

TAM CEM Residence Addition & Alteration



CONSTRUCTION
AND REMODELING

SYMBOL LEGEND:

GRIDLINE
1 A
FACE OF SHEATHING / STUD (FOS)

VERTICAL DATUM
↑

DIMENSION
FOS
FOF

FACE OF STUD
FOS

FACE OF FINISH
FOF

WALL THICKNESS DESIGNATION
6
USED FOR NON-TYPICAL CONDITIONS, REFER TO WALL ASSEMBLY FOR CLARIFICATION

CONSTRUCTION KEYNOTE
A

DEMOLITION KEYNOTE
1

SMOKE DETECTOR
SD
(IBC-SECTION 907.2.10)
NOTE: ALL SMOKE DETECTORS TO BE "PHOTOELECTRIC SMOKE ALARM" TYPE PER SECTION IBC/IFC 907.2.10.3

CARBON MONOXIDE DETECTOR
CMD
(IBC - SECTION 915)

EXHAUST FAN
VTO
MIN. 50 CFM FOR BATHROOM AND LAUNDRY;
MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR

DOOR SYMBOL
D03

WINDOW SYMBOL
W01

SECTION REFERENCE
C
AB.0
NUMBER IDENTIFICATION
SHEET NUMBER

DETAIL REFERENCE
C
AB.0
NUMBER IDENTIFICATION
SHEET NUMBER

ELEVATION REFERENCE
C/A9.0 A
NUMBER IDENTIFICATION
SHEET NUMBER

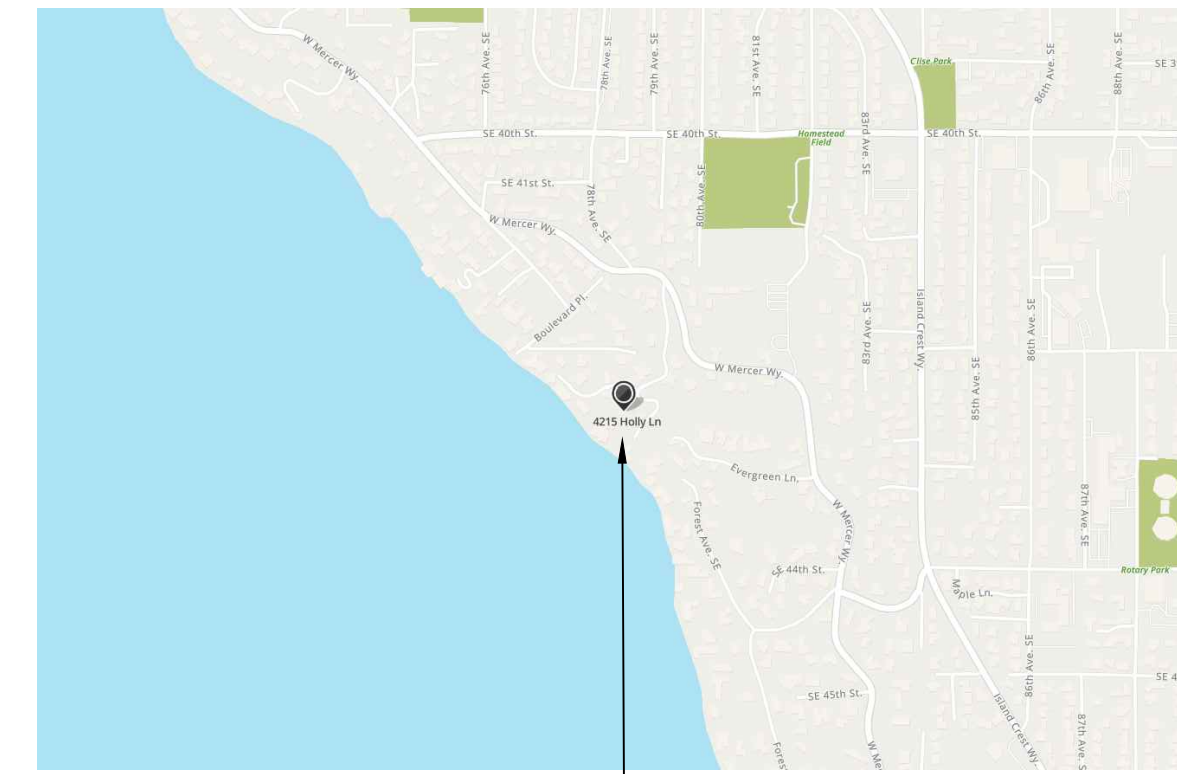
DRAWING NUMBER & TITLE
1
SCALE: FULL
DETAIL TITLE
DETAIL NUMBER

NORTH ARROW
↑
NORTH

REVISION TAG & CLOUD
☁

ABBREVIATIONS:

ABV ABOVE	FOS FACE OF STUD	REBAR REINFORCEMENT BAR
AFF ABOVE FINISH FLOOR	FRMG FRAMING	REFR REFRIGERATOR
BLDG BUILDING	FRZR FREEZER	REQD REQUIRED
BLKG BLOCKING	FT FOOT	REQTS REQUIREMENTS
BM BEAM	FTG FOOTING	RAFT RAFTER
BOT BOTTOM	FV FIELD VERIFY	RO ROUGH OPENING
CIPC CAST-IN-PLACE CONCRETE	FV FOUNDATION VENT	R.O.W. RIGHT-OF-WAY
CL CENTERLINE	GA GAUGE	RFT RIP-TO-FIT
CLG CEILING	GB GYPSUM BOARD	RTS RIP-TO-SLOPE
CLR CLEAR	GLB GLULAM BEAM	RV RIM VENT
CMD CARBON MONOXIDE DETECTOR	GSM GALVANIZED SHEET METAL	SC SOLID CORNER
CO CLEANOUT	HDR HEADER	SD SMOKE DETECTOR
CONC CONCRETE	HGR HANGER	SF SQUARE FEET
CONT CONTINUOUS	h HIGH	SG SAFETY GLAZING
D DRYER	HT HEIGHT	SHWR SHOWER
DBLE DOUBLE	HVAC HEATING, VENTILATION, & AIR-CONDITIONING	SIM SIMILAR
DEMO DEMOLISH	IG INSULATED GLASS	SPEC SPECIFICATIONS
DIA DIAMETER	INT INTERIOR	SQ FT SQUARE FEET
DN DOWN	LAV LAVATORY	SQ IN SQUARE INCHES
DP DEEP	LBS POUNDS	STD STANDARD
DP DIMENSION POINT	LF LINEAR FEET	SUBFLR SUBFLOOR
DS DOWNSPOUT	LO LOW	T&G TONGUE & GROOVE
DTL DETAIL	LO LOW	THK THICK
DW DISHWASHER	MAX MAXIMUM	TOPO TOPOGRAPHY
(E) EXISTING	MFR MANUFACTURER	TOW TOP OF WALL
EA EACH	MIN MINIMUM	TYP TYPICAL
ELEV ELEVATION	(N) NEW	UNO UNLESS NOTED OTHERWISE
EQ EQUAL	N/A NOT APPLICABLE	VTO VENT TO OUTSIDE
EXT EXTERIOR	NIC NOT IN CONTRACT	w WIDE
EW EACH WAY	O/ OVER	w WASHER
*EW EGRESS WINDOW	OC ON CENTER	w/ WITH
FDN FOUNDATION	OG OBSCURE GLAZING	WC WATER CLOSET
FG FINISH GRADE	OH OVERHANG	WFC WOOD FRAME CONSTRUCTION
FIN FINISH	P.L. PROPERTY LINE	WH WATER HEATER
FL FLUSH	PL PLATE	WIC WALK-IN-CLOSET
FLR FLOOR	PT POINT	WP WORK POINT
FOF FACE OF FINISH	PTW PRESERVATIVE TREATED WOOD	WWF WELDED WIRE FABRIC



VICINITY PLAN:

SCALE: NOT TO SCALE



SITE LOT AREA

LOT AREA: (0.58 ACRES) 25,059 S.F.

PROJECT SQUARE FOOTAGES:

<u>EXISTING RESIDENCE</u>	
(E) FINISHED BASEMENT AREA:	1,160 SF
(E) 1ST FLOOR AREA:	1,740 SF
(E) DECK AREA:	310 SF
(E) OPEN PORCH AREA:	70 SF
(E) DETACHED GARAGE AREA:	1,190 SF
(E) EXERCISE ROOM AREA:	600 SF
(E) BONUS ROOM ABOVE GARAGE AREA (TO BE CONVERTED TO LIVING):	600 SF
EXISTING TOTAL LIVING AREA:	2,900 SF
<u>PROPOSED RESIDENCE</u>	
(E) FINISHED BASEMENT AREA:	1,160 SF
(E) 1ST FLOOR AREA:	1,740 SF
(E) DECK AREA:	310 SF
(E) OPEN PORCH AREA:	70 SF
(E) DETACHED GARAGE AREA:	1,190 SF
(E) EXERCISE ROOM AREA:	600 SF
PROPOSED BASEMENT ADDITION AREA:	455 SF
PROPOSED 1ST FLOOR ADDITION AREA:	713 SF
2ND FLOOR PLAN ADDITION AREA (INCL. (E) BONUS ROOM ABOVE GARAGE):	1,256 SF
PROPOSED COVERED PORCH AREA:	209 SF
EXISTING + PROPOSED TOTAL LIVING AREA:	5,324 SF

PROJECT CONTACT INFORMATION:

OWNER:
Sibay Cem & Minh Tam
4215 Holly Ln.
Mercer Island, WA 98040

PROJECT COORDINATOR:
Calvin Tam
10040 Sand Point Way NE
Seattle, WA 98125

PROJECT PROPERTY INFORMATION:

PROJECT ADDRESS:
4215 Holly Ln.
Mercer Island, WA 98040

LEGAL DESCRIPTION:

ROGERS HOLLY LANE ADD LOT 4 TGV POR LOT 1 BEG SW COR SD LOT 4 TH S 35-08-12 E 10 FT TH N 54-51-48 E 88 FT TH N 35-08-12 W 10 FT TO COMMON PROPERTY LN OF LOTS 1 & 4 TH S 54-51-48 W ALG SD COMMON PROPERTY LN 88 FT TO BEG TGV UND INT IN COMMUNITY TR TGV POR OF LOT 3 ELY OF LN BEG AT NE COR SD LOT 3 TH SWLY ALG NLY LN SD LOT 3 DIST 31 FT TO TPOB TH S 09-08 E 41.6 FT TH S 01-50-40 E 36 FT TH S 10-32-34 E 110.50 FT TO S LOT 3 & TERM SD LN AKA LOT 4 RR MI BLA 86-03-03 REC NO 8604109002

Plot Block:
Plot Lot: 4 &

ASSESSOR'S TAX NUMBER:
738900-0040

LAND USE ZONE:
R-15

PROJECT DESCRIPTION:

BUILDING ADDITION TO AN EXISTING SINGLE FAMILY RESIDENCE AND INTERIOR ALTERATION.

CODE INFORMATION:

APPLICABLE CODES (AS AMENDED BY WA STATE, KING COUNTY & LOCAL JURISDICTION):

- 2021 INTERNATIONAL RESIDENTIAL CODE (IRC)
 - 2021 NATIONAL ELECTRICAL CODE
 - 2021 UNIFORM PLUMBING CODE (UPC)
 - MECHANICAL CODE PER 2018 (IRC)
 - WASHINGTON STATE ENERGY CODE, 2018 EDITION (WSEC)
 - WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODE, 2018 EDITION (VIAQ)
- OCCUPANCY: GROUP R-3 (SINGLE-FAMILY RESIDENTIAL)

SPRINKLER SYSTEM REQUIREMENT:

PROJECT SHALL INSTALL AN APPROVED RESIDENTIAL FIRE SPRINKLER SYSTEM. SEPARATE PLANS AND PERMITS REQUIRED FOR SUBMISSION BY THE INSTALLING CONTRACTOR. (A NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND CoMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. THIS SYSTEM REQUIRES A MINIMUM OF 1" WATER METER AND 1" WATER SUPPLY LINE.)

NOTE: IF APPLICABLE FOR PROJECT SCOPE.

ELECTRICAL PLAN AND SYSTEM TO BE DESIGNED BY INSTALLING CONTRACTOR AND SHALL CONFORM TO ALL APPLICABLE CODES & REGULATIONS.

PLUMBING PLAN AND SYSTEM TO BE DESIGNED BY INSTALLING CONTRACTOR AND SHALL CONFORM TO ALL APPLICABLE CODES & REGULATIONS.

HEATING & MECHANICAL VENTILATION SYSTEM TO BE DESIGNED BY INSTALLING CONTRACTOR AND SHALL CONFORM TO ALL APPLICABLE CODES & REGULATIONS.

ELECTRICAL, PLUMBING & HVAC TO BE UNDER SEPARATE PERMIT SUBMITTAL.

INDEX OF DRAWINGS:

ARCHITECTURAL:

- T1.0 GENERAL INFORMATION
- T2.0 TESC & SOIL PLAN
- T3.0 SITE PLAN
- T4.0 SITE CALCULATIONS
- T5.0 ENERGY FORM
- T6.0 CODES NOTES
- A1.1 BASEMENT DEMO PLAN
- A1.2 1ST FLOOR DEMO PLAN
- A1.3 2ND FLOOR PLAN
- A1.4 ROOF DEMO PLAN
- A2.0 FOUNDATION PLAN
- A2.1 BASEMENT FLOOR PLAN
- A2.2 1ST FLOOR PLAN
- A2.3 2ND FLOOR PLAN
- A2.4 ROOF PLAN
- A3.1 EXISTING ELEVATIONS
- A3.2 ELEVATIONS
- A4.0 SECTIONS
- D1.0 SCHEDULES
- D2.0 DETAILS
- D3.0 DETAILS

STRUCTURAL:

- S1.1 GENERAL STRUCTURAL NOTES
- S1.2 SHEARWALL SCHEDULE & NOTES
- S1.3 HOLD-DOWN SCHEDULES & NOTES
- S1.4 SPECIAL INSPECTION TABLES
- S2.1 FOUNDATION PLAN
- S2.2 MAIN FLOOR FRAMING PLAN
- S2.3 SECOND FLOOR FRAMING PLAN
- S2.4 ROOF FRAMING PLAN
- S6.1 FOUNDATION DETAILS
- S9.1 FRAMING DETAILS
- S9.2 STEEL FRAMING DETAILS

TAM CEM - RESIDENCE

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4215 Holly Ln, Mercer Island, WA 98040

Permit Set

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Drawn:
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Sheet Name:

GENERAL
INFORMATION

Sheet No:

T1.0

TESC GENERAL NOTES

1. VERIFY WITH LOCAL JURISDICTION IF A FIRST GROUND DISTURBANCE INSPECTION IS REQUIRED PRIOR TO START OF WORK ON ALL SITES WITH LAND DISTURBING ACTIVITY.
2. THE APPLICANT SHALL DESIGNATE AN EROSION AND SEDIMENT CONTROL (ESC) SUPERVISOR WHO SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs). FOR LARGE CONSTRUCTION PROJECTS, THE ESC SUPERVISOR SHOULD BE A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL). PROVIDE THE NAME AND PHONE NUMBER OF THE ESC SUPERVISOR TO THE SITE INSPECTOR AT THE FIRST GROUND DISTURBANCE INSPECTION.
3. BMPs SHALL BE INSTALLED PRIOR TO STARTING CONSTRUCTION TO ENSURE SEDIMENT-LADEN WATER DOES NOT LEAVE THE PROJECT SITE OR ENTER ROADSIDE DITCHES, STORM DRAINS, SURFACE WATERS, OR WETLANDS.
4. THE BMPs INCLUDED IN THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT BMPs ARE MODIFIED AS NEEDED FOR UNEXPECTED STORM EVENTS OR OTHER UNFORESEEN CIRCUMSTANCES, AND TO ACCOUNT FOR CHANGING SITE CONDITIONS.
5. ANY AREAS OF DISTURBED SOIL THAT WILL NOT BE WORKED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON (OCT 1 TO APRIL 30) OR SEVEN DAYS DURING THE DRY SEASON (MAY 1 TO SEPT 30) SHALL BE IMMEDIATELY STABILIZED WITH APPROVED BMPs METHODS (E.G. STRAW, MULCH, PLASTIC COVERING, COLD MIX, ETC.).
6. GRADING AND/OR SOIL DISTURBING ACTIVITIES MAY BE LIMITED OR PROHIBITED FOR CERTAIN SITES SUBJECT TO ECA STANDARDS (I.E. ECA STEEP SLOPES, LANDSLIDE PRONE AREAS, ETC.) BETWEEN OCTOBER 31ST AND APRIL 1ST. VERIFY WITH LOCAL JURISDICTION FOR COMPLIANCE REQUIREMENTS.
7. CITY STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AT ALL TIMES. NO MATERIAL SHALL BE STORED ON CITY STREETS OR SIDEWALKS.
8. POLLUTION CONTROL MEASURES SHALL BE FOLLOWED TO ENSURE THAT NO LIQUID PRODUCTS OR CONTAMINATED WATER ENTERS ANY STORM DRAINAGE FACILITIES OR OTHERWISE LEAVES THE PROJECT SITE. ANY HAZARDOUS MATERIALS OR LIQUID PRODUCTS THAT HAVE THE POTENTIAL TO POLLUTE RUNOFF SHALL BE STORED AND DISPOSED OF PROPERLY.
9. ENSURE THAT WASHOUT FROM CONCRETE TRUCKS IS PERFORMED OFF-SITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR TO STORM DRAINS OR OPEN DITCHES. DO NOT DUMP EXCESS CONCRETE ONSITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS.
10. ALL AREAS OF DISTURBED SOIL SHALL BE FULLY STABILIZED WITH THE APPROPRIATE SOIL AMENDMENT AND COVER MEASURES AT COMPLETION OF THE PROJECT. TYPICAL COVER MEASURES INCLUDE LANDSCAPING OR HYDROSEED WITH MULCH.

CONSTRUCTION STORMWATER CONTROL (CSC) PLAN REQUIREMENTS / NARRATIVE

THIS PLAN IS REQUIRED FOR ALL PROJECTS WITH GREATER THAN 750 SQUARE FEET OF LAND DISTURBING ACTIVITIES.

SHOW TEMPORARY AND PERMANENT BEST MANAGEMENT PRACTICES (BMPs) IN THE PLAN VIEW OF THIS SHEET THAT WILL ACCOMPLISH THE MINIMUM REQUIREMENTS DESCRIBED IN THE NARRATIVE BELOW.

THE BMPs SHOWN IN THE PLAN VIEW OF THIS PLAN ARE THE MINIMUM REQUIRED. ADDITIONAL BMPs ARE REQUIRED WHEN MINIMUM CONTROLS ARE NOT SUFFICIENT TO PREVENT EROSION OR TRANSPORT OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE.

- MARK CLEARING LIMITS
- DELINEATE ENVIRONMENTALLY CRITICAL AREAS
- RETAIN TOP LAYER AND NATIVE VEGETATION
- ESTABLISH CONSTRUCTION ACCESS
- PROTECT DOWNSTREAM PROPERTIES AND RECEIVING WATERS
- PREVENT EROSION AND SEDIMENT TRANSPORT FROM THE SITE
- STABILIZE SOILS
- PROTECT SLOPES
- PROTECT STORM DRAINS
- STABILIZE CHANNEL AND OUTLETS
- CONTROL POLLUTANTS
- CONTROL DEWATERING
- MAINTAIN AND INSPECT BMPs
- EXECUTE CONSTRUCTION STORMWATER CONTROL PLAN
- MINIMIZE OPEN TRENCHES
- PHASE THE PROJECT
- INSTALL PERMANENT FLOW CONTROL AND WATER QUALITY FACILITIES
- PROTECT STORMWATER BMPs PRIOR TO, DURING, AND AFTER CONSTRUCTION

POST CONSTRUCTION SOIL MANAGEMENT PLAN

AT THE END OF PROJECT, ALL AREAS DISTURBED AND NOT COVERED WITH A HARD SURFACE MUST BE AMENDED PER THE SOIL AMENDMENT DETAIL BELOW AND PROBE TO 12-INCHES AT THE SITE FINAL INSPECTION.

LABEL ALL AREAS DISTURBED AND NOT COVERED WITH A HARD SURFACE WITHIN THE SITE AS ONE OF THE FOLLOWING: SA (SOIL AMENDMENT AREA) OR ND (NON-DISTURBED AREA). SEE DEFINITIONS BELOW. DO NOT REFERENCE AN ALTERNATE PLAN SHEET.

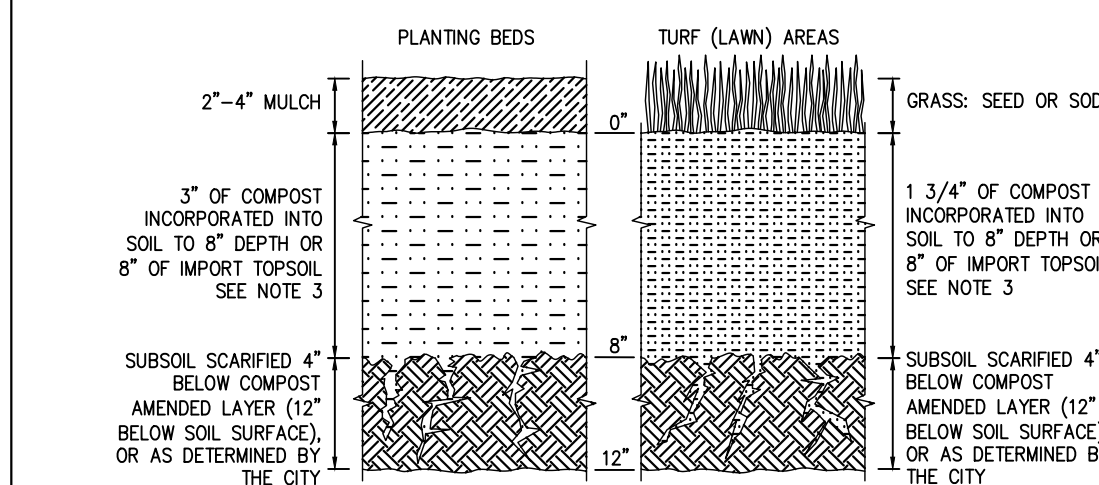
DEFINITIONS:

- NON-DISTURBED AREA (ND): VEGETATED AREAS THAT WILL NOT BE SUBJECT TO LAND DISTURBING ACTIVITY DO NOT REQUIRE SOIL AMENDMENT IF THEY ARE FENCED AND CONTINUOUSLY PROTECTED THROUGHOUT CONSTRUCTION. THE FENCING MUST BE IN PLACE AT THE FIRST GROUND DISTURBANCE INSPECTION. THIS WILL BE MONITORED BY THE DPO SITE INSPECTOR. NO DISTURBANCE, INCLUDING VEHICLE TRAFFIC OR MATERIAL STORAGE, IS ALLOWED IN THESE AREAS UNTIL FINAL INSPECTION. LABEL THESE AREAS AS (ND) IN THE PLAN VIEW.
- SOIL AMENDMENT AREA (SA): VEGETATED OR COMPOST AREAS (TURF AND LANDSCAPE) MUST BE AMENDED PER THE SOIL AMENDMENT DETAIL AND THE SUBSOIL MUST BE LOOSENOED SO IT WILL PROBE TO A DEPTH OF 12 INCHES PRIOR TO SITE FINAL INSPECTION. THIS INCLUDES AREAS IMPACTED BY CLEARING AND GRADING, STOCKPILING, SITE ACCESS, PATHWAYS AND MATERIALS OR EQUIPMENT STORAGE. LABEL THESE AREAS AS (SA) IN THE PLAN VIEW.

ESTIMATED COMPOST REQUIRED FOR SOIL AMENDMENT

AREA REQUIRING AMENDMENT (SA) (SQ. FEET) X 0.0062 = REQUIRED COMPOST (CUBIC YARDS)

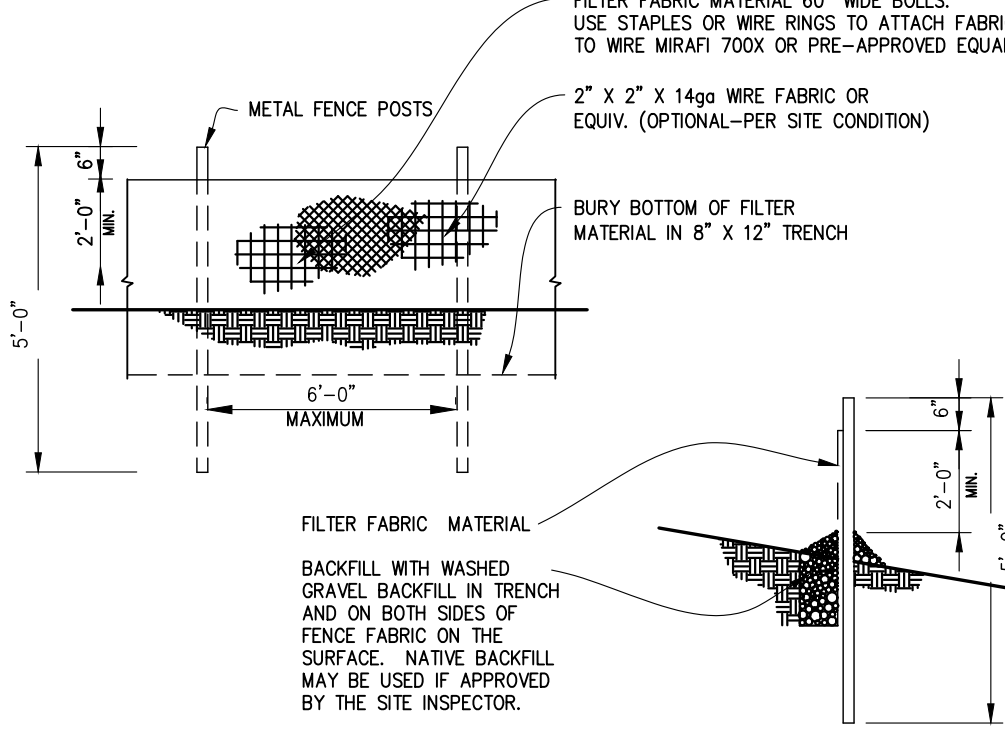
SOIL AMENDMENT



- NOTES:
1. POST CONSTRUCTION SOIL AMENDMENT IS REQUIRED ON ALL AREAS NOT COVERED BY IMPERVIOUS SURFACE WHERE SOIL IS DISTURBED DURING CONSTRUCTION.
 2. SOIL AMENDMENT MUST PASS A 12 INCH MINIMUM PROBE TEST.
 3. IMPORT TOPSOIL, IF USED, MUST MEET THE REQUIREMENTS OF THE 2016 SEATTLE STORMWATER MANUAL, VOL. 1, SECTIONS 5.1.5.1 AND 5.1.5.3.

SYMBOL: (SA) AREA REQUIRING SOIL AMENDMENT (ND) NON-DISTURBED AREA (SOIL AMENDMENT NOT REQUIRED)

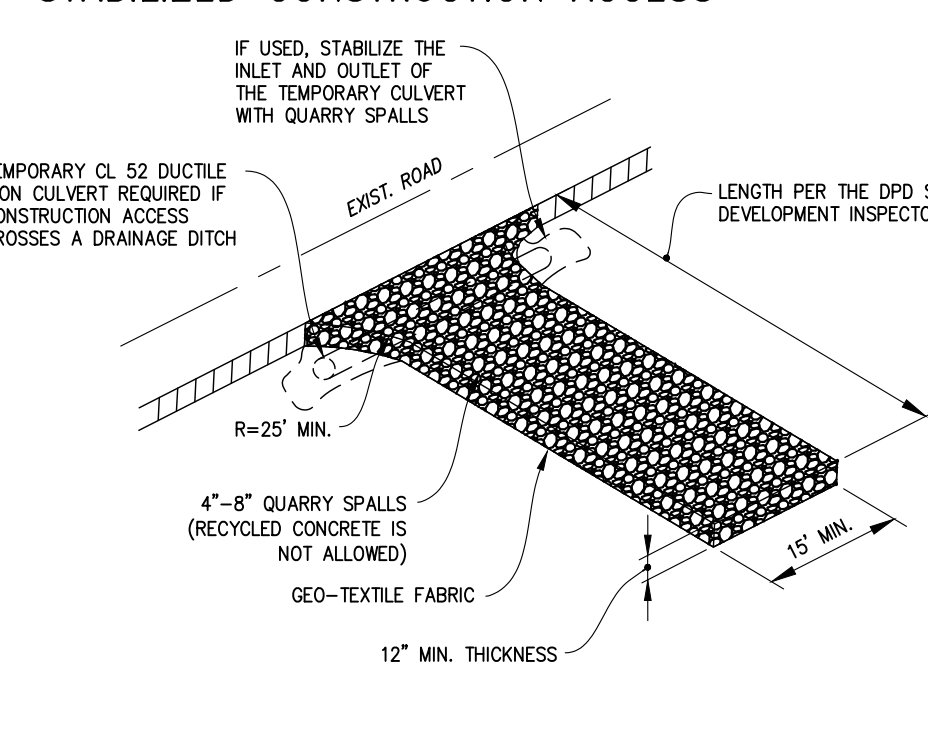
FILTER FENCE



NOTE: ANGLE SILT FENCE BACK UP THE SLOPE AT THE END OF RUN.

SYMBOL: (FF)

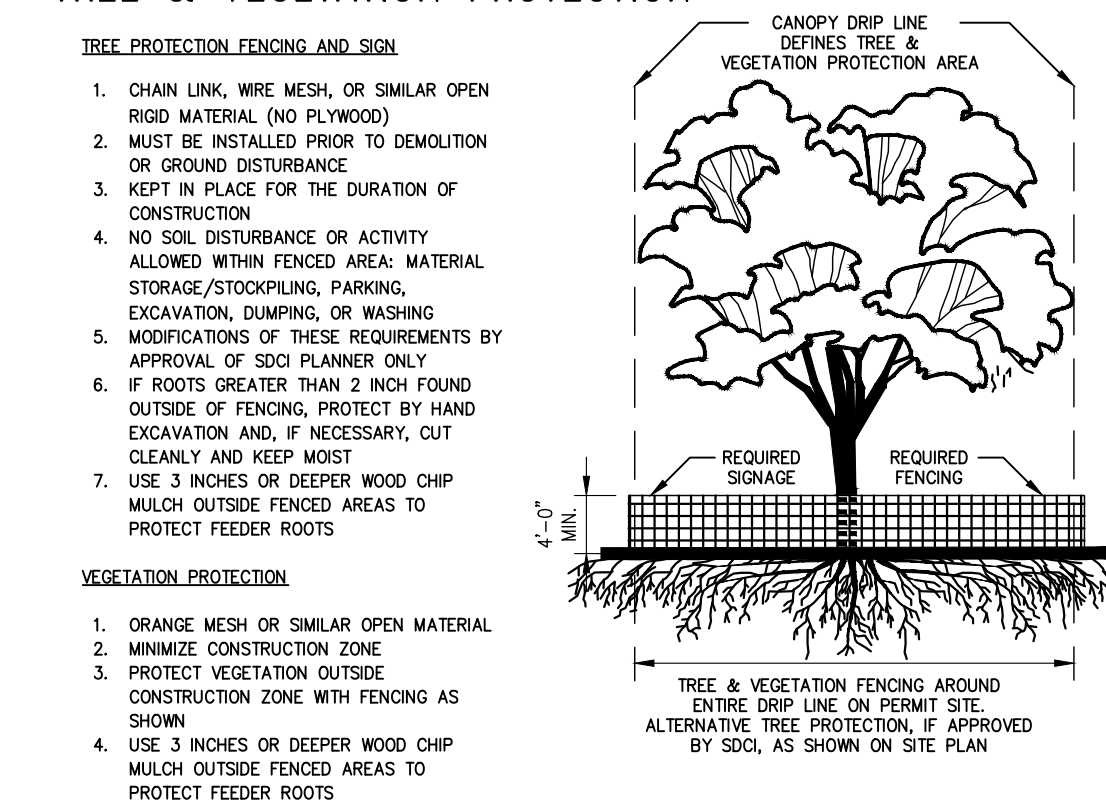
STABILIZED CONSTRUCTION ACCESS



STABILIZED ACCESS SHALL BE USED IN ALL AREAS OF THE SITE WITH VEHICLE TRAFFIC AND PARKING, INCLUDING PLANTING STRIPS. RECYCLED CONCRETE IS NOT ALLOWED.

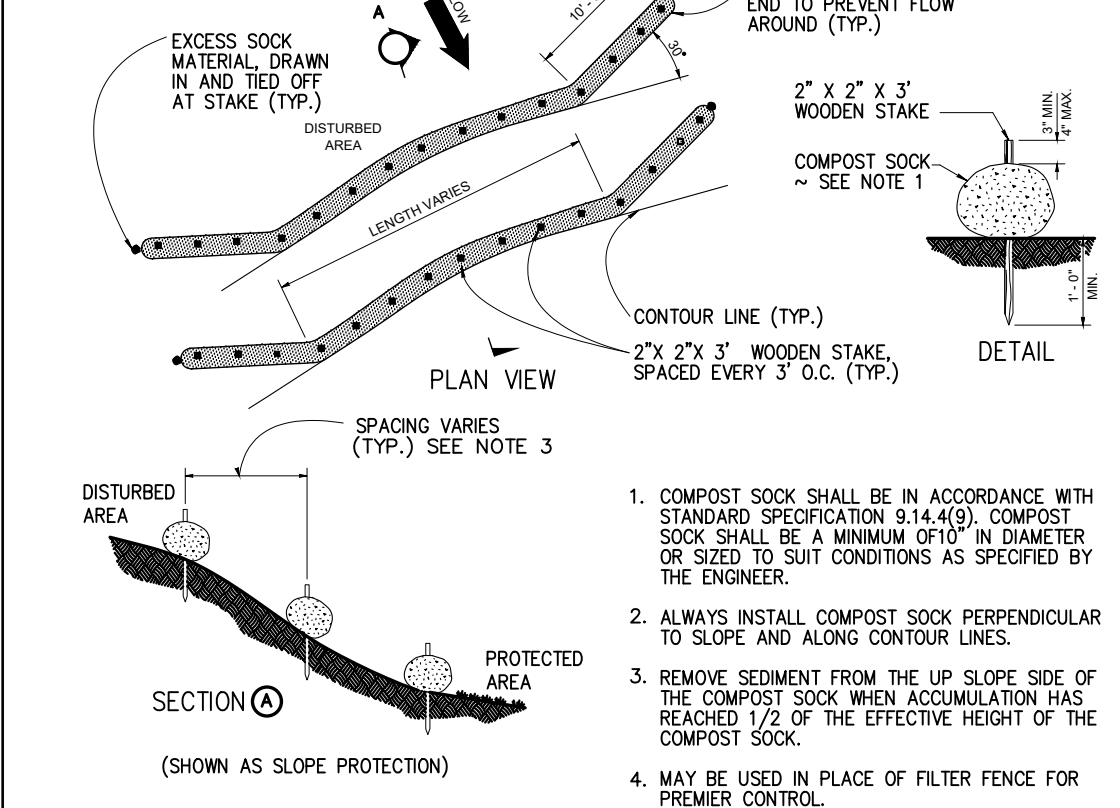
SYMBOL: (CE)

TREE & VEGETATION PROTECTION



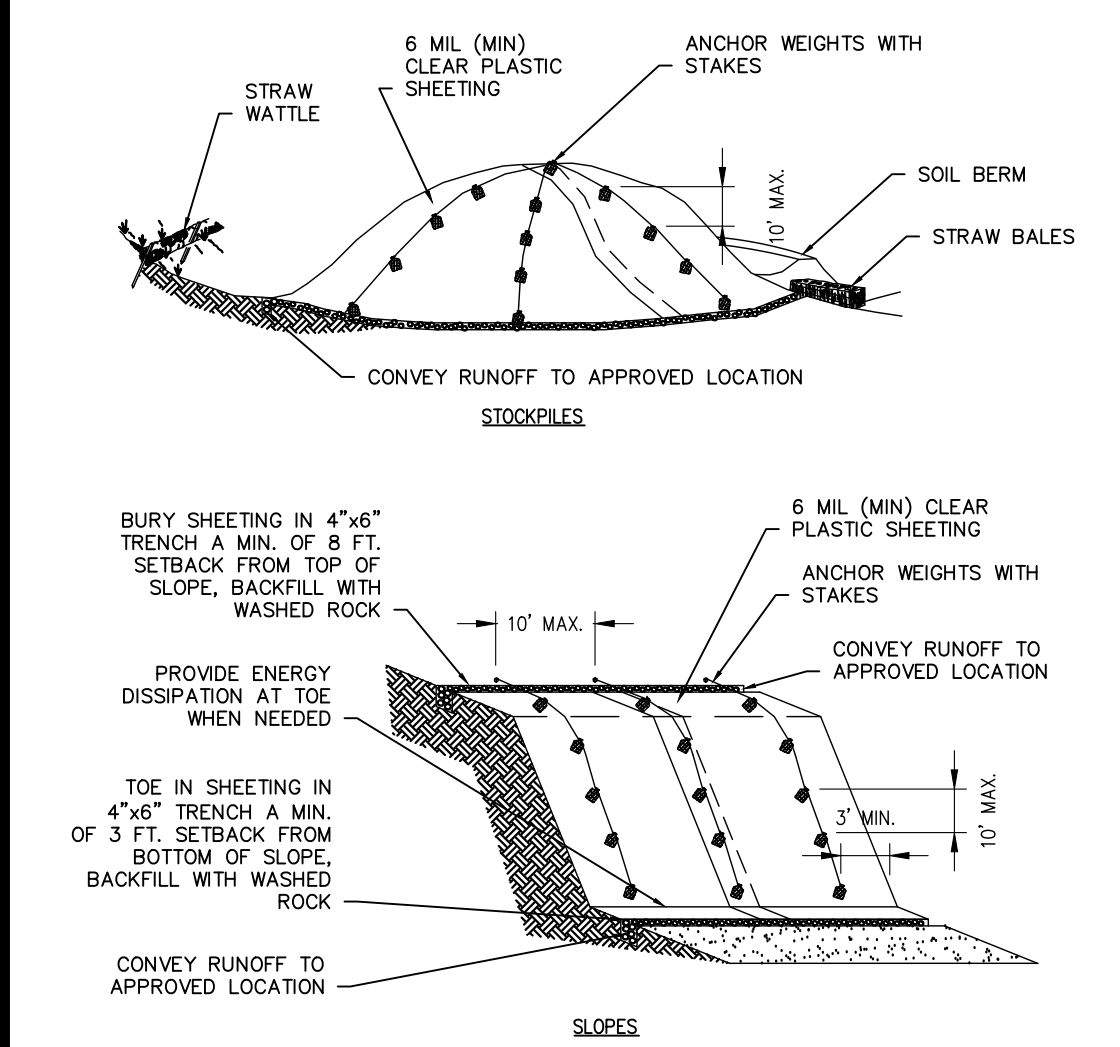
SYMBOL: (VEG)

COMPOST SOCK

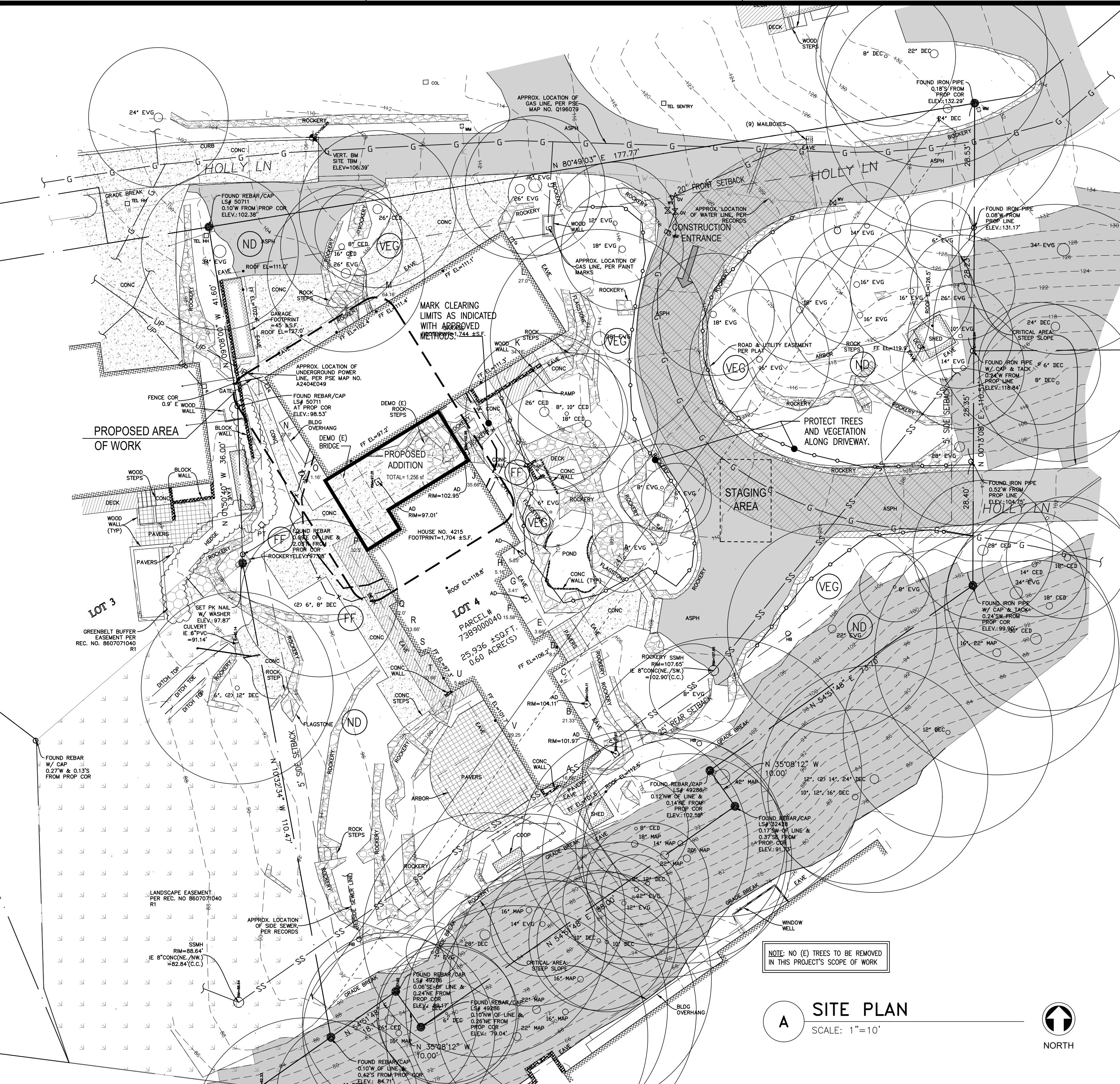


SYMBOL: (CS)

STOCKPILE AND EXPOSED SLOPE COVERING



SYMBOL: (SP)



TEMPORARY EROSION & SEDIMENT CONTROL PLAN & POST CONSTRUCTION SOIL MANAGEMENT PLAN

NOTE: THIS PLAN IDENTIFIES THE MINIMUM MEASURES REQUIRED; ADDITIONAL MEASURES MAY BE REQUIRED BASED ON CONSTRUCTION METHODS AND ACTUAL AREA OF DISTURBANCE.



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Permit Set	
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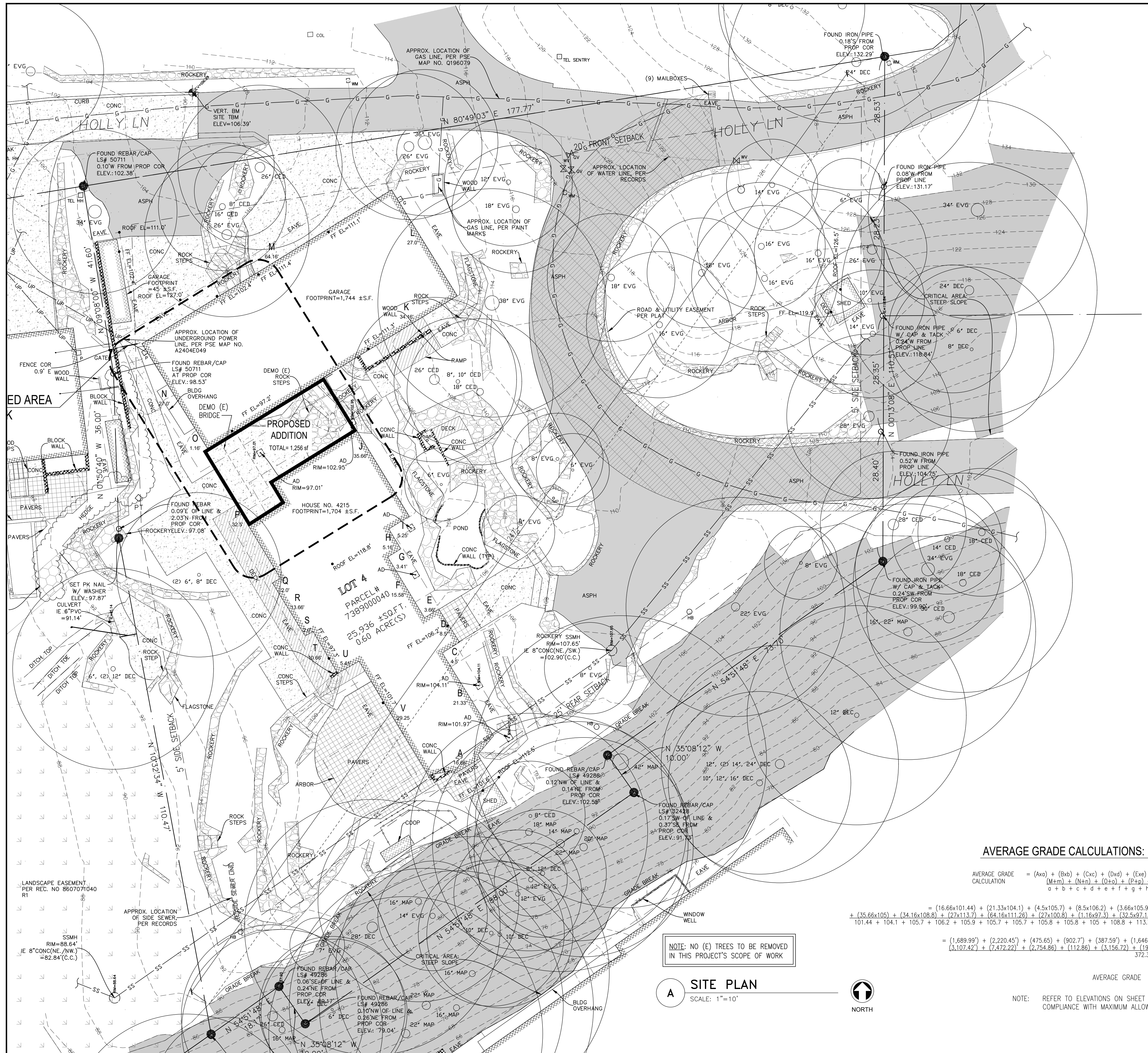
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TESC & SOIL PLAN

Sheet No:

T2.0



SITE LOT AREA
 LOT AREA: (0.58 ACRES) 25,059 S.F.

LOT SLOPE CALCULATIONS:
 (HIGHEST ELEVATION POINT OF LOT - LOWEST ELEVATION POINT OF LOT) / HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS = LOT SLOPE
 (130-90) / 247 = 16.19% LOT SLOPE



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SITE PLAN

Sheet No:
T3.0

AVERAGE GRADE CALCULATIONS:

AVERAGE GRADE CALCULATION = $\frac{(A+a) + (B+b) + (C+c) + (D+d) + (E+e) + (F+f) + (G+g) + (H+h) + (I+i) + (J+j) + (K+k) + (L+l) + (M+m) + (N+n) + (O+o) + (P+p) + (Q+q) + (R+r) + (S+s) + (T+t) + (U+u) + (V+v)}{a + b + c + d + e + f + g + h + i + j + k + l + m + n + r + s + t + u + v}$

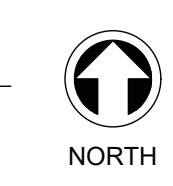
= $\frac{(16.66 \times 101.44) + (21.33 \times 104.1) + (4.5 \times 105.7) + (8.5 \times 106.2) + (3.66 \times 105.9) + (15.58 \times 105.7) + (3.41 \times 105.7) + (5.16 \times 105.8) + (5.25 \times 105.8) + (35.66 \times 105) + (34.16 \times 108.8) + (27 \times 113.7) + (64.16 \times 111.26) + (27 \times 100.6) + (1.16 \times 97.3) + (32.5 \times 97.15) + (2 \times 97.18) + (13.66 \times 97.16) + (2 \times 97.19) + (10.66 \times 97.2) + (5.41 \times 101.5) + (29.25 \times 101.6) + 101.44 + 104.1 + 105.7 + 106.2 + 105.9 + 105.7 + 105.7 + 105.8 + 105 + 108.8 + 113.7 + 111.26 + 100.8 + 97.3 + 97.13 + 97.18 + 97.16 + 97.19 + 97.2 + 101.5 + 101.6}{105}$

= $\frac{(1,689.99) + (2,220.45) + (475.65) + (902.7) + (387.59) + (1,646.80) + (360.43) + (545.92) + (555.45) + (3,744.3) + (3,716.6) + (3,107.42) + (7,472.22) + (2,754.86) + (112.86) + (3,156.72) + (134.36) + (1,327.20) + (194.38) + (1,327.2) + (549.11) + (2,971.8)}{372.33}$

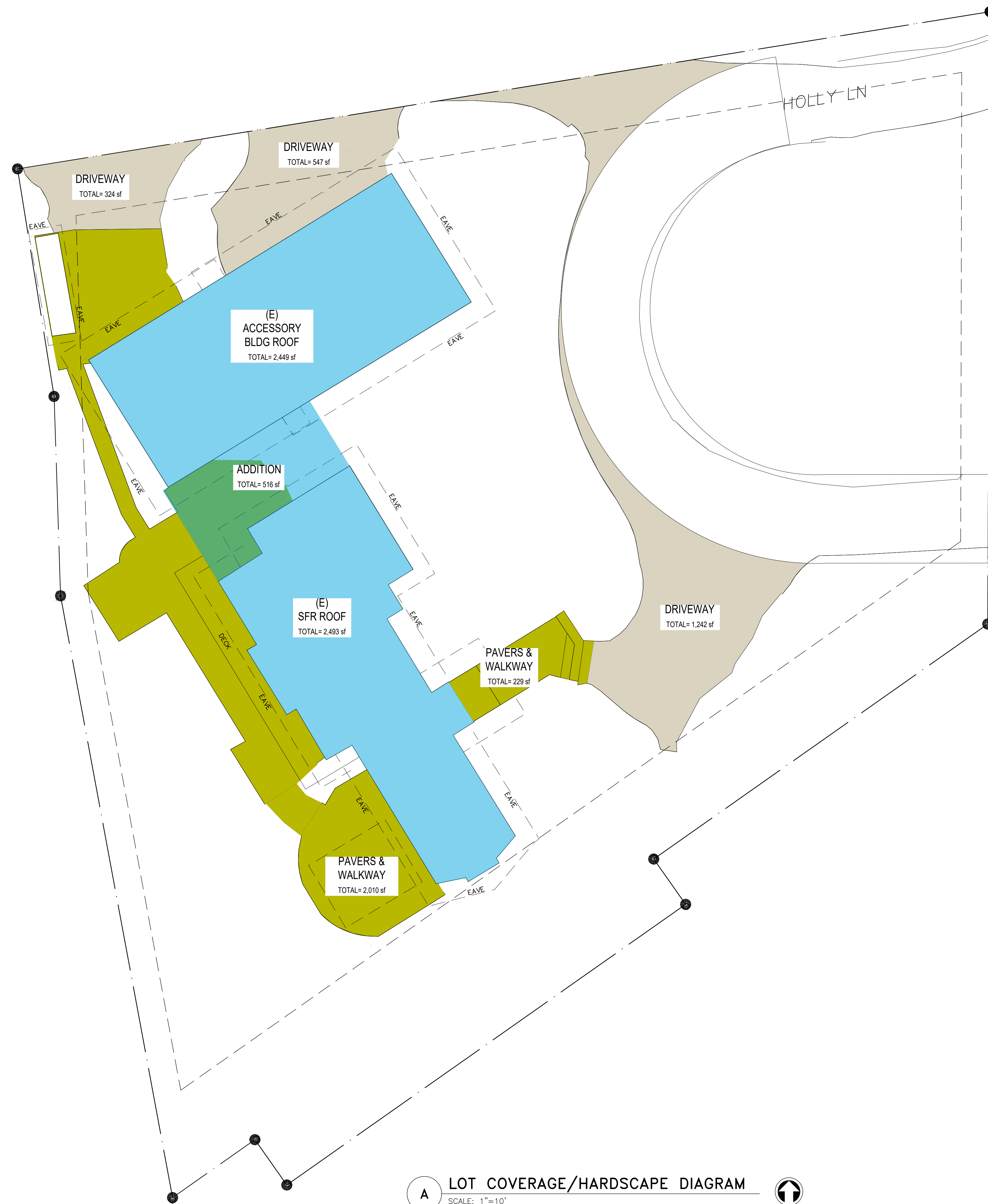
AVERAGE GRADE = **105'**

NOTE: (NO) E TREES TO BE REMOVED IN THIS PROJECT'S SCOPE OF WORK

A SITE PLAN
 SCALE: 1"=10'



NOTE: REFER TO ELEVATIONS ON SHEET 'A4.0' FOR GRAPHICAL DEPICTION OF COMPLIANCE WITH MAXIMUM ALLOWABLE HEIGHT LIMITS



A LOT COVERAGE/HARDSCAPE DIAGRAM
SCALE: 1"=10'

SITE LOT AREA

LOT AREA: (0.58 ACRES) 25,059 S.F.

GROSS FLOOR AREA CALCULATION:	
(E) HOUSE 1ST FLOOR LEVEL	1,723 SF
(E) HOUSE BASEMENT FLOOR LEVEL	1,206 SF
(E) DETACHED GARAGE	1,190 SF
PROPOSED FIRST FLOOR LEVEL ADDITION	713 SF
PROPOSED BASEMENT FLOOR LEVEL ADDITION	455 SF
PROPOSED UPPER FLOOR LEVEL ADDITION	1,256 SF
TOTAL GROSS FLOOR AREA:	6,543 SF
TOTAL LOT SF:	25,059 SF
% OF LOT:	26.1% OKAY
MAXIMUM ALLOWABLE GROSS AREA:	40%

MAXIMUM LOT COVERAGE:	
(E) HOUSE ROOF	2,493 SF
(E) ACCESSORY BUILDING ROOF AREA	2,449 SF
PROPOSED ADDITION ROOF	516 SF
(E) DRIVEWAY PAVING	2,113 SF
TOTAL LOT COVERAGE:	7,055 SF
TOTAL LOT SF:	25,059 SF
% OF LOT:	30.21%
MAXIMUM LOT COVERAGE:	35%

HARDSCAPE LOT COVERAGE:	
(E) UNCOVERED ELEVATED DECK & BRIDGE	592 SF
(E) UNCOVERED PATIO SW CORNER OF BLDG	484 SF
(E) UNCOVERED DECK & BRIDGE TO BE REMOVED	(141) SF
(E) WALKWAYS, MAIN ENTRY & BACKYARD	1,753 SF
TOTAL HARDSCAPE LOT COVERAGE:	2,688 SF
TOTAL LOT SF:	25,059 SF
AREA BORROWED FROM LOT COVERAGE:	484 SF
% OF LOT:	10.72%
MAXIMUM LOT COVERAGE:	9%



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SITE CALCULATIONS

Sheet No:

T4.0

BUILDING THERMAL ENVELOPE PRESCRIPTIVE METHOD:

2021 WASHINGTON STATE ENERGY CODE (WAC 51-11R)
PRESCRIPTIVE COMPONENT TABLE R402.1.3 - ZONE 5 AND MARINE 4

LOCATION	INSULATION REQUIREMENTS
Fenestration ^{b,d} U-Factor	U=0.30 or Better
Skylight ^b U-Factor	U=0.50 or Better
Ceiling R-Value	R-60 or Better
Ceiling Vaulted ^e R-Value	R-38 or Better
Wood Frame Wall ^{b,i} R-Value	R-20+5ci or R-13+10ci or Better
Floor R-Value	R-30 or Better
Below-Grade ^{e,h} Wall R-Value	R-10/15/21 int + 5TB
Slab ^{d,f} R-Value and Depth	R-10, 4 FT.

For Sl: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.

- a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix A Table A101.4 of chapter 51-11C WAC shall not be less than the R-value specified in the table.
- b. The fenestration U-factor column excludes skylights.
- c. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
- d. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
- e. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- f. R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
- g. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
- h. Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.
- i. The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, R13+10" means R-13 cavity insulation plus R-10 continuous insulation.
- j. A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.

ENERGY CREDITS CODE COMPLIANCE NOTES:

2021 WASHINGTON STATE ENERGY CODE CHAPTER 4
ADDITIONAL ENERGY EFFICIENCY REQUIREMENT PER SECTION R406.2 & R406.3

PROJECT TO MEET "Small Dwelling Unit" REQUIREMENTS OF 5.0 CREDITS

FROM TABLE 406.2 ENERGY EQUALIZATION CREDITS:

TYPE 4: For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590 3.0 CREDITS

FROM TABLE 406.3 ENERGY CREDITS:

OPTION 2.1: AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 1.0 CREDITS
Compliance based on Section R402.4.1.2:
Reduce the tested air leakage to 2.0 air changes per hour maximum at 50 Pascals, or for R-2 Occupancies, optional compliance based on Section R402.4.1.2: Reduce the tested air leakage to 0.25 cfm/ft² maximum at 50 Pascals and

All whole house ventilation requirements as determined by Section M1505.3 of the International Residential Code or Section 403.8 of the International Mechanical Code shall be met with a heat recovery ventilation system with minimum sensible heat recovery efficiency of 0.65.

OPTION 3.3: HIGH EFFICIENCY HVAC 0.5 CREDITS
Air-source, centrally ducted heat pump with minimum (HSPF 9.5) HSPF2 8.5.

OPTION 7.1: APPLIANCE PACKAGE OPTION 0.5 CREDITS

All of the following appliances shall be new and installed in the dwelling unit and shall meet the following standards:

- 1) Dishwasher, standard - Energy Star rated, Most Efficient 2021 or Dishwasher, compact - Energy Star rated (Version 6.0)
- 2) Refrigerator (if provided) - Energy Star rated (Version 5.1)
- 3) Washing machine (Residential) - Energy Star rated (Version 8.1)
- 4) Dryer - Energy Star rated, Most Efficient 2022

NOTE: BUILDER TO COMPLETE AND POST THE BELOW "COMPLIANCE CERTIFICATE" AT DESIGNATED LOCATION FOR FINAL INSPECTION

CUT LINE

2018 WSEC Residential Energy Compliance Certificate (Effective February 1, 2021)

Property address: _____		
Builder/registered design professional name: _____		
Builder/reg. design pro. signature: _____		
Conditioned floor area: _____ ft ² (per building permit)		
R-Values (R303.1.1)		
Ceiling/ Vaulted R: _____	Floors: _____	Over unconditioned space R: _____
Attic: _____	Slab-on-grade floor R: _____	
Walls: Above grade R: _____	Fully insulated slab? Y/N (Circle one)	
Below, int. R: _____	Doors: R: _____, R: _____, R: _____	
Below, ext. R: _____		
U-Value of Windows, Skylights and Doors (R303.1.1.3)		
Average area weighted U-value from Glazing Worksheet Average U: _____		
Fuel Normalization (Tables R406.2) and Energy Credits (Table R406.3)		
System Type Number (1 to 5) _____ (Select one)		
Energy Credits selected (1 to 7) _____ = Total Credits _____		
Fuel Normalization Credit _____ + Total Energy Credits _____ = Total Credits _____		
Heating, Cooling and Domestic Hot Water		
System	Type (Manufacturer and Model Number)	Efficiency
Heating		
Cooling		
DHW		
Drain water heat recovery		
Onsite Renewable Energy Electric Power System		
System type	System design capacity	kW
Rated annual generation		kWh/yr
Appliances		
	Manufacturer and Model	Energy Star? (Circle one)
Dish washer		Y or N
Refrigerator		Y or N
Washer		Y or N
Dryer		Y or N
Vented or unvented? If vented, CEF rating _____		
Gas fireplace / heating stove (Section R402.4.2)	Fireplace efficiency (FE)	
Heating or Decorative? (Circle one)		

HVAC System Duct Leakage Testing (R403.3)		Circle one
All ductwork and air handler in conditioned space? (See Option 4.2)		Y or N
All ductwork in unconditioned spaces buried and tested at 3% total leakage, and air handler in conditioned space? (See Option 4.1)		Y or N
All ductwork & air handler outside conditioned space insulated to minimum R-8?		Y or N
Air handler present at duct leakage test? (Total leakage 4% if yes, 3% if no)		Y or N
HVAC leakage to outside test conducted at final?		Y or N
Do HVAC duct leakage tests include GPS and time stamp verification?		Y or N
HVAC system leakage test calculated design target:	_____ CFM @ 25 Pa	
HVAC system leakage test measured results:	_____ CFM @ 25 Pa	
Building Leakage Testing (R402.4.1.2)		
Dwelling unit leakage test calculated design target:	_____ ACH @ 50 Pa	
Dwelling unit leakage test, measured results:	_____ ACH @ 50 Pa	
Whole Building Leakage test (R2 corridor only) design target:	_____ CFMsf @ 50 Pa	
Whole Building Leakage test (R2 corridor only) measured:	_____ CFMsf @ 50 Pa	
Do building leakage tests include GPS and time stamp verification?		Y or N
Whole House Ventilation System Measured Flow Rates (M1505.4 IRC-WA)		
Circle one		
Are the system controls correctly labeled?		Y or N
The Whole House Ventilation (WHV) system operation and maintenance (O&M) instructions were provided to the building owner?		Y or N
Provided to: _____ on _____ (date)		
Whole House Ventilation System Type: (Circle one)		
(1) Whole house exhaust fan, location _____		
(2) Balanced HRV/ ERV, location _____		
For R2 low-rise, serves more than one unit?		Y or N
(3) Supply or HRV WHV integral to the air handler. Describe system control sequence of operations or reference to design submittal: _____		
Specify run-time: _____ hours per day		_____ CFM
WHV calculated design minimum flow rate per plan submittal: _____		
WHV measured min flow rate at commissioning: Exhaust _____ CFM, Supply _____ CFM		
Do WHV flow tests include GPS & time stamp verification?		Y or N
HRV/ERV sensible heat recovery efficiency: _____		
Commissioning Notes: _____		
Other Mandatory Requirements		
Circle one		
Other mandatory requirements of WSEC-R have been met?		Y or N

CUT LINE

Permit Set
Job # 24-028
Description _____ Date
Permit Intake _____ 10/07/24

Drawn:
Stamp/Approval:

Sheet Name:

ENERGY FORM

Sheet No:
T5.0

WHOLE HOUSE MECHANICAL VENTILATION (M1505.4):

EACH DWELLING UNIT SHALL BE EQUIPPED WITH A VENTILATION SYSTEM. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1505.4.1 THROUGH M1505.4.4.

M1505.4.1 SYSTEM DESIGN

THE WHOLE-HOUSE VENTILATION SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY FANS, ONE OR MORE EXHAUST FANS, OR AN ERV/HRV WITH INTEGRAL FANS, ASSOCIATED DUCTS AND CONTROLS. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM WITH SUPPLY AND EXHAUST FANS PER SECTIONS M1505.4.1.2, M1505.4.1.3, M1505.4.1.4, AND M1505.4.1.5. LOCAL EXHAUST FANS ARE PERMITTED TO SERVE AS PART OF THE WHOLE-HOUSE VENTILATION SYSTEM WHEN PROVIDED WITH THE PROPER CONTROLS PER SECTION M1505.4.2. THE SYSTEMS SHALL BE DESIGNED AND INSTALLED TO EXHAUST AND/OR SUPPLY THE MINIMUM OUTDOOR AIRFLOW RATES PER SECTION M1505.4.3 AS MODIFIED BY THE WHOLE-HOUSE VENTILATION SYSTEM COEFFICIENTS IN SECTION M1505.4.3.1 WHERE APPLICABLE. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY AT THE MINIMUM VENTILATION RATE DETERMINED PER SECTION M1505.4.2 UNLESS CONFIGURED WITH INTERMITTENT OFF CONTROLS PER SECTION M1505.4.3.2.

M1505.4.1.1 WHOLE-HOUSE SYSTEM COMPONENT REQUIREMENTS

WHOLE-HOUSE VENTILATION SUPPLY AND EXHAUST FANS SPECIFIED IN THIS SECTION SHALL HAVE A MINIMUM EFFICACY AS PRESCRIBED IN THE WASHINGTON STATE ENERGY CODE. DESIGN AND INSTALLATION OF THE SYSTEM OR EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. WHOLE-HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MINIMUM AIRFLOW RATE REQUIRED BY SECTION M1505.4.3.1. VENTILATION FANS SHALL BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN. W.C. (25 PA) STATIC PRESSURE IN ACCORDANCE WITH HWI PROCEDURES SPECIFIED IN SECTIONS M1505.4.1.2 AND M1505.4.1.3.

EXCEPTION: HVAC AIR HANDLERS, ERV/HRV UNITS, AND REMOTE MOUNTED FANS NEED NOT MEET THE SOUND REQUIREMENTS. TO BE CONSIDERED FOR THIS EXCEPTION, A REMOTE MOUNTED FAN MUST BE MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS, AND THERE MUST BE AT LEAST 4 FEET (1.3 M) OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE.

THE WHOLE-HOUSE SUPPLY FAN SHALL PROVIDE DUCTED OUTDOOR VENTILATION AIR TO EACH HABITABLE SPACE WITHIN THE RESIDENTIAL UNIT.

EXCEPTION: INTERIOR JOINING SPACES PROVIDED WITH A 30 CFM WHOLE-HOUSE TRANSFER FAN OR A PERMANENT OPENING WITH AN AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF THE INTERIOR ADJOINING SPACE BUT NOT LESS THAN 25 SQUARE FEET DO NOT REQUIRE DUCTED OUTDOOR VENTILATION AIR TO BE SUPPLIED DIRECTLY TO THE SPACE. WHOLE-HOUSE TRANSFER FANS SHALL MEET THE SONE RATING OF SECTION M1505.4.1.1 AND SHALL HAVE WHOLE-HOUSE VENTILATION CONTROLS THAT COMPLY WITH SECTION M1505.4.2.

M1505.4.1.2 EXHAUST FANS

EXHAUST FANS REQUIRED SHALL BE DUCTED DIRECTLY TO THE OUTSIDE. EXHAUST AIR OUTLETS SHALL BE DESIGNED TO LIMIT THE PRESSURE DIFFERENCE TO THE OUTSIDE AND EQUIPPED WITH BACKDRAFT DAMPERS OR MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. EXHAUST FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE (HWI 915, HWI LOUDNESS TESTING AND RATING PROCEDURE, HWI 916, HWI AIRFLOW TEST PROCEDURE, AND HWI 920, HWI PRODUCT PERFORMANCE CERTIFICATION PROCEDURE, AS APPLICABLE). EXHAUST FANS REQUIRED IN THIS SECTION MAY BE USED TO PROVIDE LOCAL VENTILATION. BATHROOM EXHAUST FANS THAT ARE DESIGNED FOR INTERMITTENT EXHAUST AIRFLOW RATES HIGHER THAN THE CONTINUOUS EXHAUST AIRFLOW RATES IN TABLE M1505.4.3.2 SHALL BE PROVIDED WITH OCCUPANCY SENSORS OR HUMIDITY SENSORS TO AUTOMATICALLY OVERRIDE THE FAN TO THE HIGH SPEED AIRFLOW RATE. THE EXHAUST FANS SHALL BE TESTED AND THE TESTING RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.6.

M1505.4.1.3 SUPPLY FANS

SUPPLY FANS USED IN MEETING THE REQUIREMENTS OF THIS SECTION SHALL SUPPLY OUTDOOR AIR FROM INTAKE OPENINGS IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE SECTIONS 401.4 AND 401.5. WHEN DESIGNED FOR INTERMITTENT OFF OPERATION, SUPPLY SYSTEMS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. SUPPLY FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE (HWI 915, HWI LOUDNESS TESTING AND RATING PROCEDURE, HWI 916, HWI AIRFLOW TEST PROCEDURE, AND HWI 920, HWI PRODUCT PERFORMANCE CERTIFICATION PROCEDURE, AS APPLICABLE). WHERE OUTDOOR AIR IS PROVIDED BY SUPPLY FAN SYSTEMS THE OUTDOOR AIR SHALL BE FILTERED. THE FILTER SHALL BE ACCESSIBLE FOR REGULAR MAINTENANCE AND REPLACEMENT. THE FILTER SHALL HAVE A MINIMUM EFFICIENCY RATING VALUE (MERV) OF AT LEAST 8.

M1505.4.1.4 BALANCED WHOLE-HOUSE VENTILATION SYSTEM

A BALANCED WHOLE-HOUSE VENTILATION SYSTEM SHALL INCLUDE BOTH SUPPLY AND EXHAUST FANS. THE SUPPLY AND EXHAUST FANS SHALL HAVE AIRFLOW THAT IS WITHIN 10 PERCENT OF EACH OTHER. THE TESTED AND BALANCED TOTAL MECHANICAL EXHAUST AIRFLOW RATE IS WITHIN 10 PERCENT OR 5 CFM, WHICHEVER IS GREATER, OF THE TOTAL MECHANICAL SUPPLY AIRFLOW RATE. THE FLOW RATE TEST RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.7. THE EXHAUST FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.1.2. THE SUPPLY FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.1.3. BALANCED VENTILATION SYSTEMS WITH BOTH SUPPLY AND EXHAUST FANS IN A PACKAGED PRODUCT, SUCH AS AN ERV/HRV SHALL MEET THE REQUIREMENTS OF HWI 920, AS APPLICABLE. LOCAL EXHAUST SYSTEMS THAT ARE NOT A COMPONENT OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM ARE EXEMPT FROM THE BALANCED AIRFLOW CALCULATION.

M1505.4.1.5 FURNACE INTEGRATED SUPPLY

SYSTEMS USING SPACE HEATING AND/OR COOLING AIR HANDLER FANS FOR OUTDOOR AIR SUPPLY DISTRIBUTION ARE NOT PERMITTED.

EXCEPTION: AIR HANDLER FANS SHALL HAVE MULTISPEED OR VARIABLE SPEED SUPPLY AIRFLOW CONTROL CAPABILITY WITH A LOW SPEED OPERATION NOT GREATER THAN 25 PERCENT OF THE RATED SUPPLY AIRFLOW CAPACITY DURING VENTILATION ONLY OPERATION. OUTDOOR AIR INTAKE OPENINGS MUST MEET THE PROVISIONS OF SECTIONS R303.5 AND R303.6 AND MUST INCLUDE A MOTORIZED DAMPER THAT IS ACTIVATED BY THE WHOLE-HOUSE VENTILATION SYSTEM CONTROLLER. THE MOTORIZED DAMPER MUST BE CONTROLLED TO MAINTAIN THE OUTDOOR AIRFLOW INTAKE AIRFLOW WITHIN 10 PERCENT OF THE WHOLE-HOUSE MECHANICAL EXHAUST AIRFLOW RATE. THE FLOW RATE FOR THE OUTDOOR AIR INTAKE MUST BE TESTED AND VERIFIED AT THE MINIMUM VENTILATION FAN SPEED AND THE MAXIMUM HEATING OR COOLING FAN SPEED. THE RESULTS OF THE TEST SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.7.

M1505.4.1.6 TESTING

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE TESTED, BALANCED AND VERIFIED TO PROVIDE A FLOW RATE NOT LESS THAN THE MINIMUM REQUIRED BY SECTIONS M1505.4.3 AND M1505.4.4.1. TESTING SHALL BE PERFORMED ACCORDING TO THE VENTILATION EQUIPMENT MANUFACTURER'S INSTRUCTIONS, OR

WHOLE HOUSE MECHANICAL VENTILATION (M1505.4):

BY USING A FLOW HOOD, FLOW GRID, OR OTHER AIRFLOW MEASURING DEVICE AT THE MECHANICAL VENTILATION FAN'S INLET TERMINALS, OUTLET TERMINALS OR GRILLES OR IN THE CONNECTED VENTILATION DUCTS. WHERE REQUIRED BY THE BUILDING OFFICIAL, TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING OFFICIAL AND BE POSTED IN THE DWELLING UNIT PER SECTION M1505.4.1.7.

M1505.4.1.7 CERTIFICATE

A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR, TEST AND BALANCE CONTRACTOR OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING, WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE FLOW RATE DETERMINED FROM THE DELIVERED AIRFLOW OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AS INSTALLED AND THE TYPE OF MECHANICAL WHOLE-HOUSE VENTILATION SYSTEM USED TO COMPLY WITH SECTION M1505.4.3.1.

M1505.4.2 SYSTEM CONTROLS

THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT COMPLY WITH THE FOLLOWING:

1. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL BE CONTROLLED WITH MANUAL SWITCHES, TIMERS OR OTHER MEANS THAT PROVIDE FOR AUTOMATIC OPERATION OF THE VENTILATION SYSTEM THAT ARE READILY ACCESSIBLE BY THE OCCUPANT;
2. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OFF OF THE SYSTEM BY THE OCCUPANT DURING PERIODS OF POOR OUTDOOR AIR QUALITY. CONTROLS SHALL INCLUDE PERMANENT TEXT OR A SYMBOL INDICATING THEIR FUNCTION. RECOMMENDED CONTROL PERMANENT LABELING TO INCLUDE TEXT SIMILAR TO THE FOLLOWING: "LEAVE ON UNLESS OUTDOOR AIR QUALITY IS VERY POOR." MANUAL CONTROLS SHALL BE READILY ACCESSIBLE BY THE OCCUPANT;
3. WHOLE-HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED IN ACCORDANCE WITH SECTION M1505.4.3.2.

M1505.4.3 MECHANICAL VENTILATION RATE

THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL PROVIDE OUTDOOR AIR AT A CONTINUOUS RATE AS DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3(1) OR EQUATION 15-1.

$$\text{EQUATION 15-1}$$

VENTILATION RATE IN CUBIC FEET PER MINUTE = $(0.01 \times \text{TOTAL SQUARE FOOT AREA OF HOUSE}) + [7.5 \times (\text{NUMBER OF BEDROOMS} + 1)]$ BUT NOT LESS THAN 30 CFM FOR EACH DWELLING UNIT.

TABLE M1505.4.3(1)

CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT FLOOR AREA (SQUARE FEET)	NUMBER OF BEDROOMS				
	0-1	2	3	4	5 OR MORE
	AIRFLOW IN CFM				
< 500	30	30	35	45	50
501-1,000	30	35	40	50	55
1,001-1,500	30	40	45	55	60
1,501-2,000	35	45	50	60	65
2,001-2,500	40	50	55	65	70
2,501-3,000	45	55	60	70	75
3,001-3,500	50	60	65	75	80
3,501-4,000	55	65	70	80	85
4,001-4,500	60	70	75	85	90
4,501-5,000	65	75	80	90	95

For SI: 1 square foot = 0.0929 m², 1 cubic foot per minute = 0.0004719 m³/s.

TABLE M1505.4.3(2)

SYSTEM COEFFICIENT (SYSTEM)

SYSTEM TYPE	DISTRIBUTED	NOT DISTRIBUTED
BALANCE	1.0	1.25
NOT BALANCED	1.25	1.5

M1505.4.3.2 INTERMITTENT OFF OPERATION

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE PROVIDED WITH ADVANCED CONTROLS THAT ARE CONFIGURED TO OPERATE THE SYSTEM WITH INTERMITTENT OFF OPERATION SHALL OPERATE FOR A LEAST TWO HOURS IN EACH FOUR-HOUR SEGMENT. THE WHOLE-HOUSE VENTILATION AIRFLOW RATE DETERMINED IN ACCORDANCE WITH SECTION M1505.4.3 AS CORRECTED BY SECTION M1505.4.3.1 IS MULTIPLIED BY THE FACTOR DETERMINED IN ACCORDANCE WITH TABLE M1505.4.3.2.

TABLE M1505.4.3.2

INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS^{a, b}

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
FACTOR ^c	2	1.5	1.3	1.0

- For ventilation system run time values between those given, the factors are permitted to be determined by interpolation.

- Extrapolation beyond the table is prohibited.

M1505.4.4 LOCAL EXHAUST RATES

LOCAL EXHAUST SYSTEMS SHALL BE DESIGNED TO HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE M1505.4.4(1). IF THE LOCAL EXHAUST FAN IS INCLUDED IN THE WHOLE-HOUSE VENTILATION SYSTEM, IN ACCORDANCE WITH SECTION 1505.4.1, THEN THE EXHAUST FAN SHALL BE CONTROLLED TO OPERATE AS SPECIFIED IN SECTION M1505.4.2.

TABLE M1505.4.4(1)

MINIMUM REQUIRED LOCAL EXHAUST RATES FOR ONE- AND TWO-FAMILY DWELLINGS

AREA TO BE EXHAUSTED	EXHAUST RATES	
	INTERMITTENT	CONTINUOUS
KITCHEN	100 CFM	30 CFM
BATHROOM - TOILET ROOMS	50 CFM	20 CFM

NOTE: REFER TO TABLE M1505.4.4(2) FOR PRESCRIPTIVE EXHAUST DUCT SIZING.

EMERGENCY ESCAPE AND RESCUE:

ONE WINDOW (OR DOOR) IN THE BASEMENT, A HABITABLE ATTIC, AND IN EACH BEDROOM, MUST MEET THESE REQUIREMENTS (IRC R310):

- THE MINIMUM NET CLEAR OPEN AREA IS 5.7 SQUARE FEET, (HOWEVER, OPENINGS AT GRADE FLOOR MAY BE A MINIMUM OF 5 SQUARE FEET).

- THE MINIMUM CLEAR OPEN WIDTH IS 20"

- THE MINIMUM CLEAR OPEN HEIGHT IS 24"

- THE MAXIMUM ALLOWED SILL HEIGHT IS 44"

- THE INSIDE OF THE WINDOW WELLS MUST BE A MINIMUM OF 9 SQUARE FEET IN AREA, WITH A MINIMUM 3" WIDTH, AND MUST ALLOW THE WINDOW TO OPEN ALL THE WAY. A LADDER IS REQUIRED IF THE BOTTOM OF THE WINDOW WELL IS MORE THAN 44" BELOW THE ADJACENT GROUND.

- WINDOW OPENING CONTROL DEVICES CANNOT BE LOCATED MORE THAN 70" ABOVE THE FINISHED FLOOR.

SAFETY GLAZING FOR DOORS & WINDOWS:

SAFETY GLAZING IS GENERALLY REQUIRED AS FOLLOWS (IRC R308.4):

- GLAZING IN OR WITHIN 24" OF THE ARC OF A DOOR.

- GLAZING CLOSE TO THE FLOOR.

- GLAZING ADJACENT TO STAIRS AND STAIR LANDINGS.

- GLAZING NEAR WET FLOOR SURFACES.

ROOF VENTILATION:

VENTILATION IS REQUIRED ON THE COLD SIDE OF ATTIC/ROOF INSULATION (IRC R806). SEE IRC R806.5 FOR UNVENTED ROOF CONSTRUCTION REQUIREMENTS

- THE VENTILATION OPENINGS MUST HAVE AT LEAST 1 SQUARE FOOT OF VENTING PER 150 SQUARE FEET OF AREA BEING VENTED. THIS CAN BE REDUCED TO 1 SQUARE FOOT OF VENTING PER 300 SQUARE FEET OF AREA TO BE VENTED IF YOU PROVIDE VENTILATORS IN THE UPPER PORTION OF THE AREA TO BE VENTED.

- THE VENT MUST HAVE AT LEAST 1" OF AIR SPACE ABOVE THE ROOF INSULATION.

- CROSS-VENTILATION IS REQUIRED.

ATTIC ACCESS:

ATTIC ACCESS (IRC R807).

- THE ATTIC OPENING MUST BE AT LEAST 22" X 30".

- THE ATTIC HEADROOM MUST BE AT LEAST 30" AT THE ACCESS POINT TO THE ATTIC.

CRAWL SPACE VENTILATION:

VENTILATION IS REQUIRED IN CRAWLSPACE (IRC R408).

- CROSS-VENTILATION IS REQUIRED IN CRAWL SPACES. (SEE ALSO SRC R317.1 FOR CRAWL SPACE CLEAR HEIGHTS: 18" MINIMUM FOR JOISTS; 12" MINIMUM FOR WOOD GIRDERS WITHOUT PRESSURE TREATING.)

- THE MINIMUM AREA OF CROSS-VENTILATION OPENINGS IS 1 SQUARE FOOT PER 300 SQUARE FEET OF CRAWL SPACE AREA.

CRAWL SPACE ACCESS:

CRAWLSPACE ACCESS (IRC R408.4).

- THE MINIMUM CRAWL SPACE ACCESS OPENING IS 24" X 18" THROUGH A FLOOR OR 24" X 16" THROUGH THE WALL.

FIRE & DRAFTSTOPS:

(IRC R302.11 AND I302.12)

- FIREBLOCKING AND DRAFT STOPS ARE REQUIRED IN FLOORCEILINGASSEMBLIES SO THAT THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET.

- FIRE BLOCKS ARE REQUIRED BETWEEN CONNECTED, CONCEALED SPACES PER R302.11.

ROOM DIMENSION REQUIREMENTS:

(IRC R304 AND R305):

- THE REQUIRED CEILING HEIGHT IS 7'-0" MINIMUM FOR HABITABLE SPACES. THE MINIMUM CEILING HEIGHT FOR BATHROOMS, LAUNDRY ROOMS, BASEMENTS AND HALLWAYS IS 6 FEET 8 INCHES.

- ROOMS WITH SLOPED CEILINGS MUST MEET THE MINIMUM HEIGHT FOR AT LEAST 50% OF THE AREA (AREAS WITH CEILINGS LESS THAN 5' HIGH DON'T COUNT TOWARDS THE MINIMUM REQUIRED ROOM AREA).

- WHEN A BATHROOM HAS A SLOPING CEILING, A MINIMUM 6'-8" HEIGHT AT THE CENTER LINE OF BATHROOM FIXTURES IS REQUIRED.

- HABITABLE ROOMS SHALL BE NOT LESS THAN 70 SQUARE FEET (EXCEPT KITCHENS).

- HABITABLE ROOMS SHALL NOT BE LESS THAN 7'-0" IN ANY HORIZONTAL DIRECTION (NOT REQUIRED FOR CLOSETS, STORAGE, KITCHENS OR UTILITY ROOMS).

BUILDING SEPARATION REQUIREMENTS:

FOR WALLS, OPENINGS AND EAVES CLOSE TO THE PROPERTY LINE YOU NEED TO FOLLOW THESE SEPARATION REQUIREMENTS (IRC R302.1):

- A ONE-HOUR FIRE-RATED WALL IS REQUIRED IF THE WALL IS LESS THAN 5' FROM THE PROPERTY LINE. (CARPORT POSTS DEFINE AN EXTERIOR WALL, AND THE SPACE BETWEEN POSTS IS CONSIDERED AN OPENING.) SEE THE DESCRIPTION IN THE ADJACENT BOX FOR A TYPICAL ONE HOUR RATED WALL.

- NO OPENINGS (DOORS AND WINDOWS) ARE ALLOWED IN WALLS LESS THAN 3' FROM THE PROPERTY LINE.

- OPENINGS IN THE WALL CAN'T EXCEED 25% OF THE TOTAL WALL AREA OF THE STORY IN WALLS THAT ARE 3' TO 5' FROM THE PROPERTY LINE.

- EAVES ARE NOT ALLOWED TO BE CLOSER THAN 2' TO THE PROPERTY LINE.

- UNDER-EAVE OR SOFFIT VENTS ARE NOT ALLOWED IN EAVES LESS THAN 5' FROM THE PROPERTY LINE; INSTEAD, SOLID BLOCKING IS REQUIRED FROM THE TOP OF THE WALL FRAMING TO THE ROOF SHEATHING.

GARAGE FIRE SEPARATION REQUIREMENT:

(IRC R302.5.1 AND TABLE R302.6):

- 1/2" REGULAR GYPSUM BOARD (ON THE GARAGE SIDE) IS REQUIRED AT WALLS SEPARATING THE GARAGE FROM THE DWELLING, INCLUDING GARAGES LESS THAN 3' FROM A DWELLING UNIT ON THE SAME LOT.

- WHEN A DWELLING IS ABOVE A GARAGE, THE GARAGE CEILINGS MUST BE COVERED WITH 5/8" TYPE X GYPSUM BOARD. THE STRUCTURE SUPPORTING THE DWELLING UNIT (WALLS, BEAMS AND POSTS) MUST BE COVERED WITH 1/2" REGULAR GYPSUM BOARD.

- DOORS BETWEEN A GARAGE AND A DWELLING MUST BE 1-3/8" THICK (MINIMUM) SOLID WOOD OR STEEL (SOLID OR HONEY-COMB CORE), OR BE A 20-MINUTE FIRE-RATED DOOR. THE DOOR MUST ALSO BE SELF-CLOSING.

- NO FIRE SEPARATION IS REQUIRED BETWEEN A CARPORT AND DWELLING UNIT. (CARPORTS HAVE AT LEAST TWO OPEN SIDES WITH NO PORTION OF THE DWELLING LOCATED ABOVE. SEE R309.2).

STAIR REQUIREMENTS:

STAIRS MUST MEET THE FOLLOWING REQUIREMENTS (IRC R311.7).

- MINIMUM OF 36" CLEAR WIDTH.

- MAXIMUM OF 7-3/4" RISER (HEIGHT OF EACH STEP).

- MINIMUM OF 10" TREAD DEPTH (A TREAD NOSING MAY BE REQUIRED).

- MINIMUM OF 6'-8" HEADROOM CLEAR.

- HANDRAIL WITH A 34"-38" HEIGHT.

- HANDRAIL GRASPING DIMENSION OF AT LEAST 1-1/4" AND NO MORE THAN 2".

- WINDING STAIR TREADS: EACH STEP MUST BE AT LEAST 10" MEASURED 12" FROM THE NARROWEST POINT AND AT LEAST 6" AT THE NARROWEST POINT.

GUARDRAILS & WINDOW FALL PROTECTION:

GUARDRAILS MUST MEET THE FOLLOWING REQUIREMENTS (IRC R312).

- A GUARD (GUARDRAIL) IS REQUIRED FOR WALKING SURFACES 30" ABOVE ADJACENT GRADE OR FLOOR.

- MINIMUM OF 36" FOR THE GUARD HEIGHT.

- MAXIMUM OF 4" CLEAR SPACE BETWEEN INTERMEDIATE RAILS IN GUARDS.

- FALL PROTECTION IS REQUIRED FROM OPERABLE WINDOWS MORE THAN 6 FEET ABOVE GRADE, WHEN LOWEST EDGE OF WINDOW OPENING IS WITHIN 24" OF FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED.

SMOKE ALARM:

THE FOLLOWING RULES APPLY FOR SMOKE ALARMS (IRC R314).

- YOU MUST INSTALL SMOKE ALARMS IN NEW CONSTRUCTION AND EXISTING DWELLING UNITS.

- THE ALARMS MUST BE POWERED BY INTERCONNECTED BUILDING WIRING, AND HAVE BATTERY BACK-UP IN NEW CONSTRUCTION AND NEW ADDITIONS.

- SMOKE ALARMS MAY BE BATTERY-POWERED IF YOU ARE ALTERING OR REPAIRING A DWELLING UNIT, EXCEPT WHEN YOU CAN INSTALL INTERCONNECTED BUILDING WIRING WITHOUT REMOVING THE INTERIOR FINISHES.

- ALARMS ARE REQUIRED IN SLEEPING ROOMS, OUTSIDE SLEEPING AREAS, AND ON OTHER FLOORS (INCLUDING BASEMENTS). AN ALARM OUTSIDE OF THE BEDROOMS MUST BE CLEARLY AUDIBLE IN THE BEDROOMS. SHOW THE ALARM LOCATION ON YOUR PLANS.

- HEAT ALARM: A HEAT DETECTOR OR HEAT ALARM RATED FOR AMBIENT OUTDOOR TEMPERATURES AND HUMIDITY IS REQUIRED FOR NEW GARAGES ATTACHED TO OR LOCATED UNDER NEW OR EXISTING DWELLINGS.

CARBON MONOXIDE ALARM:

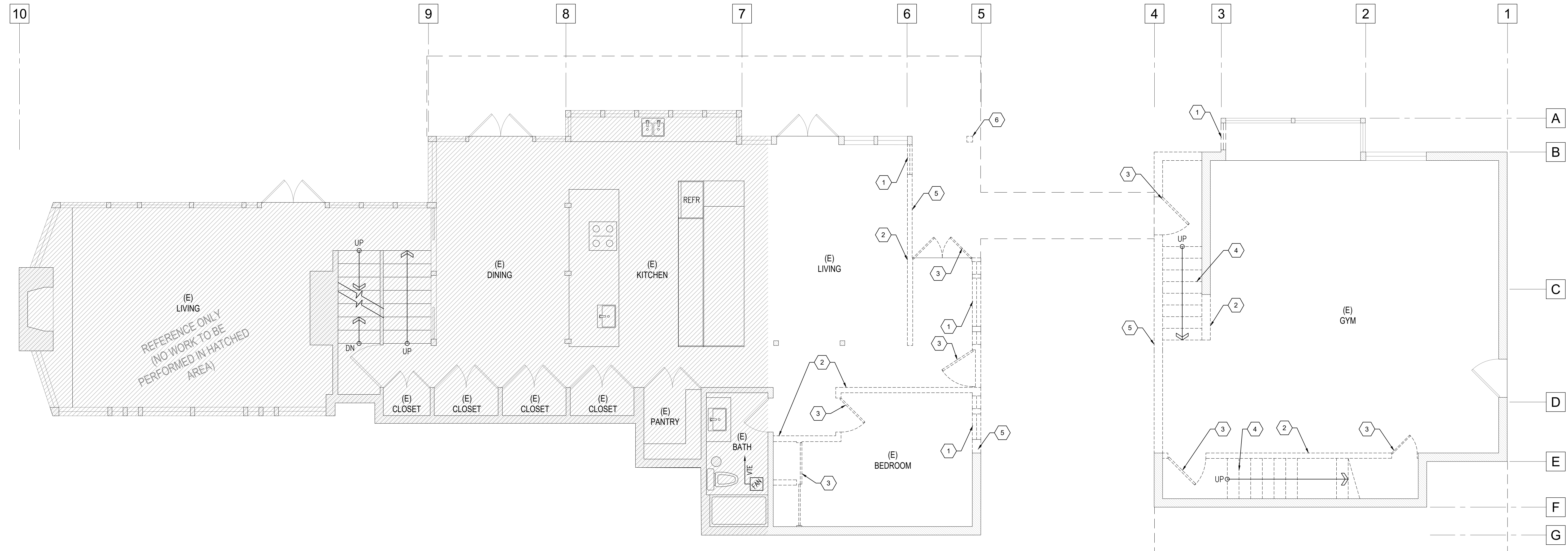
INSTALL CARBON MONOXIDE ALARMS ACCORDING TO THESE REQUIREMENTS (SEE IRC R315)

- YOU MUST INSTALL CARBON MONOXIDE ALARMS IN NEW CONSTRUCTION AND IN EXISTING DWELLING UNITS.

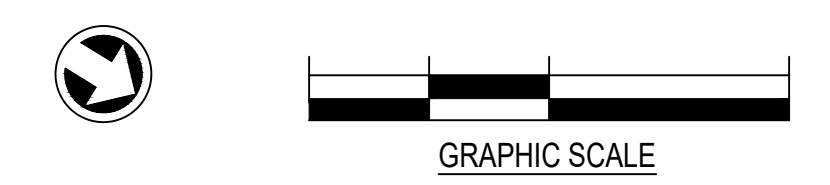
- CARBON MONOXIDE ALARMS ARE REQUIRED OUTSIDE SLEEPING AREAS, AND ON ALL FLOORS (INCLUDING BASEMENTS). SHOW THE ALARM LOCATION(S) ON YOUR PLANS



TAM



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



- 1 REMOVE (E) WINDOW, & WINDOW FRAME, TYP.
- 2 REMOVE (E) WALL. PATCH WALLS TO REMAIN AS REQUIRED.
- 3 REMOVE (E) DOOR & DOOR FRAME, TYP.
- 4 DEMO (E) STAIRS.
- 5 DEMO (E) EXTERIOR WALL & PREPARE FOR ADDITION FRAMING PER PLAN A/A2.1.
- 6 REMOVE (E) COLUMN, SHORE STRUCTURE AS REQUIRED FOR DEMO.

LEGEND

(E) 2x WALL CONSTRUCTION.
 EXISTING CONSTRUCTION TO BE REMOVED.

(E) DOOR TO BE SALVAGED OR REMOVED
 (E) DOOR TO REMAIN

(E) WINDOW TO BE SALVAGED OR REMOVED
 (E) WINDOW TO REMAIN

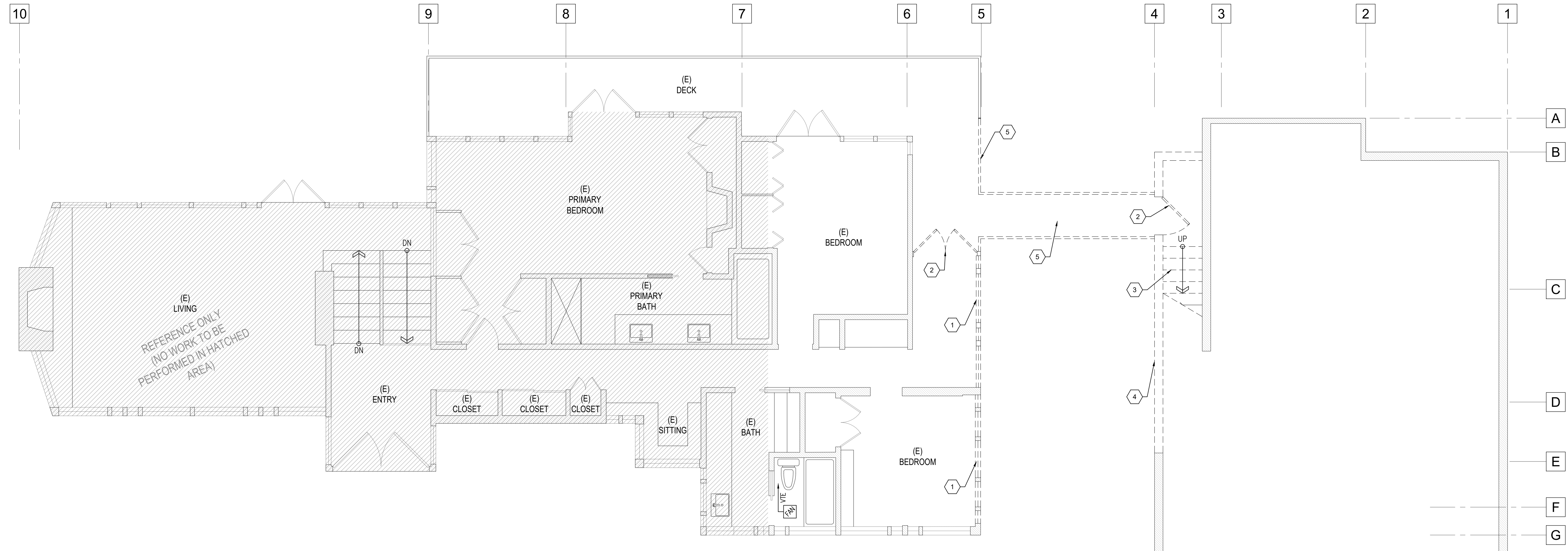
(E) INDICATES EXISTING FIXTURE

Permit Set	
Job # 24-028	
Description	Date
Permit Intake	10/07/24

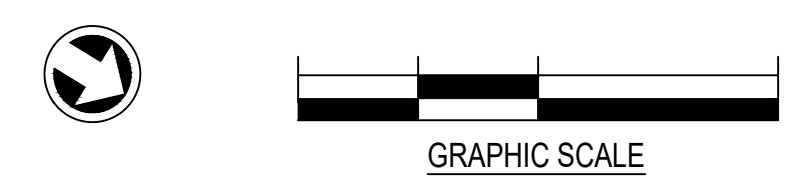
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BASEMENT DEMO PLAN

Sheet No:
A1.1



A 1ST FLOOR DEMO PLAN
 SCALE: 1/4"=1'-0"



- 1 REMOVE (E) WINDOW, & WINDOW FRAME, TYP.
- 2 REMOVE (E) DOOR & DOOR FRAME, TYP.
- 3 DEMO (E) STAIRS.
- 4 DEMO (E) EXTERIOR WALL & PREPARE FOR ADDITION FRAMING PER PLAN A/A2.1.
- 5 DEMO & REMOVE (E) DECK PORTION & BRIDGE TO RECONFIGURE PER PLAN A/A2.2. SHORE STRUCTURE AS REQUIRED FOR DEMO.

LEGEND

(E) 2x WALL CONSTRUCTION.
 EXISTING CONSTRUCTION TO BE REMOVED.

(E) DOOR TO BE SALVAGED OR REMOVED (E) DOOR TO REMAIN
 (E) WINDOW TO BE SALVAGED OR REMOVED (E) WINDOW TO REMAIN

(E) INDICATES EXISTING FIXTURE

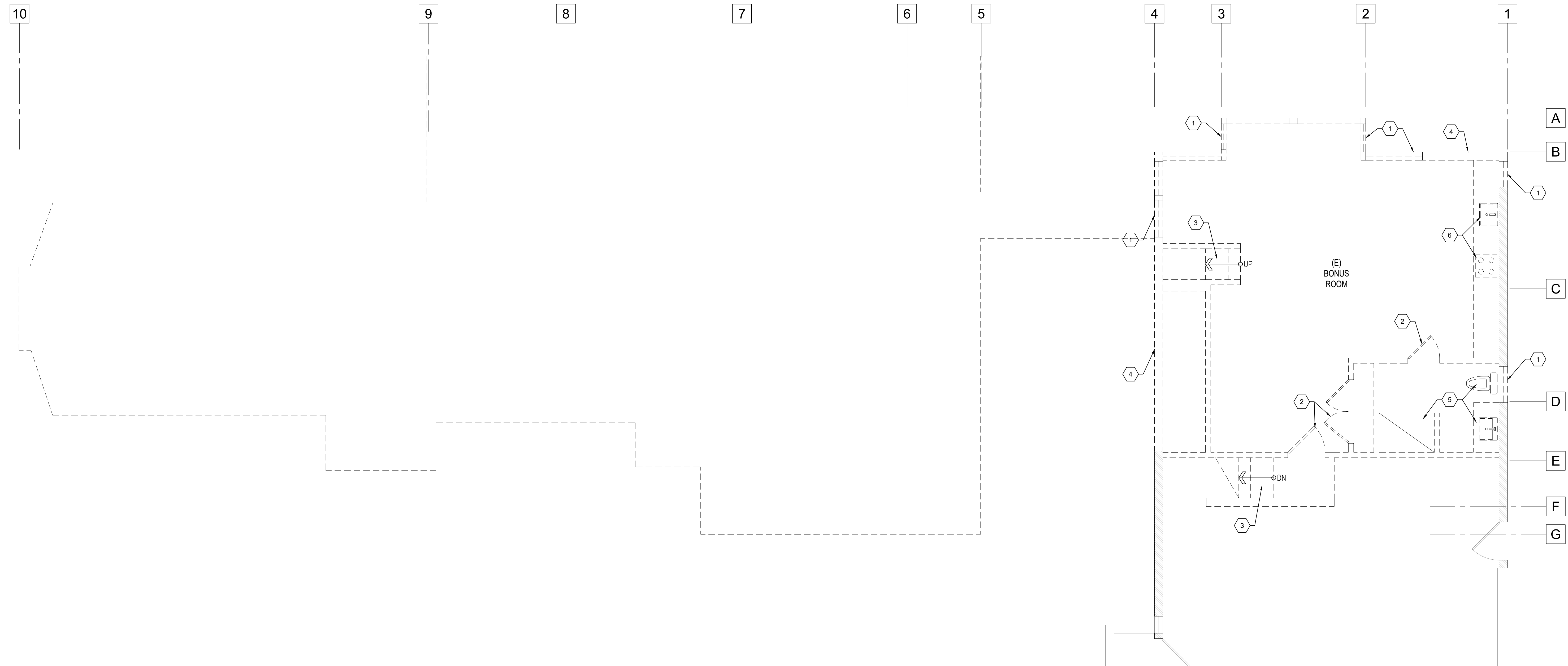
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Description	Date
Permit Intake	10/07/24

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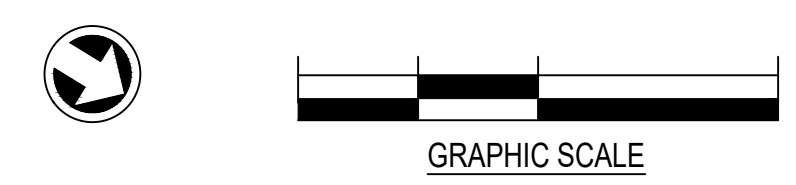
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1ST FLOOR DEMO PLAN

Sheet No:
A1.2

TAM CEM - RESIDENCE
 Addition & Alteration
 4215 Holly Ln, Mercer Island, WA 98040



A 2ND FLOOR DEMO PLAN
 SCALE: 1/4"=1'-0"



- 1 REMOVE (E) WINDOW, & WINDOW FRAME, TYP.
- 2 REMOVE (E) DOOR & DOOR FRAME, TYP.
- 3 DEMO (E) STAIRS.
- 4 DEMO (E) EXTERIOR WALL & PREPARE FOR ADDITION FRAMING PER PLAN A/A2.1.
- 5 REMOVE (E) SHOWER, SINK, TOILET, ALL BATH ACCESSORIES & FINISHES.
- 6 REMOVE (E) SINK, APPLIANCES & KITCHEN CABINETRY & PREPARE ELECTRICAL, PLUMBING & VENTING FOR NEW LAYOUT PER A/A2.0.

LEGEND

==== (E) 2x WALL CONSTRUCTION.

----- EXISTING CONSTRUCTION TO BE REMOVED.

(E) DOOR TO BE SALVAGED OR REMOVED

(E) DOOR TO REMAIN

(E) WINDOW TO BE SALVAGED OR REMOVED

(E) WINDOW TO REMAIN

(E) INDICATES EXISTING FIXTURE

Permit Set	
Job # 24-028	
Description	Date
Permit Intake	10/07/24

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2ND FLOOR DEMO PLAN

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A1.3

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Job # 24-028	
Description	Date
Permit Intake	10/07/24

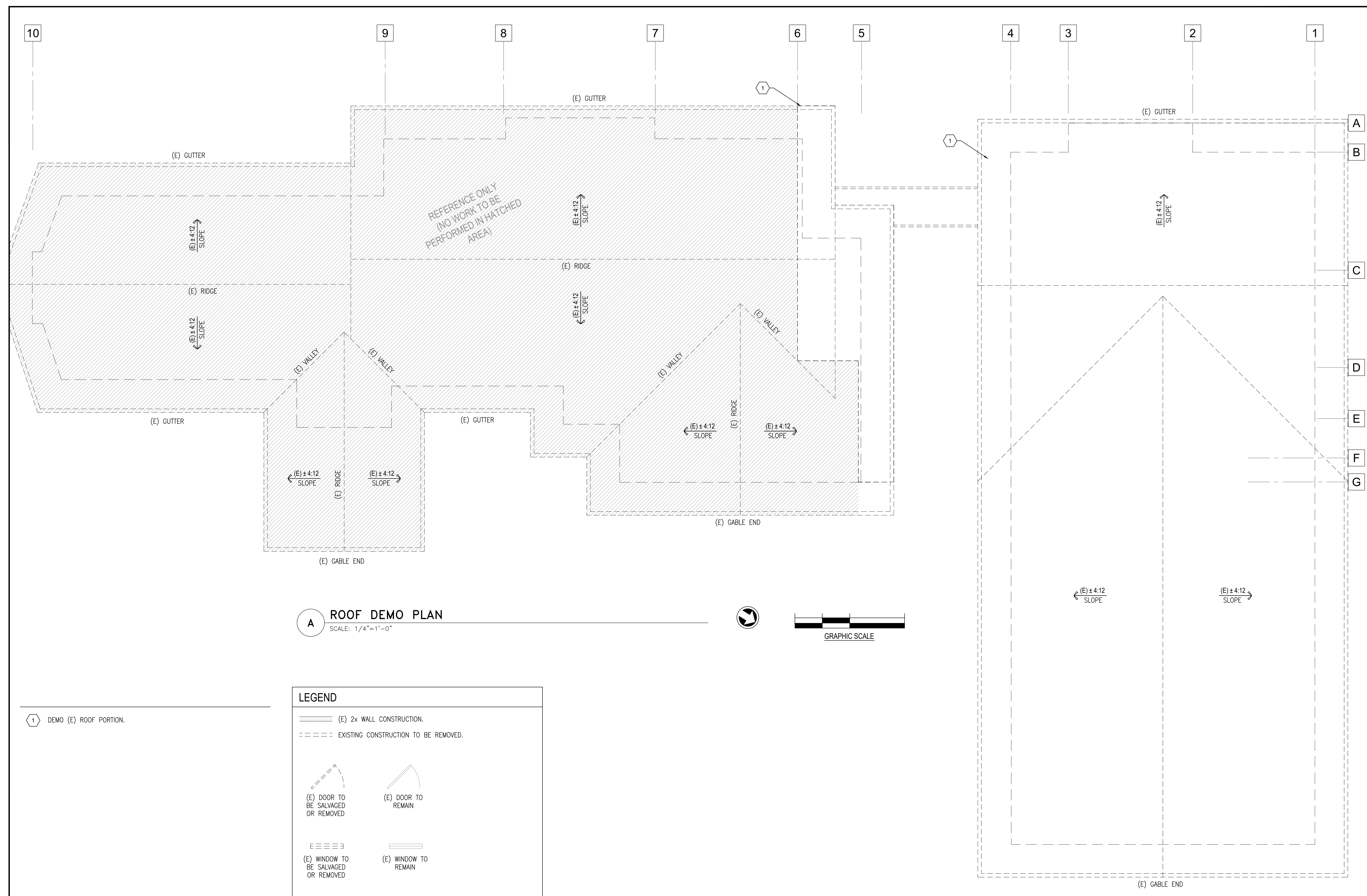
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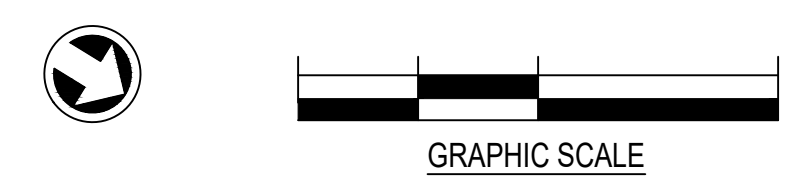
ROOF DEMO PLAN

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A1.4



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



LEGEND

	(E) 2x WALL CONSTRUCTION.
	EXISTING CONSTRUCTION TO BE REMOVED.
	(E) DOOR TO BE SALVAGED OR REMOVED
	(E) DOOR TO REMAIN
	(E) WINDOW TO BE SALVAGED OR REMOVED
	(E) WINDOW TO REMAIN
(E)	INDICATES EXISTING FIXTURE

DEMO (E) ROOF PORTION.

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Job # 24-028	
Description	Date
Permit Intake	10/07/24

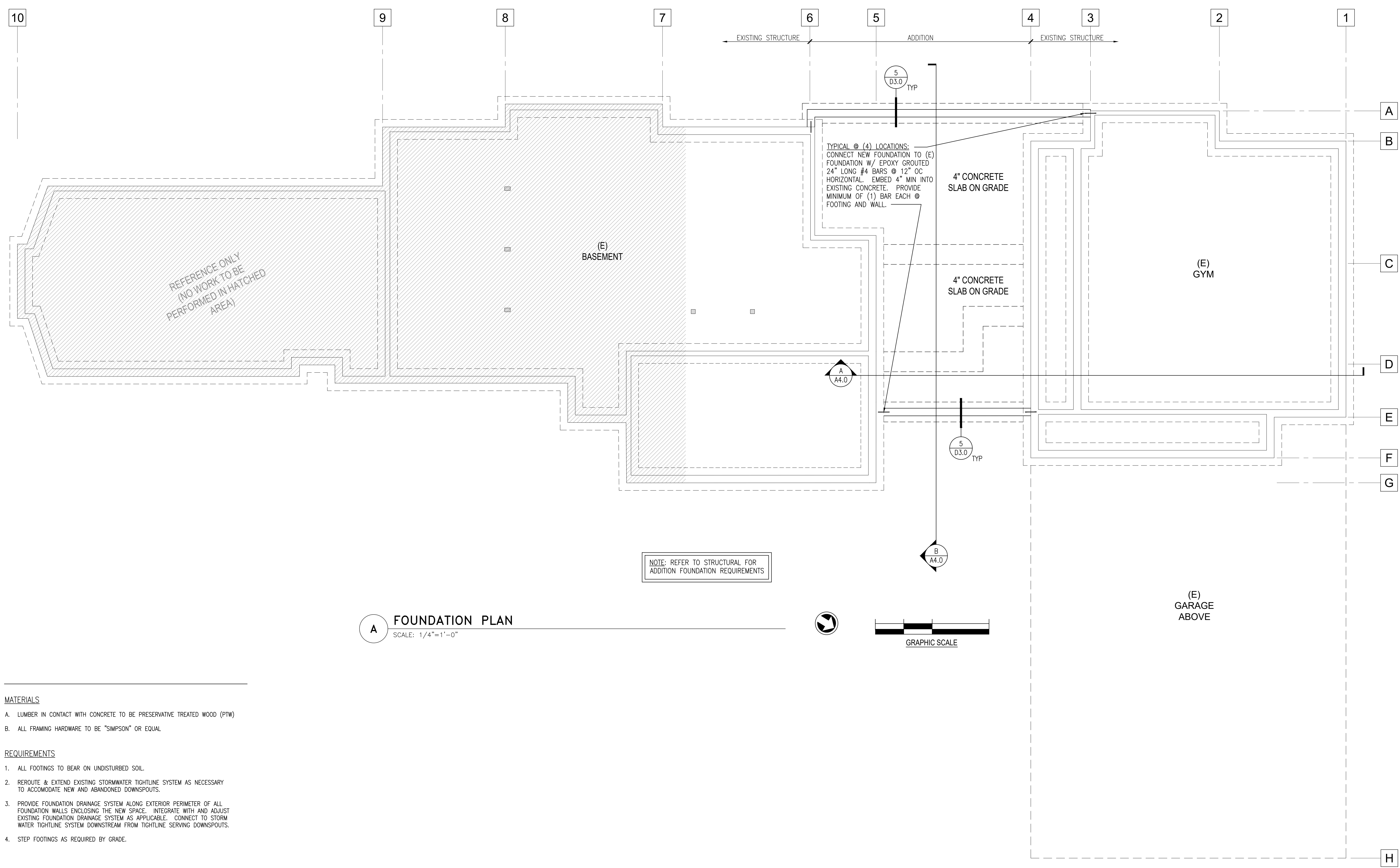
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FOUNDATION PLAN

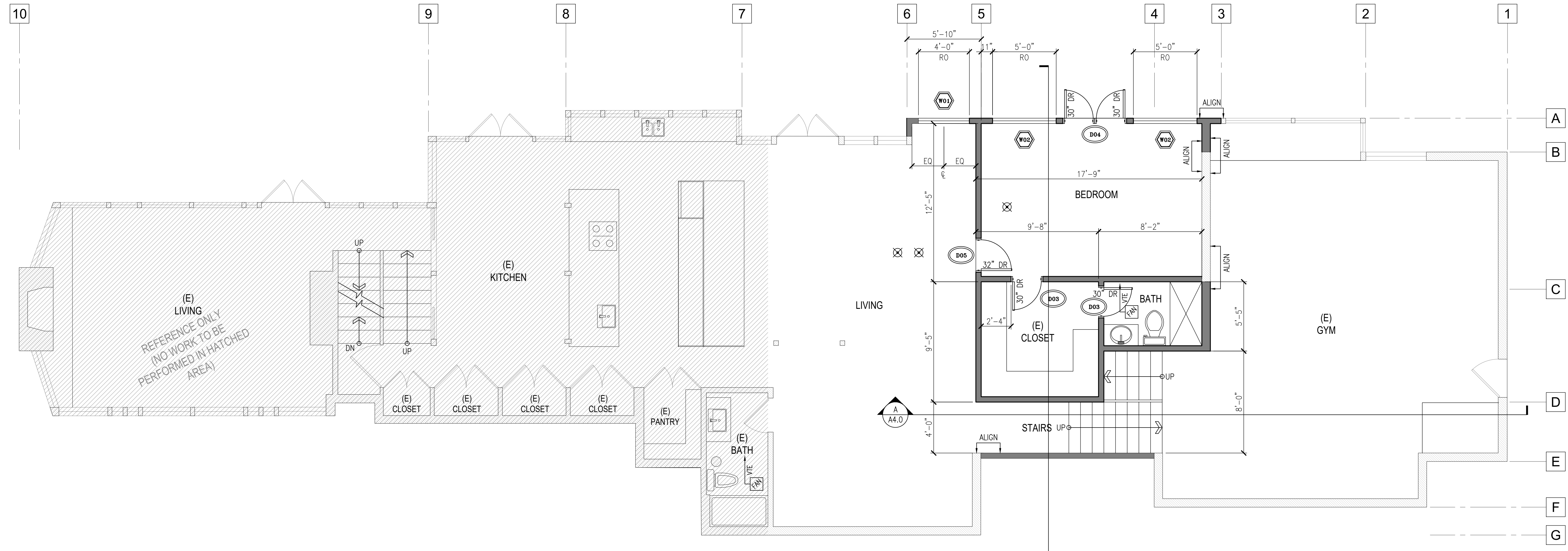
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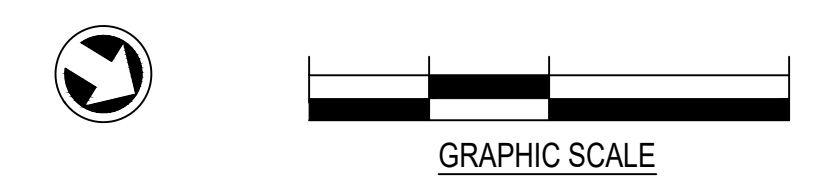
A FOUNDATION PLAN
 SCALE: 1/4"=1'-0"

- MATERIALS**
- A. LUMBER IN CONTACT WITH CONCRETE TO BE PRESERVATIVE TREATED WOOD (PTW)
 - B. ALL FRAMING HARDWARE TO BE "SIMPSON" OR EQUAL
- REQUIREMENTS**
1. ALL FOOTINGS TO BEAR ON UNDISTURBED SOIL.
 2. REROUTE & EXTEND EXISTING STORMWATER TIGHTLINE SYSTEM AS NECESSARY TO ACCOMMODATE NEW AND ABANDONED DOWNSPOUTS.
 3. PROVIDE FOUNDATION DRAINAGE SYSTEM ALONG EXTERIOR PERIMETER OF ALL FOUNDATION WALLS ENCLOSING THE NEW SPACE. INTEGRATE WITH AND ADJUST EXISTING FOUNDATION DRAINAGE SYSTEM AS APPLICABLE. CONNECT TO STORM WATER TIGHTLINE SYSTEM DOWNSTREAM FROM TIGHTLINE SERVING DOWNSPOUTS.
 4. STEP FOOTINGS AS REQUIRED BY GRADE.



NOTE: REFER TO STRUCTURAL FOR ADDITION FLOOR FRAMING REQUIREMENTS

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



LEGEND

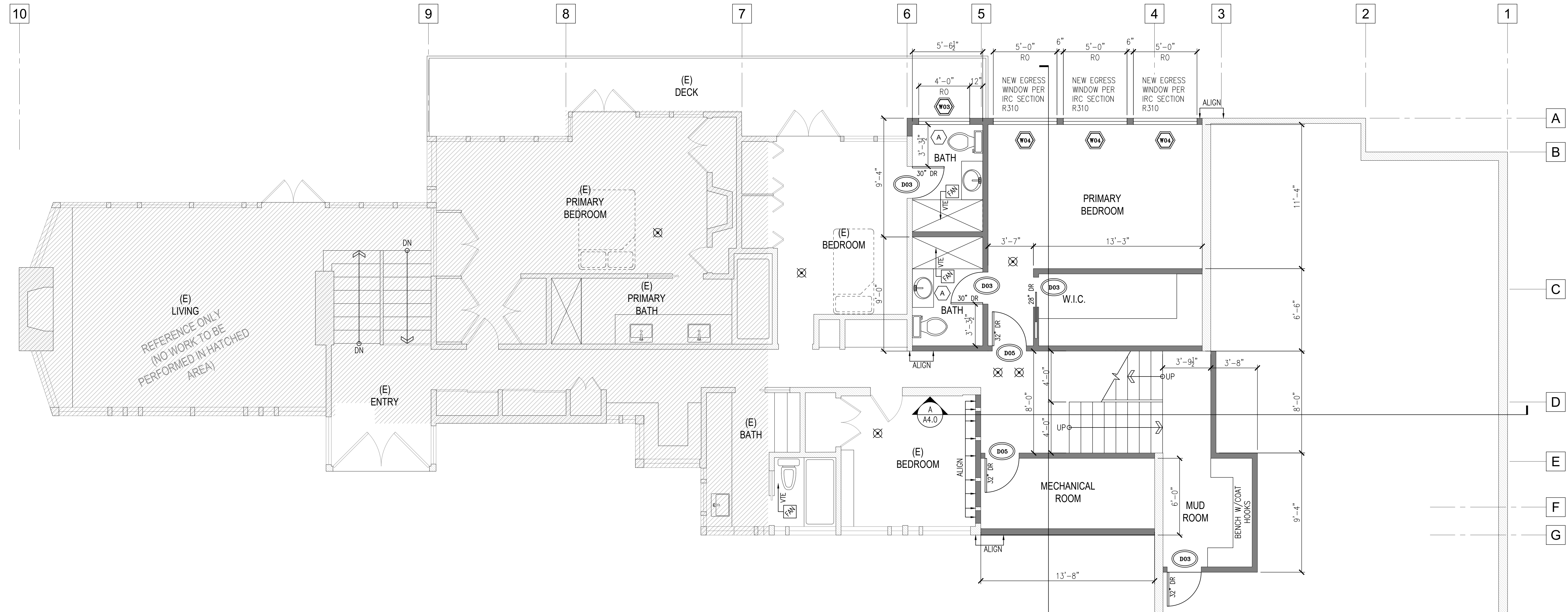
(E) 2x WALL CONSTRUCTION.	SMOKE DETECTOR (IRC - SECTION R314)
2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).	CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
2x4 INTERIOR WALL CONSTRUCTION.	EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VIE).
(E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.	(E) INDICATES EXISTING FIXTURE
INFILL WALL TO MATCH EXISTING ASSEMBLY.	
DOOR SIZE: 30" DR, DOOR NUMBER: D03. NEW OR RELOCATED DOOR.	(E) DOOR TO REMAIN.
DOOR NUMBER: D03. SEE DOOR SCHEDULE.	(E) DOOR TO MATCH EXISTING UNO.
WINDOW NUMBER: W01. NEW OR RELOCATED WINDOW.	(E) WINDOW TO REMAIN.
WINDOW NUMBER: W01. SEE WINDOW SCHEDULE.	

Permit Set
 Job # 24-028
 Description
 Permit Intake Date 10/07/24

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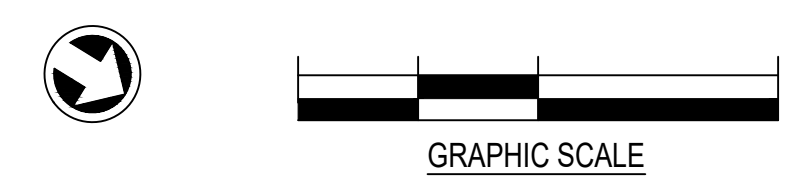
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BASEMENT FLOOR PLAN

Sheet No:
A2.1



NOTE: REFER TO STRUCTURAL FOR ADDITION FLOOR FRAMING REQUIREMENTS

A 1ST FLOOR PLAN
SCALE: 1/4"=1'-0"



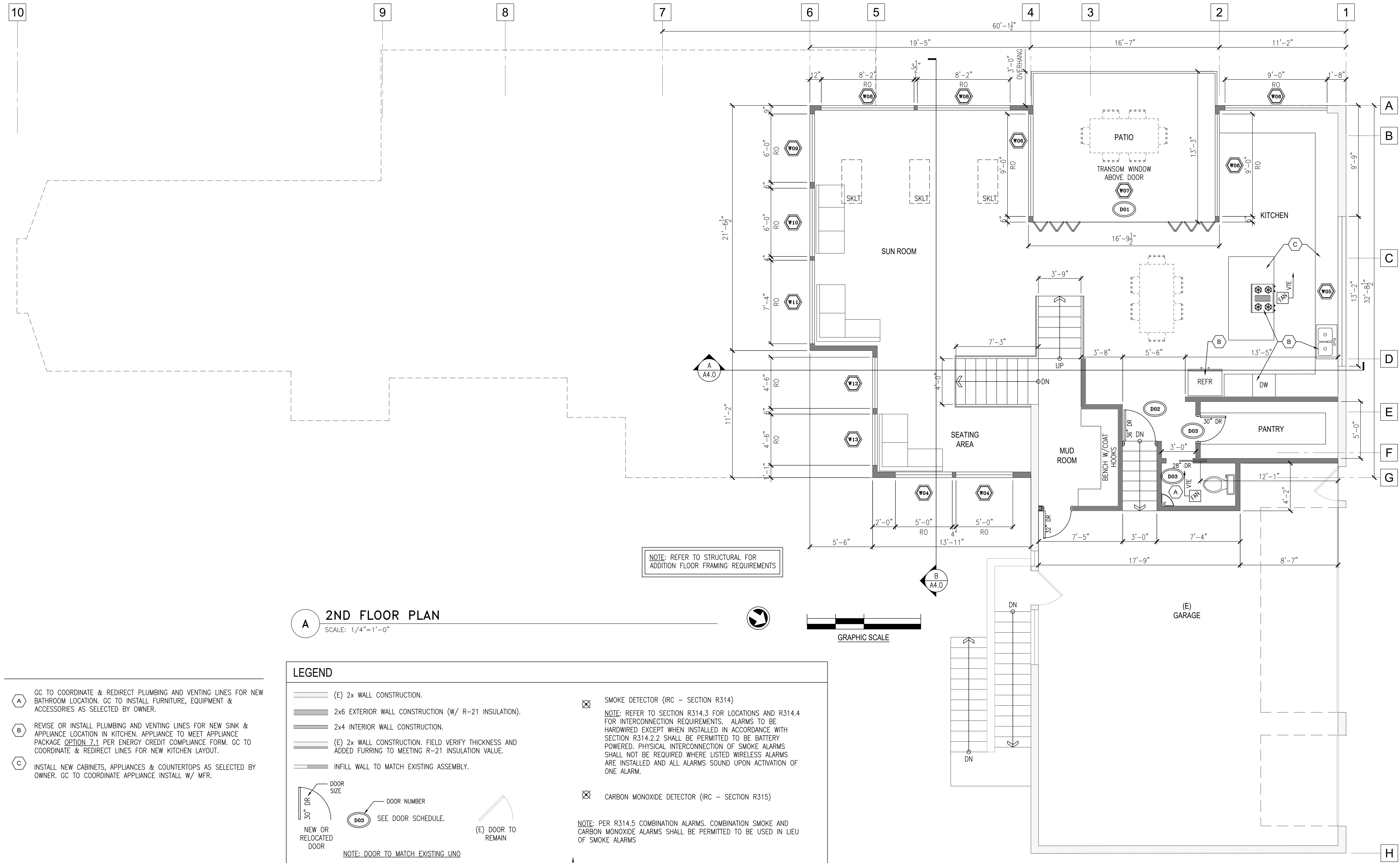
- A** GC TO COORDINATE & REDIRECT PLUMBING AND VENTING LINES FOR NEW BATHROOM LOCATION. GC TO INSTALL FURNITURE, EQUIPMENT & ACCESSORIES AS SELECTED BY OWNER.
- B** REVISE OR INSTALL PLUMBING AND VENTING LINES FOR NEW SINK & APPLIANCE LOCATION IN KITCHEN. GC TO COORDINATE & REDIRECT LINES FOR NEW KITCHEN LAYOUT.
- C** INSTALL NEW CABINETS, APPLIANCES & COUNTERTOPS AS SELECTED BY OWNER. GC TO COORDINATE APPLIANCE INSTALL W/ MFR.

LEGEND

(E) 2x WALL CONSTRUCTION.	SMOKE DETECTOR (IRC - SECTION R314)
2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).	CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
2x4 INTERIOR WALL CONSTRUCTION.	NOTE: PER R314.5 COMBINATION ALARMS. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS
(E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.	EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VIE).
INFILL WALL TO MATCH EXISTING ASSEMBLY.	(E) INDICATES EXISTING FIXTURE

	DOOR SIZE		DOOR NUMBER		(E) DOOR TO REMAIN
	NEW OR RELOCATED DOOR		SEE DOOR SCHEDULE.		
NOTE: DOOR TO MATCH EXISTING UNO					
	WINDOW NUMBER		SEE WINDOW SCHEDULE.		(E) WINDOW TO REMAIN
	NEW OR RELOCATED WINDOW				

H



NOTE: REFER TO STRUCTURAL FOR ADDITION FLOOR FRAMING REQUIREMENTS

A 2ND FLOOR PLAN
SCALE: 1/4"=1'-0"

LEGEND

	(E) 2x WALL CONSTRUCTION.		SMOKE DETECTOR (IRC - SECTION R314)
	2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).		CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
	2x4 INTERIOR WALL CONSTRUCTION.		EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VIE).
	(E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.		(E) INDICATES EXISTING FIXTURE
	INFILL WALL TO MATCH EXISTING ASSEMBLY.		

DOOR SCHEDULE:
 DOOR SIZE
 DOOR NUMBER
 NOTE: DOOR TO MATCH EXISTING UNO
 NEW OR RELOCATED DOOR
 (E) DOOR TO REMAIN

WINDOW SCHEDULE:
 WINDOW NUMBER
 NOTE: WINDOW TO MATCH EXISTING UNO
 NEW OR RELOCATED WINDOW
 (E) WINDOW TO REMAIN

- A** GC TO COORDINATE & REDIRECT PLUMBING AND VENTING LINES FOR NEW BATHROOM LOCATION. GC TO INSTALL FURNITURE, EQUIPMENT & ACCESSORIES AS SELECTED BY OWNER.
- B** REVISE OR INSTALL PLUMBING AND VENTING LINES FOR NEW SINK & APPLIANCE LOCATION IN KITCHEN. APPLIANCE TO MEET APPLIANCE PACKAGE OPTION 7.1 PER ENERGY CREDIT COMPLIANCE FORM. GC TO COORDINATE & REDIRECT LINES FOR NEW KITCHEN LAYOUT.
- C** INSTALL NEW CABINETS, APPLIANCES & COUNTERTOPS AS SELECTED BY OWNER. GC TO COORDINATE APPLIANCE INSTALL W/ MFR.

Permit Set
Job # 24-028
Description
Permit Intake
Date
10/07/24

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2ND FLOOR PLAN

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Permit Set	
Job # 24-028	
Description	Date
Permit Intake	10/07/24

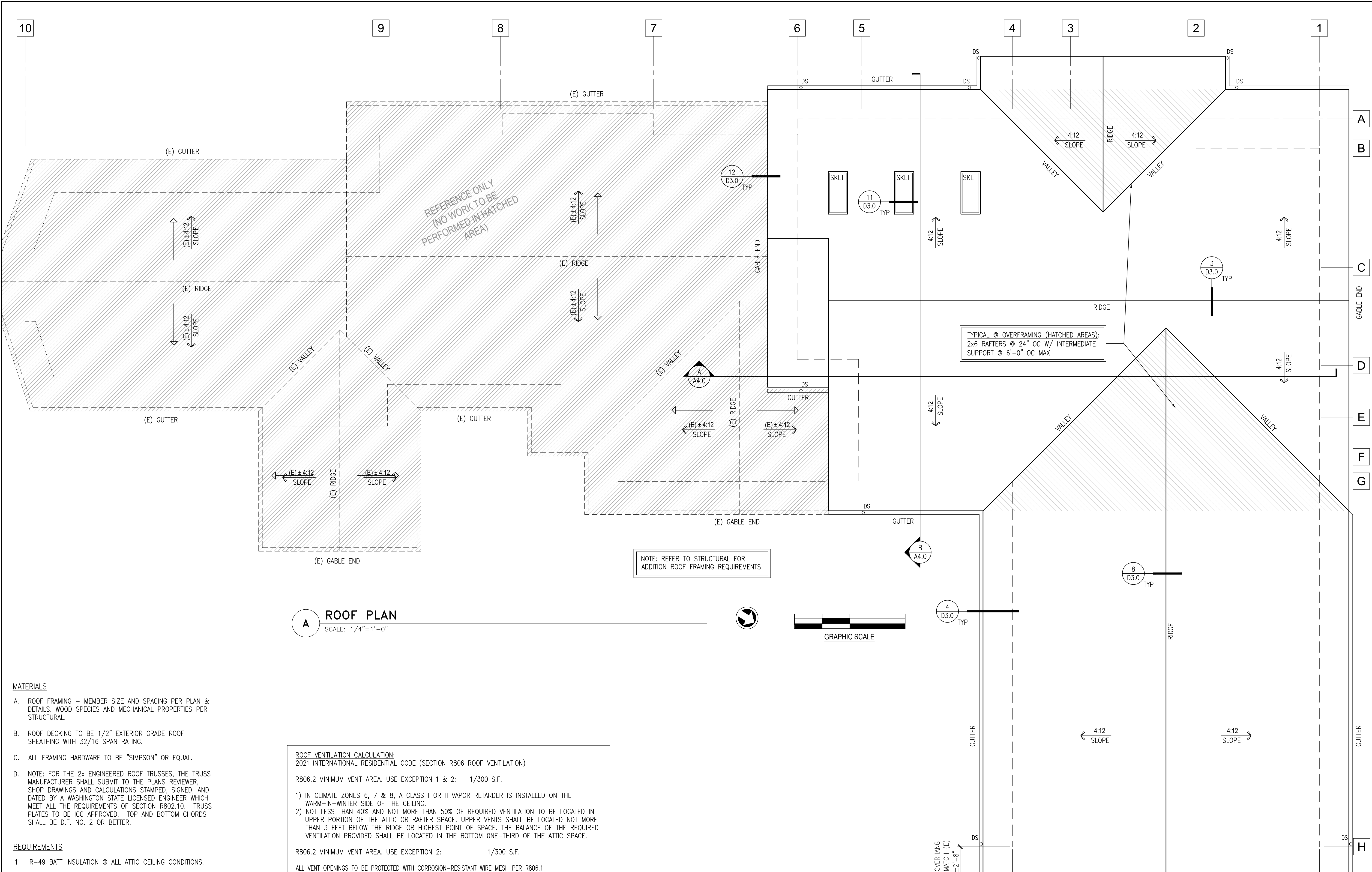
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ROOF PLAN

Sheet No:

A2.4



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

MATERIALS

- A. ROOF FRAMING - MEMBER SIZE AND SPACING PER PLAN & DETAILS. WOOD SPECIES AND MECHANICAL PROPERTIES PER STRUCTURAL.
- B. ROOF DECKING TO BE 1/2" EXTERIOR GRADE ROOF SHEATHING WITH 32/16 SPAN RATING.
- C. ALL FRAMING HARDWARE TO BE "SIMPSON" OR EQUAL.
- D. NOTE: FOR THE 2x ENGINEERED ROOF TRUSSES, THE TRUSS MANUFACTURER SHALL SUBMIT TO THE PLANS REVIEWER, SHOP DRAWINGS AND CALCULATIONS STAMPED, SIGNED, AND DATED BY A WASHINGTON STATE LICENSED ENGINEER WHICH MEET ALL THE REQUIREMENTS OF SECTION R802.10. TRUSS PLATES TO BE ICC APPROVED. TOP AND BOTTOM CHORDS SHALL BE D.F. NO. 2 OR BETTER.

REQUIREMENTS

- 1. R-49 BATT INSULATION @ ALL ATTIC CEILING CONDITIONS.
- 2. SINGLE PLY ROOFING MEMBRANE:
 - TPO:** REFER TO ASTM D6878 STANDARD SPECIFICATION FOR THERMOPLASTIC POLYOLEFIN BASED SHEET ROOFING
 - EPDM:** REFER TO ASTM D4637 STANDARD SPECIFICATION FOR EPDM SHEET USED IN SINGLE-PLY ROOF MEMBRANE
 - PVC:** REFER ASTM D4434 STANDARD SPECIFICATION FOR POLY(VINYL CHLORIDE) SHEET ROOFING
 (PROVIDE UNDERLAYMENT PER MFR'S REQUIREMENT.)
- 3. PROVIDE FIREBLOCKING PER SECTION R602.8.

ROOF VENTILATION CALCULATION:
2021 INTERNATIONAL RESIDENTIAL CODE (SECTION R806 ROOF VENTILATION)

R806.2 MINIMUM VENT AREA. USE EXCEPTION 1 & 2: 1/300 S.F.

1) IN CLIMATE ZONES 6, 7 & 8, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING.
 2) NOT LESS THAN 40% AND NOT MORE THAN 50% OF REQUIRED VENTILATION TO BE LOCATED IN UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF SPACE. THE BALANCE OF THE REQUIRED VENTILATION PROVIDED SHALL BE LOCATED IN THE BOTTOM ONE-THIRD OF THE ATTIC SPACE.

R806.2 MINIMUM VENT AREA. USE EXCEPTION 2: 1/300 S.F.

ALL VENT OPENINGS TO BE PROTECTED WITH CORROSION-RESISTANT WIRE MESH PER R806.1.

ROOF AREA A:

TOTAL NET FREE VENTILATING AREA REQUIRED = 2,366.75 SF / 300 = 7.88 SF
 REQUIRED AT HIGH & LOW ROOF = 7.88 SF / 2 = 3.94 SF

HIGH ROOF VENTILATION AT RIDGE:
 TOTAL LINEAR FEET RIDGE = TOTAL RAFTER BAYS 96'/2' = 48 BAYS
 TOTAL NEW RIDGE VENTS PER BAY *0.15 (PER DTL 12/D3.0) = 48 BAY x .15 = 7.2 SF

LOWER ROOF VENTILATION:
 TOTAL LINEAR FEET OF LOW EAVE = TOTAL RAFTER BAYS 297'/2' = 148 BAYS
 148 RAFTER BAYS *0.065 SF VENTS (DTL 4/D3.0) AREA PER BAY = 9.65 SF

TOTAL NET FREE VENTILATING AREA PROVIDED OKAY = 16.85 SF



CONSTRUCTION
AND REMODELING

TAM CEM - RESIDENCE

Addition & Alteration
4215 Holly Ln, Mercer Island, WA 98040

Permit Set

Job # 24-028

Description

Date

Permit Intake

10/07/24

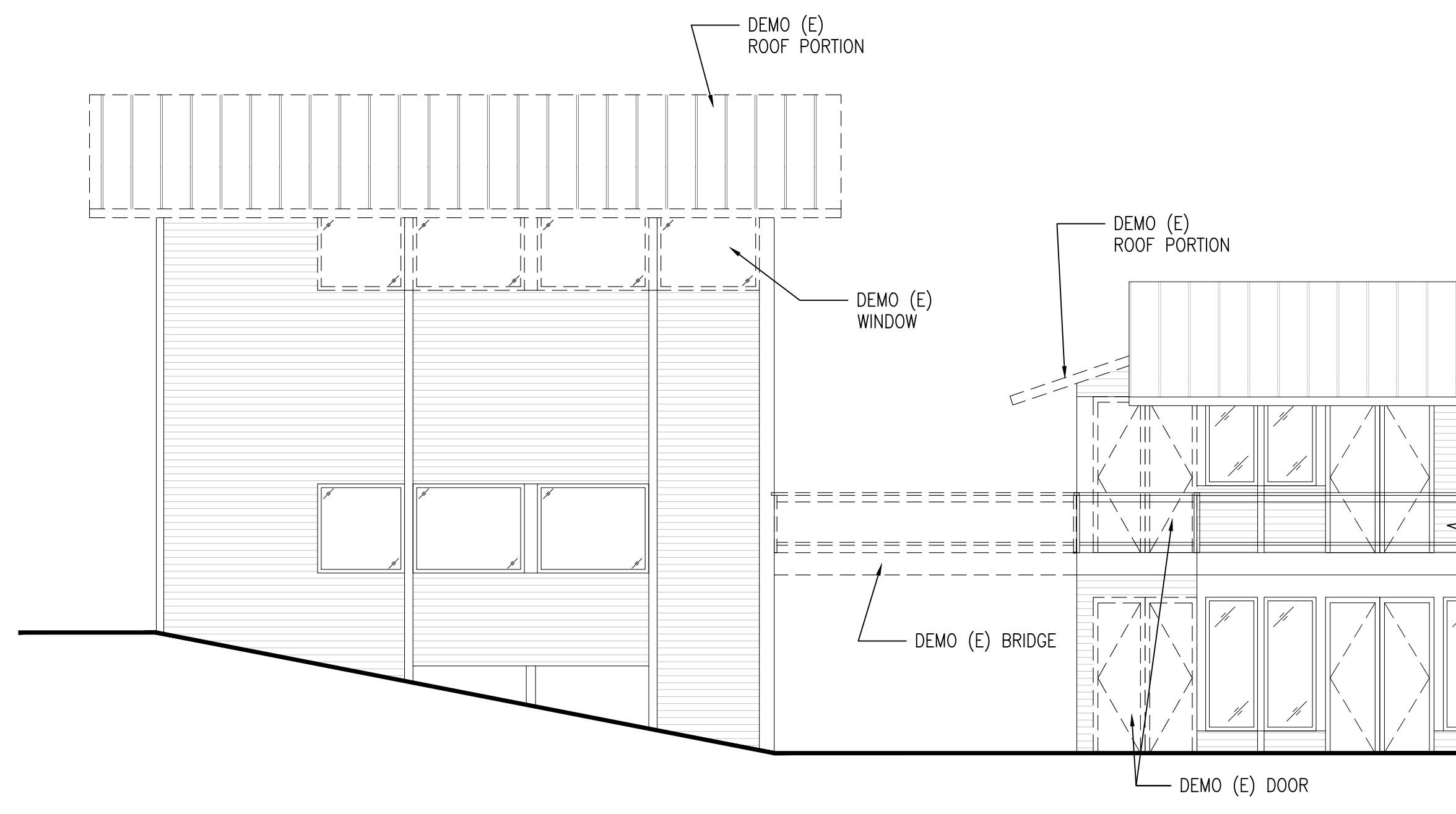
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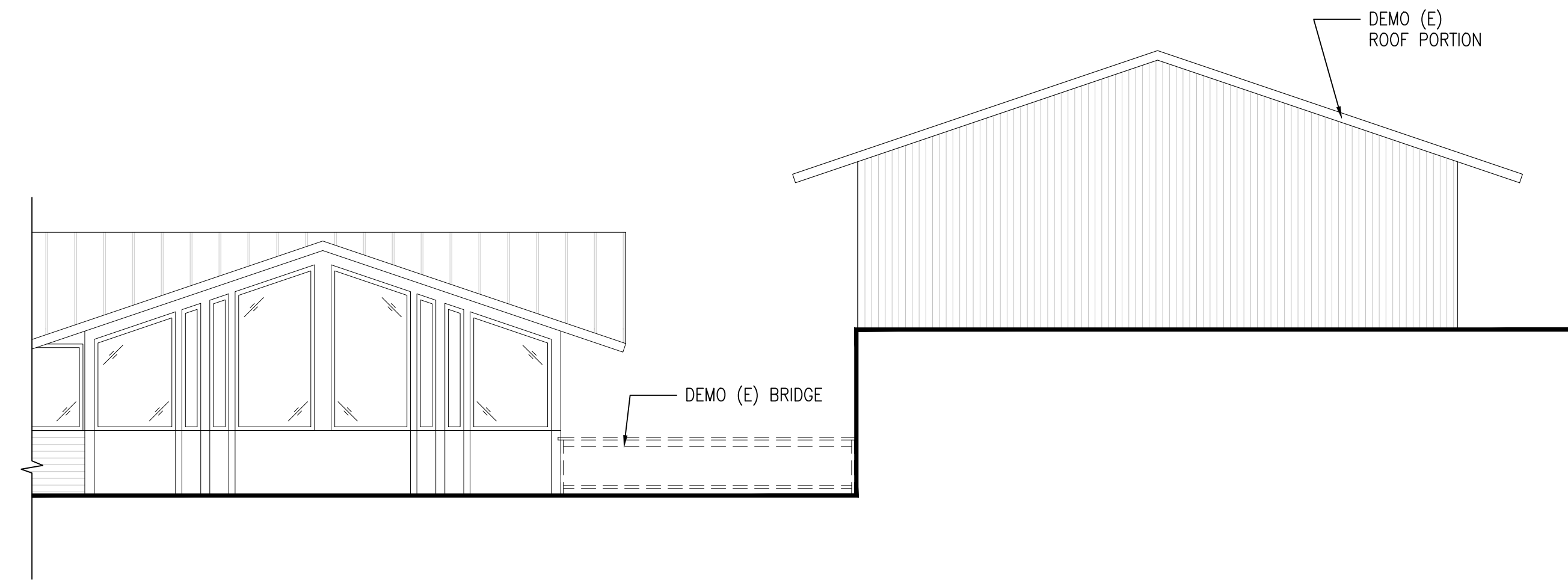
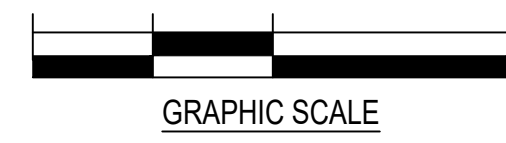
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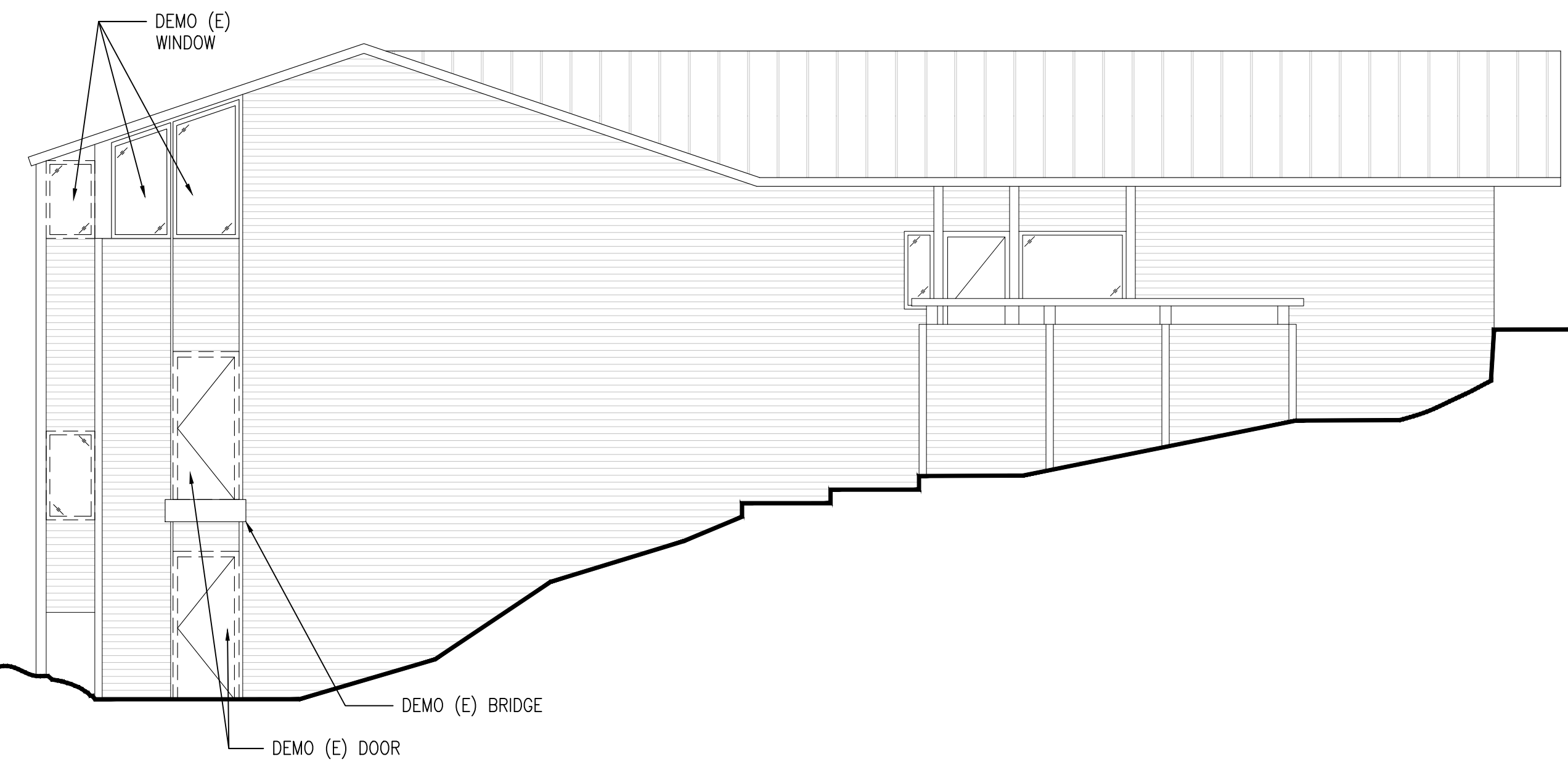
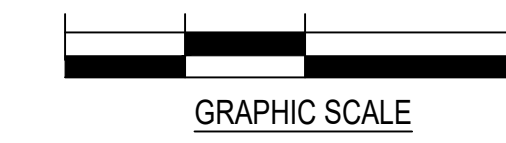
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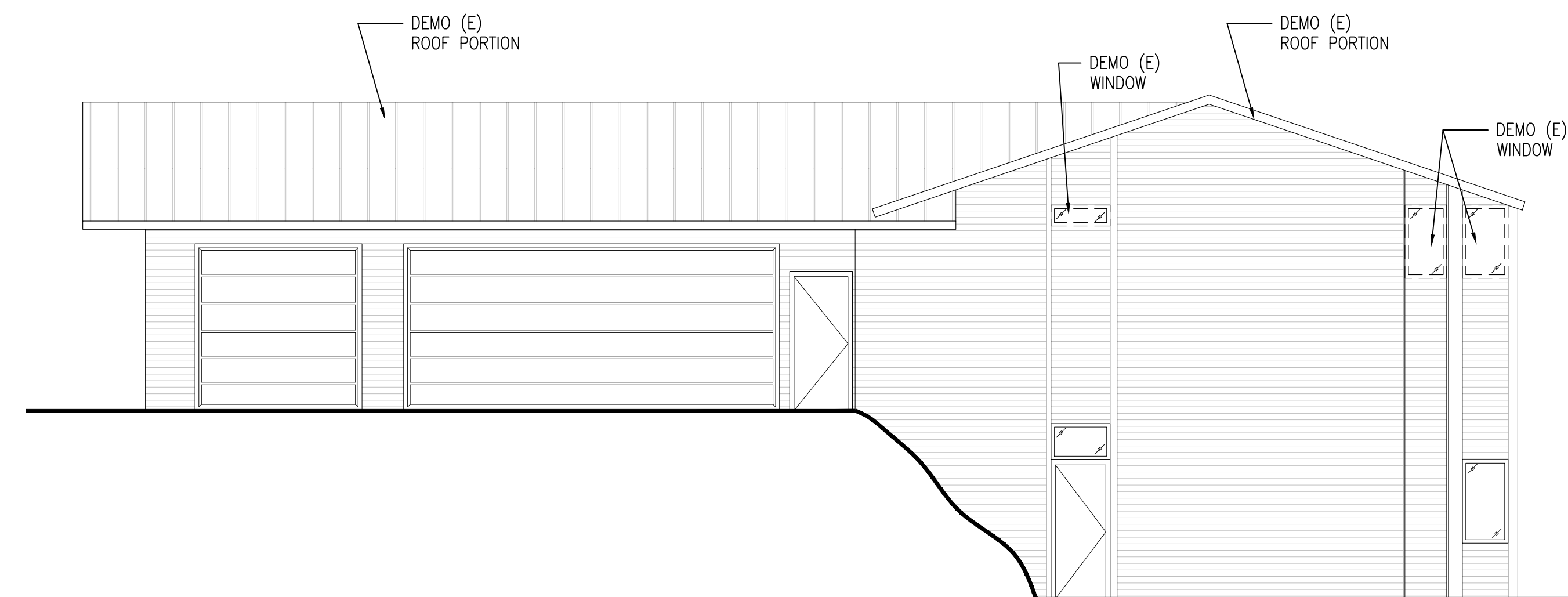
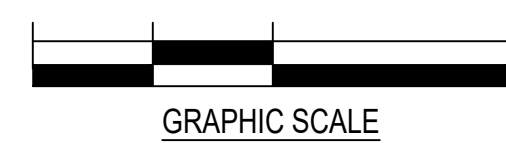
D EXISTING WEST ELEVATION
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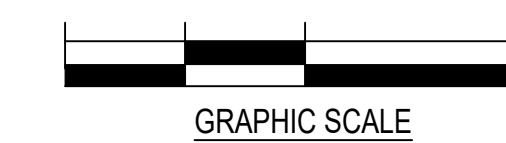
B EXISTING EAST ELEVATION
SCALE: 3/16"=1'-0"



C EXISTING SOUTH ELEVATION
SCALE: 3/16"=1'-0"



A EXISTING NORTH ELEVATION
SCALE: 3/16"=1'-0"



Permit Set	
Job # 24-028	
Description	Date
Permit Intake	10/07/24

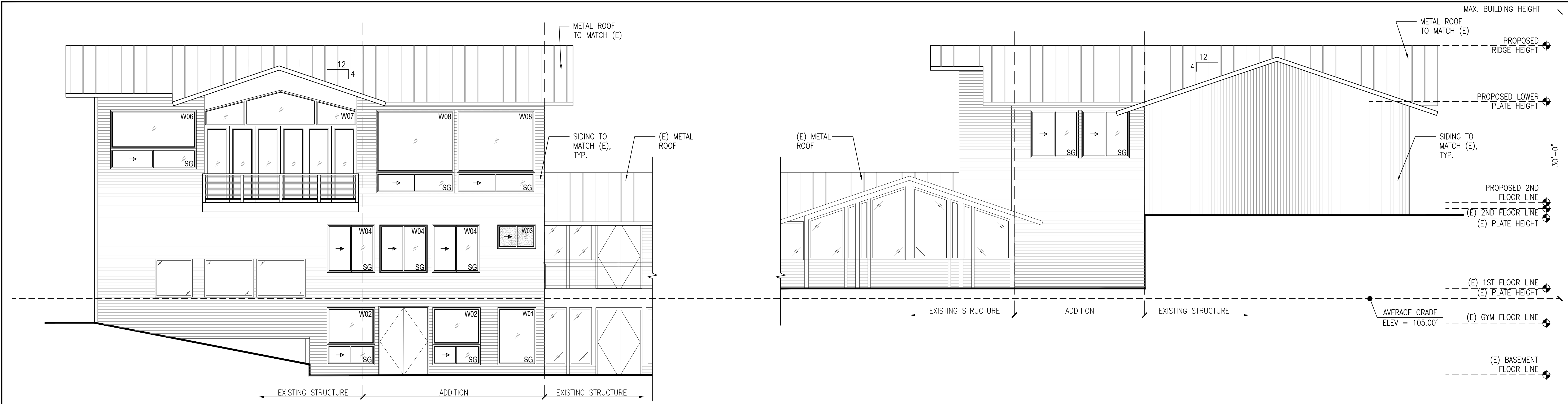
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ELEVATIONS

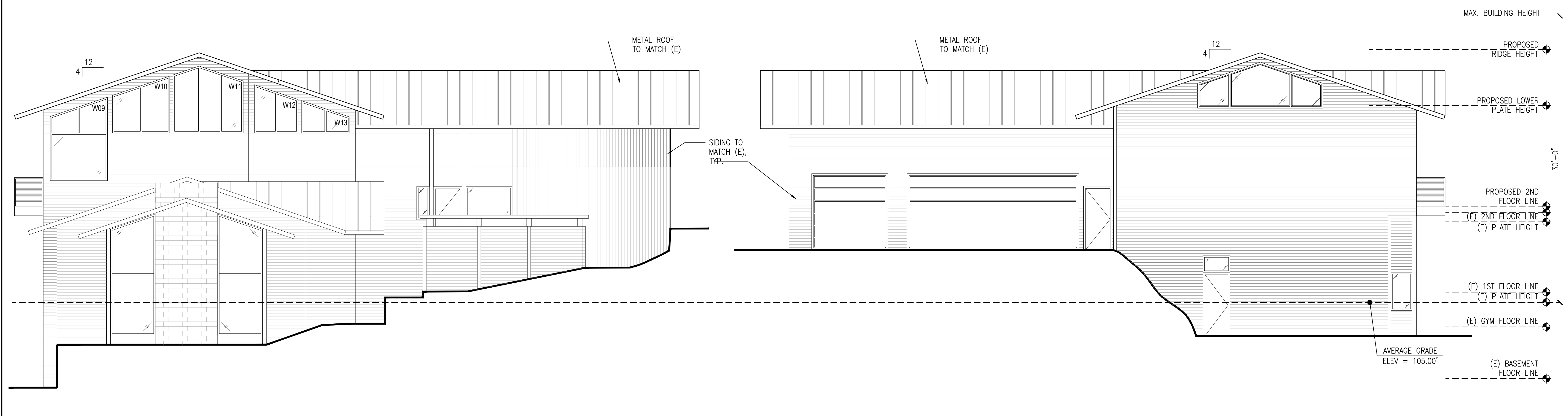
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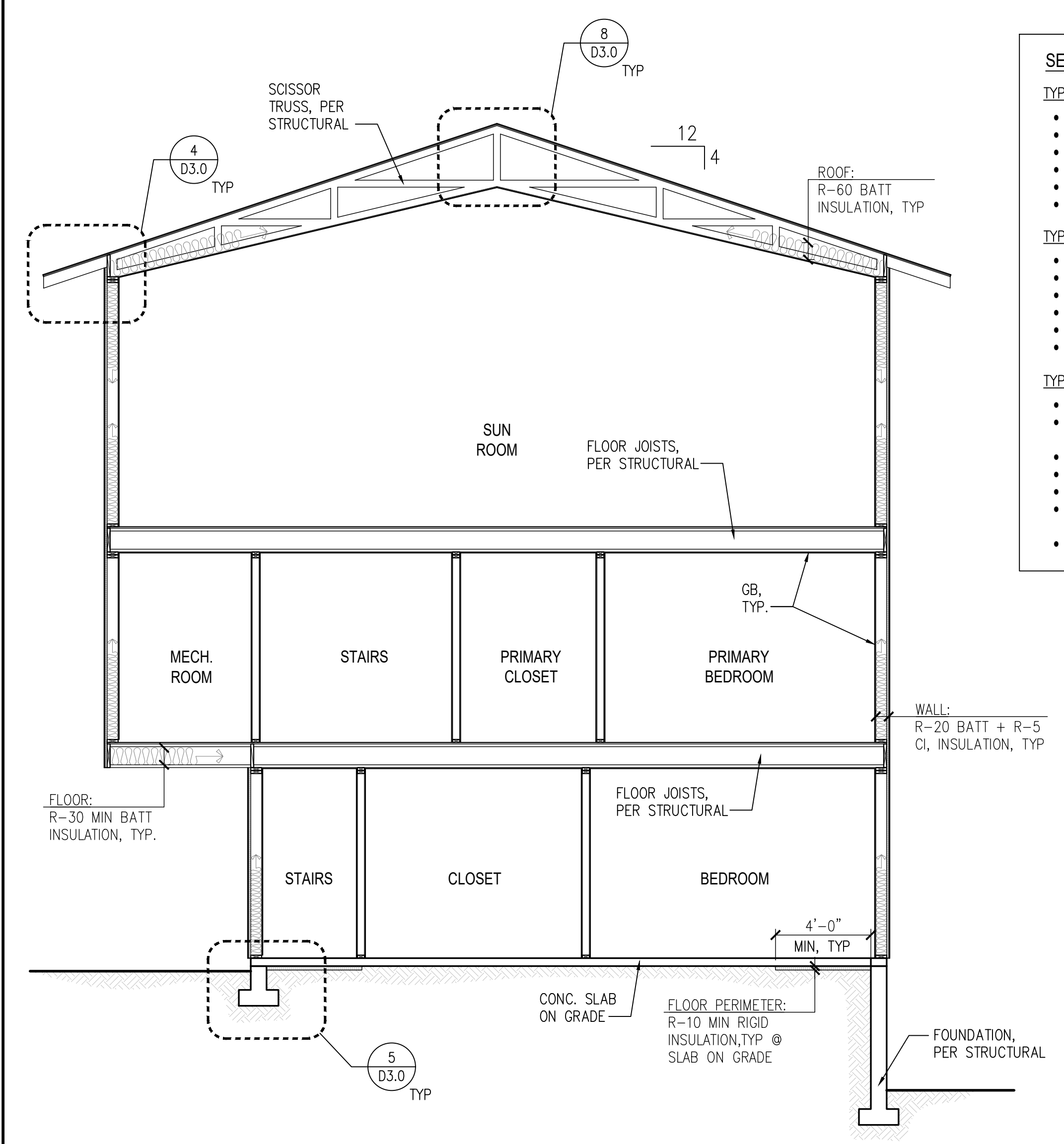
D WEST ELEVATION
SCALE: 3/16"=1'-0"
GRAPHIC SCALE

B EAST ELEVATION
SCALE: 3/16"=1'-0"
GRAPHIC SCALE



C SOUTH ELEVATION
SCALE: 3/16"=1'-0"
GRAPHIC SCALE

A NORTH ELEVATION
SCALE: 3/16"=1'-0"
GRAPHIC SCALE



SECTION NOTES:

TYPICAL ROOF CONSTRUCTION

- METAL ROOF TO MATCH (E).
- (1) LAYER OF UNDERLAYMENT (PER MFR).
- 1/2" EXTERIOR GRADE ROOF SHEATHING.
- ROOF FRAMING PER PLAN.
- R-60 BATT INSULATION AT RAFTERS.
- 5/8" GB.

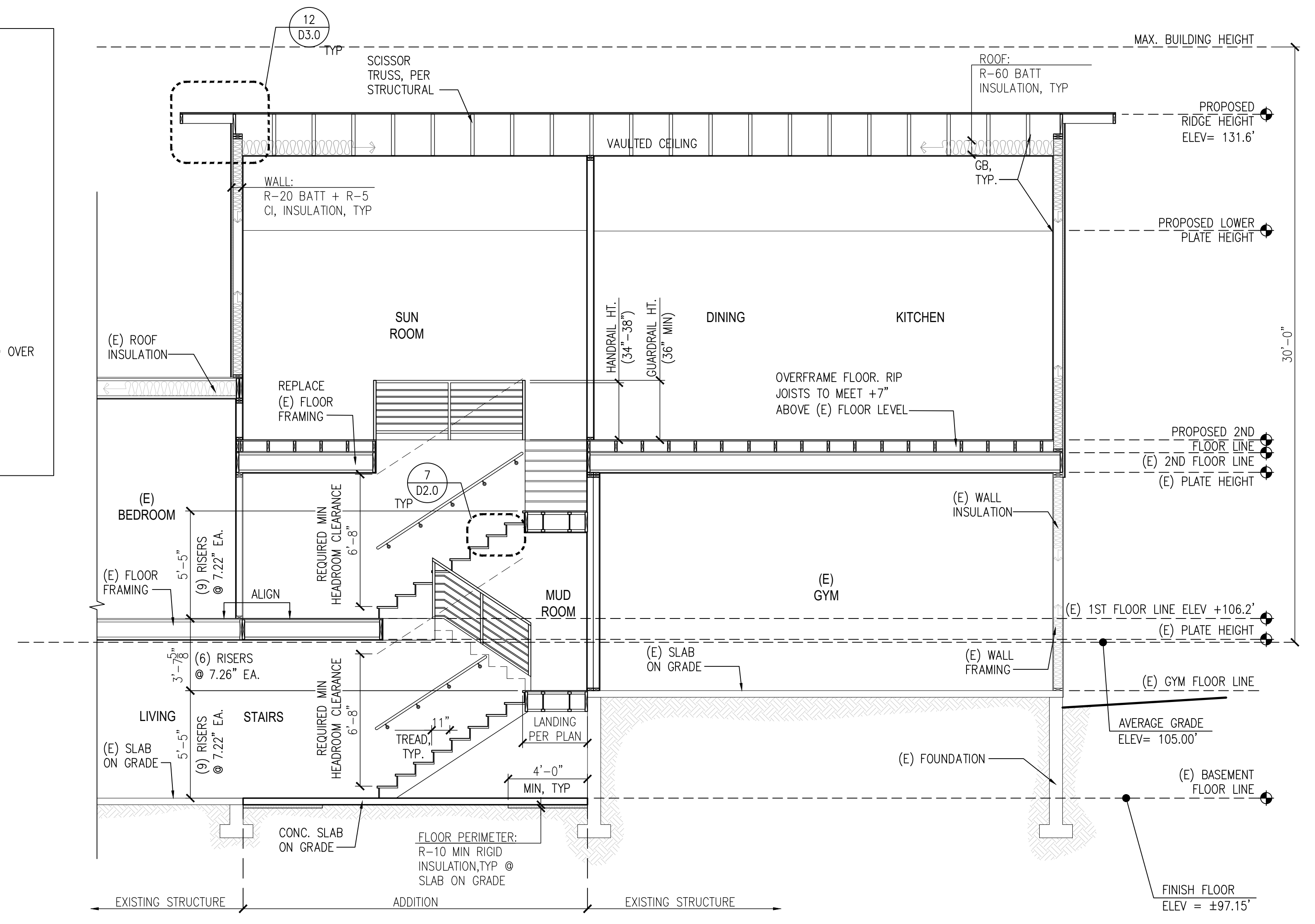
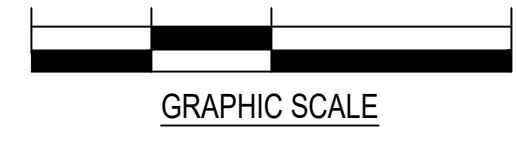
TYPICAL WALL CONSTRUCTION

- SIDING PER ELEVATIONS.
- WEATHER-RESISTANT BARRIER MEMBRANE.
- 1/2" EXTERIOR GRADE SHEATHING.
- 2x STUDS @ 16" OC (SEE PLAN FOR SIZE).
- R-20 BATT + R-5 CI INSULATION.
- 1/2" GB

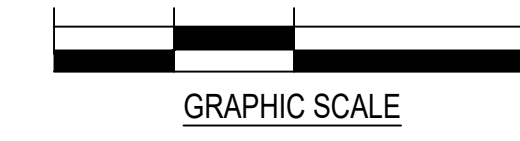
TYPICAL FLOOR CONSTRUCTION

- FLOOR FINISHES PER OWNER.
- 3/4" PLYWOOD SUBFLOOR GLUED AND NAILED OVER FLOOR JOISTS.
- FLOOR JOISTS PER STRUCTURAL.
- R-30 BATT INSULATION.
- 4" CONCRETE SLAB ON GRADE.
- R-10 MIN. RIGID INSULATION, 4'-0" MIN. @ PERIMETER.
- VAPOR BARRIER OVER GRADE.

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



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



Permit Set	
Job # 24-028	Date
Description	10/07/24
Permit Intake	

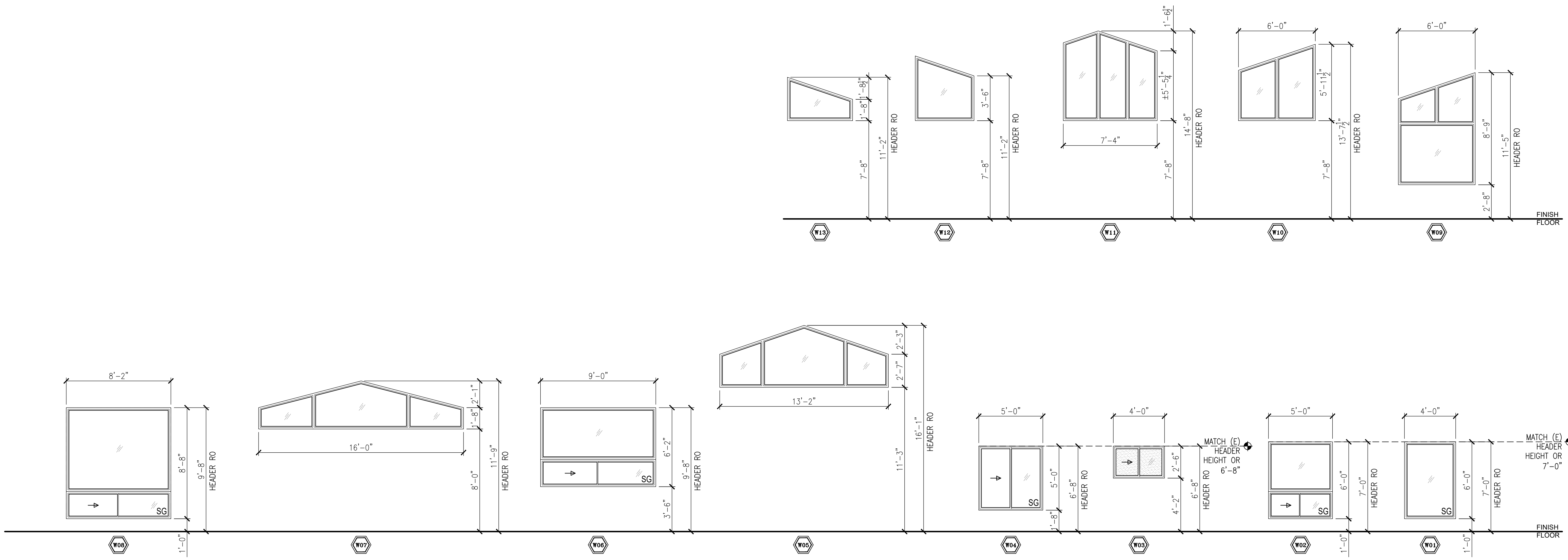
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SECTIONS

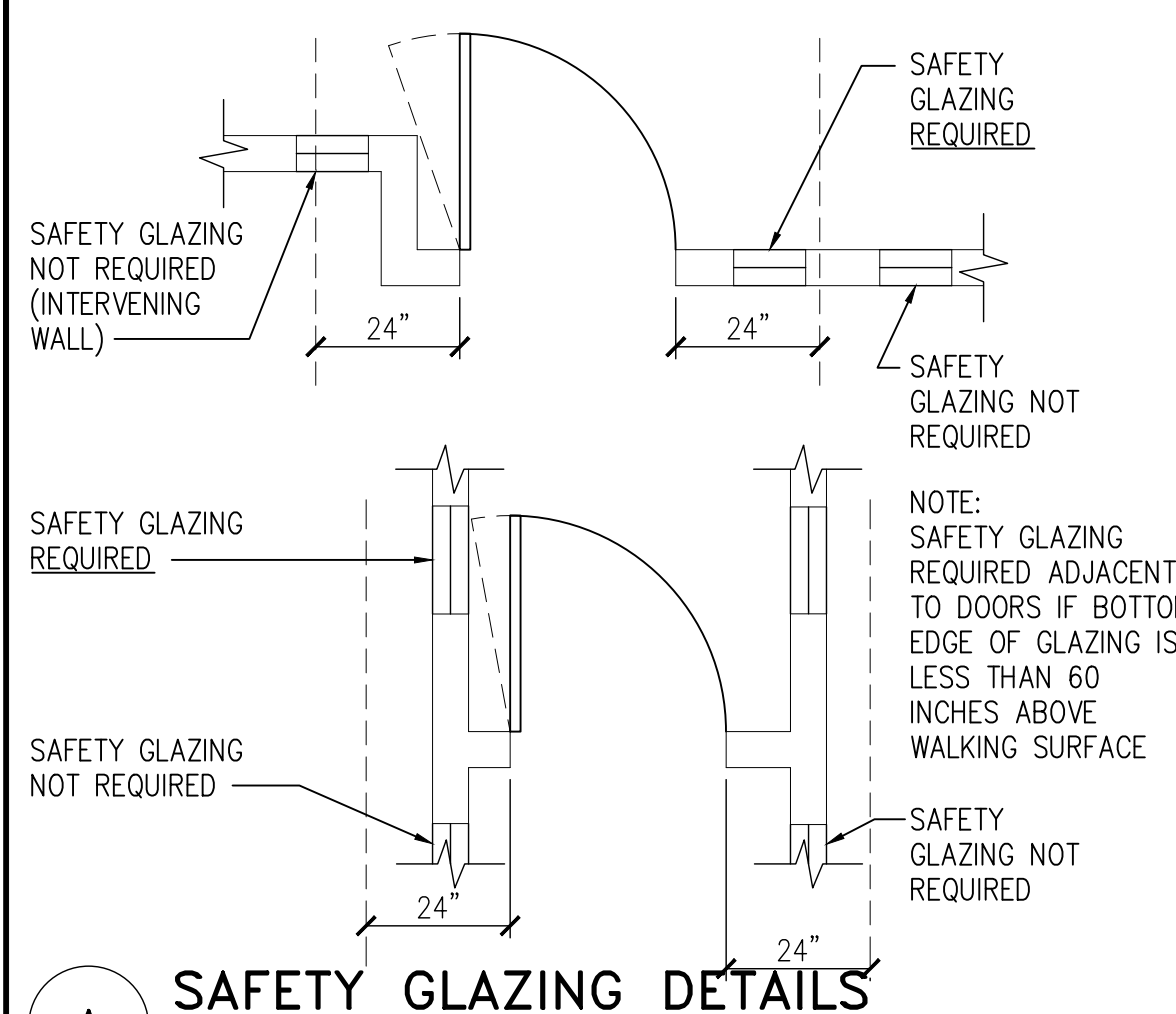
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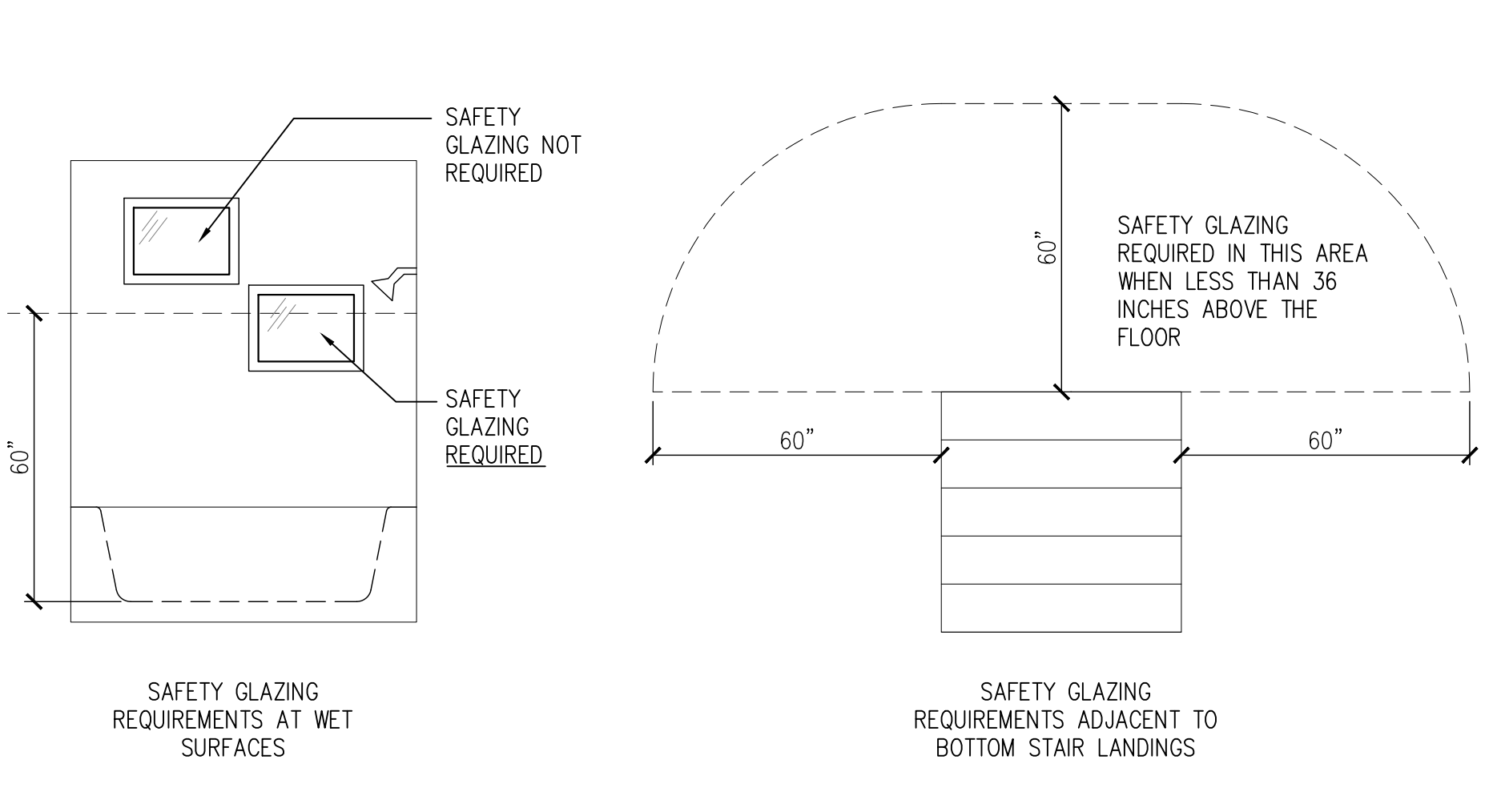


WINDOW SCHEDULE										
IDEN	TYPE	MATERIAL	SIZE		ROUGH OPENING		QUANTITY	TOTAL AREA	SPEC	DESCRIPTION
			WIDTH	HEIGHT	WIDTH	HEIGHT				
W01	FIXED	VINYL	4'-0"	6'-0"	PER ELEVATION	PER ELEVATION	1	24.00 SF	(A)	SG REQUIRED
W02	COMBO	VINYL	5'-0"	6'-0"	PER ELEVATION	PER ELEVATION	2	60.00 SF	(A)	COMBO (FIX & SLIDER), SG REQUIRED. SEE ELEVATIONS
W03	SLIDER	VINYL	4'-0"	2'-6"	PER ELEVATION	PER ELEVATION	1	10.00 SF	(A)	PRIVACY GLAZING
W04	SLIDER	VINYL	5'-0"	5'-0"	PER ELEVATION	PER ELEVATION	5	125.00 SF	(A)	SG REQUIRED
W05	TRANSOM FIXED	VINYL	13'-2"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	48.82 SF	(A)	
W06	COMBO	VINYL	9'-0"	6'-2"	PER ELEVATION	PER ELEVATION	3	55.50 SF	(A)	COMBO (FIX & SLIDER), SEE ELEVATIONS
W07	TRANSOM FIXED	VINYL	16'-0"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	43.33 SF	(A)	
W08	COMBO	VINYL	8'-2"	8'-8"	PER ELEVATION	PER ELEVATION	2	141.55 SF	(A)	COMBO (FIX & SLIDER), SG REQUIRED. SEE ELEVATIONS
W09	FIXED	VINYL	6'-0"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	46.40 SF	(A)	
W10	FIXED	VINYL	6'-0"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	29.64 SF	(A)	
W11	FIXED	VINYL	6'-0"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	46.40 SF	(A)	
W12	FIXED	VINYL	4'-6"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	19.58 SF	(A)	
W13	FIXED	VINYL	4'-6"	PER ELEV.	PER ELEVATION	PER ELEVATION	1	12.82 SF	(A)	
							TOTAL QUANTITY	21	663.04 SF	TOTAL AREA (SQUARE FEET)
NOTES: (1)										
SPECIFICATION: (A) ALL VERTICAL FENESTRATION TO HAVE U-FACTOR = 0.30 MAX OR BETTER (PER ENERGY CREDIT OPTION 1.3); NFRC-CERTIFIED										

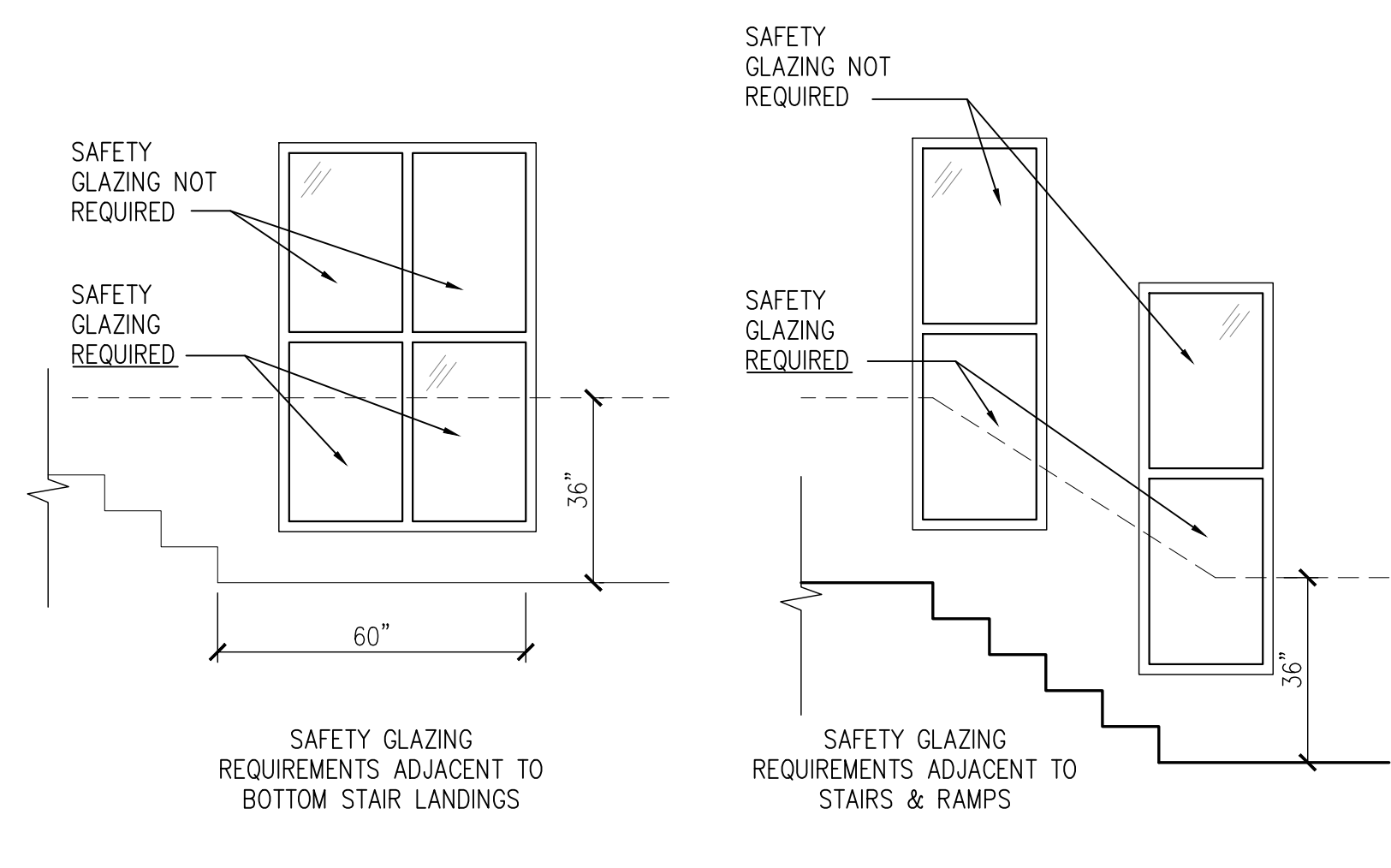
DOOR SCHEDULE (MFR & MODEL OR EQUAL)										
IDEN	TYPE	DOOR SIZE		ROUGH OPENING		MATERIAL	QUANTITY	TOTAL AREA	U-FACTOR (MIN OR BETTER NFRC-CERTIFIED)	DESCRIPTION
		WIDTH	HEIGHT	WIDTH	HEIGHT					
D01	FOLDABLE DOOR	16'-0"	8'-0"	16'-2"	8'-2.5"	FIBERGLASS WOODCLAD	1	129.33	0.30	INSULATED DOOR, FULL RELITE, SG REQUIRED REFER TO ELEVATION FOR DOOR & RELITE CONFIGURATION
D02	SINGLE PANEL	3'-0"	6'-8"	3'-2"	6'-10.5"	FIBERGLASS WOODCLAD	1	19.98	0.30	FIRE RATED, INSULATED & SELF CLOSER
D03	SINGLE PANEL	2'-8"	6'-8"	2'-10"	6'-10.5"	FIBERGLASS WOODCLAD	1	17.77	0.30	FIRE RATED, INSULATED & SELF CLOSER
D04	FRENCH DOORS	5'-0"	7'-0"	5'-2"	7'-2.5"	FIBERGLASS WOODCLAD	1	35.00	0.30	INSULATED
D05	SINGLE PANEL	2'-8"	6'-8"	2'-10"	6'-10.5"	WOOD	3	-	-	-
D06	SINGLE PANEL	2'-6"	6'-8"	2'-8"	6'-10.5"	WOOD	5	-	-	-
D07	POCKET PANEL	2'-4"	6'-8"	2'-8"	8'-2.5"	WOOD	2	-	-	-
NOTES: 1) VERIFY WITH DOOR MFR FOR ACTUAL ROUGH OPENING REQUIREMENTS.										
NOTES: (A) ALL VERTICAL FENESTRATION TO HAVE U-FACTOR = 0.30 OR BETTER (ENERGY CREDIT OPTION 1.3); NFRC-CERTIFIED										



A SAFETY GLAZING DETAILS
SCALE: 3/8"=1'-0"



SAFETY GLAZING REQUIREMENTS AT WET SURFACES
SAFETY GLAZING REQUIREMENTS ADJACENT TO BOTTOM STAIR LANDINGS

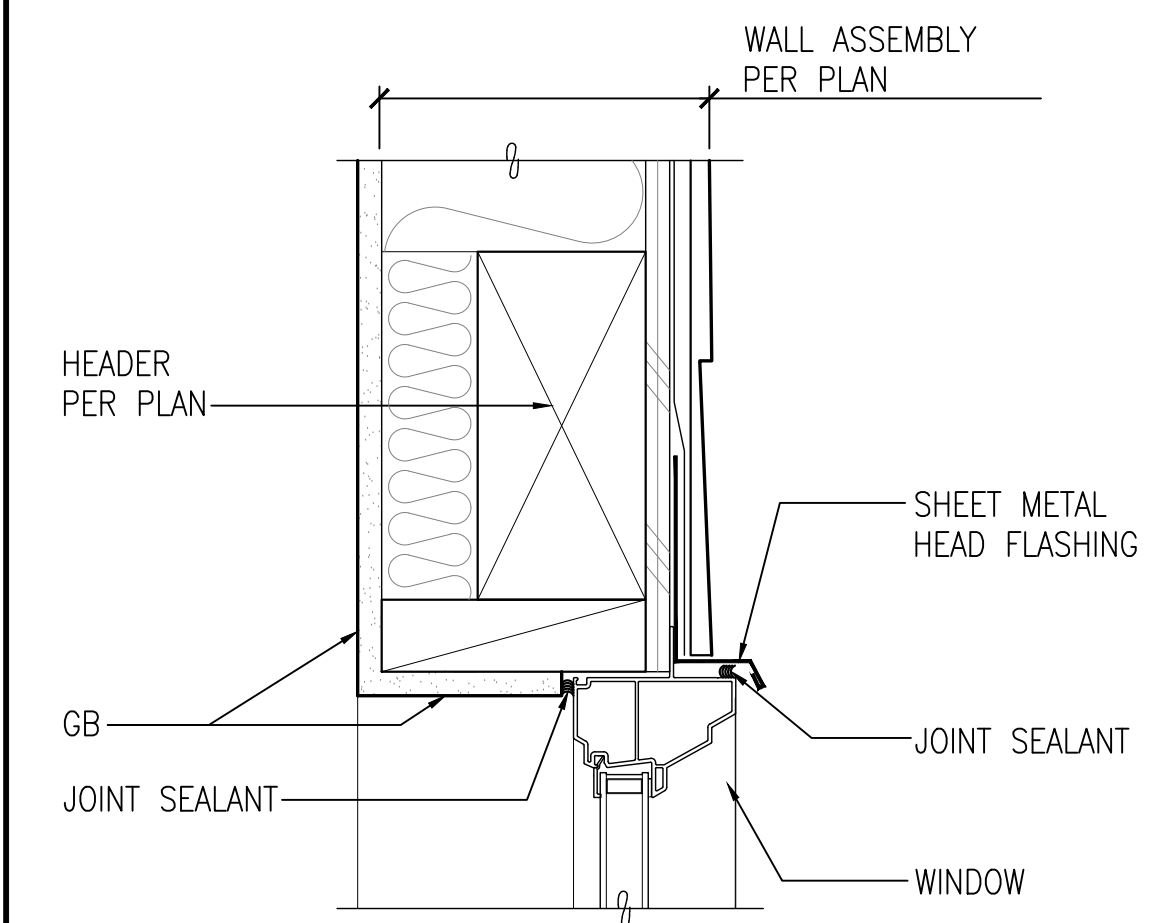


SAFETY GLAZING REQUIREMENTS ADJACENT TO BOTTOM STAIR LANDINGS
SAFETY GLAZING REQUIREMENTS ADJACENT TO STAIRS & RAMP

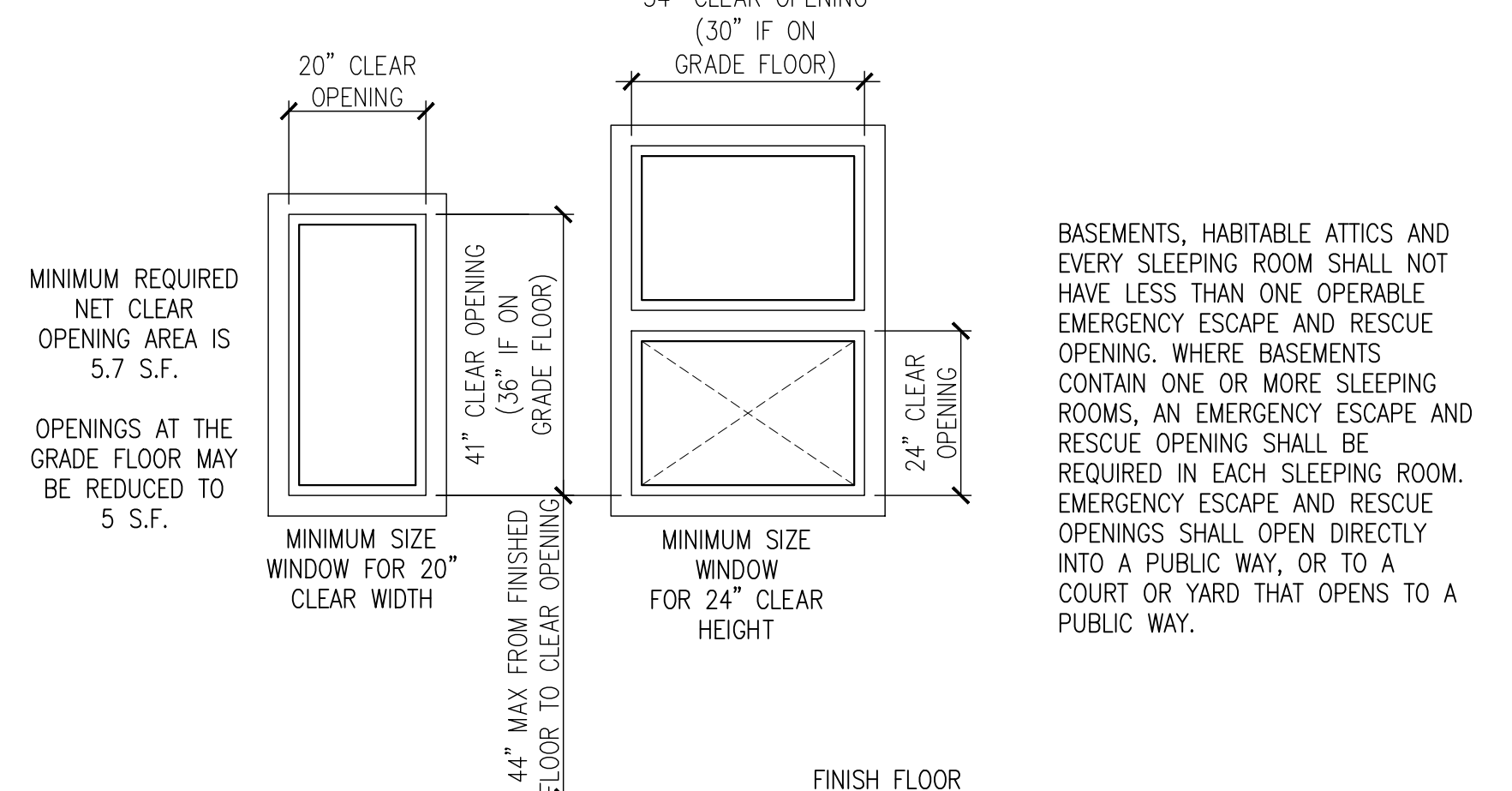
SAFETY GLAZING IN WINDOWS:
REQUIRED IF THE INDIVIDUAL PANEL MEETS ALL THE FOLLOWING REQUIREMENTS:
A. EXPOSED INDIVIDUAL PANEL IS GREATER THAN 9 SQ FT
B. BOTTOM EDGE OF GLAZING IS LESS THAN 18 INCHES FROM FLOOR
C. TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE FLOOR
D. A WALKING SURFACE WITHIN 36 INCHES, MEASURED HORIZONTALLY, FROM THE GLAZING

EXCEPTIONS
I. DECORATIVE GLAZING
II. A HORIZONTAL RAIL CAPABLE OF RESISTING 50 LBS PER LINEAR FOOT OF FORCE W/OUT MAKING CONTACT WITH THE GLAZING IS INSTALLED ON ACCESSIBLE SIDE OF GLAZING 34 TO 38 INCHES ABOVE THE WALKING SURFACE.

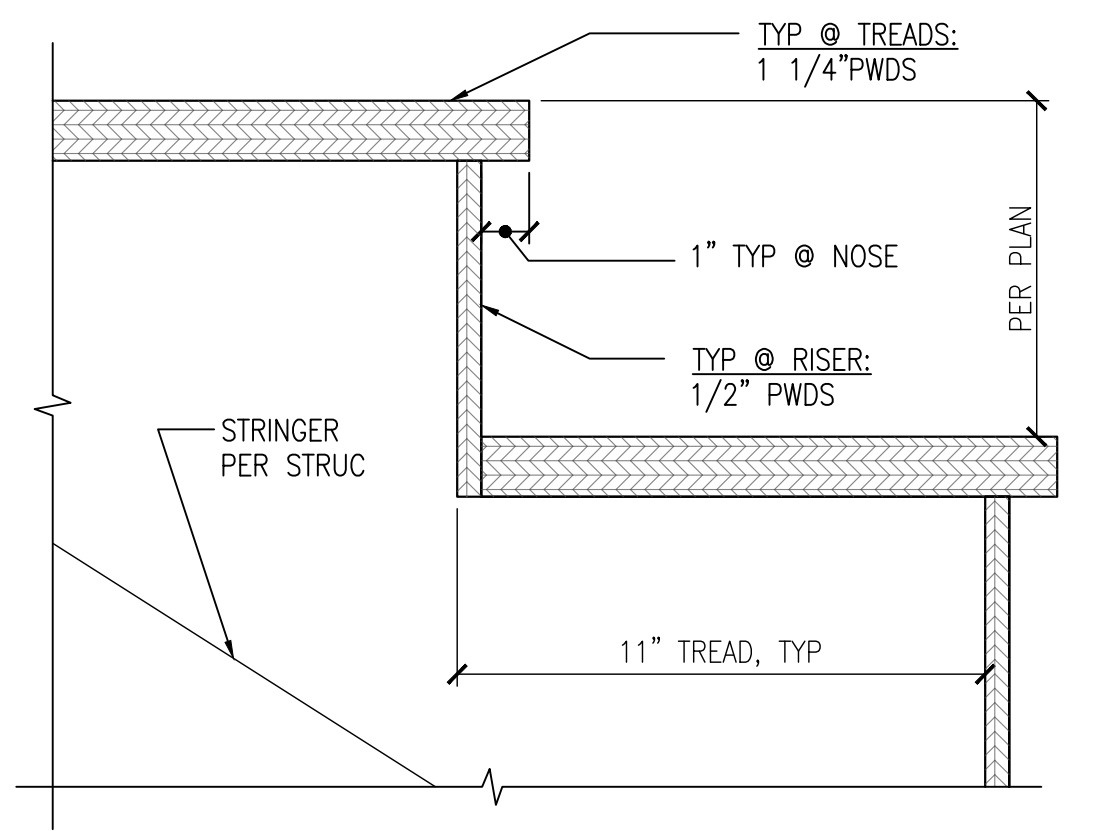
SAFETY GLAZING AT STAIRS & RAILINGS:
1. WHERE HORIZONTAL RAIL CAPABLE OF RESISTING 50 LBS PER LINEAR FOOT OF FORCE W/OUT MAKING CONTACT WITH THE GLAZING IS INSTALLED ON THE ACCESSIBLE SIDE OF THE GLAZING 34 TO 38 INCHES ABOVE THE WALKING SURFACE.
2. GLAZING MORE THAN 36 INCHES HORIZONTALLY FROM THE WALKING SURFACE IS NOT REQUIRED TO BE SAFETY GLAZING.



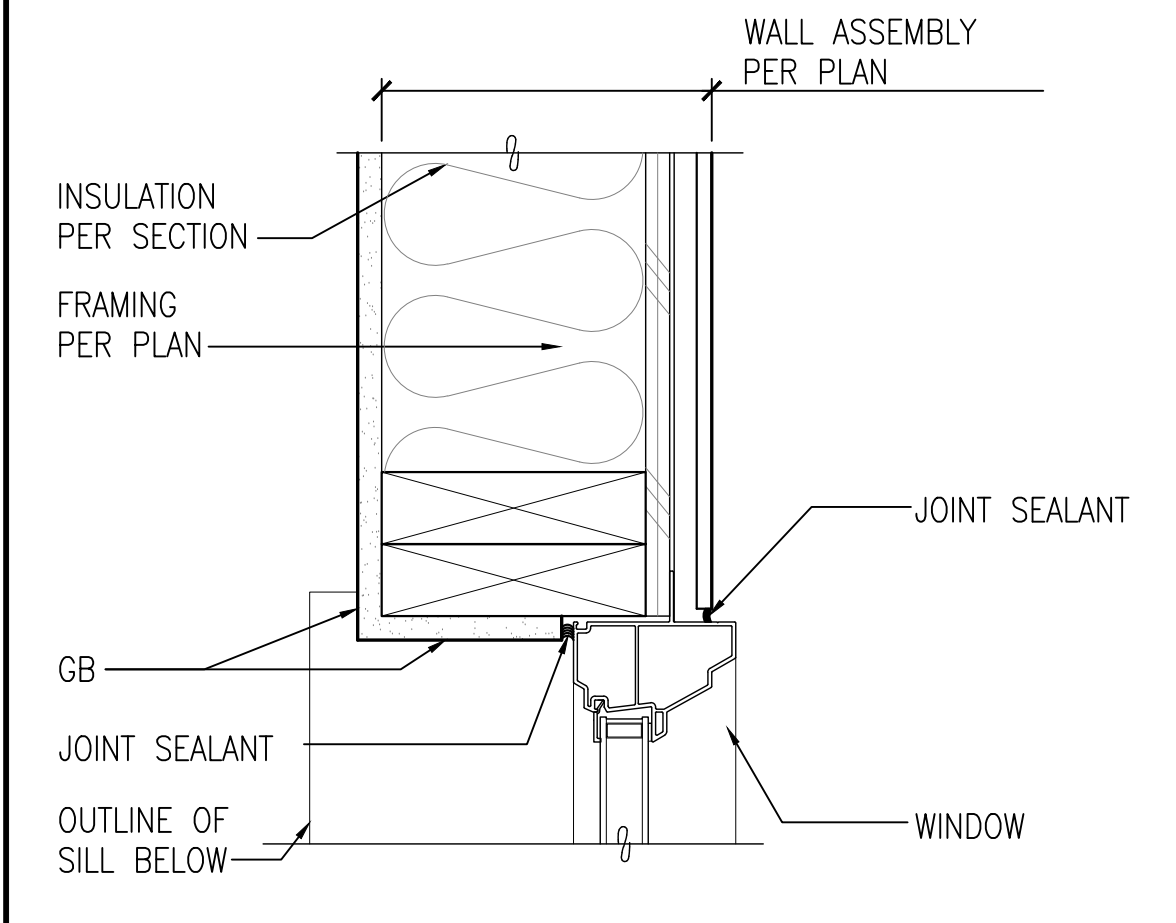
19 HEAD DETAIL
SCALE: 3"=1'-0"



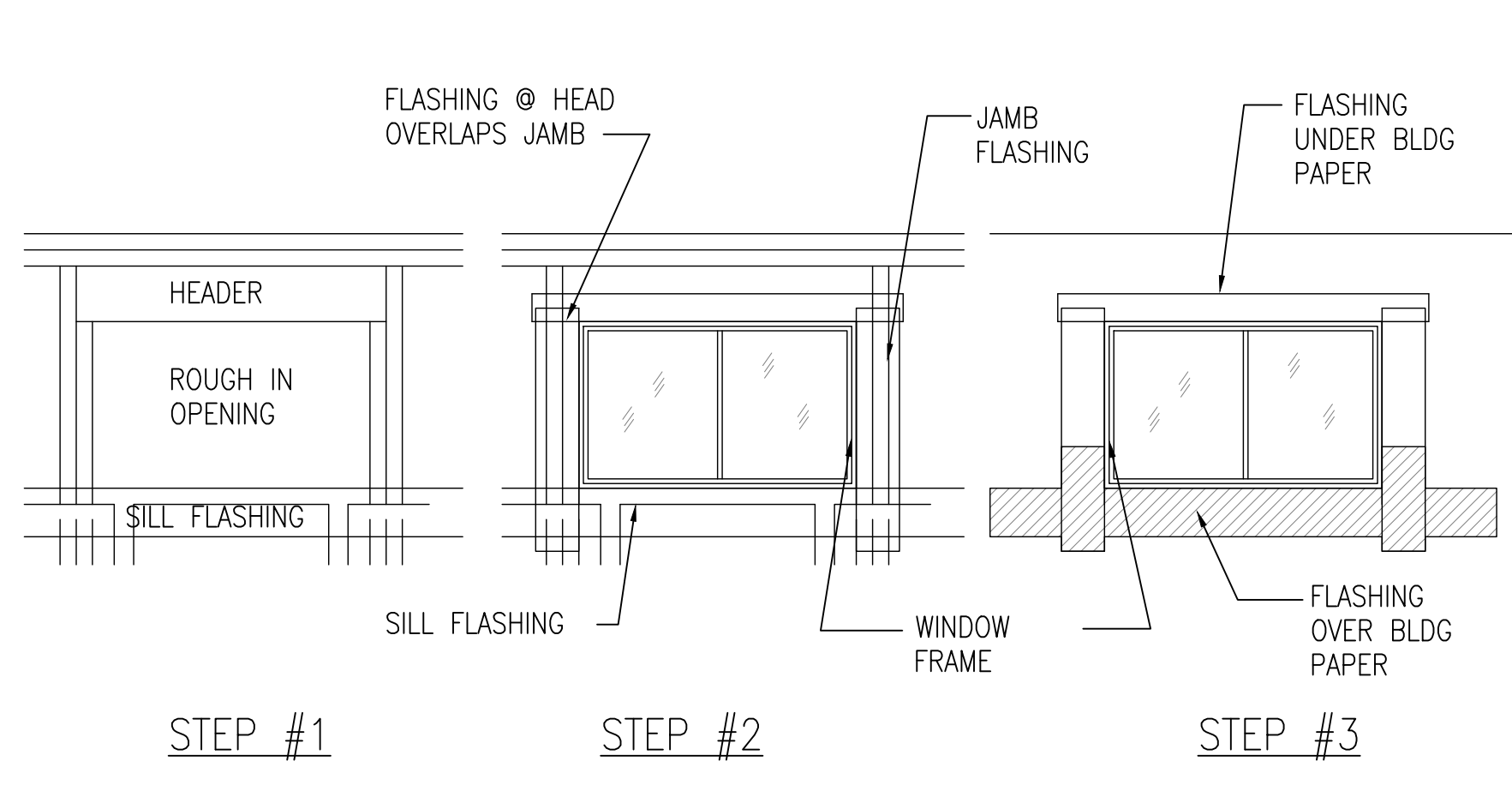
15 MINIMUM EMERGENCY EGRESS OPENING REQUIREMENTS
SCALE: 1/2"=1'-0"



7 TYPICAL INTERIOR TREAD RISER DETAIL
SCALE: NTS



18 JAMB DETAIL
SCALE: 3"=1'-0"



FLASHING OF EXTERIOR WALL OPENINGS:
INDIVIDUALLY FLASH ALL EXTERIOR OPENINGS FOR FIXTURE SUCH AS WINDOWS, DOORS, AND VENTS TO MAKE THEM WATERPROOF. FLASHING MATERIAL SHALL BE MOISTPROOF BY MANFUL. SEALANT SHALL BE COMPATIBLE AND APPROVED BY MANFUL. IN HIGH WIND AREAS W.R. GRACE ICE & WATER SHIELD SHALL BE USED, OVER SOLID BACKING. FLASHING MATERIAL AT LEAST 9" WIDE SHALL BE APPLIED IN A WEATHER BOARD FASHION, BEGINNING WITH THE SILL WITH A STRIP LONG ENOUGH TO PROJECT BEYOND THE JAMB FLASHING TO BE APPLIED. THE TWO JAMB FLASHING ARE THEN APPLIED WITH SUFFICIENT LENGTH TO EXTEND BEYOND THE SILL FLASHING, AND WITH THE SAME DISTANCE AT THE TOP.

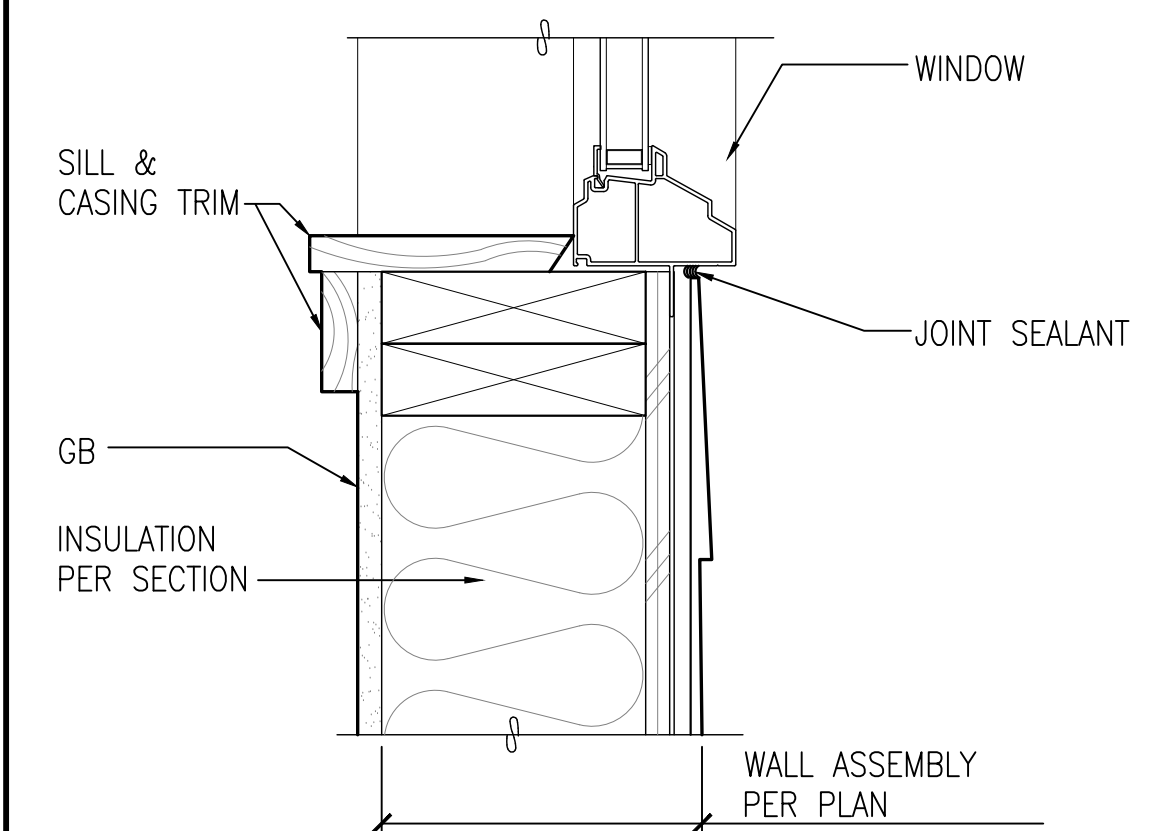
FOR FIXTURES WITHOUT NAIL-ON FLANGES, THE FLASHING SHALL BE 12" MIN. WIDTH AND EXTEND INTO THE ROUGH FRAME AT THE SILL AND JAMB.

FOR NAIL-ON FLANGE FIXTURE, INSTALL BY PRESSING FLANGE POSITIVELY INTO A CONTINUOUS BEAD OF SEALANT WHICH EXTENDS AROUND THE BOTTOM AND SIDES OF THE FIXTURE.

APPLY THE TOP HORIZONTAL FLASHING LAST, WITH SUFFICIENT LENGTH TO EXTEND BEYOND THE JAMB FLASHING. OVERLAP AND SEAL AGAINST THE THE TOP NAILING FLANGE OR G.S.M. HEAD FLASHING WITH A CONTINUOUS BEAD OF SEALANT.

APPLY REMAINING WALL SHEATHING PAPER IN A WEATHERBOARD FASHION WITH THE SILL FLASHING LAPPING OVER THE TOP AND THE HEAD AND JAMB FLASHING BELOW.

13 TYPICAL WINDOW OPENING FLASHING REQUIREMENTS
SCALE: NTS



17 SILL DETAIL
SCALE: 3"=1'-0"

HANDRAIL AND GUARDRAILS SHALL BE CONSTRUCTED AS FOLLOWS:

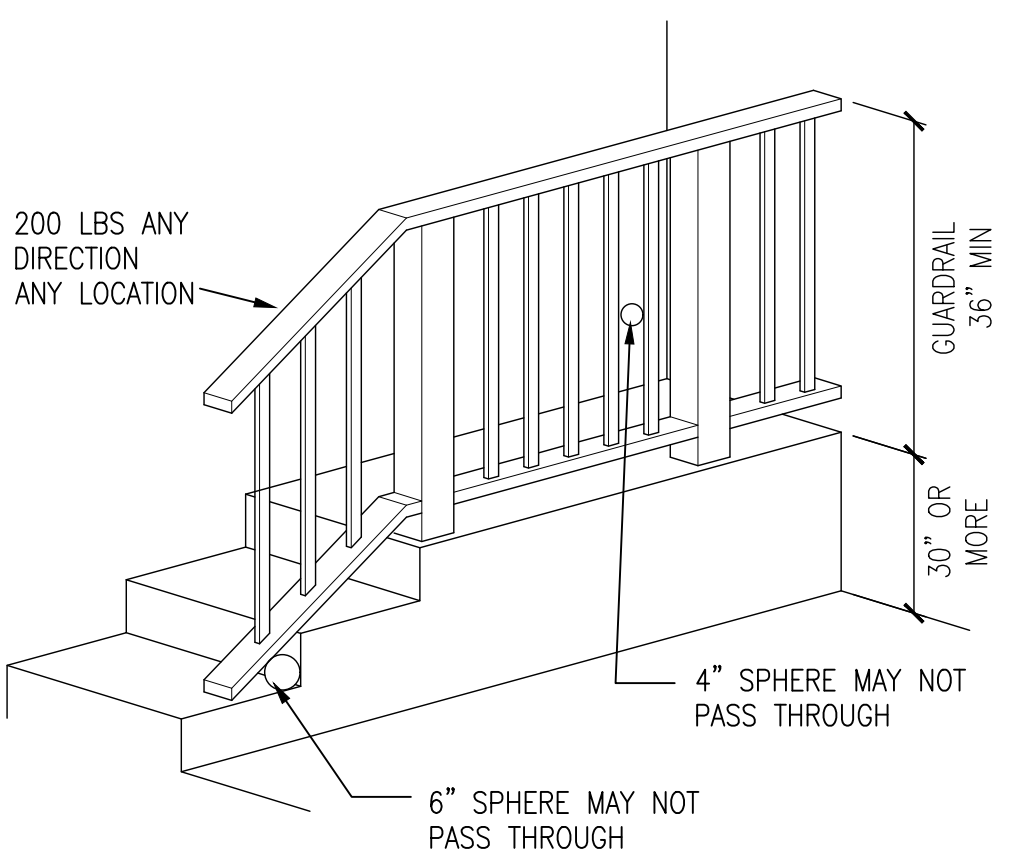
GUARDRAILS SHALL NOT BE LESS THAN 36" IN HEIGHT. HANDRAILS SHALL NOT BE LESS THAN 34" OR MORE THAN 38" IN HEIGHT ABOVE THE STAIR NOSING.

OPEN RAILS SHALL HAVE INTERMEDIATE RAILS OR AN ORNAMENTAL PATTERN SUCH AS A 4" DIAMETER SPHERE CANNOT PASS THROUGH.

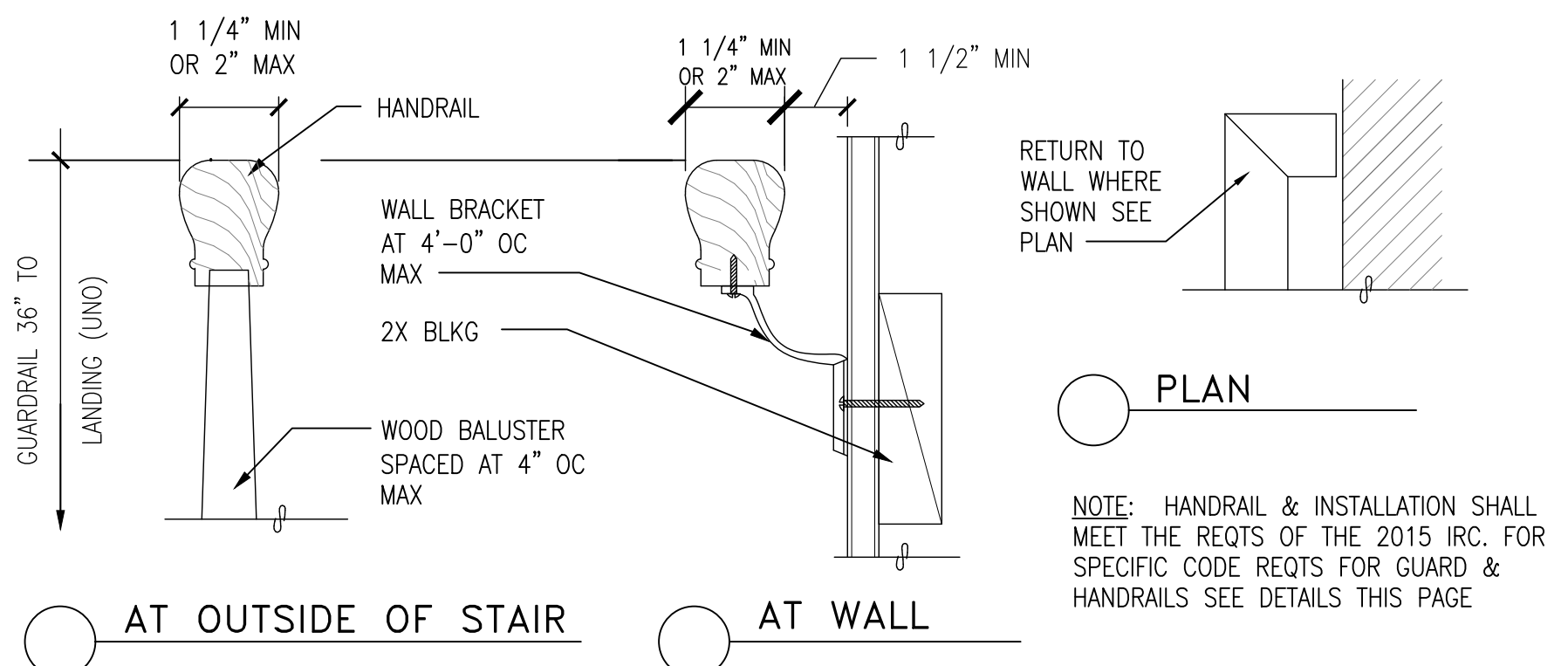
THE TRIANGULAR OPENINGS AT STAIR TREAD, RISER & BOTTOM SHALL BE SUCH AS A 6" DIAMETER SPHERE CANNOT PASS THROUGH.

THE HANDRAIL CONSTRUCTION SHALL BE ABLE TO RESIST A LOAD OF 200 LBS APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP RAIL.

THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THE BUILDING CODE AND IS ONLY AN AID FOR CONSTRUCTION



6 TYPICAL HANDRAIL / GUARDRAIL DETAIL
SCALE: NTS



5 TYPICAL HANDRAIL REQUIREMENT
SCALE: NTS

Permit Set	
Job #24-028	
Description	Date
Permit Intake	10/07/24

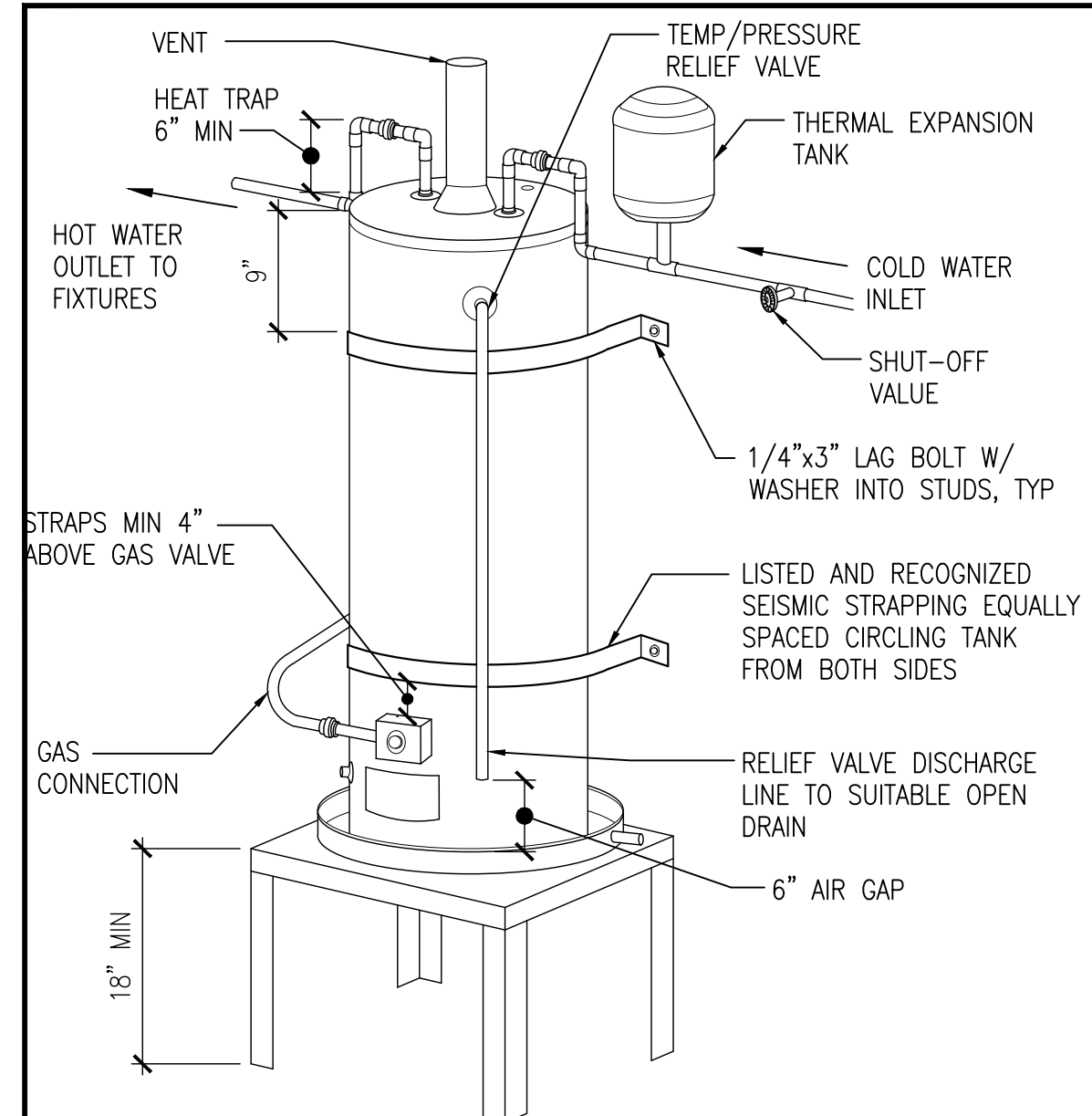
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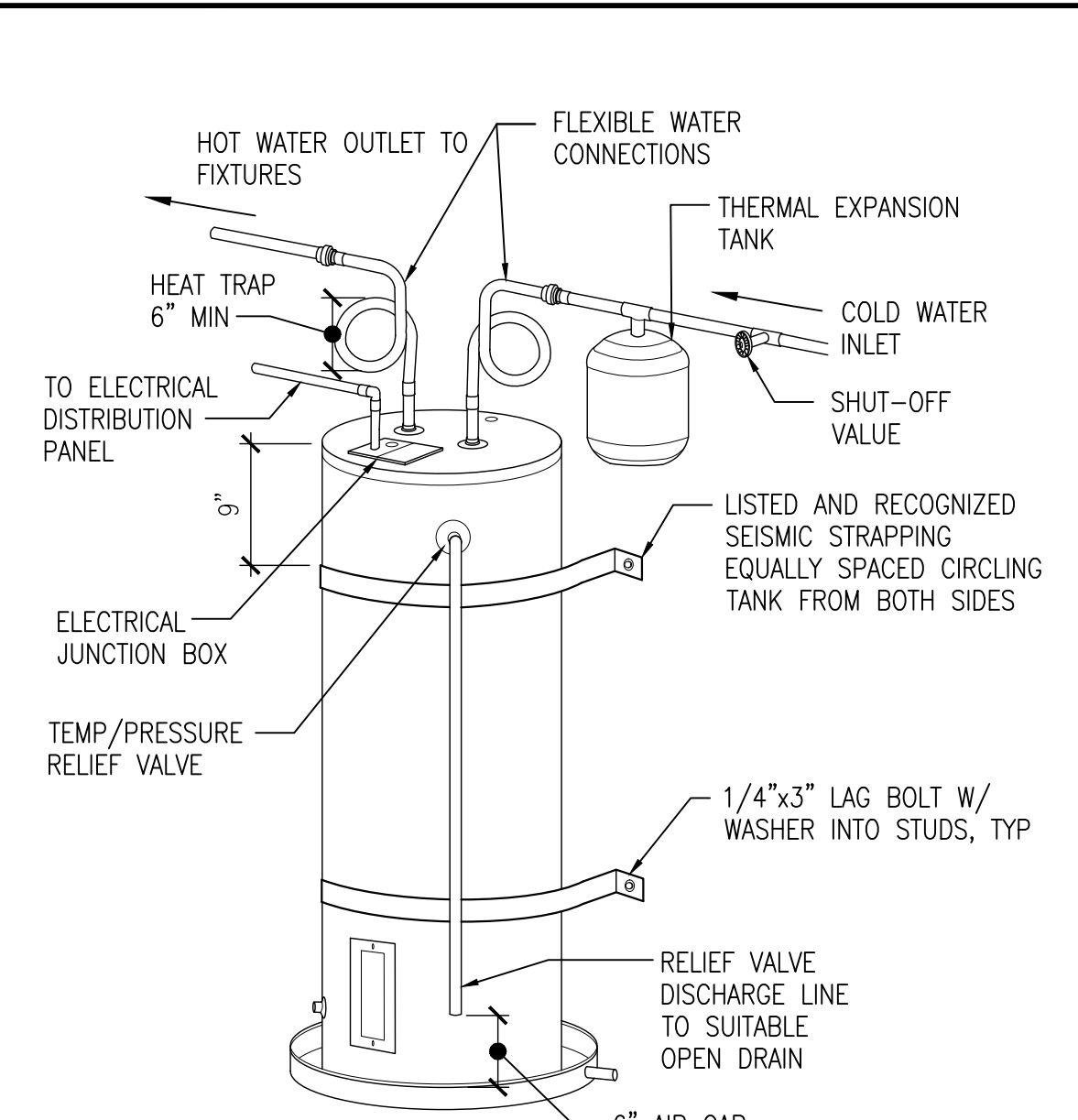
DETAILS

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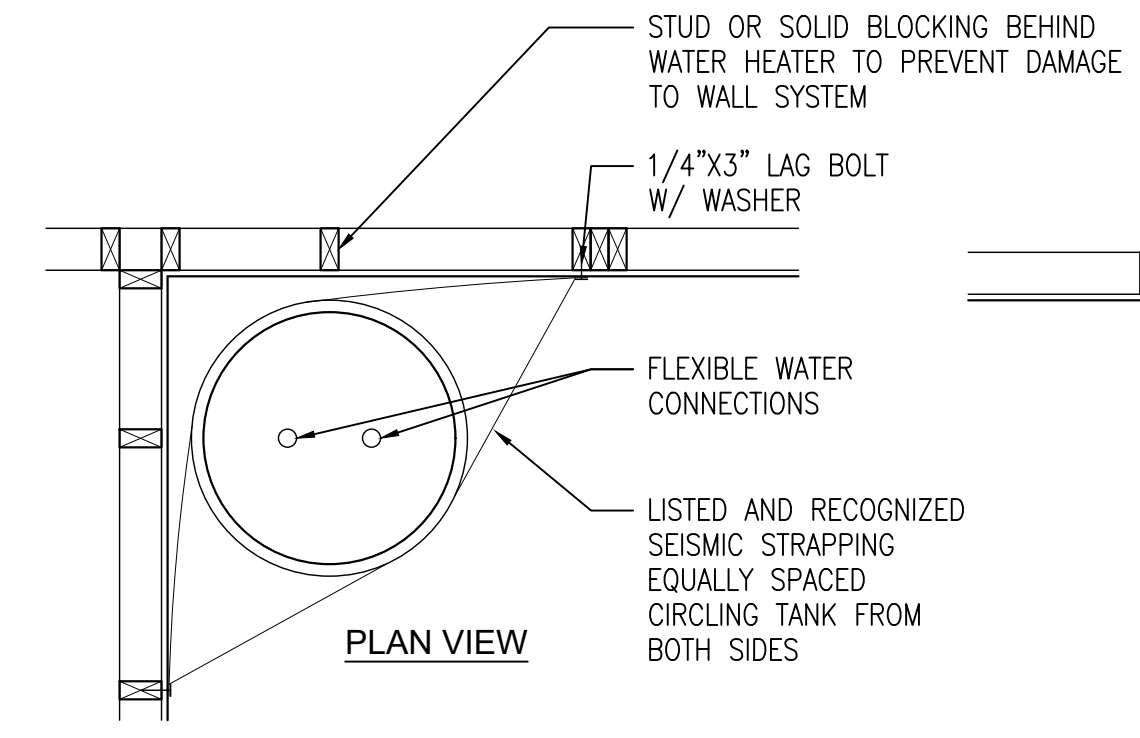
D2.0



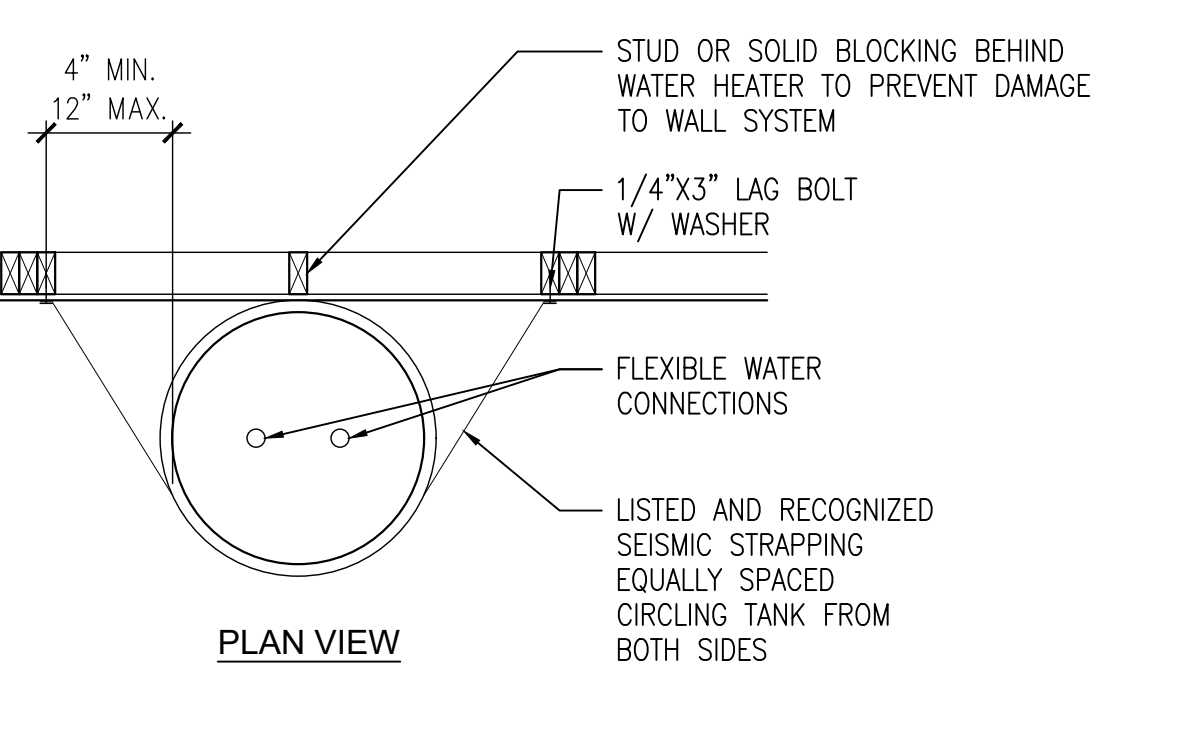
GAS



ELECTRIC

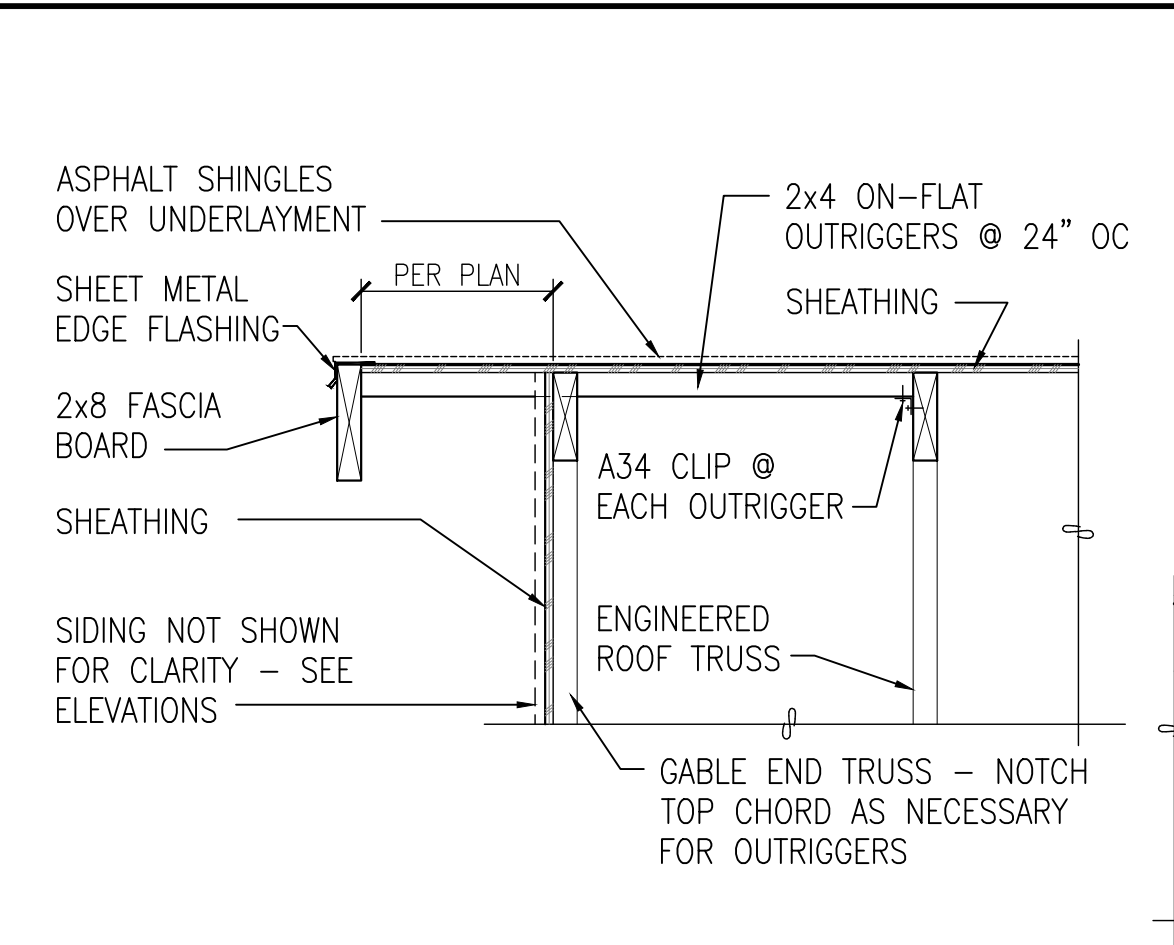


PLAN VIEW

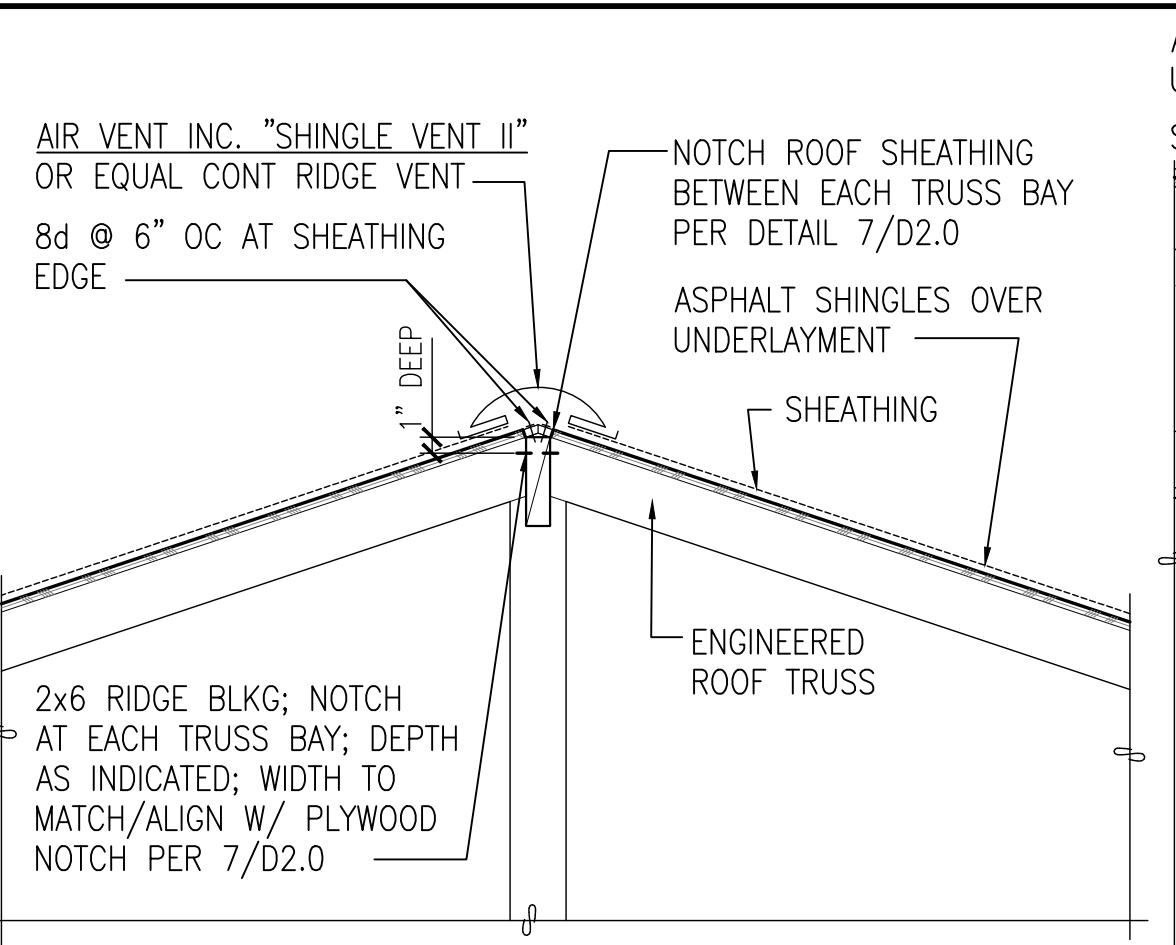


PLAN VIEW

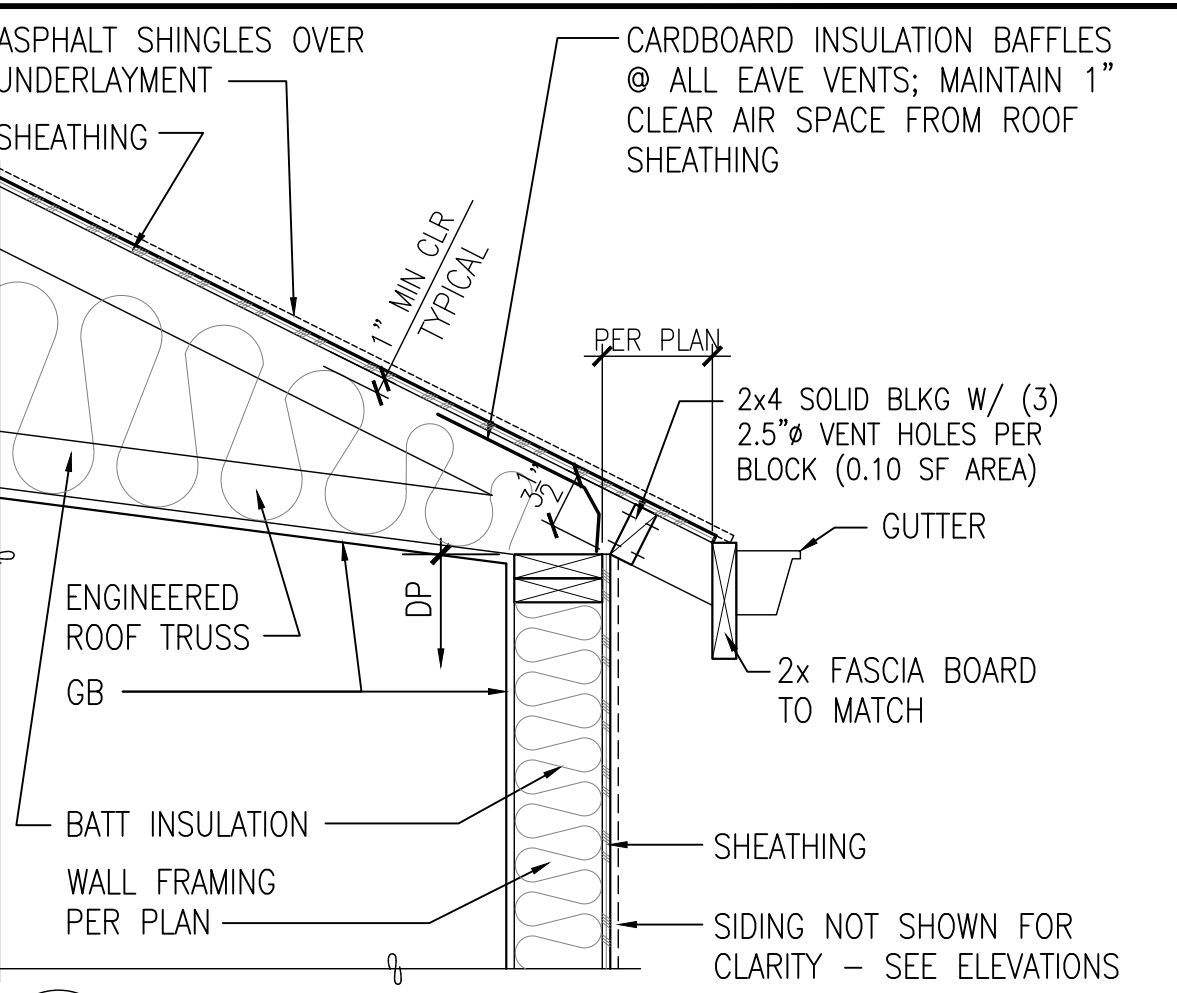
19 WATER HEATER SEISMIC STRAPPING
SCALE: 3/4"=1'-0"



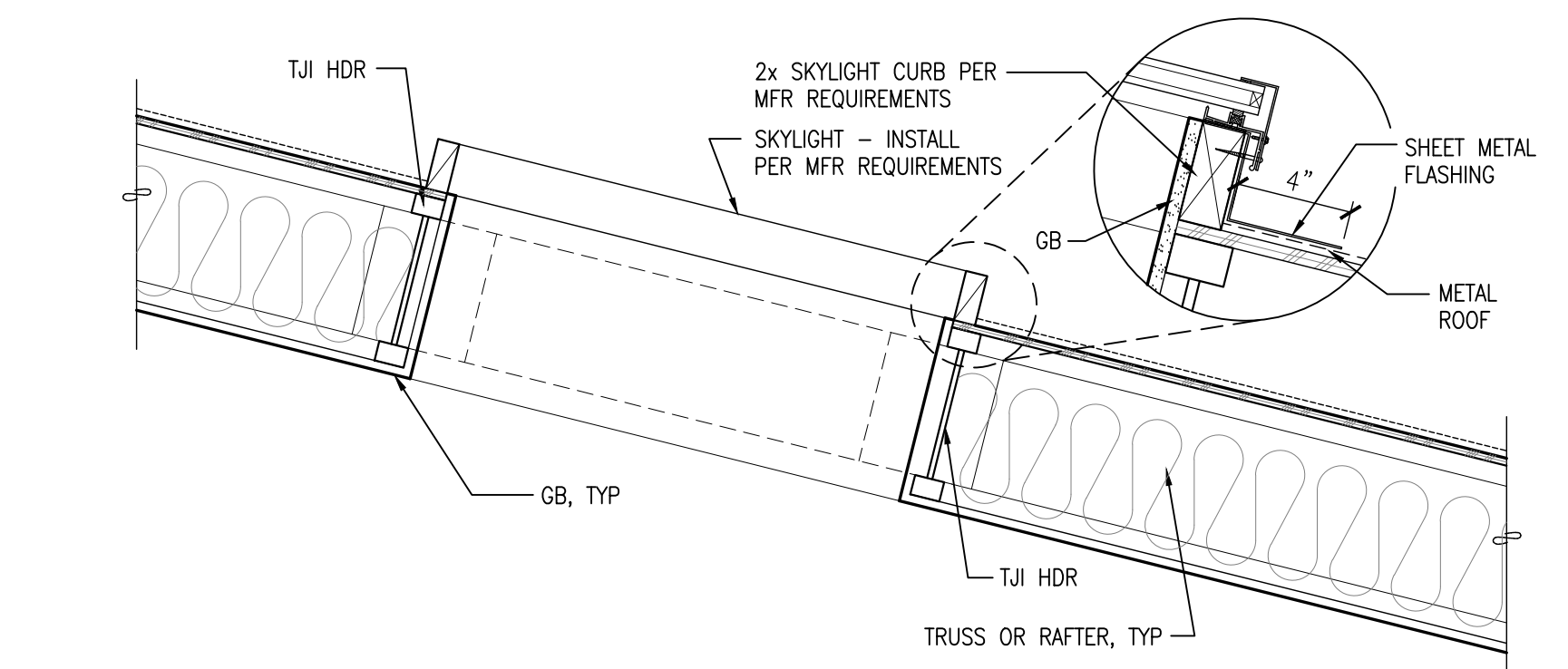
12 DETAIL
SCALE: 1"=1'-0"



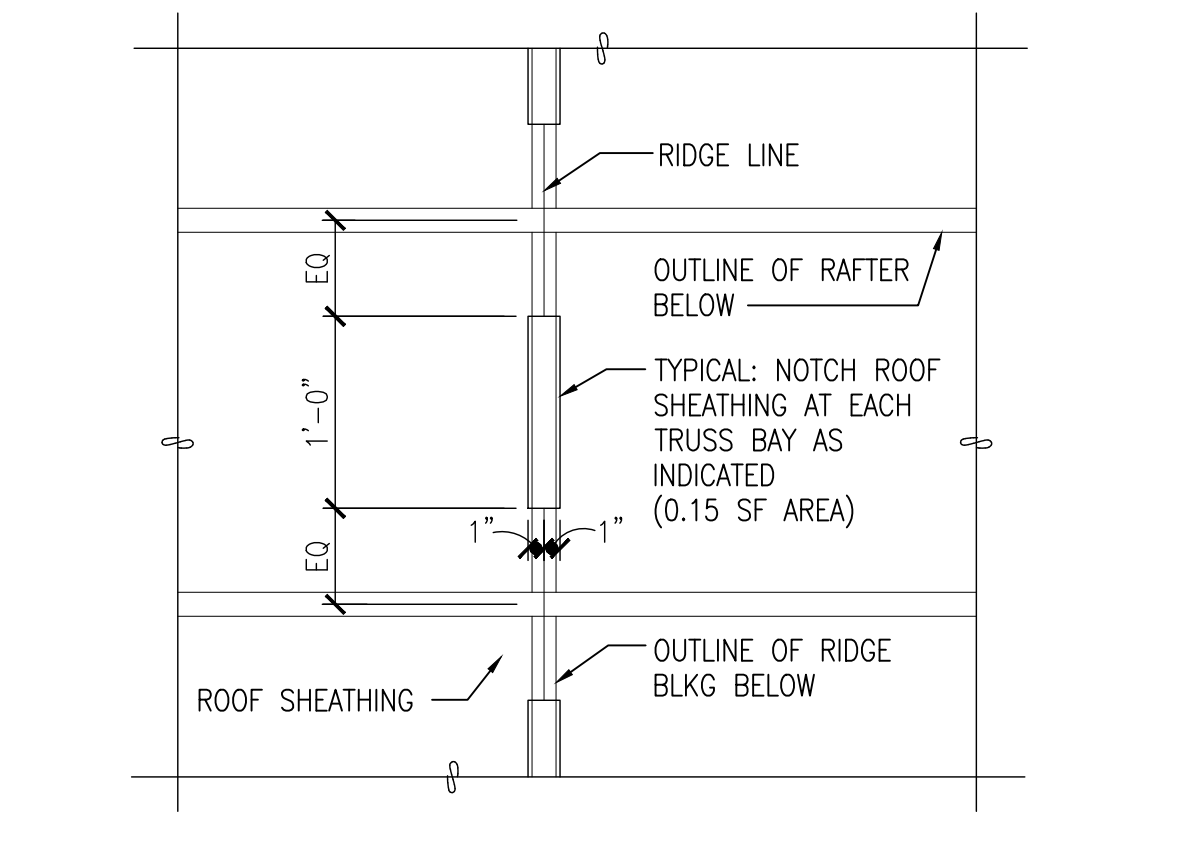
8 DETAIL
SCALE: 1"=1'-0"



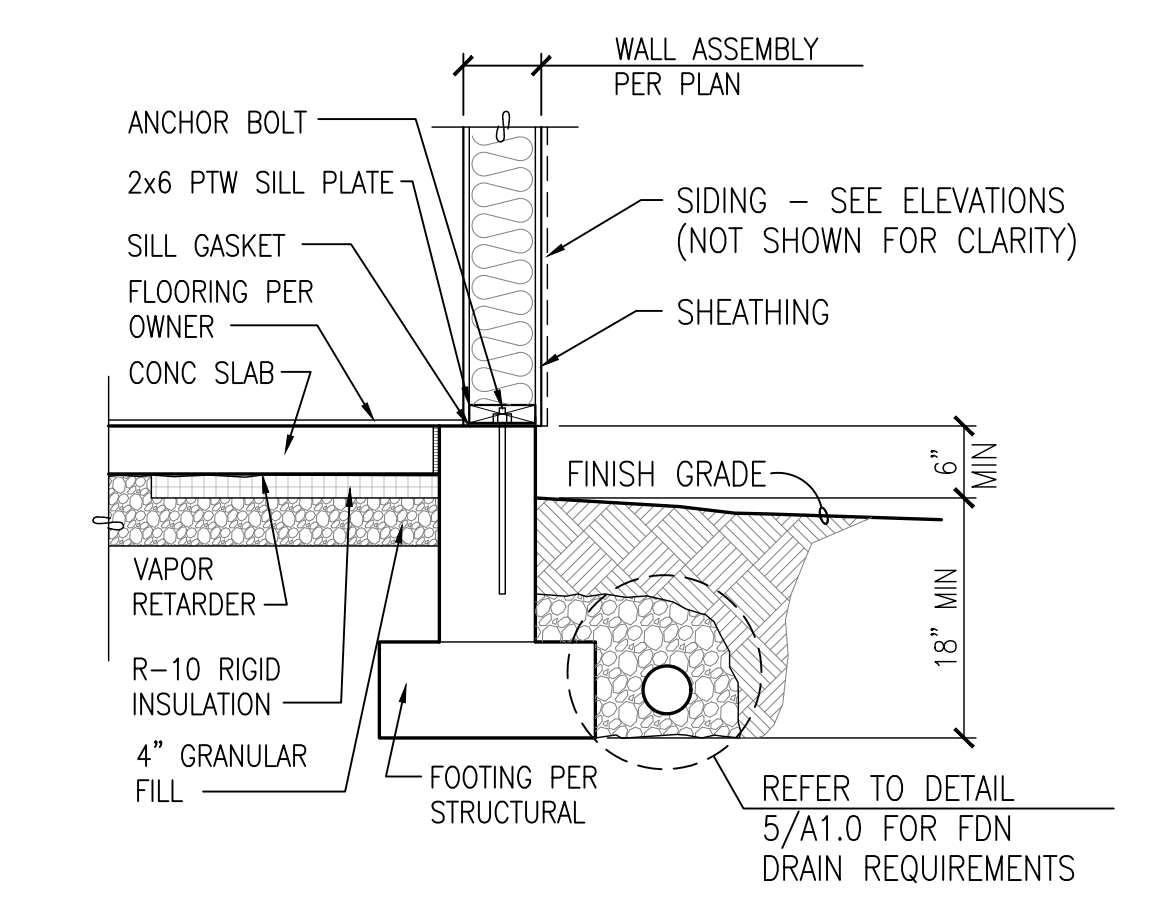
4 DETAIL
SCALE: 1"=1'-0"



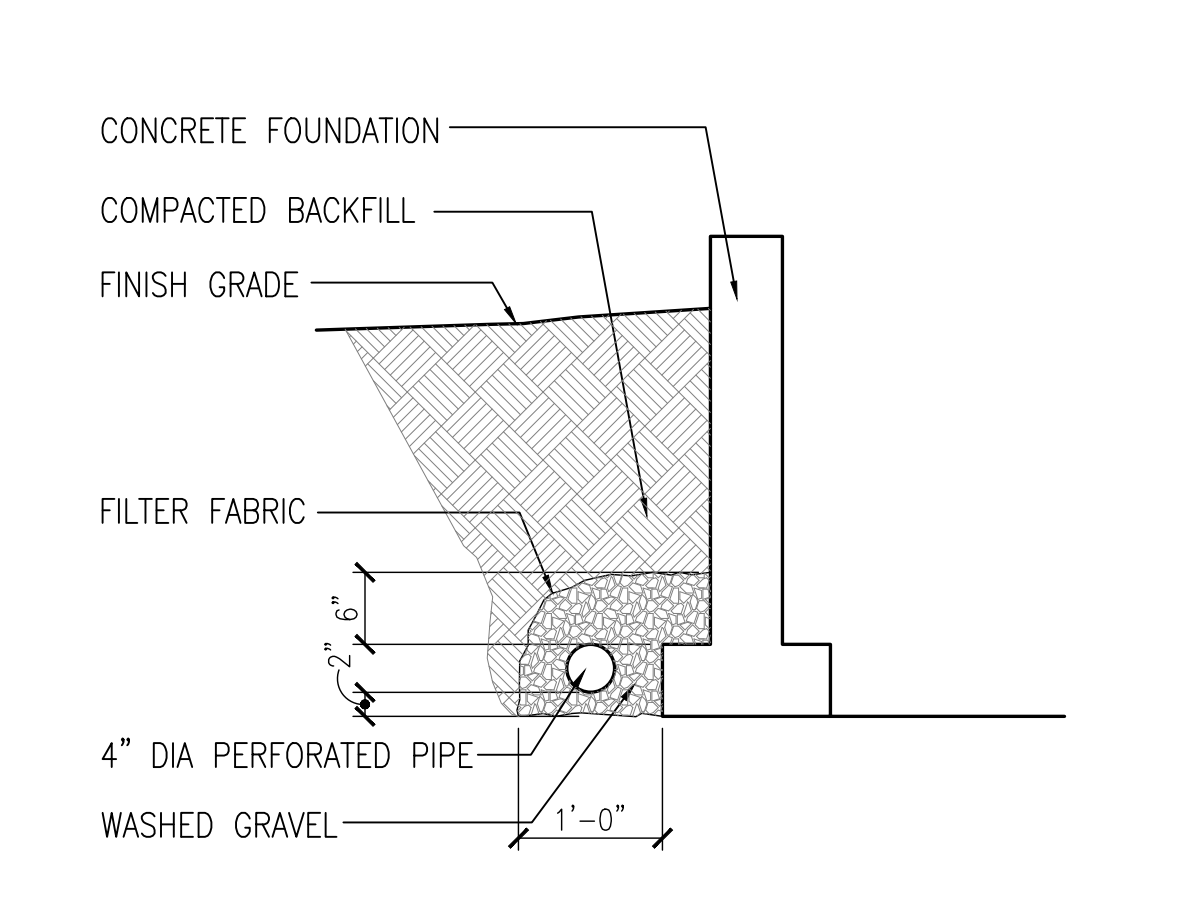
11 DETAIL
SCALE: 1"=1'-0"



3 DETAIL
SCALE: 1"=1'-0"



5 DETAIL
SCALE: 3/4"=1'-0"



1 FOUNDATION DRAINAGE SYSTEM
SCALE: 3/4"=1'-0"

Permit Set	
Job # 24-028	
Description	Date
Permit Intake	10/07/24

Drawn:
Stamp/Approval:

Sheet Name:

DETAILS

Sheet No:

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STRUCTURAL NOTES

01000: GENERAL REQUIREMENTS

THE STRUCTURAL NOTES SUPPLEMENT THE PLANS AND SPECIFICATIONS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, SITE CONDITIONS, AND ARCHITECTURAL PLANS SHALL BE REPORTED TO THE ARCHITECT WHO SHALL CORRECT THE DISCREPANCY IN WRITING. ANY WORK COMPLETED AFTER DISCOVERY OF THE DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK. REFER TO ARCHITECTURAL PLANS FOR OPENINGS, ARCHITECTURAL TREATMENTS, AND DIMENSIONS NOT SHOWN. CONSULT MECHANICAL PLANS FOR DUCTS AND PIPES ETC. NOT SHOWN.

THE CONTRACTOR SHALL PROVIDE BRACING AND SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION LOADS AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. BACKFILL BEHIND WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF THE EXCAVATION, SHORING, AND OTHER WORK WITH ALL UTILITIES AND ADJACENT PROPERTIES. CALL THE UTILITY LOCATE SERVICE PRIOR TO ANY WORK AT 1-800-424-5555.

01100: CODE REQUIREMENTS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2021 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE CITY OF MERCER ISLAND.

01200: DESIGN LOADS

LIVE LOADS
 FLOOR LIVE 20 PSF
 FLOORS (RESIDENTIAL) 40 PSF
 DECK 60 PSF

SNOW LOAD DESIGN DATA:

SNOW LOAD DESIGN DATA:
 ROOF RAIN-ON-SNOW 25 PSF [SEAW WHITE PAPER, SITE ~103FT EL.]

AUXILIARY LOAD:

ROOF SOLAR-READY (PV) 5 PSF (ENTIRE ROOF)

WIND DESIGN DATA:

BASIC WIND SPEED: 110 MPH (RISK CATEGORY II)
 WIND IMPORTANCE FACTOR: Iw = 1.0
 WIND EXPOSURE: B
 TOPOGRAPHICAL FACTOR: Kzt = 1.00
 INTERNAL PRESSURE COEFFICIENT: Gcpi = +/- 0.18
 COMPONENT/CLADDING WIND PRESSURE: P(C) = 42 PSF*Kzt (ULT)

EARTHQUAKE DESIGN DATA (BOTH BUILDINGS):

SEISMIC IMPORTANCE FACTOR: Ie = 1.0
 SPECTRAL RESPONSE ACCELERATIONS: Ss = 1.426, S1 = 0.496
 SITE CLASS: SITE CLASS D [DEFAULT]
 SPECTRAL RESPONSE COEFFICIENTS: SDS = 1.141 SD1 = N/A
 SEISMIC DESIGN CATEGORY: SEISMIC DESIGN CATEGORY D
 BASIC FORCE RESISTING SYSTEM: BEARING WALL SYSTEM
 RESPONSE MODIFICATION FACTOR: R = 6.5 (LIGHT FRAME WALLS)
 ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

01300: FOUNDATIONS

ASSUMED 1500 PSF ALLOWABLE SOIL BEARING PRESSURE. FILLS TO BE 95% MODIFIED PROCTOR PER ASTM D-1557. ALL NEW EXTERIOR FOOTINGS SHALL BE A MINIMUM OF 18 INCHES BELOW LOWEST ADJACENT GRADE. PROVIDE A MINIMUM OF 8" FROM EXISTING GRADE TO WOOD SIDING OR PLATES THAT DO NOT HAVE A NATURAL RESISTANCE TO DECAY. ALL FOUNDATIONS SHALL BE FOUNDED ON COMPETENT NATIVE MATERIAL.

FOUNDATIONS HAVE BEEN DESIGNED WITH THE FOLLOWING PARAMETERS:

ACTIVE EARTH PRESSURE (YIELDING) 35 PCF
 ACTIVE EARTH PRESSURE (AT-REST) 55 PCF
 PASSIVE EARTH PRESSURE 250 PCF
 COEFFICIENT OF FRICTION 0.35
 SOIL PROFILE SITE CLASS D
 FROST DEPTH (MIN. B.O.F. BLW. GRADE) 18 INCHES

NO FOOTINGS SHALL BE FOUNDED ON OR ABOVE LOOSE, ORGANIC OR EXISTING FILL SOILS. THE SAND SUBGRADE SHALL BE COMPACTED OR CLEANED OF LOOSE OR DISTURBED SOIL.

01330: SHOP DRAWING SUBMITTAL PROCESS

SHOP DRAWINGS ARE TO BE SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION. IF SHOP DRAWINGS DIFFER FROM THE APPROVED DESIGN DRAWINGS, NEW DESIGN DRAWINGS BEARING THE SEAL AND SIGNATURE OF A LICENSED WASHINGTON STATE STRUCTURAL ENGINEER SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS TO THE APPROPRIATE JURISDICTION FOR APPROVAL PRIOR TO FABRICATION.

SHOP DRAWINGS SHALL BE REQUIRED FOR THE FOLLOWING:

1. PREFABRICATED WOOD I-JOIST

CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A LICENSED WASHINGTON STATE STRUCTURAL ENGINEER SHALL BE SUBMITTED ALONG WITH THE SHOP DRAWINGS FOR PREFABRICATED PLATED WOOD TRUSSES.

01400: INSPECTIONS AND SPECIAL INSPECTIONS

THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED BY THE LOCAL BUILDING DEPARTMENT.

SPECIAL INSPECTIONS ARE NOT REQUIRED FOR GROUP R-3 OCCUPANCIES UNLESS OTHERWISE REQUIRED BY THE BUILDING OFFICIAL.

01401: STRUCTURAL OBSERVATION

STRUCTURAL OBSERVATION IS NOT REQUIRED.

01700: EXECUTION REQUIREMENTS

INSTALLATION OF ALL STRUCTURAL COMPONENTS SHALL BE AS REQUIRED PER ALL LOCAL CODES.

02000: SITE CONSTRUCTION

ALL SITE CONSTRUCTION SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS AS NOTED IN THE GEOTECHNICAL ENGINEERING REPORT (SEE SECTION 01300) AND IN SUBSEQUENT DIRECTIVES.

02260: EXCAVATION SUPPORT AND PROTECTION

EXCAVATION FOR FOUNDATIONS SHALL BE PER PLAN DOWN TO UNDISTURBED NATIVE MATERIAL PER THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS. OVER-EXCAVATED AREAS SHALL BE BACKFILLED WITH LEAN CONCRETE OR PER GEOTECHNICAL RECOMMENDATIONS AT THE CONTRACTOR'S EXPENSE.

EXCAVATION SLOPES SHALL BE SAFE AND SHALL NOT BE GREATER THAN THE LIMITS SPECIFIED BY LOCAL, STATE, AND NATIONAL SAFETY REGULATIONS.

INSTALLATION OF CONSTRUCTION SHORING, IF REQUIRED, SHALL BE PER THE SHORING DRAWINGS, NOTES, AND SPECIFICATIONS.

02300: BACKFILL AND COMPACTION

BACKFILL SHALL NOT BE PLACED UNTIL THE REMOVAL OF FORMWORK AND OF ANY DEBRIS. BACKFILL BEHIND ALL WALLS SHALL NOT BE PLACED UNTIL THE WALLS ARE PROPERLY SUPPORTED. ALL BACKFILL MATERIAL AND PLACEMENT PROCEDURES SHALL BE CONSISTENT WITH THE GEOTECHNICAL ENGINEERING RECOMMENDATIONS.

02830: SEGMENTAL RETAINING WALLS

SEGMENTAL RETAINING WALLS AND MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS SHALL BE DESIGNED BY OTHERS.

03000: CONCRETE

CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE STANDARD ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".

CEMENT AND CONCRETE SHALL CONFORM TO IBC SECTION 1903. ADMIXTURES SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHALL COMPLY WITH ACI 318 SECTION 3.6. CONCRETE EXPOSED TO FREEZING AND THAWING SHALL HAVE AN AIR ENTRAINING ADMIXTURE CONFORMING TO IBC SECTION 1904.2. THE USE OF WATER SOLUBLE CHLORIDE ION SHALL NOT BE USED.

THE CONTRACTOR SHALL SUBMIT MIX DESIGNS TO ENGINEER OF RECORD FOR APPROVAL FOUR WEEKS PRIOR TO PLACING CONCRETE. MIX DESIGNS SHALL BE REVIEWED FOR CONFORMANCE TO IBC SECTIONS 1904 AND 1905.

CONCRETE HAS BEEN DESIGNED FOR $f'_c=2500$ PSI. FOR QUALITY ASSURANCE, CONCRETE MIX DESIGNS SHALL MEET THE FOLLOWING REQUIREMENTS:

28 DAY STRENGTH W/C RATIO	MAX. SLUMP	AIR ENTRAINMENT (%)	SPECIAL INSPECTION	LOCATION
3000	0.45 4±1	5±1	NO	FOOTINGS
3000	0.45 4±1	5±1	NO	FOUNDATION WALLS
3000	0.45 4±1	5±1	NO	SLAB ON GRADE, PATIOS
3000	0.45 4±1	5±1	NO	CURBS, WALKS, DRIVES

ONE COMPRESSION TEST MINIMUM SHALL BE COMPILED FOR EVERY 150 CUBIC YARDS OR 5000 SQUARE FEET OF SURFACE AREA FOR EACH MIX DESIGN PLACED EACH DAY. A TEST SHALL BE THE AVERAGE STRENGTH OF TWO CYLINDERS MADE FROM THE SAME SAMPLE AND TESTED AT THE SPECIFIED AGE. ADDITIONAL CYLINDERS MAY BE MADE FOR INFORMATION REGARDING POST TENSIONING, FORM REMOVAL, STRENGTH DEVELOPMENT, OR OTHER PURPOSES. CONCRETE SHALL BE ACCEPTABLE IF:
 1. NO TEST FALLS 500 PSI BELOW THE SPECIFIED STRENGTH
 2. THE AVERAGE OF ALL SETS OF 3 CONSECUTIVE TESTS DOES NOT FALL BELOW THE SPECIFIED STRENGTH
 CONCRETE NOT MEETING THE ABOVE CRITERIA SHALL BE SUBJECT TO FURTHER TESTING AT NO ADDITIONAL EXPENSE TO THE OWNER.

RESHORING, WHERE REQUIRED, SHALL CONFORM TO ACI 301 SECTION 4.6. SUBMIT PROPOSED RESHORING PLANS TO THE ENGINEER OF RECORD FOR REVIEW.

CHAMFER ALL EXPOSED CORNERS PER THE ARCHITECTURAL PLANS OR 3/4 INCH IF NOT SPECIFIED BY THE ARCHITECT.

REFER TO "01300" FOR APPROVAL PRIOR TO FORMWORK.

REINFORCING STEEL DETAILING, FABRICATION, AND PLACEMENT SHALL BE PER ACI 318. REINFORCING STEEL SHALL MEET THE FOLLOWING REQUIREMENTS:

ASTM A-615 DEFORMED BARS GRADE 40 (fy=40 KSI) FOR #3 BARS ONLY
 ASTM A-615 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR #4 BARS AND LARGER
 ASTM A-706 DEFORMED BARS GRADE 60 (fy=60 KSI) FOR ALL WELDABLE BARS
 ASTM A-185 SMOOTH BAR (fy=60 KSI) FOR WELDED WIRE FABRIC

REINFORCING FOR SLABS ON GRADE SHALL BE 12X12 W5X5 WELDED WIRE FABRIC OR FIBER MESH UNLESS NOTED OTHERWISE. PROVIDE LAP SPLICES PER THE LAP SPLICE SCHEDULE ON SHEET S6.1. REINFORCING STEEL AT ALL WALLS, SLABS, AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS ELSE CORNER BARS SHALL BE PROVIDED.

COVER REQUIREMENTS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

CONCRETE CAST AGAINST EARTH
 ALL BAR SIZES 3"
 FORMED SURFACE EXPOSED TO EARTH OR WEATHER
 #8 AND LARGER 1 1/2"
 #5 AND SMALLER 1 1/2"
 CONCRETE NOT EXPOSED TO EARTH OR WEATHER
 WALLS AND JOISTS
 #14 AND #18 BARS 1 1/2"
 #11 BARS AND SMALLER 3/4"
 SLABS AND JOISTS
 #14 AND #18 BARS 1 1/2"
 #11 BARS AND SMALLER 1"
 BEAMS, COLUMNS
 PRIMARY REINFORCEMENT 1 1/2"
 TIES, STIRRUPS, AND SPIRALS 1 1/2"

REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN PLACE PRIOR TO CONCRETE PLACEMENT. REINFORCING STEEL SHALL NOT BE FIELD BENT EXCEPT AS NOTED IN THE DESIGN DRAWINGS. WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER OF RECORD EXCEPT AS NOTED ON THE DESIGN DRAWINGS.

05120: STRUCTURAL STEEL
 DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "AISC SPECIFICATION FOR STRUCTURAL STEEL FOR BUILDINGS". MATERIALS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

STRUCTURAL W SHAPES	ASTM A-992	Fy = 50 KSI
S, M, AND C SHAPES	ASTM A-36	Fy = 36 KSI
STEEL ANGLES	ASTM A-36	Fy = 36 KSI
PLATE MATERIAL	ASTM A-36	Fy = 36 KSI
STRUCTURAL PIPE	ASTM A-53 GRADE B	Fy = 35 KSI
STRUCTURAL TUBE	ASTM A-500 GRADE B	Fy = 46 KSI
HEADED STUDS	ASTM A-108	
WELDING ELECTRODES	E70-XX TYPICAL, U.N.O.	
HIGH STRENGTH BOLTS	ASTM A-325N BEARING TYPE (SNUG TIGHT)	
ANCHOR RODS	ASTM A-307 OR ASTM A-36	
WOOD CONNECTION BOLTS	ASTM A-307	

ALL WELDING SHALL CONFORM TO THE AWS D1-1 "STRUCTURAL WELDING CODE". ALL WELDING SHALL BE PERFORMED BY A WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO) AND AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS. ALL COMPLETE PENETRATION (CP) WELDS SHALL BE ULTRASONICALLY TESTED. ALL FILLET WELDS SHALL BE VISUALLY INSPECTED.

STRUCTURAL STEEL AND CONNECTIONS EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A-153. ALL FIELD WELDS EXPOSED TO WEATHER SHALL BE COATED WITH BRUSH APPLIED ZINC-RICH PAINT COMPLYING WITH ASTM A-780.

06071: PRESERVATIVE TREATED WOOD PRODUCTS

PRESERVATIVE TREATED WOOD SHALL BE REQUIRED FOR:

ALL WOOD THAT FORMS THE STRUCTURAL SUPPORT OF THE BUILDING, BALCONIES PORCHES, OR SIMILAR PERMANENT BUILDING APPURTENANCES THAT ARE EXPOSED TO THE WEATHER WITHOUT ADEQUATE PROTECTION FROM A ROOF EAVE, OVERHANG OR OTHER COVERING TO PREVENT MOISTURE OR WATER ACCUMULATION AT THE SURFACE OR AT JOINTS BETWEEN MEMBERS.

ALL WOOD INSTALLED ABOVE GROUND AND RESTING ON AN EXTERIOR CONCRETE OR MASONRY FOUNDATION WALL LESS THAN 8 INCHES FROM EXPOSED EARTH.

POSTS OR COLUMNS SUPPORTING PERMANENT STRUCTURES AND SUPPORTED BY A CONCRETE SLAB OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH. EXCEPT:

- IF LOCATED IN BASEMENTS ON A CONCRETE PIER OR METAL PIERLESS 1 INCH ABOVE THE SLAB AND SEPARATED THEREFROM BY AN IMPERVIOUS MOISTURE BARRIER.
- IF IN AN ENCLOSED CRAWL SPACE OR AN UNEXCAVATED AREA WITHIN THE BUILDING PERIPHERY AND SUPPORTED BY A CONCRETE PIER OR PEDESTAL MORE THAN 8 INCHES FROM EXPOSED GROUND AND SEPARATED THEREFROM BY AN IMPERVIOUS MOISTURE BARRIER.
- SLEEPERS AND SILLS ON A CONCRETE SLAB ON GRADE THAT DOES NOT HAVE AN IMPERVIOUS MOISTURE BARRIER SEPARATION WITH EXPOSED EARTH.
- LEDGERS AND FURRING ATTACHED DIRECTLY TO THE INTERIOR OF EXTERIOR CONCRETE OR MASONRY WALLS BELOW GRADE.

PRESERVATIVE TREATMENT SHALL BE PER AMERICAN WOOD PRESERVERS' ASSOCIATION (AWPA) SPECIFICATION C2 AND C9 OR APPLICABLE STANDARDS.

ALL FASTENERS (NAILS, BOLTS, MASAS, ANCHORS, PLATES, HANGERS, ETC.) IN CONTACT WITH TREATED LUMBER SHALL BE CORROSION RESISTANT G-185 HOT DIPPED GALVANIZED PER ASTM A153 OR STAINLESS STEEL.

06100: ROUGH FRAMING

SAWM LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU (WCLIB) "GRADING AND DRESSING RULES" NO. 17 LATEST EDITION. SAWM LUMBER SHALL BE 54S AND SURFACED DRIED, 19 PERCENT MAXIMUM MOISTURE CONTENT. PROTECT LUMBER FROM WEATHER AND PROVIDE FURTHER DRYING OF ASSEMBLED FRAMING TO MINIMIZE WOOD SHRINKAGE POTENTIAL. ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED U.N.O. PER PLAN. LUMBER SPECIES, GRADE, AND PROPERTIES FOR EACH USE/LOCATION SHALL BE AS FOLLOWS U.N.O. PER PLAN/SCHEDULE:

SIZE	SPECIES	GRADE	Fb (PSI)	Fv (PSI)	Fcp (PSI)	Fc (PSI)	E (PSI)
2X,4X	DOUGLAS FIR-LARCH NO. 2	900	180	625	1350	1.66E	
6X	DOUGLAS FIR-LARCH NO. 1	1200	170	625	1000	1.66E	

06101: STRUCTURAL FINGER JOINTED LUMBER

STRUCTURAL FINGER JOINTED LUMBER SHALL BE PERMITTED TO BE USED INTERCHANGEABLY WITH SAWM LUMBER MEMBERS OF THE SAME SPECIES AND GRADE. STRUCTURAL FINGER JOINTED LUMBER SHALL BE GRADED UNDER AMERICAN LUMBER STANDARD COMMITTEE "PRODUCT STANDARD PS 20-99". LUMBER CLASSIFIED AS STUD USE ONLY SHALL BE LIMITED TO VERTICAL APPLICATIONS ONLY. LUMBER WITH CERTIFIED EXTERIOR JOINTS IS NOT RESTRICTED TO ANY TYPE OF LOADING.

06102: FRAMING NOTES

FRAMING CONNECTORS, ACCESSORIES, AND FASTENERS AS NOTED IN THE PLANS AND DETAILS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE MAY BE USED WITH PRIOR APPROVAL BY ENGINEER OF RECORD. INSTALL ALL HARDWARE PER MANUFACTURERS' SPECIFICATIONS. WHERE STRAPS CONNECT TWO MEMBERS TOGETHER, PLACE HALF OF THE REQUIRED FASTENERS INTO EACH MEMBER. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. SEE SECTION 06071 FOR FASTENER REQUIREMENTS AT TREATED LUMBER. TYPICAL NAILING NOT SHOWN PER PLAN, DETAIL, OR SCHEDULE SHALL CONFORM TO FASTENING SCHEDULE PER IBC TABLE 2304.10.1 OR TO THE FASTENING SCHEDULE ON SHEET S1.0.

NAILS SHALL BE COMMON UNLESS NOTED OTHERWISE COMMON NAIL DIMENSIONS ARE AS FOLLOWS:

NAIL SIZE	DIAMETER	LENGTH
8d	0.131"	2.5"
10d	0.148"	3.0"
12d	0.162"	3.25"
16d	0.182"	3.5"

UNLESS NOTED OTHERWISE PER SHEARWALL SCHEDULE OR PLANS, #8 ANCHOR BOLTS AT SILL PLATES SHALL BE PLACED AT 48" O.C. PER 5/S1.2. THERE SHALL BE A MINIMUM OF 2 BOLTS PER SILL PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES NOR LESS THAN 8 INCHES FROM EACH END OF THE PIECE.

06103: JOIST AND BEAM HANGERS

JOIST AND BEAM HANGERS AS NOTED IN THE PLANS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE. EQUIVALENT HARDWARE MAY BE USED WITH PRIOR APPROVAL BY ENGINEER OF RECORD. JOIST AND BEAM HANGERS SHALL BE INSTALLED PER MANUFACTURERS' SPECIFICATIONS AND SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE PER PLANS OR DETAILS:

MEMBER SIZE	HANGER
SAWM LUMBER	"HUS" SERIES TO MATCH LUMBER SIZE [0.162x3]" NAILS]
MANUF. WOOD "I" JOIST	"IUS" SERIES TO MATCH "I" JOIST SIZE TO WOOD BM.
	"BA" SERIES TO 2X MIN. NAILER ON STL. BM.
1.75" WIDE PSL OR LVL BEAM	"HUS1.81" SERIES TO MATCH DEPTH [0.162x3]" NAILS]
3.5" WIDE PSL OR LVL BEAM	"HGUS3.63" SERIES TO MATCH DEPTH [SDS25212 SCREWS]
5.25" WIDE PSL OR LVL BEAM	"HGUS5.5" SERIES TO MATCH DEPTH [SDS25212 SCREWS]
7" WIDE PSL BEAM	"HGU7.25" SERIES TO MATCH DEPTH [SDS25212 SCREWS]

SHEET	DESCRIPTION	DATE
S1.1	STRUCTURAL GENERAL NOTES	07/17/24
S1.2	SHEARWALL SCHEDULE AND NOTES	07/17/24
S1.3	HOLD DOWN SCHEDULE AND NOTES	07/17/24
S1.4	SPECIAL INSPECTION TABLES AND NOTES	07/17/24
S2.1	FOUNDATION & MAIN FLOOR FRAMING PLAN	07/17/24
S2.2	FOUNDATION & MAIN FLOOR FRAMING PLAN	07/17/24
S2.3	SECOND FLOOR FRAMING PLAN	07/17/24
S2.4	ROOF FRAMING PLAN	07/17/24

DETAILS

SHEET	DESCRIPTION	DATE
S6.1	FOUNDATION DETAILS	07/17/24
S9.1	FRAMING DETAILS	07/17/24
S9.2	STEEL FRAMING DETAILS	07/17/24

06104: SHRINKAGE OF WOOD FRAMING

SHRINKAGE OF WOOD FRAMING IS DUE TO LOSS OF MOISTURE CONTENT AND TO COMPRESSION OF ASSEMBLIES OF WOOD COMPONENTS. PLUMBING, ELECTRICAL, AND MECHANICAL SYSTEMS AS WELL AS EXTERIOR FINISHES SHALL BE DESIGNED AND BUILT TO ACCOMMODATE 3/8 INCH PER FLOOR WOOD SHRINKAGE. THE USE OF KILN DRIED LUMBER AND PROVIDING A DRYING PROCESS TO THE FRAMING MEMBERS PRIOR TO APPLICATION OF FINISHES WILL HELP CONTROL BUT WILL NOT ELIMINATE SHRINKAGE.

06160: WOOD SHEATHING

WOOD STRUCTURAL PANELS (WSP) SHALL HAVE APA GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. WOOD SHEATHING PANELS SHALL BE C-D INT APA WITH EXTERIOR GLUE (CDX). ORIENTED STRAND BOARD (OSB) PANELS SHALL BE EXPOSURE 1. PANELS SHALL HAVE THE FOLLOWING THICKNESS, SPAN RATING, AND FASTENING UNLESS NOTED OTHERWISE PER PLAN: (P.E.N.)

EDGE NAILS	FIELD NAILS
ROOF: $\frac{3}{8}$ " APA 24-16 [MIN.-REF. ARCH] C-D W/EXTERIOR GLUE	8d AT 6" 8d AT 12"
FLOORS: $\frac{3}{8}$ " STURD-I-FLOOR OSB 48/24 T&G	10d AT 6" 10d AT 12"
SHEARWALL: $\frac{3}{8}$ " C-D W/EXTERIOR GLUE, U.N.O.	RE: SCHEDULE SHEET S1.2

ALL ROOF AND FLOOR SHEATHING PANELS SHALL BE INSTALLED FACE GRAIN PERPENDICULAR TO SUPPORTS AND IN A STAGGERED PATTERN UNLESS NOTED OTHERWISE PER PLAN. BLOCKING AT INTERMEDIATE FLOOR AND ROOF SHEATHING JOINTS SHALL NOT BE REQUIRED UNLESS NOTED OTHERWISE PER PLAN. SHEARWALL SHEATHING SHALL BE BLOCKED AT ALL EDGES WITH 2X OR 3X FRAMING PER SHEARWALL SCHEDULE. WHERE BETT ROOF PLY IS REQUIRED AT PARTY WALL STRENGTH PER MFR. SHALL BE EQUAL OR FURTHER THAN 24/16 APA-RATED SPAN.

06175 SHOP FABRICATED METAL PLATE CONNECTED WOOD TRUSSES

PREMANUFACTURED PLATED WOOD TRUSSES SHALL BE MANUFACTURER DESIGNED AND SHALL COMPLY WITH THE TRUSS PLATE INSTITUTE (ANSI/TPI 1, NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION) AND IBC SECTION 2303.4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED PER THE REQUIREMENTS OF SECTION 01330. DESIGN FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS, LOADS PER SECTION 01200, AND THE FOLLOWING:
 TOP CHORD LIVE LOAD SEE SECTION 01200
 TOP CHORD DEAD LOAD 11 PSF
 TOP CHORD WIND UPLIFT 12 PSF
 BOTTOM CHORD DEAD LOAD 7 PSF
 LIVE LOAD DEFLECTION L/360

WOOD DURATION FACTORS:

SNOW & LIVE C₉=1.0
 CONSTRUCTION C₉=1.25
 WIND C₉=1.6

06185: STRUCTURAL GLUED LAMINATED TIMBER

GLUED LAMINATED MEMBERS SHALL HAVE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC) IDENTIFICATION MARK. EXPOSED MEMBERS SHALL RECEIVE ONE COAT OF END SEALER APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD. SHOP DRAWINGS SHALL BE SUBMITTED PER THE REQUIREMENTS OF SECTION 01330. DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS:

USE	COMBINATION SYMBOL	SPECIES	LAYOUT
SIMPLE SPAN BEAM	24F-V4	DF/DF	STANDARD
CONTINUOUS BEAM	24F-V8	DF/DF	BALANCED
CANTILEVER BEAM	24F-V8	DF/DF	BALANCED

UNEXPOSED GLUED LAMINATED TIMBER SHALL BE INDUSTRIAL GRADE. TYPICAL, UNLESS NOTED OTHERWISE. EXPOSED GLUED LAMINATED TIMBER SHALL BE APPEARANCE CLASS PER ARCHITECT.

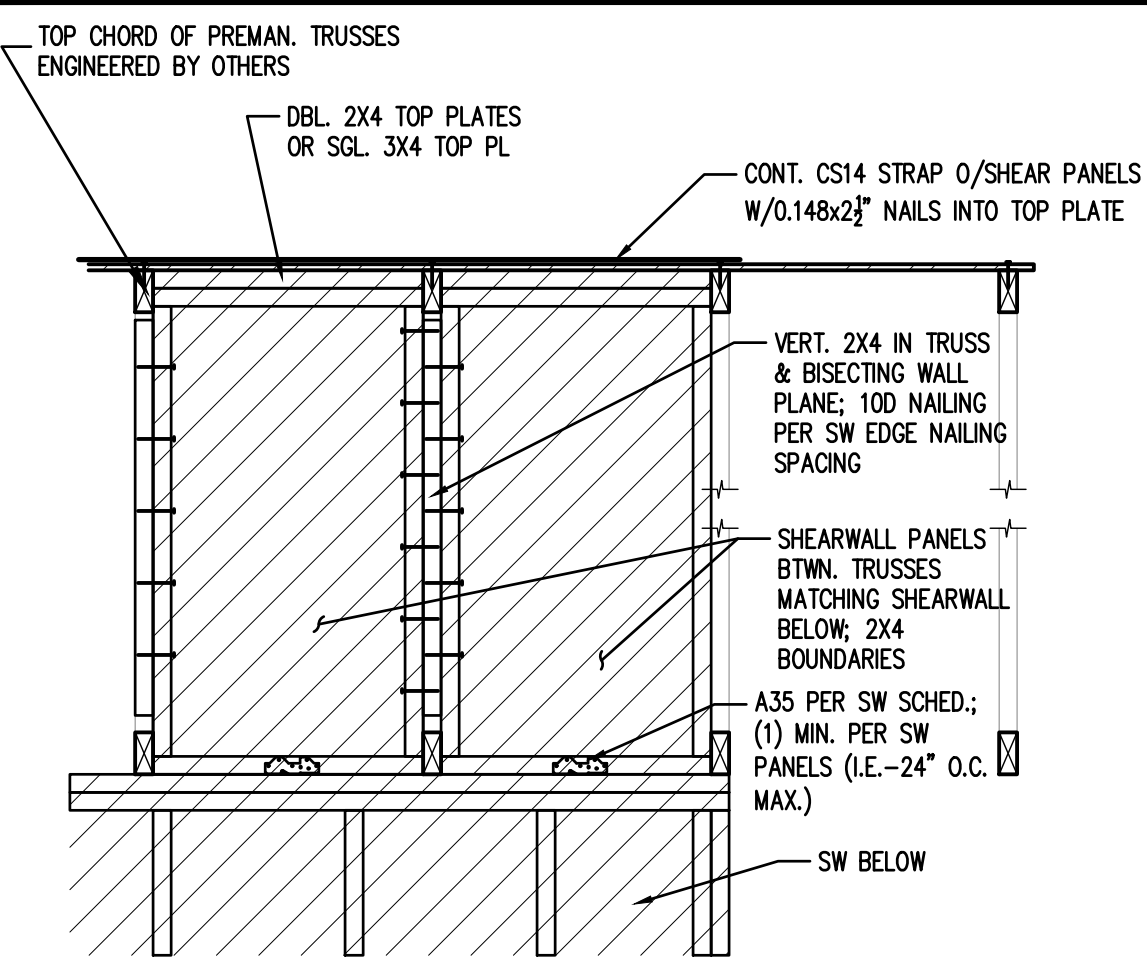
06190: MANUFACTURED WOOD BEAMS

MANUFACTURED/ENGINEERED WOOD BEAMS SHALL BE THE SIZE AND TYPE SHOWN ON THE DRAWINGS AS MANUFACTURED BY TRUS-JOIST OR APPROVED EQUAL. STORAGE, ERECTION, AND INSTALLATION SHALL BE PER MANUFACTURER SPECIFICATIONS. MICROLAM AND PARALLAM MEMBERS SHALL NOT HAVE NOTCHES OR DRILLED HOLES WITHOUT PRIOR ENGINEER OF RECORD APPROVAL. SHOP DRAWINGS SHALL BE SUBMITTED PER THE REQUIREMENTS OF SECTION 01330. DESIGN MATERIAL PROPERTIES SHALL BE AS FOLLOWS:

MEMBER	E	Fb	Fcp	Fv	E MIN.
LVL (MICROLAM)	1.9E6	2600	750	285	965,710
PSL (PARALLAM)	2.0E6	2900	750	290	1,016,535
1.55E LSL (TIMBERSTRAND)	1.55E6	2325	800	310	787,815
LSL RIM (TIMBERSTRAND)	1.3E6	1700	680	400	660,750

STRUCTURAL DETAILS & NOTES SHEET INDEX

SHEET	DESCRIPTION	DATE
S1.1		



1 ATTIC SHEATHING BTWN. TRUSSES

2

3

4

HOLDOWN & FASTENER SCHEDULE

HARDWARE TYPE	WOOD MEMBER/POST		FASTENERS	NOTES	DETAILS
	2X4 WALL	2X6 WALL			
CS14	2X4	2X6	(13) 10d PER END	16" MIN. LAP PER END	15/S1.3
STHD14	(2)2X4	(2)2X6	(30) 12d	16" MIN. LAP PER END	14/S1.3
MST60	(2)2X4	(2)2X6	(36) 16d	--	13/S1.3
HTT5	(2)2X4	(2)2X6	(26) 0.148x3	5/8" DIA. ANCHOR BOLT	12/S1.3

- HOLDOWN & FASTENER NOTES:
- HOLDOWNS SHALL BE AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY.
 - 16D = .162" DIA. X 3 1/2" LONG.
 - HTT5 ANCHOR MAY BE REPLACED WITH POST-INSTALLED 3/8" DIA. THREADED ROD EMBEDDED IN 3/4" DRILLED, CLEANED HOLE X 15" DEEP WITH SIMPSON "SET" OR "AT" ADHESIVE (RE: TEMPERATURE LIMITS ON PRODUCT); HDU8 HOLD DOWN AND ANCHOR IS TO BE REPLACED WITH POST-INSTALLED STRAPS INSTALLED PER DETAIL 6.
 - SCREWS ARE SDS 1/4" X 2 1/2" MANUFACTURED BY SIMPSON STRONG-TIE COMPANY.
 - HOLDOWNS ANCHORS SHALL BE SECURED IN PLACE PRIOR TO PLACING CONCRETE.
 - ANCHOR BOLT NUT SHOULD BE FINGER-TIGHT PLUS 1/3 - 1/2" TURN WITH HAND WRENCH. CARE SHOULD BE TAKEN TO NOT OVER-TORQUE THE NUT. IMPACT WRENCHES SHOULD NOT BE USED.
 - HDU HOLDOWNS SHALL BE INSTALLED CENTERED ALONG THE WIDTH OF THE ATTACHED POST.
 - RE: NOTES SECTION 06100 "ROUGH FRAMING" FOR THE REQUIRED POST SPECIES AND GRADE.
 - HOLDOWNS ATTACH TO SHEARWALL END POST OR TO POST WITH STRAP ABOVE. LOCATE PER STRUCTURAL PLANS AND ARCHITECTURAL DIMENSIONS. INSTALL PER SIMPSON INSTALLATION RECOMMENDATIONS.

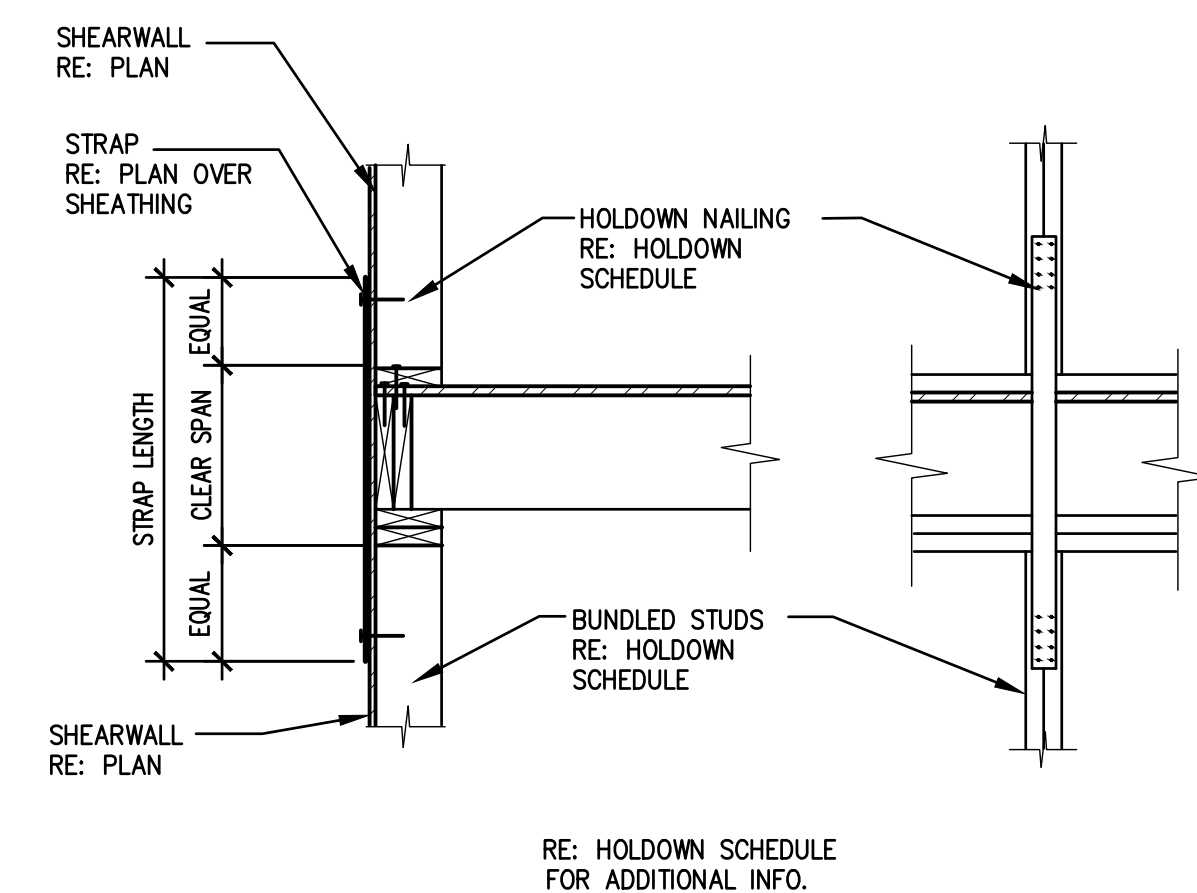
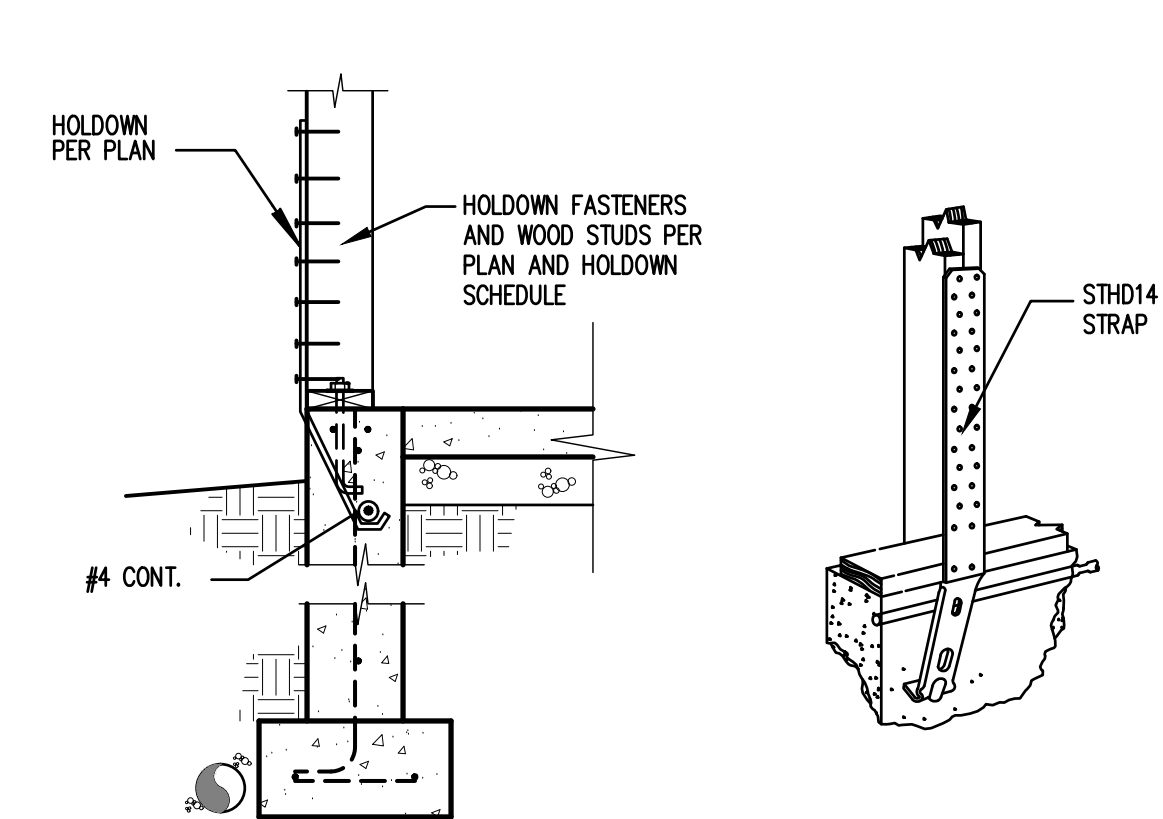
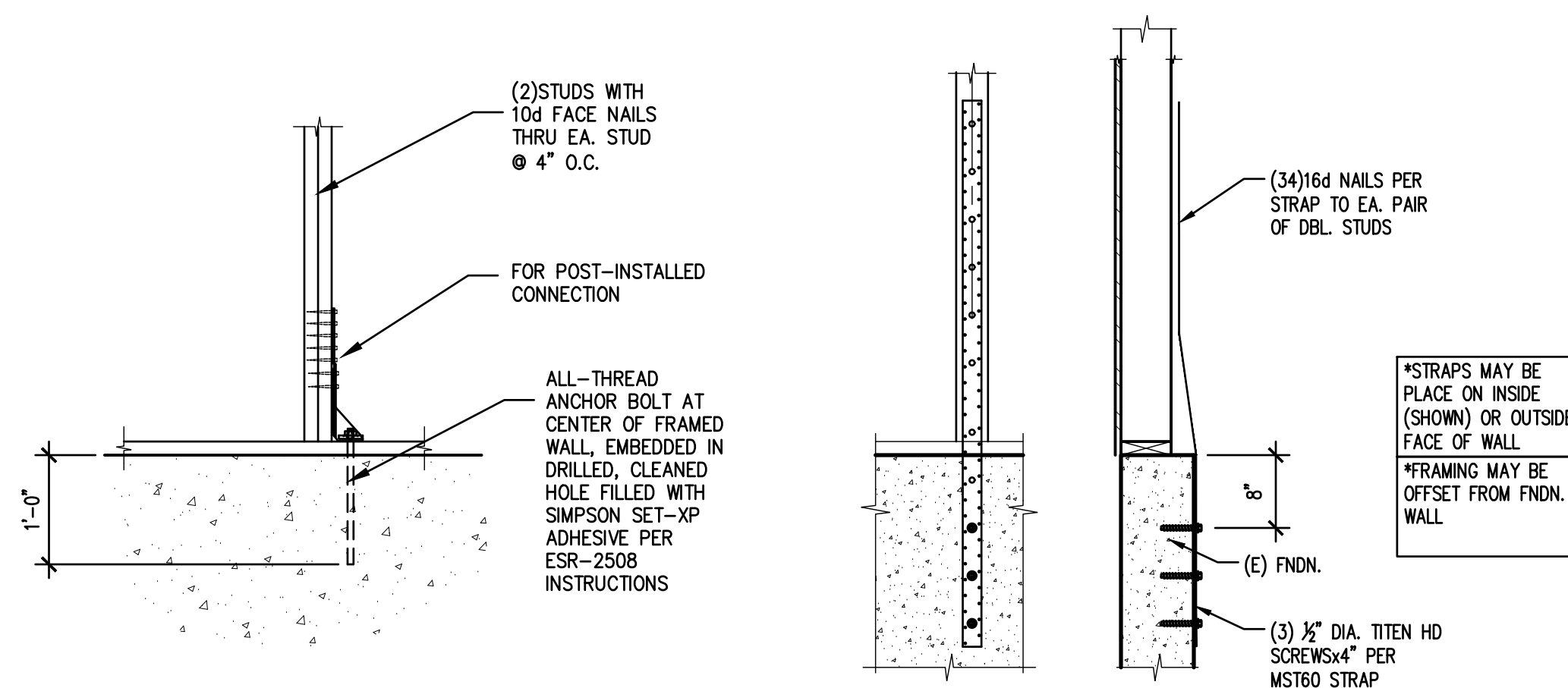
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9

10 HOLDOWN & FASTENER SCHEDULE



11

12

POST-INSTALLED HOLD DOWN

13

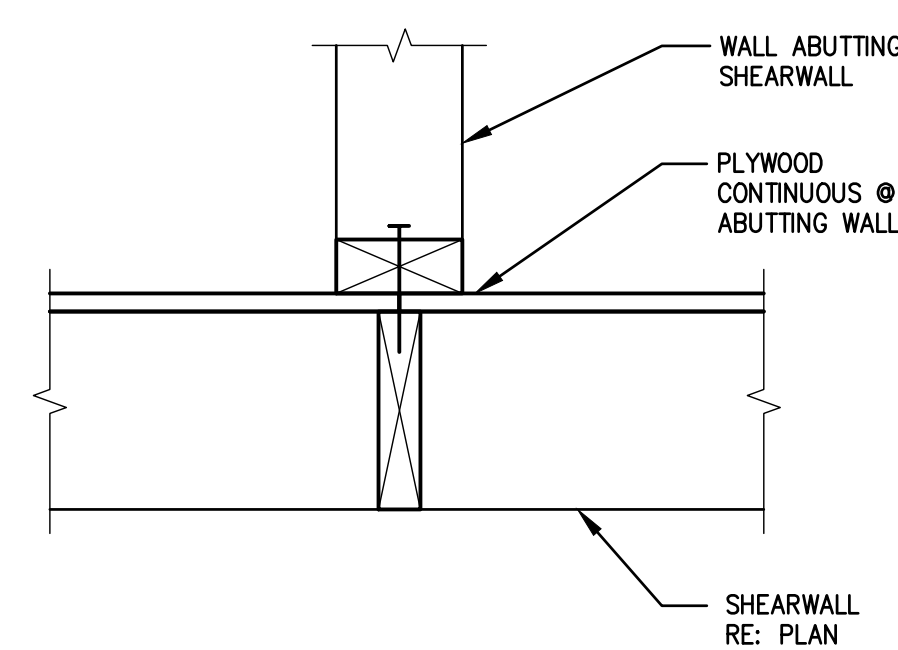
NEW HOLD DOWN

14

EXTERIOR HOLDOWN @ FOUNDATION

15

EXTERIOR HOLDOWN @ FLOOR



16

TYP. ABUTTING WALL

17

18

TYP. MULTIPLE STUD ATTACHMENT

19

HOLDOWN PLACEMENTS

20

STRUCTURAL SHEARWALL INTERSECTIONS

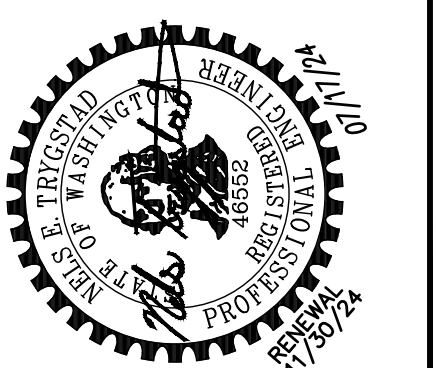
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TE Job # 24307

Description Date
Permit Intake 07/17/24

TE
Trygstad
ENGINEERING
nels@trygstadeng.com
(208)262-6884

Stamp/Approval:



Sheet Name:

**HOLD DOWN
SCHEDULE
& NOTES**

Sheet No:

S1.3

SPECIAL INSPECTIONS, TESTING and STRUCTURAL OBSERVATION SCHEDULE

GENERAL NOTE:

1. SCREENED/HALFTONE ITEMS DO NOT APPLY FOR THIS BUILDING. THEY ARE SHOWN FOR REFERENCE AS THE CODE TABLE ITEMS MAY REFERENCE TO THEM.

TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1.	INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	-	X	ACI 318: 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2.	INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 5b.	-	-	AWS D1.4, ACI 318: 26.6.4	-
3.	INSPECTION OF ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
4.	INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	-	X	ACI 318: 17.8.2.4	-
	a. ADHESIVE ANCHORS INSTALLED HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	-	ACI 318: 17.8.2.4	-
	b. MECHANICAL AND ADHESIVE ANCHORS NOT DEFINED IN 4a.	-	X	ACI 318: 17.8.2	-
5.	VERIFYING USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6.	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF CONCRETE.	X	-	ASTM C 172, ASTM C 31, ACI 318: 26.4, 26.12	1908.10
7.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3 - 26.5.5	1908.9
9.	INSPECTION OF PRESTRESSED CONCRETE:				
	a. APPLICATION OF PRESTRESSING FORCES.	X	-	ACI 318: 26.10	-
	b. GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X	-	ACI 318: 26.10	-
10.	ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: CH 26.8	-
11.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENSONS IN POST TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	-
12.	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1, 21(b)	-

IBC 2021 SECTION 1705.5 INSPECTIONS FOR WOOD CONSTRUCTION

INSPECTIONS REQUIRED	
1705.5	SPECIAL INSPECTIONS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES SHALL BE IN ACCORDANCE WITH IBC 1704.2.5
1705.5.1	HIGH-LOAD DIAPHRAGMS (ALL DESIGNATED DIAPHRAGMS PER IBC 2306.2) SHALL BE INSTALLED ACCORDING TO THE PROVISIONS OF IBC 1704.2. THE FOLLOWING SHALL BE INSPECTED:
	a. WOOD STRUCTURAL PANEL SHEATHING - CONFIRM GRADE AND THICKNESS PER APPROVED CONSTRUCTION DOCUMENTS
	b. VERIFY SIZE OF FRAMING MEMBERS AT ADJOINING PANEL DEGES
	c. VERIFY NAIL OR STAPLE DIAMETER AND LENGTH
	d. VERIFY NUMBER OF FASTENER LINES AND THE SPACING BETWEEN EACH FASTENER LINE AND AT EDGE MARGINS
1705.5.2	FOR METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60FT OR MORE, THE SPECIAL INSPECTOR SHALL VERIFY THAT THE TEMPORARY RESTRAINT/BRACING AND PERMANENT INDIVIDUAL TRUSS MEMBER RESTRAINT/BRACING ARE INSTALLED ACCORDING TO THE APPROVED TRUSS SUBMITTAL PACKAGE
1705.12.2	SEISMIC RESISTING ELEMENTS; PERIODIC SPECIAL INSPECTION IS REQUIRED FOR NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF ELEMENTS OF THE SEISMIC FORCE-RESISTING SYSTEM - INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG-STRUTS, BRACES AND HOLD-DOWNS - EXCEPT THAT SUCH IS NOT REQUIRED WHERE THE FASTENER SPACING IS MORE THAN 4'0".

IBC 2021 TABLE 1705.6 REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

	VERIFICATION AND INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTON OF COMPACTED FILL.	X	-
5	PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

OSSC 2019 SECTION 1705.12.5 REQUIRED SPECIAL INSPECTIONS OF ARCHITECTURAL COMPONENTS

	VERIFICATION AND INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1	ERECTION AND FASTENING OF EXTERIOR CLADDING, INTERIOR AND EXTERIOR NONBEARING WALLS, AND EXTERIOR VENEER.	-	X

INSPECTION SCHEDULE NOTES:

- ITEMS MARKED WITH AND "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC 1704 AND 1705 BY A CERTIFIED SPECIAL INSPECTOR FROM AN AGENCY APPROVED BY THE JURISDICTION.
- SPECIAL INSPECTION SHALL NOT BE REQUIRED FOR WORK PERFORMED IN AN APPROVED FABRICATOR'S PER IBC 1705.2 VERIFY APPROVAL WITH JURISDICTION PRIOR TO FABRICATION.
- CONTINUOUS SPECIAL INSPECTION REQUIRES THE INSPECTOR SHALL BE ONSITE AT ALL TIMES AND THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED. PERIODIC SPECIAL INSPECTION SHALL ALLOW INSPECTION AT THE INTERVALS NECESSARY TO CONFORM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH THE REQUIREMENTS.
- ALL WELDS SHALL BE VISUALLY INSPECTED.
- ALL COMPLETE PENETRATION WELDS SHALL BE TESTED ULTRASONICALLY.
- PERIODIC SPECIAL INSPECTION SHALL BE ALLOWED FOR SHOP WELDING OF ASTM A706 REINFORCEMENT NO. 5 OR SMALLER USED FOR EMBEDDED ITEMS, PROVIDED THAT, THE MATERIALS AND THE QUALIFICATIONS OF WELDING PROCEDURES AND WELDERS ARE VERIFIED PRIOR TO THE START OF WORK, THAT PERIODIC INSPECTIONS ARE MADE OF WORK IN PROGRESS, AND THAT A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO SHIPMENT OF SHOP WELDED ITEMS.
- STRUCTURAL OBSERVATION SHALL MEAN THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM BY THE ENGINEER OF RECORD FOR THE GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL FRAMING SYSTEM PRIOR TO COVER. THE CONTRACTOR SHALL PROVIDE AT LEAST TWO WORKING DAYS NOTICE TO THE ENGINEER OF RECORD PRIOR TO COVERING OF SYSTEMS REQUIRING OBSERVATION. STRUCTURAL OBSERVATION BY THE ENGINEER OF RECORD DOES NOT REPLACE OR WAIVE REQUIREMENTS FOR BUILDING INSPECTION BY THE JURISDICTION NOR REQUIREMENTS FOR SPECIAL INSPECTIONS.
- STRUCTURAL OBSERVATION FOR CONCRETE CONSTRUCTION SHALL CONSIST OF OBSERVATION AT OR NEAR THE COMPLETION OF FORMWORK, REBAR, AND PT TENDON PLACEMENT AND PRIOR TO CONCRETE PLACEMENT ON ALL PT SLABS.
- STRUCTURAL OBSERVATION FOR WOOD CONSTRUCTION SHALL CONSIST OF OBSERVATION AT OR NEAR THE COMPLETION OF THE FIRST ELEVATED WOOD FLOOR FOR ANCHOR BOLT AND HOLD-DOWN INSTALLATION, SHEATHING AND STRAPPING NAILING, AND AT OR NEAR COMPLETION OF THE ROOF FRAMING PRIOR TO PLACEMENT OF THE ROOFING.
- THE SPECIAL INSPECTOR SHALL PROVIDE THE BUILDING OFFICIAL, OWNER, ARCHITECT, ENGINEER OF RECORD, AND CONTRACTOR WITH COPIES OF ALL REPORTS AND TEST RESULTS (IBC 1704.2.4)

THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON EMPLOYED BY AN APPROVED AGENCY. THE SPECIAL INSPECTOR SHALL KEEP RECORDS OF INSPECTIONS AND FURNISH THEM TO THE BUILDING OFFICIAL AND THE ENGINEER OF RECORD ON A REGULAR BASIS. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND THE CORRECTION OF ANY DISCREPANCIES SHALL BE PROVIDED PRIOR TO COMPLETION OF BUILDING FINISHES. WHERE FABRICATION OF STRUCTURAL COMPONENTS AND ASSEMBLIES IS BEING PERFORMED ON THE PREMISES OF A FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE REQUIRED EXCEPT WHERE THE FABRICATOR IS REGISTERED AND APPROVED TO DO SUCH WORK WITHOUT SPECIAL INSPECTION IN ACCORDANCE WITH IBC SECTION 1704.2.2. PERIODIC INSPECTION ALLOWS INSPECTION AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS. CONTINUOUS SPECIAL INSPECTION REQUIRES THAT THE INSPECTOR BE ONSITE AT ALL TIMES THAT WORK REQUIRING SPECIAL INSPECTION IS PERFORMED.

TABLE 1705.2 REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION

	VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD (a)
1.	MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS, AND WASHERS.			
a.	IDENTIFICATION MARKINGS CONFORMING TO ASTM STANDARDS AND SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	--	X	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS
b.	MANUFACTURERS CERTIFICATE OF COMPLIANCE REQUIRED	--	X	--
2.	INSPECTION OF HIGH STRENGTH BOLTING			
a.	SNUG TIGHT JOINTS	--	X	AISC 360 SECTION M2.5
b.	PRESTENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	--	X	
c.	PRESTENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	X	--	
3.	MATERIAL VERIFICATION OF STRUCTURAL STEEL			
a.	FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360	--	X	AISC 360, SECTION N2.1
b.	FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	--	X	APPLICABLE ASTM MATERIAL STANDARDS
c.	MANUFACTURER'S CERTIFIED TEST REPORTS	--	X	--
4.	MATERIAL VERIFICATION OF COLD FORMED STEEL DECK			
c.	MANUFACTURER'S CERTIFIED TEST REPORTS	--	X	--
5.	MATERIAL VERIFICATION OF WELD FILLER MATERIALS			
a.	IDENTIFICATION MARKINGS TO CONFORM TO CONFORM TO AWS STANDARD SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS	--	X	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS
c.	MANUFACTURER'S CERTIFICATION OF COMPLIANCE REQUIRED	--	X	--
6.	INSPECTION OF WELDING			
a.	STRUCTURAL STEEL AND COLD FORMED STEEL DECK			
	1. COMPLETE AND PARTIAL PENETRATION GROOVE WELDS	X	--	AWS D1.1
	2. MULTIPLE PASS FILLET WELDS	X	--	
	3. SINGLE PASS FILLET WELDS > 5/16"	X	--	
	4. PLUG AND SLOT WELDS	X	--	
	5. SINGLE PASS FILLET WELDS < 5/16"	--	X	AWS D1.3
	6. FLOOR AND ROOF DECK WELDS	--	X	
b.	REINFORCING STEEL			
	1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706	--	X	AWS D1.4, ACI 318 SECTION 4.2.2
	2. REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES OF INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT	X	--	
	3. SHEAR REINFORCEMENT	X	--	
	4. OTHER REINFORCING STEEL	--	X	
7.	INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE			
a.	DETAILS SUCH AS BRACING AND STIFFENING	--	X	--
b.	MEMBER LOCATION	--	X	
c.	APPLICATION OF JOINT DETAILS AT EACH SECTION	--	X	

a. WHERE APPLICABLE, SEE ALSO SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE

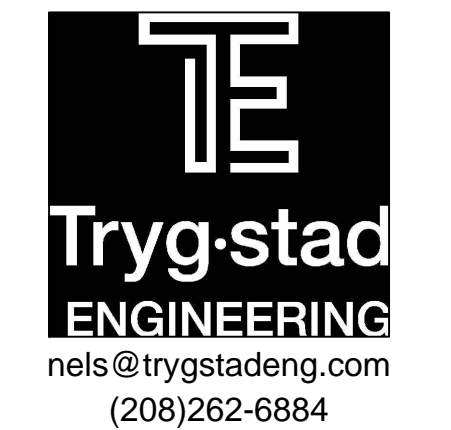


TAM CEM - RESIDENCE
Addition & Alteration
4215 Holly Ln, Mercer Island, WA 98040

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Description Date
Permit Intake 07/17/24



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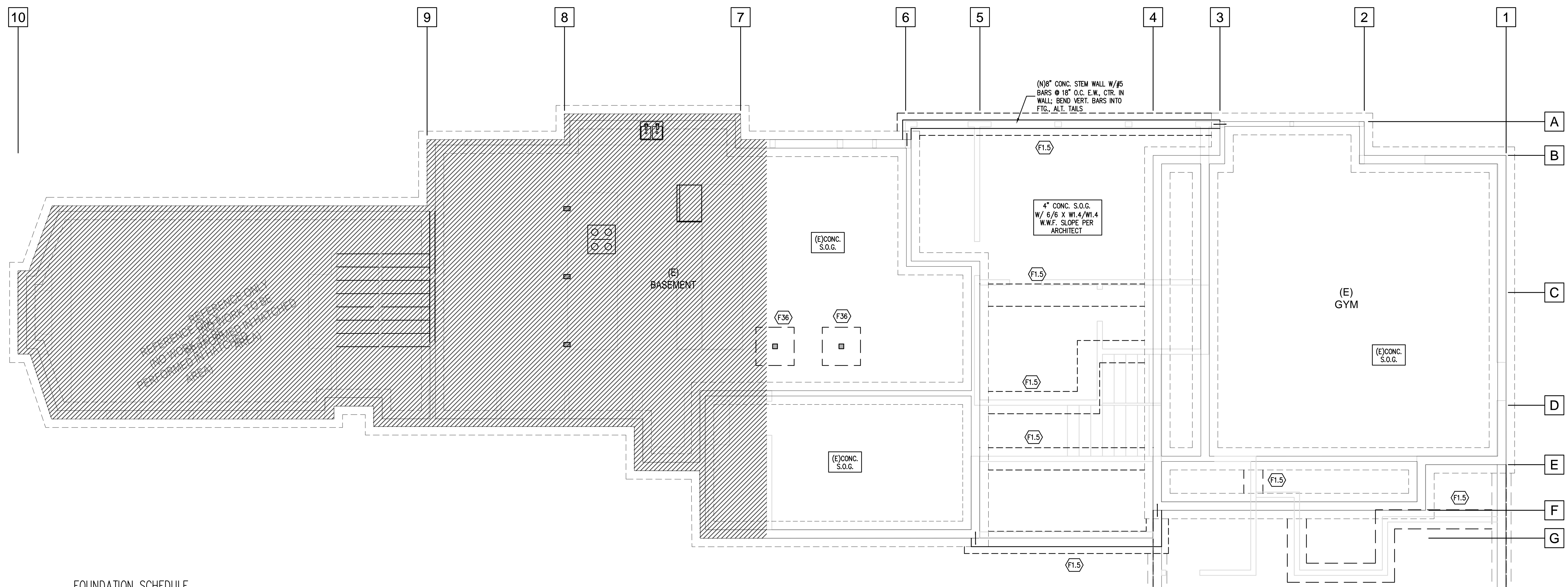


Sheet Name:

SPECIAL INSPECTION TABLES

Sheet No:

S1.4



FOUNDATION SCHEDULE

MARK	DEPTH	WIDTH	LENGTH	REINFORCING
F1.5	10"	1'-6"	CONT.	(2) #4B CONT.
F1.5A	12"	1'-6"	CONT.	(2) #4T&B CONT.
F2.0	10"	2'-0"	CONT.	(3) #4B CONT.
F18	10"	1'-6"	1'-6"	(2) #4B E/W
F24	10"	2'-0"	2'-0"	(3) #4B E/W
F36	10"	3'-0"	3'-0"	(4) #4B E/W
F48	10"	4'-0"	4'-0"	(5) #4B E/W

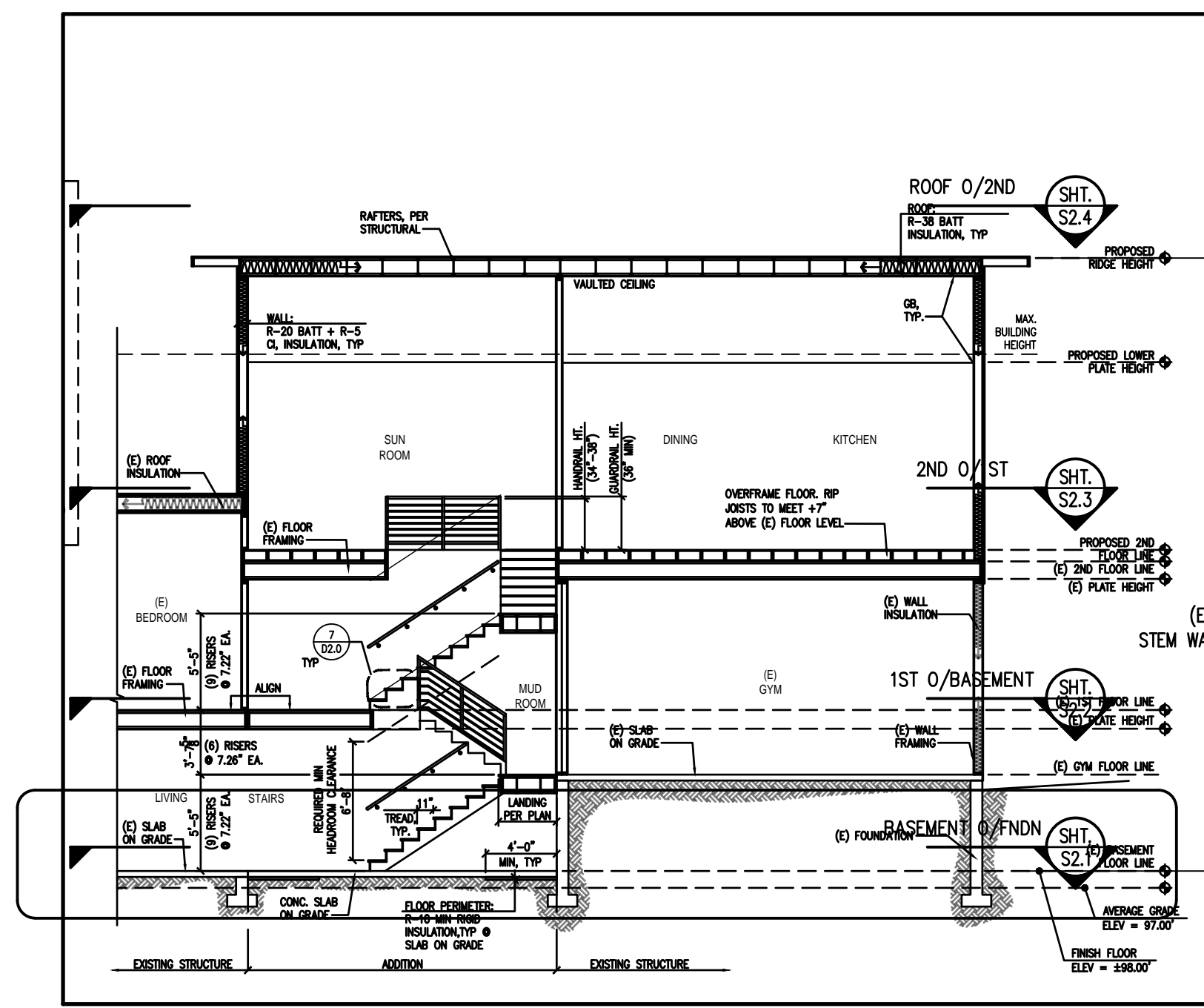
Foundation Notes

- ALL SOIL BEARING SURFACES ARE SUBJECT TO INSPECTION AND APPROVAL BY THE GEOTECHNICAL ENGINEER PRIOR TO REINFORCING AND CONCRETE PLACEMENT.
- CENTER INTERIOR FOOTINGS ON WALLS OR COLUMNS TYPICAL U.N.O.
- SEE ARCHITECTURAL PLANS FOR DIMENSIONS.
- NEW FOUNDATION WALLS TO BE 8" THICK TYPICAL U.N.O. W/#5 VERTS @ 18" O.C. BENT INTO FOOTINGS (ALT.) & #5 HORIZ. BARS @ 18" O.C.; CENTER STL. IN STEM WALL. REFER TO DETAIL 9/S6.1
- PROVIDE 4" DIAMETER PERFORATED FOOTING DRAINS AT PERIMETER OF FOUNDATIONS TYPICAL, CONNECT PER CIVIL. PROVIDE 4" DIAMETER TIGHTLINES FOR DOWNSPOUTS, CONNECT PER CIVIL.
- FOR V.I.F. (VERIFY IN FIELD) CALLOUTS ON EXISTING FOOTINGS, THE CONTRACTOR MAY DIG TO EXPOSE FOOTING HEEL OR DRILL IN S.O.G. TO PROBE FOR THICKNESS & WIDTH (OR NON-DESTRUCTIVE SCAN BY SPECIAL INSPECTOR); IT MAY BE ASSUMED THAT EXISTING FOOTING IS CENTERED BELOW FOUNDATION WALL.

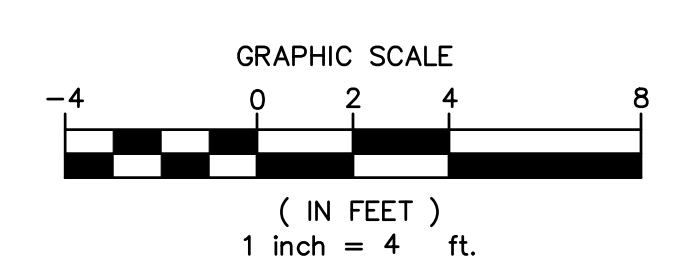
Framing Legend
—(S)— FTG. STEP PER 4/S6.1

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Note:
PLANS PREPARED USING ARCHITECTURAL BACKGROUNDS RECEIVED 07/10/2024

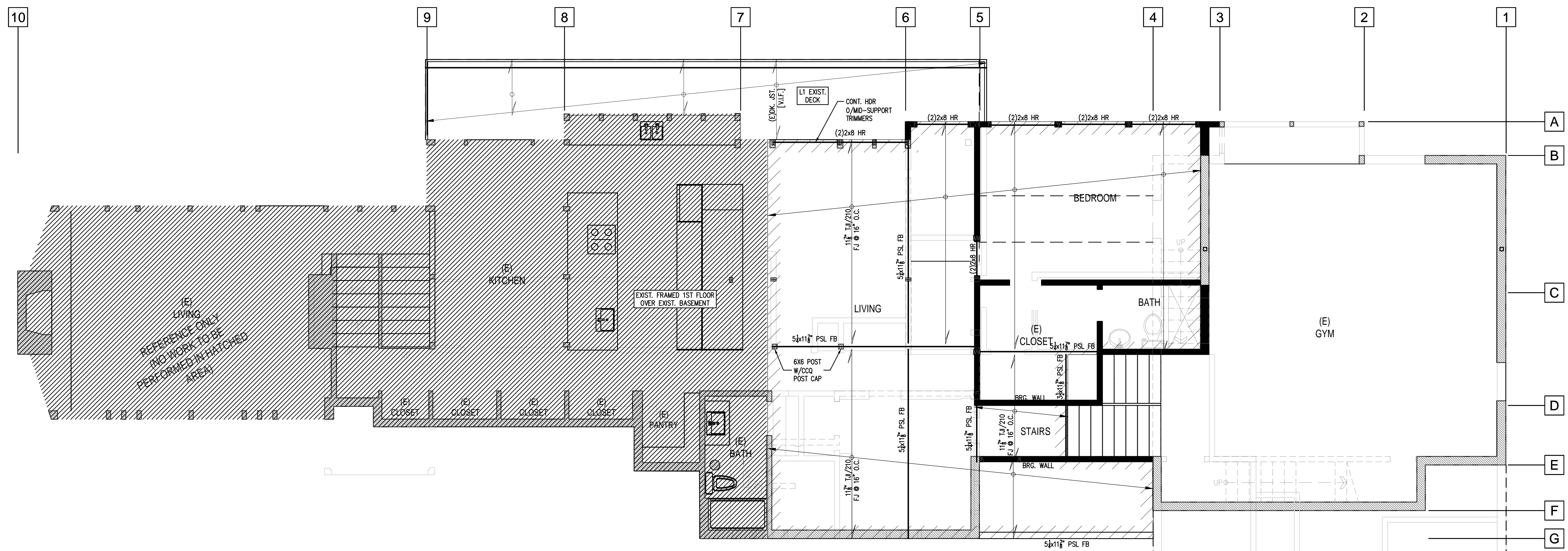


Floor Level Elevation Keyplan
SCALE: 1/8" = 1'-0"



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





Framing Notes

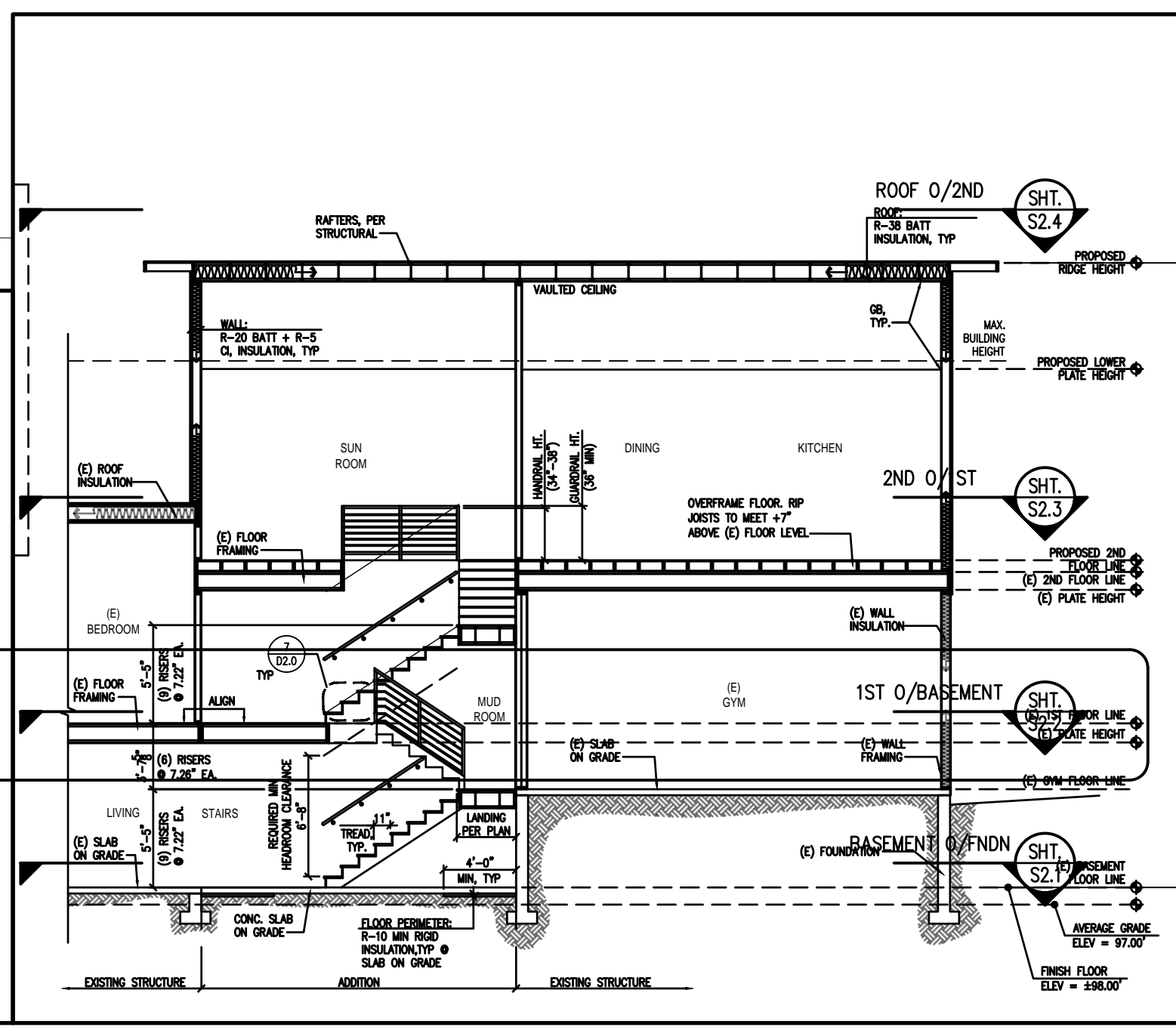
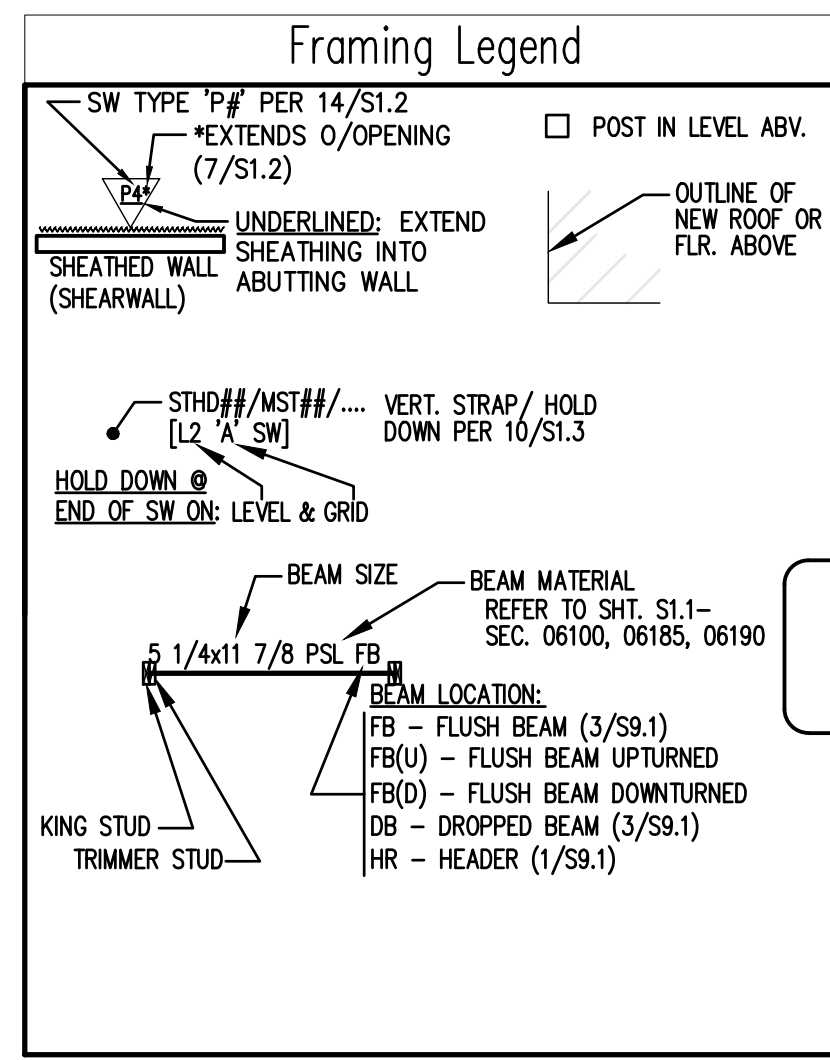
- REFER TO S9.1 FOR TYPICAL FRAMING DETAILS
- ROOF FRAMING - PREMANUFACTURED TRUSSES (PMT) OR RAFTERS PER PLAN. 2x4 ON-EDGE OUTRIGGERS (O.R.) @ 24" O.C.
- FLOOR FRAMING - 1x8 JOISTS PER PLAN. BLOCKING AT BEARING AND SHEARWALLS SHALL BE PER BEARING AND SHEARWALL SCHEDULE (VERIFY EXIST. BRG. LOC.). FLOOR SHEATHING SHALL BE GLUED AND NAILED.
- WALLS INDICATED ARE BELOW THE FRAMING LEVEL (REFER TO SYMBOL KEY FOR TYPE). SEE BEARING WALL SCHEDULE THIS SHEET
- PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS SHALL BE DESIGNED AND BUILT TO ACCOMMODATE 3/8" PER FLOOR WOOD SHRINKAGE.
- SEE DETAIL 17/S9.1 FOR TYPICAL HEADER/BUNDLED STUD CONSTRUCTION.
- SEE ARCHITECTURAL FOR DRAFTSTOP AND VENTING LOCATIONS.
- FRAMING MEMBERS AND SHEATHING SHALL BE PER STRUCTURAL NOTES AS NOTED ON SHEET S1.1
- ALL UNLABELED EXTERIOR WALLS ARE TO BE TYPE 'P6'; SEE SHEARWALL SCHEDULE ON SHEET S1.2
- HANGERS INDICATED ARE AS MANUFACTURED BY SIMPSON STRONG-TIE. SEE SEC. 06103/S1.1 FOR TYPICAL HANGERS, U.N.O.
- PROVIDE JOIST OR BLOCKING AT OP SHEARWALLS.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND TOP PLATE ELEVATIONS.
- BUNDLED STUDS FROM THIS LEVEL SHALL BE CONTINUED DOWN TO FOUNDATION OR SUPPORTING BEAM. (RE: 4/S9.1)
- ALL BEAMS AND HEADERS SHALL HAVE A MINIMUM OF (1) FULL HEIGHT STUD AT EACH END FOR BRACING TYPICAL UNLESS NOTED OTHERWISE.
- PROVIDE MINIMUM (2) 2X BUNDLED STUDS UNDER EACH BEAM END, TYPICAL UNLESS NOTED OTHERWISE. (AT HEADERS: TRIMMER+KING=2 BUNDLED STUDS)
- SEE DETAILS 19 & 20 ON SHEET S1.3 FOR TYPICAL CORNER FRAMING DETAILS AT HOLD DOWNS & SHEARWALLS.
- HANGER OCCURS WHERE FLUSH BEAM HANGS TO SUPPORT BEAMS, TYP. U.N.O.

Bearing Wall Stud Schedule

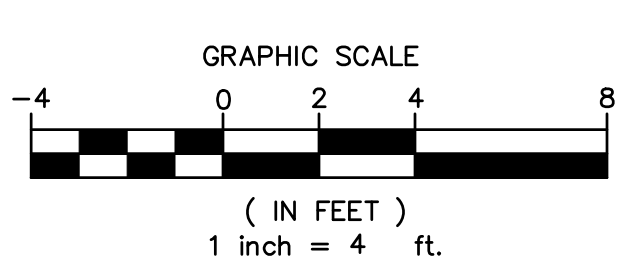
BEARING WALL TYPE	STUD SIZE AND SPACING, U.N.O.
EXTERIOR	2 X 6 AT 16" O.C., U.N.O.
INTERIOR NON-BEARING	2 X 4 AT 16 O.C.

BEARING WALL NOTES

- SEE SHEARWALL SCHEDULE SHEET S1.2 FOR WALL SHEATHING, ADDITIONAL PLATE AND STUD REQUIREMENTS, BLOCKING AND PLATE NAILING. SEE SAWN LUMBER STRUCTURAL NOTES SHEET S1.1 FOR SPECIES AND GRADE OF WALL PLATES AND STUDS.
- SECURE SILL PLATES TO CONCRETE WITH 5/8" DIA. ANCHOR BOLTS AT 48" ON CENTER TYPICAL UNLESS NOTED OTHERWISE. RE: S1.2 REFER TO SHEARWALL AND HOLDDOWN SCHEDULE FOR ADDITIONAL ANCHOR BOLT REQUIREMENTS. WHERE PRESERVATIVE TREATED WOOD IS USED, REFER TO THAT NOTE SECTION FOR CORROSION PROTECTION REQUIREMENTS FOR CONNECTORS.
- SEE 2/S9.1 FOR TOP PLATE SPLICE. PROVIDE ADDITIONAL CONNECTORS AT SHEARWALLS AS INDICATED ON THE PLANS.
- ALIGN STUDS UNDER JOISTS



Floor Level Elevation Keyplan
SCALE: 1/8" = 1'-0"

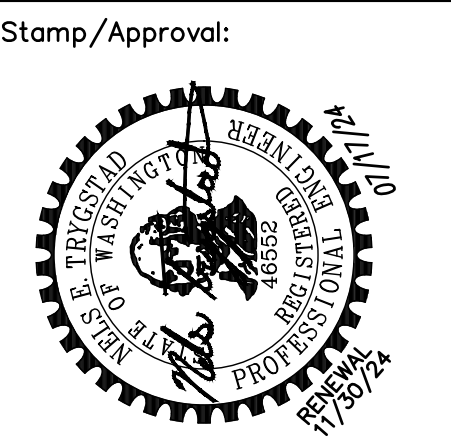


Main Floor Framing Plan
SCALE: 1/4" = 1'-0"



Note:
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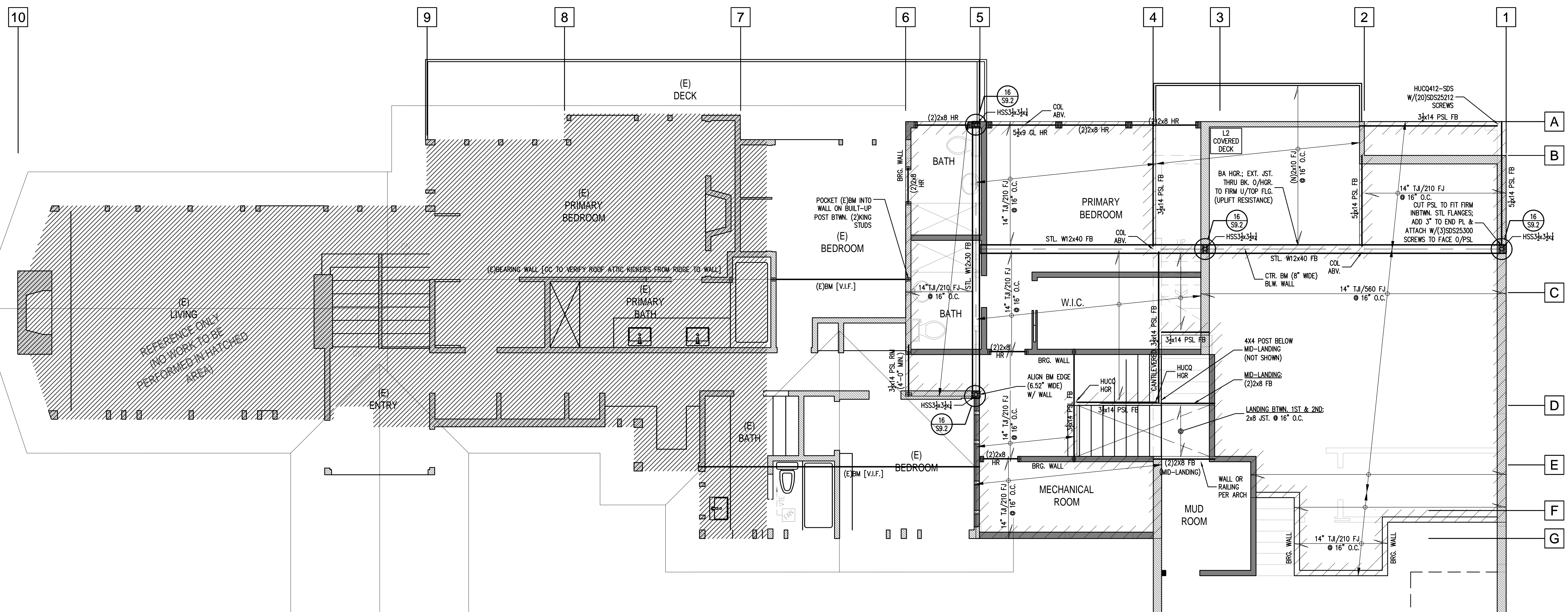
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MAIN FLOOR FRAMING PLAN

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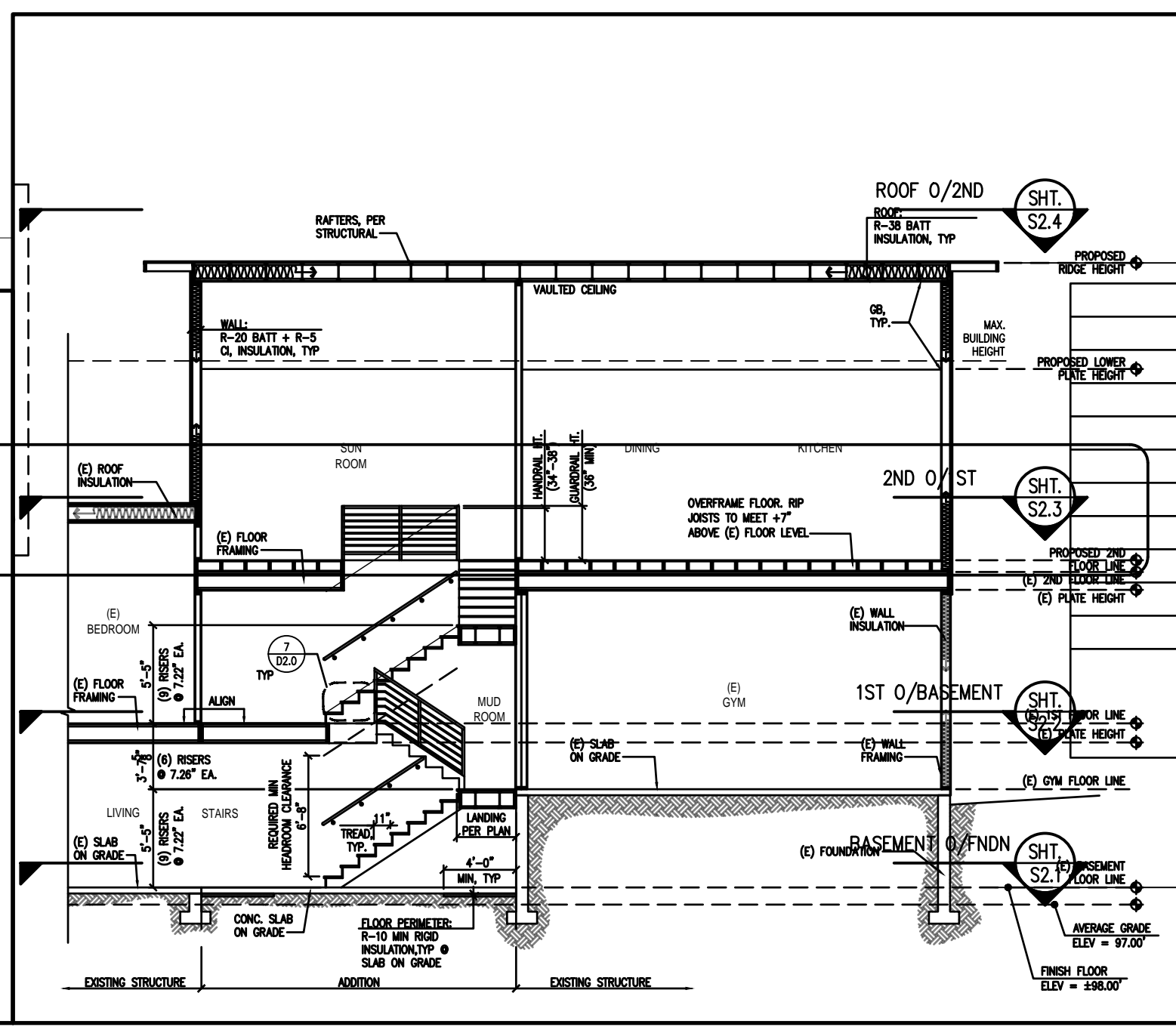
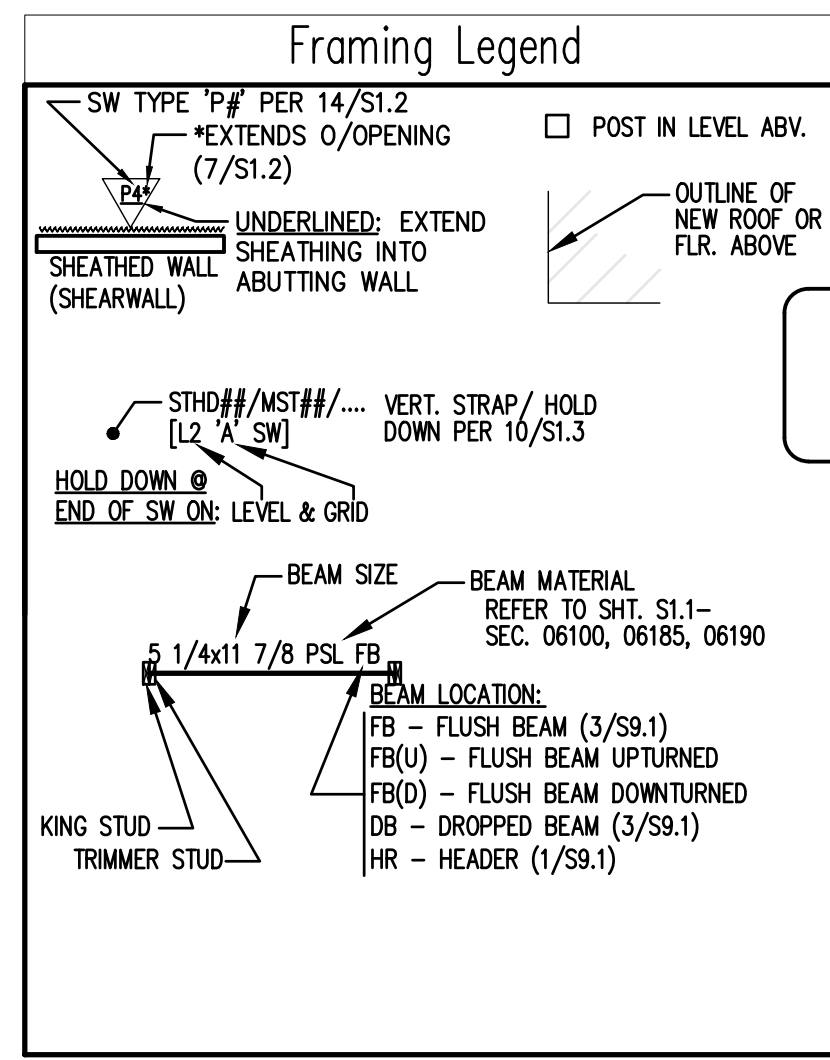
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- HANGER OCCURS WHERE FLUSH BEAM HANGS TO SUPPORT BEAMS, TYP. U.N.O.

Bearing Wall Stud Schedule

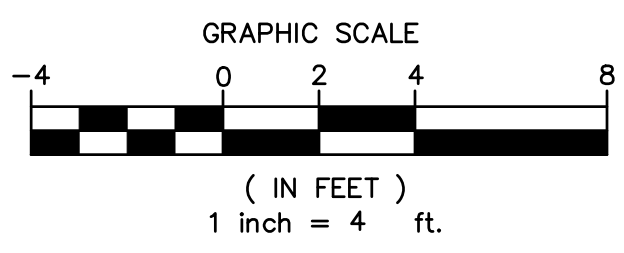
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BEARING WALL NOTES

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- ALIGN STUDS UNDER JOISTS



Note:
PLANS PREPARED USING ARCHITECTURAL BACKGROUNDS RECEIVED 07/10/2024

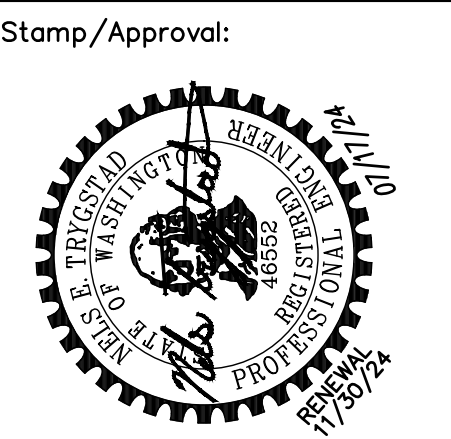


Second Floor Framing Plan
SCALE: 1/4" = 1'-0"

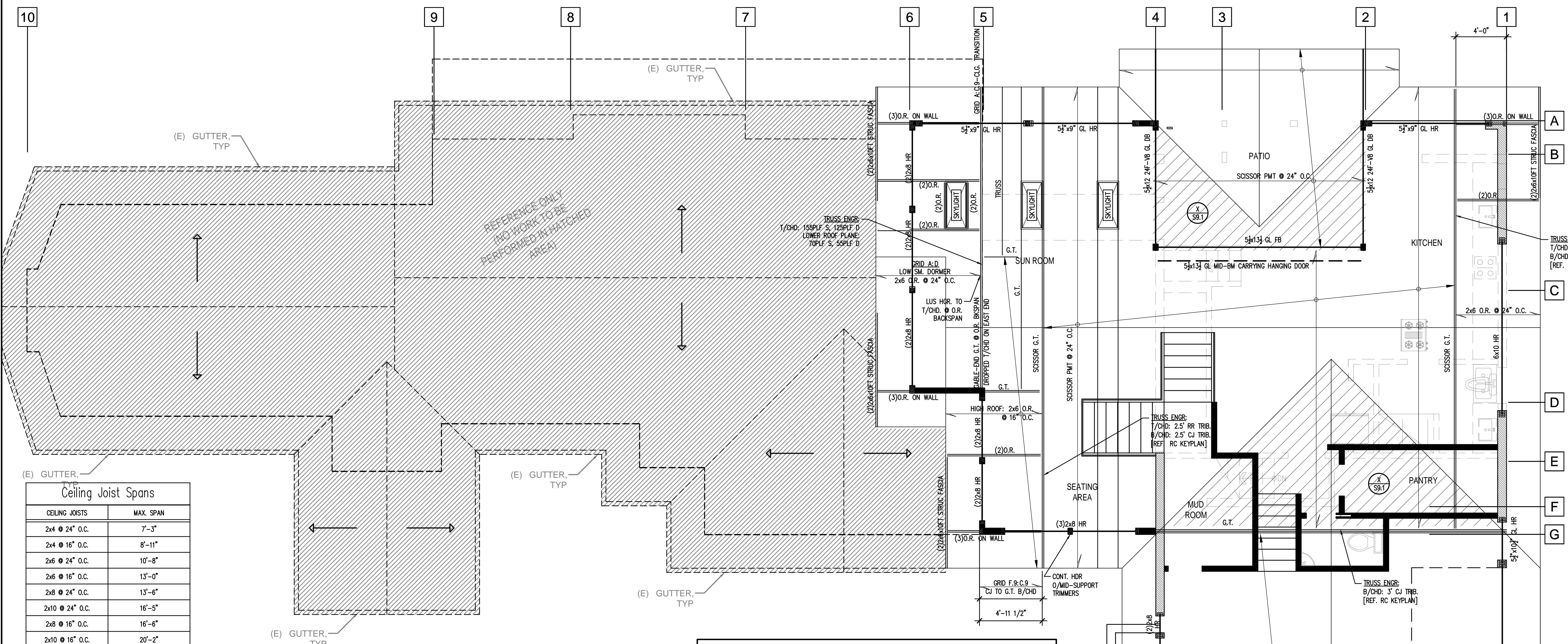


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nels@trygstadeng.com
(208)262-6884



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ROOF FRAMING PLAN
Sheet No:
S2.4



(E) GUTTER, TYP

REFERENCE ONLY
NO WORK TO BE
PERFORMED IN HATCHED AREA

Ceiling Joist Spans	
CEILING JOISTS	MAX. SPAN
2x4 @ 24" O.C.	7'-3"
2x4 @ 16" O.C.	8'-11"
2x6 @ 24" O.C.	10'-8"
2x6 @ 16" O.C.	13'-0"
2x8 @ 24" O.C.	13'-6"
2x10 @ 24" O.C.	16'-5"
2x8 @ 16" O.C.	16'-6"
2x10 @ 16" O.C.	20'-2"

CEILING JOISTS NOTES:
1. SIZE & SPAN BASED ON UNINHABITABLE ATTIC WITH LIMITED STORAGE (20PSF LL) + 10psf DL L/Delta=240 PER IRC TABLE R802.5.12)
2. USE DF-L#2 JOISTS

Framing Notes

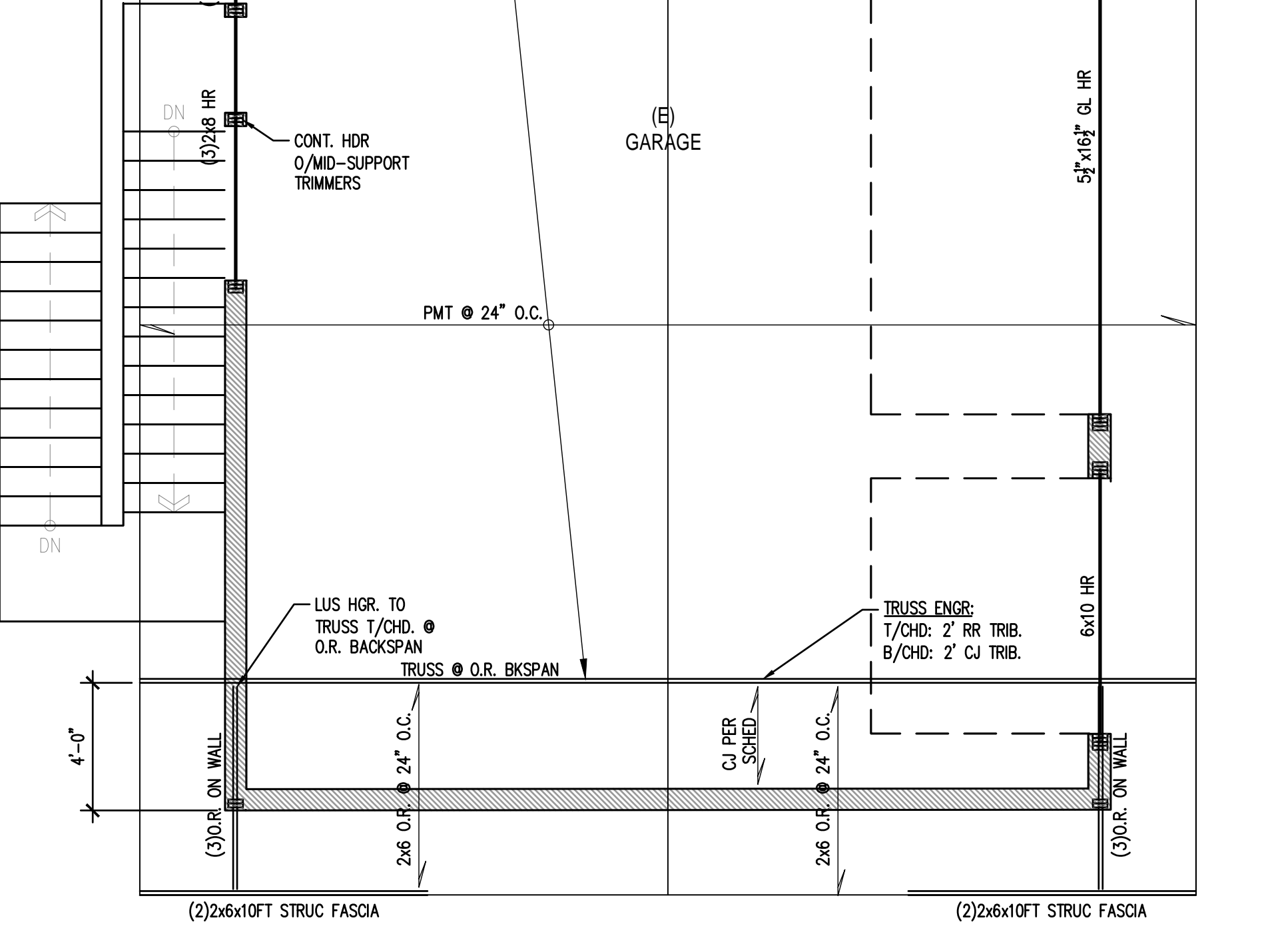
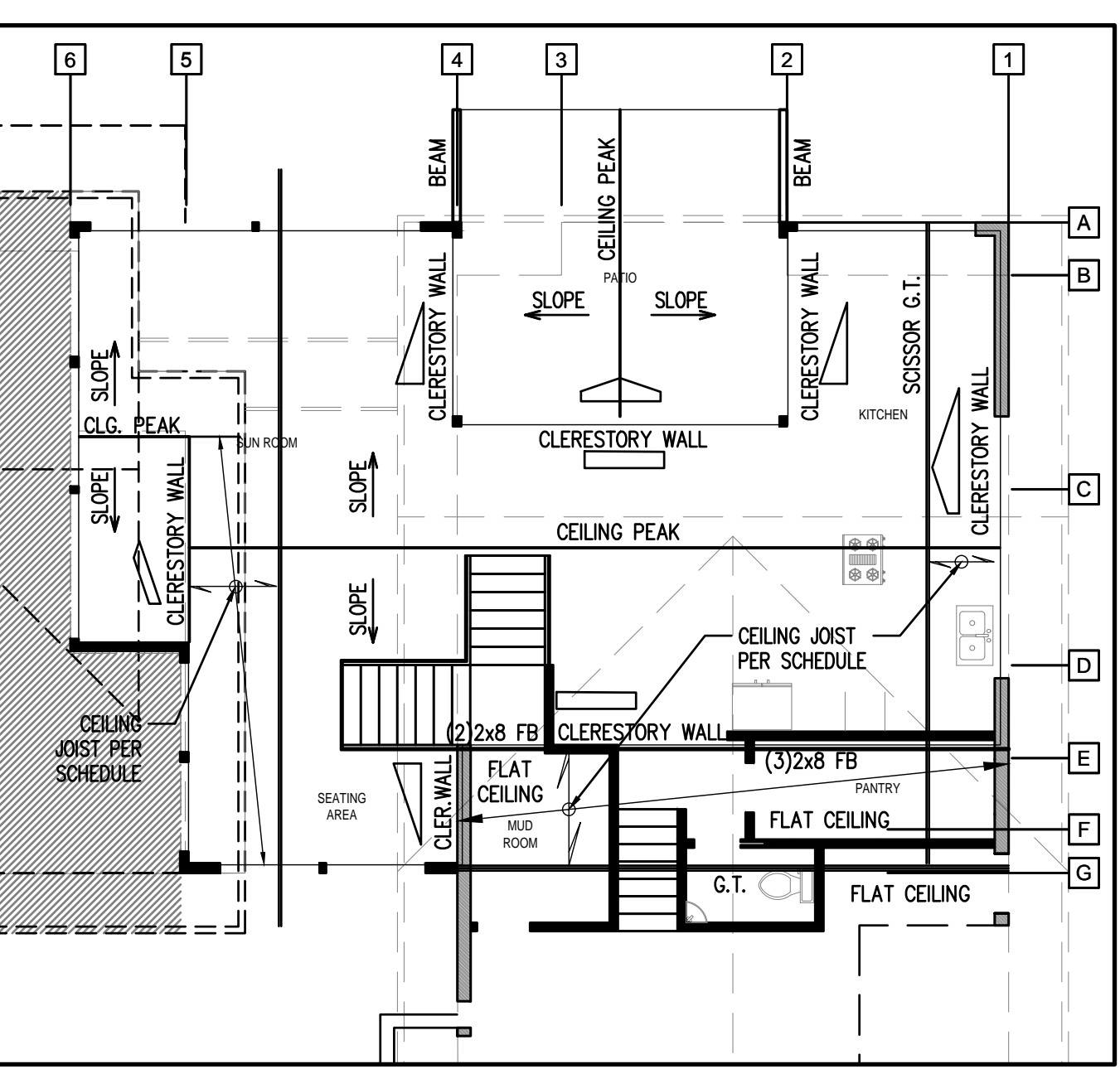
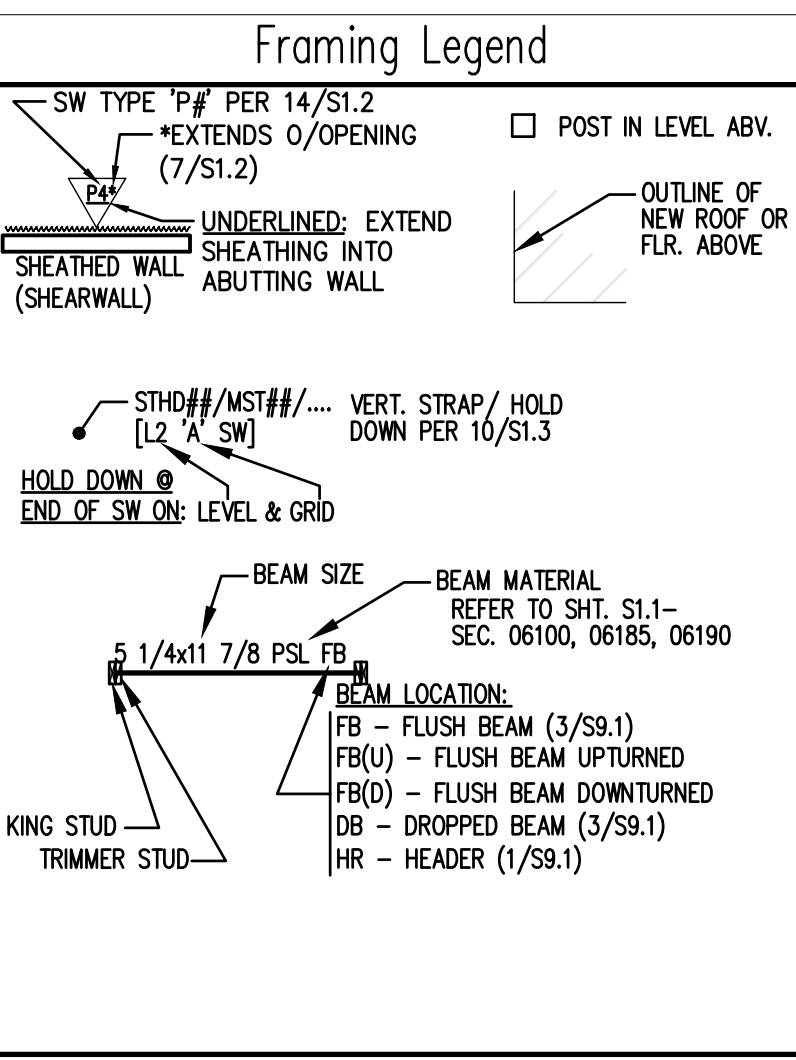
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- SEE ARCHITECTURAL FOR DRAFTSTOP AND VENTING LOCATIONS.
- FRAMING MEMBERS AND SHEATHING SHALL BE PER STRUCTURAL NOTES AS NOTED ON SHEET S1.1
- ALL UNLABELED EXTERIOR WALLS ARE TO BE TYPE 'P6'; SEE SHEARWALL SCHEDULE ON SHEET S1.2
- HANGERS INDICATED ARE AS MANUFACTURED BY SIMPSON STRONG-TIE. SEE SEC. 06103/S1.1 FOR TYPICAL HANGERS, U.N.O.
- PROVIDE JOIST OR BLOCKING AT TOP SHEARWALLS.
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND TOP PLATE ELEVATIONS.
- BUNDLED STUDS FROM THIS LEVEL SHALL BE CONTINUED DOWN TO FOUNDATION OR SUPPORTING BEAM. (RE: 4/S9.1)
- ALL BEAMS AND HEADERS SHALL HAVE A MINIMUM OF (1) FULL HEIGHT STUD AT EACH END FOR BRACING TYPICAL UNLESS NOTED OTHERWISE.
- PROVIDE MINIMUM (2) 2X BUNDLED STUDS UNDER EACH BEAM END, TYPICAL UNLESS NOTED OTHERWISE. (AT HEADERS: TRIMMER+KING=2 BUNDLED STUDS)
- SEE DETAILS 19 & 20 ON SHEET S1.3 FOR TYPICAL CORNER FRAMING DETAILS AT HOLD DOWNS & SHEARWALLS.
- HANGER OCCURS WHERE FLUSH BEAM HANGS TO SUPPORT BEAMS, TYP. U.N.O.

Bearing Wall Stud Schedule

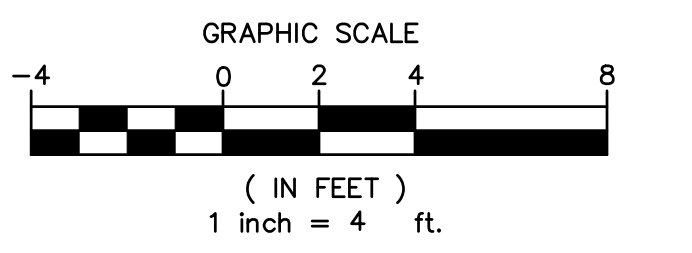
BEARING WALL TYPE	STUD SIZE AND SPACING, U.N.O.
EXTERIOR	2 X 6 AT 16" O.C., U.N.O.
INTERIOR NON-BEARING	2 X 4 AT 16" O.C.

BEARING WALL NOTES

- SEE SHEARWALL SCHEDULE SHEET S1.2 FOR WALL SHEATHING, ADDITIONAL PLATE AND STUD REQUIREMENTS, BLOCKING AND PLATE NAILING. SEE SAWN LUMBER STRUCTURAL NOTES SHEET S1.1 FOR SPECIES AND GRADE
- SECURE SILL PLATES TO CONCRETE WITH 5/8" DIA. ANCHOR BOLTS AT 48" ON CENTER TYPICAL UNLESS NOTED OTHERWISE. RE: S1.2 REFER TO SHEARWALL AND HOLDDOWN SCHEDULE FOR ADDITIONAL ANCHOR BOLT REQUIREMENTS. WHERE PRESERVATIVE TREATED WOOD IS USED, REFER TO THAT NOTE SECTION FOR CORROSION PROTECTION REQUIREMENTS FOR CONNECTORS.
- SEE 2/59.1 FOR TOP PLATE SPLICE. PROVIDE ADDITIONAL CONNECTORS AT SHEARWALLS AS INDICATED ON THE PLANS.
- ALIGN STUDS UNDER JOISTS



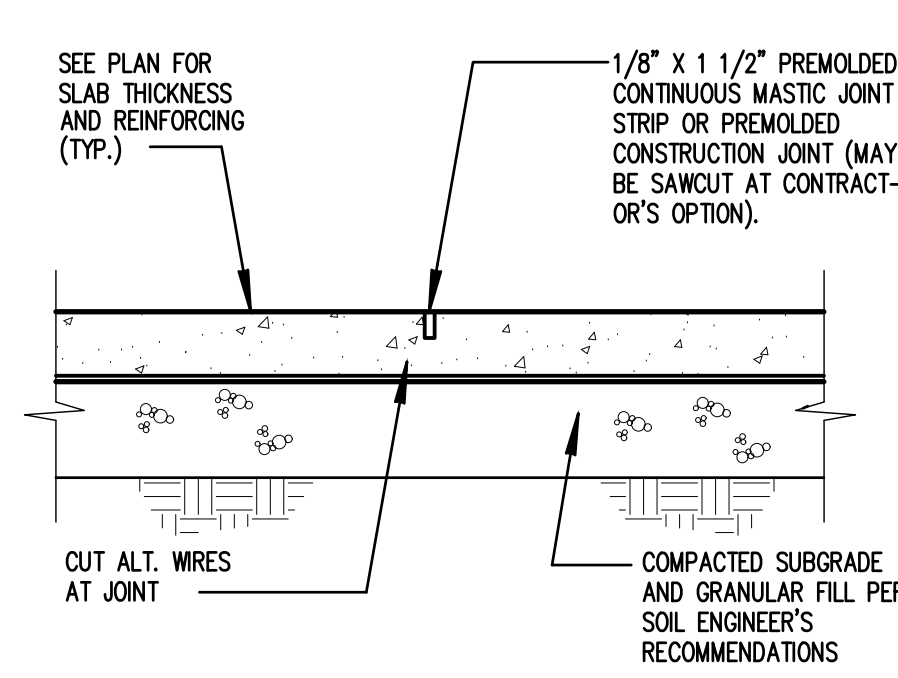
Note:
PLANS PREPARED USING ARCHITECTURAL BACKGROUNDS RECEIVED 07/10/2024



BAR SIZE	LAP CLASS	F _c = 3000PSI		F _c = 4000PSI		F _c = 5000PSI	
		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	A	17	14	15	12	14	12
	B	23	17	20	15	18	14
#4	A	23	18	20	16	18	14
	B	30	23	26	20	23	18
#5	A	29	22	25	19	22	17
	B	37	29	32	25	29	22
#6	A	35	27	30	23	27	21
	B	45	35	39	30	35	27
#7	A	63	48	54	42	49	37
	B	81	63	70	54	63	49
#8	A	72	55	62	48	55	43
	B	93	72	80	62	72	55
#9	A	81	62	70	54	63	48
	B	105	81	91	70	81	63

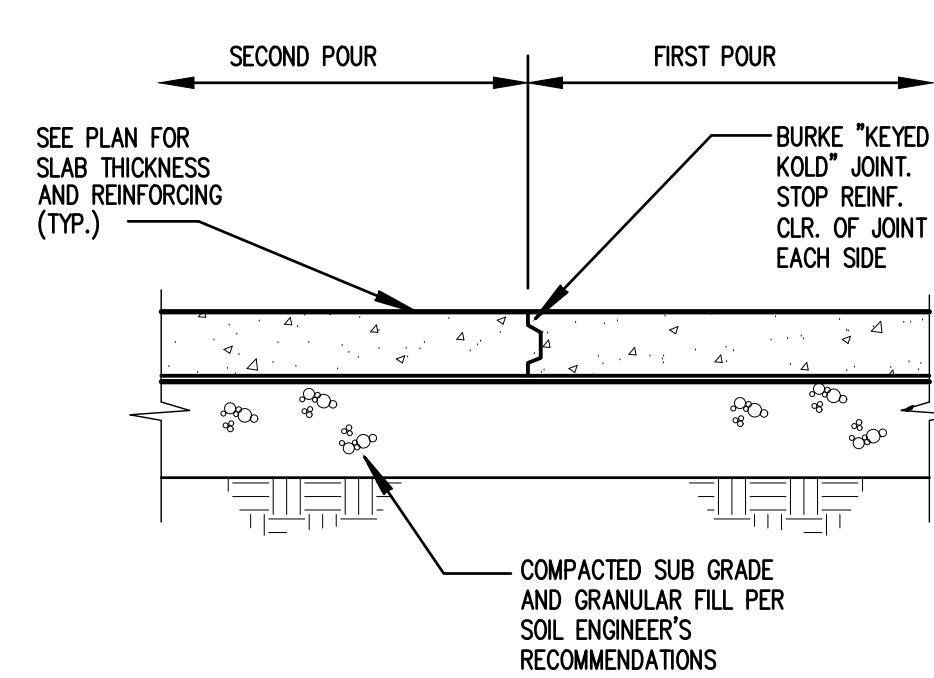
- LENGTHS SHOWN ARE IN INCHES.
- TENSION LAP SPLICES SHALL BE CLASS B UNLESS ONE HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH.
- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
- TENSION LAP SPLICE SHOWN ABOVE ARE FOR CONCRETE COVER GREATER THAN OR EQUAL TO BAR DIAMETER AND CENTER TO CENTER SPACING GREATER THAN TWO BAR DIAMETERS (SPACING AND COVER CASE 1).
- INCREASE LAP SPLICE LENGTH BY 1.5 FOR EPOXY COATED REINFORCEMENT.
- INCREASE LAP SPLICE LENGTH BY 1.3 FOR LIGHT WEIGHT CONCRETE.
- COMPRESSION LAP SPLICES SHALL BE A MINIMUM OF 30 BAR DIAMETERS UNLESS OTHERWISE SHOWN ON THE DRAWINGS.

1 LAP SPLICE SCHEDULE



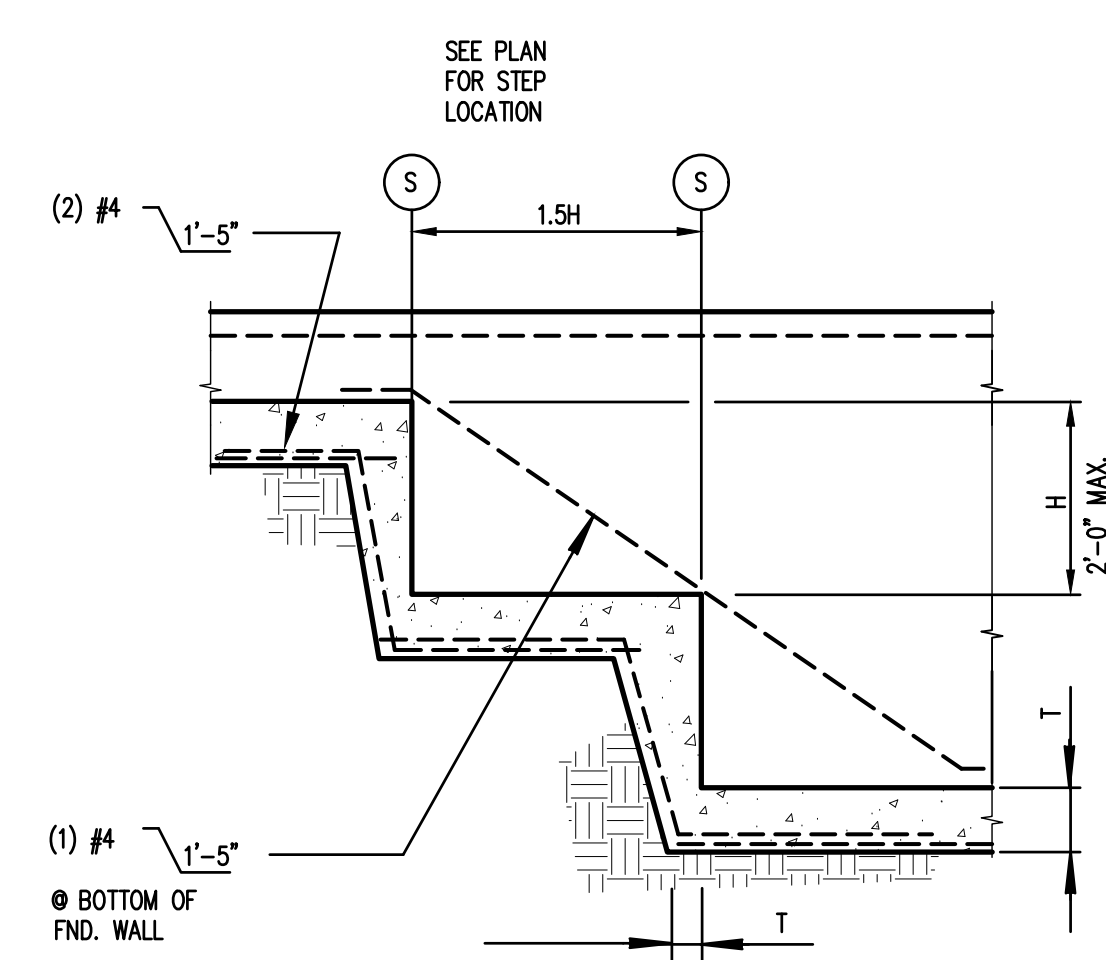
PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS TO BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

2 TYPICAL CONTROL JOINT

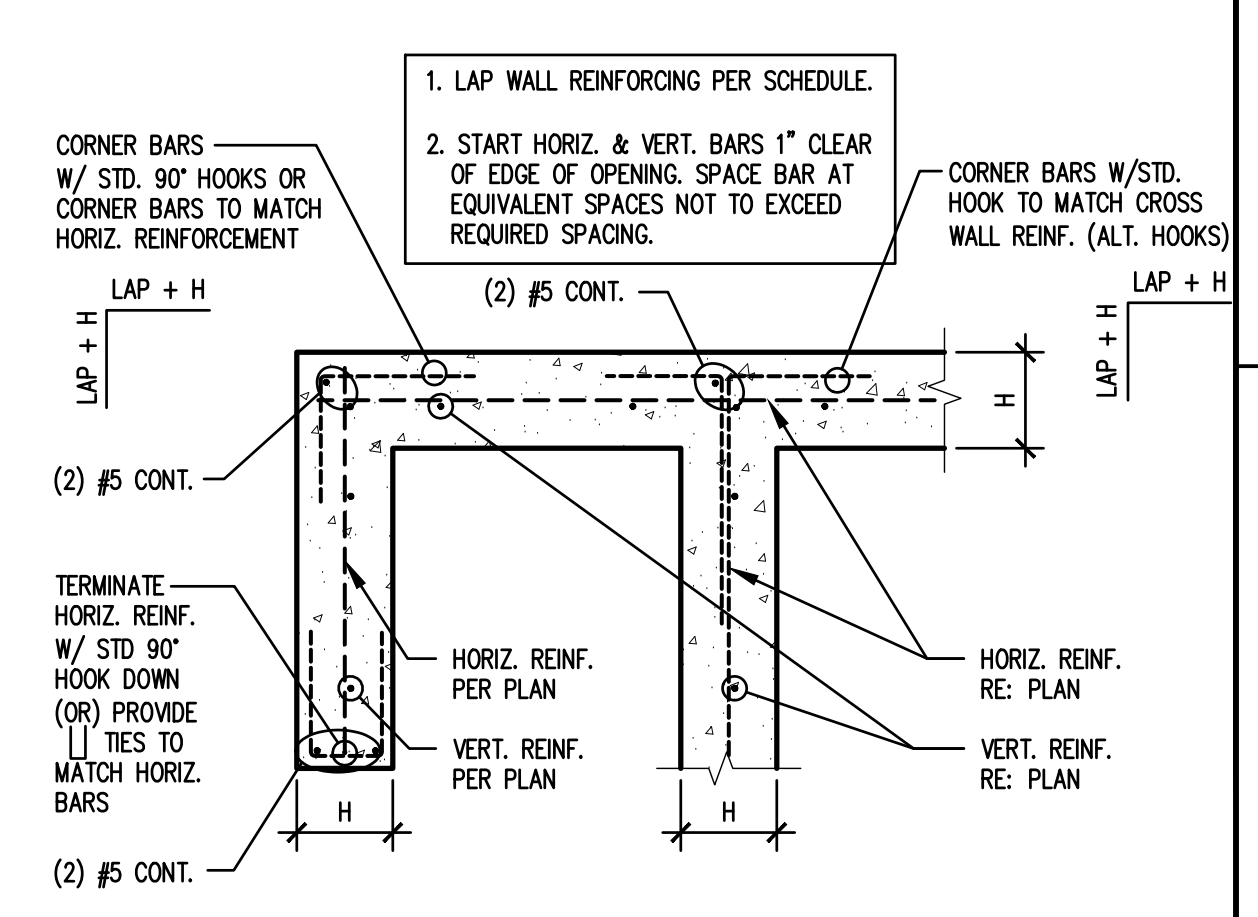


PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS TO BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

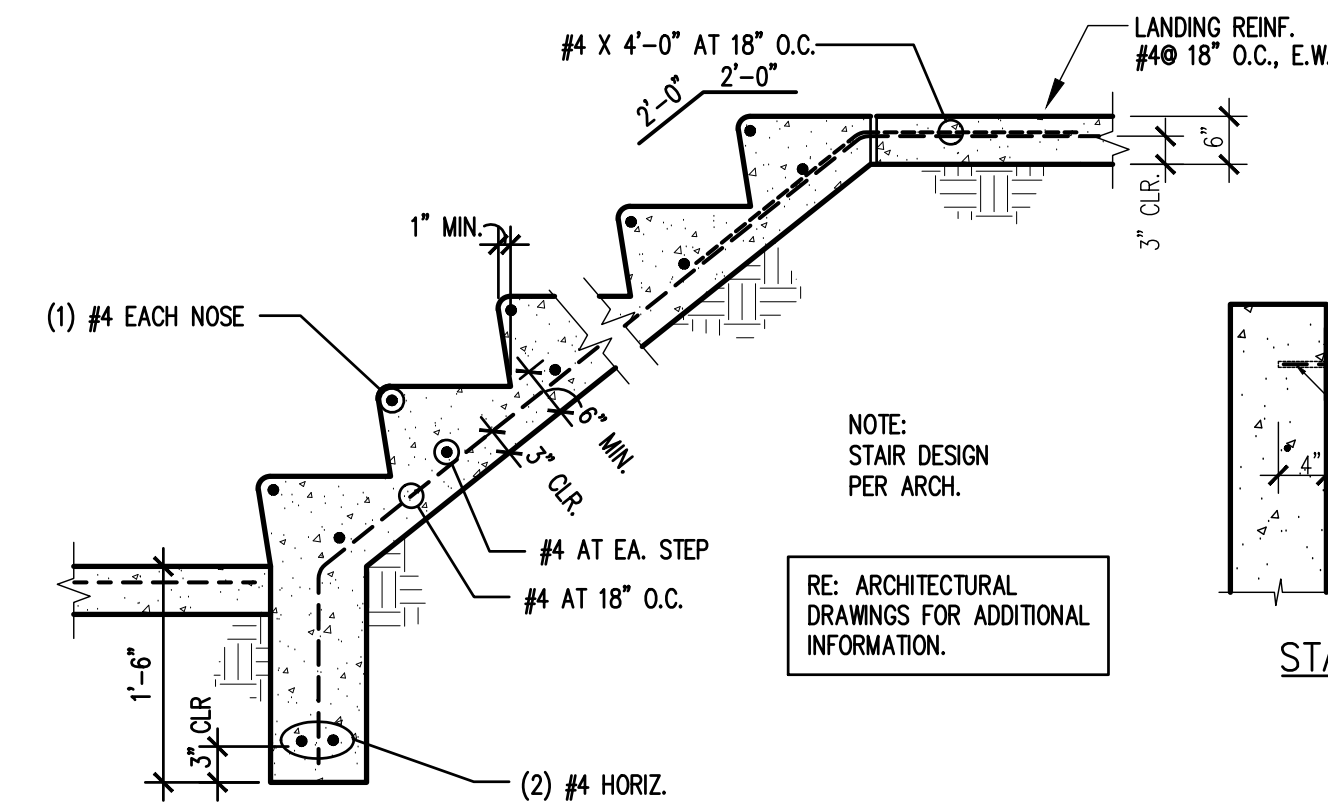
3 TYPICAL CONSTRUCTION JOINT



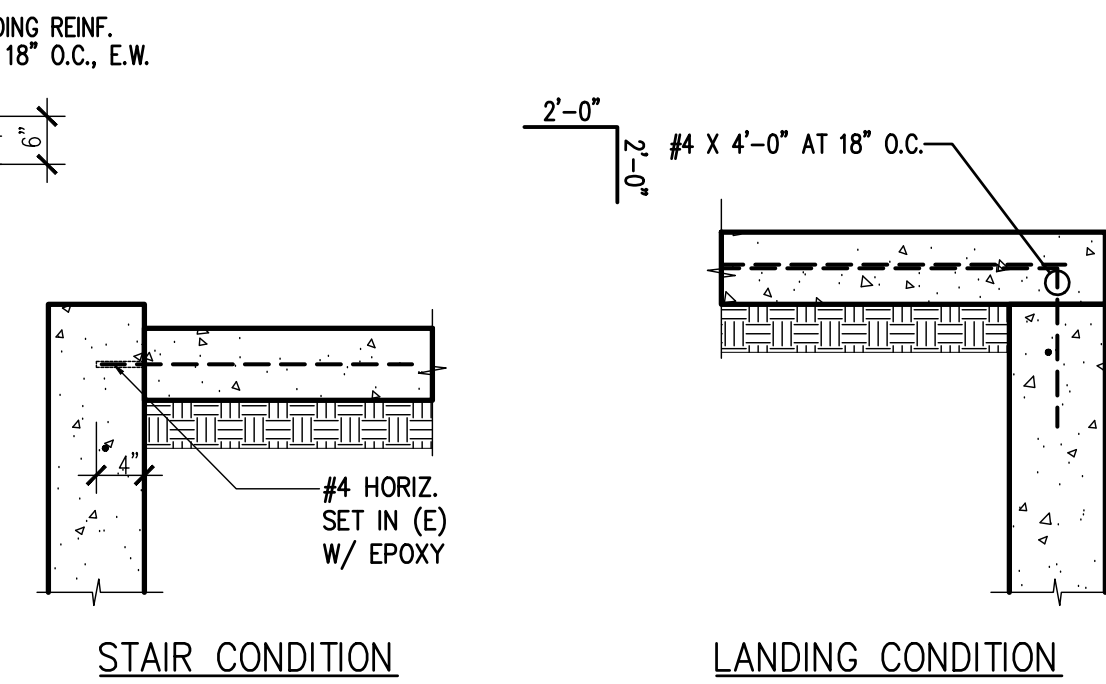
4 TYPICAL STEPPED FOOTING



5 SGL. CURTAIN WALL REINF. PLACEMENT

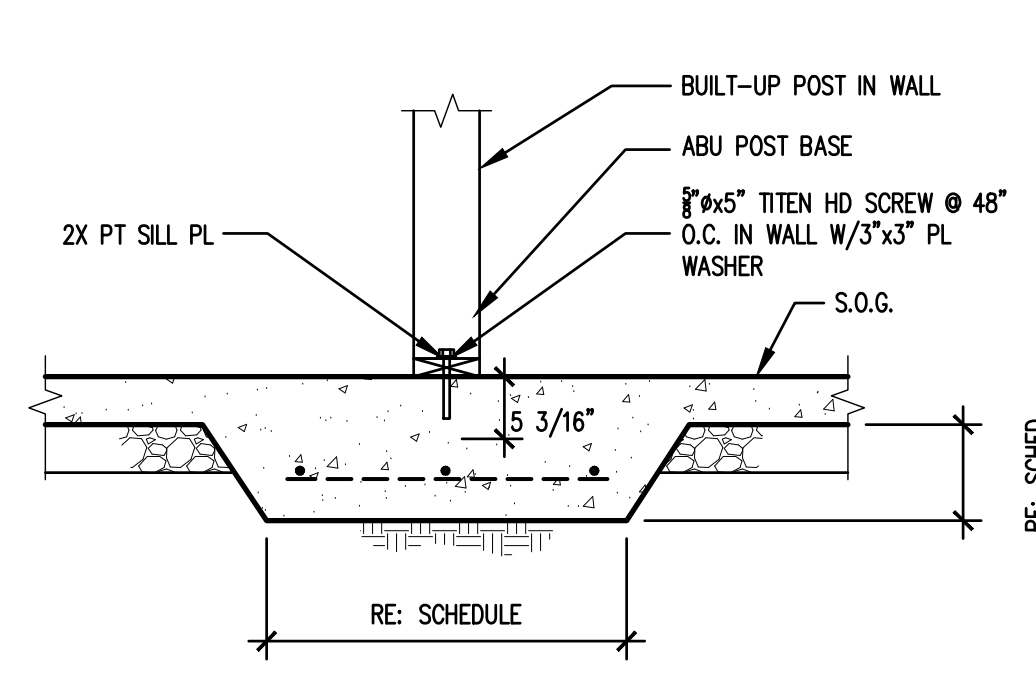


6 CONCRETE STAIRS ON GROUND

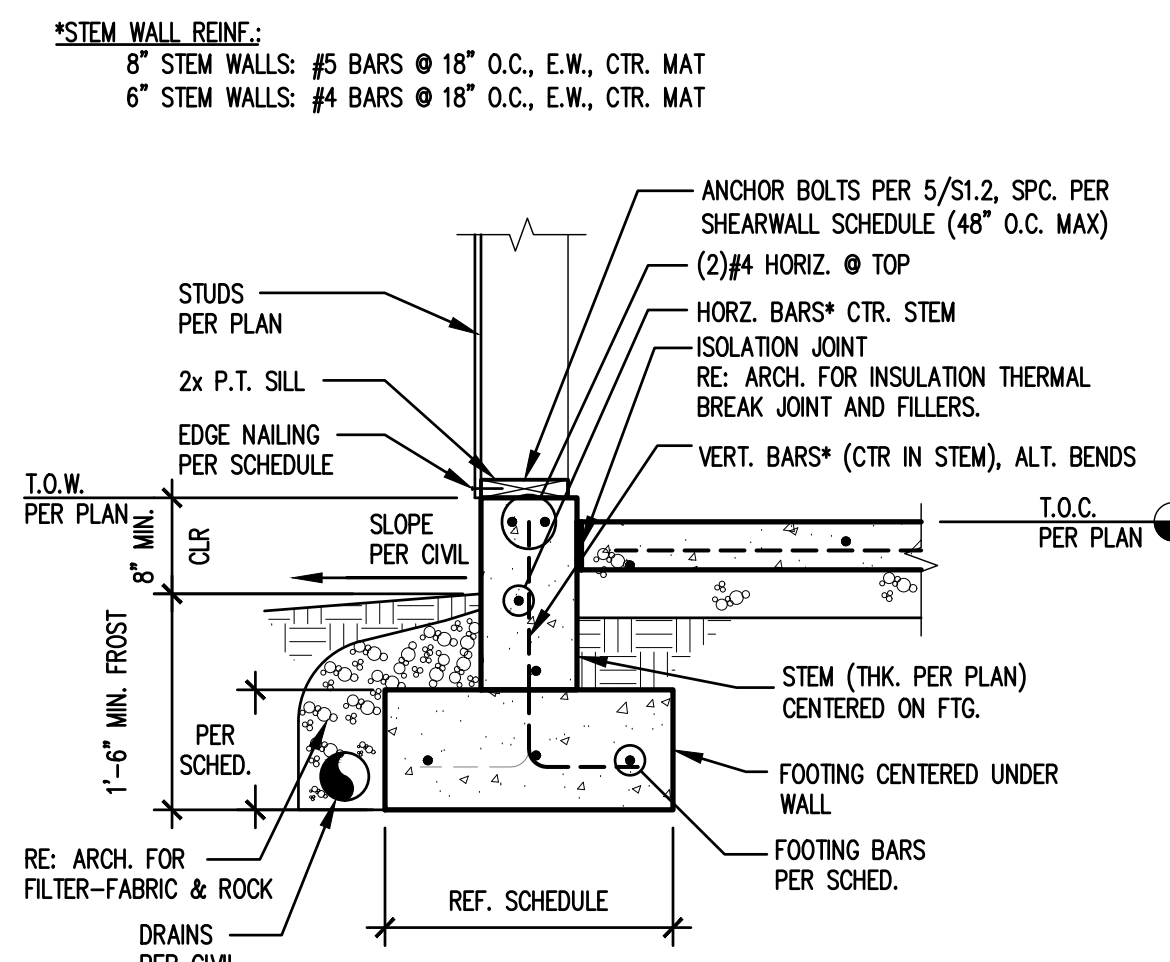


STAIR CONDITION

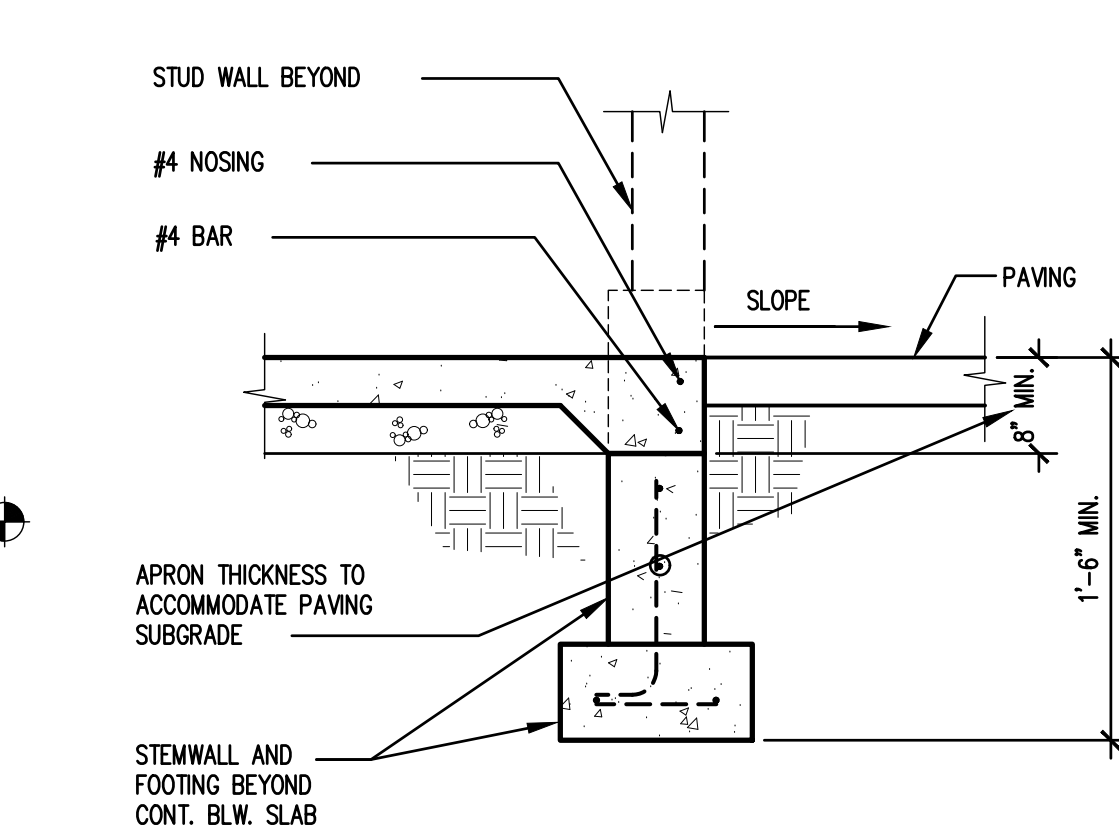
LANDING CONDITION



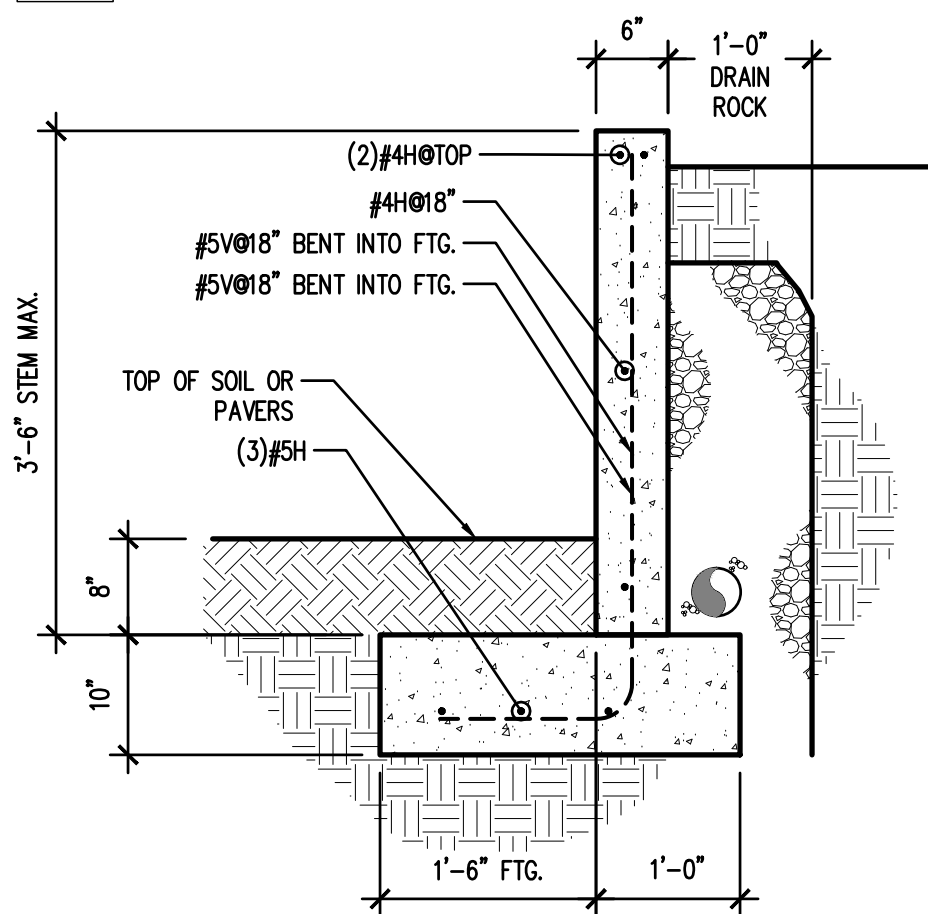
8 TYPICAL INTERIOR POST ON SLAB



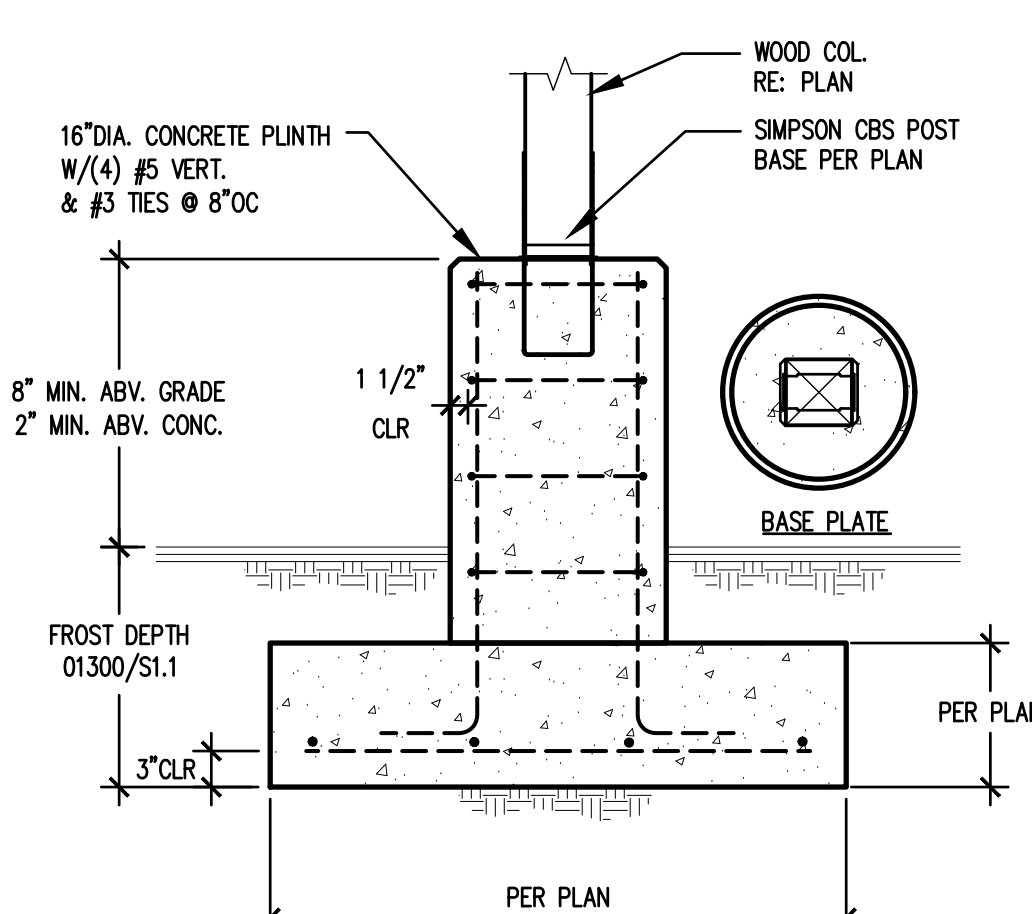
9 TYPICAL EXTERIOR FOOTING



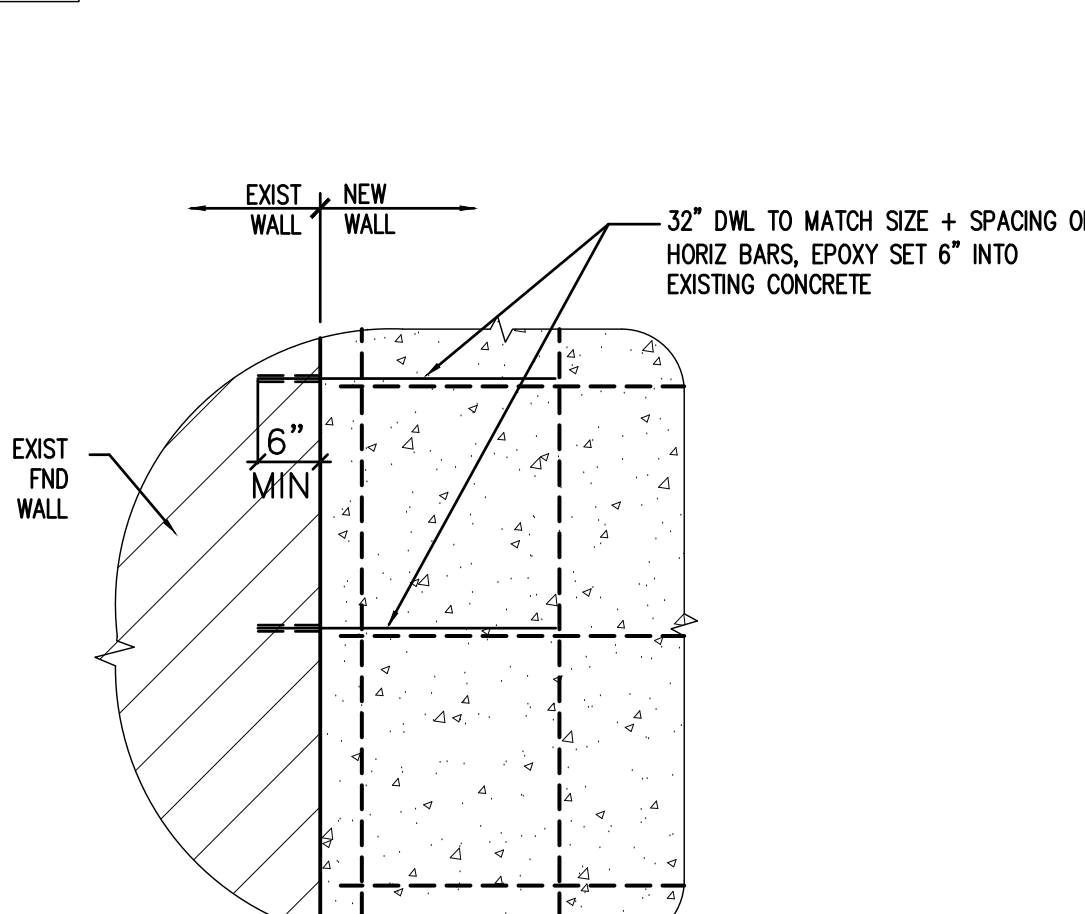
10 GARAGE APRON



11 RETAINING WALL



12 TYP. WOOD COL. ON CONC. PLINTH



13 NEW FOUNDATION TO EXIST. FND CONN.

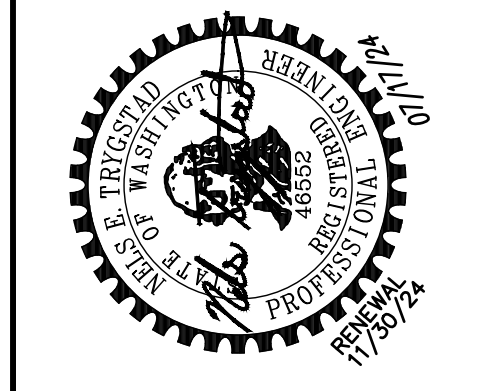
Permit check set

TE Job # 24307

Description Date
Permit Intake 07/17/24

TE
Trygstad
ENGINEERING
nels@trygstadeng.com
(208)262-6884

Stamp/Approval:

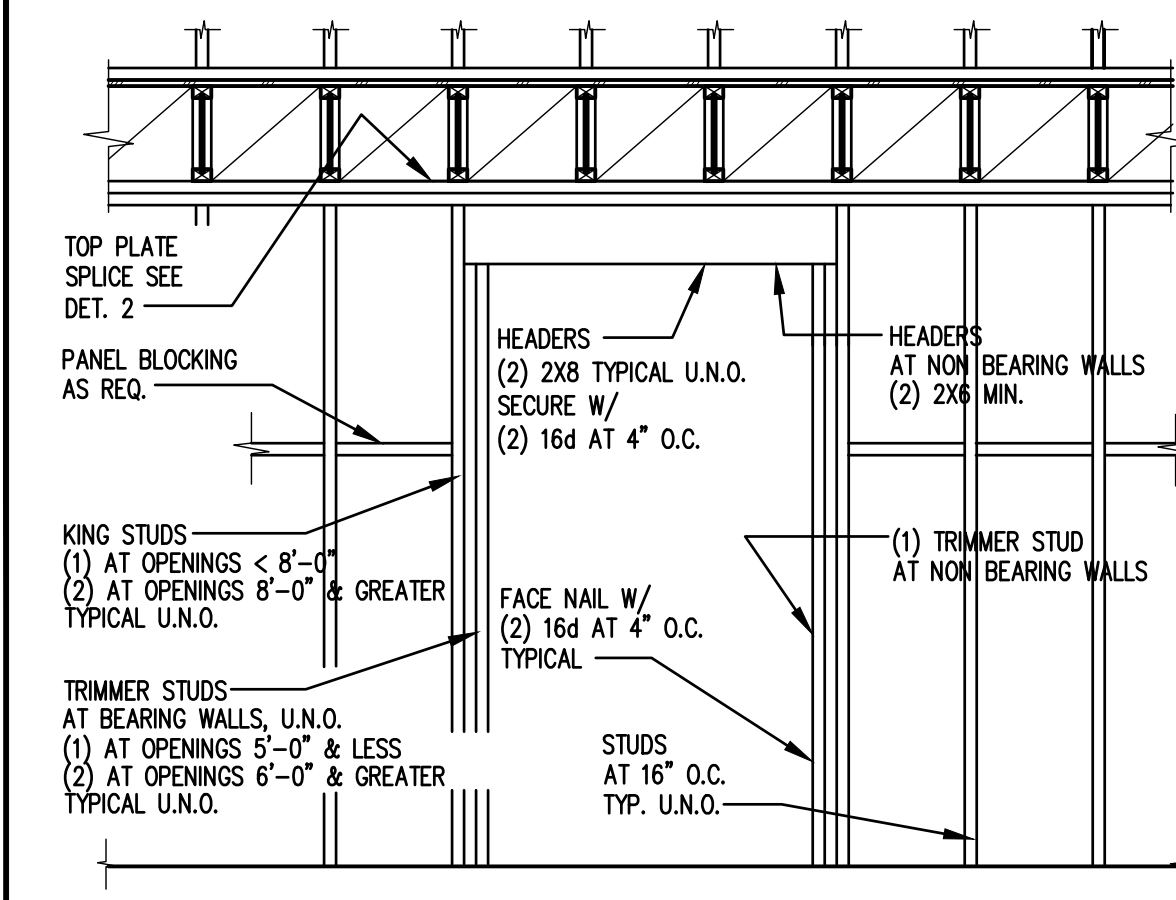


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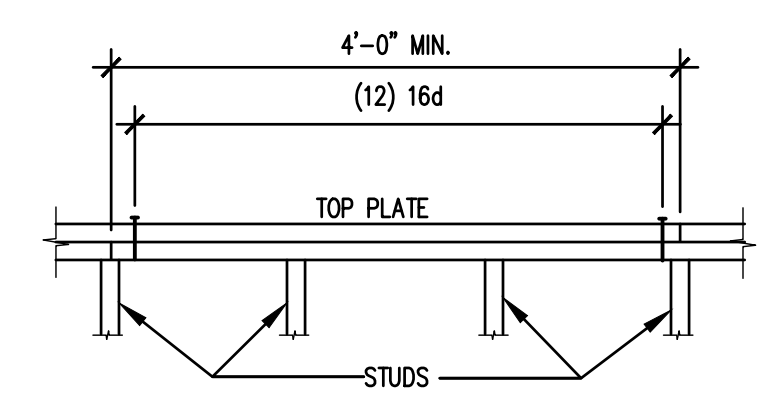
FRAMING
DETAILS

Sheet No:

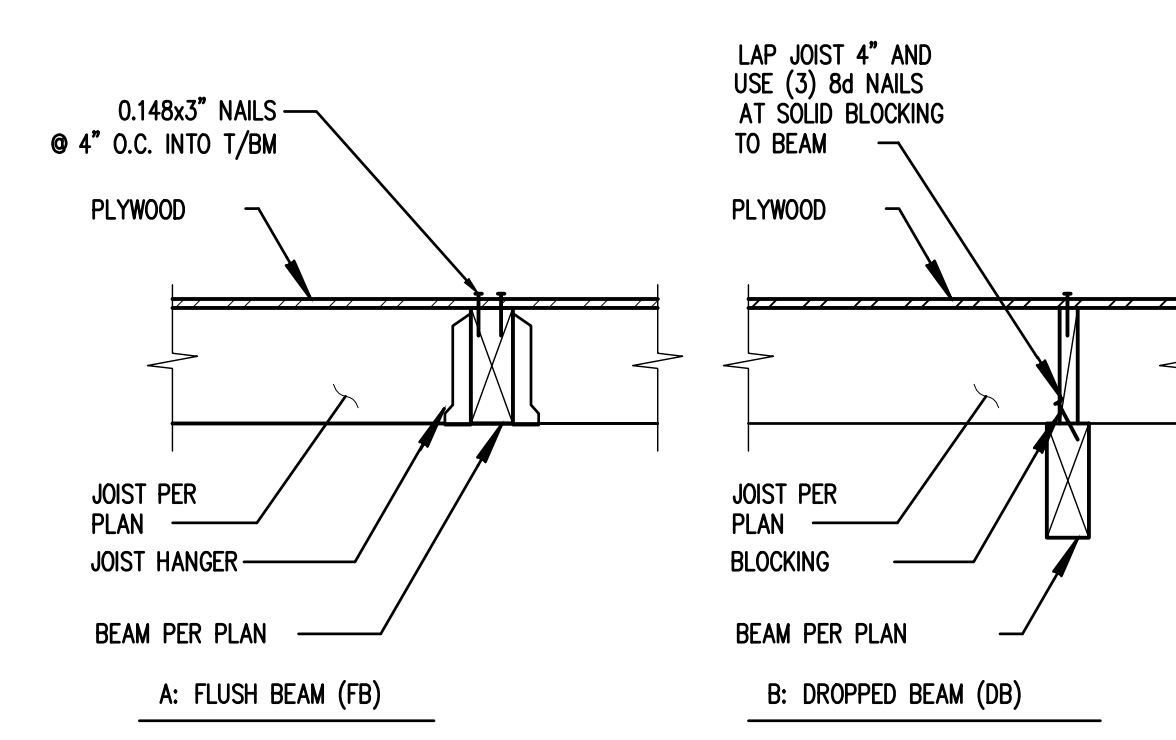
S9.1



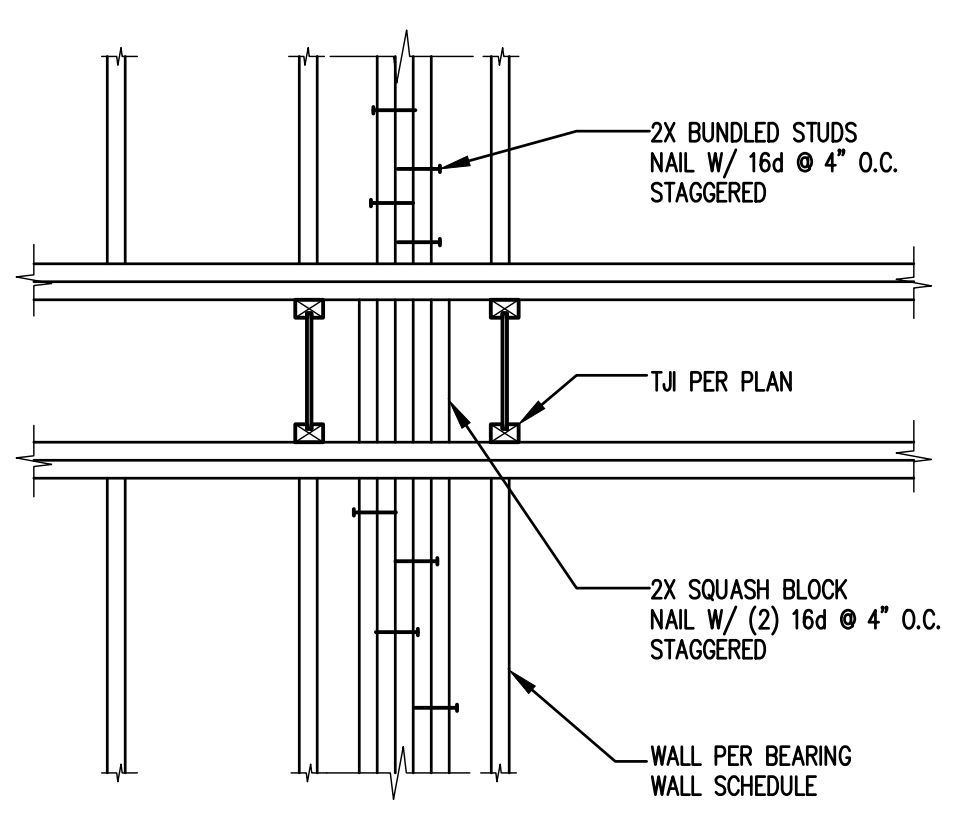
1 TYPICAL HEADER at WALL



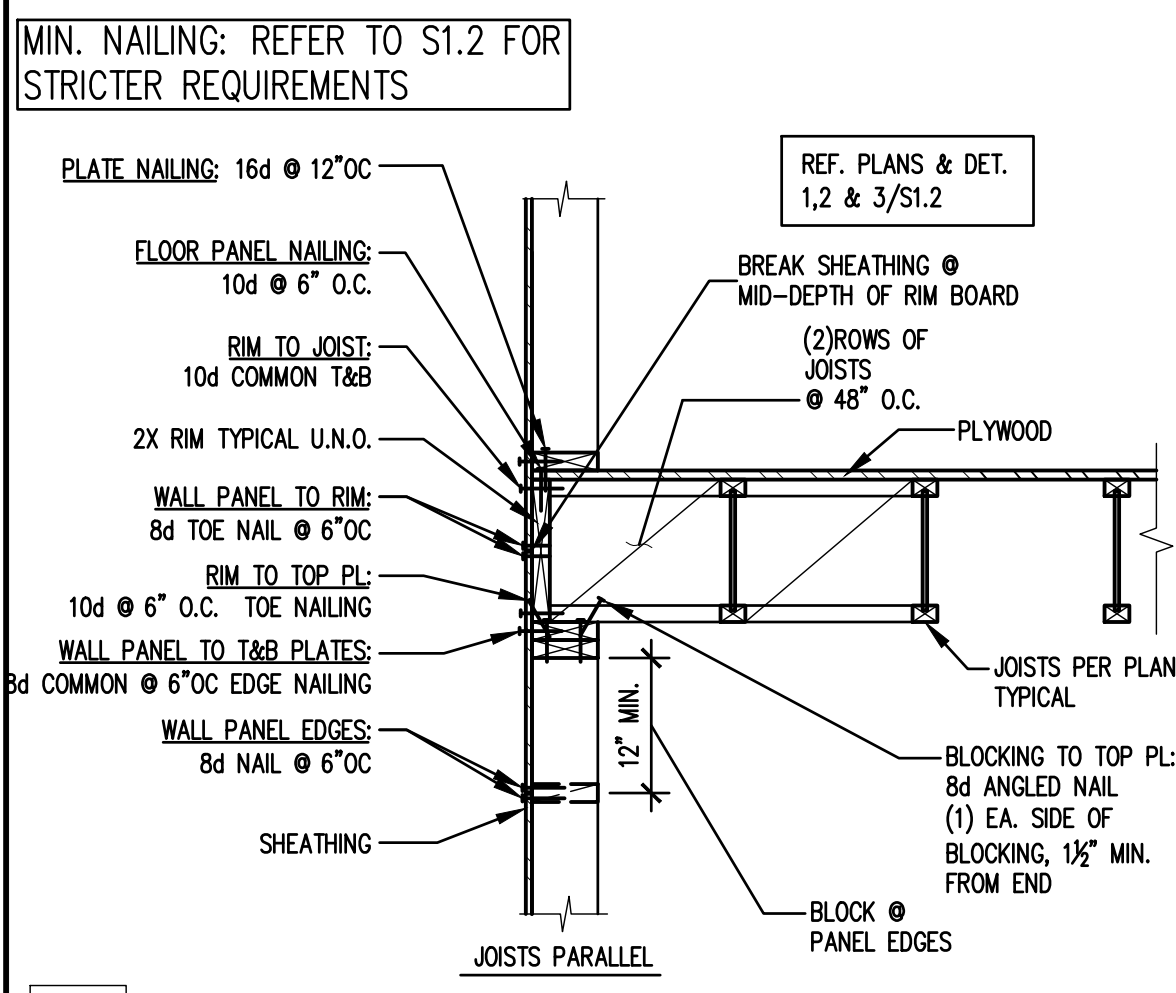
2 TYPICAL TOP PLATE SPLICE



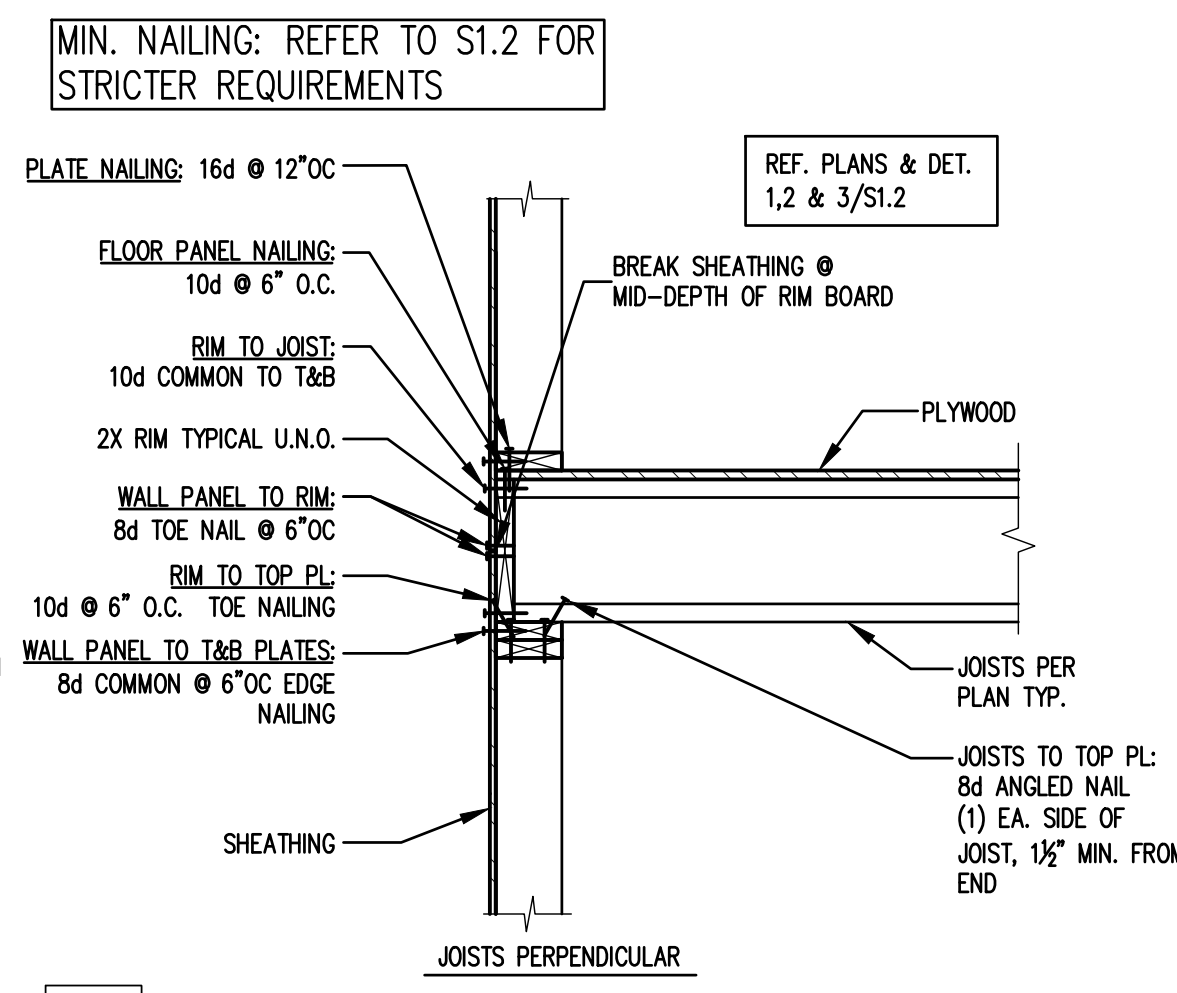
3 TYPICAL CONNECTION TO WOOD BEAM



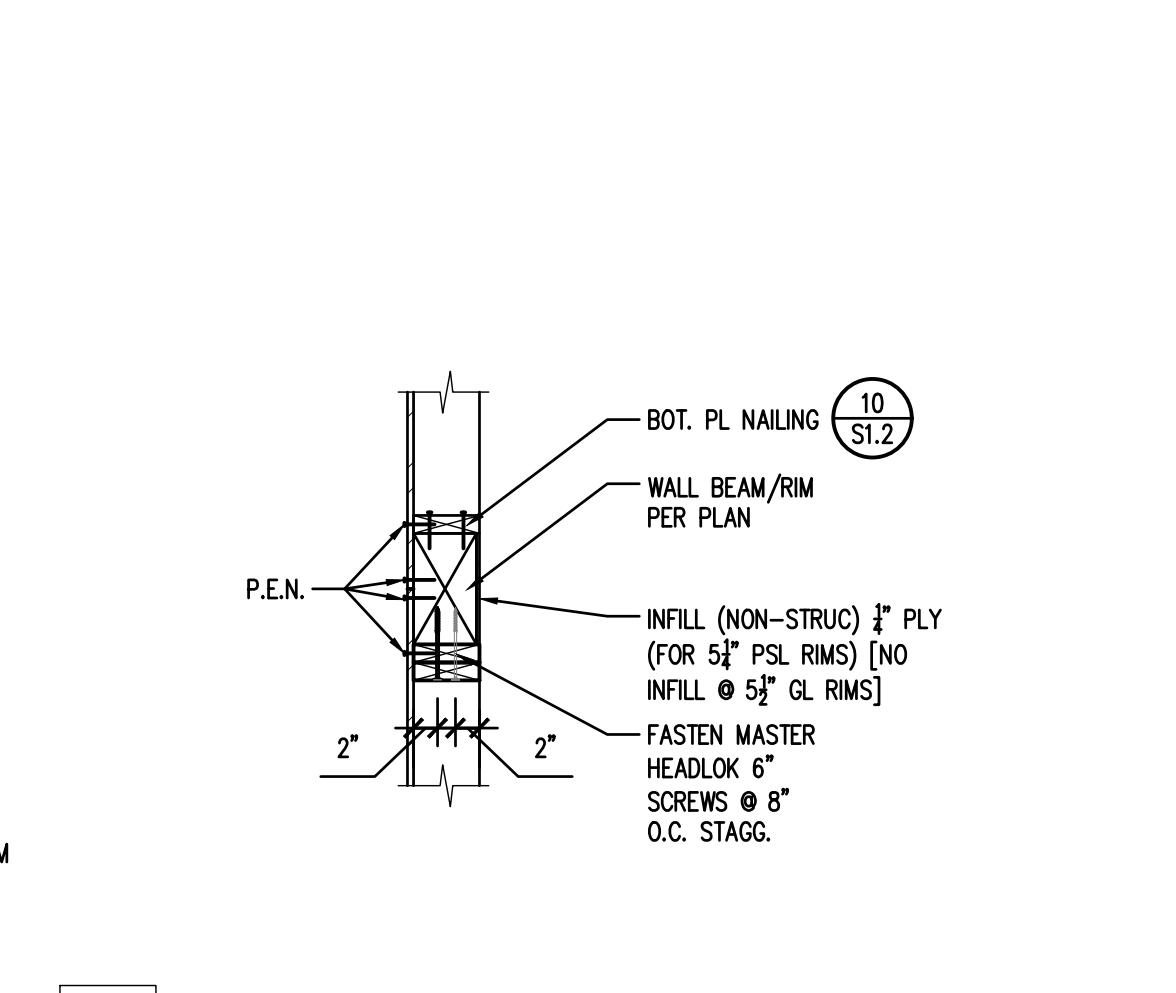
4 TYPICAL BLOCKING at BUNDLED STUDS



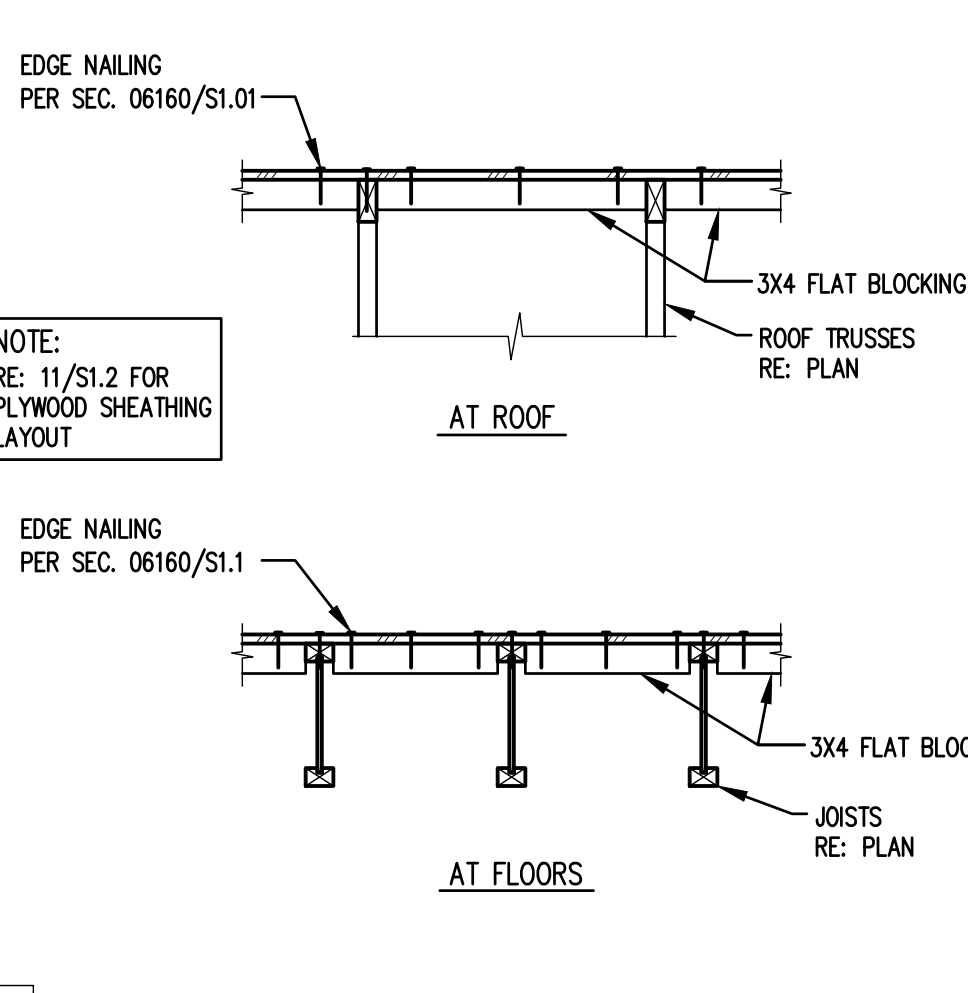
6 TYPICAL JOISTS PARALLEL TO WALL



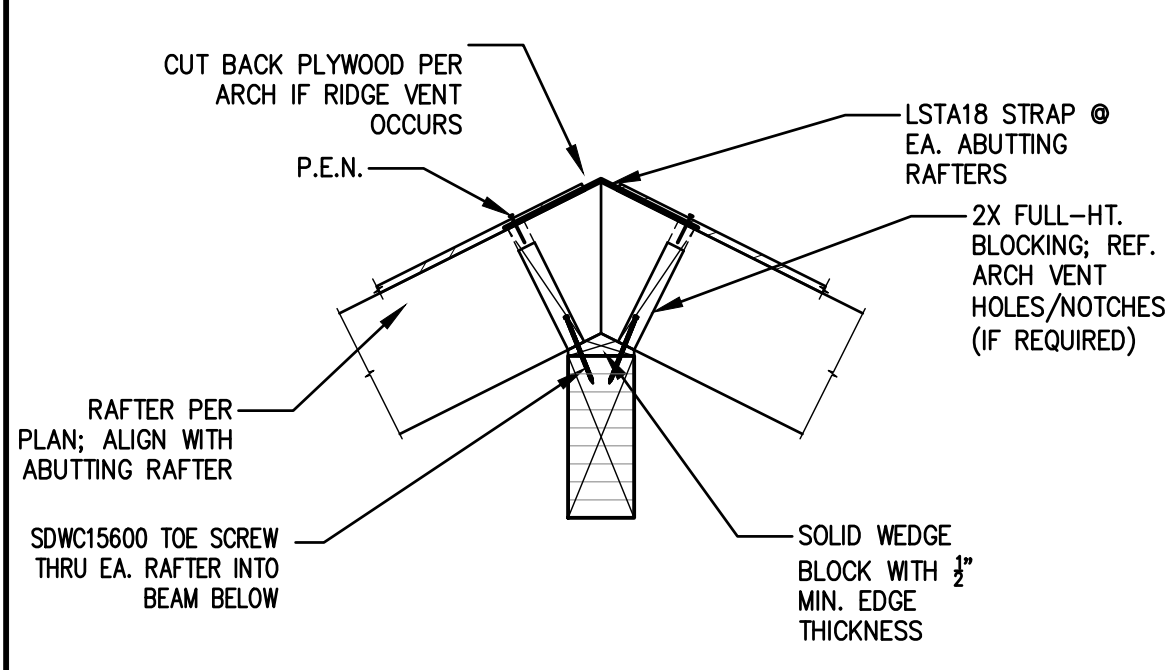
7 TYPICAL JOISTS PERPENDICULAR TO WALL



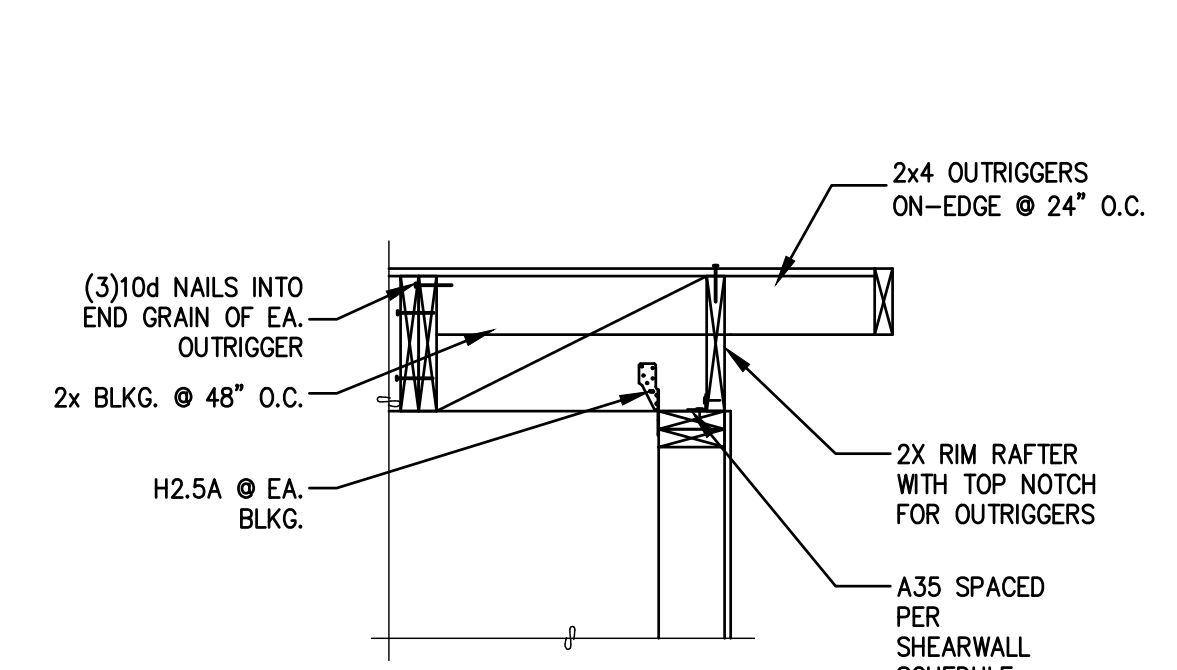
8 RIM BEAM @ STAIRS WELL



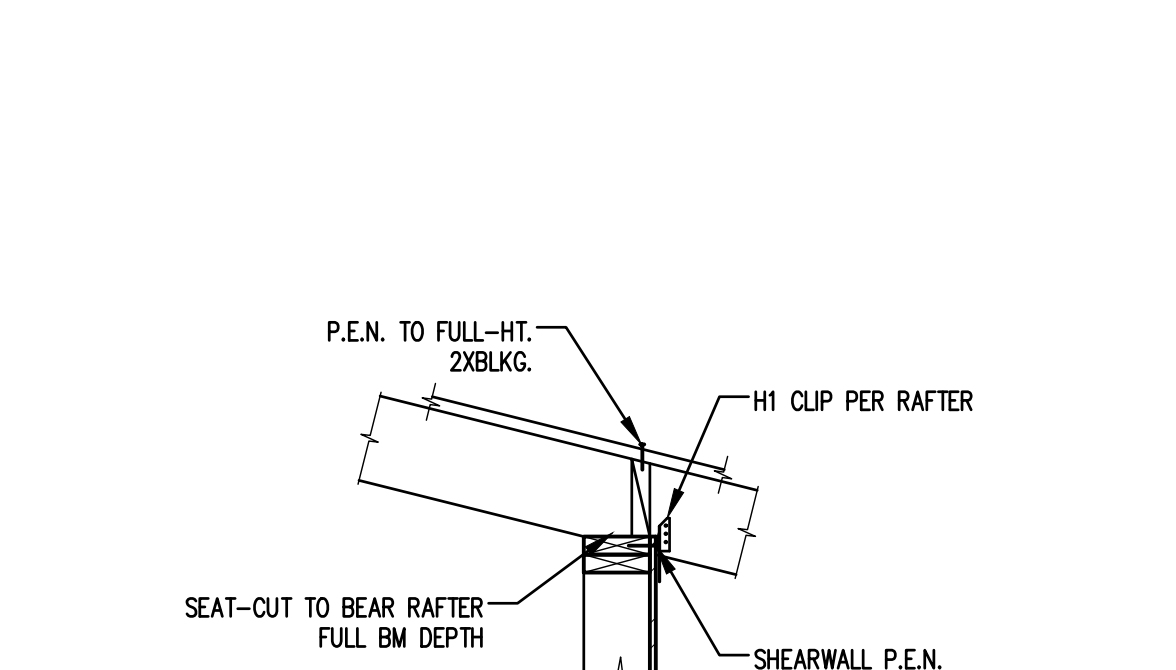
9 TYPICAL DIAPHRAGM FLAT BLOCKING



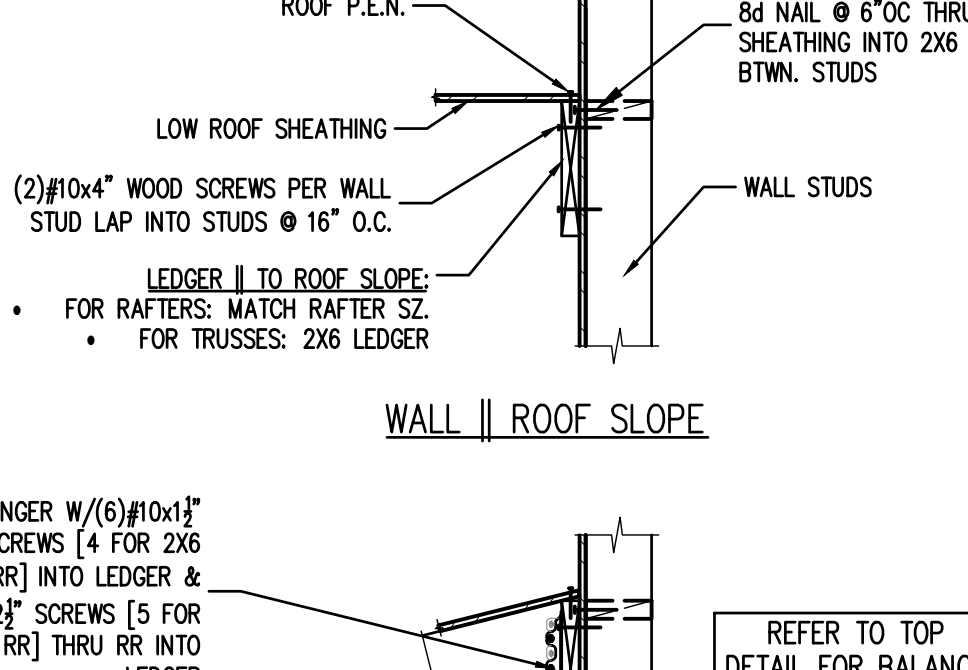
11 RAFTERS TO DROPPED RIDGE BEAM



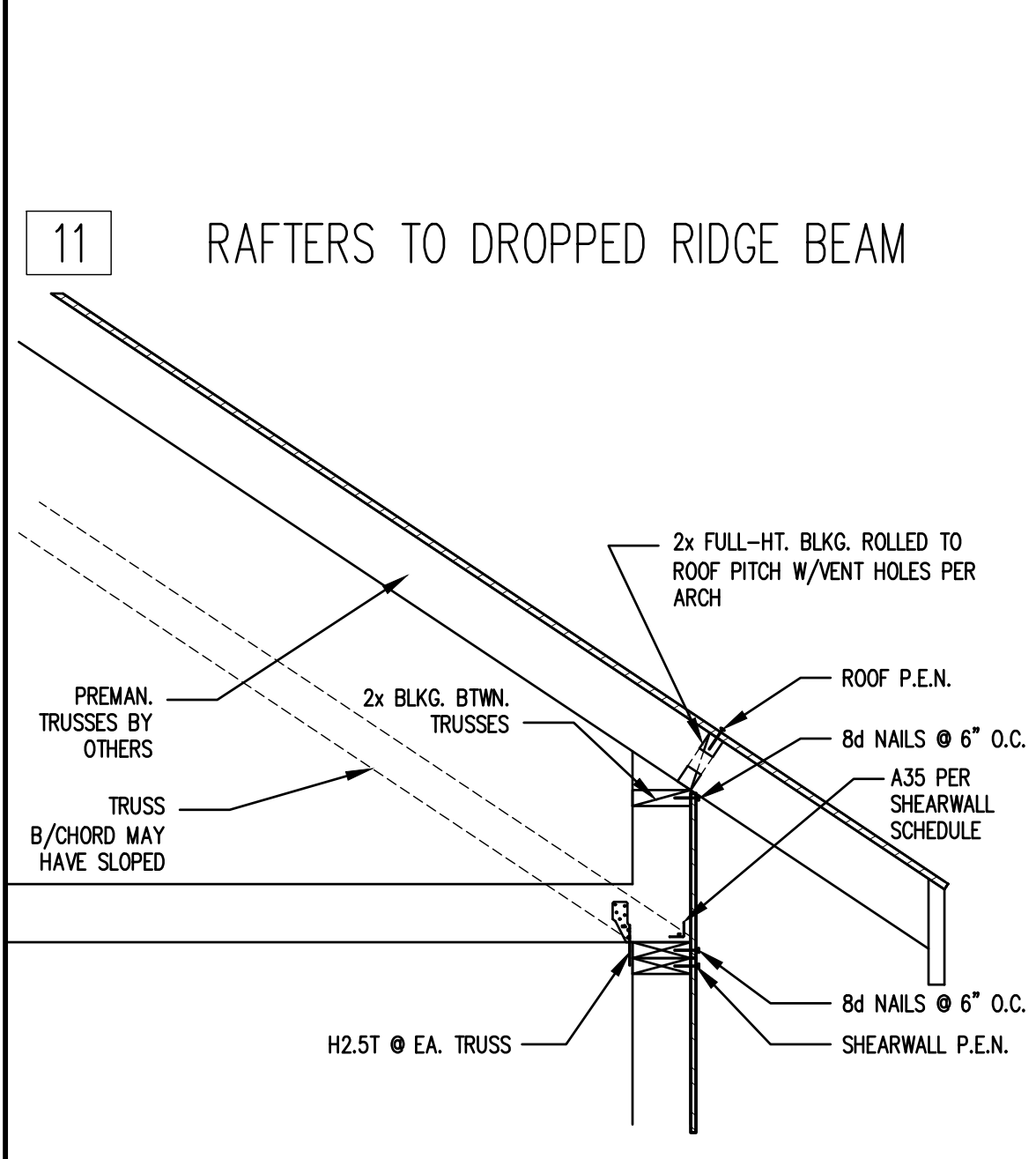
12 TYP. OUTRIGGER TO WALL



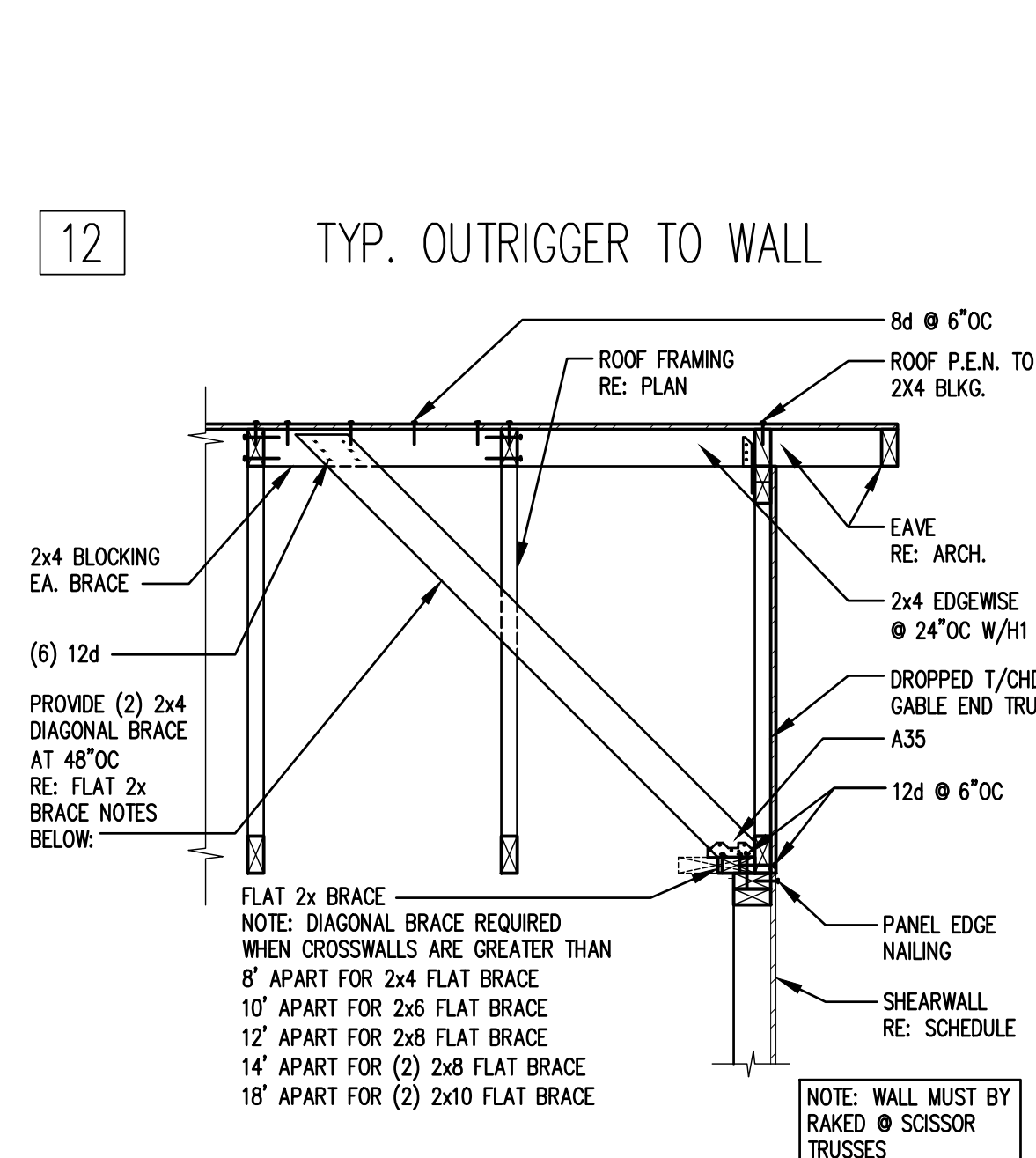
13 ROOF RAFTERS TO WALL



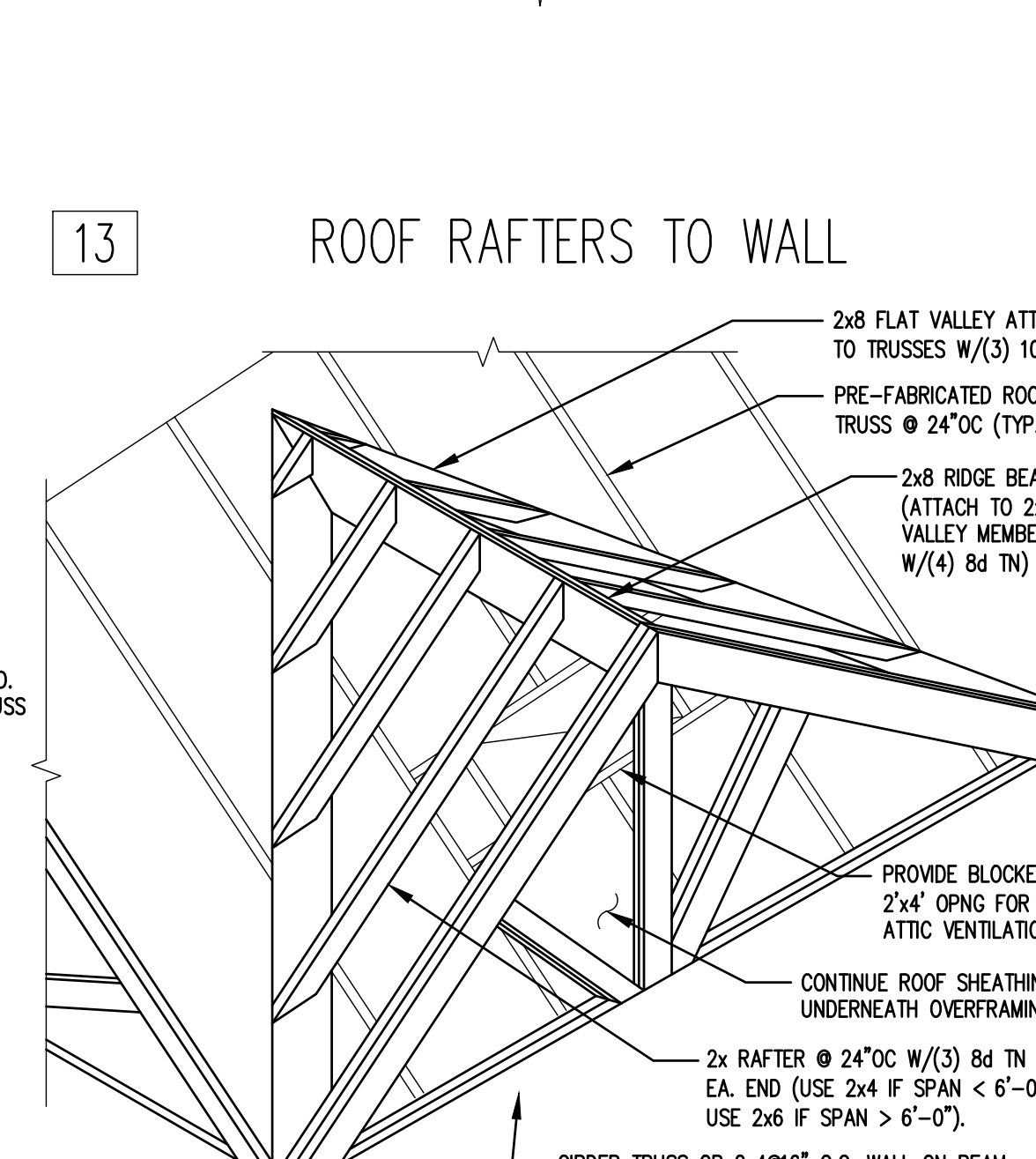
14 LOW ROOF TO WALL || ROOF SLOPE



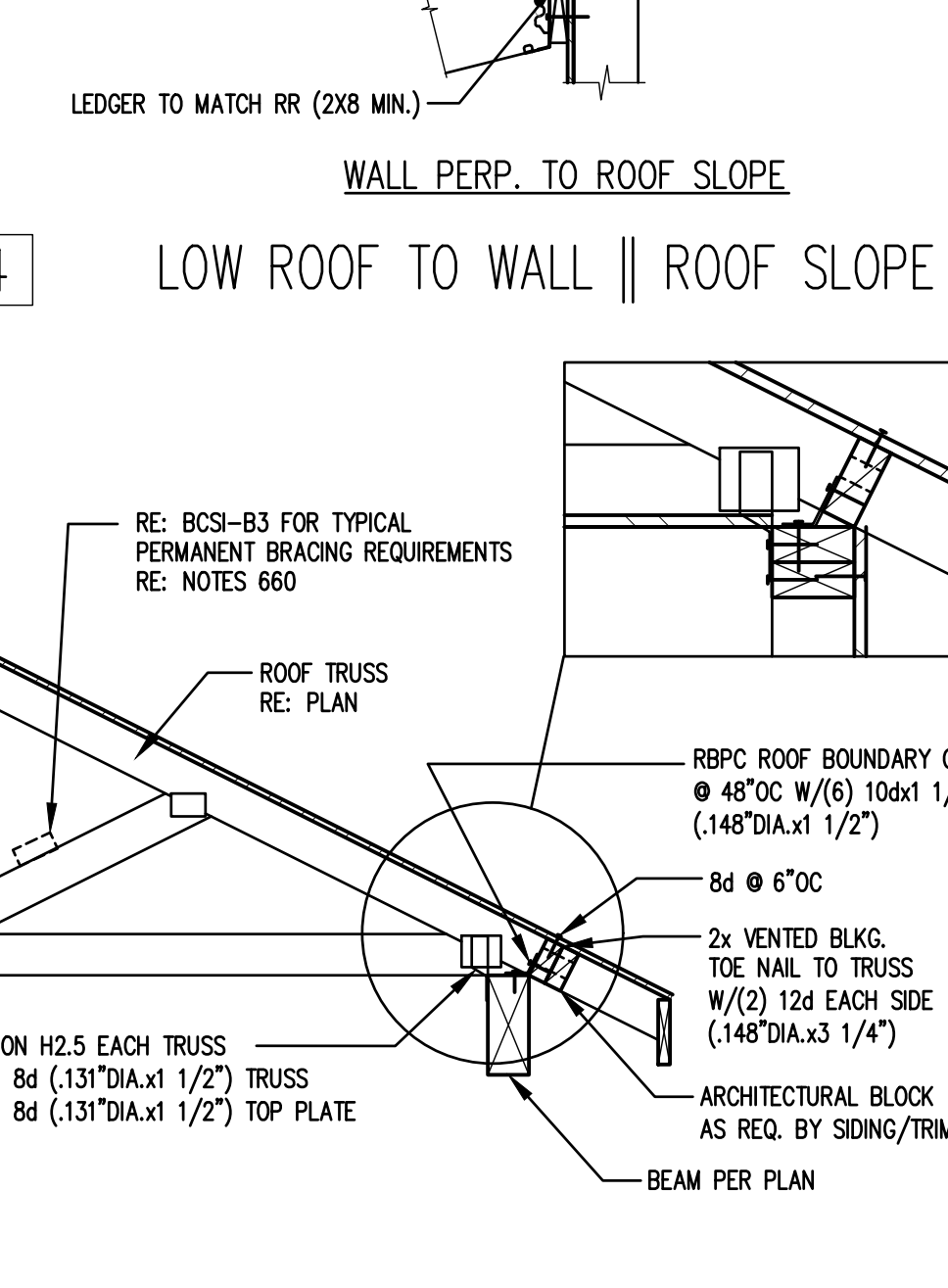
16 TRUSS TO WALL



17 TYPICAL TRUSS BRACING AT END WALLS



18 OVERFRAMING



19 TYPICAL TRUSS ON PORCH BEAM

CONNECTION	FASTENING (6, m)	LOCATION
1. JOIST TO SILL OR ORDER	(3) 8d COMMON (3) 3" X 0.131" NAILS	TOENAIL TOENAIL
2. BRIDGING TO JOIST	(3) 8d COMMON (3) 3" X 0.131" NAILS	TOENAIL EA. END TOENAIL EA. END
3. 1X6 OR LESS SUBFLOOR TO JST.	(2) 8d COMMON	FACE NAIL
4. 1X6 OR LESS SUBFLOOR TO JST.	(3) 8d COMMON	FACE NAIL
5. 2" SUBFLOOR TO JST./ORDER	(2) 16d COMMON	BLIND & FACE NAIL
6. SOLE PLATE TO JST. OR BLKG.	16d AT 16" O.C. 3" X 0.131" NAILS AT 6" O.C.	TYP. FACE NAIL TYP. FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	(3) 16d COMMON AT 16" O.C. (4) 3" X 0.131" NAILS AT 16" O.C.	BRACED WALL PANELS BRACED WALL PANELS
7. TOP PLATE TO STUD	(2) 16d COMMON (3) 3" X 0.131" NAILS	END NAIL END NAIL
8. STUD TO SOLE PLATE	(4) 8d COMMON (4) 3" X 0.131" NAILS	TOENAIL TOENAIL
	(2) 16d COMMON (3) 3" X 0.131" NAILS	END NAIL END NAIL
9. DOUBLE STUDS	16d COMMON AT 24" O.C. 3" X 0.131" NAILS AT 6" O.C.	FACE NAIL FACE NAIL
10. DOUBLE TOP PLATES	16d COMMON AT 16" O.C. 3" X 0.131" NAIL AT 12" O.C.	TYP. FACE NAIL TYP. FACE NAIL
DOUBLE TOP PLATE SPLICE	(8) 16d COMMON (12) 3" X 0.131" NAILS	LAP SPLICE LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	(3) 8d COMMON (3) 3" X 0.131" NAILS	TOENAIL TOENAIL
12. RIM JOIST TO TOP PLATE	8d COMMON AT 6" O.C. 3" X 0.131" NAILS AT 6" O.C.	TOENAIL TOENAIL
13. TOP PLATES, CORNER LAPS AND INTERSECTIONS	(2) 16d COMMON (3) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON AT 16" O.C.	ALONG EDGE
15. CEILING JOISTS TO PLATE	(3) 8d COMMON (5) 3" X 0.131" NAILS	TOENAIL TOENAIL
16. CONTINUOUS HEADER TO STUD	(4) 8d COMMON	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SECTION 2308.10.4.1)	(3) 16d COMMON MIN. TABLE 2308.10.4.1 (4) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SECTION 2308.10.4.1)	(3) 16d COMMON MIN. TABLE 2308.10.4.1 (4) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
19. RAFTER TO PLATE (SECTION 2308.10.1) (TABLE 2308.10.1)	(3) 8d COMMON (3) 3" X 0.131" NAILS	TOENAIL TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	(2) 8d COMMON (2) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
21. 1"x8" SHEATHING TO EACH BEARING	(2) 8d COMMON	FACE NAIL
22. WIDER THAN 1"x8" SHEATHING TO EACH BEARING	(3) 8d COMMON	FACE NAIL
23. BUILT UP CORNER STUDS	16d COMMON 3" X 0.131" NAILS	24" O.C. 16" O.C.
24. BUILT UP ORDER AND BEAMS	16d COMMON AT 32" O.C. 3" X 0.131" NAILS AT 24" O.C.	FACE NAIL TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	(2) 20d COMMON (3) 3" X 0.131" NAILS	FACE NAIL AT ENDS AND AT EACH BEARING
25. 2" PLANKS	16d COMMON	FACE NAIL FACE NAIL
26. COLLAR TIE TO RAFTER	(3) 10d COMMON (4) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
27. JACK RAFTER TO HIP	(3) 10d COMMON (4) 3" X 0.131" NAILS	TOENAIL TOENAIL
	(2) 16d COMMON (3) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
28. ROOF RAFTER TO 2-BY RIDGE BEAM	(2) 16d COMMON (3) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
29. JOIST TO BAND JOIST	(3) 16d COMMON (5) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
30. LEDGER STRIP	(3) 16d COMMON (4) 3" X 0.131" NAILS	FACE NAIL FACE NAIL
31. WOOD STRUCTURAL PANELS TO FRAMING SUBFLOOR TO FRAMING	SEE SHEARWALL SCHEDULE SEE STRUCTURAL NOTES	SHEET S1.10 SECTION 06160

15 FASTENING SCHEDULE

