

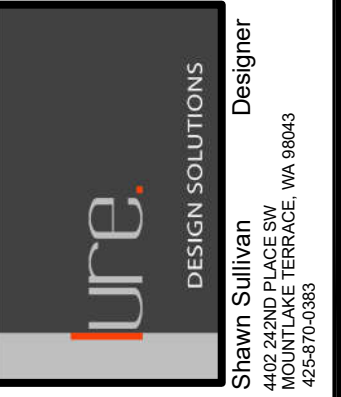
LI RESIDENCE CUSTOM

WEAVER CONSTRUCTION

4657 86TH AVE. SE
 MERCER ISLAND, WA 98040
 PARCEL NUMBER #759810-0545

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

COVER SHEET

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	A0

A0

PERSPECTIVE IMAGE



PROJECT PARTICIPANTS

OWNER: PAUL LI
 PH: (703) 965-9722

CONTRACTOR: WEAVER CONSTRUCTION
 WILLIAM WEAVER
 PH: (408) 348-3095

ENGINEERING: CSES
 EVAN APOLIS
 6311 17TH AVE NE
 SEATTLE, WA 98115
 PH: 206-527-1288

DESIGNER / DRAFTSMAN: LURE DESIGN SOLUTIONS
 SHAWN SULLIVAN
 4402 242ND PLACE SW
 MOUNTLAKE TERRACE, WA
 98043
 PH: (425) 870-0383

CIVIL ENGINEER: CANON
 KATIE ROLLS
 PH: (310) 382-5133

ARBORIST: BENJAMIN MARK
 11415 NE 128TH ST, SUITE 110
 KIRKLAND, WA 98034
 PH: (425)-820-3420

PROJECT DATA

JURISDICTION: MERCER ISLAND

PROJECT ADDRESS: 4657 86TH AVE SE
 MERCER ISLAND, WA 98040

TAX ACCOUNT NO.: #759810-0545

PROPERTY TYPE: RESIDENTIAL (R)
 ZONING: R 9.6

LOT SIZE: 10,000 SF -- .23 ACRES

OCCUPANCY GROUP: R

CONSTRUCTION TYPE: TYPE V-NR

SEWER: IN STREET

WATER: IN STREET

GAS: IN STREET

ENVIRONMENTAL: NONE

DRAINAGE: DOWNSPOUT TO
 TIGHTLINE/SANITARY SEWER

DRAWING INDEX

- ARCHITECTURAL**
- A0 COVER
 - A1.0 SITE PLAN
 - A1.1 EXCLUDED GFA - DIAGRAM AND CALCS
 - A1.2 GFA - DIAGRAM AND CALCS
 - A1.3 LOT COVERAGE - DIAGRAM AND CALCS
 - A1.4 HARDSCAPE - DIAGRAM AND CALCS
 - A1.5 AVERAGE BUILDING HEIGHT STUDY
 - A2.1 LOWER FLOOR PLAN
 - A2.2 UPPER FLOOR PLAN
 - A2.3 ROOF PLAN
 - A3.1 EXTERIOR ELEVATIONS
 - A3.2 EXTERIOR ELEVATIONS
 - A4.1 BUILDING SECTIONS
 - A4.2 BUILDING SECTIONS
 - A4.3 BUILDING SECTIONS
 - A4.4 BUILDING SECTIONS
 - A5.1 WALL SECTIONS
 - A5.2 WALL SECTIONS
 - A5.3 WALL SECTIONS
 - A6.1 WINDOW AND DOOR SCHEDULE
 - A6.2 WINDOW AND DOOR SYSTEMS / TYPES
 - A7.1 STAIR PLANS AND ELEVATIONS
 - A7.2 STAIR DETAILS
 - A7.3 STAIR DETAILS
 - A7.4 STAIR DETAILS

- SURVEY**
- SHT-1 TOPO-SURVEY

- STRUCTURAL**
- S1 FOUNDATION PLAN
 - S2 UPPER FLOOR FRAMING AND GROUND FLOOR WALL PLAN
 - S3 ROOF FRAMING AND UPPER FLOOR WALL PLAN
 - S4 STRUCTURAL DETAILS
 - S5 STRUCTURAL DETAILS
 - S6 STRUCTURAL DETAILS / SHEAR WALL SCHEDULE

- CIVIL**
- C1 TITLE SHEET
 - C2 DRAINAGE AND BMP PLAN
 - C3 UTILITY CONNECTIONS PLAN
 - C4 GRADING AND DRAINAGE DETAILS
 - C5 TESC PLAN
 - C6 TESC NOTES
 - C7 TESC DETAILS
 - C8 TESC DETAILS

- TREE REPLANTING PLAN**
- L1.0 TREE REPLANTING PLAN

SQUARE FOOTAGE

LOWER FLOOR	
(INCLUDES 82 SF / 500 SF ADU)	2364 SF
UPPER FLOOR	1623 SF
TOTAL	3987 SF
GARAGE	580 SF
REAR COVERED PATIO	334 SF

PROJECT DESCRIPTION

DEMO / REMOVE AN EXISTING SINGLE STORY RESIDENCE WITH ATTACHED GARAGE, THE EXISTING FOUNDATION AND LOWER FLOOR CONCRETE SLAB WILL BE REMAIN AND BE MODIFIED AS REQUIRED TO ACCOMMODATE THE NEW STRUCTURE. TREES ARE PROPOSED TO BE REMOVED AND ARE IDENTIFIED IN THE ARBORIST REPORT.

A PROPOSED NEW 3987 SQUARE TWO STORY RESIDENCE W/ AN ATTACHED (2) CAR GARAGE, REAR COVERED PATIO AND A 500 SF ADU WILL BE CONSTRUCTED. SITE IMPROVEMENTS TO INCLUDE A NEW CONCRETE DRIVEWAY AND A NEW SIDEWALK ACCESSING THE MAIN ENTRY TO THE HOME.

LEGAL DESCRIPTION

SCHMIDS VITUS E SEATTLE ACRE TRS S 80 FT OF E 125 FT
 PLAT BLOCK: 14
 PLAT LOT: 5

CODE SUMMARY

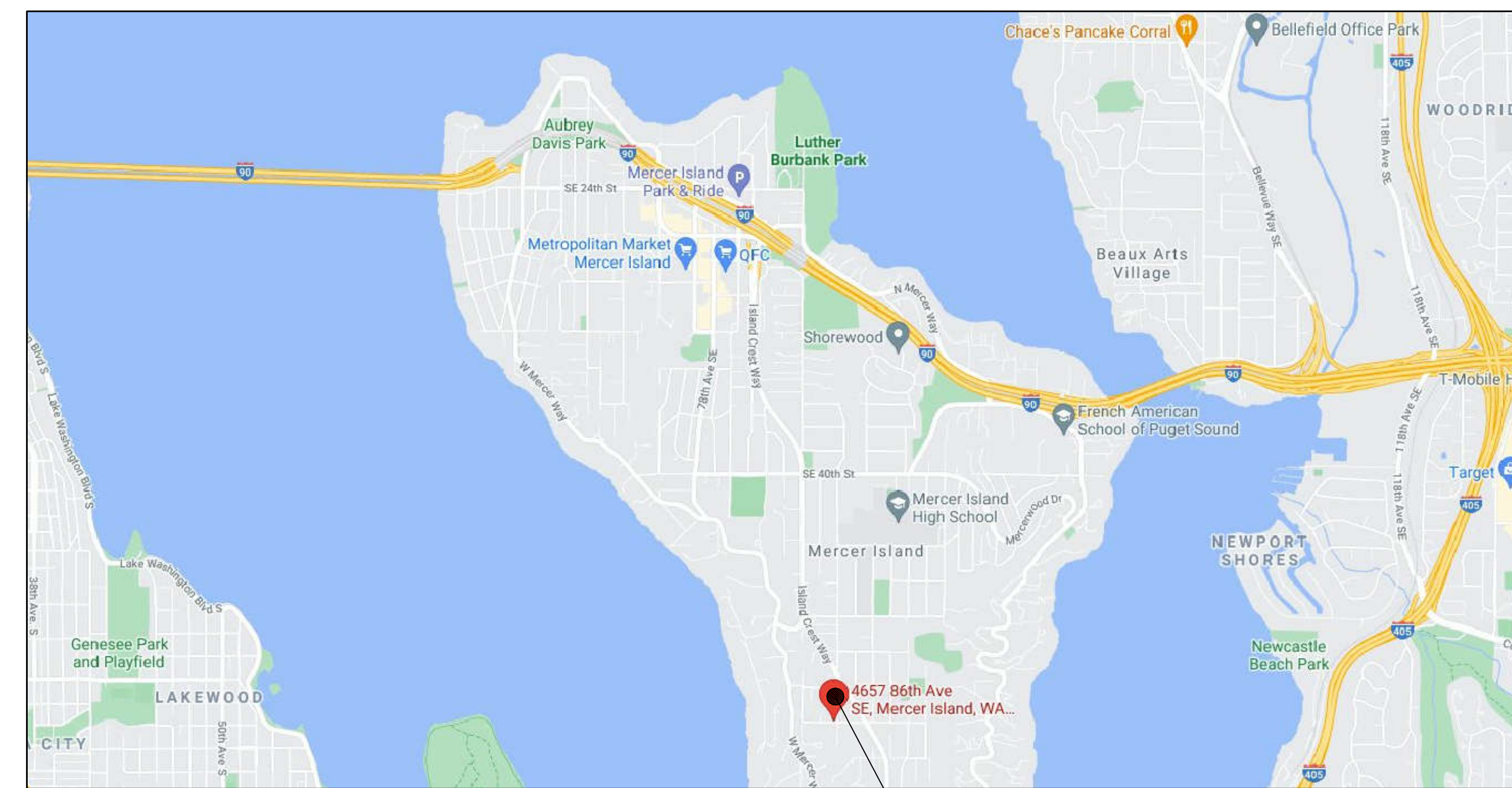
- MERCER ISLAND CITY CODE (MIC)
- 2018 INTERNATIONAL BUILDING CODE (IRC)
- 2018 INTERNATIONAL MECHANICAL CODE (IMC)
- 2018 INTERNATIONAL FIRE CODE (IFC)
- WASHINGTON STATE ENERGY CODE (WSEC)
- 2018 UNIFORM PLUMBING CODE (UPC)

SYMBOLS

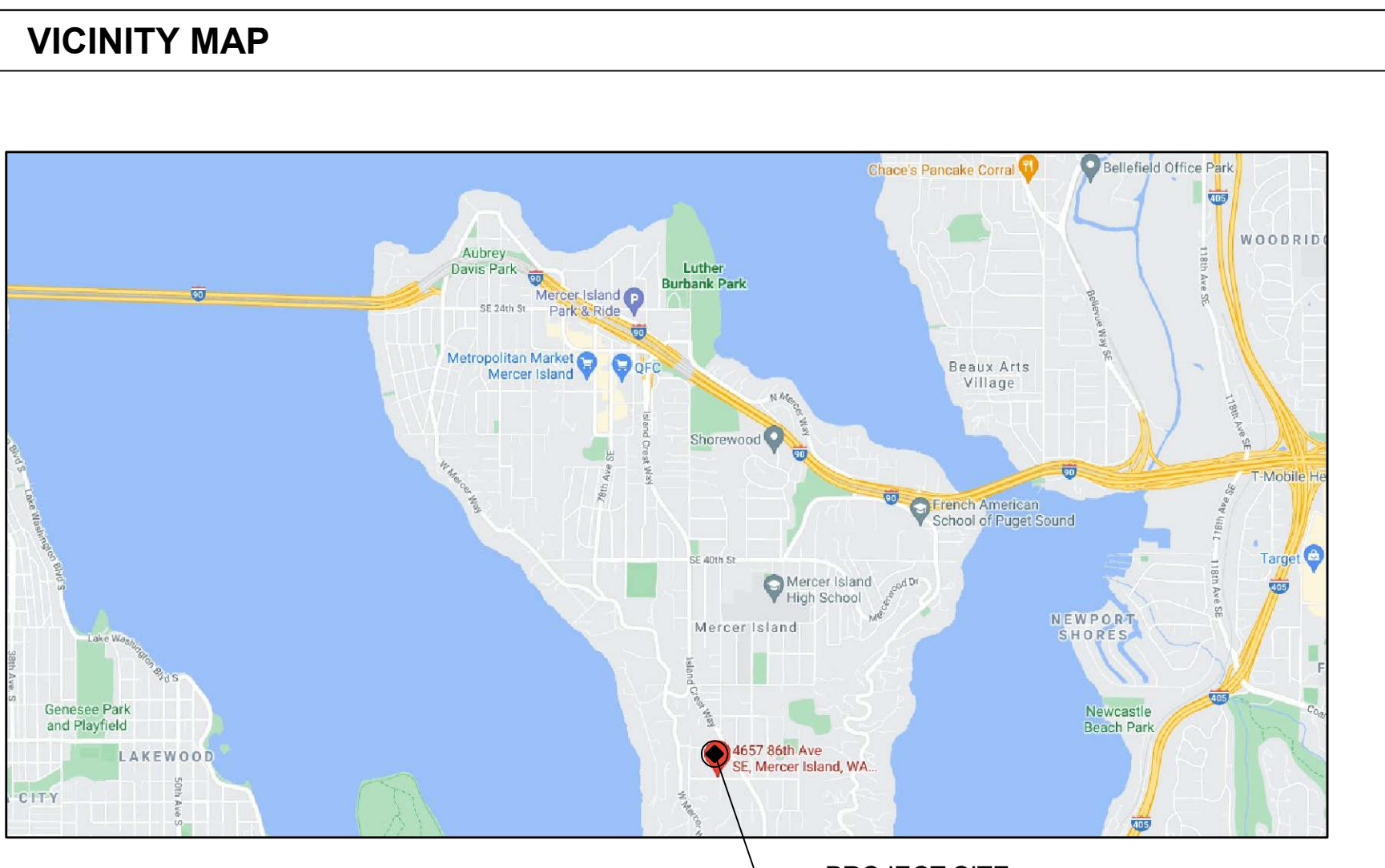
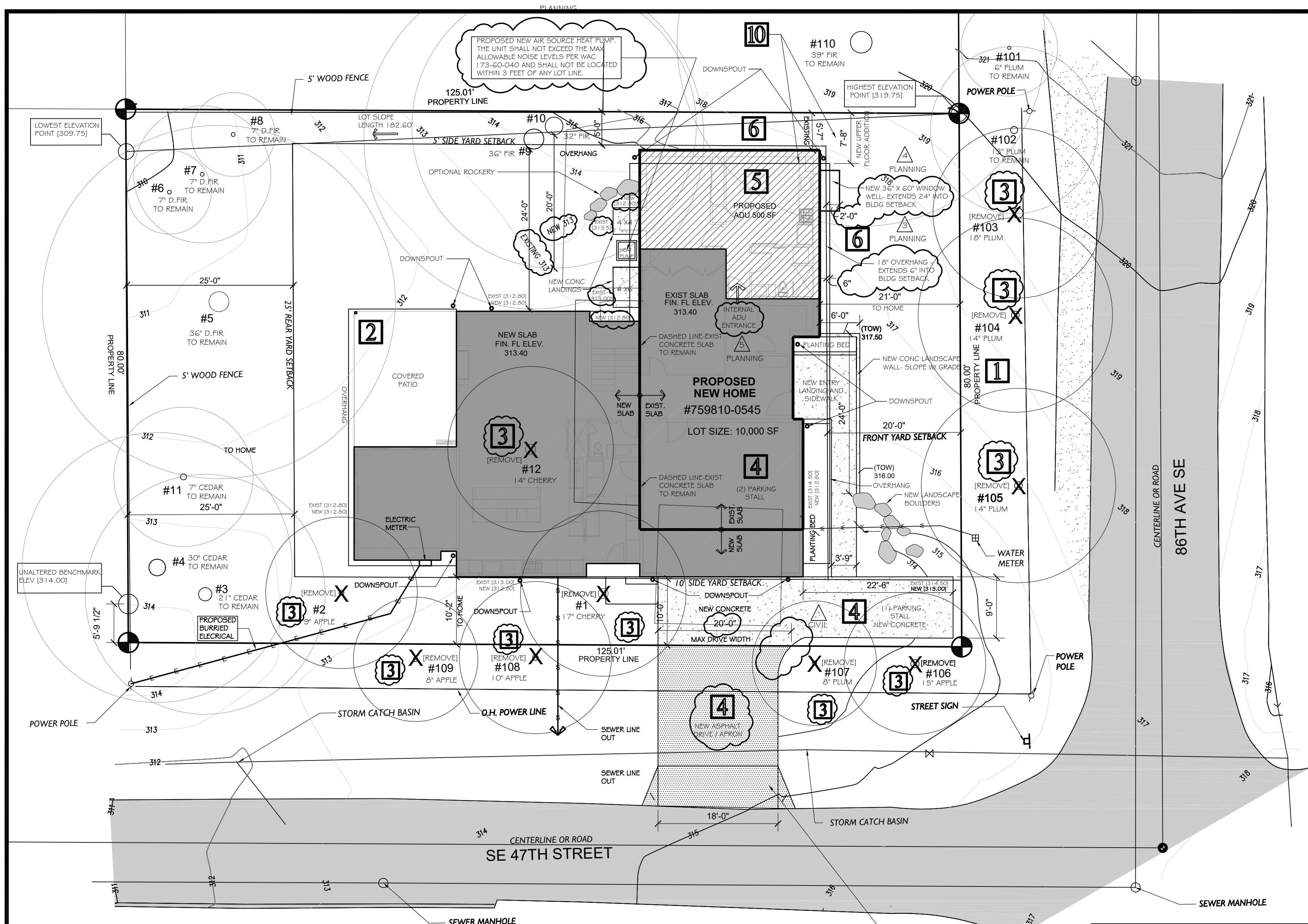
BUILDING SECTION OR WALL SECTION REFERENCE		DRAWING NUMBER		REVISION REFERENCE		REVISION NUMBER
EXTERIOR ELEVATION REFERENCE		DRAWING NUMBER		STRUCTURAL REFERENCE GRIDS		
INTERIOR ELEVATION REFERENCE		DRAWING NUMBER		NOTE: GRID LINES LOCATE FACE OF FRAMING AND/OR FOUNDATION STEM WALLS UNO		
DETAIL REFERENCE		DRAWING NUMBER		NORTH ARROW		
DOOR REFERENCE		REFERENCE LETTER		STAIR DIRECTION, # RISERS & TREADS		
WINDOW REFERENCE		REFERENCE NUMBER		ROOM NAME & NUMBER		
WALL TYPE		WALL TYPE		EQUIPMENT NUMBER		
KEY NOTE REFERENCE		REFERENCE NUMBER		CENTER LINES, FLOOR LINES AT EXTERIOR ELEVATIONS, PROJECTED LINES		
CASEWORK REFERENCE		SCHEDULE NUMBER		PROPERTY LINES, BOUNDARY LINES		
				HIDDEN LINES		
				BREAK LINES		

	MASONRY
	CONCRETE
	INSULATION (LOOSE OR BATT)
	INSULATION (RIGID)
	EARTH
	SAND / PLASTER / MORTAR
	ROCK FILL
	METAL (LARGE SCALE)
	GYPSUM WALLBOARD
	FINISHED WOOD
	STRUCTURAL WOOD (CONTINUOUS MEMBER)
	STRUCTURAL WOOD (NON-CONTINUOUS MEMBER)
	PLYWOOD
	TILE (CERAMIC)

VICINITY MAP



PROJECT LOCATION



PROJECT PARTICIPANTS

OWNER:	PAUL LI PH: (703) 965-9722
CONTRACTOR:	WEAVER CONSTRUCTION WILLIAM WEAVER PH: (408) 348-3095
ENGINEERING:	CSES EVAN APOLIS 6311 17TH AVE NE SEATTLE, WA 98115 PH: 206-527-1288
DESIGNER / DRAFTSMAN:	LURE DESIGN SOLUTIONS SHAWN SULLIVAN 4402 242ND PLACE SW MOUNTLAKE TERRACE, WA 98043 PH: (425) 870-0383
CIVIL ENGINEER:	CANON KATIE ROLLINS PH: (310) 382-5133
ARBORIST:	BENJAMIN MARK 11415 NE 128TH ST, SUITE 110 KIRKLAND, WA 98034 PH: (425)-820-3420

PROJECT DATA

JURISDICTION:	MERCER ISLAND
PROJECT SITE:	4657 86TH AVE SE MERCER ISLAND, WA 98040
TAX ACCOUNT NO.:	#759810-0545
PROPERTY TYPE:	RESIDENTIAL (R)
ZONING:	R 9.6
LOT SIZE:	10,000 SF-- .23 ACRES
OCCUPANCY GROUP:	R
ENVIRONMENTAL:	NONE
WATER:	IN STREET
SEWER:	IN STREET

SQUARE FOOTAGE INFO.

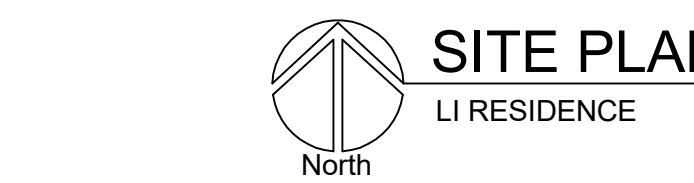
LOWER FLOOR INCLUDES 82 SF / 500SF ADU	2364 SF
UPPER FLOOR	1623 SF
TOTAL	3987 SF
GARAGE	580 SF
REAR COVERED PATIO	334 SF

LEGAL DESCRIPTION

SCHMIDS VITUS E SEATTLE ACRE TRS S 80 FT OF E 125 FT PLAT BLOCK: 14 PLAT LOT: 5

KEY DESIGN POINTS SEE SHEETS A1.1 AND A 1.2 FOR CODE STUDY INFORMATION

1 YARD REQUIREMENTS: - 86TH AVE SE IS THE FRONT YARD - BUILDING SET BACKS: 20FT FRONT, 25FT REAR AND TOTAL SUM OF 15FT FOR SIDE YARDS	6 GROSS FLOOR AREA (GFA): (SEE SHEET A1.2 FOR DIAGRAMS AND CALCULATIONS) - THE GROSS FLOOR AREA = 40% MAX OF LOT SIZE - LOT SIZE IS 10000 SF. 10000 X .40 = 4000 SF - MAX ADU OF 500 SF INCREASE ALLOWED - ALLOWABLE GFA : 4000 + 500 = 4500 SF EXCLUDED GFA : (SEE SHEET 1.1 FOR DIAGRAMS AND CALCULATIONS) - A PORTION OF THE LOWER FLOOR IS UNDER GRADE AT THE NORTH EAST CORNER OF THE HOME. - PROPOSED GFA : 4698 SF - TOTAL EXCLUDED: 206.08 SF - TOTAL ADJUSTED ALLOWABLE: 4698-206 = 4492 SF < 4500SF
2 NEW CONCRETE FOUNDATION, LANDING WITHIN EXISTING TREE DRIP LINE: - AN ARBORIST REPORT HAS BEEN OBTAINED TO ADDRESS THE FOLLOWING ITEMS BELOW AS WELL AS TO ESTABLISH THE LIMITS OF DISTURBANCE PARAMETERS - THE PROPOSED NEW NORTHWEST CORNER OF THE NEW COVERED PATIO IS LOCATED WITHIN THE DRIP LINE OF THE ADJACENT EXISTING FIR TREE #5 - SEE ATTACHED ARBORIST REPORT FOR DETAILED INFORMATION	7 LOT COVERAGE: (SEE SHEET A1.3 FOR DIAGRAMS AND CALCULATIONS) - LOT SIZE IS 10000 SF. - SITE SLOPE WAS CALCULATED TO BE LESS THAN - 15% THUS 40% LOT COVERAGE MAX - ALLOWABLE LOT COVERAGE: 10000 X .40 = 4000 SF OR 40%
3 EXISTING TREES / PROPOSED TREE REMOVAL / REPLANTING - TREES PROPOSED TO BE REMOVED DUE TO NEW CONSTRUCTION ACTIVITY- (#1, #2 AND #12) THESE TREES WILL BE REPLACED WITH NEW TREES- SEE ATTACHED REPLANTING PLAN - (#106, #108 AND #109) SEE IN LEIU OF REPLACEMENT WILL BE REQUESTED FOR THESE TREES- SEE ATTACHED REPLANTING PLAN - TREES PROPOSED TO BE REMOVED DUE TO BE UNHEALTHY / NON-VIABLE TREES- (#103, #104, #105 AND #107) - THESE TREES ARE NOT PROPOSED TO BE REPLACED - ALL OTHER EXISTING TREES TO REMAIN AND BE PROTECTED DURING CONSTRUCTION - SEE ATTACHED ARBORIST REPORT FOR DETAILED INFORMATION	8 HARDSCAPE: (SEE SHEET A1.4 FOR DIAGRAMS AND CALCULATIONS) - HARDSCAPE= REQUIRED TO BE MAX. OF 9% (LOT IS 10,000 SF) - 60% LANDSCAPE AREA REQ'D...DRIVEWAYS AND DRIVING SURFACES PROHIBITED IN LANDSCAPE AREA - ALLOWABLE HARDSCAPE: 10000 X .09 = 900 SF OR 9% - PROPOSED HARDSCAPE: 255 SF OR 3%
4 DRIVEWAY ACCESS / PARKING: - THE EXISTING DRIVEWAY WILL BE REMOVED/ DEMOED AND A NEW 18' WIDE CONC. DRIVEWAY INSTALLED. - NEW DRIVEWAY ACCESS IS PROPOSED AT 18' WIDE AND IN SIMILAR LOCATION TO EXISTING DRIVEWAY. - A NEW DRIVEWAY / APRON WILL BE INSTALLED AS REQUIRED. SEE CIVIL ENGINEER DRAWINGS FOR DETAILED INFORMATION. THE PORTION OF THE DRIVEWAY AND APRON LOCATED IN THE ROW WILL BE ASPHALTED - (2) PARKING STALLS ARE PROVIDED INSIDE GARAGE - (1) EXTERIOR PARKING STALL IS PROVIDED AS SHOWN	9 BUILDING HEIGHT LIMITS - (SEE SHEET A1.5 FOR DIAGRAMS AND CALCULATIONS) - NO BUILDING SHALL EXCEED 30 FT IN HEIGHT ABOVE THE AVERAGE BUILDING ELEVATION TO THE HIGHEST POINT OF THE ROOF - THE MAX BUILDING FACADE HEIGHT ON THE DOWN HILL SIDE OF A SLOPING LOT SHALL NOT EXCEED 30 FEET IN HEIGHT. THE BUILDING FACADE HEIGHT SHALL BE MEASURED FROM THE EXISTING GRADE, WHICHEVER IS LOWER, AT THE FURTHEST DOWNHILL EXTENT OF THE PROPOSED BUILDING, TO THE TOP OF THE EXTERIOR WALL FACADE SUPPORTING THE ROOF FRAMING, RAFTERS, TRUSSES ETC. - AVERAGE BUILDING ELEVATION = 313.89 (ABE) - MAX BUILDING HEIGHT = 343.89 (MAX)
5 PROPOSED ADU - ADU UNITS MUST NOT EXCEED 500 SF - A 500 SF ADU IS PROPOSED TO BE LOCATED IN THE NORTH EAST PORTION OF THE LOWER FLOOR. - A SEPARATE ENTRANCE IN NOT PROPOSED - ALLOWABLE GFA CAN BE INCREASED BY TO 45% THUS 4500 SF	10 SIDE YARD DEPTH REQUIREMENTS - THE EXISTING FOUNDATION OF THE LOWER FLOOR IS TO REMAIN. THE PROPOSED NON-GABBLED (NO OVERHANG) ROOF HEIGHT IS (23') FROM LOWEST GRADE. THIS IS OVER THE 15 FT ALLOWED THUS THE PROPOSED SECOND STORY WILL STEP BACK 2'-0" TO ACCOMMODATE THE REQUIRED 7'-6" SETBACK.



WATER METER / SUPPLY

PROVIDE NEW OR UPSIZED WATER AND OR WATER SUPPLY LINE

- 1" MIN. METER SIZE
- 1.25" MIN. SUPPLY LINE
- CONSULT W/ FIRE SPRINKLER CONTRACTOR FOR SIZING REVIEW

CIVIL ENGINEERING

SEE ATTACHED CIVIL ENGINEERING PLANS FOR DRAINAGE / ADDITIONAL SITE WORK INFORMATION

FIRE SPRINKLER / ALARM

- A FIRE SPRINKLER SYSTEM IS REQUIRED PER NFPA 13D
- A MONITORED HOUSEHOLD FIRE ALARM IS REQUIRED PER NFPA 72
- NOR-TECH FIRE SYSTEMS WILL BE DESIGNING THE SYSTEM AND APPLYING FOR A SEPARATE PERMIT

TABLE- R402.1.1 -INSULATION AND FENESTRATION MIN. REQUIREMENTS

FENESTRATION:	U FACTOR .30
SKYLITE:	U-FACTOR .50
ATTIC / CEILING	R-VALUE R49
WOOD FRAMED WALLS (16 O.C.)	R-VALUE R21
FLOOR SYSTEM	R-VALUE R30
BELOW GRADE WALL (CAVITY INSUL W/ THERMAL BREAK)	R-VALUE R30
SLAB ON GRADE (R-VALUE AND MIN. DEPTH)	R10 / 2 FT

ENERGY CODE REQUIREMENTS

PER TABLE R403.3 MEDIUM DWELLING UNIT REQUIRES (6) ENERGY CREDITS

1.1	(.5) CREDITS	*VERTICAL FENESTRATION U = .24
3.5	(1.5) CREDITS	*AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH HSPF OF 11.0
5.1	(.5) CREDITS	*DRAIN WATER RECOVERY SYSTEM
5.5	(2) CREDITS	*HE ELECTRIC WATER HEATER
7.1	(.5) CREDITS	*HE ELECTRIC WATER HEATER
OPTION 1	(1) CREDIT	*FUEL NORMALIZATION CREDIT

TOTAL CREDITS SELECTED- 6 CREDITS

SURVEYS REQUIRED

- 1) AN IMPERVIOUS SURFACE, LOT COVERAGE AND OR HARD SURFACE SURVEY IS REQ'D PRIOR TO FINAL INSPECTION
- 2) A PROPERTY LINE /SETBACK SURVEY IS REQ'D PRIOR TO FINAL INSPECTION

SITE WALLS

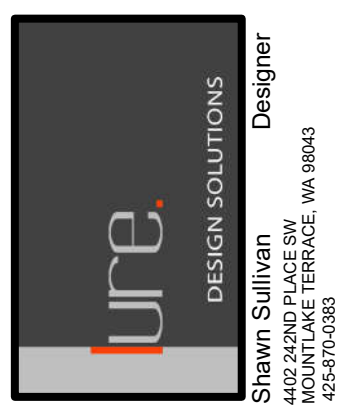
FALL PROTECTION WILL BE PROVIDED IF A VERTICAL HAZARD OF 30" OR GREATER IS WITHIN 36" HORIZONTAL OF A WALKING SURFACE

NOXIOUS WEED REMOVAL

DEVELOPMENT PROPOSALS FOR A NEW SF HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON 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 SF HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

- Misc. Info:
1. FINAL CD SET 10-14-2022
 2. PERMIT REV 03-20-2023
 - 3.
 - 4.
 - 5.

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

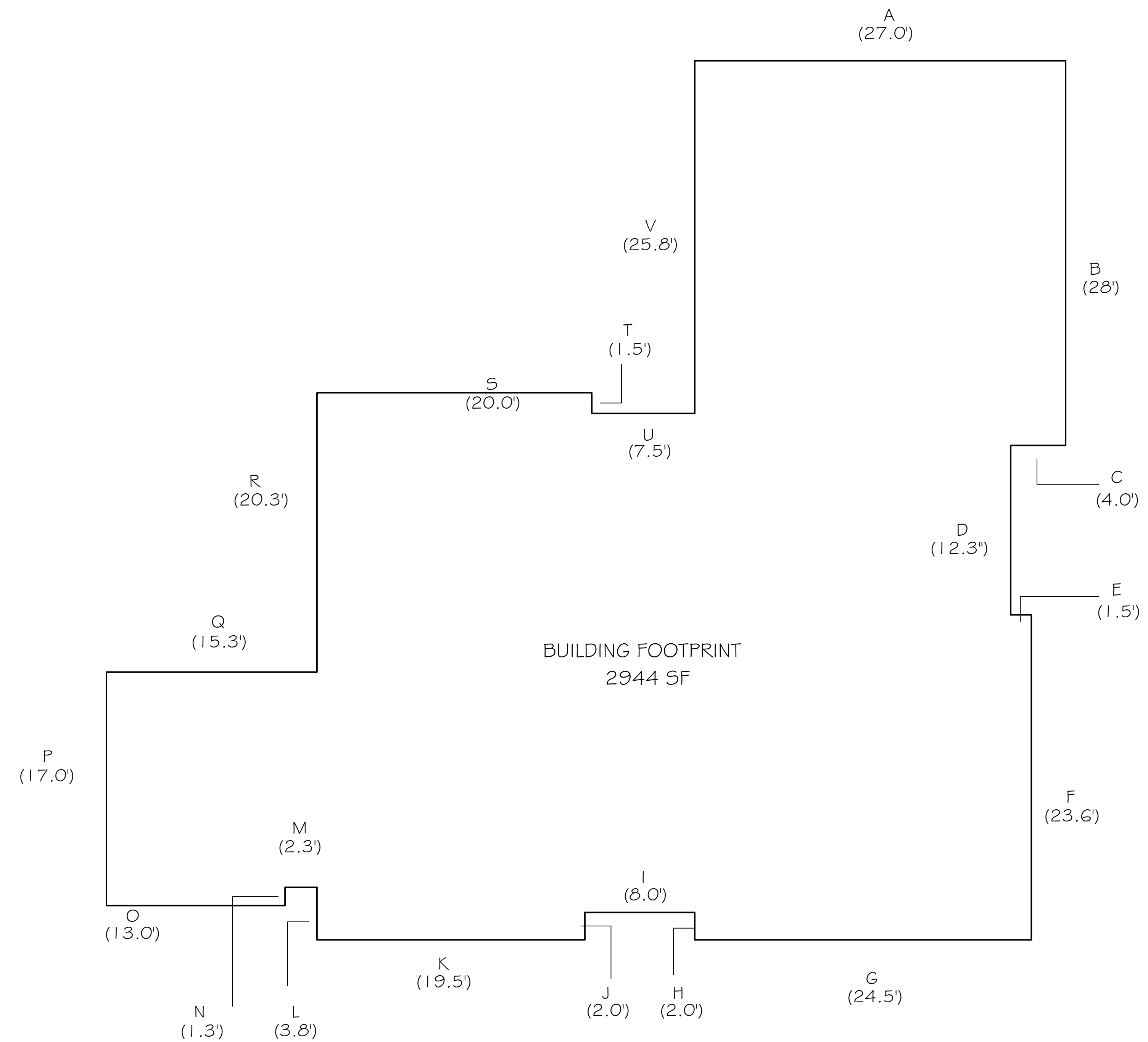
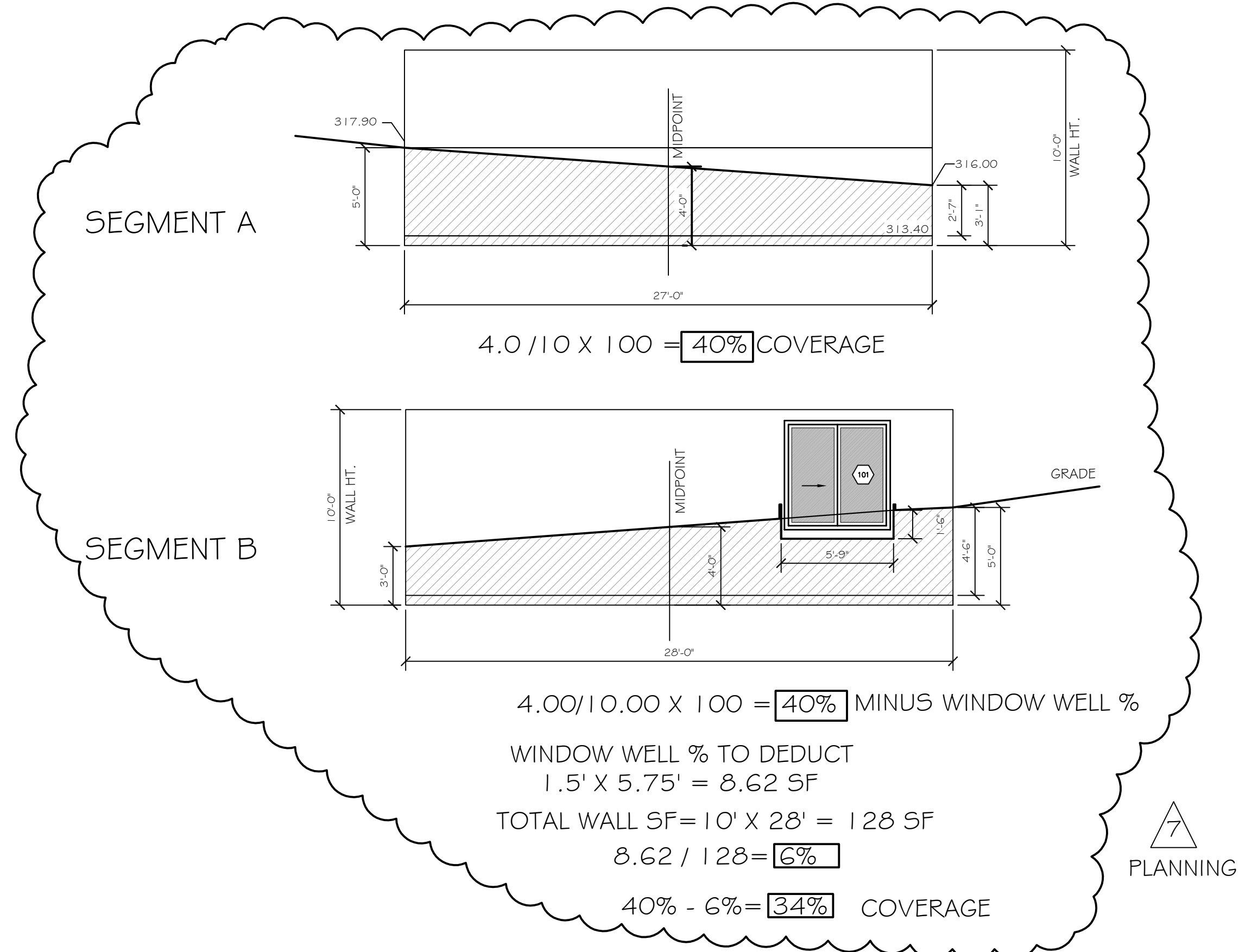
SITE PLAN

DATE: 01-04-2022
DESIGNED: SLS
DRAWN: SLS
JOB NO: 2022- 01
SHEET:

A1.0

TABLE OF WALL LENGTHS AND COVERAGES

WALL SEGMENTS	WALL LENGTH	X COVERAGE =	RESULTS
A	27.0'	40%	10.80
B	28.0'	34%	9.52
C	4.0'	0%	0%
D	12.3'	0%	0%
E	1.5'	0%	0%
F	23.6'	0%	0%
G	24.5'	0%	0%
H	2.0'	0%	0%
I	8.0'	0%	0%
J	2.0'	0%	0%
K	19.5'	0%	0%
L	3.8'	0%	0%
M	2.3'	0%	0%
N	1.3'	0%	0%
O	13.0'	0%	0%
P	17.0'	0%	0%
Q	15.3'	0%	0%
R	20.3'	0%	0%
S	20.0'	0%	0%
T	1.5'	0%	0%
U	7.5'	0%	0%
V	25.8'	0%	0%
TOTAL	280.20'	N/A'	20.32% OF WALLS BELOW GRADE



MAIN FLOOR FOOTPRINT- DIAGRAM
Li Residence- Custom Residence
SCALE: 3/16"=1'-0"

EXLUDED GFA CACULATIONS

FORMULA			
TOTAL BASEMENT AREA	X	SUM OF (WALL SEGMENT COVERAGE X WALL SEGMENT LENGTH)	= PORTION OF EXCLUDED BASEMENT FLOOR AREA
		TOTAL OF ALL WALL LENGTHS	
2944 SF	X	$\frac{20.32}{280.2}$	
2944 SF	X	.07	= 206.08

206 SF EXCLUDED FROM THE GFA

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

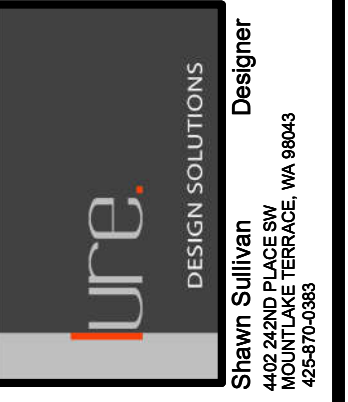
EXCLUDED GFA CALCULATIONS

DATE: 01-04-2022
DESIGNED: SLS
DRAWN: SLS
JOB NO: 2022- 01
SHEET:

A.1.1

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

GFA CALCULATIONS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A1.2

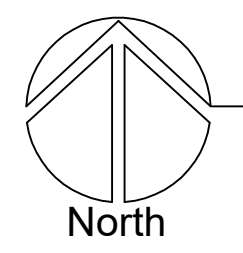
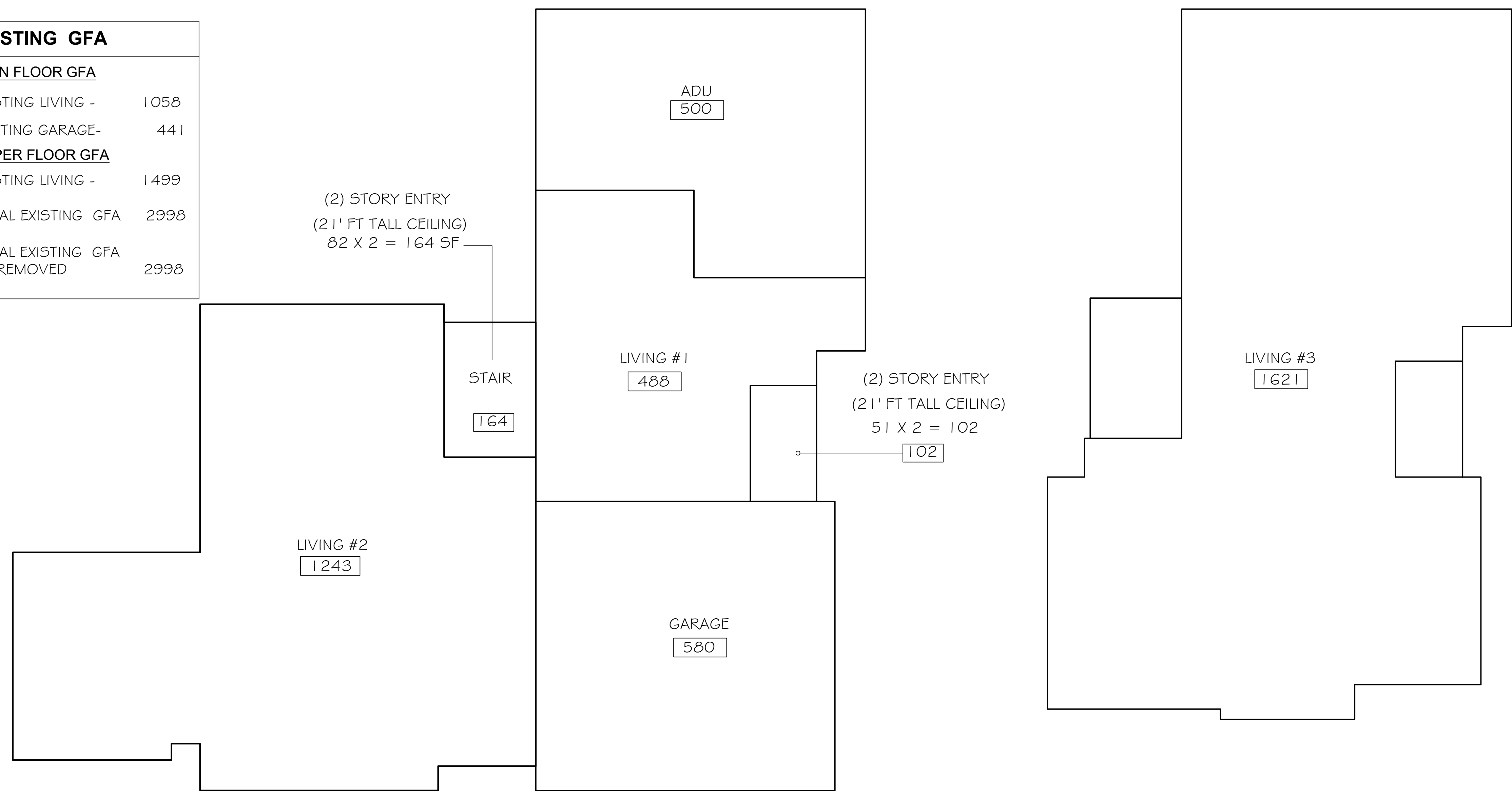
ZONING	
ZONING -	R9.6
ALLOWABLE GFA	
ALLOWABLE GFA IS 40% OF LOT AREA -	
10,000 X .40 =	4000 SF
ADDITIONAL ALLOWED (ADU) +	500 SF
TOTAL ALLOWABLE GFA	
4000 + 500 +	4500 SF
GFA CALCULATIONS	
MAIN FLOOR GFA	
LIVING #1 -	488
LIVING #2 -	1243
ENTRY -	102
STAIR -	164
GARAGE -	580
ADU -	500
	3077 SF
UPPER FLOOR GFA	
LIVING #3 -	1621 SF
TOTAL GFA	
3077 + 1621 =	4698 SF
TOTAL PROPOSED GFA	
	4698 SF
TOTAL ALLOWABLE =	
	4500 SF
EXCLUDED GFA (SEE SHT A1.1 FOR CLACS)	
TOTAL EXCLUDED =	206.08 SF
TOTAL ADJUSTED ALLOWABLE GFA	
4698 - 206 =	4492 SF
4492 < 4500 THUS OK	
22.5 SF REMAINS	

8
PLANNING

10
PLANNING

9
PLANNING

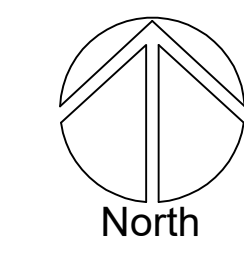
EXISTING GFA	
MAIN FLOOR GFA	
EXISTING LIVING -	1058
EXISTING GARAGE -	441
UPPER FLOOR GFA	
EXISTING LIVING -	1499
TOTAL EXISTING GFA	2998
TOTAL EXISTING GFA TO REMOVED	2998



MAIN FLOOR PLAN- GFA DIAGRAM

Li Residence- Custom Residence

SCALE: 3/16"=1'-0"



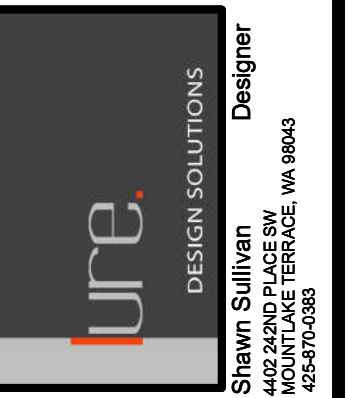
UPPER FLOOR PLAN- GFA DIAGRAM

Li Residence- Custom Residence

SCALE: 3/16"=1'-0"

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

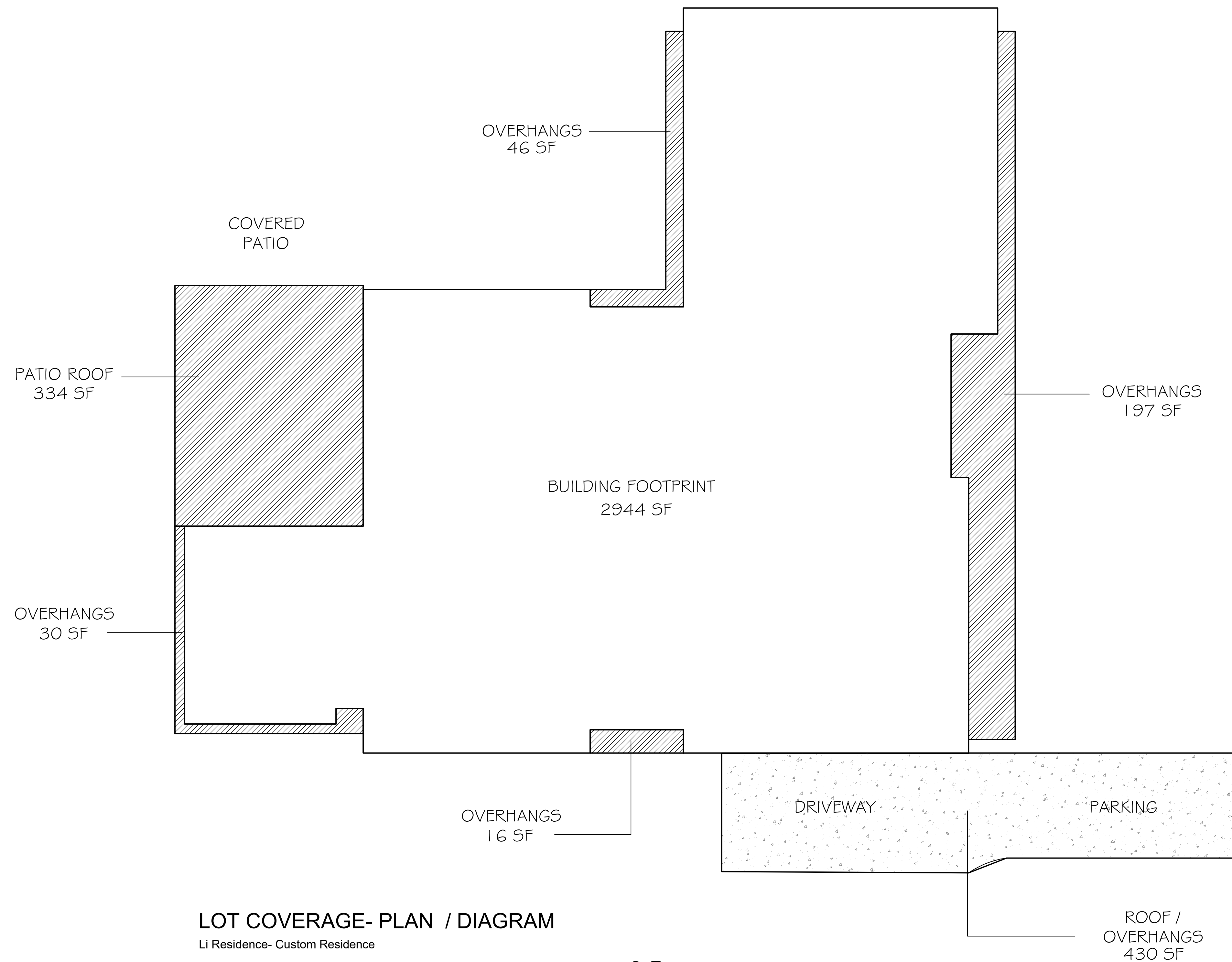


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

**LOT COVERAGE
 DIAGRAM / CALCS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

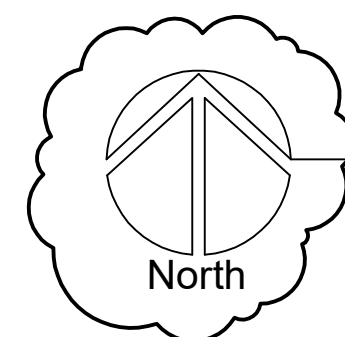
A1.3



LOT COVERAGE- PLAN / DIAGRAM
 Li Residence- Custom Residence

HATCH REPRESENTS
 DRIVEWAY / PARKING

HATCH REPRESENTS
 (ROOF OVERHANGS AND BUILDING CANTILEVERS ETC.)



LOT COVERAGE- DIAGRAM
 Li Residence- Custom Residence

SCALE: 3/16"=1'-0"

LOT COVERAGE

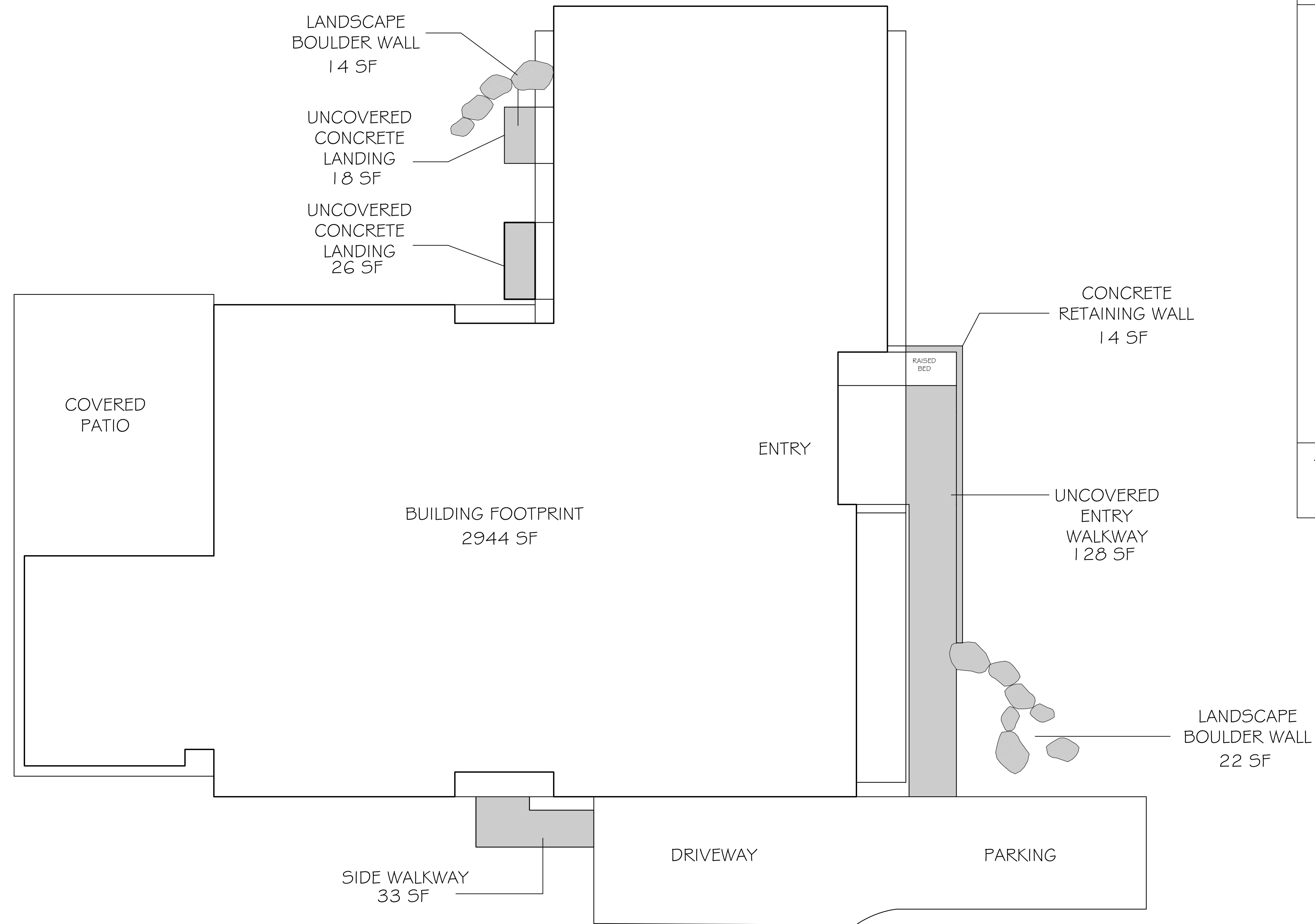
LOT AREA - 10,000 SF
 ALLOWABLE LOT COVERAGE - 40%
 10,000 X .40= 4000 SF

EXISTING LOT COVERAGE -
 EXIST. MAIN STRUCTURE ROOF AREA
 (FOOTPRINT + OVERHANGS) 1834 SF
 EXIST. DRIVEWAY 294 SF
 COVERED PATIO 130 SF
 TOTAL EXISTING= 2258 SF
 TOTAL LOT COVERAGE AREA
 TO BE REMOVED= 2258 SF

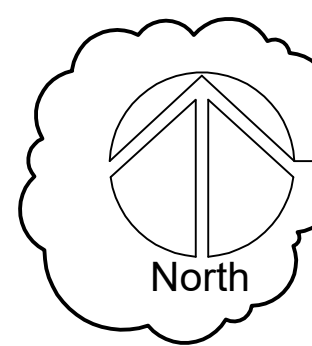
PROPOSED LOT COVERAGE -
 MAIN STRUCTURE ROOF AREA
 (FOOTPRINT + OVERHANGS) 3233 SF
 REAR COVERED PATIO ROOF 334 SF
 DRIVEWAY / PAVED ACCESS- 430 SF
 TOTAL PROPOSED= 3997 SF
 3997 / 10,000 = 39.9%

REQUIRED LANDSCAPE

LOT AREA - 10,000 SF
 ALLOWABLE LOT COVERAGE - 60%
 10,000 X .60= 6000 SF



HARDSCAPE	
LOT AREA -	10,000 SF
ALLOWABLE HARDSCAPE -	9%
10,000 X .09=	900 SF
<u>EXISTING HARDSCAPE -</u>	
UNCOVERED PATIO	68 SF
UNCOVERED DECK	302 SF
TOTAL HARDSCAPE AREA	370 SF
TOTAL HARDSCAPE AREA TO BE REMOVED	370 SF
<u>PROPOSED HARDSCAPE -</u>	
UNCOVERED WALKWAYS	161 SF
REAR CONCRETE LANDINGS (PATIO)	44 SF
BOULDER WALLS /RETAINING WALLS	50 SF
TOTAL PROPOSED=	255 SF
255 / 1000= .025....03	3%



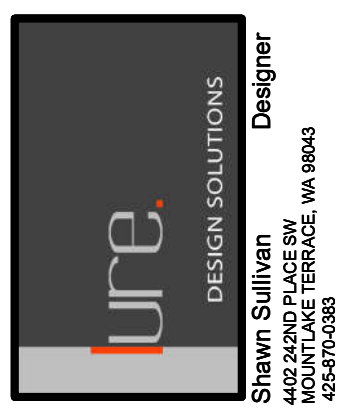
HARDSCAPE- PLAN / DIAGRAM
Li Residence- Custom Residence SCALE: 3/16"=1'-0"

HATCH REPRESENTS HARDSCAPE AREA

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

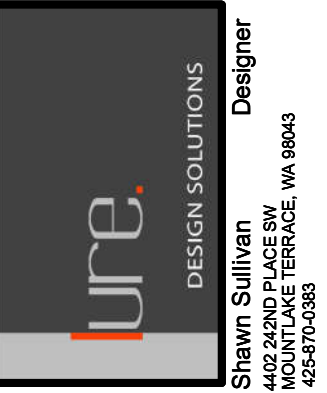
HARDSCAPE COVERAGE DIAGRAM / CALCS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A1.4

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

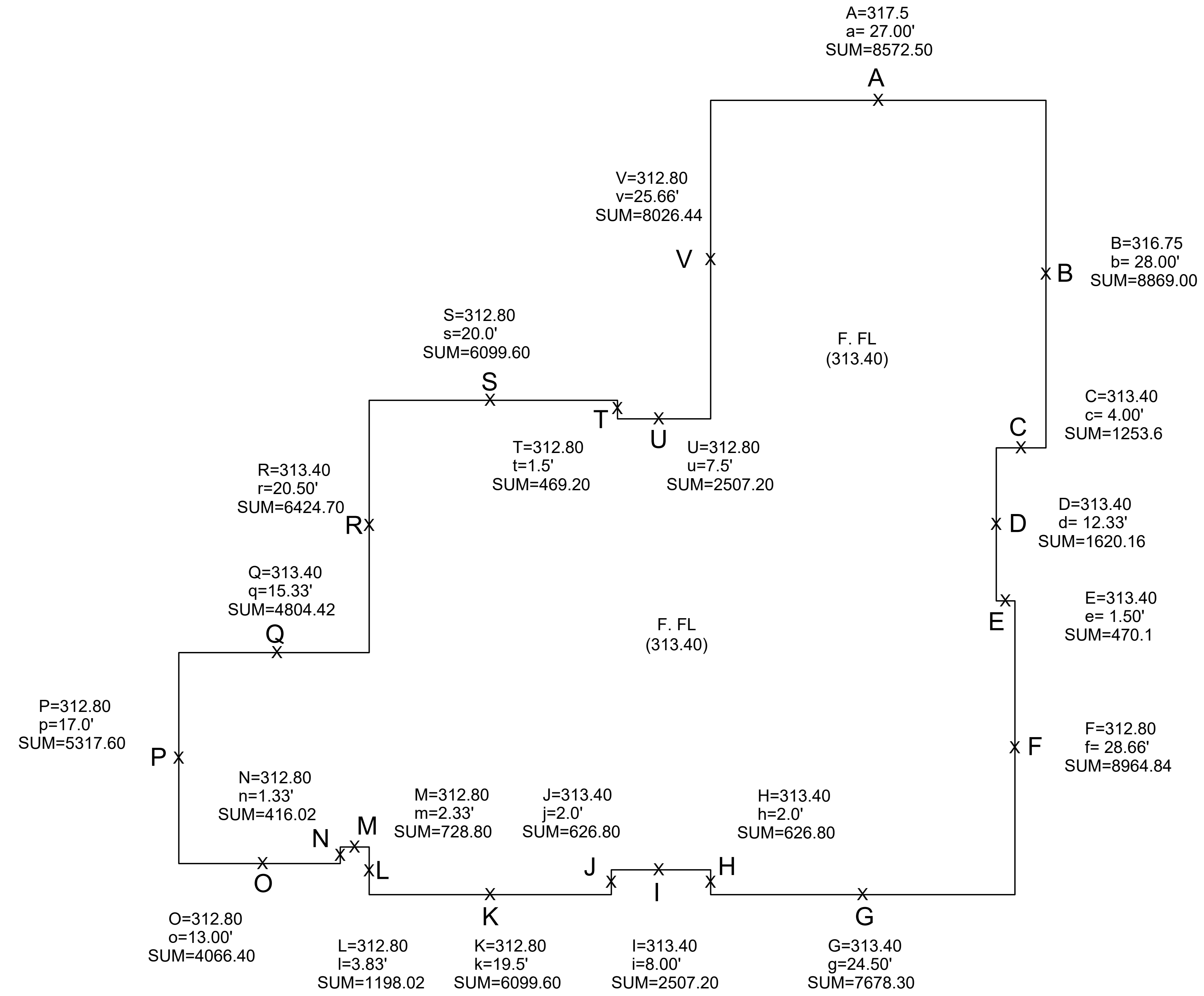


LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

**AVERAGE BUILDING ELEV
DIAGRAM / CALCS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A1.5



CHART

SEGMENT	ELEV	WALL LENGTH	SUM
A	317.5	27.00'	8572.50
B	316.75	28.00'	8869.00
C	313.40	4.00'	1253.6
D	313.40	12.33'	3864.22
E	313.40	1.5'	470.10
F	312.80	28.66'	8964.84
G	313.40	24.50'	7678.30
H	313.40	2.0'	626.80
I	313.40	8.00'	2507.20
J	313.40	2.0'	626.80
K	312.80	19.5'	6099.60
L	312.80	3.83'	1198.02
M	312.80	2.33'	728.82
N	312.80	1.33'	416.02
O	312.80	13.0'	4066.40
P	312.80	17.0'	5317.60
Q	313.40	15.33'	4804.42
R	313.40	20.50'	6424.70
S	312.80	20.0'	6256.00
T	312.80	1.50'	469.20
U	312.80	7.5'	2346.00
V	312.80	25.66'	8026.44
TOTALS		285.47'	89606.58

FORMULA(AVERAGE BUILDING ELEV)

WEIGHTED SUM OF MID-POINT ELEVATION _____ = ABE
SUM OF WALL SEGMENT LENGTHS

$$\frac{89606.58}{285.47} = 313.89 \text{ (ABE)}$$

ALLOWABLE BUILDING HEIGHT MAX

ALLOWABLE BUILDIN HT + 30' ABOVE (ABE)

$$313.89 \text{ (ABE)} + 30 = \text{ELEV } 343.89$$

GENERAL NOTES.

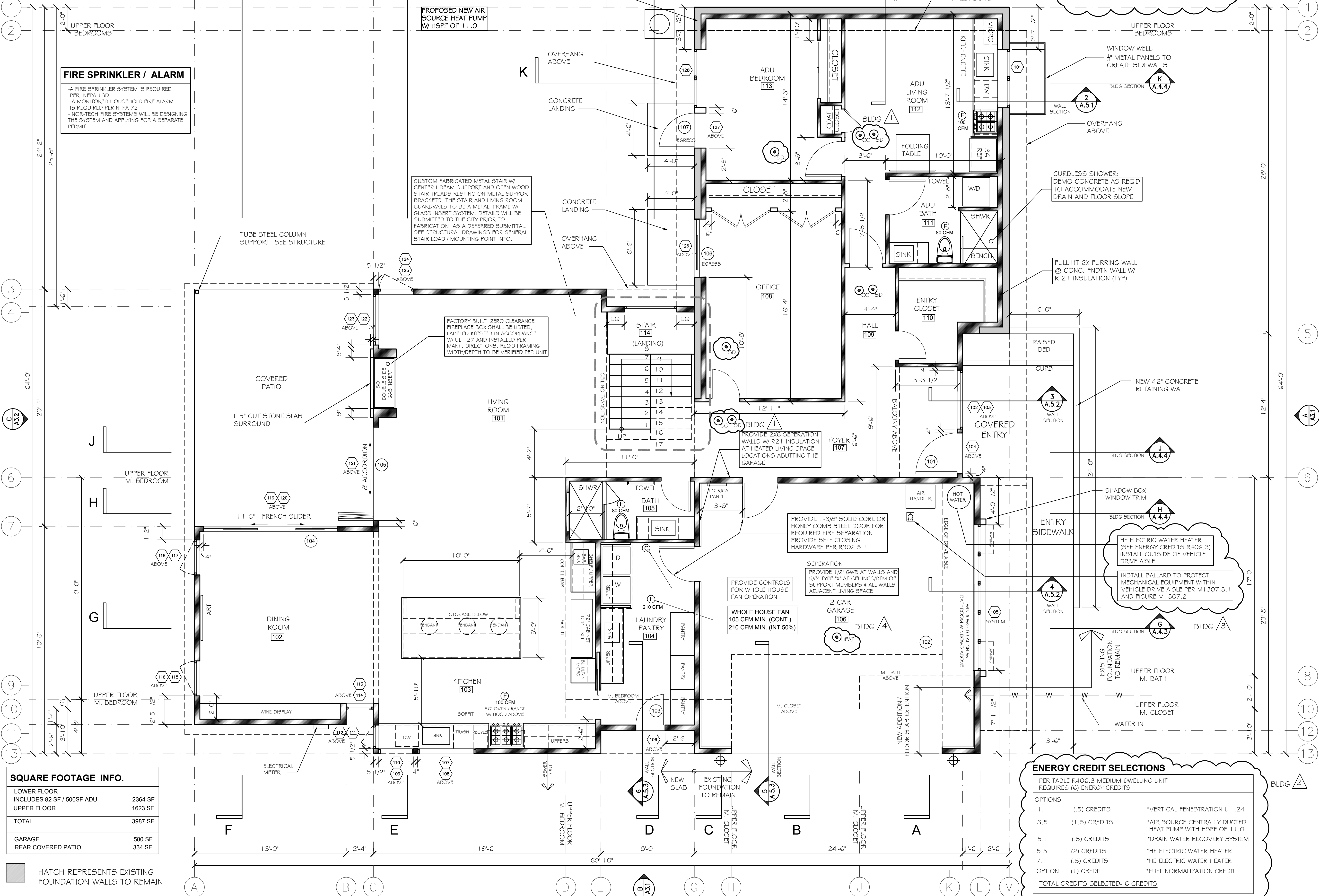
1. PROVIDE ROOF DRAINS, FLOOR DRAINS AND GUTTERS PER ROOF PLAN
2. DOWNSPOUTS TO BE TIGHTLINED TO PERIMETER DRAIN SYSTEM PER CIVIL ENGINEER
3. SLOPE GRADE AWAY FROM FOUNDATION
4. PROVIDE WATERPROOF MEMBRANE AT ALL FLAT/LOW SLOPE ROOF CONDITIONS. CONSULT ROOFING CONTRACTOR / WATERPROOFING CONSULTANT FOR WATERPROOF SYSTEMS
5. WRAP CONTINUOUS WATERPROOF MEMBRANE UP ALL VERTICAL SURFACES A MIN OF 12". PROVIDE CONTINUOUS WRAP UP AND OVER TOP OF ALL CURB LOCATIONS
6. PROVIDE METAL FLASHING CAPS AT ALL ROOF CURB LOCATIONS
7. PROVIDE ICE AND WATER-SHIELD MEMBRANE AT SLOPES 1/2 OR LESS IF COMP SHINGLES ARE PROVIDED.
8. ALL OVERHANG DIMENSIONS ARE FROM FACE OF EXTERIOR STUD WALL OR EDGE OF BEAM TO EXTERIOR EDGE OR RAFTER TAIL
9. PROVIDE STANDING SEAM METAL ROOFING W/ CONCEALED FASTENERS AND HIGH TEMP ICE & WATER-SHIELD AT UPPER FLOOR ROOF.
10. PROVIDE R-49 SPRAY FOAM INSULATION AT ROOF RAFTERS- (ALL CEILING/ ROOF) SEE PLANS FOR SPECIFIC NOTES
11. ALL TOP PLATE HEIGHTS ARE NOTED BY []
12. CONTRACTOR IS RESPONSIBLE FOR ALL FOR PROPER FLASHING AND WATERPROOFING METHODS AT ROOF, WALLS, COVERED DECKS AND CANOPIES.
13. SEE EXTERIOR ELEVATIONS FOR GENERAL EXTERIOR MATERIAL TYPE
14. DRAWING REVISIONS ARE INDICATED BY Δ
15. CENTER DOORS IN ROOMS OR PROVIDE 4" MIN. WALL RETURN UNLESS OTHERWISE NOTED
16. SMOKE DETECTOR (PLACED IN EVERY BEDROOM AND IN HALLWAY OUTSIDE OF BEDROOM DOOR) SIGNIFIED BY Δ
17. CARBON MONOXIDE DETECTORS PLACED IN HALLWAY Δ
18. LANDINGS / IRC R311.4.3
Door Width: 36" MIN
2.34" MAX GRPC
19. EGRESS:
 - BEDROOM SILLS AT 44" MAX ABOVE FIN FLOOR
 - MIN. 20" W X 24" HIGH OPENING
 - MIN. 5.7 SF FT CLEAR OPENING SIZE
20. STAIRWAY REQUIREMENTS
(INTERIOR AND EXTERIOR)
 - MAX. 7.34" RISE AND MIN. 10" RUN
 - MIN. 6'-8" HEADROOM CLEARANCE
 - HANDRAILS AT 34-38" ABOVE THE STAIR NOSING
 - HANDRAIL GRASP DIMENSIONS BETWEEN 1-1/4" - 2"
 - PROVIDE CONTINUOUS HANDRAIL OR TERMINATE AT NEWEL POSTS OR SAFETY TERMINAL
 - WHERE HANDRAIL IS USED AS GUARDRAIL, 4" CLEAR MAX. OPENINGS
 - ALL GUARDRAIL TO BE A MIN OF 36" HT.
21. DUCT TESTING:
CONTRACTOR TO PROVIDE A COPY OF THE "DUCT LEAKAGE AFFIDAVIT FOR NEW CONSTRUCTION" TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION.
22. BLOWER DOOR TESTING:
AIR LEAKAGE SHALL NOT EXCEED 5 AIR CHANGES/ HOUR AND SHALL BE TESTED PER R402.4.1.2. PROVIDE A WRITTEN REPORT OF THE TEST RESULTS, SIGNED BY THE TESTING PARTY, TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION.
23. INSULATION CERTIFICATE:
CONTRACTOR SHALL COMPLETE AND POST A "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION.
24. PROVIDE A PROGRAMMABLE THERMOSTAT FOR THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN EACH DWELLING UNIT PER SEC R403.1.1
25. A MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHT FIXTURES SHALL BE HIGH EFFICACY LAMPS.
26. ALL EXHAUST FANS TO VENT DIRECTLY TO THE EXTERIOR OF THE BUILDING PER M1501.1
27. PROVIDE WHOLE HOUSE FAN EQUIPPED WITH THE OPTION TO OPERATE: INTERMITTENT / CONTINUOUSLY WITH AUTO / MANUAL TIMER CONTROLS
CONTINUOUS PROVIDE FAN SIZE PER TABLE M1507.3.3(1)
DWELLING UNIT 3001 SF-4500 SF W/ 6-7 BEDROOMS = 105 CFM MIN. CONTINUOUS OR
INTERMITTENT PROVIDE FAN SIZE PER TABLE M1507.3.3(2)
(50% MIN. RUN-TIME EA. 4 HR SEGMENT)
105 CFM X 2 = 210 CFM MIN.
28. ALL PROPOSED EXTERIOR LIGHTING WILL SHIELD LIGHTING AND DIRECT IT AWAY FROM ADJACENT PROPERTIES
29. THE PROPOSED PRIMARY HEATING SYSTEM IS A FORCED AIR FURNACE WITH AIR SOURCE HEAT PUMP. ALL DUCTS AND FURNACE LOCATED INSIDE CONDITIONS SPACE
30. SEE SHEET A1.1-A1.5 FOR CODE STUDY INFORMATION
31. PER R302.1.1, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
32. PER R314.2.3 PROVIDED HEAT DETECTOR OR HEAT ALARM CENTRALLY LOCATED IN GARAGE PER MANUFACTURER'S INSTRUCTIONS SIGNIFIED BY Δ

WATER METER / SUPPLY

- PROVIDE NEW OR UPSIZED WATER AND OR WATER SUPPLY LINE
- 1" MIN. METER SIZE
- 1.25" MIN. SUPPLY LINE
- CONSULT W/ FIRE SPRINKLER CONTRACTOR FOR SIZING REVIEW

FIRE SPRINKLER / ALARM

- A FIRE SPRINKLER SYSTEM IS REQUIRED PER NFPA 13D
- A MONITORED HOUSEHOLD FIRE ALARM IS REQUIRED PER NFPA 72
- NOR-TECH FIRE SYSTEMS WILL BE DESIGNING THE SYSTEM AND APPLYING FOR A SEPARATE PERMIT



SQUARE FOOTAGE INFO.

LOWER FLOOR	2364 SF
INCLUDES 82 SF / 500SF ADU	
UPPER FLOOR	1623 SF
TOTAL	3987 SF
GARAGE	580 SF
REAR COVERED PATIO	334 SF

- HATCH REPRESENTS EXISTING FOUNDATION WALLS TO REMAIN
- HATCH REPRESENTS NEW WALLS

TABLE R402.1.1 INSULATION AND FENESTRATION MIN. REQUIREMENTS

FENESTRATION:	U FACTOR .30
SKYLITE:	U-FACTOR .50
WOOD FRAMED WALLS (16 O.C.):	R-VALUE R49
FLOOR SYSTEM:	R-VALUE R21
BELOW GRADE WALL (CAVITY INSUL W/ THERMAL BREAK):	R-VALUE R30
SLAB ON GRADE (R-VALUE AND MIN. DEPTH):	R10 / 2 FT

ENERGY CREDIT SELECTIONS

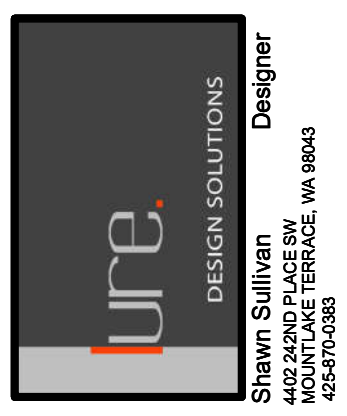
PER TABLE R406.3 MEDIUM DWELLING UNIT REQUIRES (6) ENERGY CREDITS

OPTION 1	(5) CREDITS	*VERTICAL FENESTRATION U=.24
OPTION 2	(1.5) CREDITS	*AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH HSPF OF 11.0
OPTION 3	(.5) CREDITS	*DRAIN WATER RECOVERY SYSTEM
OPTION 4	(2) CREDITS	*HE ELECTRIC WATER HEATER
OPTION 5	(.5) CREDITS	*HE ELECTRIC WATER HEATER
OPTION 6	(.5) CREDITS	*FUEL NORMALIZATION CREDIT
TOTAL CREDITS SELECTED-	6 CREDITS	

LOWER FLOOR PLAN
LI Residence- Custom Residence
SCALE: 1/4"=1'-0"

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

PROPOSED LOWER FLOOR PLAN

DATE: 01-04-2022
DESIGNED: SLS
DRAWN: SLS
JOB NO: 2022-01
SHEET:

A2.1

GENERAL NOTES.

1. PROVIDE ROOF DRAINS, FLOOR DRAINS AND GUTTERS PER ROOF PLAN
2. DOWNSPOUTS TO BE TIGHTLINED TO PERIMETER DRAIN SYSTEM PER CIVIL ENGINEER
3. SLOPE GRADE AWAY FROM FOUNDATION
4. PROVIDE WATERPROOF MEMBRANE AT ALL FLAT/LOW SLOPE ROOF CONDITIONS. CONSULT ROOFING CONTRACTOR / WATERPROOFING CONSULTANT FOR WATERPROOF SYSTEMS
5. WRAP CONTINUOUS WATERPROOF MEMBRANE UP ALL VERTICAL SURFACES A MIN OF 12". PROVIDE CONTINUOUS WRAP UP AND OVER TOP OF ALL CURB LOCATIONS
6. PROVIDE METAL FLASHING CAPS AT ALL ROOF CURB LOCATIONS
7. PROVIDE ICE AND WATER-SHIELD MEMBRANE AT SLOPES 1/2" OR LESS IF COMP SHINGLES ARE PROVIDED.
8. ALL OVERHANG DIMENSIONS ARE FROM FACE OF EXTERIOR STUD WALL OR EDGE OF BEAM TO EXTERIOR EDGE OR RAFTER TAIL
9. PROVIDE STANDING SEAM METAL ROOFING W/ CONCEALED FASTENERS AND HIGH TEMP ICE & WATER-SHIELD AT UPPER FLOOR ROOF.
10. PROVIDE R-49 SPRAY FOAM INSULATION FOR ROOF RAFTERS- (ALL CEILING/ ROOF) SEE PLANS FOR SPECIFIC NOTES
11. ALL TOP PLATE HEIGHTS ARE NOTED BY []
12. CONTRACTOR IS RESPONSIBLE FOR ALL FOR PROPER FLASHING AND WATERPROOFING METHODS AT ROOF, WALLS, COVERED DECKS AND CANOPIES.
13. SEE EXTERIOR ELEVATIONS FOR GENERAL EXTERIOR MATERIAL TYPE
14. DRAWING REVISIONS ARE INDICATED BY [A]
15. CENTER DOORS IN ROOMS OR PROVIDE 4" MIN. WALL RETURN UNLESS OTHERWISE NOTED
16. SMOKE DETECTOR (PLACED IN EVERY BEDROOM AND IN HALLWAY OUTSIDE OF BEDROOM DOOR) SIGNIFIED BY [SD]
17. CARBON MONOXIDE DETECTORS PLACED IN HALLWAY [CO] OUTSIDE OF BEDROOM DOOR) SIGNIFIED BY [CO]
18. LANDING: [IRC R311.4.3]
 - 1" DOOR SWEEP: [MIN 1/4" MAX 3/4"]
 - 7-3/4" MAX DROP
19. EGRESS:
 - BEDROOM SILLS AT 44" MAX ABOVE FIN FLOOR
 - MIN. 20" W X 24" HIGH OPENING
 - MIN. 5.7 SF FT CLEAR OPENING SIZE
20. STAIRWAY REQUIREMENTS
 - (INTERIOR AND EXTERIOR)
 - MAX. 7-3/4" RISE AND MIN. 10" RUN
 - MIN. 6'-8" HEADROOM CLEARANCE
 - HANDRAILS AT 34-38" ABOVE THE STAIR NOSING
 - HANDRAIL GRASP DIMENSIONS BETWEEN 1-1/4" - 2"
 - PROVIDE CONTINUOUS HANDRAIL OR TERMINATE AT NEWEL POSTS OR SAFETY TERMINAL
 - WHERE HANDRAIL IS USED AS GUARDRAIL, 4" CLEAR MAX. OPENINGS
 - ALL GUARDRAIL TO BE A MIN OF 36" HT.
21. DUCT TESTING: CONTRACTOR TO PROVIDE A COPY OF THE "DUCT LEAKAGE AFFIDAVIT FOR NEW CONSTRUCTION" TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION.
22. BLOWER DOOR TESTING: AIR LEAKAGE SHALL NOT EXCEED 5 AIR CHANGES/ HOUR, AND SHALL BE TESTED PER R402.4.1.2. PROVIDE A WRITTEN REPORT OF THE TEST RESULTS, SIGNED BY THE TESTING PARTY, TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION.
23. INSULATION CERTIFICATE: CONTRACTOR SHALL COMPLETE AND POST A "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION.
24. PROVIDE A PROGRAMMABLE THERMOSTAT FOR THE PRIMARY SPACE CONDITIONING SYSTEM WITHIN EACH DWELLING UNIT PER SEC R403.1.1
25. A MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHT FIXTURES SHALL BE HIGH EFFICACY LAMPS.
26. ALL EXHAUST FANS TO VENT DIRECTLY TO THE EXTERIOR OF THE BUILDING PER M1501.1
27. PROVIDE WHOLE HOUSE FAN EQUIPPED WITH THE OPTION TO OPERATE INTERMITTENT / CONTINUOUSLY WITH AUTO / MANUAL TIMER CONTROLS
 - CONTINUOUS** PROVIDE FAN SIZE PER TABLE M1507.3.3(1) DWELLING UNIT 3001 SF-4500 SF W/ 6-7 BEDROOMS = 105 CFM MIN. CONTINUOUS OR
 - INTERMITTENT** PROVIDE FAN SIZE PER TABLE M1507.3.3(2) (50% MIN. RUN TIME EA. 4 HR SEGMENT) 105 CFM X 2 = 210 CFM MIN
28. ALL PROPOSED EXTERIOR LIGHTING WILL SHIELD LIGHTING AND DIRECT IT AWAY FROM ADJACENT PROPERTIES
29. THE PROPOSED PRIMARY HEATING SYSTEM IS A FORCED AIR FURNACE WITH AIR SOURCE HEAT PUMP. ALL DUCTS AND FURNACE LOCATED INSIDE CONDITIONS SPACE
29. SAFETY GLASS (S.G.): PROVIDE SAFETY GLASS IN ALL WINDOWS THAT MEASURE LARGER THAN 9 SF OR THE BOTTOM EDGE IS LESS THAN 18 ABOVE FINISH FLOOR. (SEE WINDOW SCHEDULE OR TYPES)
30. SEE SHEET A1.1 - A1.5 FOR CODE STUDY INFORMATION
31. PER R302.1.1, FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
32. PER R314.2.3 PROVIDED HEAT DETECTOR OR HEAT ALARM GARAGE IN CENTRAL LOCATION PER MANUFACTURER'S INSTRUCTIONS SIGNIFIED BY [HEAT]

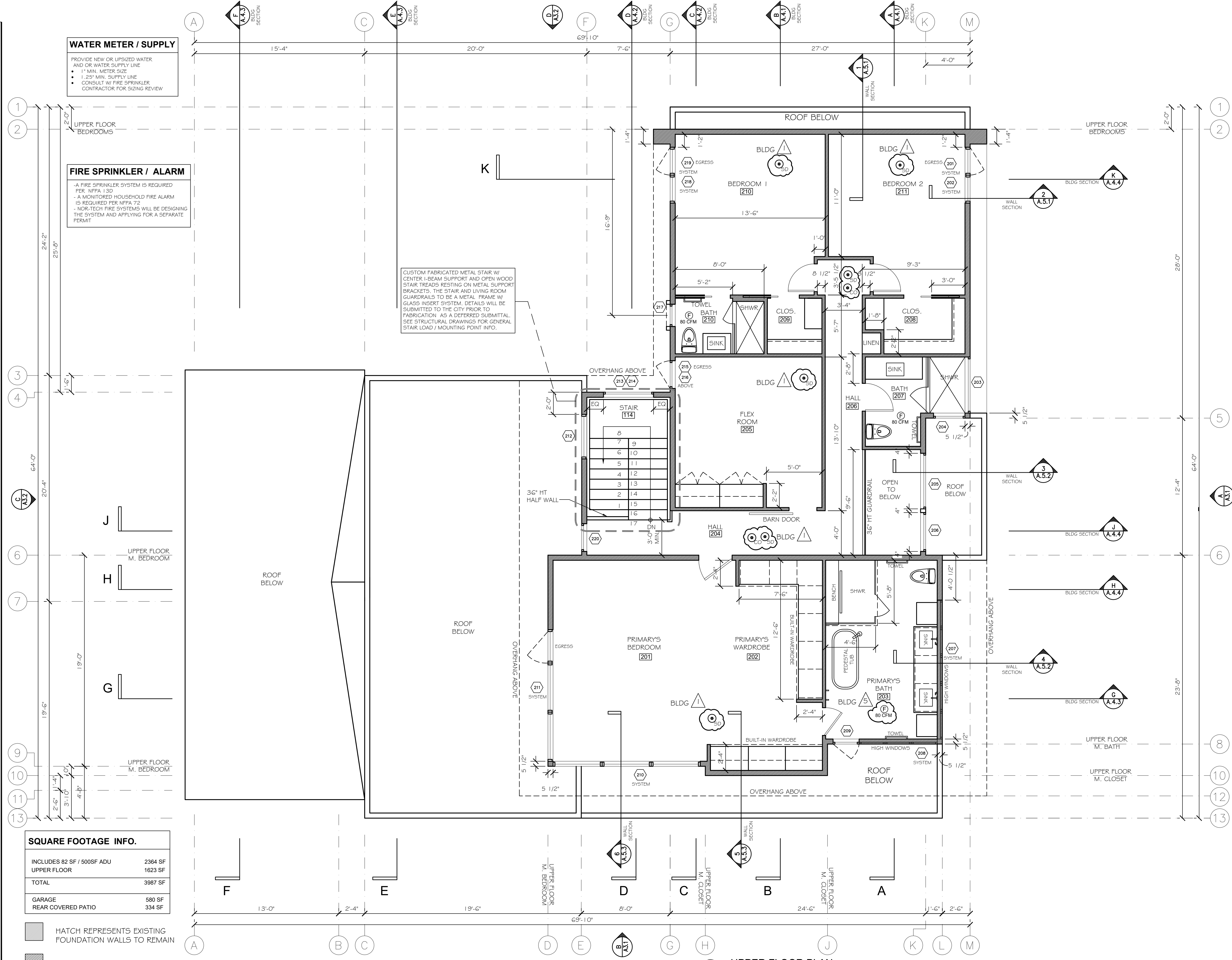
WATER METER / SUPPLY

- PROVIDE NEW OR UPSIZED WATER AND/OR WATER SUPPLY LINE
- 1" MIN. METER SIZE
- 1.25" MIN. SUPPLY LINE
- CONSULT W/ FIRE SPRINKLER CONTRACTOR FOR SIZING REVIEW

FIRE SPRINKLER / ALARM

- A FIRE SPRINKLER SYSTEM IS REQUIRED PER NFPA 13D
- A MONITORED HOUSEHOLD FIRE ALARM IS REQUIRED PER NFPA 72
- NOR-TECH FIRE SYSTEMS WILL BE DESIGNING THE SYSTEM AND APPLYING FOR A SEPARATE PERMIT

CUSTOM FABRICATED METAL STAIR W/ CENTER I-BEAM SUPPORT AND OPEN WOOD STAIR TREADS RESTING ON METAL SUPPORT BRACKETS. THE STAIR AND LIVING ROOM GUARDRAILS TO BE A METAL FRAME W/ GLASS INSERT SYSTEM. DETAILS WILL BE SUBMITTED TO THE CITY PRIOR TO FABRICATION AS A DEFERRED SUBMITTAL. SEE STRUCTURAL DRAWINGS FOR GENERAL STAIR LOAD / MOUNTING POINT INFO.



SQUARE FOOTAGE INFO.

INCLUDES 82 SF / 500SF ADU	2364 SF
UPPER FLOOR	1623 SF
TOTAL	3987 SF
GARAGE	580 SF
REAR COVERED PATIO	334 SF

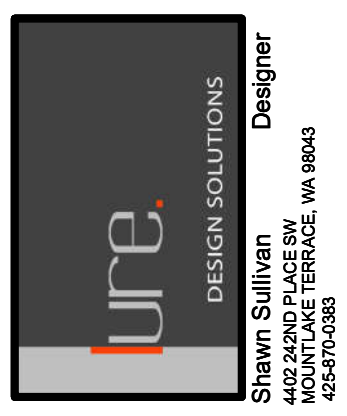
- [Grey Hatch] HATCH REPRESENTS EXISTING FOUNDATION WALLS TO REMAIN
- [Diagonal Hatch] HATCH REPRESENTS NEW WALLS

UPPER FLOOR PLAN
LI Residence - Custom Residence
SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

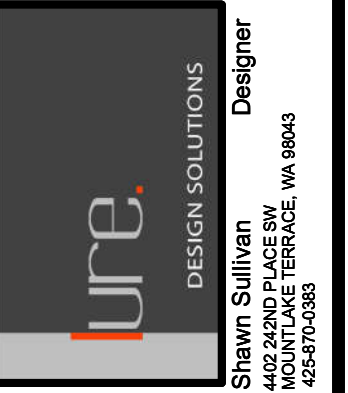
PROPOSED UPPER FLOOR PLAN

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO.:	2022-01
SHEET:	

A2.2

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

PROPOSED ROOF PLAN

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	A2.3

A2.3

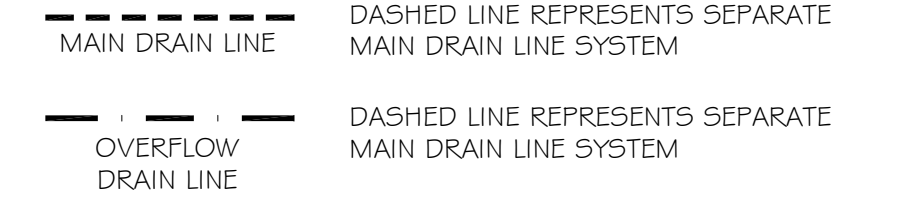
UNVENTED ROOF INSULATION SYSTEM

NOTE: THIS SYSTEM IS SELECTED TO ALLOW FOR AN UNVENTED ROOF SYSTEM. ANY REVISIONS OR SUBSTITUTIONS MUST BE APPROVED BY THE DESIGNER. INSPECTOR TO APPROVE PROPER INSTALLATION

PROVIDE "CLOSED CELL" SPRAY FOAM ROOF INSULATION SYSTEM MIN. R-38 INSTALLED BY CERTIFIED INSTALLER PER R806.5 REQUIREMENTS. FILL ENTIRE RAFTER/JOIST CAVITY TO ELIMINATE AIR SPACE. NO CROSS VENTILATION REQ'D. PROVIDE A COPY OF ICC ESR ON JOBSITE FOR FIELD INSPECTOR VERIFICATION

ROOF DRAINAGE - FLAT ROOF

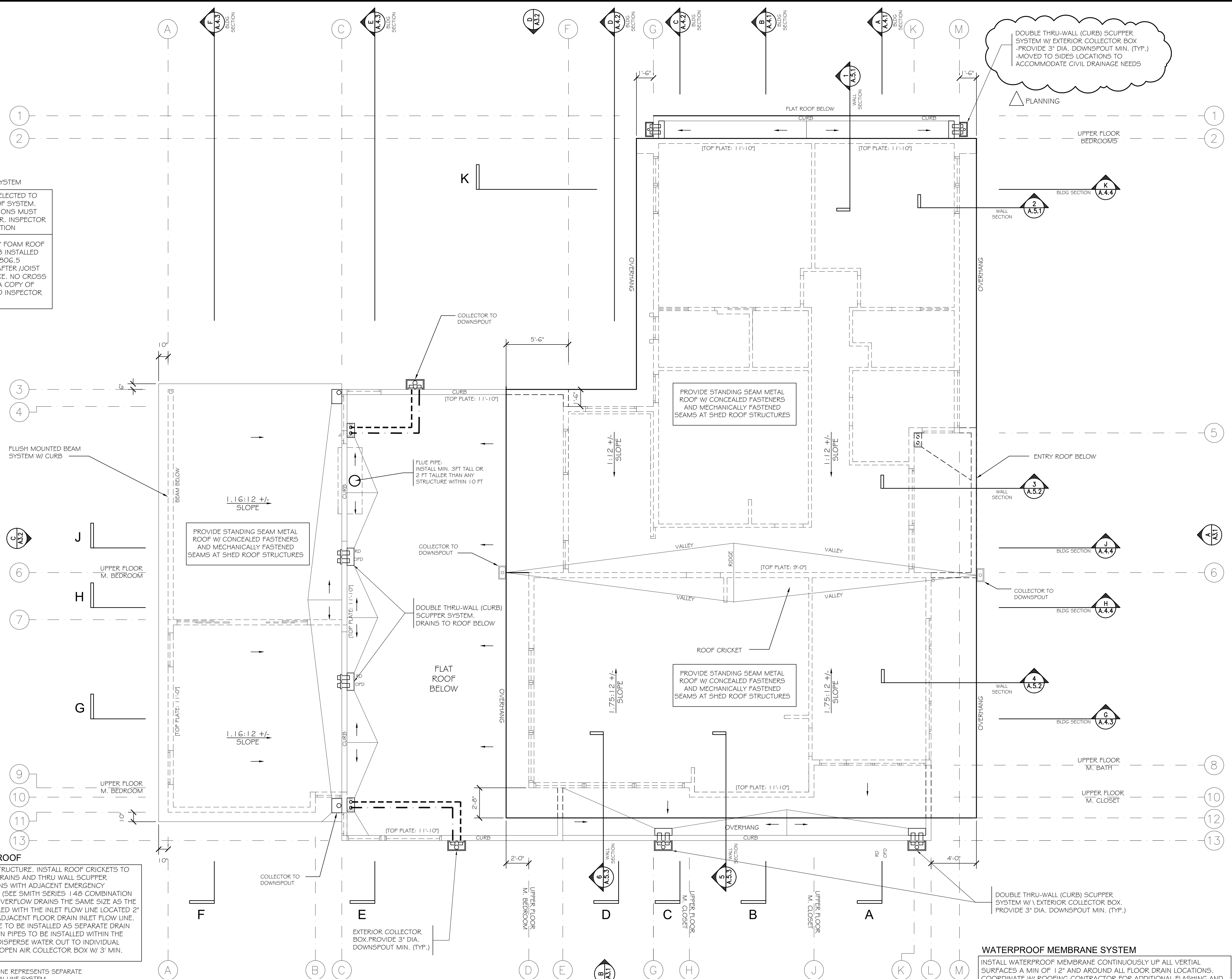
OPEN WEB FLOOR JOISTS PER STRUCTURE. INSTALL ROOF CRICKETS TO DIRECT WATER FLOW TO ROOF DRAINS AND THRU WALL SCUPPER SYSTEMS. PROVIDE FLOOR DRAINS WITH ADJACENT EMERGENCY OVERFLOW DRAINS PER R903.4. (SEE SMITH SERIES 148 COMBINATION ROOF AND OVERFLOW DRAIN). OVERFLOW DRAINS THE SAME SIZE AS THE FLOOR DRAINS MUST BE INSTALLED WITH THE INLET FLOW LINE LOCATED 2" ABOVE THE LOW POINT OF THE ADJACENT FLOOR DRAIN INLET FLOW LINE. OVERFLOW AND DRAIN LINES ARE TO BE INSTALLED AS SEPARATE DRAIN SYSTEMS. ALL HORIZONTAL DRAIN PIPES TO BE INSTALLED WITHIN THE OPEN WEBS OF THE JOISTS TO DISPERSE WATER OUT TO INDIVIDUAL SCUPPERS AND FINALLY OUT TO OPEN AIR COLLECTOR BOX W/ 3" MIN. DOWNSPOUT.

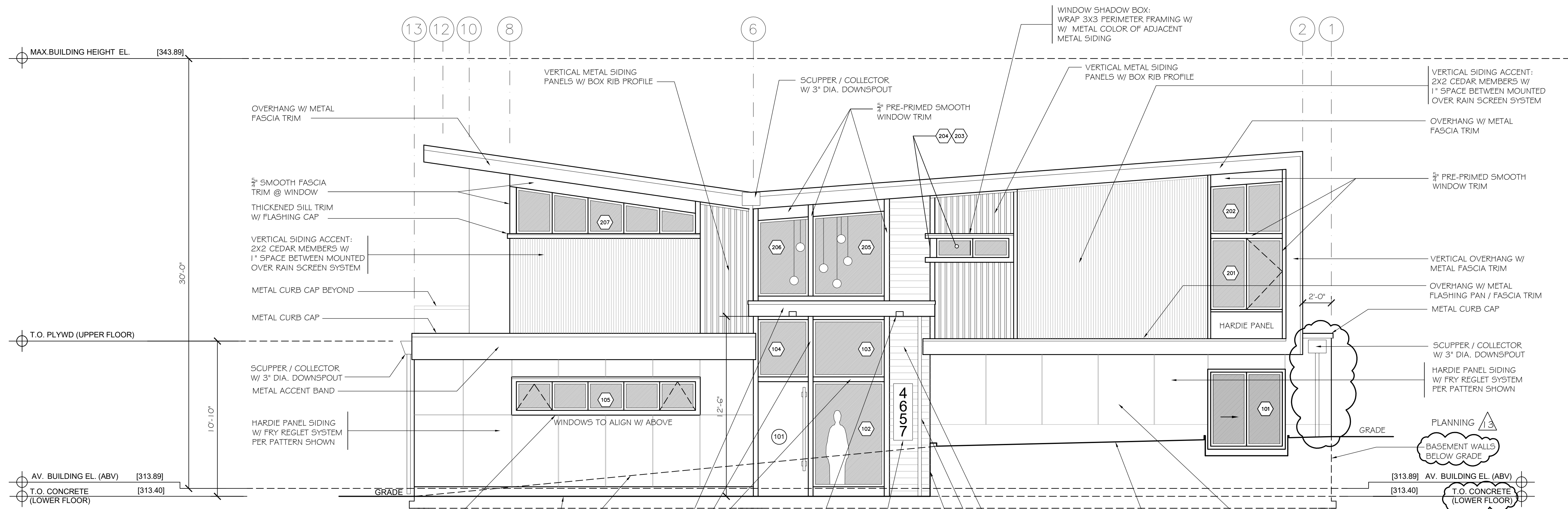


WATERPROOF MEMBRANE SYSTEM

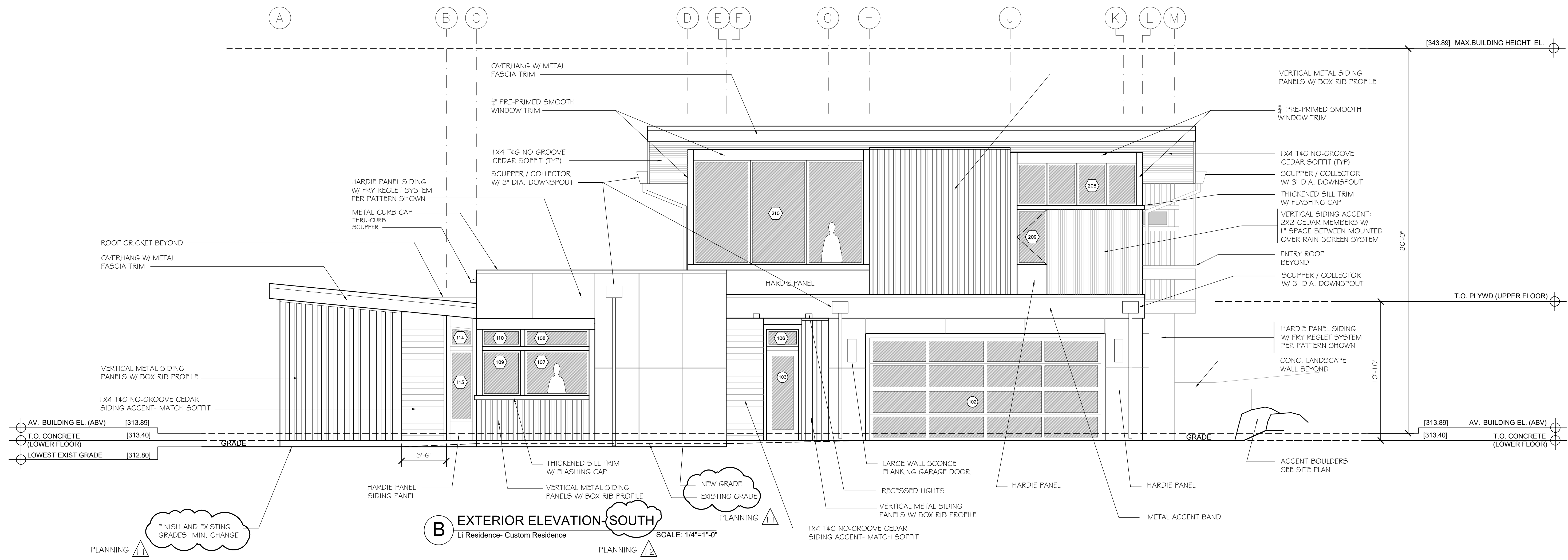
INSTALL WATERPROOF MEMBRANE CONTINUOUSLY UP ALL VERTICAL SURFACES A MIN OF 12" AND AROUND ALL FLOOR DRAIN LOCATIONS. COORDINATE W/ ROOFING CONTRACTOR FOR ADDITIONAL FLASHING AND WATERPROOFING METHODS. SEE EXTERIOR ELEVATIONS AND ROOF PLAN FOR ROOF DRAIN AND SCUPPER LOCATIONS.

ROOF PLAN
 LI Residence- Custom Residence
 SCALE: 1/4"=1'-0"





A EXTERIOR ELEVATION - EAST
 LI Residence- Custom Residence
 SCALE: 1/4"=1'-0"

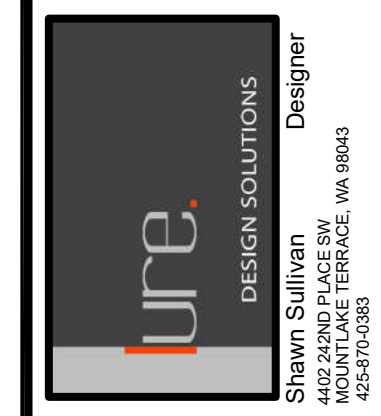


B EXTERIOR ELEVATION - SOUTH
 LI Residence- Custom Residence
 SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET

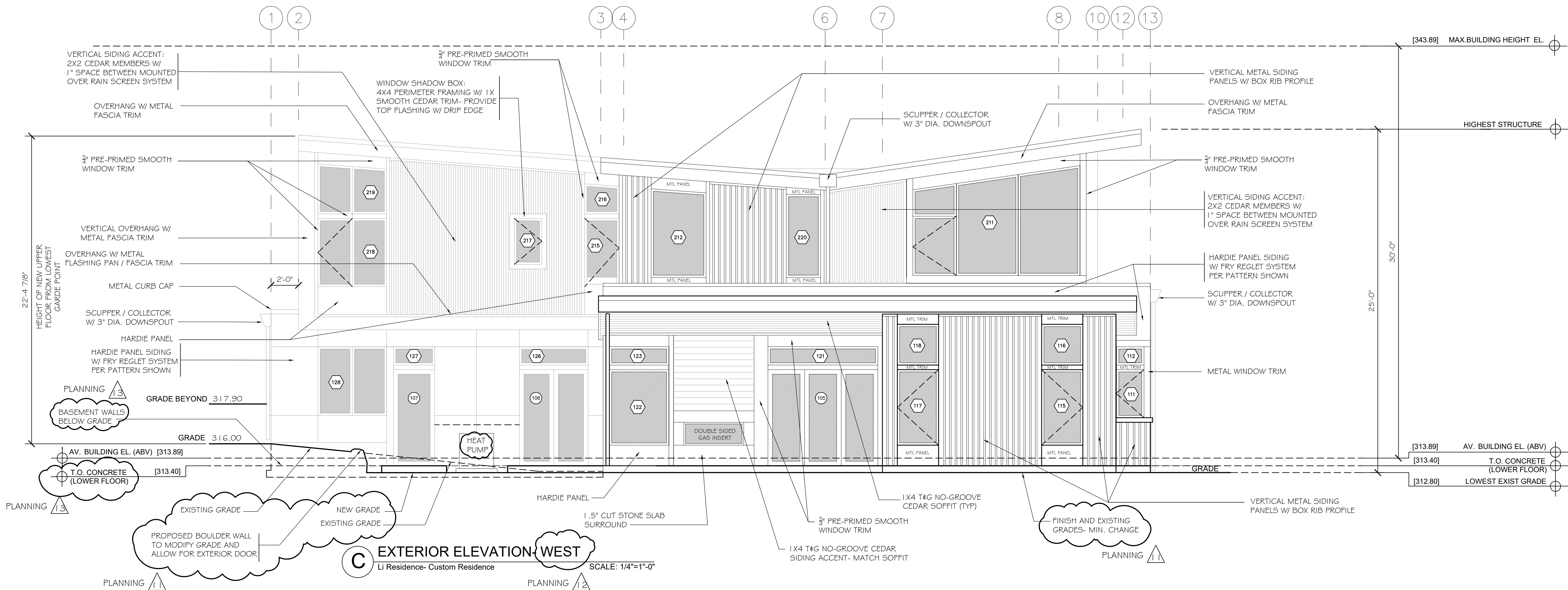


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

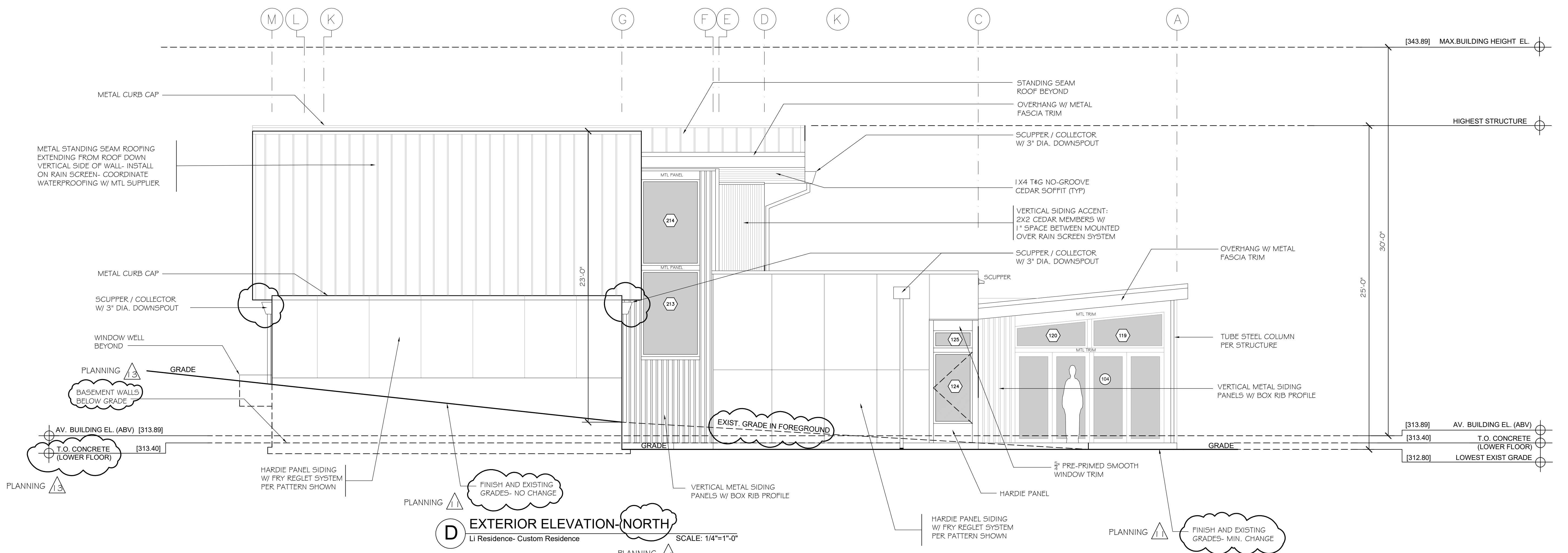
PROPOSED EXTERIOR ELEVATIONS

DATE: 01-04-2022
 DESIGNED: SLS
 DRAWN: SLS
 JOB NO: 2022- 01
 SHEET:

A3.1



C EXTERIOR ELEVATION WEST
 Li Residence- Custom Residence
 SCALE: 1/4"=1'-0"

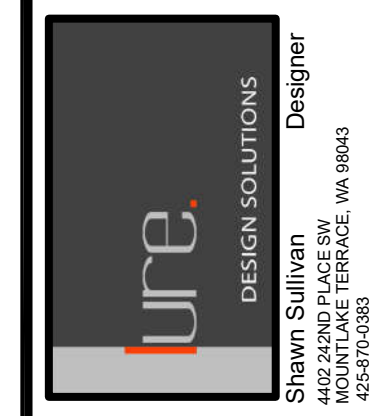


D EXTERIOR ELEVATION NORTH
 Li Residence- Custom Residence
 SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

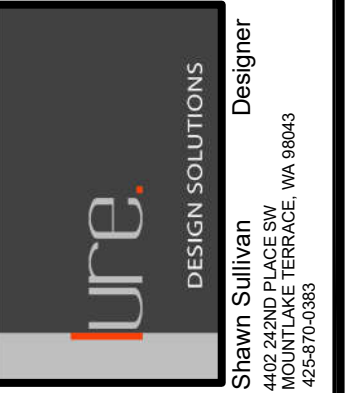
PROPOSED EXTERIOR ELEVATIONS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A3.2

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

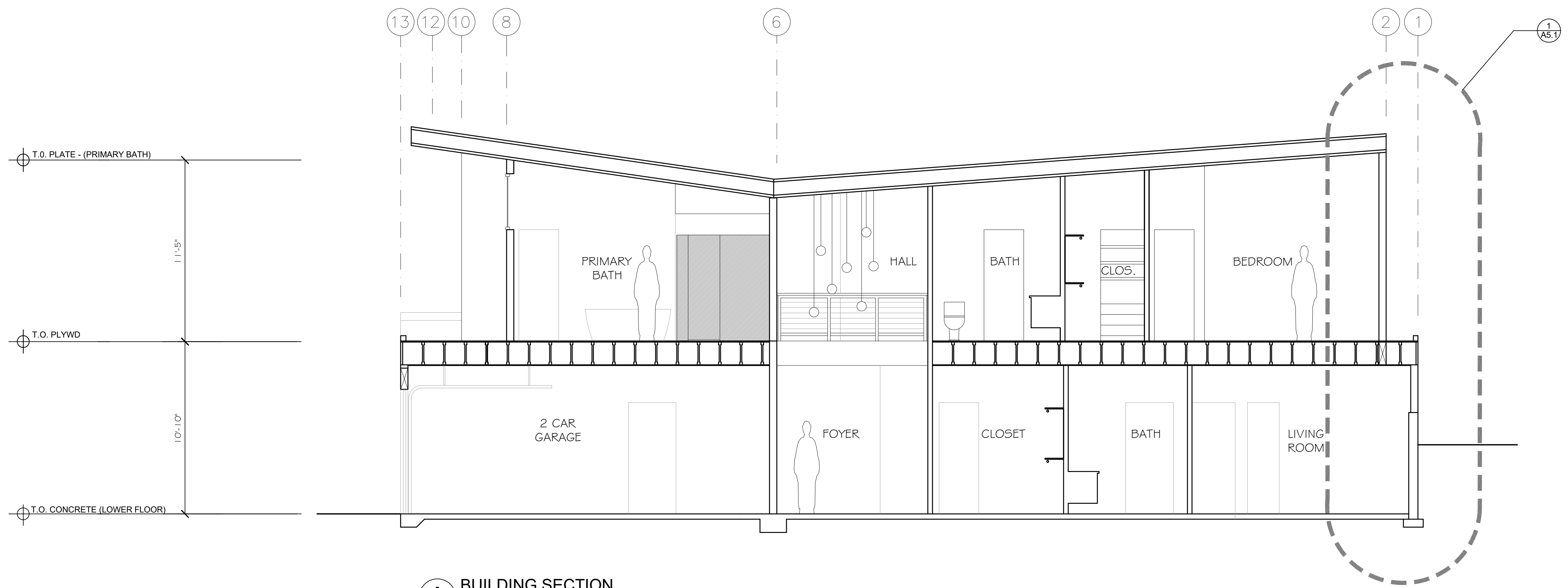


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

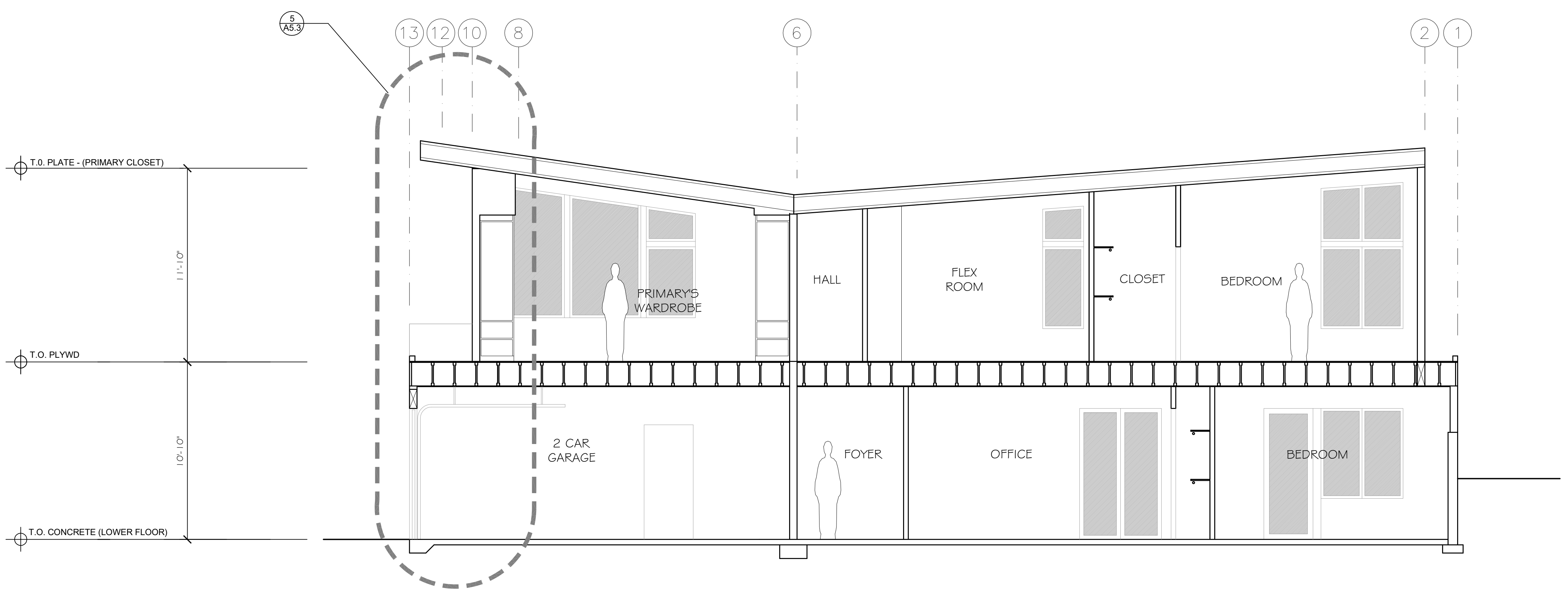
**PROPOSED
 BUILDING SECTIONS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO.:	2022- 01
SHEET:	

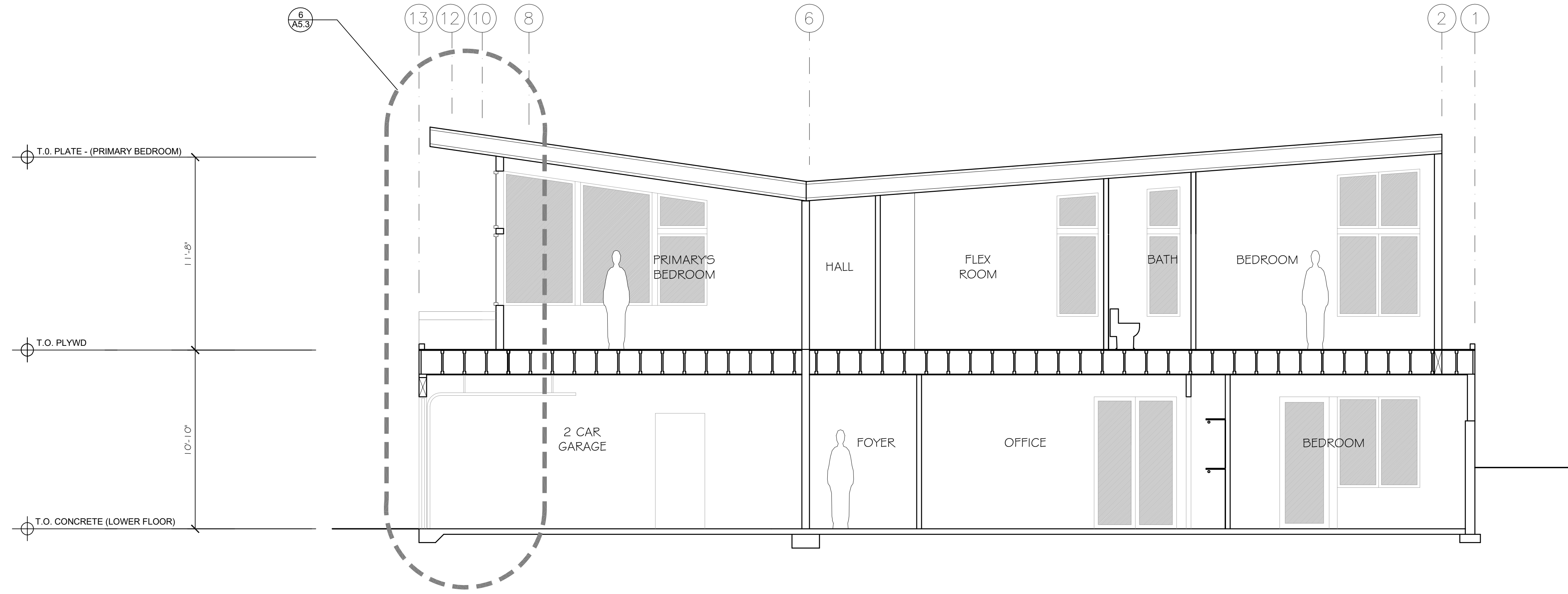
A4.1



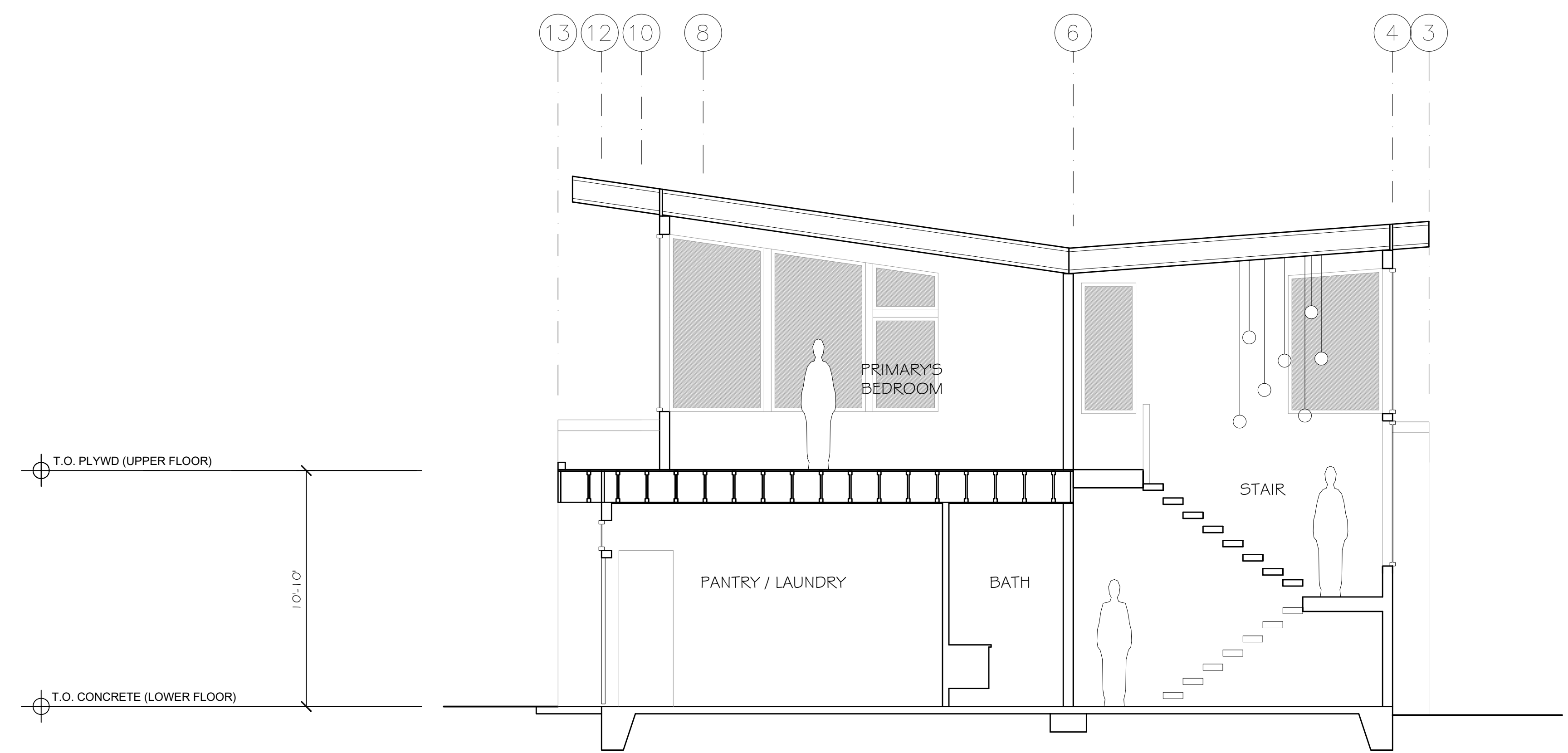
A BUILDING SECTION
 Li Residence- Custom Residence SCALE: 1/4"=1'-0"



B BUILDING SECTION
 Li Residence- Custom Residence SCALE: 1/4"=1'-0"



C BUILDING SECTION
 LI Residence- Custom Residence SCALE: 1/4"=1'-0"

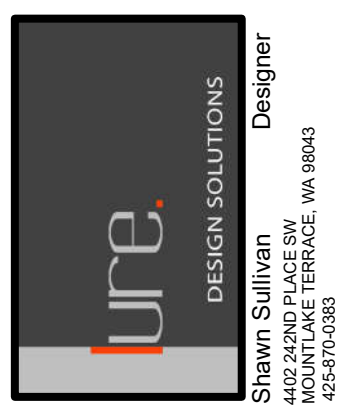


D BUILDING SECTION
 LI Residence- Custom Residence SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET

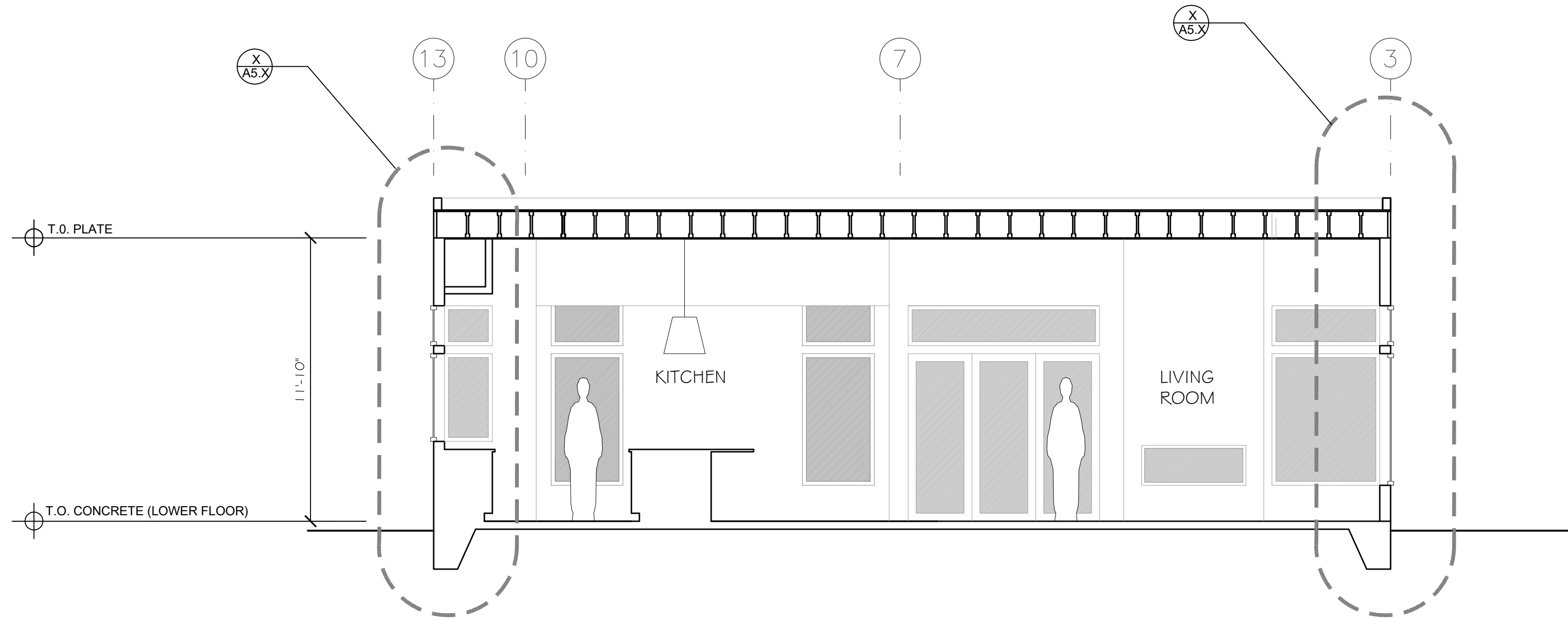


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

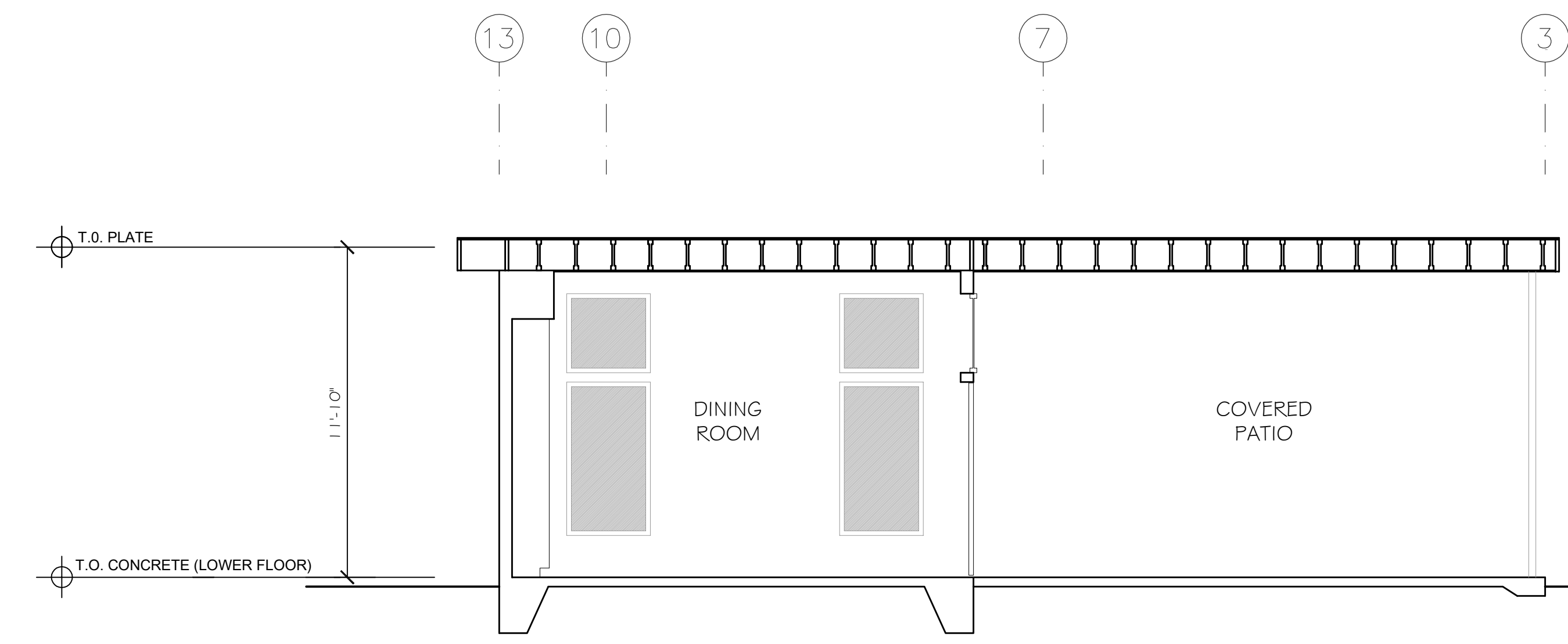
**PROPOSED
 BUILDING SECTIONS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

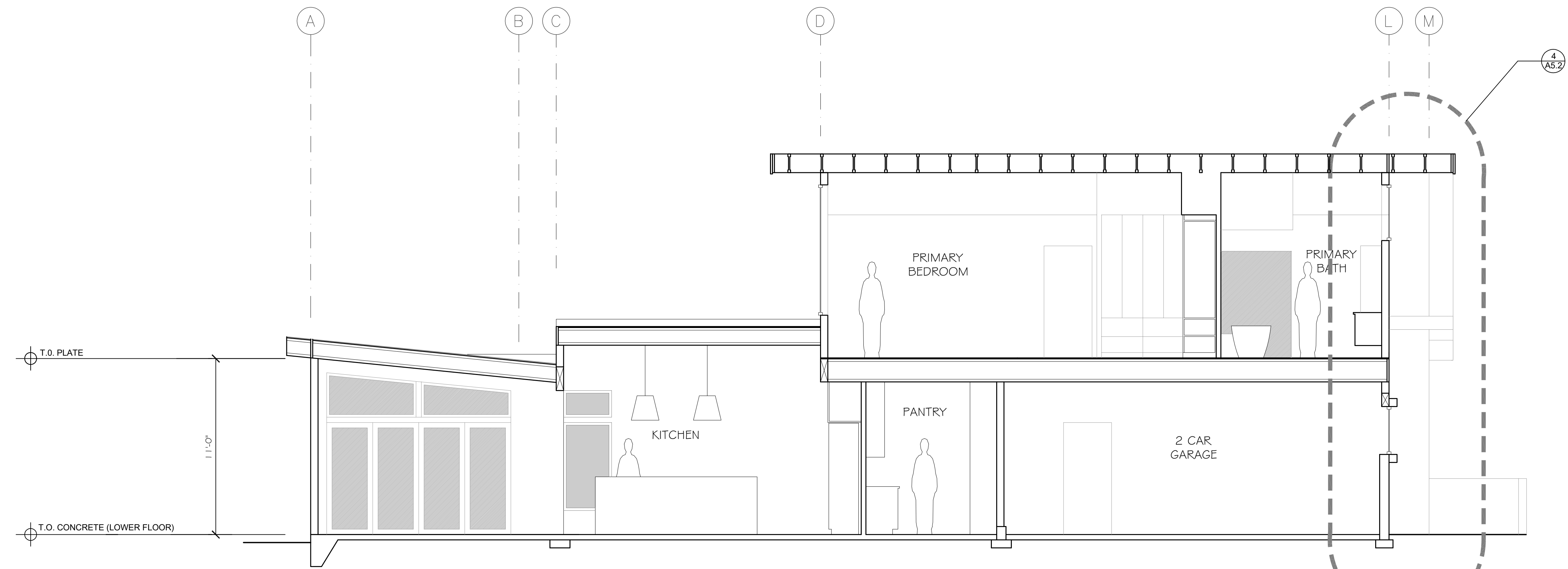
A4.2



E BUILDING SECTION
 Li Residence- Custom Residence
 SCALE: 1/4"=1'-0"



F BUILDING SECTION
 Li Residence- Custom Residence
 SCALE: 1/4"=1'-0"

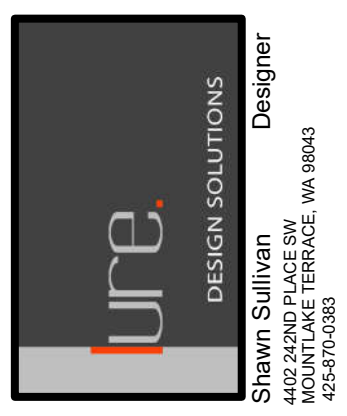


G BUILDING SECTION
 Li Residence- Custom Residence
 SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET

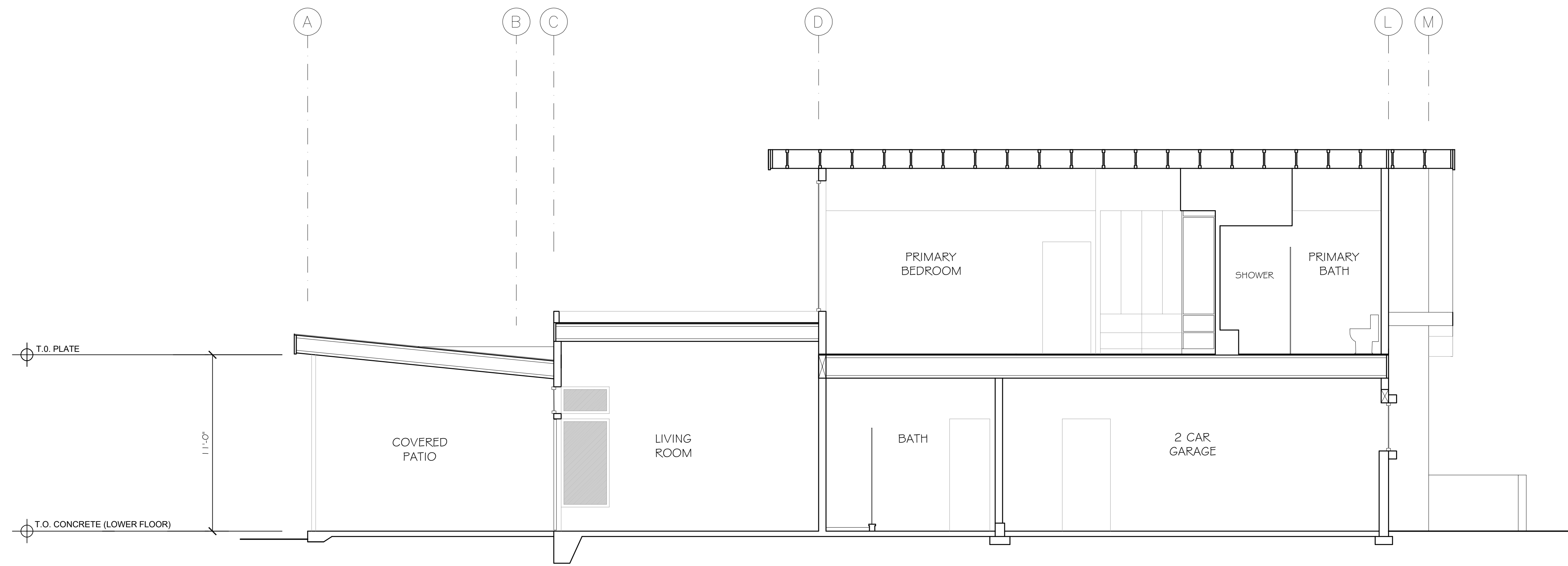


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

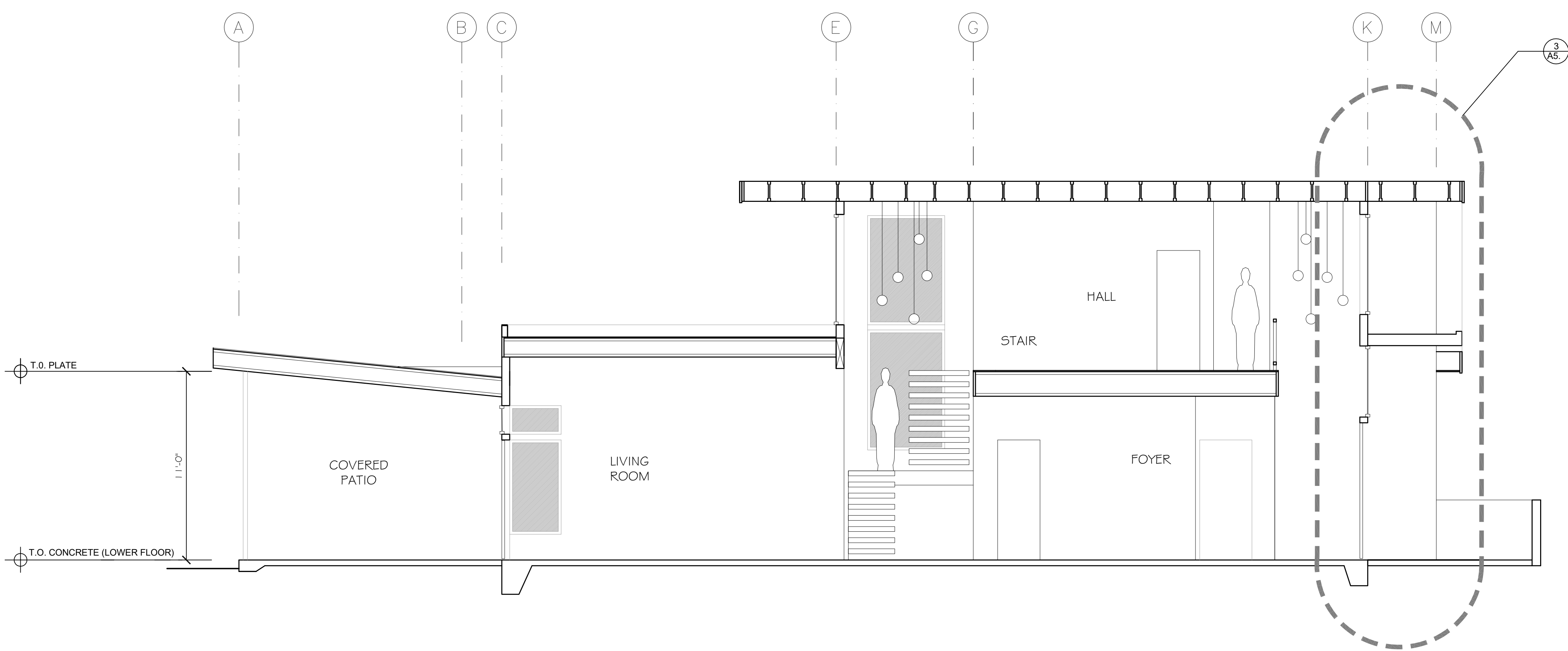
**PROPOSED
 BUILDING SECTIONS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO.:	2022- 01
SHEET:	

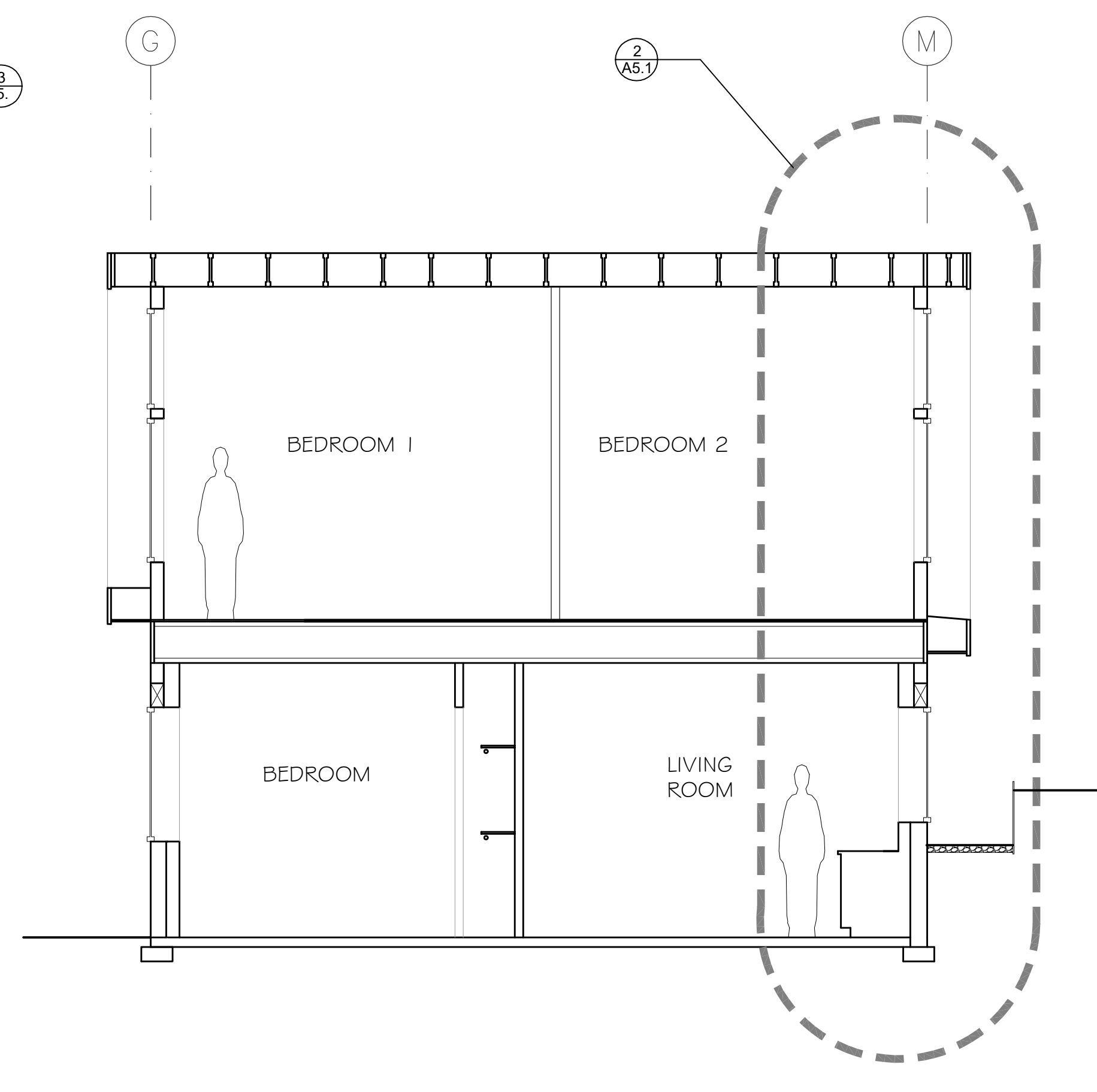
A4.3



H BUILDING SECTION
 Li Residence- Custom Residence SCALE: 1/4"=1'-0"



J BUILDING SECTION
 Li Residence- Custom Residence SCALE: 1/4"=1'-0"

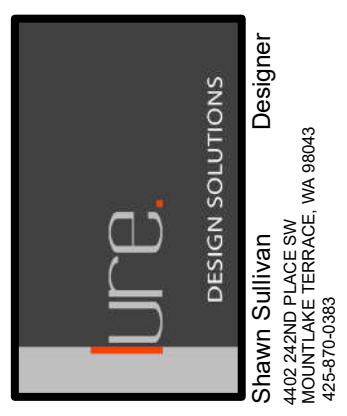


K BUILDING SECTION
 Li Residence- Custom Residence SCALE: 1/4"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET

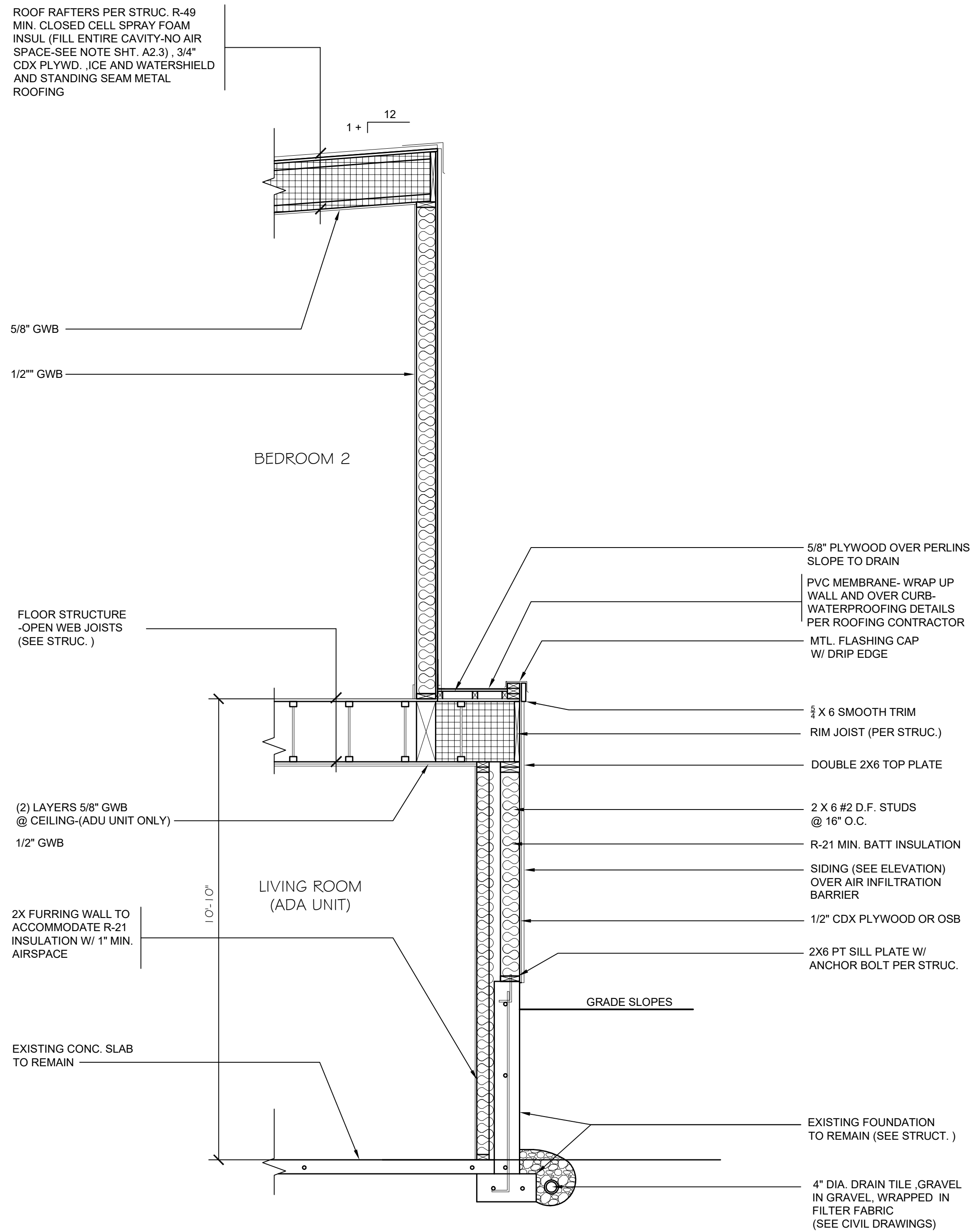


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

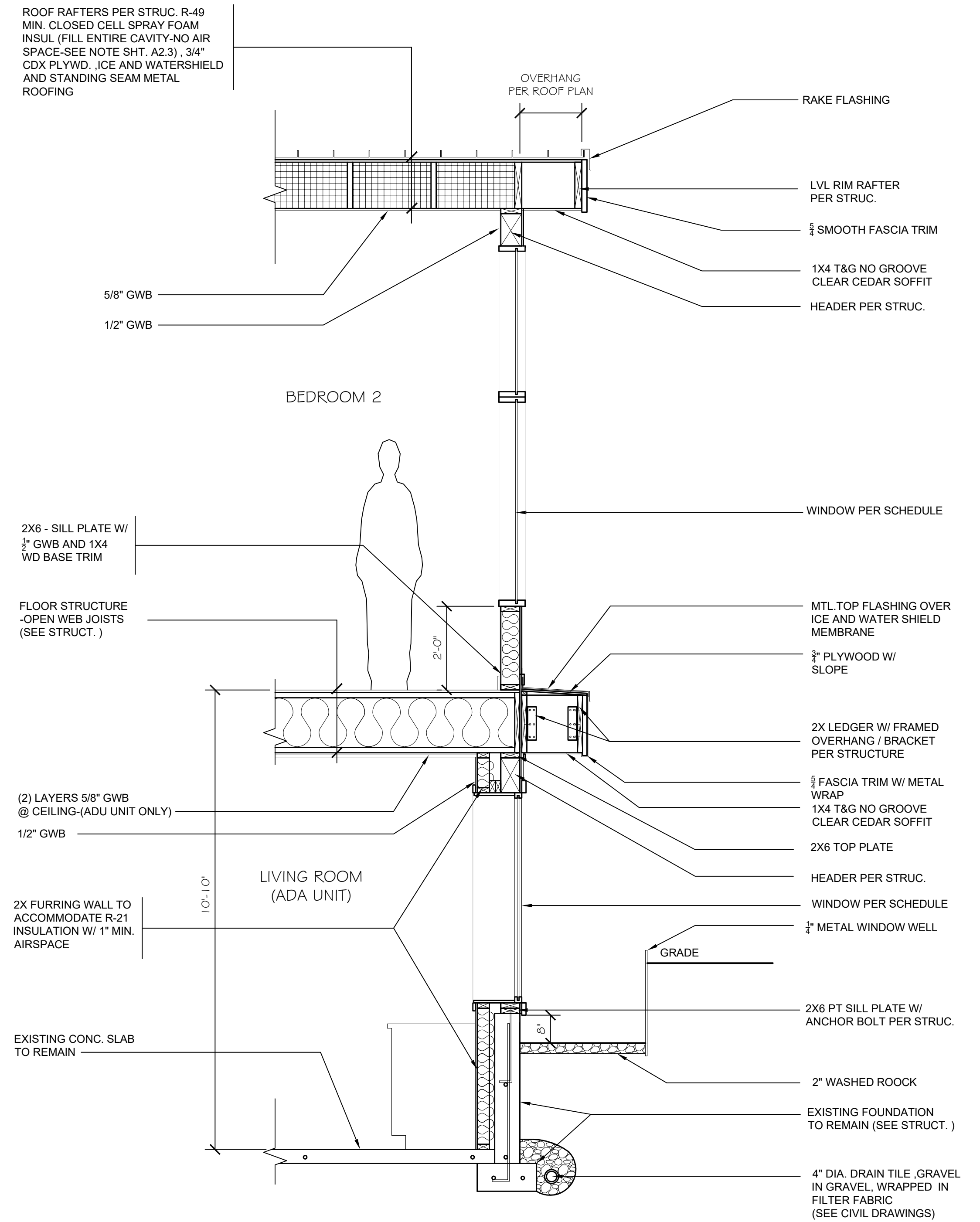
PROPOSED BUILDING SECTIONS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A4.4



1 WALL SECTION
Li Residence- Custom Residence SCALE: 1/2"=1'-0"

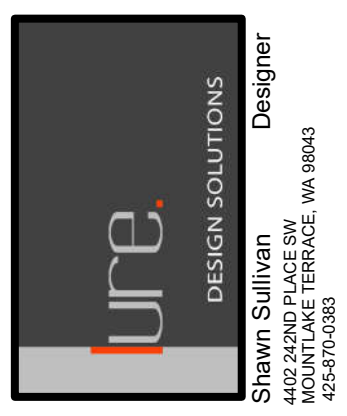


2 WALL SECTION
Li Residence- Custom Residence SCALE: 1/2"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

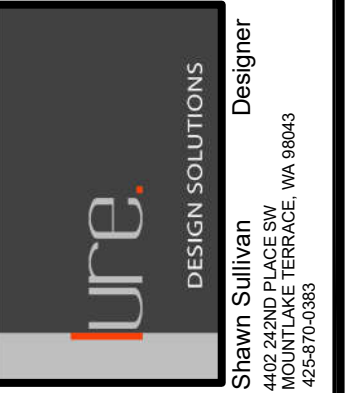
PROPOSED WALL SECTIONS

DATE:	01-04- 2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022- 01
SHEET:	

A5.1

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

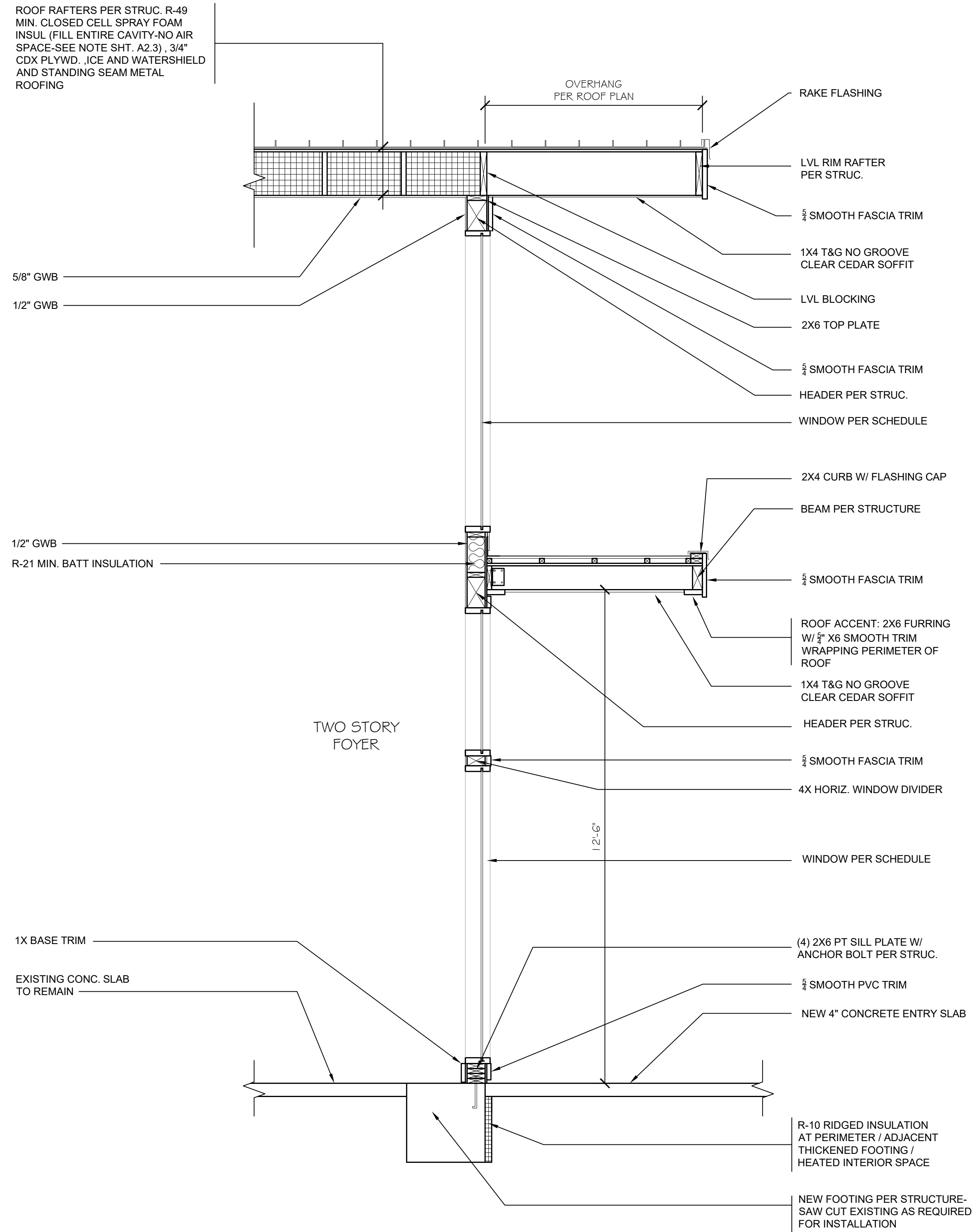


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

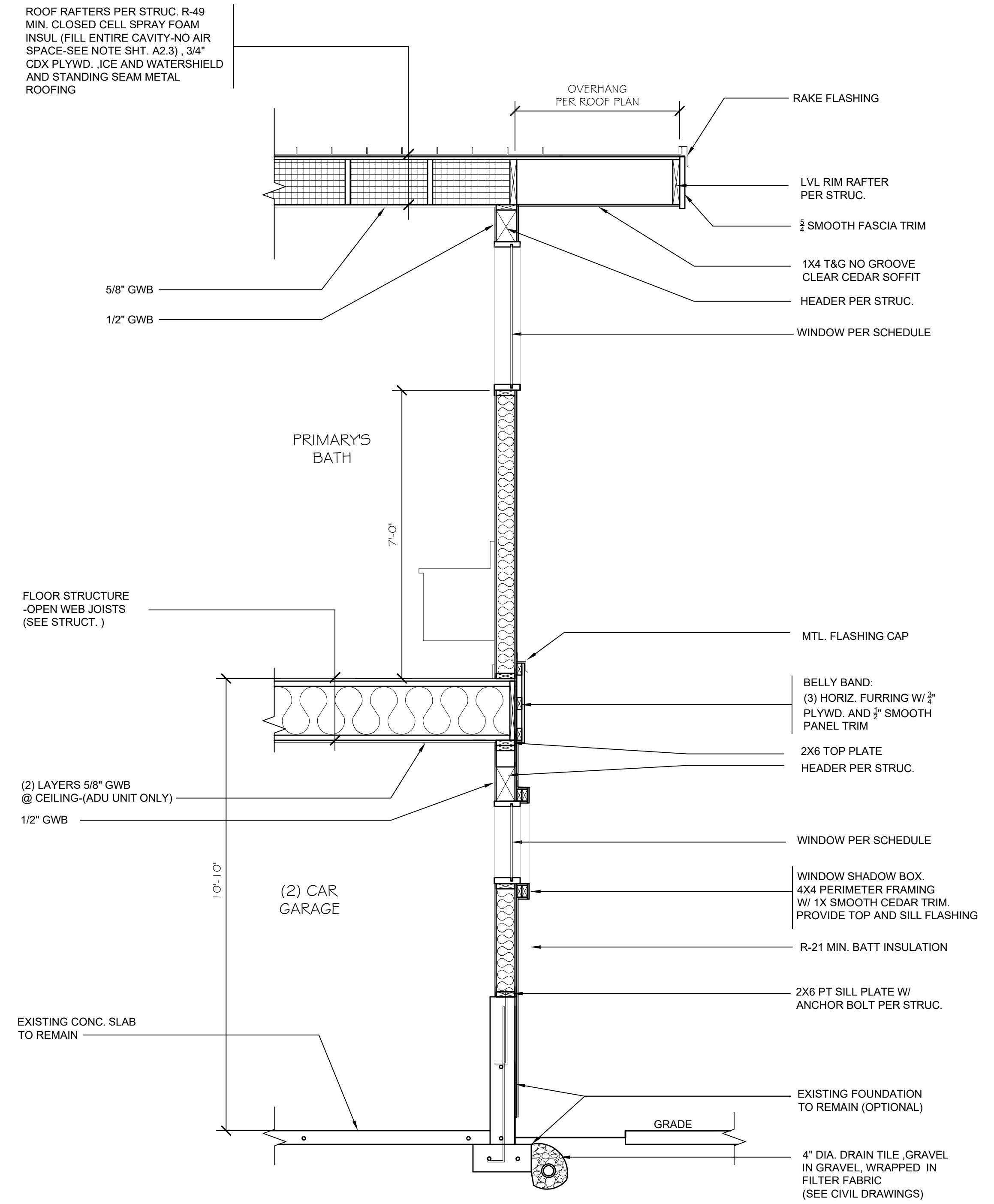
PROPOSED WALL SECTIONS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO.:	2022-01
SHEET:	

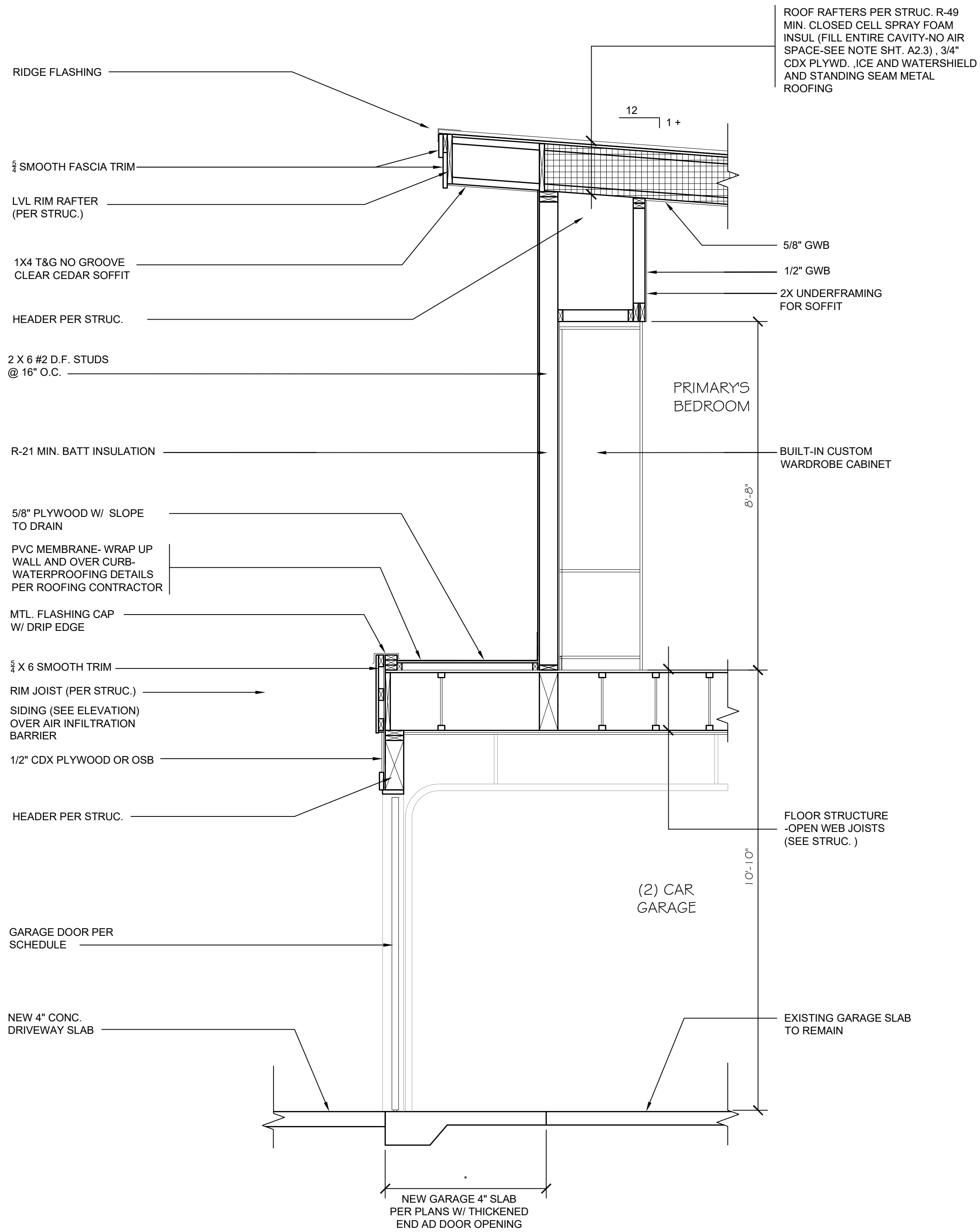
A5.2



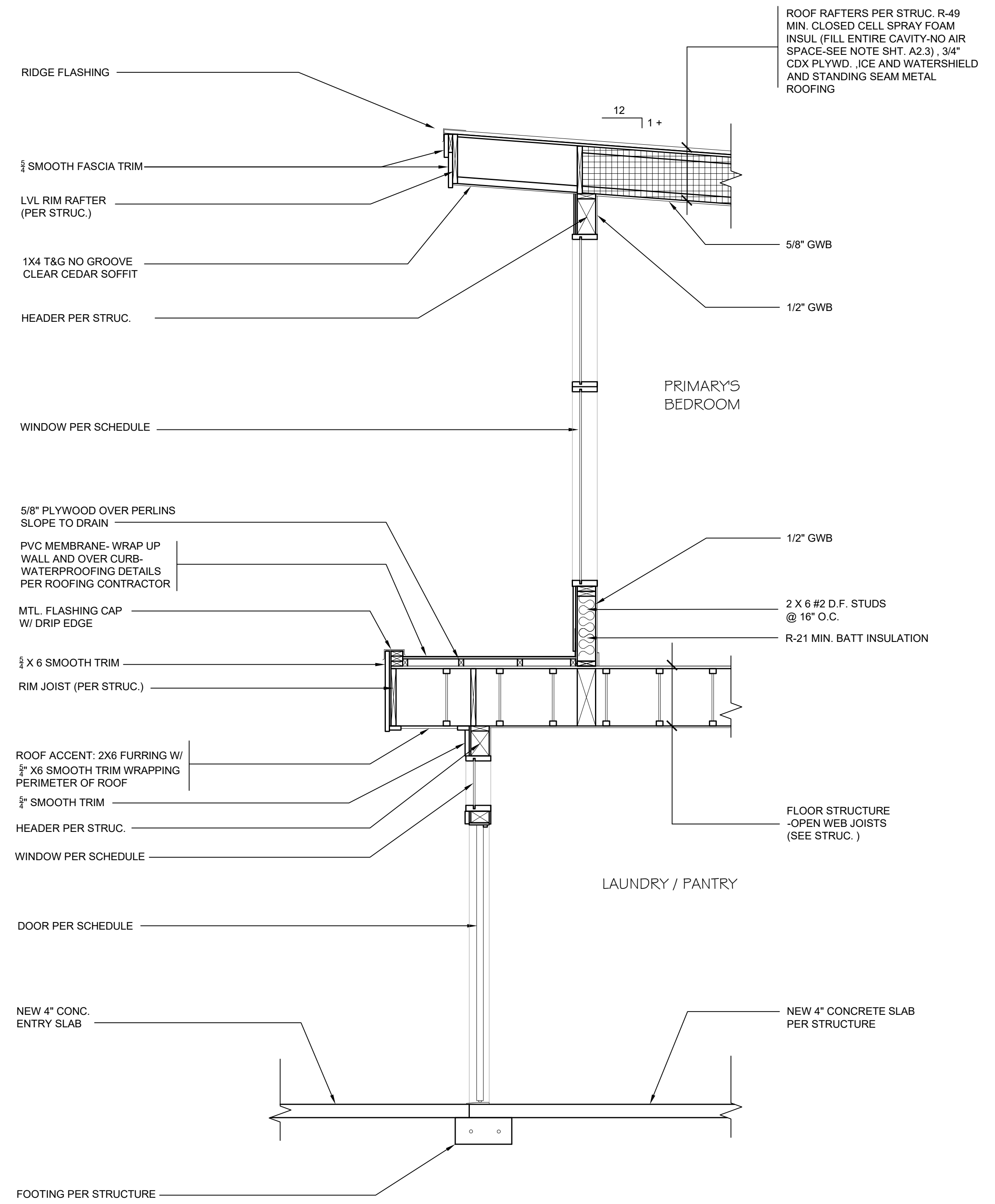
3 WALL SECTION
 Li Residence- Custom Residence SCALE: 1/2"=1'-0"



4 WALL SECTION
 Li Residence- Custom Residence SCALE: 1/2"=1'-0"



5 WALL SECTION
Li Residence - Custom Residence SCALE: 1/2"=1'-0"

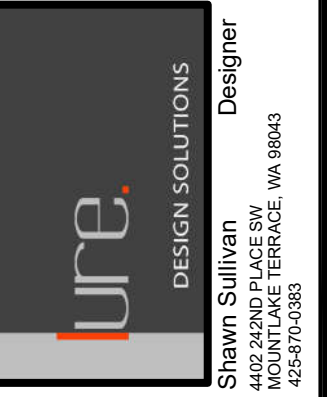


6 WALL SECTION
Li Residence - Custom Residence SCALE: 1/2"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

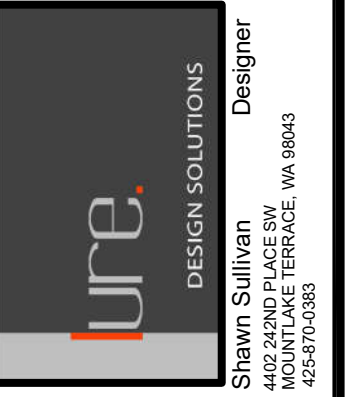
PROPOSED WALL SECTIONS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

A5.3

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

PROPOSED WINDOW AND EXTERIOR DOOR SCHEDULES


DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

A6.1

WINDOW SCHEDULE (APPROX. R.O.SIZES)

LOWER FLOOR


WNDW NO.	ROOM NAME	R.O. SIZE W X H	MATERIAL	TYPE	SYSTEM / GROUP	STYLE	OPERATION	NOTES	U-FACTOR	GLAZING AREA
101	ADU- LIVING ROOM	5' X 5'	ALUMINUM	A		SLIDER		SAFETY GLAZING	.24 MIN.	
102	FOYER	5' X 7'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
103	FOYER	5' X 4'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
104	FOYER	2' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
105	GARAGE	SEE WINDOW SYSTEM 105	ALUMINUM		SEE SYSTEM 105			SAFETY GLAZING	.24 MIN.	
106	LAUNDRY /PANTRY	2' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
107	KITCHEN	5' X 3'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
108	KITCHEN	5' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
109	KITCHEN	3' X 3'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
110	KITCHEN	3' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
111	KITCHEN	2' X 3'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
112	KITCHEN	2' X 1'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
113	DINING ROOM	1' X 5'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
114	DINING ROOM	1' X 1' (SLOPED TOP)	ALUMINUM	D		PICTURE		SAFETY GLAZING	.24 MIN.	
115	DINING ROOM	3' X 5'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
116	DINING ROOM	3' X 3'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
117	DINING ROOM	3' X 5'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
118	DINING ROOM	3' X 3'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
119	DINING ROOM	5' X 2' (SLOPED TOP)	ALUMINUM	E		PICTURE		SAFETY GLAZING	.24 MIN.	
120	DINING ROOM	5' X 2' (SLOPED TOP)	ALUMINUM	E		PICTURE		SAFETY GLAZING	.24 MIN.	
121	LIVING ROOM	8' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
122	LIVING ROOM	4' X 5'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
123	LIVING ROOM	4' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
124	LIVING ROOM	3' X 5'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
125	LIVING ROOM	3' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
126	OFFICE	5' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
127	ADU-BEDROOM	3' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
128	ADU-BEDROOM	5' X 5'	ALUMINUM	A		SLIDER		SAFETY GLAZING	.24 MIN.	

*VERIFY /MEASURE ALL R.O. FOR ACCURATE WINDOWS SIZES PRIOR TO ORDERING / MANUFACTURING
 *WINDOW SIZES ABOVE REFLECT APPROXIMATE R.O. (ROUGH OPENINGS). WINDOWS TO BE SIZED ACCORDINGLY
 * SEE PLANS AND ELEVATIONS FOR WINDOW TAG LOCATION 
 * SAFETY GLAZING TO BE PROVIDE PER LOCAL CODE REQUIREMENTS

WINDOW SCHEDULE (APPROX. R.O.SIZES)

UPPER FLOOR

WNDW NO.	ROOM NAME	R.O. SIZE W X H	MATERIAL	TYPE	SYSTEM / GROUP	STYLE	OPERATION	NOTES	U-FACTOR	GLAZING AREA
201	BEDROOM	SEE WINDOW SYSTEM 201	ALUMINUM		SEE SYSTEM 201			SAFETY GLAZING	.24 MIN.	
202	BEDROOM	SEE WINDOW SYSTEM 202	ALUMINUM		SEE SYSTEM 202			SAFETY GLAZING	.24 MIN.	
203	BATHROOM	6' X 1'	ALUMINUM	A		SLIDER		SAFETY GLAZING	.24 MIN.	
204	BATHROOM	2' X 1'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
205	FOYER	5' X 6' (SLOPED TOP)	ALUMINUM	E		PICTURE		SAFETY GLAZING	.24 MIN.	
206	FOYER	3' X 5' (SLOPED TOP)	ALUMINUM	E		PICTURE		SAFETY GLAZING	.24 MIN.	
207	PRIMARY'S BATH	SEE WINDOW SYSTEM 207	ALUMINUM		SEE SYSTEM 207			SAFETY GLAZING	.24 MIN.	
208	PRIMARY'S BATH	SEE WINDOW SYSTEM 208	ALUMINUM		SEE SYSTEM 208			SAFETY GLAZING	.24 MIN.	
209	PRIMARY'S BATH	2' X 4'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
210	PRIMARY'S BEDROOM	SEE WINDOW SYSTEM 210	ALUMINUM		SEE SYSTEM 210			SAFETY GLAZING	.24 MIN.	
211	PRIMARY'S BEDROOM	SEE WINDOW SYSTEM 211	ALUMINUM		SEE SYSTEM 211			SAFETY GLAZING	.24 MIN.	
212	STAIR	6' X 6' (SLOPED TOP)	ALUMINUM	D		PICTURE		SAFETY GLAZING	.24 MIN.	
213	STAIR	4' X 6'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
214	STAIR	4' X 6'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	
215	FLEX ROOM	2' X 5'	ALUMINUM	C		CASEMENT	TBD	SAFETY GLAZING	.24 MIN.	
216	FLEX ROOM	2' X 2' (SLOPED TOP)	ALUMINUM	D		PICTURE		SAFETY GLAZING	.24 MIN.	
217	BATHROOM	2' X 3'	ALUMINUM	C		CASEMENT		SAFETY GLAZING	.24 MIN.	
218	BEDROOM	SEE WINDOW SYSTEM 218	ALUMINUM		SEE SYSTEM 218			SAFETY GLAZING	.24 MIN.	
219	BEDROOM	SEE WINDOW SYSTEM 219	ALUMINUM		SEE SYSTEM 219			SAFETY GLAZING	.24 MIN.	
220	STAIR	2' X 6'	ALUMINUM	B		PICTURE		SAFETY GLAZING	.24 MIN.	

*VERIFY /MEASURE ALL R.O. FOR ACCURATE WINDOWS SIZES PRIOR TO ORDERING / MANUFACTURING
 *WINDOW SIZES ABOVE REFLECT APPROXIMATE R.O. (ROUGH OPENINGS). WINDOWS TO BE SIZED ACCORDINGLY
 * SEE PLANS AND ELEVATIONS FOR WINDOW TAG LOCATION 
 * SAFETY GLAZING TO BE PROVIDE PER LOCAL CODE REQUIREMENTS

EXTERIOR DOOR SCHEDULE)

LOWER FLOOR

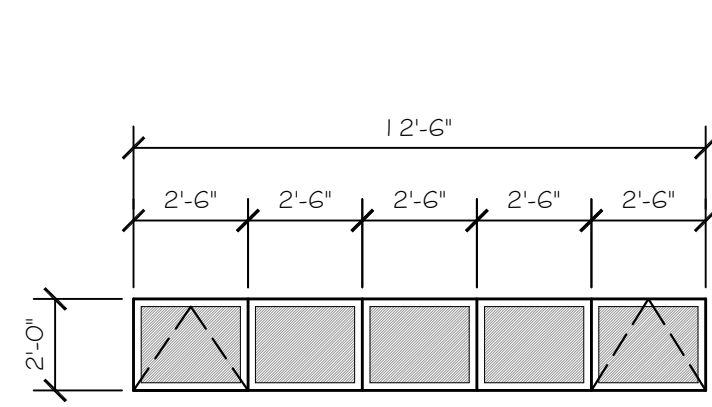
WNDW NO.	ROOM NAME	R.O. SIZE W X H	MATERIAL	TYPE	OPERATION	NOTES	U-FACTOR
101	FOYER	3' X 6'	ALUMINUM	A	LH SWING		
102	GARAGE	18' X 8'	ALUMINUM	C	OVER HEAD	(16) RELITES	.24 MIN.
103	LAUNDRY / PANTRY	2' X 7'	ALUMINUM	B	RH SWING	FULL LITE	.24 MIN.
104	DINING ROOM	1' X 7'	ALUMINUM	D	FENCH SLIDER	FULL LITE	.24 MIN.
105	LIVING ROOM	8' X 7'	ALUMINUM	E	ACCORDION	FULL LITE-(3) PANEL	.24 MIN.
106	OFFICE	5' X 7'	ALUMINUM	E	SLIDING DOOR	FULL LITE	.24 MIN.
107	ADU BEDROOM	3' X 7'	ALUMINUM	B	RH-R SWING	FULL LITE	.24 MIN.

WINDOW SYSTEMS

*VERIFY ALL R.O. FOR WINDOWS SIZE PRIOR TO ORDERING / MANUFACTURING
 * SEE PLANS AND ELEVATIONS FOR WINDOW TAG LOCATION (100)
 * SAFETY GLAZING TO BE PROVIDED PER LOCAL CODE REQUIREMENTS

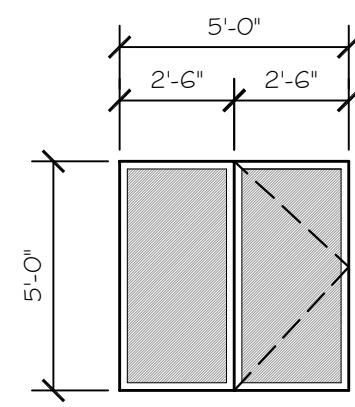
ENERGY CODE INFO

* SEE SCHEDULE FOR GLAZING SIZES
 * PROVIDE GLAZING U-FACTOR OF .30 OR BETTER



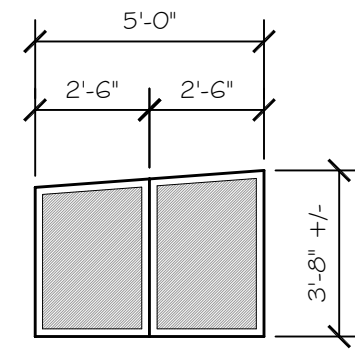
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (3)
- * CASEMENT (2)- AWNING
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (105)



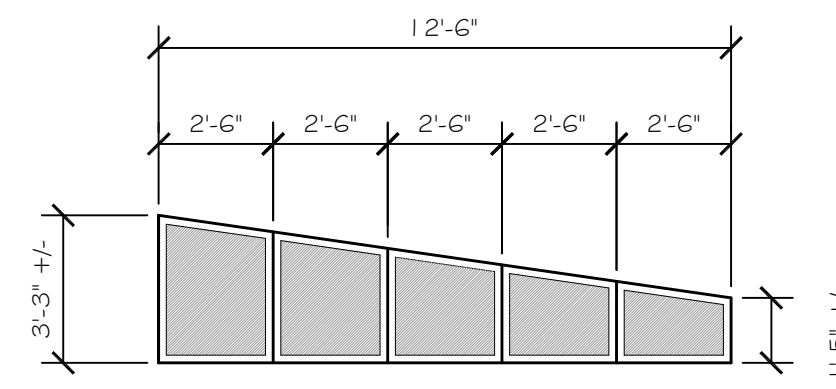
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (3)
- * CASEMENT (1)- EGRESS
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (201)



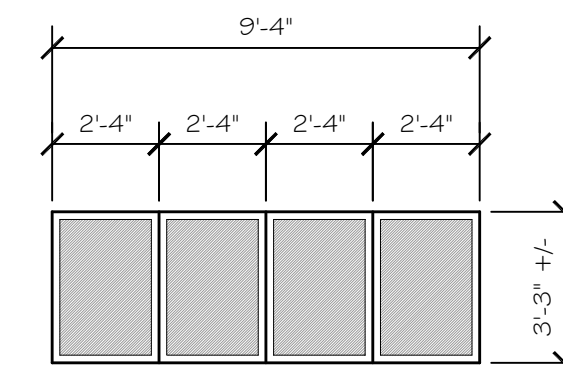
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (4)
- * TRAPEZOID (SLOPED TOP)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (202)



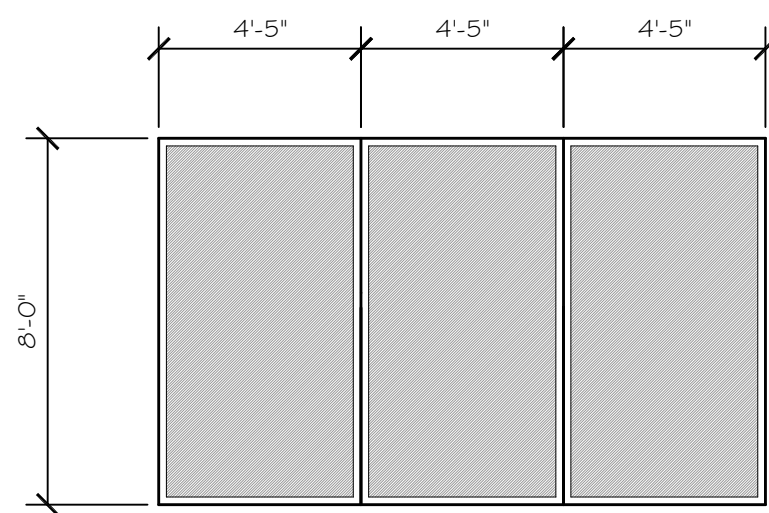
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (5)
- * TRAPEZOID (SLOPED TOP)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (207)



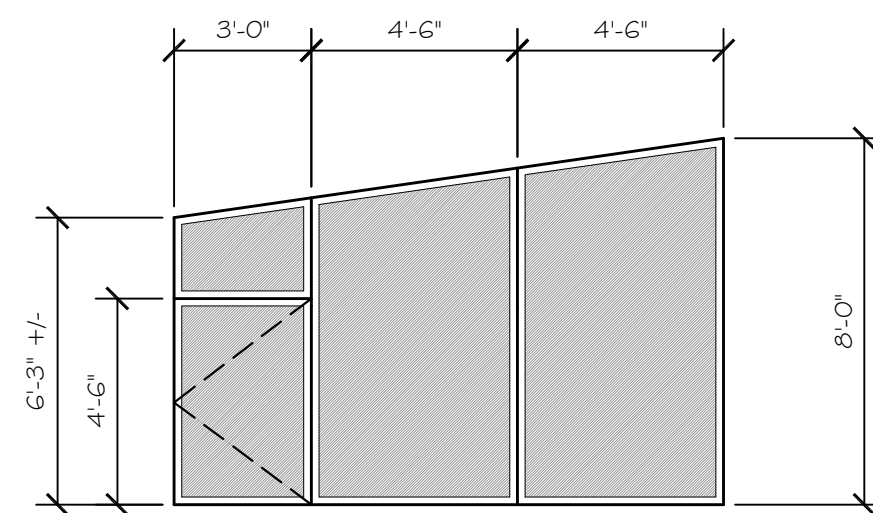
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (4)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (208)



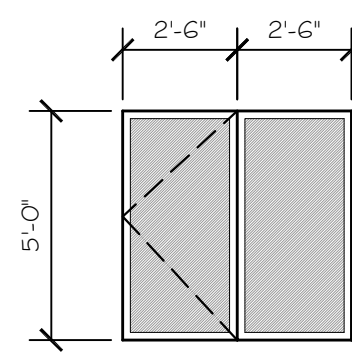
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (3)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (210)



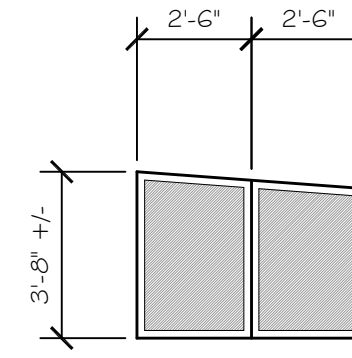
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (3)
- * CASEMENT (1)
- * TRAPEZOID (SLOPED TOP)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

WINDOW SYSTEM (211)



- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (3)
- * CASEMENT (1)- EGRESS
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

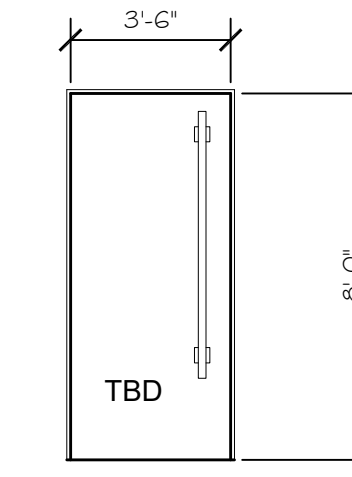
WINDOW SYSTEM (219)



- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE (4)
- * TRAPEZOID (SLOPED TOP)
- * MULLED W/ VERTICAL FLAT STEEL 1X4
- * SAFETY GLAZING

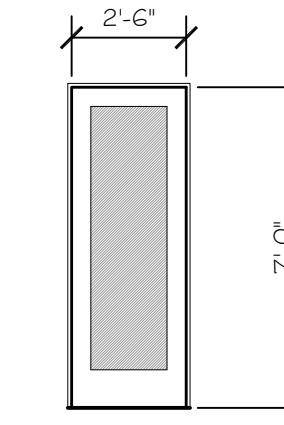
WINDOW SYSTEM (219)

EXTERIOR DOOR TYPES



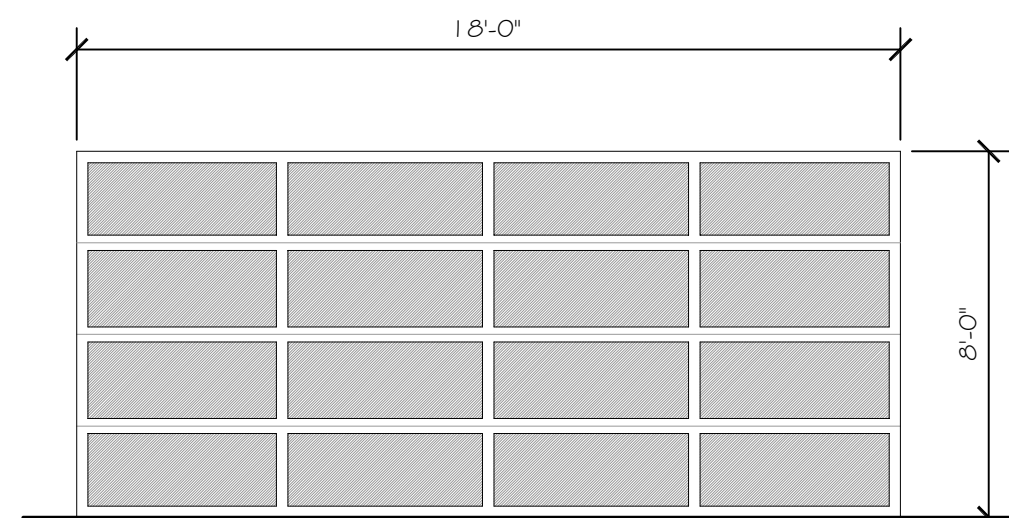
- * WOOD
- * NO PANEL
- * LARGE VERTICAL HANDLE

TYPE A



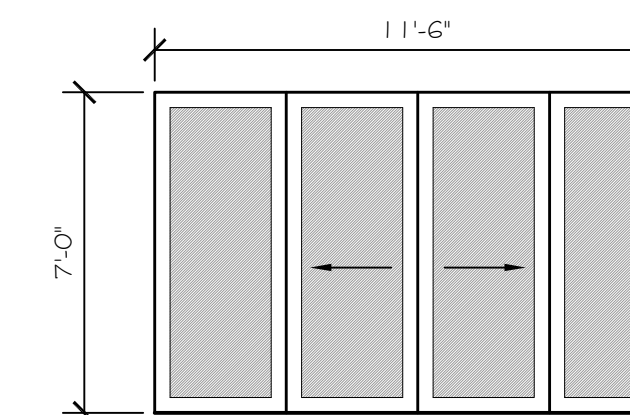
- * ALUMINUM
- * FULL LITE
- * SAFETY GLAZING

TYPE B



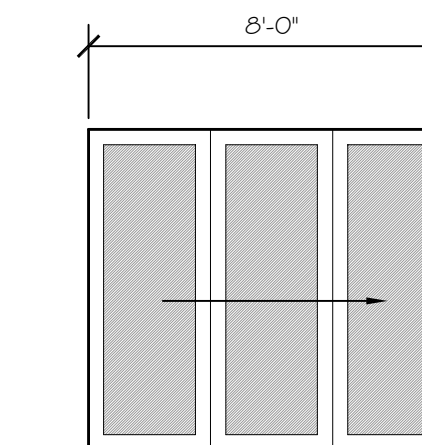
- * ALUMINUM
- * RELITES (16)
- * RELITES FROSTED GLASS

TYPE C



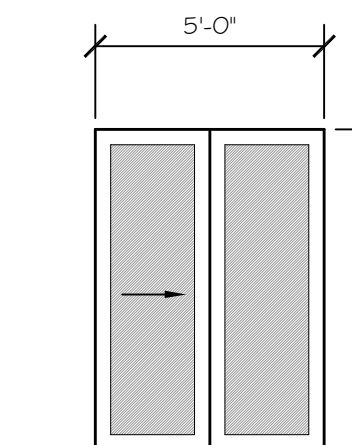
- * FRENCH SLIDER
- * ALUMINUM
- * FULL LITE
- * SAFETY GLAZING

TYPE D



- * ACCORDION DOOR
- * ALUMINUM
- * FULL LITE
- * PANELS (3)
- * SAFETY GLAZING
- * STACKING TO EXTERIOR

TYPE E



- * SLIDING DOOR
- * ALUMINUM
- * FULL LITE
- * SAFETY GLAZING

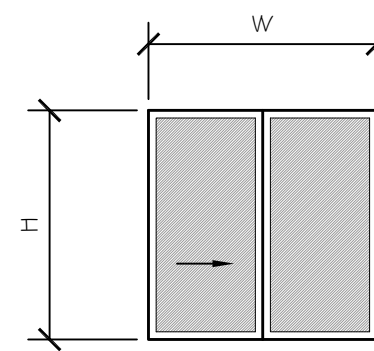
TYPE F

WINDOW TYPES

*VERIFY ALL R.O. FOR WINDOWS SIZE PRIOR TO ORDERING / MANUFACTURING
 * SEE PLANS AND ELEVATIONS FOR WINDOW TAG LOCATION (100)
 * SAFETY GLAZING TO BE PROVIDED PER LOCAL CODE REQUIREMENTS

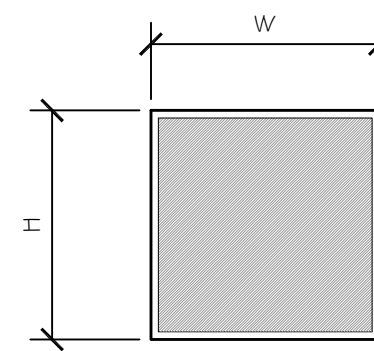
ENERGY CODE INFO

* SEE SCHEDULE FOR GLAZING SIZES
 * PROVIDE GLAZING U-FACTOR OF .30 OR BETTER



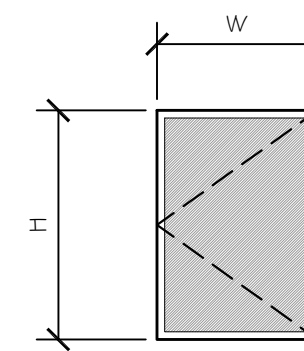
- * ALUMINUM CLAD
- * COLOR BLACK
- * SLIDER

TYPE A



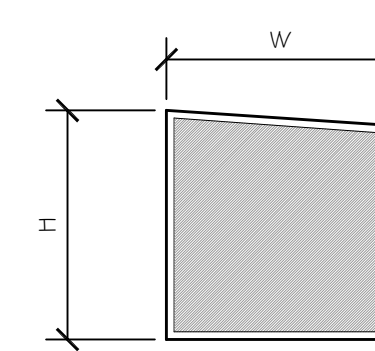
- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE

TYPE B



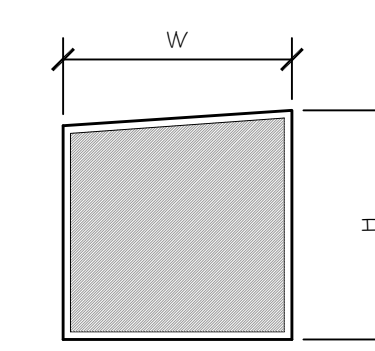
- * ALUMINUM CLAD
- * COLOR BLACK
- * CASEMENT

TYPE C



- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE
- * TRAPEZOID (SLOPED TOP)

TYPE D

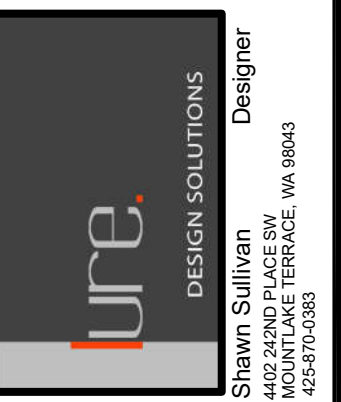


- * ALUMINUM CLAD
- * COLOR BLACK
- * PICTURE
- * TRAPEZOID (SLOPED TOP)

TYPE E

Misc. Info:
 1. FINAL CD SET 10-14-2022
 2. PERMIT REV 03-20-2023
 3.
 4.
 5.

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

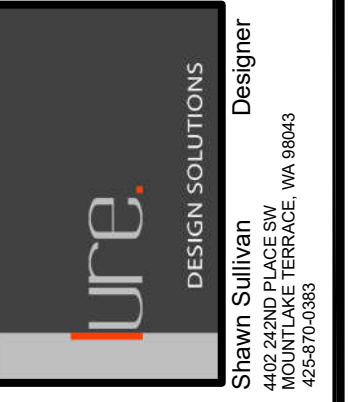
PROPOSED
 WINDOW AND DOOR
 SYSTEMS AND TYPES

DATE: 01-04-2022
 DESIGNED: SLS
 DRAWN: SLS
 JOB NO: 2022-01
 SHEET:

A6.2

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

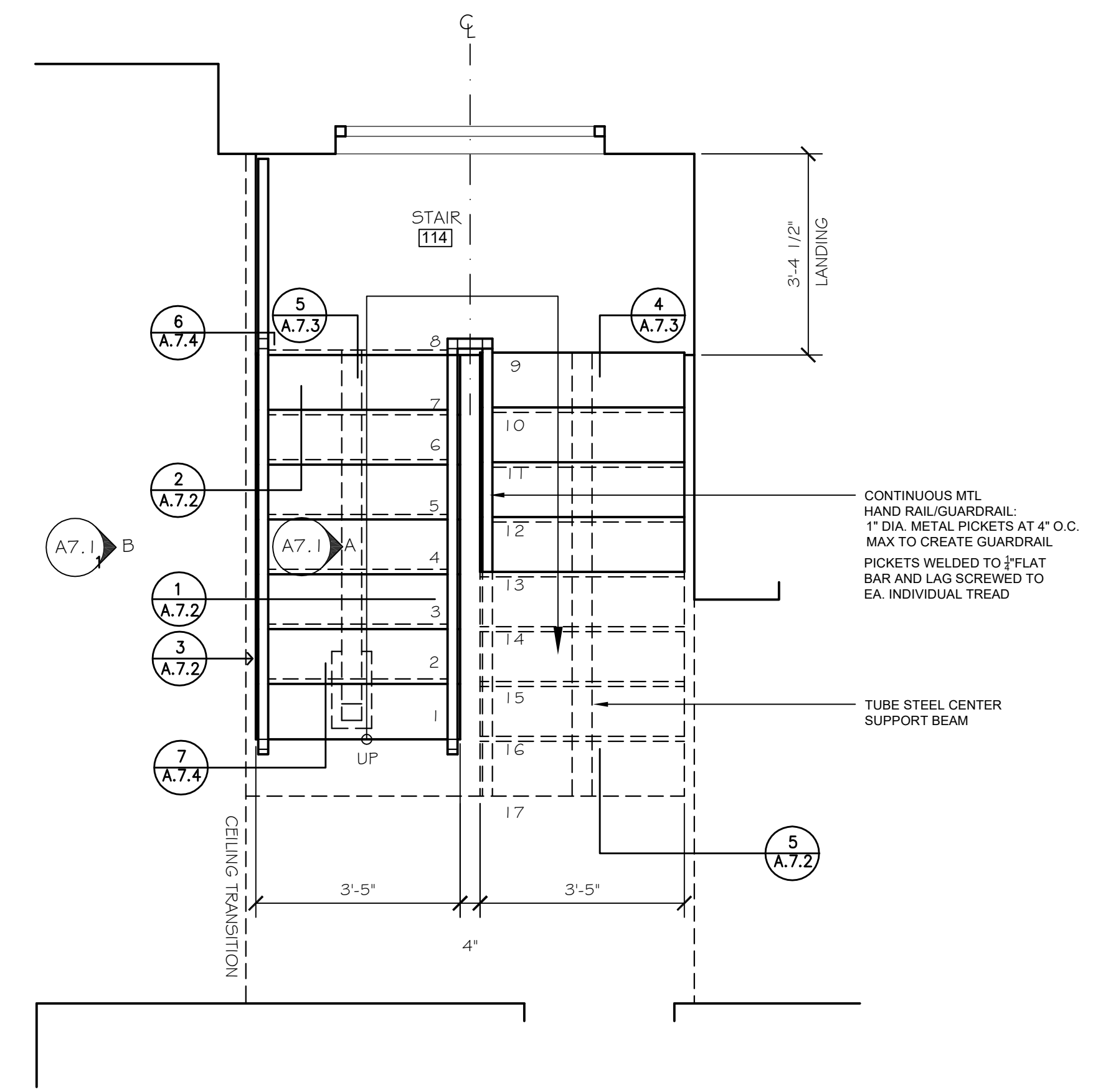


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

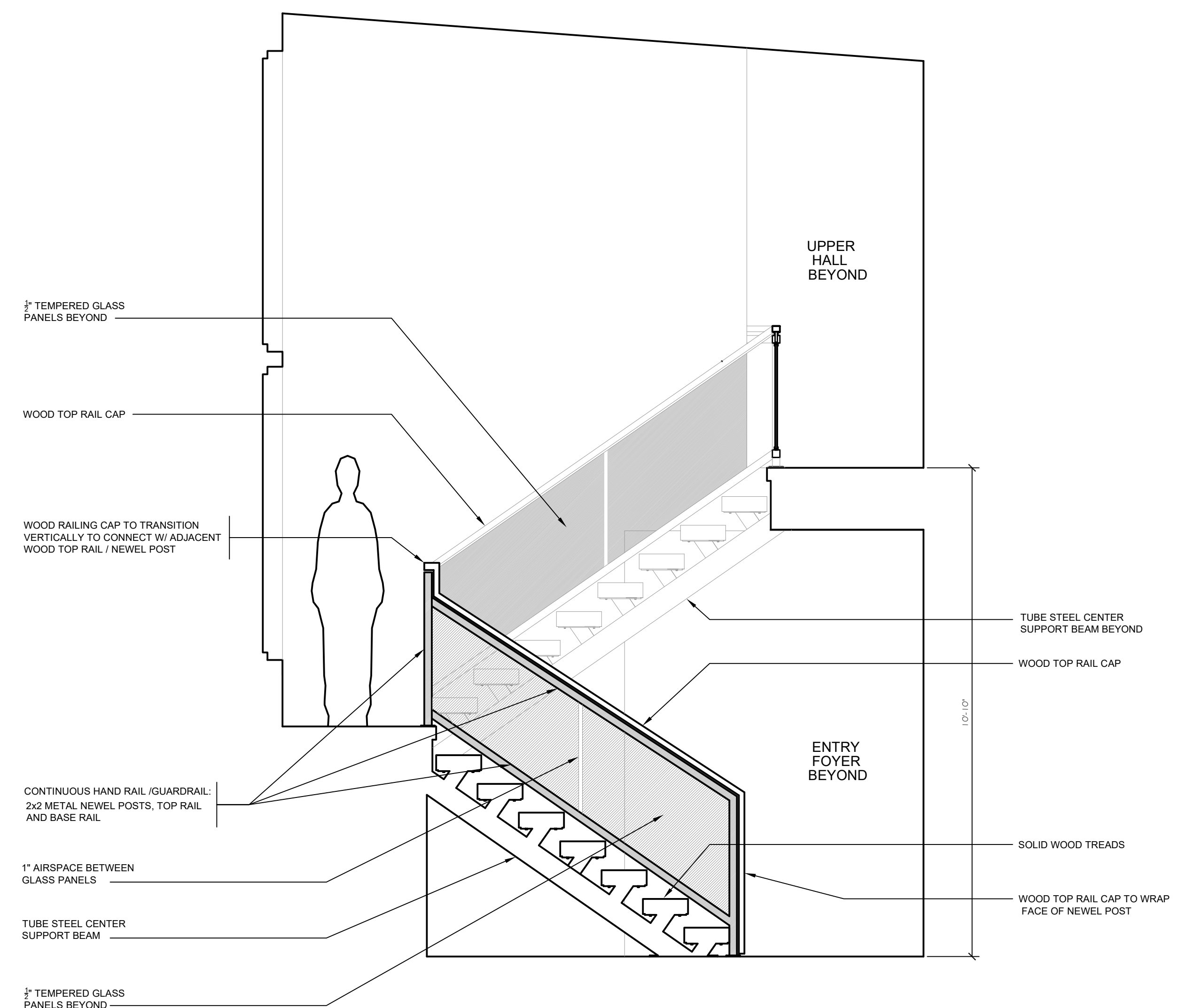
**PROPOSED
 STAIR PLANS
 AND ELEVATIONS**

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

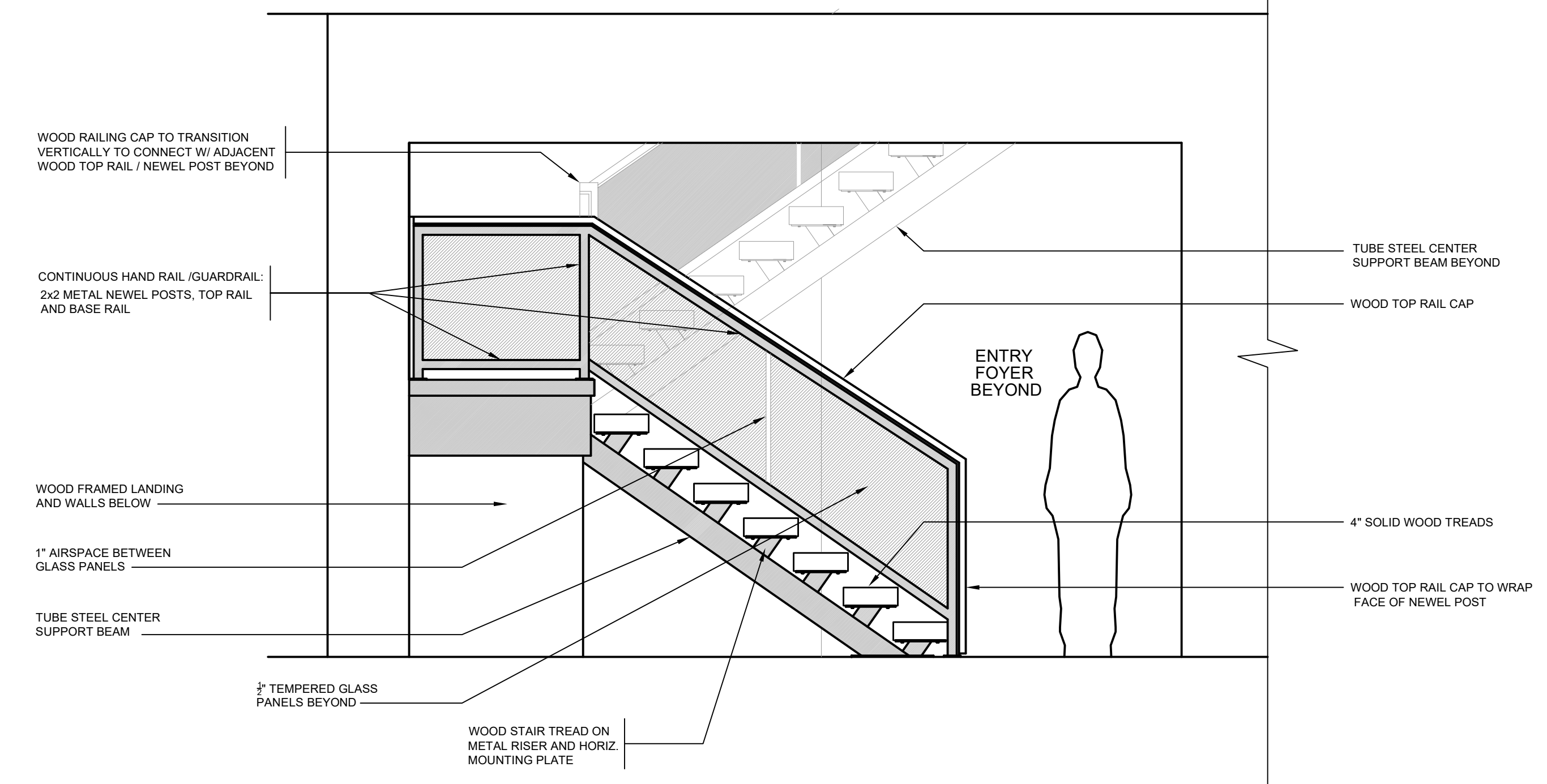
A7.1



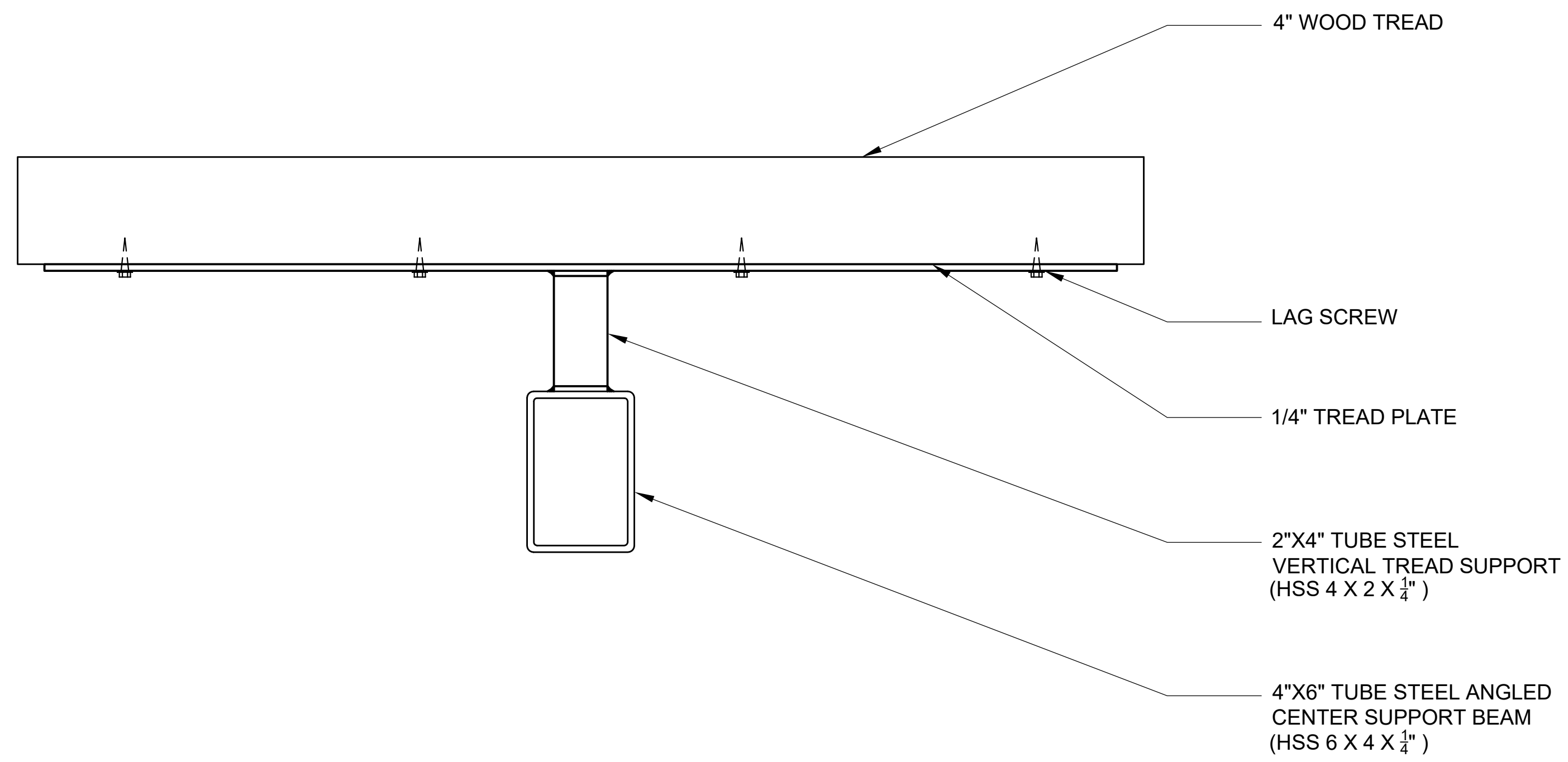
114 STAIR PLAN
 Scale: 1/2" = 1'-0"



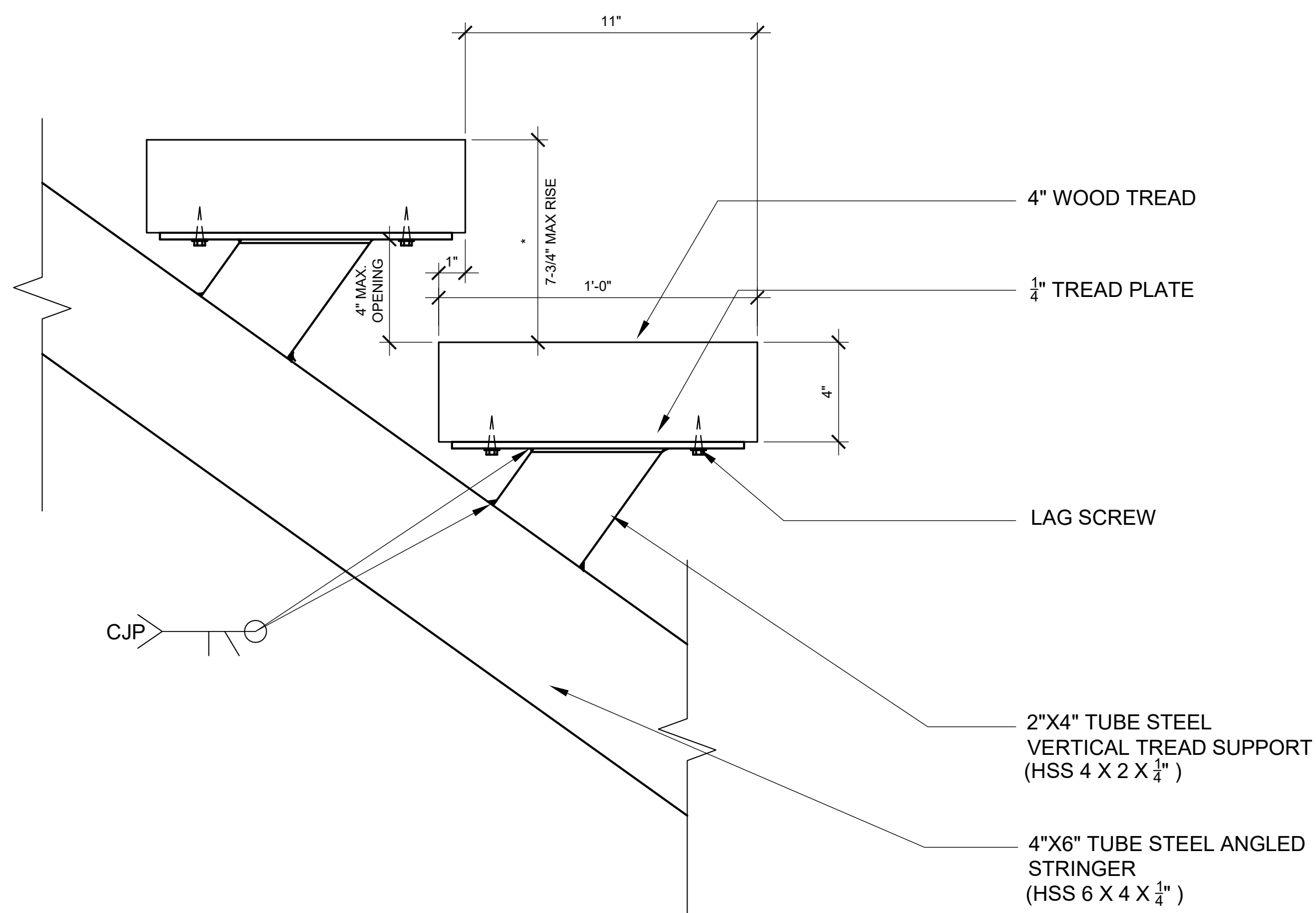
A ELEVATION AT STAIR - GAURDRAIL
 Scale: 1/2" = 1'-0"



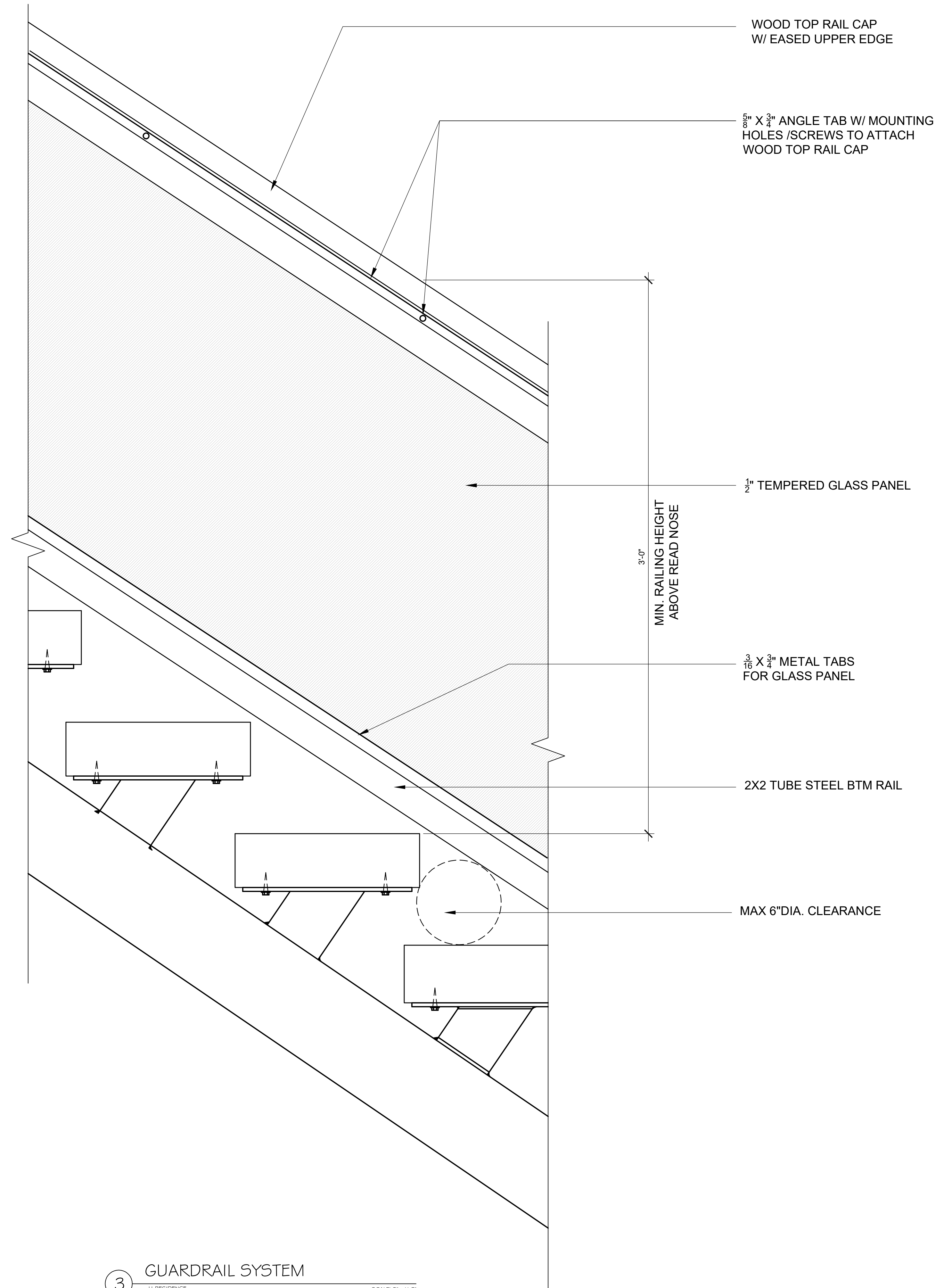
B ELEVATION AT STAIR
 Scale: 1/2" = 1'-0"



1 TREAD SUPPORT SYSTEM
LI RESIDENCE SCALE: 3"=1'-0"
*SEE RELATED STRUCTURAL DETAILS



2 TREAD SUPPORT SYSTEM
LI RESIDENCE SCALE: 3"=1'-0"
*SEE RELATED STRUCTURAL DETAILS

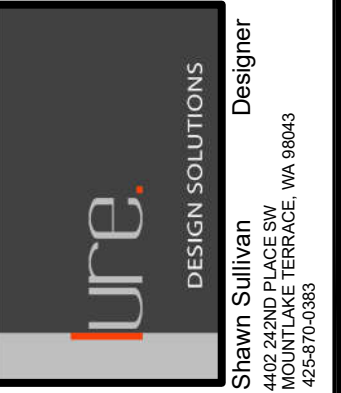


3 GUARDRAIL SYSTEM
LI RESIDENCE SCALE: 3"=1'-0"

Misc. Info:

1. FINAL CD SET	10-14-2022
2. PERMIT REV	03-20-2023
3.	
4.	
5.	

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

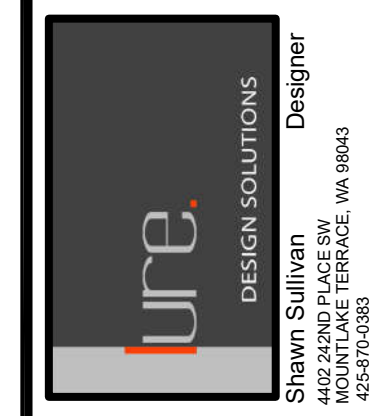
PROPOSED
STAIR DETAILS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

A7.2

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET

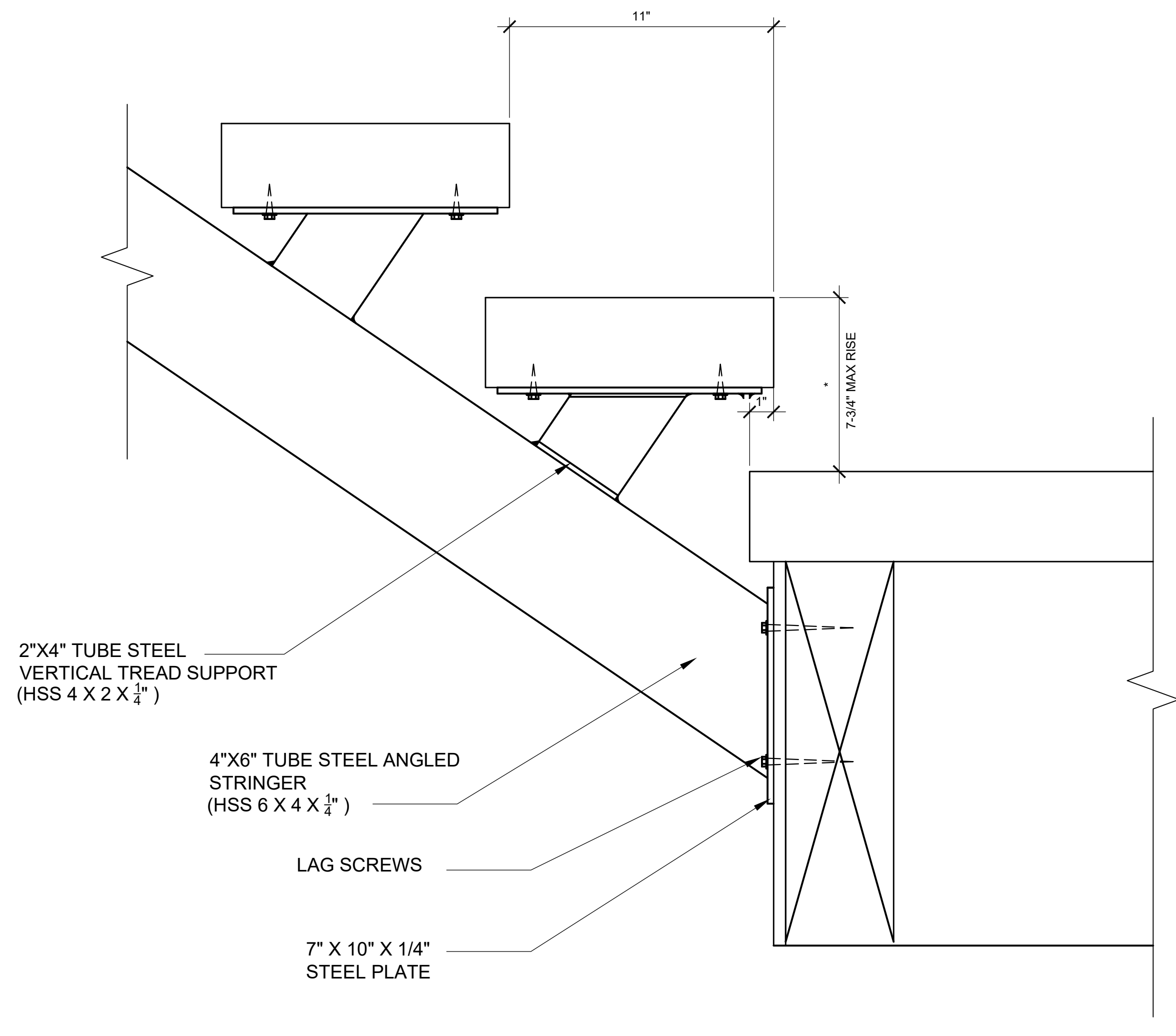


LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

**PROPOSED
 STAIR DETAILS**

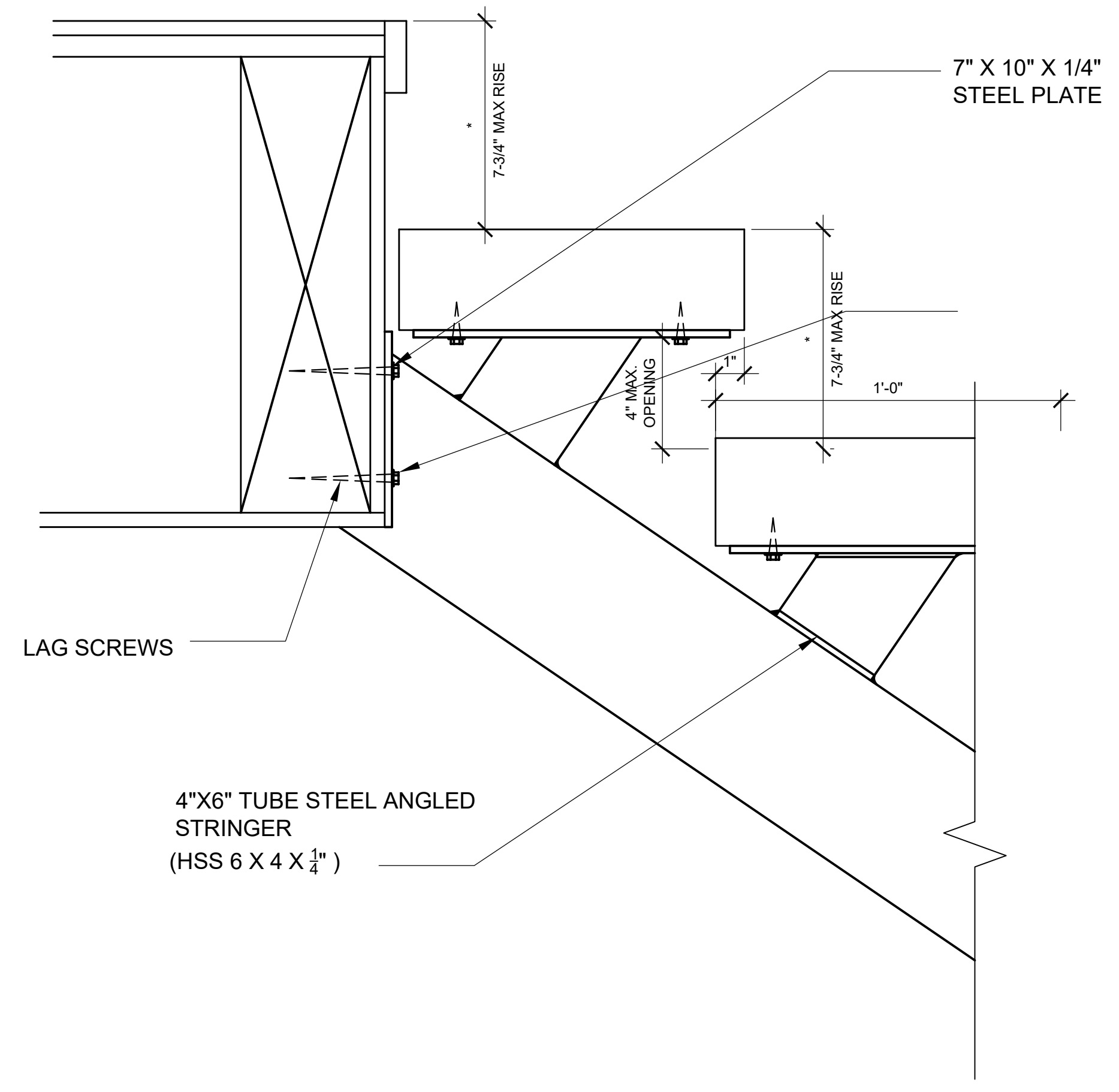
DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

A7.3



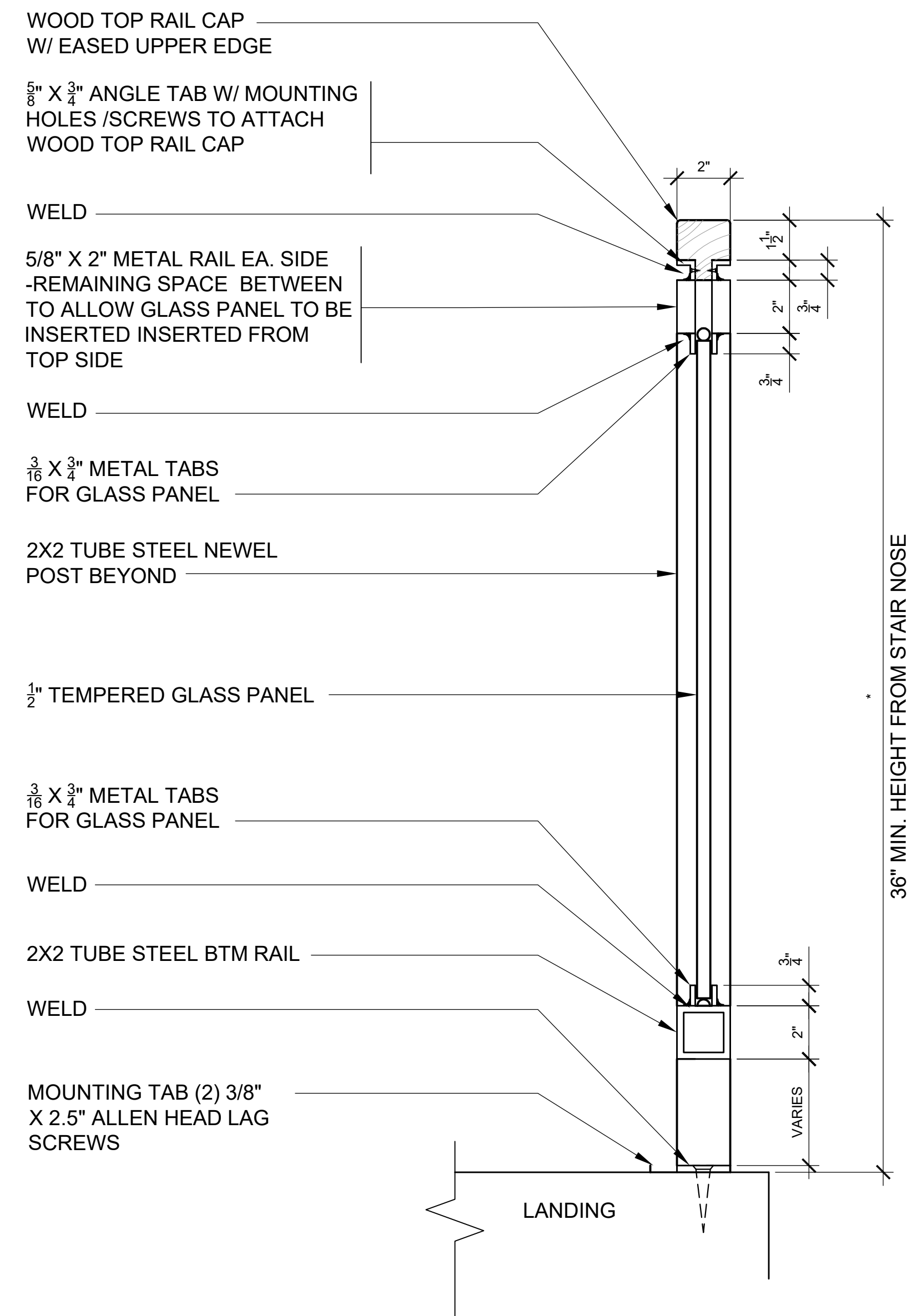
4 STAIR LANDING CONNECTION
 SCALE: 3" = 1'-0"

*SEE RELATED STRUCTURAL DETAILS

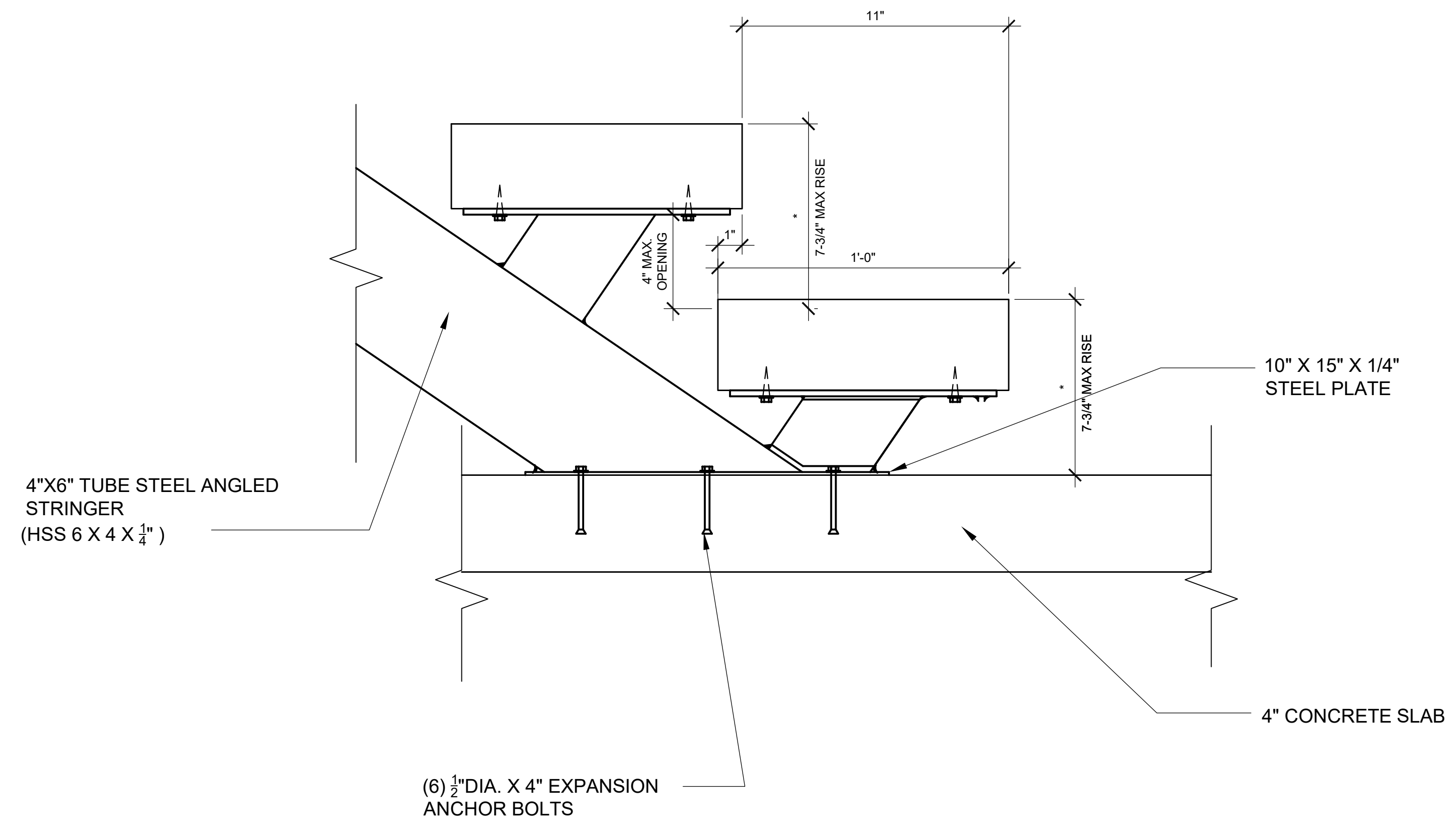


5 STAIR LANDING CONNECTION
 SCALE: 3" = 1'-0"

*SEE RELATED STRUCTURAL DETAILS



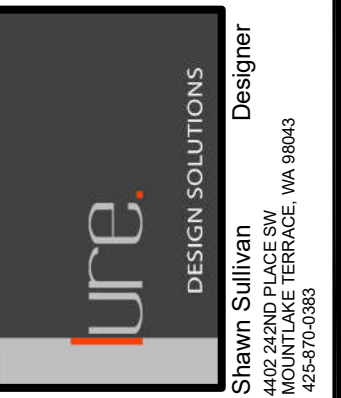
6 GUARDRAIL / NEWEL POST
 LI RESIDENCE SCALE 3" = 1'-0"
 *SEE RELATED STRUCTURAL DETAILS



7 BASE ATTACHMENT TO CONCRETE SLAB
 LI RESIDENCE SCALE 3" = 1'-0"
 *SEE RELATED STRUCTURAL DETAILS

Misc. Info:
1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3.
4.
5.

PERMIT SET



LI RESIDENCE
 CUSTOM RESIDENCE
 4657 86TH AVE. SE
 MERCER ISLAND, WA 98040

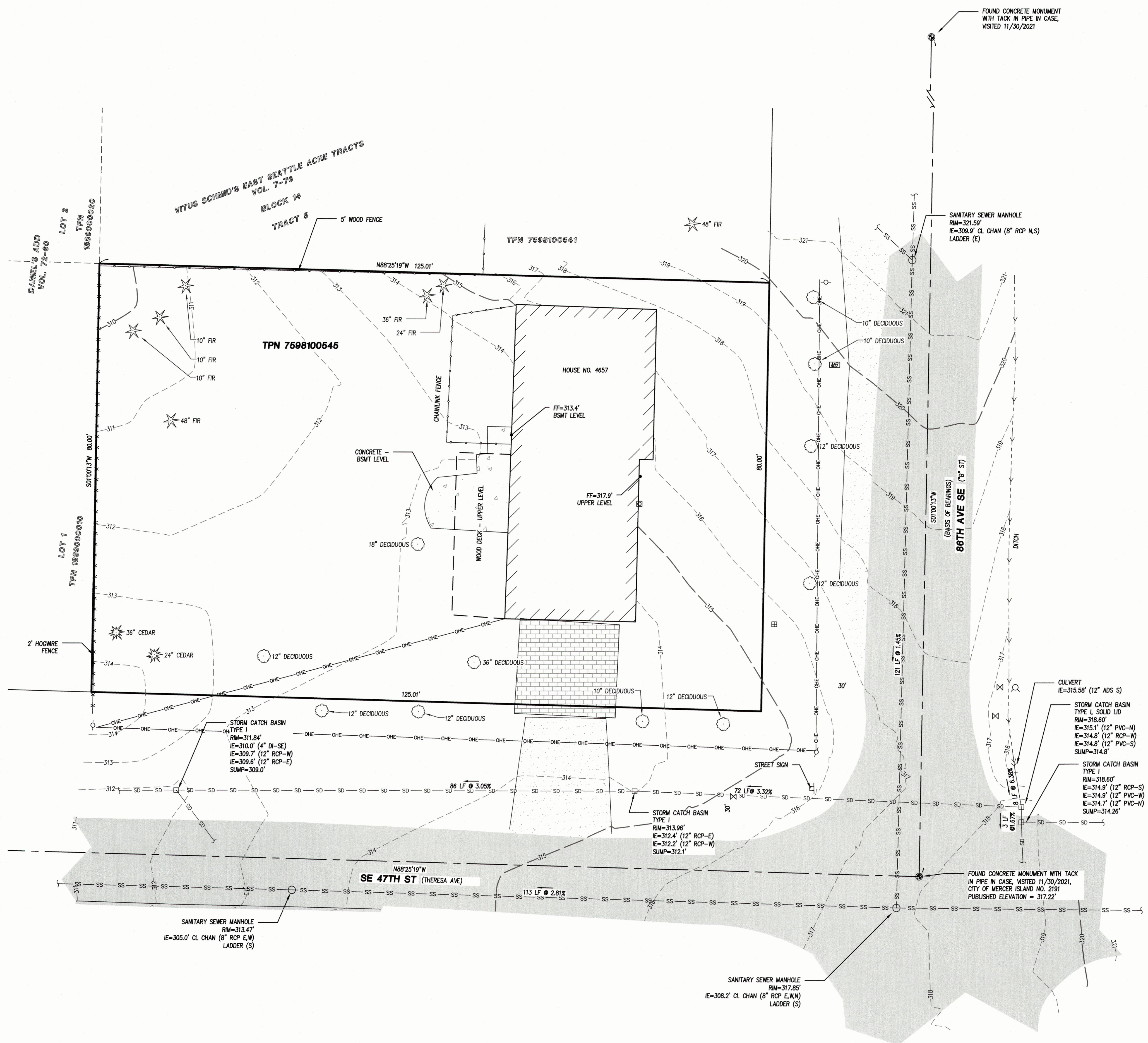
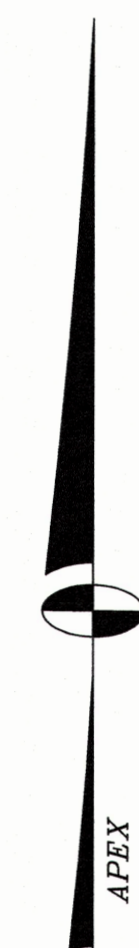
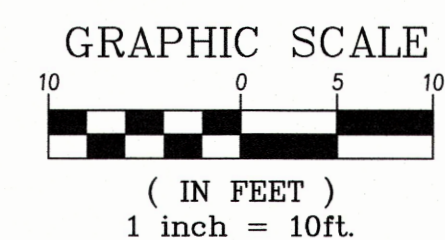
PROPOSED
 STAIR DETAILS

DATE:	01-04-2022
DESIGNED:	SLS
DRAWN:	SLS
JOB NO:	2022-01
SHEET:	

A7.4

WEAVER TOPO TOPOGRAPHIC SURVEY

A PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M.
KING COUNTY, WASHINGTON



LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED, KING CO, REC. NO. 20211005001771)

THE SOUTH 80 FEET OF THE EAST 125 FEET OF TRACT 5 IN BLOCK 14 OF THE VITUS SCHMID'S EAST SEATTLE, ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 7 OF PLATS, PAGE 76, RECORDS OF KING COUNTY AUDITOR;
SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

HORIZONTAL DATUM

WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE (NAD 83/2011) BASED ON RTK GPS MEASUREMENTS CONSTRAINED TO THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM

NAVD 88 BASED ON MERCER ISLAND MONUMENT NO. 2191 AT THE INTERSECTION OF SE 47TH ST AND 86TH AVE SE WITH A PUBLISHED ELEVATION OF 317.22 FEET.

SURVEY NOTES

- DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTION, AND MEETS OR EXCEEDS ACCURACY REQUIREMENTS CONTAINED IN W.A.C. 332.130.090. ALL MEASURING INSTRUMENTS EMPLOYED IN THIS SURVEY HAVE BEEN MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- THIS MAP GRAPHICALLY REPRESENTS CONDITIONS AND FEATURES EXISTING AT THE TIME OF THIS SURVEY ONLY, WHICH WAS PERFORMED DURING NOVEMBER, 2021.
- THE CERTIFICATION OF THIS SURVEY AND MAP IS EXCLUSIVE TO THE NAMED CLIENT WHO REQUESTED THIS SURVEY. IT WAS SPECIFICALLY DESIGNED TO MEET THEIR STATED NEED(S). THAT CERTIFICATION DOES NOT EXTEND TO ANY OTHER PARTIES OR FOR ANY ALTERNATIVE USE OF THIS MAP WITHOUT THE EXPRESS RECERTIFICATION BY THE SURVEYOR NAMING THOSE PARTIES.
- THE PURPOSE OF THIS SURVEY IS TO PROVIDE A TOPOGRAPHIC MAP OF THE EXISTING CONDITIONS WITHIN PARCEL NO. 7598100545 FOR PLANNING, DESIGN AND CONSTRUCTION.
- UTILITIES OTHER THAN SHOWN MAY EXIST ON THE SITE. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE NECESSARY. THE SURVEYOR DOES CERTIFY THAT THEY ARE SHOWN AS ACCURATELY AS POSSIBLE FROM FIELD SURVEY INFORMATION.
- KING COUNTY PARCEL NO. 7598100545.
- PARCEL AREA: 10,000 SQUARE FEET (.23 ACRES).
- ALL DISTANCES AND DIMENSIONS SHOWN ARE U.S. SURVEY FEET GROUND MEASUREMENTS.
- CONTOUR INTERVALS ARE 1-FOOT AND ARE COMPUTER GENERATED FROM GROUND FIELD TOPOGRAPHY GATHERED FOR THIS SURVEY UTILIZING ELECTRONIC DATA COLLECTION.
- WE HAVE USED GRAPHIC SYMBOLS TO REPRESENT SOME FEATURES ON THIS MAP, SUCH AS UTILITIES, TREES AND FENCES. THE DEFAULT SIZE OF THOSE SYMBOLS MAY NOT REFLECT THE TRUE SIZE OF THE FEATURE THAT WAS MAPPED.
- BUILDINGS ARE MEASURED AT THE OUTSIDE COVERING/SIDING.
- THE PROPERTY LINES SHOWN HEREON ARE NOT THE RESULT OF AN OFFICIAL BOUNDARY SURVEY BY APEX ENGINEERING AND SHOULD BE USED FOR GENERAL REFERENCE ONLY.

REFERENCES

- VITUS SCHMID'S EAST SEATTLE ACRE TRACTS, VOL. 7, OF PLATS, PG. 76, KING CO. AFN. 78513.
- DANIEL'S ADDITION, VOL. 72 OF PLATS, PAGE 60, KING CO. AFN. 5540769.
- RECORD OF SURVEY, BK. 105 OF SURVEYS, PG. 294, KING CO. REC. NO. 9510179009.
- RECORD OF SURVEY, BK. 153 OF SURVEYS, PG. 014, KING CO. REC. NO. 20020612900029.
- SHORT PLAT, BK. 289, PG. 281 OF SURVEYS, KING CO. REC. NO. 20120731900002.

LEGEND

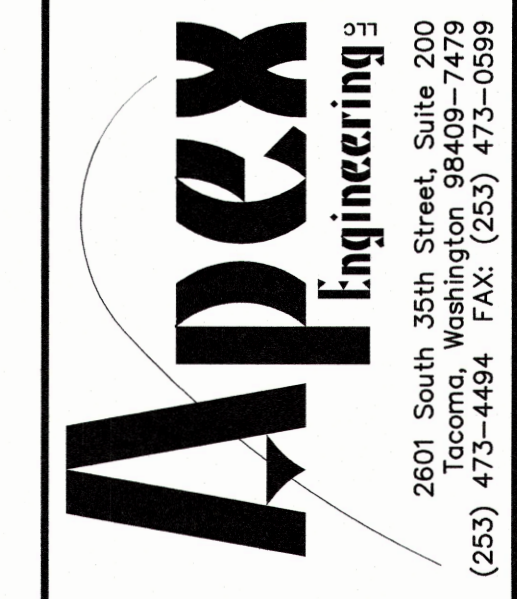
- FOUND MONUMENT AS DESCRIBED
- STORM CATCH BASIN
- STORM CULVERT
- SANITARY SEWER MANHOLE
- FIRE HYDRANT
- ⊕ WATER VALVE
- ⊕ WATER METER
- ⊕ GAS METER
- UTILITY POLE
- ⊕ SIGN
- ⊕ MAIL BOX
- DECIDUOUS TREE (DIAMETER AS NOTED)
- CEDAR TREE (DIAMETER AS NOTED)
- FIR TREE (DIAMETER AS NOTED)
- IE INVERT ELEVATION
- FF FINISH FLOOR ELEVATION
- TPN TAX PARCEL NUMBER
- CL CENTERLINE
- RCP REINFORCED CONCRETE PIPE
- DI DUCTILE IRON PIPE
- ADS CORRUGATED PLASTIC PIPE
- PVC PLASTIC PIPE
- WOOD FENCE (AS NOTED)
- CHAIN LINK FENCE (AS NOTED)
- WIRE FENCE (AS NOTED)
- STORM DITCH LINE
- OVERHEAD POWER LINE
- BURIED STORM DRAIN LINE
- BURIED SANITARY SEWER LINE
- MINOR CONTOUR
- MAJOR CONTOUR
- ASPHALT SURFACE
- CONCRETE SURFACE
- GRAVEL SURFACE
- BRICK SURFACE

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THIS MAP CORRECTLY REPRESENTS A TOPOGRAPHIC SURVEY MADE BY ME OR UNDER MY DIRECTION AND TO THE BEST OF MY KNOWLEDGE REPRESENTS THE TOPOGRAPHIC FEATURES AS THEY EXIST ON THE GROUND AS OF 11/30/2021.

Kurt A. Parcher 12/17/2021
KURT A. PARCHER P.L.S. NO. 49286 DATE

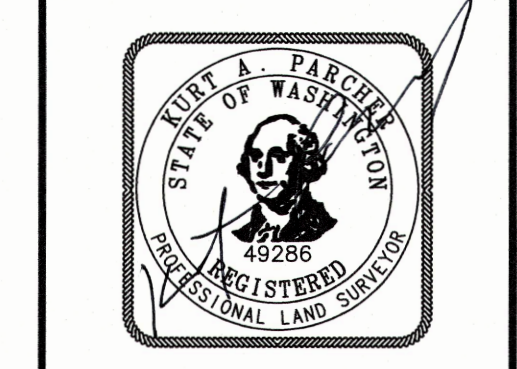
REV. NO.	REVISION DESCRIPTION	DATE BY



**WEAVER TOPO
TOPOGRAPHIC SURVEY**
4657 - 86TH AVE SE
MERCER ISLAND, WA 98040

CAMERON WEAVER
23651 - 140TH AVE SE
KENT, WA 98042

TITLE
DATE SEALED 12/17/2021



PROJECT MANAGER
KURT A. PARCHER

DESIGN
DRAWN **WEL**

CHECKED
SEC 18 T 24N R 05E

FILE NO **35969-SV**

DATE **12/17/2021**

SCALE **1"=10'**

SHEET 1 OF 1

FILE NO **35969**

© APEX ENGINEERING LLC 2021



Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cses-engineering.com

Li Residence
 4657 86th Ave SE
 Mercer Island, WA 98040

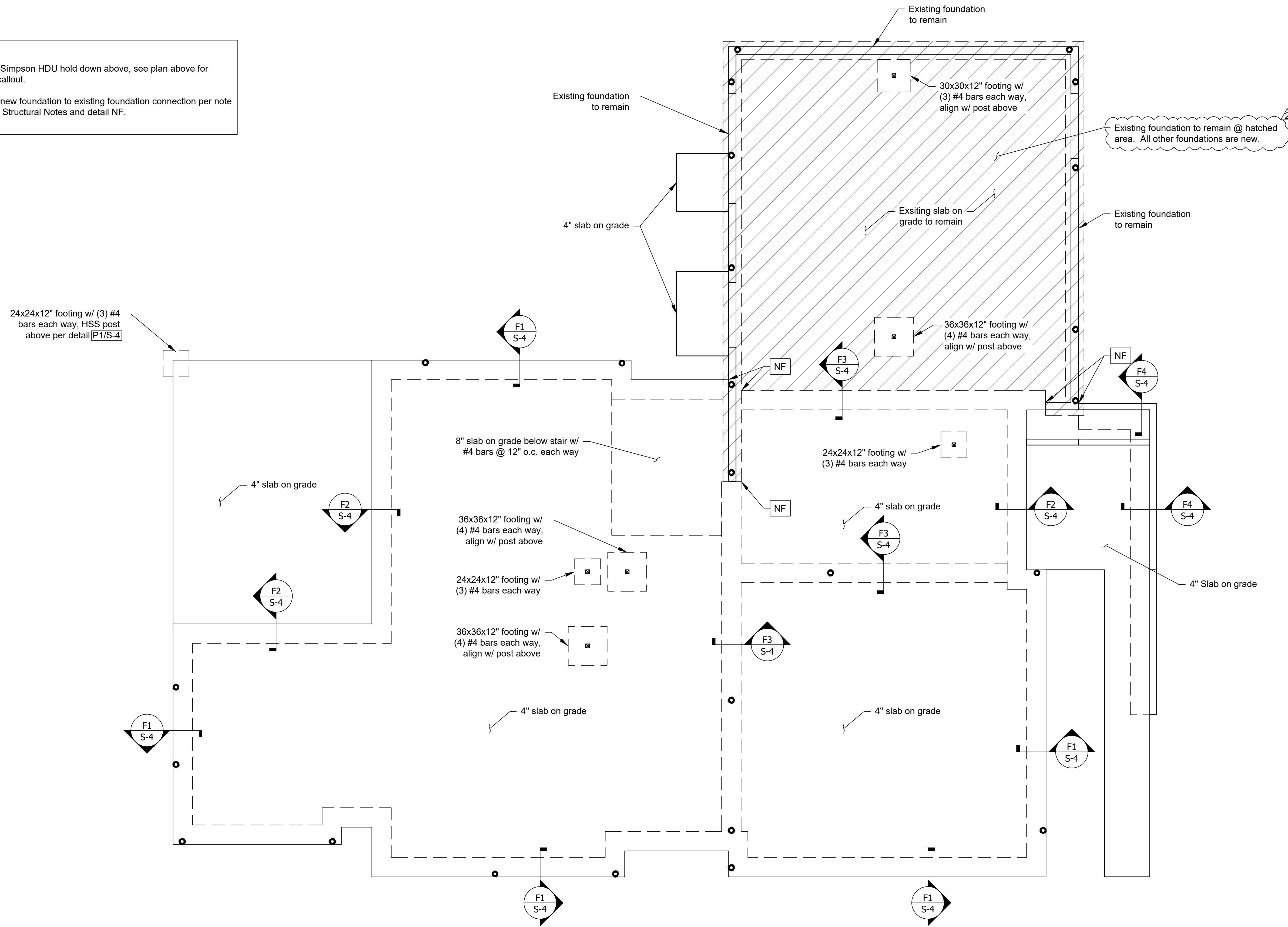
Revisions:
 ▲ 10-24-22
 ▲ 2-16-23

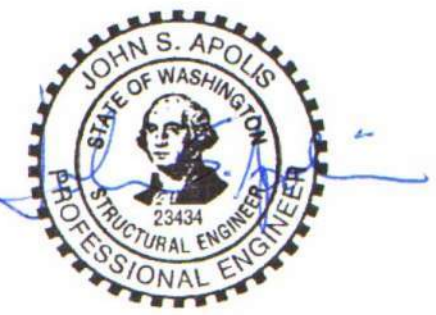
Date:
 10-24-22

Sheet:

S-1

NOTES:
 ● Denotes a Simpson HDU hold down above, see plan above for hardware callout.
 NF Denotes a new foundation to existing foundation connection per note "NF" in the Structural Notes and detail NF.





Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cses-engineering.com

Li Residence
 4657 86th Ave SE
 Mercer Island, WA 98040

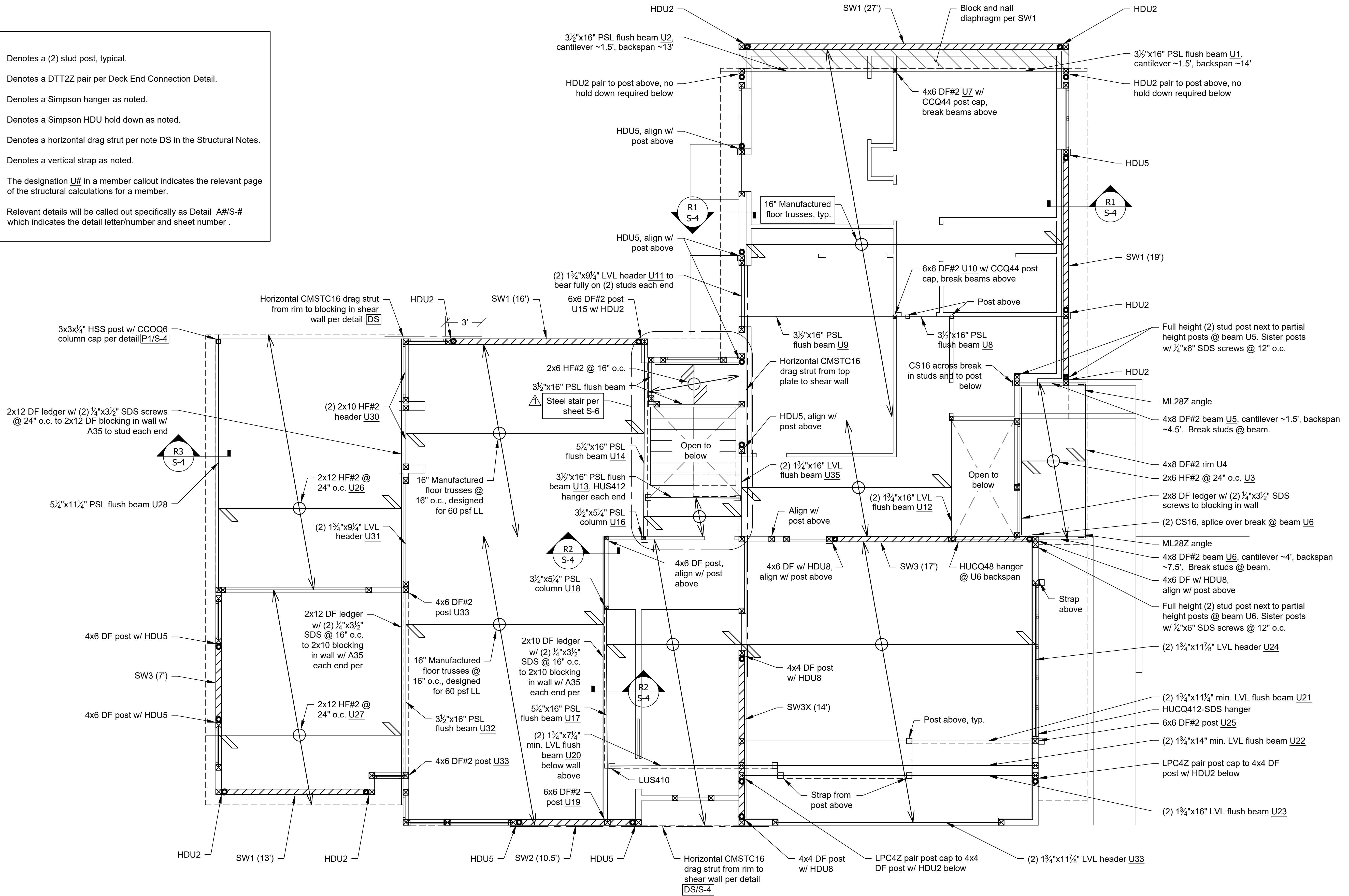
Revisions:
 10-24-22
 2-16-23

Date:
 10-24-22

Sheet:

S-2

- NOTES:
- ☒ Denotes a (2) stud post, typical.
 - ⊔ Denotes a DTT2Z pair per Deck End Connection Detail.
 - Denotes a Simpson hanger as noted.
 - Denotes a Simpson HDU hold down as noted.
 - — — Denotes a horizontal drag strut per note DS in the Structural Notes.
 - ⊠ Denotes a vertical strap as noted.
 - U# The designation U# in a member callout indicates the relevant page of the structural calculations for a member.
 - A#/S-# Relevant details will be called out specifically as Detail A#/S-# which indicates the detail letter/number and sheet number.

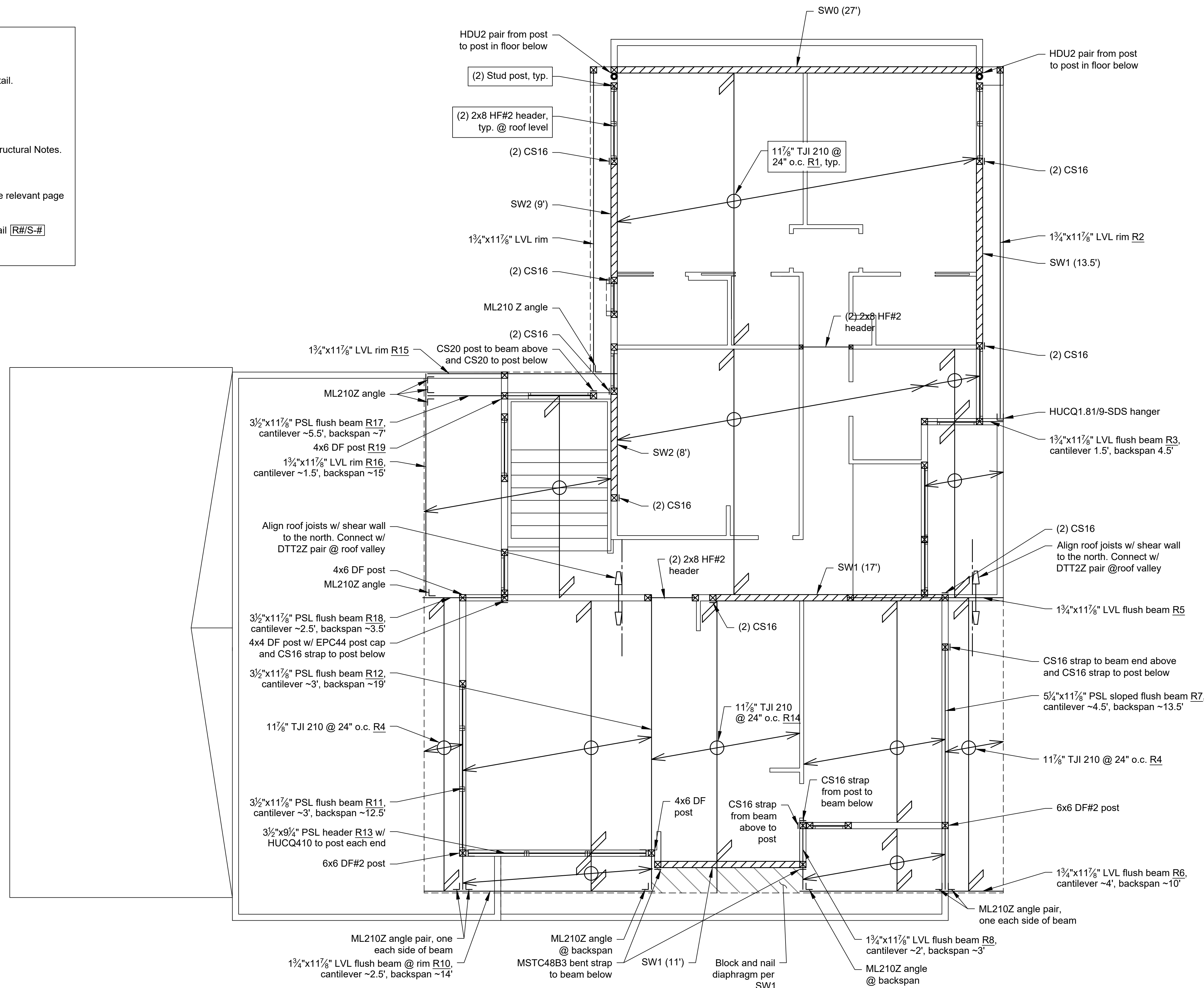


1 Upper Floor Framing and Ground Floor Wall Plan

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



- NOTES:**
- ☒ Denotes a (2) stud post, typical.
 - ☐ Denotes a DTT2Z pair per Deck End Connection Detail.
 - ☐ Denotes a Simpson hanger as noted.
 - Denotes a Simpson HDU hold down as noted.
 - — — Denotes a horizontal drag strut per note DS in the Structural Notes.
 - ☒ Denotes a vertical strap as noted.
 - R# The designation R# in a member callout indicates the relevant page of the structural calculations for a member.
 - R#/S# Relevant details will be called out specifically as Detail R#/S# which indicates the detail number/sheet number.



Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cses-engineering.com

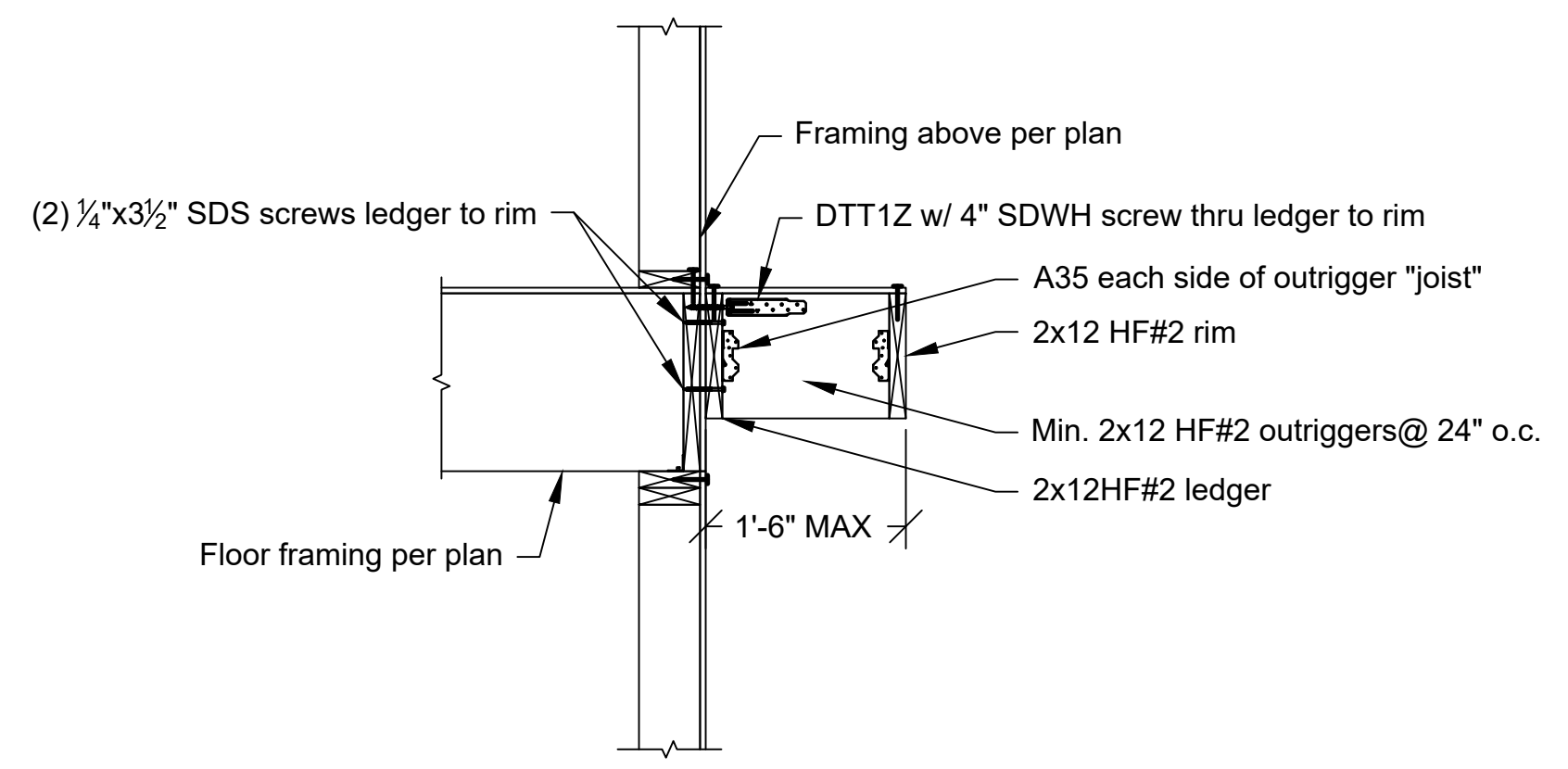
Li Residence
 4657 86th Ave SE
 Mercer Island, WA 98040

Revisions:
 ▲ 10-24-22
 ▲ 2-16-23

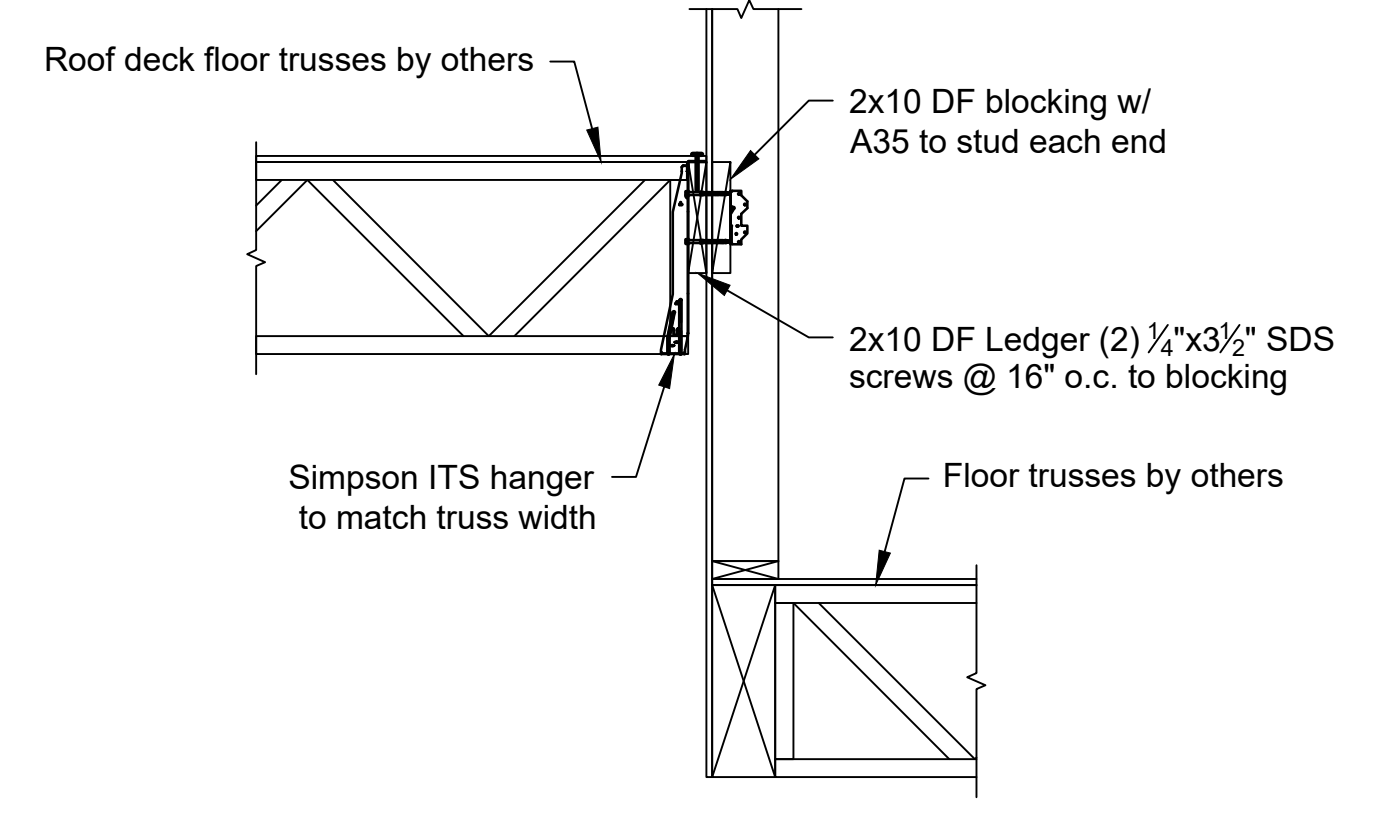
Date:
 10-24-22

Sheet:

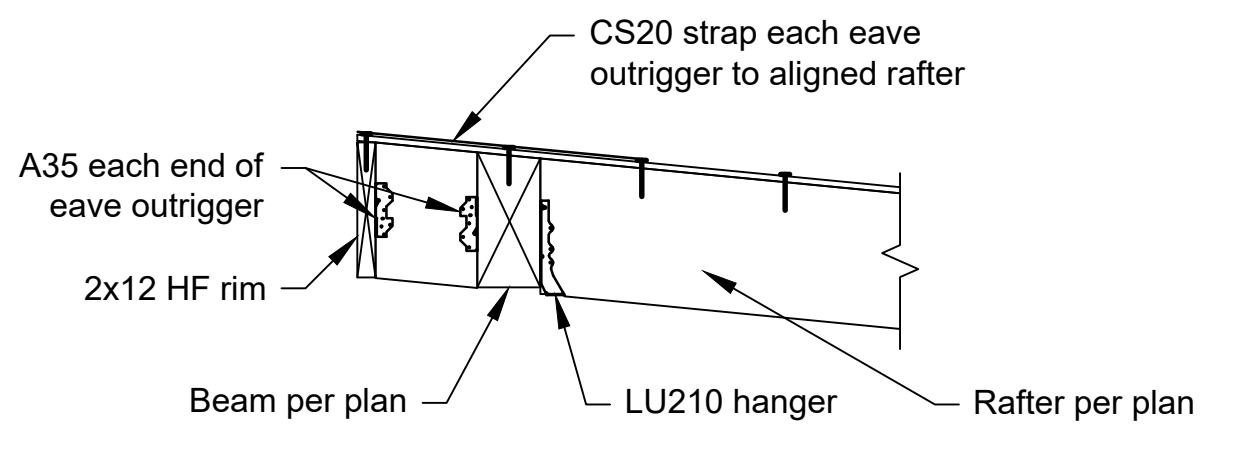
S-3



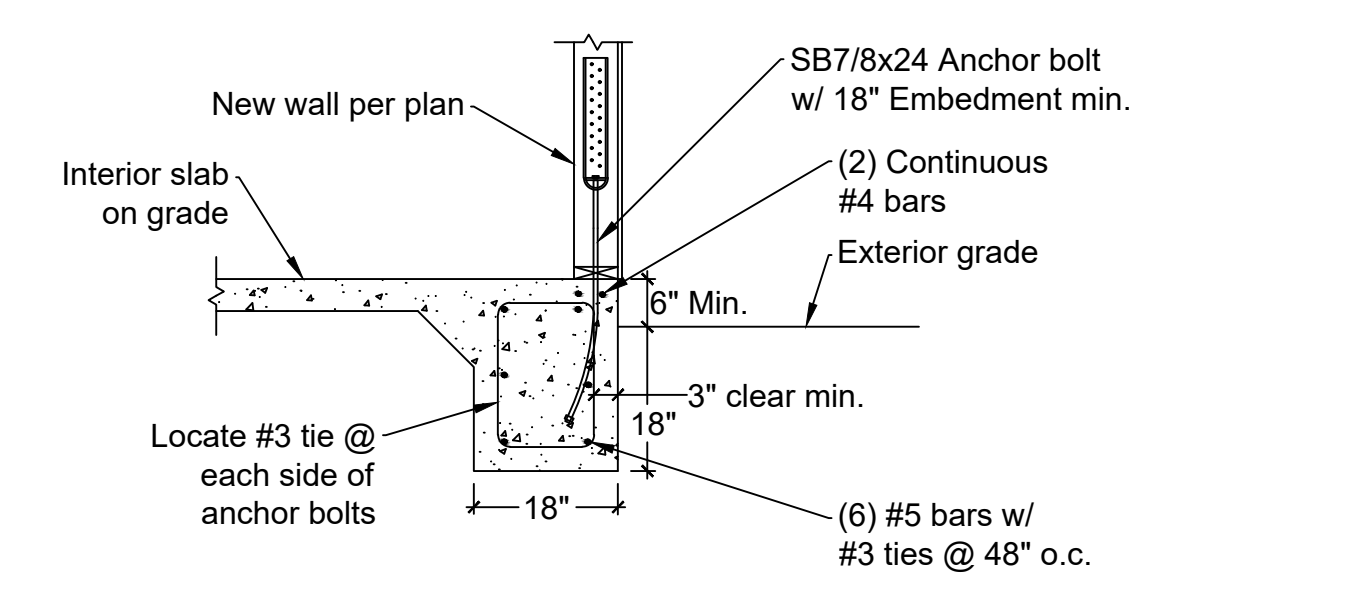
R1 Roof Accent Eave Detail
Scale: 3/4" = 1'-0"



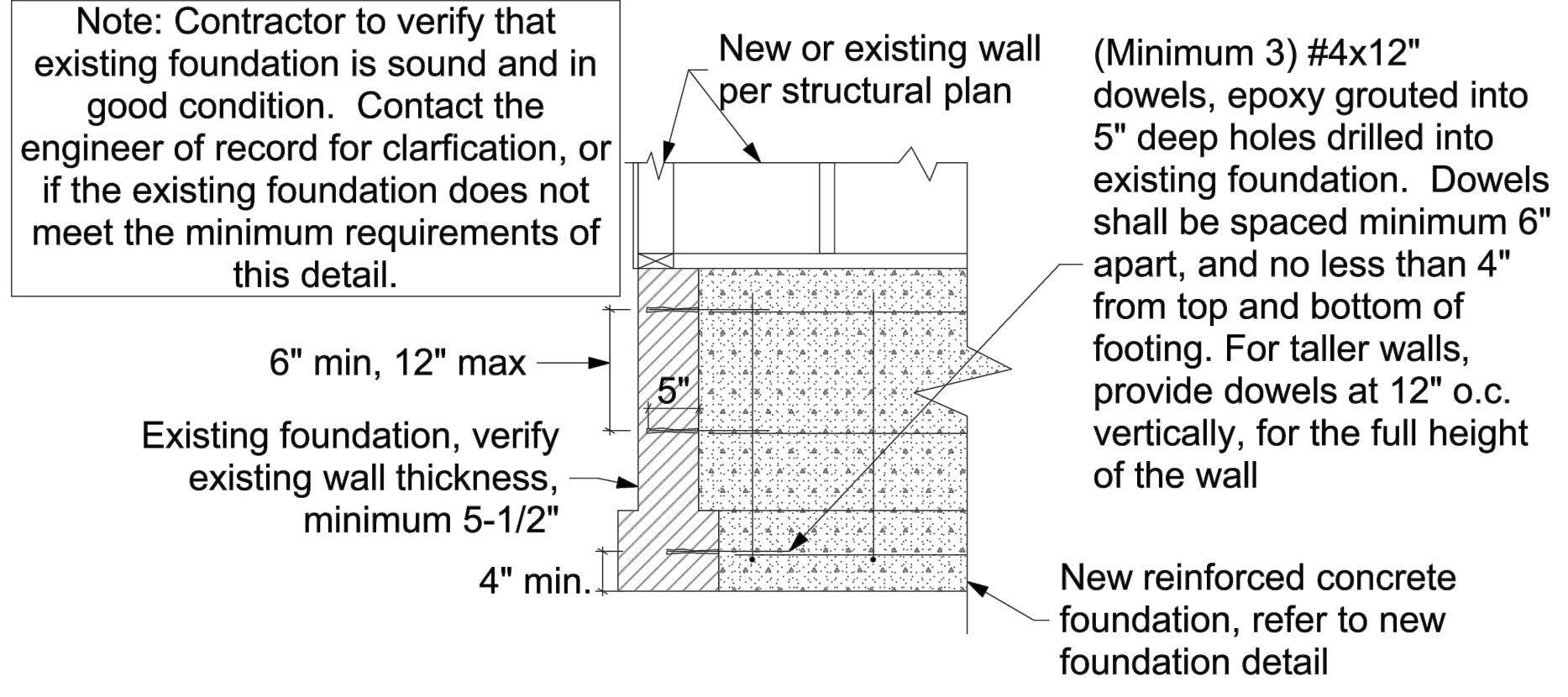
R2 Roof Deck Ledger Attachment Detail
Scale: 1-1/2" = 1'-0"



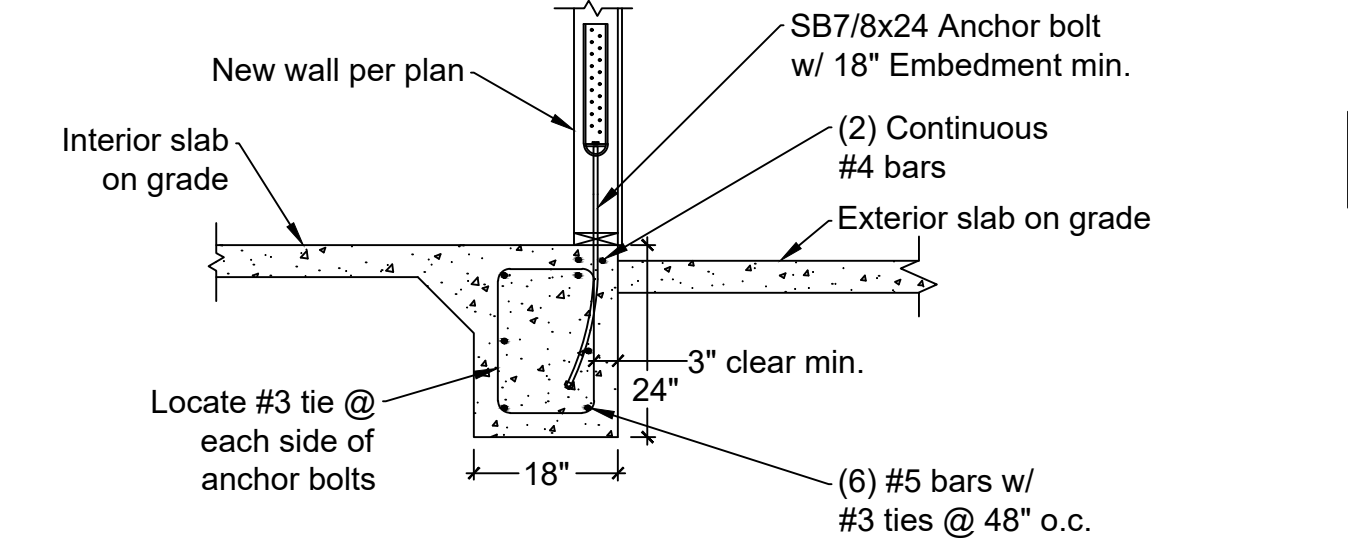
R3 West Roof Eave Detail
Scale: 3/4" = 1'-0"



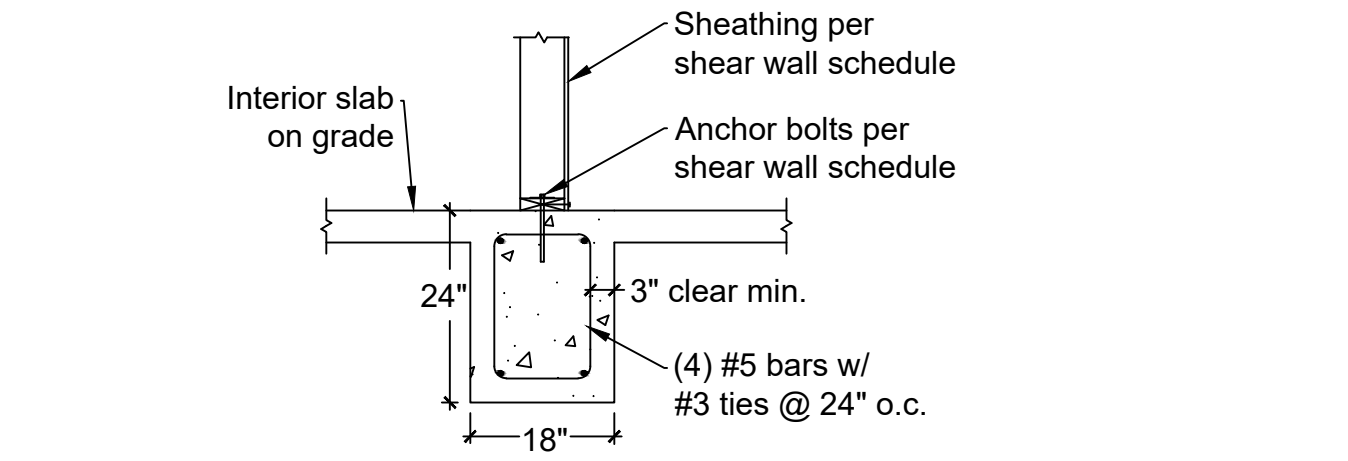
F1 Exterior Footing Detail
Scale: 1/2" = 1'-0"



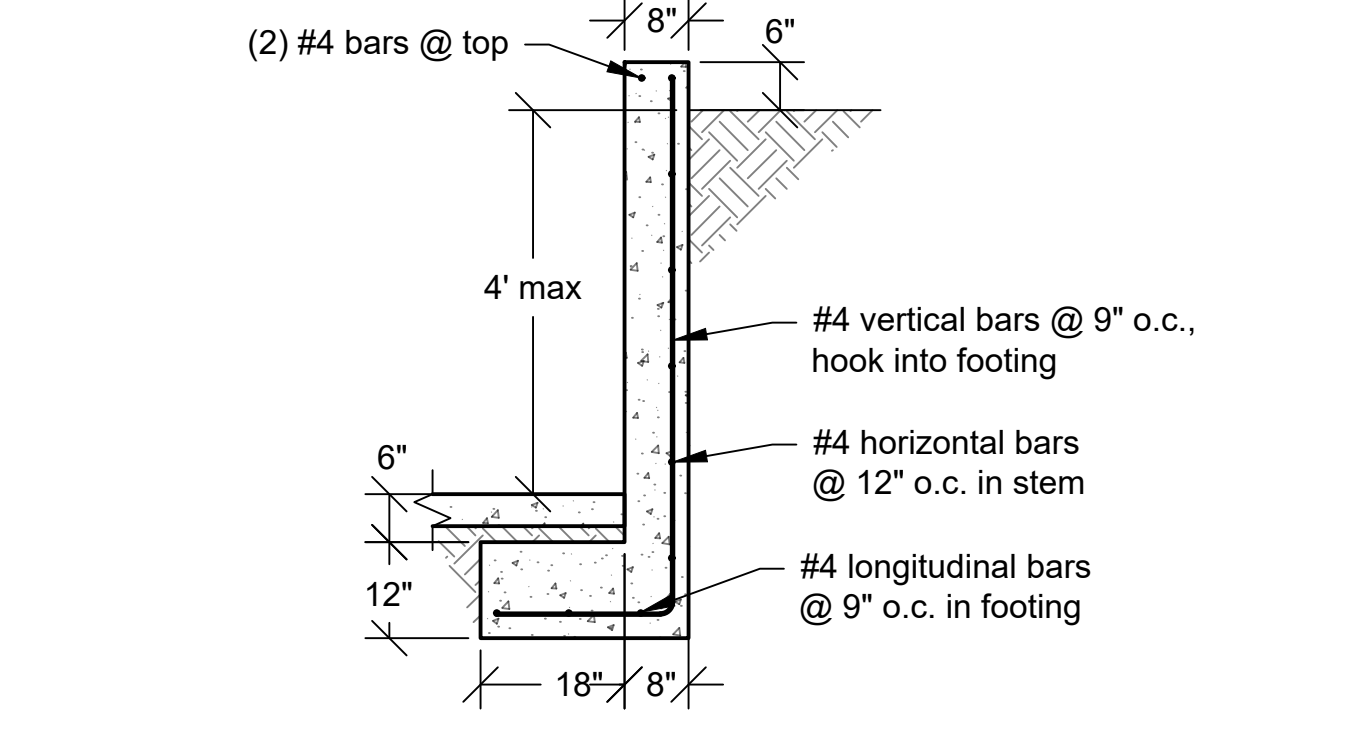
NF New Foundation Connection to Existing Detail
Scale: 3/4" = 1'-0"



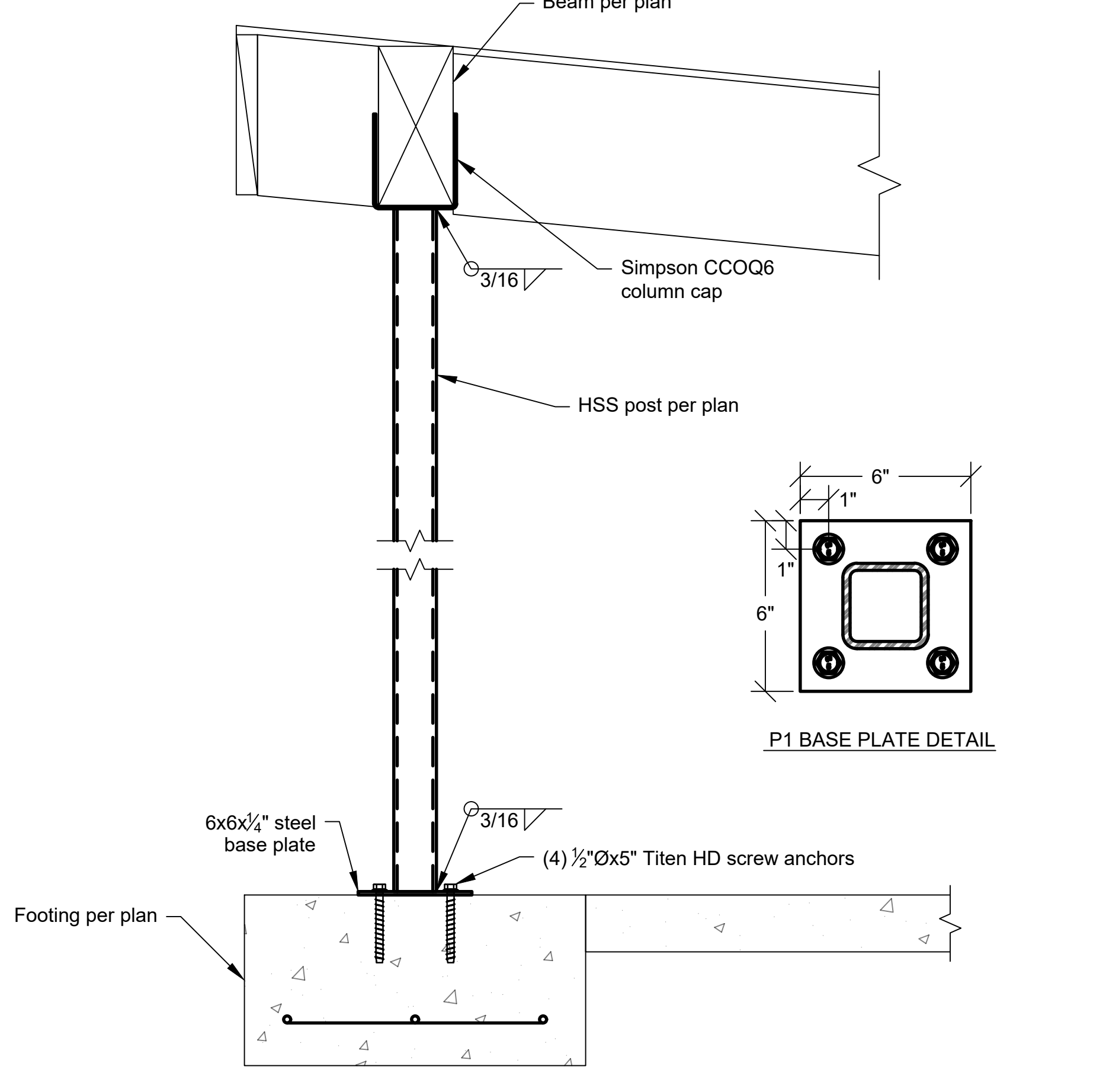
F2 Exterior Footing Detail
Scale: 1/2" = 1'-0"



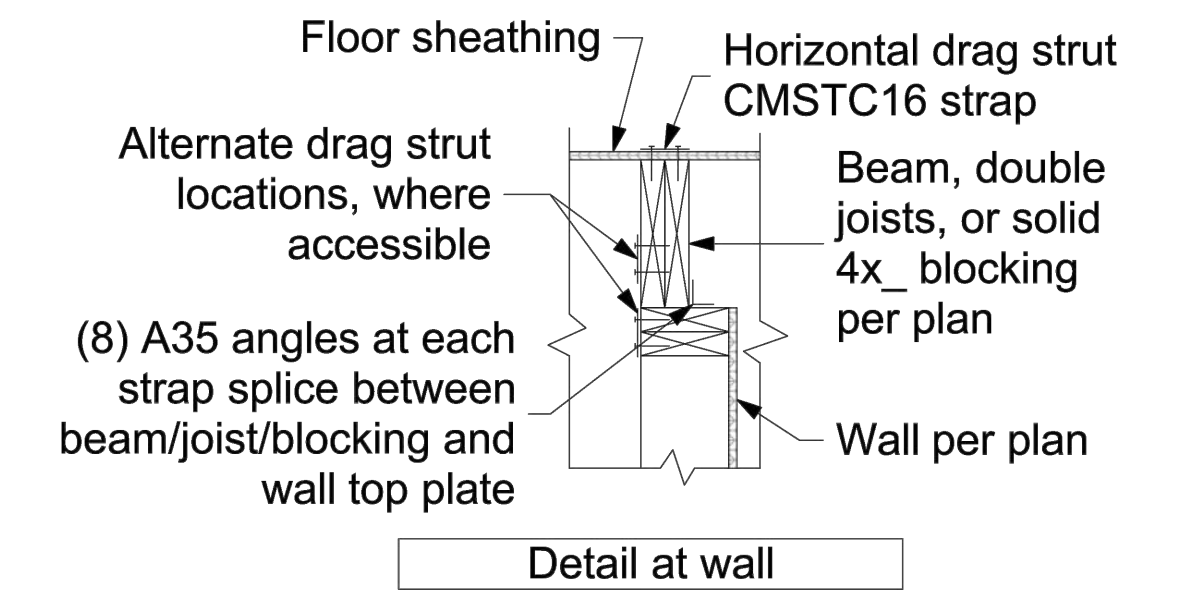
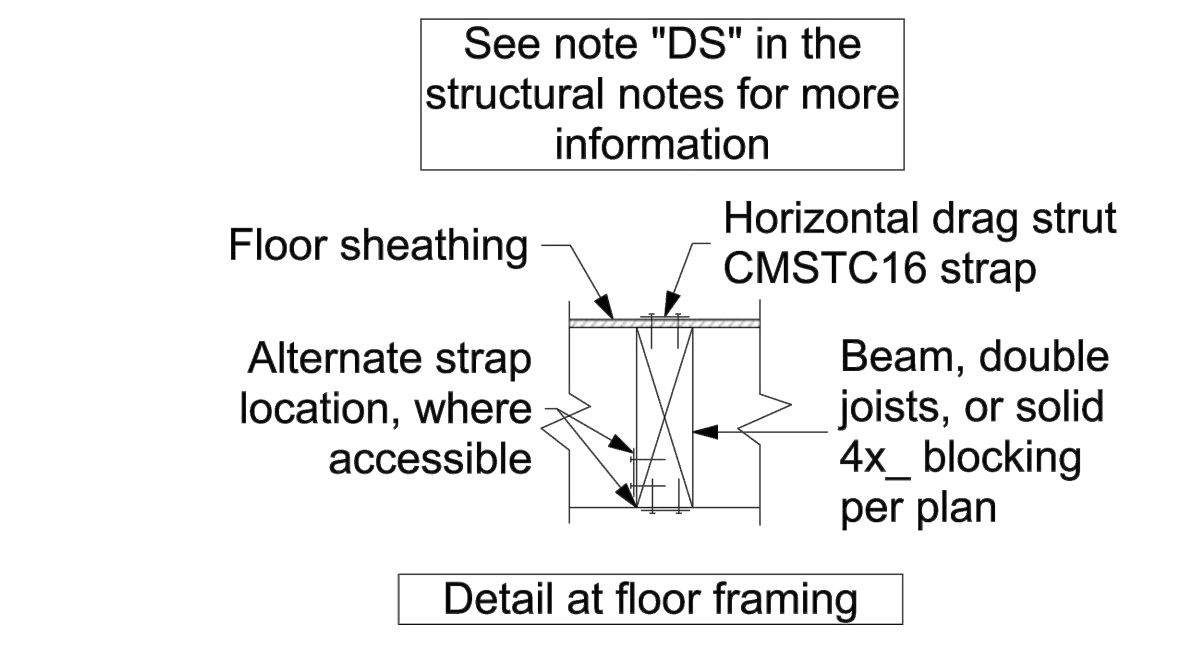
F3 Grade Beam Detail
Scale: 1/2" = 1'-0"



F4 Entry Retaining Wall Detail
Scale: 1/2" = 1'-0"



P1 Patio Steel Post Detail
Scale: 1-1/2" = 1'-0"



DS Drag Strut Typical Detail
Scale: 1" = 1'-0"

Consulting Structural Engineering Services
6311 17th Ave NE, Seattle, WA 98115
Phone: 206-527-1288
Email: john@cses-engineering.com

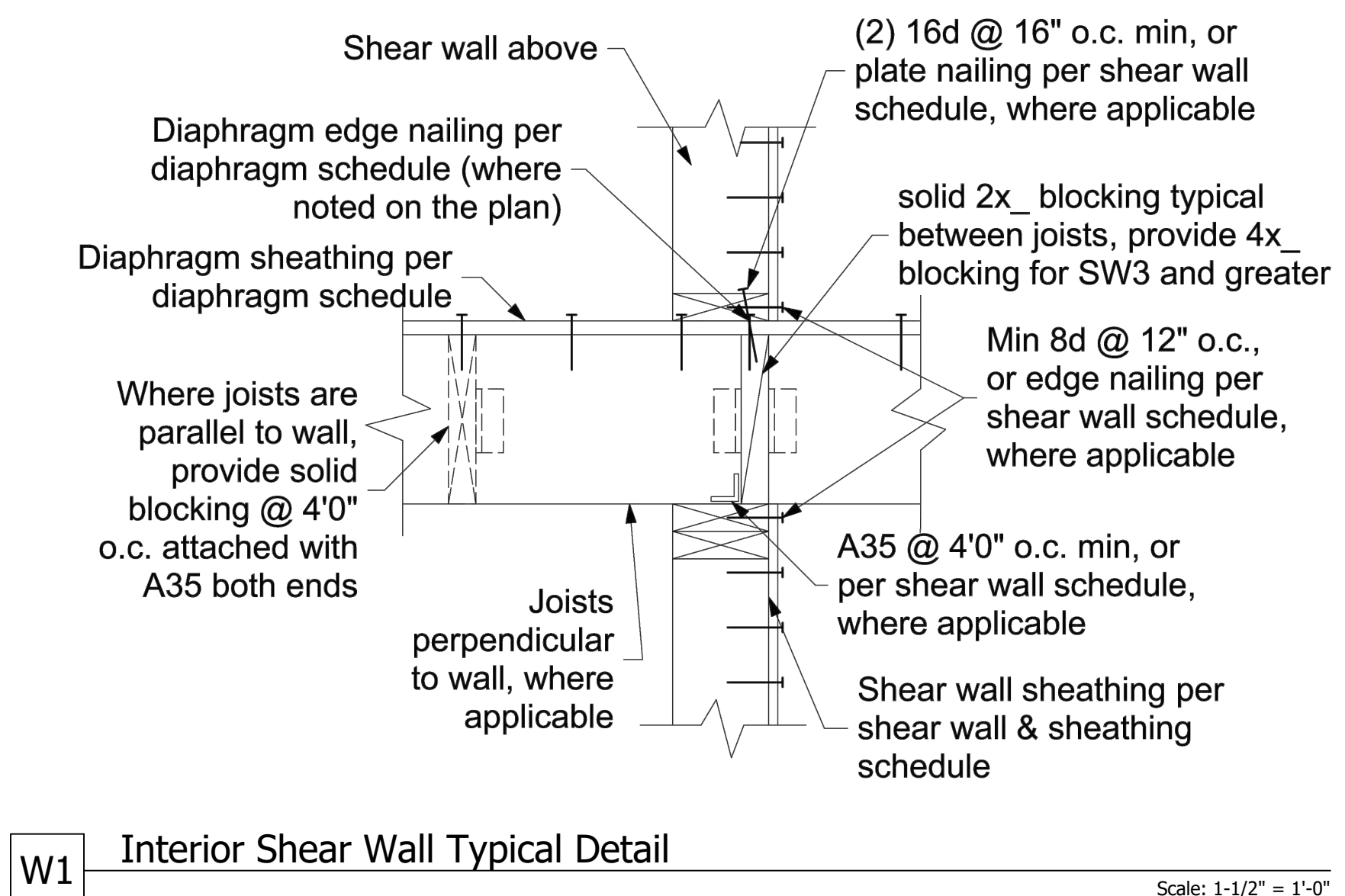
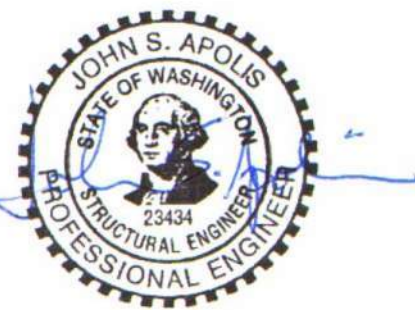
Li Residence
4657 86th Ave SE
Mercer Island, WA 98040

Revisions:
▲ 10-24-22
▲ 2-16-23

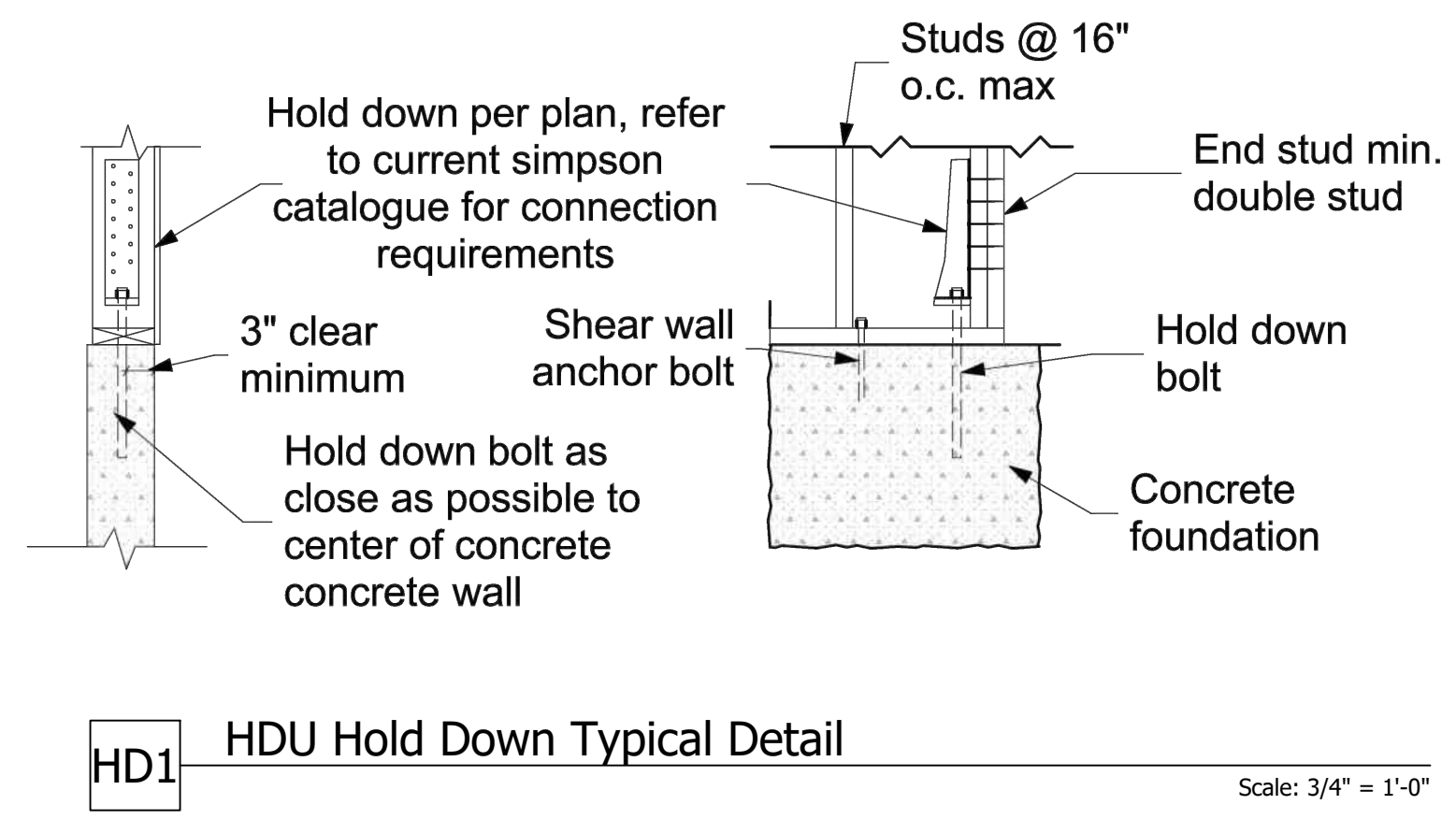
Date:
10-24-22

Sheet:

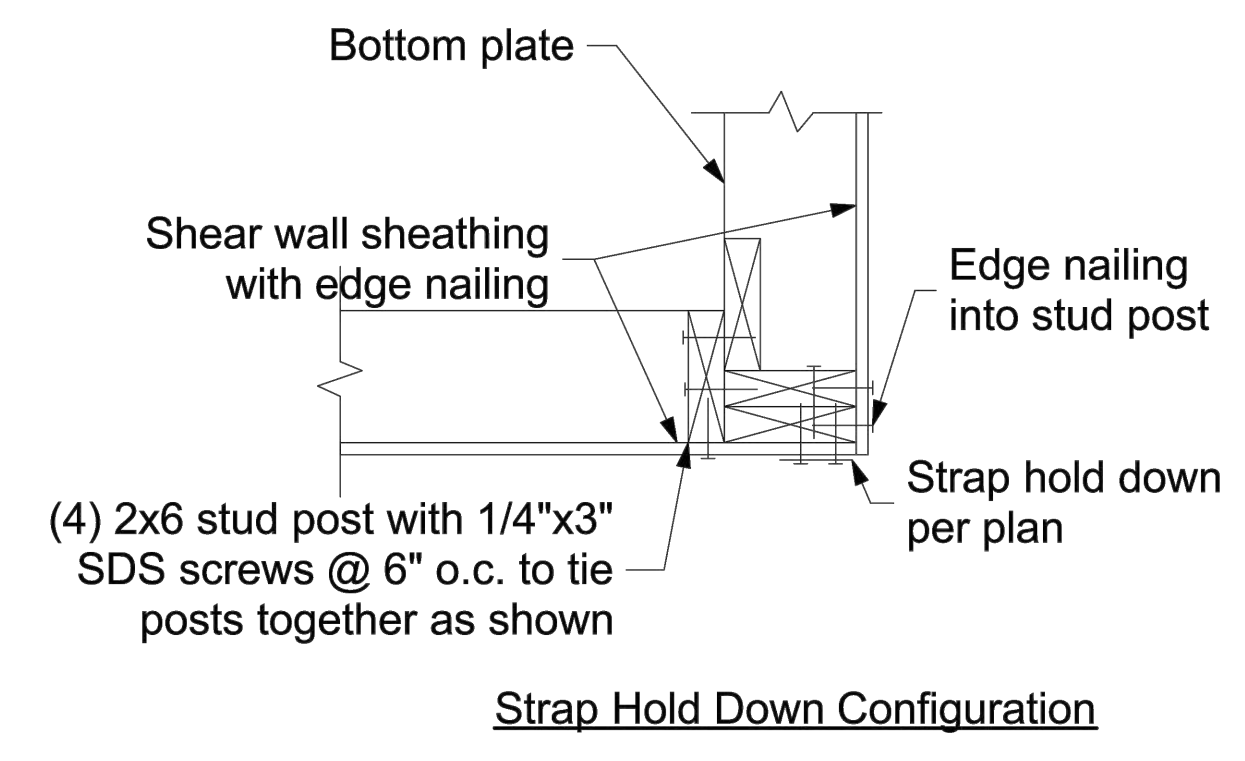
S-4



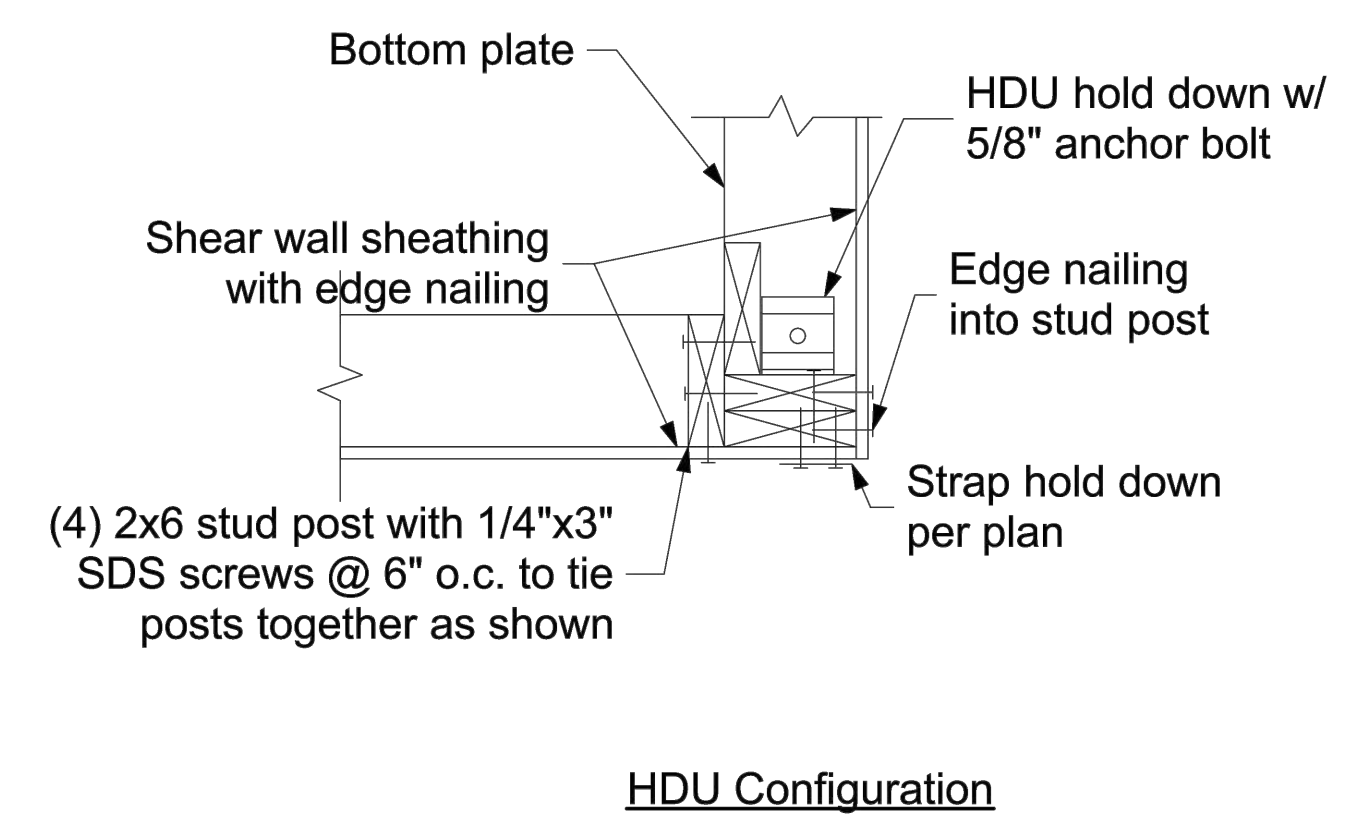
W1 Interior Shear Wall Typical Detail
Scale: 1-1/2" = 1'-0"



HD1 HDU Hold Down Typical Detail
Scale: 3/4" = 1'-0"



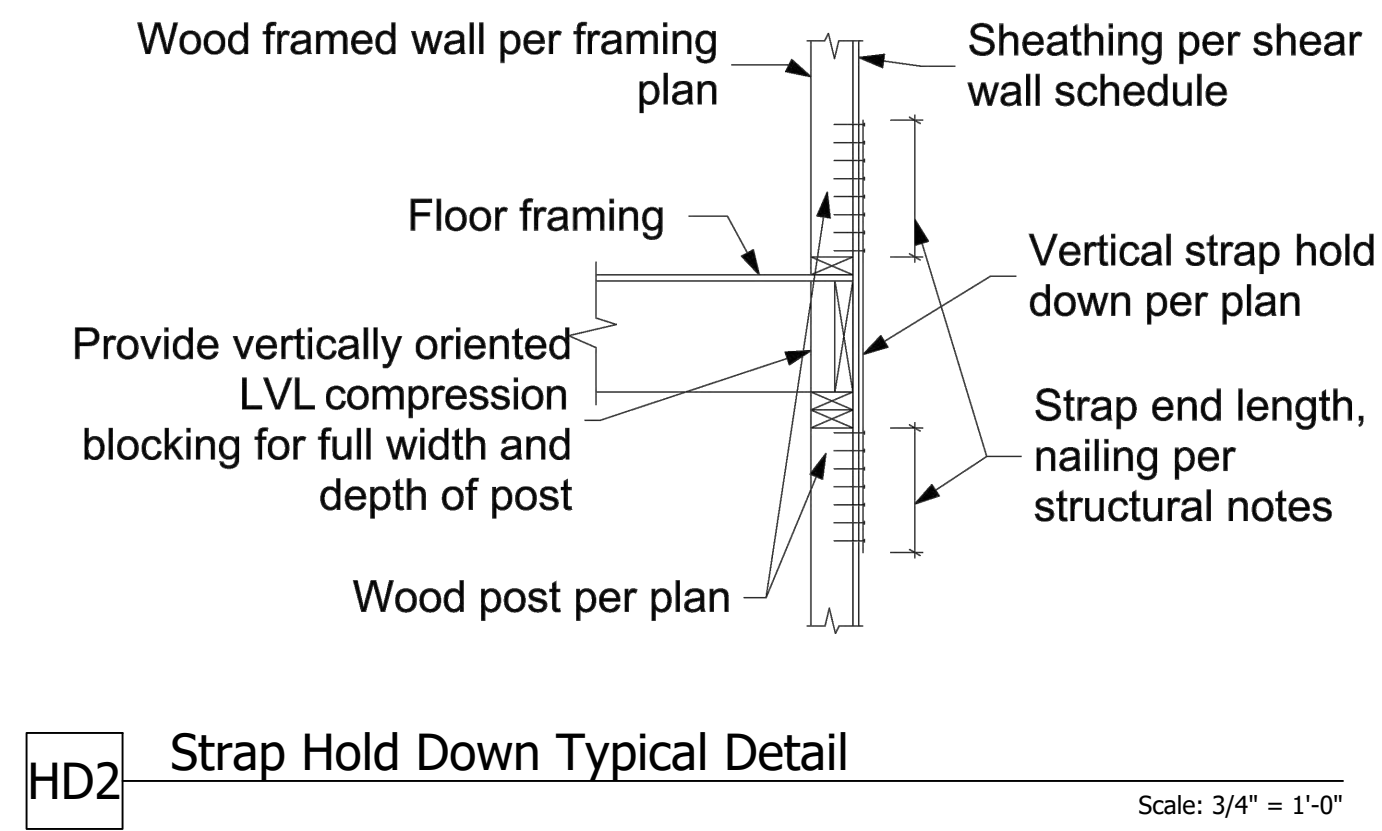
Strap Hold Down Configuration



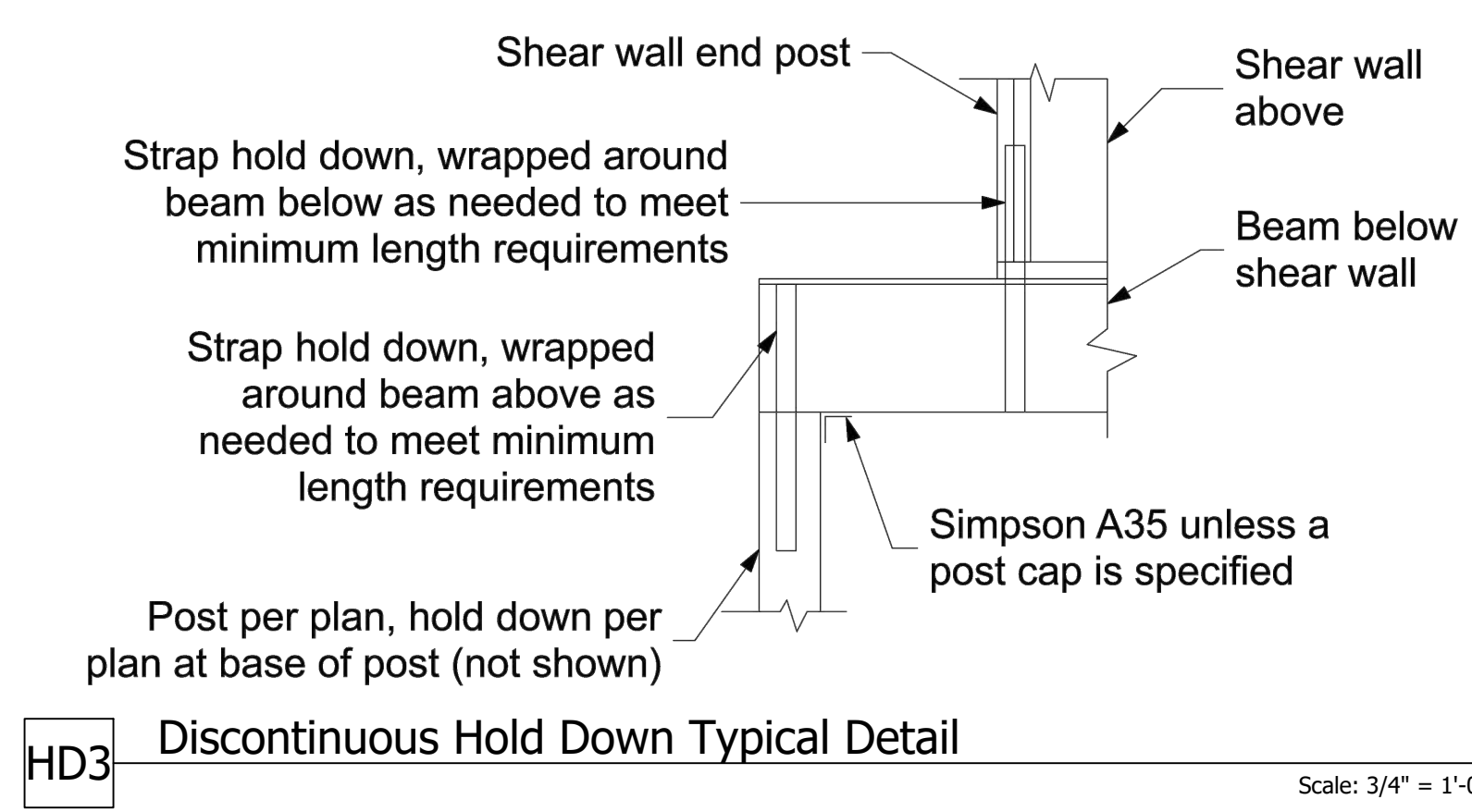
HDU Configuration



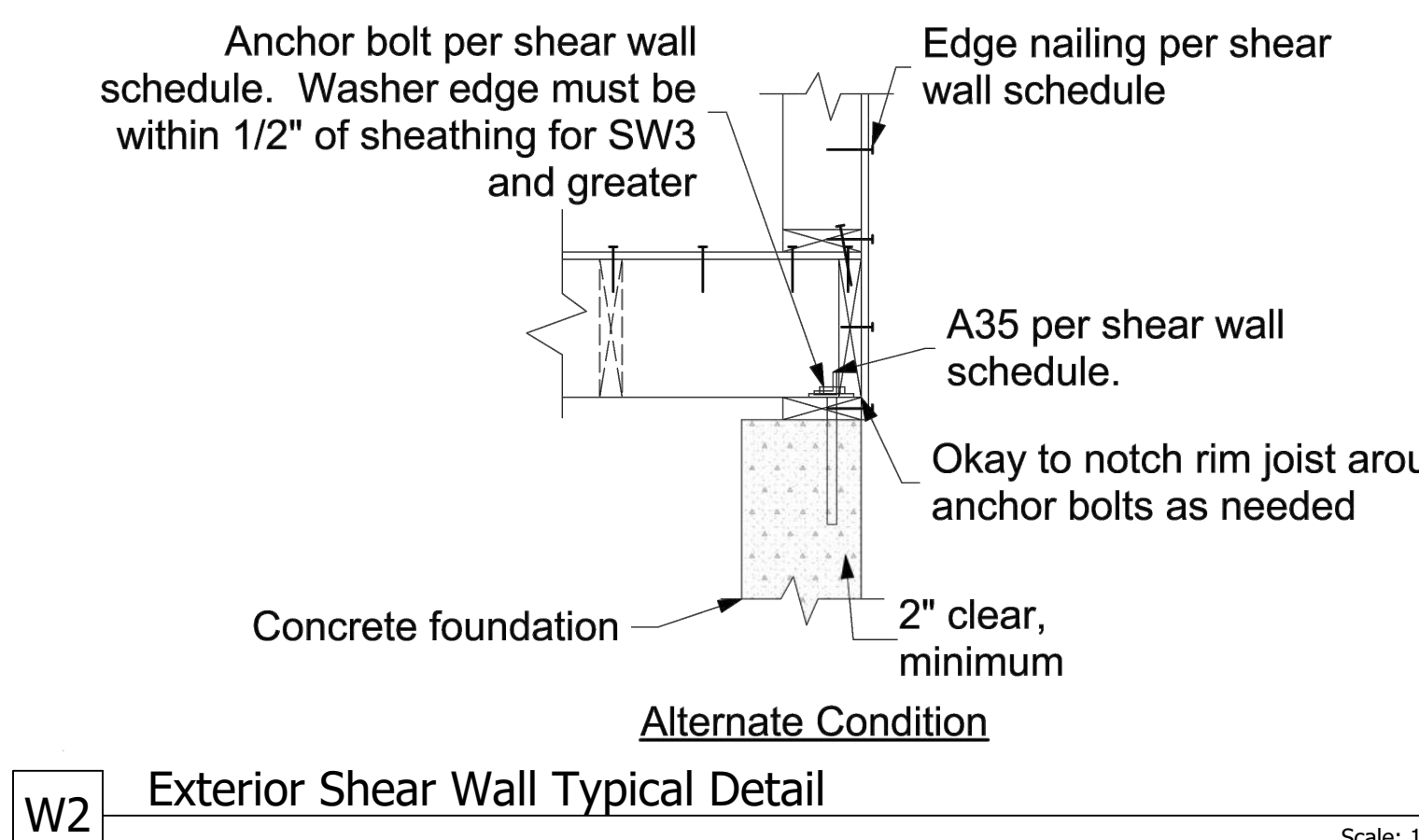
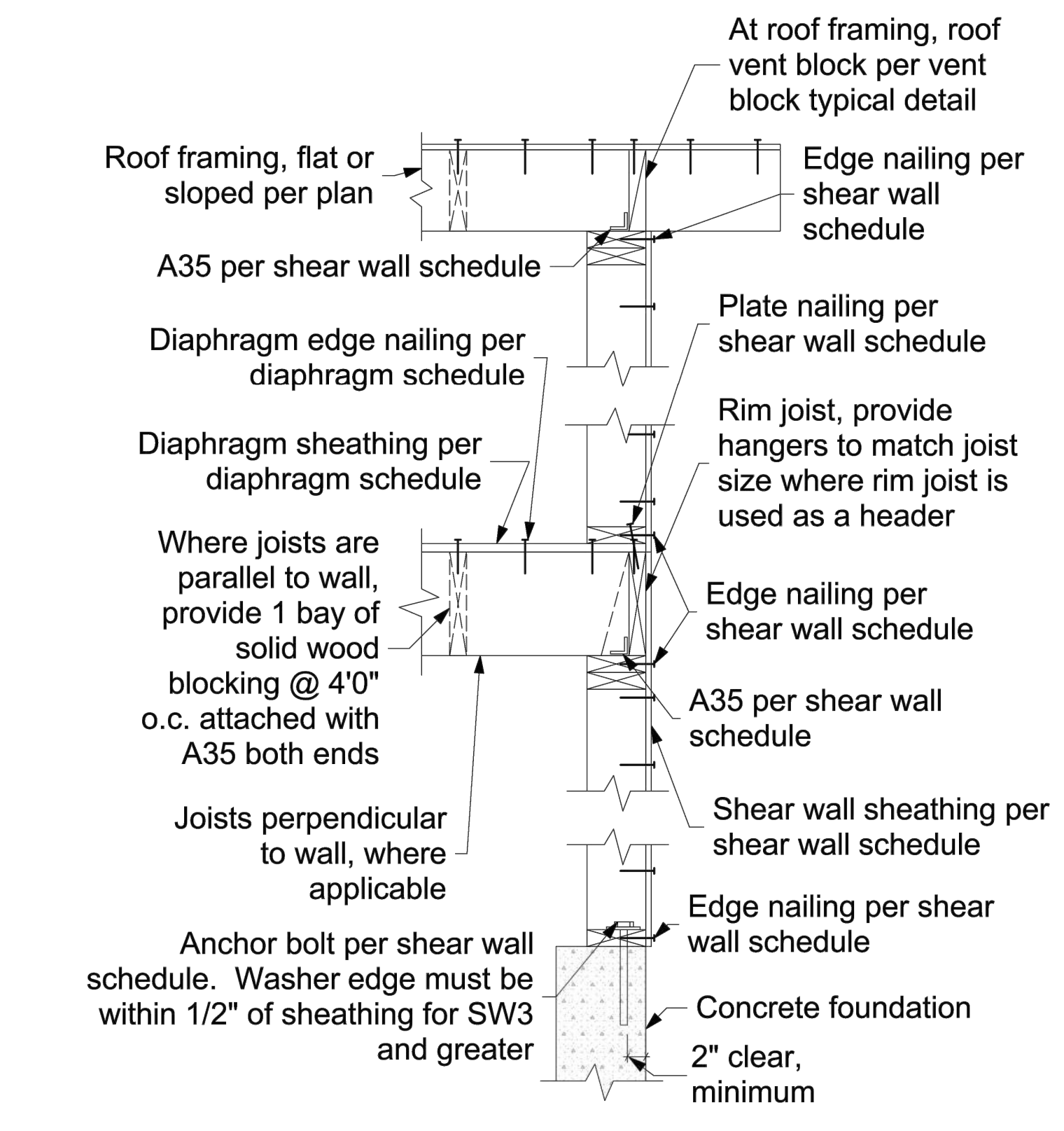
HD4 Corner Hold Down Typical Detail
Scale: 1-1/2" = 1'-0"



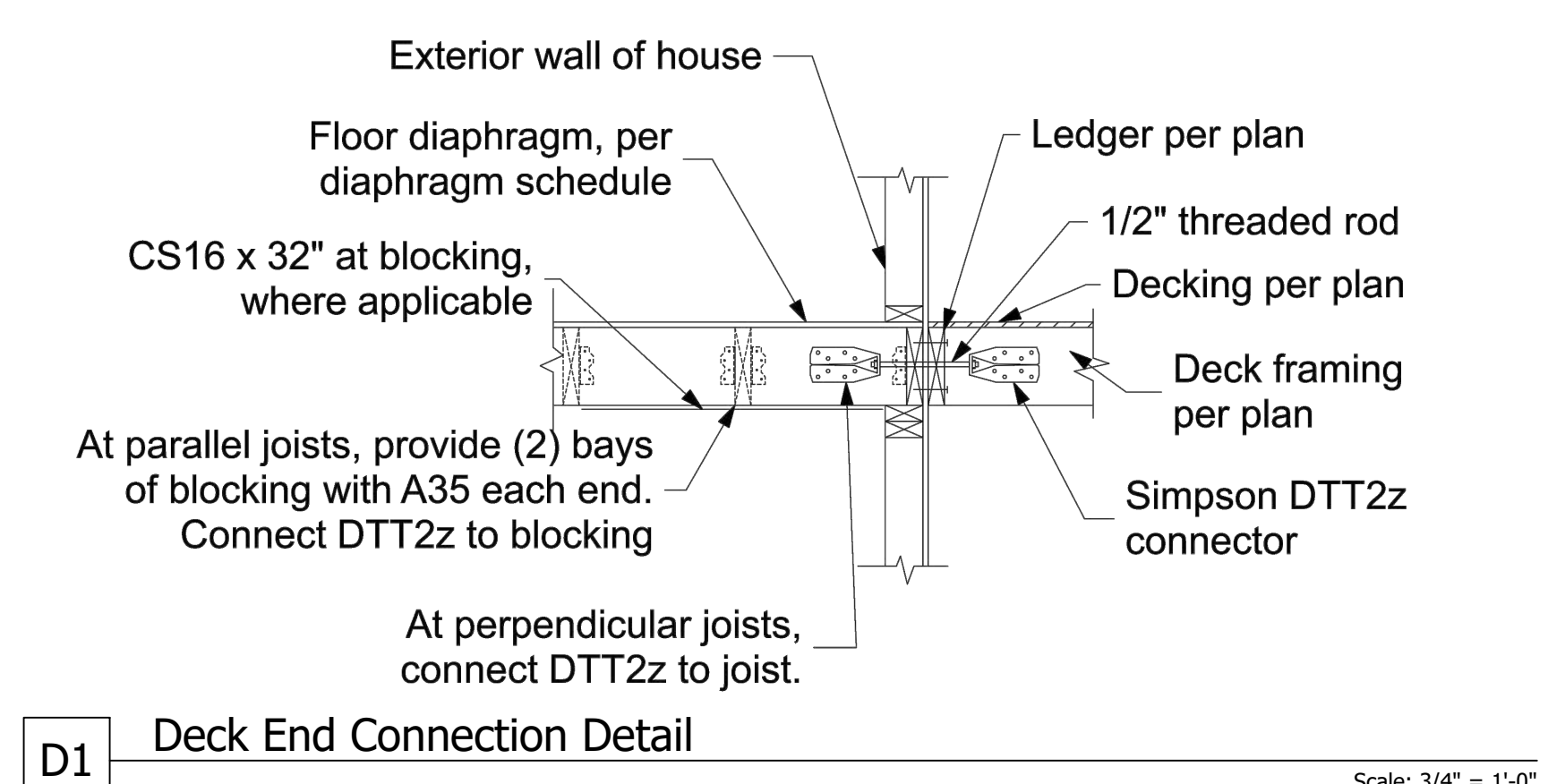
HD2 Strap Hold Down Typical Detail
Scale: 3/4" = 1'-0"



HD3 Discontinuous Hold Down Typical Detail
Scale: 3/4" = 1'-0"



W2 Exterior Shear Wall Typical Detail
Scale: 1" = 1'-0"



D1 Deck End Connection Detail
Scale: 3/4" = 1'-0"

Consulting Structural Engineering Services
6311 17th Ave NE, Seattle, WA 98115
Phone: 206-527-1288
Email: john@cse-engineering.com

Li Residence
4657 86th Ave SE
Mercer Island, WA 98040

Revisions:
▲ 10-24-22
▲ 2-16-23

Date:
10-24-22

Sheet:

S-5



Consulting Structural Engineering Services
 6311 17th Ave NE, Seattle, WA 98115
 Phone: 206-527-1288
 Email: john@cses-engineering.com

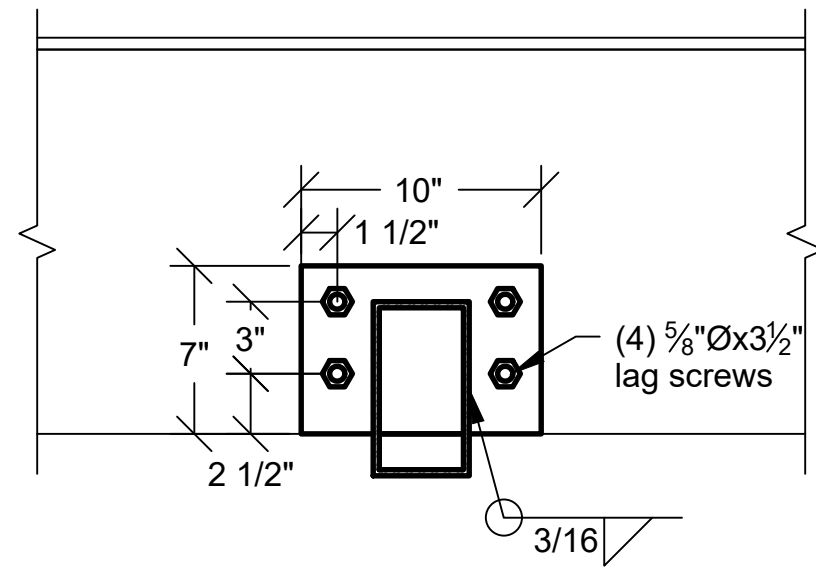
Li Residence
 4657 86th Ave SE
 Mercer Island, WA 98040

Revisions:
 10-24-22
 2-16-23

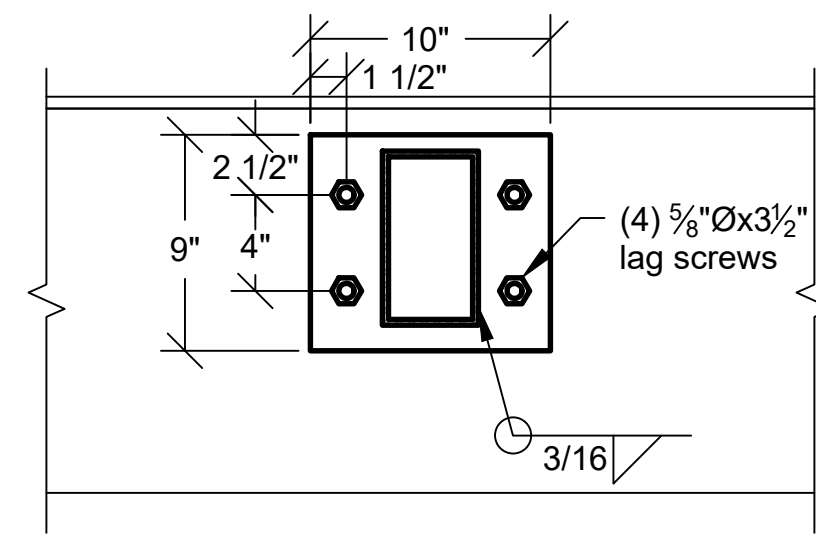
Date:
 10-24-22

Sheet:

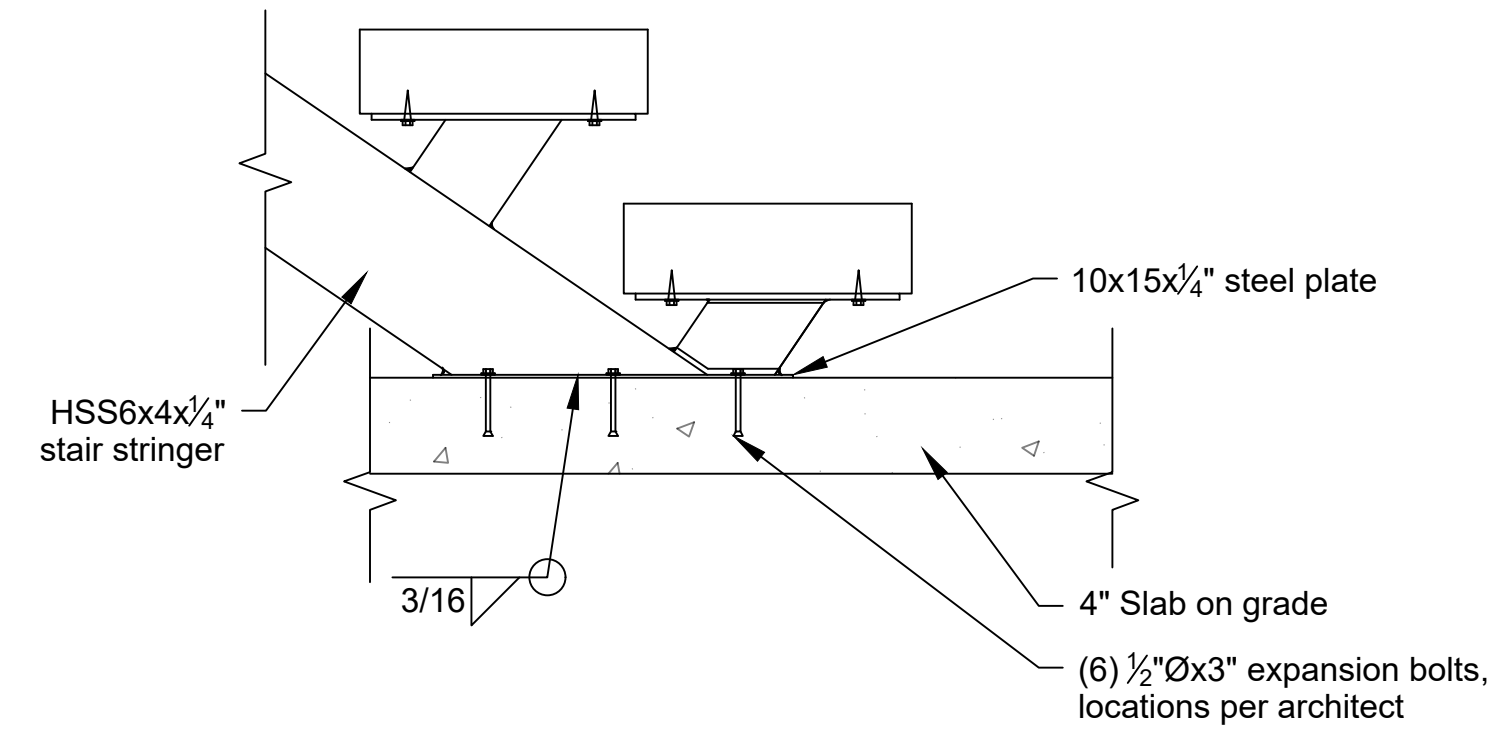
S-6



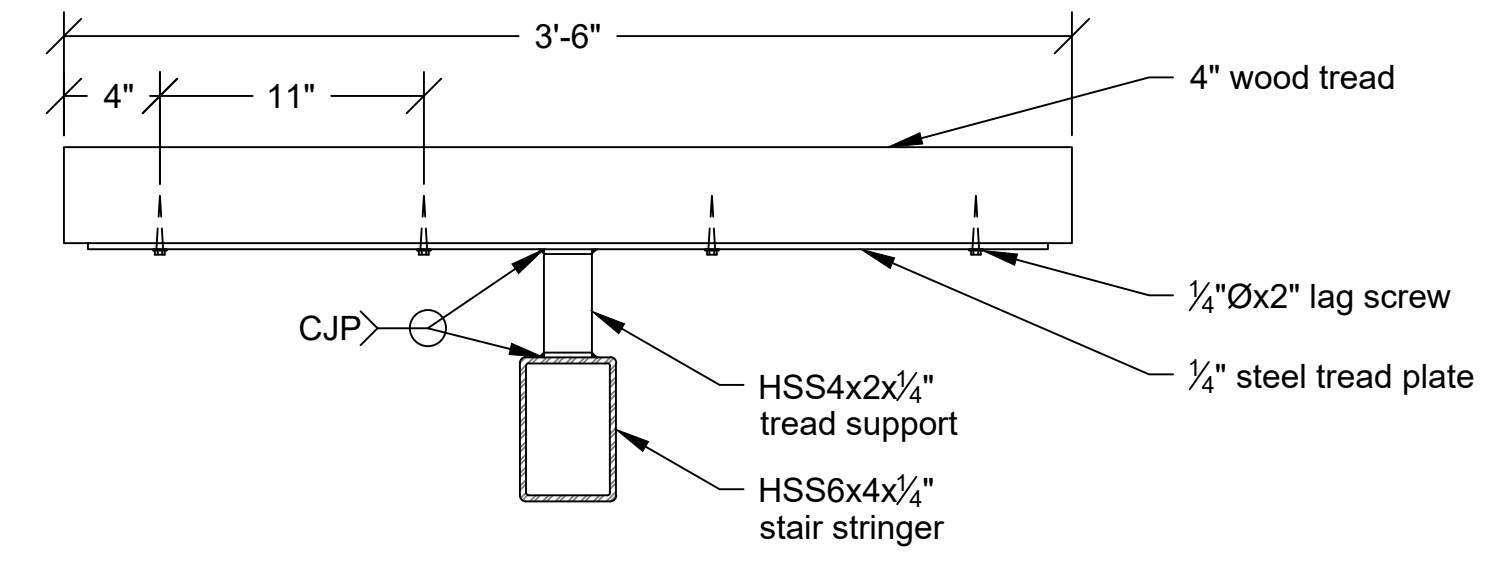
S1 Stringer to Landing Upper Connection Detail
 Scale: 1-1/2" = 1'-0"



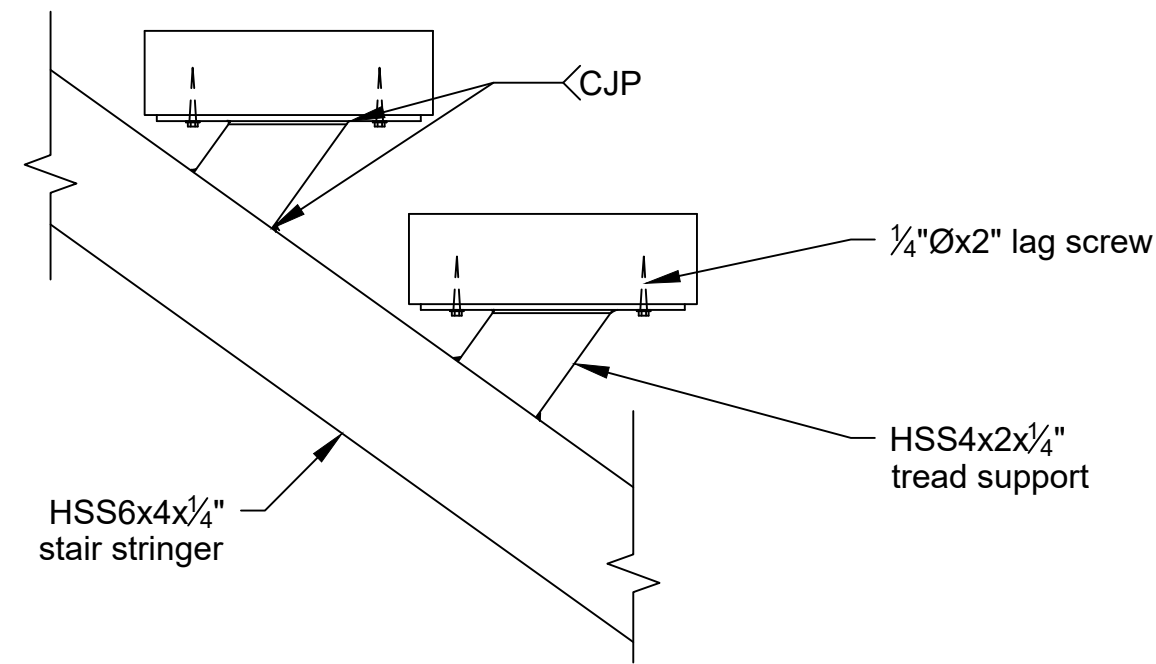
S2 Stringer to Landing Lower Connection Detail
 Scale: 1-1/2" = 1'-0"



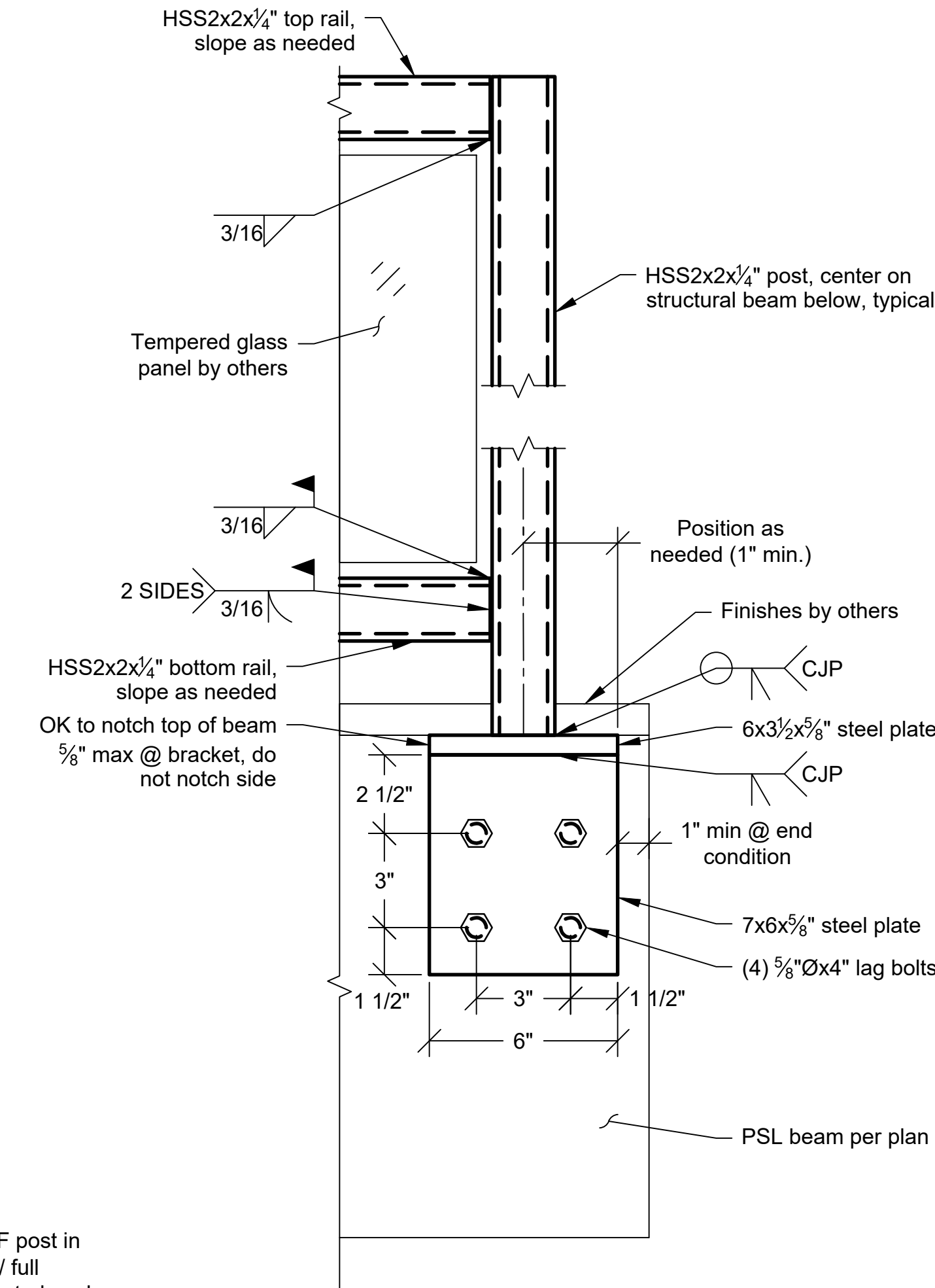
S3 Stringer to Concrete Detail
 Scale: 1-1/2" = 1'-0"



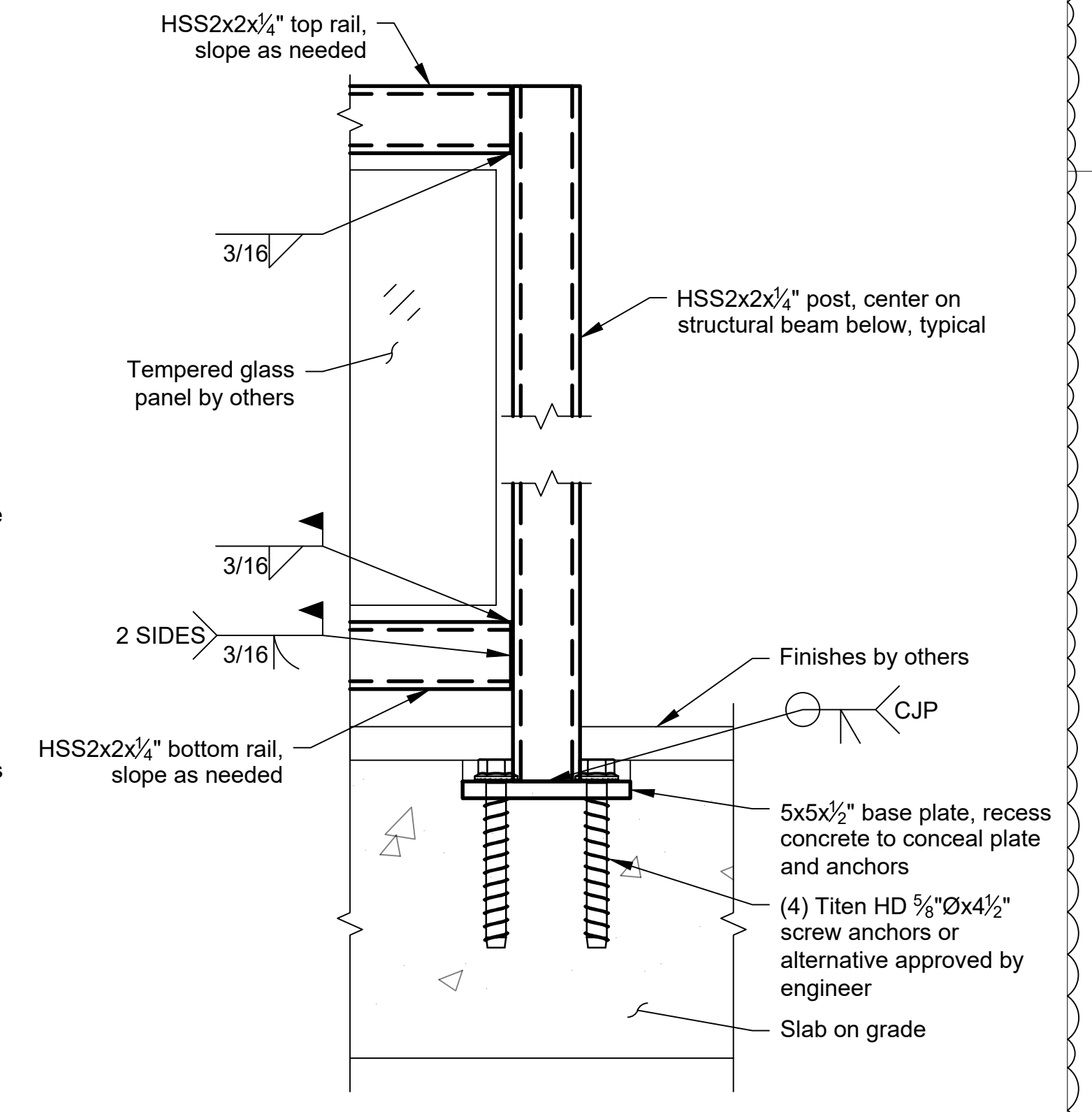
S4 Steel Stair Tread Detail
 Scale: 1-1/2" = 1'-0"



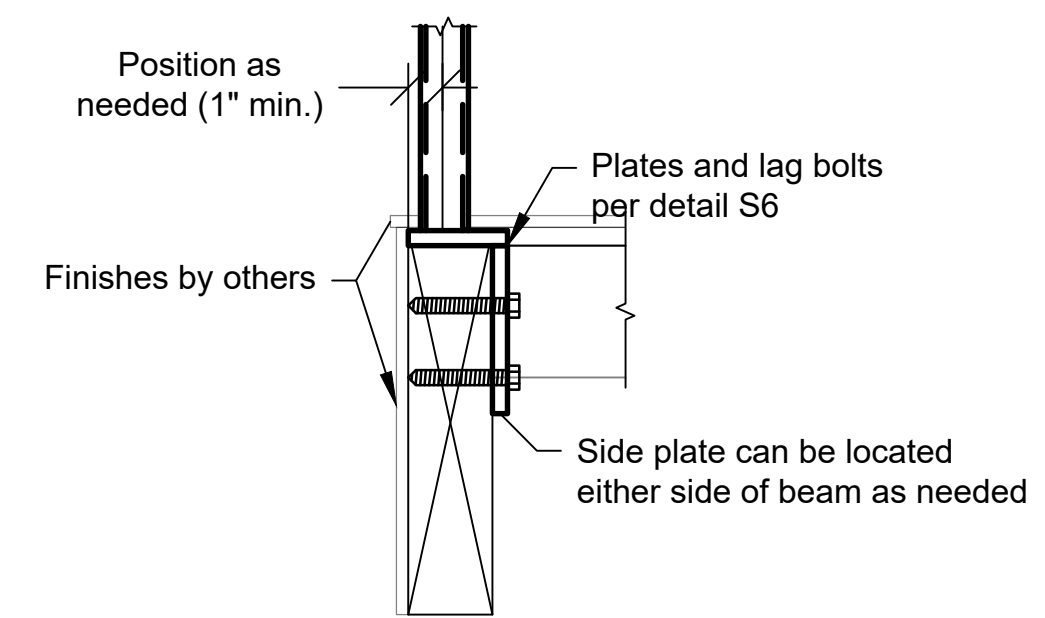
S5 Tread Support Connection Detail
 Scale: 1-1/2" = 1'-0"



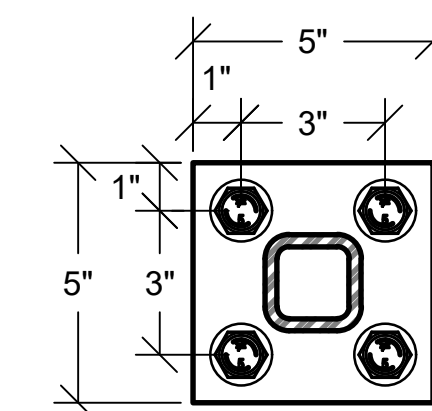
S6 Railing Post @ Landing Detail
 Scale: 3" = 1'-0"



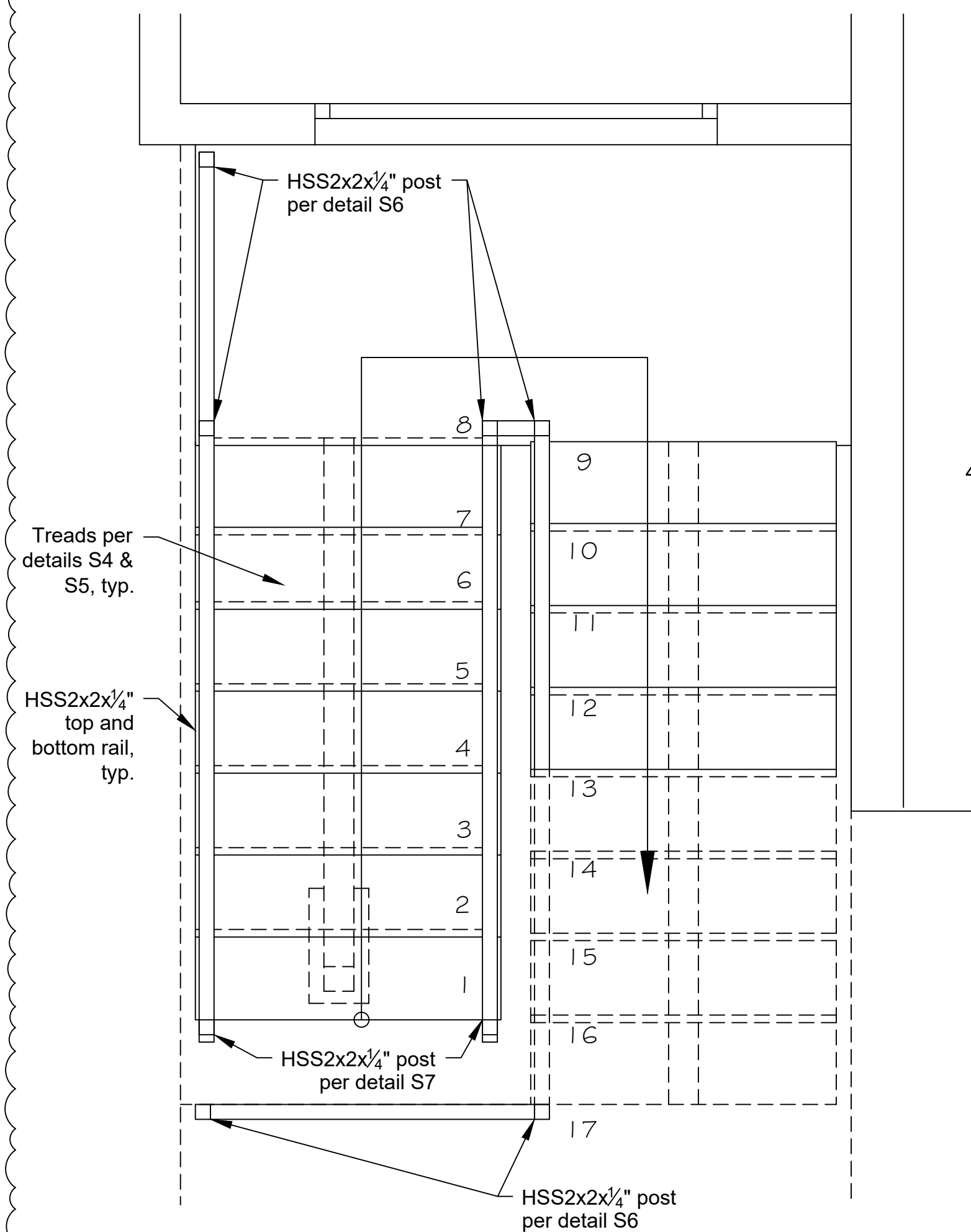
S7 Railing Post @ Slab Detail
 Scale: 3" = 1'-0"



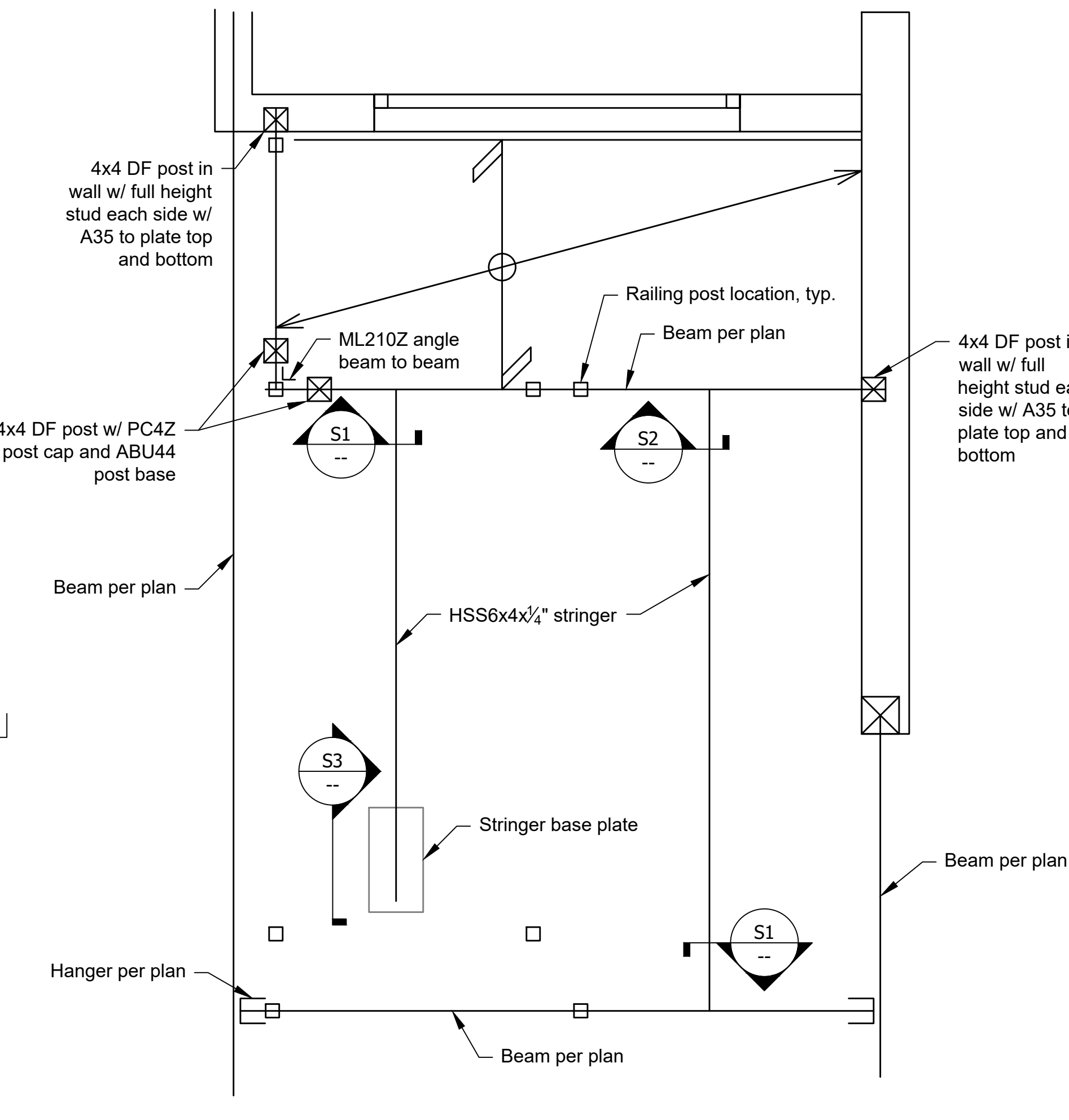
S8 Railing Post @ Landing Section
 Scale: 3" = 1'-0"



S9 Railing @ Slab Base Plate Detail
 Scale: 3" = 1'-0"



1 Steel Stair Railing Plan
 Scale: 3/4" = 1'-0"



2 Steel Stair Framing Plan
 Scale: 3/4" = 1'-0"

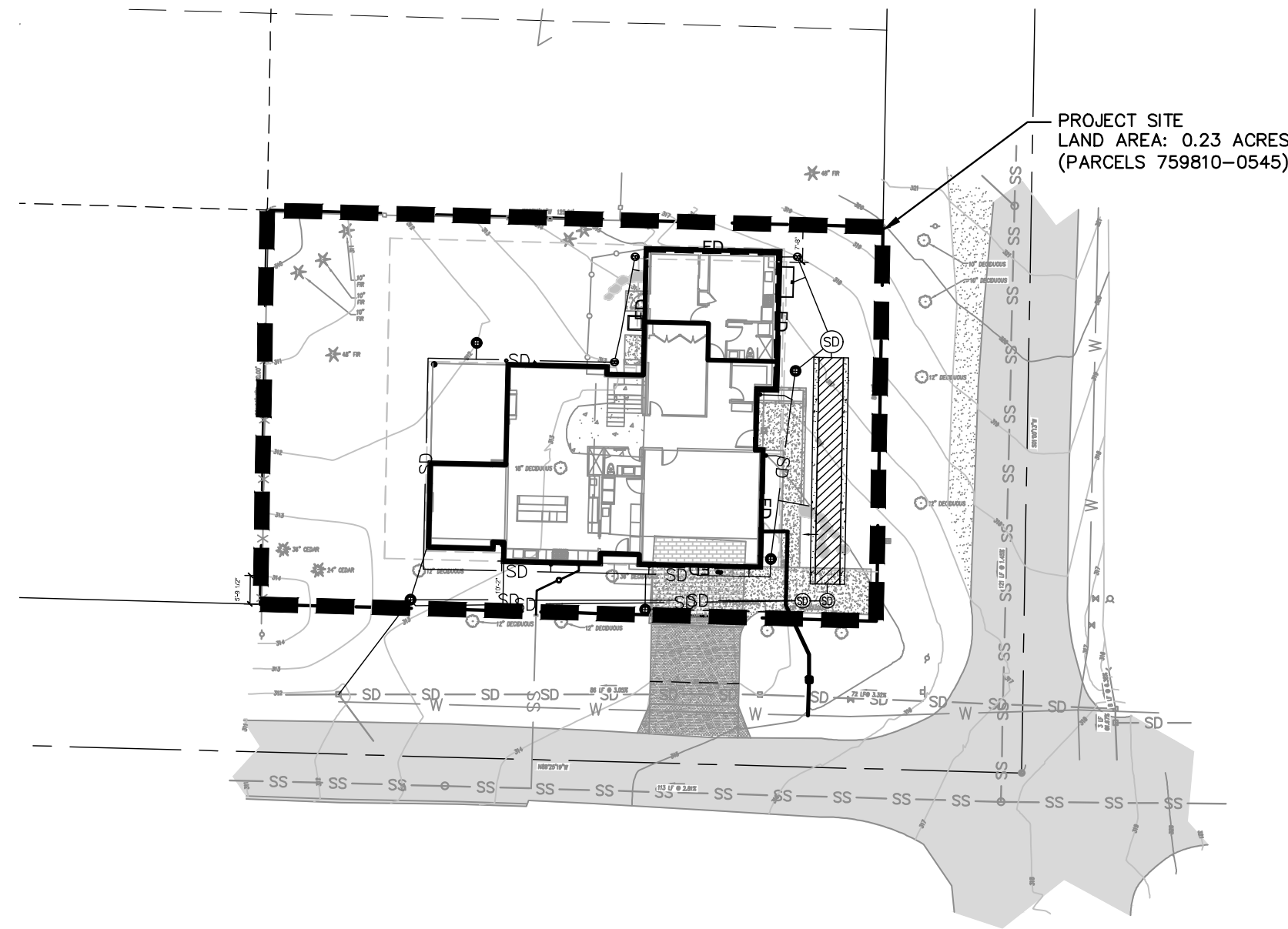
GENERAL SITE NOTES

- EXISTING FEATURES, TOPOGRAPHIC AND BOUNDARY INFORMATION SHOWN ON THESE PLANS ARE FROM TOPOGRAPHIC SURVEY PROVIDED BY APEX, DATED 12/17/2021
- ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE FOLLOWING:
 - STANDARDS OF THE UNITED STATES DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OFFICE OF STANDARDS AND RULES OF THE STATE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH,
 - THE REQUIREMENTS OF ALL PERMITS ISSUED FOR WORK BY THE CITY OF MERCER ISLAND, WHERE CONFLICTS EXIST BETWEEN ANY OF THE ABOVE LISTED SPECIFICATIONS, THE MOST STRINGENT LISTED SPECIFICATION SHALL APPLY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE ALL PERMITS NECESSARY TO PERFORM WORK, INCLUDING BUT NOT LIMITED TO WORK WITHIN THE PUBLIC RIGHT-OF-WAY, GRADING, TREE REMOVAL, AND UTILITY MODIFICATIONS.
- CONTRACTOR SHALL SUPPLY ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO PERFORM THE WORK SHOWN ON THE APPROVED PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE VARIOUS CONTRACTORS TO COORDINATE THEIR WORK SO AS TO ELIMINATE CONFLICTS AND WORK TOWARD THE GENERAL GOOD AND COMPLETION OF THE ENTIRE PROJECT.
- ALL WORKMANSHIP AND MATERIALS FURNISHED BY THE CONTRACTOR SHALL BE OF GOOD QUALITY AND NEW, NEITHER FINAL ACCEPTANCE NOR FINAL PAYMENT BY THE OWNER SHALL RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR FAULTY MATERIALS OR WORKMANSHIP.
- IN THE EVENT OF ANY CONFLICT OF INFORMATION SHOWN ON THE APPROVED PLANS OR ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE INTENT OF A CONSISTENT AND FUNCTIONAL PRODUCT, THE CONTRACTOR SHALL SO NOTIFY THE OWNER IN WRITING, UPON WHICH NOTICE THE OWNER SHALL RESOLVE THE CONFLICTS BY THE ISSUANCE OF A WRITTEN ORDER, REVISED PLANS, OR BOTH. THE CONTRACTOR SHALL BEAR FULL COST AND RESPONSIBILITY FOR SUCH CONFLICTS AND PERFORMED BY CONTRACTOR PRIOR TO SUCH NOTICE TO THE OWNER AND ISSUANCE OF SUCH ORDER AND/OR REVISED PLANS.
- CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO AVOID DAMAGE TO ANY EXISTING TREES, OR SURFACE IMPROVEMENTS, OR TO ANY EXISTING DRAINAGE STRUCTURE, WATER STRUCTURE, SEWER CLEANOUTS, MANHOLES, OR JUNCTION BOXES FOR UNDERGROUND ELECTRIC, GAS, TELEPHONE, CABLE TV, STORM, SANITARY, WATER OR OTHER UTILITIES WHICH ARE TO REMAIN IN PLACE AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO.
- ALL KNOWN EXISTING UTILITY LINES ARE SHOWN FOR INFORMATION ONLY, CONTRACTOR SHALL EXERCISE ALL NECESSARY CAUTION TO ANY EXISTING UTILITY LINES OR FACILITIES TO REMAIN IN PLACE, WHETHER OR NOT SUCH FACILITIES APPEAR ON THE APPROVED PLANS, AND SHALL BEAR FULL RESPONSIBILITY FOR ANY DAMAGE THERETO.
- CONTRACTOR SHALL CONTACT THE "CALL BEFORE YOU DIG" UNDERGROUND UTILITY LOCATING SERVICE (811) AND THE AFFECTED UTILITY COMPANY PRIOR TO STARTING WORK TO REQUEST AND OBTAIN MARKING OF EXISTING UNDERGROUND FACILITIES.
- CONTRACTORS SHALL HIRE A LICENSED LAND SURVEYOR TO PROVIDE CONSTRUCTION STAKING IN ORDER TO ENSURE THE PROJECT IS CONSTRUCTED TO THE LINES AND GRADES INDICATED ON THE APPROVED PLANS.
- INSPECTION OF WORK: CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF REQUIRE INSPECTIONS WITH THE APPROPRIATE AGENCIES AND UTILITY COMPANIES AND CITY OF MEDINA STANDARDS.
- ENGINEER OF RECORD SHALL BEAR NO RESPONSIBILITY FOR METHODS AND PROCEDURES OF WORK ESTABLISHED BY CONTRACTOR, JOBSITE CONDITIONS, JOBSITE SAFETY, OR CONFORMANCE WITH SAFETY PROCEDURES AND REQUIREMENTS.
- IN CONFORMANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS BOTH THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER OF RECORD.
- ALL UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE PROJECT AND BE PLACED AT A SUITABLE DISPOSAL SITE.
- AN EMERGENCY ON-SITE BACK-UP POWER SUPPLY AND AN EXTERNAL ALARM SYSTEM FOR SYSTEM FAILURE AND HIGH WATER LEVEL INDICATOR ARE REQUIRED FOR THE PUMP SYSTEM.
- PRIVATE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM.
- THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP 15.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.
- AN EMERGENCY ON-SITE, BACK-UP POWER SUPPLY AND AN EXTERNAL ALARM SYSTEM FOR SYSTEM FAILURE AND HIGH WATER LEVEL INDICATOR ARE REQUIRED FOR THE PUMP SYSTEM.
- PRIVATE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM.

LI RESIDENCE

4657 86TH AVE. SE

MERCER ISLAND, WASHINGTON



PROJECT SITE
1" = 30'

PROJECT INFORMATION:

SITE ADDRESS: 4657 86TH AVE. SE,
MERCER ISLAND, WA 98040

PARCEL NUMBER: 7598100545

LEGAL DESCRIPTION: (PER STATUTORY WARRANTY DEED, KING CO, REC. NO. 20211005001771)

THE SOUTH 80 FEET OF THE EAST 125 FEET OF TRACT 5 IN BLOCK 14 OF THE VITUS SCHMID'S EAST SEATTLE, ACRE TRACTS, AS PER PLAT RECORDED IN VOLUME 7 OF PLATS, PAGE 76, RECORDS OF KING COUNTY AUDITOR.

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

UTILITIES:

WATER:
CITY OF MERCER ISLAND
611 SE 36TH STREET,
MERCER ISLAND, WA 98040
(206) 275-7602

SEWER:
CITY OF MERCER ISLAND
611 SE 36TH STREET,
MERCER ISLAND, WA 98040
(206) 275-7602

FIRE:
MERCER ISLAND FIRE DEPARTMENT

ELECTRIC/GAS:
PSE

OWNER:

PAUL LI
(703)965-9722

DEVELOPER:

CAMERON WEAVER
WV SUSTAINABLE, LLC
23815 140TH AVE. SE
KENT, WA 98042

CIVIL ENGINEER:

CANNON
ATTN: KATIE ROLLINS
PE: ED COLLINS
PHONE: (425) 677-2325
1700 NW GILMAN BLVD, SUITE 100
ISSAQUAH, WA 98027

SURVEYOR:

APEX ENGINEERING LLC
2601 SOUTH 35TH STREET, SUITE 200
TACOMA, WA 98409
253 473-0599

ARCHITECT:

LURE DESIGN SOLUTIONS
13842 NE 8TH STREET, #E102
BELLEVUE, WA 98005
(425) 870-0383



VICINITY MAP
NTS

ABBREVIATIONS

ASPHALT CONCRETE	AC	EDGE OF PAVEMENT	EP
CENTERLINE	CL / E	MANHOLE RIM ELEVATION	RM
BACK OF WALK	BOW	MATCH EXISTING	ME
EACH WAY	E.W.	ON CENTER	O.C.
EXISTING GRADE	EG	RIGHT OF WAY	ROW
EXISTING	(E)	STANDARD	STD
FINISHED SURFACE	FS	STORM DRAIN	SD
FINISHED GRADE	FG	SANITARY SEWER	SS
HIGH POINT	HP	TOP OF CURB	TC
INVERT	INV	TOP OF GATE	TG
MINIMUM	MIN	BOTTOM OF WALL	BW
PROPERTY LINE	PL / R	TOP OF WALL	TW
PUBLIC UTILITY EASEMENT	PUE	UNLESS NOTED OTHERWISE	U.N.O.
		UNIFORM PLUMBING CODE	UPC

LEGEND

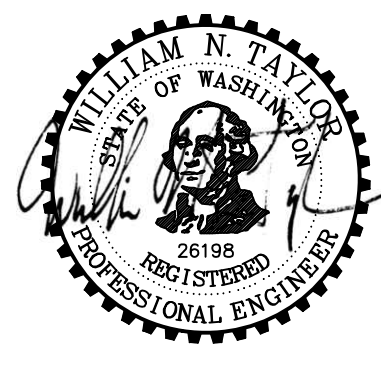
	EXISTING	PROPOSED
LOT BOUNDARY	---	---
PROPERTY LINE	---	---
EASEMENT/SETBACK	---	---
STREET CENTERLINE	---	---
BUILDING	[Hatched Box]	[Hatched Box]
GRADE BREAK	---	---
CONTOURS	[Dashed Line]	[Dashed Line]
WATER MAIN OR LATERAL	W	W
SANITARY SEWER	SS	SS
STORM DRAIN LINE	SD	SD
GAS LINE	G	G
FOUNDATION DRAIN	FD	FD
DRY UTILITY LATERAL	RD	RD
AC PAVING	[Pattern]	[Pattern]
CONCRETE	[Pattern]	[Pattern]
STORM DRAIN INLET	[Symbol]	[Symbol]
CLEANOUT TO GRADE	[Symbol]	[Symbol]
YARD DRAIN	[Symbol]	[Symbol]
JUNCTION BOX	[Symbol]	[Symbol]
CATCH BASIN	[Symbol]	[Symbol]
DOWNSPOUT SPLASH	[Symbol]	[Symbol]

SHEET INDEX

No.	SHEET TITLE
C1	TITLE SHEET
C2	DRAINAGE & BMP PLAN
C3	UTILITY CONNECTIONS PLAN
C4	GRADING AND DRAINAGE DETAILS
C5	GRADING AND DRAINAGE DETAILS
C6	TESC PLAN
C7	TESC NOTES AND STANDARD DETAILS
C8	TESC DETAILS
C9	TESC DETAILS



EXISTING UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS IS BASED UPON A COMBINATION OF SOURCES INCLUDING FIELD TOPOGRAPHIC SURVEY AND CITY SYSTEM MAPS. CONTRACTOR SHALL BE ADVISED THAT UNDERGROUND UTILITIES NOT IDENTIFIED ON THESE PLANS MAY EXIST WITHIN THE PROJECT SITE, AND SHALL EXERCISE APPROPRIATE CARE DURING EXCAVATION ACTIVITIES. CONTRACTOR SHALL POthOLE AND FIELD VERIFY EXISTING UNDERGROUND UTILITY SIZE AND LOCATIONS AT CRITICAL LOCATIONS PRIOR TO CONSTRUCTION, AND NOTIFY ENGINEER IF DISCREPANCIES EXIST.



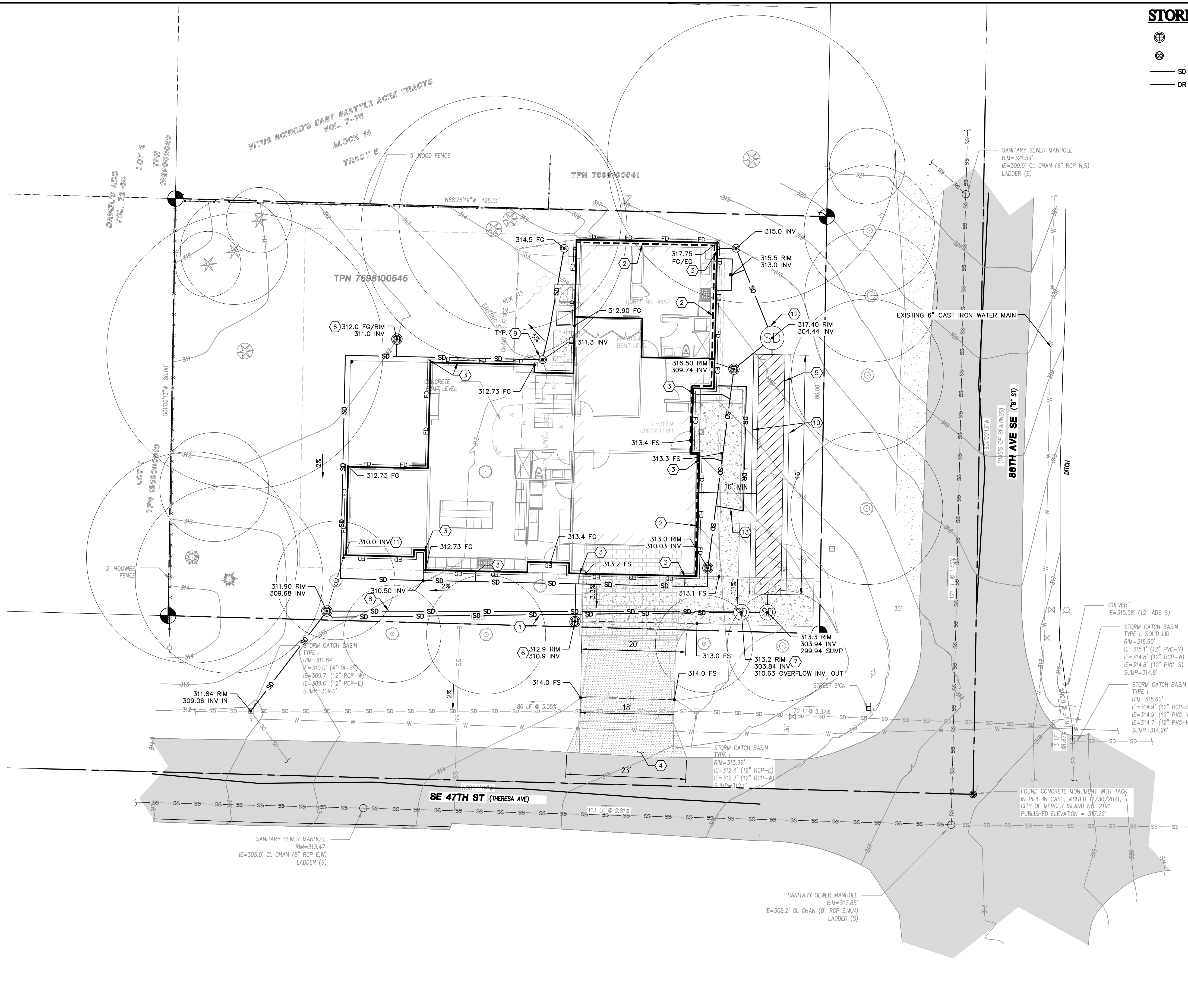
REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGNS AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

LI RESIDENCE		
TITLE SHEET		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C1 OF 8

\\cannonassoc.com\dfsroot1\Public\proj\2022\220418\4_production and drafting\Const Dwgs\Civil\CE220418A0001.dwg 4-11-23 10:12:15 AM Lukose

F:\proj\2022\220418\4 Production and Drafting\Const Dwg\Civil\CE220418SP0001.dwg 4-12-23 11:18:48 AM kater



STORM DRAIN LEGEND

- ⊕ YARD DRAIN WITH GRATE SET AT ELEVATION TO ACCEPT SURFACE FLOW.
- ⊖ CLEANOUT TO GRADE
- SD 6" STORM DRAIN LINE AT 0.8% MINIMUM SLOPE
- DR WALL DRAIN

CONSTRUCTION NOTES

- 1 6" OVERFLOW DISCHARGE PIPE.
- 2 EXISTING RAISED FOOTING TO REMAIN. REUSE EXISTING FOUNDATION DRAIN WHERE POSSIBLE (SEE STORM DRAIN NOTE 3).
- 3 CONNECT DOWNSPOUT STORM DRAIN LINE.
- 4 ASPHALT RURAL DRIVEWAY APRON PER MODIFIED KING COUNTY STANDARD FIG 3-003 ON SHEET C4. OMIT PIPE.
- 5 60" DIA. DETENTION PIPE PER DETAIL A SHEET C5. GEOTECHNICAL ENGINEER TO PROVIDE MEASURES TO PROTECT EXISTING FOUNDATION DURING EXCAVATION. SHORING DESIGN TO BE PROVIDED BY CONTRACTOR AS NEEDED.
- 6 NYLOPLAST CATCH BASIN, PER DETAIL A SHEET C5 (GRATED COVER).
- 7 DUAL PUMP OUTLET STRUCTURE, PER DETAIL 1 SHEET C5. THE PUMP STATION STRUCTURE SHALL BE A TYPE 2 CB, WITH DIAMETER SIZED TO HOUSE THE SELECTED PUMPS AND RELATED EQUIPMENT WITH ADEQUATE ROOM FOR MAINTENANCE ACCESS (MINIMUM 48 DIA.), OR MANUFACTURER'S PACKAGED PUMP STATION STRUCTURE SUBJECT TO REVIEW AND APPROVAL FROM THE PROJECT ENGINEER.
- 8 EMERGENCY OVERFLOW PIPE.
- 9 STORM DRAIN CLEANOUT (SOLID COVER).
- 10 CONCRETE PIPE ANCHORS PER DETAIL 2 ON SHEET C5. GEOTECHNICAL ENGINEER TO DETERMINE IF GROUNDWATER IS PRESENT AT BOTTOM OF EXCAVATION AND IF ANCHORS ARE REQUIRED.
- 11 FOOTING DRAIN CONNECTION POINT TO TIGHTLINE.
- 12 UPPER CATCH BASIN PER DETAIL A SHEET C5.
- 13 CONNECT BACK OF WALL DRAIN TO TIGHTLINE.

STORM DRAINAGE NOTES

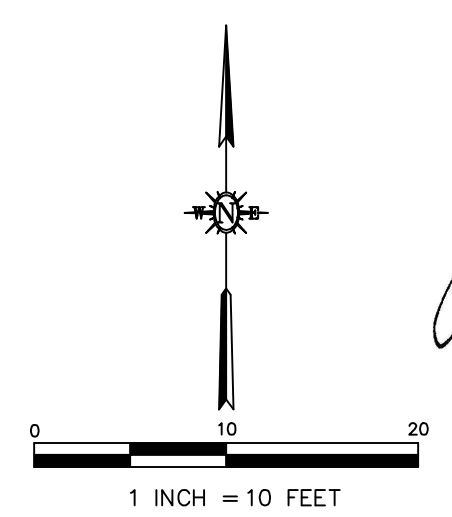
1. STORM PIPE SHALL BE PVC CONFORMING TO ASTM D-3034 SDR 35 (4" - 15") OR ASTM F-679 (18"-27"). BEDDING AND BACKFILL SHALL BE AS SHOWN IN THE STANDARD DETAILS.
2. INSTALL FOOTING DRAINS AROUND ALL BUILDING PERIMETER FOOTINGS. THE FOOTING DRAINAGE SYSTEM AND THE ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED AND SHALL SEPARATELY CONVEY COLLECTED FLOWS TO THE CONVEYANCE SYSTEM OR TO ON-SITE STORMWATER FACILITIES.
3. EXISTING FOOTING DRAIN MUST BE TV INSPECTED. 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 FOOTING DRAIN IS REQUIRED.
4. CONNECT ALL ROOF DRAIN DOWNSPOUTS TO BELOW GROUND STORM DRAIN SYSTEM, UNLESS SPLASH BLOCK SHOWN.
5. YARD DRAIN CATCH BASINS SHALL BE NYLOPLAST DRAIN BASIN WITH 8" CIRCLE GRATE (UNLESS OTHERWISE NOTED) OR APPROVED EQUAL (DRAIN BASIN SHALL BE 12" MIN OR LARGER TO ACCOMMODATE CONNECTED PIPES). SEE DETAIL C ON SHEET C4. CATCH BASINS WITHIN DRIVEWAY OR OTHER VEHICULAR AREAS SHALL HAVE TRAFFIC RATED GRATE AND FRAME. SEE NOTE 8.
6. PIPES ROUTED BELOW RETAINING WALLS SHALL BE SUFFICIENTLY PROTECTED FROM WALL LOADING. FOR LANDSCAPE WALLS, PROVIDE 6" SLURRY ENCASEMENT OF PIPE AT MINIMUM WITHIN THE ZONE OF INFLUENCE OF WALL.
7. YARD DRAIN TYPE AND MANUFACTURER FOR YARD DRAINS THAT ARE NOT ON THE MAIN STORM DRAIN CONVEYANCE LINE SHALL BE COORDINATED BY LANDSCAPE ARCHITECT.
8. IF THE EXISTING CATCH BASIN IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING CATCH BASIN IS REQUIRED.
9. WHERE TWO STORM DRAINS INTERSECT AND THERE IS NO PROPOSED INLET, PROVIDE CONNECTION WITH WYE/JUNCTION

GENERAL NOTES

1. ALL GRADING AND DRAINAGE SHALL CONFORM TO THE CURRENT BUILDING CODE.
2. ALL DISTURBED PERVIOUS AREA SHALL BE AMENDED PER BMP 15.13 POST-CONSTRUCTION SOIL QUALITY AND DEPTH (SEE DETAIL B, SHEET C4)
3. AN EMERGENCY ON-SITE, BACK-UP POWER SUPPLY AND AN EXTERNAL ALARM SYSTEM FOR SYSTEM FAILURE AND HIGH WATER LEVEL INDICATOR ARE REQUIRED FOR THE PUMP SYSTEM
4. PRIVATE PROPERTY OWNERS SHALL BE RESPONSIBLE FOR ANY AND ALL CLAIMS FOR INJURIES AND DAMAGE DUE TO THE OPERATION OR NON-OPERATION OF THE PUMP SYSTEM

GRADING NOTES

1. PRIOR TO CONSTRUCTING FLATWORK NEAR EXTERIOR DOORS, CONTRACTOR SHALL COORDINATE DOOR THRESHOLD DROP WITH ARCHITECTURAL PLANS.
2. ALL FLATWORK ADJACENT TO BUILDINGS SHALL BE SLOPED AT A MINIMUM OF 2% FOR 10' AWAY FROM THE BUILDING UNLESS NOTED OTHERWISE.
3. FINISHED GRADE (PERVIOUS AREA) DIRECTLY ADJACENT TO BUILDINGS SHALL BE SLOPED AT 5% MINIMUM FOR 10' AWAY FROM THE BUILDING, OR TO A DESIGNATED SWALE SLOPED AT 2% MINIMUM.
4. FINISHED GRADE (DIRT OR LANDSCAPE AREA) DIRECTLY OUTSIDE OF THE BUILDING SHALL BE 8" MINIMUM AND 12" MAXIMUM BELOW FINISHED FLOOR UNLESS NOTED WITH A SPECIALLY DESIGNED FOOTING. FOOTING EMBEDMENT SHOULD MEET MINIMUM REQUIREMENTS PER STRUCTURAL ENGINEER.
5. NO SLOPES SHALL EXCEED 2:1 HORIZONTAL TO VERTICAL.
6. DRIVEWAYS SHALL NOT EXCEED 20% MAX SLOPE THROUGH EXPECTED DRIVE PATH.
7. CONTRACTOR TO INSTALL STAIRS, STAIR LANDINGS AND HANDRAILS AS REQUIRED BY THE WASHINGTON BUILDING CODE.
8. PRIOR TO CONSTRUCTION, PROJECT GEOTECHNICAL ENGINEER SHALL REVIEW AND APPROVE THESE PLANS FOR CONFORMANCE WITH THEIR RECOMMENDATIONS, INCLUDING EARTHWORK AND GRADING, FOUNDATION AND WALL DRAINS, INFILTRATING STORMWATER BMPs, BUILDING PAD PREPARATION.
9. PROVIDE LANDINGS OUTSIDE OF ALL EXTERIOR DOORS PER WASHINGTON BUILDING CODE.



REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGNS AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

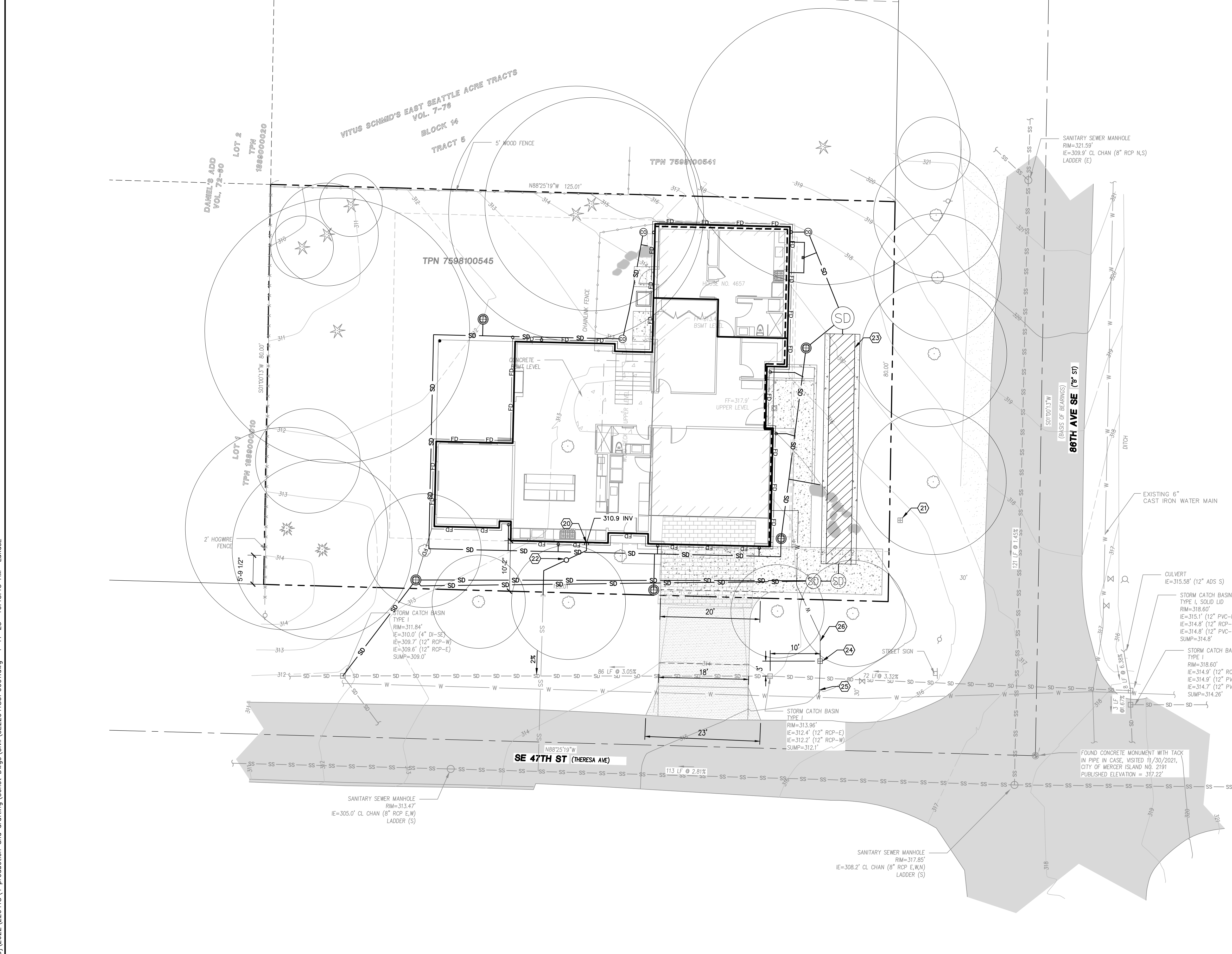
LI RESIDENCE		
DRAINAGE & BMP PLAN		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C2 OF 8

CONSTRUCTION NOTES

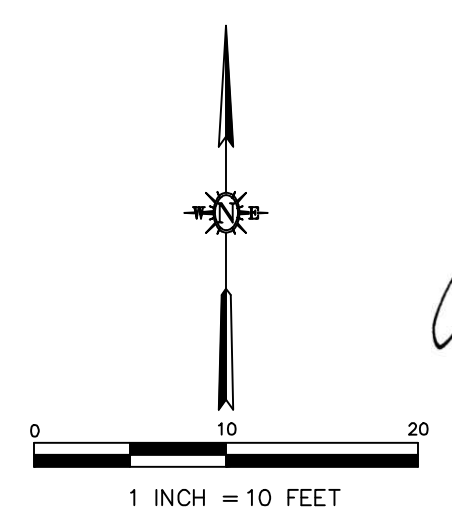
- (20) CONNECT PROPOSED SEWER TO EXISTING MAIN USING 6" SDR 35 PVC PER CITY OF MERCER ISLAND SEWER STD DETAIL S-18 & S-22 ON SHEET C4
- (21) EXISTING WATER METER BOX TO BE REMOVED AND EXISTING WATER SERVICE TO BE ABANDONED AT THE MAIN.
- (22) SEWER CHECK VALVE PER CITY OF MERCER ISLAND SEWER STD DETAIL S-18
- (23) ON-SITE DETENTION SYSTEM.
- (24) CONSTRUCT NEW 1" WATER METER PER STANDARD W-13
- (25) CONSTRUCT 1" WATER SERVICE LINE PER STANDARD W-13
- (26) CONSTRUCT 1.25" WATER SUPPLY LINE TO BUILDING

UTILITY NOTES

- 1. THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN ON SE 47TH ST IS REQUIRED PRIOR TO ANY WORK RELATED TO THE SIDE SEWER. 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.
- 2. FRANCHISE UTILITIES ARE NOT REVIEWED OR APPROVED BY THE CITY OF MERCER ISLAND.



\\cammasoc.com\dfsroot1\Public\proj\2022\220418\4_production_and_drafting\Const Dwgs\Civil\CE220418\UPO001.dwg 4-11-23 10:13:13 AM Lukase



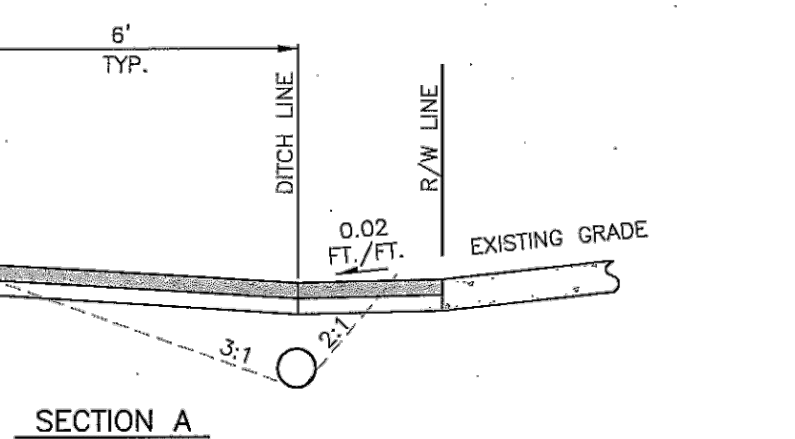
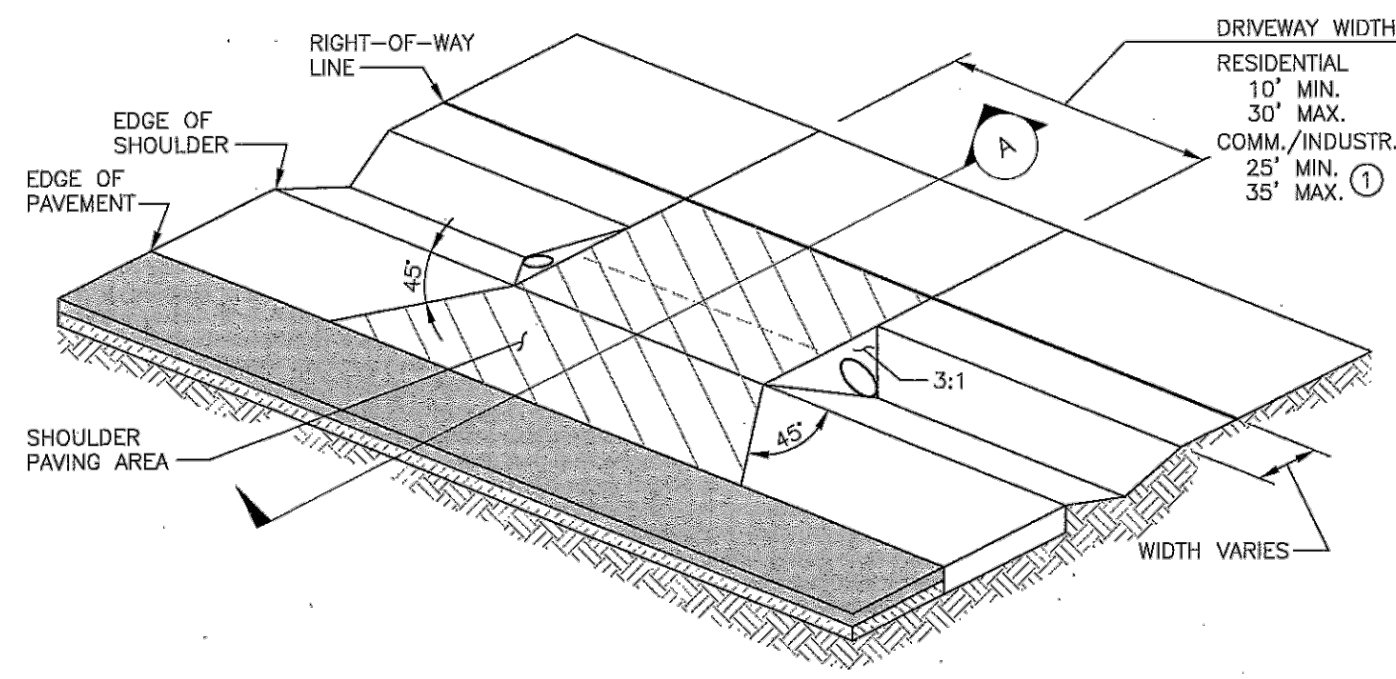
REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

Cannon

1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGNS AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

LI RESIDENCE		
UTILITY CONECTIONS PLAN		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C3 OF 8



- NOTES:**
- WITHIN THE RIGHT-OF-WAY DRIVEWAYS SHALL BE PAVED FROM THE RIGHT-OF-WAY LINE TO THE EDGE OF PAVEMENT WITH HOT MIX ASPHALT. NO CONCRETE IS ALLOWED WITHIN THE RIGHT-OF-WAY UNLESS AS SPECIFIED IN SEC.4.02.
 - COMMERCIAL/INDUSTRIAL DRIVEWAYS WIDER THAN 35 FT. MAY BE APPROVED BY THE COUNTY ROAD ENGINEER CONSIDERING BOTH TRAFFIC SAFETY AND THE ACTIVITY BEING SERVED.
 - ALL COMMERCIAL/INDUSTRIAL DRIVEWAYS SHALL HAVE AN EXPANSION JOINT LOCATED MID-WIDTH. (SEE SEC. 3.04.)
 - PIPE SHALL BE:
 - SIZED TO CONVEY COMPUTED STORM WATER RUNOFF, AND
 - MIN. 12" DIAM., AND
 - EQUAL TO OR LARGER THAN EXISTING PIPES WITHIN 500 FT. UPSTREAM.
 - EXPOSED PIPE ENDS SHALL BE BEVELED TO MATCH THE SLOPE FACE AND PROJECT NO MORE THAN 2" BEYOND SLOPE SURFACE. PROJECTING HEADWALLS ARE NOT ACCEPTABLE.
 - ALL TYPES OF PIPE SHALL HAVE MIN. 12" COVER TO FINISH GRADE.
 - PIPE SHALL BE INSTALLED IN A STRAIGHT UNIFORM ALIGNMENT AT A MIN. 0.5% SLOPE (0.5 FT. PER 100 FT.) WITH THE DOWNSTREAM END LOWER THAN THE UPSTREAM END.
 - PIPE MAY BE OMITTED IF ROADSIDE DITCH DOES NOT EXIST AND DRIVEWAY DOES NOT BLOCK NATURAL FLOW.
 - DRIVEWAY SLOPE SHALL MATCH TO BACK EDGE OF SHOULDER, BUT SHOULDER SLOPE AND EDGE OF SHOULDER SHALL NOT BE ALTERED AS A RESULT OF DRIVEWAY CONSTRUCTION.
 - SEE SEC. 3.01 AND 4.01 FOR DRIVEWAY AND SURFACING STANDARDS.
 - PIPING OF DITCHES SHALL BE ALLOWED ONLY WHERE DRIVEWAY ACCESS IS NECESSARY.

SHOULDER AND DITCH SECTION DRIVEWAY
3-14

DISCONNECTION

WHEN DEMOLISHING AN EXISTING BUILDING, THE BUILDING SIDE SEWER SHALL BE DISCONNECTED PRIOR TO REMOVAL OF BUILDING FOUNDATIONS. THE CONTRACTOR SHALL INSTALL A MECHANICAL PLUG WITH NON-SHRINK GROUT AT THE END OF THE SIDE SEWER TO REMAIN IN PLACE. DISCONNECTION'S SHALL BE PERFORMED IN THE PRESENCE OF THE CITY'S UTILITY INSPECTOR. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT DRAWING DEPICTING THE DISCONNECTED SIDE SEWER UPON COMPLETION OF THE WORK.

RECONNECTION

WHEN RECONNECTING TO AN EXISTING SIDE SEWER, THE POINT OF RECONNECTION WILL BE DETERMINED BASED ON THE MAGNITUDE OF THE CONSTRUCTION ON THE PROPERTY.

- PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH NO ADDITIONAL PLUMBING FIXTURES - NO SIDE SEWER REPLACEMENT REQUIRED UNLESS A KNOWN PROBLEM EXISTS IN THE SIDE SEWER.
- PARTIAL INTERIOR REMODEL AND/OR BUILDING ADDITION WITH ADDITIONAL PLUMBING FIXTURES- ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO PROPERTY LINE AND REPLACE AS NEEDED.
- COMPLETE INTERIOR REMODEL OF RESIDENCE - ASSESS CONDITION OF EXISTING SIDE SEWER THROUGH VIDEO INSPECTION FROM BUILDING TO PROPERTY LINE AND REPLACE AS NEEDED. IF EXISTING SIDE SEWER IS ASBESTOS CEMENT OR CONCRETE, SIDE SEWER SHALL BE REPLACED FROM BUILDING TO PROPERTY LINE, UNLESS THE APPLICANT PROVES, TO THE SATISFACTION OF THE CITY ENGINEER, THAT THE SIDE SEWER IS WATER TIGHT AND IN SOUND CONDITION.*
- COMPLETE INTERIOR REMODEL AND BUILDING ADDITION - NEW SIDE SEWER FROM BUILDING TO PROPERTY LINE.*
- CONSTRUCTION OF A NEW SINGLE FAMILY RESIDENCE - NEW SIDE SEWER FROM BUILDING TO PROPERTY LINE.*

BACK WATER VALVE INSTALLATION PER CITY ENGINEER, IF SCENARIO 2, 3, 4, OR 5 IS DIRECTLY ATTACHED TO THE LAKE LINE OR THE ELEVATION OF THE LOWEST DRAIN IN THE RESIDENCE IS LOWER THAN THE RIM ELEVATION OF THE UPSTREAM SEWER MANHOLE ON THE MAIN.

VIDEO INSPECTION OF THE EXISTING SIDE SEWER, BETWEEN THE PROPERTY LINE AND THE SEWER MAIN SHALL BE PERFORMED FOR SCENARIOS NUMBER 4 AND 5.

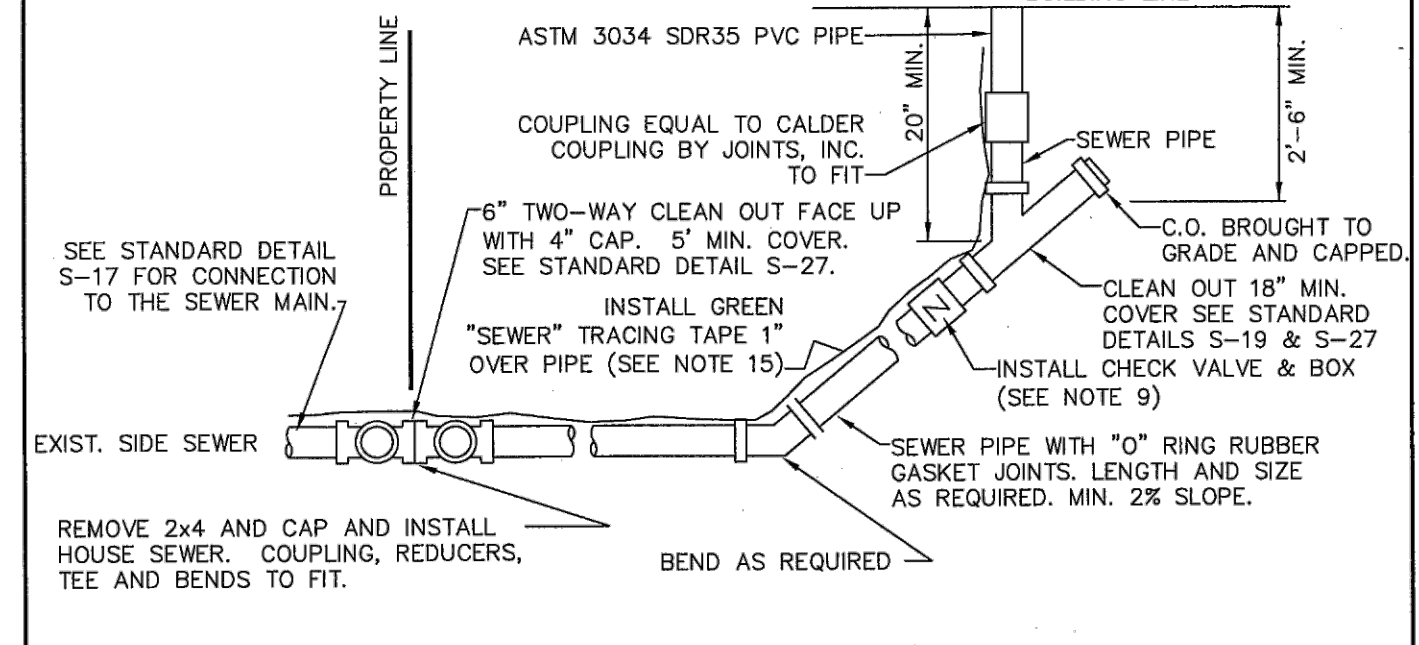
PROVIDE A COPY OF THE VIDEO DOCUMENTATION (VIDEO AND HARDCOPY REPORT) TO THE CITY ENGINEER.

REPLACEMENT OR REPAIR OF THAT PORTION OF THE SIDE SEWER BETWEEN THE PROPERTY LINE AND THE SEWER MAIN, WILL BE DETERMINED BY THE CITY ENGINEER, BASED ON THE VIDEO INSPECTION.

*IF THE EXISTING SIDE SEWER IS PVC AND IS LESS THAN TEN YEARS OLD, THE SIDE SEWER DOES NOT HAVE TO BE REPLACED IF A VIDEO INSPECTION AND/OR HYDROSTATIC PRESSURE TEST CONFIRMS THAT THE SIDE SEWER IS IN PROPER WORKING CONDITION. THESE TESTS SHALL BE PERFORMED AFTER ALL HEAVY EQUIPMENT THAT COULD DAMAGE THE SIDE SEWER IS OFF OF THE SITE.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
RESIDENTIAL SIDE SEWER DISCONNECTION & RECONNECTION
6-5-2009 NO SCALE **S-22**

REV DATE _____ APPROVED _____

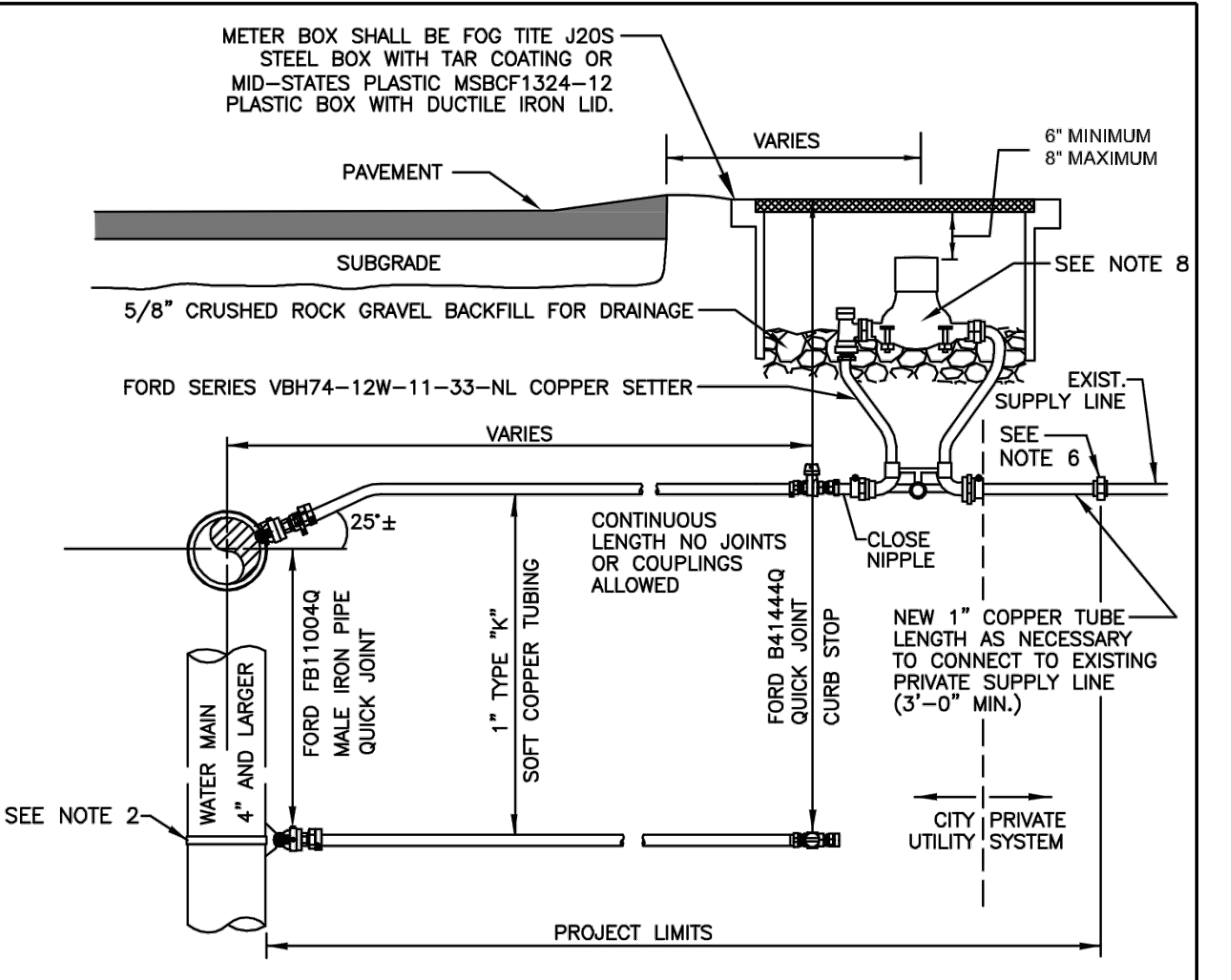


BUILDING CONNECTION

- NOTES**
- ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
 - CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
 - ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
 - 18" MINIMUM COVERAGE OVER PIPE.
 - LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8 BEND OR WYE. 90° CHANGE WITH 1/8 BEND AND WYE.
 - 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
 - ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
 - BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
 - IF CONNECTED TO A SHARED SIDE SEWER.
 - IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
 - SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
 - AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
 - THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
 - 6" - WITHIN THE PUBLIC RIGHT-OF-WAY.
 - 4" - SINGLE FAMILY RESIDENCES.
 - 6" - 2 TO 6 SINGLE FAMILY RESIDENCES.
 - 6" - BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
 - UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

CITY OF MERCER ISLAND
STANDARD DETAILS
SEWER
HOUSE SEWER CONNECTION
6-5-2009 NO SCALE **S-18**

REV DATE _____ APPROVED _____



1" WATER METER INSTALLATION

- NOTES**
- WATER SERVICES SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT DATED 01/04/2014.
 - ON EXISTING WATER MAINS USE NYLON COATED D.I. SADDLE WITH STAINLESS STEEL DOUBLE STRAPS, ROMAC 2020NS, OR APPROVED EQUAL.
 - MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18" MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24", ALL HORIZONTALLY STAGGERED.
 - PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
 - UPON CITY ENGINEER'S APPROVAL, METER BOXES ARE ALLOWED TO BE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK.
 - WHEN CONNECTING TO EXISTING PRIVATE SUPPLY LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING PRIVATE SUPPLY LINE DIAMETER.
 - SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN AND STRAIGHT TO WATER METER. UNLESS OTHERWISE APPROVED BY CITY ENGINEER. PROVIDE WINDING SLACK IN THE SERVICE LINE BETWEEN THE MAIN AND WATER METER.
 - WATER METER SUPPLIED BY CITY.
 - ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
 - NO SERVICE CONNECTIONS BETWEEN BLOW-OFF AND END OF MAIN.

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
1" WATER METER INSTALLATION
02-05-2021 NO SCALE **W-13**

REV DATE _____ APPROVED _____

CONE STYLE REDUCER

A	B	C	D
10"	8"	6.00	9.00
12"	8"	12.00	9.00
12"	10"	6.00	10.00
15"	8"	18.50	9.00
15"	10"	12.50	10.00
15"	12"	6.50	9.00
18"	8"	25.50	9.00
18"	10"	19.50	10.00
18"	12"	13.50	11.50
18"	15"	7.00	9.00
24"	8"	36.50	9.00
24"	10"	30.50	10.00
24"	12"	24.50	11.00
24"	15"	18.00	12.00
30"	8"	46.50	9.00
30"	10"	40.50	10.00
30"	12"	34.50	11.50
30"	15"	28.00	12.00
30"	18"	21.00	14.50
30"	24"	13.50	9.00

CAP STYLE REDUCER

NOTE: DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

NYLOPLAST
3130 VERONA AVE
BURLINGAME, CA 94010
PHN (770) 932-2440
FAX (770) 932-2480
WWW.NYLOPLAST.COM

DRAIN BASIN WITH REDUCER OPTIONS
DWG NO. 7091-110-144 REV. E

NON TRAFFIC INSTALLATION

DRAIN BASIN

INLINE DRAIN

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

NYLOPLAST
3130 VERONA AVE
BURLINGAME, CA 94010
PHN (770) 932-2440
FAX (770) 932-2480
WWW.NYLOPLAST.COM

DRAIN BASIN & INLINE DRAIN NON TRAFFIC INSTALLATION
DWG NO. 7091-110-111 REV. E

NYLOPLAST DRAIN BASIN WITH STANDARD GRATE

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

(3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLAN/STAKE OFF)

(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 36" FOR CORRUGATED HDPE (ADS N-12HANCOR DUAL WALL, ADSHANCOR SINGLE WALL), N-12 HP PVC SEWER (EX. SDR 35), PVC DWV (EX. SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

(5) ADAPTER ANGLES VARIABLE 0° - 30° ACCORDING TO PLANS

(6, 7) TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7091-110-111 FOR NON TRAFFIC INSTALLATION.

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

1 - 8" - 30" STANDARD GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-06.
2 - 12" - 36" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-06.
3 - 8" & 10" STANDARD GRATES FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7091-110-046.
4 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 8" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7091-110-046.
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 30° TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7091-110-012.
6 - 12" - 36" STANDARD GRATES SHALL MEET N-30 LONG RATING.
7 - IF 8" & 10" STANDARD GRATES ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY, NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

NYLOPLAST
3130 VERONA AVE
BURLINGAME, CA 94010
PHN (770) 932-2440
FAX (770) 932-2480
WWW.NYLOPLAST.COM

DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL
DWG NO. 7091-110-144 REV. J

TYPICAL YARD DRAIN/CATCH BASIN

WILLIAM N. TAYLOR
REGISTERED PROFESSIONAL ENGINEER
29198

REV. NO.	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

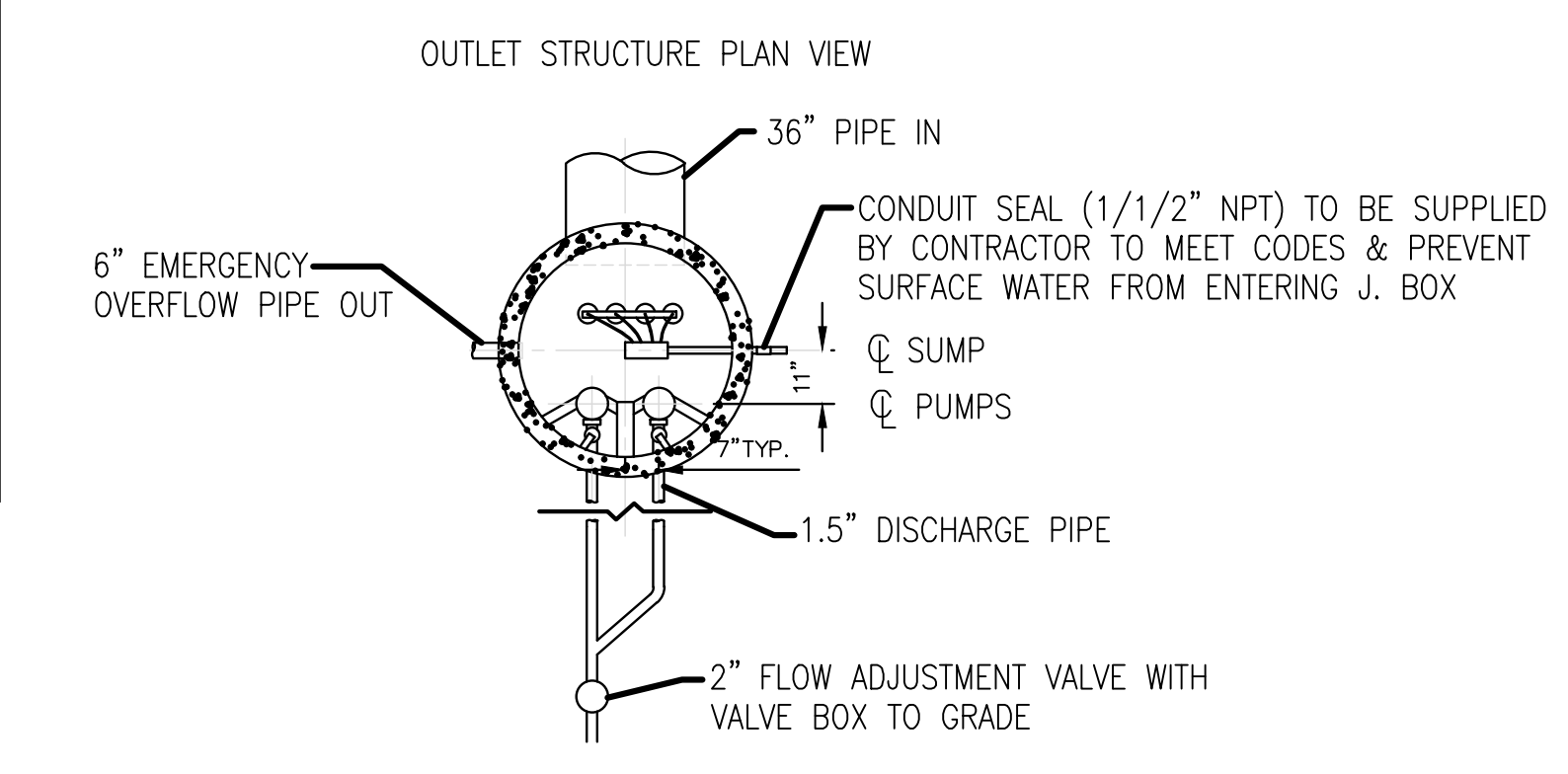
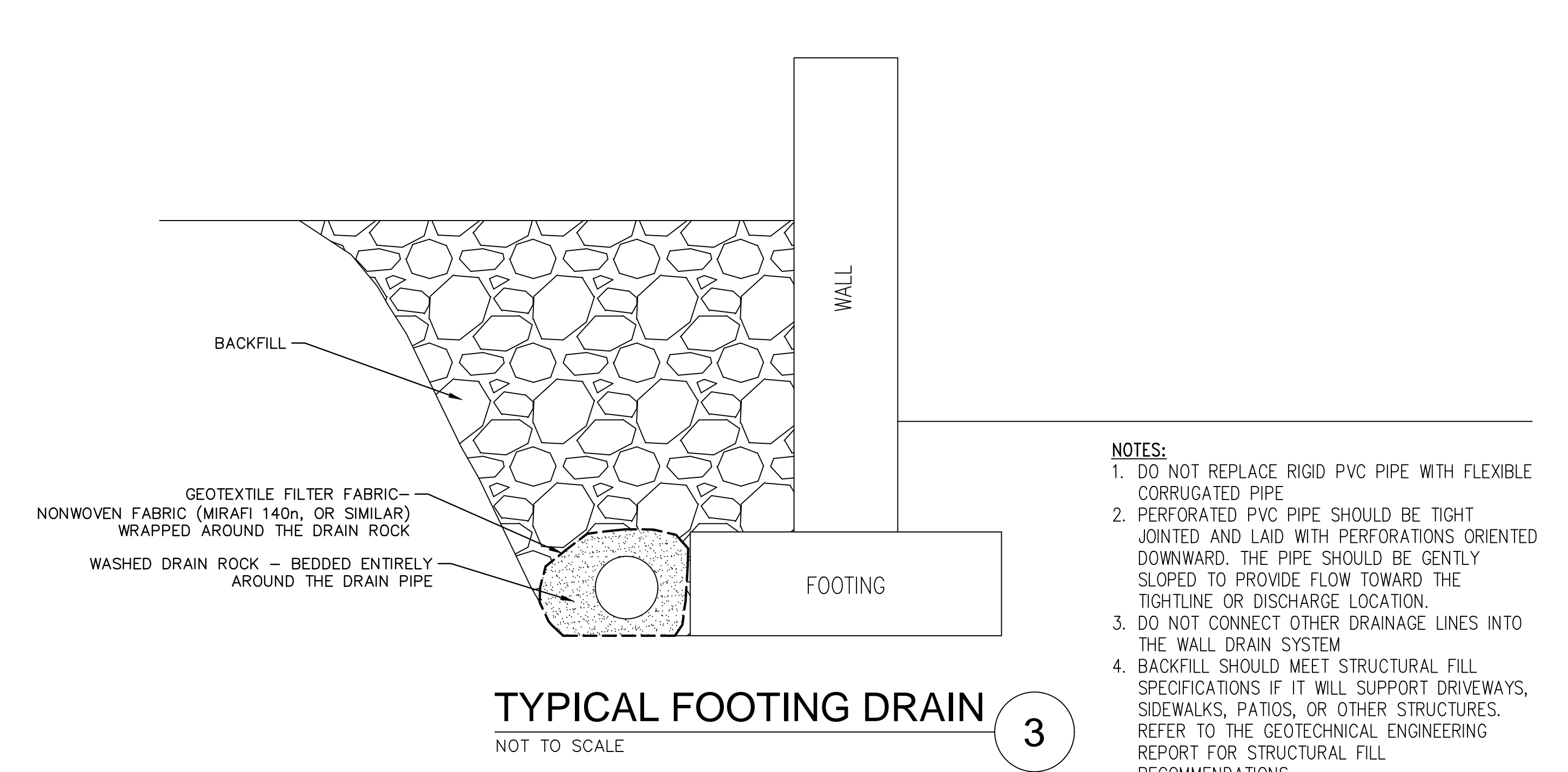
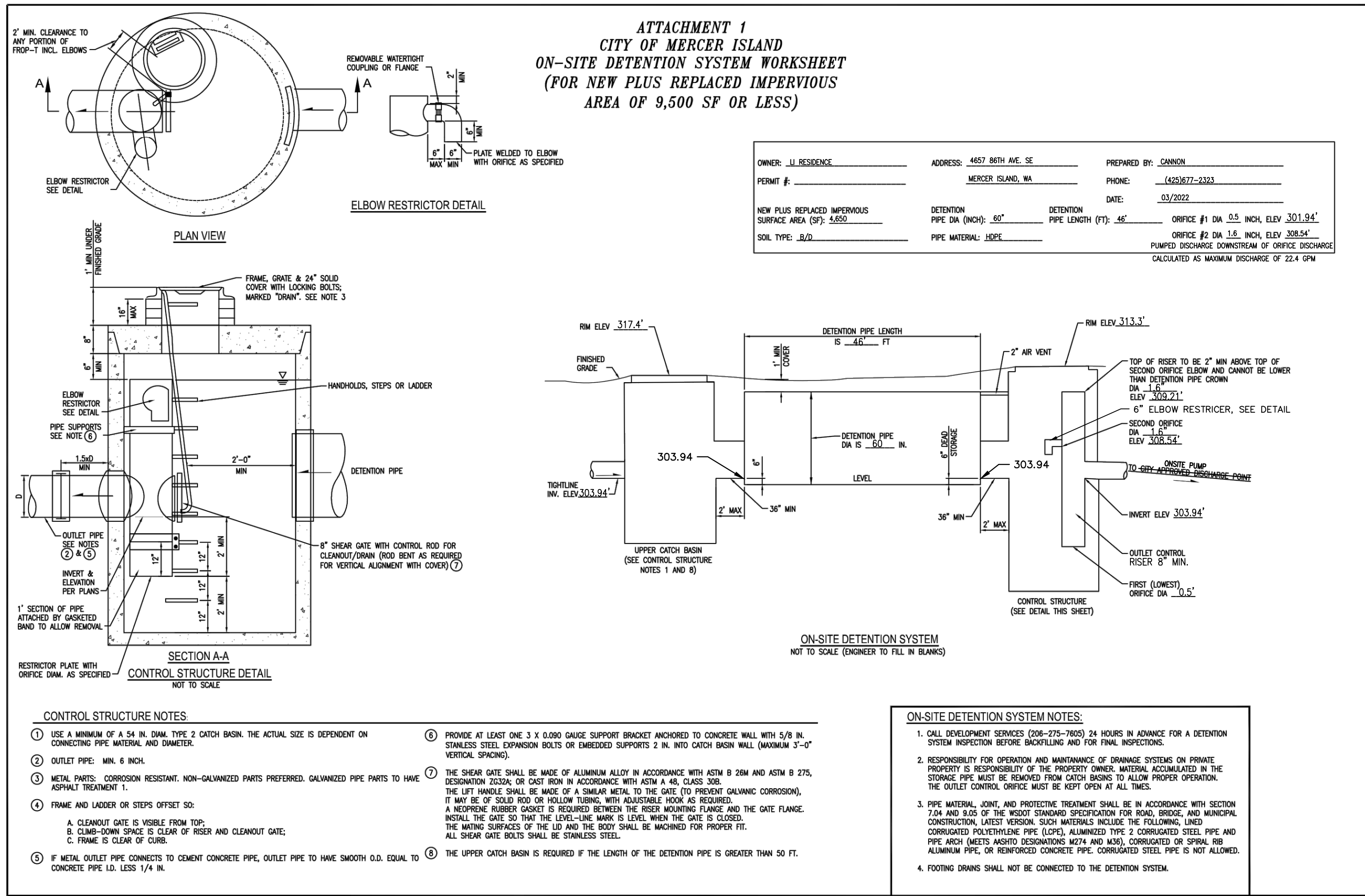
Cannon
1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGN AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

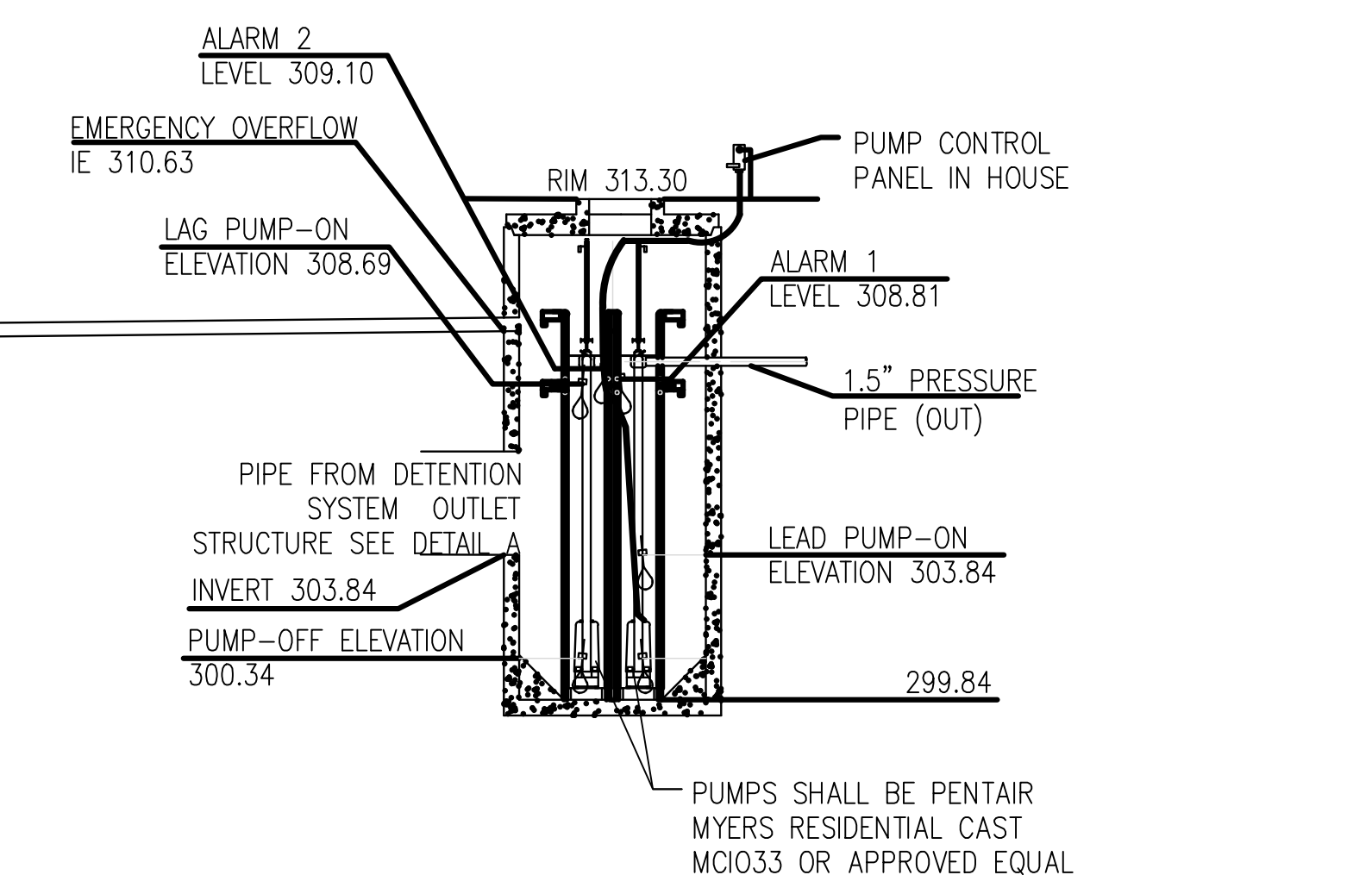
LI RESIDENCE
GRADING AND DRAINAGE DETAILS
MERCER ISLAND, WASHINGTON

DRAWN BY SEM DATE 4/12/2023 CA JOB NO. 220418
CHECKED BY KR SCALE AS SHOWN SHEET C4 OF 8

\\cannonassoc.com\dfsroot1\Public\proj\2022\220418\4_production_and_drawing\Const\dwgs\Civil\CE220418D50001.dwg 4-11-23 10:13:35 AM Lukose



- SPECIFICATIONS:**
- PROVIDE DUPLEX PUMP SYSTEM
 - TOTAL ESTIMATED HEAD LOSS (INCLUDING ELEVATION, FRICTION FITTINGS) = 13.74 FT - WITH ADJUSTMENT VALVE OPEN
 - PUMPS SHALL HAVE VARIABLE OUTPUT CAPABILITY WITH 22.4 GPM TO STORM DRAIN SYSTEM.
 - PUMPS AND CONTROLS SHALL HAVE 5 YEAR MINIMUM WARRANTY
 - PUMPS SHALL BE PENTAIR MYERS RESIDENTIAL CAST MCI033, OR APPROVED EQUAL PER MANUFACTURER'S ENGINEERED DESIGN.
 - SUPPLIER SHALL CONFIRM TOTAL DYNAMIC HEAD BASED ON PIPING PLAN AND PROVIDE PUMP SYSTEM DESIGN AND EQUIPMENT DATA FOR APPROVAL PRIOR TO INSTALLATION.
 - ANY CONTROLS LOCATED IN PUMP STRUCTURE SHALL BE WATER AND EXPLOSION PROOF.
 - CONTROL PANEL SHALL BE SJE/RHOMBUS DUPLEX ALTERNATING WITH NEMA 4X ENCLOSURE, HIGH WATER ALARM, MOTOR CONTRACTOR, RUN LIGHTS, H-O-A SWITCH (OR APPROVED EQUAL).
 - POWER SUPPLY FROM HOUSE PANEL BY CONTRACTOR SUBJECT TO BUILDING ELECTRICAL INSPECTION. COORDINATE PUMP SELECTION WITH POWER SUPPLY.

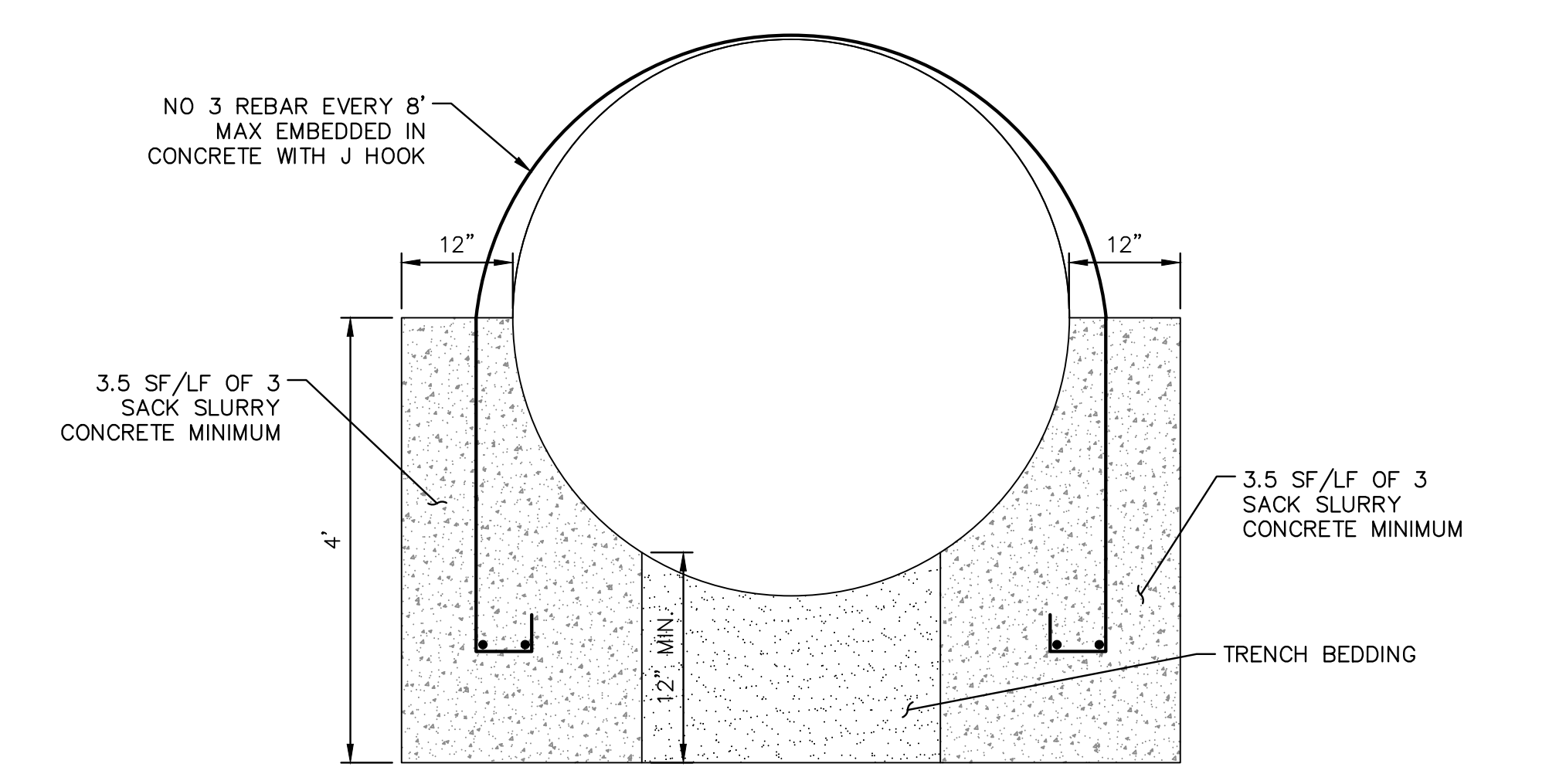


STORMWATER DETENTION AND PUMP STATION

NOT TO SCALE

ONSITE DETENTION SYSTEM

NOT TO SCALE



- NOTES:**
- INSTALL PIPE ANCHOR FOR LENGTH OF 60" PIPE (46 LF)
 - INSTALL PIPE ANCHOR ONLY AS REQUIRED BY GEOTECHNICAL ENGINEER IF GROUNDWATER IS PRESENT. GEOTECHNICAL ENGINEER TO REVIEW THIS DETAIL FOR CONFORMANCE WITH THEIR REQUIREMENTS.

CONCRETE PIPE ANCHOR

NOT TO SCALE

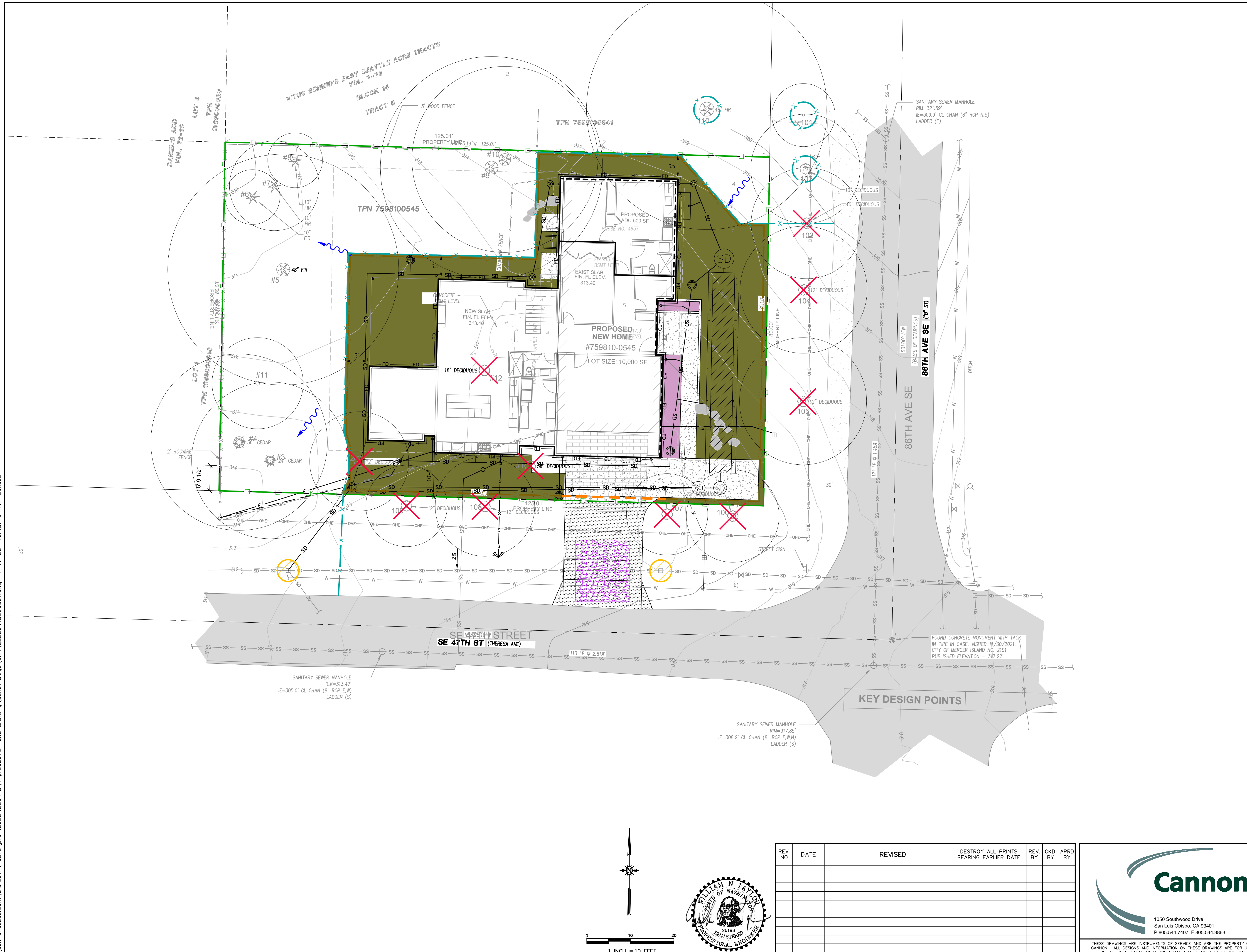


REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

LI RESIDENCE		
GRADING AND DRAINAGE DETAILS		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C5 OF 8

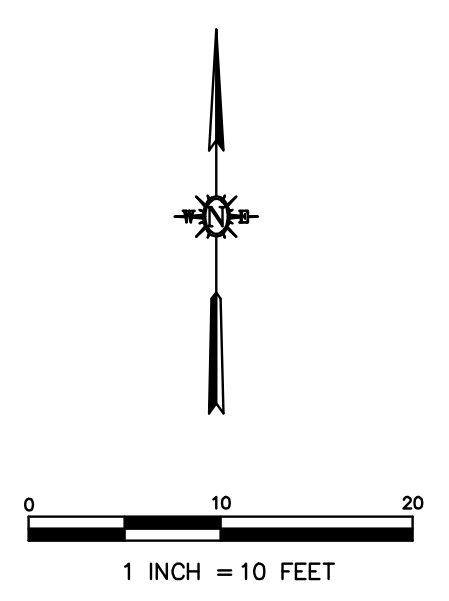
F:\proj\2022\220418\4 Production and Drafting\Const Dwg\Civil\Ce220418DS0001.dwg 4-12-23 11:24:48 AM katie

\\cannonassoc.com\dfsroot1\Public\proj\2022\220418\4_production_and_drawing\Const Dwgs\Civil\CE220418\CE0001.dwg 4-11-23 10:13:45 AM Lukase



- ### T.E.S.C. LEGEND
- LIMIT OF DISTURBANCE FENCE
 - REINFORCED SILT FENCING PER DETAIL 4 SHEET C9
 - WATTLES PER DETAIL 2 SHEET C8
 - TEMPORARY CONSTRUCTION ENTRANCE PER DETAIL 1 SHEET C8
 - DIRECTION OF SURFACE FLOW
 - TREE PROTECTION. INSTALL HIGH VISIBILITY FENCING PER DETAIL 5 SHEET C9. FINAL TREE PROTECTION PER LANDSCAPE PLANS AND ARBORIST
 - STORM DRAIN PROTECTION PER DETAIL 3 SHEET C8
 - REMOVE TREE, FINAL TREE REMOVAL PER LANDSCAPE PLANS & ARBORIST
 - PROPOSED PLANTING BED (100 SF TOTAL). AMEND SOIL PER DETAIL B ON SHEET C7
 - PROPOSED TURF AREA (2652 SF). AMEND SOIL PER DETAIL B ON SHEET C7

- ### T.E.S.C. NOTES
1. ALL DISTURBED SOIL AREAS SHALL BE TREATED WITH SOIL AMENDMENT PER DETAIL B ON SHEET C4.
 2. CONTRACTOR TO INSTALL AND MAINTAIN ALL EROSION CONTROL BMP'S AS SHOWN ON THIS PLAN IN ACCORDANCE WITH DEPARTMENT OF ECOLOGY STORMWATER POLLUTION PREVENTION REQUIREMENTS SUMMARIZED ON SHEETS C7 & C9. IF BMP INSTALLATION AND MAINTENANCE IS INADEQUATE TO MEET THESE REQUIREMENTS CONTRACTOR TO PROVIDE ADDITIONAL BMP'S AT NO ADDITIONAL COST TO OWNER.
 - CONFIRM TREES TO BE PROTECTED, REMOVED, AND PRESERVATION MEASURES WITH PROJECT ARBORISTS.
 - DISCHARGE CLEAN, NON-TURBID DEWATERING WATER DIRECTLY TO SURFACE WATER. DEWATERING WATER WHICH HAS SIMILAR CHARACTERISTICS TO STORMWATER RUNOFF AT THE SITE SHOULD BE DISCHARGED TO SEDIMENT TRAP.
 3. ALL CONSTRUCTION FENCING TO NOT EXCEED 3' HEIGHT WITHIN RIGHT OF WAY.
 4. AIR EXCAVATION UNDER ARBORIST DIRECTION OR TUNNEL BORE TECHNOLOGY FOR THE INSTALLATION OF THE SD AND ASSOCIATED INFRASTRUCTURE WITHIN SAVED TREES DRIPLINES.
 5. CHAIN LINK TREE PROTECTION IS REQUIRED AT ARBORIST GIVEN LIMITS OF ALLOWABLE DISTURBANCE OR DRIFLINE.



REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

Cannon
 1050 Southwood Drive
 San Luis Obispo, CA 93401
 P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGNS AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

LI RESIDENCE		
TESC PLAN		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C6 of 8

\\camonassoc.com\dfsroot1\Public\proj\2022\220418\4_production_and_drafting\Const_Dwg\CE220418\BEC0001.dwg 4-11-23 10:13:47 AM Lukose

ESC STANDARD NOTES

1. APPROVAL OF THIS EROSION/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).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACE-MENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEAR-ING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT ENTER THE DRAINAGE SYSTEM, ROADWAYS, OR VIOLATE APPLICABLE WATER STANDARDS.
5. 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 TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
7. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 48 HOURS FOLLOWING A MAJOR STORM EVENT.
8. 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 PAV-ING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
9. 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.

CONSTRUCTION SEQUENCE

- HOLD THE PRE-CONSTRUCTION MEETING.
1. POST SIGN WITH NAME AND PHONE NUMBER OF ESC SUPERVISOR.
 2. FENCE CLEARING LIMITS.
 3. INSTALL CATCH BASIN PROTECTION.
 4. GRADE AND INSTALL CONSTRUCTION ENTRANCES.
 5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 6. CONSTRUCT SURFACE WATER CONTROLS SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 7. INSTALL STORM DRAINAGE AND SANITARY SEWER SYSTEMS.
 8. INSTALL WATER SYSTEM, IRRIGATION, AND DRY UTILITIES AS SHOWN ON PLANS.
 9. INSTALL ASPHALT CONCRETE PAVEMENT, CURBING AND CEMENT CONCRETE AS SHOWN ON PLANS.
 10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 11. 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 OF MERCER ISLAND CLEARING AND GRADING STANDARDS.
 12. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
 13. STABILIZED 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, STABILIZED ALL DISTURBED AREAS AND REMOVE BMPs IF APPROPRIATE.

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 [BMP 17.30: Bioretention Cells, Swales, and Planter Boxes \(p.959\)](#), 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](#).

The resulting soil should be conducive to the type of vegetation to be established.

- 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.

GUIDE TO MULCH MATERIALS, RATES AND USE

MULCH MATERIAL	QUALITY STANDARDS	APPLICATION RATES	REMARKS
STRAW	AIR DRIED; FREE FROM UNDESIRABLE SEED & COARSE MATERIAL.	2"-3" THICK; 5 BALES PER 1000SF OR 2-3 TONS PER ACRE	COST-EFFECTIVE PROTECTION WHEN APPLIED WITH ADEQUATE THICKNESS. HAND-APPLICATION GENERALLY REQUIRES GREATER THICKNESS THAN BLOWN STRAW. THE THICKNESS OF STRAW MAY BE REDUCED BY HALF WHEN USED IN CONJUNCTION WITH SEEDING. IN WINDY AREAS STRAW MUST BE HELD IN PLACE BY CRIMPING, USING A TACKIFIER, OR COVERING WITH NETTING. BLOWN STRAW ALWAYS HAS TO BE HELD IN PLACE WITH A TACKIFIER AS EVEN LIGHT WINDS WILL BLOW IT AWAY. STRAW, HOWEVER, HAS SEVERAL DEFICIENCIES THAT SHOULD BE CONSIDERED WHEN SELECTING MULCH MATERIALS. IT OFTEN INTRODUCES AND/OR ENCOURAGES THE PROPAGATION OF WEED SPECIES AND IT HAS NO SIGNIFICANT LONG-TERM BENEFITS. STRAW SHOULD BE USED ONLY IF MULCHES WITH LONG-TERM BENEFITS ARE UNAVAILABLE LOCALLY. IT SHOULD ALSO NOT BE USED WITHIN THE ORDINARY HIGH-WATER ELEVATION OF SURFACE WATERS (DUE TO FLOTATION).
HYDROMULCH	NO GROWTH INHIBITING FACTORS.	APPOX. 25-30 LBS PER 1000 SF OR 1500-2000 LBS PER ACRE	SHALL BE APPLIED WITH HYDROMULCHER. SHALL NOT BE USED WITHOUT SEED AND TACKIFIER UNLESS THE APPLICATION RATE IS AT LEAST DOUBLED. FIBERS LONGER THAN ABOUT 3/4-1 INCH CLOG HYDROMULCH EQUIPMENT. FIBERS SHOULD BE KEPT TO LESS THAN 3/4 INCH.
COMPOSTED MULCH AND COMPOST	NO VISIBLE WATER OR DUST DURING HANDLING. MUST BE PURCHASED FROM SUPPLIER WITH SOLID WASTE HANDLING PERMIT (UNLESS EXEMPT).	2" THICK MIN.; APPROX. 100 TONS PER ACRE (APPROX. 800 LBS PER YARD)	MORE EFFECTIVE CONTROL CAN BE OBTAINED BY INCREASING THICKNESS TO 3". EXCELLENT MULCH FOR PROTECTING FINAL GRADES UNTIL LANDSCAPING BECAUSE IT CAN BE DIRECTLY SEED OR TILLED INTO SOIL AS AN AMENDMENT. COMPOSTED MULCH HAS A COARSER SIZE GRADATION THAN COMPOST. IT IS MORE STABLE AND PRACTICAL TO USE IN WET AREAS AND DURING RAINY WEATHER CONDITIONS.
CHIPPED SITE VEGETATION	AVERAGE SIZE SHALL BE SEVERAL INCHES. GRADATIONS FROM FINES TO 6 INCHES IN LENGTH FOR TEXTURE, VARIATION, AND INTERLOCKING PROPERTIES.	2" MINIMUM THICKNESS	THIS IS A COST-EFFECTIVE WAY TO DISPOSE OF DEBRIS FROM CLEARING AND GRUBBING, AND IT ELIMINATES THE PROBLEMS ASSOCIATED WITH BURNING. GENERALLY, IT SHOULD NOT BE USED ON SLOPES ABOVE APPROX. 10% BECAUSE OF ITS TENDENCY TO BE TRANSPORTED BY RUNOFF. IT IS NOT RECOMMENDED WITHIN 200 FEET OF SURFACE WATERS. IF SEEDING IS EXPECTED SHORTLY AFTER MULCH, THE DECOMPOSITION OF THE CHIPPED VEGETATION MAY TIE UP NUTRIENTS IMPORTANT TO GRASS ESTABLISHMENT.
WOOD-BASED MULCH	NO VISIBLE WATER OR DUST DURING HANDLING. MUST BE PURCHASED FROM A SUPPLIER WITH A SOLID WASTE HANDLING PERMIT OR ONE EXEMPT FROM SOLID WASTE REGULATIONS.	2" THICK; APPROX. 100 TONS PER ACRE (APPROX. 800 LBS. PER CUBIC YARD)	THIS MATERIAL IS OFTEN CALLED "HOG OR HOGGED FUEL." IT IS USABLE AS A MATERIAL FOR STABILIZED CONSTRUCTION ENTRANCES (BMP C105) AND AS A MULCH. THE USE OF MULCH ULTIMATELY IMPROVES THE ORGANIC MATTER IN THE SOIL. SPECIAL CAUTION IS ADVISED REGARDING THE SOURCE AND COMPOSITION OF WOODBASED MULCHES. ITS PREPARATION TYPICALLY DOES NOT PROVIDE ANY WEED SEED CONTROL, SO EVIDENCE OF RESIDUAL VEGETATION IN ITS COMPOSITION OR KNOWN INCLUSION OF WEED PLANTS OR SEEDS SHOULD BE MONITORED AND PREVENTED (OR MINIMIZED).

BMP T5.13: Post-Construction Soil Quality and Depth

Applications and Limitations

Establishing a minimum soil quality and depth is not the same as preservation of naturally occurring soil and vegetation. However, establishing a minimum soil quality and depth will provide improved on-site management of stormwater flow and water quality.

Soil organic matter can be attained through numerous materials such as compost, composted woody material, biosolids, and forest product residuals. It is important that the materials used to meet the soil quality and depth BMP be appropriate and beneficial to the plant cover to be established. Likewise, it is important that imported topsoils improve soil conditions and do not have an excessive percent of clay fines.

This BMP can be considered infeasible on till soil slopes greater than 33 percent.

Design Guidelines

- 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 inches of organic material

<input checked="" type="checkbox"/> Stockpile and amend	Turf: 2,652 SF x 5.4 CY ÷ 1,000 SF = 14 CY Planting beds: 100 SF x 9.3 CY ÷ 1,000 SF = 1 CY Total Quantity = 15 CY Scarification depth: 8 inches	Product: BMP T7.3
---	---	-------------------

SOIL QUALITY AND DEPTH

B



REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CHK. BY	APRD BY

Cannon

1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGN AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

LI RESIDENCE		
TESC NOTES AND STANDARD DETAILS		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C7 OF 8

BMP C105: Stabilized Construction Entrance / Exit

Purpose

Stabilized Construction entrances are established to reduce the amount of sediment transported onto paved roads by vehicles or equipment. This is done by constructing a stabilized pad of quarry spalls at entrances and exits for construction sites.

Conditions of Use

Construction entrances shall be stabilized wherever traffic will be entering or leaving a construction site if paved roads or other paved areas are within 1,000 feet of the site.

For residential construction provide stabilized construction entrances for each residence, rather than only at the main subdivision entrance. Stabilized surfaces shall be of sufficient length/width to provide vehicle access/parking, based on lot size/configuration.

On large commercial, highway, and road projects, the designer should include enough extra materials in the contract to allow for additional stabilized entrances not shown in the initial Construction SWPPP. It is difficult to determine exactly where access to these projects will take place; additional materials will enable the contractor to install them where needed.

Design and Installation Specifications

See Figure II-4.1.1 Stabilized Construction Entrance (p.273) for details. Note: the 100' minimum length of the entrance shall be reduced to the maximum practicable size when the size or configuration of the site does not allow the full length (100').

Construct stabilized construction entrances with a 12-inch thick pad of 4-inch to 8-inch quarry spalls, a 4-inch course of asphalt treated base (ATB), or use existing pavement. Do not use crushed concrete, cement, or calcium chloride for construction entrance stabilization because these products raise pH levels in stormwater and concrete discharge to surface waters of the State is prohibited.

A separation geotextile shall be placed under the spalls to prevent fine sediment from pumping up into the rock pad. The geotextile shall meet the following standards:

Grab Tensile Strength (ASTM D4751)	200 psi min.
Grab Tensile Elongation (ASTM D4632)	30% max.
Mullen Burst Strength (ASTM D3786-80a)	400 psi min.
AOS (ASTM D4751)	20-45 (U.S. standard sieve size)

- Consider early installation of the first lift of asphalt in areas that will paved; this can be used as a stabilized entrance. Also consider the installation of excess concrete as a stabilized entrance. During large concrete pours, excess concrete is often available for this purpose.
- Fencing (see BMP C103: High Visibility Fence (p.269)) shall be installed as necessary to restrict traffic to the construction entrance.
- Whenever possible, the entrance shall be constructed on a firm, compacted subgrade. This can substantially increase the effectiveness of the pad and reduce the need for maintenance.
- Construction entrances should avoid crossing existing sidewalks and back of walk drains if at all possible. If a construction entrance must cross a sidewalk or back of walk drain, the full length of the sidewalk and back of walk drain must be covered and protected from sediment leaving the site.

Maintenance Standards

Quarry spalls shall be added if the pad is no longer in accordance with the specifications.

- If the entrance is not preventing sediment from being tracked onto pavement, then alternative measures to keep the streets free of sediment shall be used. This may include replacement/cleaning of the existing quarry spalls, street sweeping, an increase in the dimensions of the entrance, or the installation of a wheel wash.
- Any sediment that is tracked onto pavement shall be removed by shoveling or street sweeping. The sediment collected by sweeping shall be removed or stabilized on site. The pavement shall not be cleaned by washing down the street, except when high efficiency sweeping is ineffective and there is a threat to public safety. If it is necessary to wash the streets, the construction of a small sump to contain the wash water shall be considered. The sediment would then be washed into the sump where it can be controlled.
- Perform street sweeping by hand or with a high efficiency sweeper. Do not use a non-high efficiency mechanical sweeper because this creates dust and throws soils into storm systems or conveyance ditches.
- Any quarry spalls that are loosened from the pad, which end up on the roadway shall be removed immediately.
- If vehicles are entering or exiting the site at points other than the construction entrance(s), fencing (see BMP C103) shall be installed to control traffic.
- Upon project completion and site stabilization, all construction accesses intended as permanent access for maintenance shall be permanently stabilized.

BMP C235: Wattles

Purpose

Wattles are temporary erosion and sediment control barriers consisting of straw, compost, or other material that is wrapped in netting made of natural plant fiber or similar encasing material. They reduce the velocity and can spread the flow of rill and sheet runoff, and can capture and retain sediment.

Conditions of Use

- Wattles shall consist of cylinders of plant material such as weed-free straw, coir, wood chips, excelsior, or wood fiber or shavings encased within netting made of natural plant fibers unaltered by synthetic materials.
- Use wattles:
 - In disturbed areas that require immediate erosion protection.
 - On exposed soils during the period of short construction delays, or over winter months.
 - On slopes requiring stabilization until permanent vegetation can be established.
- The material used dictates the effectiveness period of the wattle. Generally, wattles are effective for one to two seasons.
- Prevent rilling beneath wattles by entrenching and overlapping wattles to prevent water from passing between them.

Design Criteria

- See Figure II-3.24: Wattles for typical construction details.
- Wattles are typically 8 to 10 inches in diameter and 25 to 30 feet in length.
- Install wattles perpendicular to the flow direction and parallel to the slope contour.

Figure II-4.1.1 Stabilized Construction Entrance

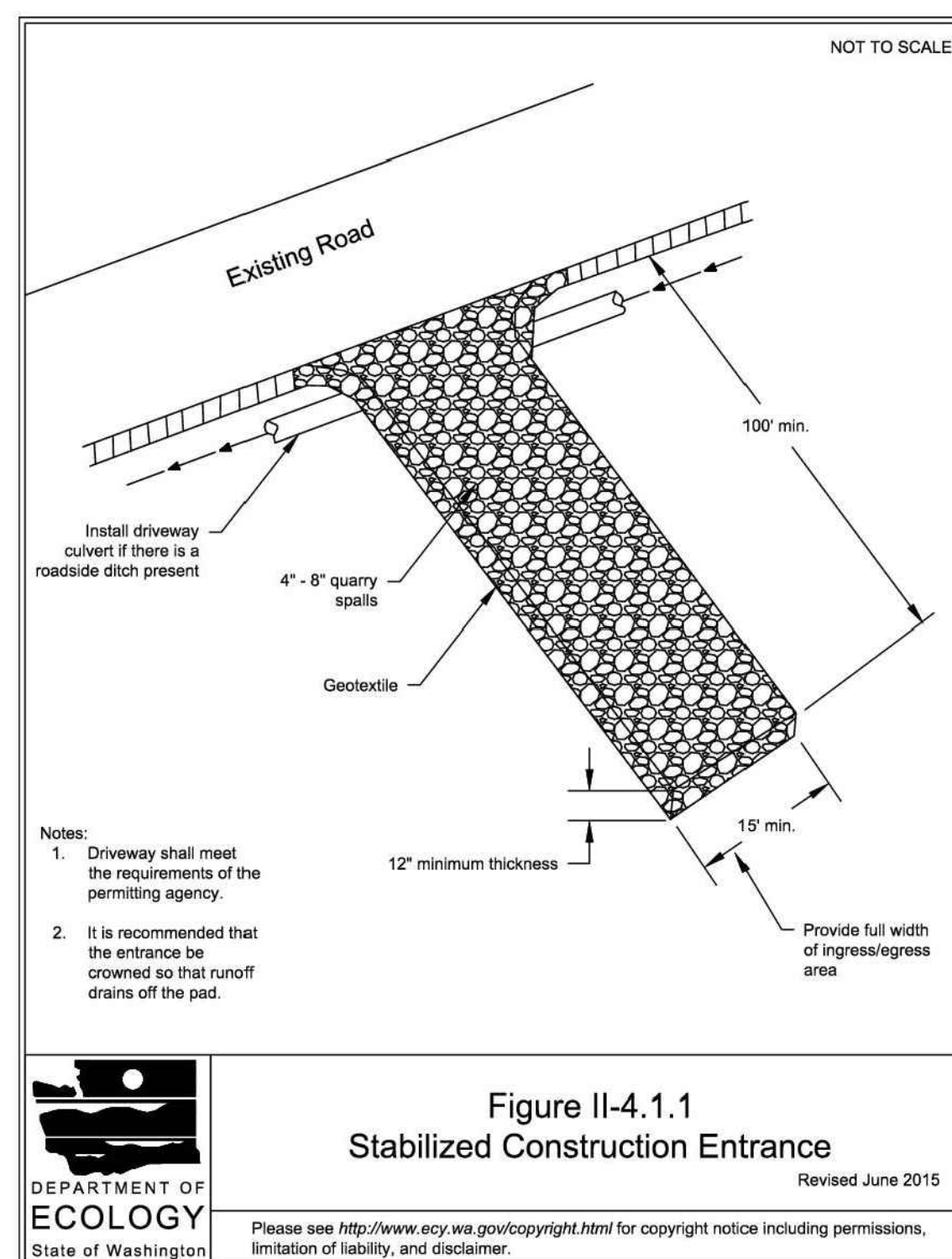
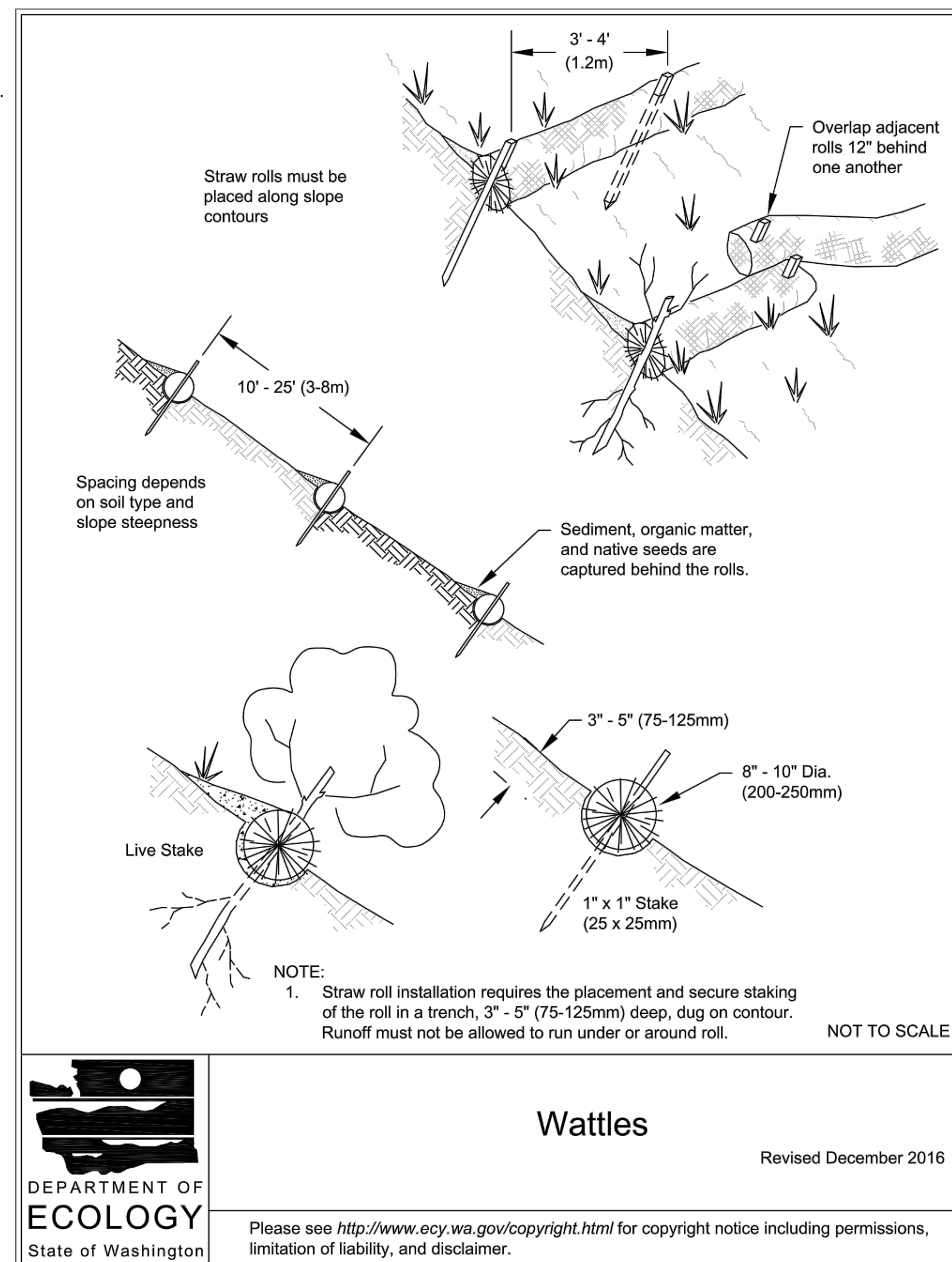


Figure II-4.1.1 Stabilized Construction Entrance
Revised June 2015
Please see <http://www.ecy.wa.gov/copyright.html> for copyright notice including permissions, limitation of liability, and disclaimer.

- Place wattles in shallow trenches, staked along the contour of disturbed or newly constructed slopes. Dig narrow trenches across the slope (on contour) to a depth of 3- to 5-inches on clay soils and soils with gradual slopes. On loose soils, steep slopes, and areas with high rainfall, the trenches should be dug to a depth of 5- to 7- inches, or 1/2 to 2/3 of the thickness of the wattle.
- Start building trenches and installing wattles from the base of the slope and work up. Spread excavated material evenly along the uphill slope and compact it using hand tamping or other methods.



1/21/2021 BMP C235: Wattles
Revised December 2016

- Construct trenches at intervals of 10- to 25-feet depending on the steepness of the slope, soil type, and rainfall. The steeper the slope the closer together the trenches.
- Install the wattles snugly into the trenches and overlap the ends of adjacent wattles 12 inches behind one another.
- Install stakes at each end of the wattle, and at 4-foot centers along entire length of wattle.
- If required, install pilot holes for the stakes using a straight bar to drive holes through the wattle and into the soil.
- Wooden stakes should be approximately 0.75 x 0.75 x 24 inches min. Willow cuttings or 3/8-inch rebar can also be used for stakes.
- Stakes should be driven through the middle of the wattle, leaving 2 to 3 inches of the stake protruding above the wattle.

Maintenance Standards

- Wattles may require maintenance to ensure they are in contact with soil and thoroughly entrenched, especially after significant rainfall on steep sandy soils.
- Inspect the slope after significant storms and repair any areas where wattles are not tightly abutted or water has scoured beneath the wattles.

BMP C220: Storm Drain Inlet Protection

Purpose

Storm drain inlet protection prevents coarse sediment from entering drainage systems prior to permanent stabilization of the disturbed area.

Conditions of Use

Use storm drain inlet protection at inlets that are operational before permanent stabilization of the disturbed drainage area. Provide protection for all storm drain inlets downslope and within 500 feet of a disturbed or construction area, unless conveying runoff entering catch basins to a sediment pond or trap.

Also consider inlet protection for lawn and yard drains on new home construction. These small and numerous drains coupled with lack of gutters in new home construction can add significant amounts of sediment into the roof drain system. If possible delay installing lawn and yard drains until just before landscaping or cap these drains to prevent sediment from entering the system until completion of landscaping. Provide 18-inches of sod around each finished lawn and yard drain.

Table II-4.2.2 Storm Drain Inlet Protection (p.358) lists several options for inlet protection. All of the methods for storm drain inlet protection tend to plug and require a high frequency of maintenance. Limit drainage areas to one acre or less. Possibly provide emergency overflows with additional end-of-pipe treatment where stormwater ponding would cause a hazard.

Table II-4.2.2 Storm Drain Inlet Protection

Type of Inlet Protection	Emergency Overflow	Applicable for Paved/ Earthen Surfaces	Conditions of Use
Drop Inlet Protection			
Excavated drop inlet protection	Yes, temporary flooding will occur	Earthen	Applicable for heavy flows. Easy to maintain. Large area Requirement: 30'x30'/acre
Block and gravel drop inlet protection	Yes	Paved or Earthen	Applicable for heavy concentrated flows. Will not pond.
Gravel and wire drop inlet protection	No		Applicable for heavy concentrated flows. Will pond. Can withstand traffic.
Catch basin filters	Yes	Paved or Earthen	Frequent Maintenance required.
Curb Inlet Protection			
Curb inlet protection with wooden weir	Small capacity overflow	Paved	Used for sturdy, more compact installation.
Block and gravel curb inlet protection	Yes	Paved	Sturdy, but limited filtration.
Culvert Inlet Protection			
Culvert inlet Sediment trap			18 month expected life.

Maintenance Standards

- Inspect catch basin filters frequently, especially after storm events. Clean and replace clogged inserts. For systems with clogged stone filters: pull away the stones from the inlet and clean or replace. An alternative approach would be to use the clogged stone as fill and put fresh stone around the inlet.
- Do not wash sediment into storm drains while cleaning. Spread all excavated material evenly over the surrounding land area or stockpile and stabilize as appropriate.



REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

LI RESIDENCE		
TESC DETAILS		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET CB OF 8

\\commonassoc.com\dfsroot1\Public\proj\2022\220418\4_production and drafting\Const Dwg\CE220418\CE220418\BEC0001.dwg 4-11-23 10:13:51 AM Lukabe

BMP C233: Silt Fence

Purpose

Use of a silt fence reduces the transport of coarse sediment from a construction site by providing a temporary physical barrier to sediment and reducing the runoff velocities of overland flow. See [Figure II-4.2.12 Silt Fence \(p.369\)](#) for details on silt fence construction.

Conditions of Use

Silt fence may be used downslope of all disturbed areas.

- Silt fence shall prevent soil carried by runoff water from going beneath, through, or over the top of the silt fence, but shall allow the water to pass through the fence.
- Silt fence is not intended to treat concentrated flows, nor is it intended to treat substantial amounts of overland flow. Convey any concentrated flows through the drainage system to a sediment pond.
- Do not construct silt fences in streams or use in V-shaped ditches. Silt fences do not provide an adequate method of silt control for anything deeper than sheet or overland flow.

Figure II-4.2.12 Silt Fence

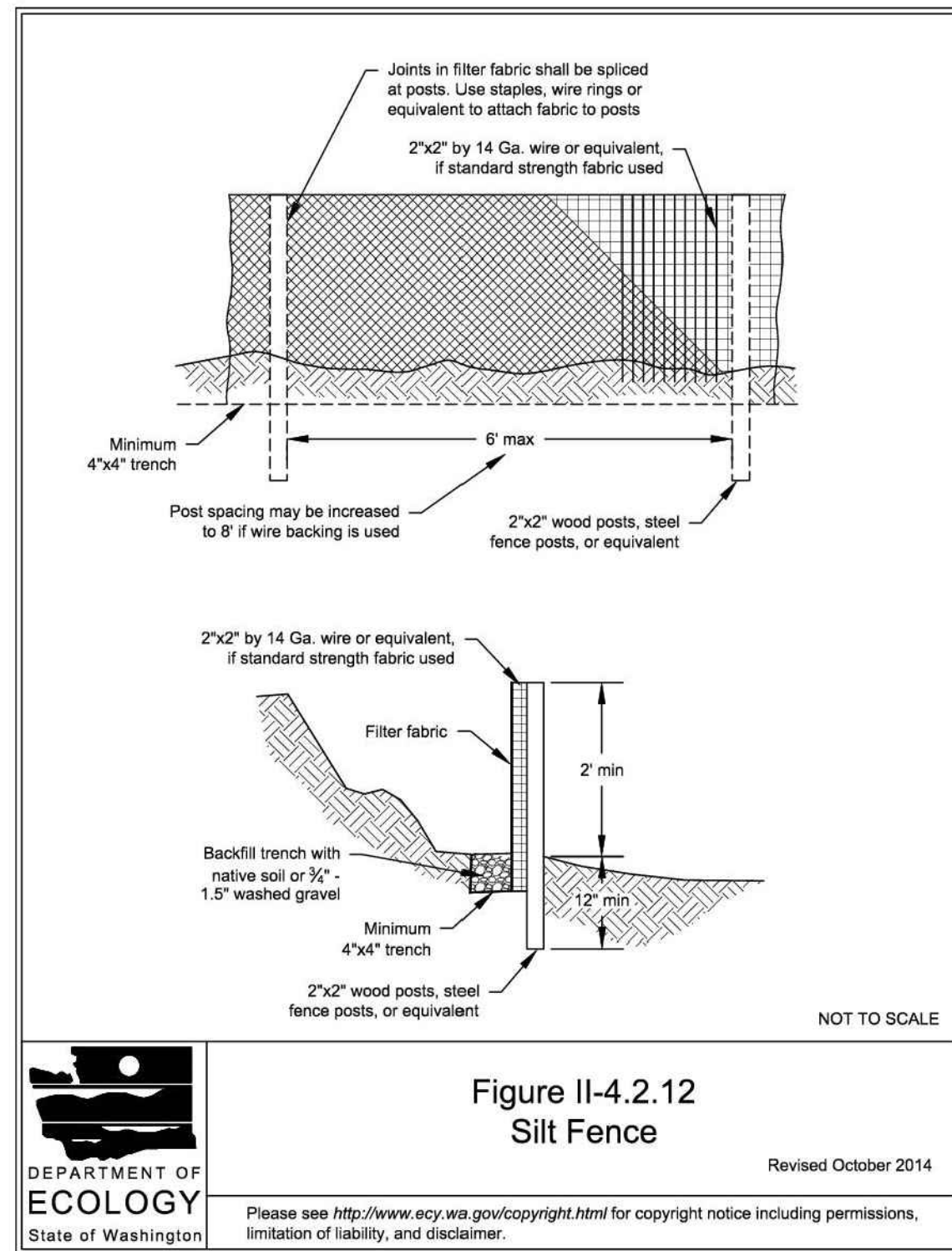


Figure II-4.2.12 Silt Fence

Revised October 2014



Please see <http://www.ecy.wa.gov/copyright.html> for copyright notice including permissions, limitation of liability, and disclaimer.

Table II-4.2.3 Geotextile Standards

Polymeric Mesh AOS (ASTM D4751)	0.60 mm maximum for slit film woven (#30 sieve). 0.30 mm maximum for all other geotextile types (#50 sieve). 0.15 mm minimum for all fabric types (#100 sieve).
Water Permittivity (ASTM D4491)	0.02 sec ⁻¹ minimum
Grab Tensile Strength (ASTM D4632)	180 lbs. Minimum for extra strength fabric. 100 lbs minimum for standard strength fabric.
Grab Tensile Strength (ASTM D4632)	30% maximum
Ultraviolet Resistance (ASTM D4355)	70% minimum

- Support standard strength fabrics with wire mesh, chicken wire, 2-inch x 2-inch wire, safety fence, or jute mesh to increase the strength of the fabric. Silt fence materials are available that have synthetic mesh backing attached.
- Filter fabric material shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0°F. to 120°F.
- One-hundred percent biodegradable silt fence is available that is strong, long lasting, and can be left in place after the project is completed, if permitted by local regulations.
- Refer to [Figure II-4.2.12 Silt Fence \(p.369\)](#) for standard silt fence details. Include the following standard Notes for silt fence on construction plans and specifications:

- The contractor shall install and maintain temporary silt fences at the locations shown in the Plans.
- Construct silt fences in areas of clearing, grading, or drainage prior to starting those activities.
- The silt fence shall have a 2-foot min. and a 2½-foot max. height above the original ground surface.
- The filter fabric shall be sewn together at the point of manufacture to form filter fabric lengths as required. Locate all sewn seams at support posts. Alternatively, two sections of silt fence can be overlapped, provided the Contractor can demonstrate, to the satisfaction of the Engineer, that the overlap is long enough and that the adjacent fence sections are close enough together to prevent silt laden water from escaping through the fence at the overlap.
- Attach the filter fabric on the up-slope side of the posts and secure with staples, wire, or in accordance with the manufacturer's recommendations. Attach the filter fabric to the posts in a manner that reduces the potential for tearing.
- Support the filter fabric with wire or plastic mesh, dependent on the properties of the geotextile selected for use. If wire or plastic mesh is used, fasten the mesh securely to the up-slope side of the posts with the filter fabric up-slope of the mesh.
- Mesh support, if used, shall consist of steel wire with a maximum mesh spacing of 2-inches, or a prefabricated polymeric mesh. The strength of the wire or polymeric mesh shall be equivalent to or greater than 180 lbs. grab tensile strength. The polymeric mesh must be as resistant to the same level of ultraviolet radiation as the filter fabric it supports.
- Bury the bottom of the filter fabric 4-inches min. below the ground surface. Backfill and tamp soil in place over the buried portion of the filter fabric, so that no flow can pass beneath the fence and scouring cannot occur. When wire or polymeric back-up support mesh is used, the wire or polymeric mesh shall extend into the ground 3-inches min.
- Drive or place the fence posts into the ground 18-inches min. A 12-inch min. depth is allowed if topsoil or other soft subgrade soil is not present and 18-inches cannot be reached. Increase fence post min. depths by 6 inches if the fence is located on slopes of 3H:1V or steeper and the slope is perpendicular to the fence. If required post depths cannot be obtained, the posts shall be adequately secured by bracing or guying to prevent overturning of the fence due to sediment loading.
- Use wood, steel or equivalent posts. The spacing of the support posts shall

be a maximum of 6-feet. Posts shall consist of either:

- Wood with dimensions of 2-inches by 2-inches wide min. and a 3-foot min. length. Wood posts shall be free of defects such as knots, splits, or gouges.
- No. 6 steel rebar or larger.
- ASTM A 120 steel pipe with a minimum diameter of 1-inch.
- U, T, L, or C shape steel posts with a minimum weight of 1.35 lbs./ft.
- Other steel posts having equivalent strength and bending resistance to the post sizes listed above.

- Locate silt fences on contour as much as possible, except at the ends of the fence, where the fence shall be turned uphill such that the silt fence captures the runoff water and prevents water from flowing around the end of the fence.
- If the fence must cross contours, with the exception of the ends of the fence, place gravel check dams perpendicular to the back of the fence to minimize concentrated flow and erosion. The slope of the fence line where contours must be crossed shall not be steeper than 3H:1V.

- Gravel check dams shall be approximately 1-foot deep at the back of the fence. Gravel check dams shall be continued perpendicular to the fence at the same elevation until the top of the check dam intercepts the ground surface behind the fence.
- Gravel check dams shall consist of crushed surfacing base course, gravel backfill for walls, or shoulder ballast. Gravel check dams shall be located every 10 feet along the fence where the fence must cross contours.

Maintenance Standards

- Repair any damage immediately.
- Intercept and convey all evident concentrated flows uphill of the silt fence to a sediment pond.
- Check the uphill side of the fence for signs of the fence clogging and acting as a barrier to flow and then causing channelization of flows parallel to the fence. If this occurs, replace the fence or remove the trapped sediment.
- Remove sediment deposits when the deposit reaches approximately one-third the height of the silt fence, or install a second silt fence.
- Replace filter fabric that has deteriorated due to ultraviolet breakdown.

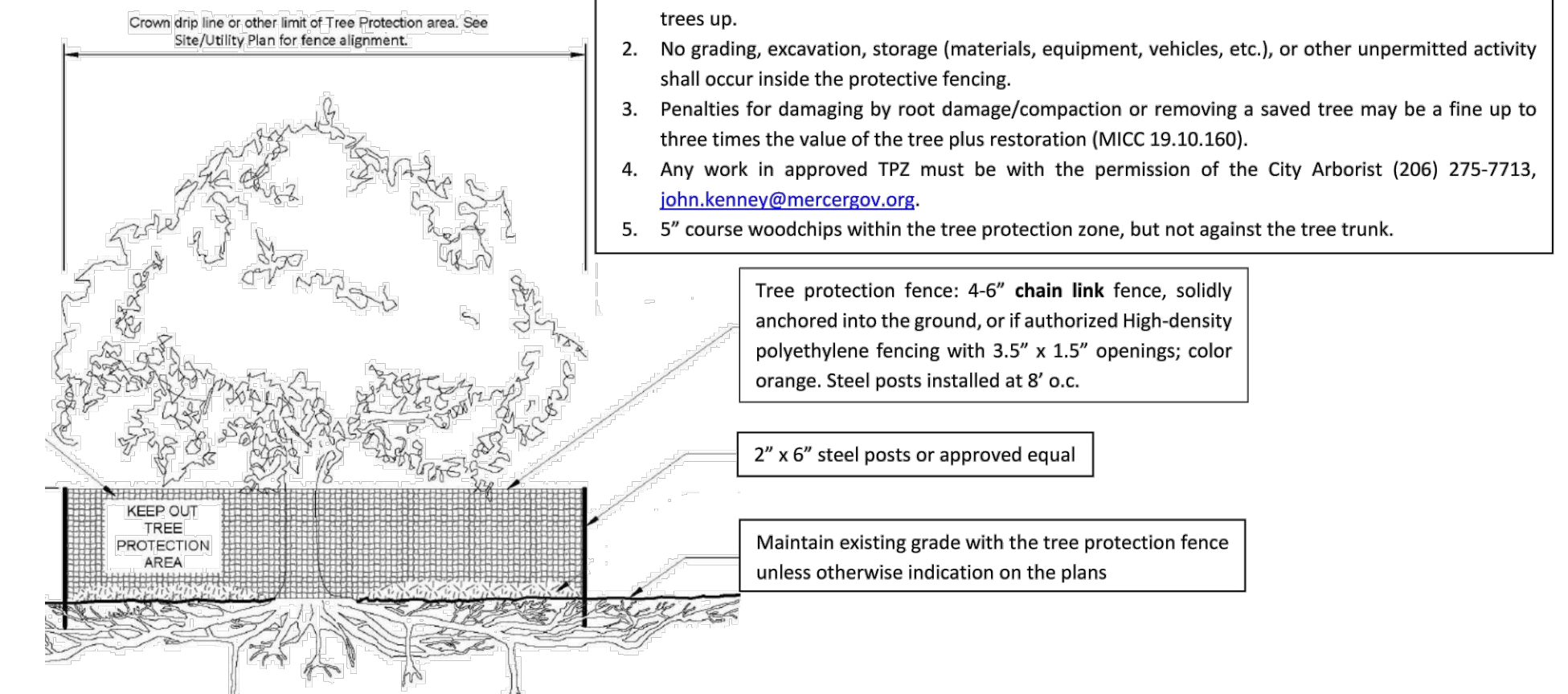
TREE PROTECTION AREA (TPZ)

KEEP OUT!

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

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

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



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

BMP C103: High Visibility Fence

Purpose

Fencing is intended to:

- Restrict clearing to approved limits.
- Prevent disturbance of sensitive areas, their buffers, and other areas required to be left undisturbed.
- Limit construction traffic to designated construction entrances, exits, or internal roads.
- Protect areas where marking with survey tape may not provide adequate protection.

Conditions of Use

To establish clearing limits plastic, fabric, or metal fence may be used:

- At the boundary of sensitive areas, their buffers, and other areas required to be left uncleared.
- As necessary to control vehicle access to and on the site.

Design and Installation Specifications

High visibility plastic fence shall be composed of a high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and placed every 6 feet on center (maximum) or as needed to ensure rigidity. The fencing shall be fastened to the post every six inches with a polyethylene tie. On long continuous lengths of fencing, a tension wire or rope shall be used as a top stringer to prevent sagging between posts. The fence color shall be high visibility orange. The fence tensile strength shall be 360 lbs./ft. using the ASTM D4595 testing method.

If appropriate install fabric silt fence in accordance with [BMP C233: Silt Fence \(p.367\)](#) to act as high visibility fence. Silt fence shall be at least 3 feet high and must be highly visible to meet the requirements of this BMP.

Metal fences shall be designed and installed according to the manufacturer's specifications.

Metal fences shall be at least 3 feet high and must be highly visible.

Fences shall not be wired or stapled to trees.

Maintenance Standards

If the fence has been damaged or visibility reduced, it shall be repaired or replaced immediately and visibility restored.

HIGH VISIBILITY FENCE

Design and Installation Specifications

- Use in combination with sediment basins or other BMPs.
- Maximum slope steepness (normal (perpendicular) to fence line) 1H:1V.
- Maximum sheet or overland flow path length to the fence of 100 feet.
- Do not allow flows greater than 0.5 cfs.
- The geotextile used shall meet the following standards. All geotextile properties listed below are minimum average roll values (i.e., the test result for any sampled roll in a lot shall meet or exceed the values shown in [Table II-4.2.3 Geotextile Standards \(p.370\)](#)):

REINFORCED SILT FENCE

4



REV. NO	DATE	REVISED	DESTROY ALL PRINTS BEARING EARLIER DATE	REV. BY	CKD. BY	APRD BY

1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

THESE DRAWINGS ARE INSTRUMENTS OF SERVICE AND ARE THE PROPERTY OF CANNON. ALL DESIGNS AND INFORMATION ON THESE DRAWINGS ARE FOR USE OF THE SPECIFIED PROJECT AND SHALL NOT BE USED OTHERWISE OR REPRODUCED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF CANNON.

LI RESIDENCE		
TESC DETAILS		
MERCER ISLAND, WASHINGTON		
DRAWN BY SEM	DATE 4/12/2023	CA JOB NO. 220418
CHECKED BY KR	SCALE AS SHOWN	SHEET C9 OF 8

PROPOSED REPLACEMENT TREES



A GOLDEN FULL MOON **B** RED LACE LEAF JAPANESE MAPLE **C** JAPANESE MAPLE

TREE REPLANTING PER MICC19.10

- TREES CAN BE REPLANTED BENEATH THE CANOPY OF EXISTING TREES.
- NEW TREES TO BE PLANTED NO LESS THAN 10 FEET FROM OTHER TREES, FENCES, STRUCTURES OR UTILITIES
- 50% OF NEW REPLACEMENT TREES TO BE NATIVE SPECIES
- CONIFEROUS REPLACEMENT TREES MUST BE MIN. 6 FEET TALL
- DECIDUOUS REPLACEMENT TREES MUST BE MIN. 1.5" DIA
- REMOVING TREES LESS THAN 10" REQUIRES (1) REPLACEMENTS
- REMOVING TREES 10" UP TO 24" REQUIRES (2) REPLACEMENTS

TREE WATERING

AN IRRIGATION DRIP LINE / RING SYSTEM WILL BE PROVIDED FOR WATERING NEWLY PLANTED REPLACEMENT TREES.

ARBORIST REPORT

SEE ATTACHED ARBORIST REPORT FOR ADDITIONAL TREE PROTECTION AND ADDITIONAL INFORMATION

PROPOSED TREE TO BE REMOVED / REQ'D REPLACEMENT

NO.	SPECIES	SIZE	REASON FOR REMOVAL	REQ'D REPLANTING
#1	CHERRY	17"	NEW CONSTRUCTION ACTIVITY	2
#2	APPLE	9"	NEW CONSTRUCTION ACTIVITY	1
#12	CHERRY	14"	NEW CONSTRUCTION ACTIVITY	2
#103	PLUM	18"	NEW CONSTRUCTION ACTIVITY	1
#104	PLUM	14"	NEW CONSTRUCTION ACTIVITY	1
#105	PLUM	14"	NEW CONSTRUCTION ACTIVITY	1
#106	PLUM	15"	NEW CONSTRUCTION ACTIVITY	1
#107	PLUM	8"	NEW CONSTRUCTION ACTIVITY	0
#108	APPLE	10"	NEW CONSTRUCTION ACTIVITY	1
#109	APPLE	8"	NEW CONSTRUCTION ACTIVITY	1
TOTAL REQUIRED TREE REPLACEMENT				13

PROPOSED TREE TO BE PLANTED

-(5) TREES ARE PROPOSED TO BE REPLANTED WITHIN THE PROPERTY UNDER THE EXISTING TREES CANOPY 10' FROM EXISTING TREES, STRUCTURES AND FENCES. THIS STILL ALLOWS FOR A COMFORTABLE REAR YARDS SPACE FOR LAWN AND LANDSCAPE.

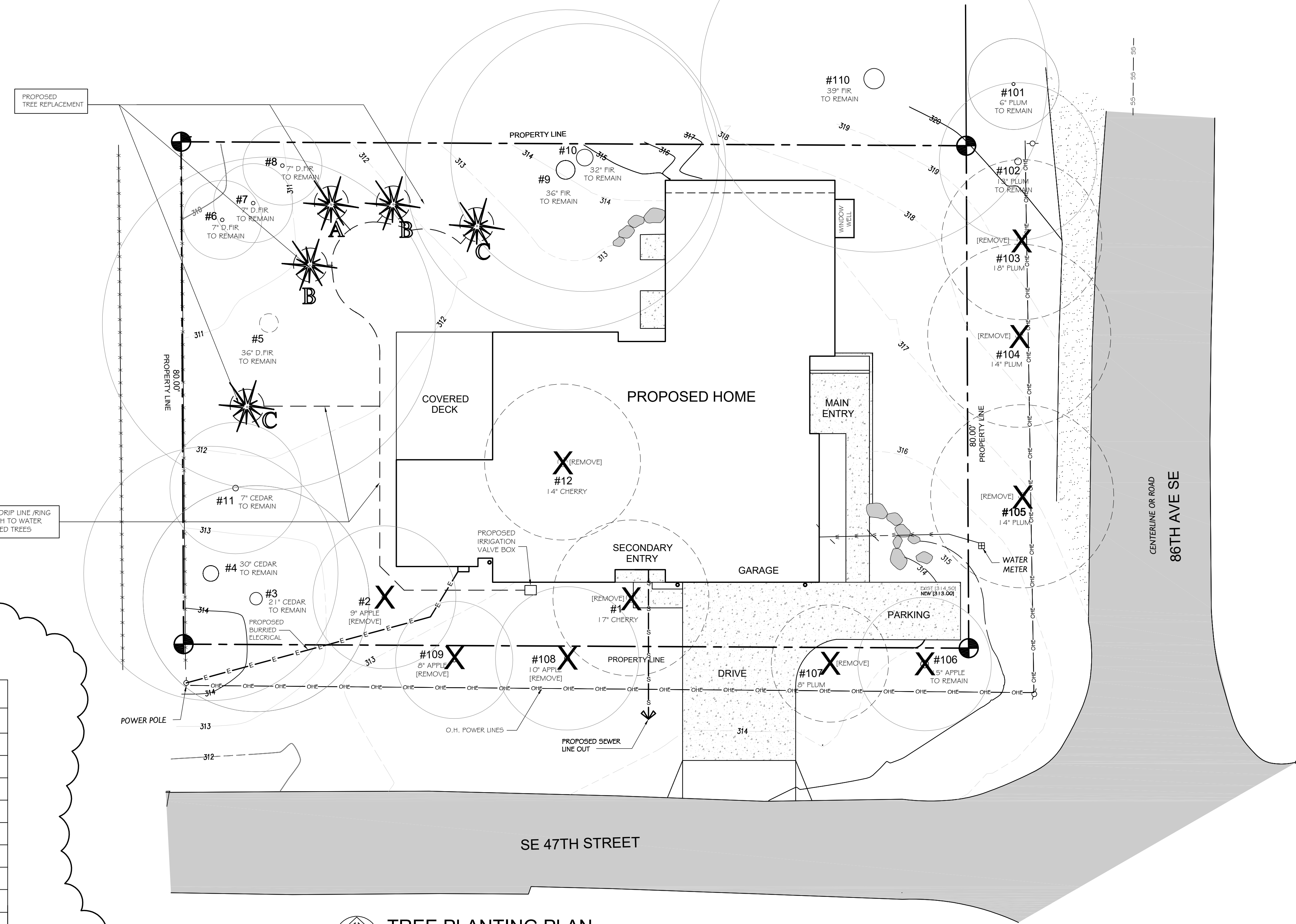
FEE IN LIEU OF REPLACEMENT

-(7) TREES ARE SELECTED FOR "FEE IN LIEU OF"

EXISTING UTILITIES LOCATED IN THE ROW LIMIT THE AREA OF REPLANTING AND THE HOME OWNER WISHED NOT TO HAVE TREES LOCATED UNDER POWER LINES THAT WILL EVENTUALLY REQUIRE UNSIGHTLY PRUNING AND TRIMMING.

PROPOSED TREE REPLACEMENT

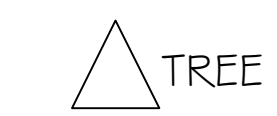
IRRIGATION DRIP LINE/RING SYSTEM WITH TO WATER NEWLY PLANTED TREES



TREE PLANTING PLAN
LI RESIDENCE
Scale: 1"=10'

PROPOSED TREE TO BE PLANTED

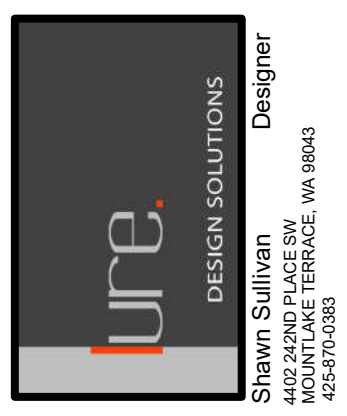
PLANT ID	QUANTITY	REPLANTING TREE LIST	SIZE	TYPE	SUNLIGHT EXPOSURE
A	1	GOLDEN FULL MOON-(AUREUM)	1.5" DIA.	DECIDUOUS	LIGHT TO OPEN SHADE
B	2	RED LACE LEAF JAPANESE MAPLE- (ORANGEOLA)	1.5" DIA.	DECIDUOUS	LIGHT O OPEN SHADE
C	2	JAPANESE MAPLE- (SHINDESHOJO)	1.5" DIA.	DECIDUOUS	LIGHT TO DAPPLE SHADE
TOTAL	5				



Misc. Info:

1. FINAL CD SET 10-14-2022
2. PERMIT REV 03-20-2023
3. PERMIT REV 04-20-2023
- 4.
- 5.

PERMIT SET



LI RESIDENCE
CUSTOM RESIDENCE
4657 86TH AVE. SE
MERCER ISLAND, WA 98040

TREE REPLANTING PLAN

DATE: 01-04- 2022
DESIGNED: SLS
DRAWN: SLS
JOB NO: 2022- 01
SHEET:

L1.0