

GENERAL NOTES

1. CODE COMPLIANCE
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 IFG, 2018 UPC, 2018 IFMC, 2020 NEC, 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES AND ORDINANCES.

2. DIMENSIONS
DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK.

3. DOCUMENT REVIEW/VERIFICATION
CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.

4. ROUGH OPENINGS/BACKING
VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.

5. FURRING
PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.

6. GRADES
VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDINGS.

7. FLOOR LINES
FLOOR LINE REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.

8. REPETITIVE FEATURES
OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.

9. DOORS
DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.

10. WOOD MEMBERS IN CONTACT WITH CONCRETE, AND/OR EXPOSED TO WEATHER:
TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 8", TYPICAL.

11. FRAMING
ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C. & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C., UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS.

12. VENTILATION
VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED.

13. ALL EXHAUST FANS/VENT HOODS OVER 400CFM SHALL HAVE A MAKE-UP AIR DEVICE W/ DAMPER STARTING AUTOMATICALLY AND RUNNING CONTINUOUSLY WITH THE FAN CAPABLE OF SUPPLYING AN EQUIVALENT AMOUNT OF AIR.

14. PLUES: FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.

15. DOWNSPOUTS: LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.

16. OTHER DOCUMENTATION:
REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.

17. PROTECTION
PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.

18. PERMITS
SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT.

19. ROOFING: PROVIDE NEW ROOFING TO MATCH EXISTING.

20. EXHAUST DUCTS: PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS.

21. PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.

22. APPLIANCES
CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.

23. WATER FLOW:
SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.

24. SMOKE DETECTORS
SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION.
NFPA 72 MONITORED FIRE ALARM SYSTEM.
A NFPA 72-CHAPTER 29 MONITORED FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

25. FIRE BLOCKING
FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS AND FORM A VERTICAL AND HORIZONTAL FIRE BARRIER BETWEEN STORIES AND THE TOP STORY TO ROOF SPACE PER IRC R302.11 AND R302.7

ENERGY NOTES

CODE: 2018 W.S.E.C. & 2018 IRC, WAC 511-11R

CLIMATIC ZONE: ZONE #4C

SPACE HEAT TYPE: NEW FORCED AIR GAS FURNACE TO REPLACE EXISTING

INSULATION VALUES:
PER TABLE R402.1.1

PRESCRIPTIVE METHOD

WALLS: R-21
FLAT ATTICS/CEILINGS: R-49
VAULTED CEILINGS: R-38
FLOORS (OVER UNHEATED SPACES): R-30
SLAB-ON-GRADE: R-10
BELOW GRADE WALLS: R-10/15/21+5TB
FENESTRATION U FACTOR: .30
SKYLIGHT U FACTOR: .50

CODE MIN FROM R402.1.1:

W/ WSEC CREDITS:

R-38
R10 ENTIRE SLAB

28

THERMAL STANDARDS FOR OPENINGS:
UNLIMITED OPTION

AIR INFILTRATION:
MANUFACTURED DOORS/WINDOWS, CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE

EXTERIOR JOINTS/OPENINGS: SEAL, CAULK, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE

MOISTURE CONTROL:
WALLS: VAPOR RETARDER BONDED TO BATT INSULATION. INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH. OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)
ATTICS/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY.
CRAWL SPACE: 6 MIL POLYETHYLENE

VENTILATION:
ATTICS WITH LOOSE FILL: N.A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE
ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPE OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION

HEATING & COOLING:
NEW FORCED AIR GAS FURNACE

TEMP. CONTROL:
FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FARENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.

DUCT INSULATION:
THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH SECTION 403.3.1 OF THE 2018 WASHINGTON STATE ENERGY CODE.
a. ALL HEATING DUCTS OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.
b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.

LIGHTING:
RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED.

PIPE INSULATION:
NON RECIRCULATING HOT AND COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.

WHOLE HOUSE VENTILATION:
WHOLE HOUSE VENTILATION SYSTEM:
a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 105 CFM RUNNING CONTINUOUSLY PER 2018 IRC TABLE M1505.4.3 (1&2). FAN SHALL BE CONNECTED TO A 24 HOUR CLOCK TIMER AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM OR BE PROVIDED WITH INTERLOCKED SYSTEM.
b. SYSTEM SHALL HAVE A 5'0" SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS.
c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.
e. AIRFLOW FOR WHOLE HOUSE EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

EFFICIENT WATER HEATING:
ALL SHOWERHEAD AND KITCHEN SINK FAUCETS SHALL BE RATED AT 1.75 GPM OR LESS. ALL LAVATORY FAUCETS SHALL BE RATED AT 1.0 GPM OR LESS

PROJECT DATA

PROJECT ADDRESS: 8456 NORTH MERCER WAY
MERCER ISLAND, WA 98040

PROPERTY TAX ID NUMBER: 545260-0100

SCOPE OF WORK: REMODEL OF EXISTING SINGLE FAMILY RESIDENCE. INTERIOR WORK WITH NEW OUTDOOR COVERED ROOM AND DECK AND EXPANDED MUDROOM. MINOR EXTENSION OF CONDITIONED AREA INTO EXISTING CRAWLSPACE. REMOVAL OF EXISTING LOFT.

ZONING: R-15

CONSTRUCTION TYPE: TYPE V B

SEISMIC ZONE: 3

FIRE PROTECTION: NFPA72 MONITORED FIRE ALARM SYSTEM

NUMBER OF STORIES: 1 STORY + DAYLIGHT BASEMENT

BUILDING HEIGHT LIMIT: 30 FT ABOVE AVERAGE BUILDING ELEVATION
NO CHANGE TO EXISTING RESIDENCE HEIGHT

LOT AREA: 16,866 SF

SETBACKS:
FRONT LOT LINE = 20 FT
REAR LOT LINE = 25 FT
SIDE LOT LINES = SUM OF 17% LOT WIDTH, MIN 33% EACH LOT WIDTH = 111'
SIDE YARD TOTAL = 18' - 10.5'
MIN SIDE YARD = 6' - 3.5'

GROSS FLOOR AREA: LESSER OF 40.0% OR 12,000 SF = 6,746.4 SF

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A2.1 MAIN FLOOR PLAN

A2.2 ROOF PLAN

A3.0 EXTERIOR ELEVATIONS

A3.1 EXTERIOR ELEVATIONS

A4.0 BUILDING SECTIONS

A4.1 BUILDING SECTIONS

A5.0 WALL SECTIONS

A6.0 EXTERIOR DETAILS

S-1.0 GENERAL STRUCTURAL NOTES

S-1.1 GENERAL STRUCTURAL NOTES AND SCHEDULES

S-2.0 FOUNDATION PLAN

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S-3.1 STRUCTURAL DETAILS

S-3.2 STRUCTURAL DETAILS

S-3.3 STRUCTURAL DETAILS

PROJECT TEAM

OWNER: JOHN EHRHARDT & LENA SHOWALTER
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CONTACT: MARC MCGINNIS

ARCHITECT: STURMAN ARCHITECTS, INC.
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PHONE: 425.451.7003
CONTACT: BRAD STURMAN

STRUCTURAL: ANNÉE STRUCTURAL ENGINEERING
1811 18TH AVENUE S
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CONTACT: MIKE ANNÉE

SURVEYOR: TYEE SURVEYORS
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CONTRACTOR: ISLAND CREST BUILDERS
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MERCER ISLAND, WA 98040
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CONTACT: JUSTIN DAVIS

INTERIOR DESIGNER: CALLAWAY INTERIORS
4915 RAINIER AVE S
SEATTLE, WA 98118
PHONE: 206.992.5949
CONTACT: MANDY CALLAWAY

GROSS FLOOR AREA (GFA)

	EXISTING FLOOR AREA	ADDITIONAL FLOOR AREA	TOTAL
LOWER FLOOR	1,567.9 SF	340.6 SF	1,908.5 SF
LF EXCLUSION			
MAIN FLOOR	2,742.4 SF	778.3 SF	3,520.7 SF
12'-16" CEILING	252.9 SF	70.7 SF	323.6 SF
16'+ CEILING	61.2 SF	-9.7 SF	51.5 SF
LOFT	255.0 SF	-255.0 SF	0 SF
GARAGE	611.5 SF	+ 5.3 SF	616.8 SF
GROSS FLOOR AREA	5,490.9 SF	930.2 SF	6,421.1 SF

NET LOT AREA 16,866 SF
ALLOWED MAX. % GFA COVERAGE 40.0 % OR 12,000 SF
ALLOWED GROSS FLOOR AREA 6,746.4 SF
EXISTING GROSS FLOOR AREA 5,490.9 SF
EXISTING % GFA COVERAGE 32.6%
PROPOSED GROSS FLOOR AREA 6,421.1 SF
PROPOSED % GFA COVERAGE 38.1%

GROSS FLOOR AREA DIAGRAMS

LOWER FLOOR GFA BREAKDOWN
EXISTING GFA 1,567.9 SF
PROPOSED: BASEMENT UNDERPINNING 340.6 SF
TOTAL PROPOSED: 1,908.5 SF

1 LOWER FLOOR GFA DIAGRAM
SCALE: 1/16" = 1'-0"

2 MAIN FLOOR GFA DIAGRAM
SCALE: 1/16" = 1'-0"

LEGAL DESCRIPTION

PER STATUTORY WARRANTY DEED, RECORDING NUMBER 20210524001469, RECORDS OF KING COUNTY, WASHINGTON.

LOT 10, MERCER PARK LANE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 92 OF PLATS, PAGE 37, IN KING COUNTY, WASHINGTON.

EXCEPT THAT PORTION THEREOF MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST SOUTHERLY CORNER OF SAID LOT 10;

THENCE NORTH 55°50'02" WEST ALONG THE SOUTHWESTERLY LINE THEREOF 141.87 FEET;

THENCE SOUTH 73°58'00" EAST 62.39 FEET;

THENCE SOUTH 42°31'33" EAST 84.86 FEET TO THE POINT OF BEGINNING.

TOGETHER WITH AN UNDIVIDED ONE-ELEVENTH INTEREST IN TRACT "A" TOGETHER WITH AN UNDIVIDED ONE-ELEVENTH INTEREST IN TRACT "B" AND TOGETHER WITH WALKWAY EASEMENT OVER PORTION OF LOT 5 IN SAID PLAT AS DELINEATED IN SAID PLAT;

TOGETHER WITH AN UNDIVIDED ONE-ELEVENTH INTEREST IN TRACT "C" SAID TRACTS "A", "B", AND "C" AS DELINEATED ON THE FACE OF SAID PLAT SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

TREE INVENTORY

NUMBER	SPECIES	DBH (inches)	RETAINED
1	DOUGLAS FIR	36	YES
2	DOUGLAS FIR	18	YES
3	DOUGLAS FIR	18	YES
4	ORNAMENTAL	4.5	YES
5	ORNAMENTAL	10	YES
6	WESTERN RED CEDAR	10	YES
7	ORNAMENTAL	6	YES
8	DOUGLAS FIR	16	YES
9	PINE	10	YES
10	PINE	10	YES
11	DOUGLAS FIR	12	YES
12	DOUGLAS FIR	8	YES
13	DOUGLAS FIR	6	YES

NOTE ALL EXISTING TREES ON SITE WILL BE RETAINED. NO TREE REMOVAL PROPOSED AS PART OF THIS PERMIT

WHOLE HOUSE VENTILATION

ROOMS	6
HEATED SQUARE FOOTAGE	4,592.1 SF
CFM = (0.01* 4592.1 SF) + (7.5 * (6+1 BEDROOMS))	
AIRFLOW (CFM)	98.32 CFM MIN.

a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN, PROVIDING MIN. 98 CFM RUNNING CONTINUOUSLY PER 2018 IRC TABLE M1505.4.3 (1&2). FAN SHALL BE LESS THAN .35 WATT PER CFM. RUN CONTINUOUSLY, AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.

b. SYSTEM SHALL HAVE A 5'0" SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS. ALL SUPPLY DUCTS IN CONDITIONED SPACE SHALL BE INSULATED TO MIN. R-4 PER IRC M1507.3.5.2.

c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.

d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.

e. AIRFLOW FOR WHOLE HOUSE VENTILATION FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

f. WHOLE HOUSE VENTILATION SHALL BE TESTED, BALANCED AND VERIFIED AND A WRITTEN REPORT SHALL BE POSTED AND PROVIDED THE BUILDING OFFICIAL AND CERTIFICATION COMPLETED PER WSEC SECTIONS M1505.4.1.6 AND M1505.4.1.7.

DUTY OF COOPERATION

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO SHALL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS ARE UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

NFPA 72 MONITORED FIRE ALARM

NFPA 72 MONITORED FIRE ALARM SYSTEM

A NFPA 72-CHAPTER 29 MONITORED FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED

EXISTING WALL INSULATION

EXISTING CEILING, WALL OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION PROVIDED THAT THESE CAVITIES ARE FILLED WITH INSULATION WHILE MAINTAINING CODE REQUIRED VENTILATION CLEARANCES. 2X4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15 AND 2X6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.

IMPERVIOUS DIAGRAM

SCALE: 1/32" = 1'-0"

LOT COVERAGE & HARDSCAPE

LOT COVERAGE	NET LOT S.F.	MAIN STRUCT. & ROOF S.F.	DRIVES/ PARKING	TOTAL LOT COVERAGE	% LOT COVERAGE	HIGHEST EL: 58.2' LOWEST EL: 27.8' ELEVATION DIFFERENCE= 30.4'
EXISTING LOT COVERAGE AREA	16,866 SF	4,077.4 SF	1,372.8 SF	5,450.2 SF	32.32 %	30.4' DIVIDED BY 188.81' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .161
PROPOSED LOT COVERAGE AREA		4,705.8 SF	1,177.5 SF	5,883.8 SF	34.88 %	
NET GAIN/LOSS LOT COVERAGE AREA		+628.4 SF	-195.3 SF	+433.1 SF	+2.57 %	LOT SLOPE IS 16.1%, WHICH IS GREATER THAN 15% BUT LESS THAN 30% SO LOT COVERAGE ALLOWED IS 35%.
% ALLOWED LOT COVERAGE AREA				5,903.1 SF ALLOWABLE	35 %	ALLOWABLE HARDSCAPE SURFACE IS AN ADDITIONAL 9% OF LOT SIZE

HARDSCAPE	WALKS & STEPS	DECK	CONCRETE SLABS	ROCKERIES & RET. WALLS	TOTAL HARDSCAPE	% HARDSCAPE
EXISTING HARDSCAPE AREA	497.3 SF	90.7 SF	882.5 SF	157.1 SF	1,627.6 SF	9.6 %
PROPOSED HARDSCAPE AREA	492.9 SF	151.2 SF	685.0 SF	151.6 SF	1,480.7 SF	8.8 %
NET GAIN/LOSS HARDSCAPE AREA	-4.4 SF	+60.5 SF	-197.5 SF	-5.5 SF	-146.9 SF	-0.8 %
% ALLOWED HARDSCAPE AREA					1,517.9 SF ALLOWABLE	9 %
UNUSED LOT COVERAGE AVAILABLE FOR HARDSCAPE					19.3 SF	0.1 %
TOTAL ALLOWED HARDSCAPE AREA					1,537.2 SF ALLOWABLE	9.1 %

BUILDING AREA

	BASEMENT	MAIN FLOOR	LOFT	HEATED SUB-TOTAL	ATTACHED GARAGE	GRAND TOTAL
EXISTING HOUSE:	1,445.5 SF	2,496.7 SF	200.9 SF	4,143.1 SF	579.0 SF	4,722.1 SF
PROPOSED HOUSE:	1,781.0 SF	2,801.1 SF	0 SF	4,582.1 SF	583.3 SF	5,165.4 SF
CHANGE:	+ 335.5 SF	+ 304.4 SF	-200.9 SF	+ 439.0 SF	+ 4.3 SF	+ 443.3 SF

NOTE: BUILDING AREA IS USEABLE CONDITIONED FLOOR SPACE AND DOES NOT INCLUDE EXTERIOR WALLS, TWO STORY OPEN AREAS, AND SPACE ABOVE STAIRS.

AVERAGE BUILDING ELEVATION

11'-0 1/2"

11'-0"

18'-4 1/2"

25'-9 1/2"

9'-11"

14'-2"

17'-10"

26'-3"

12'-0"

13'-3 1/2"

21'-1 1/2"

6'-7"

12'-4 1/2"

25'-11"

14'-4 1/2"

24'-5"

33'-4 1/2"

1'-10 1/2"

4'-11"

AVERAGE BUILDING ELEVATION

	Wall Length	Elevation Pt.	Wall Length X Elev. Pt.
A	14.17	38.25	542.0025
B	3.00	39.8	119.4
C	17.83	39.9	711.417
D	3.00	40	120
E	26.25	40.2	1055.25
F	13.04	42	547.68
G	12.00	44	528
H	21.13	46	971.75
I	12.04	47.75	574.91
J	8.58	47.78	409.9524
K	25.92	46.6	1207.872
L	8.58	45.8	392.964
M	14.79	45.5	672.945
N	33.38	46.6	1555.508
O	24.42	45.8	1118.436
P	25.71	39.5	1015.545
Q	1.88	39.5	74.26
R	18.38	39.5	726.01
S	4.92	39.5	194.34
T	11.83	39.5	467.285
U	9.92	38.6	382.912
V	11.71	38.5	450.835
	322.475	930.58	13839.2739
		Average Building Elevation	
13839.27	42.92		
322.48			

SITE INFO

REVISIONS:
A PERMIT CORRECTIONS 12/25/2023
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

PLOT DATE: 1/10/2024

DRAWN BY: LG

CHECKED BY: BJS

SHEET

STURMAN ARCHITECTS

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON

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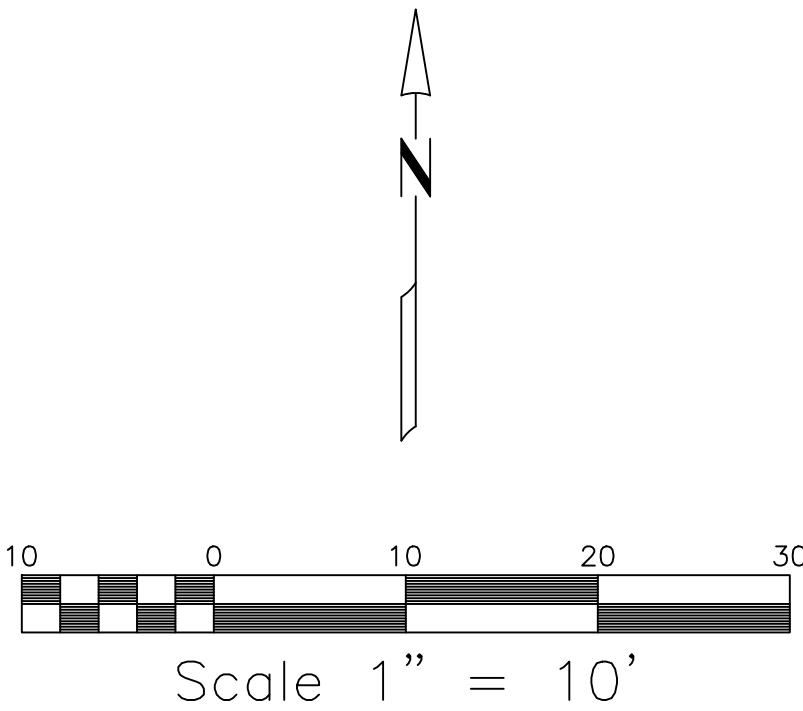
EHRHARDT RESIDENCE
PERMIT SET

8456 N MERCER WAY
MERCER ISLAND, WA 98040

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 8/21/23

A1.0



MERIDIAN

ASSUMED

DATUM

NAVD 88

CONTOUR INTERVAL = 2'

EQUIPMENT & PROCEDURES

FIELD SURVEY CONDUCTED USING A COMBINATION OF GPS USING A REFERENCE NETWORK AND A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. SURVEY PROCEDURES MEET OR EXCEED STATE STANDARDS AS SPECIFIED BY W.A.C. 332-130 WITH REGARD TO LINEAR AND ANGULAR CLOSURES. ALL MEASURING INSTRUMENTS FOR THIS SURVEY HAVE BEEN MAINTAINED ACCORDING TO MANUFACTURES SPECIFICATIONS AND HAVE BEEN COMPARED WITH A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE WITHIN THE LAST 12 MONTHS.

BENCHMARKS

ORIGINAL BM: FOUND INVERTED NAIL IN 2" IRON PIPE EAST OF INTERSECTION OF 90TH PL SE AND SHOREWOOD DR. ELEV. = 108.93

TBM - A: SET MAG NAIL. ELEV. = 42.31

TBM - B: SET HUB + MAG NAIL. ELEV. = 36.37

GENERAL NOTES

1. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
2. UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, TYEE SURVEYORS DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST.
4. LOCATION OF GRASS IS APPROXIMATE ONLY.
5. NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.
6. THE BOUNDARY FOR THIS SURVEY WAS COMPUTED FROM FOUND MONUMENTATION, THE PLAT OF MERCER PARK LANE, RECORDED IN VOL. 92 OF PLATS, PG. 37, SURVEY AS RECORDED IN VOLUME 328 OF SURVEYS, PAGE 147, ALL IN RECORDS OF KING COUNTY, WASHINGTON.
7. THE 5.0 FOOT WIDE UTILITY EASEMENT ADJACENT TO STREET FROM PLAT, SEE RESTRICTIONS ON THE PLAT.
8. A 4.0 FOOT WIDE SIDE SEWER FOR PROPERTY LYING WEST OF THE SITE MAY STILL BE IN EXISTENCE. A REVIEW OF SIDE SEWER RECORDS MAY BE REQUIRED TO DETERMINE AN APPROXIMATE LOCATION OF THE SIDE SEWER PIPE.

LEGAL DESCRIPTION

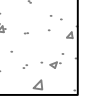
LOT 10, MERCER PARK LANE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 92 OF PLATS, PAGE 37, IN KING COUNTY, WASHINGTON.

EXCEPT THAT PORTION THEREOF MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE MOST SOUTHERLY CORNER OF SAID LOT 10; THENCE NORTH 55°50'02" WEST ALONG THE SOUTHWESTERLY LINE THEREOF 141.87 FEET; THENCE SOUTH 73°58'00" EAST 62.59 FEET; THENCE SOUTH 42°31'53" EAST 84.66 FEET TO THE POINT OF BEGINNING.

LEGEND:

GM GAS METER
LP LAMP POST
PM POWER METER
TR TELEPHONE RISER
WM WATER METER
YD YARD DRAIN
AP APPLE
C CEDAR
D DECIDUOUS
F FIR



CONCRETE HATCH



DECK HATCH



ASPHALT HATCH

G GAS LINE

HOUSE TO BOUNDARY TIES

LINE	BEARING	DISTANCE
L1	N 38°11'05" W	23.98
L2	N 48°18'31" E	24.12
L3	N 48°18'31" E	37.00
L4	N 47°18'06" W	43.65
L5	N 47°18'06" W	45.32
L6	N 35°32'43" E	9.04
L7	N 48°40'00" E	45.53



3/31/22

REV. ADD 5.0 FOOT UTILITY ESMT 11/22/23 TG

TOPOGRAPHIC SURVEY
for

JOHN EHRHARDT

8456 N MERCER WAY

MERCER ISLAND, WASHINGTON 98040

PARCEL # 545260010008
SW1/4, NW1/4, SEC. 7, T. 24 N., R. 5 E., W.M.
MERCER ISLAND, WASHINGTON



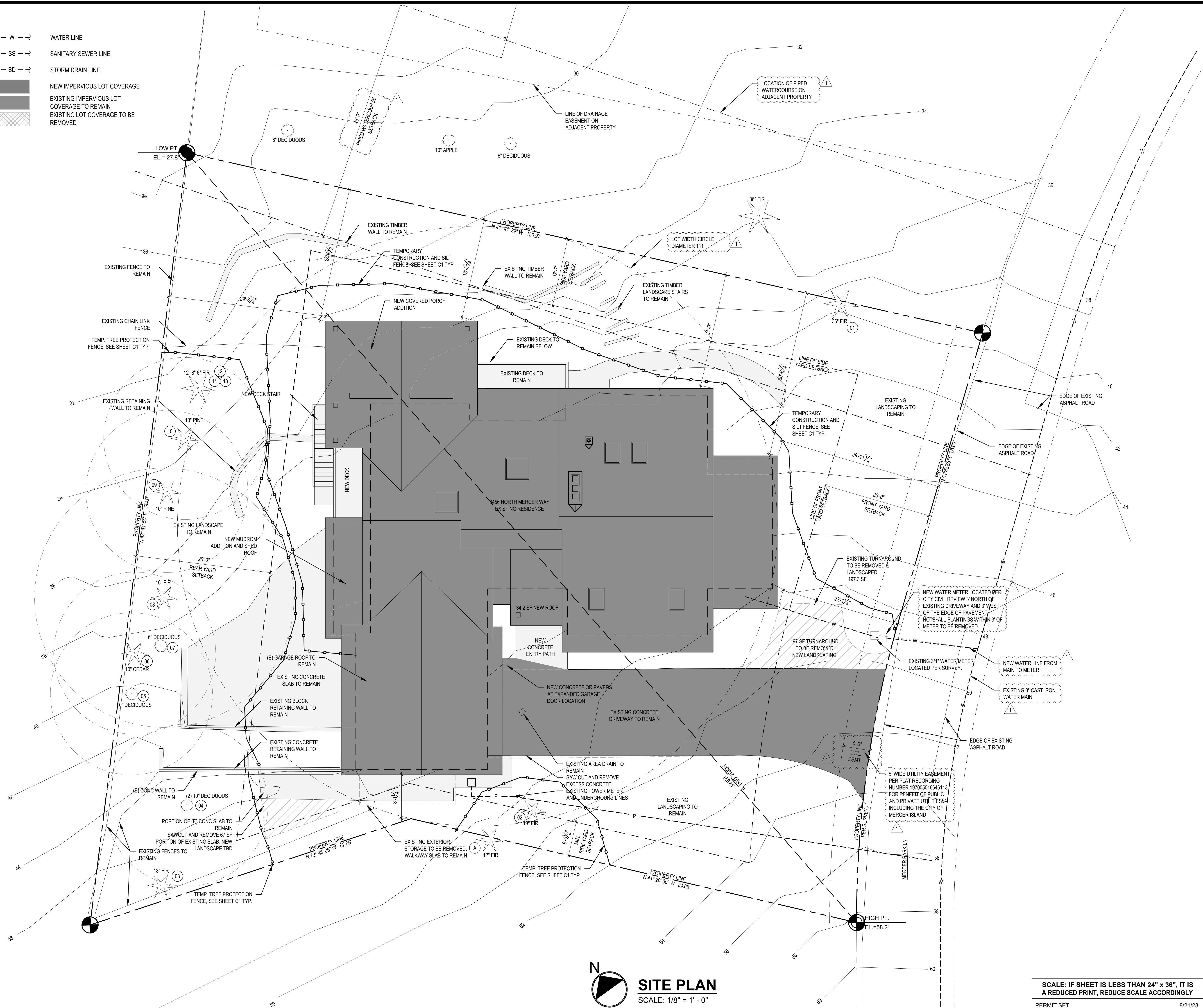
Tye Surveyors
PROFESSIONAL LAND SURVEYORS

17544 MIDVALE AVE N., SUITE 107 SHORELINE, WA. 98133 206-525-3660

DRAWN BY: RG	DATE: 12-16-2021	JOB NO.: 21235
CHKD BY: TG	SCALE: 1" = 10'	SHEET: 1 OF 1

	NEW IMPERVIOUS HARDSCAPE
	EXISTING IMPERVIOUS HARDSCAPE TO REMAIN
	EXISTING IMPERVIOUS HARDSCAPE TO BE REMOVED

	WATER LINE
	SANITARY SEWER LINE
	STORM DRAIN LINE
	NEW IMPERVIOUS LOT COVERAGE
	EXISTING IMPERVIOUS LOT COVERAGE TO REMAIN
	EXISTING LOT COVERAGE TO BE REMOVED



SITE PLAN

SCALE: 1/8" = 1' - 0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY	
PERMIT SET	8/21/23

STURMAN
ARCHITECTS

9-103rd Ave. NE Suite 203 Bellevue, WA 98004
TEL: 425/4517003

5562

REGISTERED
ARCHITECT

BRADLEY J. STURMAN
STATE OF WASHINGTON

www.sturmanarchitects.com
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2023

EHRHARDT RESIDENCE
PERMIT SET
88456 N MERCER WAY
MERCER ISLAND, WA 98040

SITE PLAN

1	PERMIT CORRECTIONS 12/8/2023
2	
3	
4	
5	
6	

NOT DATE: 13/11/2023

DRAWN BY:

HECKED BY:

EET

A1.1

EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:

1. NOT USED

2. NOT USED

3. PERIMETER PROTECTION MAY BE USED AS THE SOLE FORM OR TREATMENT WHEN THE FLOWPATH MEETS THE CRITERIA LISTED BELOW. IF THESE ARE NOT MET, PERIMETER PROTECTION SHALL ONLY BE USED AS A BACKUP TO A SEDIMENT TRAP OR POND.

AVERAGE SLOPE

1.5H:1V OR LESS

2H:1V OR LESS

4H:1V OR LESS

6H:1V OR LESS

10H:1V OR LESS

SLOPE PERCENT

67% OR LESS

50% OR LESS

25% OR LESS

16.7% OR LESS

10% OR LESS

FLOWPATH LENGTH

100 FEET

115 FEET

150 FEET

200 FEET

250 FEET

4. THE CONTRACTOR SHALL STABILIZE DENUDED AREAS AND SOIL STOCKPILES AS FOLLOWS:

DENUDED AREAS SHALL BE COVERED BY MULCH, SOD, PLASTIC, OR OTHER BMP'S APPROVED BY THE ENGINEER. WHERE POSSIBLE NATURAL VEGETATION SHALL BE MAINTAINED FOR EROSION AND SEDIMENT CONTROL.

5. AS CONSTRUCTION PROGRESSES AND SEASONAL CONDITIONS DICTATE, THE EROSION CONTROL FACILITIES SHALL BE MAINTAINED AND/OR ALTERED AS REQUIRED TO ENSURE CONTINUING EROSION/SEDIMENT CONTROL.

6. EVERY EFFORT SHALL BE MADE TO CLOSE UTILITY TRENCHES BY THE END OF THE DAY AND MATERIAL EXCAVATED DURING UNDERGROUND UTILITY CONSTRUCTION SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES (WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS).

7. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE IN OPERATION, AND THE POTENTIAL FOR EROSION HAS PASSED.

8. AT A MINIMUM, EROSION AND SEDIMENT CONTROL FACILITIES SHALL BE MAINTAINED MONTHLY, OR FOLLOWING EACH RUNOFF-PRODUCING STORM, TO ENSURE PROPER OPERATION OF ALL EROSION AND SEDIMENT CONTROL FACILITIES. SEDIMENT SHALL BE REMOVED FROM BMP'S WHEN IT REACHES D-FOOT DEPTH.

9. THE PUBLIC RIGHT-OF-WAY SHALL BE KEPT CLEAN. TRACKING OF MUD AND DEBRIS FROM THE SITE WILL NOT BE ALLOWED. FAILURE TO COMPLY WITH THIS CONDITION MAY RESULT IN ALL WORK ON SITE BEING STOPPED.

10. THE WASHINGTON STATE CLEAN AIR ACT REQUIRES THE USE OF ALL KNOWN AVAILABLE, AND REASONABLE MEANS OF CONTROLLING AIR POLLUTION, INCLUDING DUST. DUST CAN BE CONTROLLED BY WETTING EXPOSED SOILS, WASHING TRUCK WHEELS BEFORE THEY LEAVE THE SITE, AND INSTALLING AND MAINTAINING ROCK CONSTRUCTION ENTRANCES. CONSTRUCTION VEHICLE TRACK-OUT IS A MAJOR SOURCE OF DUST AND ANY EVIDENCE OF TRACK-OUT CAN TRIGGER FINES FROM THE DEPARTMENT OF ECOLOGY OF THE PUGET SOUND AIR POLLUTION CONTROL AGENCY.

11. NOT USED

12. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL BMP'S WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THEY ARE NO LONGER NECESSARY.

PRIOR TO BEGINNING CLEARING OR GRADING

13. INSTALL THE SILT FENCE AS INDICATED ON THE SITE PLAN & SHEET C1.0
14. PLACE A THICK LAYER OF STRAW OR MULCH ON ALL AREAS OF BARE SOIL OUTSIDE OF THE PLANNED NEW CONSTRUCTION. THIS IS PARTICULARLY IMPORTANT IN THE SOUTH, LOW END OF THE LOT.
15. INSTALL PRE MANUFACTURED SILT SOCKS IN THE TWO EXISTING CATCH BASINS LOCATED SOUTH & EAST OF THE SITE. THIS CATCH BASIN PROTECTION MUST BE CHECKED PERIODICALLY, & CLEANED AS NECESSARY, TO PREVENT THE SILT SOCKS FROM BECOMING OVERLOADED WITH SILT & DEBRIS FROM SURFACE RUNOFF.
16. CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE, AS SHOWN ON SHEET C1.0 OF THE DRAWINGS, WHEREVER TRUCKS WILL DRIVE OFF AF PAVED SURFACES TO IMPORT OR EXPORT DEBRIS & SOIL.

DURING GRADING & CONSTRUCTION

17. COVER ANY SOIL STOCKPILES WITH PLASTIC SHEETING THAT IS STAKED OR WEIGHTED TO PREVENT IT FROM BLOWING AWAY.
18. ALLOW NO RUNOFF FROM THE EXCAVATION FOR THE SOUTHERN ADDITION TO FLOW ACROSS THE GROUND SURFACE TOWARD THE SOUTH. THIS MAY REQUIRE CREATING A SOIL BERM ALONG THE SOUTHERN EDGE OF THE EXCAVATION. IF SILTY RUNOFF COLLECTS IN THE EXCAVATION, IT MAY NEED TO BE PUMPED TO A TEMPORARY HOLDING TANK FOR DISPOSAL OFF SITE.
19. FOLLOWING CONSTRUCTION OF THE FOUNDATION WALLS, PROCEED IMMEDIATELY WITH INSTALLATION OF DRAINAGE & WATER PROOFING, THEN COMPLETION OF BACKFILLING.
20. SPREAD STRAW OR MULCH AGAIN ON ALL BARE SOIL OUTSIDE OF THE BACKFILLED FOUNDATIONS, UNLESS PERMANENT LANDSCAPING & VEGETATION WILL BE IMMEDIATELY ESTABLISHED.

COVER MEASURES

COVER METHODS INCLUDE THE USE OF MULCH, EROSION CONTROL NETS AND BLANKETS, PLASTIC COVERING, SEEDING, AND SODDING. MULCH AND PLASTIC SHEETING ARE PRIMARILY INTENDED TO PROTECT DISTURBED AREAS FOR A SHORT PERIOD OF TIME, TYPICALLY DAYS TO A FEW MONTHS. SEEDING AND SODDING ARE MEASURES FOR AREAS THAT ARE TO REMAIN UNWORKED FOR MONTHS.

TEMPORARY EROSION CONTROL SEED MIX:			
	% WEIGHT	% PURITY	% GERMINATION
ANNUAL OR PERENNIAL RYE (LOLIUM MULTIFLORUM OR LOLIUM PERENNE)	40	98	90
REDTOP OR COLONIAL BENTGRASS (AGROSTIS ALBA OR AGROSTIS TENUIS)	10	92	85

PERMANENT SEED MIX:				
	% WEIGHT	% PURITY	% GERMINATION	REMARKS
PERENNIAL RYE BLEND (LOLIUM PERENNE)	70	98	90	THIS MIX IS PROVIDED AS JUST ONE RECOMMENDED POSSIBILITY. LOCAL SUPPLIERS SHOULD BE CONSULTED FOR THEIR RECOMMENDATIONS BECAUSE THE APPROPRIATE MIX DEPENDS ON A VARIETY OF FACTORS, INCLUDING EXPOSURE, SOIL TYPE, SLOPE, AND EXPECTED FOOT TRAFFIC.
CHEWINGS AND RED FESCUE BLEND (FESTUCA RUBRA VAR. COMMUTATA OR FESTUCA RUBRA)	30	98	90	

MULCH STANDARDS AND GUIDELINES:			
MULCH MATERIAL	QUALITY STANDARDS	APPLICATION RATES	REMARKS
STRAW	AIR-DRIED; FREE FROM UNDESIRABLE SEED AND COARSE MATERIAL.	2"-3" THICK; 2-3 BALES PER 1000 SF OR 2-3 TONS PER ACRE	COST-EFFECTIVE PROTECTION WHEN APPLIED WITH ADEQUATE THICKNESS. HAND-APPLICATION GENERALLY REQUIRES GREATER THICKNESS THAN BLOWN STRAW. STRAW SHOULD BE CRIMPED TO AVOID WIND BLOW. THE THICKNESS OF STRAW MAY BE REDUCED BY HALF WHEN USED IN CONJUNCTION WITH SEEDING.
CHIPPED SITE VEGETATION	AVERAGE SIZE SHALL BE SEVERAL INCHES.	2" MINIMUM THICKNESS	THIS IS A COST-EFFECTIVE WAY TO DISPOSE OF DEFRIS FROM CLEARING AND GRUBBING, AND IT ELIMINATES THE PROBLEMS ASSOCIATED WITH BURNING. GENERALLY, IT SHOULD NOT BE USED ON SLOPES ABOVE APPROXIMATELY 10% BECAUSE OF ITS TENDENCY TO BE TRANSPORTED BY RUNOFF. IT IS NOT RECOMMENDED WITHIN 200 FEET OF SURFACE WATERS. IF SEEDING IS EXPECTED SHORTLY AFTER MULCH, THE DECOMPOSITION OF THE CHIPPED VEGETATION MAY TIE UP NUTRIENTS IMPORTANT TO GRASS ESTABLISHMENT.

CONSTRUCTION SEQUENCE:

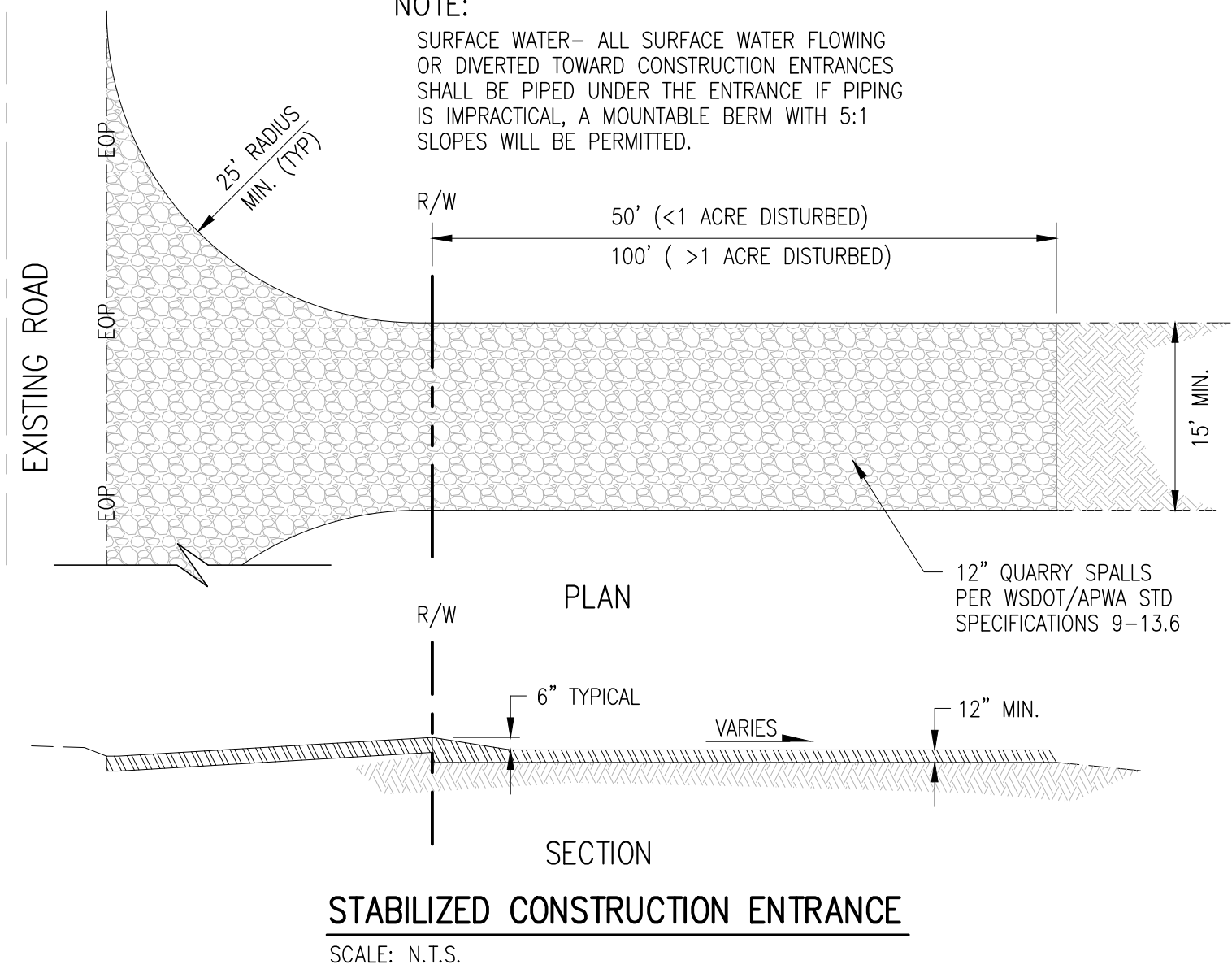
1. SCHEDULE THE PRE-CONSTRUCTION MEETING.
2. FLAG OR FENCE ALL CRITICAL AREAS AND CLEARING LIMITS.
3. POST A SIGN WITH THE NAME AND PHONE NUMBER OF THE E.S.C. SUPERVISOR.
4. GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
5. INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
6. CONSTRUCT SEDIMENT PONDS AND TRAPS, IF REQUIRED.
7. GRADE AND STABILIZE CONSTRUCTION ROADS.
8. CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
9. INSTALL UTILITIES.
10. MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH LOCAL STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
11. RELOCATE SURFACE WATER CONTROLS OR EROSION CONTROL MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE ACCEPTED STANDARD BMP'S.
12. COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
13. STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
14. SEED OR SOD ANY AREAS OF THE PROJECT, STABILIZE ALL DISTURBED AREA AND REMOVE BMP'S IF APPROPRIATE
15. UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMP'S IF APPROPRIATE.

NOTES:

- INSTALL THE SILT FENCE FIRST. AFTER THE SILT FENCE HAS BEEN INSTALLED, CONSTRUCT BERM AND TRENCH.
- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, THE FILTER FABRIC SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SHALL BE SECURELY FASTENED TO THE POST.
- POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 30 INCHES (WHERE PHYSICALLY POSSIBLE)
- A TRENCH SHALL BE EXCAVATED APPROXIMATELY 8 INCHES WIDE AND 12 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. THE TRENCH SHALL BE CONSTRUCTED TO FOLLOW THE CONTOUR. 20 INCHES OF THE FILTER FABRIC SHALL EXTEND INTO THE TRENCH AND THE TRENCH SHALL BE BACKFILLED WITH COMPACTED NATIVE SOIL MATERIAL.
- THE FILTER FABRIC FENCE SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN SILT FILM FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 4 INCHES. SILT FILM FILTER SHALL BE WIRED TO THE FENCE.
- WHEN EXTRA-STRENGTH OR MONOFILAMENT FABRIC IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN THIS CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS. EXTRA CARE SHOULD BE USED WHEN JOINING OR OVERLAPPING THESE STIFFER FABRICS.

SILT FENCE DETAIL

SCALE: N.T.S.



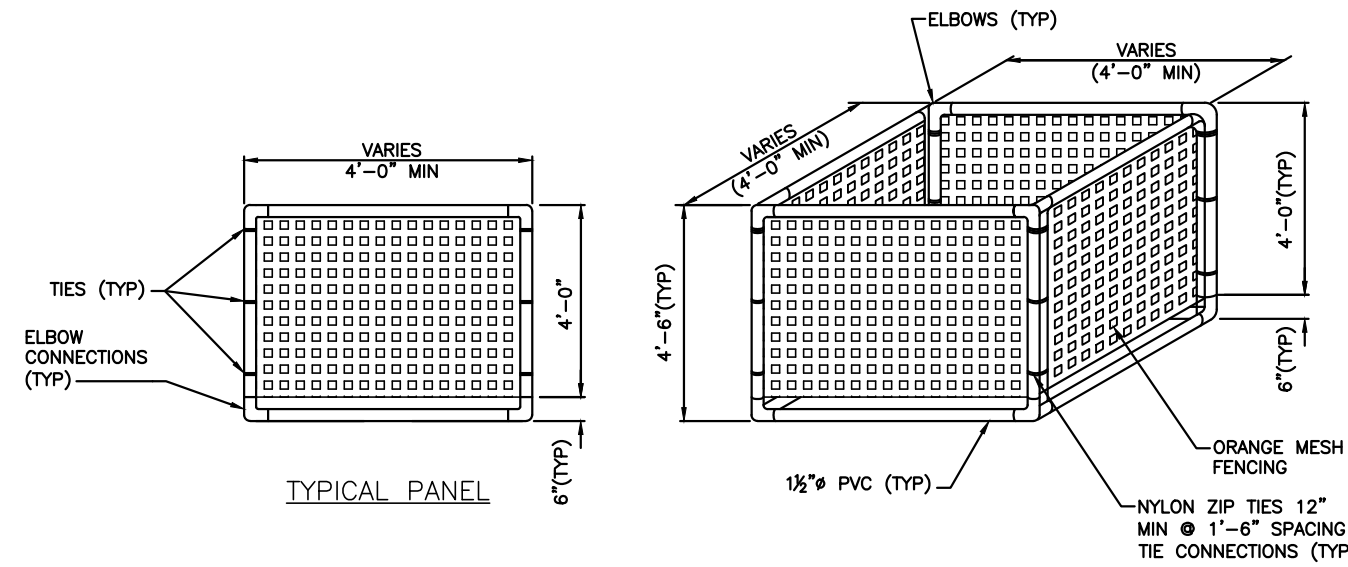
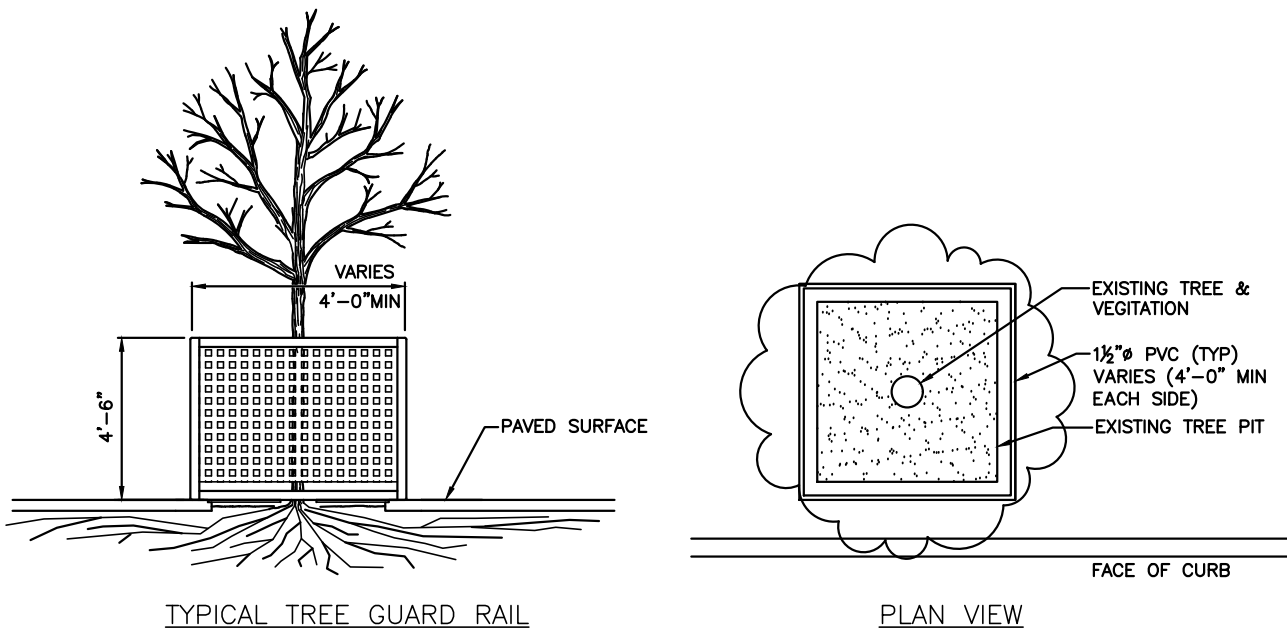
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PERMANENT SEED MIX:				
	% WEIGHT	% PURITY	% GERMINATION	REMARKS
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1. PROTECTIVE FENCING SHALL BE LOCATED WHERE SHOWN ON PLANS. FENCE SHALL COMPLETELY ENCLOSE TREE AT DRIPLINE OR BEYOND. AVOID DRIVING STAKES OR POSTS IN MAJOR ROOTS. FENCE SHALL REMAIN UP THROUGHOUT PROJECT.
2. NO STOCKPILING OF MATERIALS, GRADE CHANGES, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. CALL ARBORIST FOR MITIGATION MEASURES IF FENCE MUST COME DOWN.
3. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION: FOR ROOTS OVER 1" IN DIAMETER DAMAGED DURING CONSTRUCTION MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP WITH CONTINUOUS IRRIGATION TO PREVENT DRYING. COVER WITH SOIL AS SOON AS POSSIBLE. 3" OF MULCH RECOMMENDED.

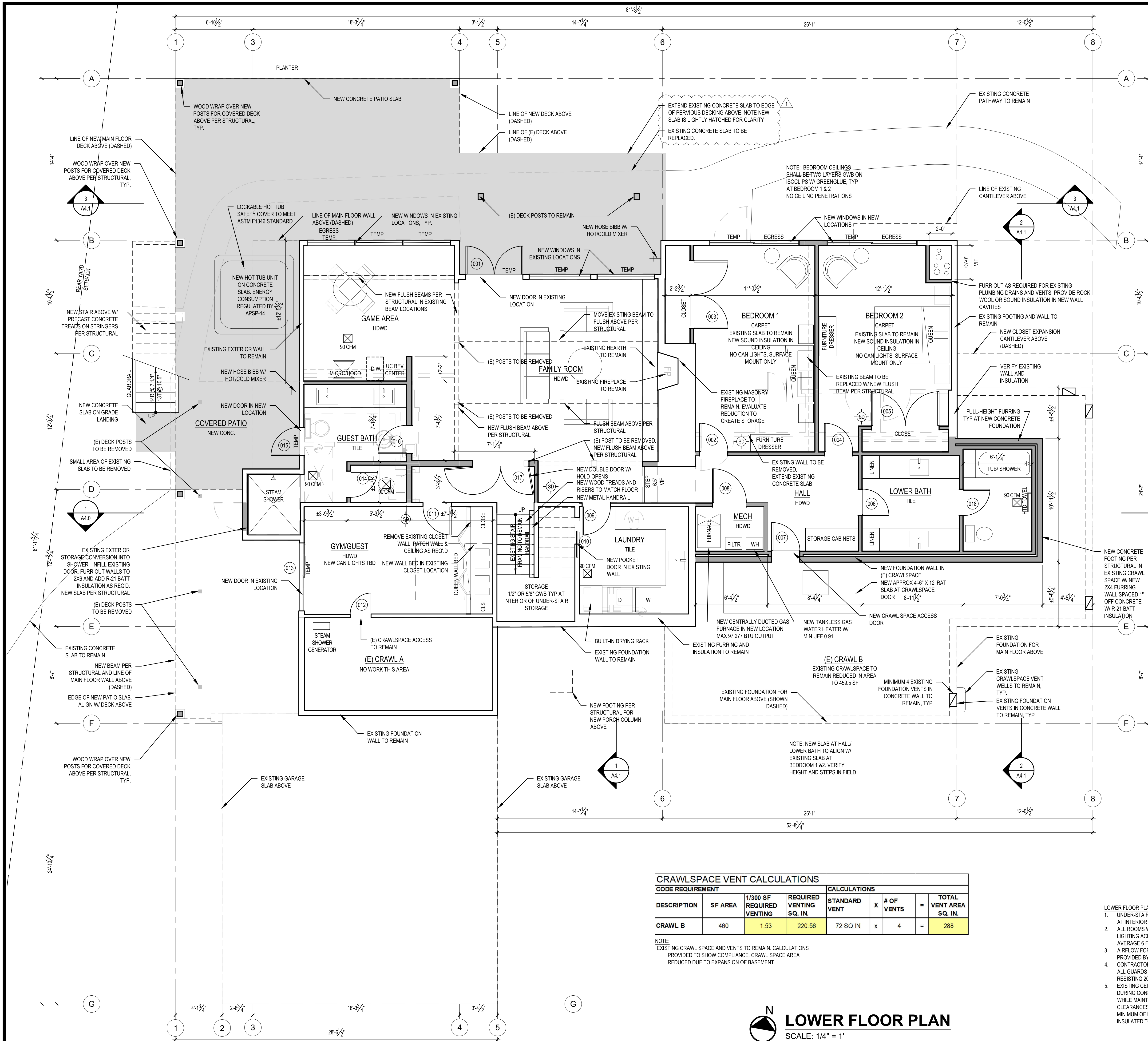
TREE PROTECTION FENCING

NOT TO SCALE

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET

8/23/2023



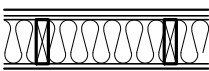
CRAWLSPACE VENT CALCULATIONS						
CODE REQUIREMENT			CALCULATIONS			
DESCRIPTION	SF AREA	1/300 SF REQUIRED VENTING	REQUIRED VENTING SQ. IN.	STANDARD VENT	# OF VENTS	TOTAL VENT AREA SQ. IN.
CRAWL B	460	1.53	220.56	72 SQ IN	x 4	= 288

NOTE:
EXISTING CRAWL SPACE AND VENTS TO REMAIN. CALCULATIONS PROVIDED TO SHOW COMPLIANCE. CRAWL SPACE AREA REDUCED DUE TO EXPANSION OF BASEMENT.

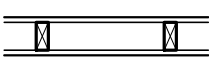
- LOWER FLOOR PLAN NOTES:
- UNDER-STAIR STORAGE SPACES TO HAVE 1/2" OR 5/8" GWB AT INTERIOR OF UNDER-STAIR STORAGE
 - ALL ROOMS WITHOUT GLAZING SHALL HAVE ARTIFICIAL LIGHTING ACROSS THE AREA OF THE ROOM PRODUCING AN AVERAGE 5 FOOTCANDLES AT 30" ABOVE THE FLOOR
 - AIRFLOW FOR WHOLE HOUSE EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS BY 1/2" TYP.
 - CONTRACTOR SHALL CONFIRM TO INSPECTOR CAPACITY OF ALL GUARDS AND HANDRAILS SHALL BE CAPABLE OF RESISTING 200# FORCE IN ANY DIRECTION.
 - EXISTING CEILING, WALL, OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION SHALL BE FILLED WITH INSULATION WHILE MAINTAINING CODE REQUIRED VENTILATION CLEARANCES. 2X4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15 AND 2X6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.

WALL PARTITION TYPES:

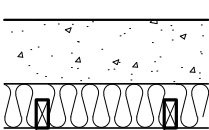
N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)



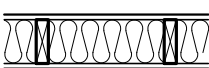
TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH OF (2)
LAYERS 60# BLDG. PAPER @ 1/2"
CDX PLYWOOD @ 2x6 WOOD
STUDS AT 16" O.C. w/ 1/2"
GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT
INSULATION EXCEPT AROUND GARAGE.



TYPICAL INTERIOR PARTITION
U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @
16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.



TYPICAL FURRED WALL
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2"
GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT
INSULATION.

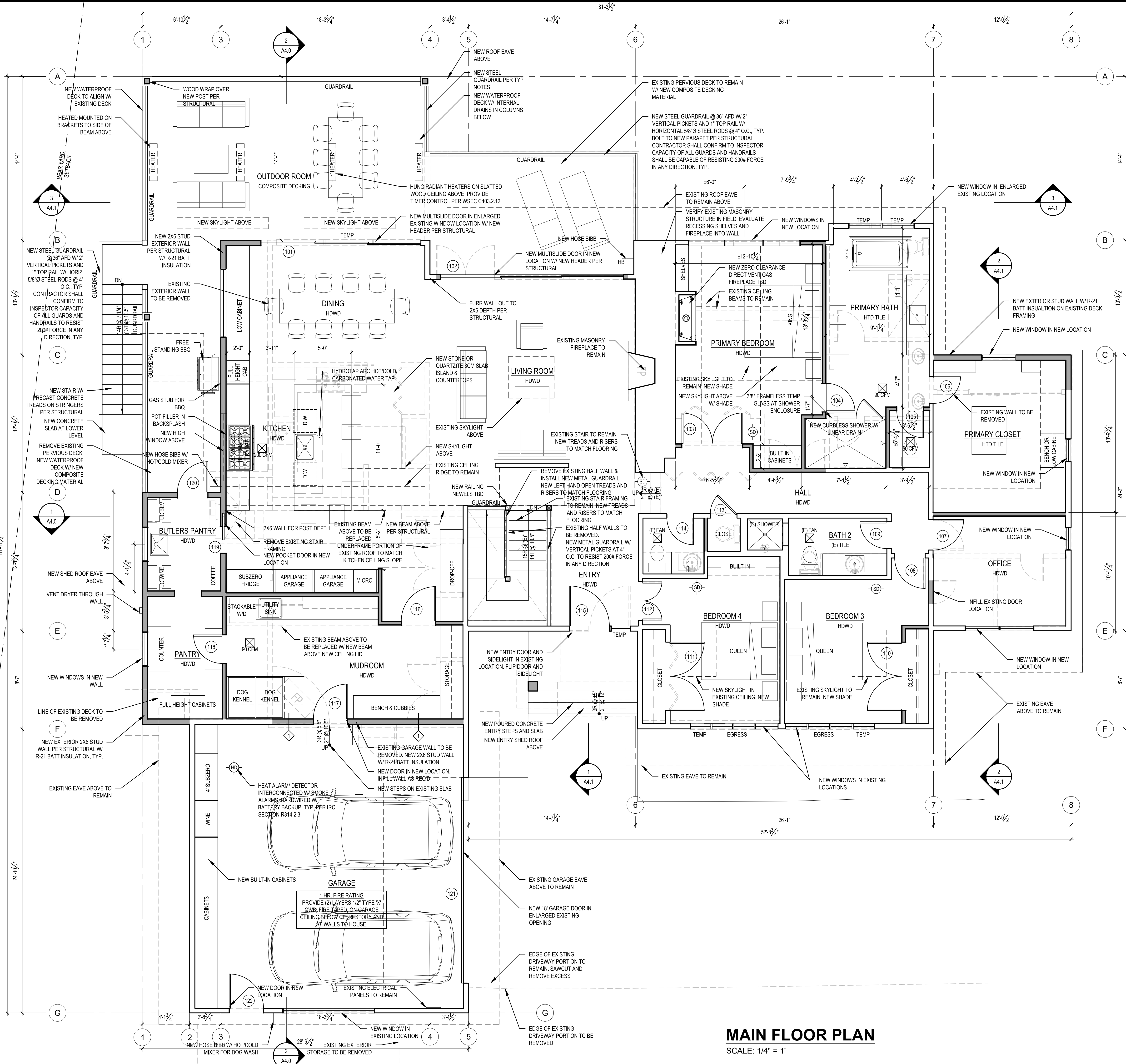


1HR. FIRE RATED WALL
5/8" THK GWB, TYPE 'X' @ 2x6 WD STUDS @ 16" O.C.
PANELS NAILED 7" O.C.-1 7/8" CEM CTD NAILS- JOINTS EXP
OR FIN - PERM CAULKED- UL DES U305 & U314- JOINTS
FIN

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET

8/21/23



GROSS FLOOR AREA (GFA)

	EXISTING FLOOR AREA	ADDITIONAL FLOOR AREA	TOTAL
LOWER FLOOR	1,567.9 SF	340.6 SF	1,908.5 SF
LF EXCLUSION			
MAIN FLOOR	2,742.4 SF	778.3 SF	3,520.7 SF
12'-16" CEILING	252.9 SF	70.7 SF	323.6 SF
16'+ CEILING	61.2 SF	-9.7 SF	51.5 SF
LOFT	255.0 SF	-255.0 SF	0 SF
GARAGE	611.5 SF	+ 5.3 SF	616.8 SF
GROSS FLOOR AREA	5,490.9 SF	930.2 SF	6,421.1 SF

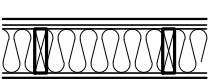
NET LOT AREA	16,866 SF
ALLOWED MAX. % GFA COVERAGE	40.0 % OR 12,000 SF
ALLOWED GROSS FLOOR AREA	6,746.4 SF
EXISTING GROSS FLOOR AREA	5,490.9 SF
EXISTING % GFA COVERAGE	32.6%
PROPOSED GROSS FLOOR AREA	6,421.1 SF
PROPOSED % GFA COVERAGE	38.1%

PLAN NOTES:

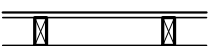
- CONTRACTOR SHALL CONFIRM TO INSPECTOR CAPACITY OF ALL GUARDS AND HANDRAILS SHALL BE CAPABLE OF RESISTING 200# FORCE IN ANY DIRECTION.
- EXISTING CEILING, WALL, OR FLOOR CAVITIES EXPOSED DURING CONSTRUCTION SHALL BE FILLED WITH INSULATION WHILE MAINTAINING CODE REQUIRED VENTILATION CLEARANCES. 2X4 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-15 AND 2X6 FRAMED WALLS SHALL BE INSULATED TO A MINIMUM OF R-21.
- ALL ROOMS WITHOUT GLAZING SHALL HAVE ARTIFICIAL LIGHTING ACROSS THE AREA OF THE ROOM PRODUCING AN AVERAGE 6 FOOTCANDLES AT 30" ABOVE THE FLOOR.
- AIRFLOW FOR WHOLE HOUSE EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS BY 1/2" TYP.
- ALL EXISTING DOORS TO BE REPLACED W/ NEW DOORS

WALL PARTITION TYPES:

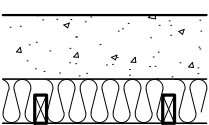
N.T.S. (SEE STRUCTURAL SHEETS FOR SHEAR WALLS.)



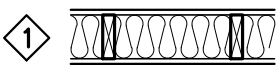
TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH or (2) LAYERS 5/8" BLDG. PAPER or 1/2" CDX PLYWOOD or 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 INSULATION EXCEPT AROUND GARAGE.



TYPICAL INTERIOR PARTITION
UNO: ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.



TYPICAL FURRED WALL
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.

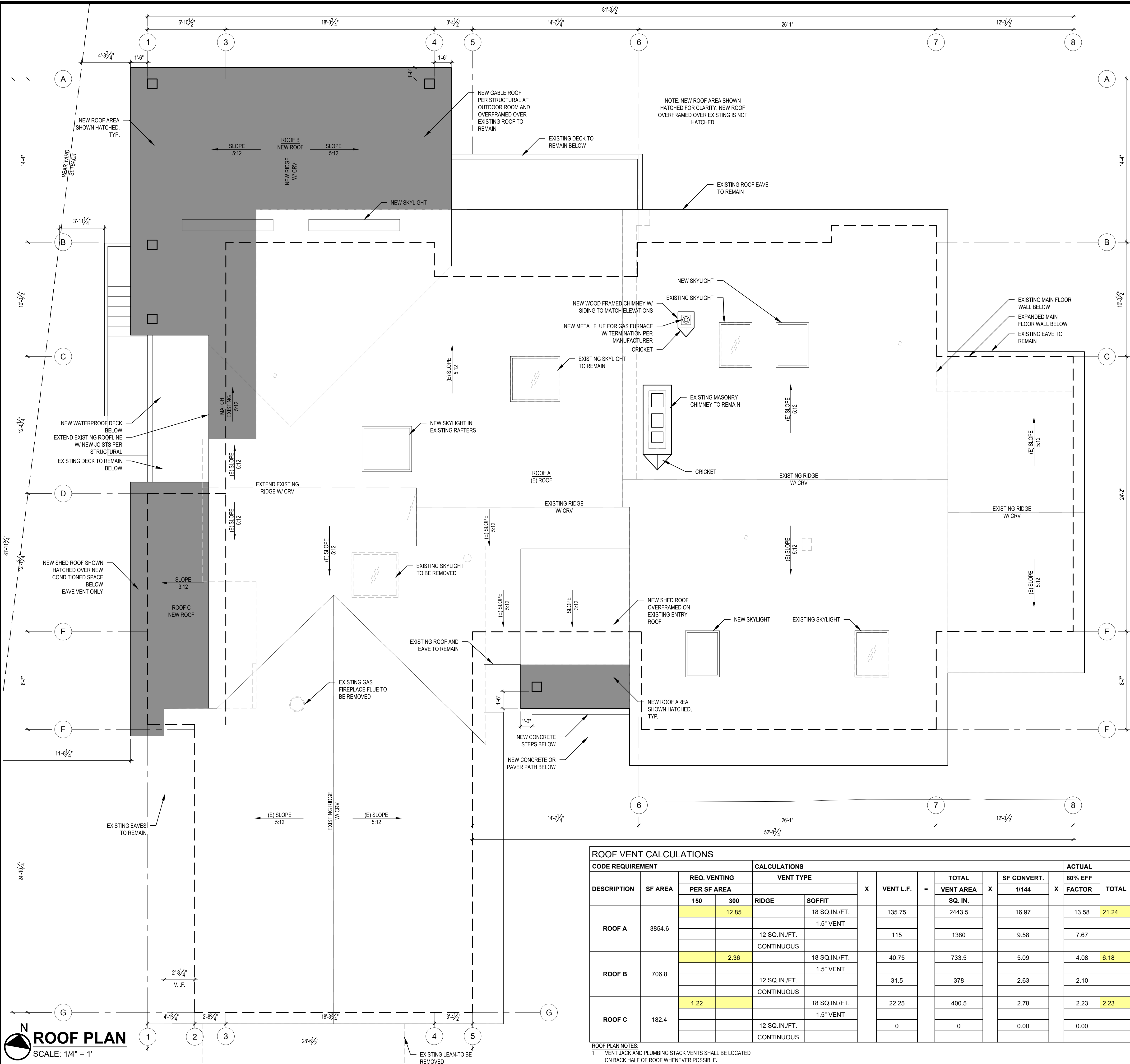


1-HR. FIRE RATED WALL
5/8" THK CONG. TYPE 'X' or 2x6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C. 1 7/8" CEM CTD NAILS- JOINTS EXP OR FIN - PERIM CAULKED- UL DES U305 & U314- JOINTS FIN

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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ROOF VENT CALCULATIONS														
CODE REQUIREMENT		CALCULATIONS						ACTUAL						
DESCRIPTION	SF AREA	REQ. VENTING		VENT TYPE		X	VENT L.F.	=	TOTAL	X	SF CONVERT.	X	80% EFF	TOTAL
		PER SF AREA							VENT AREA		1/144		FACTOR	
ROOF A	3854.6	150	300	RIDGE	SOFFIT				SQ. IN.					
			12.85		18 SQ.IN./FT.		135.75		2443.5		16.97		13.58	21.24
					1.5" VENT									
					12 SQ.IN./FT.		115		1380		9.58		7.67	
					CONTINUOUS									
ROOF B	706.8		2.36		18 SQ.IN./FT.		40.75		733.5		5.09		4.08	6.18
					1.5" VENT									
					12 SQ.IN./FT.		31.5		378		2.63		2.10	
ROOF C	182.4				CONTINUOUS									
		1.22			18 SQ.IN./FT.		22.25		400.5		2.78		2.23	2.23
					1.5" VENT									
					12 SQ.IN./FT.		0		0		0.00		0.00	
					CONTINUOUS									

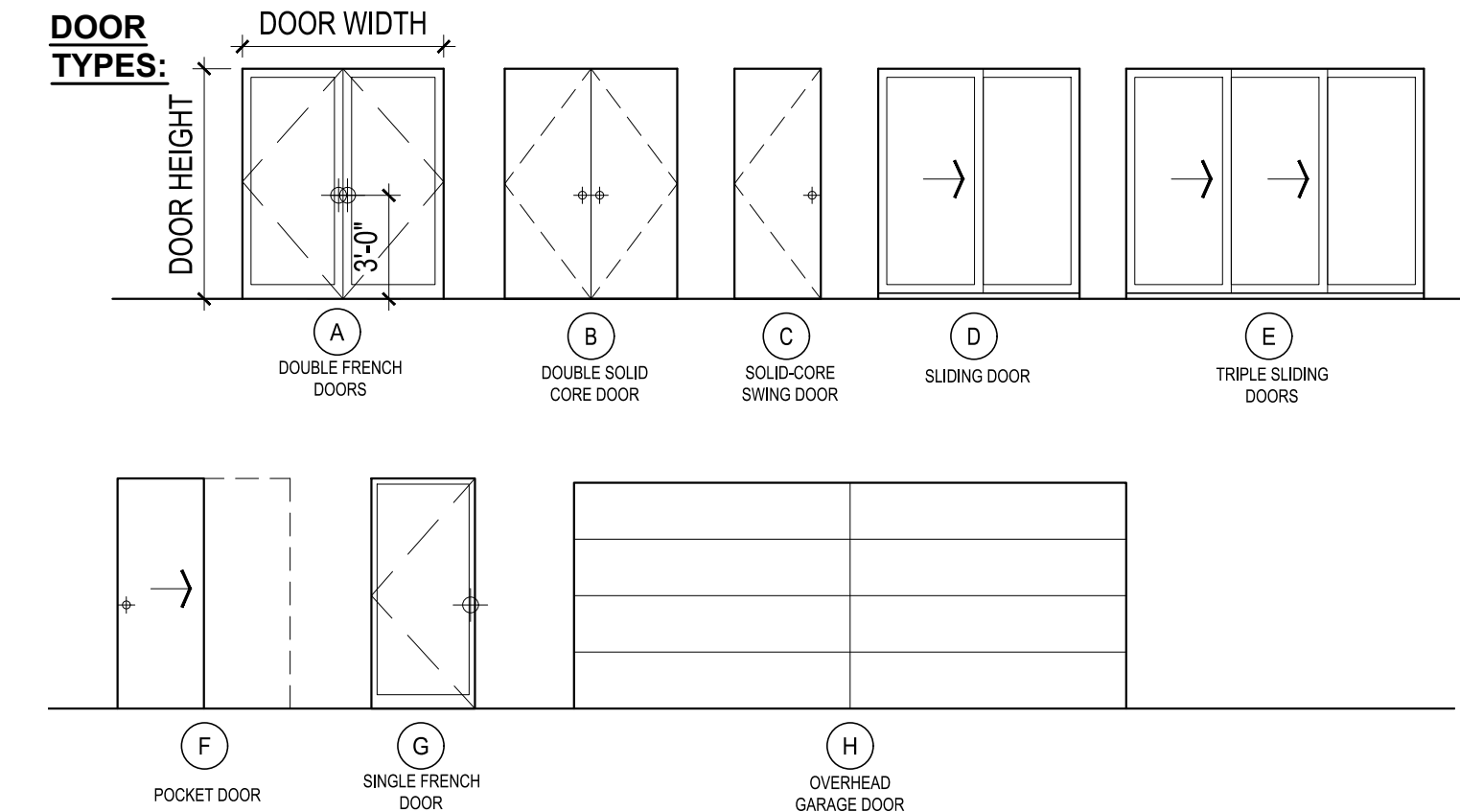
DOOR SCHEDULE

DOOR NO.	LOCATION	SIZE	SIZE	DOOR	TEMP.	DOOR	DOOR	U-VAL.	OPENING	REMARKS
		WIDTH	HT	TYPE	GLASS	FIN.	THK.	(MIN.)		
LOWER FLOOR										
001	FAMILY ROOM	PR 2'-6"	6'-8"	A	Y	-	1-3/4"	.28	EXISTING	
002	BEDROOM 1	2'-6"	6'-8"	C	-	-	1-3/4"	-	NEW	
003	BEDROOM 1 CLOSET	PR 3'-0"	6'-8"	B	-	-	1-3/4"	-	NEW	
004	BEDROOM 2	2'-6"	6'-8"	C	-	-	1-3/4"	-	NEW	
005	BEDROOM 2 CLOSET	PR 3'-0"	6'-8"	B	-	-	1-3/4"	-	NEW	
006	BATH	2'-4"	6'-8"	C	-	-	1-3/4"	-	NEW	
007	CRAWL SPACE ACCESS	2'-4"	VIF	C	-	-	1-3/4"	.28	NEW	SOLID CORE EXT. DOOR W/ THRESHOLD
008	MECH	3'-0"	6'-8"	C	-	-	1-3/4"	-	NEW	SOLID CORE DOOR W/ SOUND GASKET
009	LAUNDRY	3'-0"	6'-8"	C	-	-	1-3/4"	-	NEW	SOLID CORE DOOR W/ SOUND GASKET
010	UNDERSTAIR STORAGE	2'-4"	6'-8"	F	-	-	1-3/4"	-	NEW	POCKET DOOR
011	GYM/ GUEST	2'-6"	6'-8"	C	-	-	1-3/4"	-	EXISTING	
012	CRAWLSPACE ACCESS	2'-4"	6'-8"	C	-	-	1-3/4"	.28	EXISTING	SOLID CORE EXT. DOOR W/ THRESHOLD
013	GYM/ GUEST	6'-0"	6'-8"	D	-	-	1-3/4"	.28	EXISTING	
014	GUEST BATH WC	2'-4"	6'-8"	C	-	-	1-3/4"	-	NEW	
015	GUEST BATH	2'-6"	6'-8"	G	-	-	1-3/4"	.28	NEW	
016	GUEST BATH	2'-6"	6'-8"	C	-	-	1-3/4"	-	NEW	
017	BEDROOM 5	PR 2'-6"	6'-8"	B	-	-	1-3/4"	-	NEW	
018	BATH	2'-4"	6'-8"	C	-	-	1-3/4"	-	NEW	

MAIN FLOOR

101	DINING	14'-0"	6'-8"	E	-	-	1-3/4"	.28	MODIFIED	MULTI-SLIDE
102	LIVING ROOM	16'-0"	6'-8"	E	-	-	1-3/4"	.28	NEW	MULTI-SLIDE
103	PRIMARY BEDROOM	PR 2'-8"	6'-8"	B	-	-	1-3/4"	-	NEW	
104	PRIMARY BATH	2'-6"	6'-8"	C	-	-	1-3/4"	-	NEW	
105	PRIMARY BATH WC	2'-4"	6'-8"	C	-	-	1-3/4"	-	NEW	
106	PRIMARY CLOSET	2'-4"	6'-6"	C	-	-	1-3/4"	-	NEW	
107	OFFICE	2'-8"	6'-8"	C	-	-	1-3/4"	-	NEW	
108	BEDROOM 3	2'-6"	6'-8"	C	-	-	1-3/4"	-	EXISTING	
109	BATH 2	2'-4"	6'-8"	C	-	-	1-3/4"	-	EXISTING	
110	BEDROOM 3 CLOSET	PR 3'-0"	6'-8"	B	-	-	1-3/4"	-	NEW	
111	BEDROOM 4 CLOSET	PR 3'-0"	6'-8"	B	-	-	1-3/4"	-	EXISTING	
112	BEDROOM 4	PR 1'-8.25"	6'-8"	B	-	-	1-3/4"	-	EXISTING	
113	HALL CLOSET	2'-4"	6'-8"	C	-	-	1-3/4"	-	EXISTING	
114	POWDER 1	2'-4"	6'-8"	C	-	-	1-3/4"	-	EXISTING	
115	ENTRY	3'-6"	6'-8"	G	-	-	1-3/4"	.28	MODIFIED	
116	MUDROOM	3'-0"	6'-8"	C	-	-	1-3/4"	-	NEW	
117	GARAGE	3'-0"	6'-8"	C	-	-	1-3/4"	.28	NEW	20 MIN DOOR W/ SMOKE GSMT & CLOSER
118	MUDROOM	3'-0"	6'-8"	G	-	-	1-3/4"	.28	NEW	
119	PANTRY	2'-5"	6'-8"	F	-	-	1-3/4"	-	NEW	POCKET DOOR
120	GARAGE	18'-0"	7'-0"	H	-	-	1-3/4"	-	NEW	OVERHEAD DOOR

DOOR TYPES:



WINDOW SCHEDULE

MARK	DESCRIPTION	R.O. SIZE	TEMP.	QTY.	U-VALUE	GLAZING	REMARKS & NOTES
		WIDTH	HEIGHT		(MIN.)		
A	FIXED	8'-0"	2'-2"	1	.28	LOW E / CLEAR	(E) LOCATION
B	FIXED	5'-5"	2'-0"	3	.28	LOW E / CLEAR	(E) LOCATION
C	SIDELIGHT	1'-8"	5'-3"	Y	1	.28	LOW E / CLEAR, SIDELIGHT. ALIGN W/ ADJACENT DOOR
D	CASEMENT ASSEMBLY	7'-6"	5'-5"	2	.28	LOW E / CLEAR	(E) LOCATION, EGRESS
E	FIXED ASSEMBLY	6'-0"	3'-8"	1	.28	LOW E / CLEAR	(E) LOCATION, EGRESS
F	CASEMENT	2'-0"	3'-8"	2	.28	LOW E / CLEAR	EGRESS
G	FIXED	3'-0"	3'-0"	1	.28	LOW E / CLEAR	ENLARGED (E) LOCATION
H	CASEMENT ASSEMBLY	5'-9"	3'-9"	Y	1	.28	LOW E / CLEAR, EGRESS
I	CASEMENT ASSEMBLY	12'-0"	6'-0"	Y	1	.28	LOW E / CLEAR, MODIFIED LOCATION, EGRESS
J	NOT USED						
K	SLIDER	8'-0"	4'-0"	Y	2	.28	LOW E / CLEAR, EGRESS
L	FIXED	5'-7"	6'-0"	Y	1	.28	LOW E / CLEAR, (E) LOCATION
M	FIXED	5'-10"	6'-0"	Y	1	.28	LOW E / CLEAR, (E) LOCATION
N	CASEMENT ASSEMBLY	12'-6"	6'-0"	Y	1	.28	LOW E / CLEAR, (E) LOCATION, EGRESS
O	SLIDER	6'-0"	3'-2"	1	.28	LOW E / CLEAR	
P	FIXED	3'-0"	2'-2"	VIF	1	.28	LOW E / CLEAR, HIGH WINDOW OVER STOVE

SCHEDULE NOTES:

- CONTRACTOR TO VERIFY ALL GLAZING SIZING, AND DOOR DIMENSIONS IN FIELD PRIOR TO ROUGH FRAMING & ORDERING OF GLAZING/WINDOW/DOOR MATERIALS. REVIEW SIZES AND ANY DISCREPANCIES W/ ARCHITECT.
- ALL GLAZING TO BE "LOW E", INSULATED GLASS UNLESS NOTED OTHERWISE.
- ALL OPERABLE WINDOWS TO HAVE SCREENS.
- GLAZING (INDOORS AND/ OR WITHIN 24" OF A DOOR TO BE TEMPERED, SEE EXTERIOR ELEVATION FOR TEMP. GLASS LOCATION & EGRESS WINDOWS.
- 2015 WSEC & VIAO RESIDENTIAL PRESCRIPTIVE OPTION 3 ADOPTED. GLAZING AREA INDICATED UNLIMITED. SEE EGRESS NOTE AT A1.0 SHEET FOR DETAILS.
- ALL SKYLIGHTS SHALL BE FULLY TEMPERED OVER LAMINATED GLASS
- ALL DOORS AND WINDOWS MARKED AS EXISTING SHALL REMAIN.

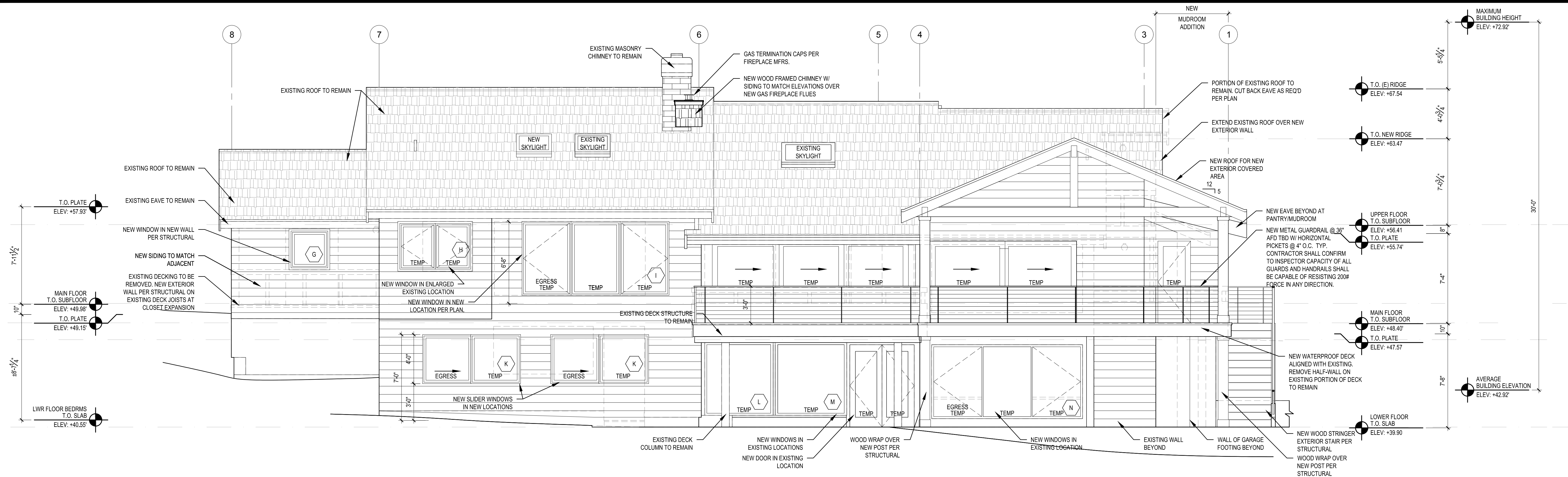
ABBREVIATIONS:

ALUM	ALUMINUM
MC	METAL CLAD
PRG-FIN	PRE-FINISHED
PNT	PAINTED
SCW	SOLID CORE WOOD
WD	WOOD

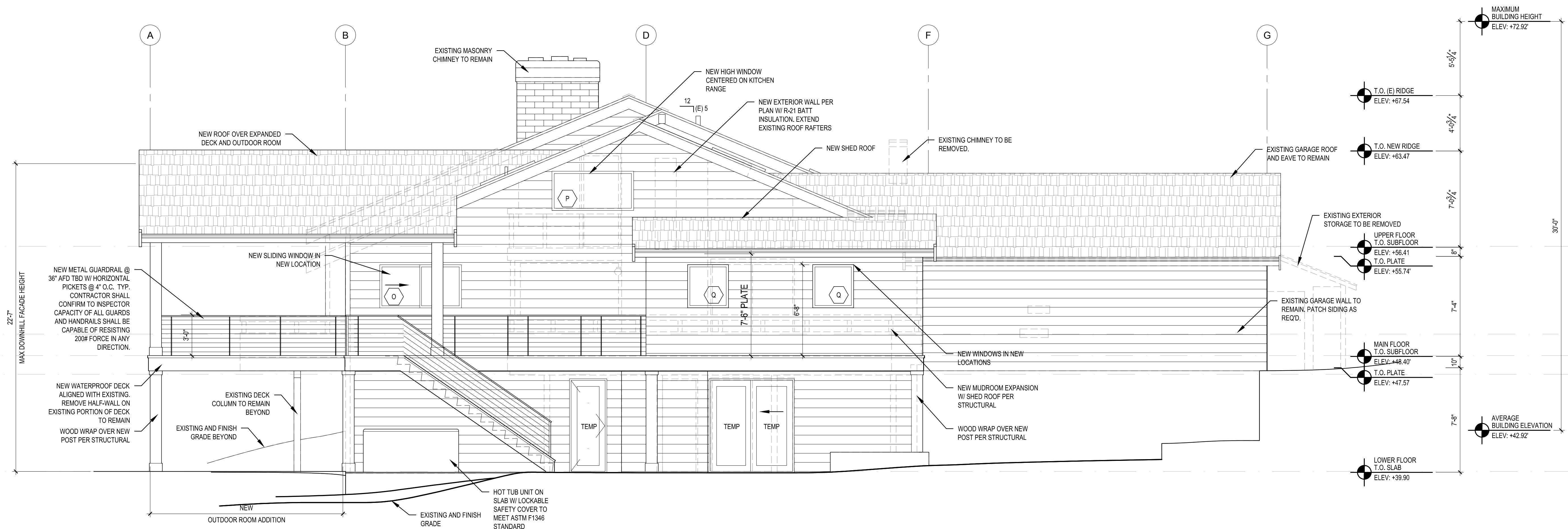
SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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

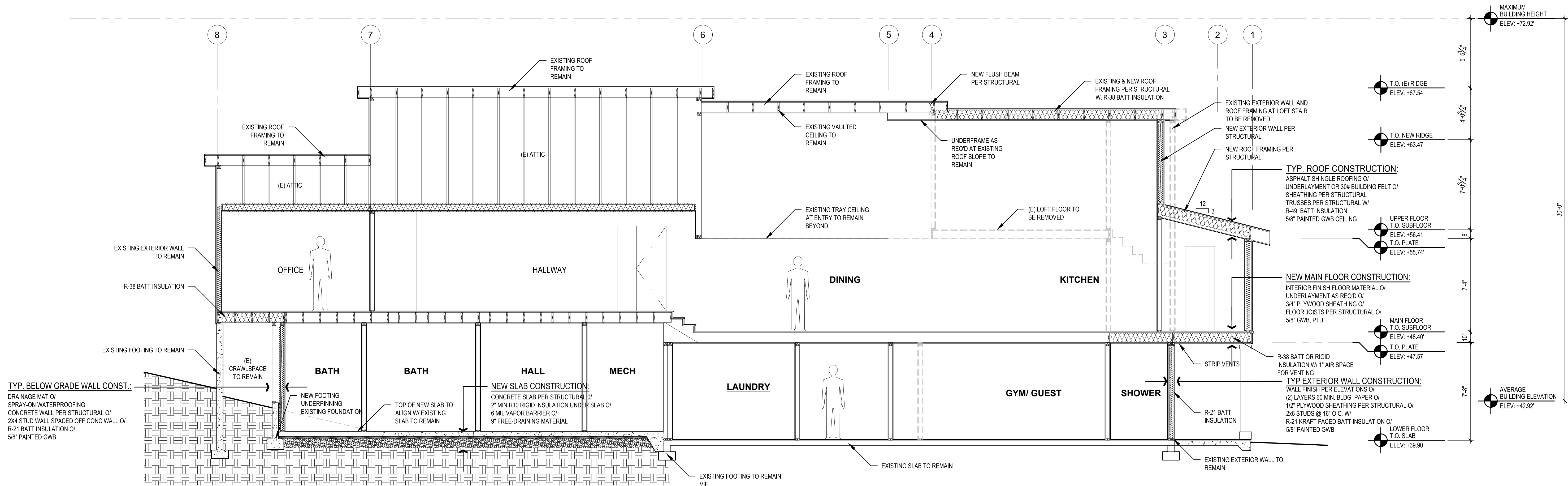


2 WEST ELEVATION
SCALE: 1/4" = 1'

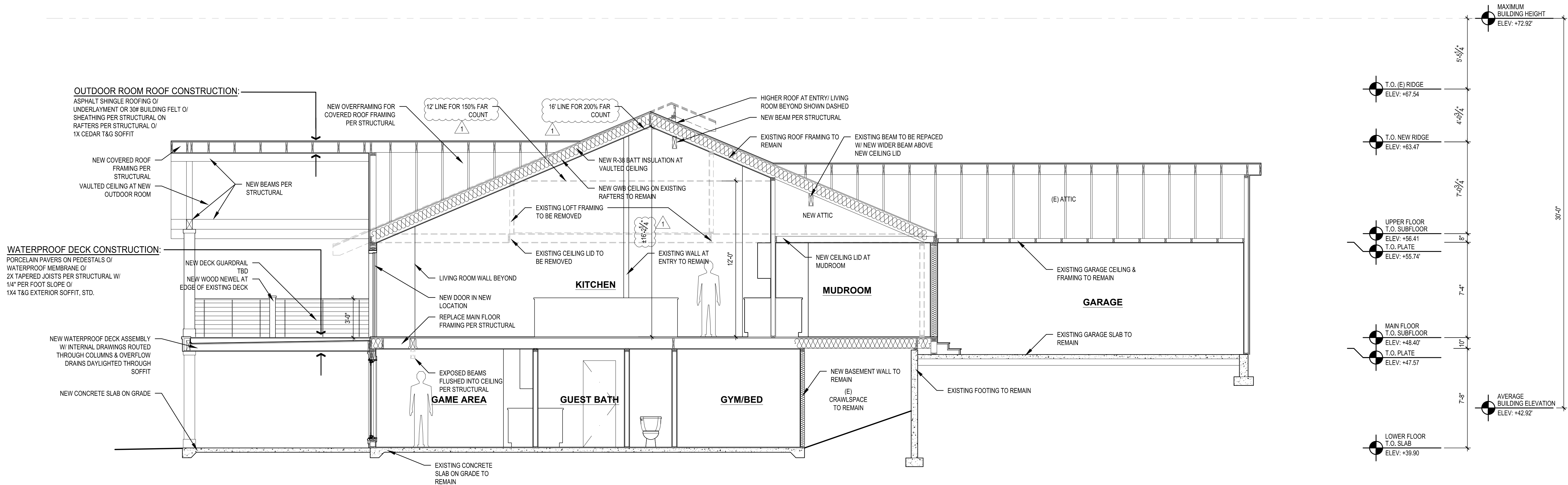
SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
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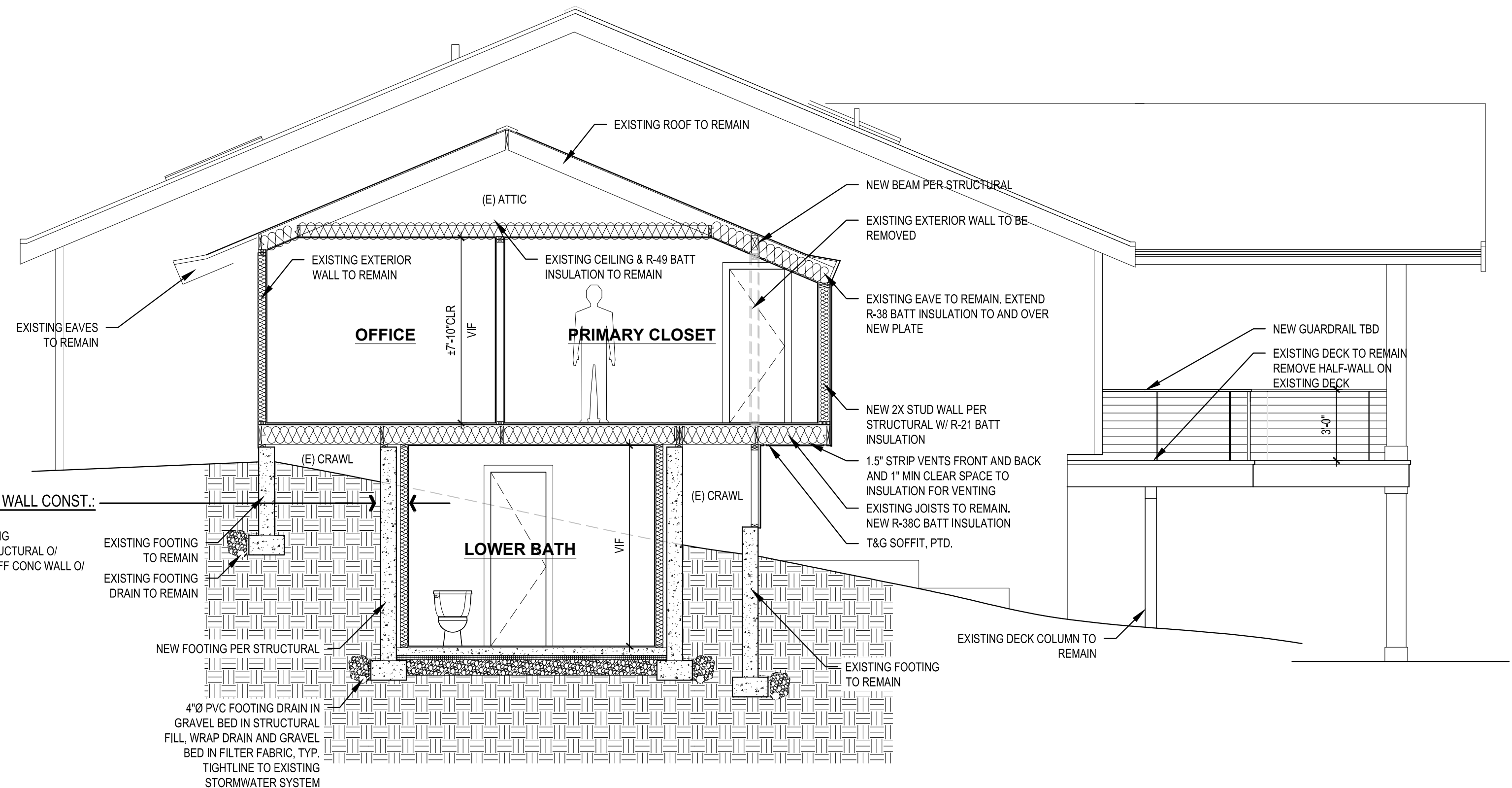
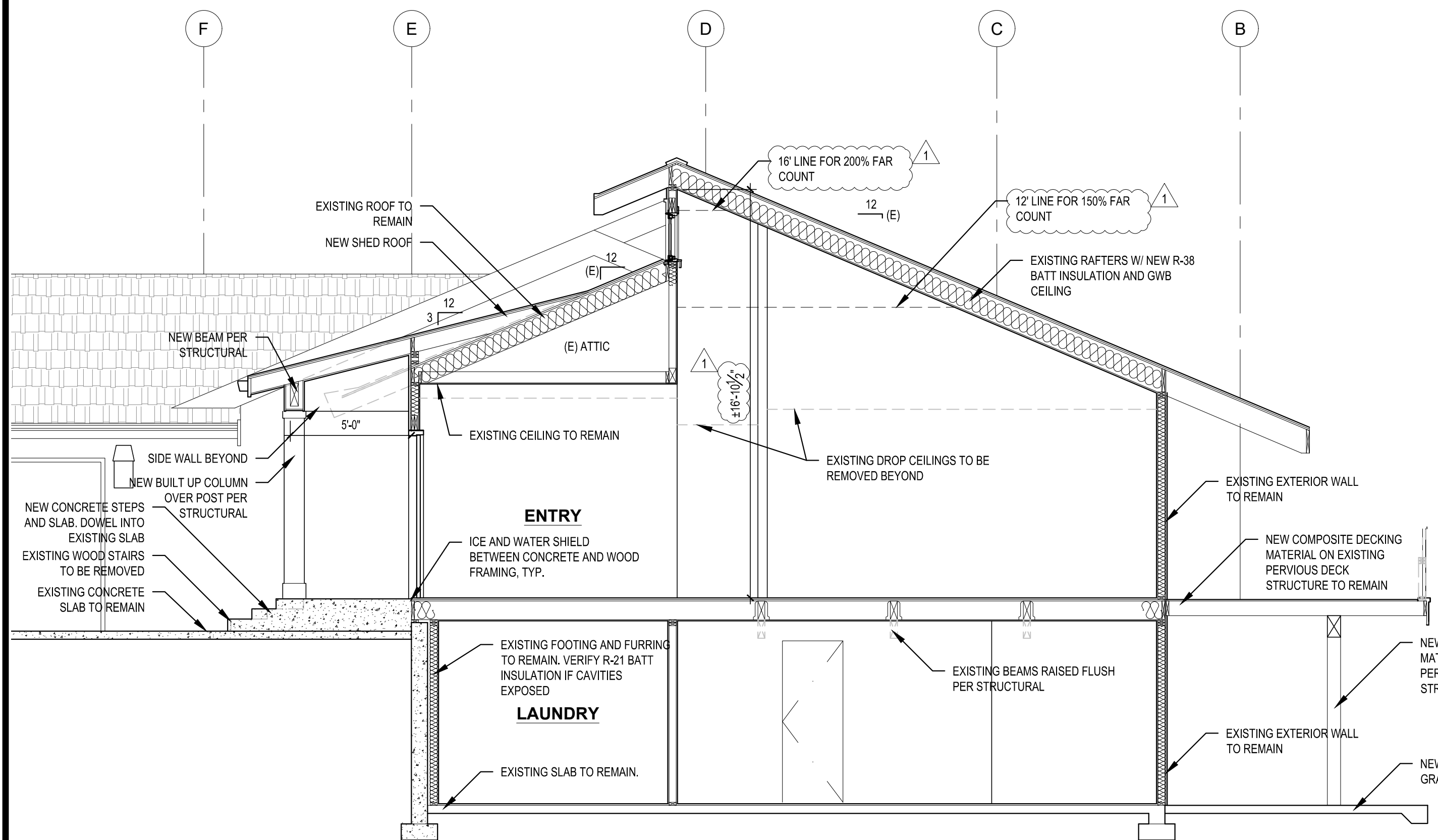
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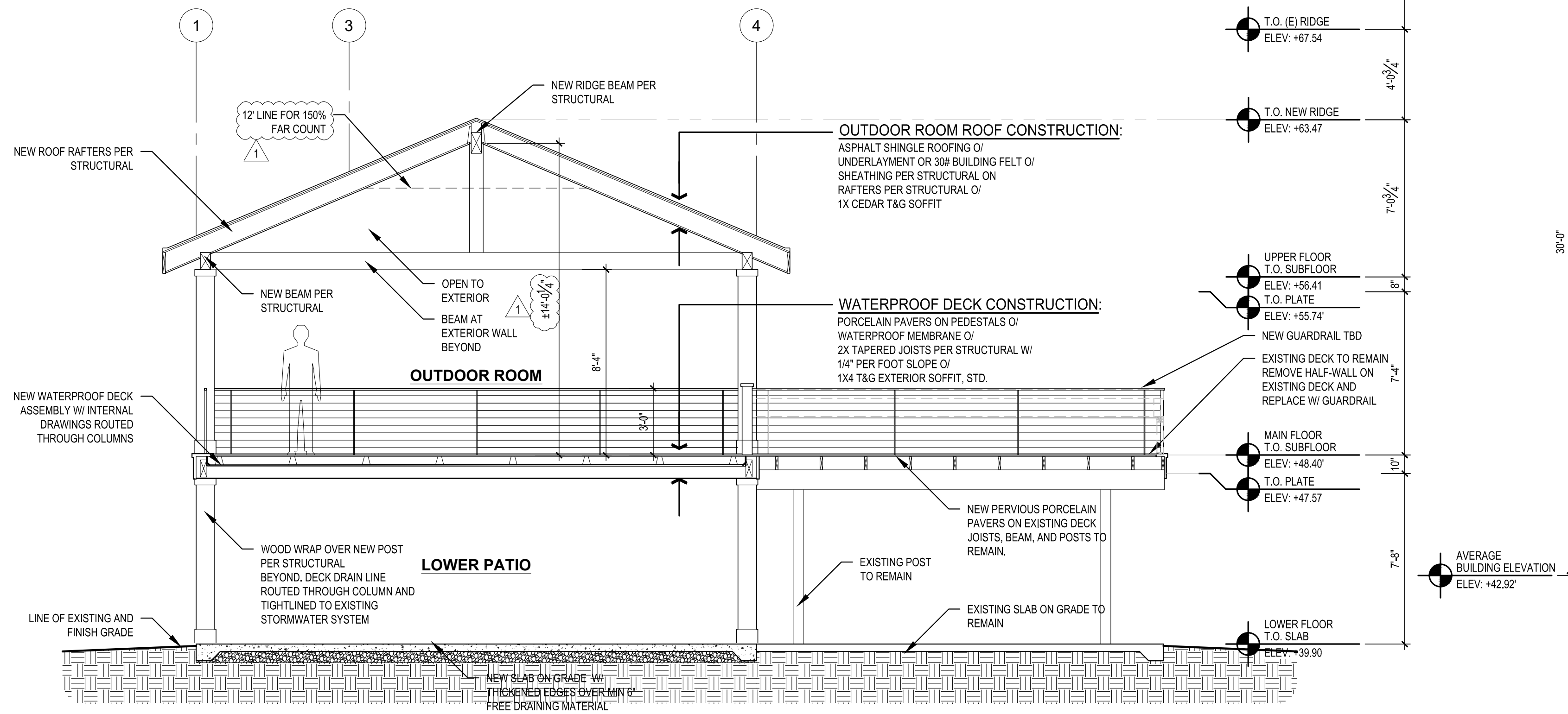
1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



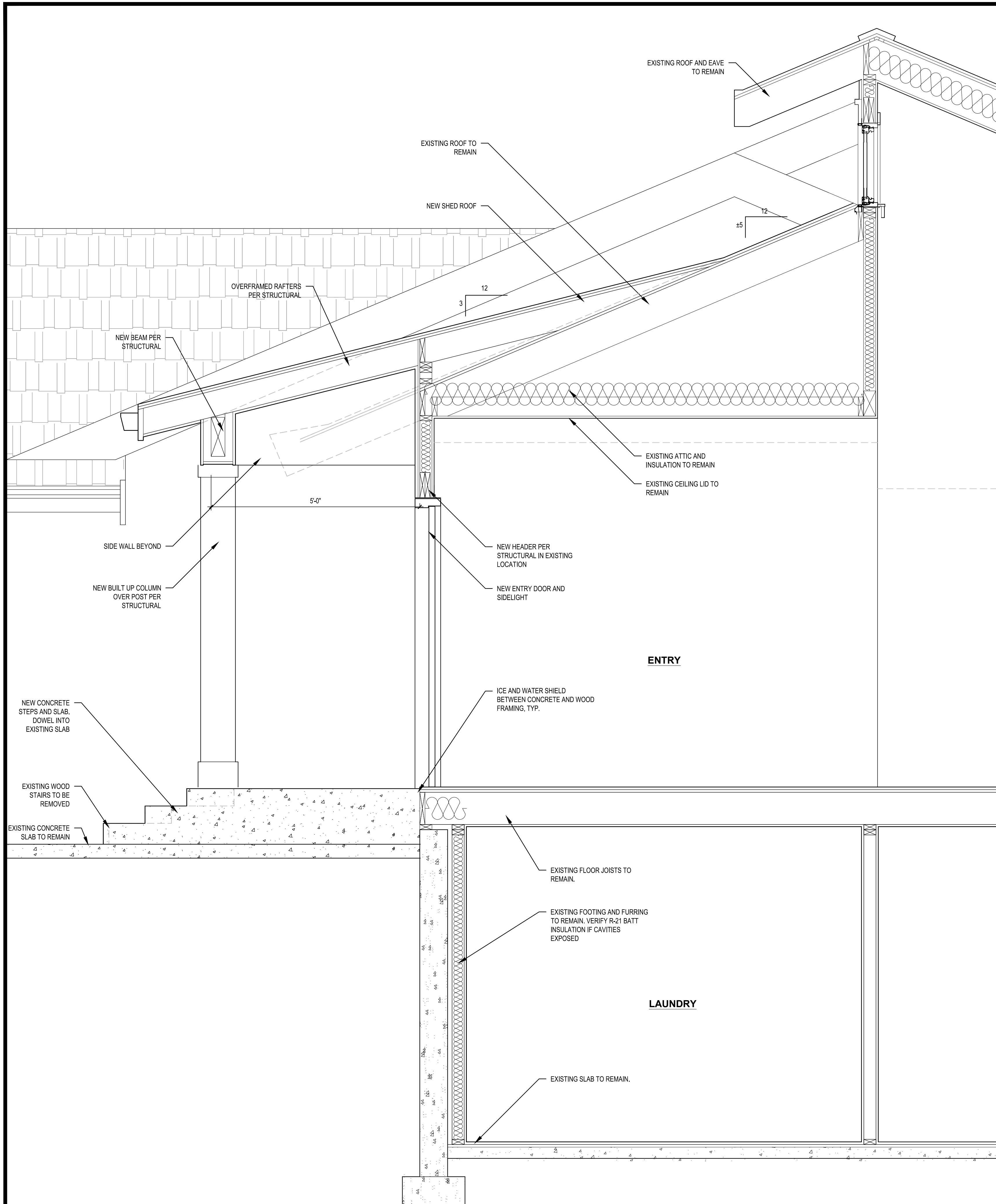
2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



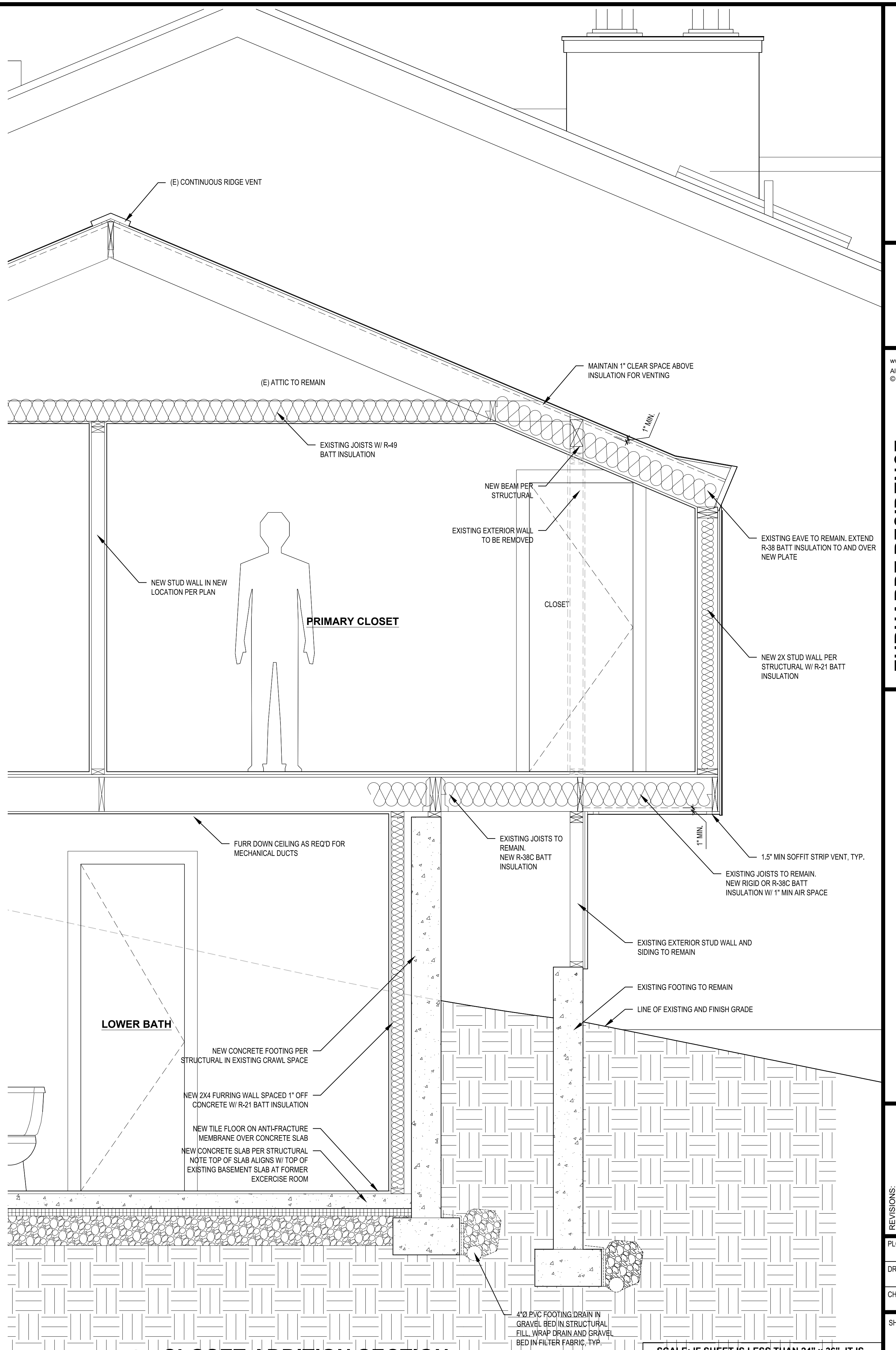
2 CLOSET ADDITION SECTION
SCALE: 1/4" = 1'-0"



3 OUTDOOR ROOM SECTION
SCALE: 1/4" = 1'-0"

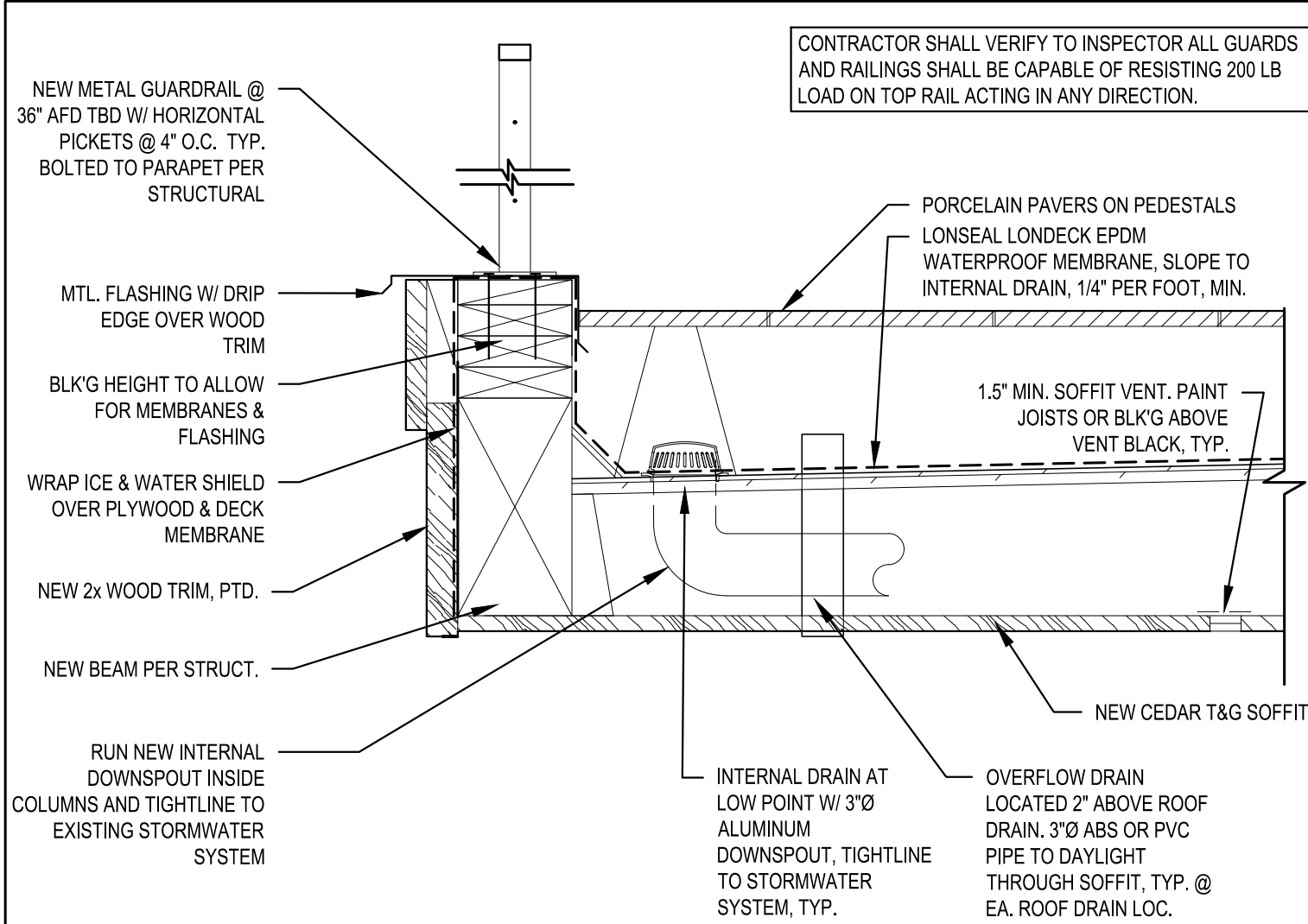


1 ENTRY SECTION
SCALE: 3/4" = 1'-0"

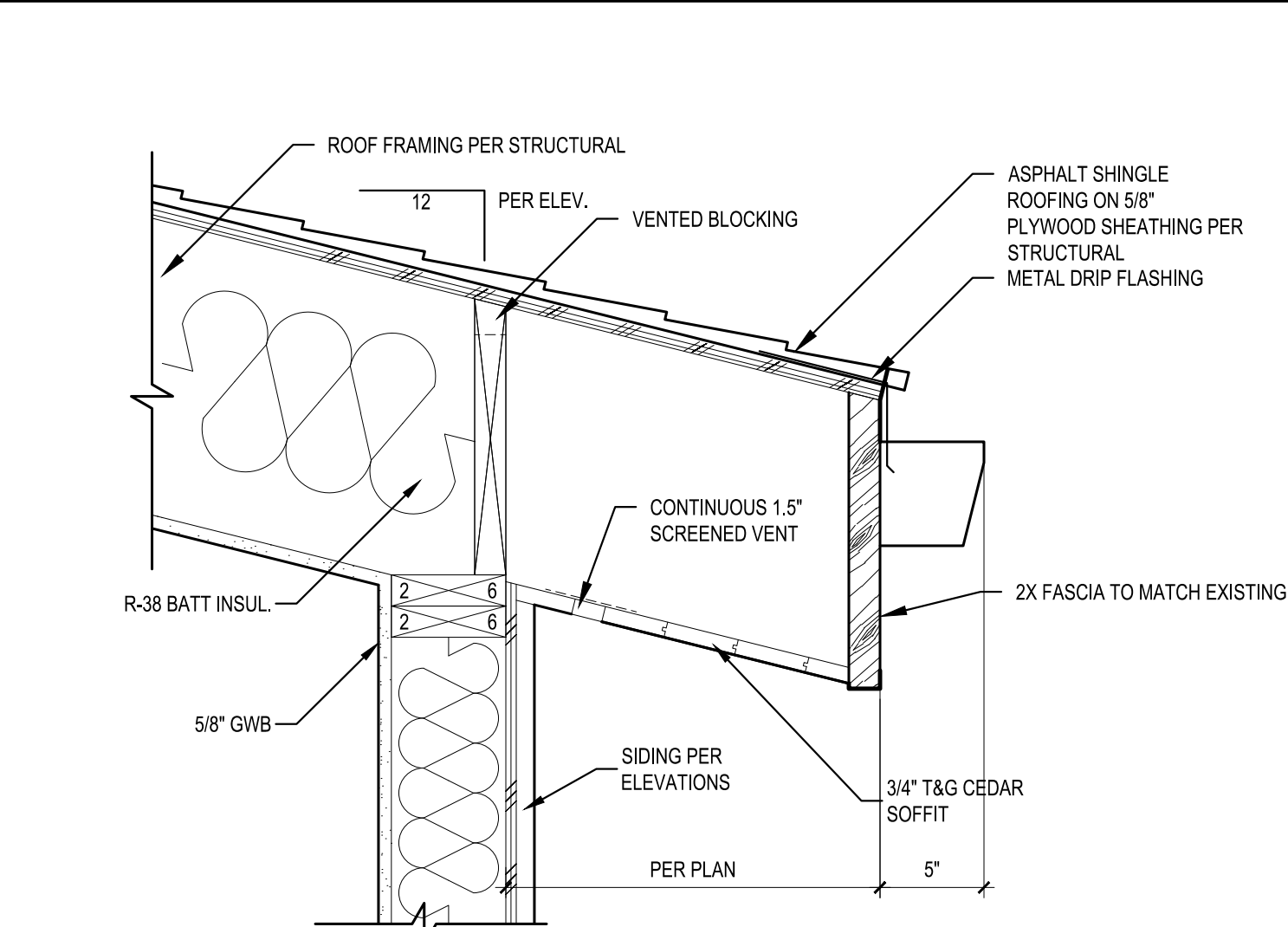


2 CLOSET ADDITION SECTION
SCALE: 3/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
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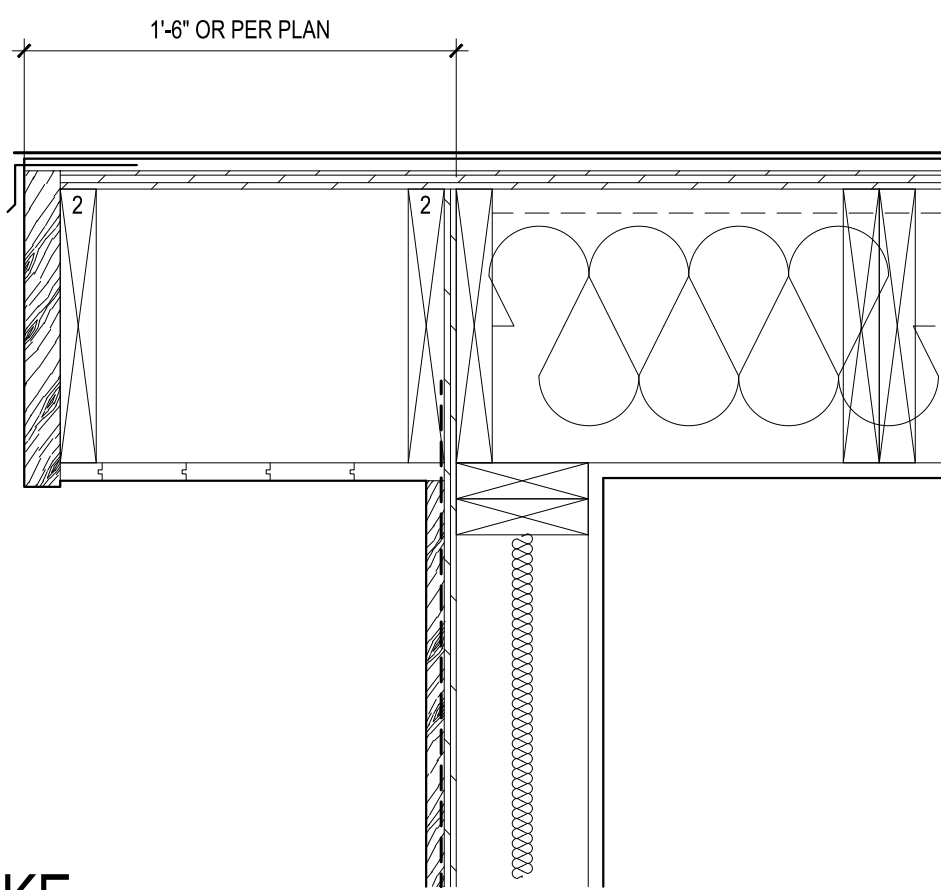


1 DECK RAILING ATTACHMENT& DRAIN
SCALE: 1-1/2" = 1'-0"

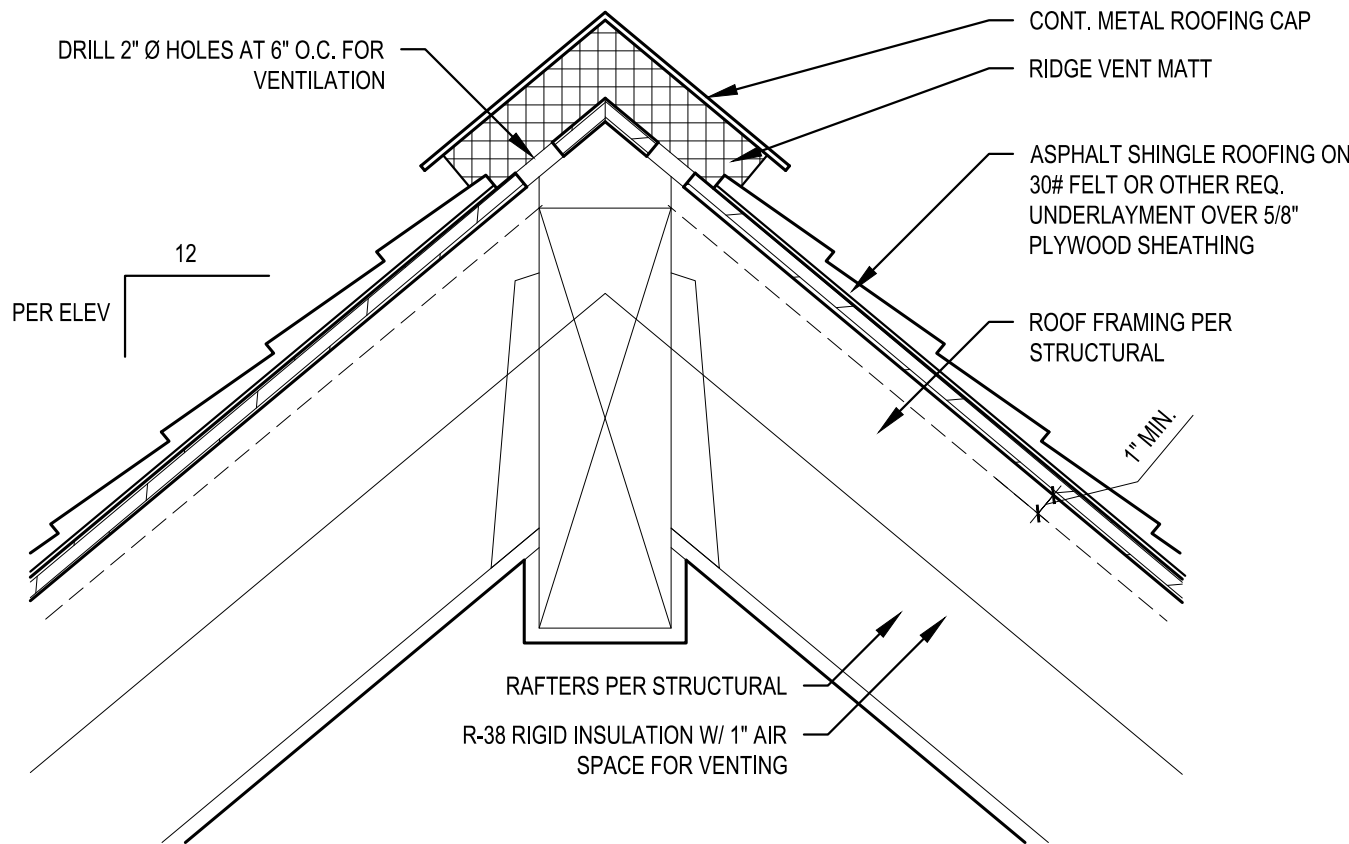


2 TYPICAL EAVE DETAIL
SCALE: 1 1/2" = 1'-0"

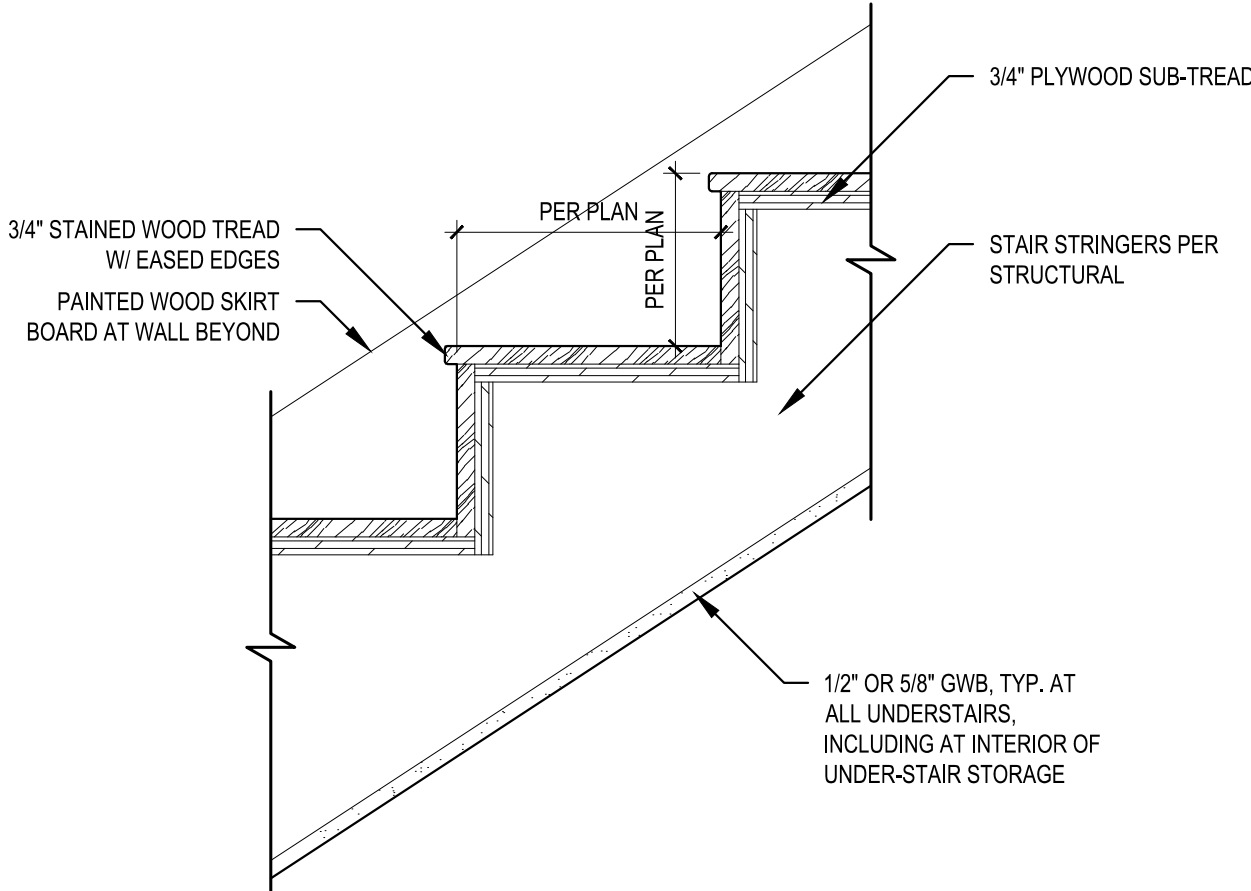
3 TYPICAL DETAIL AT -
SCALE: 1 1/2" = 1'-0"



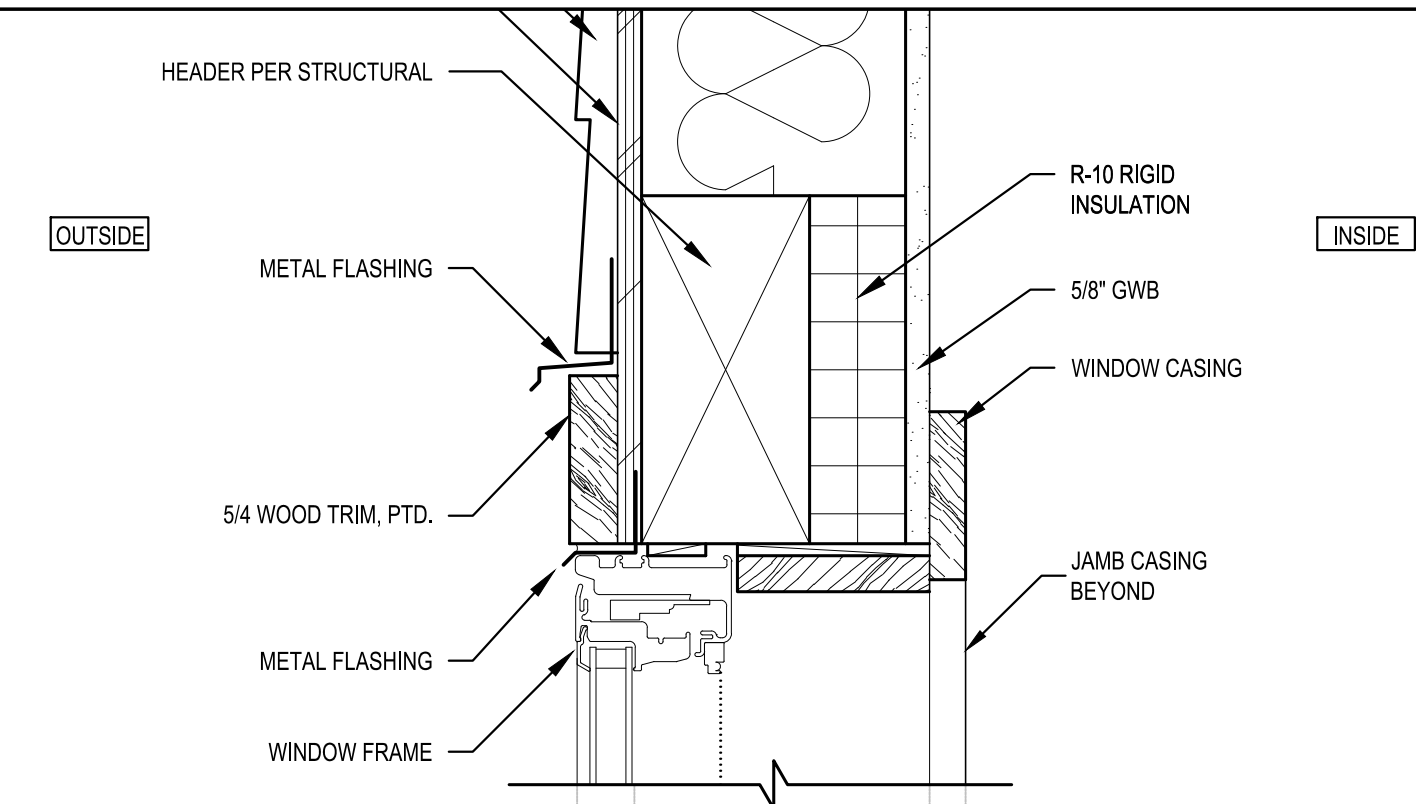
3 TYP. EAVE RAKE
SCALE: 1 1/2" = 1'-0"



5 TYPICAL ROOF RIDGE VENT DETAIL
SCALE: 1 1/2" = 1'-0"

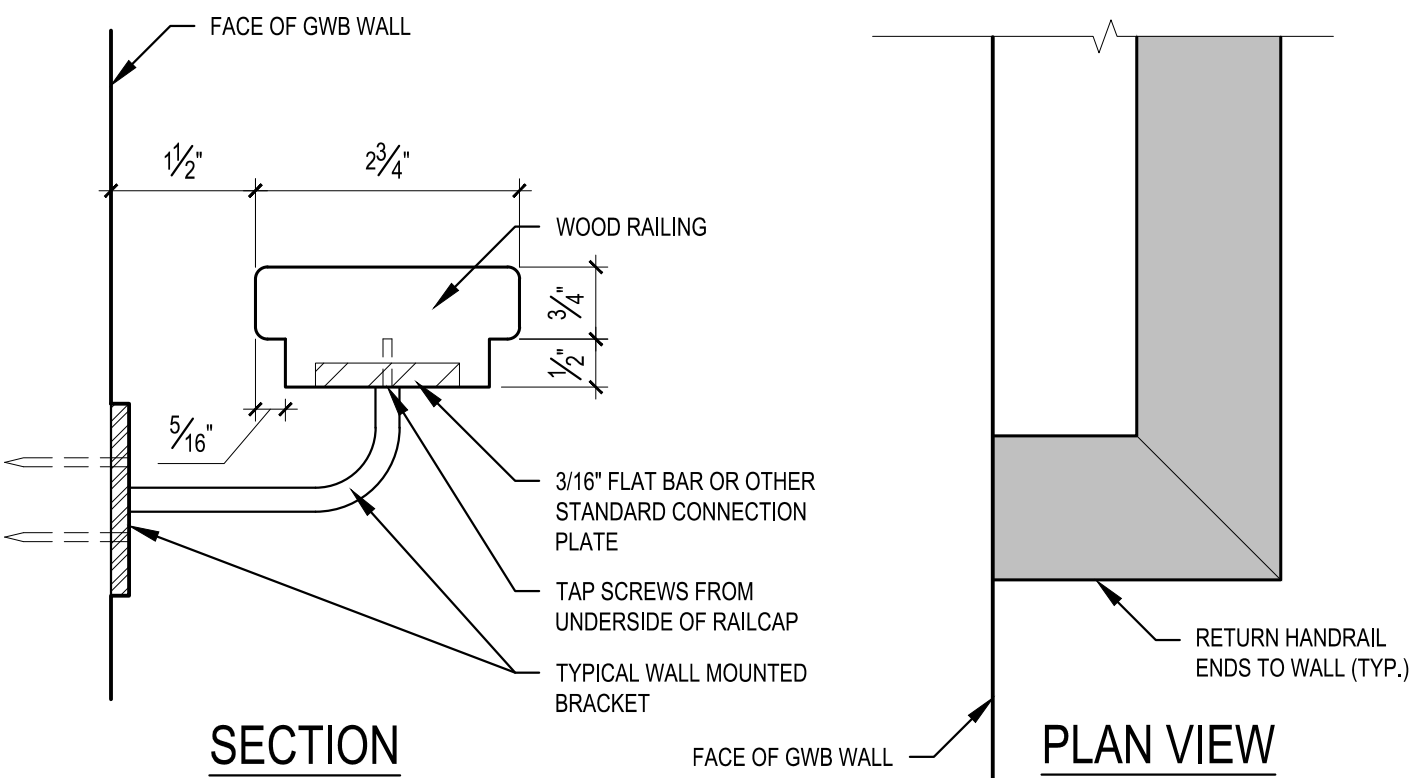


6 CLOSED RISER DETAIL (TYP.)
SCALE: 1 1/2" = 1'-0"

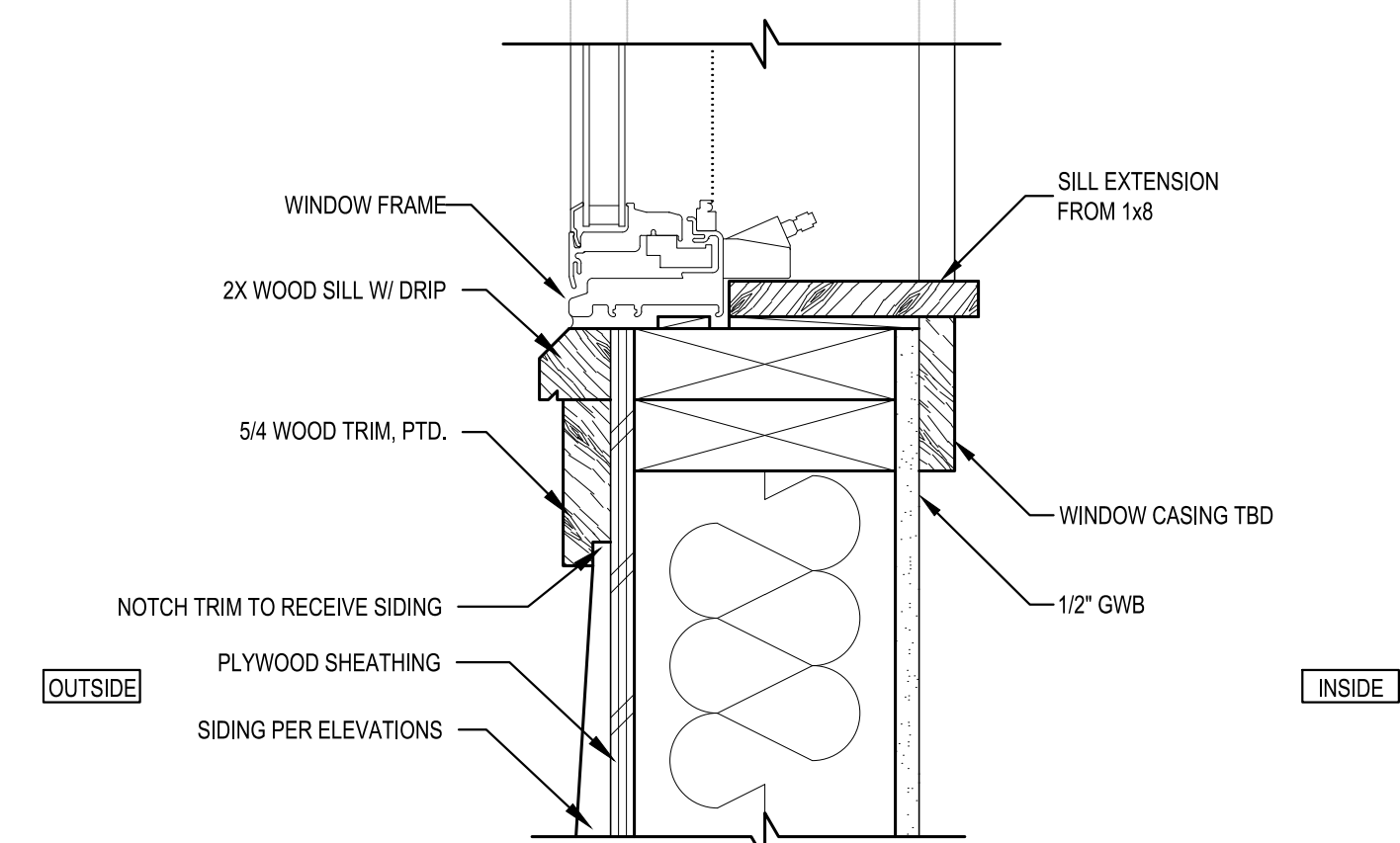


7 TYPICAL WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"

SIM. AT WINDOW JAMB



8 HANDRAIL DETAIL
SCALE: 6" = 1'-0"



9 TYPICAL WINDOW SILL DETAIL
SCALE: 3" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

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EHRHARDT RESIDENCE
PERMIT SET
8456 N MERCER WAY
MERCER ISLAND, WA 98040

EXTERIOR DETAILS

REVISIONS:

PLOT DATE: 8/23/2023

DRAWN BY: LG

CHECKED BY: BJS

SHEET

A6.0

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ARCHITECT
BRADLEY J. STURMAN
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General Requirements

All materials, workmanship, design and construction shall conform to the 2018 International Building Code and local jurisdiction amendments.

Definitions: The following definitions are used throughout these structural notes:

- IBC - Governing code including local amendments
- SER - Structural Engineer of Record per these Contract Documents
- UNO - Unless otherwise noted

Drawings indicate general and typical details of construction. Typical details and general notes shall apply even if not specifically denoted on plans, UNO. Where conditions are not specifically indicated similar details of construction shall be used, subject to review and approval by the Architect and the SER.

Reference to ASTM and other standards shall refer to the latest edition designated by IBC Chapter 35. Refer to the specifications for information in addition to that covered by these structural notes and drawings.

Warranty: The SER has used that degree of care and skill ordinarily exercised under similar circumstances by members of the profession in this locale and no other warranty, either expressed or implied, is made in connection with rendering professional services.

Design Criteria

BUILDING CATEGORY: Structural Occupancy Category II
Importance factors for snow, wind and seismic are listed with the loading criteria.

LIVE LOADS:

Roof; Snow load, Pf = 25 psf

Residential:	
Uninhabitable attics without storage	10 psf
Uninhabitable attics with storage	20 psf
Uninhabitable attics portions over 4'-0" high	20 psf
Habitable attics and sleeping areas	30 psf
Residential floor	40 psf
Residential decks	60 psf

LATERAL LOADS-WIND: Per ASCE 7-16, Section 27.5
Iw = 1.0; Kzt = 1.00; V = 23.7 kips

- Numbering below is per IBC Section 1603.1.4:
- Basic Wind Speed (3-second gust) = 110 mph
 - Importance Factor = 1.0
 - Exposure = C
 - Internal pressure coefficient = +/- 0.18
 - Components and Cladding: The following working loads may be used in lieu of calculations:

(Uplift at roof)	Zone 1,2e;	17.2 psf
100 sq. ft.	Zone 2n,2r,3e;	21.9 psf
	Zone 3r;	27.6 psf
(Roof overhangs)	Zone 1,2e;	27.9 psf
20 sq. ft.	Zone 2n,2r;	38.9 psf
	Zone 3e;	42.2 psf
	Zone 3r;	48.1 psf
(Walls)	Zone 4;	17.1 psf
20 sq. ft.	Zone 5;	20.5 psf

LATERAL LOADS-EARTHQUAKE: Per ASCE 7-16, Chapter 11 & IBC 1613

- Numbering below is per IBC Section 1603.1.5:
- Importance Factor = 1.0
 - Mapped Spectral Response Accelerations, Ss = 1.391 g; S1 = 0.484 g
 - Site Class = D; Fa = 1.200, Fv = 1.816
 - Spectral Response Coefficients, Sds = 1.113 g, Sd1 = 0.586 g
 - Seismic Design Category = D
 - Basic Seismic Force Resisting System is:
 - Vertical Elements = Wood Structural Panel Shear Walls
 - Diaphragms = Wood Structural Panel Diaphragms
 - Design Base Shear = 23.1 kips
 - Seismic Response Coefficient Cs = 0.171
 - Response Modification Factor R = 6.5
 - Analysis Procedure = Equivalent Lateral Force Procedure

Additional Items:
Building Location 47.585 N, 122.224 W
Building Height = 18 feet
Redundancy Factors:
North/South Direction = 1.0 East/West Direction = 1.0

Contractor Execution Requirements

Contractor shall verify all dimensions and all conditions at the job site, including building and site conditions before commencing work, and be responsible for same. All discrepancies shall be reported to the Architect/SER before proceeding with work. Any errors, ambiguities and/or omissions in the contract documents shall be reported to the Architect/SER immediately, in writing. No work is to be started before correction is made.

Contractor shall coordinate all dimensioned openings and slab edges shown on the contract documents. Some dimensions, openings and embedded items are shown on the structural drawings, others may be required. Refer to architectural drawings for all dimensions, wall and floor openings, architectural treatment, embeds required for architectural items, etc. Refer to mechanical, plumbing, electrical, fire protection and civil drawings for size and location of all openings for ducts, piping, conduits, etc.

Do not scale drawings. Use only field verified dimensions. When electronic plan files are provided for the contractor's detailing convenience, it shall be noted that the electronic files are not guaranteed to be dimensionally accurate; the contractor uses them at their own risk. The published paper documents are the controlling Contract Documents. Electronic files of detail sheets and notes will not be provided.

Contract Documents and any materials used in preparation of them, including calculations, are the exclusive property of the SER and can be reproduced only with the permission of the SER.

Contractor initiated changes shall be submitted in writing to the Architect/SER for review and acceptance prior to fabrication/construction. Changes shown on shop drawings only will not satisfy this requirement.

The contractor shall provide temporary bracing as required until all permanent connections have been installed. The contractor is responsible for the strength and stability of all partially completed structures including but not limited to concrete or masonry walls, steel framing and erection aids. The contractor shall be responsible for all required safety standards, safety precautions and the methods, techniques, sequences or procedures required in performing his work. The contractor shall coordinate with the building department for all building department required inspections.

Inspection
The building official, upon notification, shall make structural inspections as required by local ordinance. The inspection by the building official per IBC Section 109 will be separate from and in addition to the special inspection and structural observation mentioned subsequently.

Shop Drawing & Submittal Review

The contractor shall review and stamp the shop drawings & submittals for review. SER will only review submittals for items shown on SER documents. Submittals for Deferred Structural Components will receive cursory review by SER for loads imposed on primary structure. SER will review shop drawings for general conformance with design concept of the project and general compliance with the information given in the Structural Contract Documents. Review of submittals does not constitute approval or acceptance of unauthorized deviation from Contract Documents.

Shop Drawing & Submittal Review (including Deferred Structural Components)

The contractor shall review and stamp the shop drawings & submittals for review. SER will only review submittals for items shown on SER documents. Submittals for Deferred Structural Components will receive cursory review by SER for loads imposed on primary structure. SER will review shop drawings for general conformance with design concept of the project and general compliance with the information given in the Structural Contract Documents. Review of submittals does not constitute approval or acceptance of unauthorized deviation from Contract Documents.

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications.

- Contractor responsible for:
- Reviewing, approving, stamping and signing submittals prior to submittal to Architect and SER
 - Timing submittals to allow 10 days of review time for the SER and time for corrections and resubmittal
 - Conformance to requirements of the Contract Documents
 - Dimensions and quantities
 - Verifying information to be confirmed or coordinated
 - Information solely for fabrication, safety, means, methods, techniques and sequences of construction
 - Coordination of all trades

Resubmittals shall be clouded and dated for all changes to the submittal. Only clouded portions of resubmittal will be reviewed and SER's review stamp applies to only these areas.

Substitutions

Substitutions shall be submitted in writing prior to submittal of shop drawings. Shop drawings bearing substitutions will be rejected. Submit engineering data to substantiate the equivalence of the proposed items. The SER's basic services contract does not include review of substitutions that require re-engineering of the item or adjacent structure. Nor does the SER's contract cover excessive review of proposed substitutions. The fees for making these reviews and/or redesign shall be paid by the contractor. Reviews and approvals shall not be made until authorization is received.

Submittals

Shop drawings and material submittals shall be submitted to the Architect and SER prior to any fabrication or construction for the following structural items. Submittals shall include one reproducible and one copy; reproducible will be marked and returned. If deviations, discrepancies, or conflicts between shop drawings submittals and the contract documents are discovered either prior to or after shop drawing submittals are processed by the SER, the Contract Documents control and shall be followed.

- 1-joist and engineered wood beam floor framing layout & materials list
- Engineered wood beams (certificates to be on-site and available upon request)

Special Inspections

The owner shall retain a Special Inspector to perform the special inspection requirements required by the building official as outlined in IBC Section 1704. See the specifications for additional requirements for special inspection and testing. The architect, structural engineer, and building department shall be furnished with copies of all inspection reports and test results.

The following inspections are required and shall be performed per the building code:
* Epoxy installed anchor bolts and holdowns rods: Continuous per Table 1703.3 - #4

Structural Observation

Structural observation is defined as the visual observation of the structural system for general conformance to the Contract Documents at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspection required by Section 109 or other sections of the IBC.

The owner shall employ a registered design professional to perform structural observation when required by IBC 1709. Observed deficiencies shall be reported in writing to the Architect, special inspector, and contractor. The contractor shall respond to these items in writing indicating how they have been resolved. At the end of the project, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.

Construction observation by the SER is for general conformance with structural portions of the permit documents only and is not intended in any way to review the Contractor's construction procedures. The SER has no overall supervisory authority or actual/direct responsibility for the specific working conditions at the site and for any hazards resulting from the action of any trade contractor. The SER 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.

The contractor shall provide the SER adequate notice to schedule appropriate site visits for structural observation.

Geotechnical

Report & General Criteria
Criteria outlined in the report listed below was used for the design of the foundations:
Geotechnical and Critical Area Report, Proposed Remodel/Expansion of Existing Residence, 8456 North Mercer Way, dated January 10, 2024 and prepared by Geotech Consultants, Inc.

Contractor shall be familiar with recommendations in the above-mentioned report prior to start of construction. Allowable soil pressure and lateral earth pressure are assumed and therefore must be verified by a Geotechnical Inspector or the building official. If soils are found to be other than assumed, notify the structural engineer for possible foundation redesign. For wet weather work, see the Geotechnical Report.

All prepared soil-bearing surfaces shall be inspected by the owners Geotechnical Inspector (or building official) prior to placement of reinforcing steel and concrete. Inspections shall be made per IBC Table 1705.6.

Unless otherwise noted, footings shall be centered below columns or walls.

Bearing Values
Allowable soil pressure = 2,500 psf

All footings shall bear on undisturbed soil and shall be lowered to firm bearing if suitable soil is not found at elevations shown. Exterior footings shall bear a minimum of 18" below the finished ground surface. Footing elevations shown on plans (or in details) are the minimum depths and for guidance only; the actual elevations of footings must be established by the contractor in the field working with the Geotechnical Inspector.

Subgrade Preparation

Prepare subgrade per the Geotechnical Report, summarized as follows: All footings shall be cast on undisturbed firm natural soils that are free of organic materials. Footing excavation shall be free of loose

soils, sloughs, debris and free of water at all times. If organic silt and/or fill material is encountered at subgrade elevations, over-excavate a minimum of 2'-0" below the design foundation subgrade elevation prior to placing footings. The over-excavated areas shall be backfilled with structural fill compacted to 95% proctor per ASTM D-1557 or a lean concrete mix.

Drainage

Drainage systems, including foundation, roof and surface drains, shall be installed as directed by the Geotechnical Report and IBC Section 1807. Vapor retarder placed below slab on grade shall conform to ASTM E 1643 and ASTM E 745.

Retaining Walls

Grade on either side of concrete walls shall not vary by more than 12", UNO. Slope of backfill shall not exceed 2H to 1V, UNO. Backfill behind all retaining walls with free draining, granular fill installed per the Geotechnical Report. Provide for subsurface drainage. Design pressures used for the design of retaining walls are based on drained conditions.

Active earth pressure (unrestrained/restrained) = 40/40 + 10H pcf
Seismic surcharge = 8H (fos = 1.2)
Passive earth pressure = 300 pcf
Coefficient of friction (Factor of safety of 1.5 included) = 0.40

Provide temporary shoring for tops of walls if backfill is placed prior to the supporting structure being constructed. Supporting structure is the floor framing and sheathing completely installed and attached to perpendicular walls.

Existing Utilities

The contractor shall determine the location of all adjacent underground utilities prior to any excavation, shoring, pile driving, or pier drilling. Any utility information shown on the plans and details are approximate and not verified by the SER. Contractor is to provide protection of any utilities or underground structures during construction.

Concrete

Cast-in-Place Concrete

Concrete materials shall conform to the following:
Portland cement: Type 1, ASTM C150
Fly ash (if used): ASTM C618 class F or C, quantity less than (by weight) 25% of cement content, and maximum loss on ignition = 1%
Lightweight aggregates: Shall not be used without prior approval of SER and building department
Normal weight aggregates: ASTM C33
Sand equivalent: ASTM C33
Water: Potable per ASTM C94
Air entraining admixtures: ASTM C260
Chemical admixtures: ASTM C494
Flowable concrete admixtures: ASTM C1017

Durability requirements of concrete mixes shall conform to building code. These requirements include water-cementitious material ratios, minimum compressive strengths, air entrainment, type of cement, and maximum chloride ion content.

Concrete strength requirements: Strength at 28 days and normal weight concrete, UNO.

Location	Strength f'c (psi)	Max. Aggr. size (inch)	Max. W/C ratio or min cement + sand
Lean mix soil replacement under fdns	1,500	sand	1-1/2 sack cement
Foundations, grade beams, stem walls	3,000**	1"	per design
Slab on grade, topping slab, stair tread	3,000**	3/4"	0.42 (.45)

** Design strength shown is for weathering purposes only; 2,500 psi strength was used for purposes of structural design. Mixes shall be proportioned to accommodate placement. Slump, W/C ratio, admixtures and aggregate size will be determined by the contractor in accordance with ACI. Mixes will be approved by one of the following criteria.

Mix design is submitted in accordance with ACI 318 Section 5.3.
Mix design is submitted in accordance with ACI 318 Section 5.4.

Admixtures: all concrete, including slab on ground, shall contain an acceptable water-reducing admixture conforming to ASTM C494 and be used in strict accordance with the manufacturer's recommendations.

All concrete which is exposed to freezing and thawing or exposed to deicing chemicals shall contain an air entraining agent, conforming to ASTM C260. The amount of entrained air shall be 5% +/- 1% by volume. Air % is based on 3/4" coarse aggregate; adjust air % per ACI 318 for other coarse aggregate sizes. Air-entrainment shall not be used at slabs that will receive a smooth, dense, hard-troweled finish.

Trucks hauling plant-mixed concrete shall arrive on-site with a field ticket indicating the maximum gallons of water that can be added at the site not to exceed the total water content in the approved mix design.

Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. Concrete shall be thoroughly consolidated by suitable means during placement and shall be thoroughly worked around reinforcement, embedded items, and into corners of forms.

Formwork and Accessories

Concrete construction shall conform to ACI 301 "Specifications for Structural Concrete" and the Building Code, including testing procedures. See architectural documents for formwork requirements. Installation shall adhere to ACI 301. Conduits and pipes of aluminum shall not be embedded in concrete construction.

See architectural drawings for exact locations and dimensions of door and window openings in all concrete walls and for all grooves, notches, chamfers, feature strips, color, texture, and other finish details at all exposed concrete surfaces. Concrete accessories and embedded items shall be coordinated with Architectural documents and all other suppliers' drawings before placing concrete. Anchor rods, reinforcing, hardware, etc. shall be firmly tied in place prior to concrete placement; wet-setting of these items are not permitted in concrete.

Construction Joints

Contractor shall submit the proposed locations of construction joints to the Architect for acceptance before starting construction. All construction joints in walls and footings shall be keyed with 1-1/2" thick x 6" long x 3-1/2" wide keys placed in alternate reinforcing spaces. All construction, control, and isolation joints for slabs on ground shall be in accordance with the typical slab on ground details.

Refer to Architectural documents for waterstops, dampproofing, and retaining wall drainage requirements at concrete and at concrete joints (construction joints, slab to wall joints, curb to slab joints, etc).

Curing and Finishes

Protect and cure freshly placed concrete per ACI 305 in hot conditions, ACI 306 in cold conditions, and ACI 308 "standard specification for curing concrete". All exposed edges and corners shall have 3/4" chamfer, UNO. Concrete flatwork shall be sloped to provide positive drainage. Coordinate finish with architectural contract documents.

At the time of application of finish materials or special treatment to concrete, moisture content of concrete shall conform to requirements in finish material specifications. Where vapor sensitive coverings are to be placed on slabs on grade, conform strictly to slab covering manufacturer's recommendations regarding vapor retarder and granular fill requirements below the slab.

Reinforcing in Cast-in-Place Walls

See Reinforcement General Notes for more information. Uppermost and lowermost horizontal reinforcing in walls shall be placed within 1/2 of specified spacing from the top and bottom of the wall.

Concrete wall reinforcing - typical UNO:

Wall thickness	horizontal bars	vertical bars	location
6" or less	#4 @ 16"oc	#4 @ 16"oc	@ cl of wall
8" or less	#4 @ 12"oc	#4 @ 12"oc	@ cl of wall

Concrete protection; provide edge cover as follows. When a thickness of cover required for fire protection is greater than that specified in this section, such greater thickness shall be used:

- Uniformed surfaces cast against and permanently exposed to earth = 3"
- Formed surfaces exposed to earth or weather: #6 bars or larger = 2"; #5 bars or smaller = 1-1/2"
- Clear spacing between 2 or more parallel layers = 1"

Concrete Crack Maintenance

Cracking occurs in concrete structures due to inherent shrinkage, creep, and the restraining effects of walls and other structural elements. Most cracking due to shrinkage and creep will likely occur over the first two years of the life of the structure; further concrete movement due to variations in temperature may persist. Cracks that result in water penetration will need to be repaired to protect reinforcing. Other cracking may be repaired at the owner's discretion for aesthetic reasons or performance of applied finishes. Prior to repairing cracks, a structural engineer should be consulted to provide direction on which cracks to repair and on whether observed cracks may affect the strength of the structure.

Reinforcement in Concrete

Materials

Reinforcing steel shall conform to ASTM A615 (including supplement S1), Grade 60, Fy = 60,000 psi, except any bars specifically so noted on the drawings shall be Grade 40, Fy = 40,000 psi.

Welded Wire Reinforcing (WWR) shall conform to ASTM A185. Lap splice adjacent mats of welded wire fabric a minimum of 8" at sides and ends. In equipment pads, use minimum WWR 6x6-W2.1xW2.1, UNO.

Procedures

Reinforcing steel shall be detailed (including hooks and bends) in accordance with ACI 315 "Details and Detailing of Concrete Reinforcement". Lap all reinforcement in accordance with "The Reinforcing Splice and Development Length Schedule" on these documents. If table is not provided, lap all reinforcing by 40 bar diameters. Provide corner bars at all wall and footing intersections.

Reinforcing steel shall be adequately supported to prevent displacement during concrete and grout placement. Bars shall be bent cold. Bars partially embedded in concrete shall not be field bent, unless specifically so detailed or approved by the SER.

Welding or tack welding of reinforcing bars to other bars or to plates, angles, etc, is prohibited, except where specifically approved by the SER.

Anchorage

Post installed anchors shall not be installed without prior approval of engineer of record unless otherwise noted on the plans.

Epoxy-Grouted Items

Epoxy-Grouted Items (threaded rods or reinforcing bar) specified on the drawings shall be installed using "SET-XP" high strength epoxy as manufactured by the Simpson Strong Tie Company. Install in strict accordance with I.C.C. Report No. ESR 2508. Special inspection of installation is required. Rods shall be ASTM A-307 unless otherwise noted.

Expansion Bolts

Expansion bolts into concrete and concrete masonry units shall be "Strong Bolt" as manufactured by the Simpson Strong Tie Company, installed in strict accordance with I.C.C. Report No. ESR-1771, including minimum embedment requirements. Bolts into concrete masonry or brick masonry units shall be into fully grouted cells. Substitutes proposed by contractor shall be submitted for review with ICC reports indicating equivalent or greater load capacities. Special inspection is required for all expansion bolt installation.

Wood

Material Criteria

Framing lumber shall be kiln dried or mc-19 (unless more stringent criteria are required in these notes or on the drawings) and graded and marked in conformance with the latest WCLIB standard grading rules for west coast lumber no. 17. Furnish to the following minimum standards:

4x beams & posts	DF #2
6x beams & posts	DF #1
4x treated beams & posts, 6x treated posts	HF kdat #2
2x joists, rafters, built-up beams, headers	HF #2
2x, 3x flatwise & edgewise blocking	HF standard
2x4, 2x6 studs	HF kd stud
2x4, 2x6 plates	HF kd15 standard
2x, 3x, 4x treated plates/ledgers	HF kdat #2

Moisture Content and Care of Material During Construction

All 2x studs and plates shall be kiln dried. The Contractor shall take measures to minimize exposure of sawn lumber and engineered wood products to moisture during construction.

Wood Structural Panels

Wood structural panels shall be APA rated sheathing. Plywood shall be grade C-D or Structural II, exterior glue, exposure 1 durability classification, in conformance with USDOC PS 1 or PS 2, ASTM D 5457 and IBC 2304.7 and table 2304.7(2). Oriented strand board (OSB), shall be in accordance with USDOC PS 2, and of equivalent thickness, exposure rating and span rating and may be used in lieu of plywood pending OSB substitution approval by Architect. See plans for thickness, panel identification index and nailing requirements. Unless otherwise noted on plans:

Roof sheathing shall be 23/32" with span rating 48/24
Floor sheathing shall be 23/32" with span rating 48/24
Wall sheathing shall be 15/32" with span rating 24/0

Glu Laminated Material

Glued laminated members shall be fabricated in conformance with AITC 117 and APA-EWS Y117, Stress Class 24F-1.8E. Each member shall bear an AITC identification mark and shall be accompanied by an AITC certificate of conformance. All simple span beams shall be Douglas fir combination 24F-V4, fb = 2,400 psi, fv = 265 psi and all cantilevered beams and columns shall be Douglas fir combination 24F-V8, fb = 2,400 psi, fv = 265 psi unless otherwise noted. Camber all simple span glu laminated beams to 3,500' radius or zero camber, unless shown otherwise on the plans.

Structural Composite Lumber

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 ICC Report ESR-1387. LVL lumber shall be manufactured using veneer glued with a waterproof the requirements of ASTM D2559 with all grain parallel with the length of the member. The members shall have the following minimum properties:

PSL (1.8E) Columns Fb = 2,400 psi, E = 1,800 ksi, Fcl = 2,500 psi

GENERAL STRUCTURAL NOTES
(TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS)

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET

8/21/23

Design shown on plans is based on ILevel/Trus-Joist products manufactured by the Weyerhaeuser Corporation.. Alternate manufacturers may be used subject to review and approval by the Architect and Structural Engineer of Record, alternate joist hangers and other hardware may be substituted for items shown provided they have ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with members provided.

Treated Wood

All wood framing in direct contact with concrete or masonry, exposed to weather, or that rest on exterior foundation walls and are located within 8" of earth, shall be pressure-treated with an approved preservative per IBC section 2303.1.8. Cut or drilled sections of treated material shall be treated with an approved preservative per IBC section 2303.1.8. See IBC section 2304.11 for additional requirements.

Metal Products in Contact with Treated Lumber

Simpson hardware in contact with ACQ, CA, or CBA pressure-preservative treated wood shall have a Zmax finish (G185 HDG per ASTM A653) or shall be post hot-dip galvanized (per ASTM A123 for connectors and ASTM A153 for fasteners) unless otherwise noted. Exception: type 304 or 316 stainless steel connectors and fasteners are required for the following applications:

- ACQ, CA, or CBA treatments with ammonia where members are used in exterior applications.
- all ACZA treatments
- retention levels greater than 0.40 pcf for ACQ, 0.41 pcf for CBA-A, or 0.21 pcf for CA-B treatments.

Stainless steel connectors require matching stainless steel fasteners. Zmax and post hot-dip galvanized connectors require fasteners galvanized per ASTM A153. Thru-bolts and anchor rods used in dry conditions shall be permitted to be of mechanically deposited zinc coated steel with coating weights in accordance with ASTM B 695, class 55 minimum. See IBC section 2304.9.5 and "framing connectors" notes on this sheet for additional requirements.

Framing Connectors

Timber connectors called out by letters and numbers shall be "strong-tie" by Simpson company, as specified in their catalog number C-C-2021. Equivalent devices by other manufacturers may be substituted, provided they have ICBO approval for equal or greater load capacities. Connectors shall be installed in accordance with the manufacturer's recommendations. Where connector straps connect two members, place 1/2 of the nails or bolts in each member. UNO on the drawings use the following hangers:

2x or 2-2x member to flush wood beam/ledger	LUS (LUS 2)
2x member to sill plate or steel/flush wood beam	LB (B hdg)
2-2x member to sill plate or steel/flush wood beam	B (B hdg)
Interior 4x or 6x post to concrete below	ABU w/ 5/8" dia. anchor rod w/ 7" embed
Treated 4x4 post to concrete below	CBSQ44-SDS2HDG
Treated 6x6 post to concrete below	CBSQ66-SDS2HDG
4x or 6x post to wood beam above	PC/EPC (PC/PCE zmax)
wood beam to wood beam that bears on post	HUCTF

Fasteners

Shall conform to the following requirements, UNO. Splitting shall be avoided at all wood fasteners:

Steel to wood or wood to wood connection bolts	ASTM A307
Anchor rods (w/ threaded ends and welded nut at end)	ASTM F1554 grade 36 (typical UNO)
Lag screws	NDS section 11.1.3
Wood screws	NDS section 11.1.4
Nails	NDS section 11.1.5

Nail sizes are specified as follows. If the contractor proposes the use of alternate nails, they shall submit nail specifications to the Structural Engineer of Record (prior to construction) for review and acceptance.

Simpson hardware	typical UNO	see catalog
MSTC holdown straps over shear wall sheathing to studs		0.148 x 2-1/4"
hangers w/ 16d or 10d options		0.162 x 3-1/2"
floor sheathing	typical	0.113 deformed shank x 2-1/2"
roof sheathing	typical	0.131 x 2-1/2"
stud wall APA sheathing	15/32 sheathing	0.131 x 2-1/4"
member to member face nailing	typical UNO	0.131 x 3"
bottom plate to framing below		0.131 x 3-1/4"
toe nailing	typical UNO	0.131 x 3"

Sheathing fasteners shall be driven so that head or crown is flush with sheathing surface. 3/8" min. edge distance shall be maintained on sheathing fasteners.

Spaced fasteners specified on the drawings shall begin at 1/2 specified spacing from the ends of the members, unless otherwise noted. Provide (2) fasteners minimum each member, typ. Anchor rods from sill plates to concrete shall begin a min. of 6" and a max. of 12" from each end of each piece of sill plate.

Thru-bolt and anchor rod holes shall be at least 1/32" but no more than 1/16" larger than bolt/rod diameter. Clearance holes for lag screw shanks shall have the same diameter as the lag shank and the same penetration depth as the length of the unthreaded shank. Lead holes for threaded portion of lag screws shall have a diameter of 55 to 60% of lag screw shank diameter and shall extend the length of the threaded portion of the lag screw.

Stair and Stair Landing Framing Requirements

4'-0" maximum width UNO

Landings: span 2x6 joists @ 16"oc in short direction of landing. At full height wood studs, provide 2x6 continuous ledger w/ (3) 0.131 x 3-1/4" nails to each stud. At concrete walls, provide treated 2x6 continuous ledger w/ 5/8" diameter anchor rods @ 16"oc. Embed 5". Where landing edge is not supported by beam, full height stud wall, or full height concrete wall, provide 2x4 @ 16" cripple wall from landing edge to slab on grade below.

Stringers 9'-0" in length or less: provide 2x12 stringers at center and sides of stair. Notch to 5'-1/2" minimum depth and provide HUS26 hangers to supporting beams. At center stringer, sister 2x6 ea. side of stringer and at side stringers, sister 2x6 one side of stringer. End sistered 2x6's short of hangers.

Stringers 11'-6" to 14'-0" in length: provide 1-3/4 x14 LVL 1.9E stringers at center and sides of stair. Notch to 8" min. depth and provide HU7 hangers to supporting beams. At center stringer, sister 2x8 ea. side of stringer and at side stringers, sister 2x8 one side of stringer. End sistered 2x8's short of hangers.

Where stringers bear on wood framing below, provide (2) LS70 clip at btm. of stringer. Where stringers bear on concrete slab, provide 2x treated sill plate w/ 5/8" exp. bolt at each stringer (embed 3-1/8").

General Wood Framing Criteria (UNO in previous sections)

All wood framing details not shown otherwise shall be constructed to the minimum standards of section 2308 of the IBC. Minimum nailing, unless otherwise noted, shall conform to table 2304.9.1 of the IBC. Unless otherwise noted, all nails shall be common. Coordinate the size and location of all openings with Architectural drawings. Provide washers under the heads and nuts of all bolts, anchor rods, and lag screws bearing on wood, unless otherwise noted. Installation of lag screws shall conform to NDS section 11.1.3. Bolts, anchor rods, and lag screws shall be centered in members, uno.

All structural stud walls (bearing or shear walls) shown and not otherwise noted shall be 2x4 studs @ 24"oc at non-bearing interior walls and 2x6 @ 24"oc at exterior and bearing walls. See Architectural drawings for differing wall widths and for framing at nonstructural walls. Two studs minimum shall be provided at the end of all walls and at each side of all openings, and below beam bearing points. Solid blocking for 4x6 wood posts and multi-stud posts shall be provided through intermediate levels to supports below. Provide continuous solid blocking at mid-height of all stud walls over 10'-0" in height.

All stud walls shall have their lower wood plates attached to wood framing below with 0.131 x 3-1/4" nails @ 8"oc or bolted to concrete with 5/8" diameter anchor rods @ 4'-0" for all other structures unless otherwise noted. Embed anchor rods 7" unless otherwise noted. Individual members of built-up posts shall be nailed to each other with 0.131 x 3" nails @ 8"oc staggered.

When not otherwise noted, provide gypsum wallboard on interior surfaces nailed to all studs, top and bottom plates and blocking with nails at 7" oc. Use #6 x 1-5/8" screws for 1/2" GWB and #6 x 1-7/8" screws for 5/8" GWB. Provide 15/32" APA rated sheathing on exterior surfaces nailed at all panel edges (block unsupported edges), top and bottom plates with 0.148 x 2-1/4" nails @ 6"oc and to all intermediate studs and blocking @ 12"oc. Allow 1/8" gap at all APA sheathing panel edges and ends. (see details where larger gap is required).

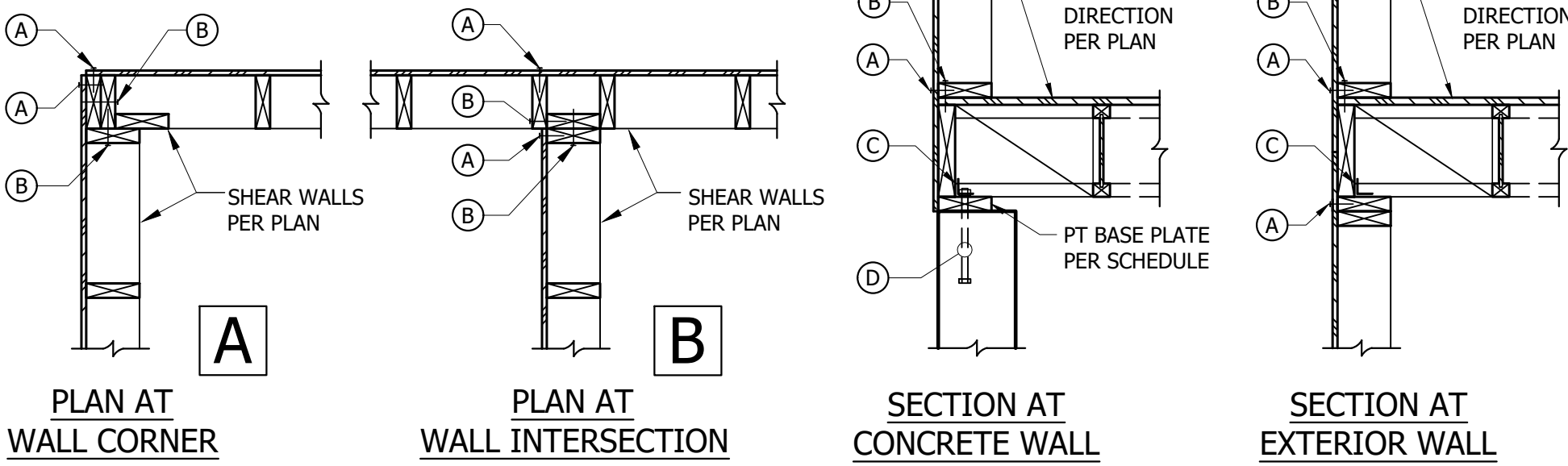
At exterior walls, provide flat wise 2x6 at all door heads and window sills and heads, unless otherwise noted. (provide flat wise 2-2x6 where opening width is greater than 6'-0" and less than 9'-6", unless otherwise noted). Provide (3) 0.131 x 3" toenails each end of each 2x6 member.

Provide double joists under all parallel partitions that extend over more than half the joist length and around all openings in floors or roofs unless otherwise noted. Provide solid blocking at all bearing points.

Toenail joists to supports with (3) 0.131 x 3" nails. Attach timber joists to flush headers or beams with Simpson metal joist hangers in accordance with notes above. Individual members of multi-joist beams shall be nailed to each other with (2) rows of 0.131 x 3" nails @ 12"oc.

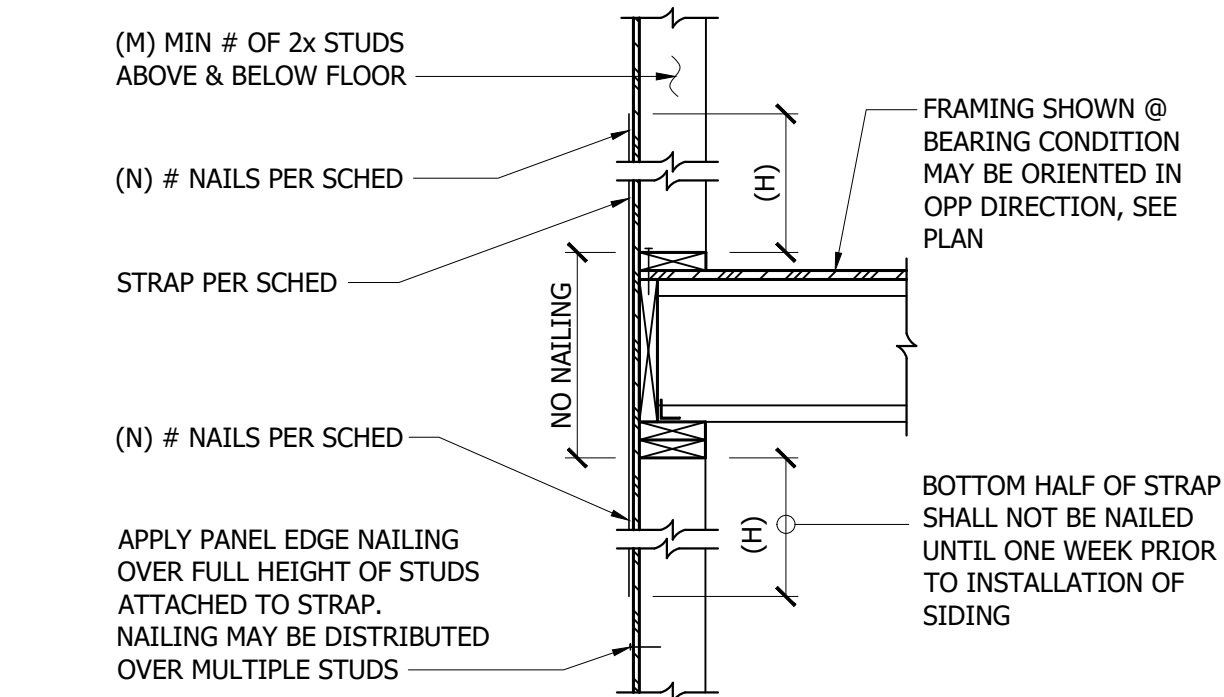
Unless otherwise noted on the plans, APA sub-flooring and roof sheathing shall be laid up with grain (strength axis) perpendicular to supports (joists, trusses, etc.) and in a staggered pattern. Nails shall be @ 6"oc to framed panel edges, @ 4"oc over shear walls and @ 12"oc to intermediate supports. All sub-flooring edges shall have approved T&G joints or shall be supported with solid blocking/framing. Plywood clips are recommended at all roof sheathing edges (solid blk'g/framing is not required at panel edges unless specifically noted in the structural drawings ore required by the roofing manufacturer). Glue sub-flooring to all supports with adhesive in accordance with the manufacturer's recommendations. Allow 1/8" gap at all panel edges and ends of floor and roof sheathing. Where blocked floor & roof diaphragms are indicated, provide flat 2x blocking at all unframed panel edges and nail with edge nailing specified.

SHEAR WALL SCHEDULE								
MARK	SHEATHING	PANEL EDGE NAILING ^(A)	TOP PLATE NAILING ^(B)	A35 CLIPS ^(C)	MUDSILL TO CONCRETE ^(D)		CAPACITY (PLF)	
					2x6 P.T.	3x6 P.T.	SEISMIC	WIND
SW6	1/2" PLYWOOD	0.131" @ 6"oc	0.131" @ 6"oc	A35 @ 24"oc	5/8"Ø AB @ 48"oc	5/8"Ø AB @ 64"oc	260	270
SW4	1/2" PLYWOOD	0.131" @ 4"oc	0.131" @ 4"oc	A35 @ 16"oc	5/8"Ø AB @ 32"oc	5/8"Ø AB @ 48"oc	350	400
SW3	1/2" PLYWOOD	0.131" @ 3"oc	0.131" @ 3"oc	A35 @ 12"oc	5/8"Ø AB @ 16"oc	5/8"Ø AB @ 32"oc	512	540
SW2 ⁵	1/2" PLYWOOD	0.131" @ 2"oc	(2) ROWS 0.131" @ 3-1/2"oc	A35 @ 8"oc	5/8"Ø AB @ 12"oc	5/8"Ø AB @ 16"oc	600	860

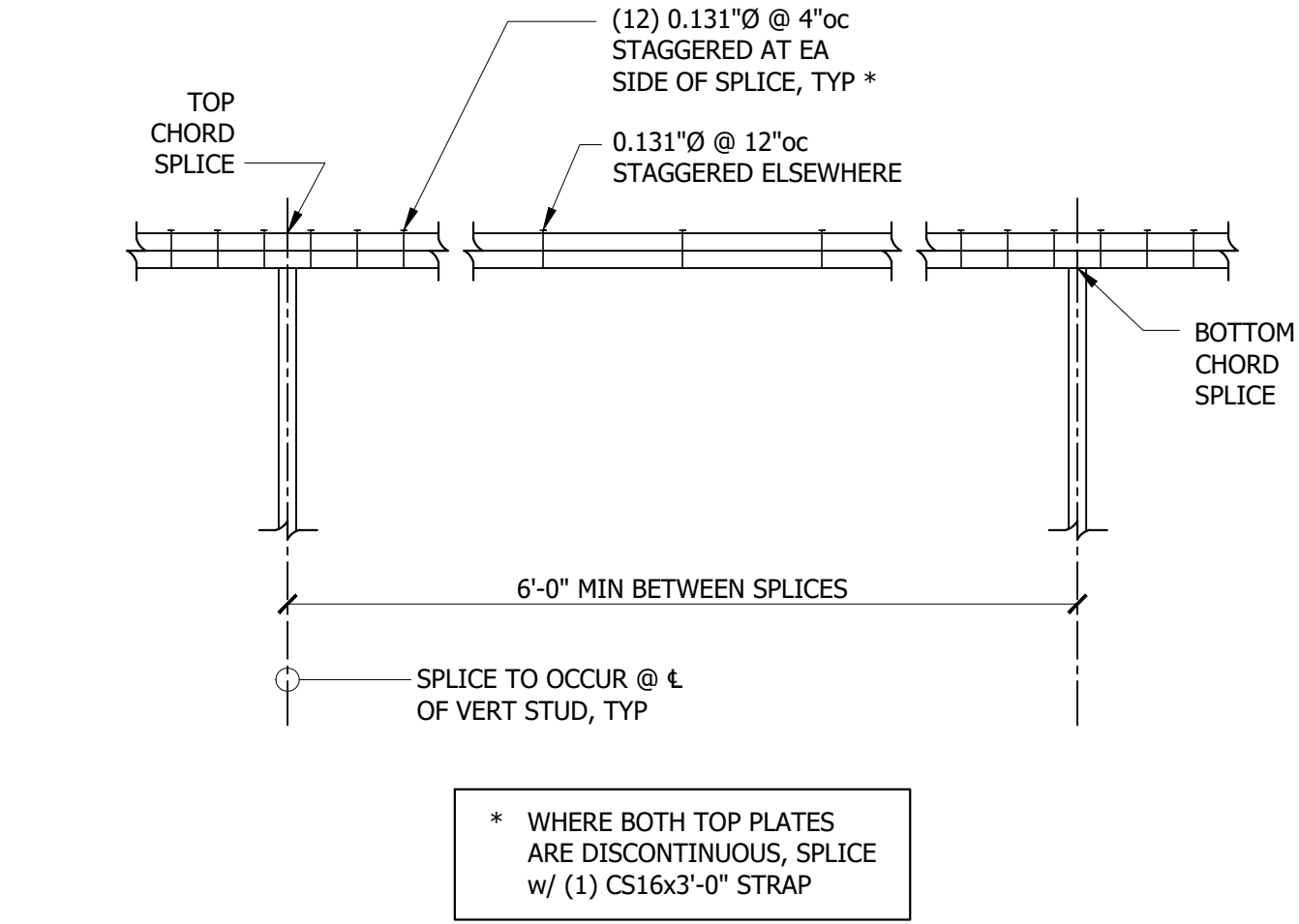


1 Shear Wall Schedule
3/4" = 1'-0"

STRAP SCHEDULE				
MARK	H	N	M	HF CAPACITY
CS16	14"	(13) 0.131"	1	1,705#
MSTCS2	17"	(22) 0.148"	2	3,650#



2 Strap Schedule
3/4" = 1'-0"

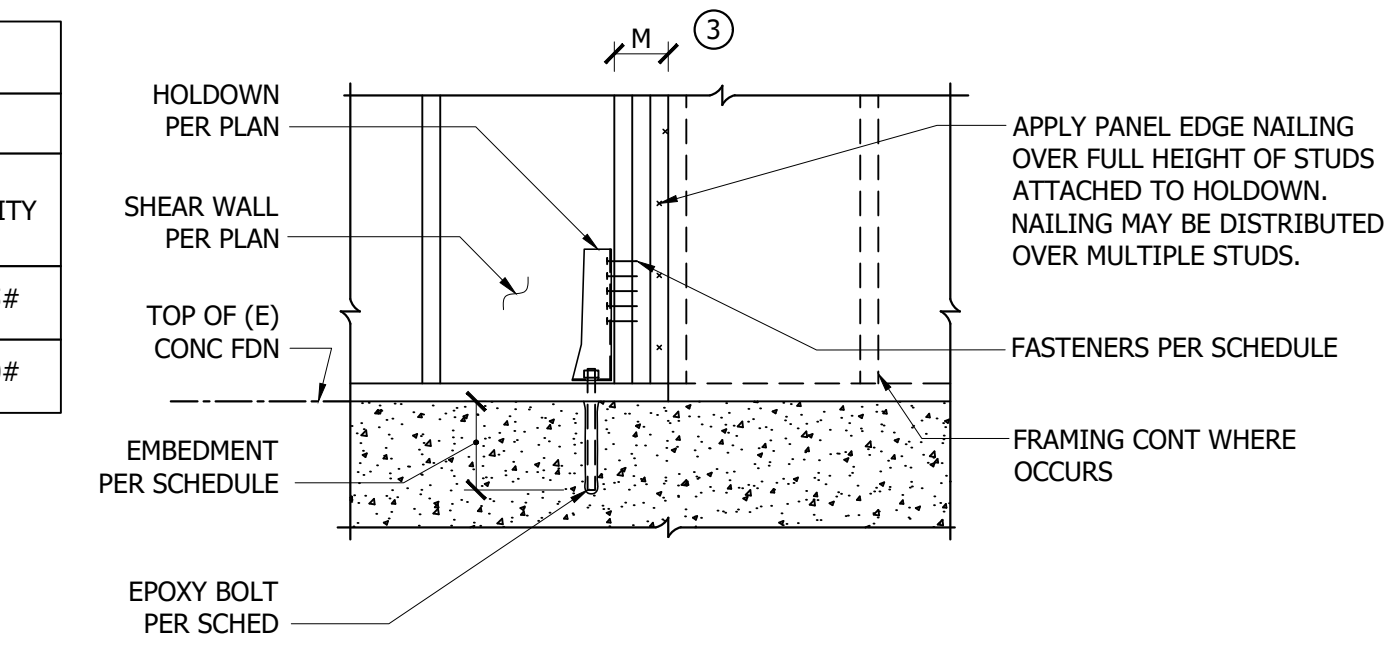


3 Top Plate Splice, Typ.
3/4" = 1'-0"

HOLDOWN SCHEDULE ① ② ④								
MARK	FASTENERS	M ③	STEM WALL			FOOTING/STRUCT. SLAB		CAPACITY
			ANCHOR ROD	EMBEDMENT	EDGE DISTANCE	EMBEDMENT	EDGE DISTANCE	
HDU2	(6) SDS1/4"x2 1/2"	3"	5/8"Ø	12"	3"	5"	7"	2,645#
HDU8	(20) SDS1/4"x2 1/2"	3" DF	5/8"Ø	16"	4"	9"	14"	7,870#

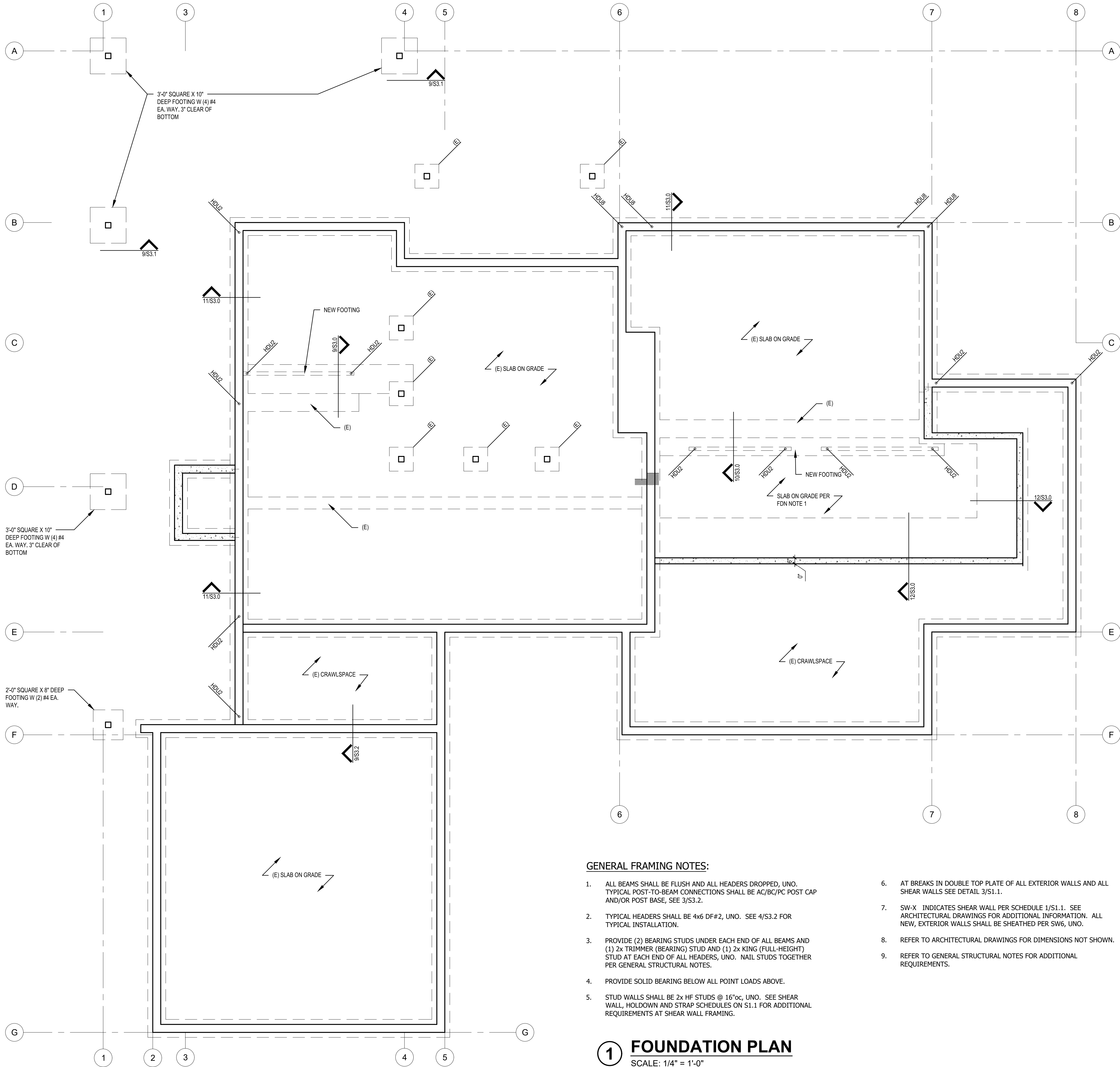
- ① PLACEMENT OF ANCHOR ROD IS BASED ON SIMPSON SET-3G EPOXY.
- ② INSTALL ALL HOLDOWNS AND EPOXY PER MANUFACTURER'S INSTRUCTIONS.
- ③ DEPTH OF WOOD FRAMING MEMBER ATTACHED TO HOLDOWN. MEMBERS SHALL BE HEM-FIR UNLESS NOTED OTHERWISE NOTED.
- ④ MIN 6" CONCRETE WALL THICKNESS REQUIRED

4 Retrofit Holdown Schedule
3/4" = 1'-0"



GENERAL STRUCTURAL NOTES

(TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS)



GENERAL FRAMING NOTES:

- ALL BEAMS SHALL BE FLUSH AND ALL HEADERS DROPPED, UNO. TYPICAL POST-TO-BEAM CONNECTIONS SHALL BE AC/BC/PC POST CAP AND/OR POST BASE, SEE 3/S1.2.
- TYPICAL HEADERS SHALL BE 4x6 DF#2, UNO. SEE 4/S3.2 FOR TYPICAL INSTALLATION.
- PROVIDE (2) BEARING STUDS UNDER EACH END OF ALL BEAMS AND (1) 2x TRIMMER (BEARING) STUD AND (1) 2x KING (FULL-HEIGHT) STUD AT EACH END OF ALL HEADERS, UNO. NAIL STUDS TOGETHER PER GENERAL STRUCTURAL NOTES.
- PROVIDE SOLID BEARING BELOW ALL POINT LOADS ABOVE.
- STUD WALLS SHALL BE 2x HF STUDS @ 16"oc, UNO. SEE SHEAR WALL, HOLDOWN AND STRAP SCHEDULES ON S1.1 FOR ADDITIONAL REQUIREMENTS AT SHEAR WALL FRAMING.
- AT BREAKS IN DOUBLE TOP PLATE OF ALL EXTERIOR WALLS AND ALL SHEAR WALLS SEE DETAIL 3/S1.1.
- SW-X INDICATES SHEAR WALL PER SCHEDULE 1/S1.1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL NEW, EXTERIOR WALLS SHALL BE SHEATHED PER SW6, UNO.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

HANGER SCHEDULE	
MEMBER	HANGER
2x10/2x12	LUS210
(2)2x10/(2)2x12	LUS210-2
(3)2x10	LUS210-3
4x10	HUS410
3-½x9 GLB	HHUS410
5-½x12 GLB	HGUS5.50/10
5-½x13-½ GLB	HGUS5.50/14
5-½x15 GLB	HGUS5.50/14
6-¾x9 GLB	HGUS6.88/10
6-¾x10-½ GLB	HGUS6.88/12

FOUNDATION NOTES:

- TYPICAL SLAB ON GRADE AT INTERIOR SHALL BE 4" THICK. REINFORCE ALL SLABS w/ WWF6x6-W2.9xW2.9 AT CENTERLINE.
- INDICATES HOLDOWN LOCATED AT END OF SHEAR WALL ABOVE, SEE HOLDOWN SCHEDULES ON 4/S1.1.
- TYPICAL PAD FOOTINGS SHALL BE 24" SQ. x 8" D. w/ (2) #4 EW, 3" CLR. OF BTM, SEE DETAIL 2/S3.2.
- EMBED ALL HORIZONTAL REINFORCEMENT MIN OF 4" INTO (E) CONCRETE w/ SIMPSON SET-XP EPOXY. EXTEND REINFORCEMENT 24" OR HOOK.

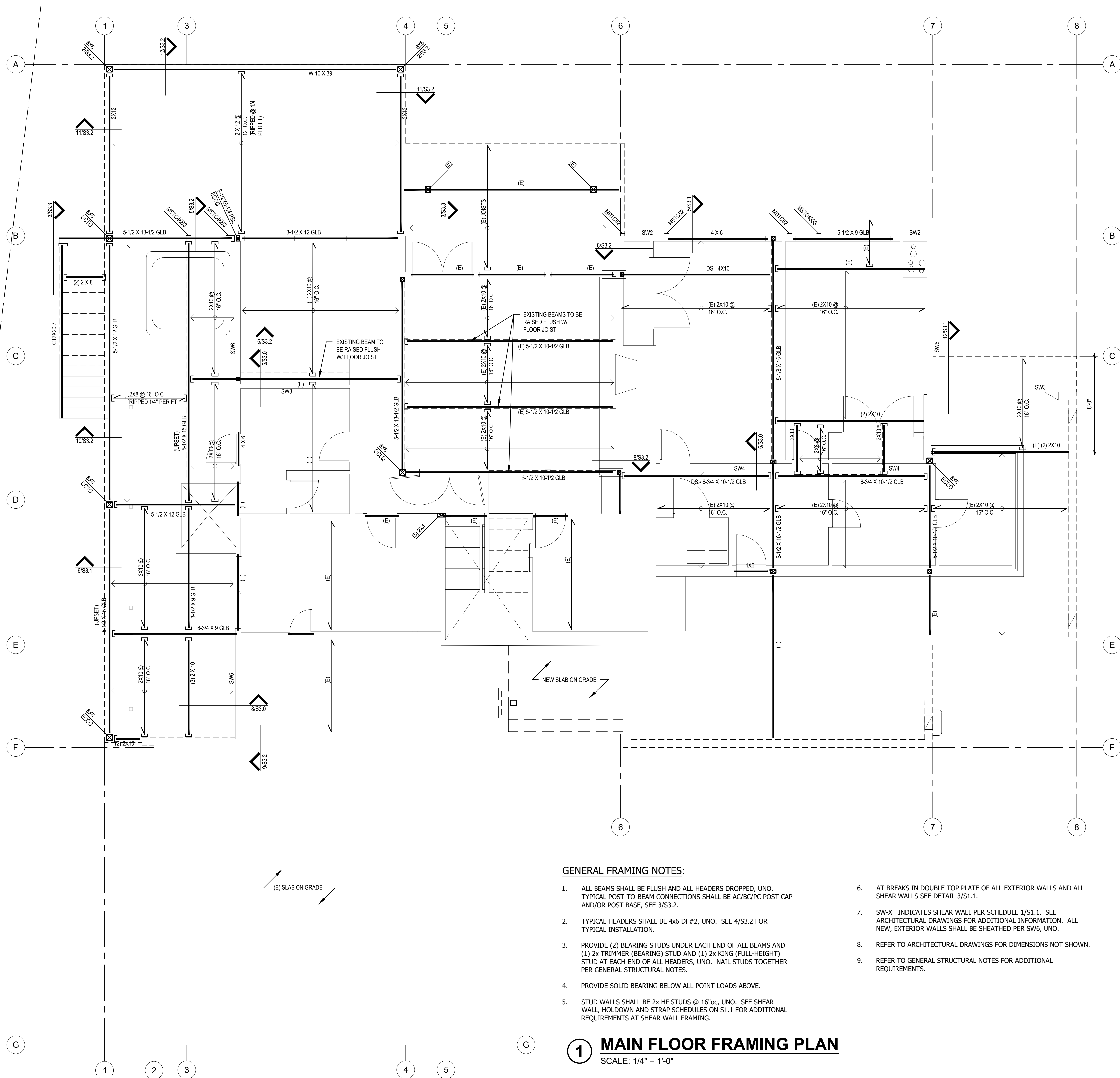
1 FOUNDATION PLAN

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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET

8/23/23



GENERAL FRAMING NOTES:

- ALL BEAMS SHALL BE FLUSH AND ALL HEADERS DROPPED, UNO. TYPICAL POST-TO-BEAM CONNECTIONS SHALL BE AC/BC/PC POST CAP AND/OR POST BASE, SEE 3/S3.2.
- TYPICAL HEADERS SHALL BE 4x6 DF#2, UNO. SEE 4/S3.2 FOR TYPICAL INSTALLATION.
- PROVIDE (2) BEARING STUDS UNDER EACH END OF ALL BEAMS AND (1) 2x TRIMMER (BEARING) STUD AND (1) 2x KING (FULL-HEIGHT) STUD AT EACH END OF ALL HEADERS, UNO. NAIL STUDS TOGETHER PER GENERAL STRUCTURAL NOTES.
- PROVIDE SOLID BEARING BELOW ALL POINT LOADS ABOVE.
- STUD WALLS SHALL BE 2x HF STUDS @ 16"oc, UNO. SEE SHEAR WALL, HOLDOWN AND STRAP SCHEDULES ON S1.1 FOR ADDITIONAL REQUIREMENTS AT SHEAR WALL FRAMING.
- AT BREAKS IN DOUBLE TOP PLATE OF ALL EXTERIOR WALLS AND ALL SHEAR WALLS SEE DETAIL 3/S1.1.
- SW-X INDICATES SHEAR WALL PER SCHEDULE 1/S1.1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL NEW, EXTERIOR WALLS SHALL BE SHEATHED PER SW6, UNO.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

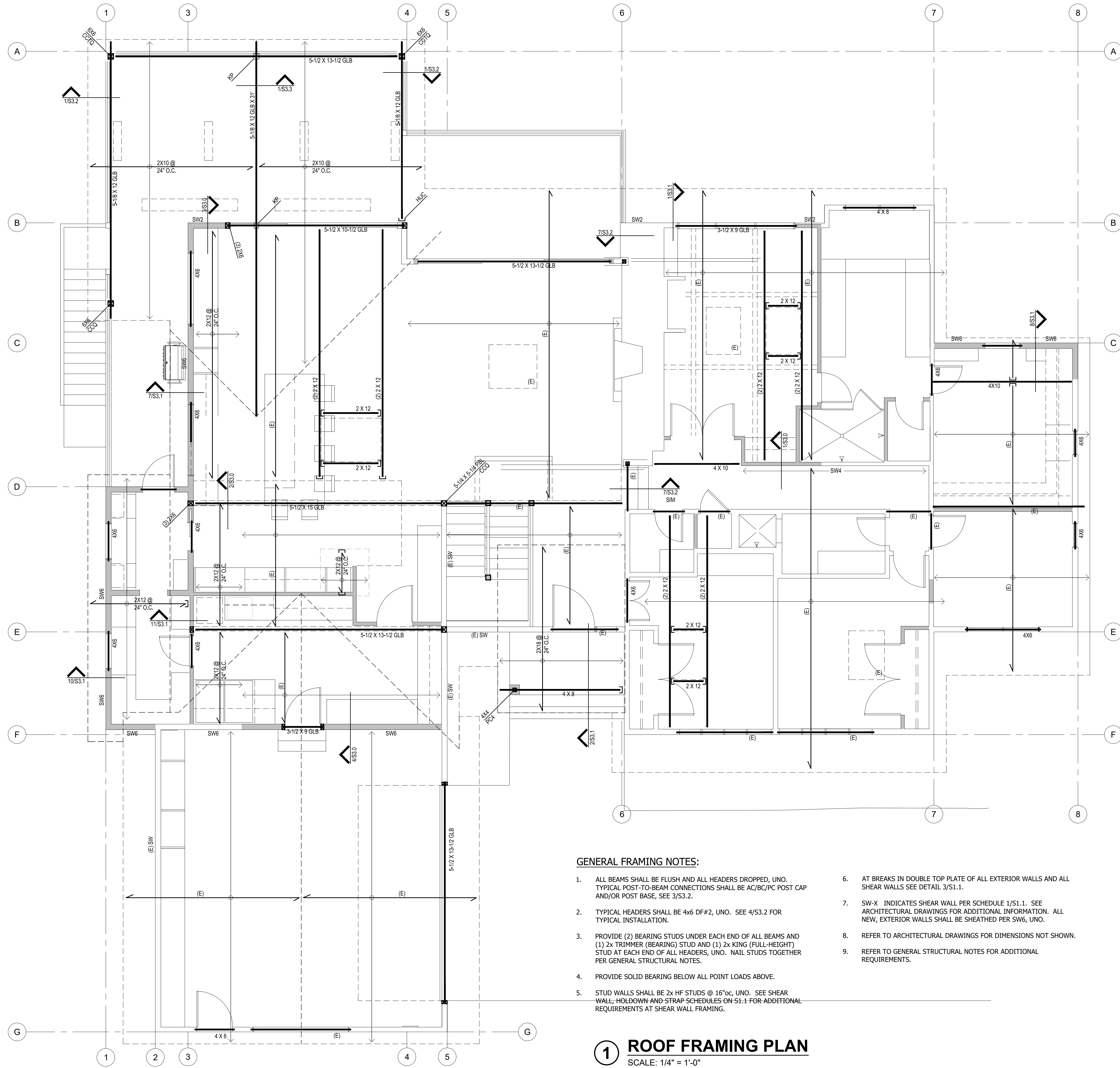
FLOOR FRAMING NOTES:

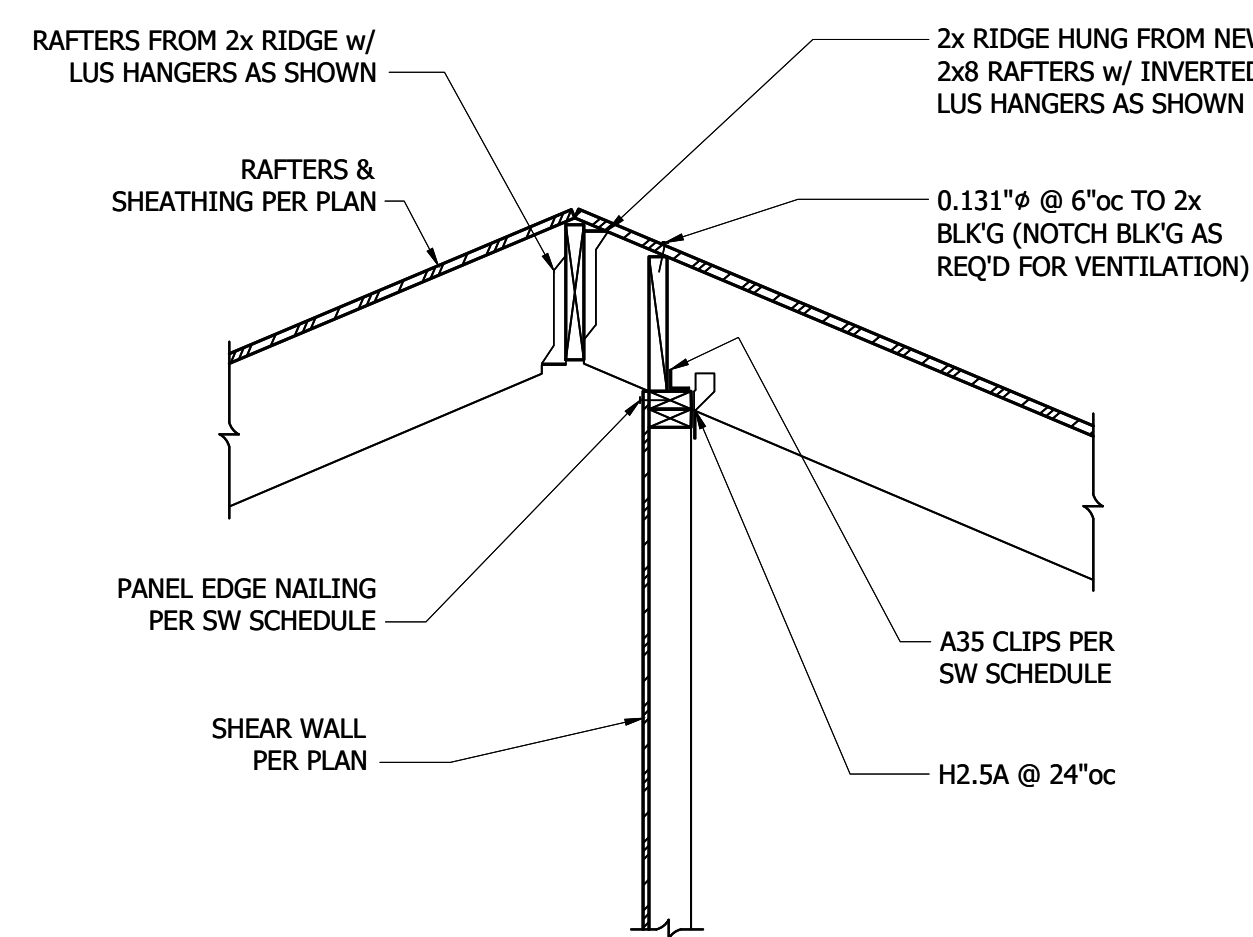
- FLOOR SHEATHING SHALL BE MIN 7/8" APA RATED SHEATHING (48/24). NAIL @ ALL PANEL EDGES AND OVER ALL SHEAR WALLS w/0.113"φ @ 6"oc AND 12"oc TO ALL INTERMEDIATE FRAMING. PLACE LONG DIRECTION OF PLYWOOD PERPENDICULAR TO JOISTS DIRECTION, STAGGER PANEL JOINTS.
- TYPICAL FLOOR FRAMING SHALL BE 2x10 HF#2 @ 16"oc, DIRECTION PER PLAN.
- DS - INDICATES FLUSH-FRAMED 2x DRAG STRUT, TYP. UNO. NAIL SHEATHING OVER ENTIRE LENGTH w/ 0.131"φ NAILS @ 4"oc.
- INDICATES HOLDOWN LOCATED AT END OF SHEAR WALL ABOVE, SEE SCHEDULE ON 4/S1.1.

HANGER SCHEDULE	
MEMBER	HANGER
2x10/2x12	LUS210
(2)2x10/(2)2x12	LUS210-2
(3)2x10	LUS210-3
4x10	HUS410
3-1/2x9 GLB	HHUS410
5-1/2x12 GLB	HGUS5.50/10
5-1/2x13-1/2 GLB	HGUS5.50/14
5-1/2x15 GLB	HGUS5.50/14
6-1/2x9 GLB	HGUS6.88/10
6-1/2x10-1/2 GLB	HGUS6.88/12

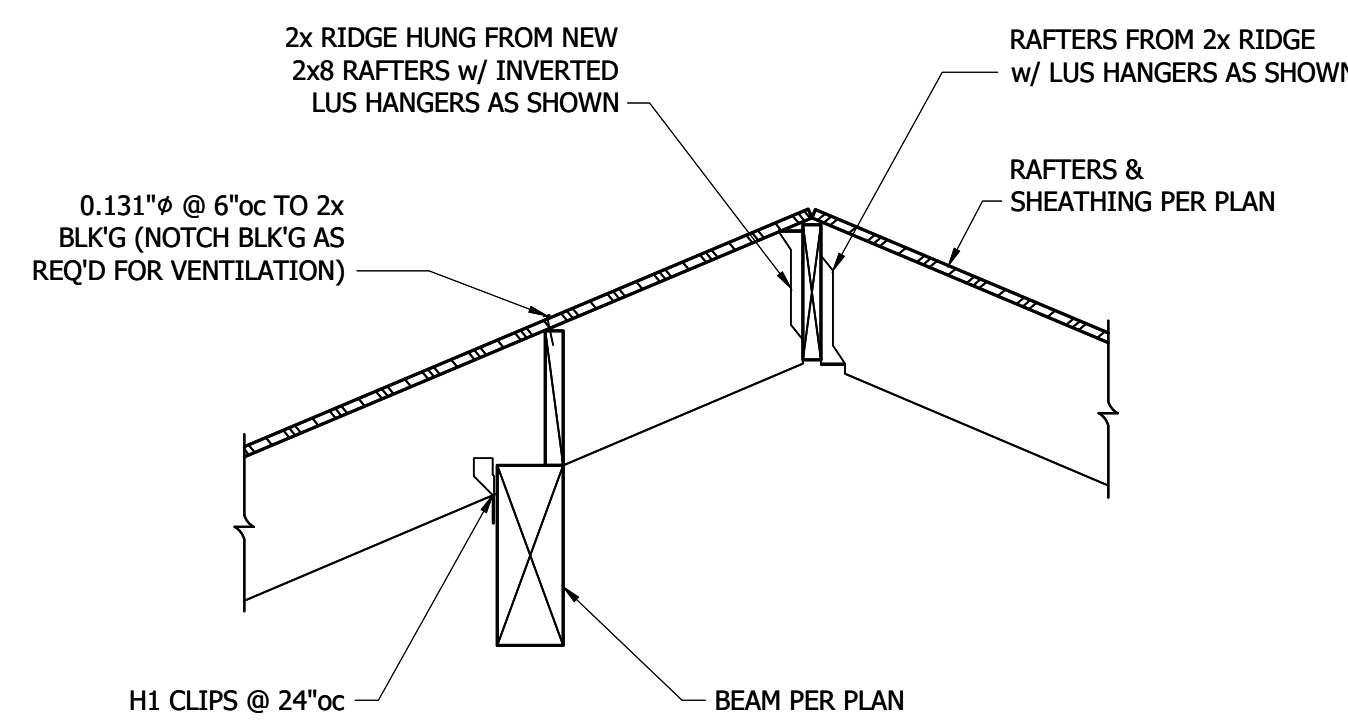
1 MAIN FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 8/21/23

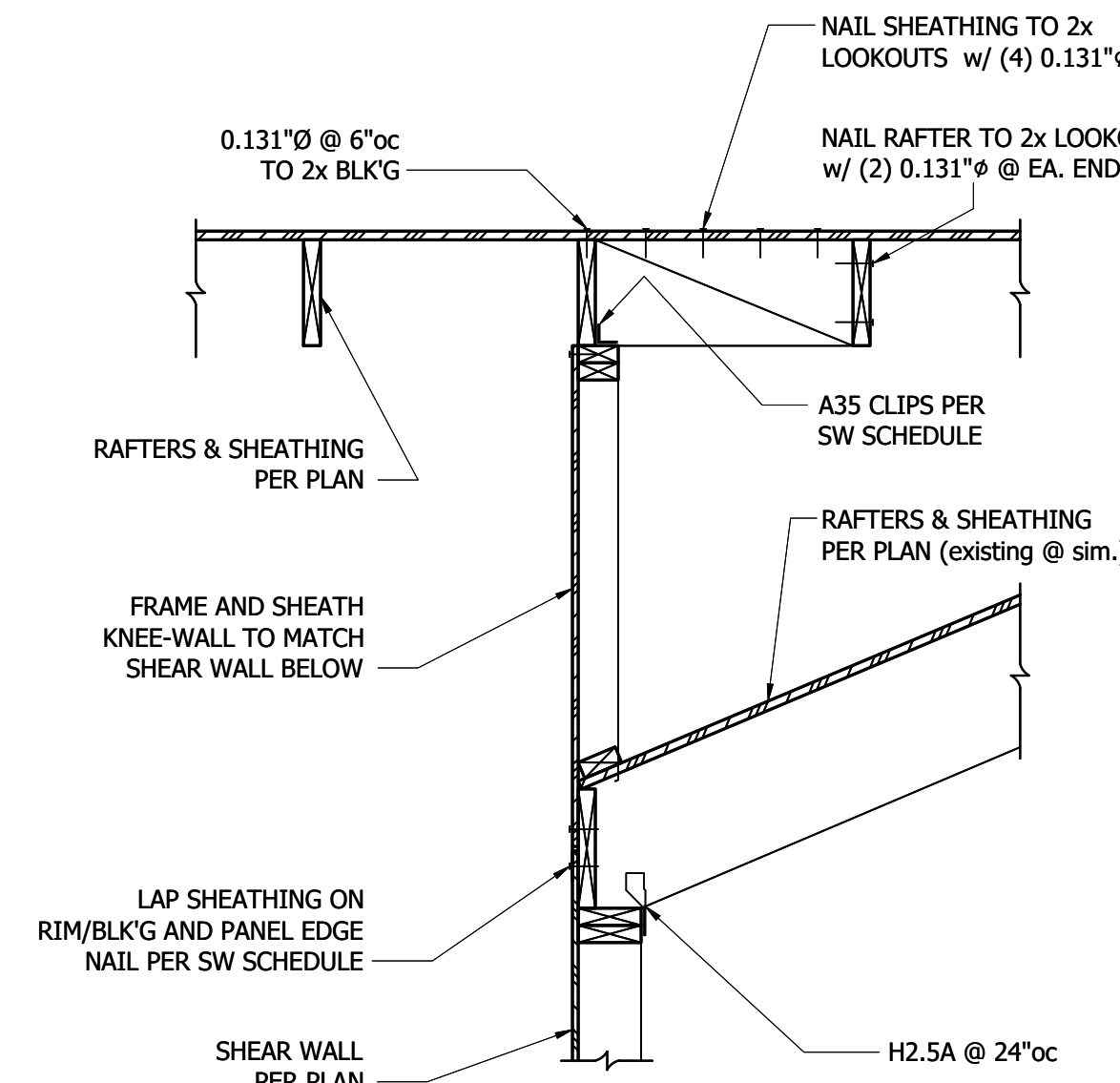




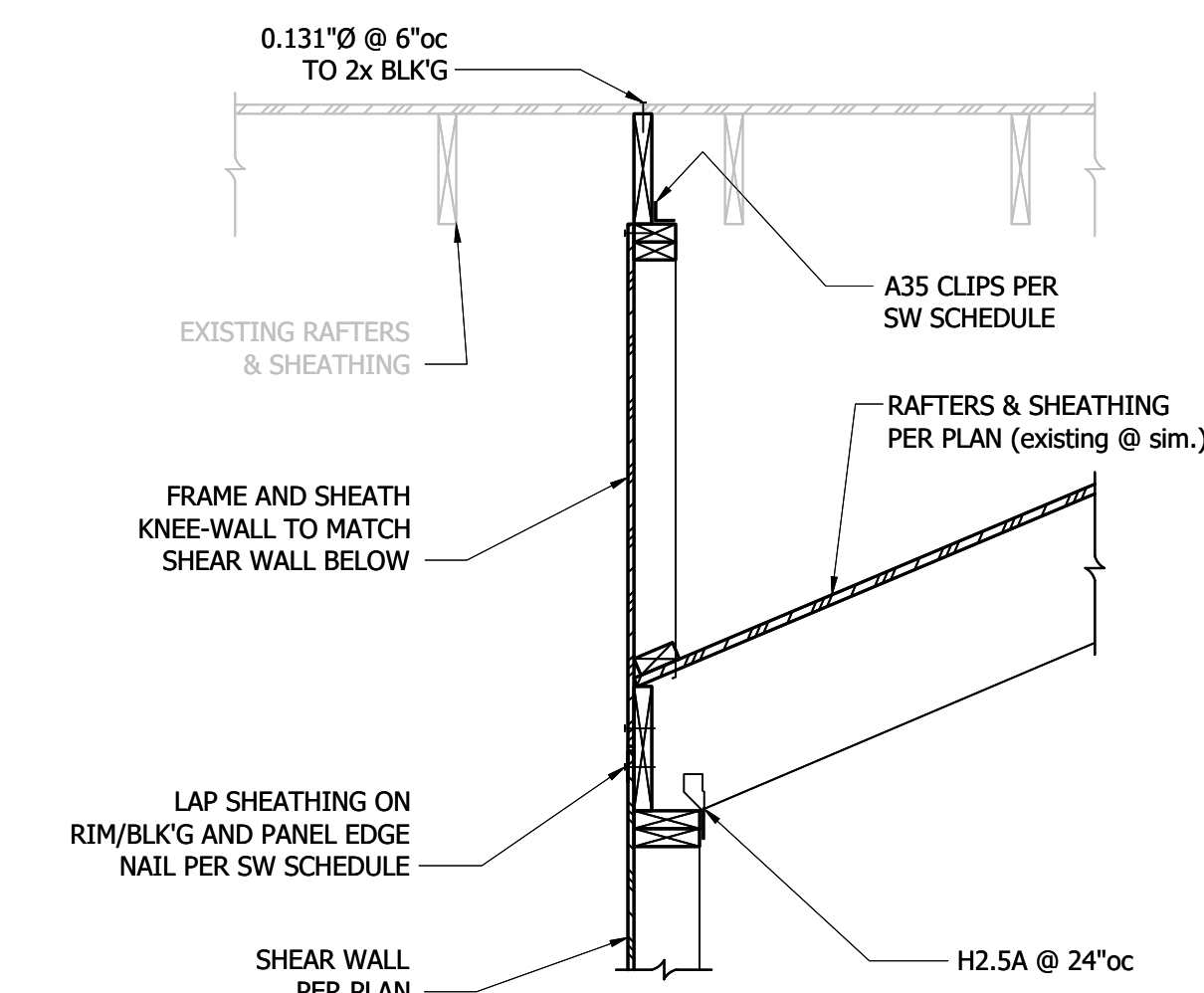
1 Ridge Offset from Shear/Bearing Wall Below
3/4" = 1'-0"



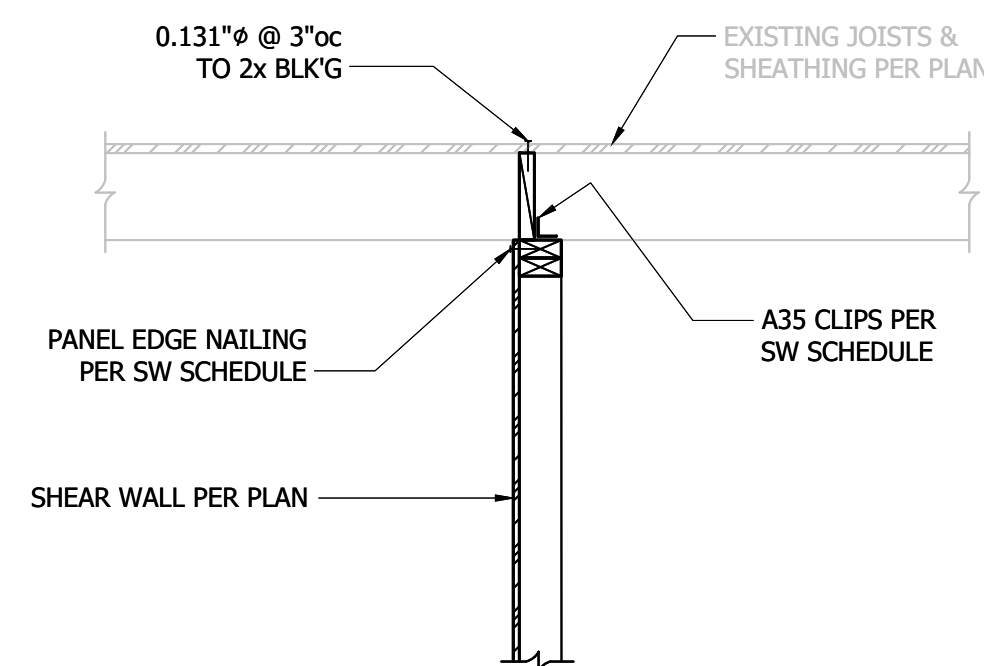
2 Ridge Offset from Beam Below
3/4" = 1'-0"



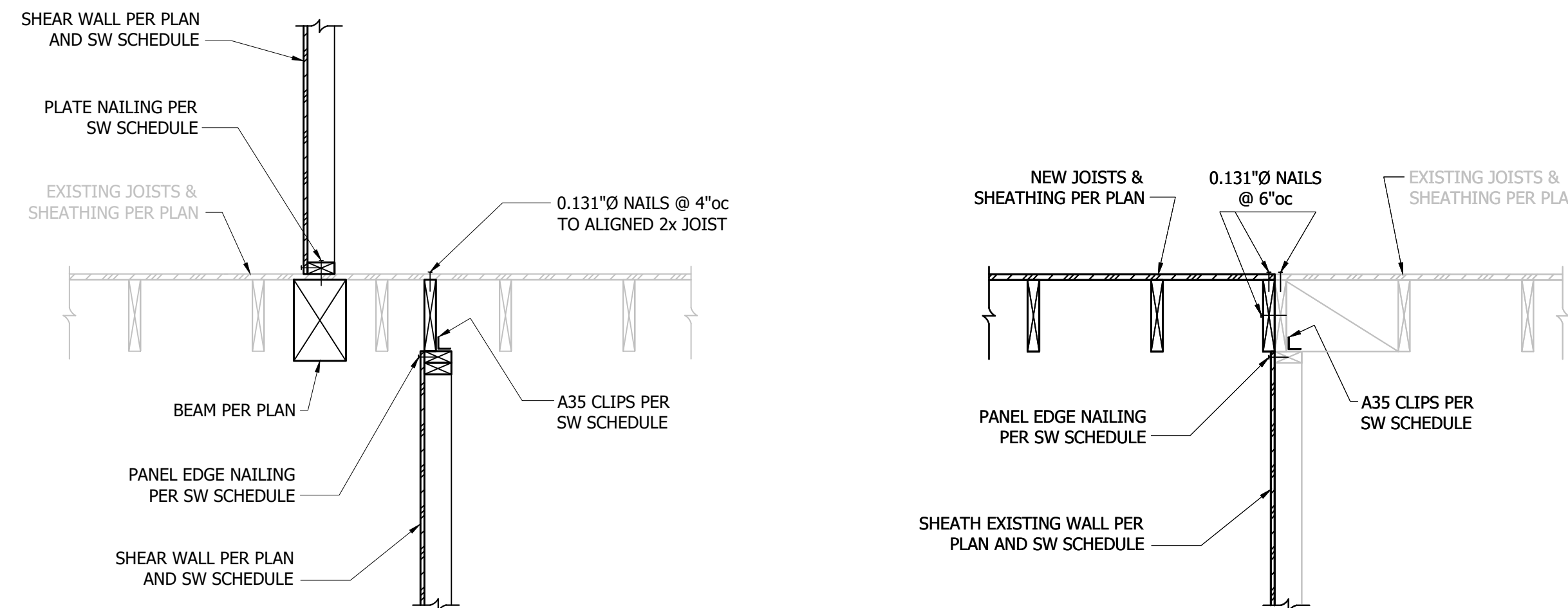
3 Porch Roof Framing over Main Roof Framing
3/4" = 1'-0"



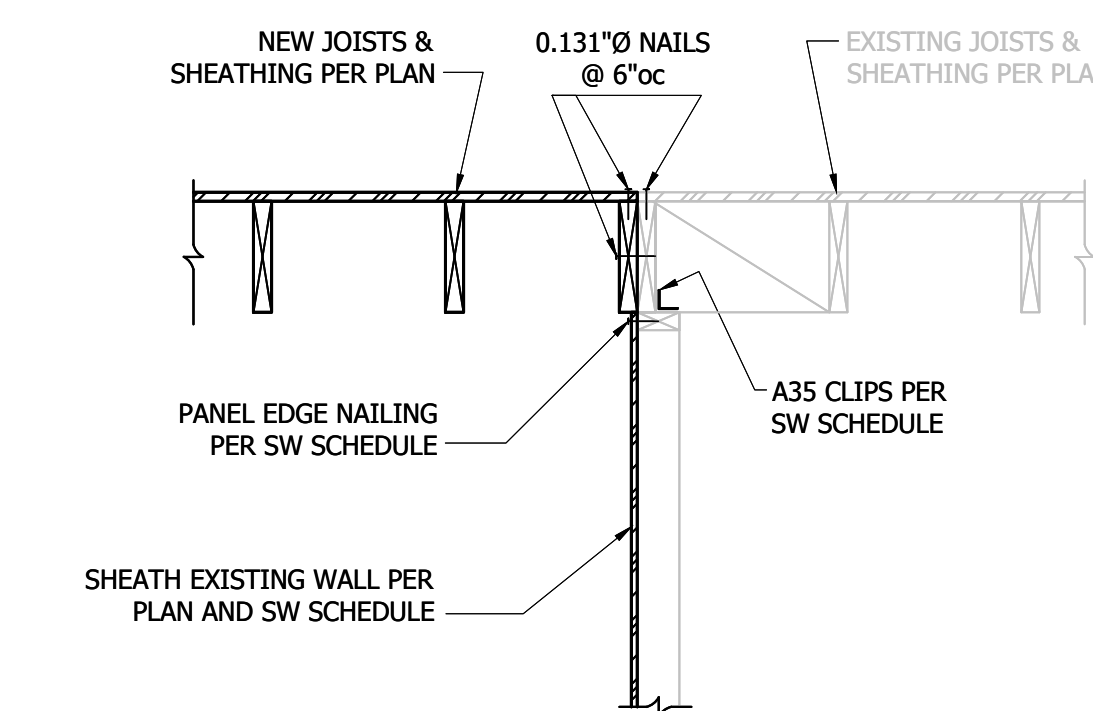
4 Garage Roof Framing over Main Roof Framing
3/4" = 1'-0"



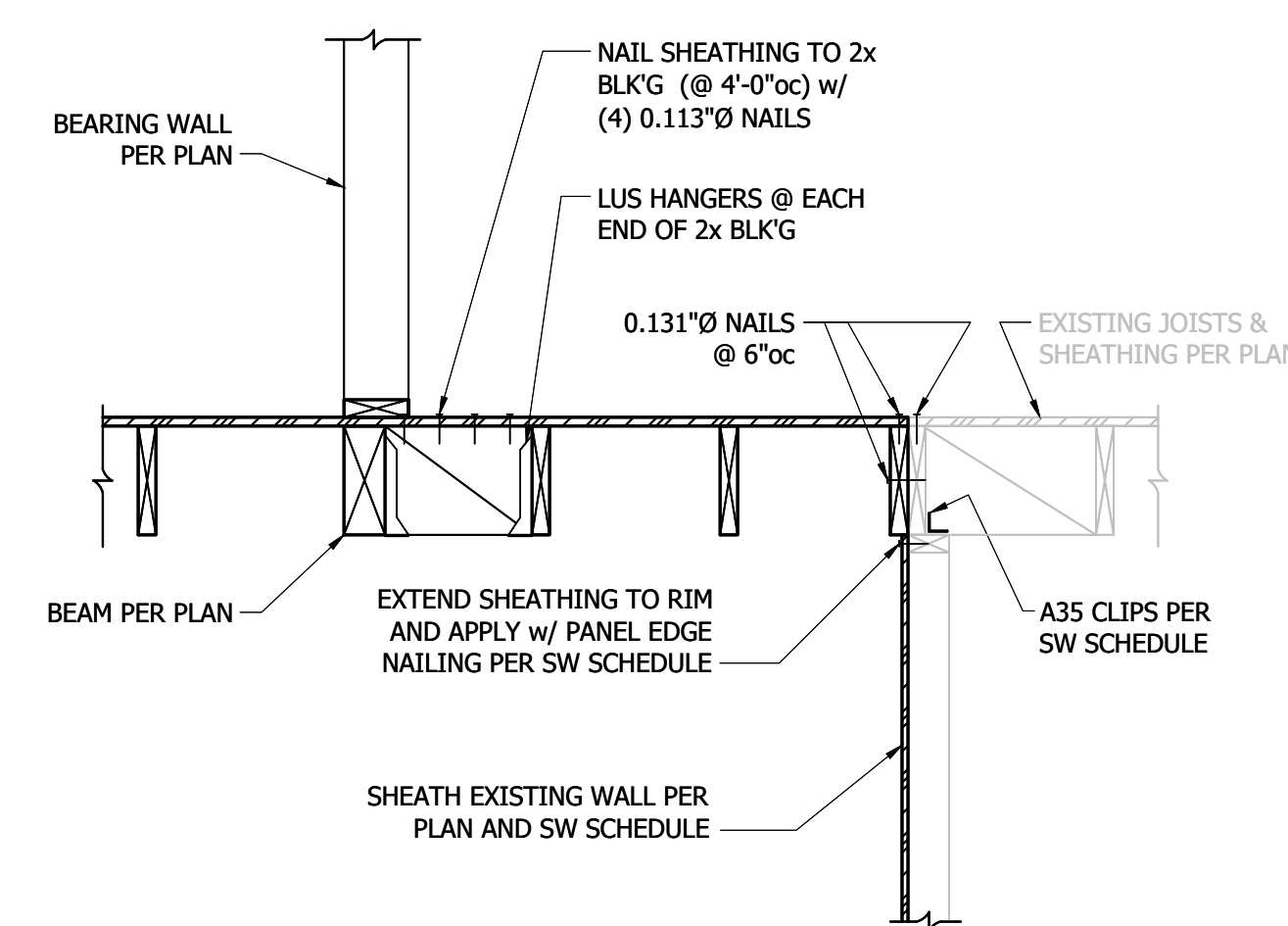
5 Existing 2x Perp. Joist over Shear Wall
3/4" = 1'-0"



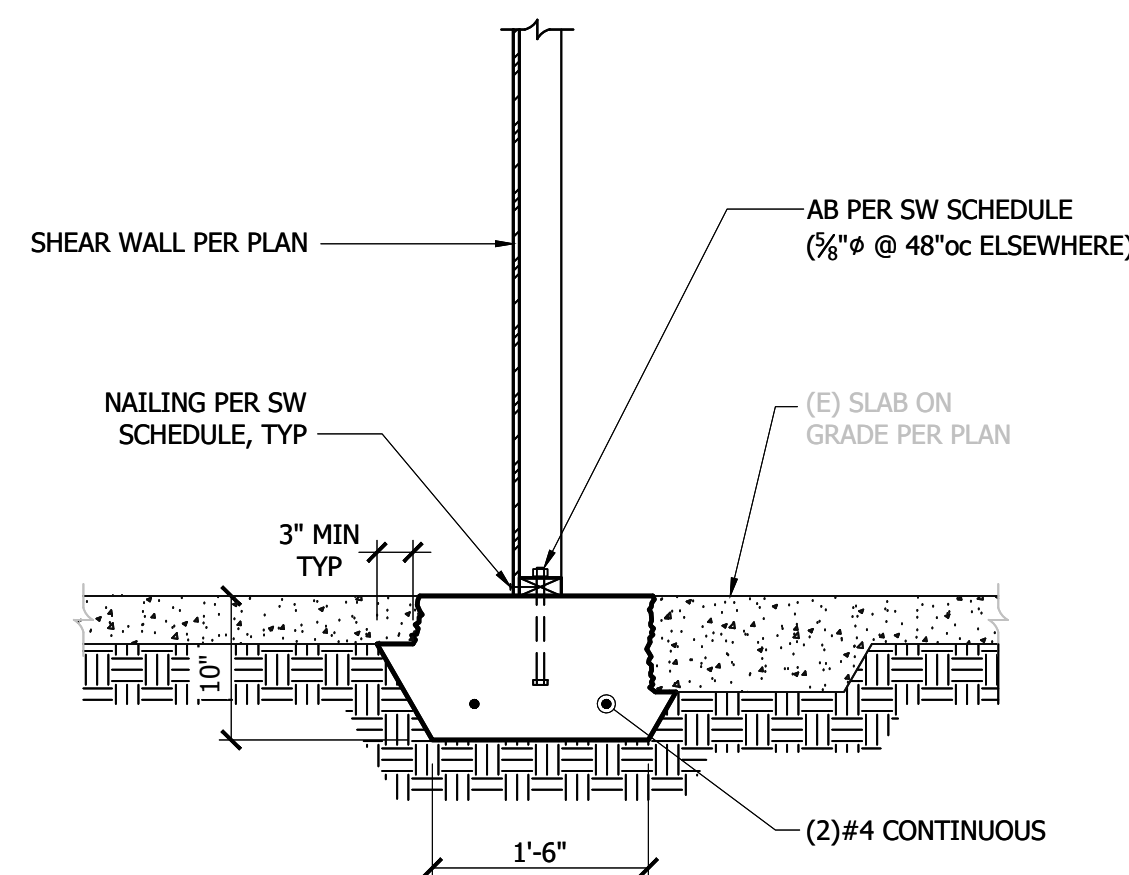
6 Offset Shear Walls Parallel to Floor Framing
3/4" = 1'-0"



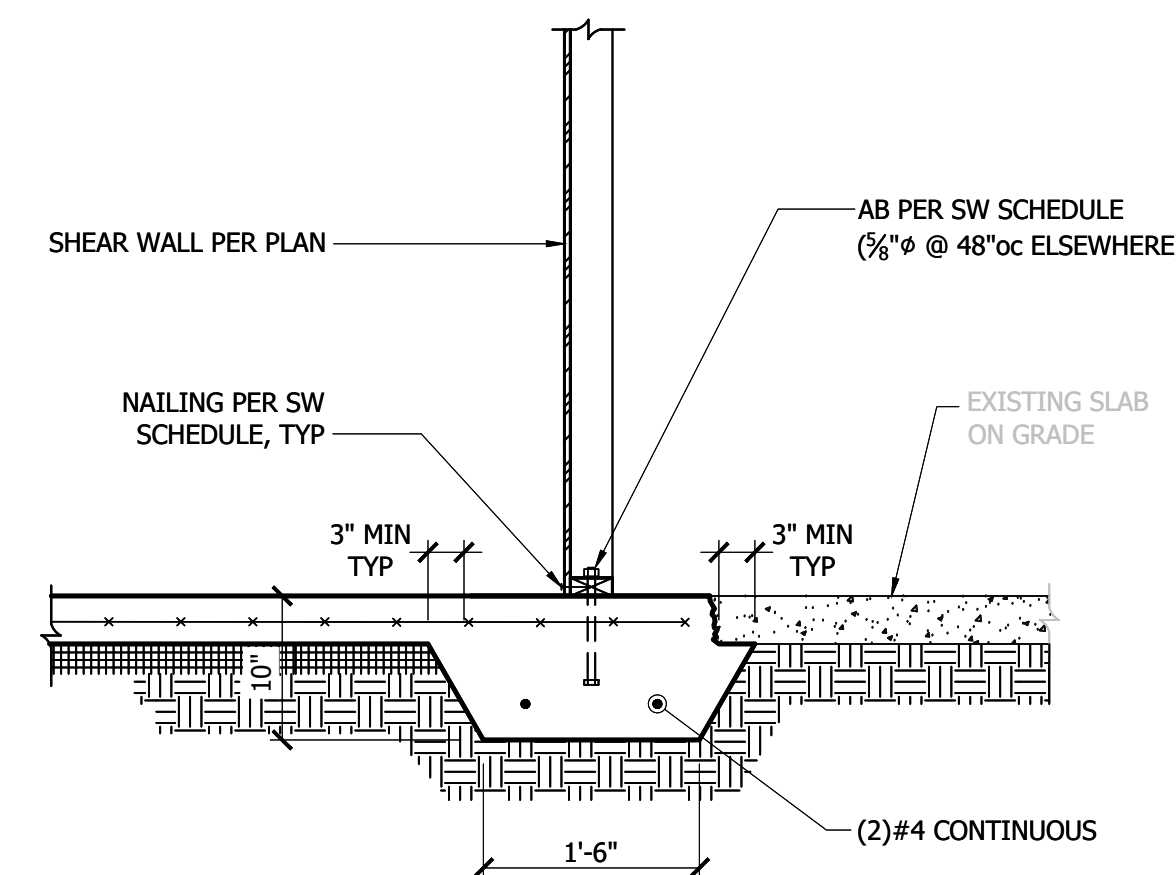
7 New Floor Framing II to Existing Floor Framing
3/4" = 1'-0"



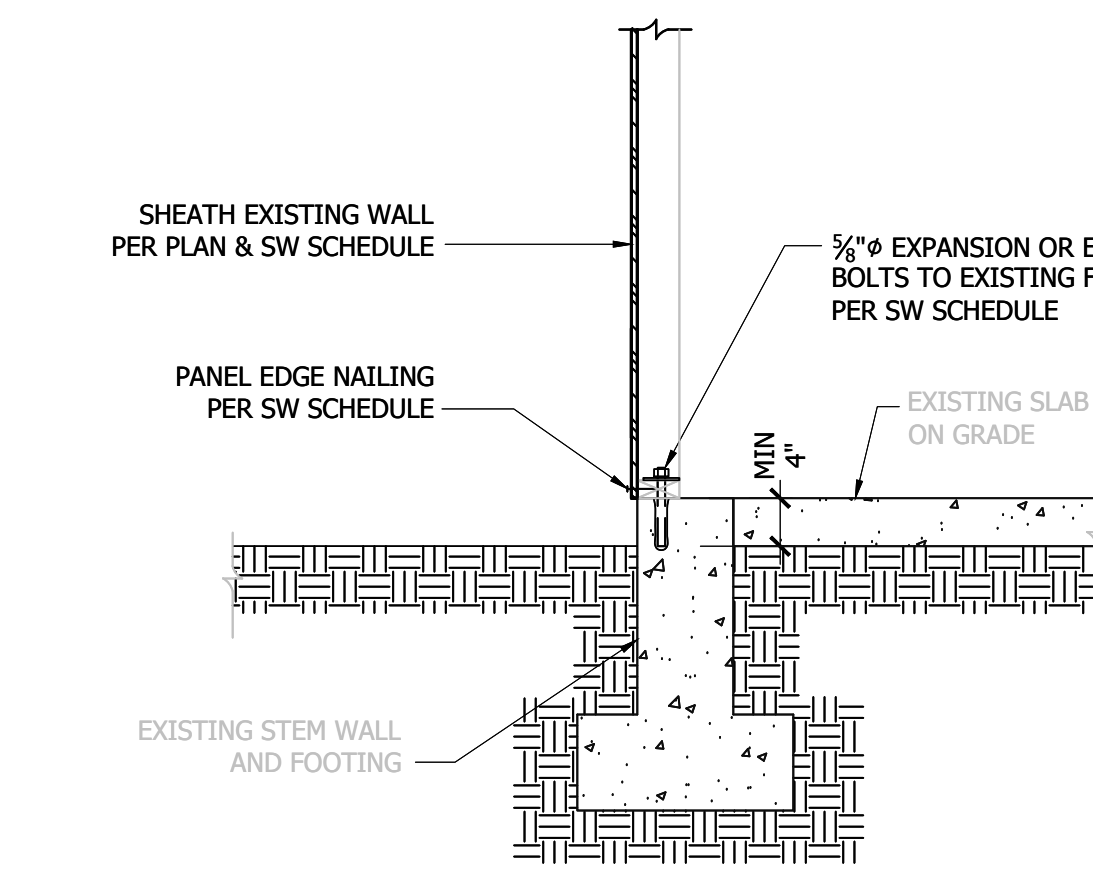
8 Existing 2x Joist Parallel to Exterior Wall
3/4" = 1'-0"



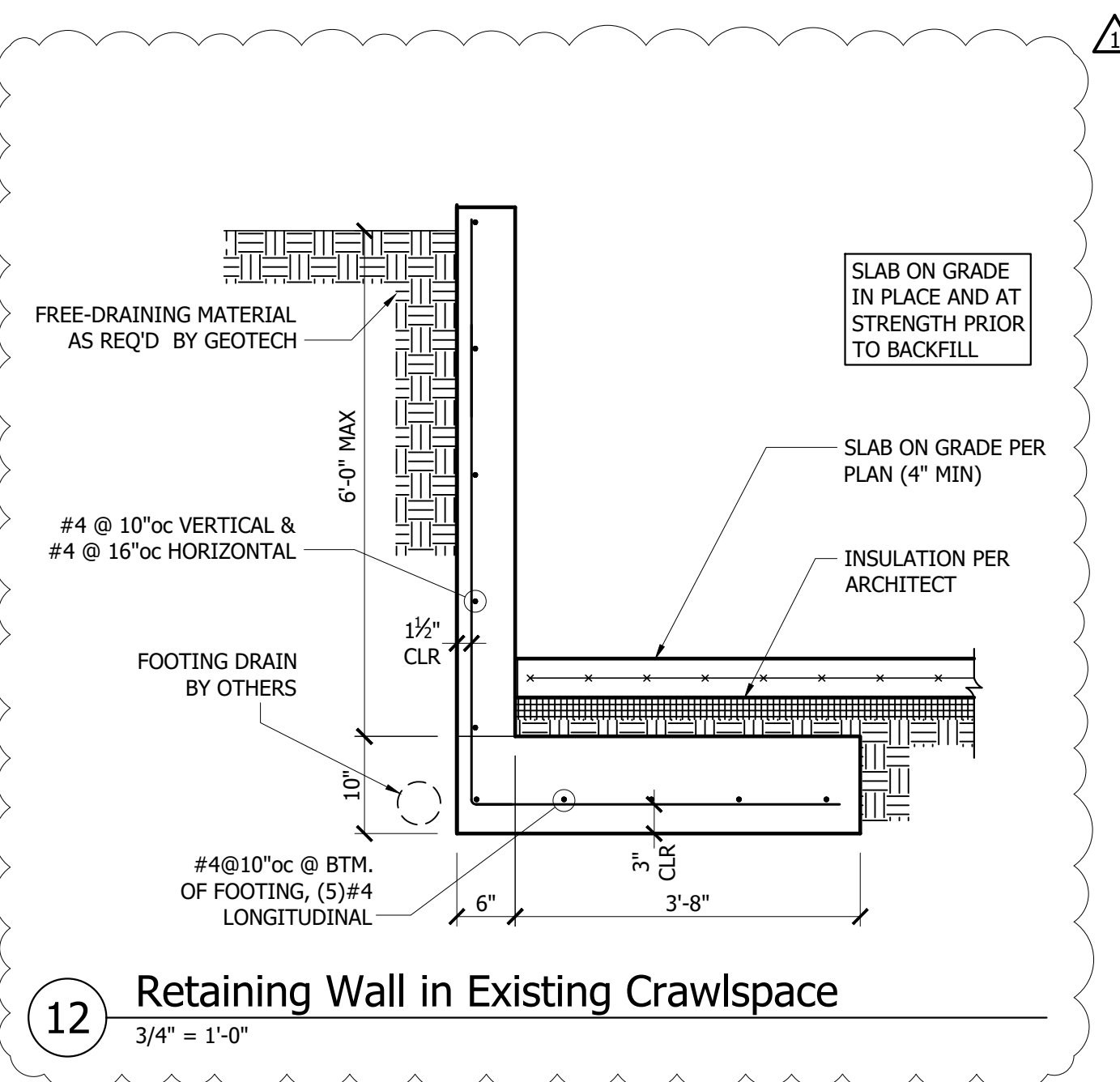
9 Continuous Footing at Existing Slab on Grade
3/4" = 1'-0"



10 Cont. Footing at New-to-Existing Slab on Grade
3/4" = 1'-0"

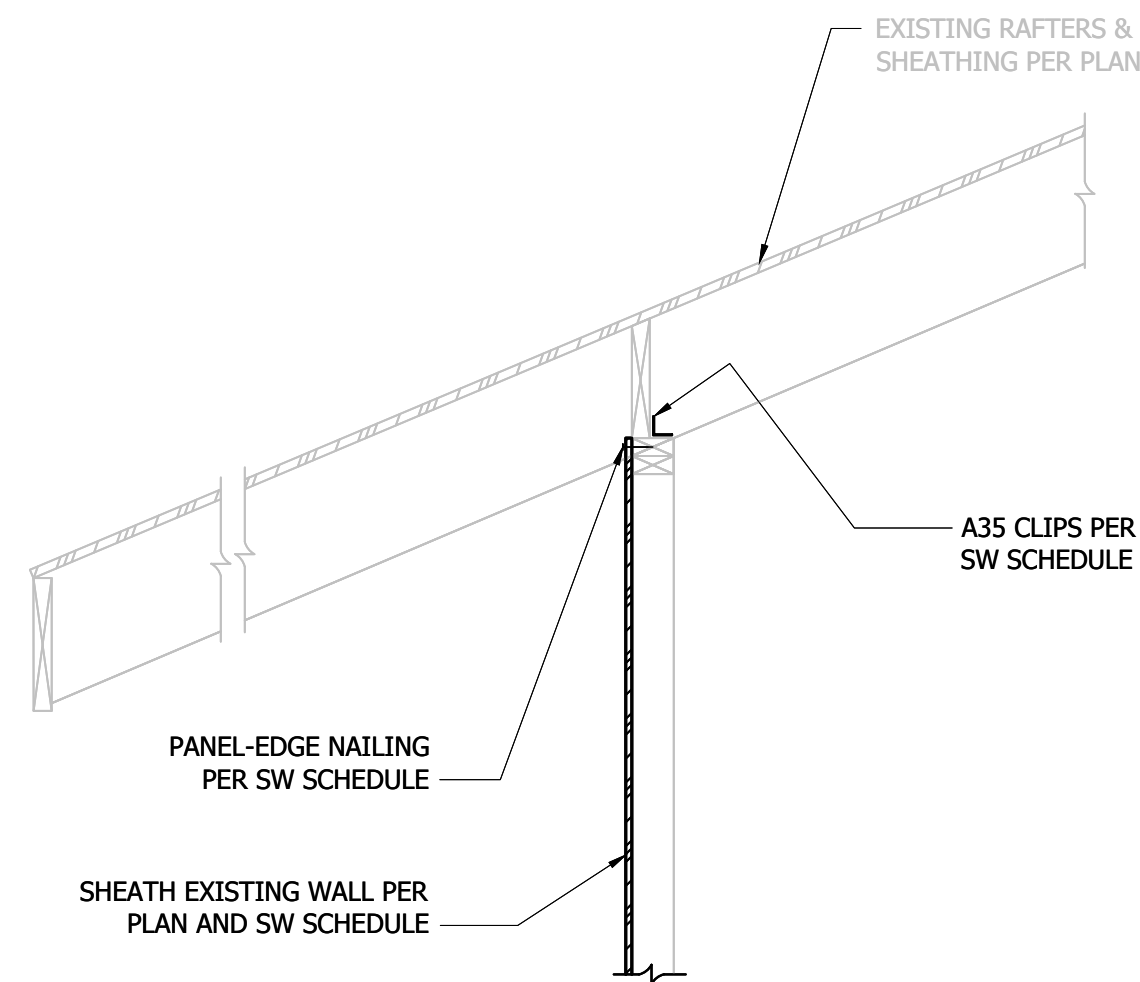


11 Shear Wall to Existing Foundation Wall
3/4" = 1'-0"

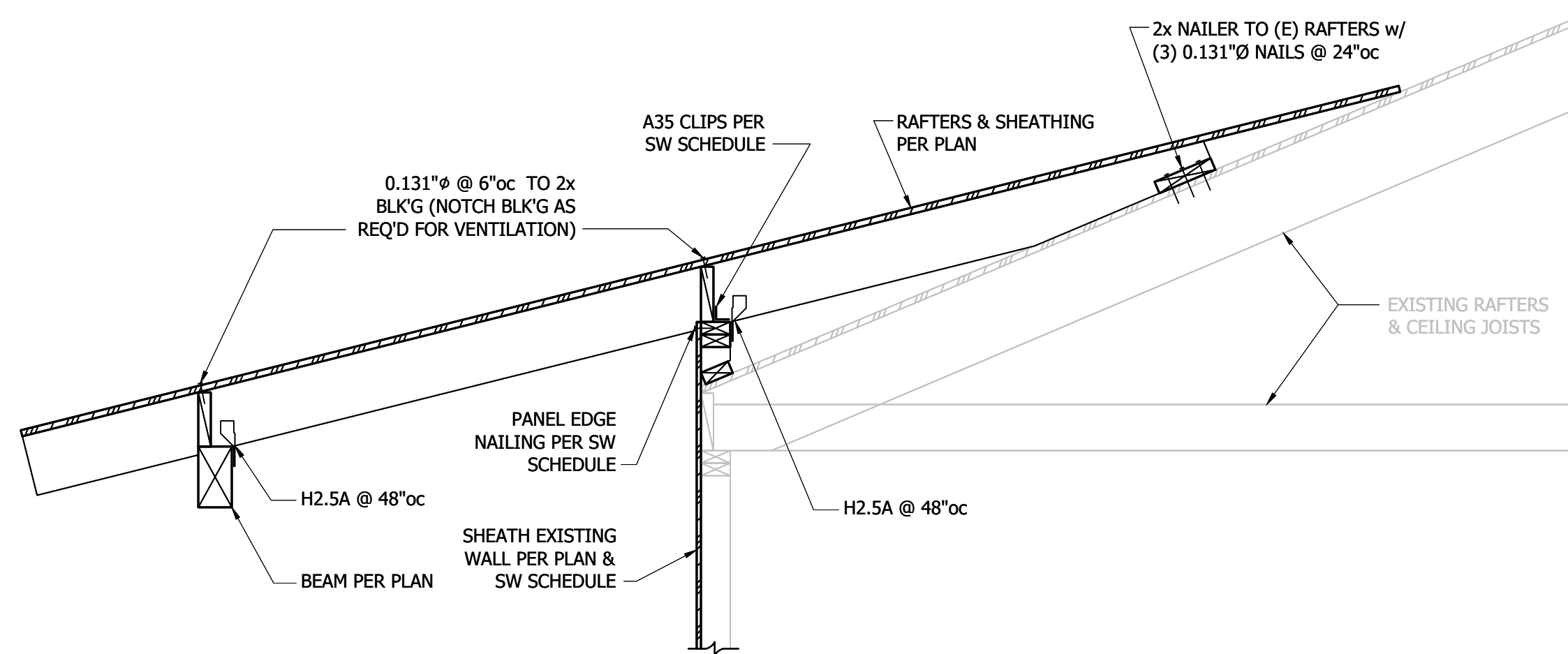


12 Retaining Wall in Existing Crawlspace
3/4" = 1'-0"

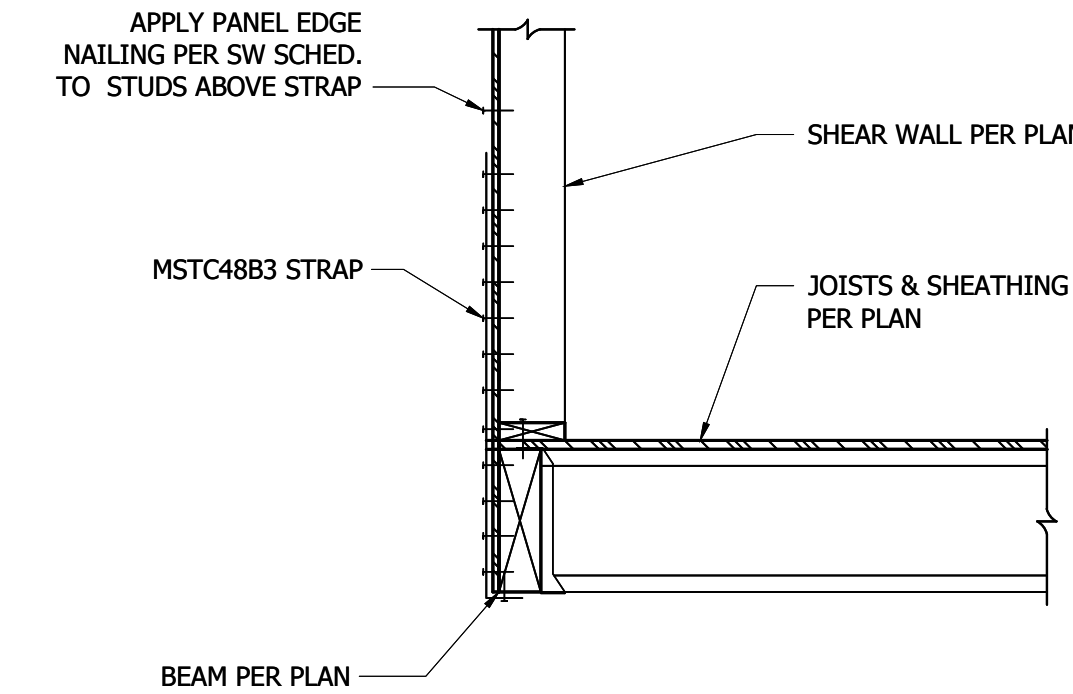
SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET



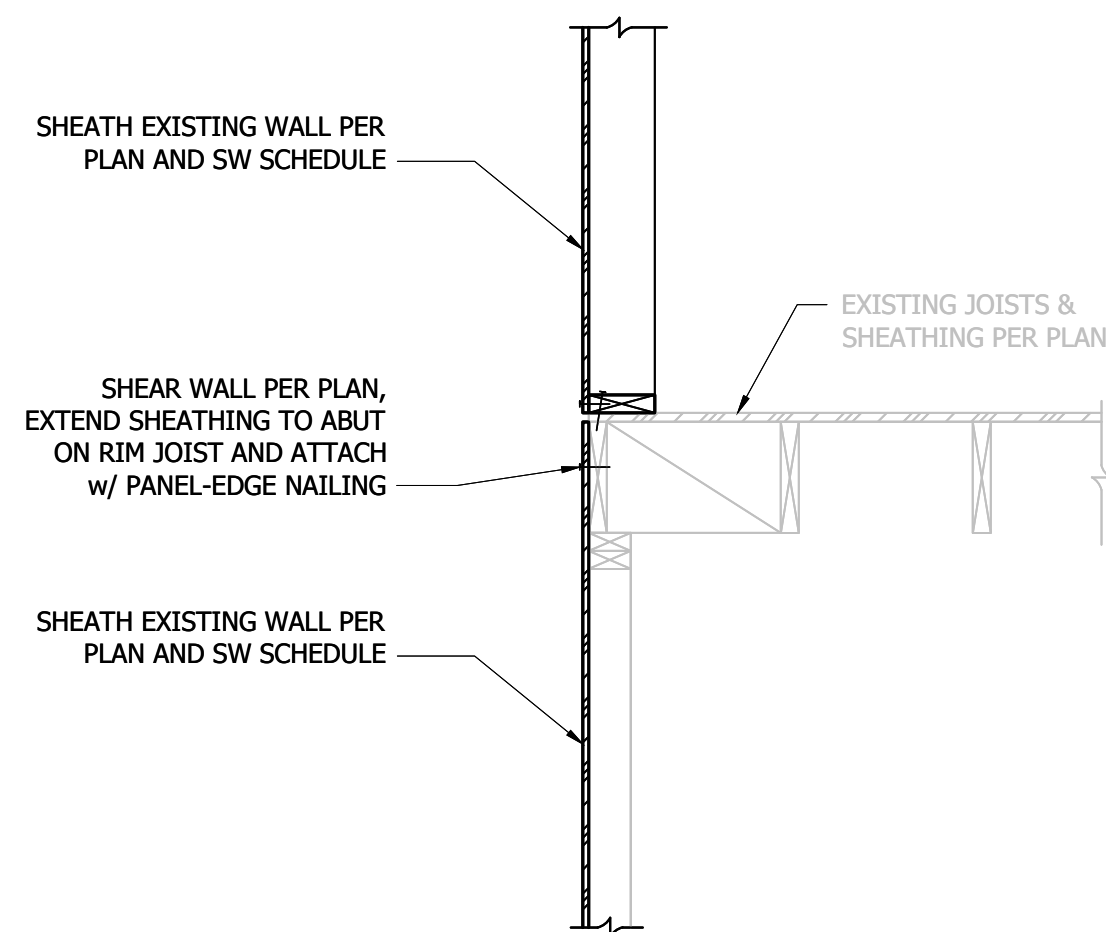
1 Sheathing at Existing Exterior Wall
3/4" = 1'-0"



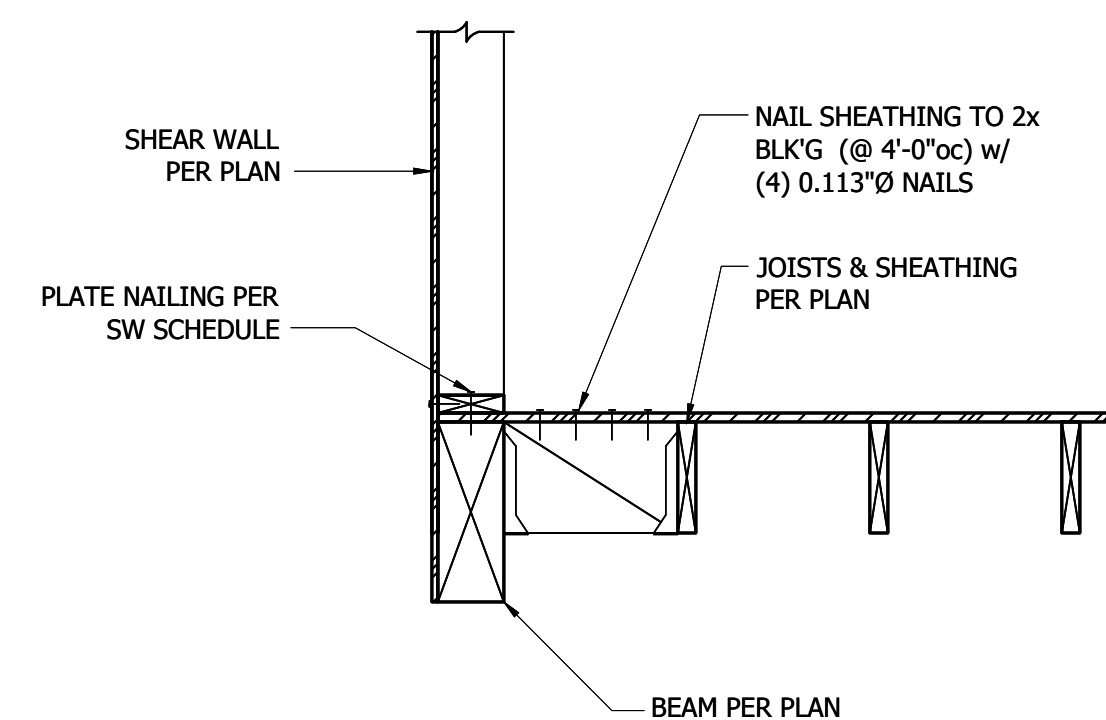
2 Low Entry Roof over Existing Roof Framing
3/4" = 1'-0"



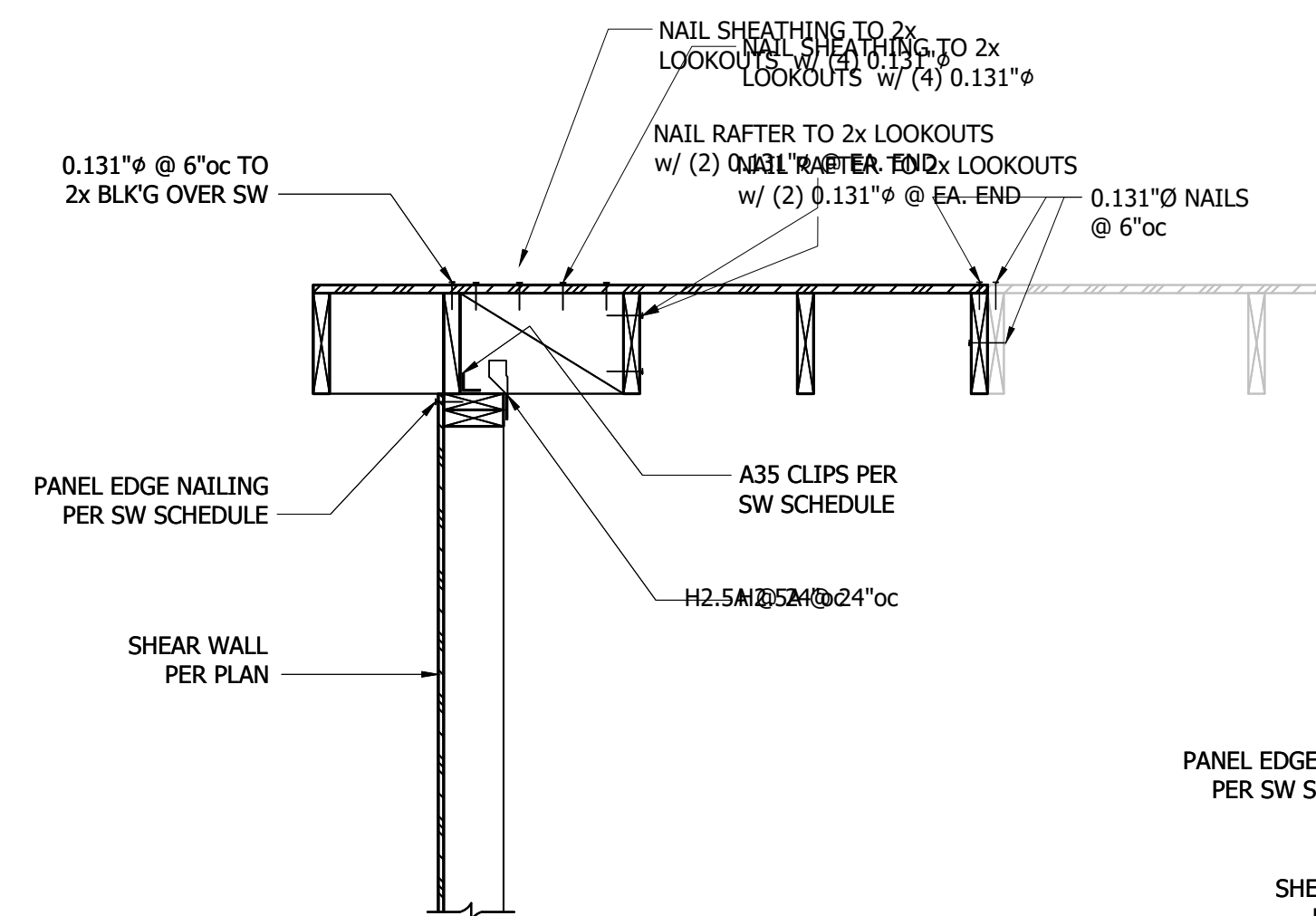
3 Strap to Beam Below
3/4" = 1'-0"



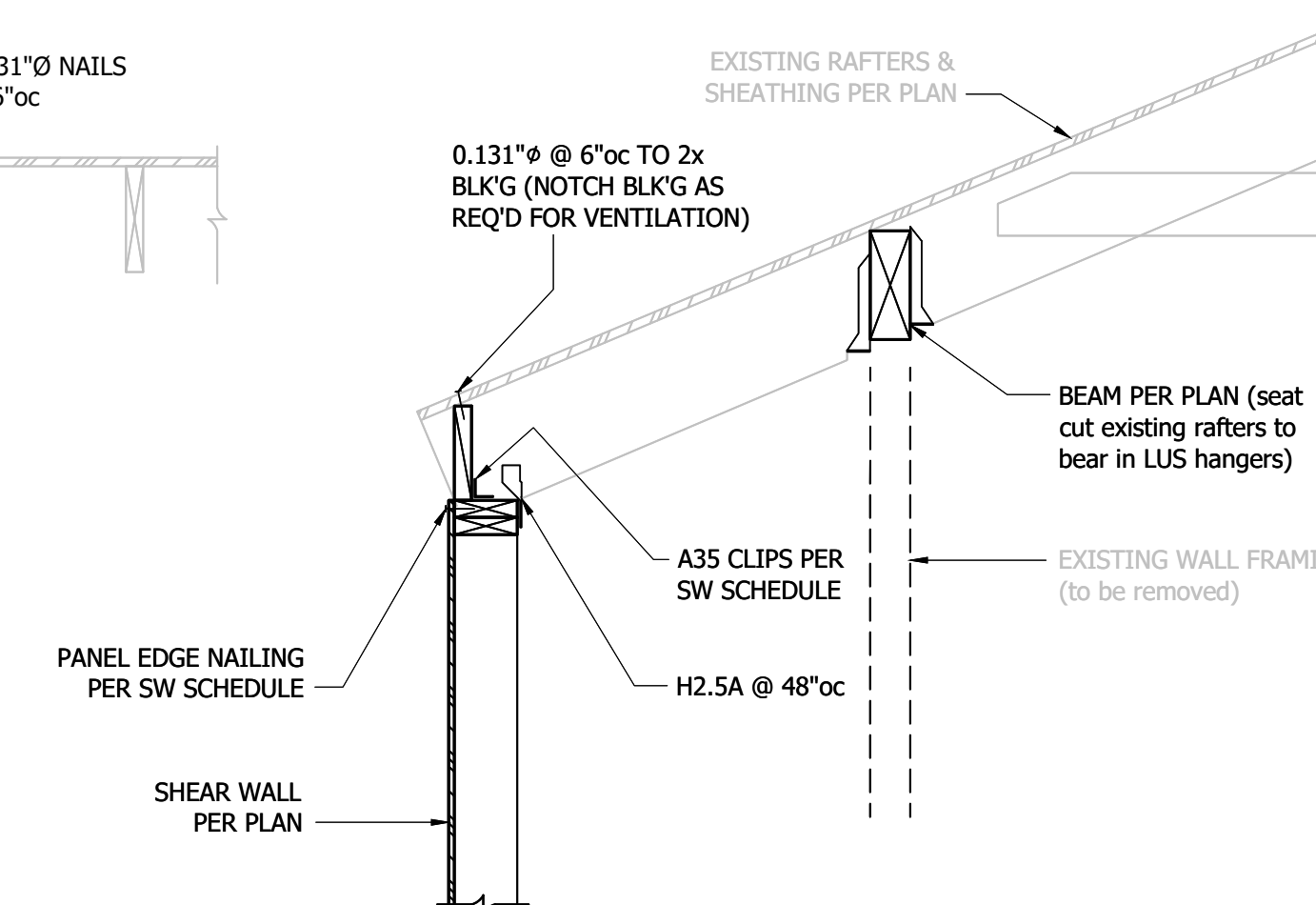
4 Sheathing at Existing Exterior Wall
3/4" = 1'-0"



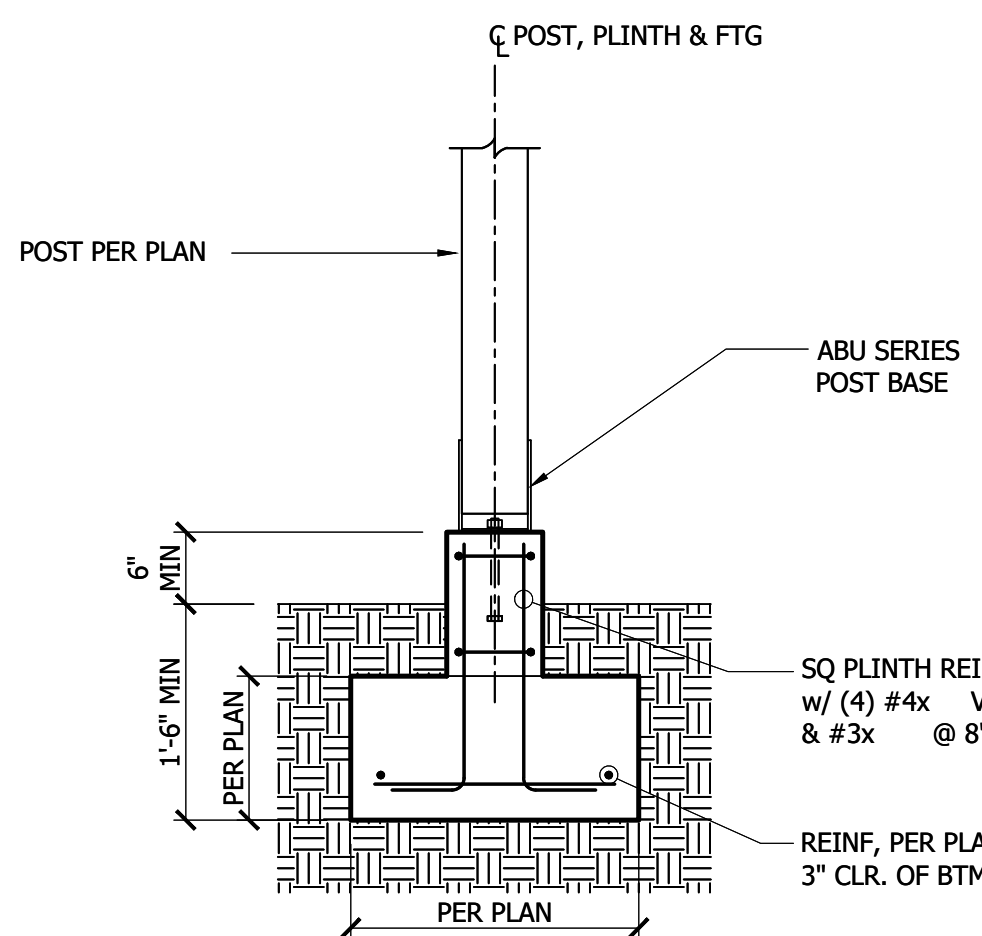
5 SW Sheathing at Exterior Wall
3/4" = 1'-0"



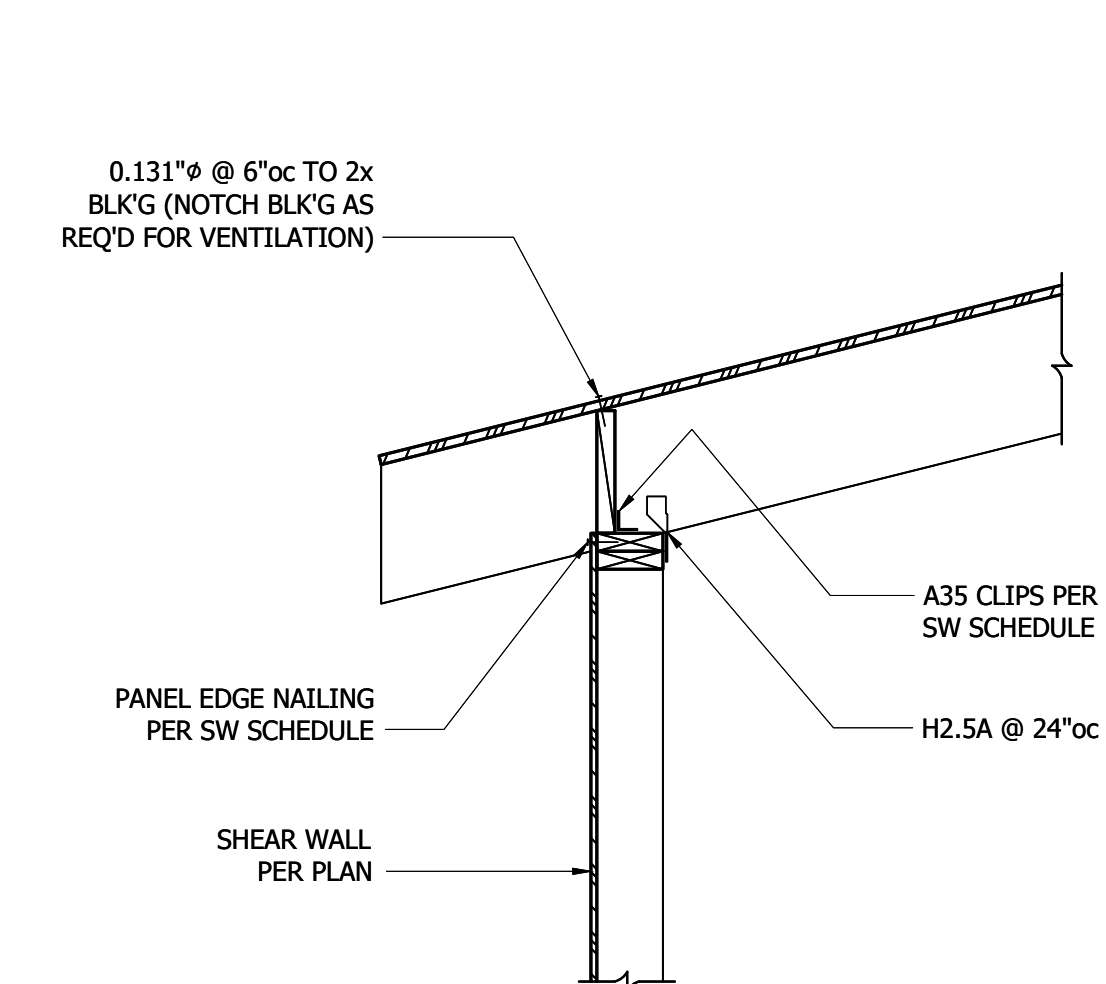
6 Beam supporting Exterior Wall at II Joists
3/4" = 1'-0"



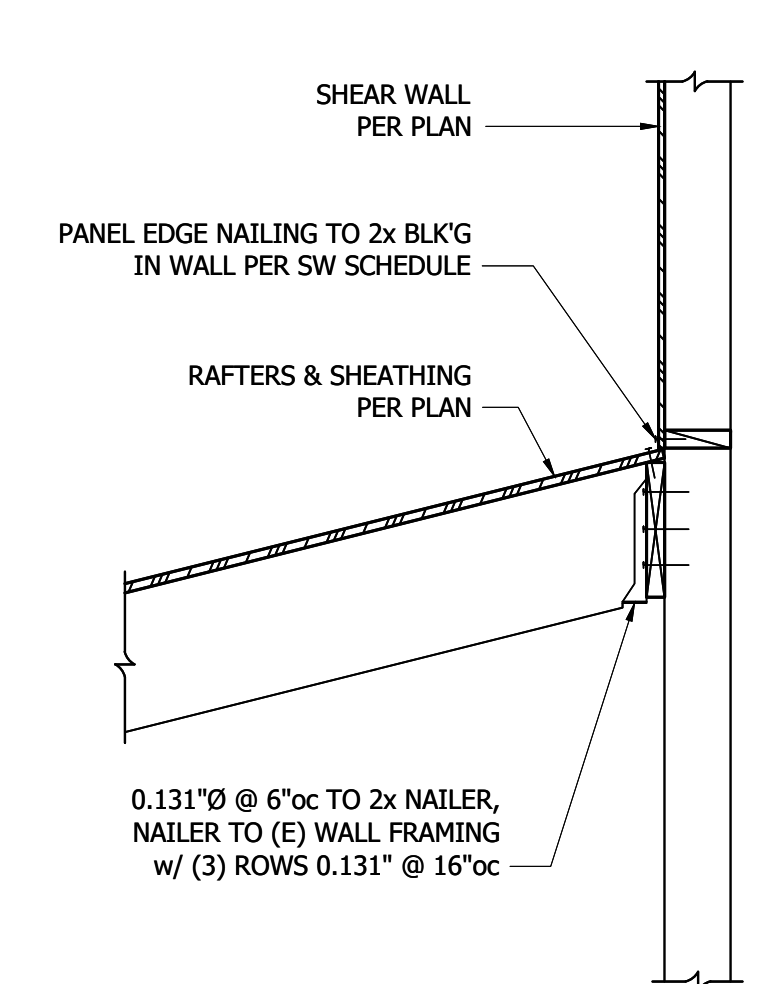
7 2x Rafters Parallel to New Gable End Wall
3/4" = 1'-0"



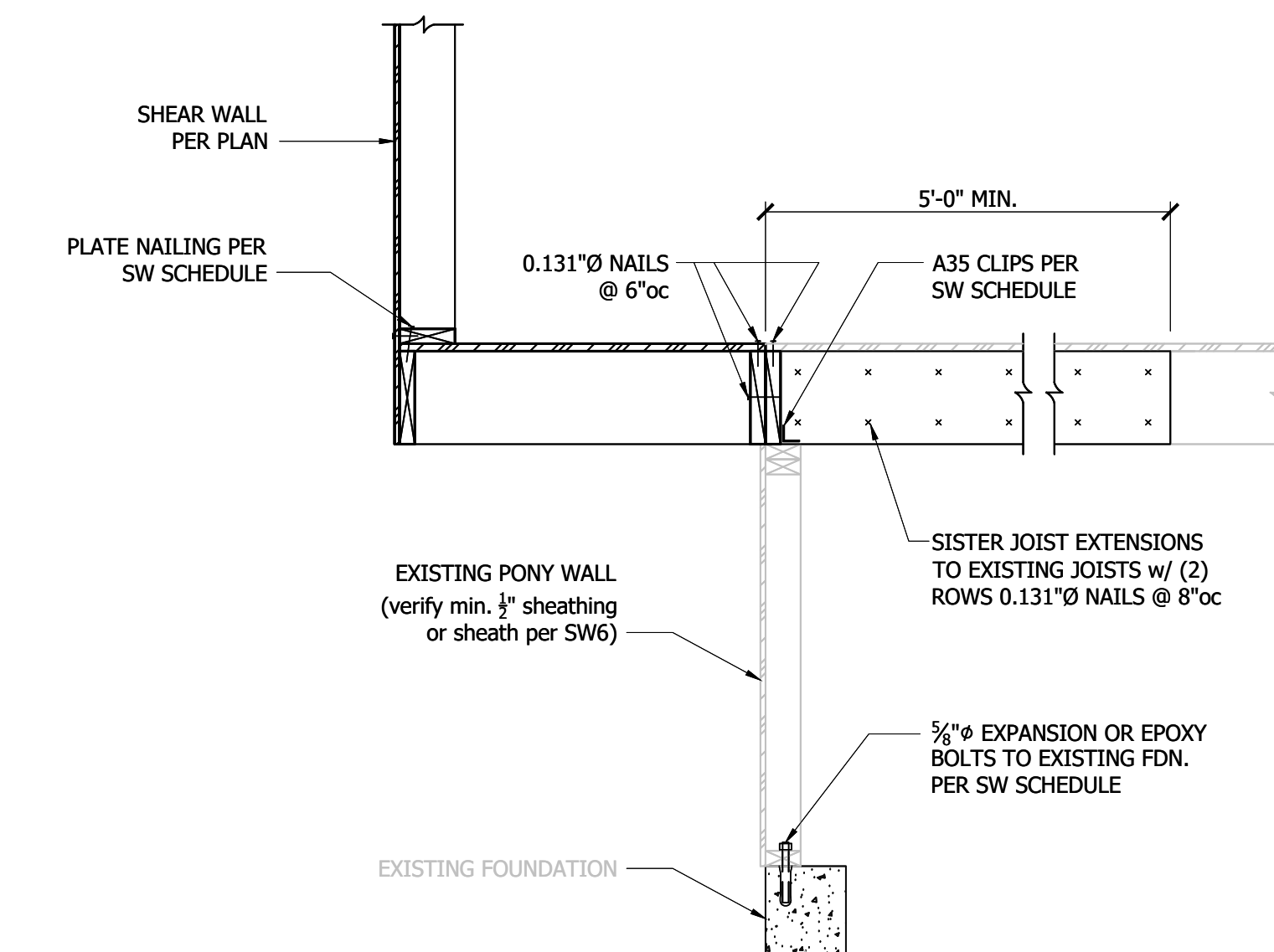
8 New Exterior Wall at Closet Extension
3/4" = 1'-0"



9 Isolated Post Footing
3/4" = 1'-0"

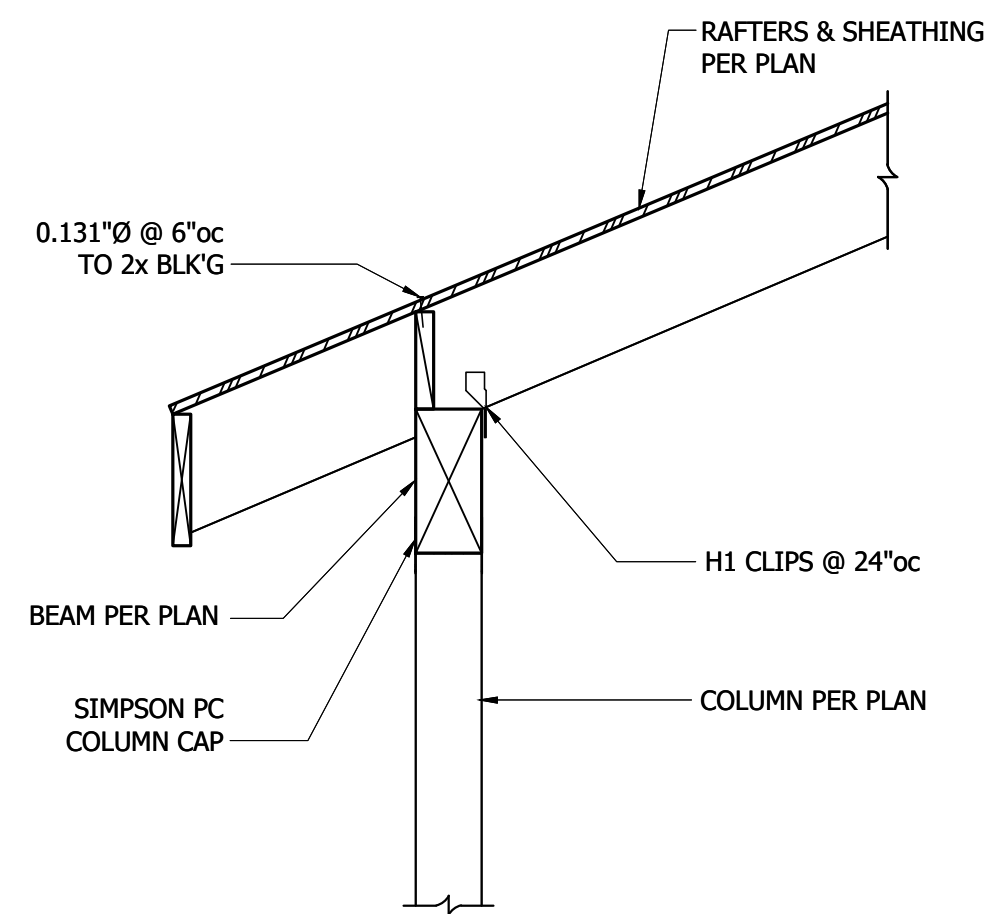


10 2x Rafters Bearing on Exterior Wall
3/4" = 1'-0"

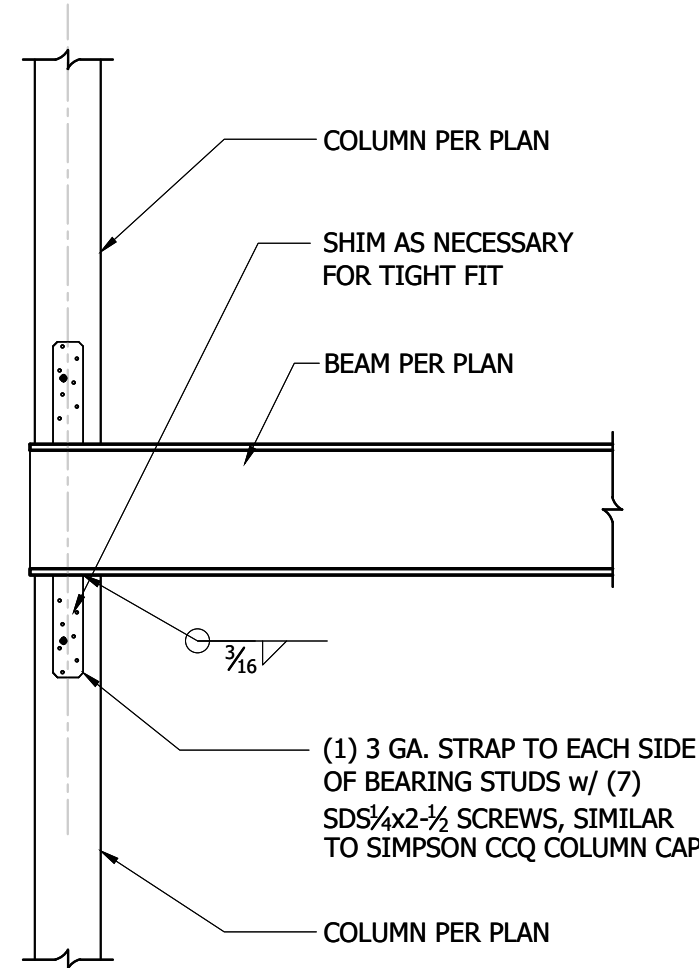


11 Shed Roof at Balloon Frame Gable End Wall
3/4" = 1'-0"

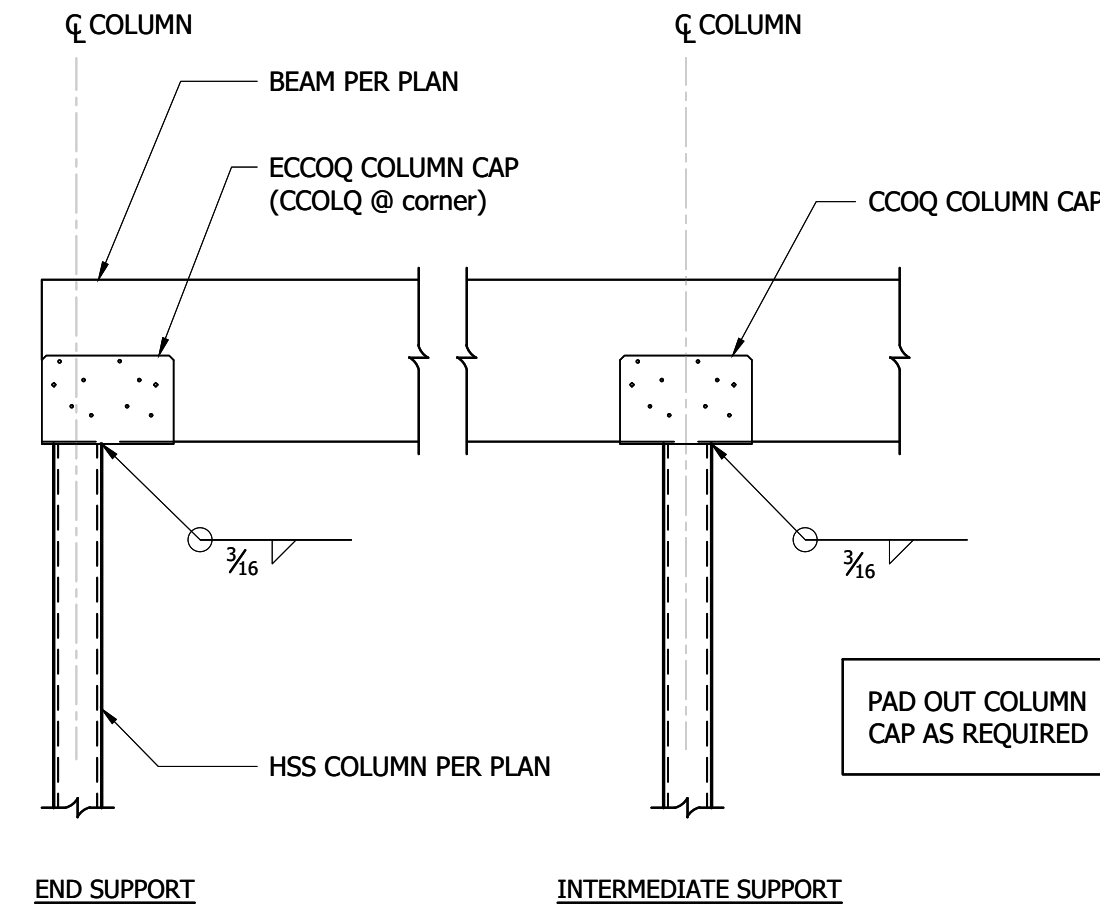
SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET



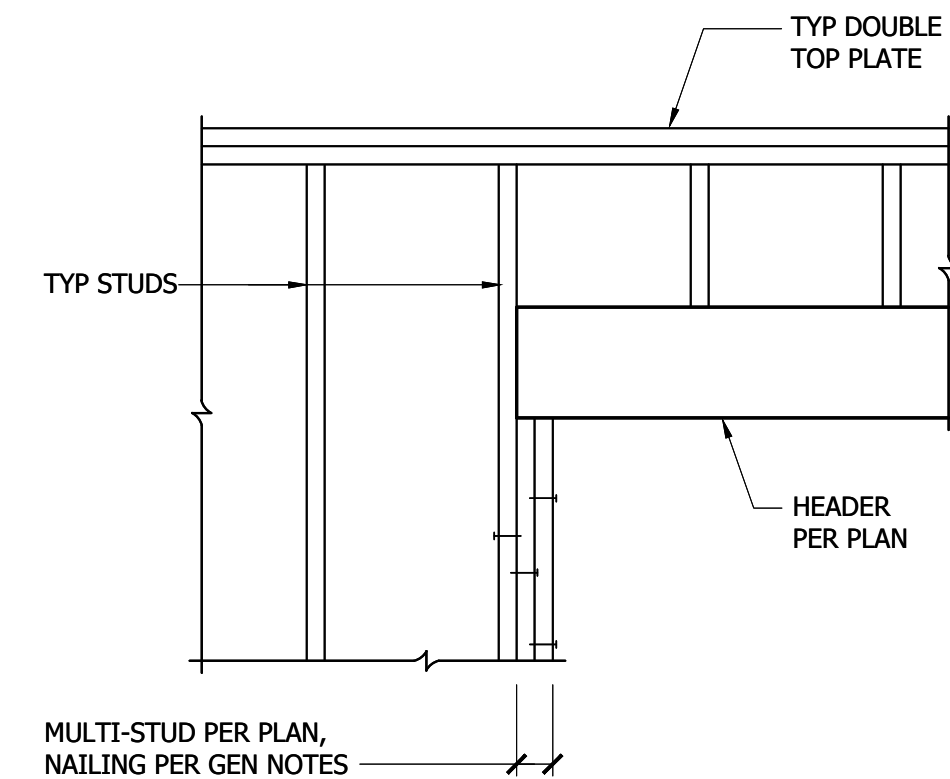
1 Porch Beam-to-Column
3/4" = 1'-0"



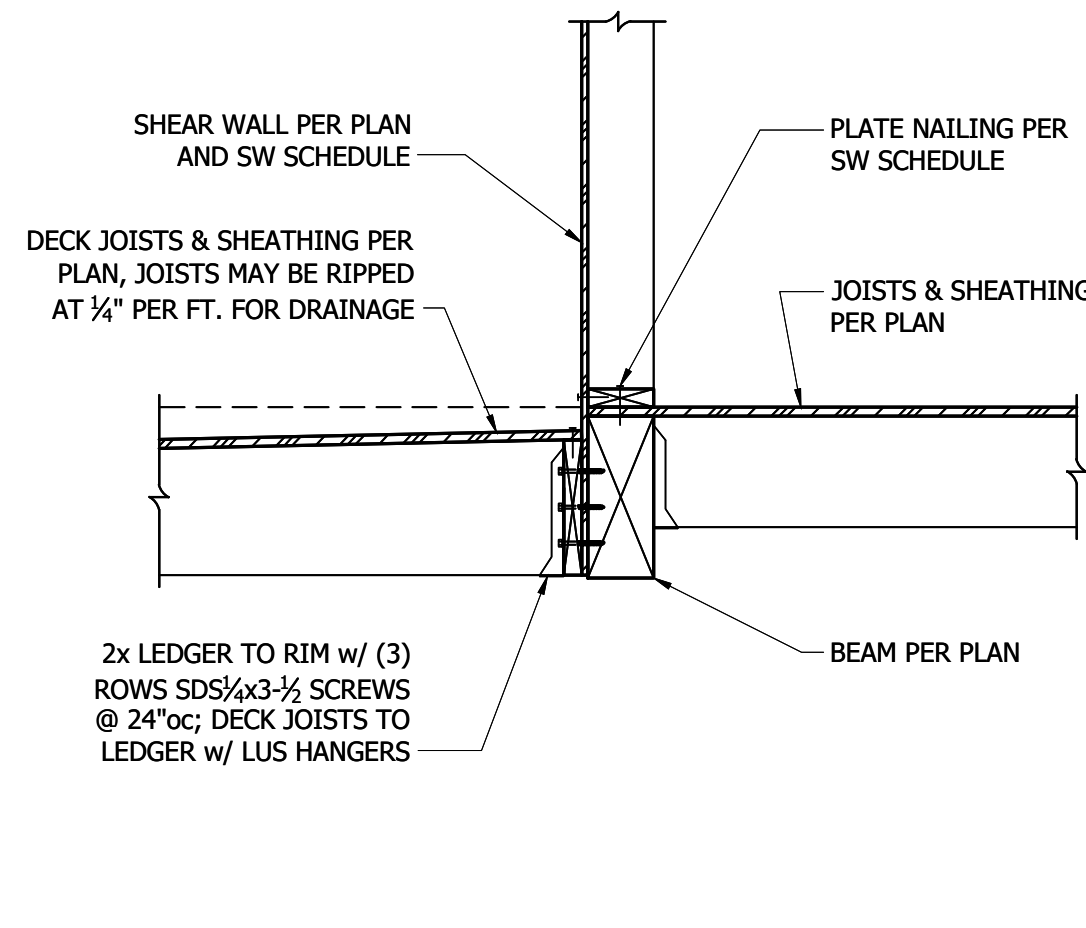
2 Wood Columns to Steel Beam
3/4" = 1'-0"



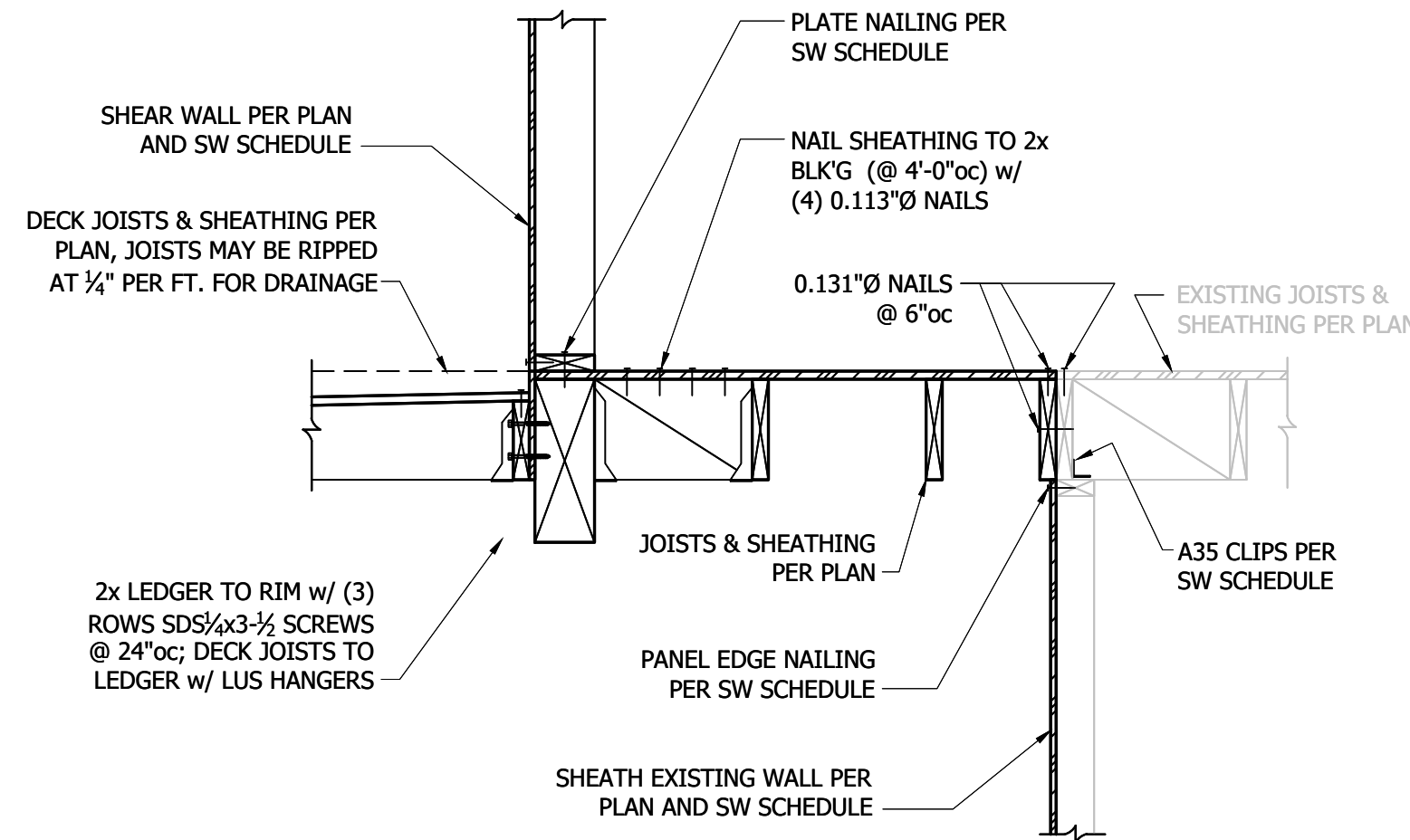
3 Wood Beam to HSS Column, Typ.
3/4" = 1'-0"



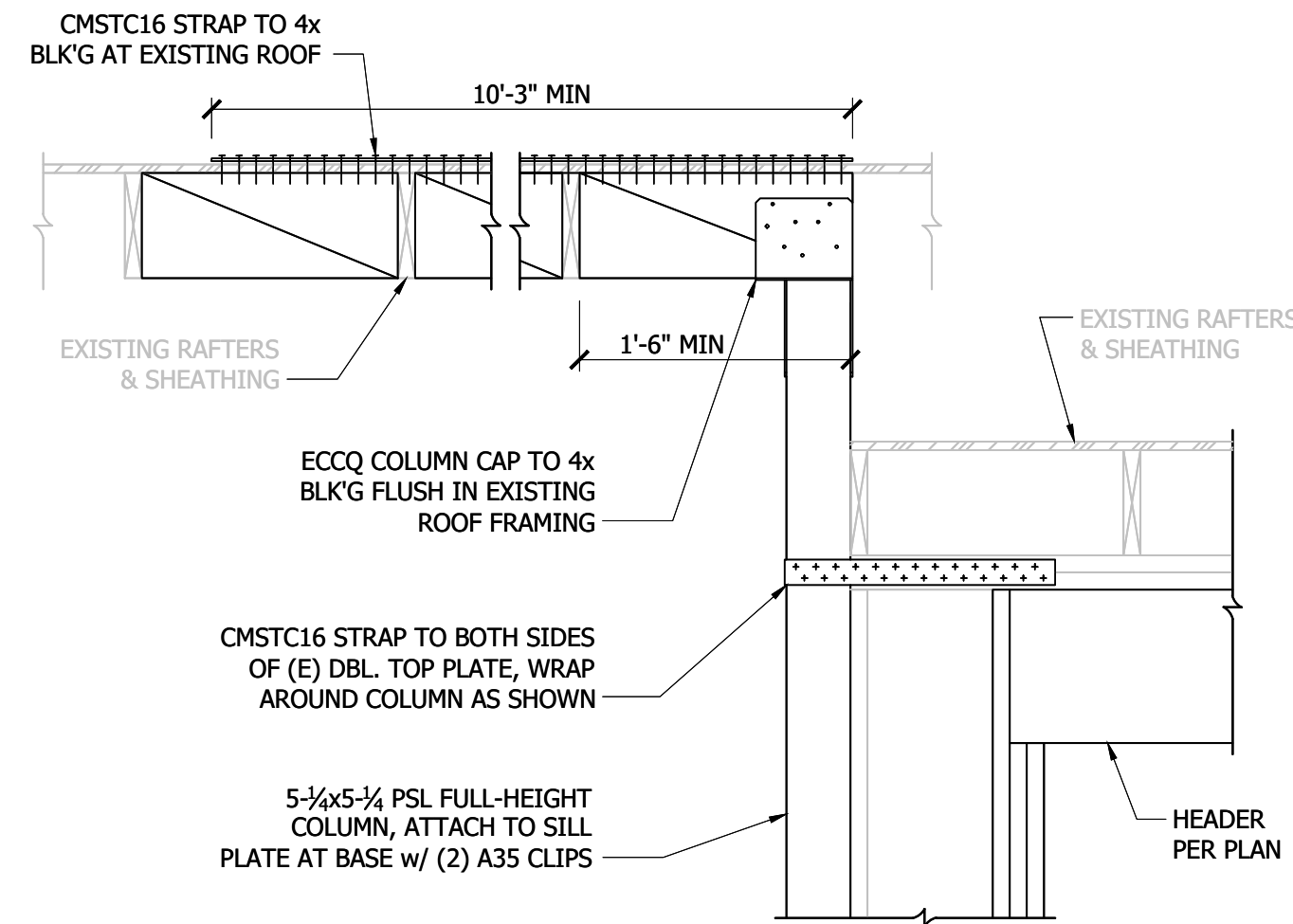
4 Header Support, Typ.
3/4" = 1'-0"



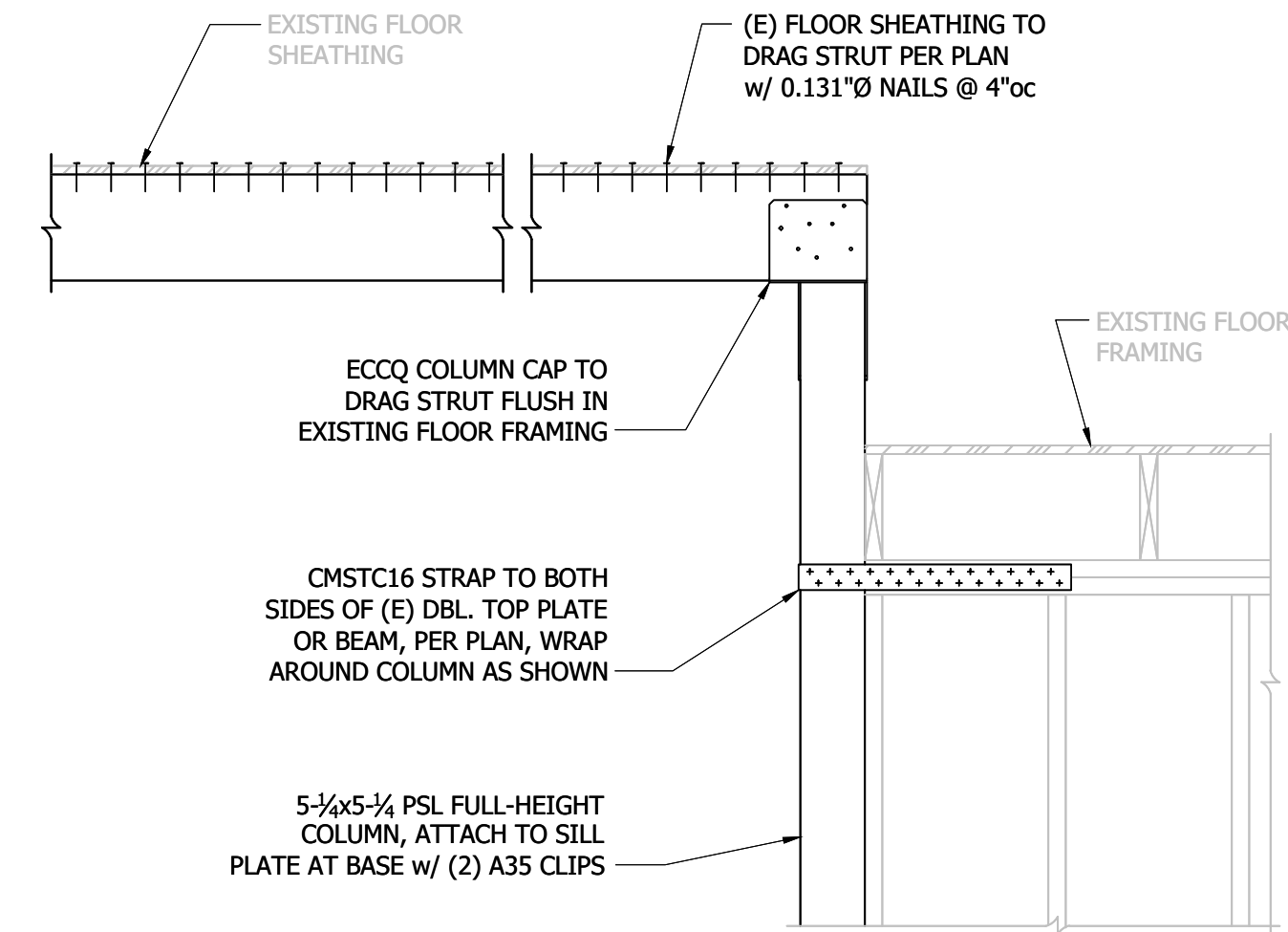
5 Deck & Floor Joists Perp. to Flush Beam
3/4" = 1'-0"



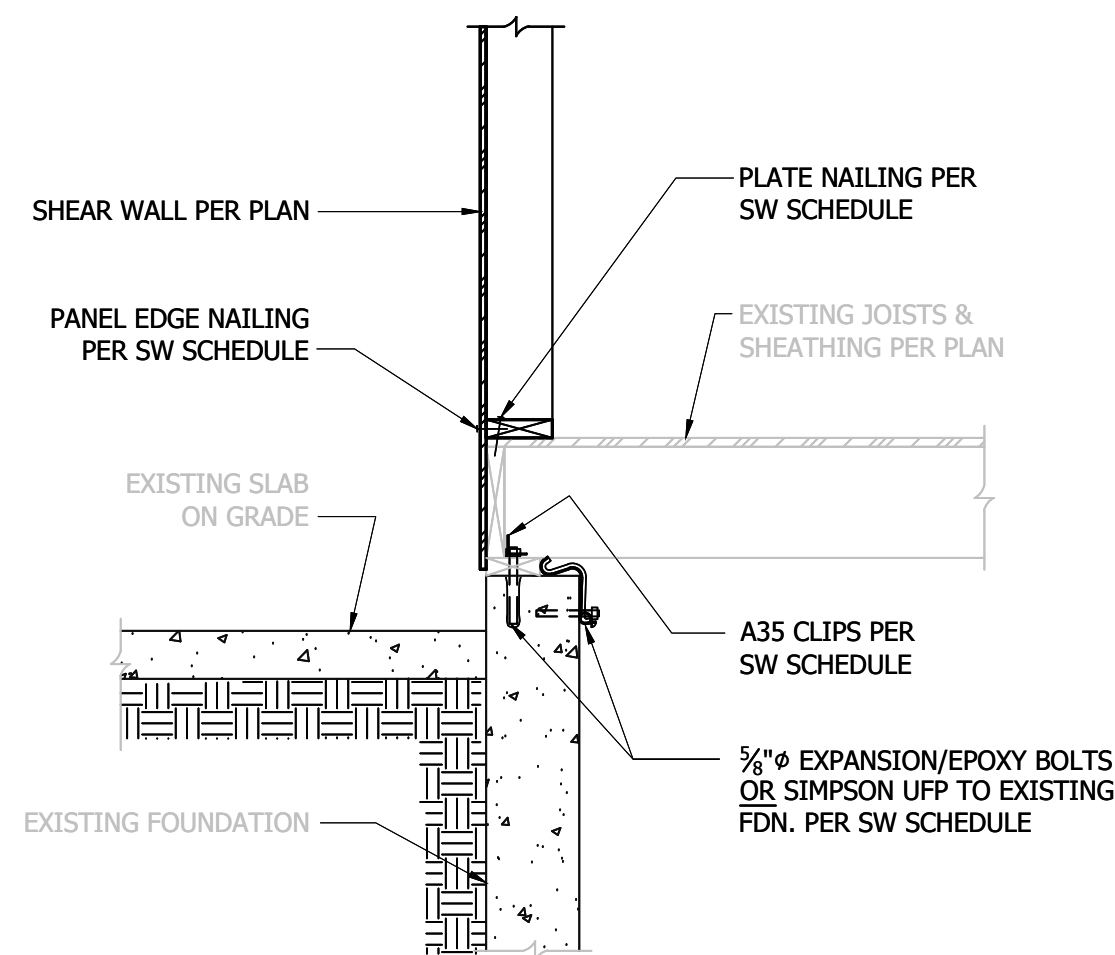
6 Flush Beam at Offset Exterior Walls
3/4" = 1'-0"



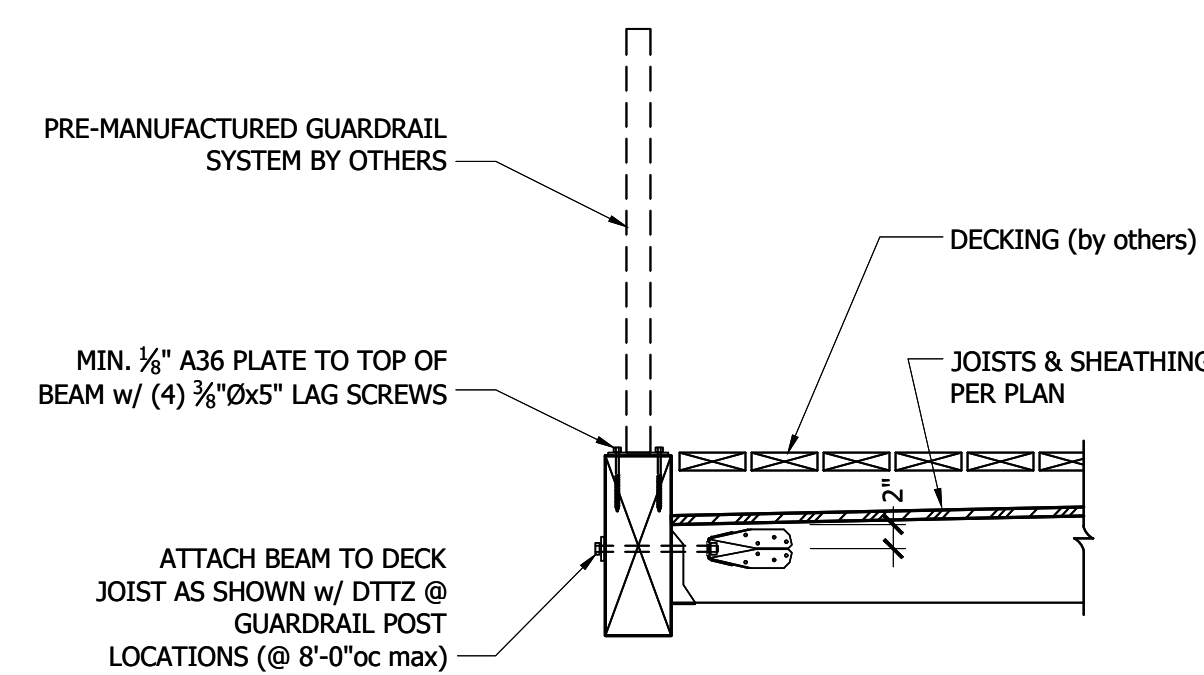
7 Diaphragm Continuity Tie at Step in Roof
3/4" = 1'-0"



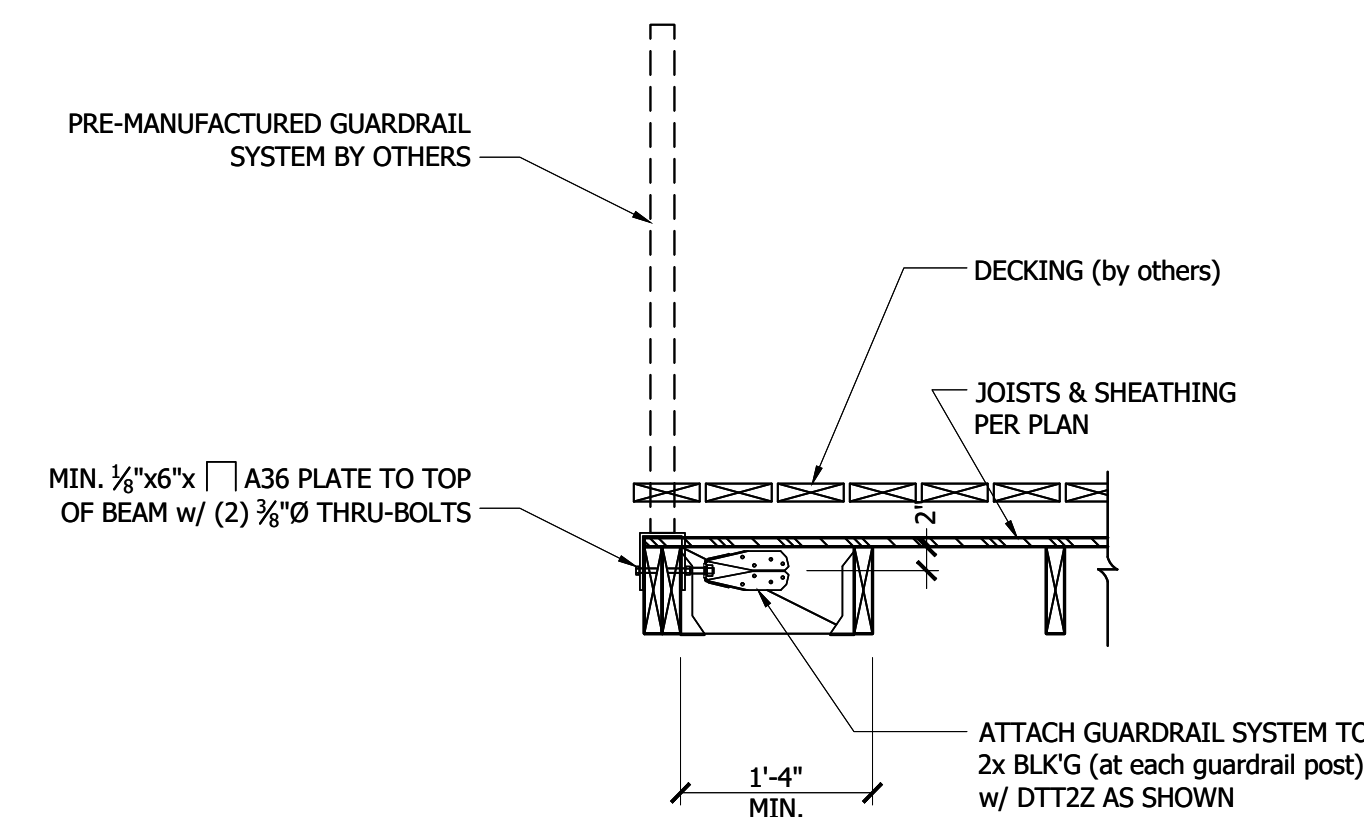
8 Diaphragm Continuity Tie at Step in Floor
3/4" = 1'-0"



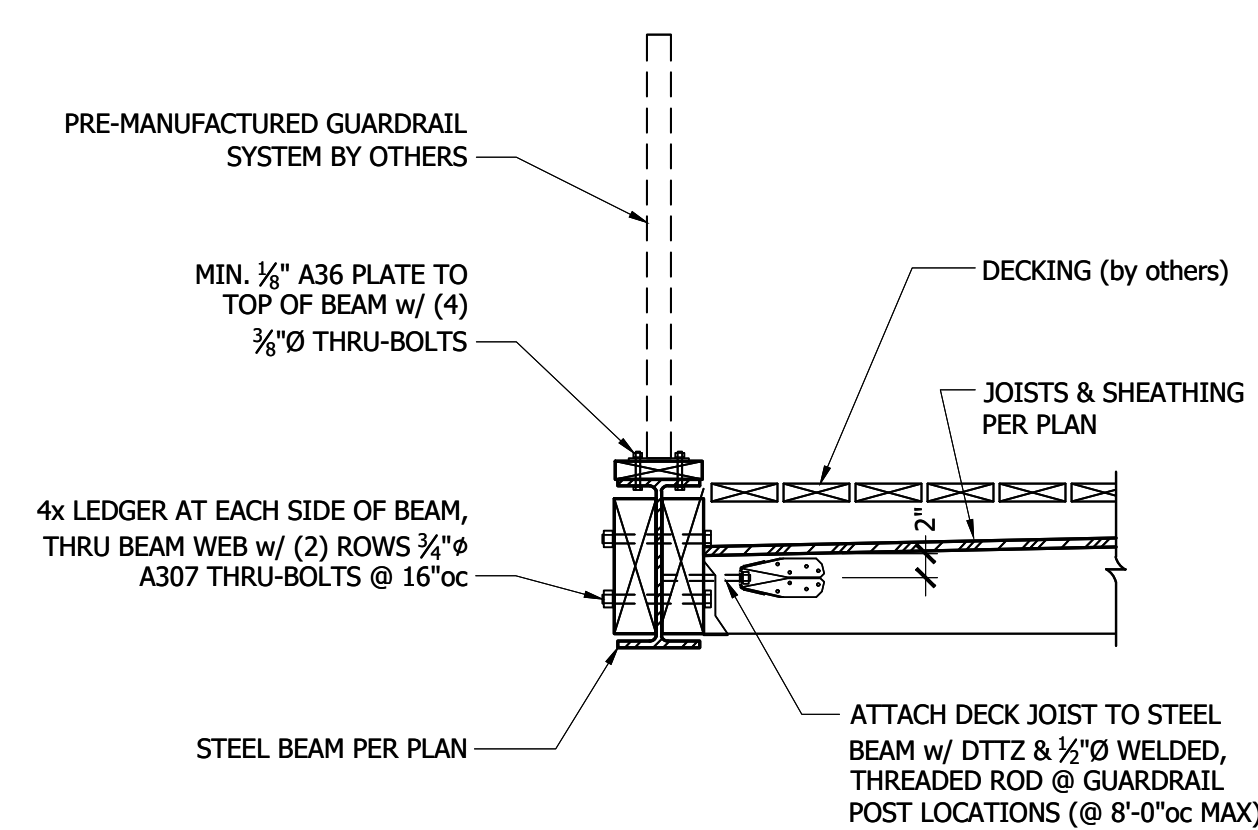
9 Existing 2x Joist Perp. to Garage Slab on Grade
3/4" = 1'-0"



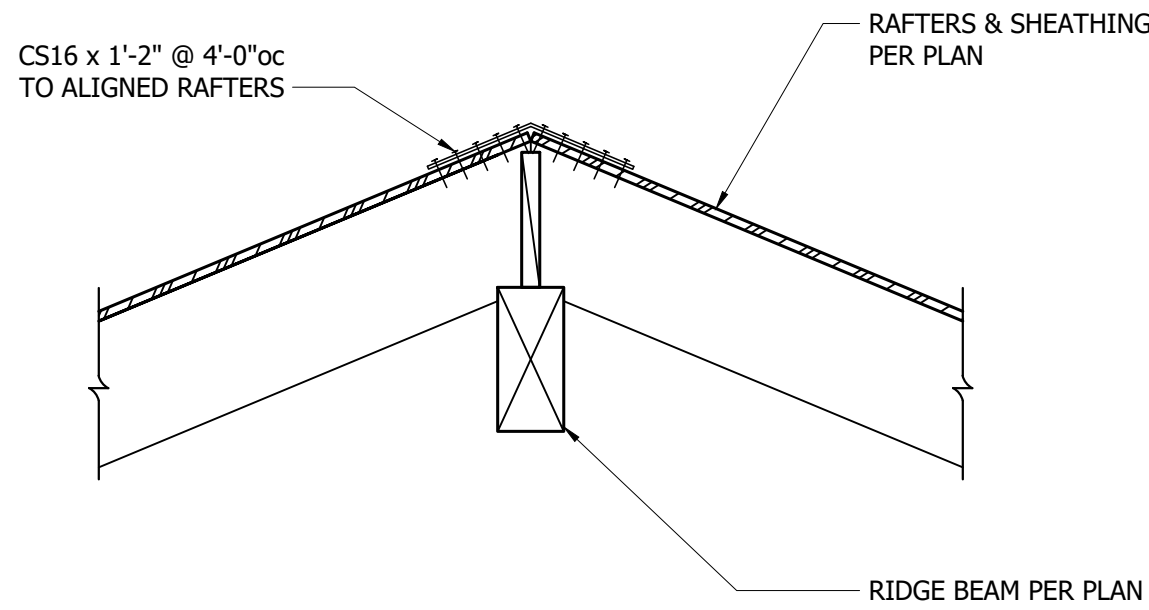
10 Guardrail Support at Beam
3/4" = 1'-0"



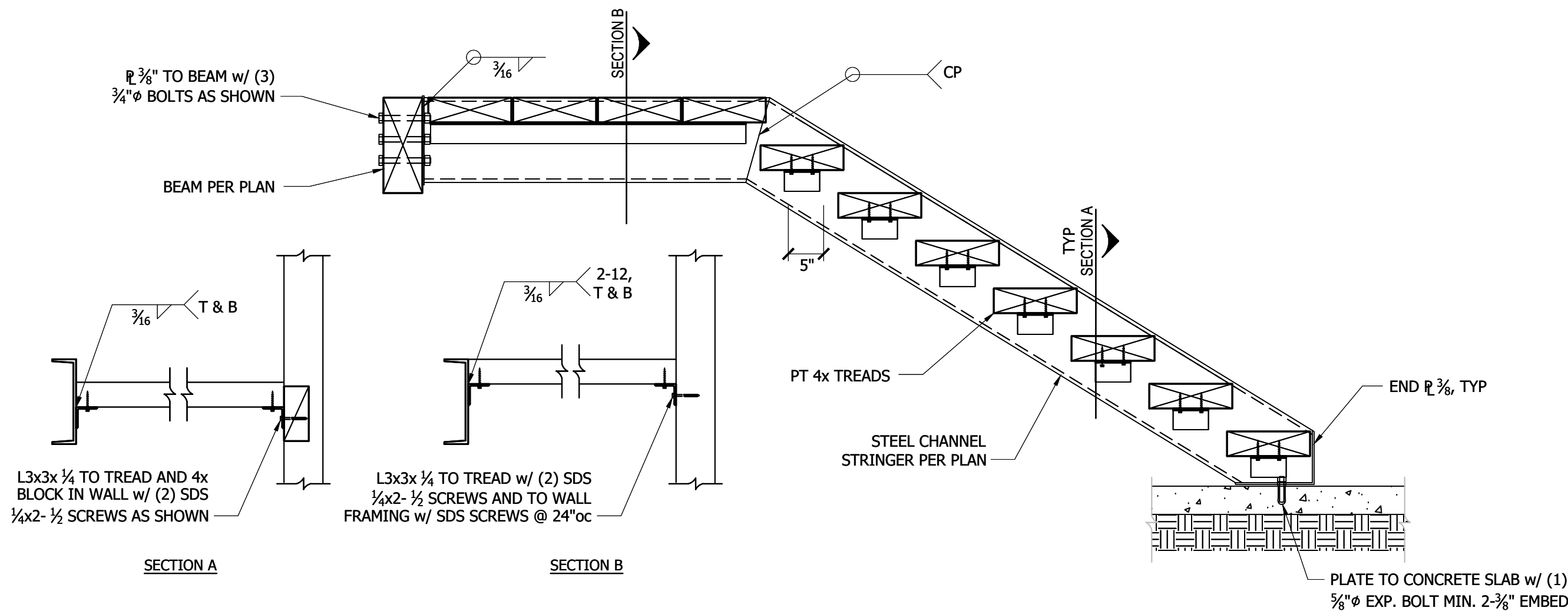
11 Guardrail Support Parallel to Joists
3/4" = 1'-0"



12 Guardrail Support at Steel Beam
3/4" = 1'-0"



1 Ridge Beam
3/4" = 1'-0"



3 Bent Steel Stair Stringer
3/4" = 1'-0"