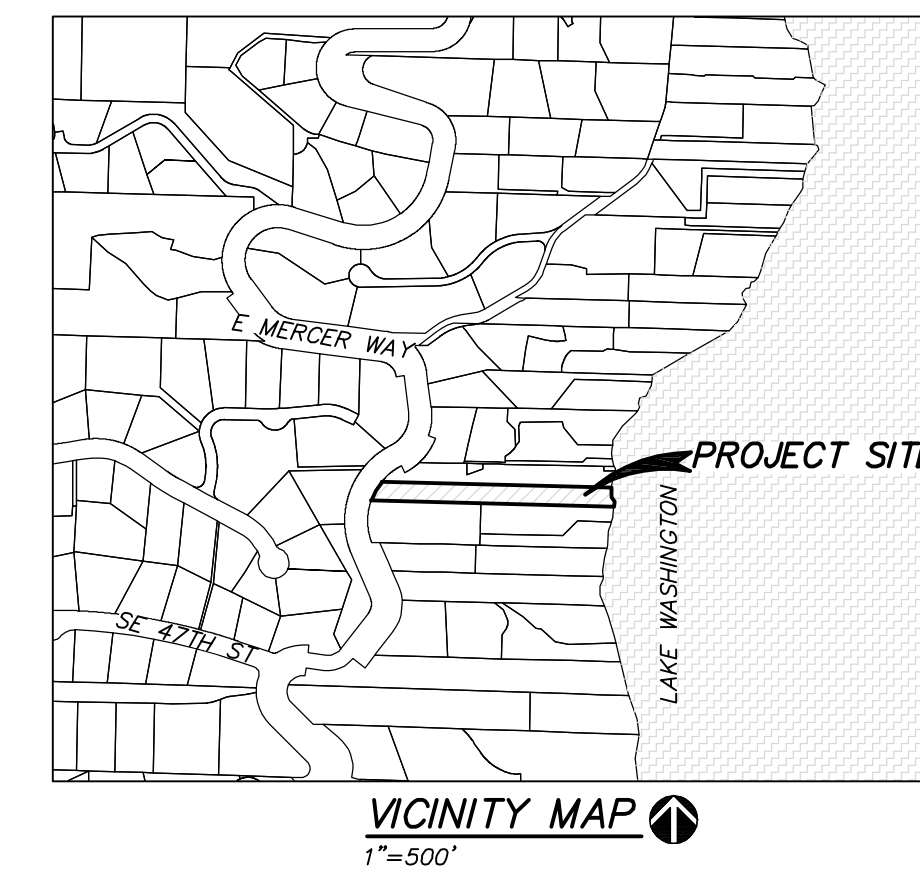


Terrane
 10801 Main Street, Suite 102, Bellevue, WA 98004
 phone 425.458.4488 support@terrane.net
www.terrane.net

JOB NUMBER:	201215
DATE:	08/10/2020
DRAFTED BY:	RSN
CHECKED BY:	JGM
SCALE:	1"=10'
REVISION HISTORY	
08/12/20	SET CORNERS
09/16/20	TITLE REVIEW
SHEET NUMBER	
4 OF 4	

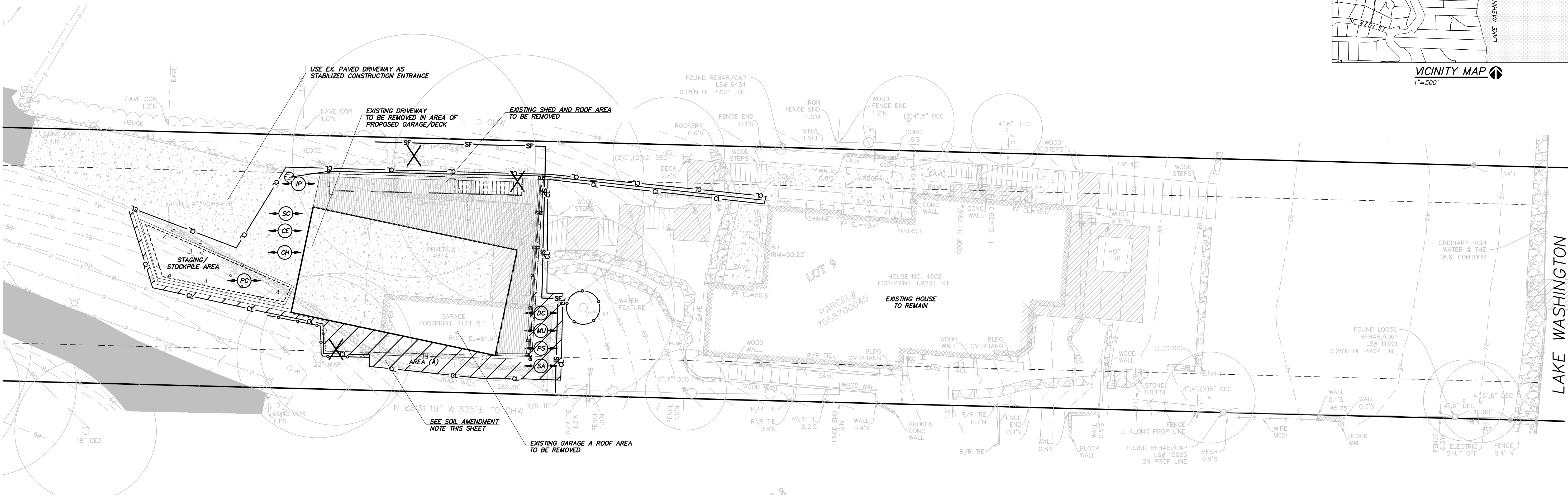
measure success

SE 1/4 SECTION 18, TOWNSHIP 24 N, RANGE 05 E, W.M.
TRUMBLE RESIDENCE



TRUMBLE RESIDENCE
 TESC PLAN
 4602 EAST MERCER WAY
 MERCER ISLAND, WA 98040

SUZANNE ZAHR INC
 2441 76TH AVE SE, SUITE 160
 MERCER ISLAND, WA 98040
 206-354-1567



SURVEYOR'S NOTES: (BY SURVEYOR)

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LEGAL DESCRIPTION: (BY SURVEYOR)

(PER QUIT CLAIM DEED RECORDING# 20171212000158)
 THAT PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHEAST QUARTER AND OF GOVERNMENT LOT 3, SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, WILLAMETTE MERIDIAN, IN KING COUNTY, WASHINGTON, LYING EAST OF MERCER ISLAND BOULEVARD AND BETWEEN LINES PARALLEL WITH AND DISTANT 24.1 FEET AND 74.1 FEET, RESPECTIVELY, SOUTH OF THE NORTH LINE OF SAID GOVERNMENT SUBDIVISION;
 (BEING KNOWN AS LOT 9, SANDY BEACH TRACTS, ACCORDING TO THE UNRECORDED PLAT THEREOF);
 TOGETHER WITH SECOND CLASS SHORELANDS, AS CONVEYED BY THE STATE OF WASHINGTON, SITUATE IN FRONT OF AND LYING BETWEEN SAID PARALLEL LINES PRODUCED EASTERLY;
 TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS TO AND FROM SAID PREMISES UPON AND ACROSS ALL EXISTING ROADS AS CONVEYED BY DEED RECORDED MAY 02, 1942, UNDER RECORDING NUMBER 3237836.
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS: (BY SURVEYOR)

A BEARING OF N 88°06'10" E BETWEEN FOUND MONUMENTS ON DAWN DRIVE CALCULATED PER R1.

VERTICAL DATUM: (BY SURVEYOR)

NAVD88 PER GPS OBSERVATIONS

EROSION AND SEDIMENT CONTROL NOTES:

- APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTIONS, 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 A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. 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.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO PREVENT 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 SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- 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 TESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO 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.).
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A TRAPPED CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO DRAINING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
- ALL SOIL STOCKPILES TO BE COVERED WITH PLASTIC SHEETING UNTIL SUCH TIME THAT THE SOIL IS EITHER USED OR REMOVED. PILES SHOULD BE SITUATED AND LOCATED SUCH THAT SEDIMENT DOES NOT RUN INTO THE STREET OR ONTO ADJOINING PROPERTIES.
- ALL EXPOSED SOIL AREAS SHALL BE COVERED OR PROTECTED USING AN APPROPRIATE BMP. STABILIZE DENUDED AREAS OF THE SITE BY MULCHING, SEEDING, PLANTING, OR SODDING.
- ALL ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY APPROPRIATE USE OF VEGETATION BUFFER STRIPS, SEDIMENT BARRIERS, OR FILTERS, DIKES, MULCHING, OR BY A COMBINATION OF THESE MEASURES AND OTHER APPROPRIATE BMP'S.
- PROVIDE FOR PERIODIC STREET CLEANING TO REMOVE ANY SEDIMENT THAT MAY HAVE BEEN TRACKED OFF-SITE. SEDIMENT SHOULD BE REMOVED BY SHOVELING OR SWEEPING AND CAREFULLY REMOVED TO A SUITABLE DISPOSAL AREA WHERE IT WILL NOT BE RE-ERODED.
- ALL INSTALLED EROSION AND SEDIMENT CONTROL BMP'S SHALL BE INSPECTED REGULARLY BY THE GENERAL CONTRACTOR ESPECIALLY AFTER ANY LARGE STORM. MAINTENANCE, INCLUDING REMOVAL AND PROPER DISPOSAL OF SEDIMENT SHOULD BE A NECESSARY TO INSURE THAT SEDIMENT AND EROSION IS CONTROLLED ON SITE.

GENERAL EROSION CONTROL NOTES:

ALL DISTURBED AREAS SHALL BE STABILIZED USING TYPICAL TESC BMP'S. THE LIMITS OF DISTURBANCE WILL BE DELINEATED WITH HIGH VISIBILITY CONSTRUCTION FENCING. DURING CONSTRUCTION SILT FENCES WILL BE PLACED DOWN SLOPE OF DISTURBED AREAS ALONG WITH STRAW MATTING, NETS, OR PLASTIC COVERING OVER EXPOSED SOIL OR STOCKPILES. TREES TO BE RETAINED WILL BE PROTECTED WITH HIGH VISIBILITY CONSTRUCTION FENCING.
 AT THE COMPLETION OF THE PROJECT ALL DISTURBED AREAS WILL BE STABILIZED WITH COMPOST AMENDED SOILS AND HYDROSEEDING OR SOD.

CONSTRUCTION NOTES:

- SEE ARCHITECTURAL PLAN A2.0 and A2.1 FOR EXISTING IMPROVEMENTS TO BE DEMOLISHED/REMOVED.

SOIL AMENDMENT NOTE:

SEE DETAIL & ADDITIONAL NOTES ON SHEET C3.
 AREA (A): STOCKPILE SITE DUFF AND TOPSOIL FOR ALL DISTURBED PERVIOUS AREAS AND REAPPLY WITH SOIL AMENDMENT AFTER GRADING AND CONSTRUCTION. MINIMUM SCARIFICATION DEPTH 8-INCHES. PROVIDE A TOTAL OF 2.5 C.Y. OF AMENDMENT FOR AN AREA OF 456 S.F.

GRADING NOTE:

TOTAL AREA TO BE DISTURBED ON-SITE...2,780 S.F.
 TOTAL AREA TO BE DISTURBED OFF-SITE... 0 S.F.

SITE VOLUME CALCULATIONS		
CUT VOLUME (CU. YDS.)	FILL VOLUME (CU. YDS.)	NET VOLUME (CU. YDS.)
60	10	50 YDS CUT

ALL VOLUMES ARE APPROXIMATE AND ARE PROVIDED FOR PERMITTING PURPOSES AND REPRESENT FINISH GRADE TO EXISTING GRADE AS SHOWN. CONTRACTOR SHALL RELY ON HIS/HER OWN ESTIMATES FOR DETERMINING ACTUAL EARTHWORK QUANTITIES. THE VOLUMES DO NOT INCLUDE STRIPPING, STRUCTURAL EXCAVATION, EXPANSION/COMPACTION FACTOR OR ANY SOIL TYPE RESTRICTIONS.

CONSTRUCTION SEQUENCE

- ARRANGE AND ATTEND A PRECONSTRUCTION MEETING WITH THE CITY INSPECTOR.
- FLAG OR FENCE CLEARING LIMITS.
- CALL ONE-CALL UTILITY LOCATE SERVICE PRIOR TO ANY EXCAVATION WORK.
- USE EXISTING DRIVEWAY FOR STABILIZED CONSTRUCTION ENTRANCE.
- INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
- RECONSTRUCT DRIVEWAY AND CONSTRUCT OTHER SITE IMPROVEMENTS.
- MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
- MAINTAIN ACCESS TO OFF-SITE ROADS AND DRIVEWAYS AT ALL TIMES DURING THE DURATION OF THE PROJECT.
- RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
- COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING OR EQUIVALENT.
- STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN SEVEN DAYS.
- SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
- UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BMP'S REMOVED IF APPROPRIATE AFTER ACCEPTANCE BY INSPECTOR.

PROJECT CONTACTS:

OWNER
 SARA & THOMAS TRUMBLE
 4602 E. MERCER WAY
 MERCER ISLAND WA 98040

ARCHITECT
 SUZANNE ZAHR, INC.
 2441 76TH AVE SE, SUITE 160
 MERCER ISLAND, WASHINGTON 98040
 206.354.1567
 CONTACT: SUZANNE ZAHR
 SZ@SUZANNEZAHR.COM

CIVIL ENGINEER
 D.R. STRONG CONSULTING ENGINEERS, INC.
 620 7TH AVE NE
 KIRKLAND, WASHINGTON 98033
 425.827.3063
 CONTACT: YOSHIO L. PIEDISALZI, P.E.
 YOSHIO.PIEDISALZI@DRSTRONG.COM

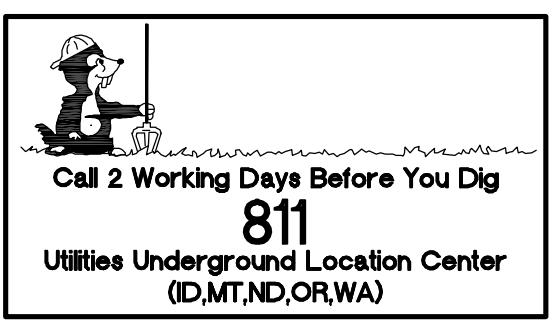
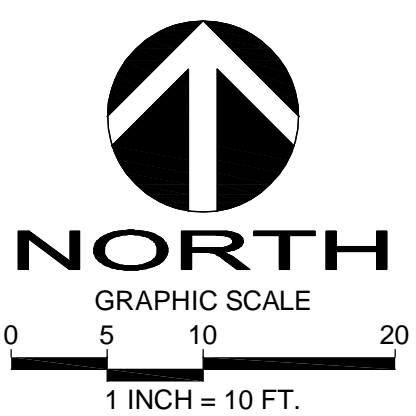
SURVEYOR
 TERRANE
 10801 MAIN ST, SUITE 102
 BELLEVUE, WASHINGTON 98004
 425.458.4488
 CONTACT: DANNY SLAGER, P.L.S.

TESC LEGEND:

- FOR ADDITIONAL TESC DETAILS REFER TO DOE 2012 SWMMWW
- CL CONSTRUCTION LIMITS, TO BE FLAGGED OR FENCED WHEN NO SILT FENCE IS PROPOSED (BMP C103)
 - SF SILT FENCE IS PROPOSED (BMP C233)
 - CE STABILIZED CONSTRUCTION ENTRANCE (BMP C105)
 - SC SAWCUTTING AND SURFACING POLLUTION PREVENTION (BMP C152)
 - DC DUST CONTROL (BMP C140)
 - MU MULCHING, MATTING, & COMPOST BLANKETS (BMP C121, BMP C125)
 - PS PERMANENT SEEDING AND PLANTING (BMP C120)
 - SA POST-CONSTRUCTION SOIL AMENDMENT QUALITY & DEPTH (BMP C120)
 - CH CONCRETE HANDLING (BMP C151)
 - PC PLASTIC COVERING (BMP C123)
 - IP INLET PROTECTION (BMP C220)
 - X TREE TO BE REMOVED
 - O TREE TO BE SAVED, PROVIDE TREE PROTECTION FENCING

SHEET INDEX:

- C1 1 OF 3 TESC PLAN
- C2 2 OF 3 DRAINAGE PLAN
- C3 3 OF 3 DETAILS

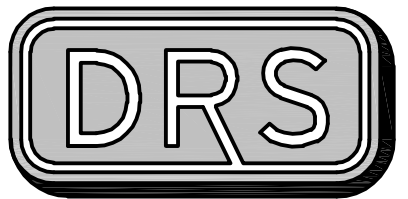


APR	REVISION	DATE

DRAFTED BY: YLP
 DESIGNED BY: YLP
 PROJECT ENGINEER: YLP
 DATE: 11.05.20
 PROJECT NO.: 20105

DRAWING: C1
 SHEET: 1 OF 3

TRUMBLE RESIDENCE



D.R. STRONG
CONSULTING ENGINEERS
ENGINEERS PLANNERS SURVEYORS
620 - 7th AVENUE KIRKLAND, WA 98033
O 425.827.3063 F 425.827.2423

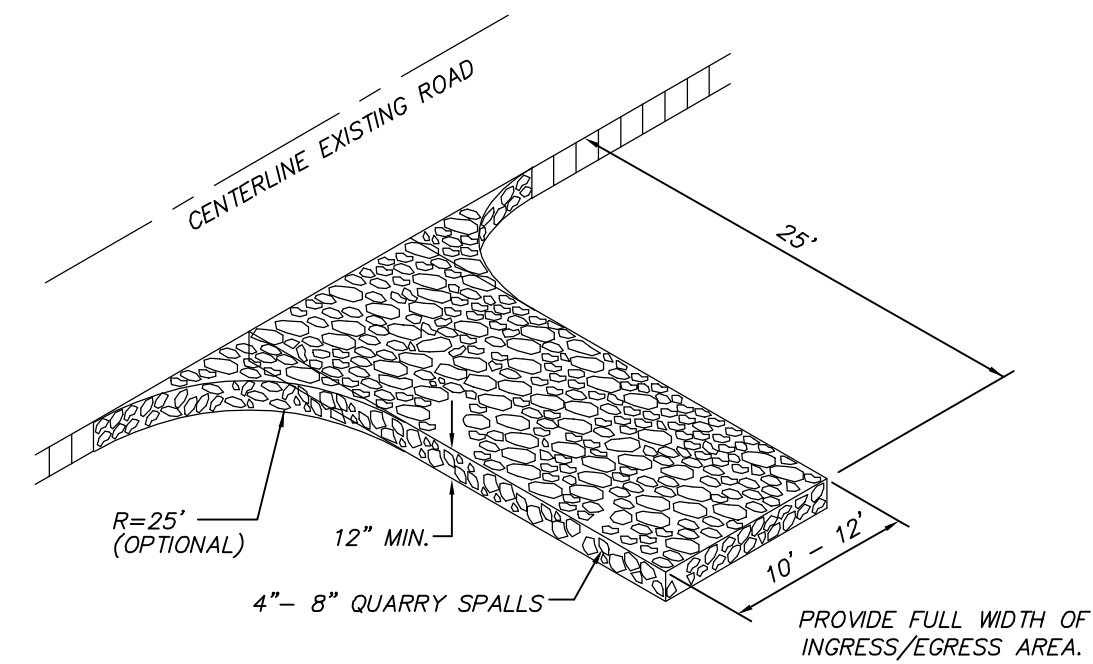
TRUMBLE RESIDENCE

DETAILS

4602 EAST MERCER WAY
MERCER ISLAND, WA 98040

SUZANNE ZAHR INC

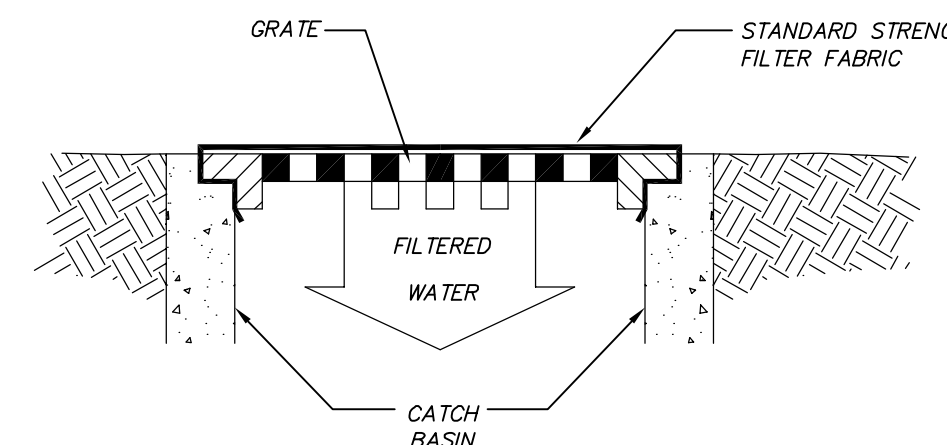
2441 76TH AVE SE, SUITE 160
MERCER ISLAND, WA 98040
206-354-1567



DRIVEWAYS SHALL BE PAVED TO THE EDGE OF R-O-W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY. IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD.

GRAVEL CONSTRUCTION ENTRANCE

NTS



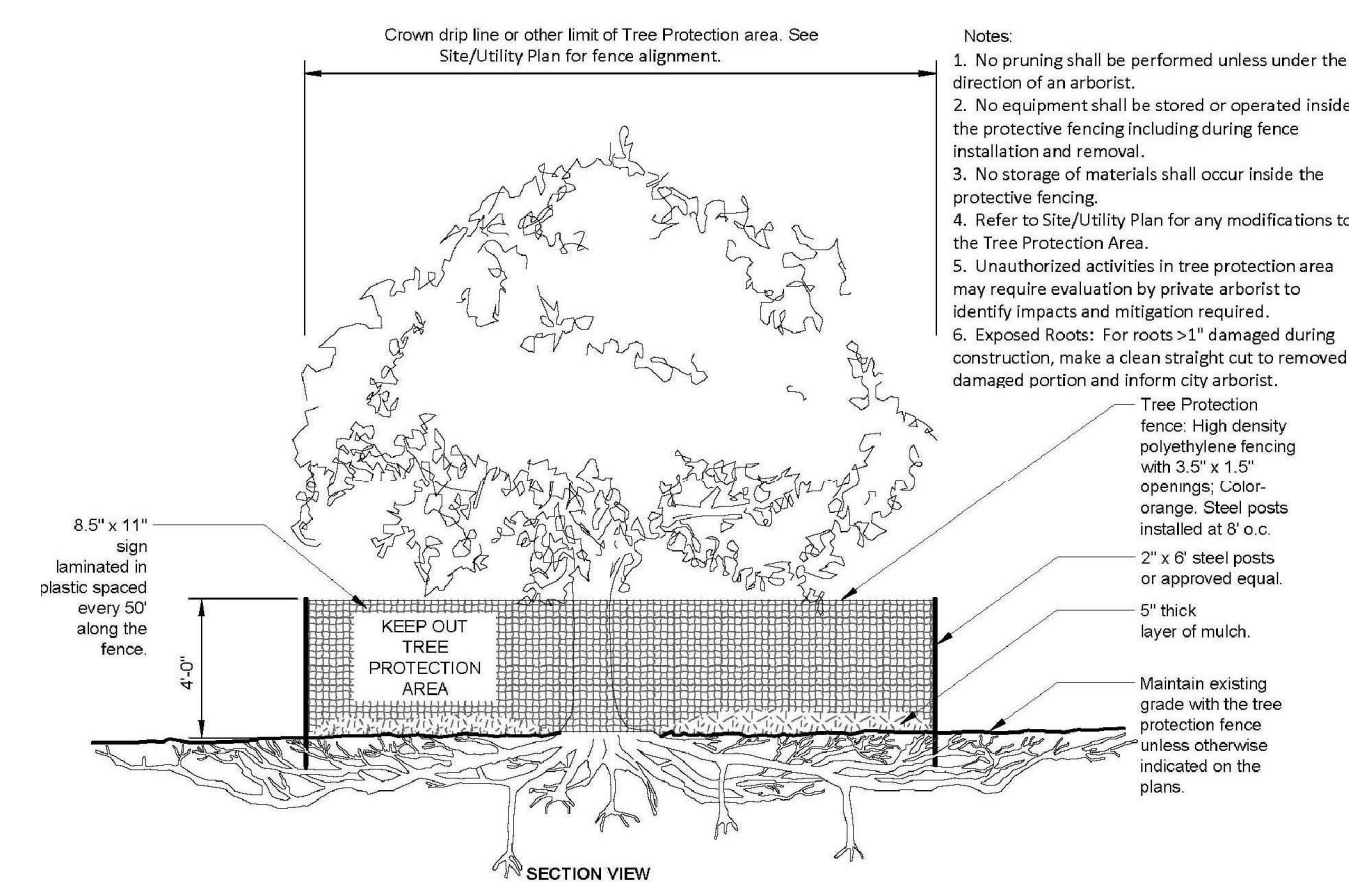
NOTE: ONLY TO BE USED WHERE PONDING OF WATER ABOVE THE CATCH BASIN WILL NOT CAUSE TRAFFIC PROBLEMS AND WHERE OVERFLOW WILL NOT RESULT IN EROSION OF SLOPES.

CATCH BASIN INLET FILTER

NTS

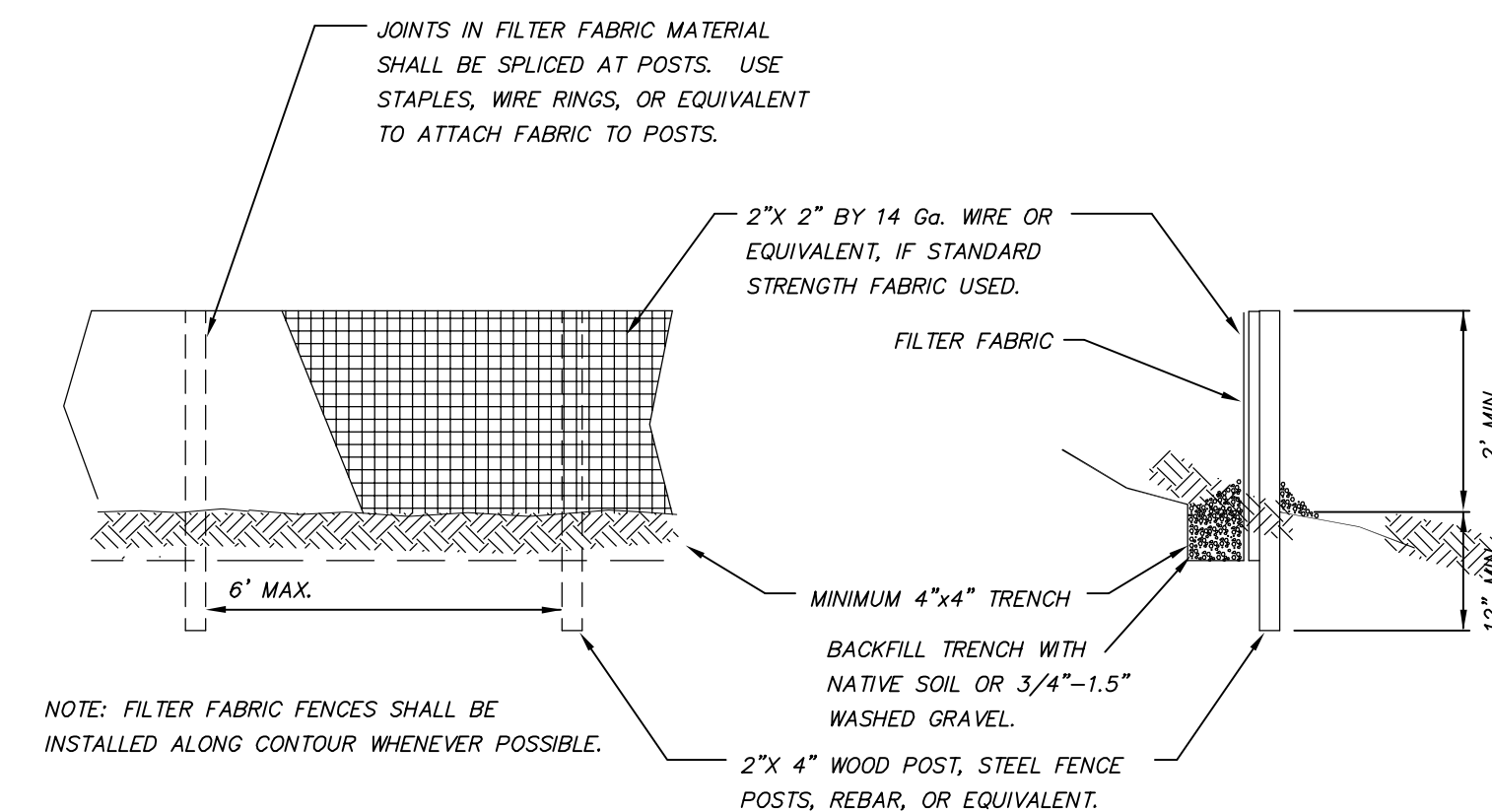
CATCH BASIN INSERT MAINTENANCE STANDARDS

1. ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON SITE OR Hauled OFF SITE.
2. ANY SEDIMENT IN THE CATCH BASIN INSERT SHALL BE REMOVED WHEN THE SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. THE FILTER MEDIA FOR THE INSERT SHALL BE CLEANED OR REPLACED AT LEAST MONTHLY.
3. REGULAR MAINTENANCE IS CRITICAL FOR BOTH FORMS OF CATCH BASINS PROTECTION. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.



TREE PROTECTION FENCING

NTS

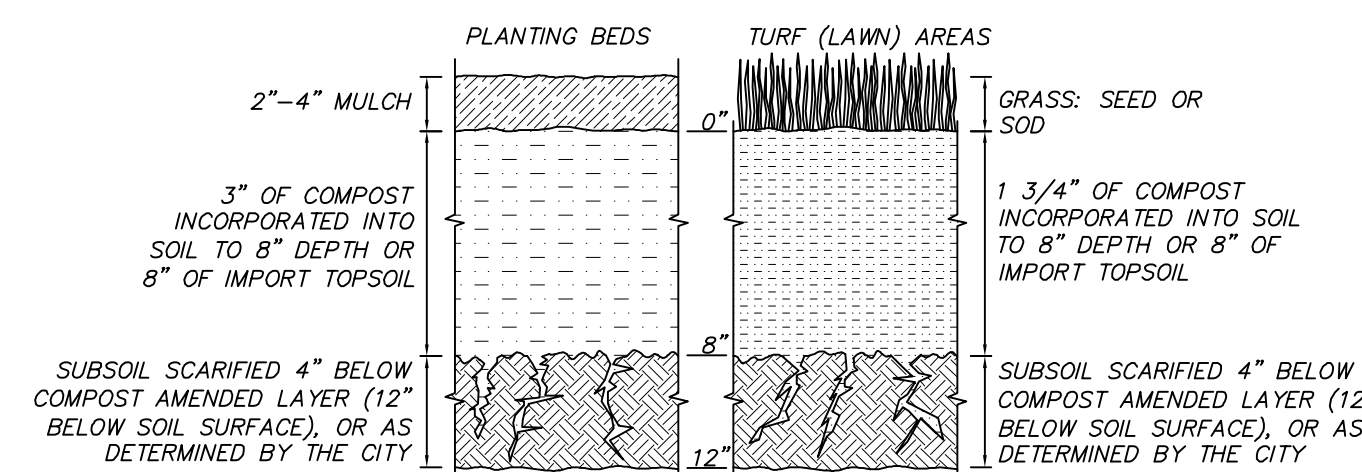


NOTE: FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

SILT FENCE DETAIL

NTS

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6 INCHES HIGH.
5. IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.



SOIL AMENDMENT

PER BMP 15.13

NTS

SOIL AMENDMENT NOTES

*SOIL RETENTION: RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

*SOIL QUALITY: ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:

1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
2. MULCH PLANTING BEDS WITH 2-4 INCHES OF ORGANIC MATERIAL.
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
 - A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP 17.30), WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
 - B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220.

*IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:

1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. STOCKPILE EXISTING TOPSOIL DURING GRADING, AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS.

MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

MAINTENANCE:
 *ESTABLISH SOIL QUALITY AND DEPTH TOWARD THE END OF CONSTRUCTION AND ONCE ESTABLISHED, PROTECT FROM COMPACTION, SUCH AS FROM LARGE MACHINERY USE, AND FROM EROSION.
 *PLANT VEGETATION AND MULCH THE AMENDED SOIL AREA AFTER INSTALLATION.
 *LEAVE PLANT DEBRIS OR ITS EQUIVALENT ON THE SOIL SURFACE TO REPLENISH ORGANIC MATTER.
 *REDUCE AND ADJUST, WHERE POSSIBLE, THE USE OF IRRIGATION, FERTILIZERS, HERBICIDES AND PESTICIDES, RATHER THAN CONTINUING TO IMPLEMENT FORMERLY ESTABLISHED PRACTICES.

APR

REVISION

DATE

DRAFTED BY: YLP
 DESIGNED BY: YLP
 PROJECT ENGINEER: YLP
 DATE: 11.05.20
 PROJECT NO.: 20105

DRAWING: C3
 SHEET: 3 OF 3

SZ

SUZANNE ZAHR INC.

2441 SE 76TH AVE, SUITE 160
 MERCER ISLAND, WASHINGTON 98040
 T. 206 354 1567
 WWW.SUZANNEZAHR.COM

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER

20004

9221

REGISTERED
 ARCHITECT
 SUZANNE ZAHR
 STATE OF WASHINGTON

ISSUED / REVISIONS DATE

ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20

DRAWN BY: SA

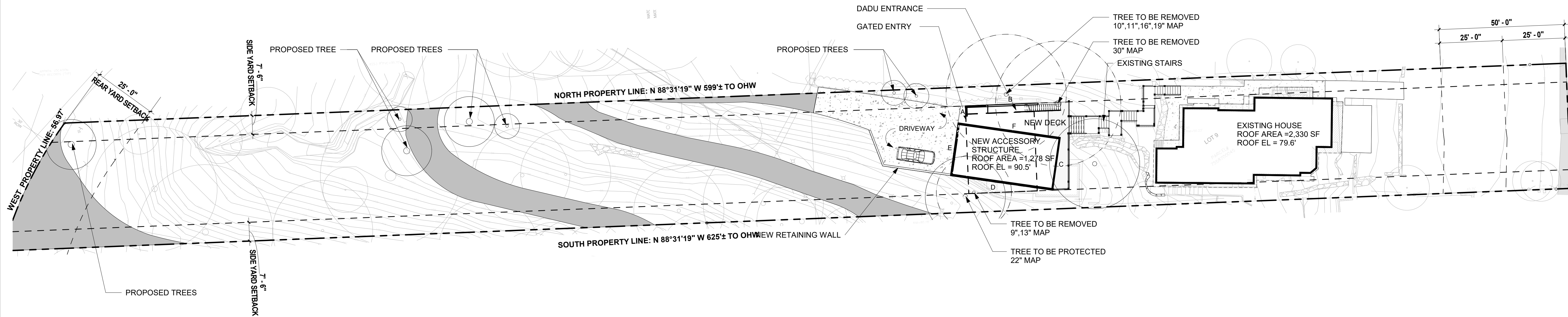
CHECKED BY: SZ

SITE PLAN

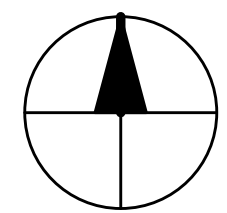
SHEET NUMBER

A1.0

PERMIT SET



1 SITE PLAN
 1" = 20'-0"



DETACHED ACCESSORY AVERAGE BUILDING HEIGHT CALCULATIONS:
 A = 3.9' L X 68.02' H = 265.3
 B = 30.5' X 68.2' H = 2,080.1
 C = 21.25' L X 69.6' H = 1,479
 D = 41.16' X 69.72' H = 2,869.7
 E = 21.25' L X 69.5' H = 1,476.9
 F = 41.16' X 69.5' H = 2,860.6
 TOTAL WALL SEGMENT LENGTH = 159.22'
 AVERAGE BUILDING HEIGHT = 11,031.6 / 159.22 = 69.3'
MAX. BUILDING HEIGHT = 69.3' + 30 = 99.30'

OWNER'S NAME:
 SARA TRUMBLE
 THOMAS TRUMBLE

SITE AND OWNERS ADDRESS:
 4602 E MERCER WAY
 MERCER ISLAND, WA 98040

LEGAL DESCRIPTION:
 SANDY BEACH TRS UNREC & SH LDS ADJ
 Plat Block:
 Plat Lot: 9

ASSESSOR'S PARCEL NUMBER:
 755870-0045

ZONE:
 R-15

LOT COVERAGE SUMMARY:
 LOT SIZE = 30,726 SF
 NET LOT AREA = 26,764 SF
 LOT COVERAGE = 35% MAX. (9,367 SF)

EXISTING LOT COVERAGE:
 TOTAL = 4,803 SF (18% >35%)

PROPOSED:
 TOTAL = 4,739 SF (17.7%)

LOT SLOP CALCULATION:
 HIGHEST ELEVATION POINT OF LOT: 146 FT
 LOWEST ELEVATION POINT OF LOT: 18 FT
 ELEVATION DIFFERENCE: 128 FT
 HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS: 628 FT
 LOT SLOPE = 20%

EXISTING MAIN HOUSE: (BASED ON KING COUNTY)
 1ST FLOOR = 1,600 SF
 1/2 FLOOR = 460 SF
 2ND FLOOR = 1,080 SF
 FINISH BASEMENT = 300 SF
 TOTAL BASEMENT = 590 SF
TOTAL FINISHED AREA = 3,440 SF

EXISTING DETACHED STRUCTURE FLOOR AREA:
 GARAGE & STORAGE = 491 SF

PROPOSED GROSS FLOOR AREA:
 GARAGE FLOOR = 1,009 SF
 DADU = 899 SF
 TOTAL = 1,908 SF
 PER MICC 19.02.020 25% of 12000 sf = 3000 sf
 1,908 SF < 3000 SF

MAXIMUM ALLOWABLE GROSS FLOOR AREA: 12,000 SF
 PROPOSED GROSS FLOOR AREA:
 1,908 + 3,440 = 5,348 SF < 12,000 SF

SZ

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2441 SE 76TH AVE, SUITE 160
 MERCER ISLAND, WASHINGTON 98040
 T. 206 354 1567
 WWW.SUZANNEZAHR.COM

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER

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9221

REGISTERED ARCHITECT
 SUZANNE ZAHR
 STATE OF WASHINGTON

ISSUED / REVISIONS DATE

ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20

DRAWN BY: SA

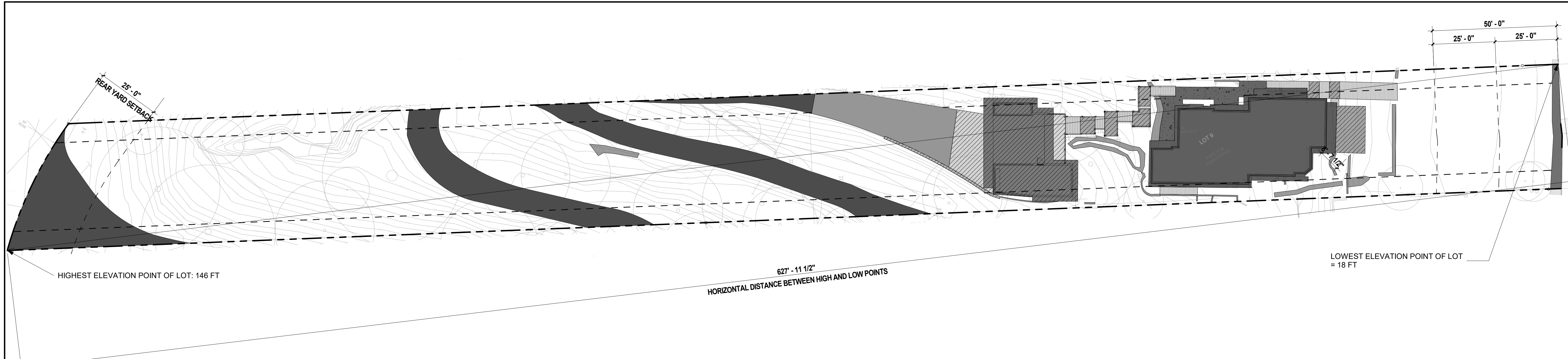
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LAND USE CALCS

SHEET NUMBER

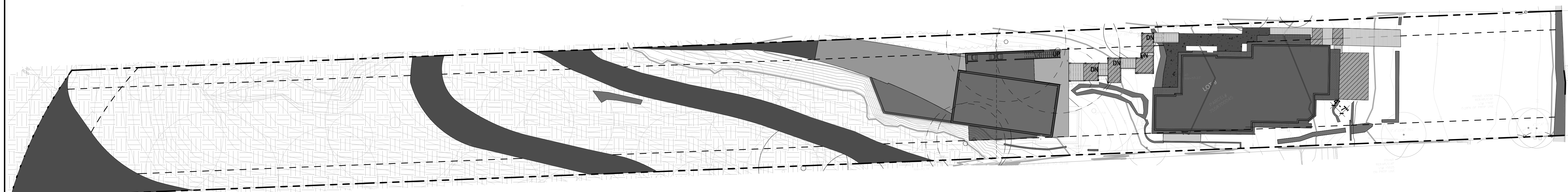
A1.1

PERMIT SET



1 SITE PLAN - LOT COVERAGE EXISTING

1" = 20'-0"



2 SITE PLAN - LOT COVERAGE PROPOSED

1" = 20'-0"

ALLOWABLE LOT COVERAGE

TOTAL LOT AREA	30,726 SF	
NET LOT AREA: (- ACCESS EASEMENT)	26,764 SF	
ACCESS EASEMENT: (GLENHOMER ROAD)	3,962 SF	
ALLOWABLE LOT COVERAGE:	35% (9,367 SF)	
ALLOWABLE HARDSCAPE:	9% (2,408 SF)	

LOT COVERAGE - EXISTING / DEMOLISHED/ PROPOSED

EX. MAIN HOUSE ROOF AREA (TO REMAIN)	2,330 SF	
EX. GARAGE ROOF AREA (TO BE REMOVED)	1,246 SF	
EX. DRIVEWAY (TO REMAIN)	887 SF	
EX. DRIVEWAY (TO BE REMOVED)	340 SF	
TOTAL EXISTING IMPERVIOUS:	4,803 SF (18%)	
TOTAL IMPERVIOUS TO BE REMOVED :	1,586 SF	
GARAGE ROOF AREA (NEW)	1,278 SF	
DRIVEWAY (NEW)	244 SF	
TOTAL PROPOSED IMPERVIOUS:	4,739 SF (17.7%)	

HARDSCAPE - EXISTING / DEMOLISHED/ PROPOSED

ROCKERIES: (TO REMAIN)	530 SF	
RETAING WALLS: (TO REMAIN)	6 SF	
RETAING WALLS: (TO BE REMOVED)	53 SF	
WOOD WALLS: (TO REMAIN)	42 SF	
SITE STAIRS: (TO REMAIN)	219 SF	
DECKING: (TO REMAIN)	463 SF	
DECKING: (TO BE REMOVED)	92 SF	
CONCRETE WALKWAYS: (TO REMAIN)	305 SF	
TOTAL EXISTING HARDSCAPE:	1,710 SF (6.3%)	
TOTAL HARDSCAPE TO BE REMOVED :	145 SF	
ROCKERIES / SITE WALLS: (NEW)	29 SF	
DECKING/ CONCRETE WALKWAY: (NEW)	275 SF	
TOTAL PROPOSED HARDSCAPE:	1,869 SF (7%)	

OWNER'S NAME:
 SARA TRUMBLE
 THOMAS TRUMBLE

SITE AND OWNERS ADDRESS:
 4602 E MERCER WAY
 MERCER ISLAND, WA 98040

LEGAL DISCRIPTION:
 SANDY BEACH TRS UNREC & SH LDS ADJ
 Plat Block:
 Plat Lot: 9

ASSESSOR'S PARCEL NUMBER:
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ZONE:
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 TOTAL FINISHED AREA = 3,440 SF

EXISTING DETACHED STRUCTURE FLOOR AREA:
 GARAGE & STORAGE = 491 SF

PROPOSED GROSS FLOOR AREA:
 GARAGE FLOOR = 1,009 SF
 DADU = 899 SF
 TOTAL = 1,908 SF
 PER MICC 19.02.020 25% of 12000 sf = 3000 sf
 1,908 SF < 3000 SF

MAXIMUM ALLOWABLE GROSS FLOOR AREA: 12,000 SF
 PROPOSED GROSS FLOOR AREA :
 1,908 + 3,440 = 5,348 SF < 12000 SF

SZ

SUZANNE ZAHR INC.
 2441 SE 76TH AVE, SUITE 160
 MERCER ISLAND, WASHINGTON 98040
 T. 206 354 1567
 WWW.SUZANNEZAHR.COM

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER
20004



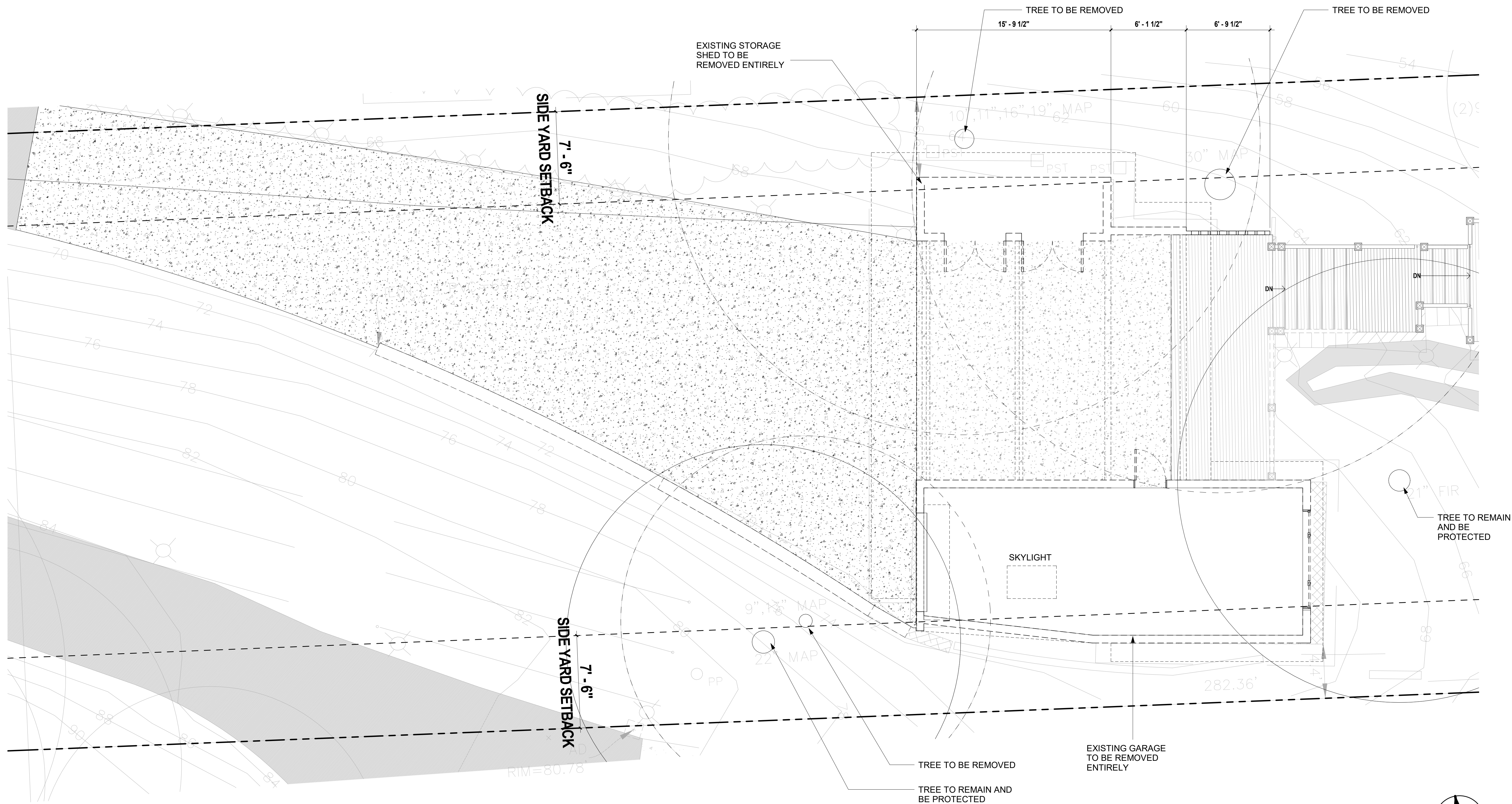
ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20
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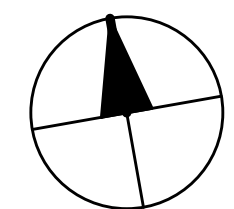
GARAGE FLOOR DEMO PLAN

SHEET NUMBER
A2.0

PERMIT SET



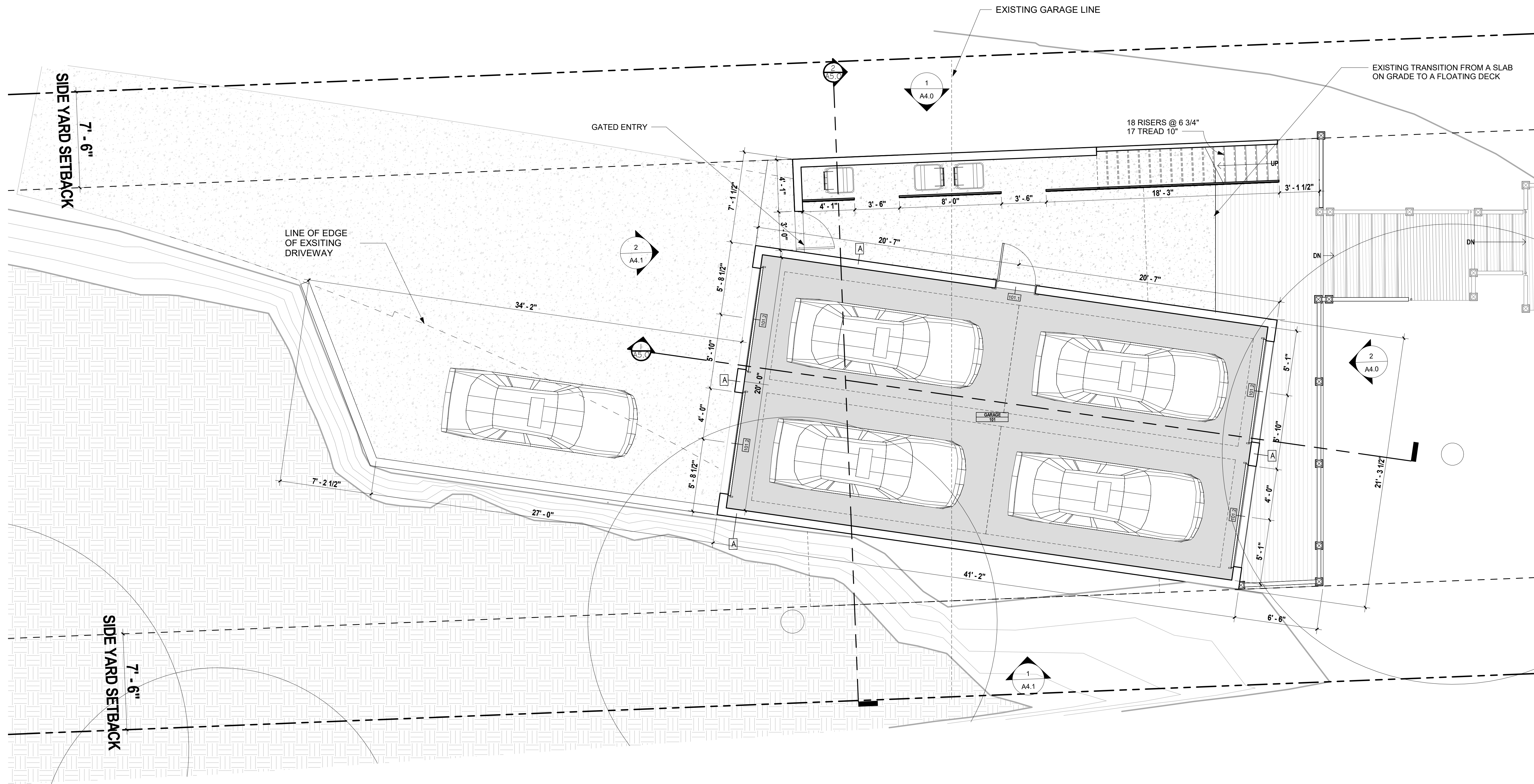
1 DEMO FLOOR PLAN
 1/4" = 1'-0"



LEGEND	
	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)
	REPRESENTS NEW WALL.
	REPRESENTS EXISTING WALL TO BE DEMOLISHED.
	REPRESENTS WALL TAG.
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE
	REPRESENTS OVERHEAD OR BELOW.

NOTES

- PLAN SHOWS EXISTING CONDITION TO BE DEMOLISHED AND EXISTING CONDITION TO REMAIN, U.N.O.



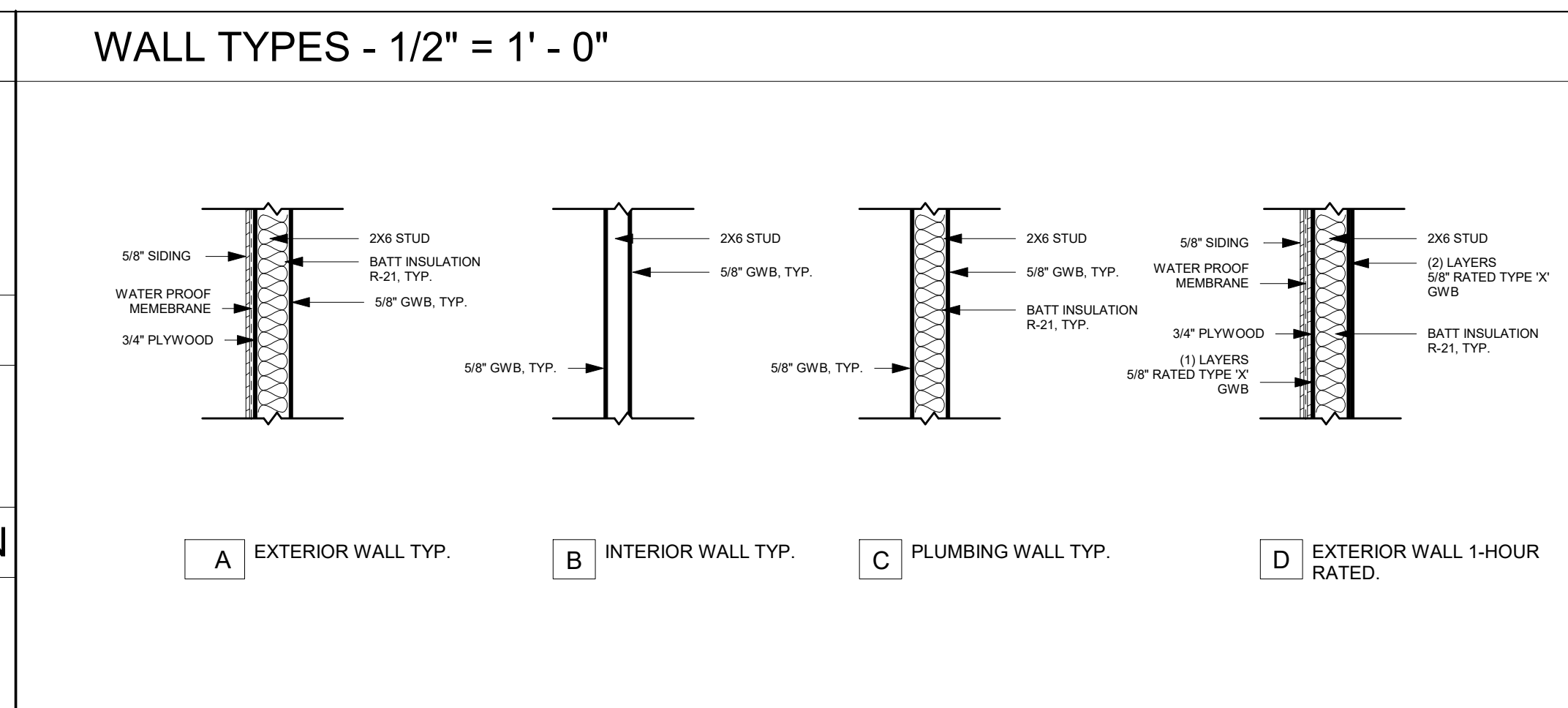
1 GARAGE CONSTRUCTION FLOOR PLAN
 1/4" = 1'-0"

LEGEND	
	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)
	REPRESENTS A WINDOW TAG.
	REPRESENTS NEW WALL.
	REPRESENTS INSULATION.
	REPRESENTS OVERHEAD OR BELOW.
	REPRESENTS OVERHEAD EXHAUST FAN (MIN. 80 CFM).
	REPRESENTS OVERHEAD SMOKE DETECTOR.
	REPRESENTS OVERHEAD CARBON MONOXIDE DETECTOR.
	REPRESENTS A DOOR TAG.

SEC R406.2 ENERGY CREDITS	
1a EFFICIENT BUILDING ENVELOPE	0.5
2a AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION	0.5
5d EFFICIENT WATER HEATING	0.5
TOTAL CREDITS	1.5

SEC R402.4.1.2 BUILDING AIR LEAKAGE	
A WRITTEN REPORT OF THE AIR LEAKAGE TEST RESULTS, SHALL BE SIGNED BY THE TESTING PARTY AND PROVIDED TO THE BUILDING INSPECTOR, PRIOR TO CALL FOR FINAL INSPECTION. SEE SHEET A0.2 FOR AIR LEAKAGE SPECIFICATIONS AND THE RESULT FORM	

SEC R402.1.1 INSULATION AND FENESTRATION	
FENESTRATION U FACTOR ABOVE GRADE WALLS	U-FACTOR: 0.28 R-21
FLOORS	R-38



NOTES	
ADDITIONAL FIRE PROTECTION SYSTEM WILL BE IMPLEMENTED PER 2015 INTERNATIONAL FIRE CODE & 2015 INTERNATIONAL RESIDENTIAL CODE	

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER
20004

9221 REGISTERED ARCHITECT
 SUZANNE ZAHR
 STATE OF WASHINGTON

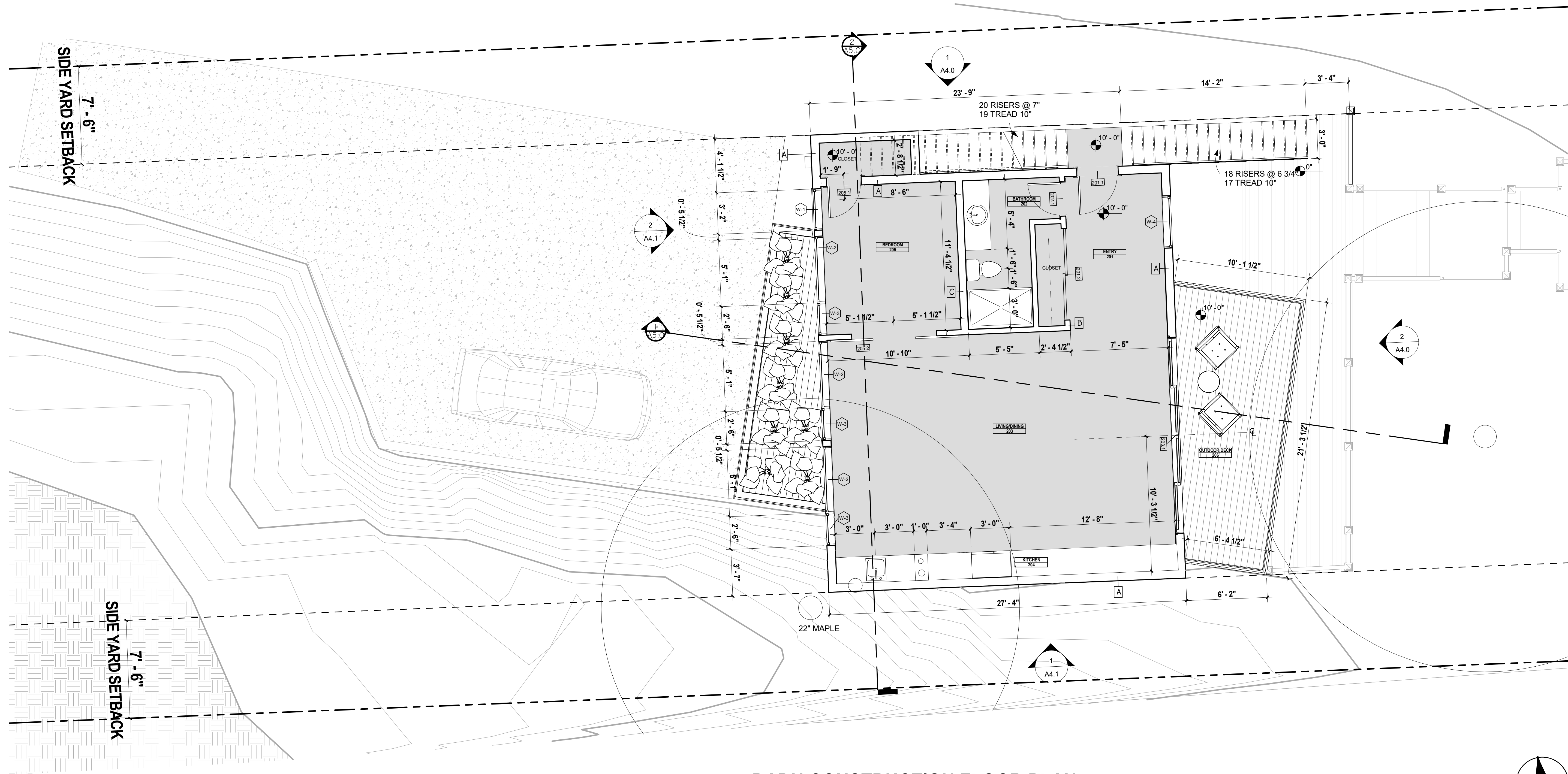
ISSUED / REVISIONS	DATE

ISSUE DATE: 12.08.20
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 CHECKED BY: SZ

DADU CONSTRUCTION FLOOR PLAN

SHEET NUMBER
A2.2

PERMIT SET

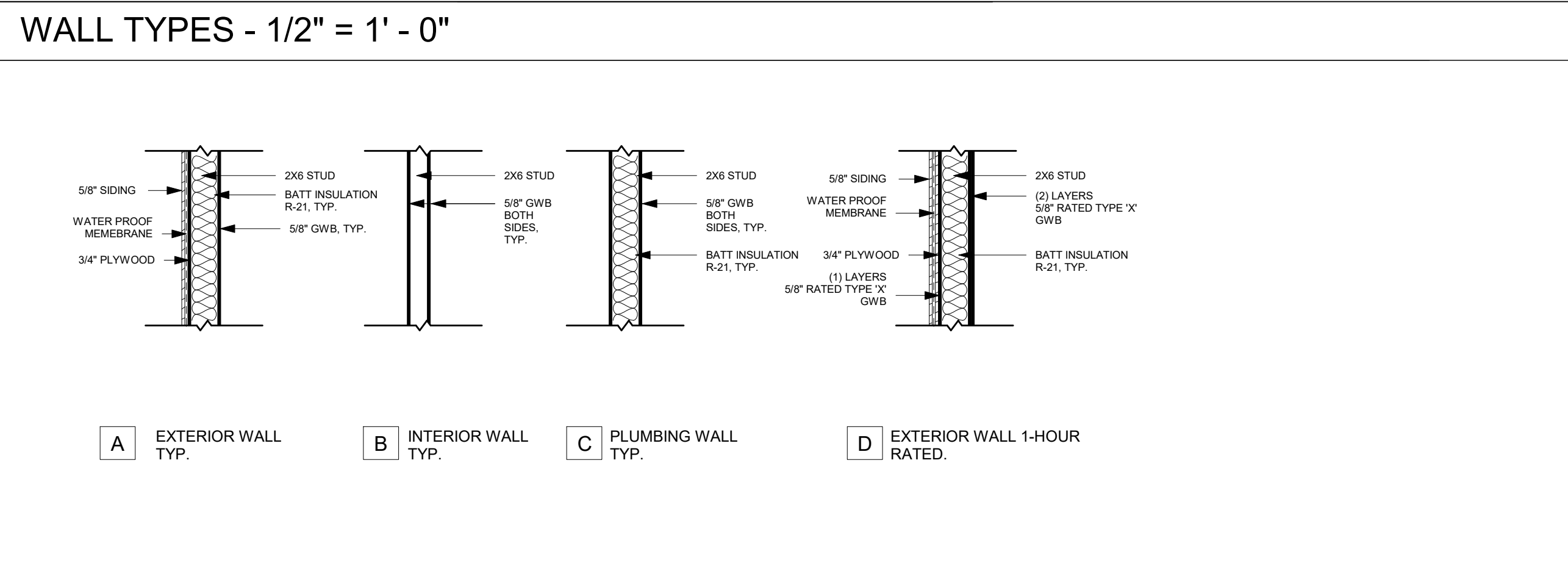


1 DADU CONSTRUCTION FLOOR PLAN
 1/4" = 1'-0"

LEGEND	
	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)
	REPRESENTS NEW WALL.
	REPRESENTS INSULATION
	REPRESENTS A WALL TAG.
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE
	REPRESENTS A DOOR TAG.
	REPRESENTS A WINDOW TAG.
	REPRESENTS A ROOM TAG.
	REPRESENTS OVERHEAD OR BELOW.
	REPRESENTS OVERHEAD EXHAUST FAN (MIN. 80 CFM).
	REPRESENTS OVERHEAD SMOKE DETECTOR.
	REPRESENTS OVERHEAD CARBON MONOXIDE DETECTOR.

NOTES

ADDITIONAL FIRE PROTECTION SYSTEM WILL BE IMPLEMENTED PER 2015 INTERNATIONAL FIRE CODE & 2015 INTERNATIONAL RESIDENTIAL CODE



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TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
MERCER ISLAND, WA 98040

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REGISTERED
ARCHITECT

SUZANNE ZAHR
STATE OF WASHINGTON

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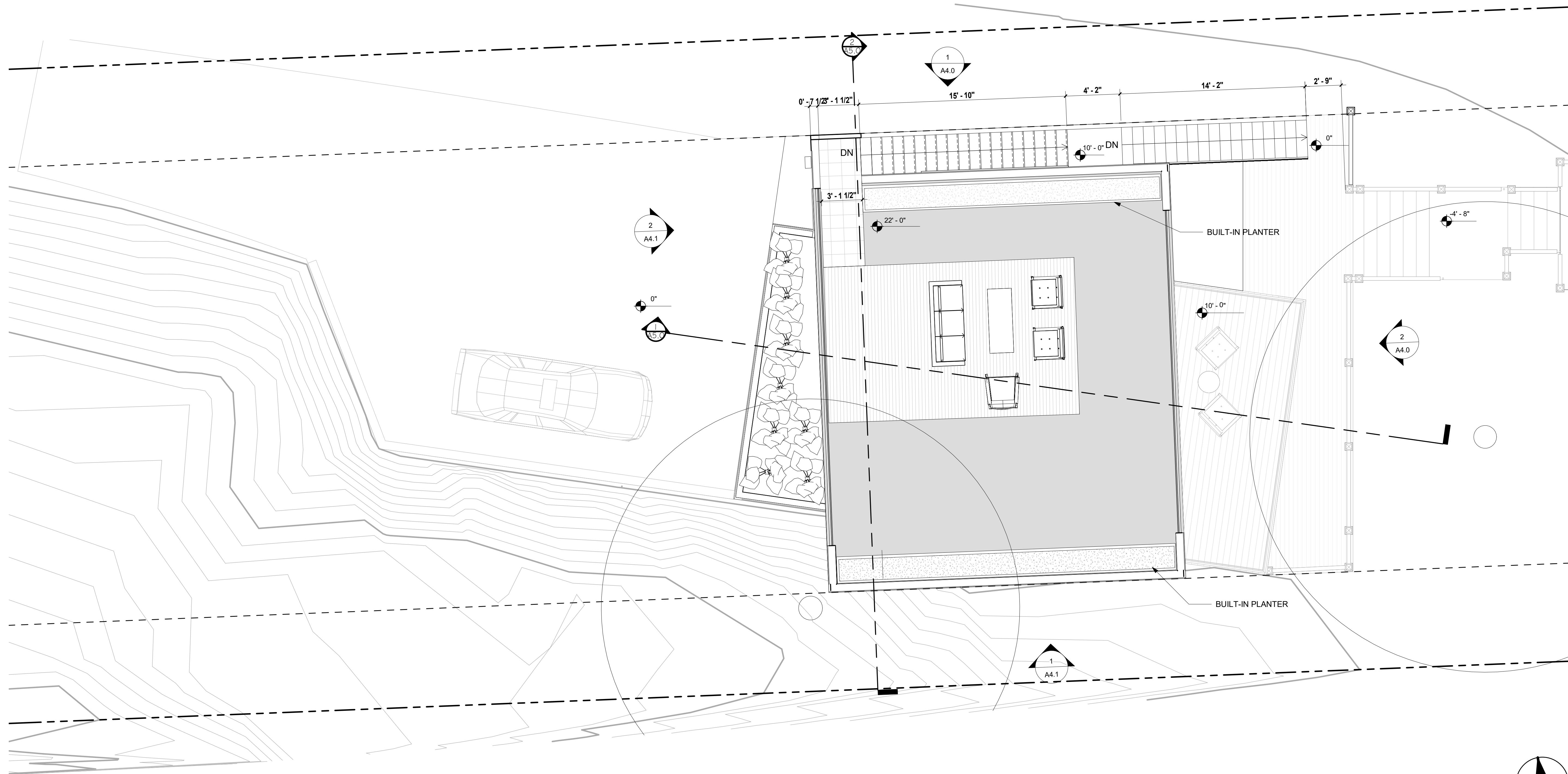
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ROOF
CONSTRUCTION
PLAN

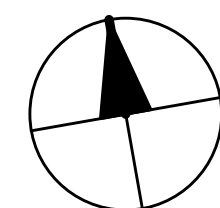
SHEET NUMBER

A2.3

PERMIT SET



1 ROOF DECK PLAN
1/4" = 1'-0"



TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

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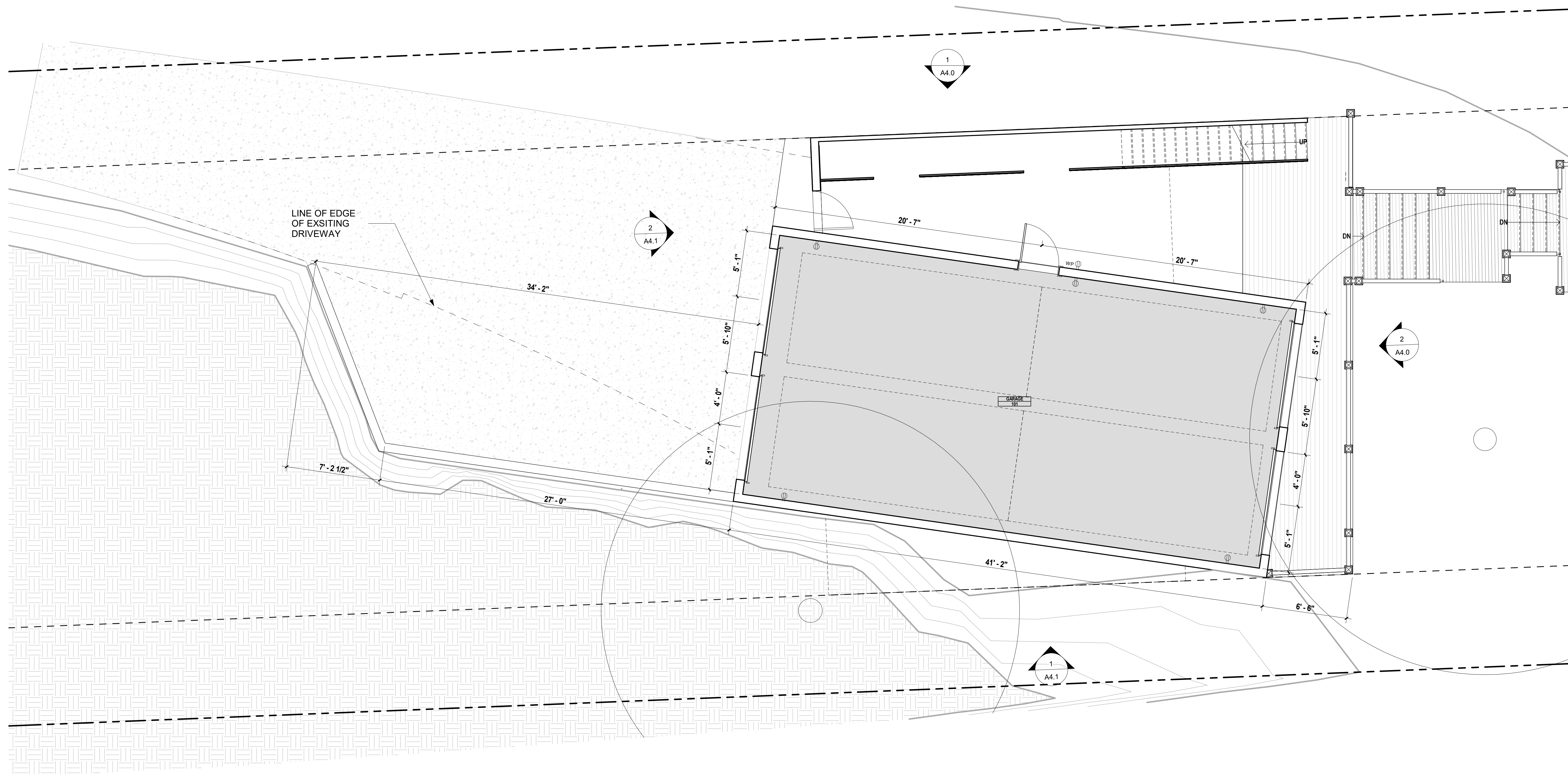
CHECKED BY: SZ

GARAGE POWER &
 DATA PLAN

SHEET NUMBER

A2.4

PERMIT SET



1 GARAGE POWER & DATA PLAN
 1/4" = 1'-0"

LEGEND		NOTES	
	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)		REPRESENTS AN OUTLET @ 14" A.F.F. TO C.L. U.N.O.
	REPRESENTS NEW WALL.		REPRESENTS A 4 GANG OUTLET @ 14" A.F.F. TO C.L. U.N.O.
	REPRESENTS EXISTING WALL TO BE DEMOLISHED.		REPRESENTS AN OUTDOOR OUTLET @ 18" TO C.L.
	REPRESENTS WALL TAG.		REPRESENTS A GFCI OUTLET FOR WET AREAS MOUNTING HEIGHTS AS NOTED.
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE		REPRESENTS A QUAD FLOOR OUTLET
	REPRESENTS OVERHEAD OR BELOW.		REPRESENTS A DEDICATED OUTLET PER CODE SEE MANUFACTURE REQ.
			REPRESENTS A THERMOSTAT
			REPRESENTS A COMPUTER DATA PORT @ 14" A.F.F. TO C.L.
			REPRESENTS A TELEVISION OUTLET

PLAN SHOWS PROPOSED OUTLET AND DATA PORT LAYOUT.

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER

20004

9221

REGISTERED
 ARCHITECT

SUZANNE ZAHR
 STATE OF WASHINGTON

ISSUED / REVISIONS DATE

ISSUE DATE: 12.08.20

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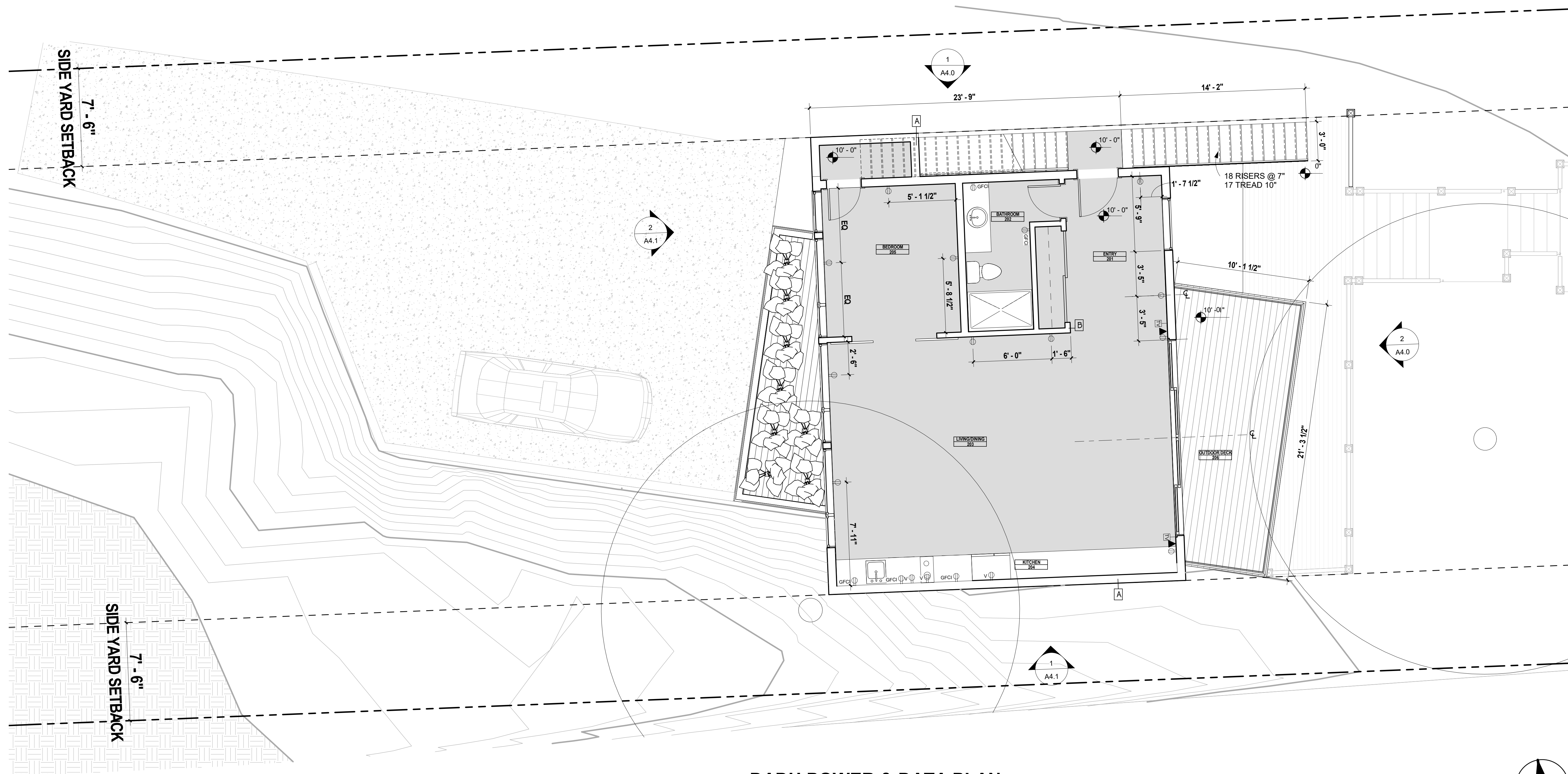
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DADU POWER &
 DATA PLAN

SHEET NUMBER

A2.5

PERMIT SET



1 DADU POWER & DATA PLAN
 1/4" = 1'-0"

LEGEND

	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)		REPRESENTS AN OUTLET @ 14" A.F.F. TO C.L. U.N.O.		REPRESENTS A COMPUTER DATA PORT @ 14" A.F.F. TO C.L.
	REPRESENTS NEW WALL.		REPRESENTS A 4 GANG OUTLET @ 14" A.F.F. TO C.L. U.N.O.		REPRESENTS A TELEVISION OUTLET
	REPRESENTS EXISTING WALL TO BE DEMOLISHED.		REPRESENTS AN OUTDOOR OUTLET @ 18" TO C.L.		
	REPRESENTS WALL TAG.		REPRESENTS A GFCI OUTLET FOR WET AREAS MOUNTING HEIGHTS AS NOTED.		
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE		REPRESENTS A QUAD FLOOR OUTLET		
	REPRESENTS OVERHEAD OR BELOW.		REPRESENTS A DEDICATED OUTLET PER CODE SEE MANUFACTURE REQ.		
			REPRESENTS A THERMOSTAT		

NOTES

PLAN SHOWS PROPOSED OUTLET AND DATA PORT LAYOUT.

TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER
20004



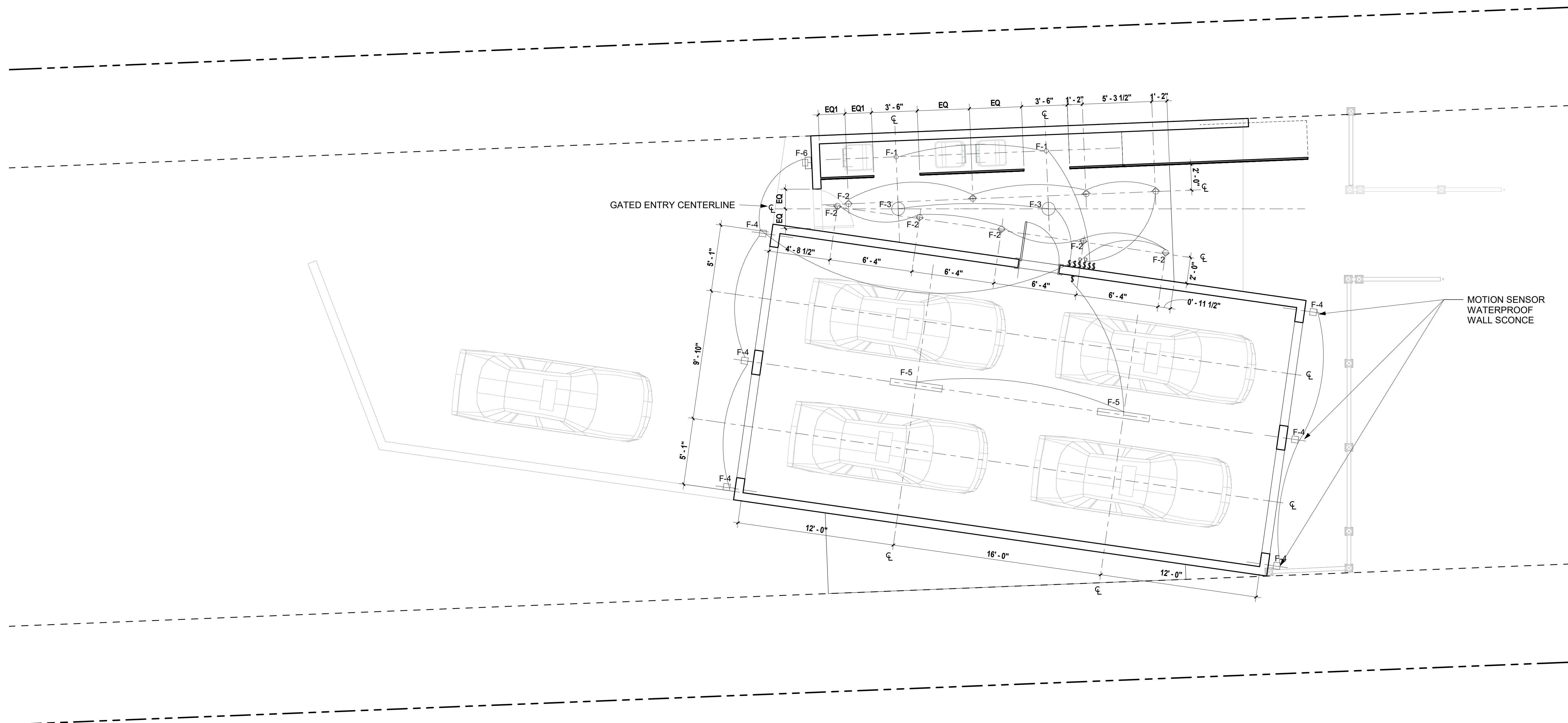
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ISSUE DATE: 12.08.20
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 CHECKED BY: SZ

GARAGE REFLECTED CEILING PLAN

SHEET NUMBER
A3.0

PERMIT SET



1 GARAGE REFLECTED CEILING PLAN
 1/4" = 1'-0"

LEGEND	
	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)
	REPRESENTS NEW WALL.
	REPRESENTS EXISTING WALL TO BE DEMOLISHED.
	REPRESENTS WALL TAG.
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE
	REPRESENTS OVERHEAD OR BELOW.
	REPRESENTS OUTDOOR RECESSED 4" CAN LIGHT. F-1
	REPRESENTS OUTDOOR RECESSED 4" DIRECTIONAL CAN LIGHT. F-2
	REPRESENTS OUTDOOR CEILING LIGHT. (MOTION SENSOR LIGHTS) F-3
	REPRESENTS OUTDOOR WALL MOUNTED SCONCE. (MOTION SENSOR LIGHTS) F-4
	REPRESENTS INDOOR LINEAR LIGHT. F-5
	REPRESENTS OUTDOOR WALL MOUNTED SCONCE. (MOTION SENSOR LIGHTS) F-6
	REPRESENTS PENDANT LIGHT F-7
	REPRESENTS WALL MOUNTED SCONCE. F-8
	REPRESENTS RECESSED 4" CAN LIGHT. F-9
	REPRESENTS RECESSED 4" DIRECTIONAL CAN LIGHT. F-10
	CEILING MOUNTED EXHAUST FAN WITH LED LIGHT
	REPRESENTS OVERHEAD DUAL SMOKE DETECTOR / CARBON MONOXIDE DETECTOR.
	REPRESENTS A SINGLE SWITCH TO BE MOUNTED @ 50" A.F.F. TO C.L. F-7
	REPRESENTS A 3 WAY SWITCH TO BE MOUNTED @ 50" A.F.F. TO C.L. F-8
	REPRESENTS A DIMMER SWITCH TO BE MOUNTED @ 50" A.F.F. TO C.L. F-9

NOTES	
•	PLAN SHOWS PROPOSED LIGHTING LAYOUT.
•	A MINIMUM OF 75 PERCENT OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.

SZ

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TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
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ARCHITECT

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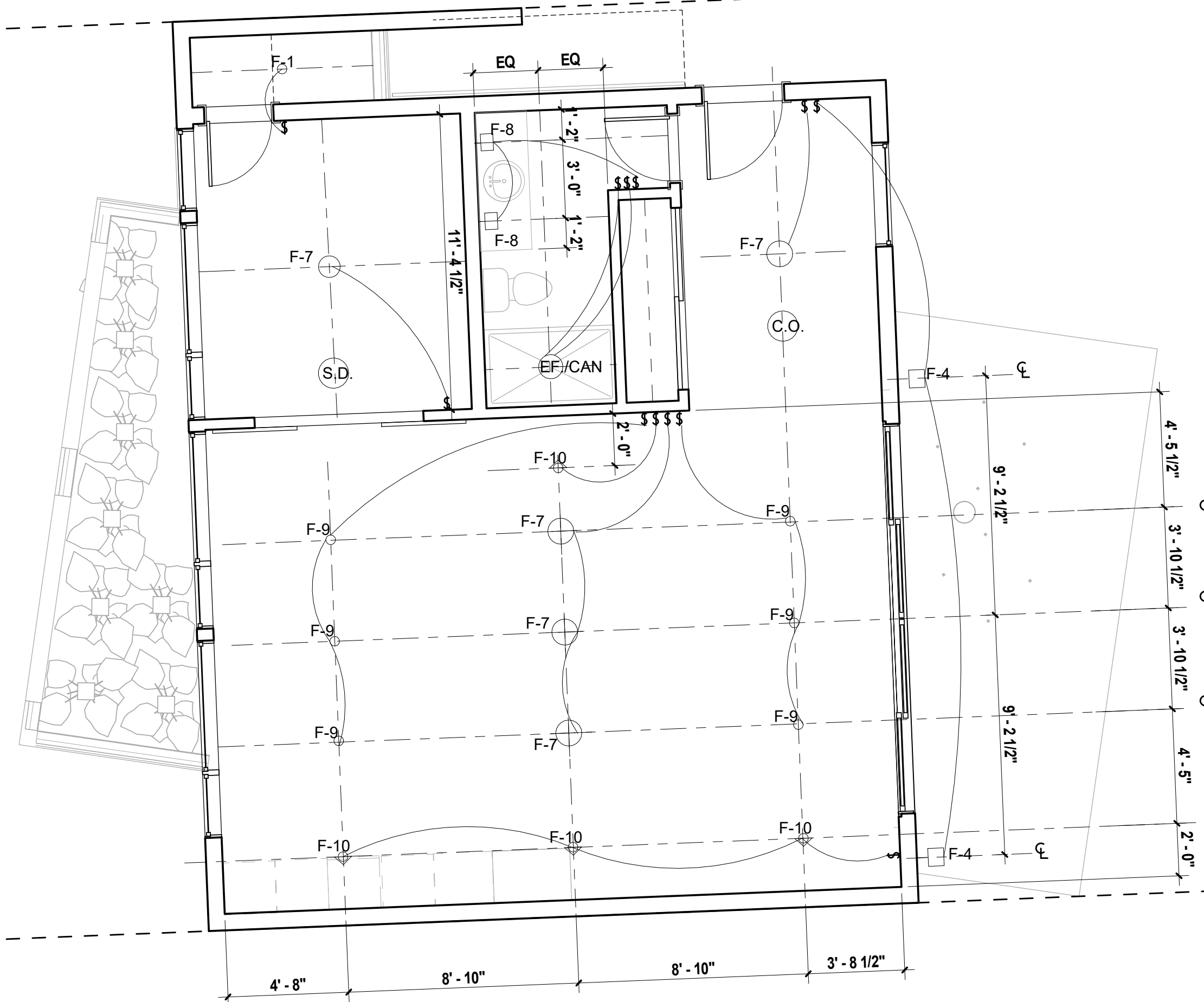
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DADU REFLECTED CEILING PLAN

SHEET NUMBER

A3.1

PERMIT SET



1 DADU REFLECTED CEILING PLAN
1/4" = 1'-0"

LEGEND

	BLACK SOLID INFILL REPRESENTS EXISTING BUILDING WALLS TO REMAIN (BLOCKWORK, STOREFRONT, STRUCTURE, ETC.)		REPRESENTS OUTDOOR RECESSED 4" CAN LIGHT.	F-1		REPRESENTS PENDANT LIGHT	F-7	•	PLAN SHOWS PROPOSED LIGHTING LAYOUT.
	REPRESENTS NEW WALL.		REPRESENTS OUTDOOR RECESSED 4" DIRECTIONAL CAN LIGHT.	F-2		REPRESENTS WALL MOUNTED SCENCE.	F-8	§ ₃	REPRESENTS A 3 WAY SWITCH TO BE MOUNTED @ 50" A.F.F. TO C.L.
	REPRESENTS EXISTING WALL TO BE DEMOLISHED.		REPRESENTS OUTDOOR CEILING LIGHT. (MOTION SENSOR LIGHTS)	F-3		REPRESENTS RECESSED 4" CAN LIGHT.	F-9	§ ₀	REPRESENTS A DIMMER SWITCH TO BE MOUNTED @ 50" A.F.F. TO C.L.
	REPRESENTS WALL TAG.		REPRESENTS OUTDOOR WALL MOUNTED SCENCE. (MOTION SENSOR LIGHTS)	F-4		REPRESENTS RECESSED 4" DIRECTIONAL CAN LIGHT.	F-10		
	REPRESENTS WALL DIMENSION FROM FACE OF STRUCTURE UNLESS NOTED OTHERWISE		REPRESENTS INDOOR LINEAR LIGHT.	F-5		CEILING MOUNTED EXHAUST FAN WITH LED LIGHT			
	REPRESENTS OVERHEAD OR BELOW.		REPRESENTS OUTDOOR WALL MOUNTED SCENCE. (MOTION SENSOR LIGHTS)	F-6		REPRESENTS OVERHEAD DUAL SMOKE DETECTOR / CARBON MONOXIDE DETECTOR.			

NOTES

• PLAN SHOWS PROPOSED LIGHTING LAYOUT.

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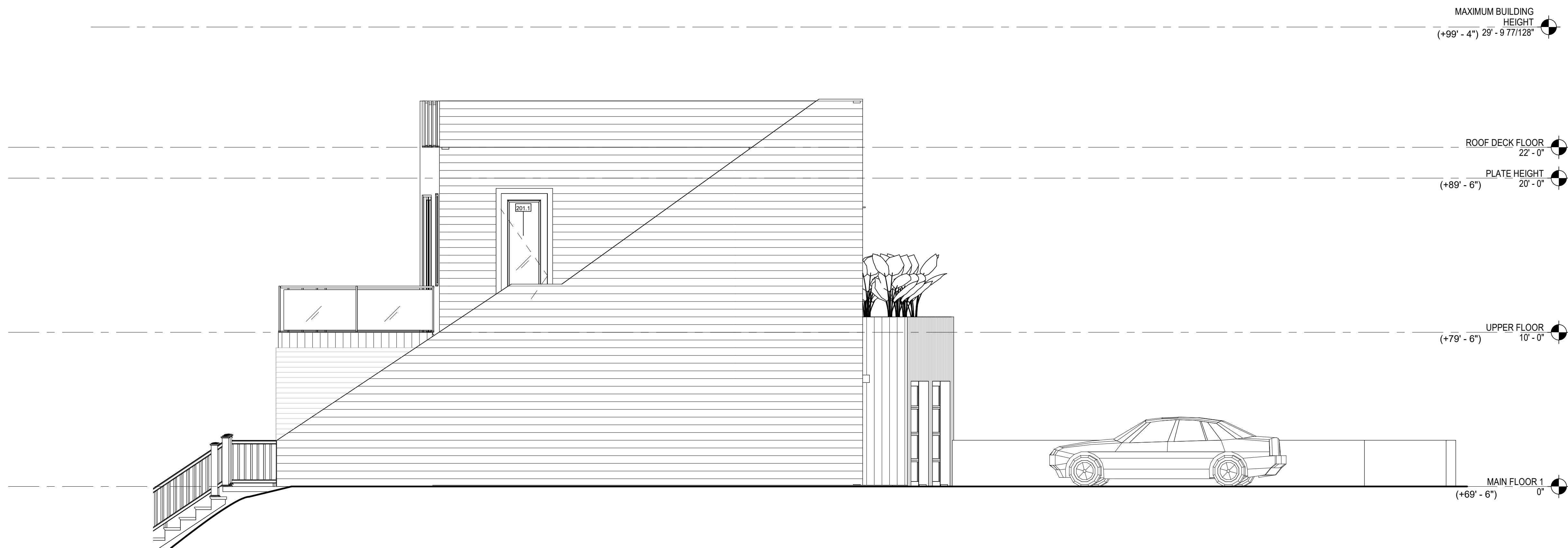
BUILDING ELEVATIONS

SHEET NUMBER
A4.0

PERMIT SET



2 ELEVATION - EAST
 1/4" = 1'-0"



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

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TRUMBLE RESIDENCE
 ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
 MERCER ISLAND, WA 98040

PROJECT NUMBER
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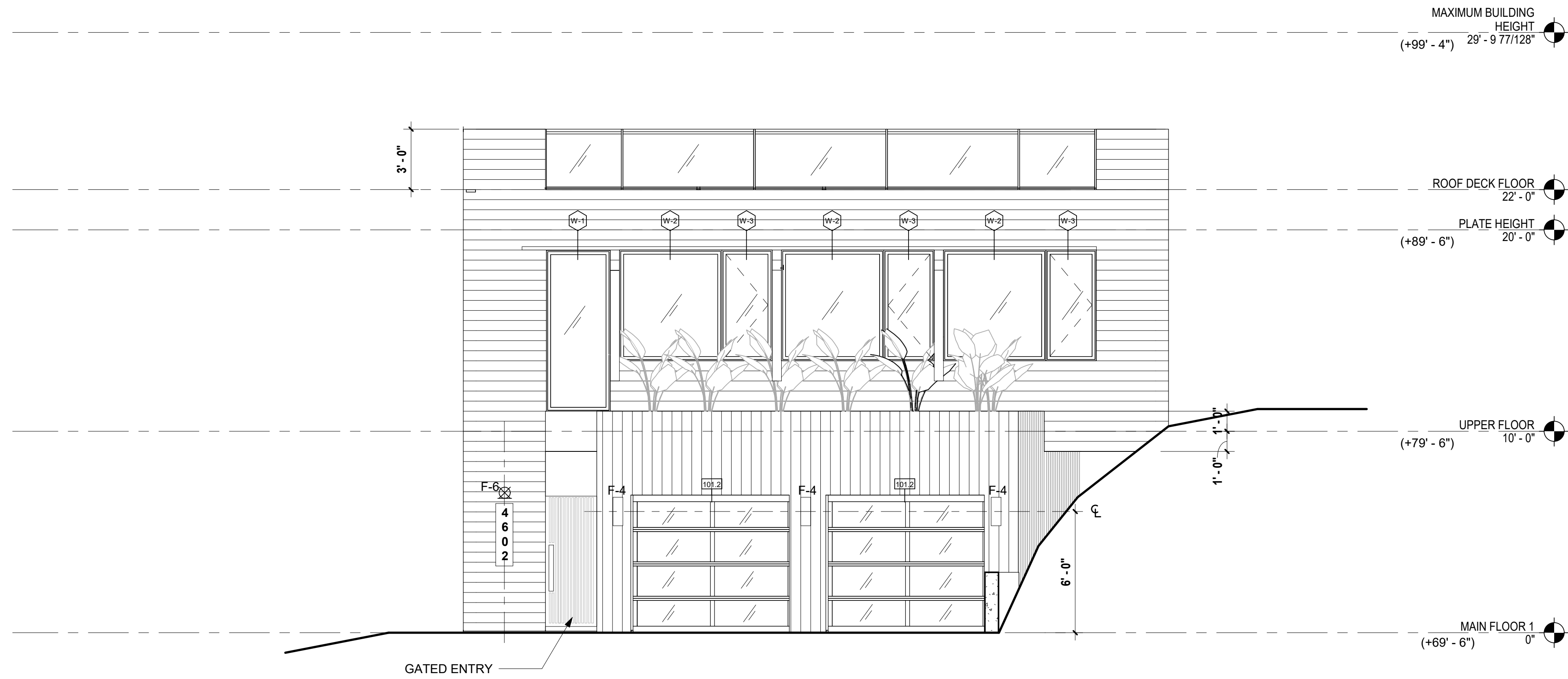
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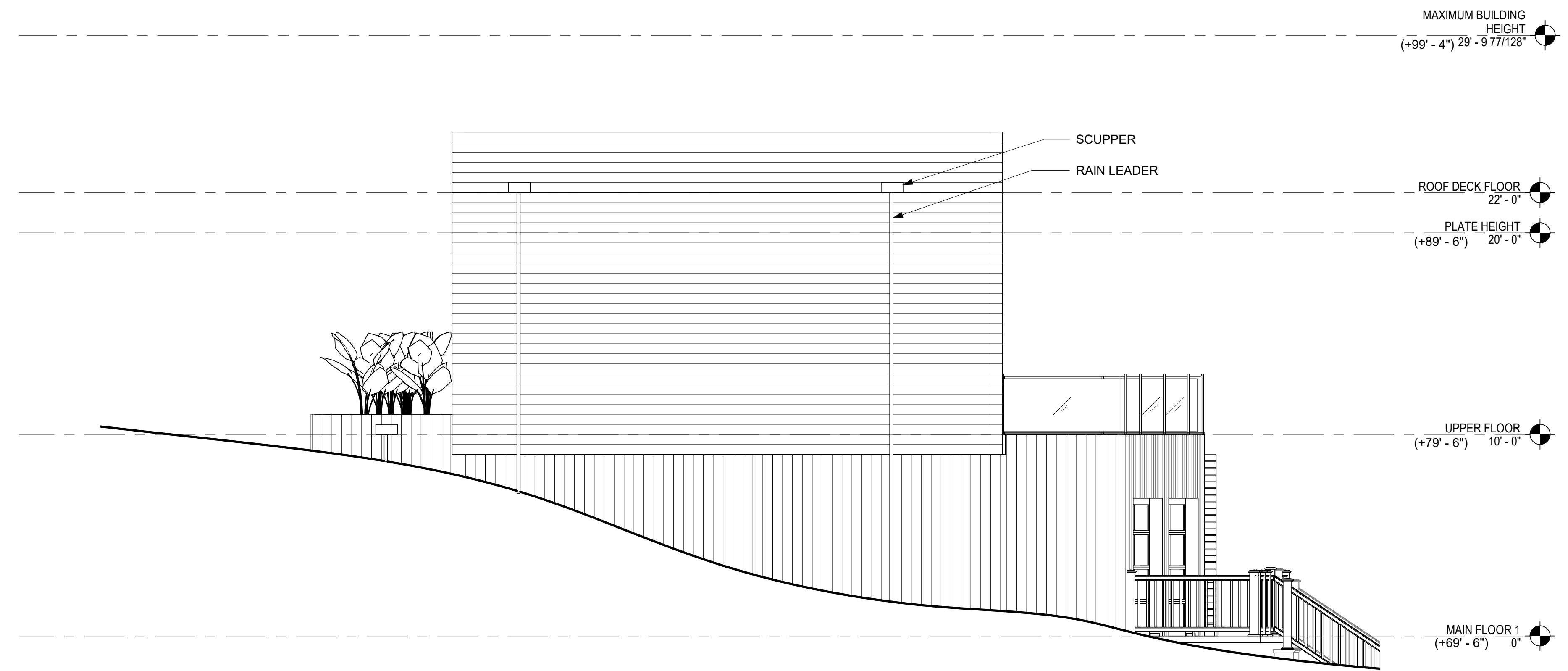
BUILDING ELEVATIONS

SHEET NUMBER
A4.1

PERMIT SET



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



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

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TRUMBLE RESIDENCE ACCESSORY DWELLING UNIT ADDITION

4602 E MERCER WAY
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PROJECT NUMBER

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BUILDING SECTIONS

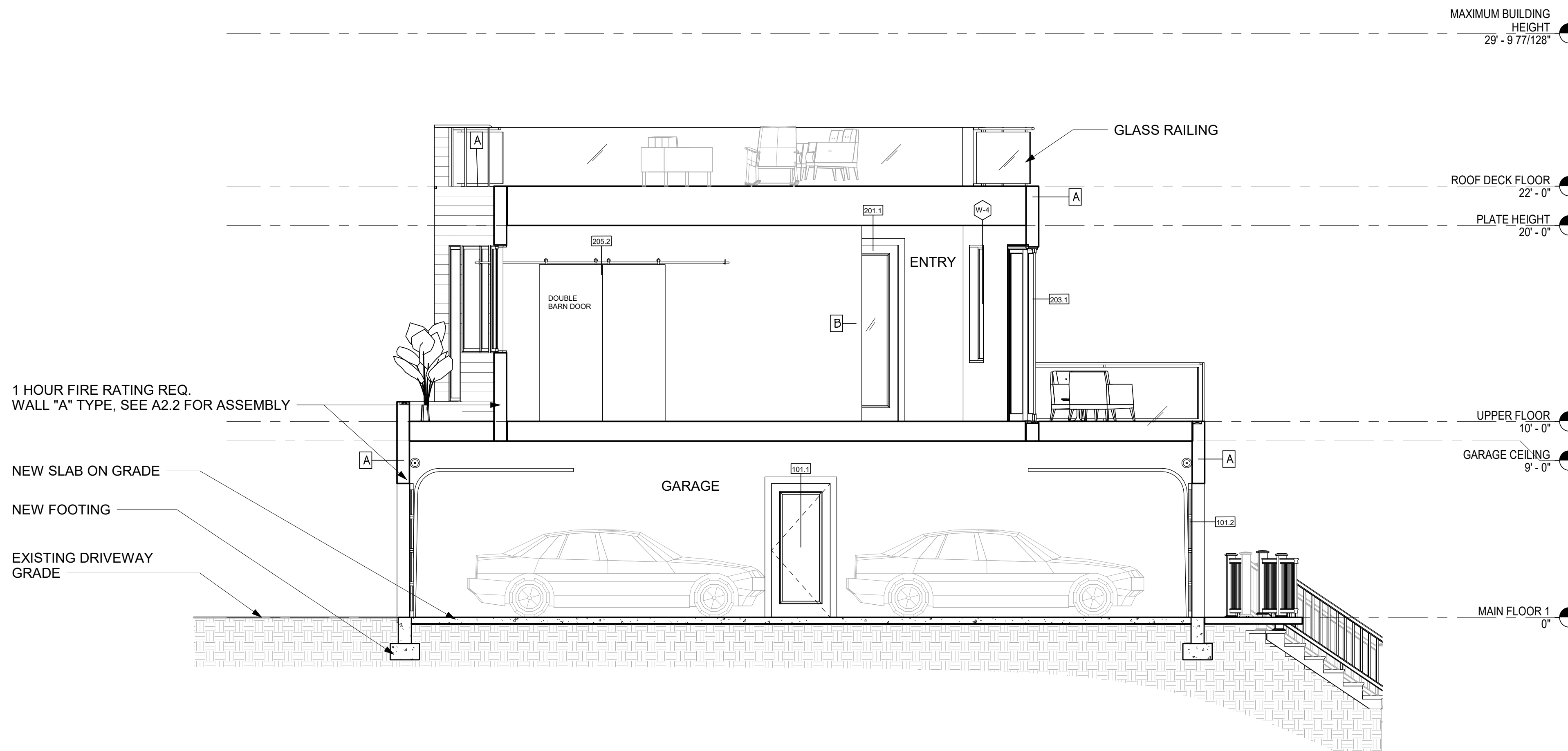
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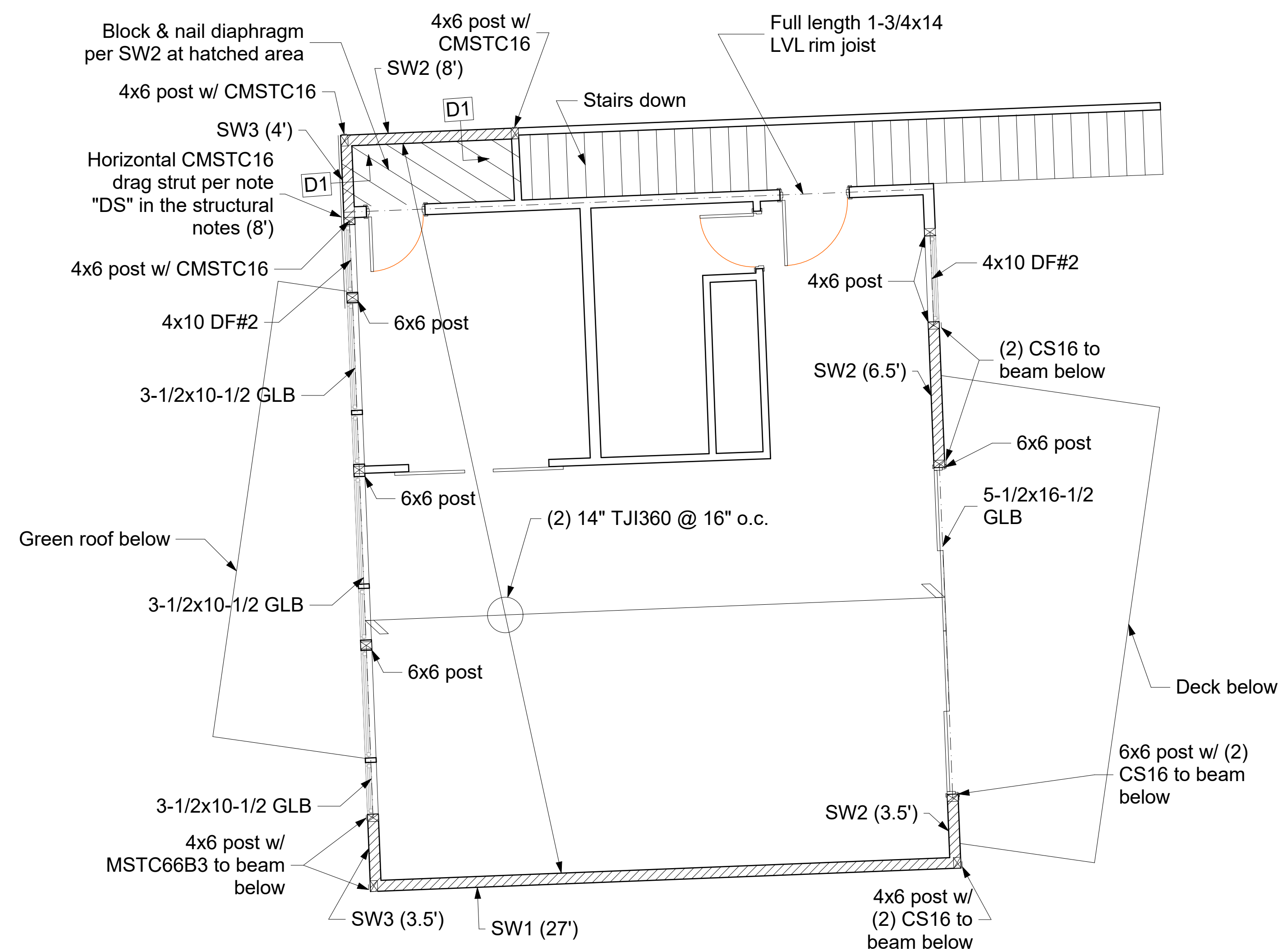
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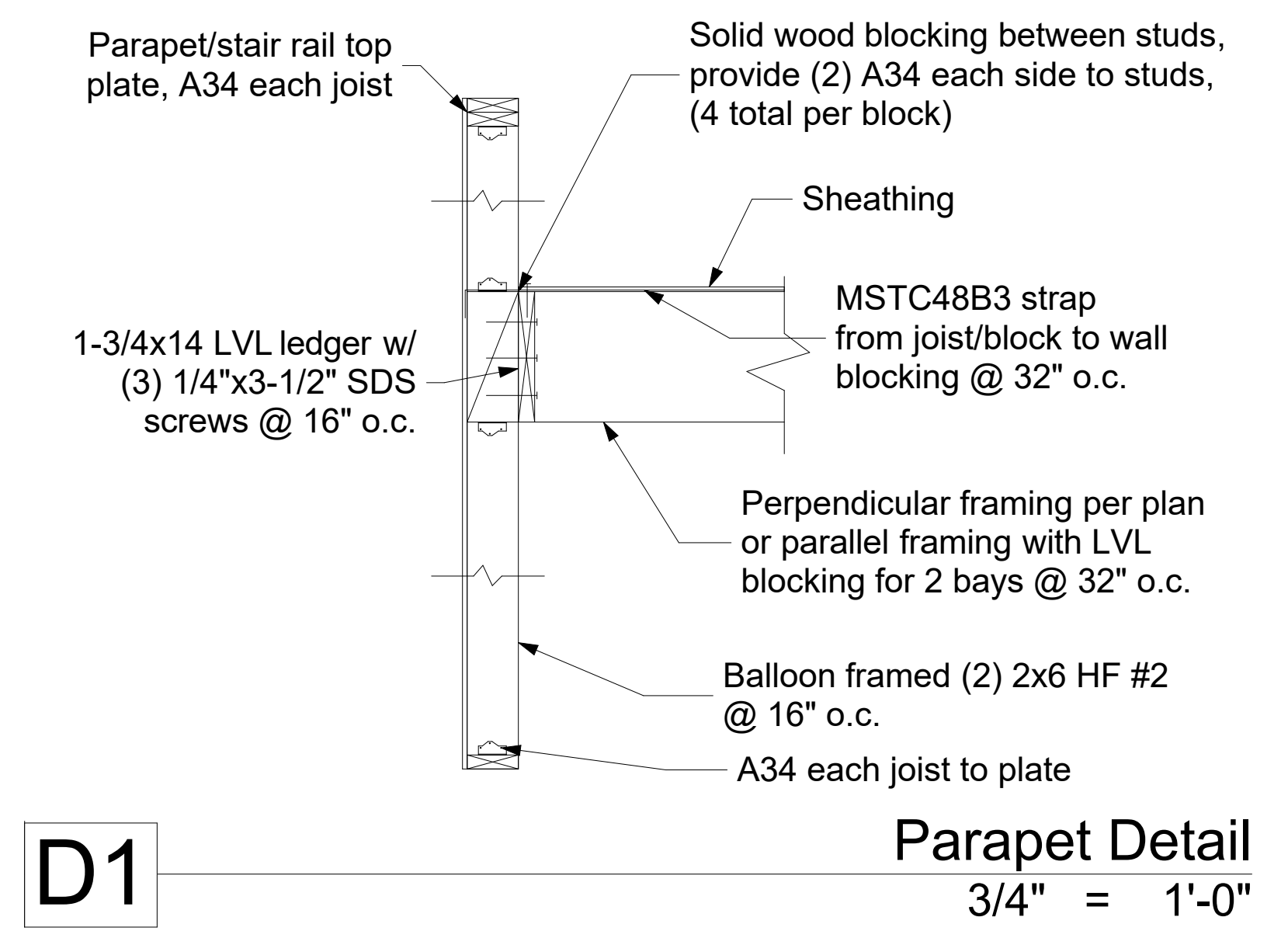
2 BUILDING SECTION B
 1/4" = 1'-0"



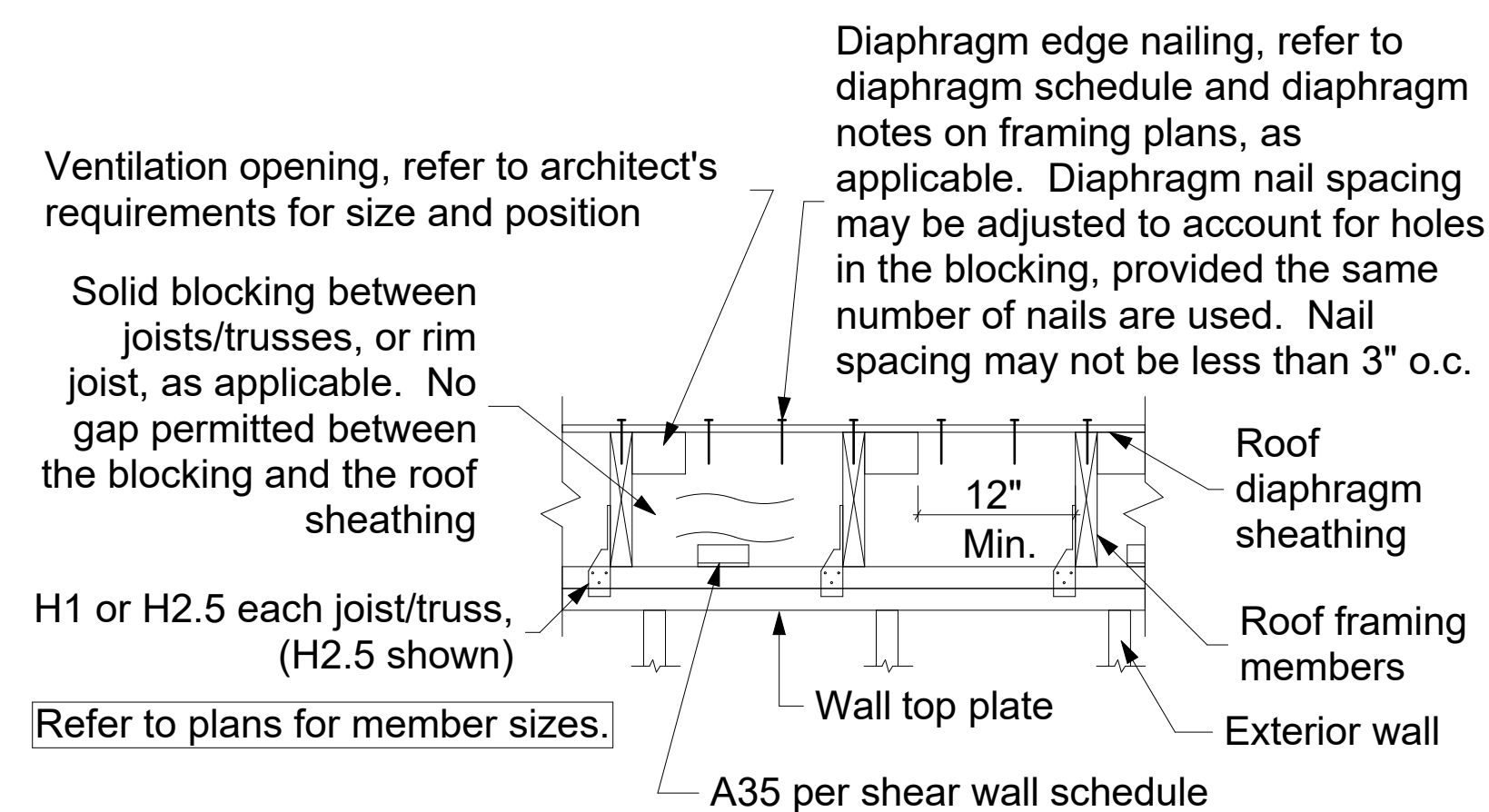
1 BUILDING SECTION A
 1/4" = 1'-0"



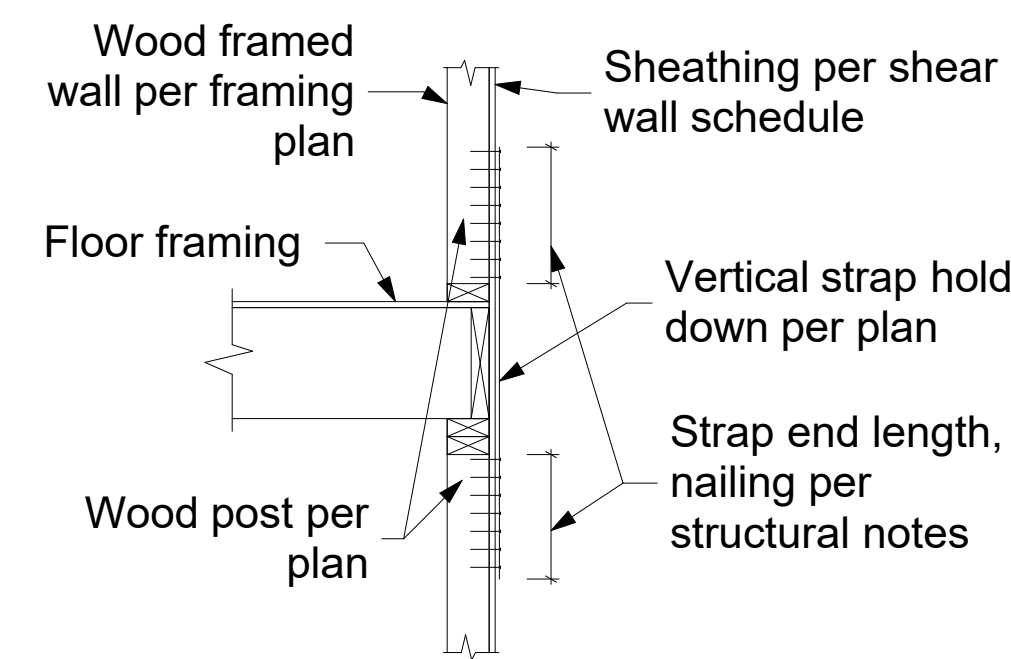
Roof Framing and Upper Floor Wall Plan
1/4" = 1'-0"



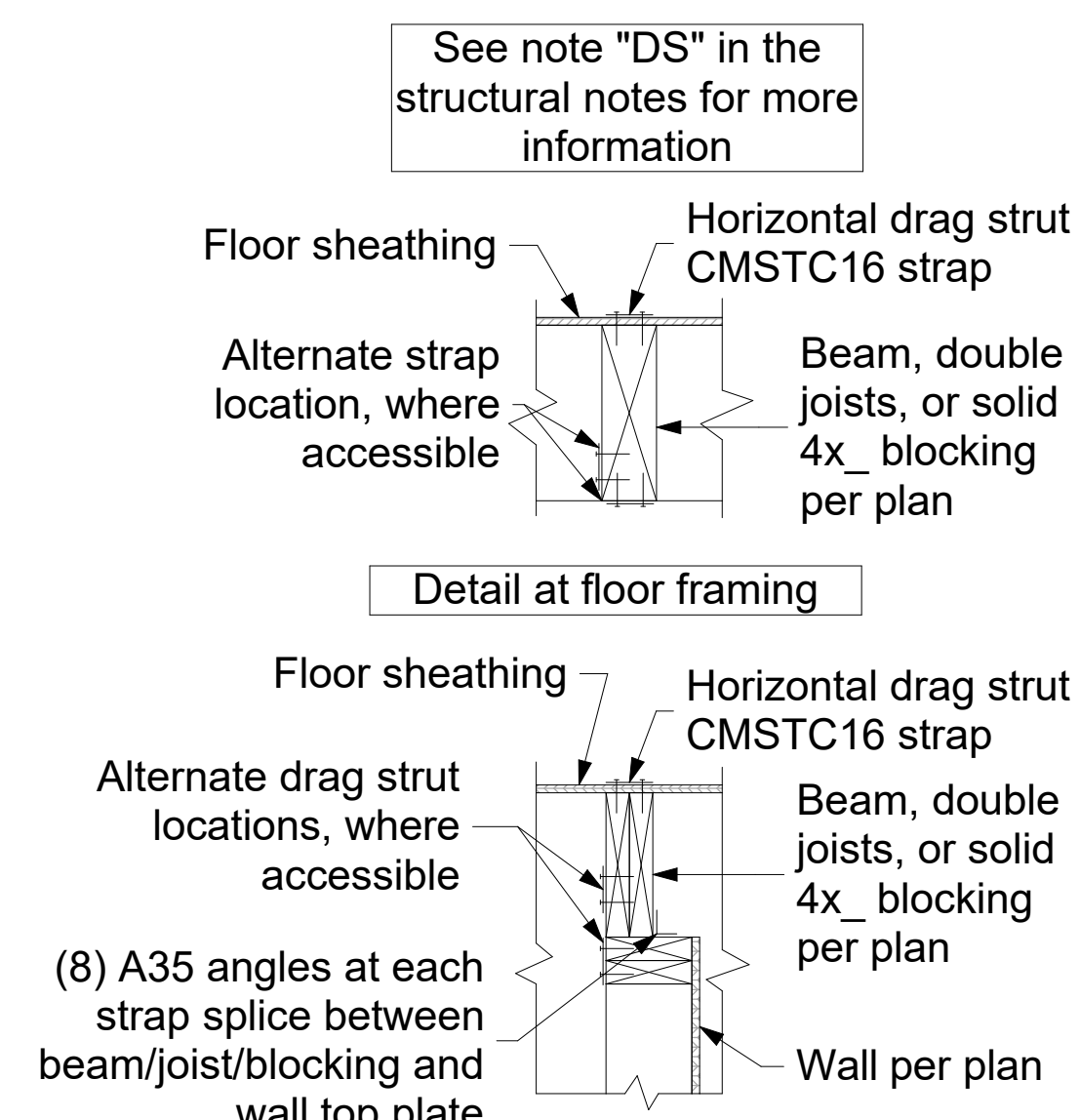
D1 Parapet Detail
3/4" = 1'-0"



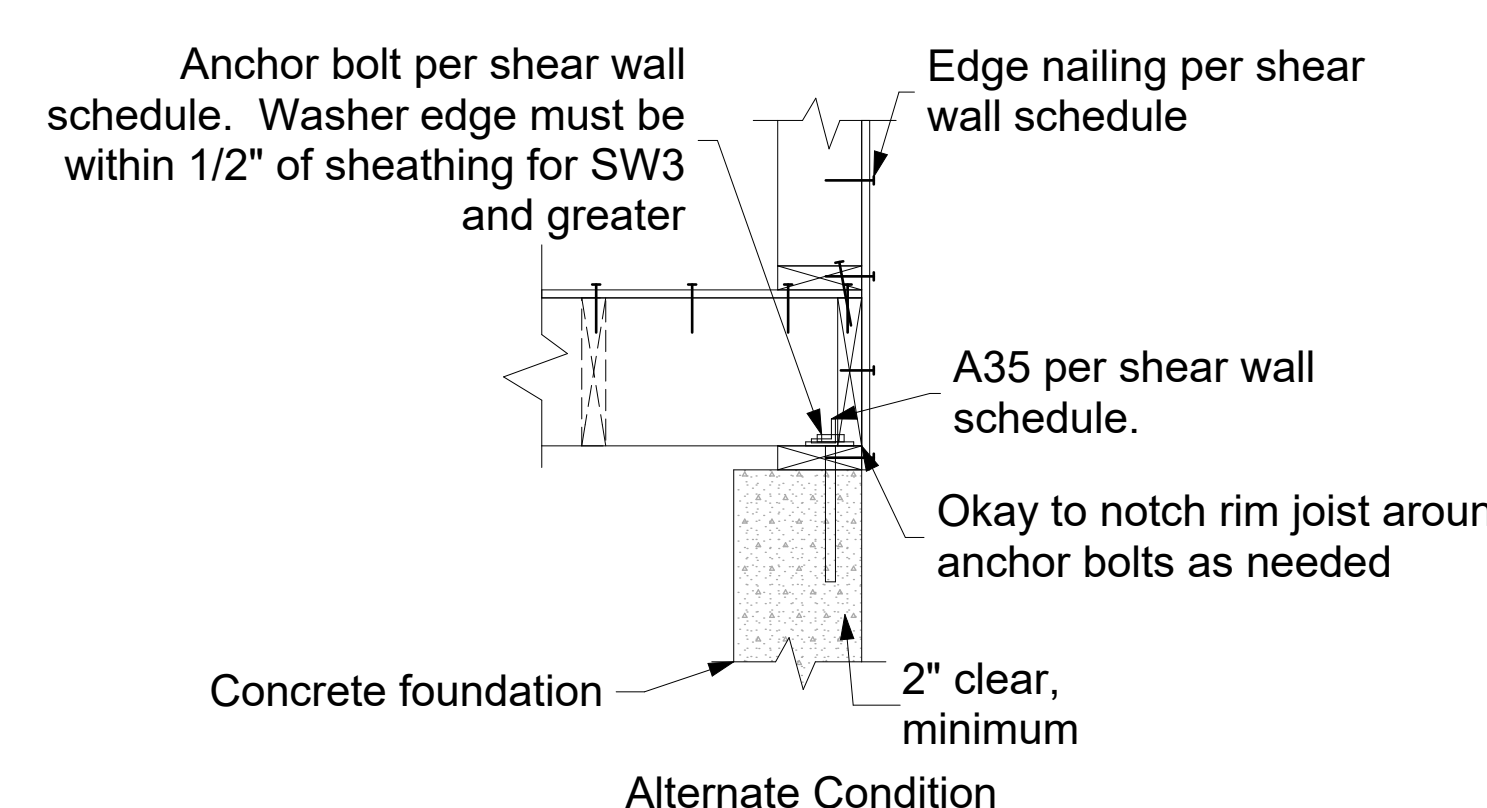
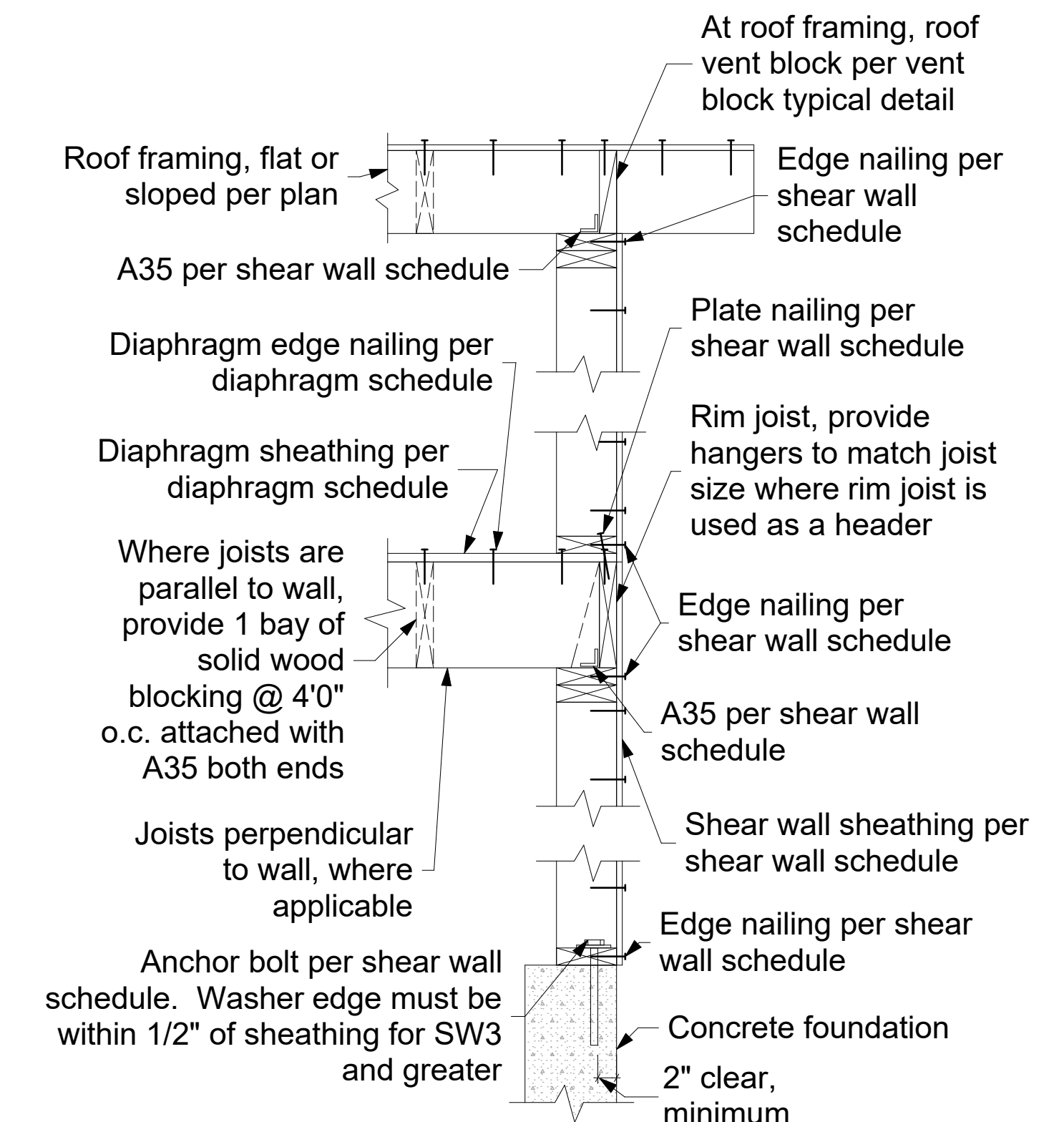
Roof Ventilation Typical Detail
1" = 1'-0"



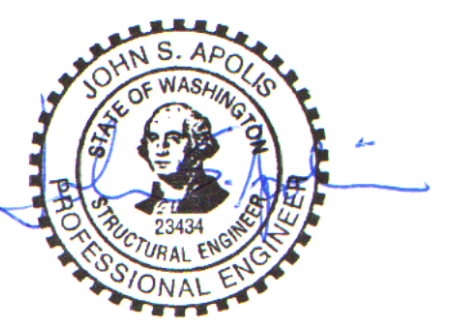
Strap Hold Down Detail
3/4" = 1'-0"



Drag Strut Typical Detail
1" = 1'-0"



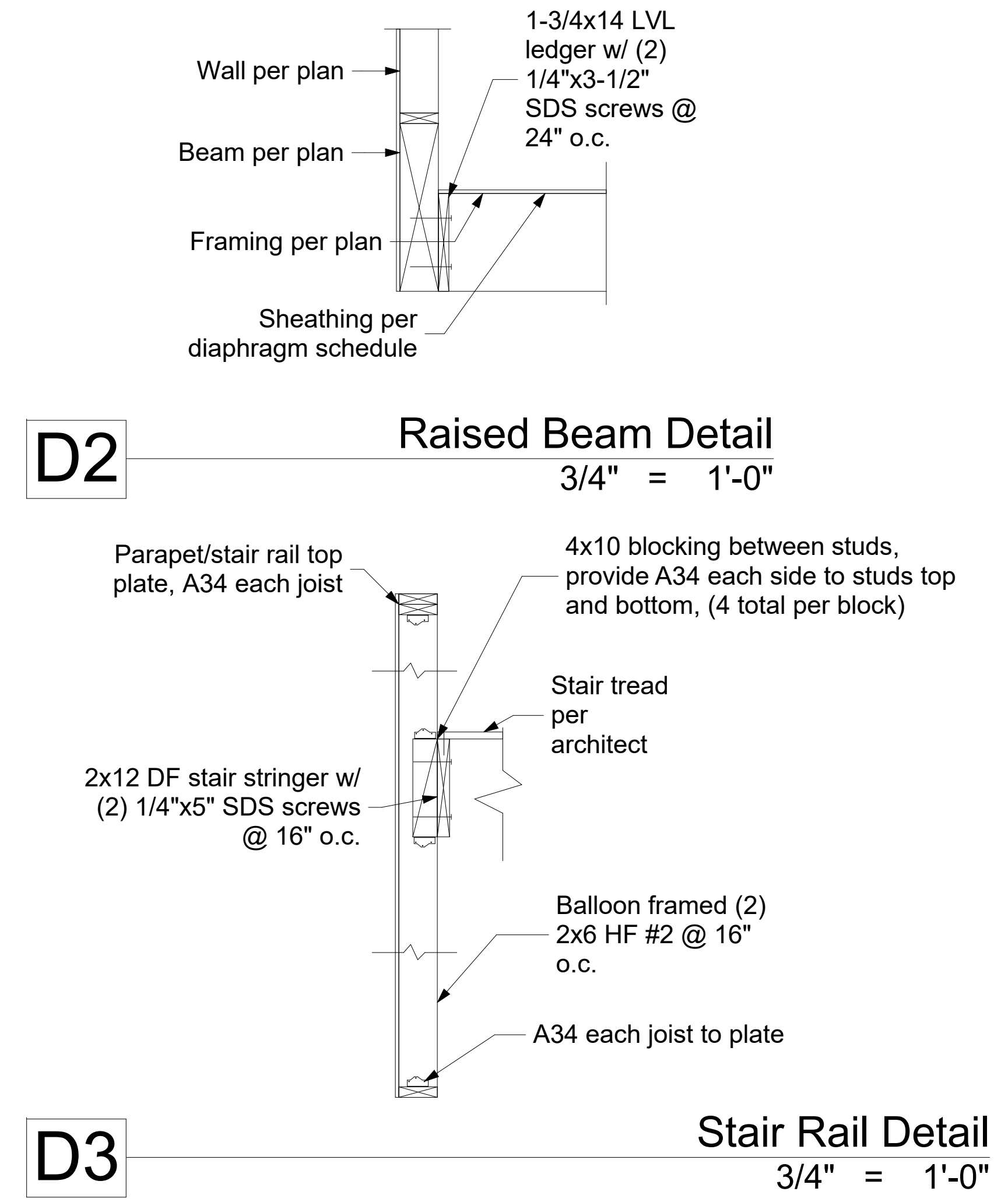
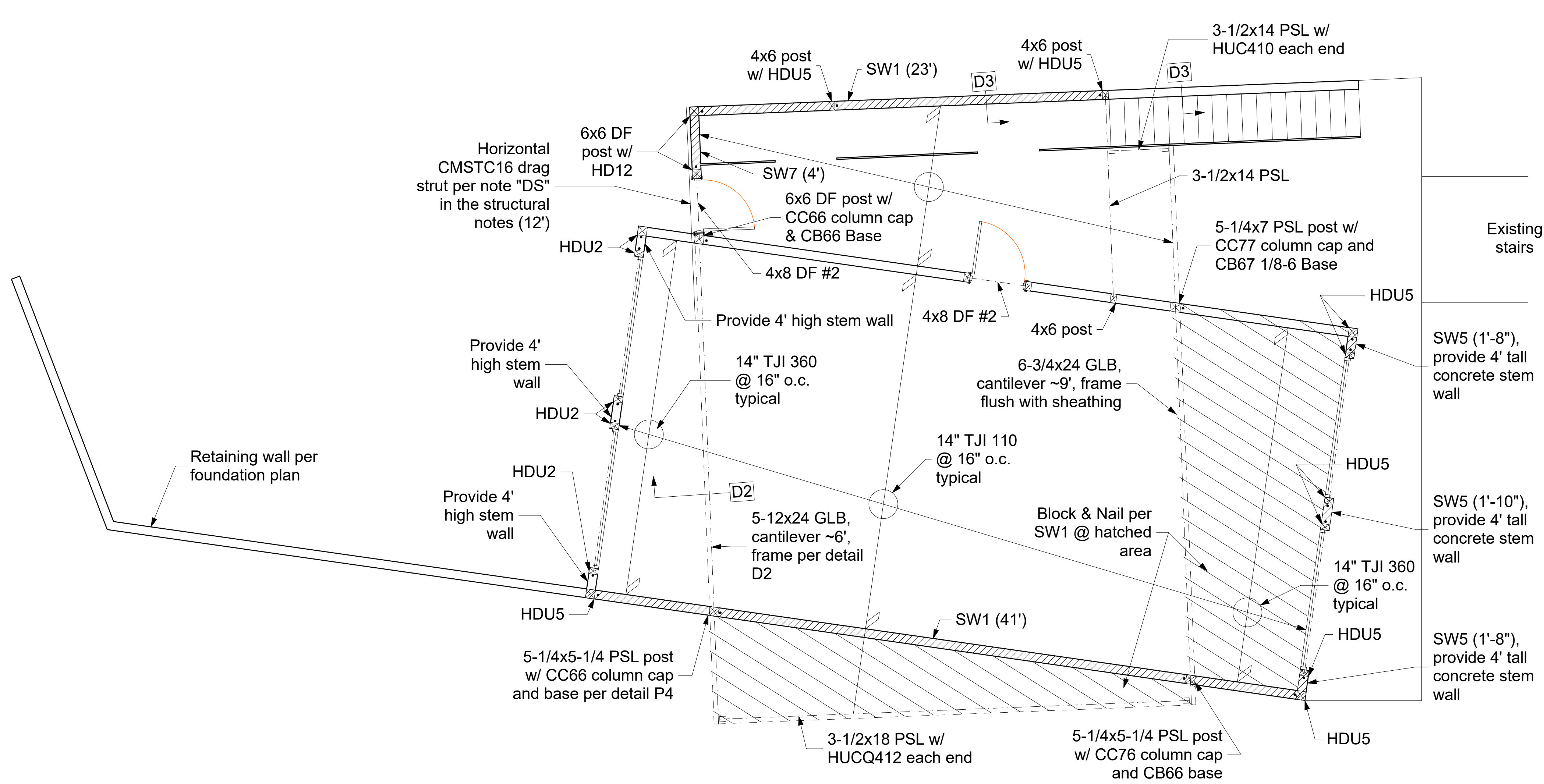
Exterior Shear Wall Framing Typical Detail
1" = 1'-0"



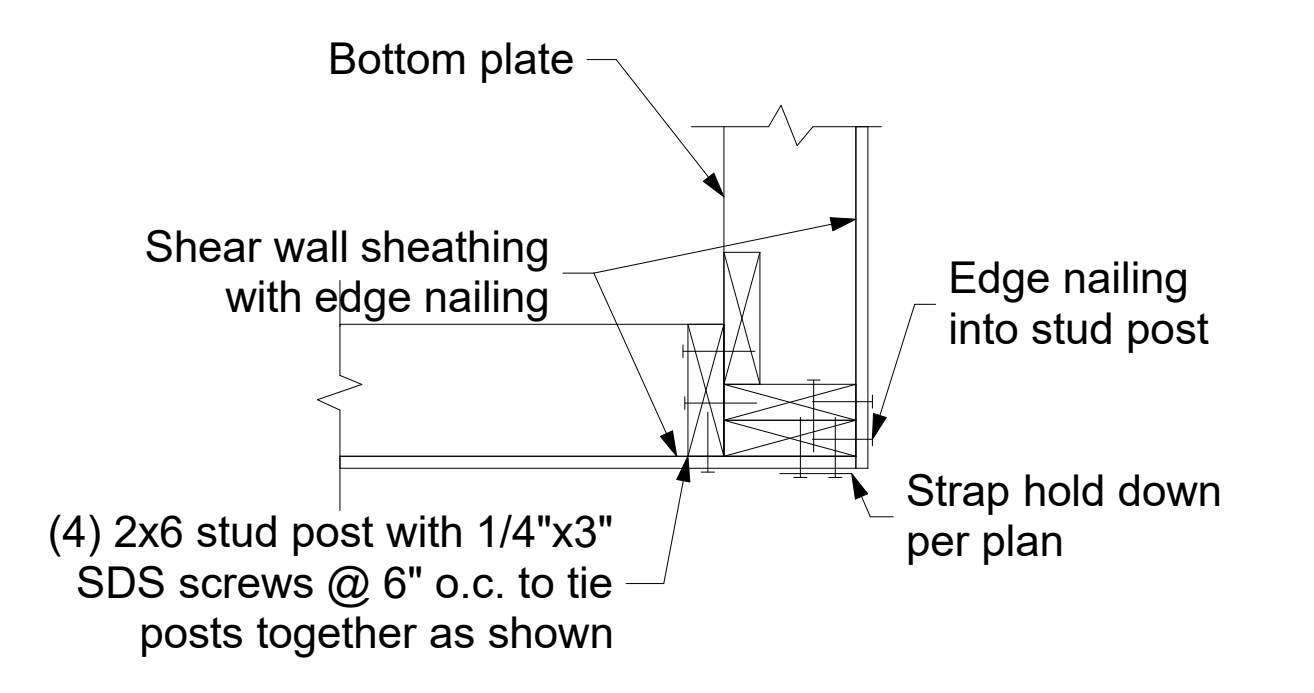
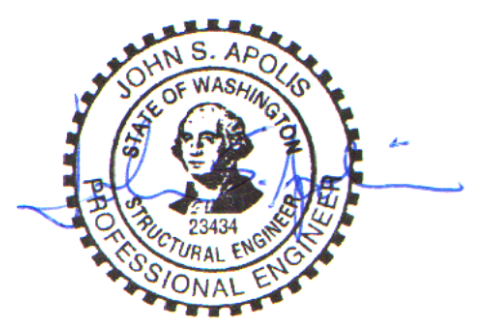
Consulting Structural Engineering Services
6311 17th Ave NE, Seattle, WA 98115
Phone: 206-527-1286
email: john@case-engineering.com

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Mercer Island, WA 98040

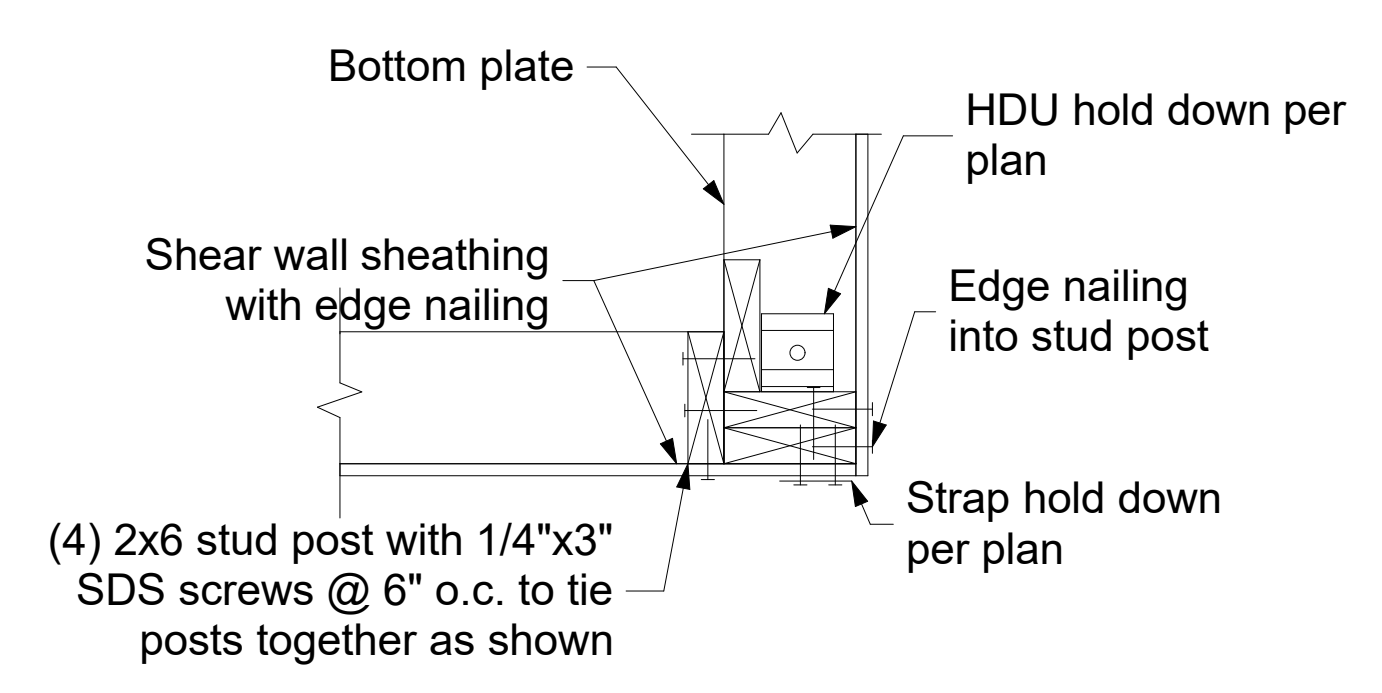
Revisions:
Date: 11/05/20
Sheet: **S1**



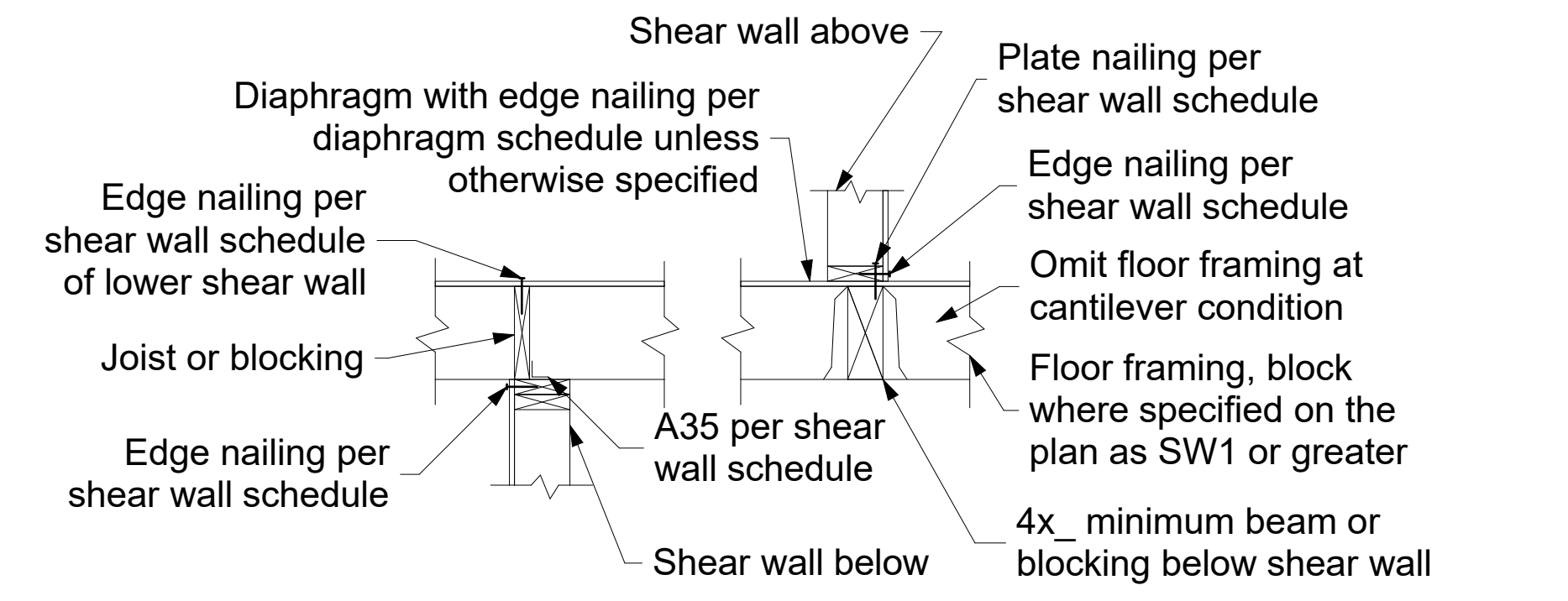
Upper Floor Framing and Main Floor Wall Plan
1/4" = 1'-0"



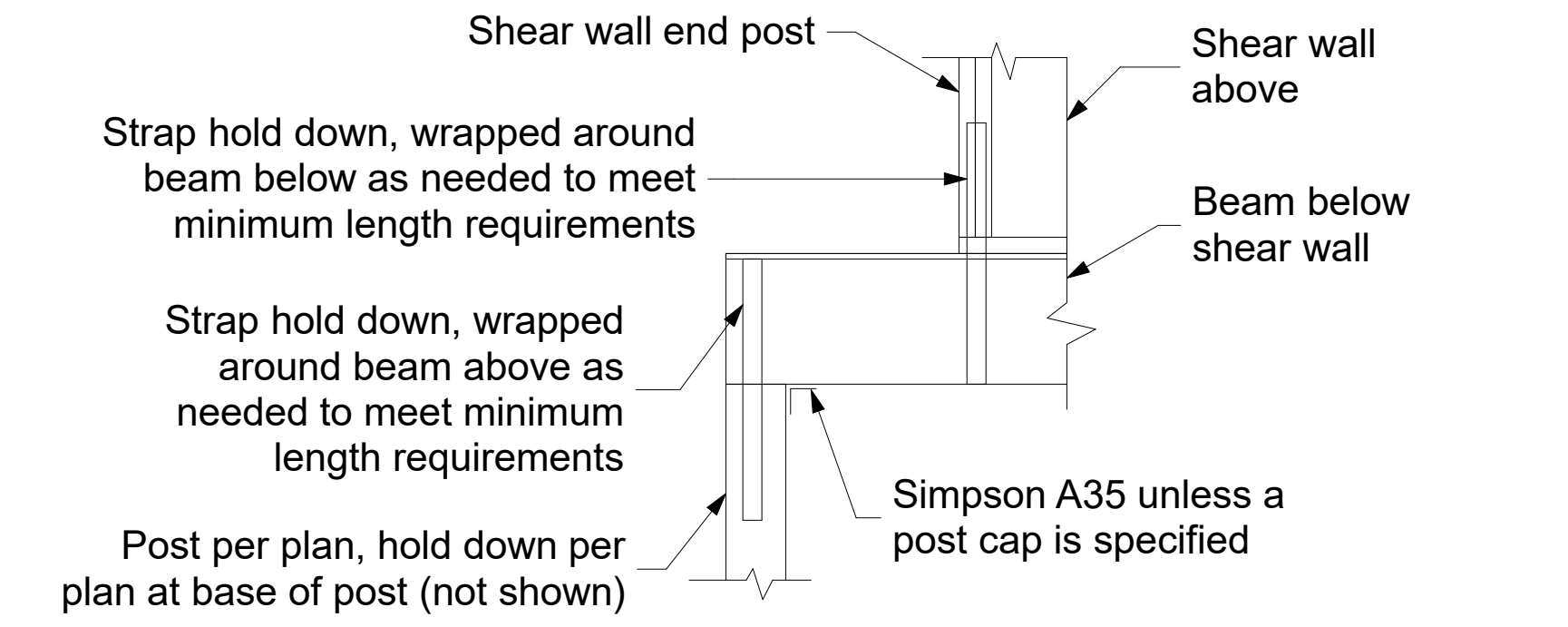
Strap Hold Down Configuration



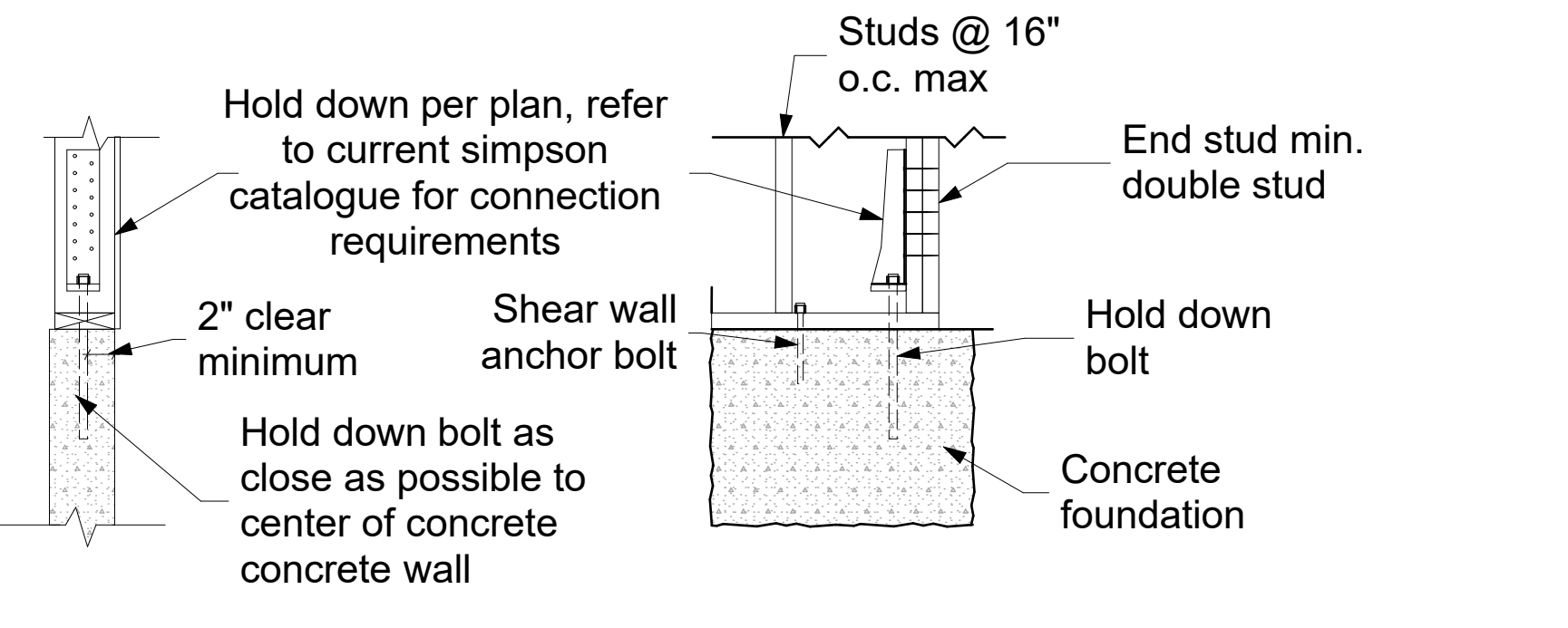
HDU Configuration



Discontinuous Shear Wall Detail
3/4" = 1'-0"



Discontinuous Hold Down Detail
3/4" = 1'-0"



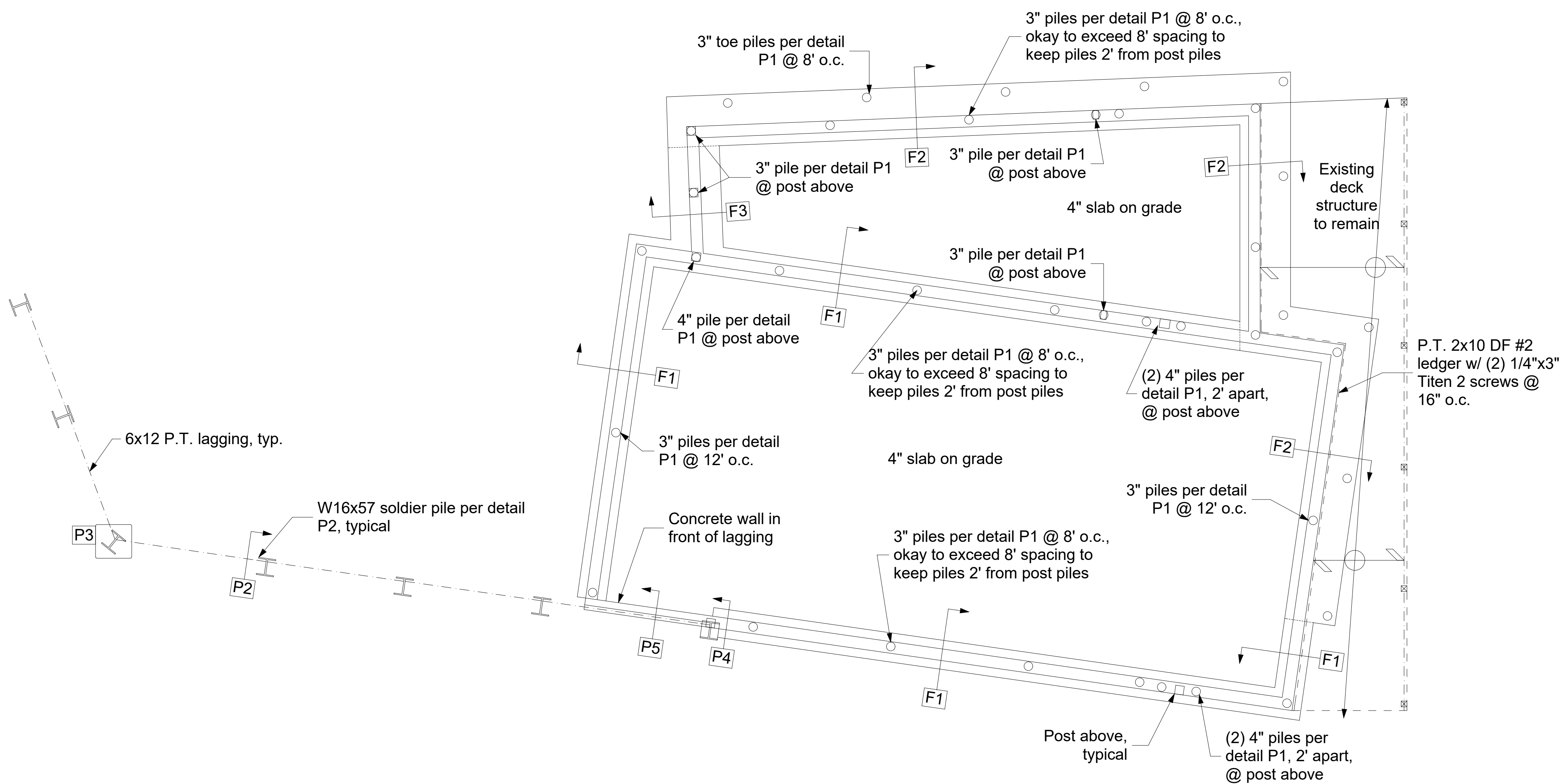
Retrofit HDU Hold Down Typical Detail
3/4" = 1'-0"

Corner Hold Down Detail
1 1/2" = 1'-0"

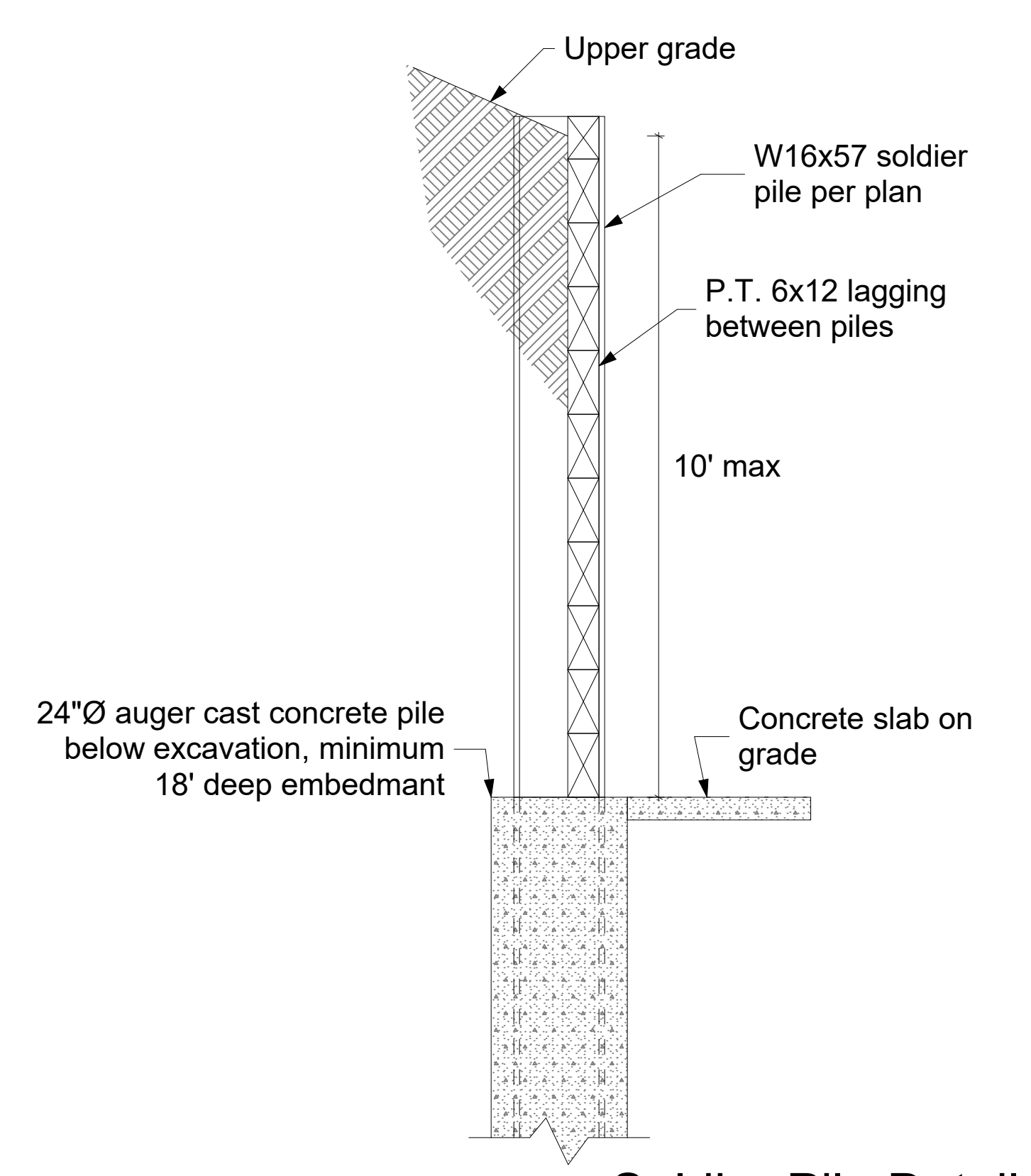
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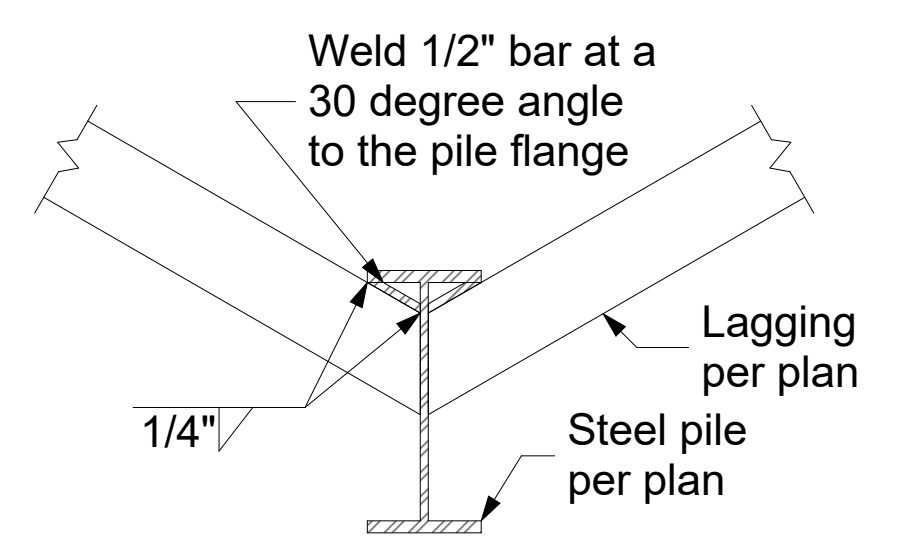
Revisions:
Date: 11/05/20
Sheet: **S2**



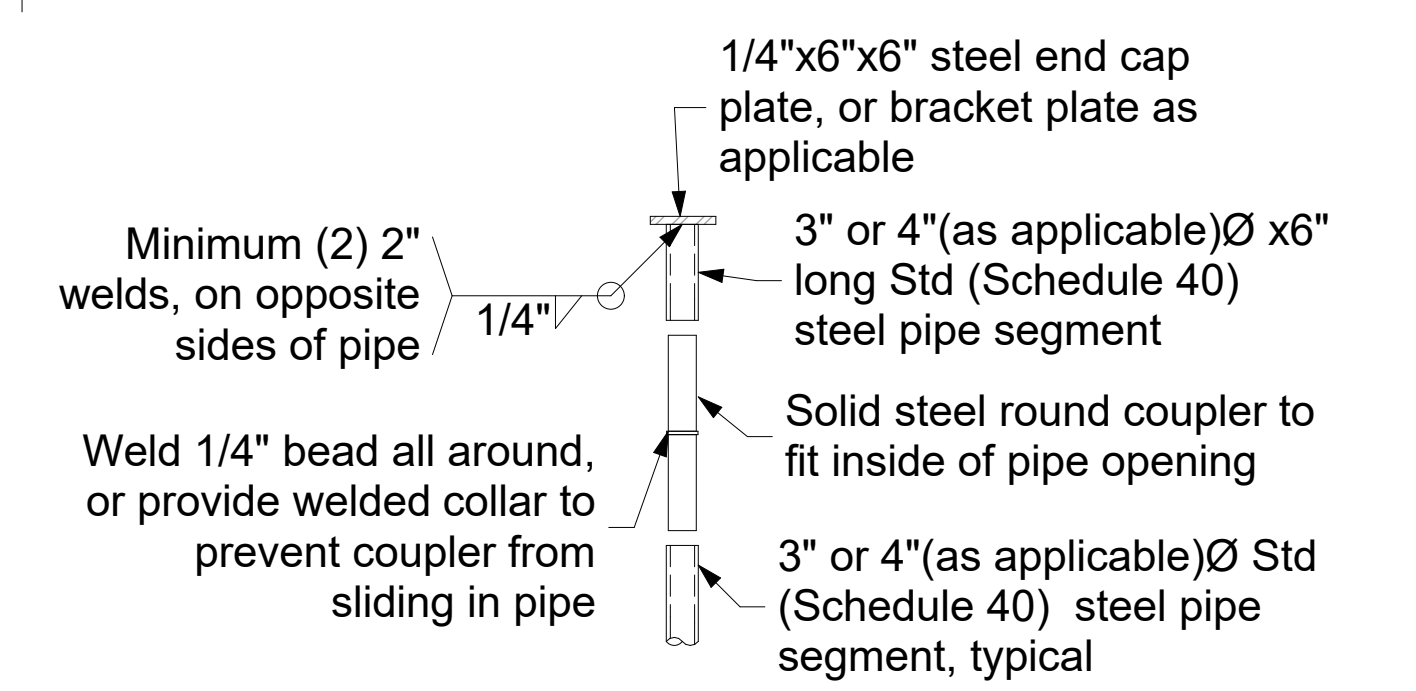
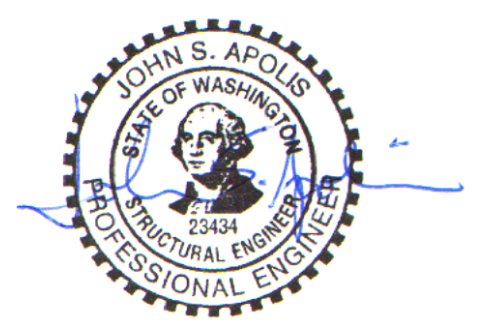
Foundation Plan
1/4" = 1'-0"



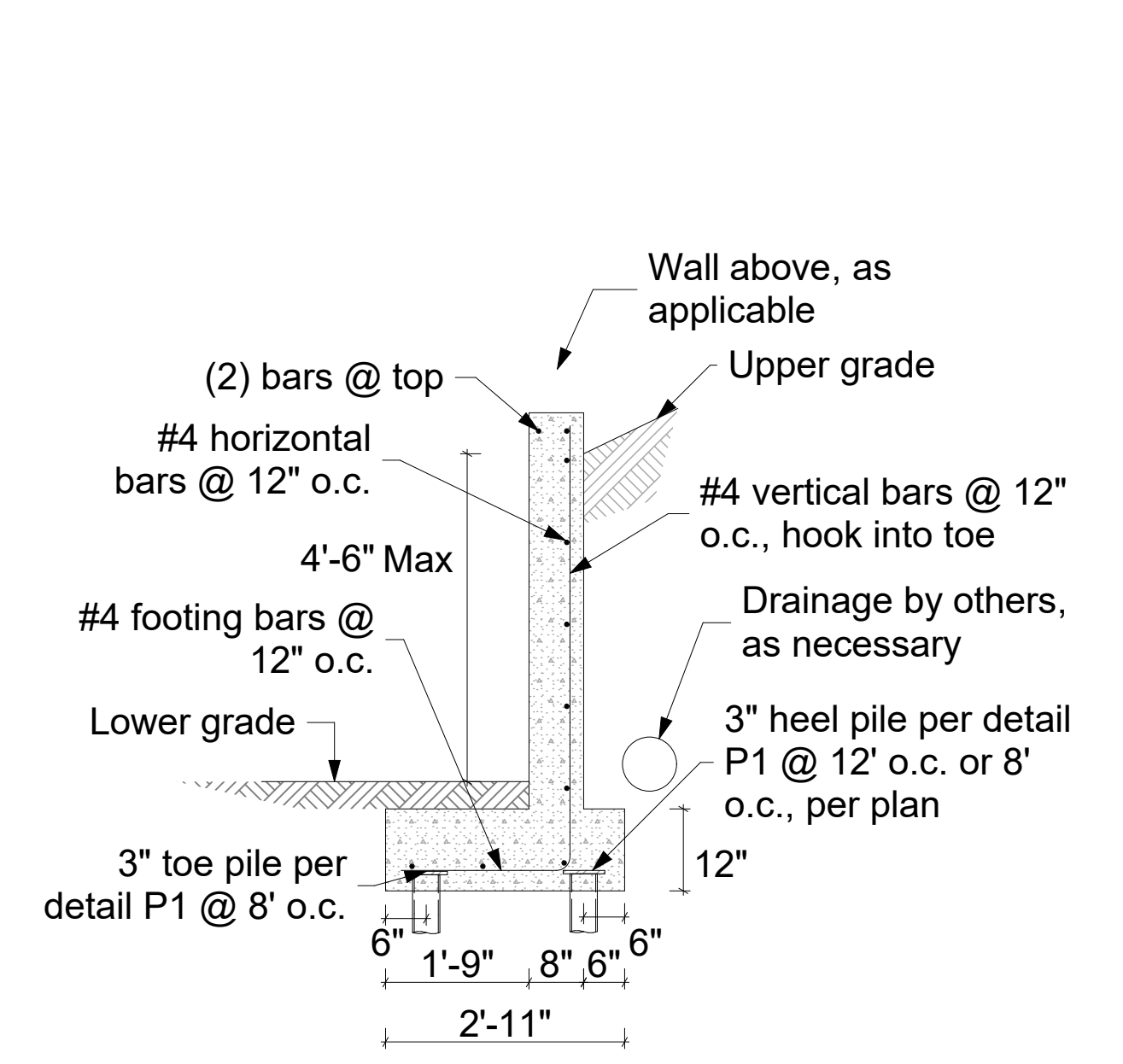
P2 Soldier Pile Detail
1/2" = 1'-0"



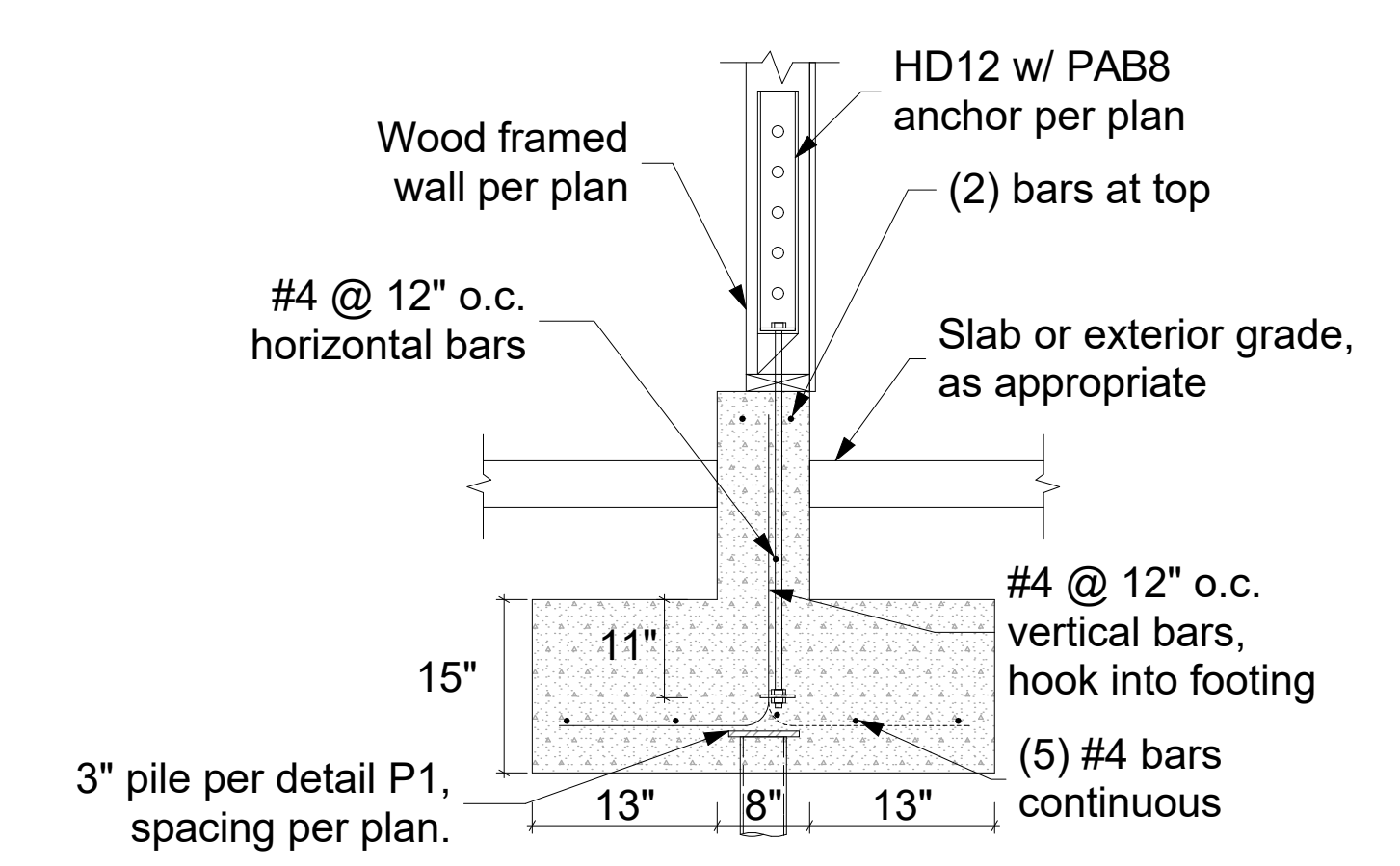
P3 Soldier Pile Angled Lagging Detail
1" = 1'-0"



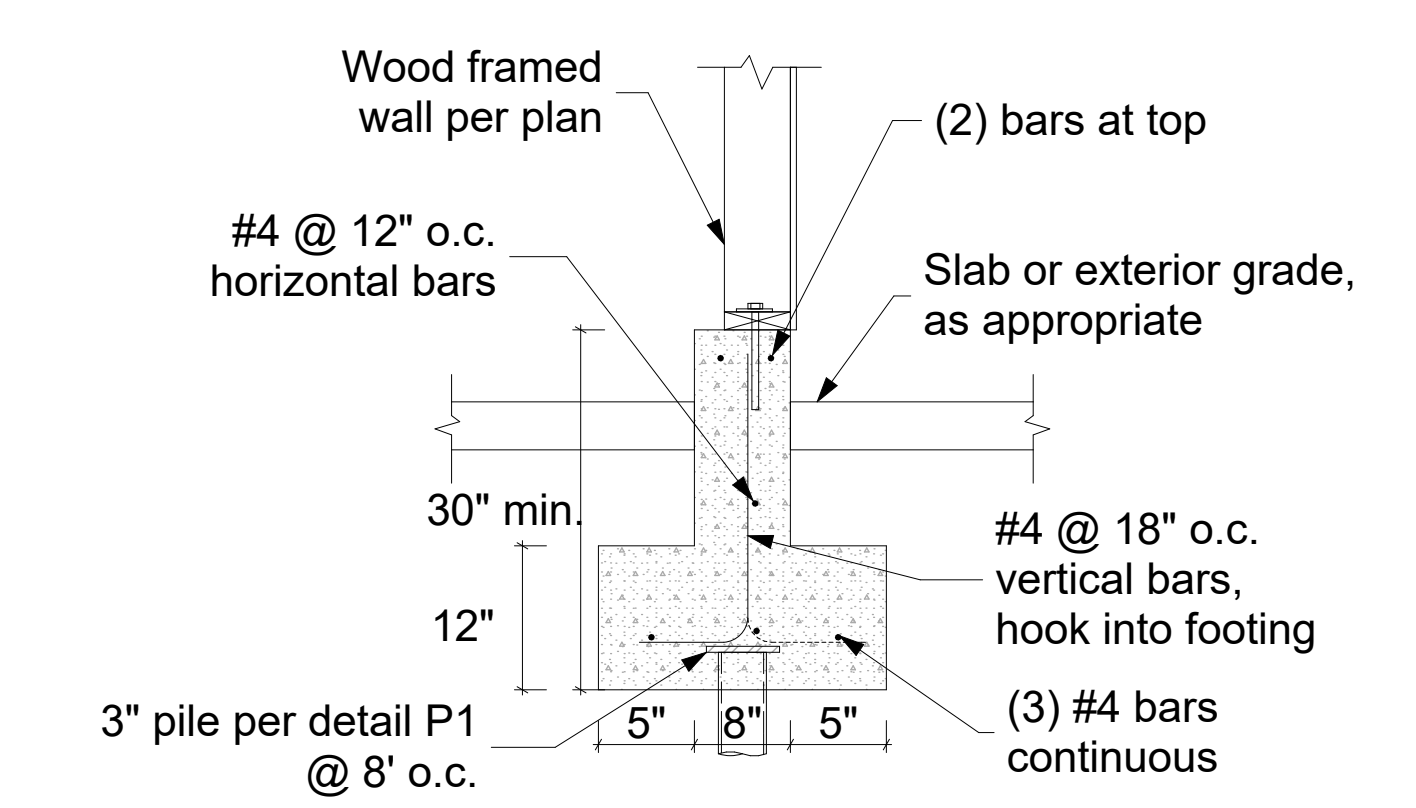
P1 Steel Pipe Pile Detail
1" = 1'-0"



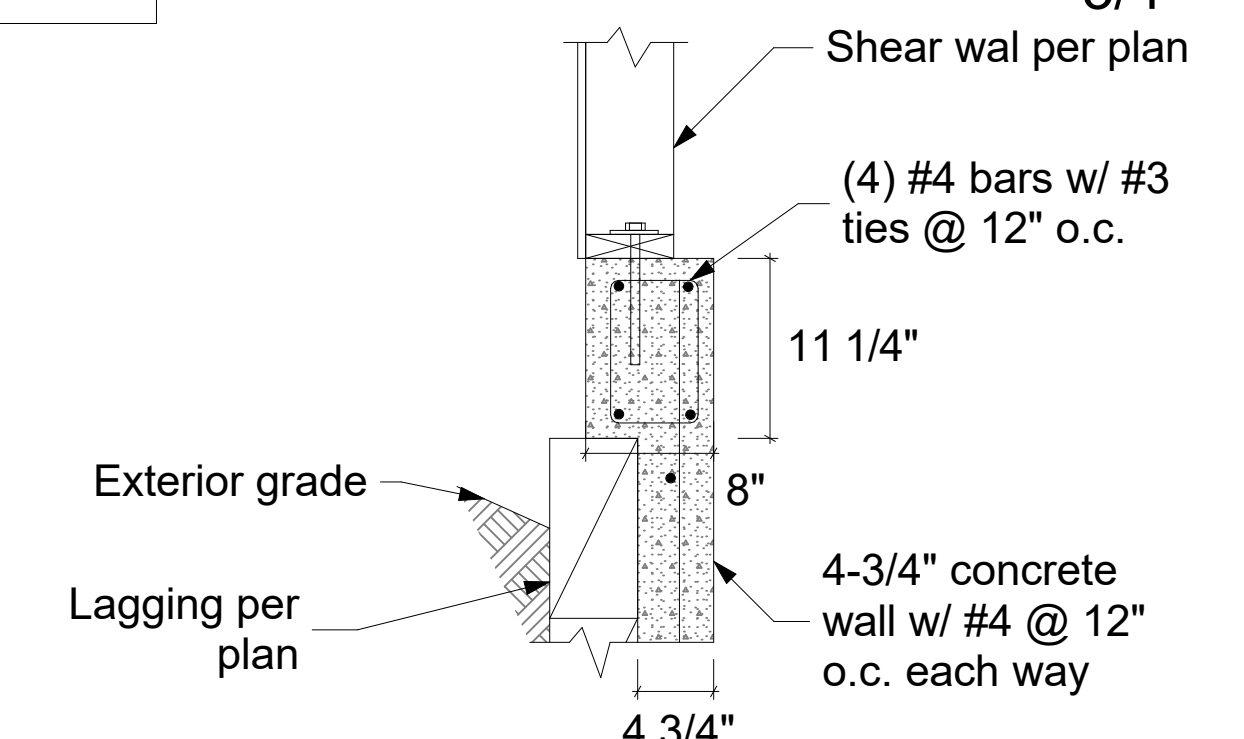
F2 Short Retaining Wall Detail
1/2" = 1'-0"



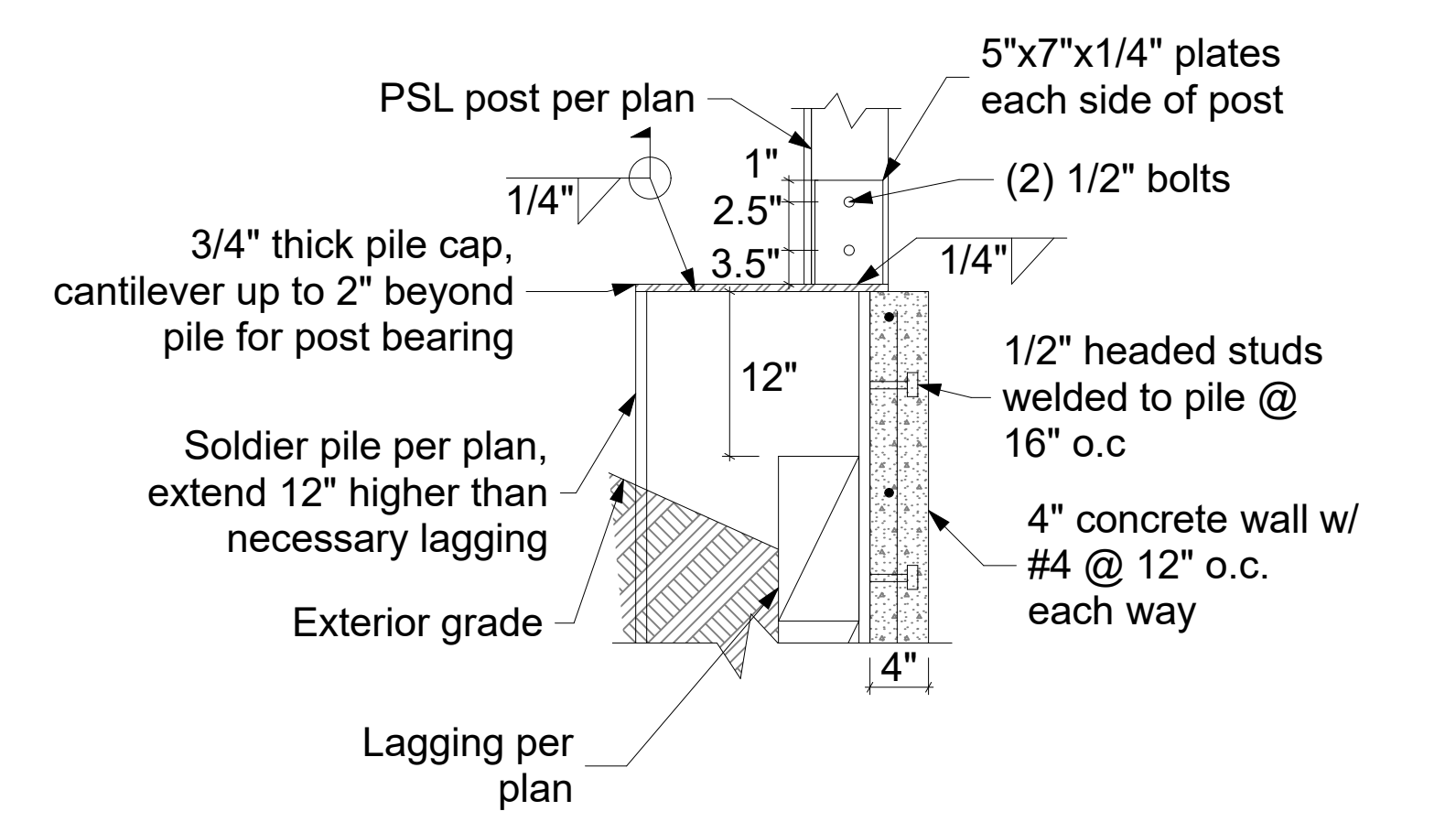
F3 Heavy Hold Down Detail
3/4" = 1'-0"



F1 Typical Foundation Detail
3/4" = 1'-0"



P5 Soldier Pile Wall Detail
1" = 1'-0"



P4 Soldier Pile Bearing Detail
1" = 1'-0"

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Revisions:
Date: 11/05/20
Sheet: **S3**

SHEAR WALL SCHEDULE								
(Lumber for shear walls is HF#2 or better, unless otherwise noted.)								
Type	Material	Edge Nailing	Field Nailing	A.B. Size/Spacing	Plate Nailing	Plates	A35 Spacing	Shear Capacity
Unblocked Wall	15/32" WSP one side, unblocked	8d @ 6"	8d @ 12"	1/2"Ø @ 72"	(2) 16d @ 12"	2x_	24"	100 plf
SW1	15/32" WSP one side	8d @ 6"	8d @ 12"	1/2"Ø @ 48"	(2) 16d @ 9"	2x_	24"	230 plf
SW2	15/32" WSP one side	8d @ 4"	8d @ 12"	1/2"Ø @ 32"	(2) 16d @ 6"	2x_	16"	350 plf
SW3	15/32" WSP one side	10d @ 3"	10d @ 12"	5/8"Ø @ 24"	(2) 16d @ 4"	3x_	12"	550 plf
SW5	15/32" WSP two sides	8d @ 3"	8d @ 12"	5/8"Ø @ 16"	5/8"Ø x 8" Lag @ 16"	3x_	8"	910 plf
SW7	15/32" WSP two sides	10d @ 2"	10d @ 12"	3/4"Ø @ 16"	3/4"Ø x 8" Lag @ 12"	3x_	4"	1420 plf

For shear wall callouts on the Structural Framing Plans: SW x (y) denotes a shear wall type "x" with a minimum length of "y" feet.

• For SW3 and greater: studs, plates, and blocking where two WSP panels abut shall have a minimum 3" nominal thickness. Double 2x_ members may be used for studs if the members are connected by plate nailing. Note 10d nails at WSP panel edges.

• For shear walls with 2 layers of sheathing: Both layers of the sheathing may be installed on the same side of the shear wall, provided the joints between sheathing panels for the two layers are offset. End studs, studs at panel joints, and top and bottom plates must be 3x_ or thicker lumber. Nails should be staggered evenly in rows so that no two nails are closer than 1-1/2" apart. Top and bottom plates may be 2x_ lumber if the sheathing extends up or down past the plates to a continuous rim joist, and is nailed there.

• "WSP" refers to "Wood Structural Panel", either plywood or other wood materials.

• Provide double stud minimum at both ends of all shear walls.

• At the roof or top level of any shear wall, "A35 spacing", and all other relevant connector specifications, apply to assemblies at both the top and bottom of the shear wall. At lower levels, apply to the bottom of the wall only.

• Provide floor diaphragm edge nailing per diaphragm schedule through floor plywood into blocking, parallel joist framing, or top plates (whichever applies) of all shear walls.

• Provide 3x_ plates, and 4x_ rim joists, minimum, where lag screws are specified for plate nailing.

• Where shear wall edge nails are spaced closer than 3" o.c., or spaced 3" o.c. with 10d nails, foundation sill plates and all framing members receiving edge nailing from abutting panels shall not be less than a single 3x_ member.

• Where panels are applied on the same face of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset horizontally and vertically to fall on different framing members, or all framing supporting panel edges shall consist of 3 inch nominal or thicker members and the position of nails on each side shall be staggered vertically.

• Provide 4x_ or double 2x_ framing where A35 angles are used on both sides of one piece of wood.

• Where a shear wall terminates above the foundation level (no shear wall below), provide minimum 4x_ blocking or double joist framing (as applicable) below the shear wall. "&" Plate nailing per this schedule shall be nailed into this blocking at the bottom of the shear wall.

• Shear wall nails shall be placed no closer than 3/8" from a panel edge or perpendicular face of stud.

• Maximum spacing between nails shall not exceed 12".

• Shear wall nailing shall be common or galvanized box nails, unless lag screws are noted. Galvanized nails shall be hot dipped or tumbled.

• Lag screw plate connectors shall penetrate 3.5" minimum, and plates or beams receiving lag screws shall have a minimum width of 3.5".

• Where hold downs are specified, the shear wall bolt shall be located within 6 inches of the end of the shear wall, unless otherwise approved by the engineer of record. Minimum end studs shall be as specified in the most recent Simpson catalog.

• Shear wall edge nailing through shear wall sheathing shall be provided into all studs attached to a hold down.

• Retrofit anchor bolts shall have a minimum embedment of 5" into the concrete foundation.

• Cast in place anchor bolts shall have a minimum embedment of 7" into the concrete foundation.

• For SW3 and greater, foundation anchor bolt plate washers shall extend to within 1/2" of the edge of the sheathing.

• Plate nails shall be nailed into a solid wood rim joist.

• 2x_ plates may be substituted for 3x_ plates if panels are nailed with edge nailing directly to the rim joist.

• Where 3x_ plates are used, (2) 20d common nails must be used instead of (2) 16d common nails to connect studs to the bottom plate.

• Where Roof ventilation is required over a shear wall, see roof ventilation detail.

Diaphragm Schedule					
(Lumber for diaphragm construction is HF#2 or better, unless otherwise noted.)					
Type	Material	Edge Nailing	Field Nailing	Edge Blocking	Remarks
Roof	15/32" CDX 24/0	8d @ 6" o.c.	8d @ 12" o.c.	no	Minimum Standard
Floor	23/32" CDX 48/24	8d @ 6" o.c.	8d @ 12" o.c.	no	Minimum Standard

• "WSP" refers to "Wood Structural Panel", either plywood or other wood materials.

• Rim joists at exterior walls shall be continuous for tension. At rim joist splice locations, provide (2) CS16 horizontal straps, minimum 24"

• Where roof or floor framing is cantilevered over an exterior wall below, provide solid blocking with Diaphragm edge nailing between joists.

• This is the minimum required diaphragm construction. Where otherwise noted on the plans, additional blocking or nailing may be required.

Structural Notes:

Applicable Codes and Standards:

2015 International Building Code (IBC) and other applicable local building codes.
 ASCE/SEI 7-10 - "Minimum Design Loads for Buildings and Other Structures"
 2015 NDS for wood structures.
 American Wood Preservers Bureau - AWPB Standards for Pressure Treated Material.
 American Concrete Institute - ACI 315, ACI 318, ACI 301, ACI 307.
 American Institute of Steel Construction - "Specification for the Design, Fabrication, and Erection of Structural Steel."
 American Welding Society - AWS Structural Welding Code.

Structural design shall be in accordance with the latest edition of above codes and standards. Contractor shall comply with the latest edition of all applicable codes and standards.

Special Inspections:

Special Inspections are required for:
 Steel Pipe Pile Installation
 Soldier Pile Shoring Installation

Design Loads:

Live load: roof 25 psf (snow)
 floors 40 psf
 decks 60 psf
 Wind load: Basic wind speed 110 mph, exposure C, KzT=1.0
 Building Category: Enclosed, Wind Important Factor Iw = 1.0
 Refer to calculation page L1 for design wind forces.
 Internal pressure 5 psf. Components and cladding design per 1609.6.4.1

Seismic loading per IBC Section 1613, Site Class D.
 The basic structural type is a bearing wall system with light framed walls with shear panels. Rw = 6.5 (wood structural panels), soil type D.
 Seismic importance factor I.0, Seismic Use Group I
 Design and Analysis by Simplified Design Procedure
 Peak Ground Accelerations (PGA) based on USGS Hazards Program, by lat/long.
 PGA 1 sec = .494 PGA 2 sec = 1.423
 Seismic base shear = 0.146 * Dead Load

Foundations:

Soil parameters per Geotech Report by PanGeo, Dated October 30, 2020.

Steel Pipe Piles:

Steel pipe piles shall be installed per the Geotech Report by PanGeo, Dated October 30, 2020. The design strength for 3" piles is 12,000 lbs, and for 4" piles is 20,000 lbs. The Structural Steel pipe shall conform to ASTM A53 Grade A, Fy = 35 ksi. 3" or 4" (respectively) diameter schedule 40 pipe may be used. The pipes shall be driven to refusal, defined in the referenced Geotech Report in Table 2.

Piles shall be driven in nominal sections and connected with compression fitted sleeve couplers (see typical detail on below) We discourage welding of pipe joints, particularly when galvanized pipe is used, as we have frequently observed welds broken during driving.

The steel pipe pile refusal shall be witnessed by the geotechnical engineer of record.

Steel Soldier Piles:

Steel wide flange piles shall be installed per the Geotech Report by PanGeo, Dated October 30, 2020.
 The piles shall conform to ASTM A992, Fy = 50 ksi.
 Piles shall be embedded 10' minimum below the bottom of the excavation.
 Below the bottom of the excavation, Active pressure acts on one pile diameter, Passive pressure acts on two pile diameters.
 Active pressure 45 pcf
 Passive pressure 300 pcf

Concrete Retaining Walls:

Active Pressure 35 pcf, or 50 pcf with a 2:1 backslope.
 Lateral Pressure 8H
 Passive Pressure 300 pcf
 Friction coefficient 0.35

Cast in Place Concrete:

Concrete shall attain a minimum compressive strength of 2,500 psi at 28 days (5-½ sack mix). An alternate mix provided by the concrete supplier and pre-approved by the building department is acceptable. Reinforcing steel shall conform to ASTM A-615, Grade 60 (Fy=60,000 psi) for all bars. Provide all wall and footing horizontal bars with 2'-0" x 2'-0" corner bars of the same size at all corners and wall intersections. Minimum lap splice 48 bar diameters.

Concrete protection for reinforcement shall be:
 Concrete exposed to earth or weather 1.5" (#5 & smaller) 2" (#6 & larger)
 Concrete cast against earth 3"
 Slabs 0.75"

Structural steel:

Plates, ASTM A36, Fy=36 ksi. Shapes, ASTM A992, Fy=50 ksi. Structural Steel Pipe per ASTM A53, Fy=35 ksi.

Bolts:

Anchor bolts shall conform to F1554. All other bolts shall conform to ASTM A307. Minimum anchor bolt size and spacing shall be ½" diameter bolts @ 6" o.c. Shear wall anchor bolts per the shear wall schedule.
 For cast-in-place anchors, provide 7" minimum embedment into the new concrete foundation.
 For retrofitted anchors, provide 5" minimum embedment into the existing concrete foundation.
 Epoxy grout with Simpson SET epoxy.
 Provide 3"x3" square x 0.229" thick bolt washers where anchor bolts connect the sill plate to the concrete foundation.

Welding:

Use E70xx electrodes for welding. All fillet welds shall be 3/16" or equal to minimum thickness of member being welded, whichever is greater, unless otherwise shown. All welding shall conform to the provisions of AWS and shall be performed by welders certified in accordance with AWS and WABO.

Wood Framing Specifications:

All sill plates and other wood framing which is in contact with concrete or masonry must be preservative-treated in accordance with AWPAU1 and M4 standards. For anchor bolts connecting wood sill plates to concrete or masonry, provide galvanized steel washers and nuts on top of the sill, minimum washer size 3" x 3" x 1/4" thick.

Where toenails are used for stud wall construction, a minimum of (2) toenails at top and bottom of each stud shall be provided. Toenails shall be 16d nails driven at approximately a 45 degree angle, with a minimum of 1-1/2" of the nail shank shall be embedded in both the stud and the plate. End nails driven through the plate and into the stud end grain are not permitted. Simpson A34 clips at top and bottom of each stud are permitted where correct toenailing is not provided.

Wherever joists bear on a wall or beam, either a continuous rim joist or solid wood blocking must be provided. Blocking shall be connected to the joists with A35 angles at each end. Individual blocks may be omitted to allow for ducting or other openings. Consult with the engineer of record if more than 25% of the blocking is omitted.

Where LVLs are specified with a thickness greater than 1-3/4", the beam may be built up out of multiple 1-3/4" LVL beams connected per truss-joist TJ-9000 specifier's guide.

Unless noted otherwise, the following grades and species shall be used for structural lumber:

2x joists	Hem-Fir #2
2x, 3x, and 4x studs	DF/L standard for plywood or WSP shear walls Hem-Fir standard for other walls
4x and 6x beams	DF-L #2
Microllam LVL lumber	LVL 1.9E, Fb = 2600 psi, Fv = 285 psi (minimums)
Parallam lumber	2.0 WS, Fb = 2900 psi, Fv = 290 psi (minimums)
Glulam lumber	24F-V4 for simple span beams, 24F-V8 for cantilever beams

All framing connections shall be per Table 2304.9.1 of the IBC, unless otherwise noted.

Preservative-Treated Wood and Fasteners:

All wood in contact with concrete or masonry shall be preservative-treated, in accordance with AWPA U1 and M4 standards.

All fasteners installed in preservative-treated wood shall be hotdipped zinc-coated galvanized with a minimum coating weight complying with ASTM A 153.

Fasteners other than nails and timber rivets are permitted to be mechanically deposited zinc-coated with coating weights complying with ASTM B 695, Class 55 minimum. Plain carbon steel fasteners in wood preservative-treated with SBX/DOT or zinc borate are not required to be galvanized.

Plywood Thickness, Grade, and Nailing:

Install plywood sheets with face grain perpendicular to framing. Stagger joints in adjacent sheets. If not otherwise noted, use nailing schedule, Table 2304.9.1 of the IBC.

Manufactured Joists:

"TJI" Joists specified on the plans are prefabricated products manufactured by the Weyerhaeuser Corporation. The contractor shall submit shop drawings and stamped structural design calculations for review. Joist design and shop drawings shall include location and weight of all equipment being supported by these joists. The manufacturer's installation instructions shall be available on the job site at the time of inspection. Other suppliers may be used, upon approval by the engineer of record.

Metal Framing Connectors:

Unless otherwise noted: Metal framing connectors shall be manufactured by the Simpson company, or approved equal. Unless noted otherwise, use U-series joist hangers to match joist size (e.g., U210 for 2x10 joist). Provide H1 or H2.5 hurricane ties, or other connectors with similar capacity, at every roof joist or truss, and H6 or H7 at ends of roof beams and girder trusses. Where supported by wood posts, wood beams shall be connected to the tops of the posts using Simpson AC, PCZ or EPCZ post caps, and to the bottoms of the posts bearing on wood framing using Simpson AC connectors. Where supported by perpendicular beams, wood beams shall be connected by HU-series face mount beam hangers. Provide Simpson AB or PB post bases to connect posts to concrete foundations. Unless otherwise specified, the maximum number of nails or screws should always be installed on any connector.

Drag Strut Note "DS"

Provide a continuous horizontal connection between the indicated beams, walls, and blocking, using the following method.

A horizontal Simpson CMSTC16 strap shall be provided to create this connection. The strap shall extend minimum 3' onto any beam or wall being connected, and shall be continuous over any blocking between joists for the extent of the drag strut. The strap must be nailed using 16d sinkers, with a nailing pattern per Simpson specifications.

The strap may be installed either on top of the plywood floor diaphragm, or connecting a beam or joist, as applicable and feasible.

Beams or joists may be connected to a wall top plate by (8) A35s.

Where no joists occur below the strap, provide 3-1/2" wide by 3-1/2" deep (minimum) solid wood blocking in the floor or roof framing, below the strap, for nailing. The blocking should be attached to the perpendicular joists with Simpson A34 framing anchors at both ends of each block.

Refer to the latest edition of the Simpson Catalog for required nailing and other requirements.

Refer to the Drag Strut Typical Detail provided with these plans.

Hold Down Notes

Convention for showing shear walls and hold downs: Shear walls are shown on the framing plan for the floor above. (For example, first floor shear walls will be shown on the second floor framing plan, and the shear walls for the topmost floor will be shown on the roof framing plan.) Hold downs are located at the bottom of that shear wall, and connect the end of the shear wall to wall framing or a structural beam located in the floor below the shear wall. Contact the engineer of record for clarification if needed.

Hold downs for each floor must be continuously connected to hold downs on the floor below (or to other intermediate wood framing where so indicated), until they are finally connected to the concrete foundation.

Hold downs shall be installed so as to be as far apart as is reasonable. Hold downs may be located on either the near side or the far side of the post or double stud to which they are attached. In no case shall a hold down bolt be located farther than 6" from the end of the shear wall, except with prior written approval of the engineer. Refer to the latest edition of the Simpson Catalog for details.

Where multiple studs are called out at a hold down, nail studs together with (2) 16d nails at 8" o.c. or 1/4" x 3" Simpson SDS Screws at 12" o.c.

Strap Hold Downs:

Provide a vertically oriented strap hold down consisting of one or two of the Simpson vertical strap ties listed below, connecting the end stud or post of the shear wall indicated to new or existing studs in the wall framing below, or to a wood beam supporting the shear wall, where applicable. Straps shall be installed so that the minimum end length is provided to both connected posts or studs. Where a strap is connected to a below, the strap shall be wrapped around the beam until the minimum end length is reached.

CS16 denotes a Simpson CS16 strap, with a minim end length of 14", and (13) 8d nails each end.

CMSTC16 denotes a Simpson CMSTC16 strap, with a minim end length of 25", and (29) 16d sinker nails each end.

Rod Hold Downs:

HDUx denotes a Simpson HDU(2,4,5,8,or 11)-SDS2.5 hold down. For hold downs at new concrete foundations, provide the following bolts.

For HDU2,4,5: Simpson SB5/8x24 may be used, installed per the most recent edition of the Simpson Strong-Tie Literature.

HD12 denotes a Simpson HD12 hold down, connected to a 6x6 DF post with (4) 1" through bolts. A PAB8 may be used, installed per the most recent edition of the Simpson Strong-Tie Literature.



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