

PROJECT INFORMATION

ZONING DT/DISTRICT	R-8.4
PROPERTY OWNER	SUNNY INVESTMENTS LLC
PARCEL NUMBER	509330-0650
LOT AREA	8,290
OCCUPANCY CLASSIFICATION	R-3 / U
CONSTRUCTION TYPE	V-B

PROJECT DESCRIPTION

THE WORK INCLUDES ADDITION OF SECOND FLOOR LEVEL TO EXISTING HOUSE.

FLOOR AREA SUMMARIES

(E) BASEMENT FLOOR TO REMAIN	954 SF
(E) 1ST FLOOR TO REMAIN	1,722 SF
(E) TOTAL FINISHED FLOOR AREA	2,676 SF
PROPOSED 2ND FLOOR ADDITION	1,361 SF
PROPOSED TOTAL FINISHED FLOOR AREA	4,037 SF
PROPOSED DECK	461 SF
(E) DECK TO BE REPLACED NEW	540 SF
(E) OPEN CARPORT TO REMAIN	392 SF
PRIMARY RESIDENCE	
FIRST FLOOR	1,722 SF
SECOND FLOOR	1,361 SF
TOTAL FINISHED FLOOR AREA	3,083 SF
ADU	
FIRST FLOOR (NOT INCLUDING STAIRWELL)	853 SF

DRAWING INDEX

A0	SITE PLAN
A0.1	LAND USE ANALYSIS
A1	EXISTING/DEMOLITION FLOOR PLANS
A2	PROPOSED FLOOR PLANS
A3	PROPOSED ROOF PLAN
A4	BUILDING ELEVATIONS
A5	BUILDING ELEVATIONS
A6	SECTIONS AND DETAILS
A7	ENERGY CALCULATION - MAIN HOUSE
A8	ENERGY CALCULATION - ADU
A9	APPLIANCE SPEC
S1.0	GENERAL STRUCTURAL NOTES
S2.0	FOUNDATION PLAN
S2.1	FIRST FLOOR FRAMING PLAN
S2.2	SECOND FLOOR FRAMING PLAN
S2.3	ROOF FRAMING PLAN
S3.0	TYPICAL CONCRETE DETAILS
S3.1	CONCRETE DETAILS
S4.0	TYPICAL WOOD FRAMING DETAILS
S4.1	WOOD FRAMING DETAILS
S4.2	WOOD FRAMING DETAILS
S4.3	WOOD FRAMING DETAILS
C1.1	DEMOLITION AND TESC PLAN
C2.0	SITE PLAN

TREE RETENTION

NO.	CALIPER(IN.)	SPECIES	RETAIN?
1	6"	DECIDUOUS	Y
2	6"	DECIDUOUS	Y
3	16"	DECIDUOUS	N
4	20"	DECIDUOUS	Y
5	6"	DECIDUOUS	Y

TOTAL CALIPER OF EXISTING TREES	54 IN
PROPOSED REMAINED TREES	38 IN
PERCENTAGE OF TREE RETENTION (MIN. 30%)	70 %

CODE COMPLIANCE

2021 INTERNATIONAL RESIDENTIAL CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 UNIFORM PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2021 NATIONAL ELECTRICAL CODE
2021 WASHINGTON STATE ENERGY CODE

(ALL CODES ABOVE INCLUDE WASHINGTON STATEWIDE AMENDMENTS)

AVERAGE BUILDING ELEVATION

$$(267.9 \times 28.4) + (270.1 \times 37.75) + (271.8 \times 2) + (271.8 \times 30.4) + (265.9 \times 24.4) + (263.2 \times 16.83) + (263.3 \times 6) + (263.2 \times 51.3) / (28.4 + 37.75 + 2 + 30.4 + 24.4 + 16.83 + 6 + 51.3) \rightarrow 267'$$

SEE SHEET A4 & A5 FOR PROPOSED BUILDING HEIGHT

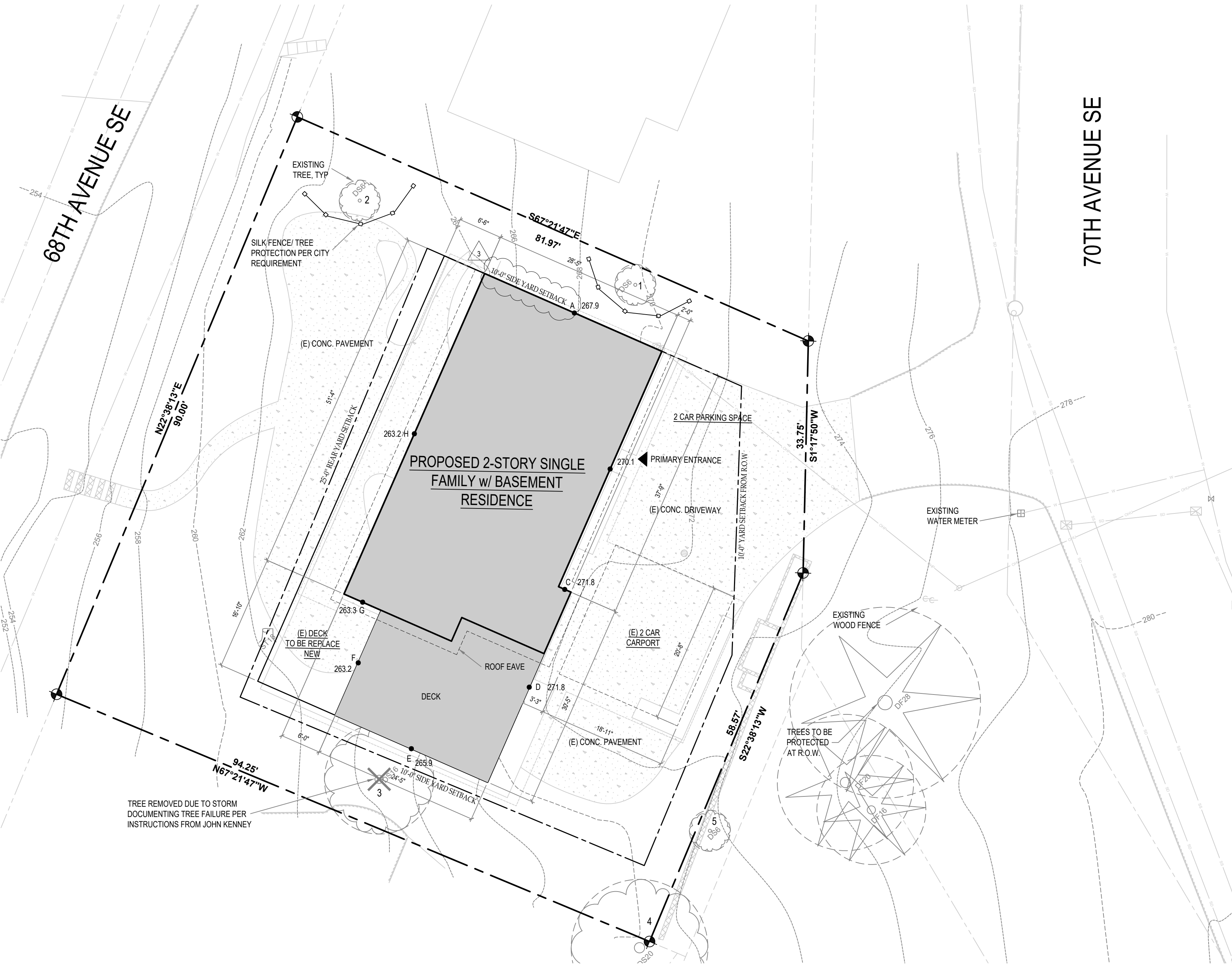
LEGAL DESCRIPTION

LOTS 15, 16 AND 17, BLOCK 3, MAPLE GROVE PARK SUBDIVISION OF EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 37, RECORDS OF KING COUNTY, WASHINGTON;

EXCEPT THAT PORTION OF LOTS 15 AND 16, BLOCK 3, MAPLE GROVE PARK SUBDIVISION OF EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 37, RECORDS OF KING COUNTY, WASHINGTON, AS DEPICTED ON THE RECORD OF SURVEY FILED UNDER RECORDING NUMBER 2015030280014, DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHERLY MOST CORNER OF SAID LOT 15;
THENCE NORTH 67°21'47" WEST, ALONG THE COMMON LINE OF LOTS 14 AND 15, A DISTANCE OF 5.75 FEET;
THENCE NORTH 22°38'13" EAST, PARALLEL WITH THE COMMON LINE OF LOTS 24 AND 16, AS SHOWN ON THE AFOREMENTIONED RECORD OF SURVEY, A DISTANCE OF 58.57 FEET, TO THE WESTERLY MARGIN OF 70TH AVENUE SE;
THENCE SOUTH 01°17'50" WEST, ALONG SAID WESTERLY MARGIN, A DISTANCE OF 11.08 FEET TO AN ANGLE POINT IN SAID RIGHT OF WAY;
THENCE SOUTH 30°43'16" EAST, ALONG SAID WESTERLY MARGIN, A DISTANCE OF 2.14 FEET TO AN INTERSECTION WITH THE COMMON LINE BETWEEN LOTS 24 AND 16 OF SAID SUBDIVISION;
THENCE SOUTH 22°38'13" WEST, ALONG SAID COMMON LINE, A DISTANCE OF 46.97 FEET TO THE POINT OF BEGINNING.

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



ABBREVIATIONS

BLKG	BLOCKING	HORIZ	HORIZONTAL
CL	CENTER LINE	MAX	MAXIMUM
CLR	CLEAR	MFR	MANUFACTURER
CONT	CONTINUOUS	MIN	MINIMUM
CS	CASEMENT WINDOW	OV	OVER
DBL	DOUBLE	O.C.	ON CENTER
DS	DOWNSPOUT	SD	SMOKE DETECTOR
EL	ELEVATION	SG	SAFETY GLASS
EQ	EQUAL	SF	SQUARE FEET
EXIST	EXISTING	SIM	SIMILAR
FTG	FOOTING	SLD	SLIDING WINDOW
FX	FIXED WINDOW	TYP	TYPICAL
HDR	HEADER	UNO	UNLESS NOTED OTHERWISE
HWD	HARDWOOD	W	WITH
HGR	HANGER		

LEGEND

	AREA OF WORK
	SILK FENCE

A PUBLIC NOTICE SIGN MUST BE POSTED FOR THIS PROJECT. UPON RECEIPT OF A COMPLETE APPLICATION, THE CITY WILL POST THE PUBLIC NOTICE SIGN. SIGNAGE MUST REMAIN POSTED AND VISIBLE FROM THE PUBLIC RIGHT-OF-WAY FOR A PERIOD OF 30 DAYS. THE CITY WILL ALSO PREPARE AND MAIL OUT A NOTICE OF APPLICATION TO ALL PROPERTY OWNERS WITHIN 300 FEET OF THE PROPERTY.

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

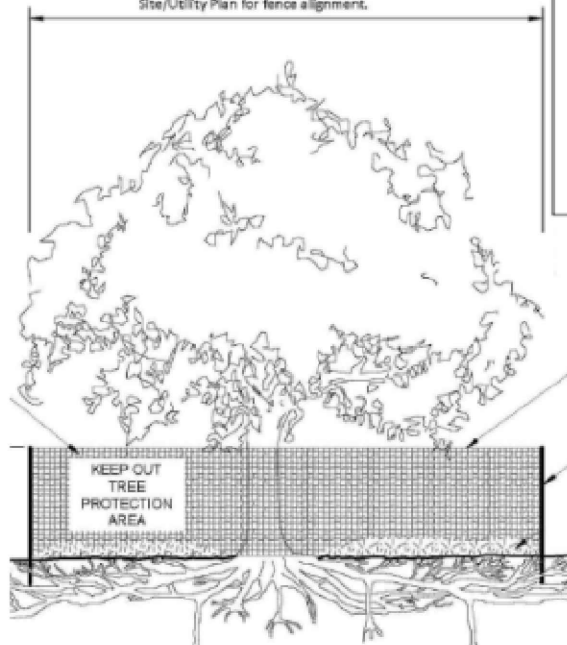
Notes

- No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
- No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
- Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
- Any work in approved TPZ must be with the permission of the Land Use and Planning Division at landuse.planning@mercer.gov.
- 5" course woodchips within the tree protection zone, but not against the tree trunk.

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

2" x 6" steel posts or approved equal

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



Any Work in the protected area must be with the permission of the Land Use and Planning Division at landuse.planning@mercer.gov

PROJECT

2707 RESIDENCE - REMODEL

2707 70TH AVE SE
MERCER, WA 98040

PERMIT SET

03.24.2025

ISSUE

RESPONSE TO CITY COMMENTS

04.16.2025

RESPONSE TO CITY COMMENTS

09.02.2025

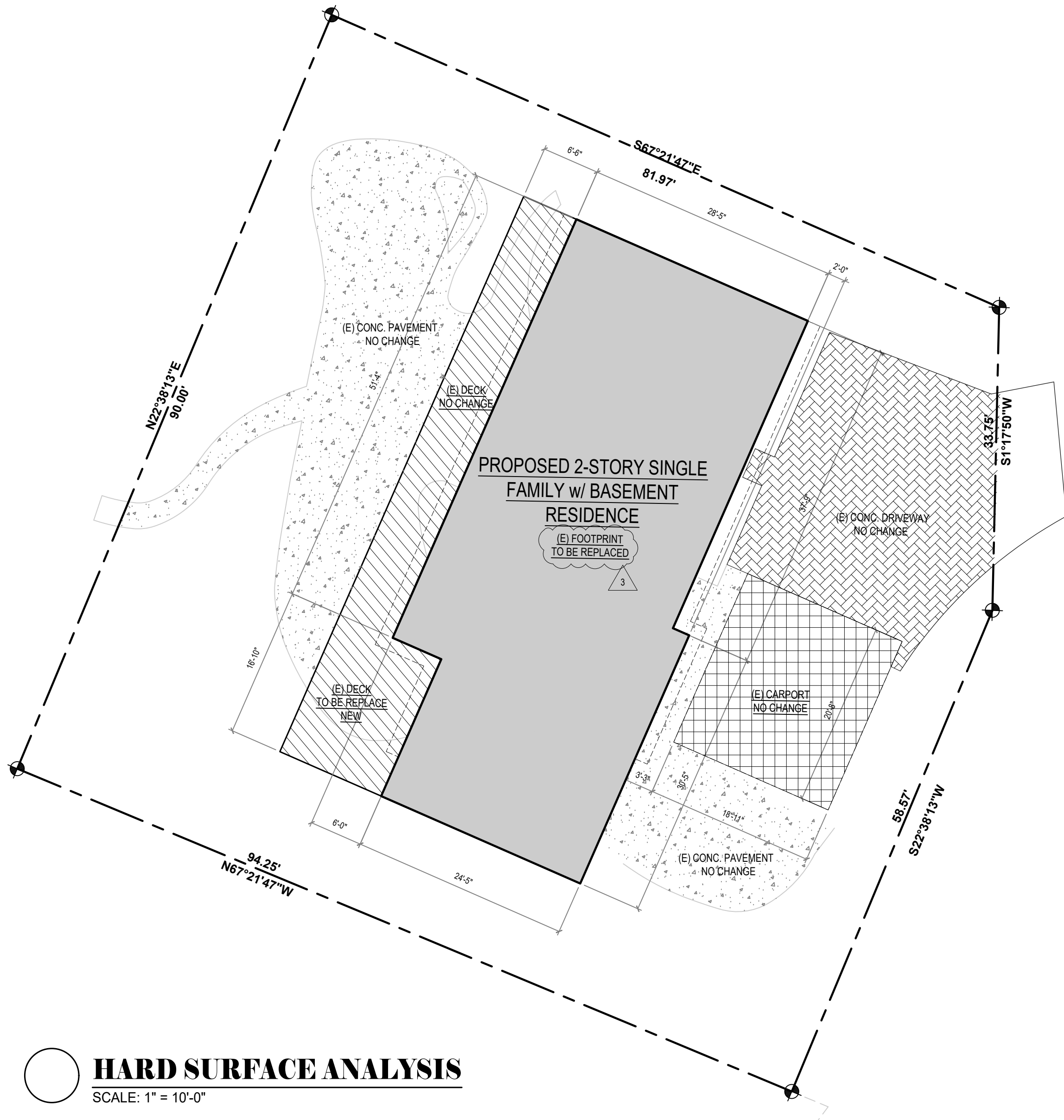
RESPONSE TO CITY COMMENTS

11.10.2025

SHEET TITLE

• SITE PLAN

A0



HARD SURFACE ANALYSIS
SCALE: 1" = 10'-0"

HARD SURFACE AREA

	(E) HOUSE FOOTPRINT TO BE REPLACED	1,895 S.F.
	(E) DECK TO BE REPLACE NEW	541 S.F.
	(E) CONCRETE DRIVEWAY (NO CHANGE)	684 S.F.
	(E) CARPORT (NO CHANGE)	392 S.F.
	(E) CONCRETE PAVEMENT (NO CHANGE)	1,219 S.F.
(E) TOTAL HARD SURFACE AREA W/ NO CHANGE (27.7%)		2,295 S.F.
(E) TOTAL HARD SURFACE AREA TO BE REPLACED (29.4%)		2,436 S.F.

LOT COVERAGE

LOT AREA	8,290 S.F.
MAX LOT COVERAGE (35%)	2,902 S.F.
EXISTING LOT COVERAGE W/ NO CHANGE (42.3%)	3,512 S.F.
 (E) HOUSE FOOTPRINT (NO CHANGE)	1,895 S.F.
 (E) DECK TO BE REPLACE NEW (NO CHANGE)	541 S.F.
 (E) CONCRETE DRIVEWAY (NO CHANGE)	684 S.F.
 (E) CARPORT (NO CHANGE)	392 S.F.

LOT SLOPE CALCULATION

HIGHEST POINT = 274 FT
LOWEST POINT = 256 FT
ELEVATION DIFFERENCE = 18 FT
HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS = 97.75 FT
 $18 / 97.75 = 184 \times 100 = 18\%$ LOT SLOPE
35% MAXIMUM LOT COVERAGE

GROSS FLOOR AREA

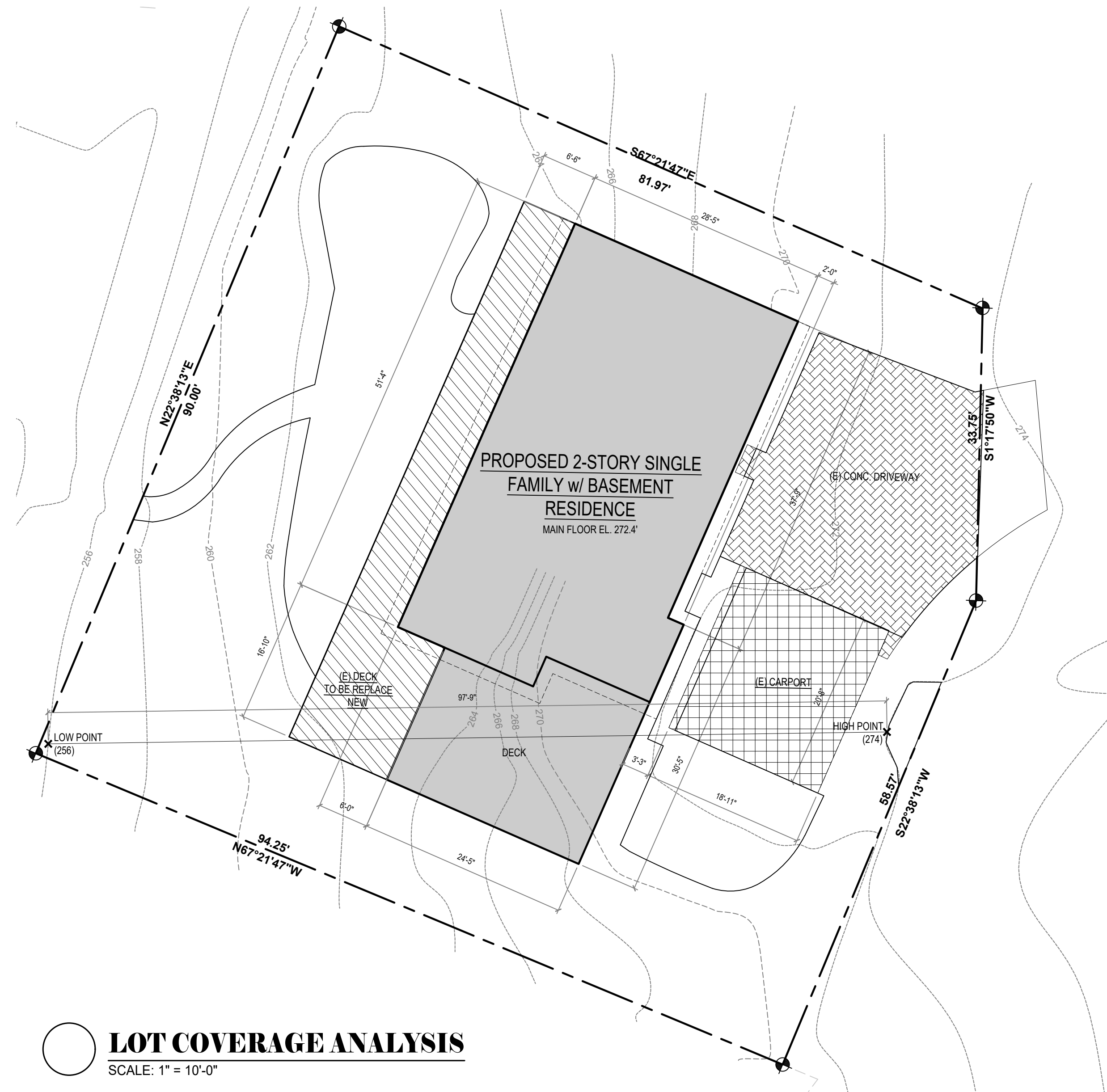
LOT AREA	8,290 S.F.	
GROSS FLOOR AREA (40%)	3,316 S.F.	
AU BONUS (5%)	+ 415 S.F.	
TOTAL ALLOWED GFA (45%)	3,731 S.F.	
1 BASEMENT	1,084 S.F.	
2 1ST FLOOR	1,895 S.F.	
3 2ND FLOOR (ADDITION)	1,435 S.F.	
* BASEMENT AREA EXEMPTION		- 563 S.F.
* BASEMENT STAIR EXEMPTION		- 123 S.F.

	PROPOSED GROSS FLOOR AREA (44.9%)	3,728 S.F. (OK)
--	-----------------------------------	-----------------

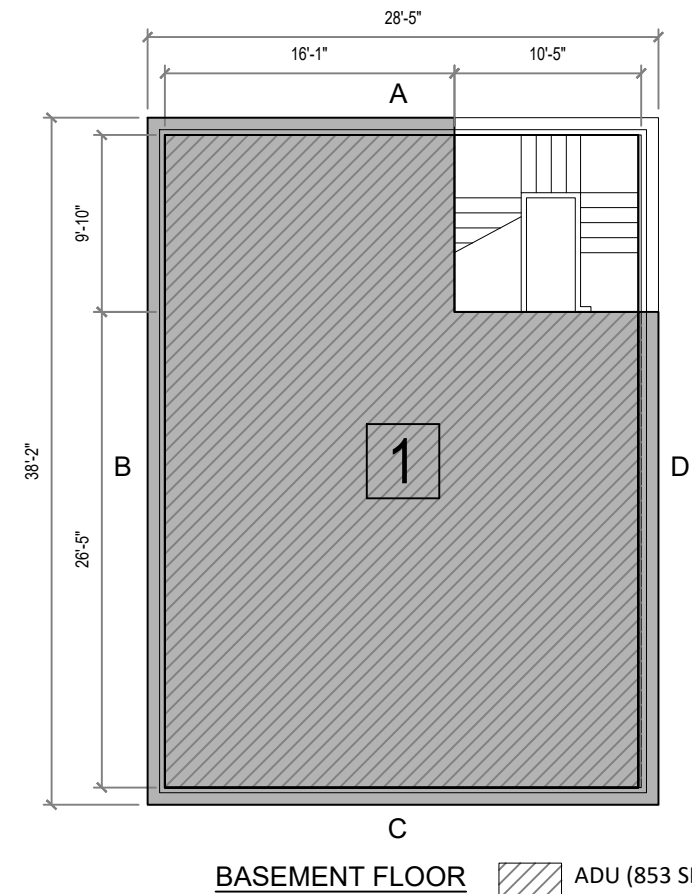
* BASEMENT AREA EXEMPTION CALCULATION

	LENGTH	COVERAGE	RESULT
A	28.41	63%	17.90
B	38.16	0%	0
C	28.41	48%	13.64
D	38.16	100%	38.16
	133.14		69.70

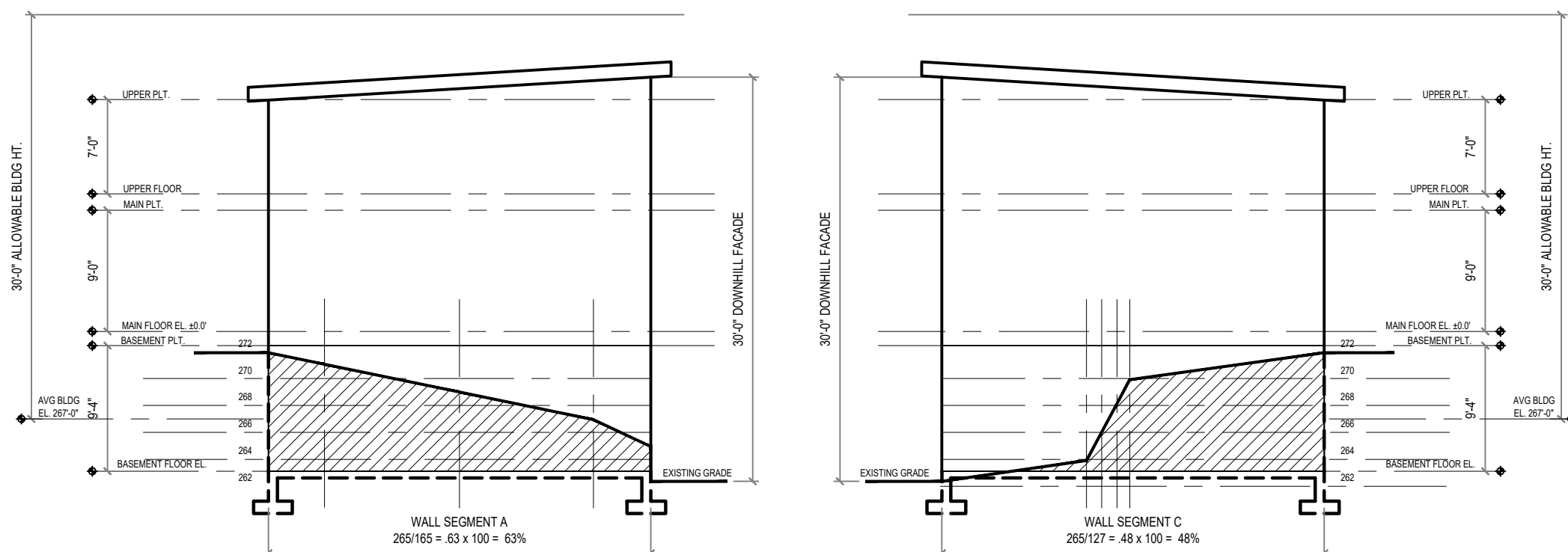
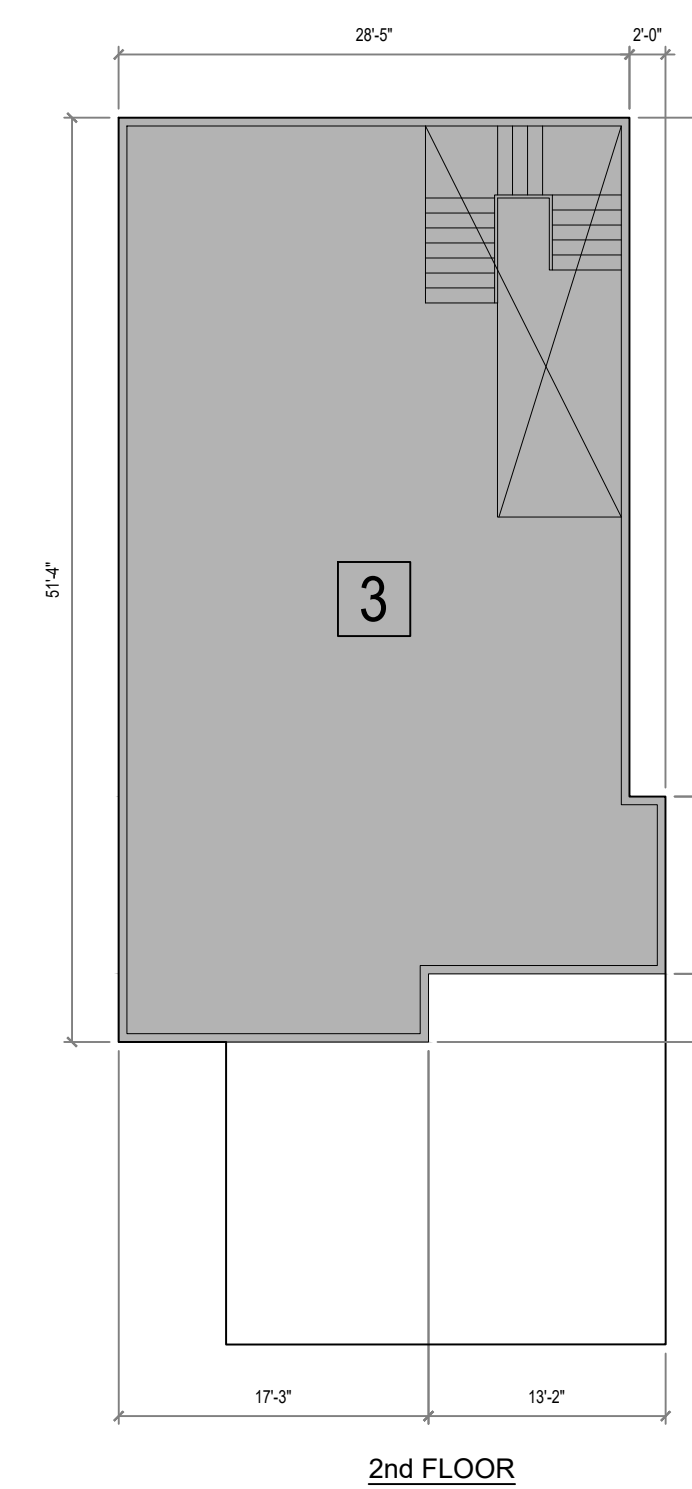
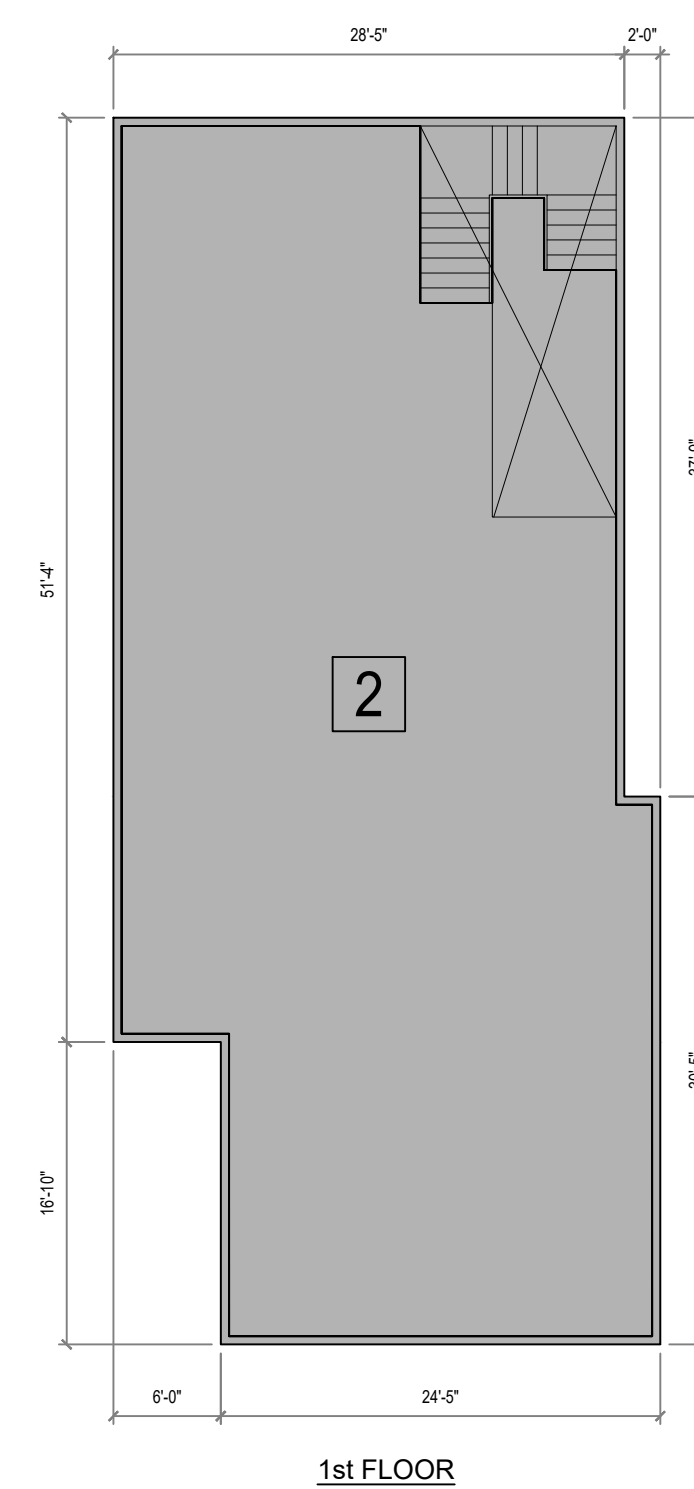
TOTAL AVERAGE RESULT 69.70 / 133.14 = .52
BASEMENT = 1,084 S.F.
EXCLUDED AREA = 1,084 x .52 = 563 S.F.



LOT COVERAGE ANALYSIS
SCALE: 1" = 10'-0"



GROSS FLOOR AREA DIAGRAMS
SCALE: 3/32" = 1'-0"



* BASEMENT AREA EXEMPTION DIAGRAM

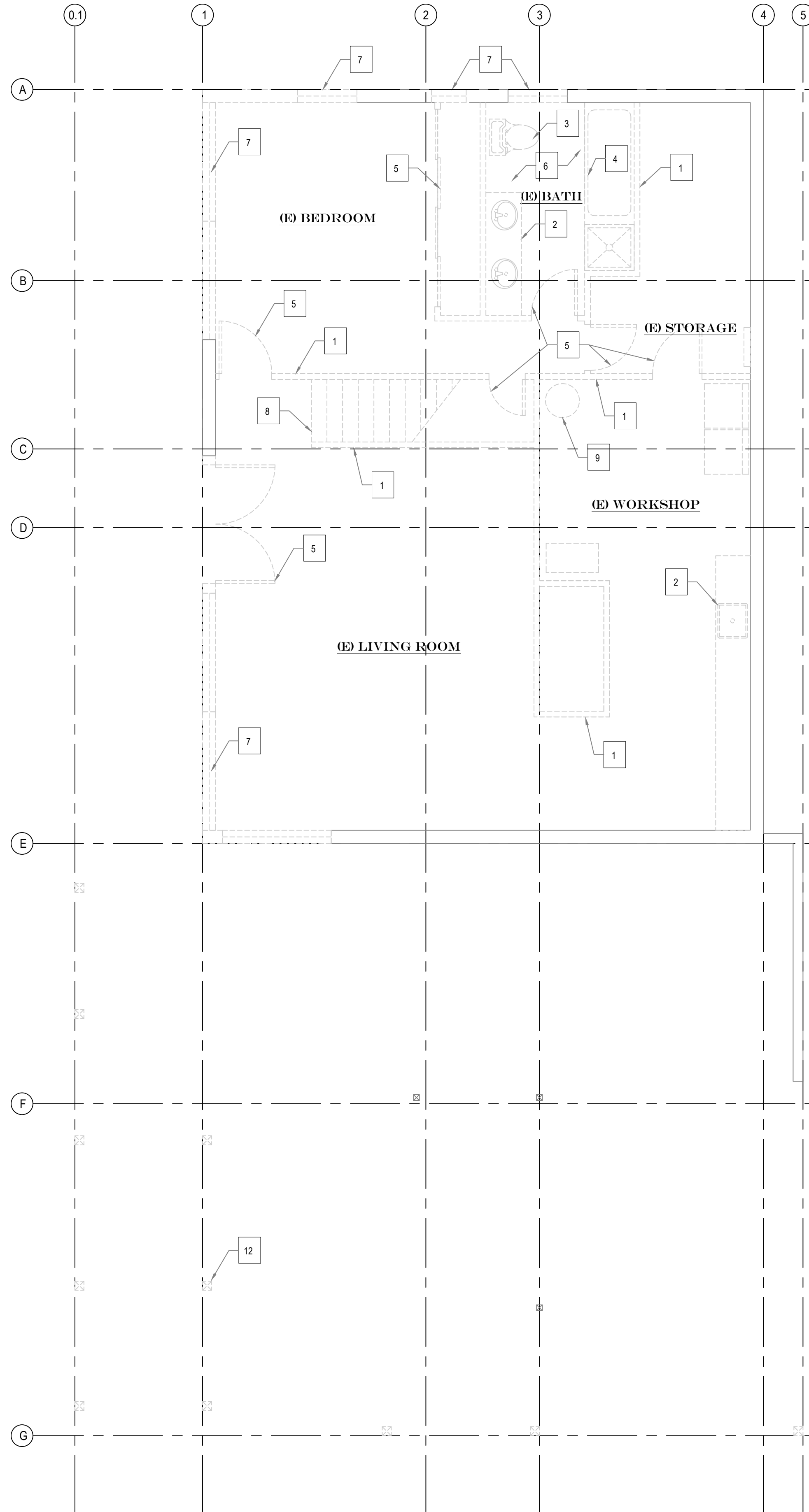
LEGEND

--- EXIST. WALL
--- NEW WALL

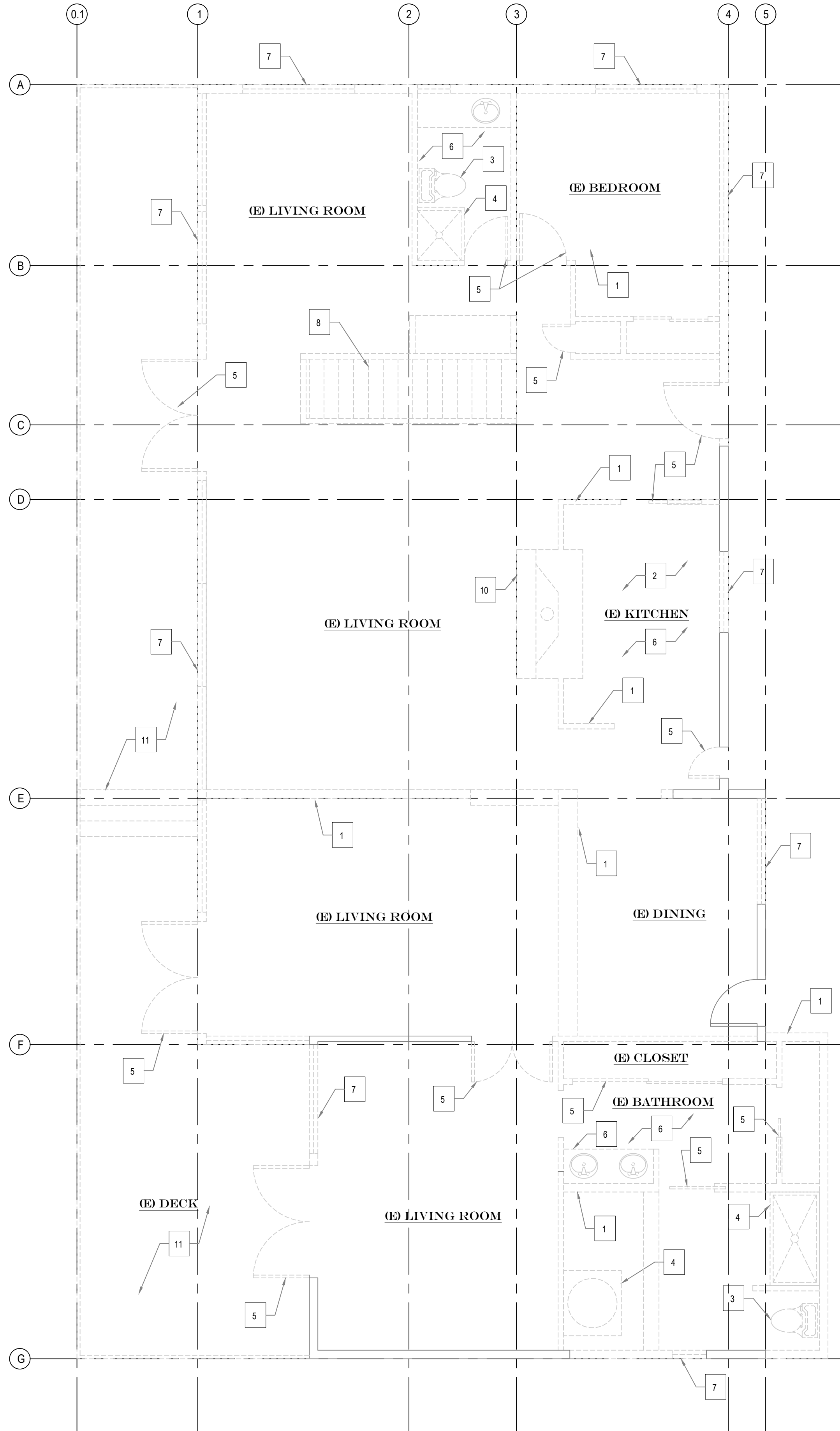
DEMOLITION KEY NOTES

- 1 DEMOLISH WALL
- 2 REMOVE COUNTER AND SINK
- 3 REMOVE TOILET
- 4 REMOVE TUB AND SHOWER
- 5 REMOVE DOOR
- 6 REMOVE FLOORING AS NECESSARY
- 7 REMOVE WINDOW
- 8 DEMOLISH STAIR
- 9 REMOVE WATER HEATER
- 10 DEMOLISH FIREPLACE
- 11 DEMOLISH DECK
- 12 DEMOLISH DECK COLUMN TYP

ALL OF INFORMATION FOR EXISTING HOUSE ARE APPROXIMATE. CONTRACTOR TO VERIFY ALL OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT TO ARCHITECT FOR ANY DISCREPENCIES FOUND.



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



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

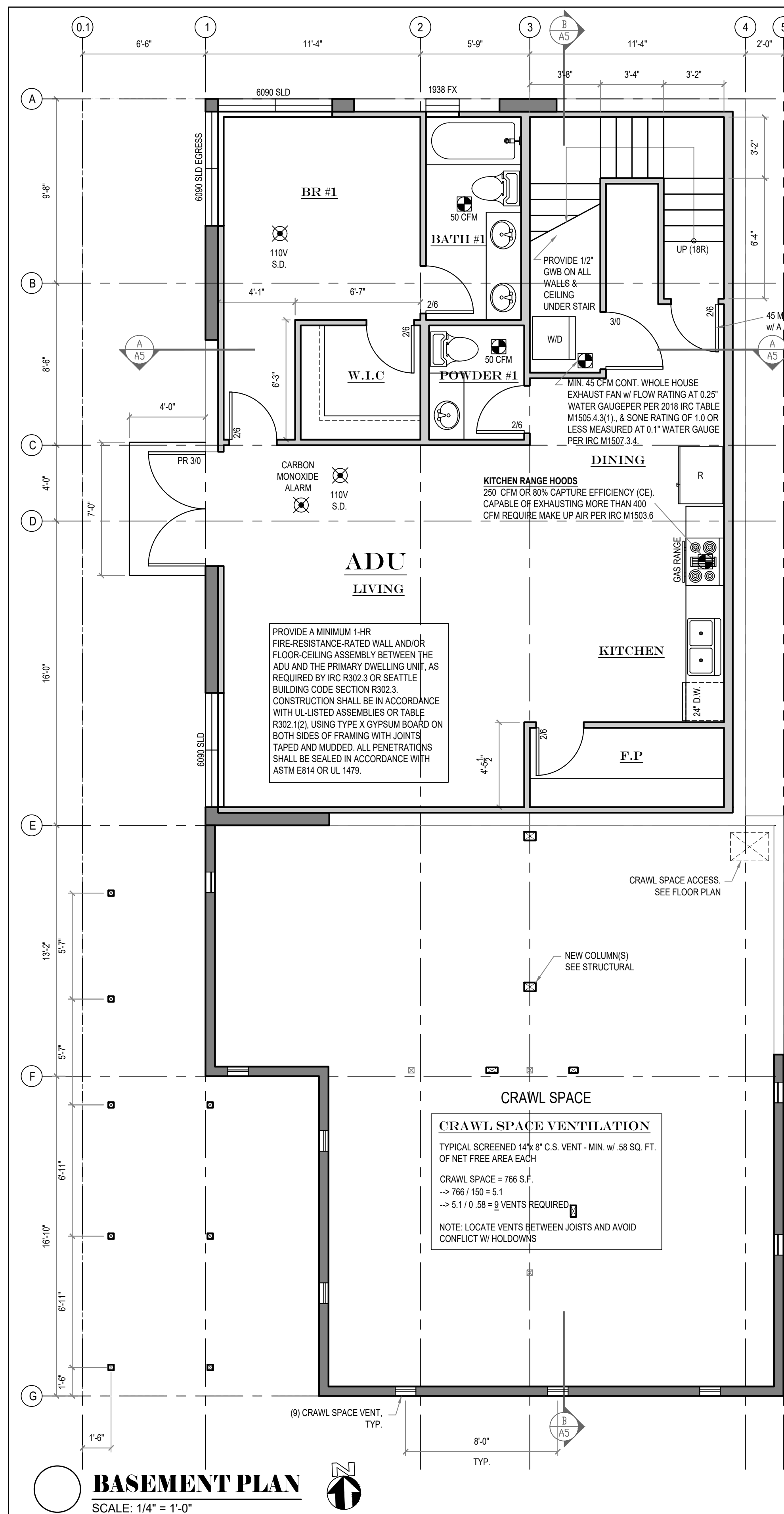


PROJECT
2707 RESIDENCE - REMODEL
2707 70TH AVE SE
MERCER, WA 98040

ISSUE	PERMIT SET	RESPONSE TO CITY COMMENTS
03.24.2025	04.16.2025	09.02.2025
1	2	3

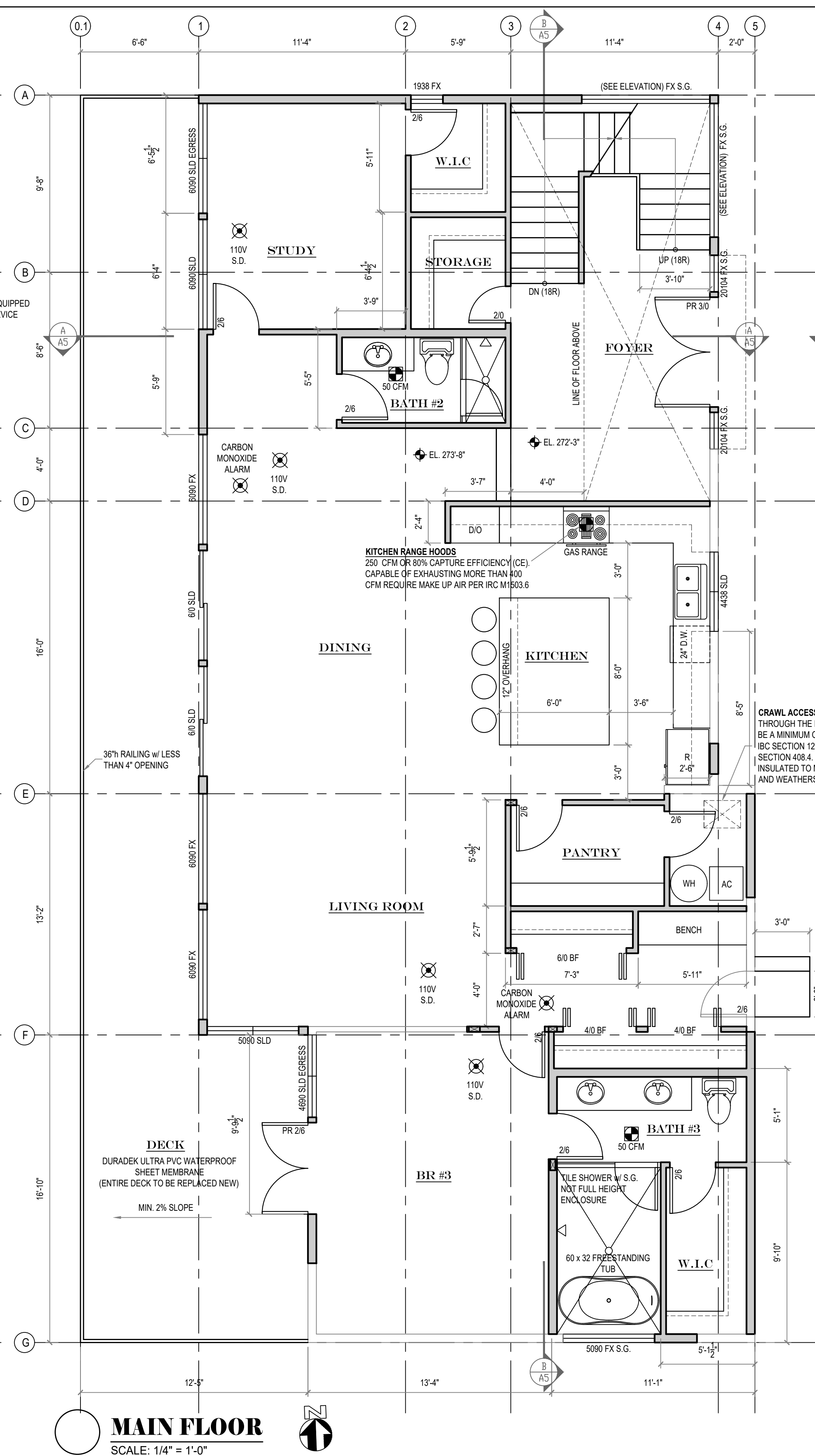
SHEET TITLE
EXISTING/ DEMOLITION FLOOR PLANS

A1



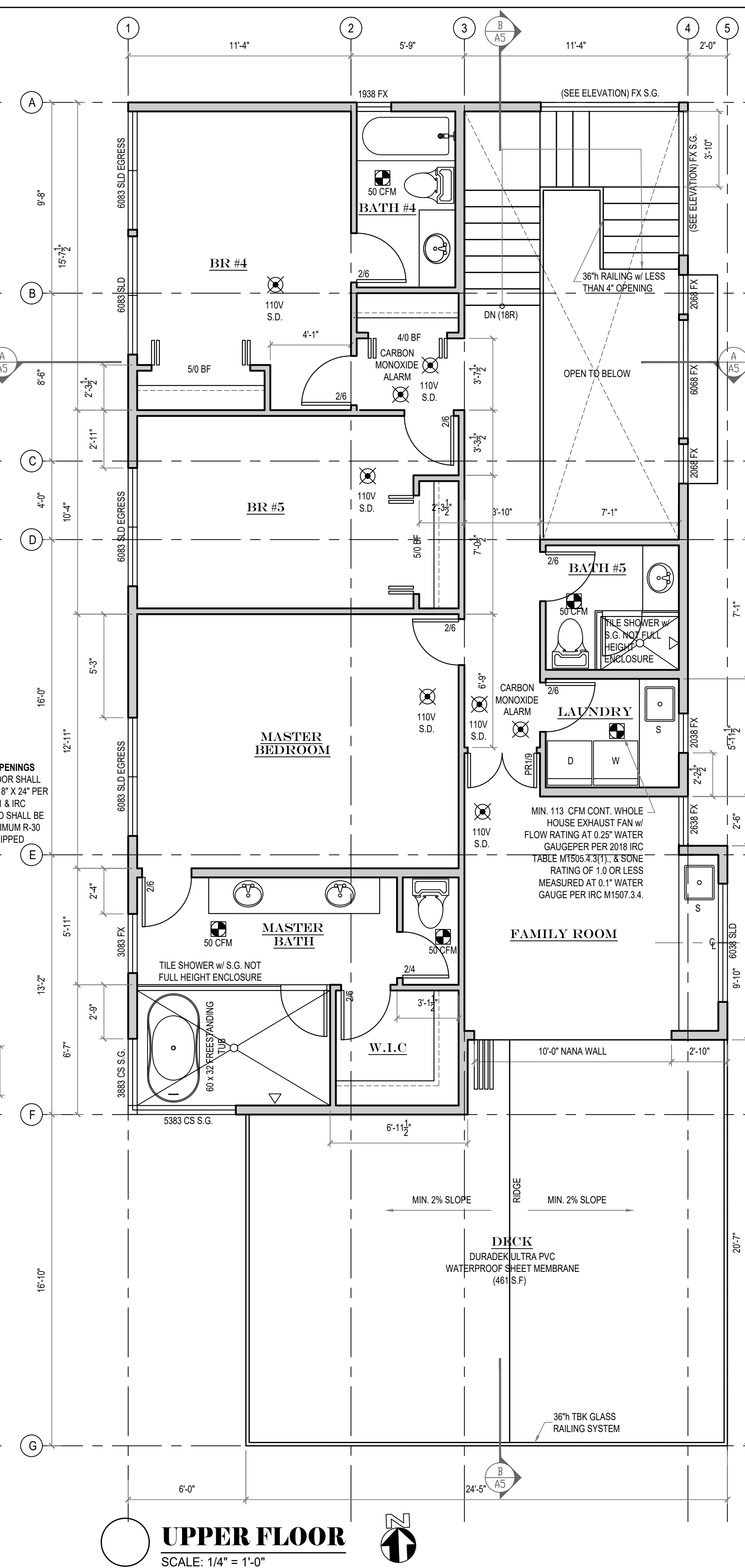
BASEMENT PLAN

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



MAIN FLOOR

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



UPPER FLOOR

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

- PLAN NOTES:**
1. USE CONVENTIONAL FRAMING AND SHEATHING U.N.O.
 2. ALL EXTERIOR WALLS TO BE 2x6 FRAMING U.N.O.
 3. ALL INTERIOR WALLS TO BE 2x4 FRAMING U.N.O.
 4. ALL DOOR JAMBS TO BE SET OFF WALLS 6" TYP. U.N.O.

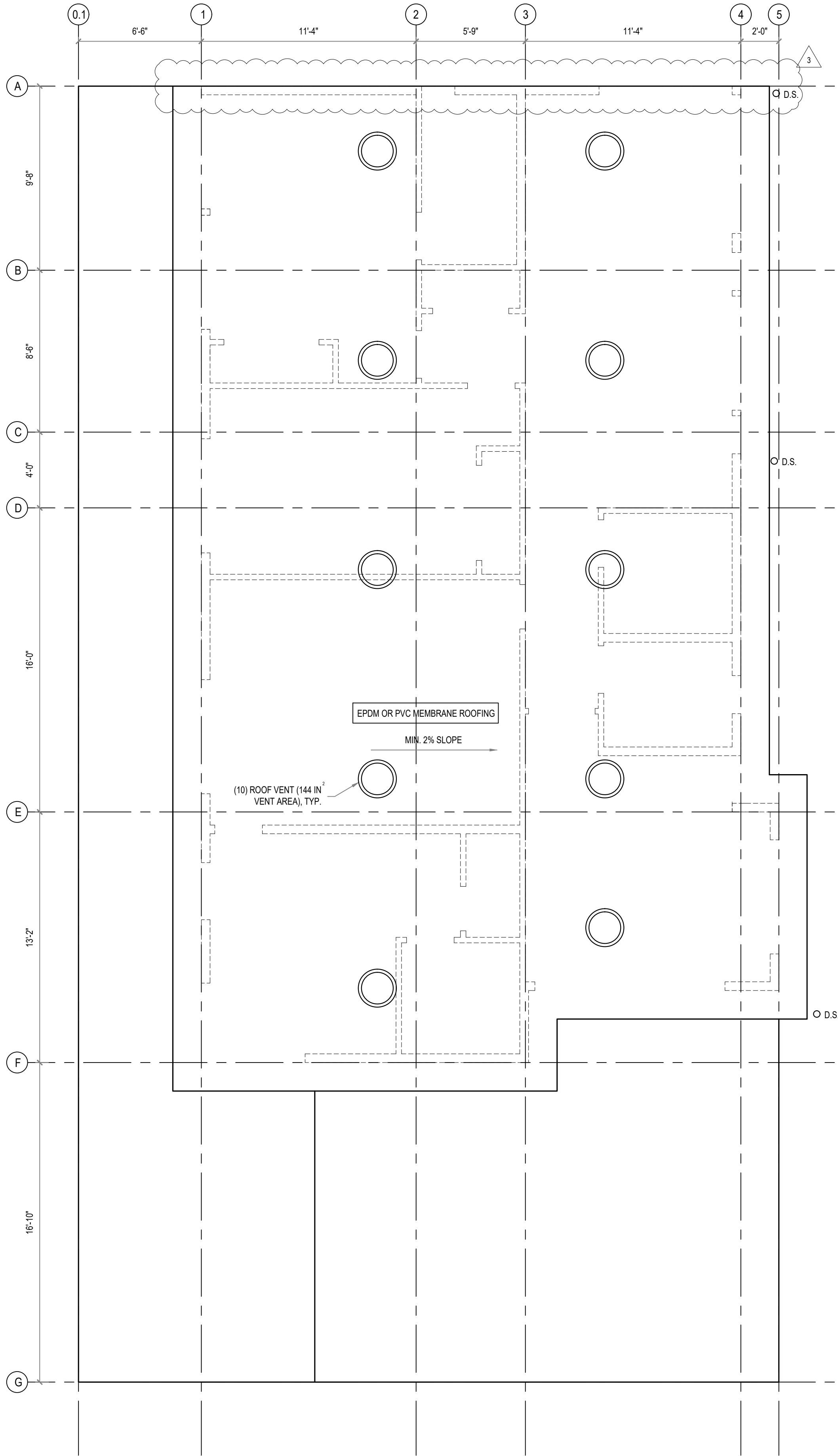
- PLAN NOTES:**
5. ALL DIMENSIONS ARE TO FACE OF FRAMING U.N.O.
 6. ALL WINDOW HEADS TO BE 8'-0" TO FINISH FLOOR AT THIS FLOOR, U.N.O.
 7. ALL EXHAUST FANS ARE TO VENTED TO OUTSIDE.
 8. DOOR HT. AT THIS FLOOR IS 8'-0", TYP.

- PLAN NOTES:**
9. ALL SMOKE DETECTORS MUST BE PROVIDED w/ PRIMARY POWER FROM BUILDING WIRING, PROVIDED w/ BATTERY BACKUP, AND BE INTERCONNECTED.
 10. ESCAPE (EGRESS) WINDOW MUST HAVE A CLEAR OPENABLE AREA OF 5.7 S.F. w/ A MINIMUM NET CLEAR HEIGHT OF 24" AND WIDTH DIMENSION OF 20". THE SILL HEIGHT MUST NOT BE MORE THAN 44" ABOVE THE FLOOR.
 11. ALL EXTERIOR COLUMNS, BEAMS, AND JOISTS THAT ARE EXPOSED TO THE WEATHER MUST BE PRESSURE-TREATED.

- PLAN NOTES:**
12. OPENINGS IN THE COMMON FIRE-RESISTANCE-RATED WALL ASSEMBLY LOCATED BETWEEN UNITS OF A TWO-FAMILY DWELLING SHALL BE EQUIPPED WITH NO LESS THAN A 45-MINUTE FIRE-RATED DOOR ASSEMBLY EQUIPPED WITH A SELF-CLOSING OR AUTOMATIC-CLOSING DEVICE PER IRC 302.3.4.
13. PENETRATIONS OF WALL OR FLOOR-CEILING ASSEMBLIES REQUIRED TO BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH SECTION R302.2 OR R303.3 SHALL BE PROTECTED IN ACCORDANCE WITH SECTION R304.2.

LEGEND

===== EXIST. WALL
===== NEW WALL



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



ROOF VENTILATION
ATTIC AREA = 1,361 S.F.
REQUIRED VENTILATION = $1361 / 150 = 9.07$ S.F. (1,307 IN²)
PROPOSED ROOF VENTS: (1,307 / 144 IN²) = **[10]**
(B-144 METAL DOME BY 'AIR VENT INC' OR SIMILAR)

SHEET TITLE	ISSUE	PROJECT		
		2707 RESIDENCE - REMODEL		
		2707 70TH AVE SE MERCER, WA 98040		
	03.24.2025	PERMIT SET	RESPONSE TO CITY COMMENTS	
			1	
			04.16.2025	
	09.02.2025	RESPONSE TO CITY COMMENTS	2	
			09.02.2025	
	11.10.2025	RESPONSE TO CITY COMMENTS	3	
			11.10.2025	

- PROPOSED ROOF PLAN

A3



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

FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
 - 1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
 - 1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH [SECTION R302.7](#).
4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.

ENERGY NOTES:

PER WSEC R402.4, THE BUILDING THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE. THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL (R402.4.1.2).

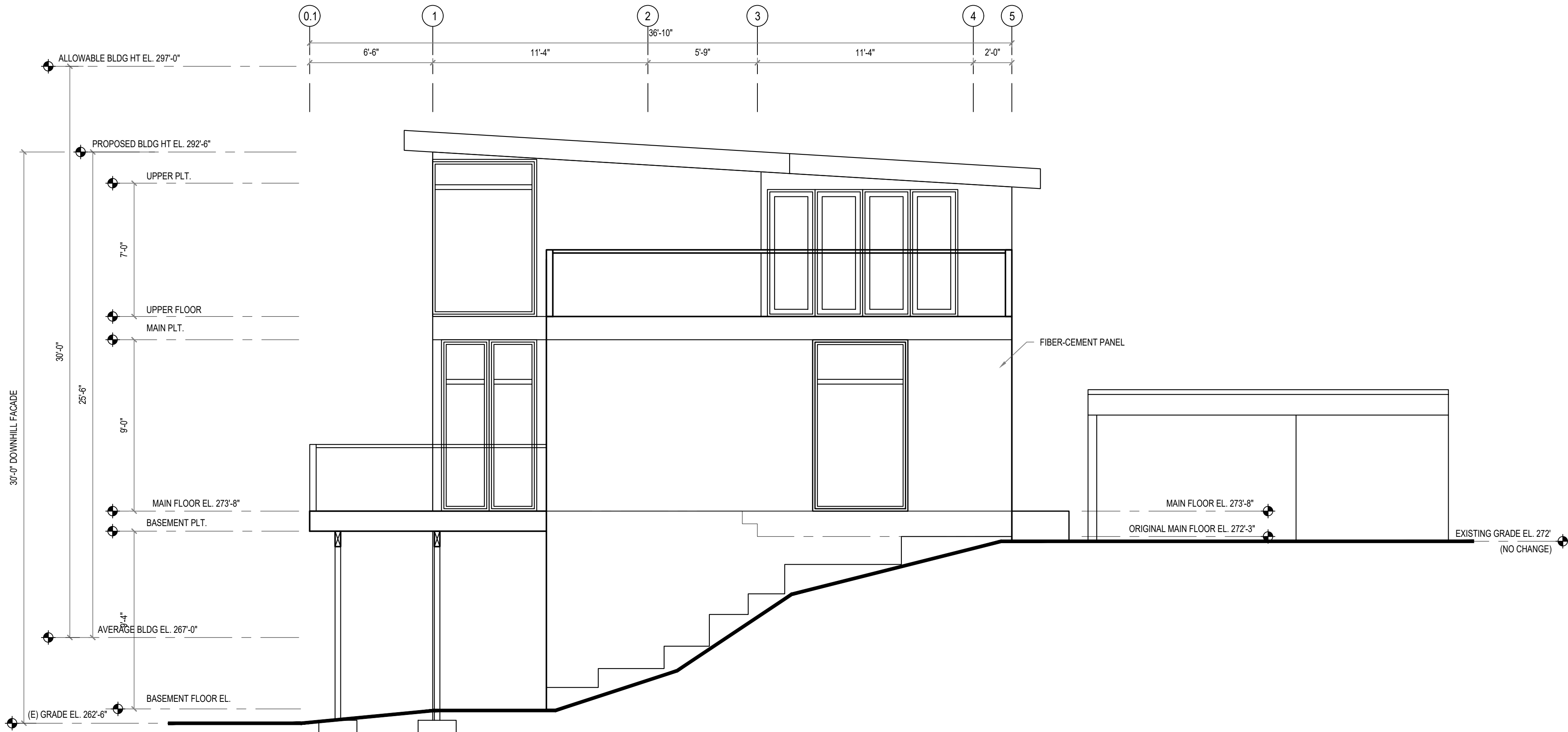
PER WSEC R403.2.2, DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. PER WSEC R404.1, A MINIMUM OF 75 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

AIR LEAKAGE SHALL NOT EXCEED 5 AIR CHANGES/ HOUR AND SHALL BE TESTED AS SUCH. A WRITTEN REPORT OF THE TEST RESULTS, SHALL BE SIGNED BY THE TESTING PARTY AND PROVIDED TO THE BUILDING INSPECTOR, PRIOR TO CALL FOR FINAL INSPECTION. THE AIR LEAKAGE TEST RESULT SHALL BE DOCUMENTED ON THE FORM WHICH IS AVAILABLE ONLINE AT [HTTP://WWW.ENERGY.WSU.EDU/BUILDINGEFFICIENCY/ENERGYCODE.ASPX](http://www.energy.wsu.edu/buildingefficiency/energycode.aspx)

THE DESIGN PROFESSIONAL OR BUILDER SHALL COMPLETE AND POST AN "INSULATION CERTIFICATE FOR RESIDENTIAL CONSTRUCTION" WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION. A SINGLE BLANK FORM SHOULD BE INCLUDED ON THE PLAN DRAWINGS. THESE ARE AVAILABLE ONLINE AT [HTTP://WWW.ENERGY.WSU.EDU/DOCUMENTS/WSEC-2015-AVERY-6876_4_PER_SHEET.PDF](http://www.energy.wsu.edu/documents/wsec-2015-avery-6876_4_PER_SHEET.PDF)

WINDOW AND DOOR HEADERS SHALL BE INSULATED WITH A MINIMUM OF R-10 INSULATION.

ALL NEW FENESTRATION ARE NFRC CERTIFIED.



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

PROJECT

2707 RESIDENCE - REMODEL

2707 70TH AVE SE
MERCER, WA 98040

PERMIT SET

03.24.2025

RESPONSE TO CITY COMMENTS

04.16.2025

RESPONSE TO CITY COMMENTS

09.02.2025

RESPONSE TO CITY COMMENTS

11.10.2025

ISSUE

1

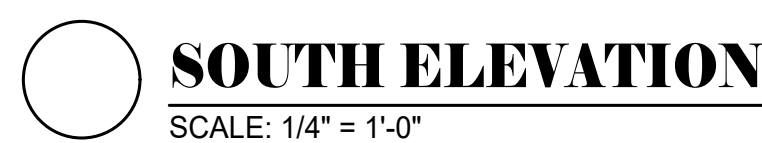
2

3

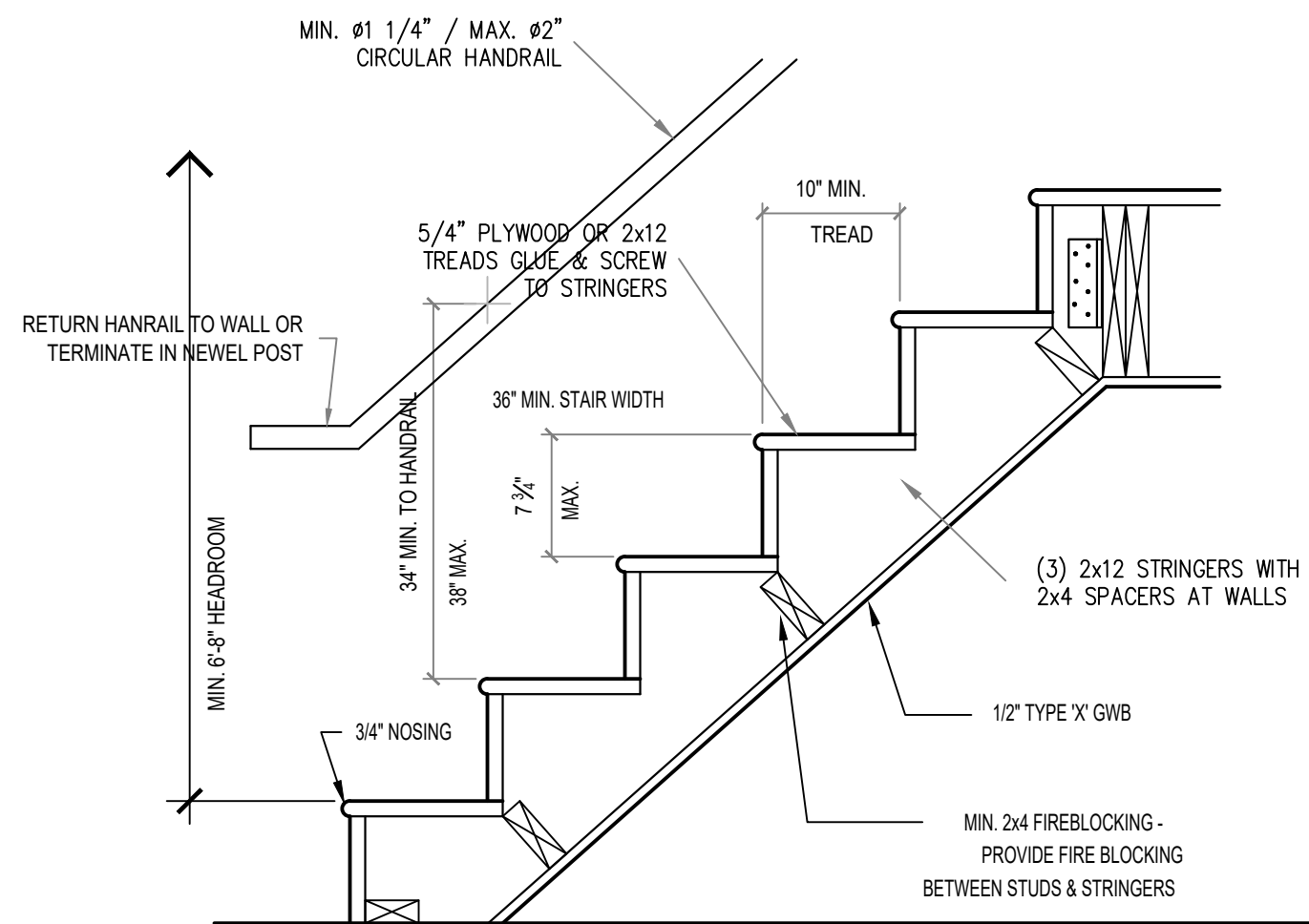
SHEET TITLE

BUILDING ELEVATIONS

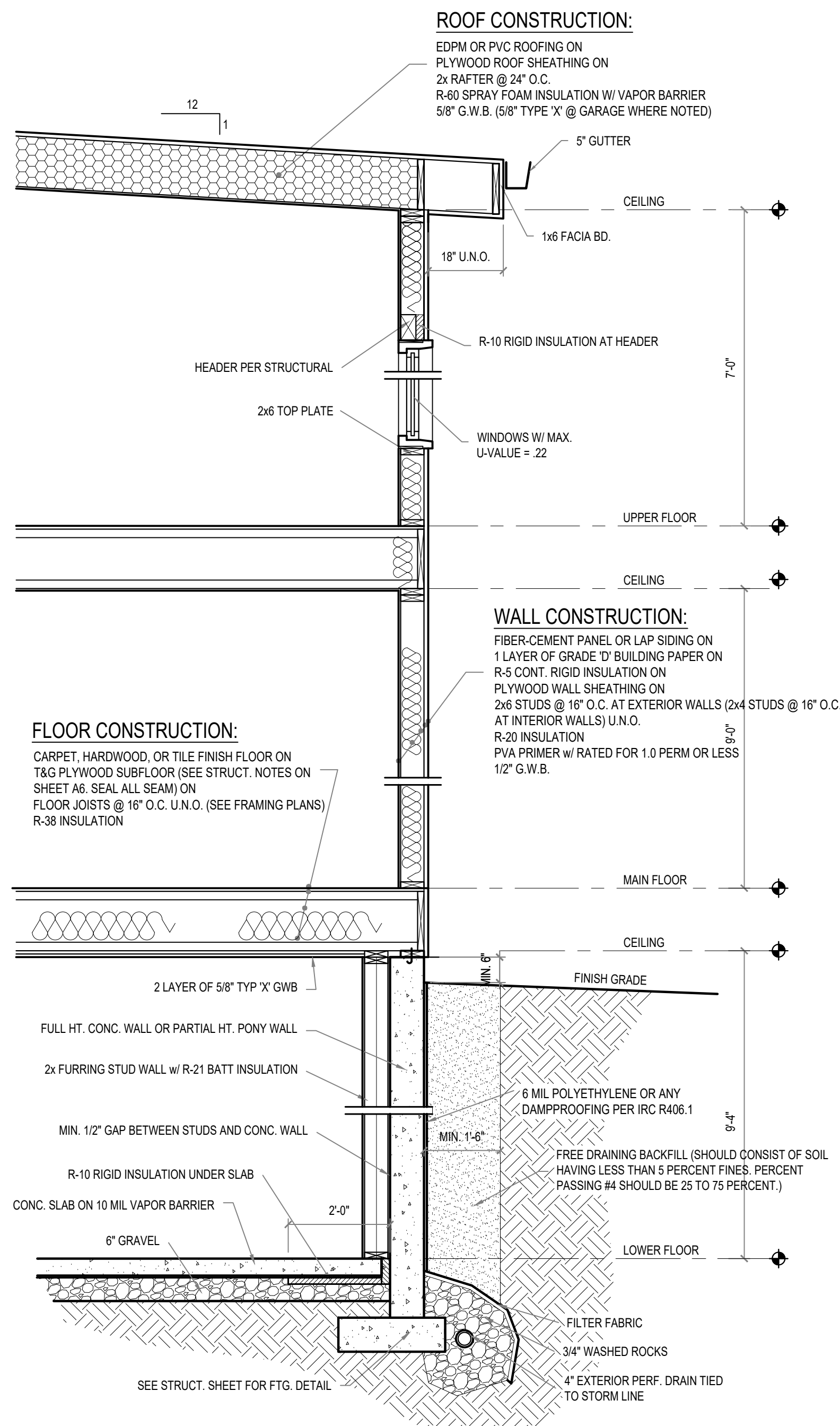
A4



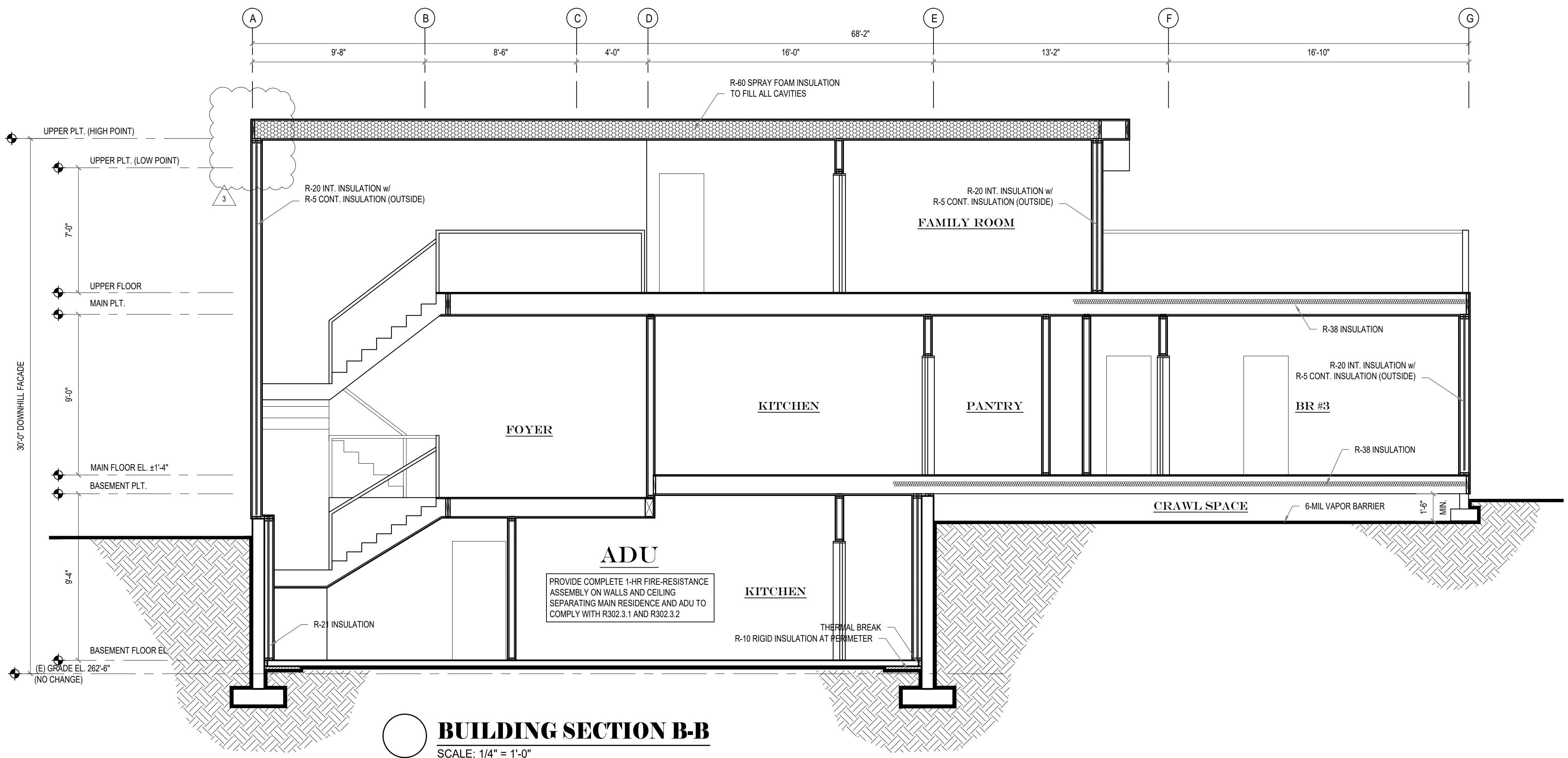
A5



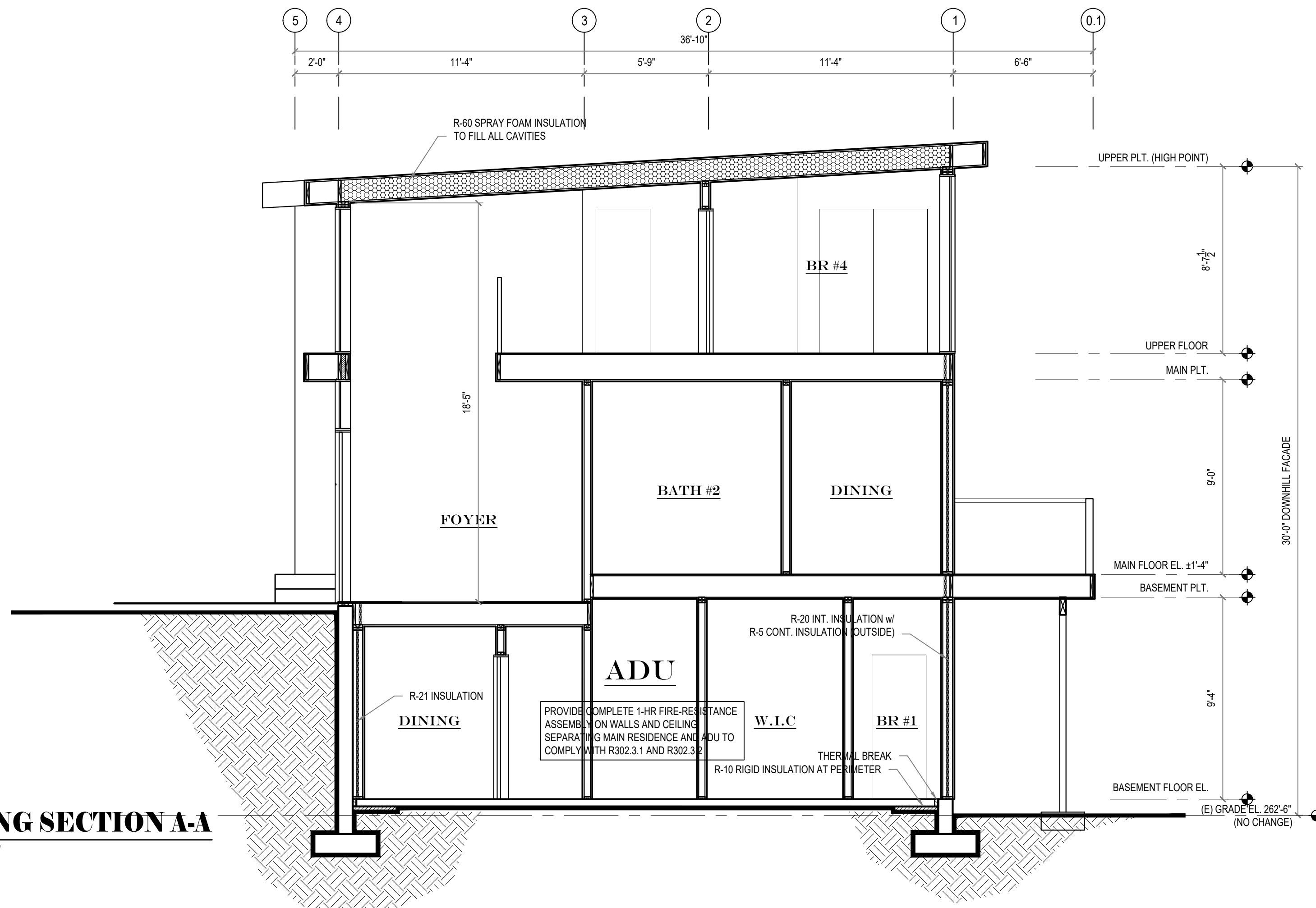
TYP. STAIR DETAIL
SCALE: 1" = 1'-0"



TYP. WALL SECTION
SCALE: 1/2" = 1'-0"



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



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

PROJECT
2707 RESIDENCE - REMODEL

2707 70TH AVE SE
MERCER, WA 98040

ISSUE	PERMIT SET	RESPONSE TO CITY COMMENTS
03.24.2025	1	04.16.2025
09.02.2025	2	11.10.2025
11.10.2025	3	

SECTIONS AND DETAILS

SHEET TITLE

A6

WU Compliance Calculator, WSEEC 2021

THERMAL ENVELOPE DETAILS - Proposed Design

Conditioned Floor Area of Addition, Proposed Design 3,083 sq. ft.
Classification Medium Dwellling Unit
Notes:

Exterior Doors							
Plan ID	Component Description	Ref.	Door U	Qt.	Feet ²	Height Feet ²	Area UA
Exempt							0.0
	Code Baseline_UH0_30	-	0.30	1	6	6	45
	Code Baseline_UH0_30	-	0.30	2	6	6	80
	Code Baseline_UH0_30	-	0.30	1	6	6	33
	Code Baseline_UH0_30	-	0.30	1	10	6	60
	Code Baseline_UH0_30	-	0.30	1	2	6	17
							0.0
							0.0
							0.0
							0.0
							0.0
							0.0
							Sum of Area and UA
							245
							Exterior Doors Area Weighted U
							0.300

Overhead Glazing							
Plan ID	Component Description	Ref.	Glazing U	Qt.	Feet ²	Height Feet ²	Area UA
							-
							-
							-
							-
							-
							-
							-
							-
							-
							-
							-
							Sum of Area and UA
							0.0
							Overhead Glazing Area Weighted U
							0

Vertical Glazing Schedule							
Plan ID	Component Description	Ref.	Glazing U	Qt.	Feet ²	Height Feet ²	Rows to Show UA
Exempt							0
1	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	5	6	6	270.0
2	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	6	6	45.0
3	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	4	6	40.5
4	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	4	3	15.0
5	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	2	2	10	41.3
6	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	6	2	14.0
7	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	7	18	133.8
8	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	7	18	127.8
9	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	2	1	3	12.8
10	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	4	6	8	188.0
11	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	3	8	24.8
12	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	3	8	30.3
13	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	5	8	43.3
14	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	6	3	22.0
15	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	2	3	9.2
16	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	2	2	3	14.7
17	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	2	2	6	25.7
18	UH0-22 (2021 1.1, 2018 1.5)	Table 406-2	0.22	1	6	6	40.0
							Sum of Area and UA
							1,110.0
							Vertical Glazing Area Weighted U
							0.230
							Vertical Glazing and Doors Area Weighted U
							0.234

Partitions/Ceilings							
Plan ID	Component Description	Ref.	Attic U			Area UA	UA
	R60 blown Attic ADX baffles (2021 1.3, 1.4; 201						

WSU_C32021_20241009-Mamori Lot 6.xlam, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Coe Compliance Calculator, WSEEC 2021

Outdoor Design Temperature	25 F	
Design Temperature Difference (ΔT)	45 F	
Conditioned Floor Area of Addition, Proposed Design	3,083.42	
Conditioned Volume	27,747.03	Average ceiling height ≥ 8 ft. Volume = 27747.03
Linear Sash Area (excl. of 2.5 ft. ceiling height)		
Average ceiling height	9.0 ft.	
HVAC System Type Location of HVAC Distribution System	Conditioned Space	
Sum of UA, including exempt door and window	470	
Envelope Heat Load (Sum of UA X ΔT)	21,126	Btu / Hour
Air Leakage Heat Load (Volume X 0.01 X ΔT X 0.018)	13,485	Btu / Hour
Building Design Heat Load (All Leakage + Envelope Heat Load)	34,615	Btu / Hour
Building and Duct Heat Load For ducts located in conditioned space: Sum of Building Heat Loss X 1.1 For ducts located in unconditioned space or outdoors: Sum of Building Heat Loss X 1	34,615	Btu / Hour
Maximum Heat Equipment Output Building and Duct Heat Loss X 1.25 (if heat pumps) Building and Duct Heat Loss X 1.40 for all other systems	43,269	Btu / Hour
	12.7	kW

WSU_C32021_20241009-Mammoth Lot 6.xlsx, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Code Compliance Calculator - WSEC 2021					
5.3.5.8	Efficient Water Heating		Option 5.6	2.0	Electric heat pump water heater meeting NEEA Tier 3.
6	Renewable Electric Energy	3,000 kWh	Not Selected	0.0	
7	Appliance Package		Option 7.1	0.5	All of: Energy Star rated, most efficient dishwasher; refrigerator; washing machine and dryer.
			Energy Credits:	6.0	

*Refer to ASHRAE Table R408.3 for complete option descriptions and requirements. <https://wsu.wa.gov/wsec/codes/regulations-guidelines/state-building-codes/energy-code>

WSIU_C32021_20241009-Mamori Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024 2

[illegible]

WSU_C32021_20241009--Mamor Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024 5

WSSU Compliance Calculation Worksheet, WSEEC 2021		
Project Information 2707 Primary Residence	Messages / Comments * RESULT= PASS	
Contact Information	UA Reduction = 106.47. Proposed UA is better than baseline by 18%.	
	Window U-value meets selected Option 1 Window area is 36% of floor area	
	Whole House Mechanical Ventilation Airflow Rate: 112.5 CFM with Run Time Percent of 100%. Unbalanced. Not Distributed	
	Maximum allowable fan measured duct leakage: 247 CFM50 *Results where your UFA's are complete and certified. Results for your credit(s) as approved. Anyways should be reviewed by your AHJ.	
ANALYSIS SET UP		
What code compliance pathway are you using? Project Building Type? Occupancy type? Code Version? Classification: Baseline Description: About Your Selection:	<u>L-actor Compliance Path</u> <u>Addition</u> <u>R3 Single family dwellings and townhouses</u> <u>WSEC 2021</u> <u>Medium Dwelling Unit - 3083 sq. ft.</u> <u>Equal</u> Code Baseline - Baseline and proposed window areas are equal. Up to 15 if exempt window and 24 if exempt door allowable -	
RESULTS - Comparison of Baseline and Proposed Design **		
Component Performance, R occupancies	Baseline Design	Proposed Design
U' Area	UA	U' Area UA
Doors U'	0.300 245	0.300 245 73.4
Overhead Glazing U'	0.300 0.0	0.300 0.0 0.0
Vertical Glazing U'	0.300 1,110	0.220 1,110 244.2
Floor/Vealued Ceilings U'	0.024 1,361 37	0.017 1,361 23.1
Wall below grade U'	0.050 1,875 93.8	0.014 1,875 26.4
Floors over Crawspace U'	0.029 1,067 31.8	0.025 1,067 27.1
Slab on Grade F	0.840 0.0	0.0 0.0 0.0
Below Grade Wall U'	N/A 0.0	0.0 0.0 0.0
Below Grade Slab F	N/A 0.0	0.0 0.0 0.0
Excludes from Table R402.1.2 (Oct 2020)		
Yates from Table 402.1	576.0	Proposed UA Total 469.3
Required Credits	8.0	Proposed Credits 8.0 from Tables 406.2 and 406.3
		UA Percent Reduction 10%
		UA Reduction 106.5
If the Proposed UA ≤ the Target UA, and the Proposed Credits from Table 406.2 are those required in Section R406, then the home meets the WSEC.		

Table R406.2 Energy Equalization Credits					
System No.	Full Description	Select System Type	Fuel Normalization Credits (406.3)	Energy Credits (406.3)	Total Credits (406.2 & 406.3)
4	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or Table C403.3.2(3) OR Air to Water heat pump units that are configured to provide both heating and cooling and are rated in accordance with ASHRAE 90.1-2005	Variable Refrigerant Heat Pump or Air-to-Water Heat Pump	3.0	5.0	8.0

Option No.	Category	Select Options	Energy Credits	Brief Description of Selected Options*
1	Efficient Building Envelope	Option 1.1	0.5	Prescriptive compliance based on Table R402.1.3 Vertical Fenestration = U/0.22
2	Air Leakage Control and Efficient Ventilation			
3.1-3.10	High Efficiency HVAC	Option 3.7	2.0	Ductless Split System with no electric resistance in primary living areas. HSPF2 of 8 (HSPF or I/O), except HSPF2 of 8.1 (HSPF or I/O) if heating load is 24000 BTUs or less.
3.11	High Efficiency HVAC: Smart Thermostat	Not Selected	NA	
4	High Efficiency HVAC Distribution System	Option 4.1	NA	Duct/distribution system in conditioned space per R403.3.2 Electric resistance, hydronic ductless and gas fired systems < 60W, A/CUE systems not permitted - Not applicable to ductless system selected in Option 3
5.1	Efficient Water Heating: Drain Heat Recovery	Not Selected	0.0	
5.2	Efficient Water Heating: Compact Hot Water Distribution	Not Selected	0.0	

WSU_C32021_20241009-Mammoth Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/18/2024

WSU Code Compliance Calculator - WSEC 2021

Area	Area Weighted Value	Sum of Net Area and UA	Gross Wall Area	Area Weighted Value
		1,878	3,283	0.054

WSU_C32021_20241009-Marmor Lot 8.xlsm, Version:10/9/2024 4:07:13 PM 10/18/2024

[illegible]

WSU_C32021_20241009-Mammor Lot 6.xlam, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Code Compliance Calculator, WSEC 6201

Conditioned Volume	7,933 ft ³	Average ceiling height +9.3 ft Volume = 7933 ft³
Low-bay is installed (15.5 ft ceiling height)		
Average ceiling height	9.3 ft	
HVAC System Type	Heat Pump	
Location of HVAC Distribution System	Unducted	
Sum of UA, including exempt door and window	201	
Envelope Heat Load (Sum of UA x 1)	9,066 Btu/hr	
Air Leakage Heat Load (Volume x 0.3 x 1.1 x 0.08)	3,866 Btu/hr	
Building Design Heat Load (Envelope + Envelope Heat Loss)	12,930 Btu/hr	
Building and Duct Heat Load For ducts located in conditioned space: Sum of Building Heat Loss x 1.1 For ducts located in unconditioned space or outdoors: Sum of Building Heat Loss x 1.7	12,930 Btu/hr	
Maximum Heat Equipment Output Building and Duct Heat Loss x 1.25 for heat pumps Building and Duct Heat Loss x 1.45 for all other equipment	16,161 Btu/hr 4.7 kW	

WSU_C32021_20241009-Mammoth Lot 6.xlsx, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Code Compliance Calculator - WSEC 2021					
5.3-5.8	Efficient Water Heating		Option 5.6	2.0	Electric heat pump water heater meeting NEEA Tier 3.
6	Renewable Electric Energy	3,000 kWh	Not Selected	0.0	
7	Appliance Package		Not Selected	0.0	-
Energy Credits:				2.0	

*Refer to WSEC 2021 Table R408.3 for complete option descriptions and requirements. <https://wsu.wa.gov/wseccodes/regulations-guidelines/state-building-code/energy-code>

VSU_C32021_20241009-Mamor Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024

WSU Code Compliance Calculator, WSEC 2021

Floor (over crawl or exterior)									
Plan ID	Component Description	Ref.	Floor U		Area	UA			
Sum of Area and UA						0	0		
Area Weighted U-Value							0.545		

Slab on Grade (less than 2 feet below grade)									
Plan ID	Component Description	Ref.	Slab F		Slab Perim	FP			
R10 Z vertical	(Code Baseline)	10-2	0.545				128	69	
Sum of Perimeter and FP						128	69		
Area Weighted U-Value							0.545		

Below Grade Walls and Slabs									
Plan ID	Component Description	Slab Depth	Ref.	Wall U	Wall Area	Wall UA	Slab F	Slab Perim	Slab UA
R21 Batt wtTB	Z depth	WSU	0.034	923	31.4	0.304	128	39	
Sum of Area, Length and UA						923	31	128	39
Weighted U and F-values						0.034			0.304

Links to Download Forms, Checklists and Other Resources		Link
Compliance Certificate	Insulation Certificate for Residential New Construction	Compliance Certificate Insulation Certificate
Duct Testing Affidavits	Existing Construction Affidavit Existing New Construction Affidavit New	
Prescriptive Checklist for 2016 WSEC	Algorithms (Remodel) Worksheet	Prescriptive Checklist Worksheet
EER SERP2 COOP HSPF2 Converter		https://www.adjustingheating.com/ver-serp2-coop-hspf2-kwh-on-converter

Show Ventilation Calculator?		Show
Ventilation Requirements	Conditioned Floor Area	853 sq. ft.
	Number of Bedrooms	1
	Run-Time Percent in Each 4-Hour Segment	100%
	Is the system Balanced?	Unbalanced
	Is the system Distributed?	Not Distributed
	Ventilation Code Section	IRC Chapter 15
	Whole House Mechanical Ventilation Airflow Rate	45 CFM

Show Distribution System Calculator?		Show
HVAC Thermal Distribution System	Download RS-31 (2018)	http://www.energy.wy.edu/Documents/Coupled%20Testing%20Standards%20to%20HVAC
Is this a hydronic heating system?	No	
Location of Ducts	Undisturbed	
Location of Air Handler	Conditioned Space	
For Existing Construction: Are Any of These Exceptions True?	No	
Are ducts systems documented to have been previously sealed as confirmed from field verification and diagnostic testing per RS-37?	No	
Is there less than 40 linear feet in unconditioned space? (not exempted under WSEC 2021.)	No	
Are existing duct systems constructed, insulated or sealed with asbestos?	No	
Is the project an Addition less than 750 sf of conditioned floor area?	No	
Is Duct Testing Required?	No	

Show Heating System Sizing?		Show
Heating System Sizing - Proposed Design	Try Out BetterBuilt's HVAC Sizing Tool:	https://betterbuilt.nw.com/resources/hvac-sizing-tool
Nearest Weather Station	Measure entered	
Indoor Design Temperature	70 F	
Outdoor Design Temperature	25 F	
Design Temperature Difference (ΔT)	45 F	
Conditioned Floor Area of Addition, Proposed Design	853 ft ²	

NSU_C32021_20241009-Mamori Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024

Project Information		Messages / Comments *		RESULT= PASS	
2707 ADU					
		UA Reduction = 18.19, Proposed UA is better than baseline by 8%			
		Whole House Mechanical Ventilation Airflow Rate: 45 CFM with Run Time Percent of 100%, Unbalanced, Not Distributed			
Contact Information		Window area is 27% of floor area			
		* Results assume your inputs are complete and correct. Results do not constitute an approval. Anyways should be reviewed by your AHJ.			
ANALYSIS SET UP		What code compliance pathway are you using? Project Building Type? _____ Occupancy Type? _____ Code Version? _____ Citation: _____ Baseline Description: _____ Absent Your Selection: _____ US Actor Compliance Path Add-on: R3 Single family dwellings and townhouses WECB 2021 Small Dwelling Unit – 853 sq. ft. Code Baseline - Baseline and proposed window areas are equal. Up to 15 if exempt window and 24 if exempt door allowable -			
RESULTS - Comparison of Baseline and Proposed Design It					
Component Performance, R occpancies		Baseline Design		Proposed Design	
	U'	U'	UA	U	UA
	Area	Area	Area	Area	Area
Doors U	0.300	40	12.0	0.300	40
Overhead Glazing U	0.300	0	0.0	0.300	0
Vertical Glazing U	0.300	227	68.2	0.220	227
Floor/Vaulted Ceilings U	0.024	0	0.0	0	0.0
Wall (above grade) U	0.095	0	0.0	0	0.0
Floors over Crawlspace U	0.029	0	0.0	0	0.0
Slab on Grade F	0.040	128	5.1	0.040	128
Below Grade Wall U	0.034	923	31.4	0.034	923
Below Grade Slab F	0.304	126	38.9	0.304	126
		Totals from Table R602.1.2 (Table 2023)			
	Value from Table R602.1.2	Total	219.9		
	Required Credits	5.0			
		(Values from Table R602.1.2, Table 2023)			
		Proposed UA Total		201.4	
		Proposed Credits		5.0 from Tables 406.2 and 406.3	
		UA Percent Reduction		8%	
		UA Reduction		18.2	

If the Proposed UA ≤ the Target UA, and the Proposed Credits from Table 406.2 are ≥ those required in Section R602, then the home meets the WSEC.

Table R406.2 Energy Equalization Credits					
System No.	Full Description	Select System Type	Fuel Normalization Credits (406.2)	Energy Credits (406.3)	Total Credits (406.2 & 406.3)
4	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or Table C403.3.2(3) OR Air to Water heat pump units that are configured to provide both heating and cooling and are rated in accordance with ASHRAE 90.1-2005	Variable Refrigerant Heat Pump or Air-to-Water Heat Pump	3.0	2.0	5.0

Option No.	Category	Select Options	Energy Credits	Brief Description of Selected Options*
1	Efficient Building Envelope	Not Selected	0.0	-
2	Air Leakage Control and Efficient Ventilation			
3.1-3.10	High Efficiency HVAC		0.0	
3.11	High Efficiency HVAC: Smart Thermostat†	Not Selected	0.0	
4	High Efficiency HVAC Distribution System	Not Selected	0.0	-
5.1	Efficient Water Heating: Drain Heat Recovery	Not Selected	0.0	-
5.2	Efficient Water Heating: Compact Hot Water Distribution	Not Selected	0.0	

WSU_C32021_20241009-Marmor Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024

[illegible]

WSU_C32021_20241009-Marmor Lot 6.xlsm, Version:10/9/2024 4:07:13 PM 10/16/2024



ENERGY STAR CERTIFIED

Residential Refrigerators

GE : GTE19JTN****

Specifications

Brand Name:	GE
Model Number:	GTE19JTN****
Type:	Top Freezer
Defrost Type:	Automatic
Compact:	No
Built-in:	No
Thru the Door Dispenser:	No
Ice Maker:	No
Counter Depth:	No
Height (in):	66.4
Width (in):	29.7
Capacity (Total Volume) (ft3):	19.2
Annual Energy Use (kWh/yr):	379
US Federal Standard (kWh/yr):	423
Connected Functionality:	No
Date Available On Market:	2019-12-01
Date Certified:	2019-11-08
Markets:	United States, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

Captured On:
08/13/2021



ENERGY STAR CERTIFIED

Residential Dishwashers

GE : GDP69***N***

Specifications

Brand Name:	GE
Model Number:	GDP69***N***
Type:	Standard
Annual Energy Use (kWh/yr):	270
US Federal Standard (kWh/yr):	307
% Better than US Federal Standard (kWh/yr):	12
Water Use (gallons/cycle):	3.5
US Federal Standard (gallons/cycle):	5
% Better than US Federal Standard (gallons/cycle):	30
Connected Functionality:	No
Markets:	United States, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

Captured On:
08/13/2021



ENERGY STAR CERTIFIED

Residential Clothes Dryers

Samsung - DV22N680*H* : DV22N680*H*

Specifications

CB Model Identifier:	ES_1023593_DV22N680*H*_09102018024207_70196935
Brand Name:	Samsung
Model Name:	DV22N680*H*
Model Number:	DV22N680*H*
Type:	Ventless Electric Compact 240V
Heat Pump Technology:	Heat Pump
Laundry Center:	No
Drum Capacity (cu-ft):	4.0
Height (inches):	33.5
Width (inches):	23.6
Depth (inches):	25.6
Combined Energy Factor (CEF):	5.85
Estimated Annual Energy Use (kWh/yr):	145
Estimated Energy Test Cycle Time (min):	60
Paired ENERGY STAR Clothes Washer Available:	No
Additional Dryer Features:	Drum light,Wrinkle prevention option
Vented or Ventless:	Ventless
Connected:	No
Date Available on Market:	2018-10-15
Date Certified:	2018-09-07
Markets:	United States, Canada
ENERGY STAR Certified:	Yes

Additional Model Information

Captured On:
08/13/2021



ENERGY STAR CERTIFIED

Residential Clothes Washers

GE : GFW510S*N***

Specifications

Brand Name:	GE
Model Number:	GFW510S*N***
Load Configuration:	Front Load
Laundry Center:	No
Combination All-in-One Washer-Dryer:	No
Volume (cu. ft.):	4.5
Width (inches):	28.0
Integrated Modified Energy Factor (IMEF):	2.76
US Federal Standard (IMEF):	1.84
Annual Energy Use (kWh/yr):	150
Integrated Water Factor (IWF):	3.0
US Federal Standard (IWF):	4.7
Annual Water Use (gallons/yr):	3983
Connected:	No
Paired ENERGY STAR Clothes Dryer Available:	Yes
Paired ENERGY STAR Clothes Dryer ENERGY STAR Model Identifier:	ES_1123206_GFW55ES*N***_03112020143611_7371251, ES_1123206_GFW55ES*N***_03112020143551_7351317
Date Certified:	2019-12-18
Markets:	United States, Canada
ENERGY STAR Model Identifier:	ES_1123206_GFW510S*N***_12182019134400_6640243
ENERGY STAR Certified:	Yes

Additional Model Information

,GFW510SCNWW,Color: White; UPC 084691849377

Captured On:
08/13/2021

PROJECT

2707 RESIDENCE - REMODEL

2707 70TH AVE SE
MERCER, WA 98040

PERMIT SET

SSUE

RESPONSE TO CITY COMMENTS

RESPONSE TO CITY COMMENTS

RESPONSE TO CITY COMMENTS

SHEET TITLE

- APPLIANCE SPEC

A9

GENERAL STRUCTURAL NOTES

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC) 2021 EDITION.

2. DESIGN LOADING CRITERIA
FLOOR LIVE LOAD (RESIDENTIAL) 40 PSF
FLOOR LIVE LOAD (RESIDENTIAL DECKS AND BALCONIES) 60 PSF
SNOW 25 PSF
WIND METHOD - DIRECTIONAL PROCEDURE
Kzt=1.9, GCp=0.18, 98 MPH (RISK CATEGORY II), EXPOSURE "B"
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS
SDC D, SITE CLASS C, Ie=1.0, Ss=1.398, S1=0.487,
Sds=1.118, Sd1=0.487, Cs=0.172, R=6.5,
SEISMIC DESIGN BASE SHEAR Vsx=23.8 KIPS

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTIONS, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTOR'S WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

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

9. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. MANUFACTURERS INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION FOR THE INSPECTORS USE AND REFERENCE.

GEOTECHNICAL

- 10.SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

ALLOWABLE SOIL PRESSURE 2000 PSF
PASSIVE PRESSURE 350 PCF
COEFFICIENT OF FRICTION 0.35

SOILS REPORT REFERENCE: GEOTECHNICAL/CRITICAL AREAS EVALUATION REPORT, PROPOSED HOUSE ADDITION, 2707-70TH AVE SE, MERCER ISLAND, WASHINGTON, BY GROUP NORTHWEST INC., DATED SEPTEMBER 20, 2024, JOB NUMBER G-6137

CONCRETE

- 11.CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 318 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF Fc = 3000 PSI. SLUMP OF CONCRETE SHALL NOT EXCEED 6". STRUCTURAL DESIGN IS BASED ON A CONCRETE STRENGTH OF Fc = 2500 PSI, THEREFORE NO CONCRETE STRENGTH TESTING REQUIRED. CONCRETE EXPOSURE CATEGORIES ARE F1, S0, W0, AND C1.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-19, TABLE 19.3.3.1.

12.REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy = 60 KSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy = 40 KSI. WELDED WIRE WIRE FABRIC SHALL CONFORM TO ASTM A1064. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, fy = 60 KSI.

13.DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-19. LAP ALL CONTINUOUS REINFORCEMENT #6 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-19, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

14.CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) 2"
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER) 1-1/2"
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 1-1/2"
SLABS AND WALLS (INT FACE) GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

ANCHORAGE

- 15.EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-3G" EPOXY ADHESIVE AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-4057. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A36, UNO.

16.HEAVY DUTY THREADED CONCRETE ANCHORS SPECIFIED ON THE DRAWINGS SHALL BE "TITEN HD SCREW ANCHOR" AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2713 AND ESR-1056, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

17.EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "STRONG-BOLT 2" ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT CONFORMANCE TO ICC-ES REPORT ESR-3037 AND IAPMO-UES REPORT ER-240, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

18.DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE (PDPVL-300MG, 0.145" DIAMETER, UNO) AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2138. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1", UNO. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE.
- WOOD

X. ALL 2x LUMBER SHALL BE KILN DRIED OR MC-19, AND ALL LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLB STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2x, 3x, 4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 900 PSI
BEAMS	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 875 PSI
POSTS	(4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 600 PSI
STUDS, PLATES AND MISC FRAMING		DOUGLAS FIR-LARCH NO 2

- 20.GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. ALL CANTILEVER GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. GLUED LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 3, L2D GRADE, Fc = 2300 PSI, Fb = 2000 PSI, E = 1900 KSI.

21.MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E)	Fb = 2900 PSI	E = 2000 KSI	Fv = 290 PSI
LVL (2.0E)	Fb = 2600 PSI	E = 2000 KSI	Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI	E = 1550 KSI	Fv = 310 PSI
LSL 1-1/4" RIM (1.3E)	Fb = 1700 PSI	E = 1300 KSI	Fv = 425 PSI
PSL COLUMN (1.8E)	Fc = 2500 PSI	E = 1800 KSI	Fv = 190 PSI

- DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

22.PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

23.PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS-1 OR PS-2, ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

WALL SHEATHING SHALL BE 7/16" or 1/2" (NOMINAL) WITH SPAN RATING 24/0

FLOOR SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

WATERPROOF DECK SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

FLAT ROOF SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

ROOF SHEATHING SHALL BE 1/2" or 7/16" (NOMINAL) WITH SPAN RATING 32/16

FOR ROOFS WITH A PITCH GREATER THAN 2:12

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

- 24.ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2)LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

25.PRESSURE TREATED WOOD (INCLUDES PRESERVATIVE AND FIRE TREATED) SHALL BE TREATED PER AWPA STANDARDS. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. SODIUM BORATE (58X) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS WITHOUT AMMONIA IN DIRECT CONTACT WITH ACQ-A TO A RETENTION LEVEL OF 0.40 PCF), CBA-A (UP TO A RETENTION LEVEL OF 0.41 PCF), CA-B (UP TO A RETENTION LEVEL OF 0.21 PCF), SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS WITH AMMONIA IN DIRECT CONTACT WITH ACQ-A (OVER A RETENTION LEVEL OF 0.40 PCF), CBA-A (OVER A RETENTION LEVEL OF 0.41 PCF), CA-B (OVER A RETENTION LEVEL OF 0.21 PCF), OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.

26.TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2024. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2x JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "IUS" SERIES JOIST HANGERS. ALL DOUBLE-JOISTS BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIU" SERIES JOIST HANGERS.

- WHERE CONNECTOR STRAPS CONNECT (2)MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

27.WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	TYPE	LENGTH	SHANK Ø	HEAD Ø
8d	COMMON	2-1/2"	0.131"	0.281"
10d	GUN	3"	0.131"	0.281"
12d	GUN	3-1/4"	0.131"	0.281"
16d	BOX	3-1/2"	0.135"	0.344"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

- B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2018 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES/MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.

C. SDS AND SDWS SCREWS CALLED OUT ON PLAN ARE TIMBER SCREWS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. EQUIVALENT SCREWS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. LAG SCREWS ARE NOT AN EQUIVALENT SUBSTITUTION.
- 28.WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS NOTED OTHERWISE ON THE PLANS:

- A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, SHALL CONFORM TO TABLE 2304.10.2, OF THE IBC, UNO. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16"oc, UNO. (2)STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. (2)2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS IN STRUCTURAL WALLS, UNO. NAIL MULTI-MEMBER HEADERS WITH (2)ROWS 10d AT 12"oc. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE AND BOTTOM PLATE TO EACH STUD WITH (3)10d NAILS. FACE NAIL DOUBLE TOP PLATES WITH 10d AT 12"oc AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE (12)10d NAILS AT 4"oc EACH SIDE OF JOINT. AT TOP PLATE INTERSECTIONS PROVIDE (3)10d FACE NAILS.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH (2)ROWS OF 12d NAILS AT 16"oc, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc EMBEDDED 7" MINIMUM, UNO. THERE SHALL BE A MINIMUM OF (2)BOLTS PER PLATE SECTION WITH (1)BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4-1/2" FROM EACH END OF THE PLATE SECTION. INDIVIDUAL MEMBERS OF BUILT-UP PLATES SHALL BE NAILED TO EACH OTHER WITH (2)ROWS OF 10d AT 16"oc. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH #6 x 1-1/4" TYPE S OR SCREWS AT 12"oc. UNLESS NOTED OTHERWISE, 7/16" OR 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS AT 6"oc AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS AT 12"oc. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS, UNO. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL TIMBER JOISTS TO SUPPORTS WITH (3)10d NAILS AND NAIL TJI JOISTS TO SUPPORTS WITH (2)10d NAILS. ATTACH JOISTS TO BEAMS WITH SIMPSON JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH (2)ROWS 10d AT 12"oc. TOENAIL RIM JOIST TO TOP PLATE WITH 10d AT 6"oc. TOENAIL BLOCKING BETWEEN JOISTS TO TOP PLATE WITH (3)10d NAILS.

UNLESS NOTED OTHERWISE ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS WITH END JOINTS STAGGERED, AND NAILED AT 6"oc WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12"oc TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 10d AT 12"oc, UNO.

- 29.NOTCHES AND HOLES IN WOOD FRAMING:

A. SAWN LUMBER JOISTS AND RAFTERS: NOTCHES AT THE ENDS OF JOISTS SHALL NOT EXCEED 1/4 THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH, BE LONGER THAN 1/3 THE JOIST DEPTH, OR BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. HOLES SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER SHALL NOT EXCEED 1/3 THE JOIST DEPTH. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL BE LOCATED A MINIMUM OF 2" FROM ANY NOTCH.

B. EXTERIOR AND BEARING WALLS: WOOD STUDS ARE PERMITTED TO BE NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED IN WOOD STUDS. HOLES SHALL NOT BE WITHIN 5/8" TO THE EDGE OF THE STUD. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL NOT BE LOCATED AT THE SAME SECTION AS A NOTCH.

C. CUTS, NOTCHES, AND HOLES IN MANUFACTURED LUMBER, PREFABRICATED PLYWOOD WEB JOISTS, AND PREFABRICATED TRUSSES ARE PROHIBITED EXCEPT WHERE NOTED ON STRUCTURAL PLANS OR PERMITTED BY MANUFACTURER'S RECOMMENDATIONS.

30.ELECTRICAL, MECHANICAL, PLUMBING, AND DRAINAGE SYSTEMS SHALL BE DESIGNED TO ACCOMMODATE THE DIFFERENTIAL SHRINKAGE OR MOVEMENT OF THE WOOD STRUCTURE (3/8" PER FLOOR).

31.DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND ENSURE ALL POST CAPS AND POST BEARING CONDITIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL PLANS. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 4" CANTILEVER MAY DEFLECT 1/2"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

RENOVATION

- 32.CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.

33.CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION AND/OR DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 20 PSF.

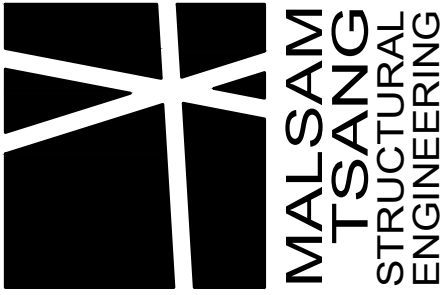
34.CONTRACTOR SHALL CHECK FOR DRYROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

35.WHERE NEW EXCAVATIONS EXTEND BELOW AND UNDERMINE EXISTING FOOTINGS THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

36.DEMOLITION AND REMOVAL OF THE EXISTING SLAB ON GRADE OR EXISTING FLOOR FRAMING WILL RESULT IN AN UNBRACED CONDITION AT THE EXISTING FOUNDATION WALLS. EXCAVATIONS MAY ALSO EXTEND BELOW AND UNDERMINE THE EXISTING FOOTINGS. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

ABBREVIATIONS

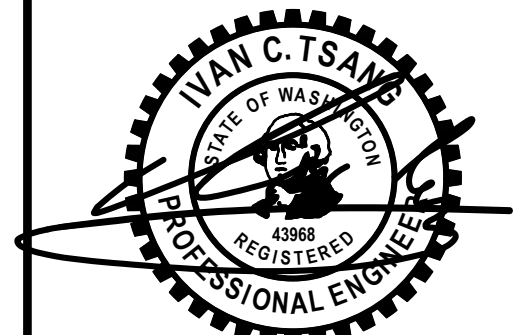
±	PLUS OR MINUS	GL	GLUE LAMINATED TIMBER	OSB	ORIENTED STRAND BOARD
Ø	DIAMETER	GR	GRADE	PLF	POUNDS PER LINEAR FOOT
AB	ANCHOR BOLT	GT	GIRDER TRUSS	PLY	PLYWOOD
ADDL	ADDITIONAL	GTB	GYPSUM WALLBOARD	PREFAB	PREFABRICATED
ALT	ALTERNATE	HD	HOLDOWN	PSF	POUNDS PER SQUARE FOOT
APPROX	APPROXIMATE	HDR	HEADER	PSI	POUNDS PER SQUARE INCH
ARCH	ARCHITECT, ARCHITECTURAL	HF	HEM FIR	PSL	PARALLEL STRAND LUMBER
BLKG	BLOCKING	HGR	HANGER	PT	PRESSURE TREATED LUMBER
BM	BEAM	HM	HIP MASTER	REINF	REINFORCING
BOE	BOTTOM OF EXCAVATION	HORIZ	HORIZONTAL	REQD	REQUIRED
BOT	BOTTOM	IBC	INTERNATIONAL BUILDING CODE	SOG	SLAB ON GRADE
C	CENTERLINE	IRC	INTERNATIONAL RESIDENTIAL CODE	SQ	SQUARE
CLR	CLEARANCE	JST	JOIST	STD	STANDARD
CONT	CONTINUOUS	K	KIPS (1000 LBS)	SW	SHEARWALL
DBL	DOUBLE	KP	KING POST	T&G	TONGUE AND GROOVE
DF	DOUGLAS FIR	L	LENGTH	THRD	THREADED
DP	DEEP, DEPTH	LBS	POUNDS	TPL	TRIPLE
DN	DOWN	LONG	LONGITUDINAL	TRANSV	TRANSVERSE
DS	DRAG STRUT	LSL	LAMINATED STRUCTURAL LUMBER	TYP	TYPICAL
DWGS	DRAWINGS	LVL	LAMINATED VENEER LUMBER	UNO	UNLESS NOTED OTHERWISE
(E)	EXISTING	MAX	MAXIMUM	VERT	VERTICAL
EA	EACH	MB	MACHINE BOLT	W	WIDE OR WIDTH
EMBED	EMBEDMENT	MFR	MANUFACTURER	w/	WITH
EQ	EQUAL	MIN	MINIMUM	w/o	WITHOUT
EQUIV	EQUIVALENT	MISC	MISCELLANEOUS	WHS	WELDED HEADED STUD
EW	EACH WAY	NO	NUMBER	WTS	WELDED THREADED STUD
EXP	EXPANSION	NTS	NOT TO SCALE	WWM	WELDED WIRE MESH
EXT	EXTERIOR	oc	ON CENTER		
FDN	FOUNDATION	OPP	OPPOSITE		
FRMG	FRAMING				
FT	FEET				
FTG	FOOTING				
GA	GAUGE				
GALV	GALVANIZED				



122 S. JACOBSON ST. - SUITE 210
SEATTLE, WA 98104 - (206) 789-8838

2707 70TH AVE SE

MERCER ISLAND, WA



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
1	PERMIT SET	2.7.25
2	PLAN REVISIONS	8.28.25

GENERAL STRUCTURAL NOTES

S1.0

SCALE - NTS

PLAN NOTES

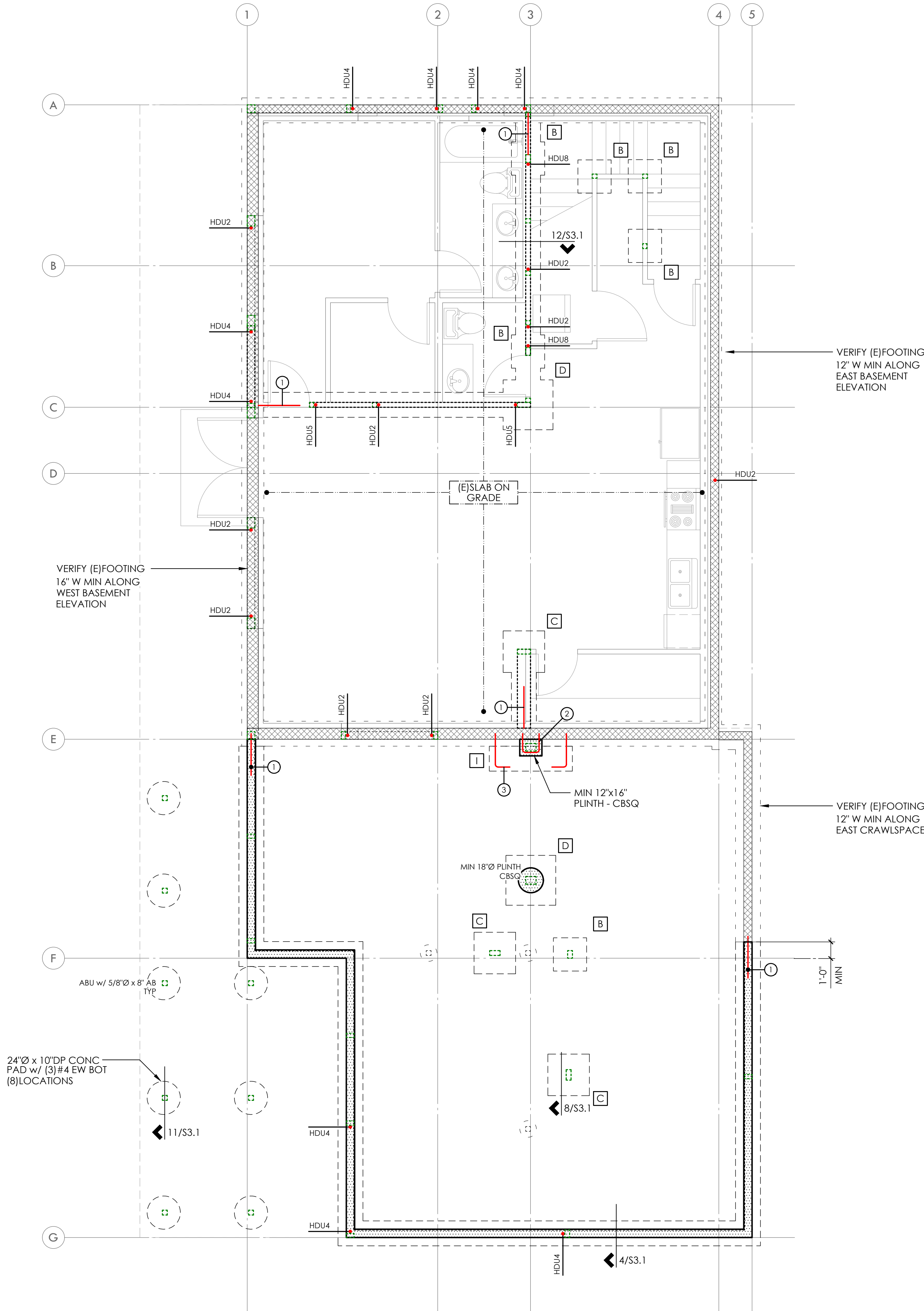
1. BOTTOM OF ALL NEW FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, UNO.
2. REFER TO SHEET S3.0 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
3. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
4. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

FOOTNOTES

- ① #4 x 2'-6" DOWELS TO MATCH HORIZ WALL AND FOOTING REINFORCING - EPOXY GROUT EMBED 4" MIN. NO SPECIAL INSPECTION REQUIRED.
- ② #4 L DOWELS AT 12"oc - EPOXY GROUT 4" MIN INTO (E) FOUNDATION WALL. NO SPECIAL INSPECTION REQUIRED.
- ③ #4 2' L DOWELS TO MATCH TRANSV FOOTING REINFORCING - EPOXY GROUT EMBED 4" MIN INTO (E) FOUNDATION WALL. NO SPECIAL INSPECTION REQUIRED.

LEGEND

- CONCRETE WALL BELOW
- (E) CONCRETE WALL BELOW
- STRUCTURAL WALL ABOVE
- PLUMBING PENETRATION ABOVE



FOOTING SCHEDULE

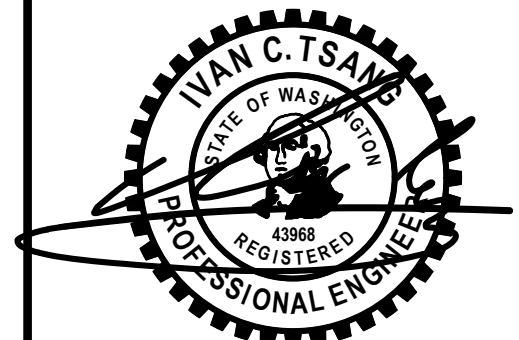
MARK	SIZE	REINFORCING
A	1'-6" SQ x 8" DP	(2) #4 EW BOT
B	2'-0" SQ x 8" DP	(3) #4 EW BOT
C	2'-6" SQ x 12" DP	(4) #4 EW BOT
D	3'-0" SQ x 12" DP	(4) #4 EW BOT
E	3'-6" SQ x 12" DP	(5) #4 EW BOT
F	4'-0" SQ x 16" DP	(7) #4 EW BOT
I	1'-6"W x 5'-0"L x 16" DP	(3) #4 LONG & #4 AT 9"oc TRANSV

MATERIALS

- SAWN LUMBER
- TRUSSES
- ENGINEERED
- GLU-LAM
- STEEL MEMBER

FOUNDATION PLAN

FIRST FLOOR WALLS SHOWN DASHED



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
PERMIT SET		2.7.25
PLAN REVISIONS		8.28.25

ARCH V SQUARED
206.657.7297

FOUNDATION PLAN

PLAN NOTES

1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 11-7/8" TJI JOISTS PER SCHEDULE. UNO. PROVIDE DBL JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
2. TYPICAL WATER PROOF DECK FRAMING CONSISTS OF DECKING OER ARCH (5 PSF MAX) OVER 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 2x10's AT 16"oc. UNO. JOISTS CAN BE TAPERED TO A MIN DEPTH OF 7-1/4".
3. GLUE AND NAIL FLOOR AND DECK SHEATHING w/ 8d AT 4"oc AT FRAMED PANEL EDGES AND OVER SHEAR-WALLS AND AT 12"oc IN FIELD. UNO.
4. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6. UNO.
5. ALL REQUIRED HEADERS ARE SHOWN ON PLAN. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
6. PROVIDE (2) BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER. UNO.
7. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW. UNO.
8. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS. UNO.
9. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
10. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
11. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

FLUSH BEAM SCHEDULE

MARK	SIZE ①	BRG STUDS	HANGER - UNO
B1	LSL 1-3/4 x 11-7/8	2	HUS1.81/10
B2	GL 3-1/2 x 11-7/8 OR LSL 3-1/2 x 11-7/8	2	HHUS410 ② HHUS410
B3	GL 5-1/2 x 11-7/8 OR PSL 5-1/4 x 11-7/8	3	HGUS5.50/10 HGUS5.50/10
B4	PSL 7 x 11-7/8	4	HGUS7.25/10

- ① ALL GLULAM BEAMS ARE 24F-V4 - UNO
② PROVIDE HUC410 WHERE REQUIRED - UNO

JOIST SCHEDULE ①②

MAX LENGTH	SIZE	SPACING	FACE MOUNT HANGER	TOP FLANGE HANGER
13'-6"	11-7/8" TJI 110	16"oc	IUS1.81/11.88	ITS1.81/11.88
14'-0"	11-7/8" TJI 210	16"oc	IUS2.06/11.88	ITS2.06/11.88
14'-6"	11-7/8" TJI 230	16"oc	IUS2.37/11.88	ITS2.37/11.88
15'-3"	11-7/8" TJI 360	16"oc	IUS2.37/11.88	ITS2.37/11.88
17'-3"	11-7/8" TJI 560	16"oc	IUS3.56/11.88	ITS3.56/11.88

- ① DESIGN BASED ON DL=15 PSF, LL=40 PSF. Δ LL< L/480. TJ-PRO RATING OF S5
② SHEETROCK CEILING APPLIED TO BOTTOM FACE OF JOISTS

FOOTNOTES

- ① NOTCH AND TAPER END OF BEAM TO MATCH DEPTH OF DECK FRAMING - 7-1/4" MIN DEPTH, NO OVERCUTS
- ② BREAK TOP PLATE AND BEAR DIRECTLY TO POST
- ③ VERTICAL HTS30C - BEAM TO POST BELOW
- ④ HGA10 BEAM TO PLATE
- ⑤ PROVIDE FULL BEARING DIRECTLY UNDER END OF (E) BEAM TO NEW OR (E) FOUNDATION
- ⑥ PROVIDE 1/2" Ø x 8" TITEN HD AT 8"oc INTO (E) FOUNDATION WALL (4" MIN EMBED) - (3) SCREWS MIN
- ⑦ ALIGN HEADER DIRECTLY BELOW TOP PLATE TO ACCEPT STRAP FROM LOW B2 - PROVIDE (4) LTP4 HEADER TO TOP PLATE AND TOP PLATE TO HIGH B2 DS
- ⑧ LANDING FRMG CONSISTS OF 3/4" T&G APA RATED SHTG (SPAN RATING 48/24) OVER 2x8's AT 16"oc w/ LUS HGR'S TO 2x8 LEDGER w/ (3) 10d INTO EA STUD
- ⑨ POCKET BEAM INTO WALL w/ (2) BEARING STUDS AND (1) FULL HEIGHT STUD EACH SIDE
- ⑩ PROVIDE 2x BLOCKING BELOW WALL WITH LUS HANGER EACH END
- ⑪ NAIL SHEARWALL BOTTOM PLATE TO (E) JOIST OR PROVIDE CONT FLAT 2x4

LEGEND

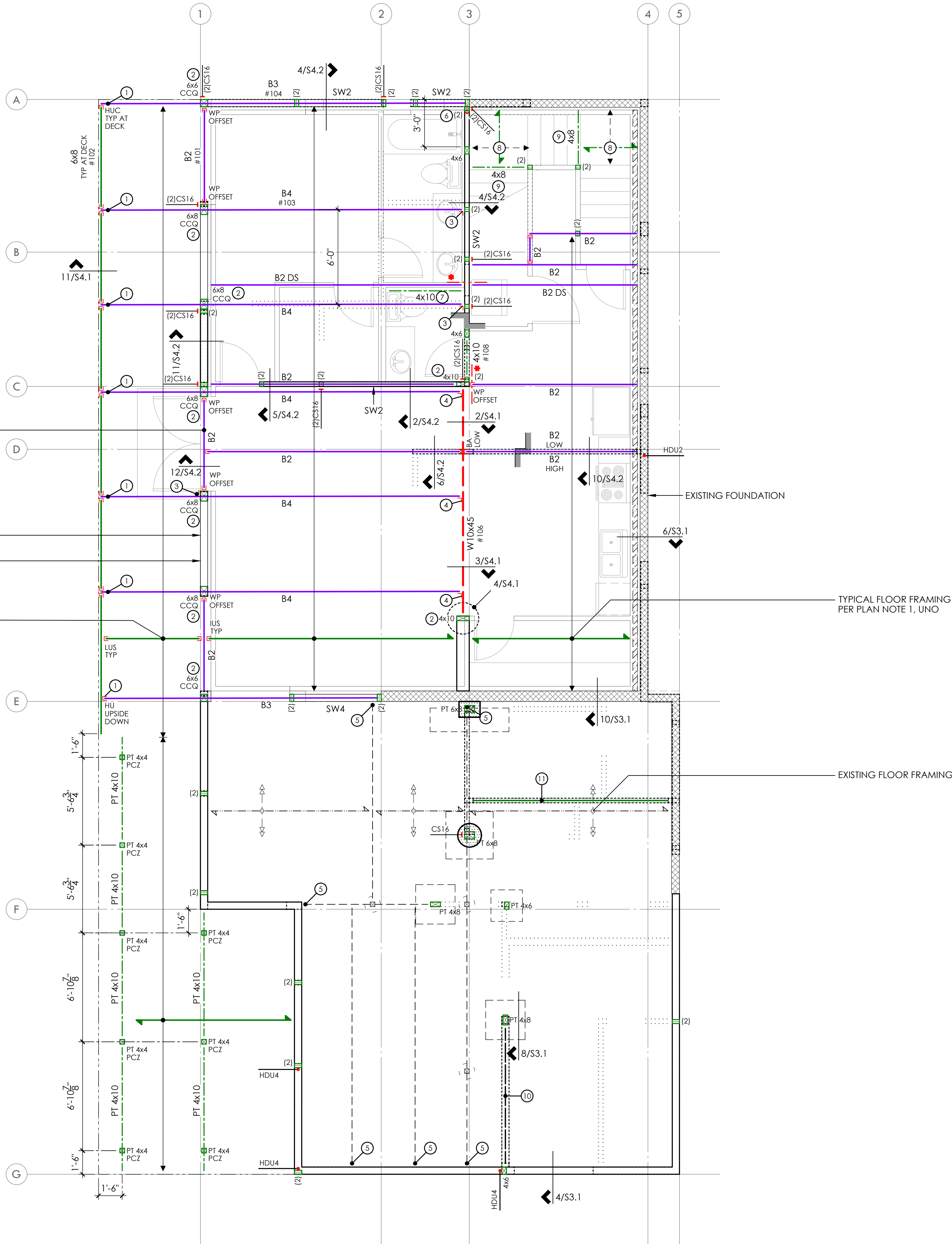
- CONCRETE WALL BELOW
(E) CONCRETE WALL BELOW
STRUCTURAL WALL BELOW
STRUCTURAL WALL ABOVE
(E) STRUCTURAL WALL BELOW
FRAME FUR WALL w/ (2) 2x6 STUDS AT 16"oc
STEP PER ARCH
SPAN AND EXTENTS
HEADER/BREAM BELOW FRAMING - TYP
(X) NUMBER OF BUILT UP STUDS
PLUMBING PENETRATION ABOVE
HORIZ CS16 x 3'-0" - BEAM TO BEAM

DS DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER

ALL REQUIRED HEADERS ARE SHOWN ON PLAN PER PLAN NOTE 5. TRUSS MFR TO DESIGN RIM TRUSS TO SPAN OVER EXT OPENINGS AND HANG TRUSSES TO RIM TRUSS OR BEAM WHERE HEADERS ARE NOT PROVIDED. UNO PROVIDE CS16 x 30" AT ALL RIM JOIST SPLICES

ALL EXTERIOR WALLS SW6 PER PLAN NOTE 4, UNO
TYPICAL WALL FRAMING PER PLAN NOTE 8, UNO

TYPICAL WATERPROOF DECK FRAMING PER PLAN NOTE 2, UNO



MATERIALS

- SAWN LUMBER
TRUSSES
ENGINEERED
GLU-LAM
STEEL MEMBER

FIRST FLOOR FRAMING PLAN

FIRST FLOOR WALLS SHOWN DASHED
BASEMENT WALLS SHOWN SOLID

PLAN NOTES

1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 14" TJI JOIST PER SCHEDULE. UNO. PROVIDE DBL JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
2. TYPICAL WATER PROOF DECK FRAMING CONSISTS OF PALLETIZED DECKING PER ARCH (5 PSF MAX) OVER 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER 2x12s AT 16"oc (TAPERED TO A MIN DEPTH OF 7-7/8").
3. GLUE AND NAIL FLOOR DECK SHEATHING w/ 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEAR WALLS AND AT 12"oc IN FIELD. UNO.
4. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6. UNO.
5. ALL REQUIRED HEADERS ARE SHOWN ON PLAN. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
6. PROVIDE (2) BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER. UNO.
7. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW. UNO.
8. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS. UNO.
9. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
10. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
11. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

FLUSH BEAM SCHEDULE

MARK	SIZE	BRG STUDS	HANGER - UNO
B1	LSL 1-3/4 x 14	2	HUS1.81/10
B2	LSL 3-1/2 x 14	2	HHUS410
B3	PSL 5-1/4 x 14	3	HGUS5.50/12
B4	PSL 7 x 14	4	HGUS7.25/12

- ① PROVIDE HUC410 WHERE REQUIRED - UNO

JOIST SCHEDULE ①②

MAX LENGTH	SIZE	SPACING	FACE MOUNT HANGER	TOP FLANGE HANGER
15'-6"	14" TJI 110	16"oc	IUS1.81/14	ITS1.81/14
16'-0"	14" TJI 210	16"oc	IUS2.06/14	ITS2.06/14
16'-6"	14" TJI 230	16"oc	IUS2.37/14	ITS2.37/14
17'-6"	14" TJI 360	16"oc	IUS2.37/14	ITS2.37/14
19'-3"	14" TJI 560	16"oc	IUS3.56/14	ITS3.56/14

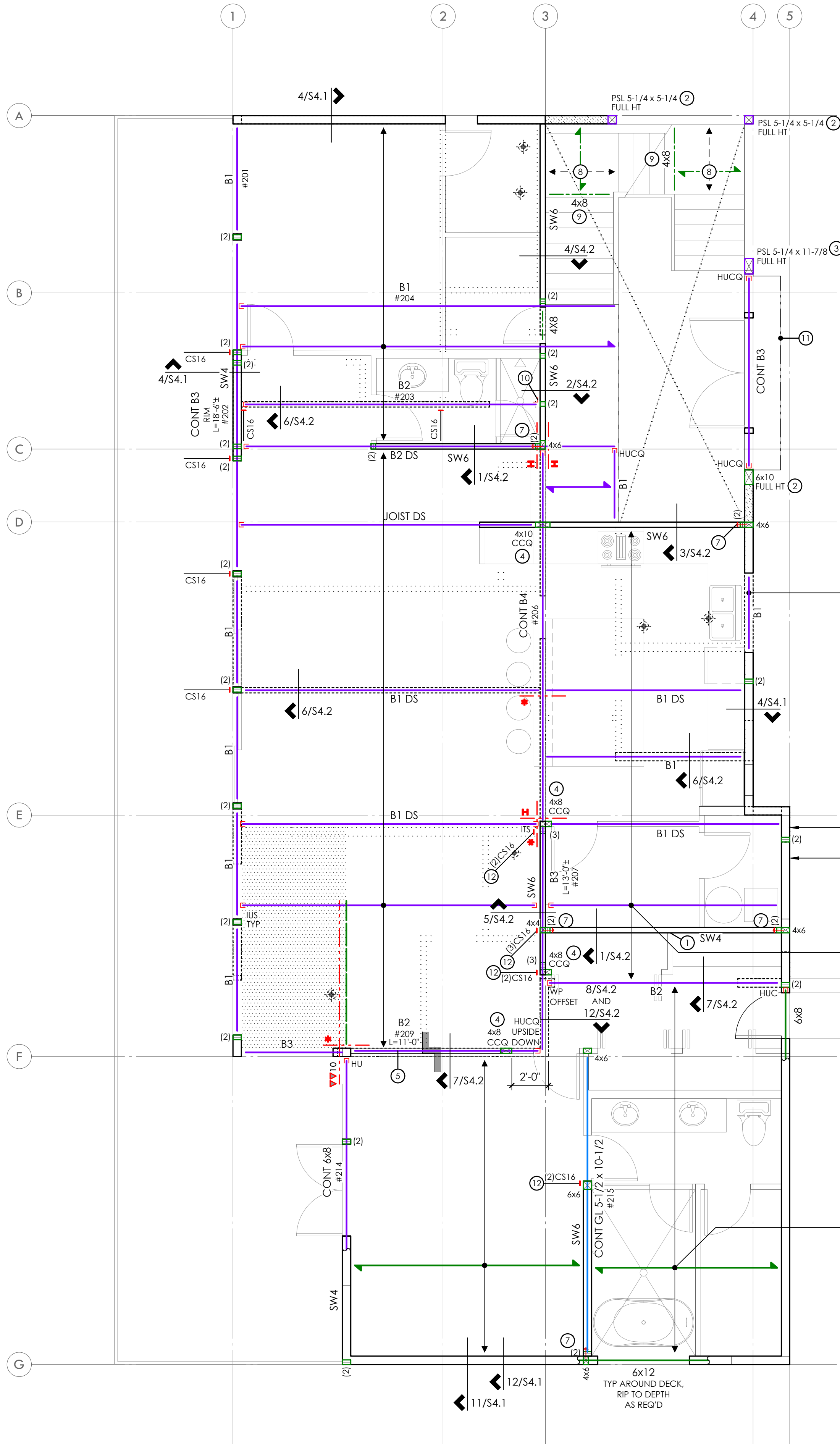
- ① DESIGN BASED ON DL=15 PSF, LL=40 PSF. Δ LL< L/480. TJ-PRO RATING OF 55
② SHEETROCK CEILING APPLIED TO BOTTOM FACE OF JOISTS

FOOTNOTES

- ① SHEARWALL SHEATHING CONTINUOUS THRU WALL INTERSECTION
- ② PROVIDE (2) A35 TOP AND BOTTOM OF POST
- ③ PROVIDE (2) HGA10 TOP AND BOTTOM OF POST
- ④ BREAK TOP PLATE AND BEAR BEAM DIRECTLY TO POST
- ⑤ PAD THIS FACE OF BEAM w/ 2x MATERIAL AS REQ'D
- ⑥ NOT USED
- ⑦ PROVIDE 0.22"Ø x 6" SDWS TIMBER SCREWS AT 18"oc FULL HT OF STUDS TO POST - (6) SCREWS MIN
- ⑧ LANDING FRMG CONSISTS OF 3/4" T&G APA RATED SHTG (SPAN RATING 48/24) OVER 2x8's AT 16"oc w/ LUS HGR'S TO 2x8 LEDGER w/ (3) 10d INTO EA STUD
- ⑨ POCKET BEAM INTO WALL w/ (2) BEARING STUDS AND (1) FULL HEIGHT STUD EACH SIDE
- ⑩ VERTICAL HTS30C - BEAM TO POST BELOW
- ⑪ LOW ROOF FRAMING CONSISTS OF 7/16" OR 1/2" APA RATED SHEATHING (SPAN RATING 32/16) OVER TAPERED 2x12's AT 24"oc - PROVIDE DT2Z w/ 1/2"Ø THREADED ROD w/ 2" SQ WASHER AT 4'-0"oc THRU RIM BEAM
- ⑫ LAP POST AND WRAP STRAP UP AND OVER FLOOR BEAM ABOVE SHEARWALL

LEGEND

	STRUCTURAL WALL BELOW		STRUCTURAL WALL ABOVE		BLOCK DIAPHRAGM - PROVIDE FLAT 2x4 BLKG w/ 8d AT 4"oc AT ALL PANEL EDGES AND 8d AT 12"oc IN THE FIELD
	BALLOON FRAME WALL w/ (2) 2x6 STUDS AT 16"oc				
	STEP PER ARCH				
	SPAN AND EXTENTS				
	SPAN AND EXTENTS OF FRAMING BELOW				
	HEADER/BEAM BELOW FRAMING - TYP				
(x)	NUMBER OF BUILT UP STUDS				
	PLUMBING PENETRATION ABOVE				
	HORIZ CS16 x 3'-0" - BEAM TO BEAM/PLATE TO PLATE				
	HORIZ CS16 x X'-0" OVER FLOOR SHEATHING - LAP RIM/BEAM 1'-6" AND NAIL REMAINING LENGTH TO SNUG FIT FLAT 2x6 BLOCKING BETWEEN JOISTS				
	HTS30C - BEAM TO TOP PLATE				
DS	DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER				



ALL REQUIRED HEADERS ARE SHOWN ON PLAN PER PLAN NOTE 5. CONT RIM TO SPAN OVER EXT OPENINGS AND HANG JOISTS TO RIM OR BEAM w/ IUS SERIES HANGER WHERE HEADERS ARE NOT PROVIDED. UNO PROVIDE CS16 x 30" AT ALL RIM JOIST SPLICES

ALL EXTERIOR WALLS SW6 PER PLAN NOTE 4, UNO
TYPICAL WALL FRAMING PER PLAN NOTE 8, UNO

TYPICAL FLOOR FRAMING PER PLAN NOTE 1, UNO

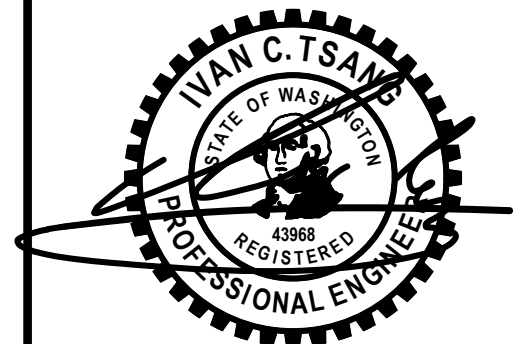
TYPICAL WATERPROOF DECK FRAMING PER PLAN NOTE 2, UNO

MATERIALS

SAWN LUMBER
TRUSSES
ENGINEERED
GLU-LAM
STEEL MEMBER

SECOND FLOOR FRAMING PLAN

SECOND FLOOR WALLS SHOWN DASHED
FIRST FLOOR WALLS SHOWN SOLID



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
PERMIT SET		2.7.25
PLAN REVISIONS		8.28.25

ARCH V SQUARED
206.657.7297

SECOND FLOOR
FRAMING PLAN

Copyright © 2025 MALSAM TSANG ENGINEERING CORPORATION. ALL RIGHTS RESERVED

PLAN NOTES

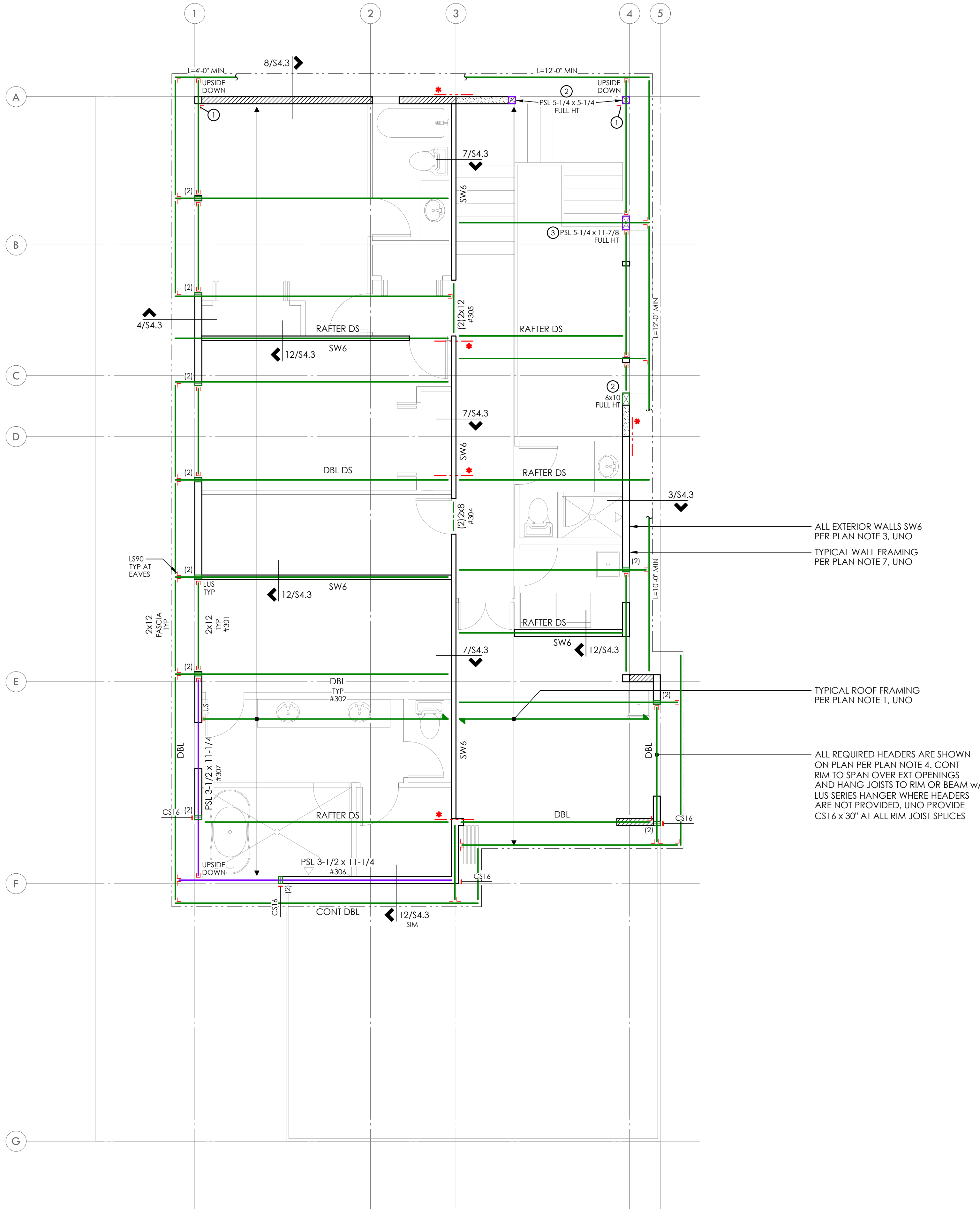
1. TYPICAL ROOF FRAMING CONSISTS OF 7/16" or 1/2" APA RATED SHEATHING (SPAN RATING 32/16) OVER 2x12's (DF #2) AT 24"oc, UNO. PROVIDE H2.5A CLIPS EACH END OF ALL RAFTERS, H2.5A EACH SIDE OF MULTIPLE RAFTERS, UNO.
2. NAIL ROOF SHEATHING w/ 8d AT 6" oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12"oc IN FIELD, UNO.
3. "SW_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 4/S4.0 FOR ADDITIONAL INFORMATION. ALL EXTERIOR WALLS ARE SW6, UNO.
4. ALL REQUIRED HEADERS ARE SHOWN ON PLAN. REFER TO DETAIL 8/S4.0 FOR ADDITIONAL REQUIREMENTS.
5. PROVIDE (2) BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
6. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
7. TYPICAL WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
8. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
9. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL REQUIREMENTS.
10. DO NOT SCALE DRAWINGS. REFER TO ARCH DRAWINGS FOR ALL DIMENSIONS.

FOOTNOTES

- ① VERTICAL HTS30C - CANTILEVER RAFTER TO POST BELOW
- ② PROVIDE (2) A35 TOP AND BOTTOM OF POST
- ③ PROVIDE (2) HGA10 TOP AND BOTTOM OF POST

LEGEND

- STRUCTURAL WALL BELOW
- RAKED STRUCTURAL WALL
- BALLOON FRAME WALL w/ (2) 2x6 STUDS AT 16"oc
- SPAN AND EXTENTS
- HEADER/BEAM BELOW FRAMING - TYP
- DIRECTION OF SLOPE
- NUMBER OF BUILT UP STUDS
- HORIZ CS16 x 3'-0" - DS TO DS/PLATE TO PLATE
- HORIZ CS16 x X'-0" OVER ROOF SHEATHING - LAP BLOCKING 1'-6" AND NAIL REMAINING LENGTH TO SNUG FIT FLAT 2x6 BLOCKING BETWEEN JOISTS
- DRAG STRUT - NAIL THRU SHEATHING w/ 8d AT 4"oc INTO ENTIRE LENGTH OF MEMBER

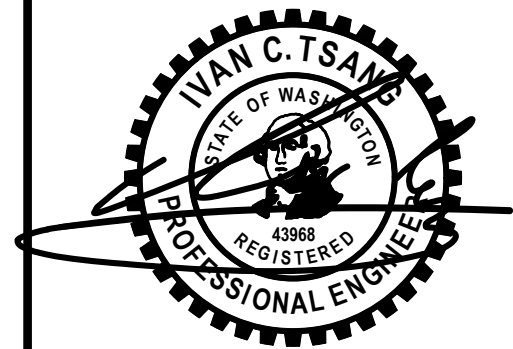


MATERIALS

- SAWN LUMBER
- TRUSSES
- ENGINEERED
- GLU-LAM
- STEEL MEMBER

ROOF FRAMING PLAN

SECOND FLOOR WALLS SHOWN SOLID

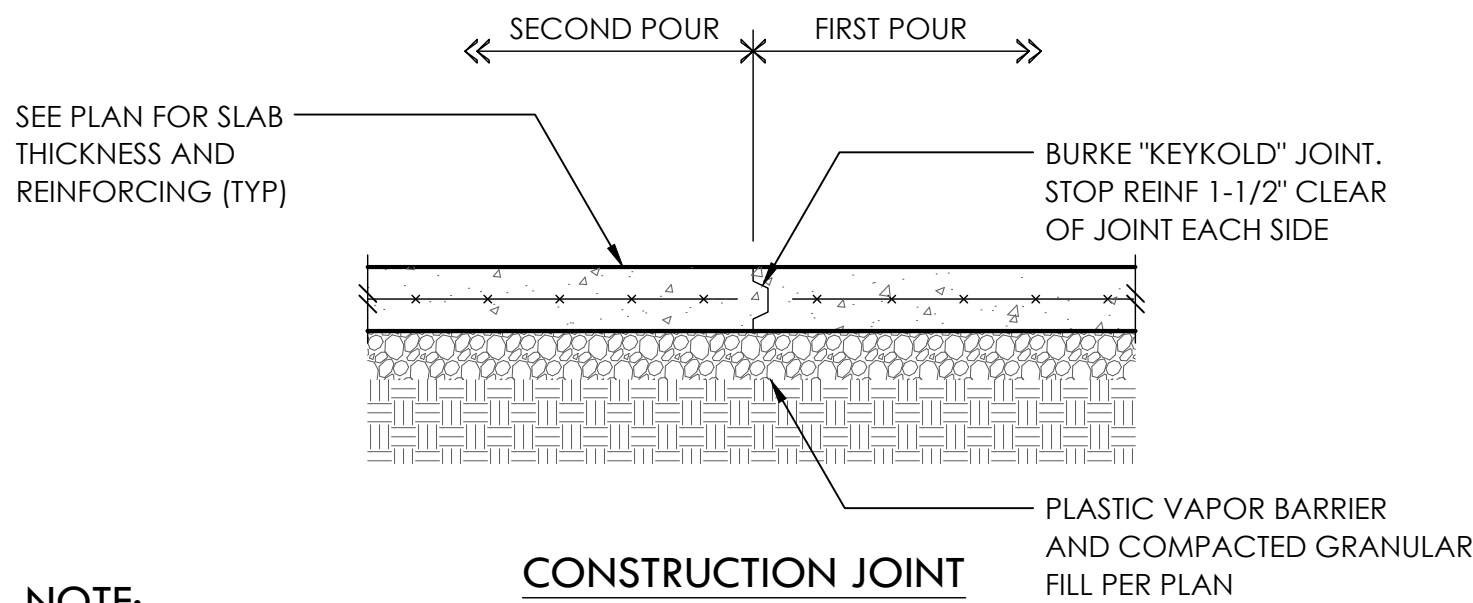
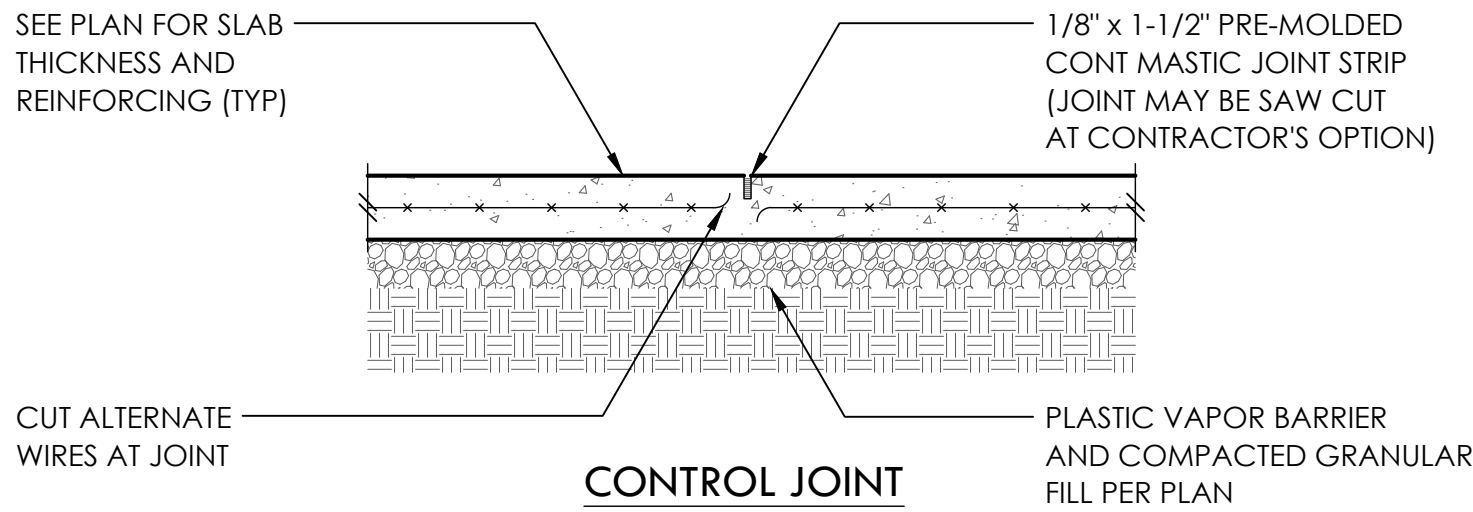


PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
PERMIT SET		2.7.25
PLAN REVISIONS		8.28.25

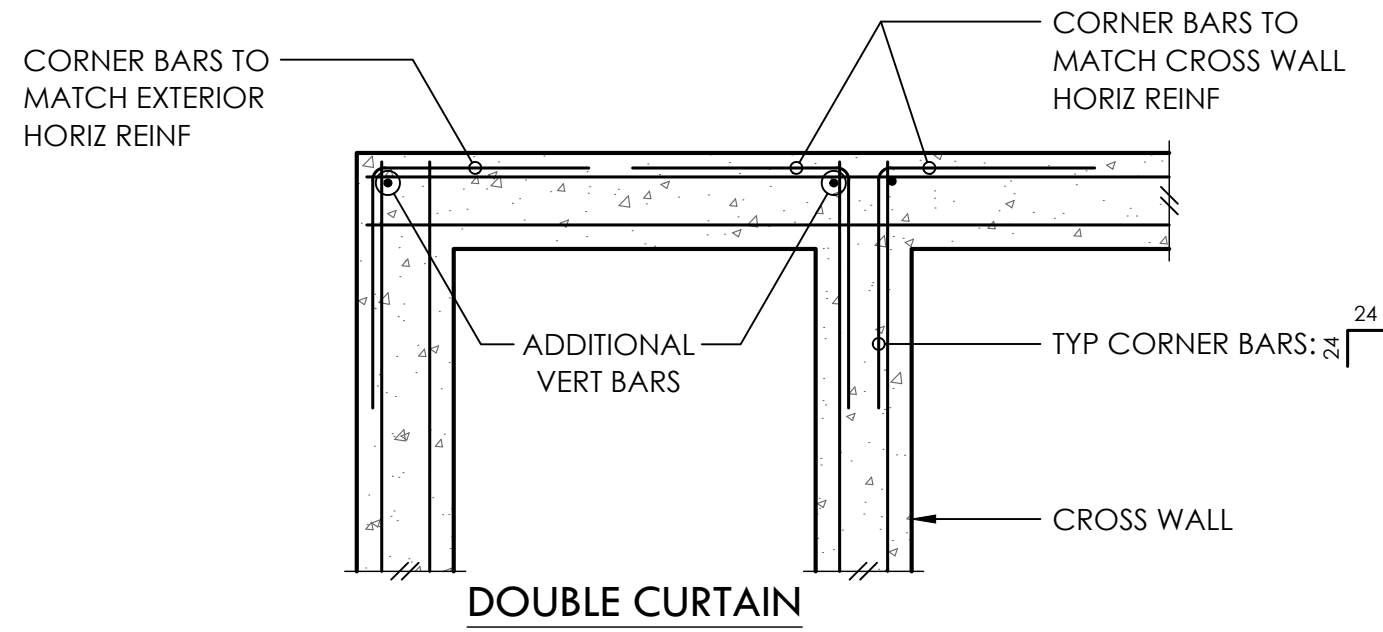
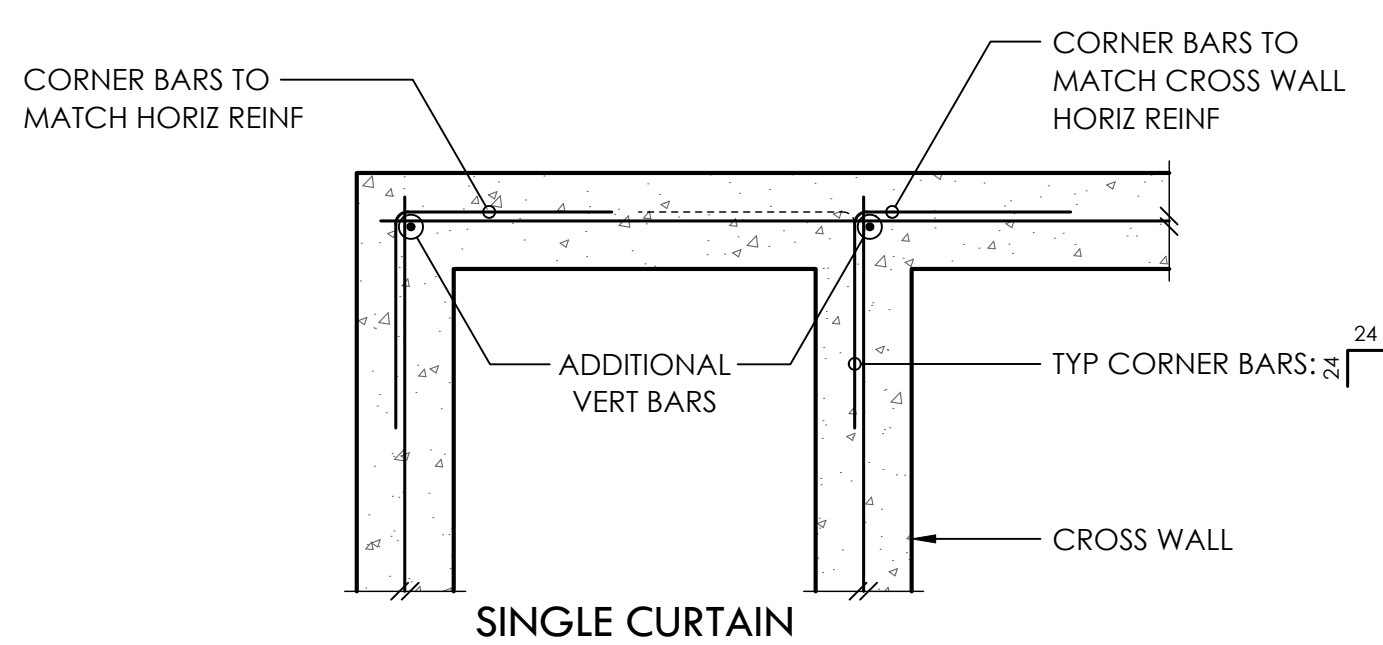
ARCH V SQUARED
206.657.7297

ROOF FRAMING PLAN

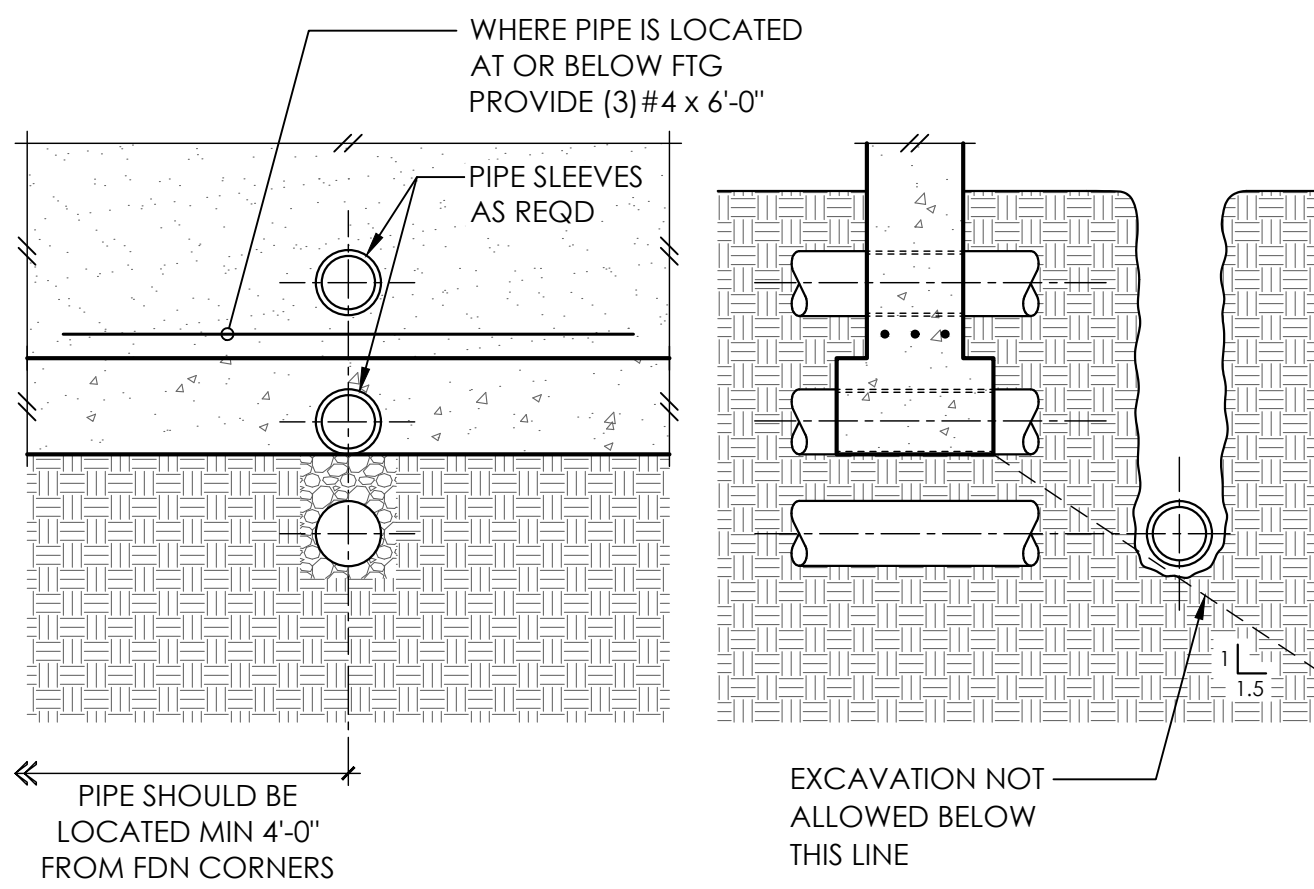


NOTE:
PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 200 SQUARE FEET OR LESS. AREAS TO BE APPROX SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

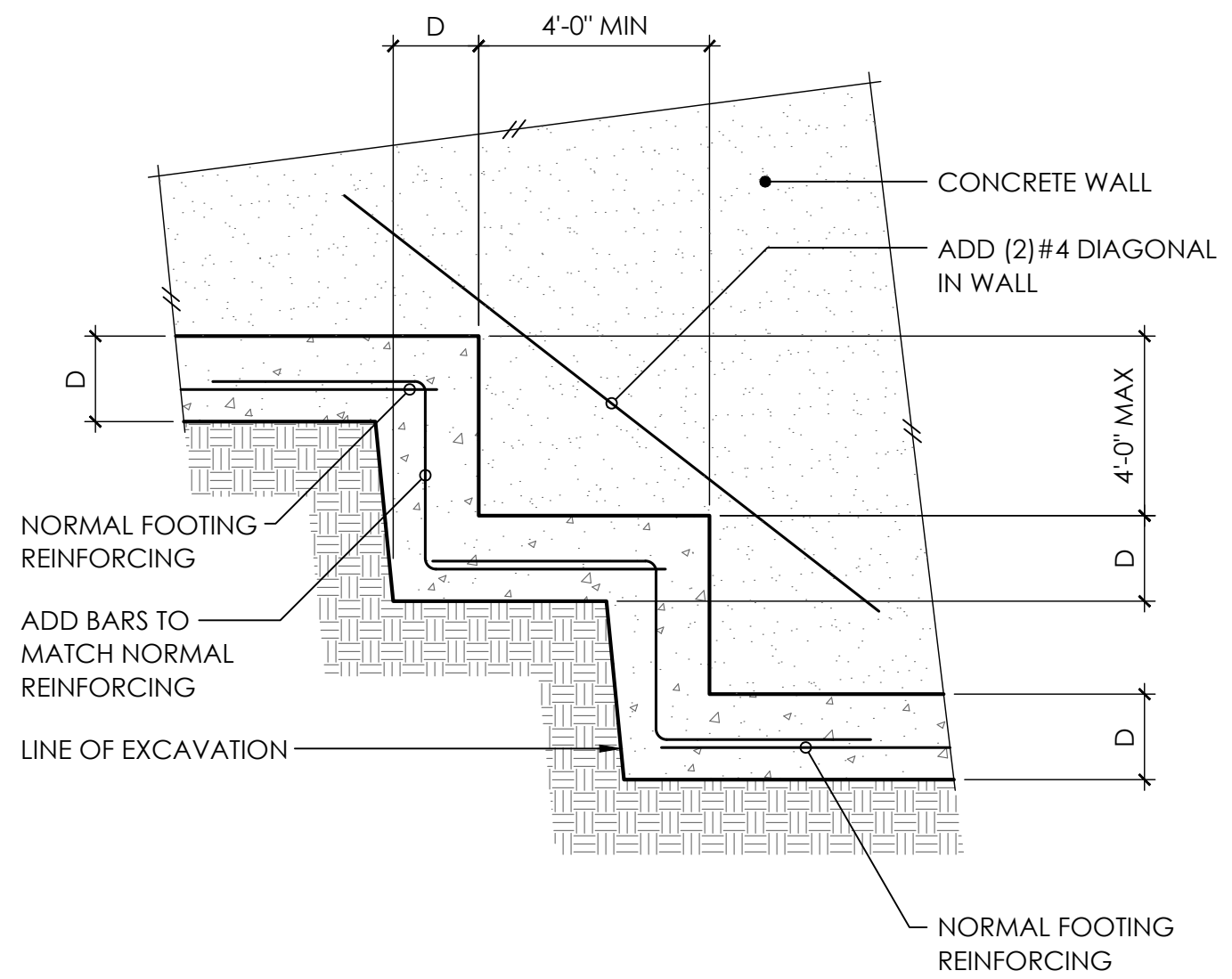
TYPICAL SLAB JOINTS



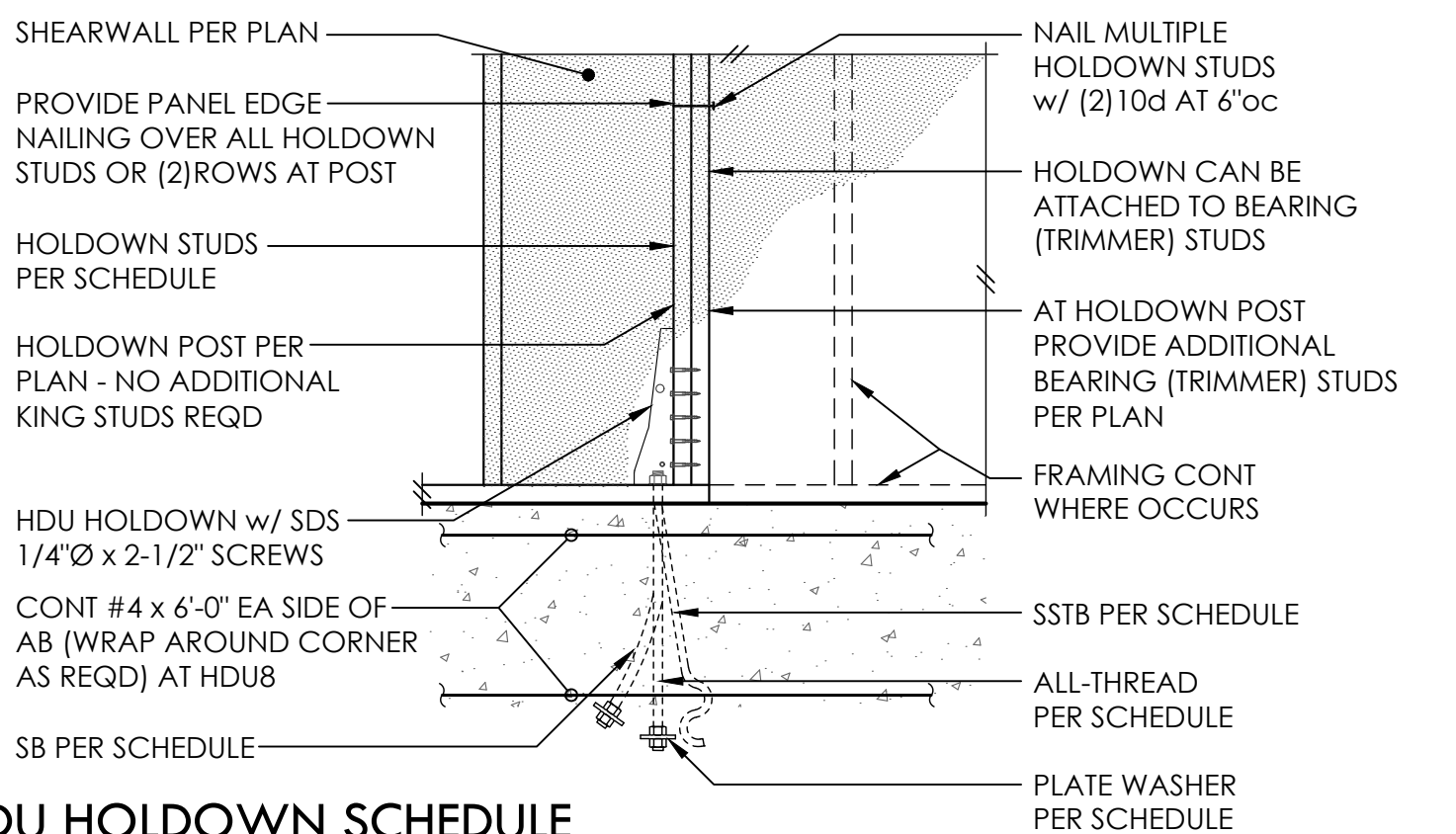
TYP CORNER BARS AT CONCRETE WALLS AND FTGS



PIPE AND TRENCH LOCATIONS



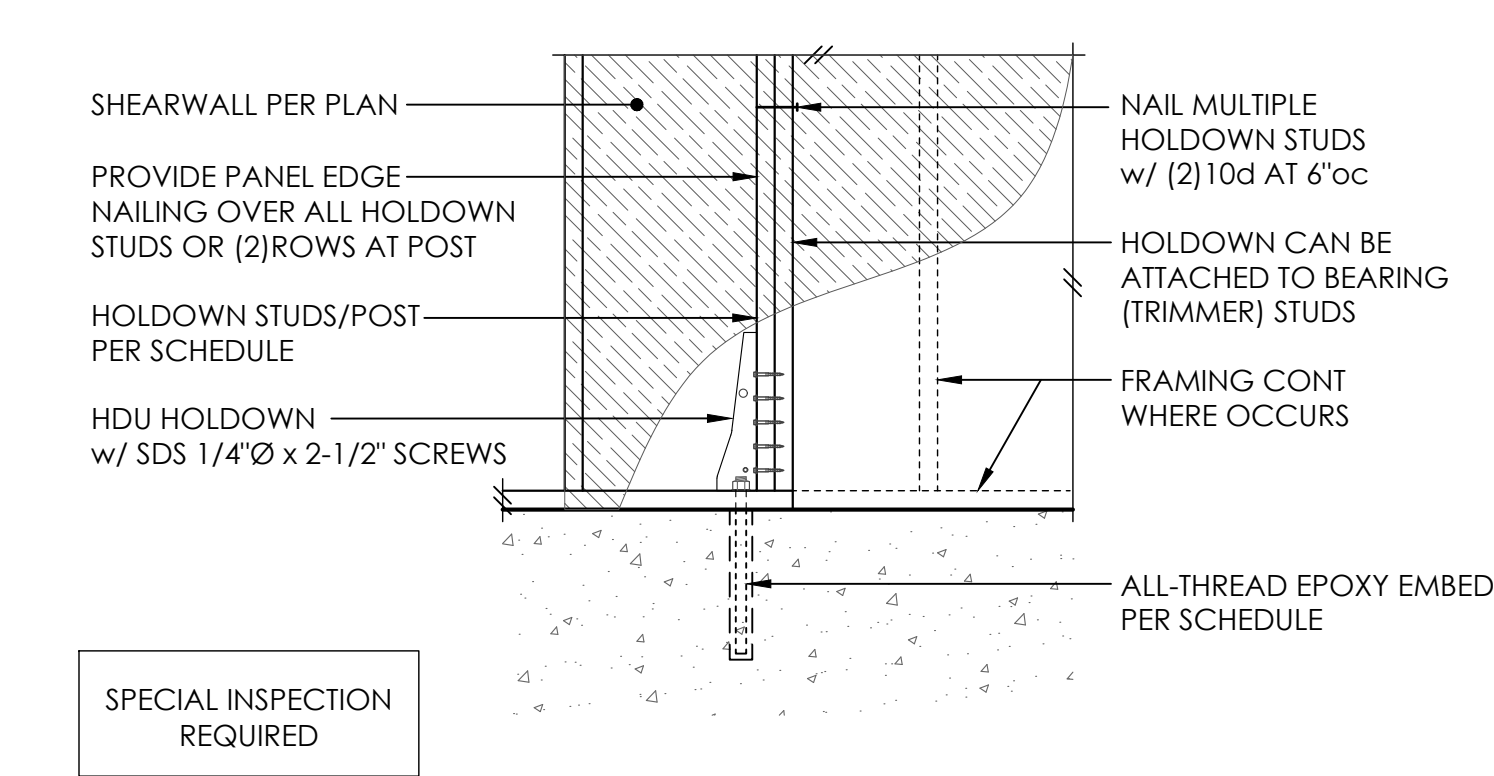
TYPICAL STEPPED FOOTING



HDU HOLDOWN SCHEDULE

PLAN MARK	AT STEMWALL		AT FOOTINGⓐⓑ				HD POSTⓐ	
	AB	EMBED	ALL-THREAD	WASHER	EMBED	4x WALL	6x WALL	
HDU2	5/8\"	12-5/8\"	5/8\"	1-3/4\"SQ x 1/2	9\"	(2)2x4	(2)2x6	
HDU4	5/8\"	18\"	5/8\"	1-3/4\"SQ x 1/2	9\"	(2)2x4	(2)2x6	
HDU5	5/8\"	18\"	5/8\"	1-3/4\"SQ x 1/2	9\"	(2)2x4	(2)2x6	
HDU8	7/8\"	18\"	7/8\"	2-1/2\"SQ x 1/2	12\"	4x6	6x6	

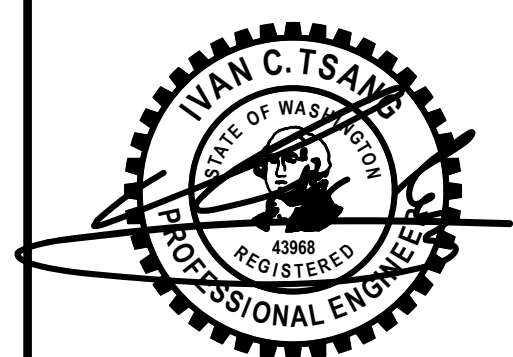
- ⓐ ALL HOLDOWN ANCHOR BOLTS THAT NEED TO BE EMBEDDED INTO FOOTING ARE SPECIFICALLY SHOWN ON PLAN
ⓑ A307 ALL-THRD w/ PLATE WASHER PER SCHEDULE AND DOUBLE NUT BOT OR EQUIVALENT SIMPSON PAB
ⓒ MINIMUM SIZE OF POST UNO ON FRAMING PLANS



HDU HOLDOWN SCHEDULE

PLAN MARK	AT STEMWALL		AT FOOTINGⓐ		HD POSTⓐ	
	ABⓐ	EMBED	ALL-THREAD	EMBED	4x WALL	6x WALL
HDU2	5/8\"	12\"	5/8\"	9\"	(2)2x4	(2)2x6
HDU4	5/8\"	12\"	5/8\"	9\"	(2)2x4	(2)2x6
HDU5	5/8\"	12\"	5/8\"	9\"	(2)2x4	(2)2x6

- ⓐ A307 ALL-THREAD AND MAINTAIN 1-3/4\"



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
1	PERMIT SET	2.7.25
2	PLAN REVISIONS	8.28.25

ARCH V SQUARED
206.657.7297

TYPICAL CONCRETE DETAILS

S3.0
SCALE - 3/4\"



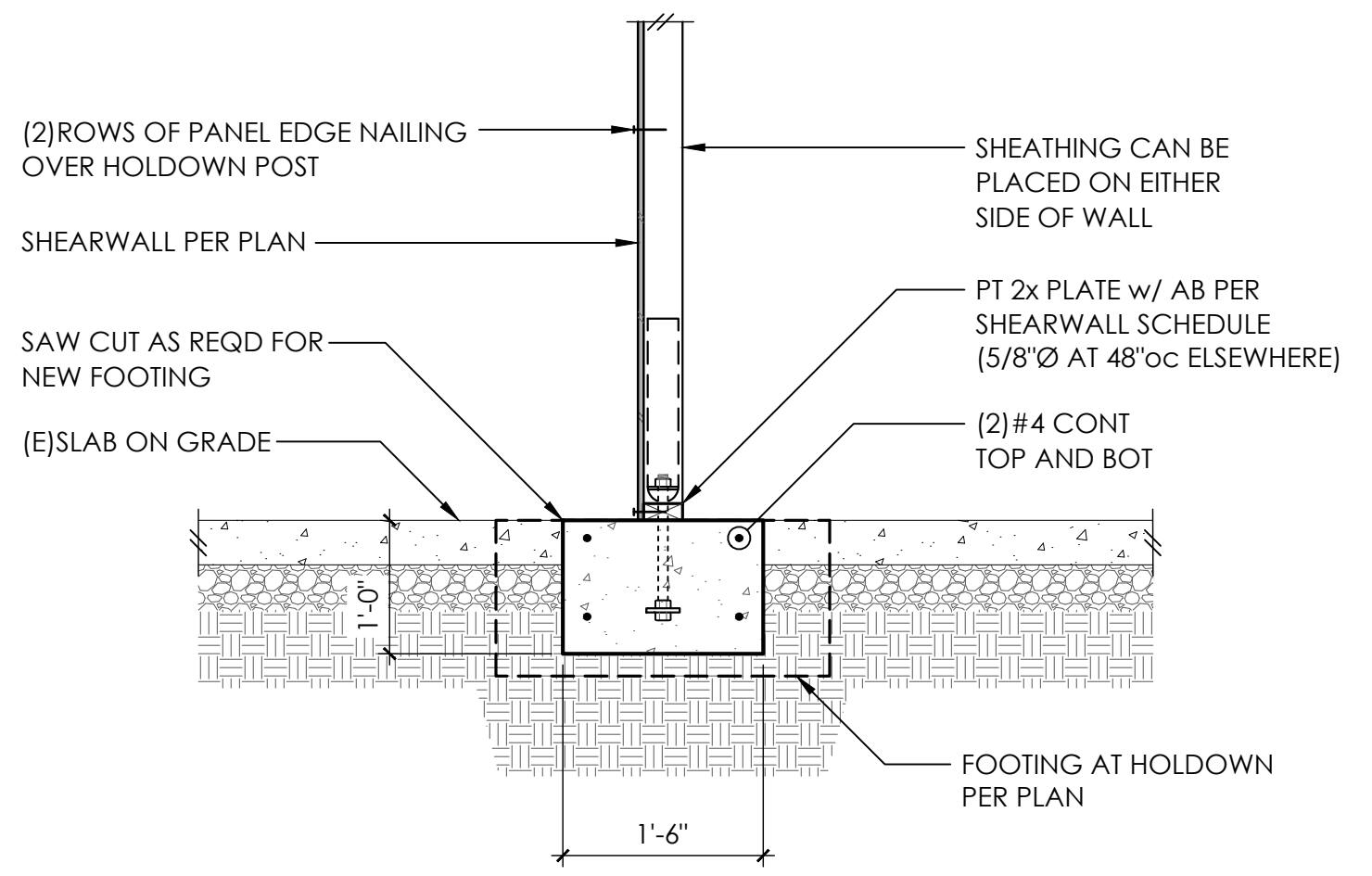
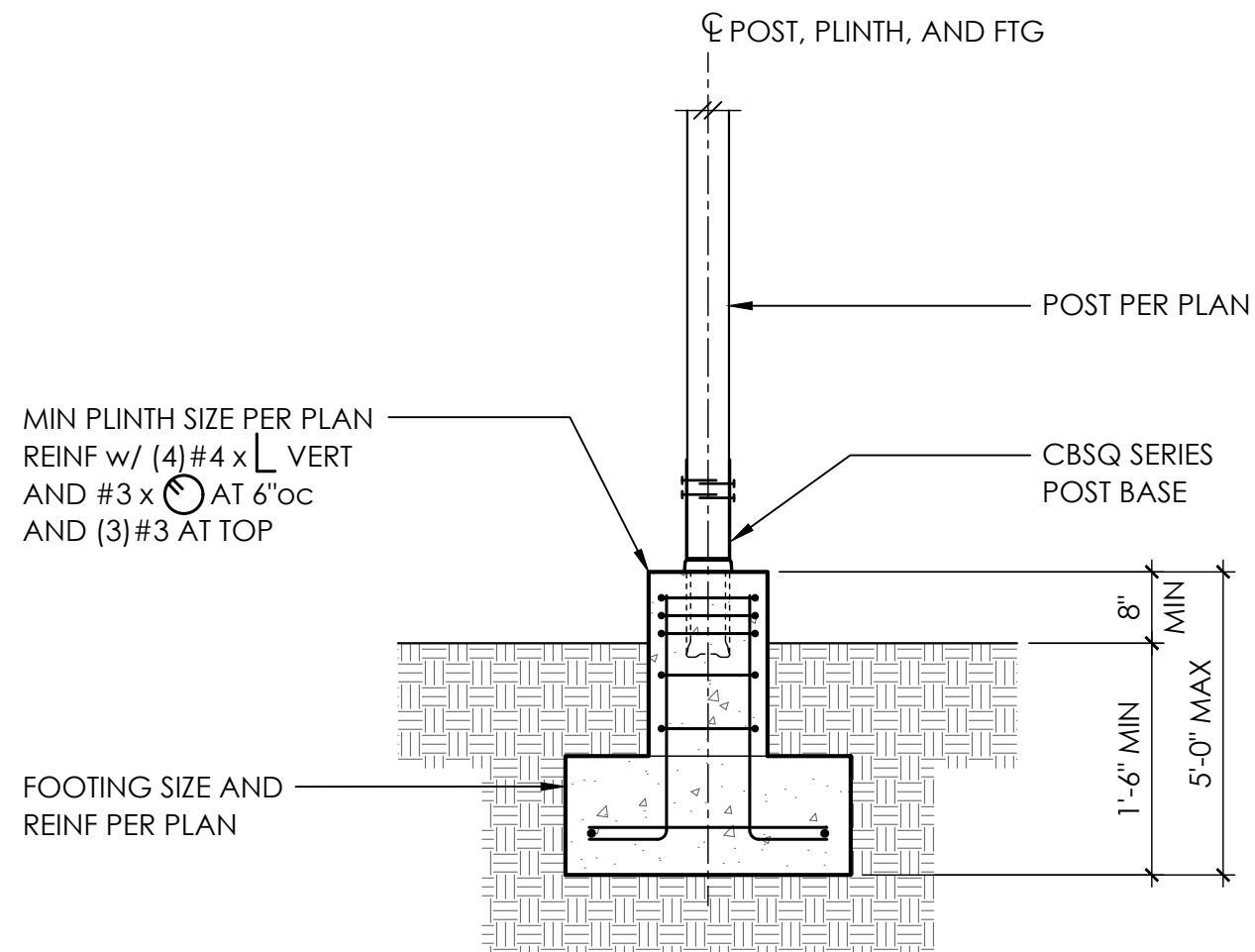
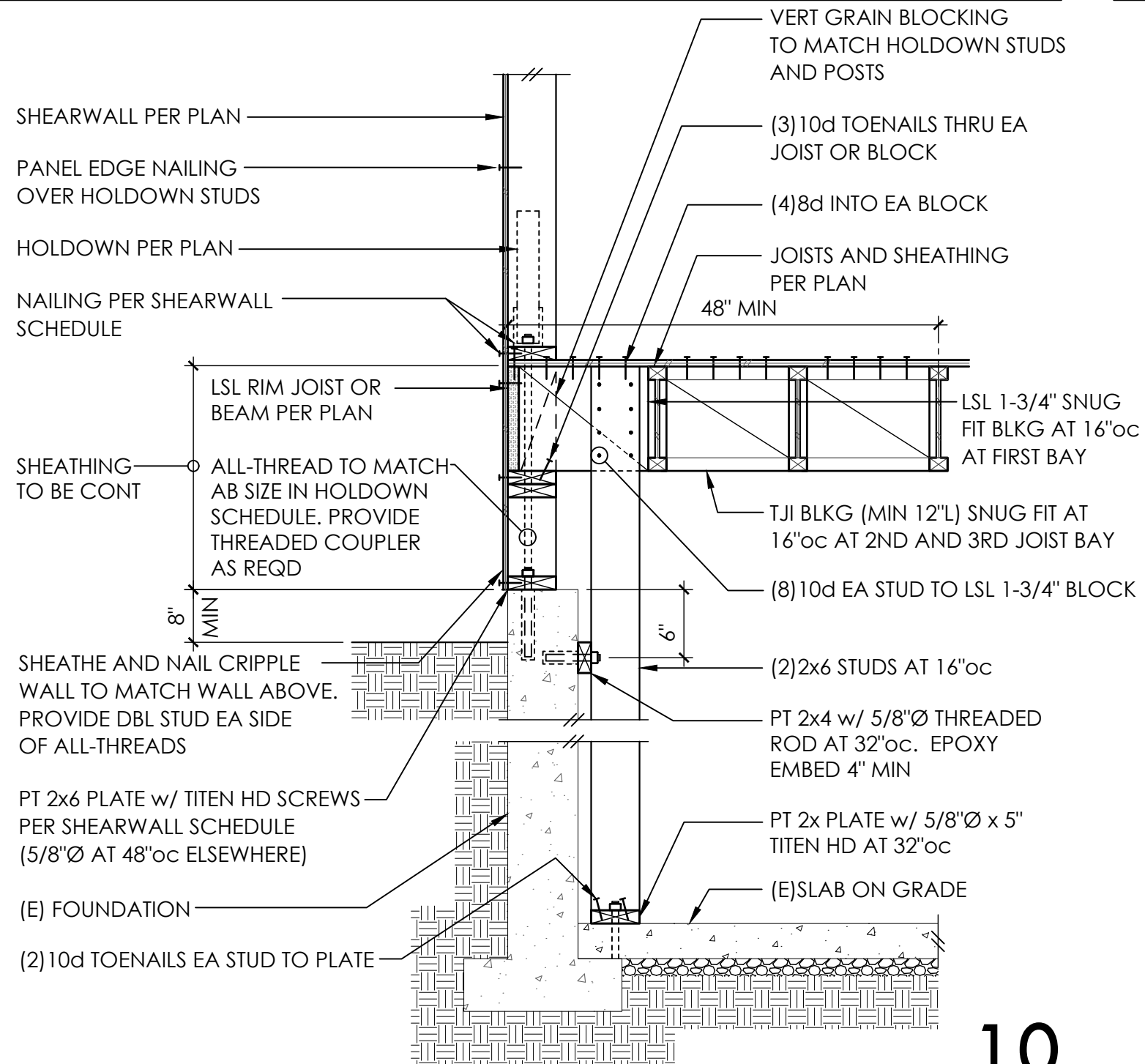
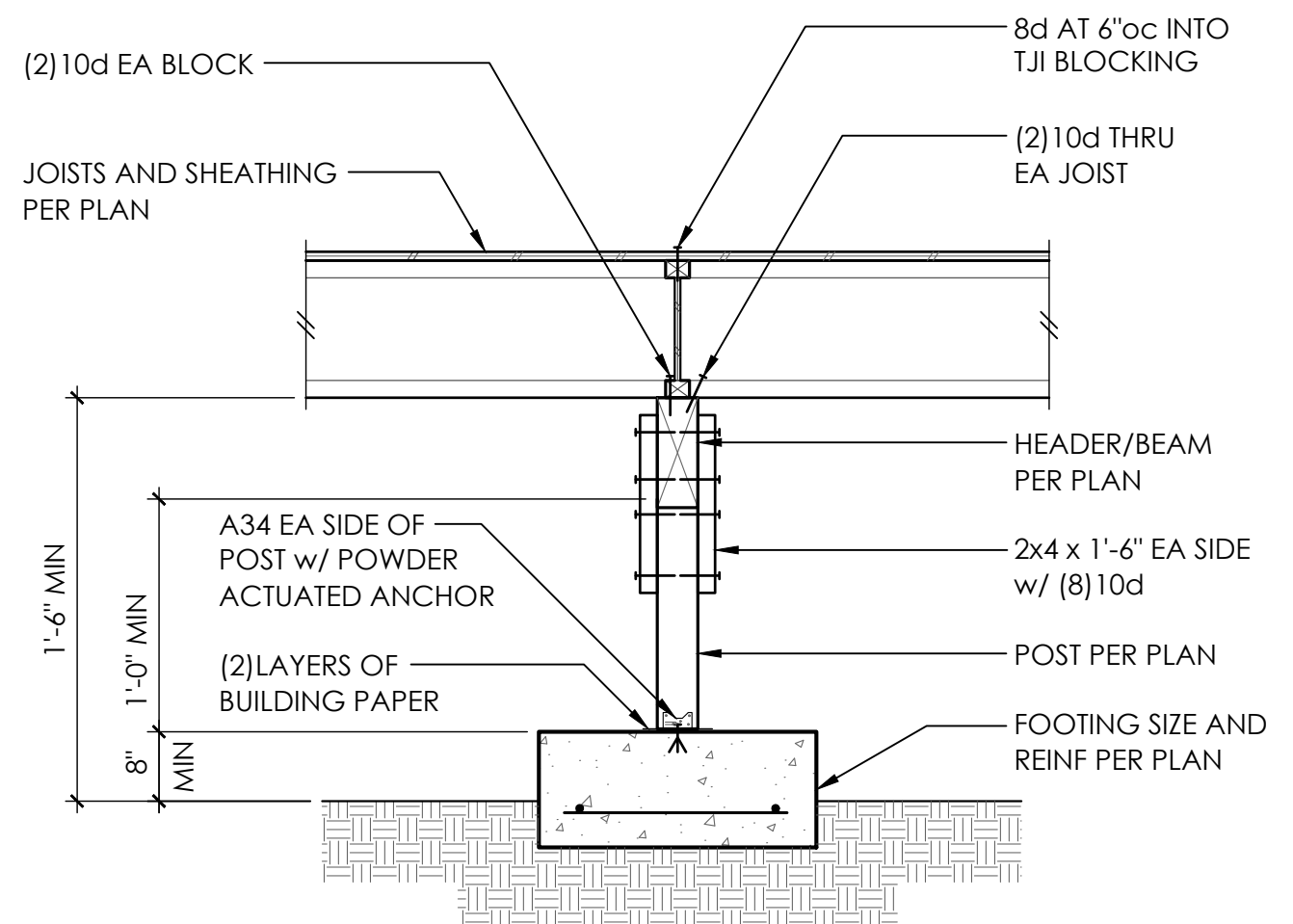
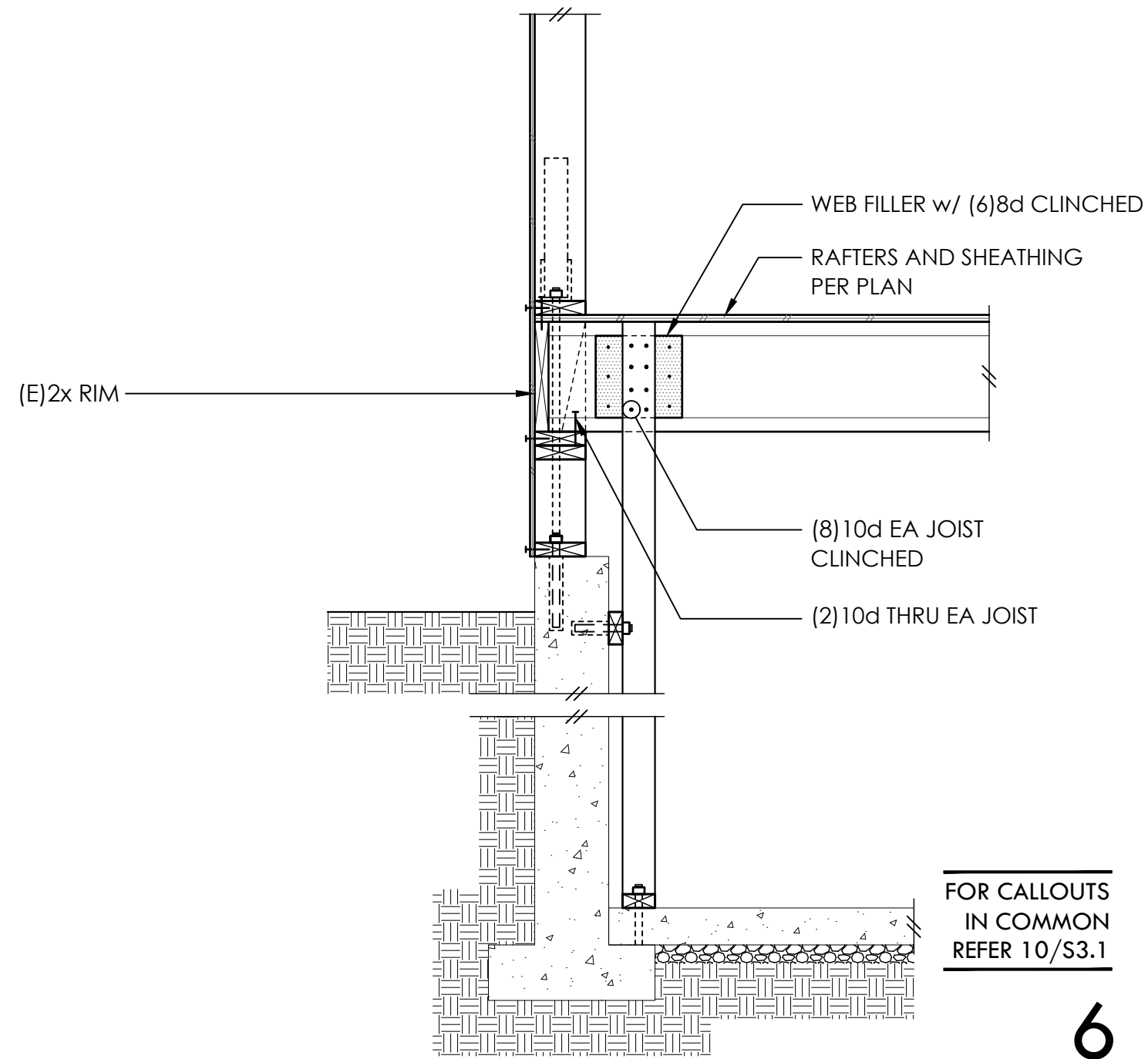
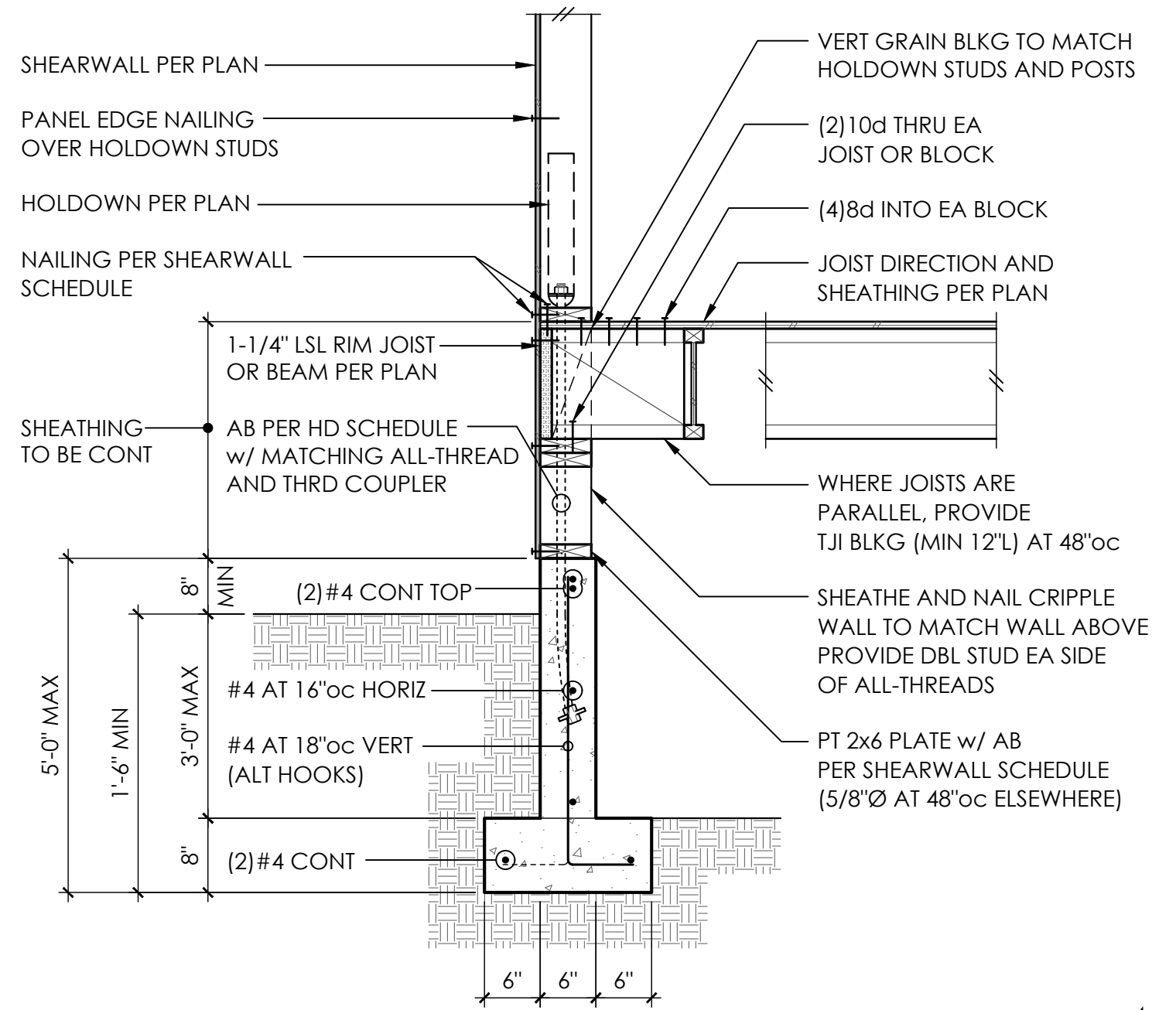
PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
PERMIT SET		2.7.25
PLAN REVISIONS		8.28.25

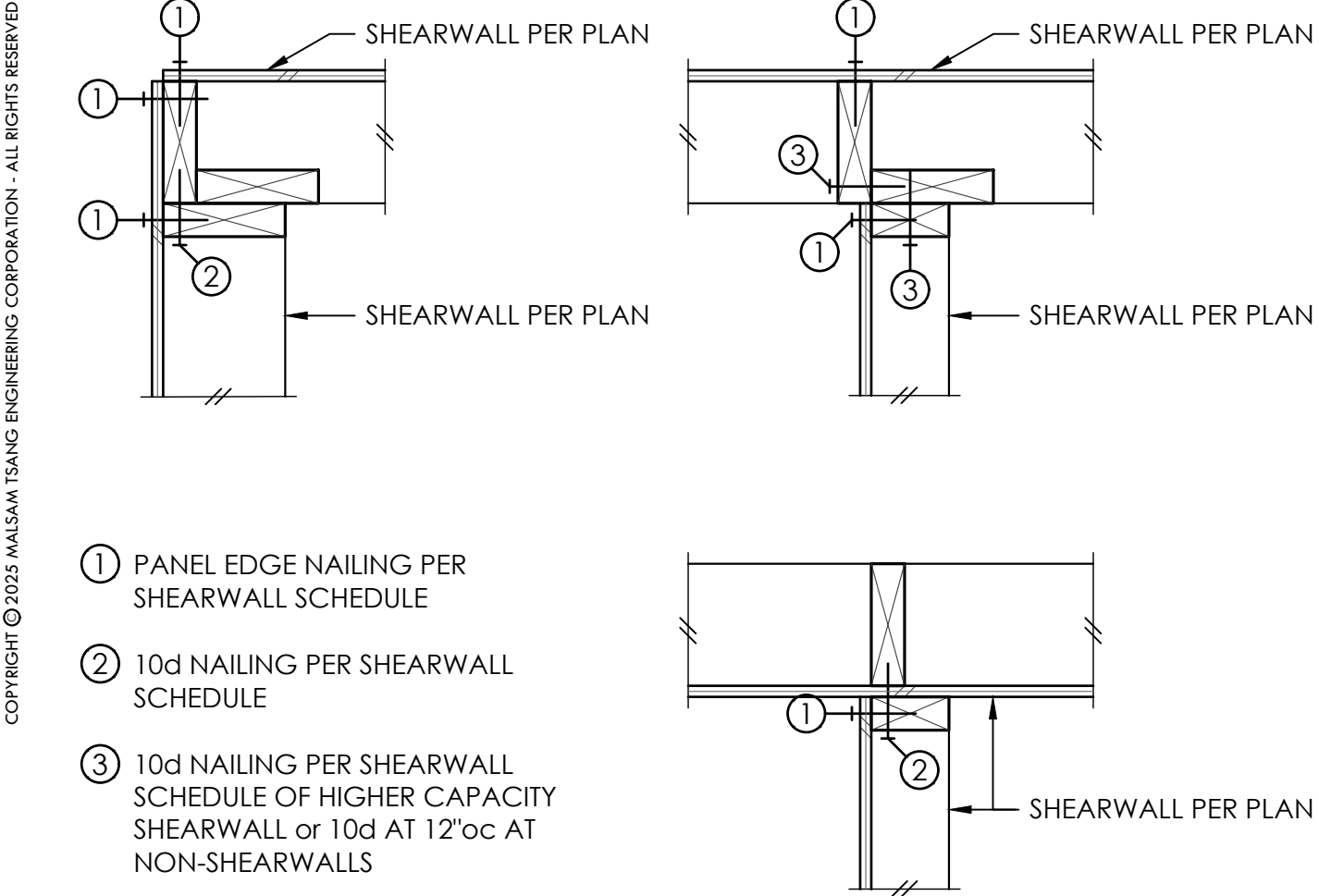
ARCH V SQUARED
206.657.7297

CONCRETE DETAILS

S3.1
SCALE - 3/4" = 1'-0"



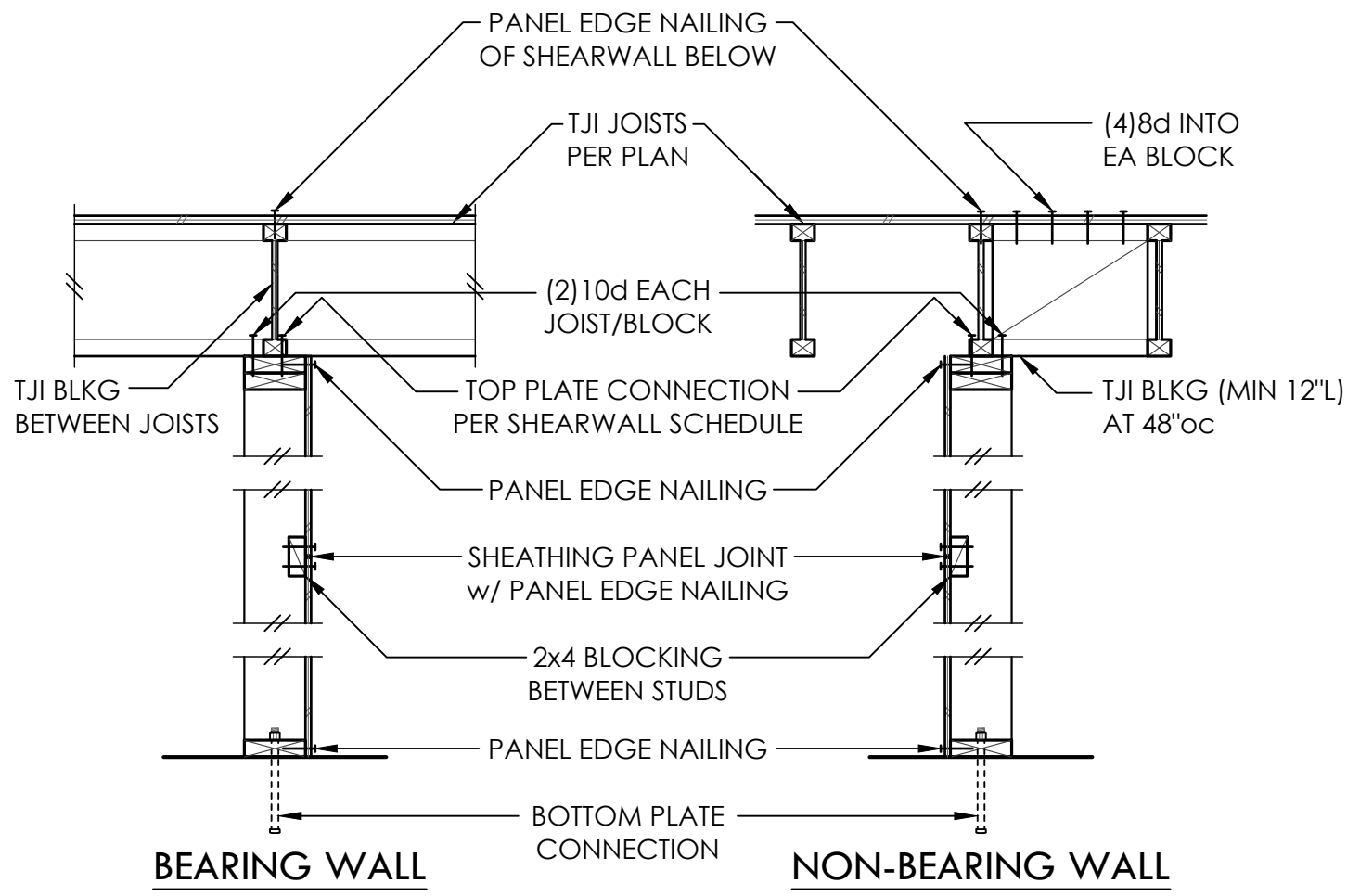
COPYRIGHT © 2025 MALSAM TSANG ENGINEERING CORPORATION. ALL RIGHTS RESERVED



SCALE: 1-1/2" = 1'-0"

TYPICAL SHEARWALL INTERSECTIONS

1

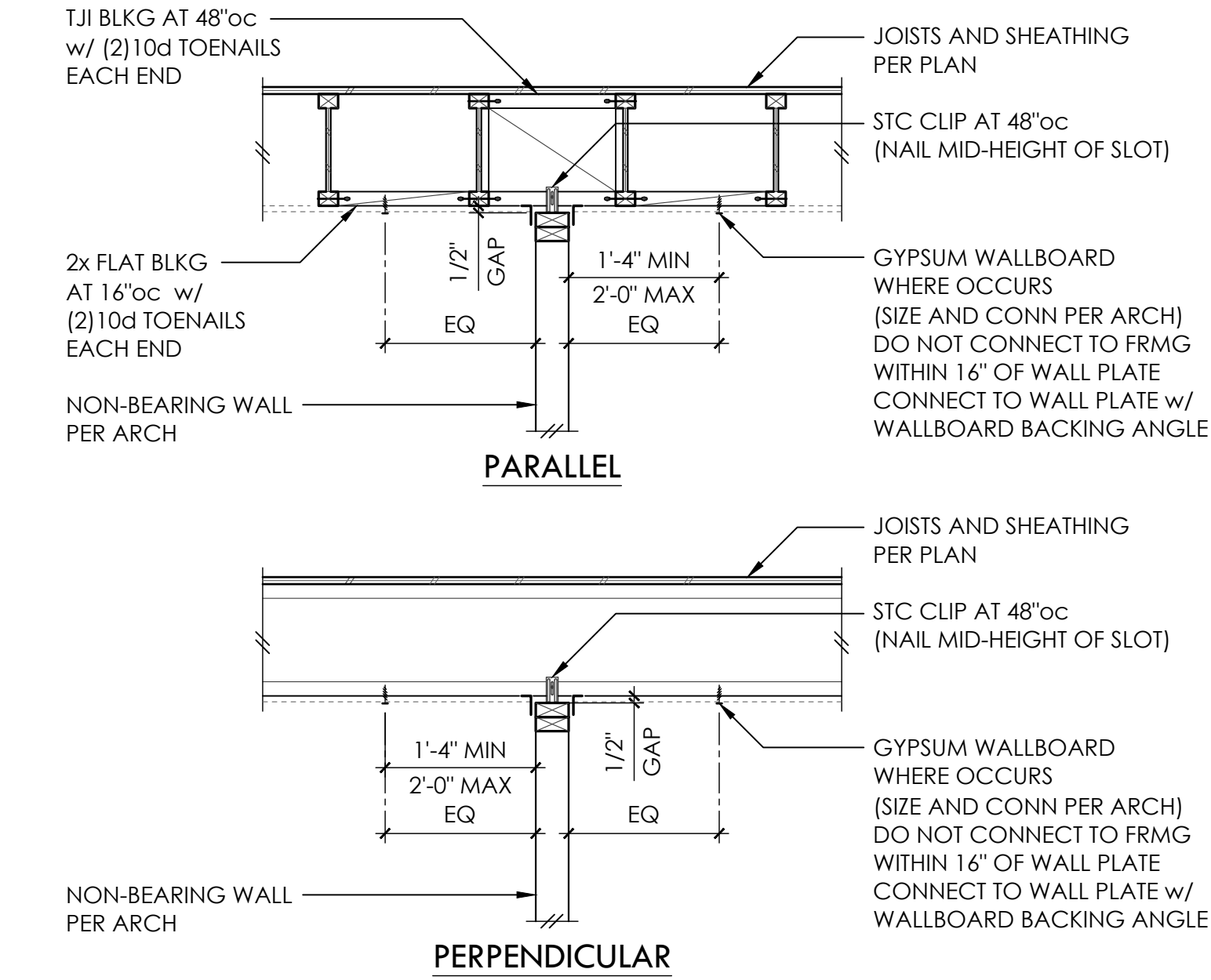


NOTE:

SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS, UNO

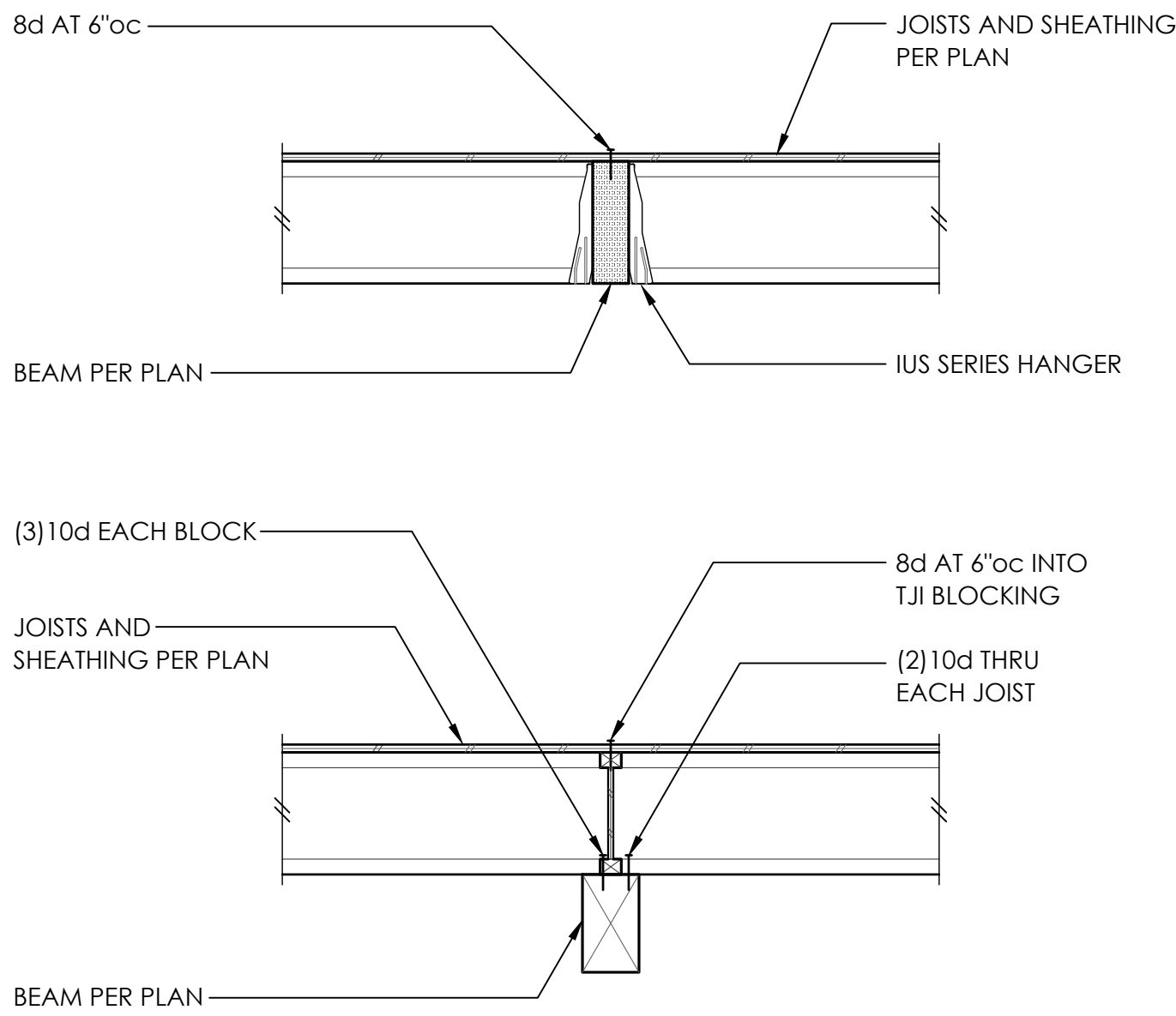
TYPICAL SHEARWALL CONSTRUCTION

2



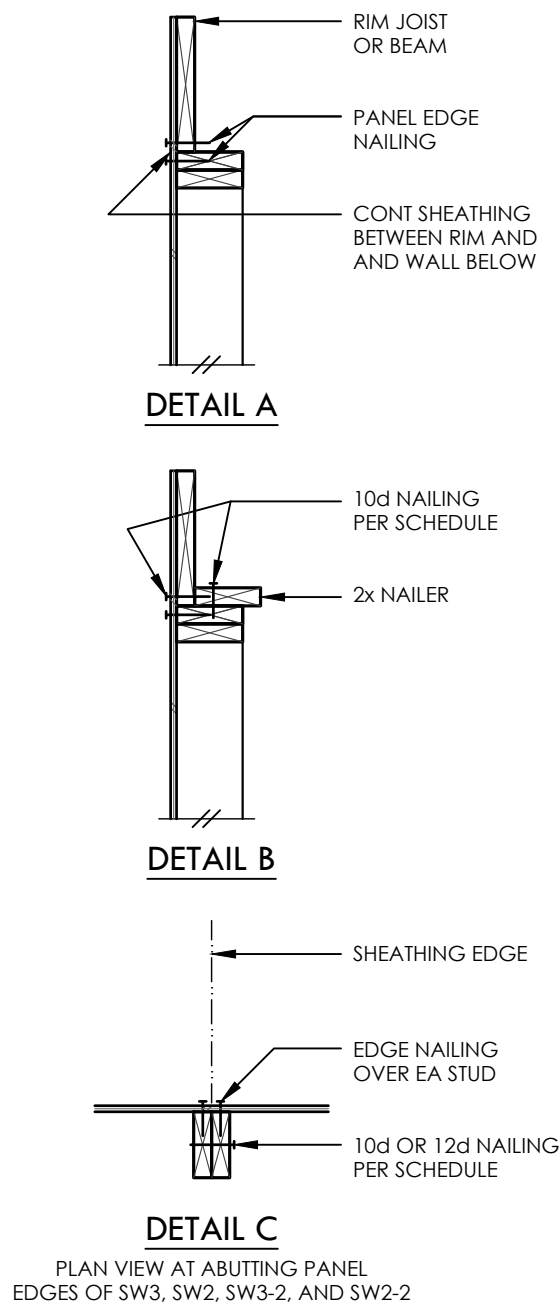
NON-STRUCTURAL WALL CONNECTION TO TJI FRAMING

5



TYPICAL FLUSH AND DROPPED BEAM

6



DETAIL C

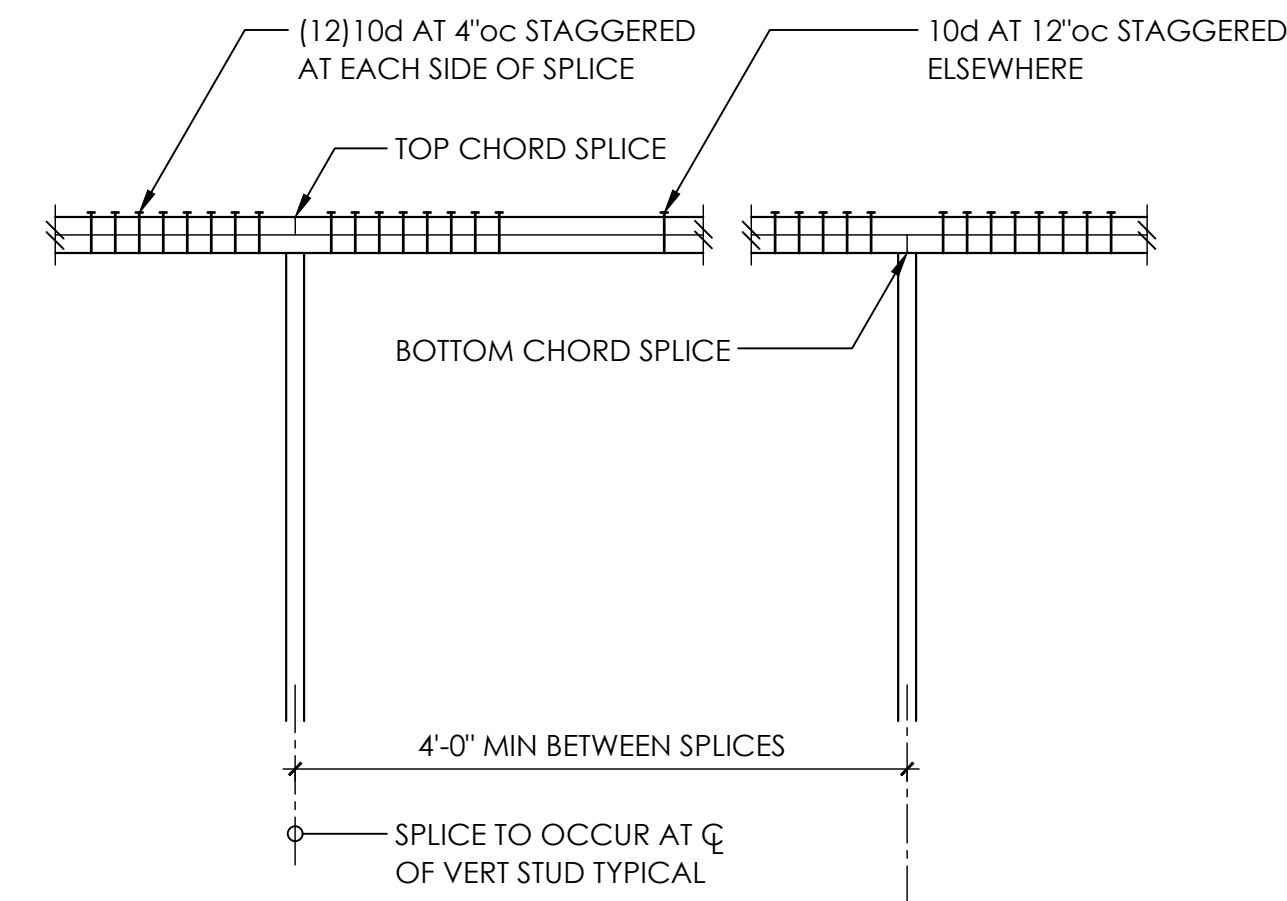
PLAN VIEW AT ABUTTING PANEL EDGES OF SW3, SW2, SW3-2, AND SW2-2

SHEARWALL SCHEDULE

MARK	SHEATHING	PANEL EDGE NAILING	TOP PLATE CONNECTION		BASE PLATE CONNECTION	
			TJI	RIM/BEAM	AT WOOD	AT CONCRETE
SW6	1/2" PLY or 7/16" OSB	8d AT 6"oc	10d AT 6"oc	A35 AT 30"oc	12d AT 6"oc	5/8"Ø AB AT 48"oc
SW4	1/2" PLY or 7/16" OSB	8d AT 4"oc	10d AT 4"oc	A35 AT 18"oc	12d AT 4"oc	5/8"Ø AB AT 42"oc
SW3	1/2" PLY or 7/16" OSB	8d AT 3"oc	(2)ROWS 10d AT 6"oc	A35 AT 16"oc	(2)ROWS 12d AT 6"oc	5/8"Ø AB AT 36"oc
SW2	1/2" PLY or 7/16" OSB	8d AT 2"oc	(2)ROWS 10d AT 4"oc	A35 AT 12"oc	(2)ROWS 12d AT 4"oc	5/8"Ø AB AT 24"oc
SW3-2	1/2" PLY or 7/16" OSB EA SIDE	8d AT 3"oc EA SIDE	N/A	A35 AT 8"oc	(2)ROWS 12d AT 3"oc	5/8"Ø AB AT 18"oc
SW2-2	1/2" PLY or 7/16" OSB EA SIDE	8d AT 2"oc EA SIDE	N/A	A35 AT 6"oc	(3)ROWS 12d AT 3"oc	5/8"Ø AB AT 12"oc

- BLOCK PANEL EDGES WITH 2x4 LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d AT 12"oc.
- 8d NAILS SHALL BE 0.131"Ø x 2-1/2" x 0.281"Ø, 10d NAILS SHALL BE 0.131"Ø x 3" x 0.281"Ø, AND 12d NAILS SHALL BE 0.131"Ø x 3-1/4" x 0.281"Ø, UNO.
- EMBED ANCHOR BOLTS AT LEAST 7". ALL BOLTS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) w/ SHEATHING. AT 2x6 SW3-2 AND SW2-2 WALLS, PROVIDE 4-1/2" x 3" x 0.229" PLATE WASHERS CENTERED ON PLATE.
- 3x STUDS OR DBL STUDS NAILED TOGETHER w/ 10d OR 12d NAILING IS REQD AT ABUTTING PANEL EDGES OF SW3, SW2, SW3-2, AND SW2-2. REFER TO DETAIL C. WHERE 3x STUDS ARE USED, STAGGER NAILS AT ADJOINING PANEL EDGES. ABUTTING PANEL EDGES SHALL BE OFFSET EACH SIDE OF WALL AT SW3-2 AND SW2-2.
- TWO STUDS MINIMUM OR POST PER PLAN ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
- ALL EXTERIOR WALLS SHALL BE SW6, UNLESS NOTED OTHERWISE.
- NAILS SHALL NOT BE SPACED LESS THAN 3/8" FROM EDGES OF SHEATHING. SHEATHING NAILS SHALL BE DRIVEN SO THEIR HEADS ARE FLUSH WITH SHEATHING (NOT COUNTERSUNK).
- LTP4's INSTALLED OVER SHEATHING WITH 8d (0.131"Ø x 2-1/2" x 0.281"Ø) NAILS MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- A35's OR LTP4's MAY BE ELIMINATED PER DETAIL A OR DETAIL B.

4

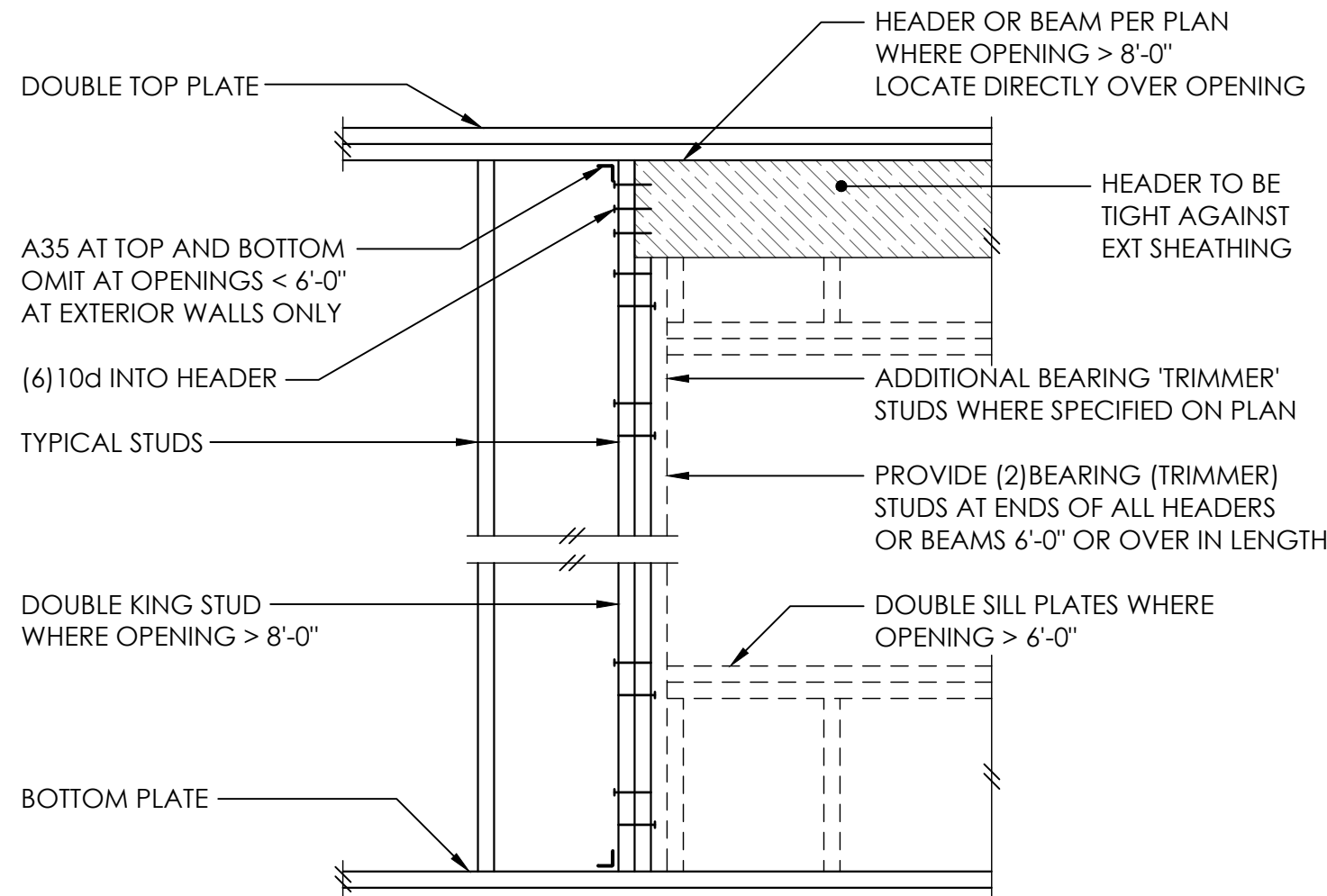


NOTE:

- NAILING AT TOP PLATE SPLICES MAY BE ELIMINATED w/ CS16 x 30"
- WHERE VERTICAL PENETRATIONS THRU PLATE EXCEED 1" FOR A 4x WALL OR 3" FOR A 6x WALL - PROVIDE CS16 x 30" AT TOP PLATE
- MINIMUM EDGE DISTANCE FOR VERTICAL PENETRATIONS THRU TOP PLATE IS 1-1/4"

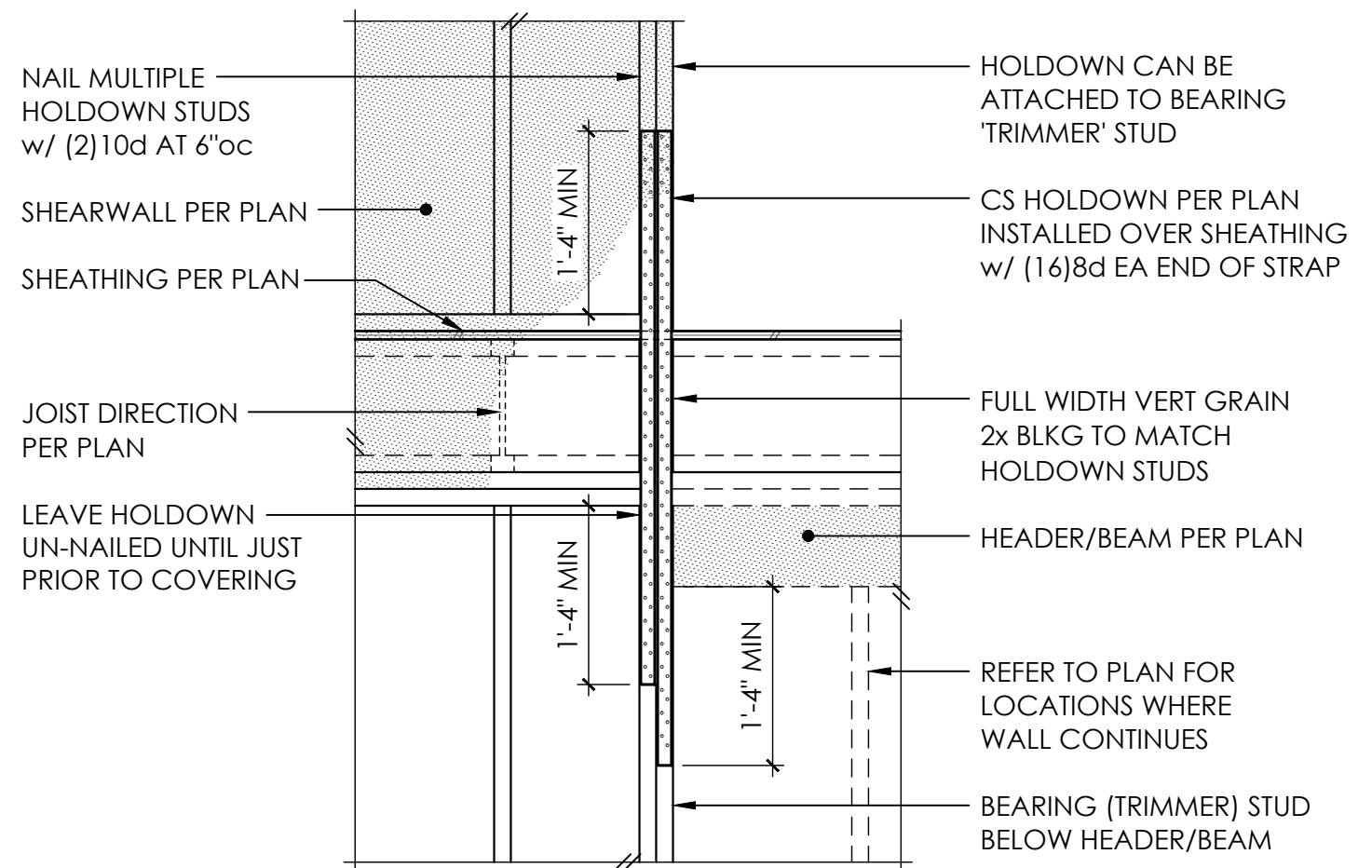
TYPICAL TOP PLATE SPLICE

7



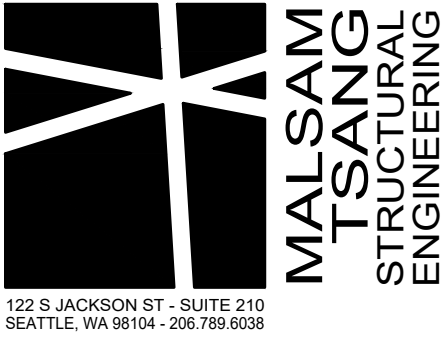
TYPICAL HEADER SUPPORT

8



TYPICAL CS16 HOLDDOWN

12



2707 70TH AVE SE
MERCER ISLAND, WA



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
NATEM@MALSAM-TSANG.COM

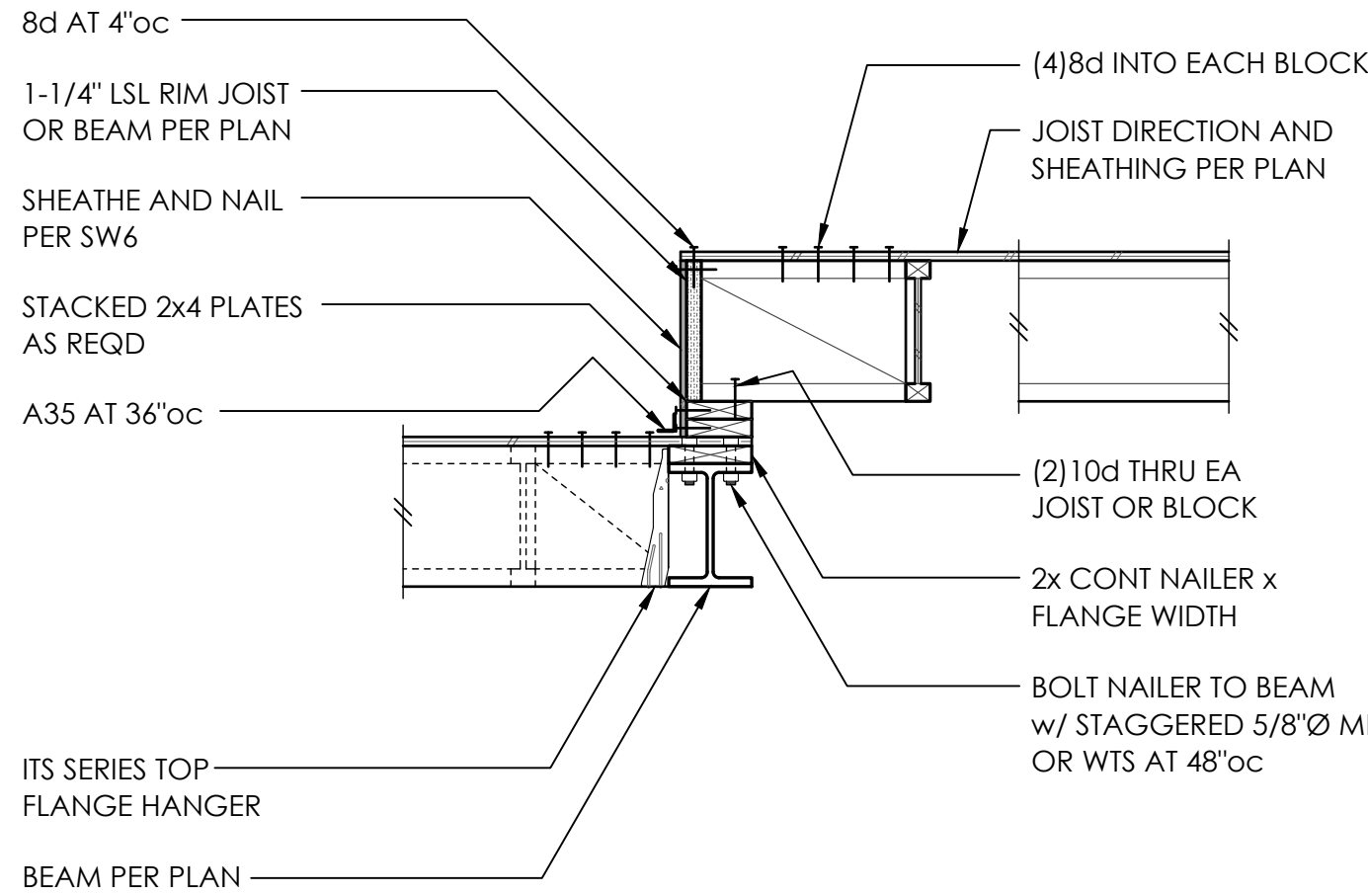
REV DESCRIPTION DATE
PERMIT SET 2.7.25
PLAN REVISIONS 8.28.25

ARCH V SQUARED
206.657.7297

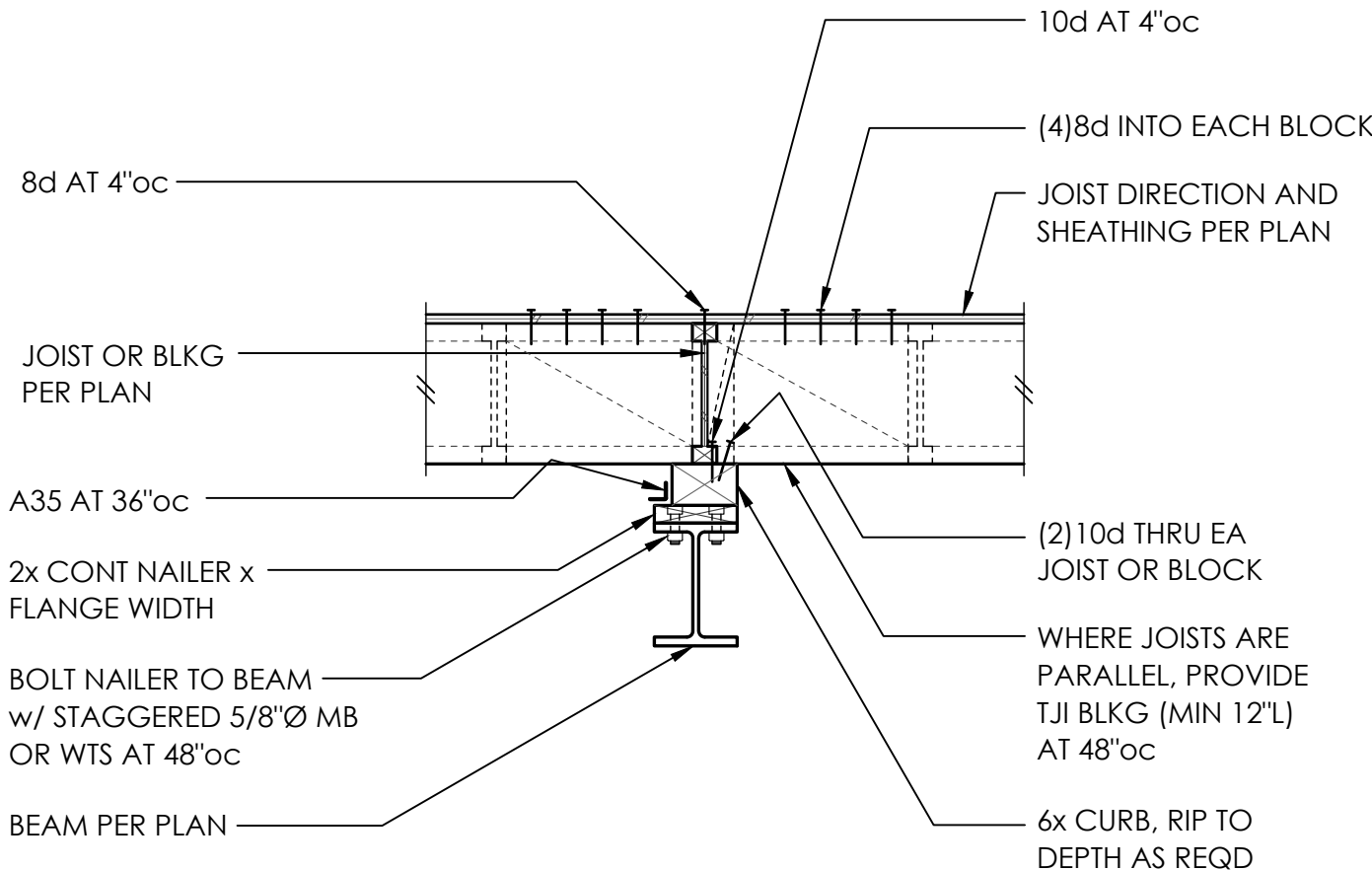
TYPICAL WOOD
FRAMING DETAILS

S4.0
SCALE - 3/4" = 1'-0"

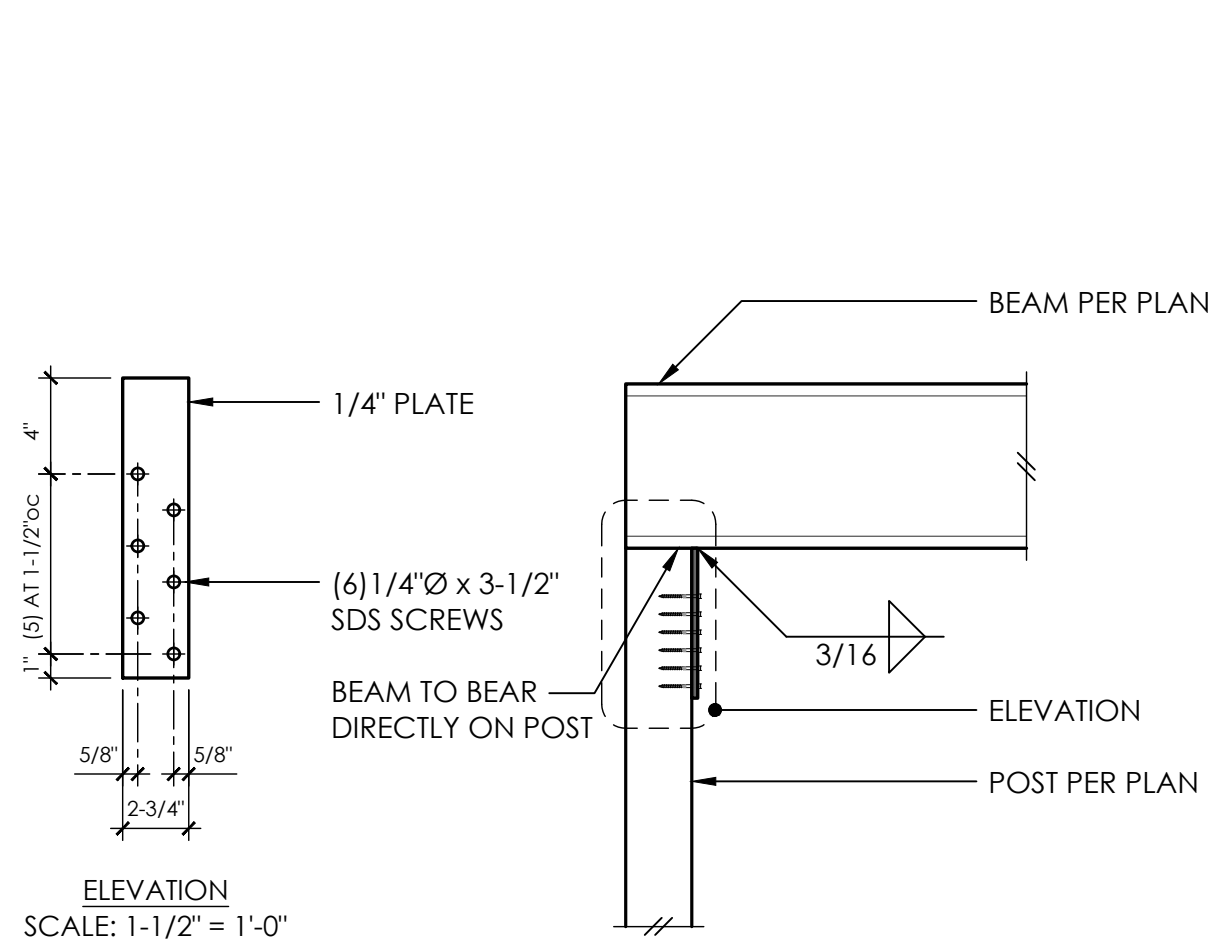
Printed by: eef
Printed on: Aug 28, 2025 - 1:12pm



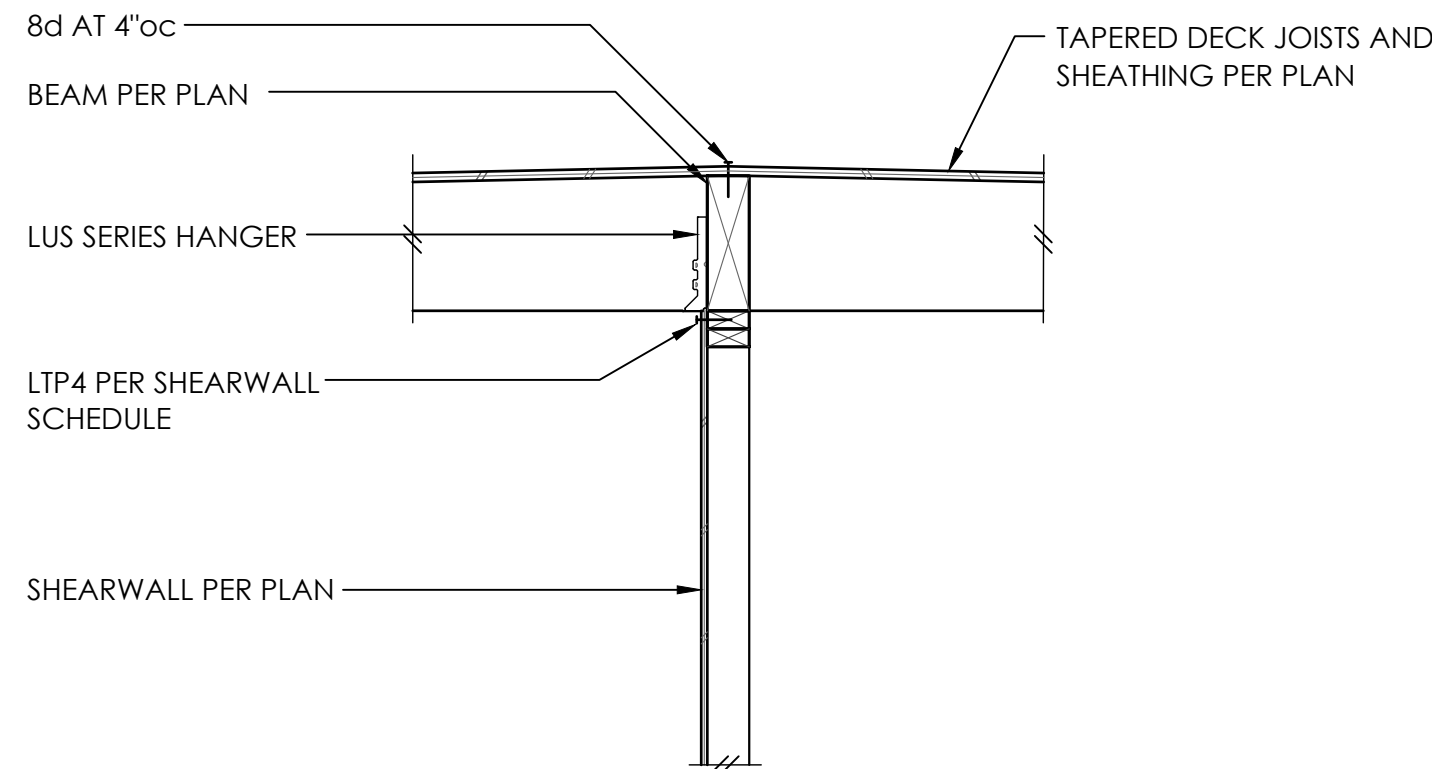
1



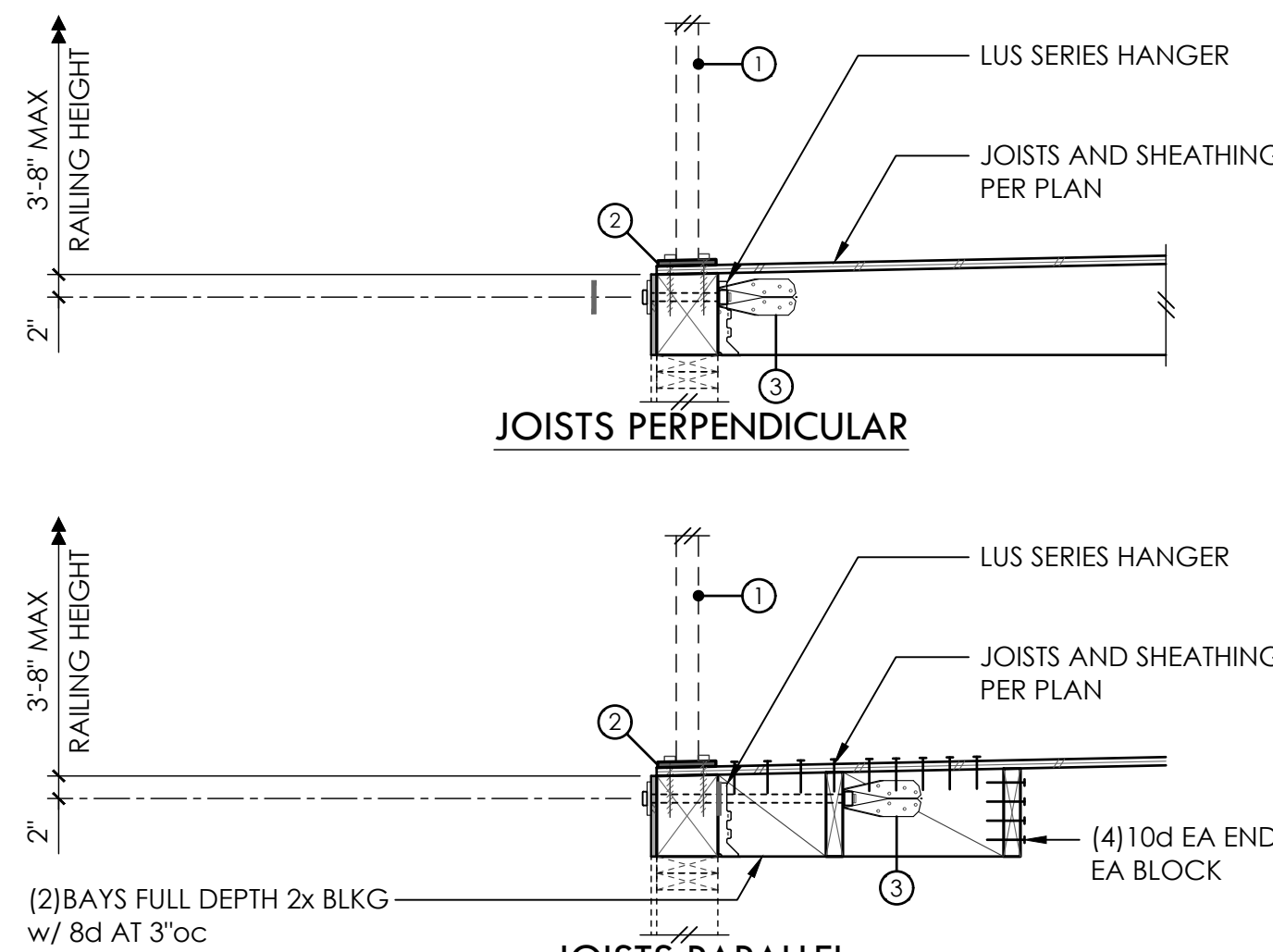
2



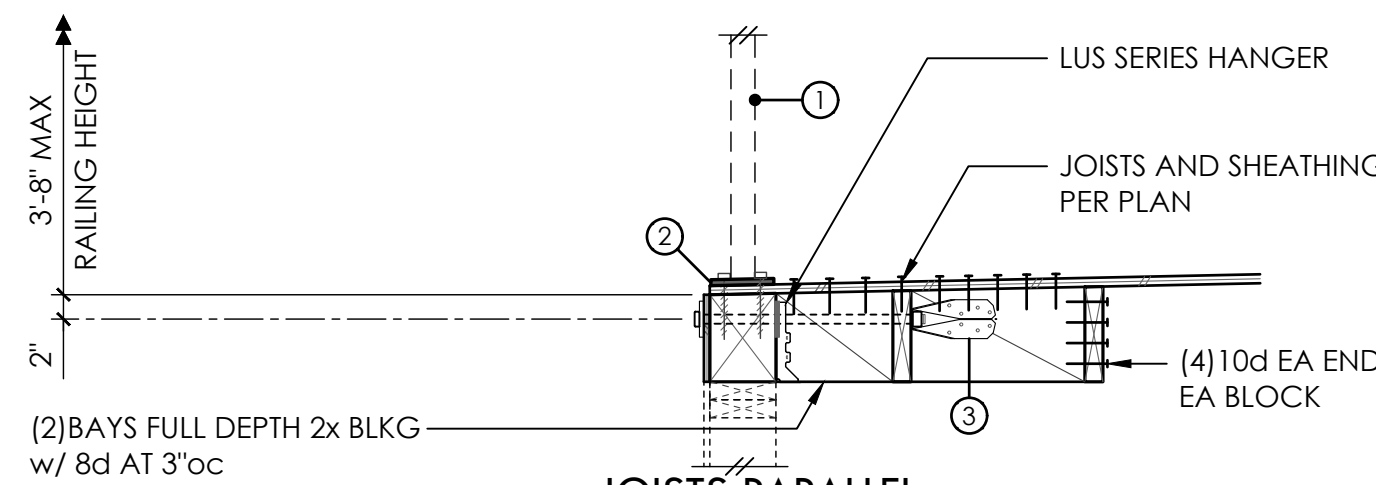
3



4



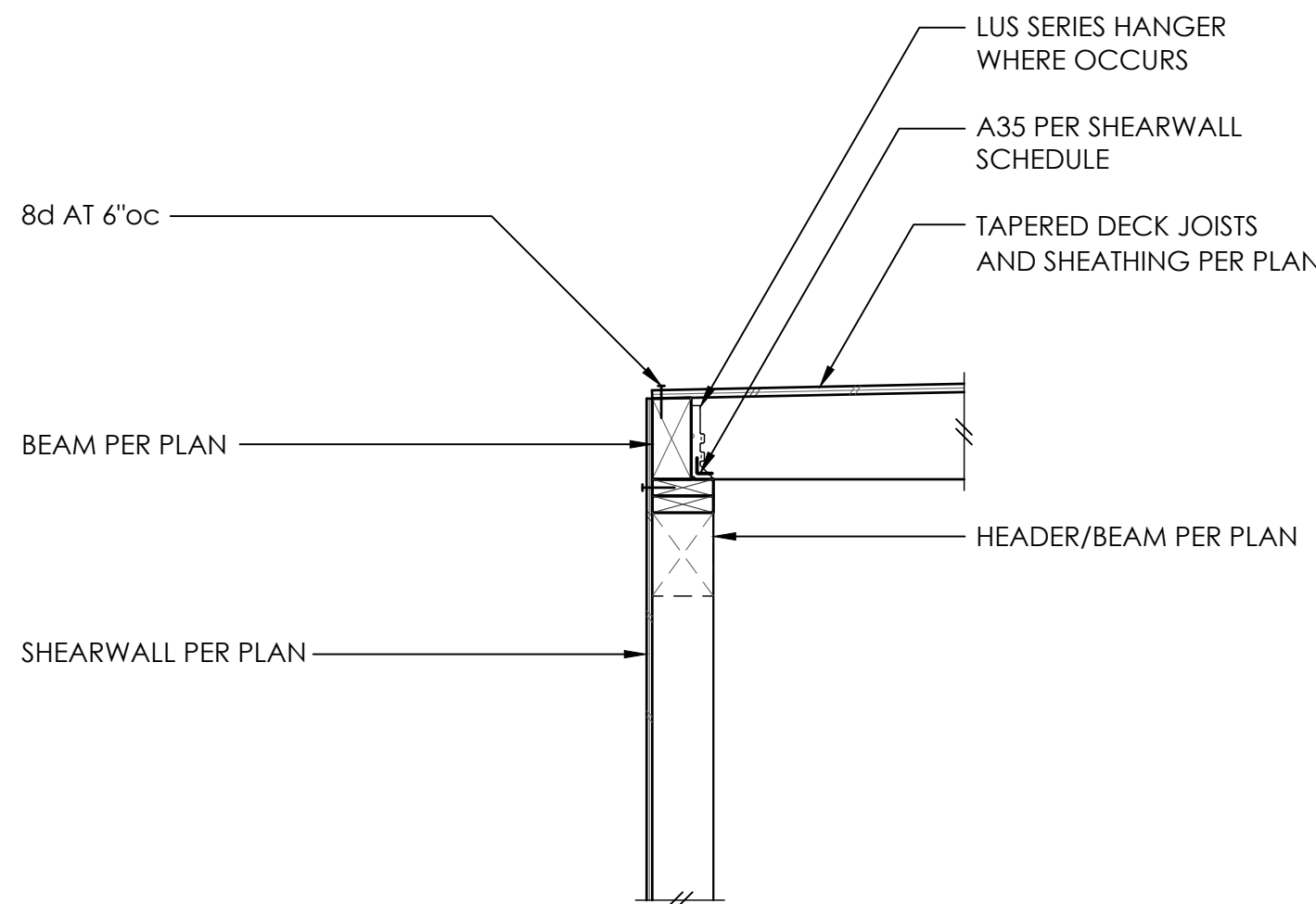
JOISTS PERPENDICULAR



JOISTS PARALLEL

- ① DESIGN BUILD RAILING SYSTEM BY OTHERS
- ② BASE PL 3/8" x 4-1/2" x 4-1/2" w/ (4) 3/8"Ø x 5" GALV LAG SCREWS AT 3"oc
- ③ DIT22 TOP w/ 1/2"Ø THREADED ROD w/ 3" SQ WASHER AT 4'-0"oc - ATTACH TO SECOND BAY OF BLKG AT PARALLEL CASE

10



11



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

REV	DESCRIPTION	DATE
	PERMIT SET	2.7.25
△	PLAN REVISIONS	8.28.25

ARCH V SQUARED
206.657.7297

**WOOD FRAMING
DETAILS**

S4.1
SCALE - 3/4" = 1'-0"

12



PROJECT NO 0527.2025.01.01
PROJECT MANAGER RAF
DRAWN JSD
ENGINEER NATE MOORE
206.602.9537
NATEM@MALSAM-TSANG.COM

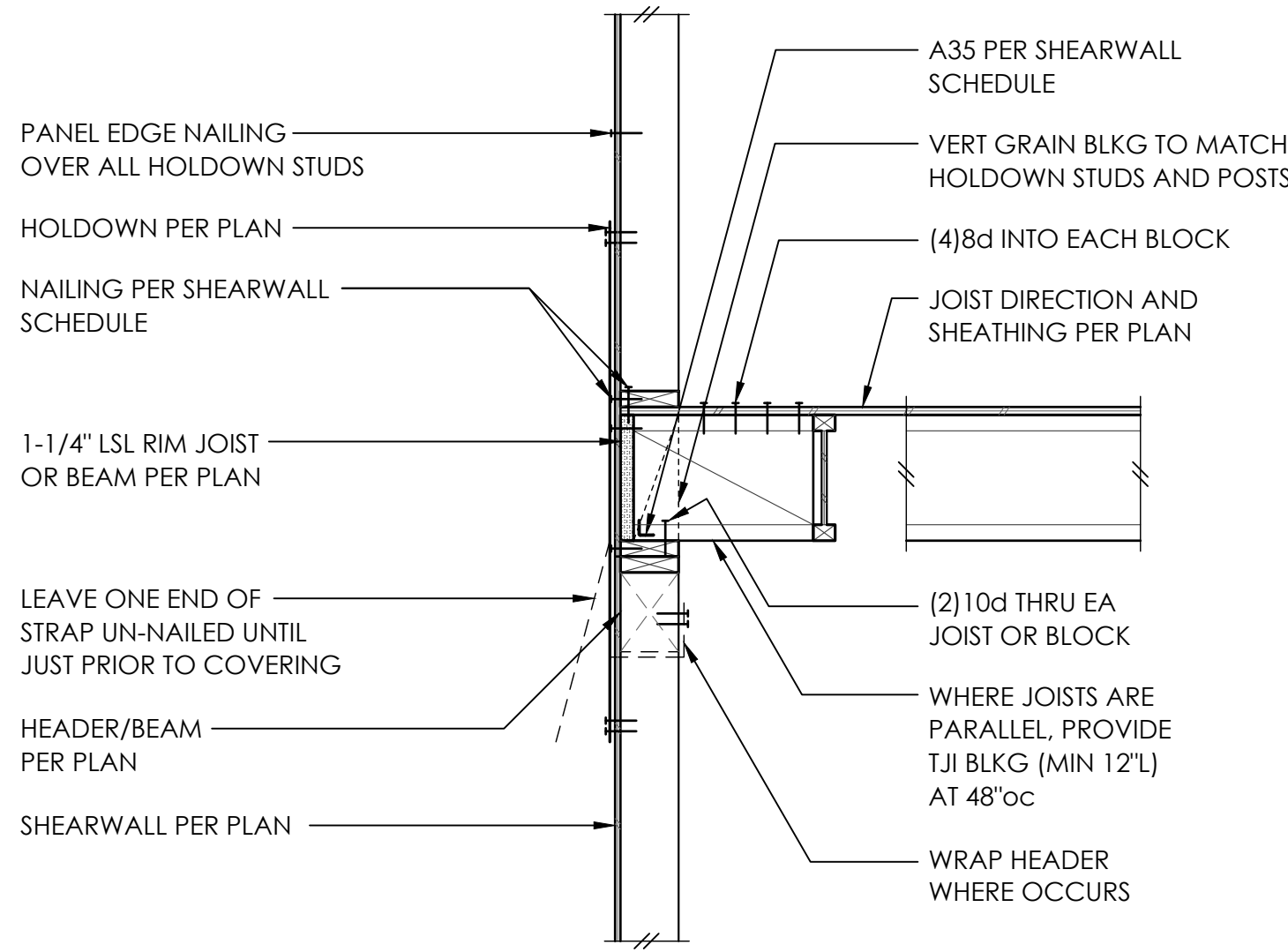
REV	DESCRIPTION	DATE
1	PERMIT SET	2.7.25
2	PLAN REVISIONS	8.28.25

ARCH V SQUARED
206.657.7297

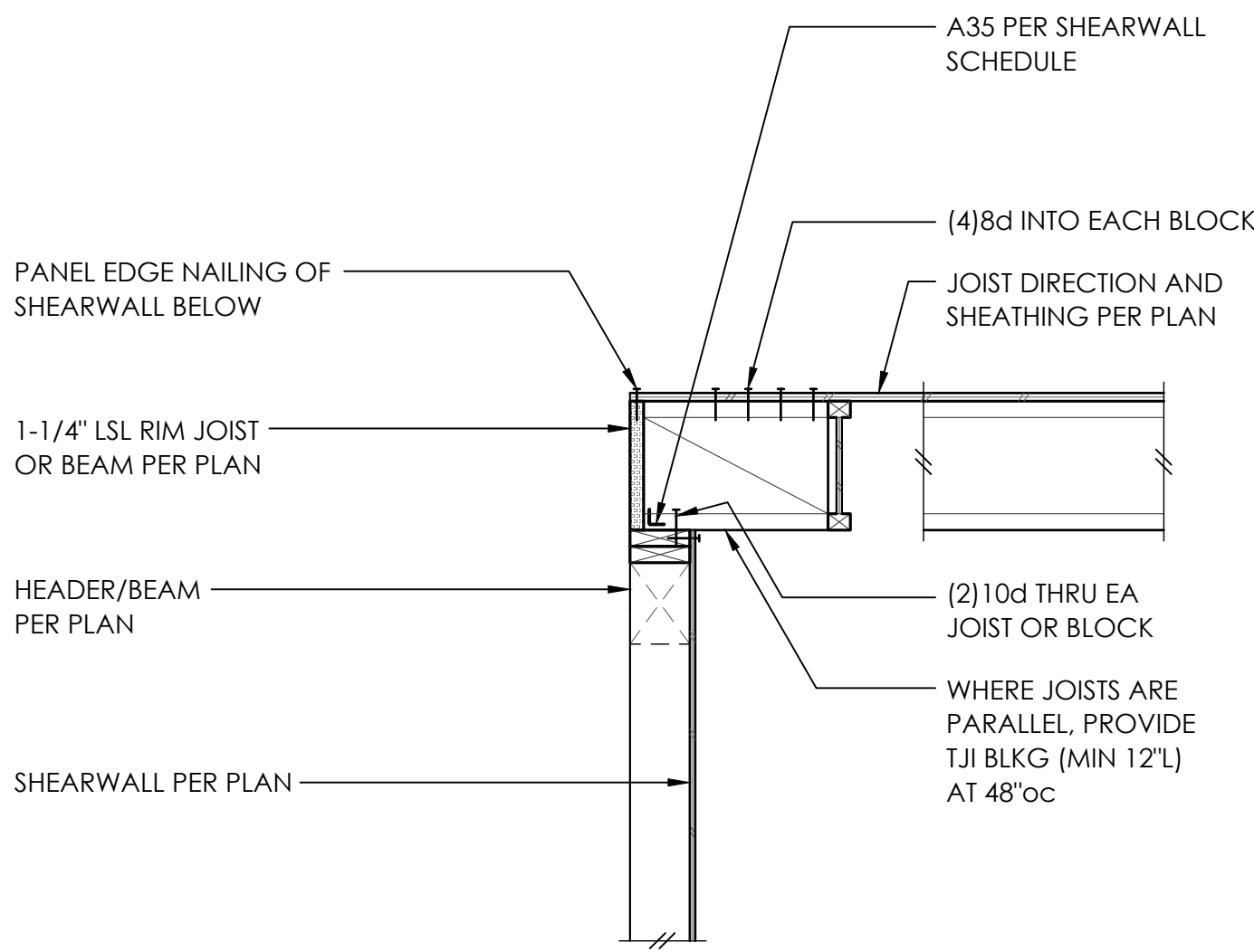
WOOD FRAMING
DETAILS

S4.2

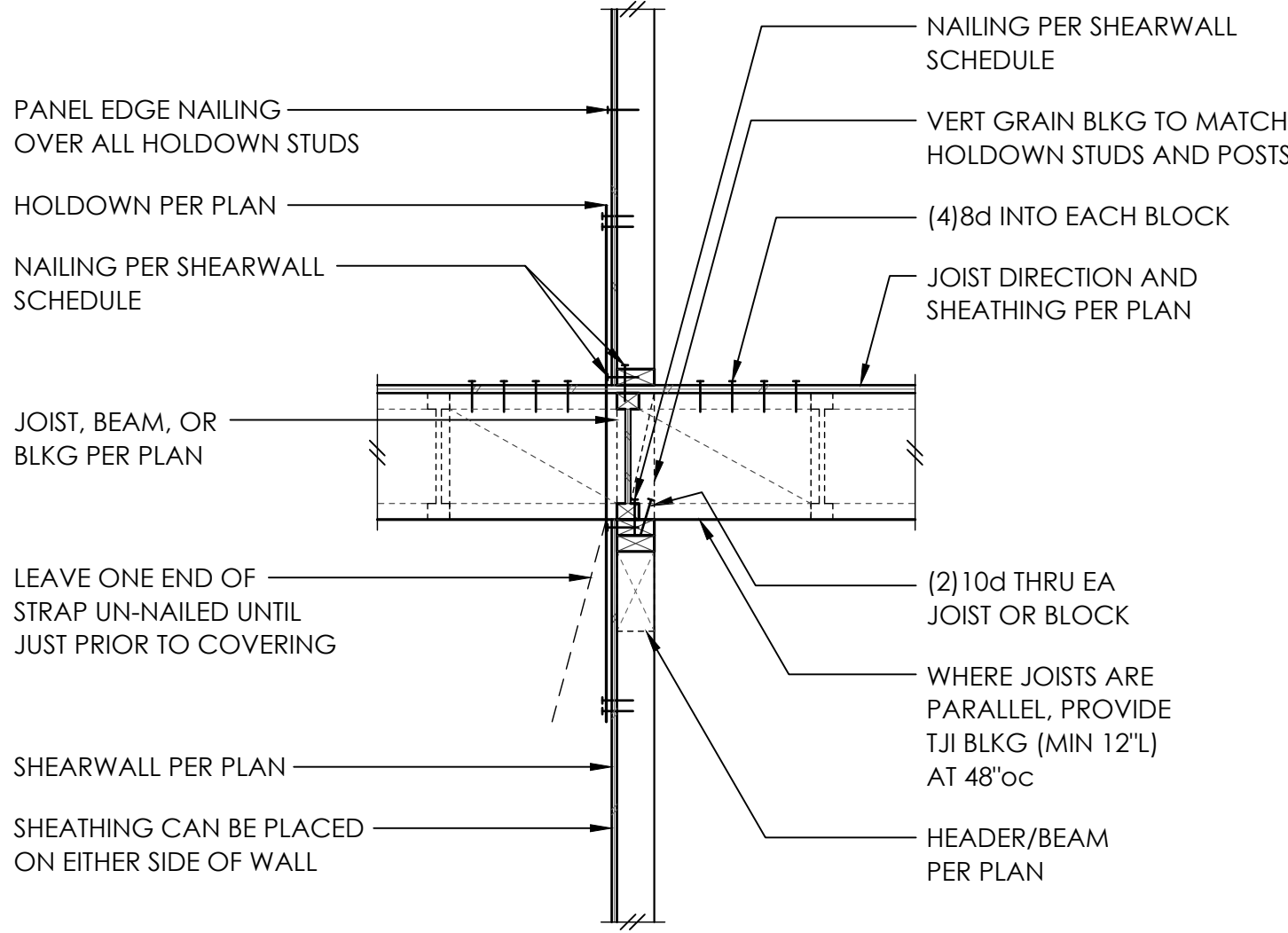
SCALE - 3/4" = 1'-0"



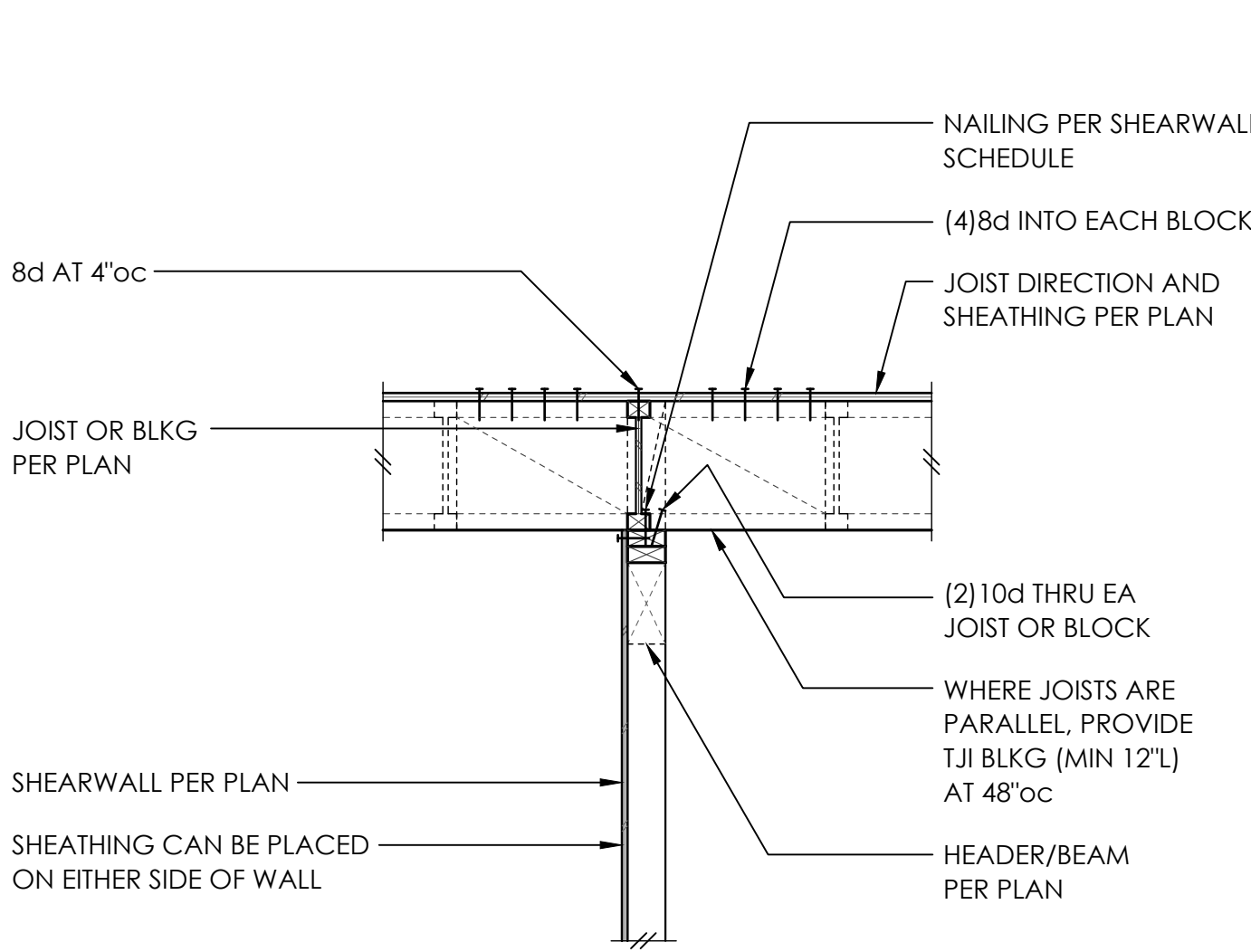
4



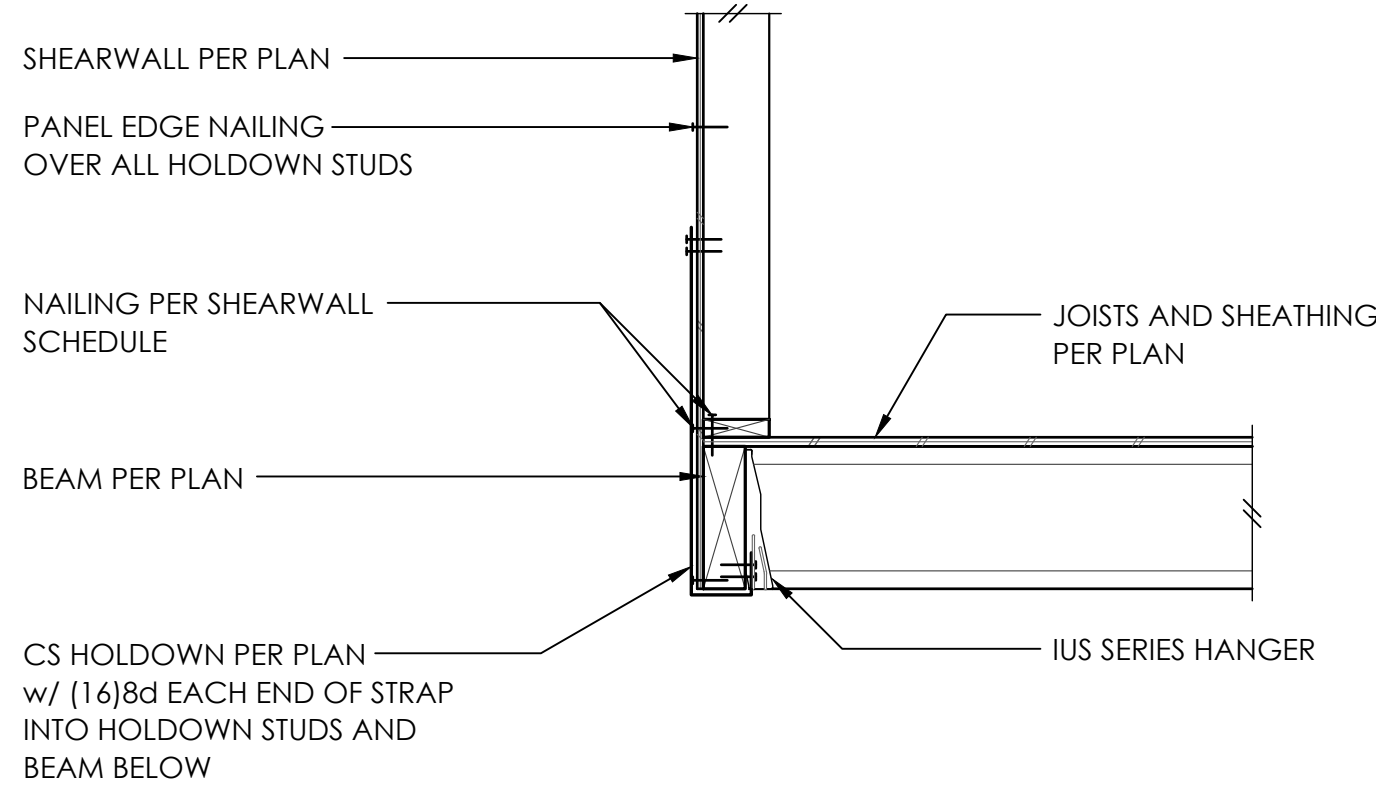
3



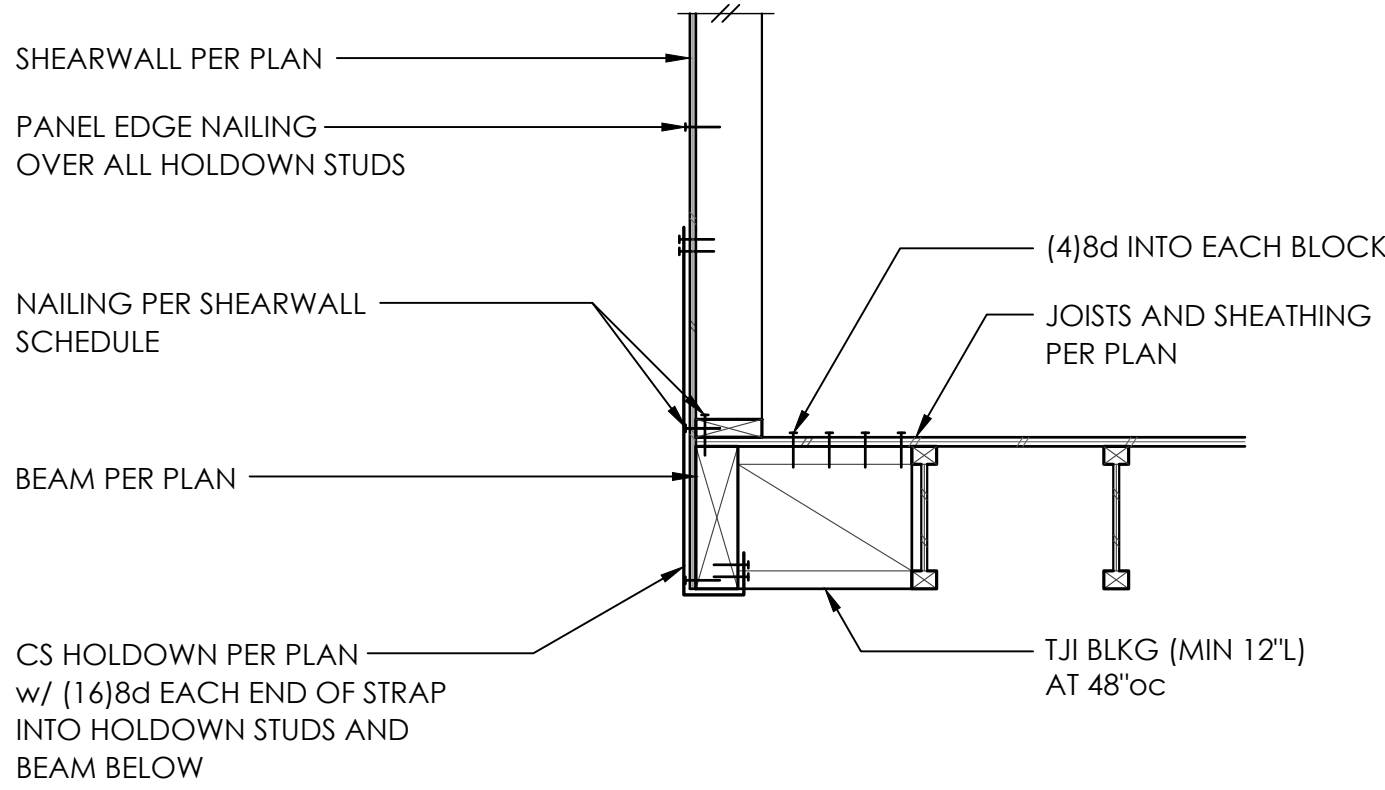
2



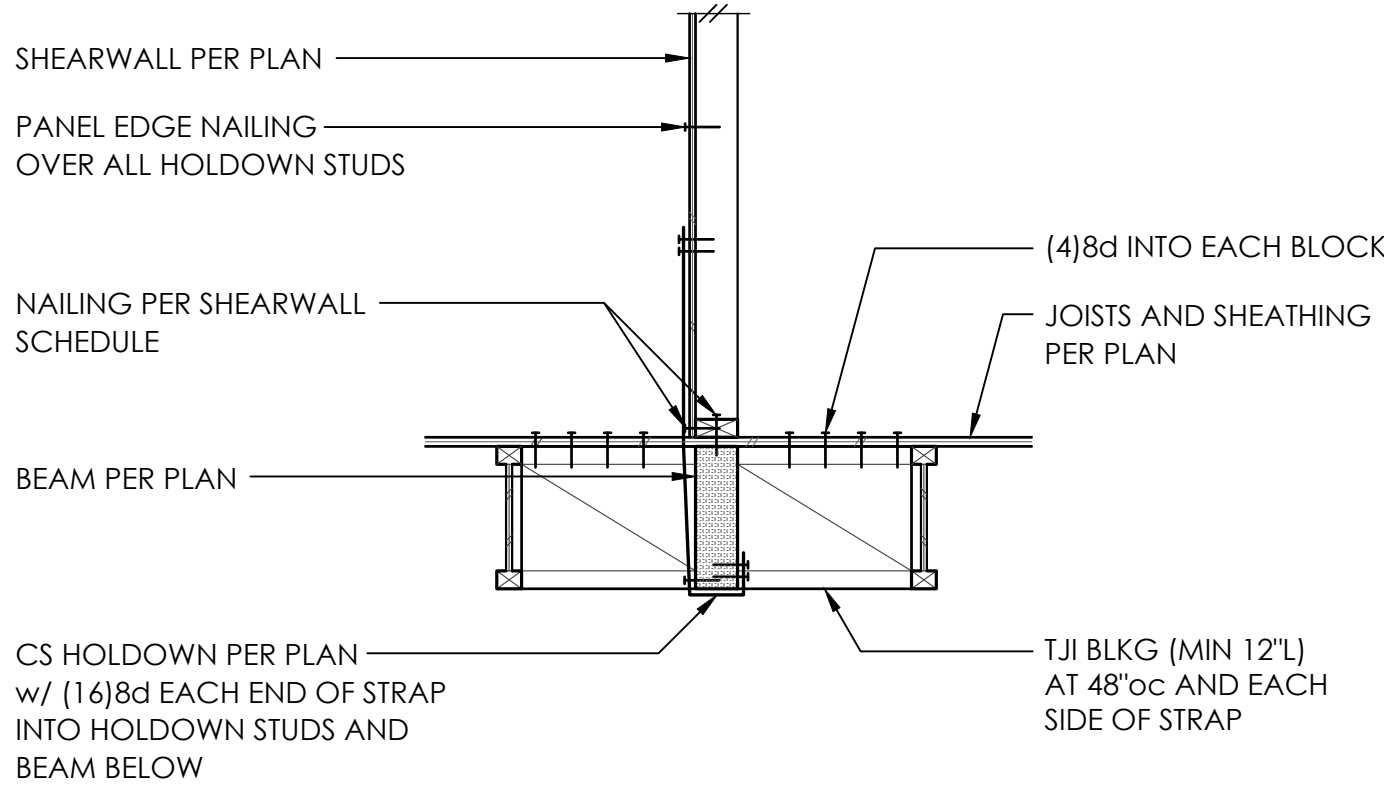
1



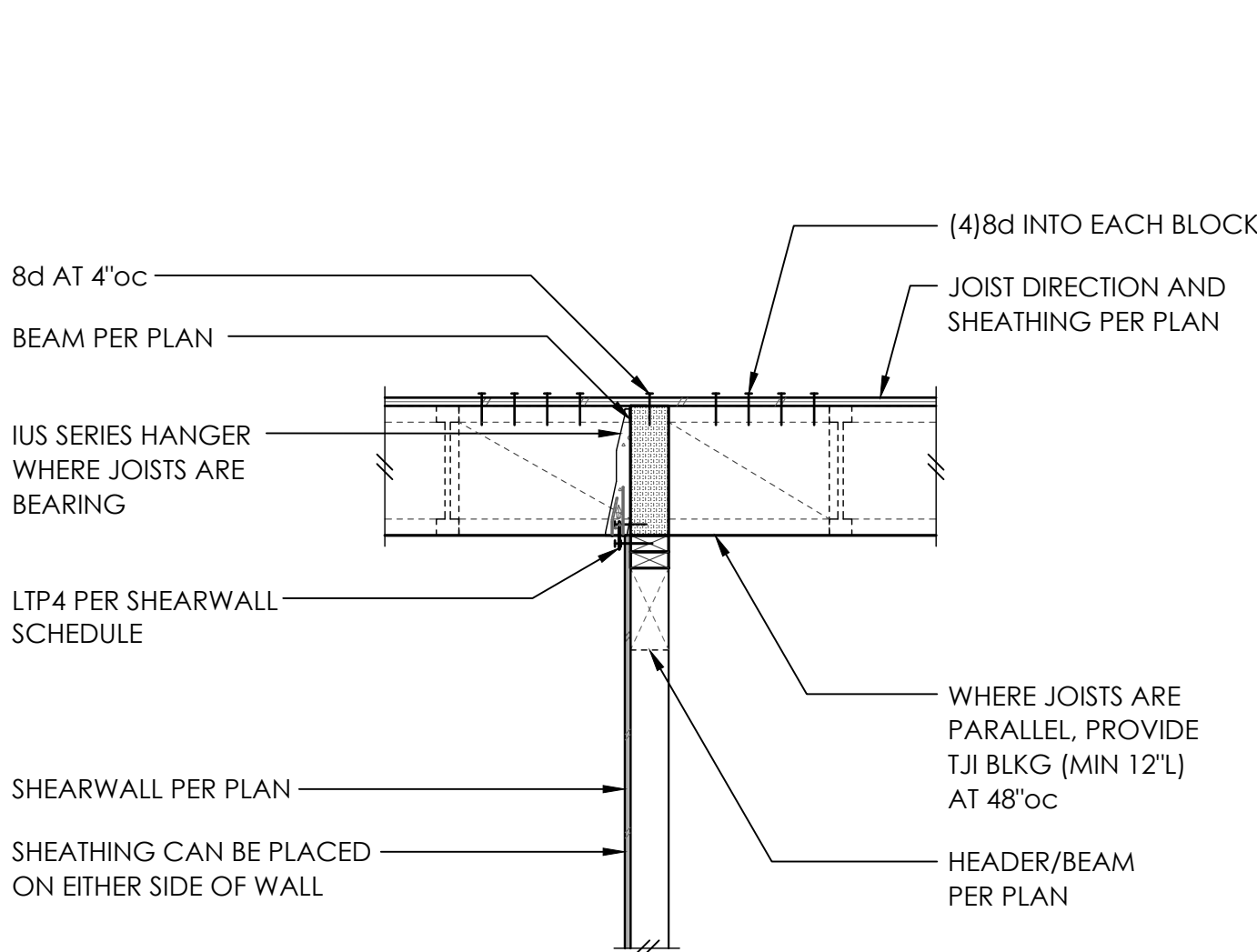
8



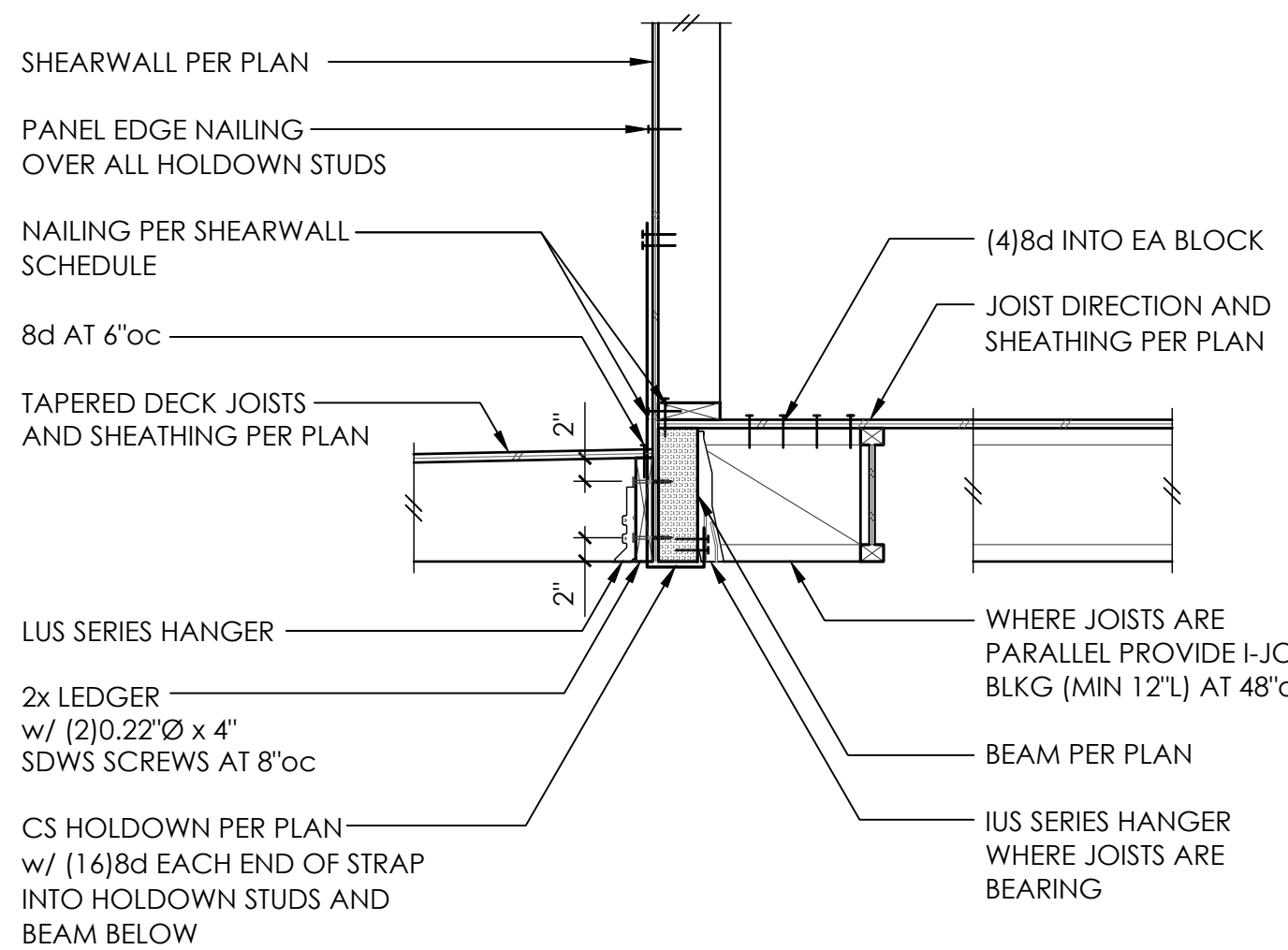
7



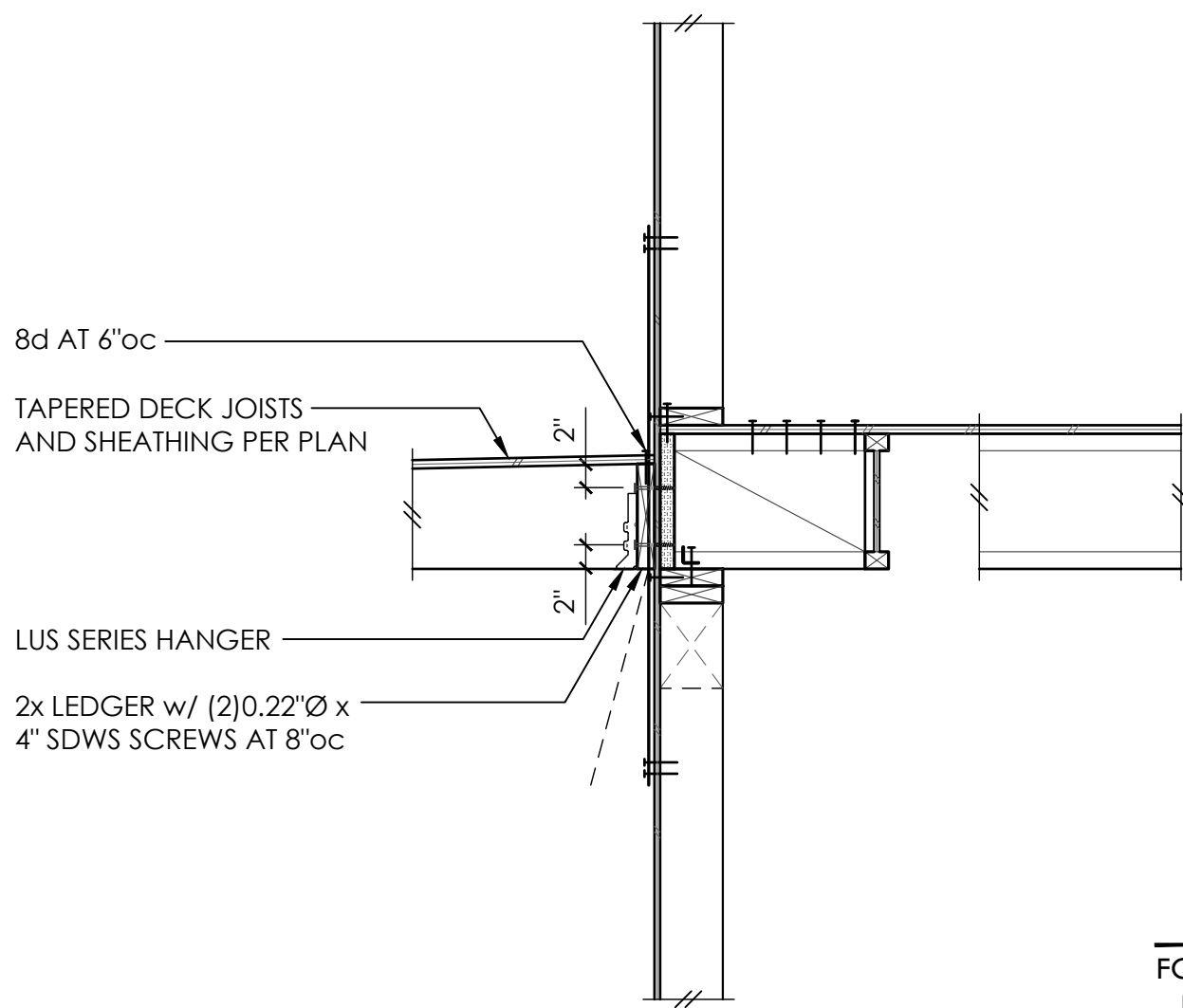
6



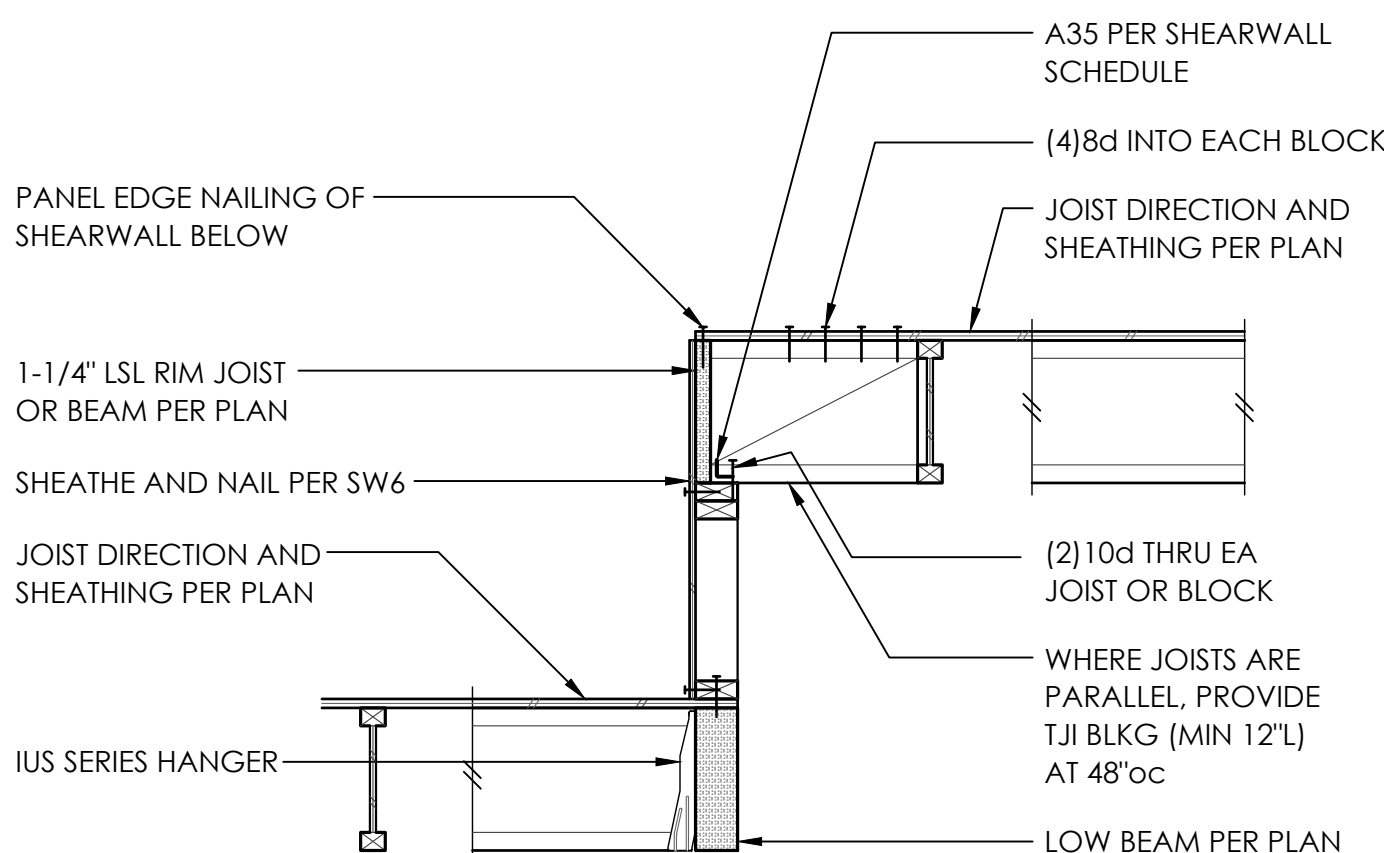
5



12



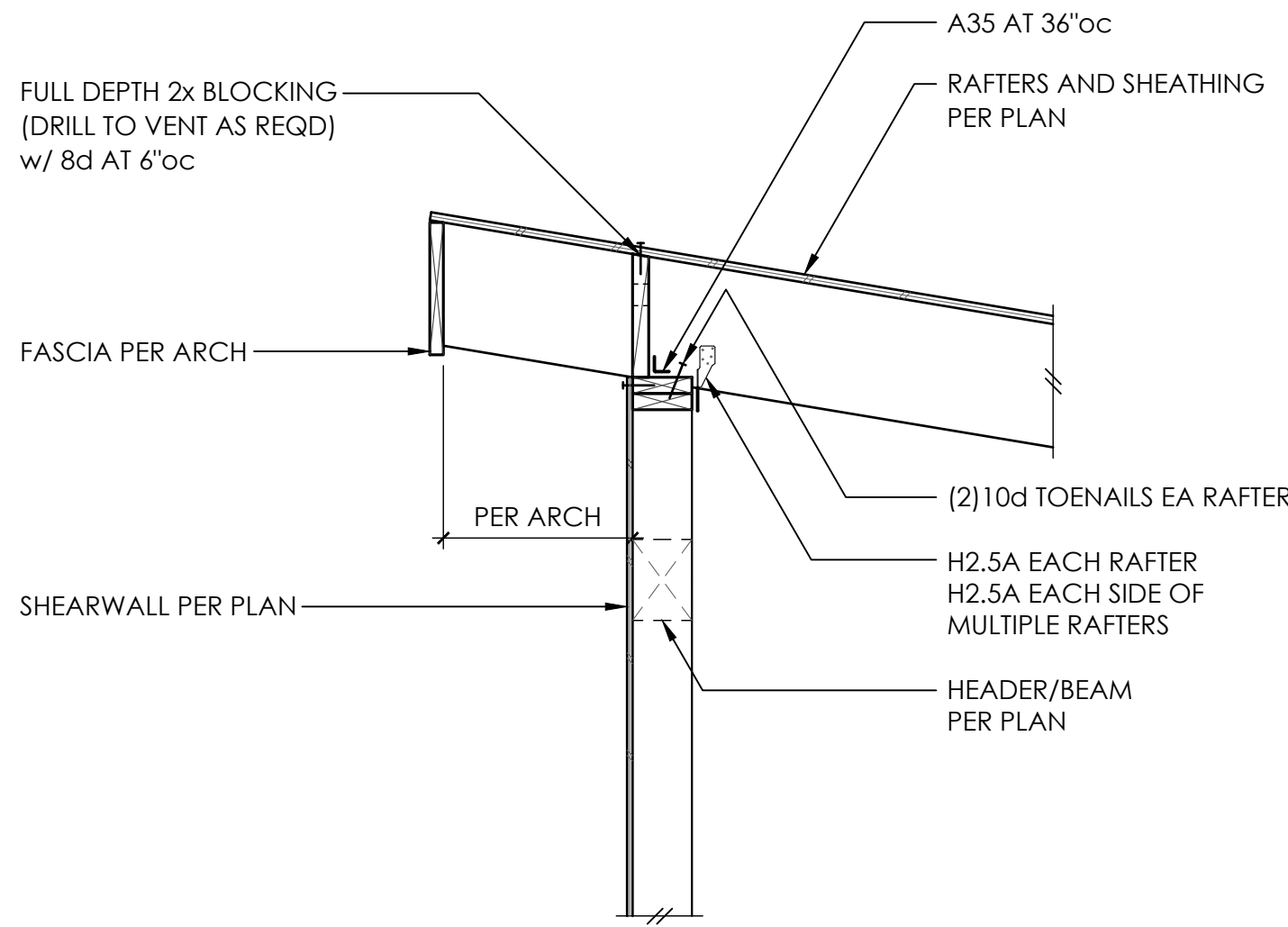
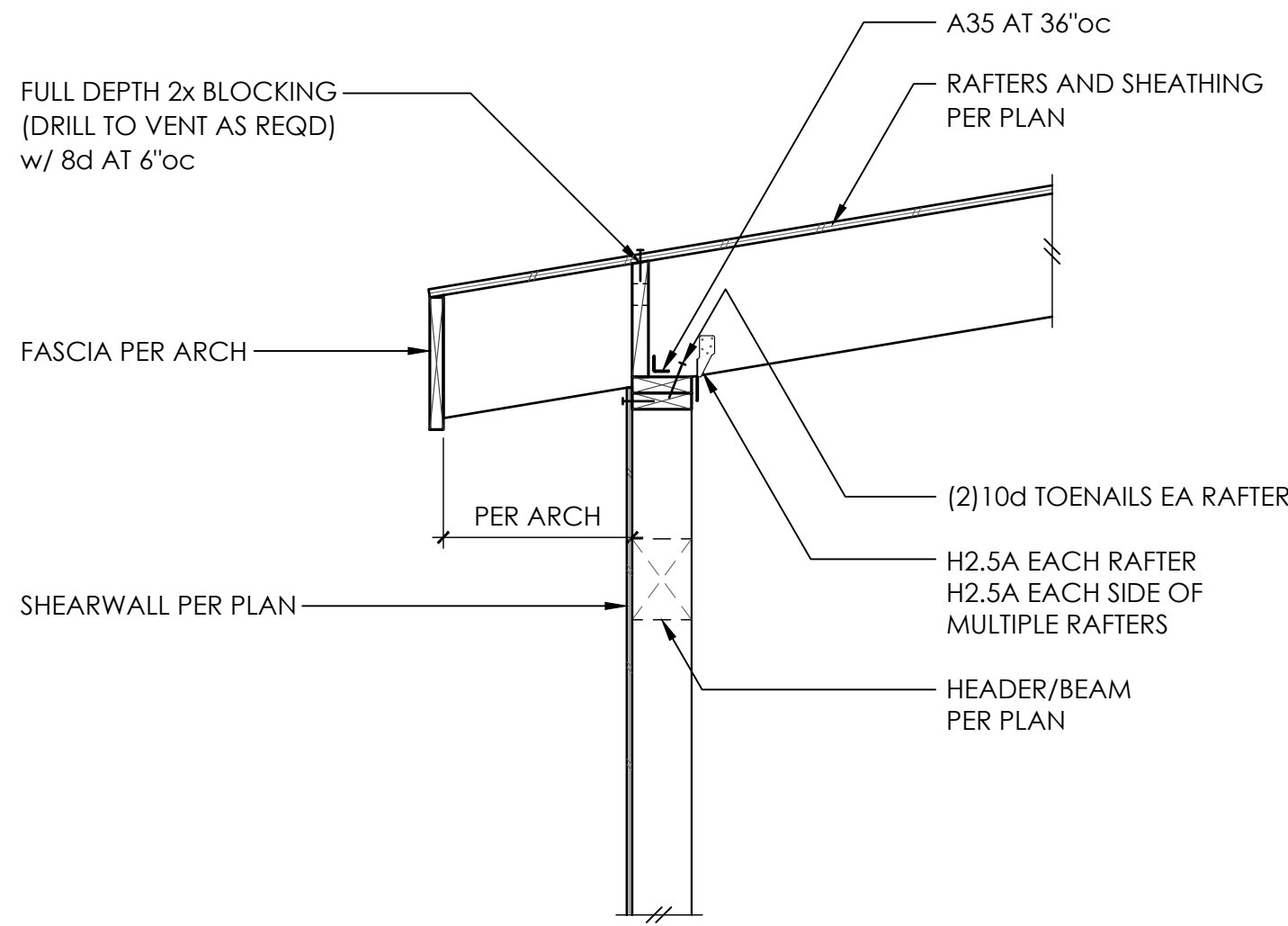
10



9

FOR CALLOUTS
IN COMMON
REFER 4/S4.2

11

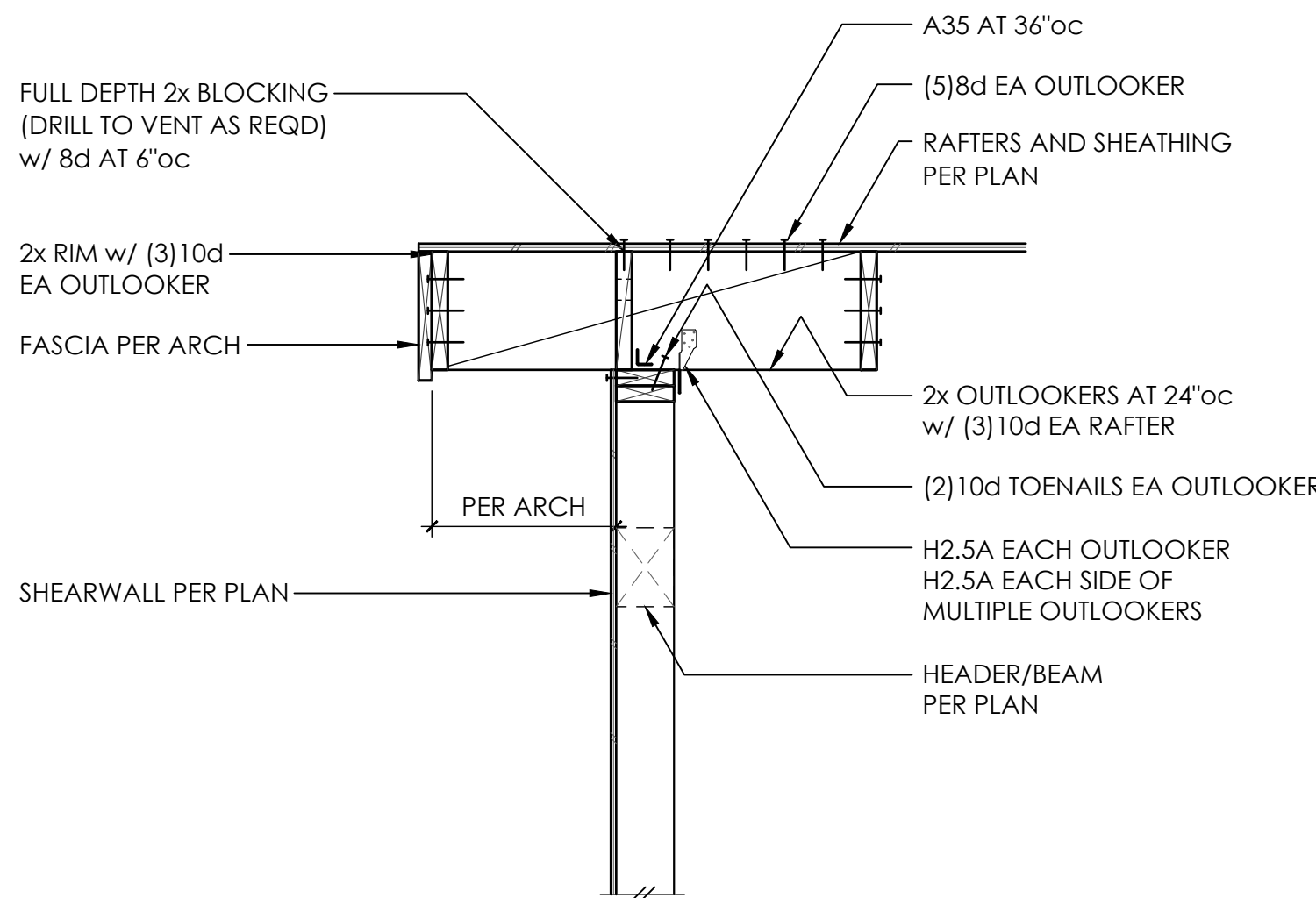
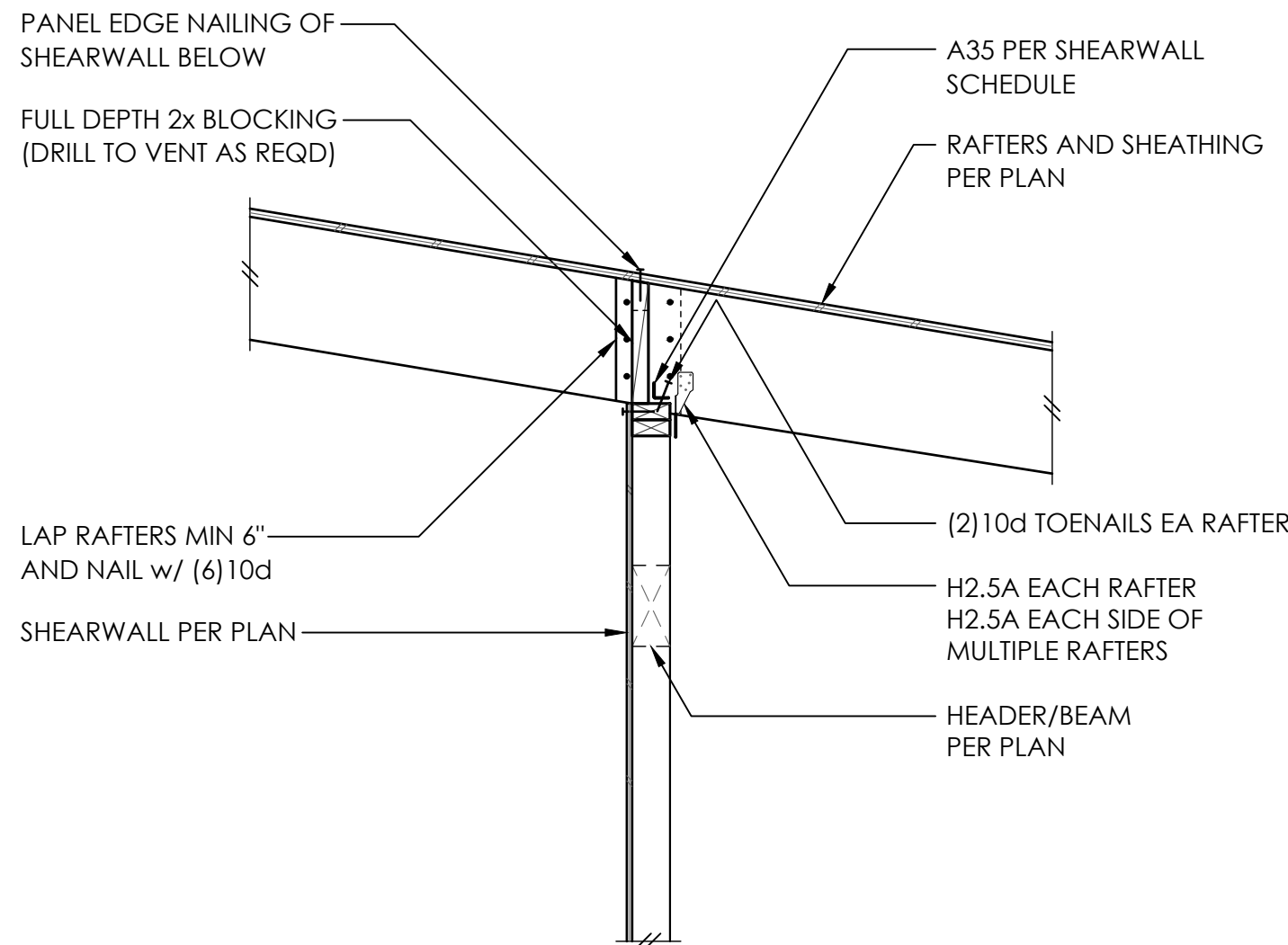


1

2

3

4

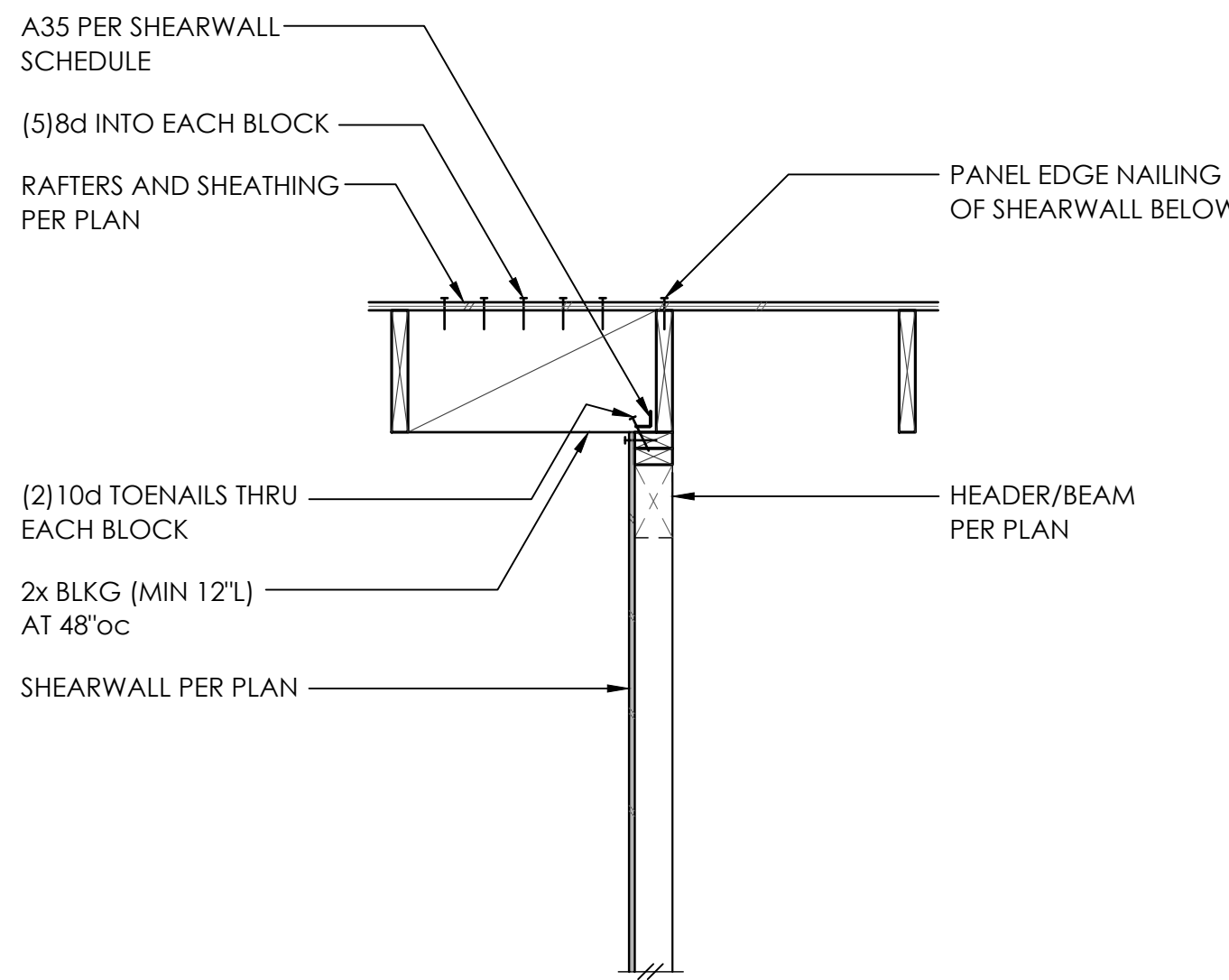


5

6

7

8

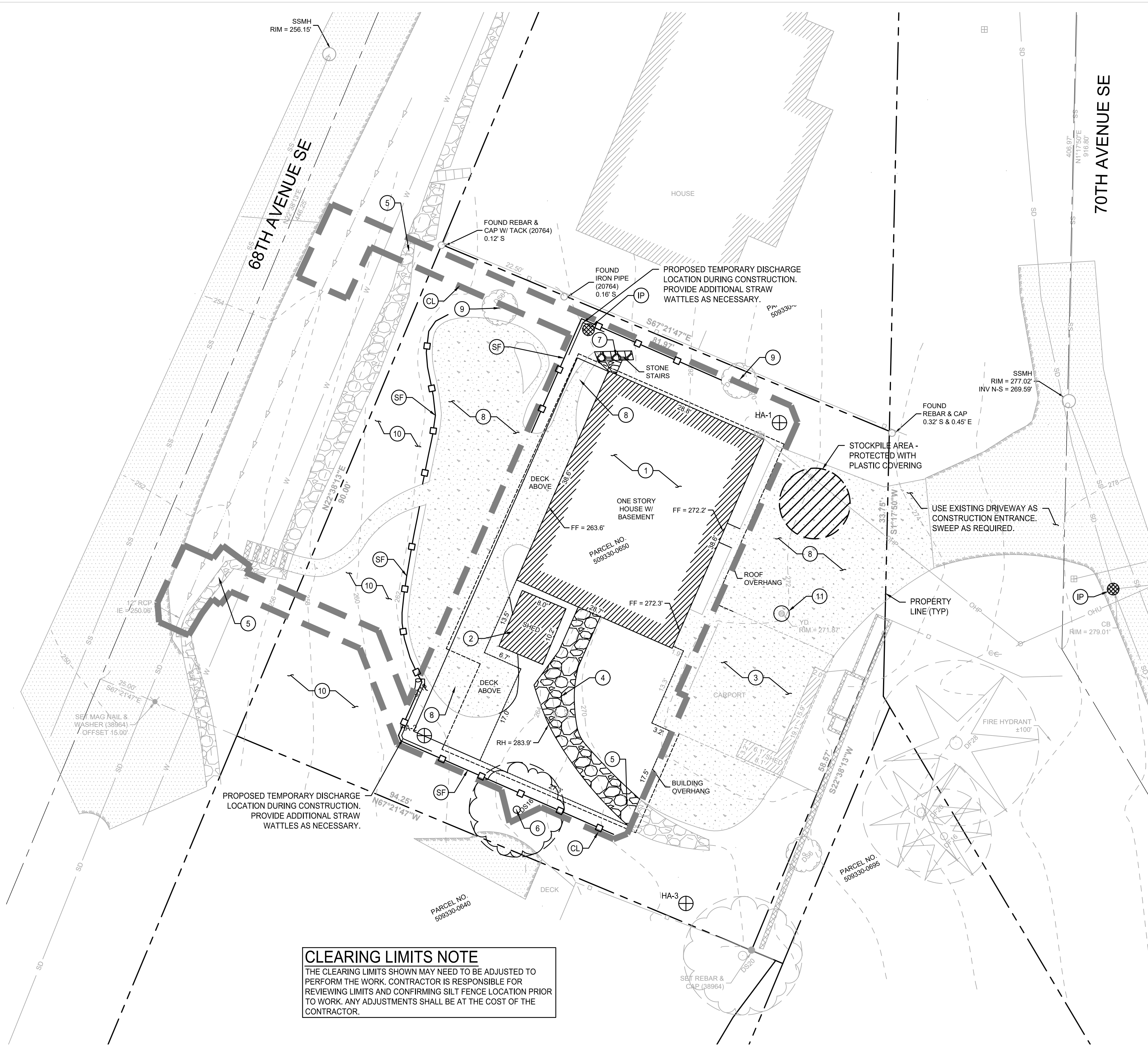


9

10

11

12



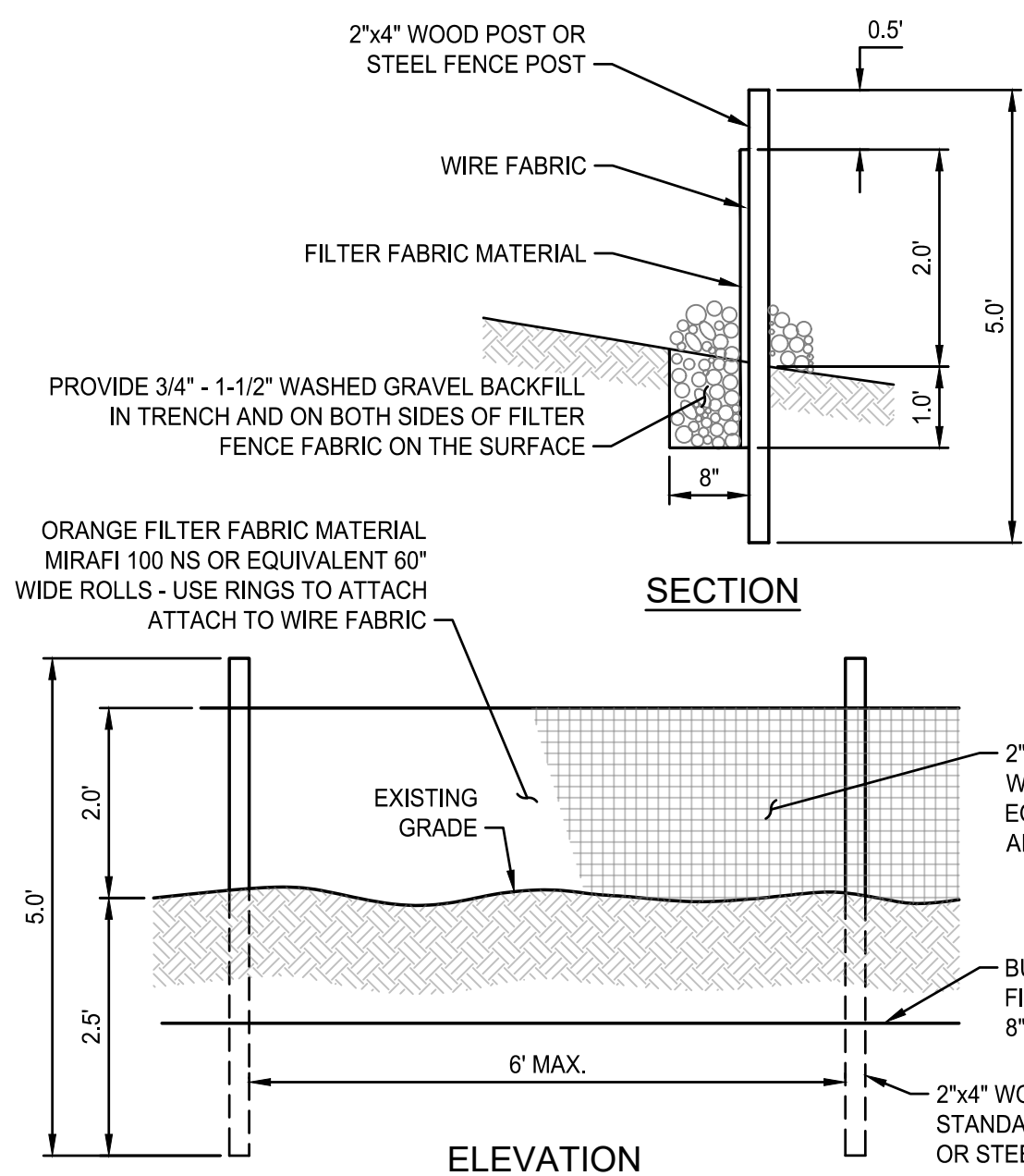
CLEARING LIMITS NOTE
THE CLEARING LIMITS SHOWN MAY NEED TO BE ADJUSTED TO PERFORM THE WORK. CONTRACTOR IS RESPONSIBLE FOR REVIEWING LIMITS AND CONFIRMING SILT FENCE LOCATION PRIOR TO WORK. ANY ADJUSTMENTS SHALL BE AT THE COST OF THE CONTRACTOR.

- KEYNOTES**
- DEMOLISH EXISTING STRUCTURE TO FOUNDATION. REFER TO ARCHITECTURAL DRAWINGS
 - REMOVE EXISTING SHED
 - PROTECT EXISTING CARPORT AND ROOF - REFER TO ARCHITECTURAL DRAWINGS
 - DEMOLISH EXISTING ROCKERY
 - REMOVE AND REPLACE EXISTING ROCKERY AS REQUIRED
 - REMOVE EXISTING TREE
 - REMOVE AND REPLACE EXISTING STAIRS AS REQUIRED
 - PROTECT EXISTING CONCRETE
 - PROTECT EXISTING TREE
 - PROTECT EXISTING VEGETATION (NOT SHOWN)
 - PROTECT EXISTING AREA DRAIN - SURROUND WITH STRAW WATTLE

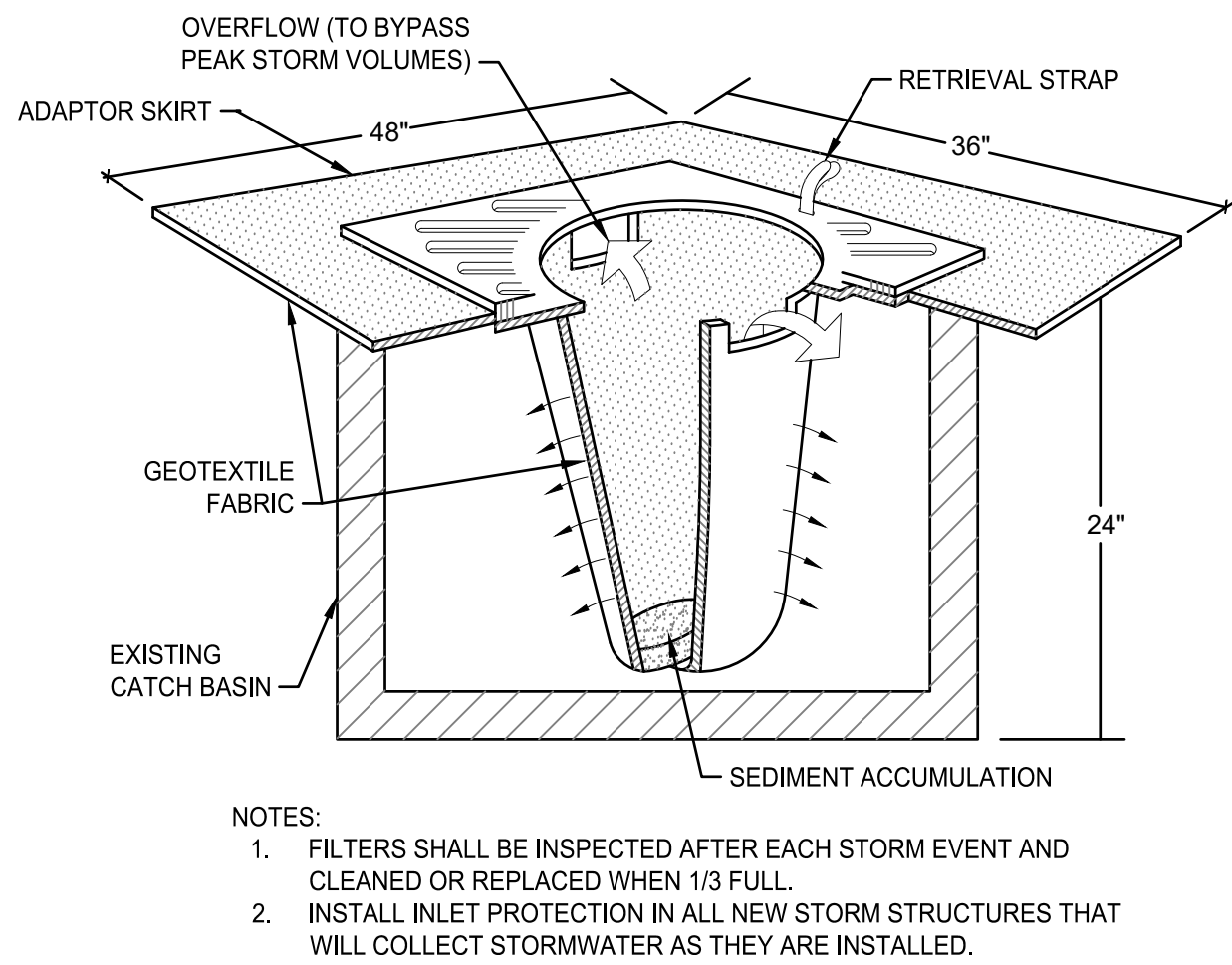
1 SILT FENCE

TESC NOTES

- ALL LIMITS OF CLEARING AND AREAS OF VEGETATION PRESERVATION AS PRESCRIBED ON THESE PLANS SHALL BE CLEARLY FLAGGED IN THE FIELD AND OBSERVED DURING CONSTRUCTION.
- ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES, AND PROTECTIVE MEASURES FOR CRITICAL AREAS AND SIGNIFICANT TREES SHALL BE INSTALLED PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITIES.
- ALL REQUIRED SEDIMENTATION AND EROSION CONTROL FACILITIES MUST BE CONSTRUCTED AND IN OPERATION PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION ACTIVITIES TO ENSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER ANY EXISTING DRAINAGE SYSTEM. THE CONTRACTOR SHALL SCHEDULE AN INSPECTION OF THE EROSION CONTROL FACILITIES PRIOR TO ANY LAND CLEARING AND/OR OTHER CONSTRUCTION. ALL EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED. THE IMPLEMENTATION, MAINTENANCE, REPLACEMENT, AND ADDITIONS TO THE EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE EROSION AND SEDIMENTATION CONTROL SYSTEM MEASURES DEPICTED ON THESE PLANS ARE INTENDED TO BE MINIMUM REQUIREMENTS TO MEET ANTICIPATED SITE CONDITIONS. AS CONSTRUCTION PROGRESSES AND UNEXPECTED OR SEASONAL CONDITIONS DICTATE, ADDITIONAL MEASURES MAY BE NECESSARY TO ENSURE COMPLETE SILTATION CONTROL ON THE SITE. DURING THE COURSE OF CONSTRUCTION, IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY CONSTRUCTION RELATED ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES, OVER AND ABOVE THE MINIMUM REQUIREMENTS, AS MAY BE NEEDED TO PROTECT ADJACENT SITES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
- ANY DISTURBED AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 10 DAYS OR MORE DURING THE DRY SEASON (MAY 1-SEPT 30) OR 5 DAYS OR MORE IN THE WET SEASON (OCT 1-APRIL 30), SHALL BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF MAY THROUGH SEPTEMBER INCLUSIVE. SEEDING MAY PROCEED OUTSIDE THE SPECIFIED TIME PERIOD WHENEVER IT IS IN THE INTEREST OF THE CONTRACTOR BUT SHALL BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT.
- NO TEMPORARY OR PERMANENT STOCKPILING OF MATERIALS OR EQUIPMENT SHALL OCCUR WITHIN CRITICAL AREAS OR ASSOCIATED BUFFERS, OR THE CRITICAL ROOT ZONE FOR VEGETATION PROPOSED FOR RETENTION.
- WATER SITE AS NECESSARY TO CONTROL DUST.
- TOPSOIL SHALL NOT BE PLACED WHILE SUBGRADE IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS EXCESSIVELY WET, OR WHEN CONDITIONS EXIST THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING.
- ON-SITE EROSION CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ANY PROBLEMS OCCURRING BEFORE FINAL STABILIZATION OF THE SITE SHALL BE CORRECTED BY THE CONTRACTOR.
- IF EROSION OR SEDIMENTATION OCCURS ON ADJACENT SITES, ALL CONSTRUCTION WORK WITHIN THE PROJECT LIMITS THAT WILL AGGRAVATE THE SITUATION MUST CEASE AND THE CONTRACTOR SHALL IMMEDIATELY COMMENCE RESTORATION OR MITIGATION MEASURES. RESTORATION ACTIVITY SHALL CONTINUE UNTIL SUCH TIME AS THE PROBLEM IS RECTIFIED.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE DRAWINGS SHALL BE INSTALLED PRIOR TO, OR AS THE FIRST STAGE OF SITE PREPARATION.
- SHOULD THE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THESE DRAWINGS NOT PROVE ADEQUATE TO CONTROL EROSION AND SEDIMENTATION, THE CONTRACTOR SHALL INSTALL ADDITIONAL FACILITIES AS NECESSARY TO PROTECT ADJACENT SITES, SENSITIVE AREAS, NATURAL WATER COURSES, AND/OR STORM DRAINAGE SYSTEMS.
- ALL NECESSARY FACILITIES SHALL BE MAINTAINED ON SITE TO PREVENT DEBRIS, DUST, AND MUD FROM ACCUMULATING ON ADJACENT ROADWAYS.
- THE CONTRACTOR SHALL BE REQUIRED TO CALL 1-800-424-5555 OR "811" A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCING ANY EXCAVATION ACTIVITIES TO DETERMINE FIELD LOCATIONS OF ALL UNDERGROUND UTILITIES.
- ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE COMPLETELY REMOVED PRIOR TO PROJECT COMPLETION.
- REFER TO THE CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR ADDITIONAL REQUIREMENTS.



- NOTES:**
- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM SIX-INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
 - THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF SIX FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30").
 - A TRENCH SHALL BE EXCAVATED, ROUGHLY EIGHT INCHES WIDE AND TWELVE INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POST TO ALLOW THE FILTER FABRIC TO BE BURIED. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST ONE INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR INCHES AND SHALL NOT EXTEND MORE THAN THIRTY SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE.
 - THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND TWENTY INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN THIRTY SIX INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
 - WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE (S) APPLYING.
 - THE TRENCH SHALL BE BACKFILL WITH 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL.
 - FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
 - FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 - DO NOT INSTALL BELOW AN OUTLET PIPE OR WEIR.
 - DO NOT DRIVE OVER OR FILL OVER FILTER FABRIC FENCE.



- NOTES:**
- FILTERS SHALL BE INSPECTED AFTER EACH STORM EVENT AND CLEANED OR REPLACED WHEN 1/3 FULL.
 - INSTALL INLET PROTECTION IN ALL NEW STORM STRUCTURES THAT WILL COLLECT STORMWATER AS THEY ARE INSTALLED.

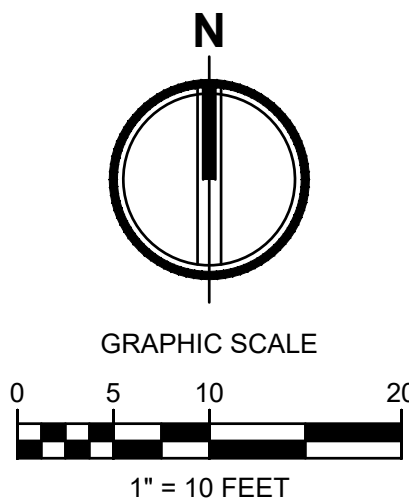
2 INLET PROTECTION

PLASTIC COVERING NOTES

- PLASTIC SHEETING SHALL HAVE A MINIMUM THICKNESS OF 6 MILS AND SHALL MEET THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 9-14.5(3).
- COVERING SHALL BE INSTALLED AND MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10-FOOT GRID SPACING IN ALL DIRECTIONS. ALL SEAMS SHALL BE TAPED OR WEIGHTED DOWN FULL LENGTH. SEAMS SHALL HAVE AT LEAST A 12 INCH OVERLAP.
- CLEAR PLASTIC COVERING SHALL BE INSTALLED IMMEDIATELY ON AREAS SEEDED BETWEEN NOVEMBER 1 AND MARCH 31 AND REMAIN UNTIL VEGETATION IS FIRMLY ESTABLISHED.
- WHEN COVERING IS USED ON UN-SEEDED SLOPES, IT SHALL BE KEPT IN PLACE UNTIL THE NEXT SEEDING PERIOD.
- PLASTIC COVERING SHALL BE BURIED TWO FEET AT THE TOP OF SLOPES IN ORDER TO PREVENT SURFACE WATER FLOW BENEATH SHEETS.
- PROPER MAINTENANCE OF COVERING INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, REGULAR CHECKS FOR AND REPAIRS OF RIPS AND DISLODGED ENDS.

LEGEND

---	RIGHT-OF-WAY / PROPERTY LINE
CL	CLEARING / PROJECT LIMITS
SF	SILT FENCE
INLET PROTECTION	INLET PROTECTION
---	EXISTING CONTOURS



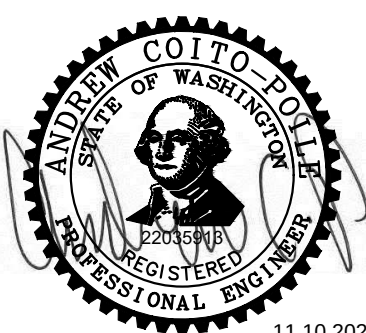
PONDEROSA CIVIL
ENGINEERING SERVICES
andrew@ponderosacivil.com 206.335.1933

2707 MERCER ISLAND SFR

2707 70TH AVE SE
MERCER, WA 98040

PERMIT SET
11.10.2025

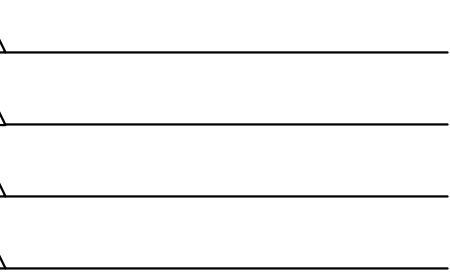
PERMIT NO.



DESIGNED
ACP

DRAWN
ACP

CHECKED
ACP



DEMOLITION AND TESC PLAN

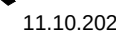
C1.1



2707 70TH AVE SE
MERCER, WA 98040

PERMIT SET
11.10.2025

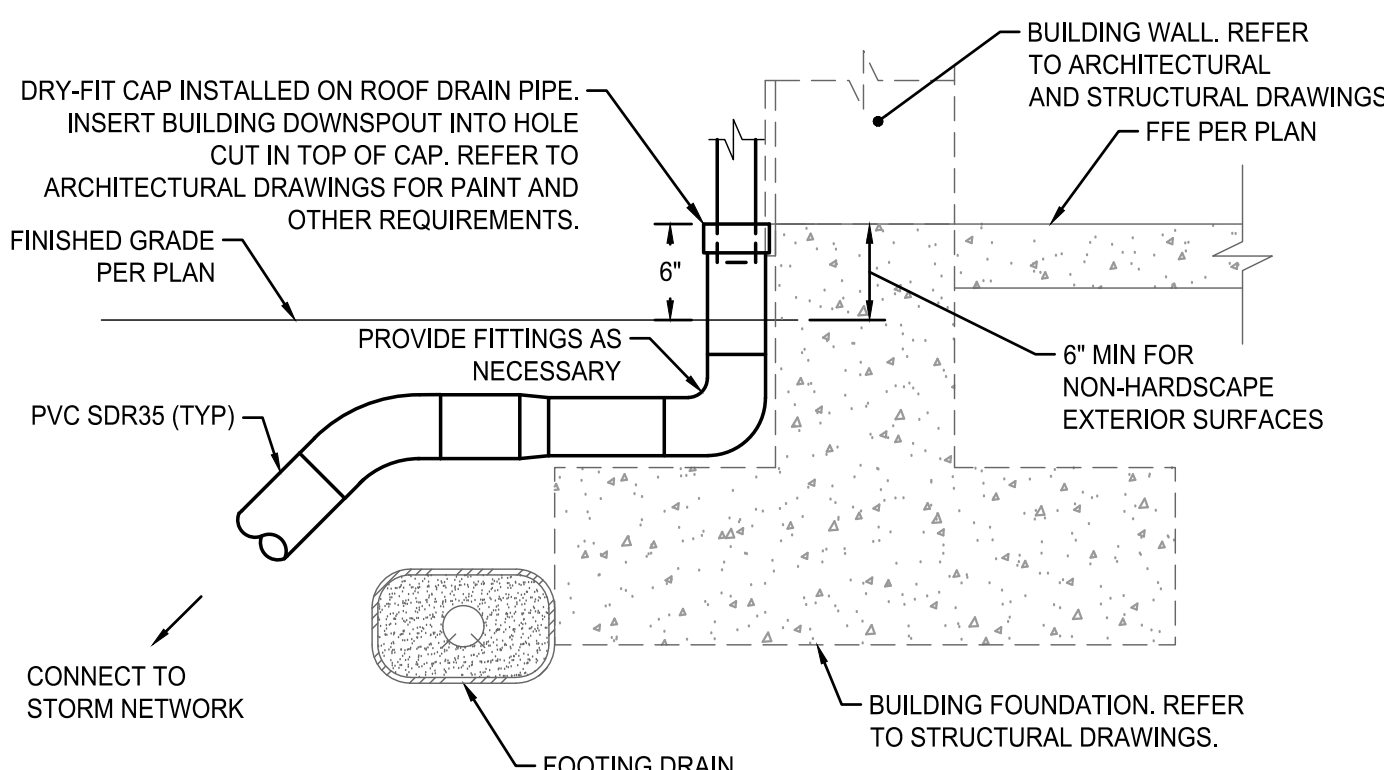
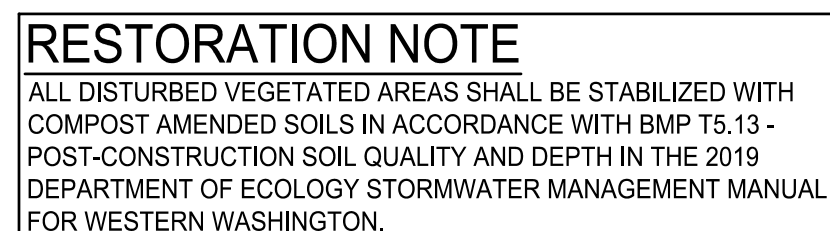
PERMIT NO.



DESIGNED	DRAWN	CHECKED
ACR	ACR	ACR

SITE PLAN

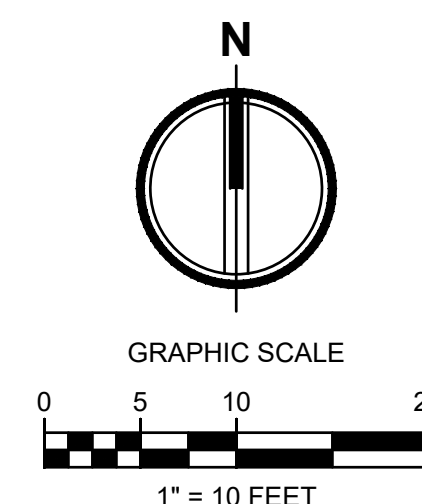
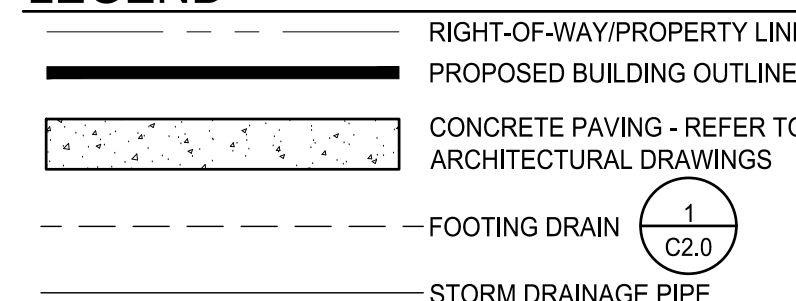
C2.0



STORM DRAINAGE NOTES

1. BARE GALVANIZED METAL SHALL NOT BE USED FOR MATERIALS THAT CONVEY STORMWATER, SUCH AS ROOFS, CANOPIES, SIDING, GUTTERS, DOWNSPOUTS, ROOF DRAINS AND PIPES. ANY GALVANIZED MATERIALS SHALL HAVE AN INERT, NON-LEACHABLE FINISH, SUCH AS BAKED ENAMEL, FLUOROCARBON PAINT (SUCH AS KYNAR OR HYLAR), FACTORY-APPLIED EPOXY, PURE ALUMINUM, OR ASPHALT COATING. ACRYLIC PAINT, POLYESTER PAINT, FIELD-APPLIED, AND PART ZINC (SUCH AS GALVALUME) COATINGS ARE NOT ACCEPTABLE.
2. BURIED UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION. PRIOR TO INSTALLATION OF ANY PROJECT IMPROVEMENTS, CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES. IN THE EVENT T OF ANY DISCREPANCY FROM THE INFORMATION PRESENTED ON THESE PLANS, CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER.
3. REFER TO BUILDING DRAWINGS FOR EXACT QUANTITY AND LOCATION OF DOWNSPOUTS.
4. ALL ROOF DRAINS SHALL BE 4"Ø WITH A MINIMUM SLOPE OF 1.0% AND MINIMUM COVER OF 2' UNLESS NOTED OTHERWISE. PIPE MATERIAL SHALL BE PVC SDR35 UNLESS NOTED OTHERWISE.

LEGEND



Know what's below.
Call before you dig.