

# Selby Primary Suite & Garage Addition



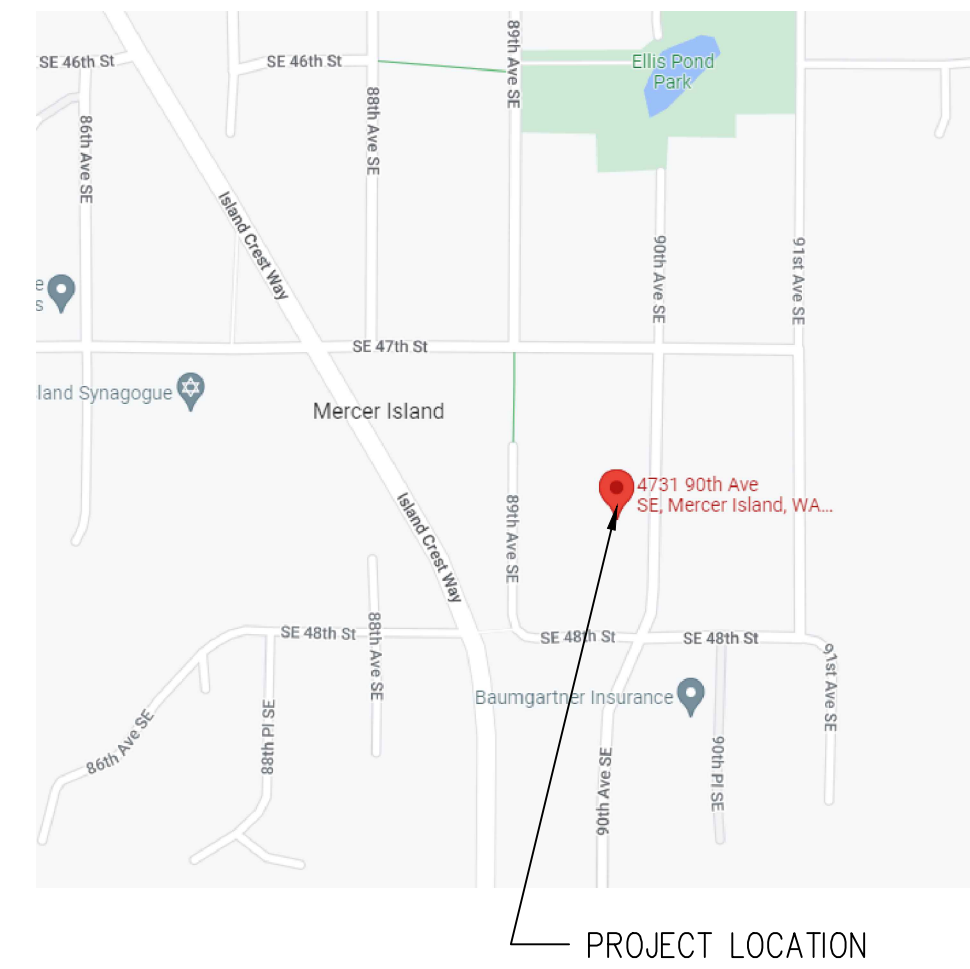
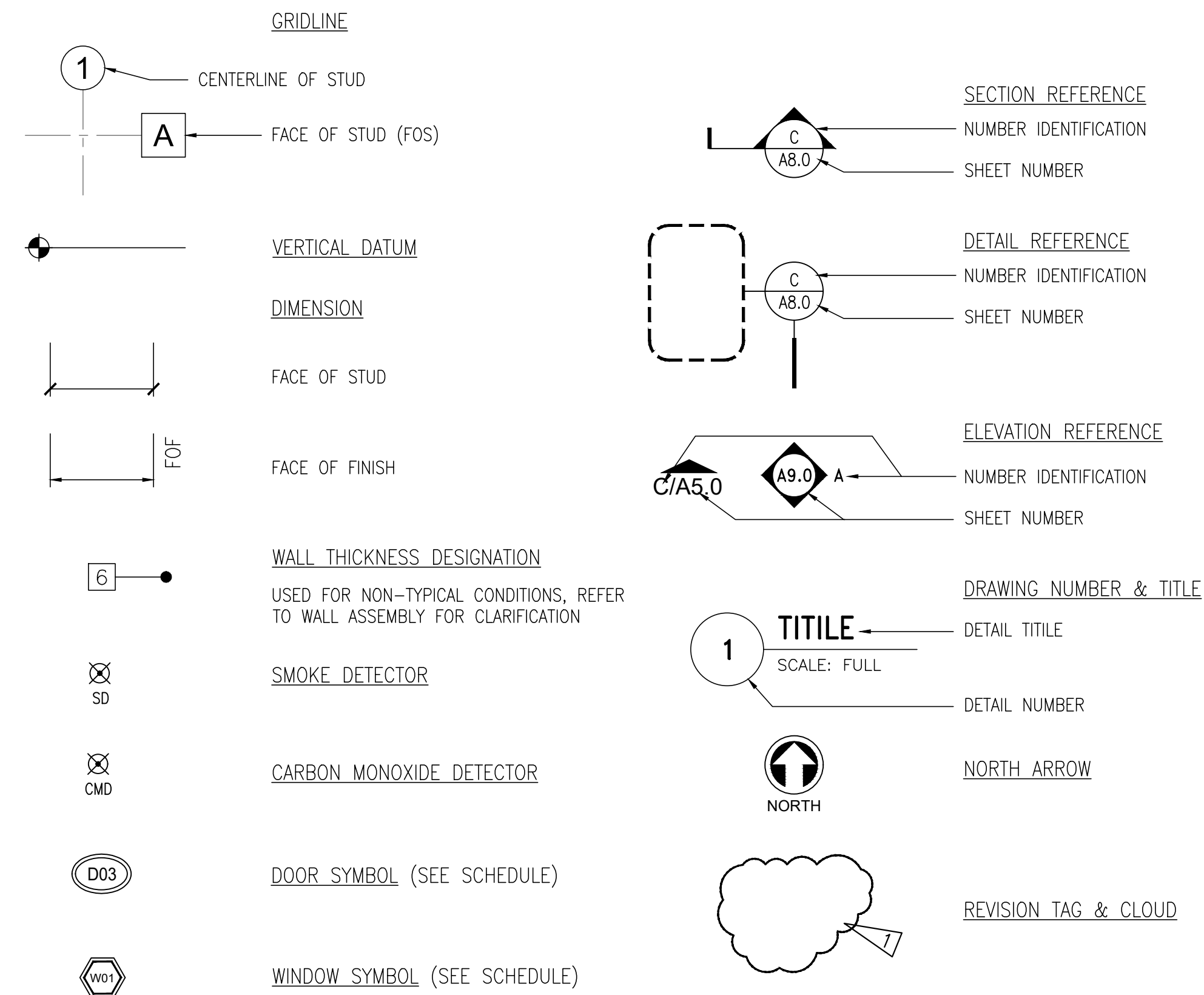
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## ABBREVIATIONS:

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

## SYMBOL LEGEND:





**CONSTRUCTION STORMWATER CONTROL (CSC) 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. 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.
3. 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.
4. 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.).
5. 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.
6. CITY STREETS AND SIDEWALKS SHALL BE KEPT CLEAN AT ALL TIMES. NO MATERIAL SHALL BE STORED ON CITY STREETS OR SIDEWALKS.
7. 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.
8. 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.
9. 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**

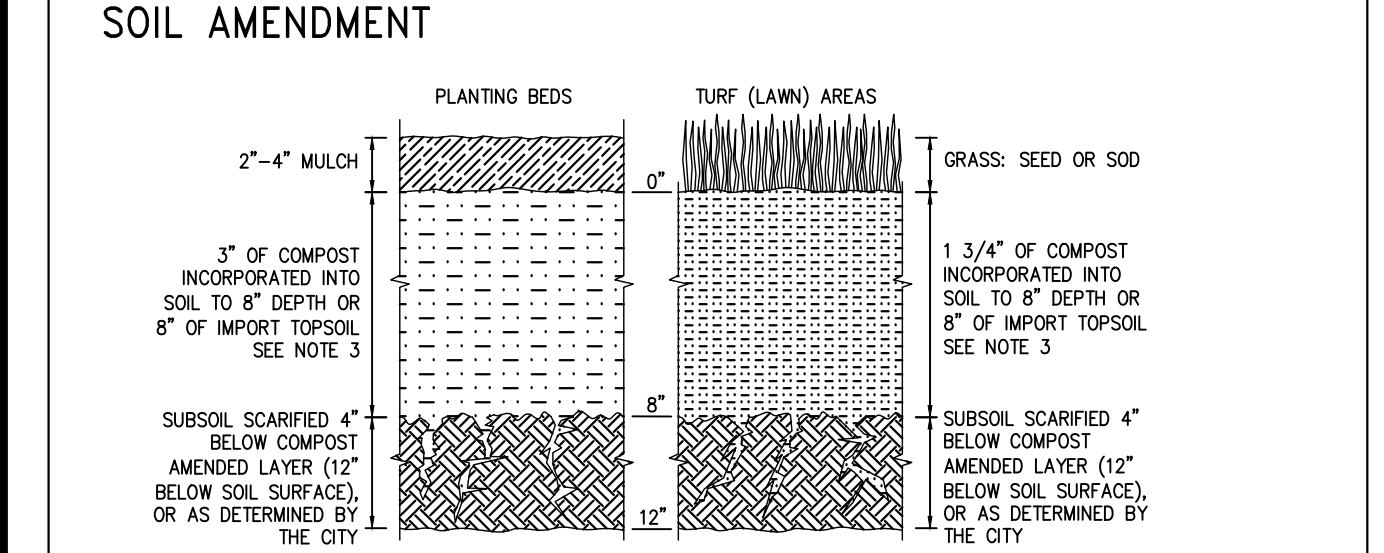
AT THE END OF PROJECT, ALL AREAS DISTURBED AND NOT COVERED WITH A HARD SURFACE MUST BE AMENDED PER THE SOIL AMENDMENT DETAIL BELOW AND PROBE TO 12-INCHES AT THE SITE FINAL INSPECTION.

> 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 DPD 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 LOOSENED 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**

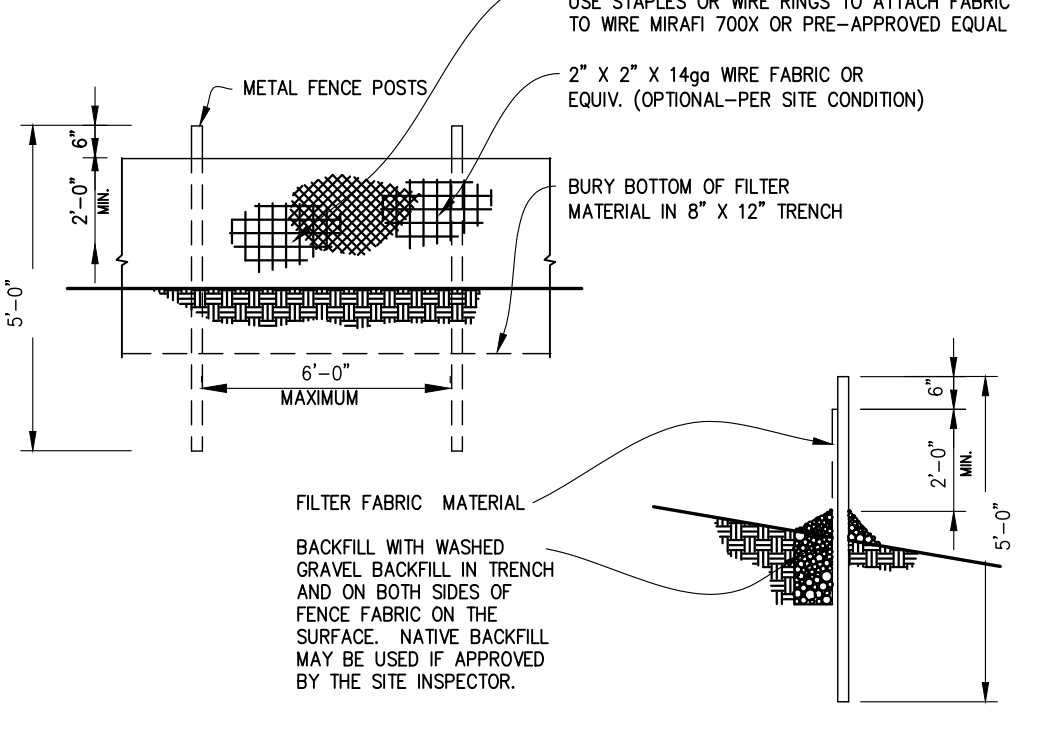
AREA REQUIRING AMENDMENT (SA) (CUBIC YARDS) = (AREA REQUIRING AMENDMENT (SA) (SQUARE FEET) X 0.0062 =



- 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.

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

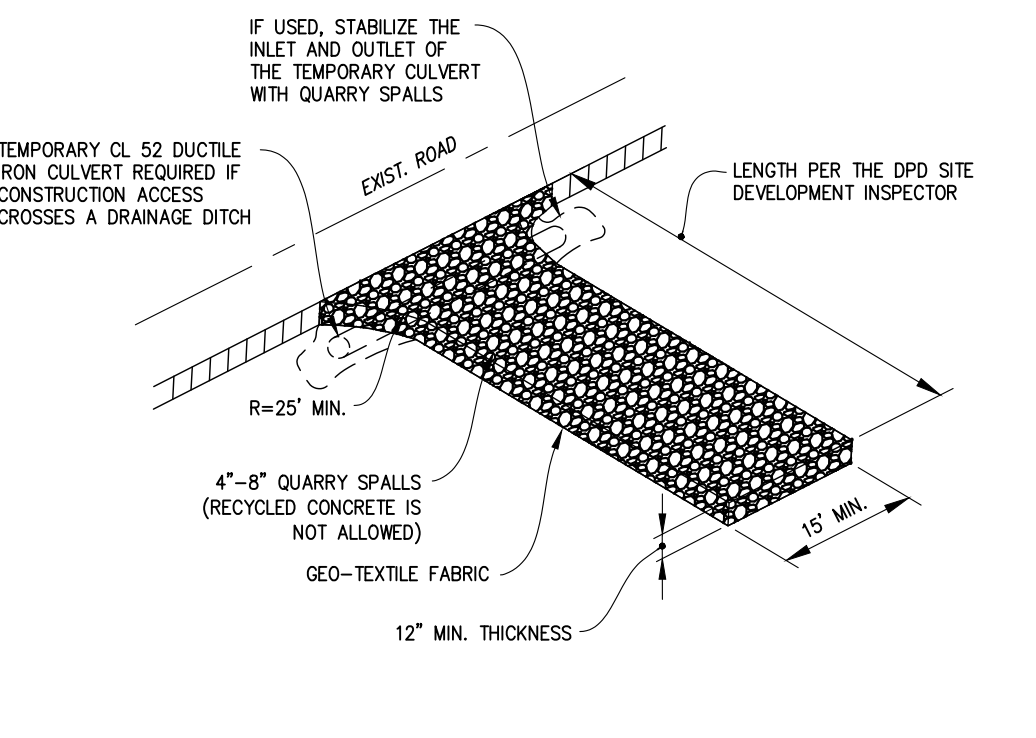
**FILTER FENCE**



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

SYMBOL: [Symbol]

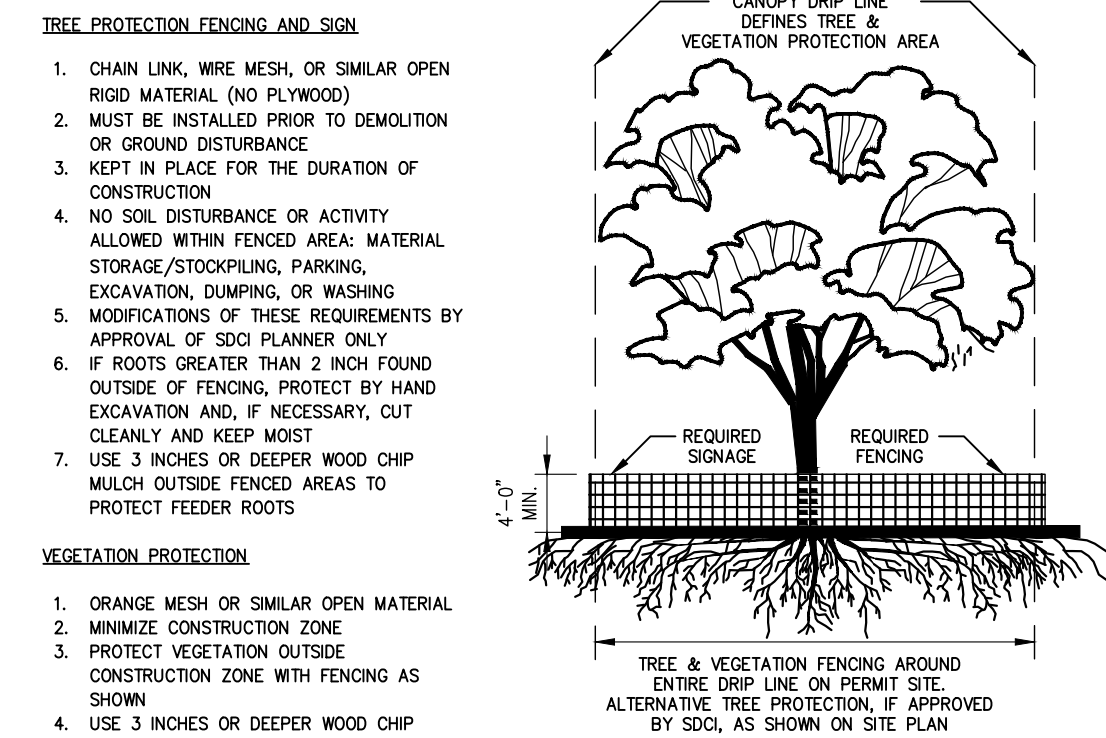
**STABILIZED CONSTRUCTION ACCESS**



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

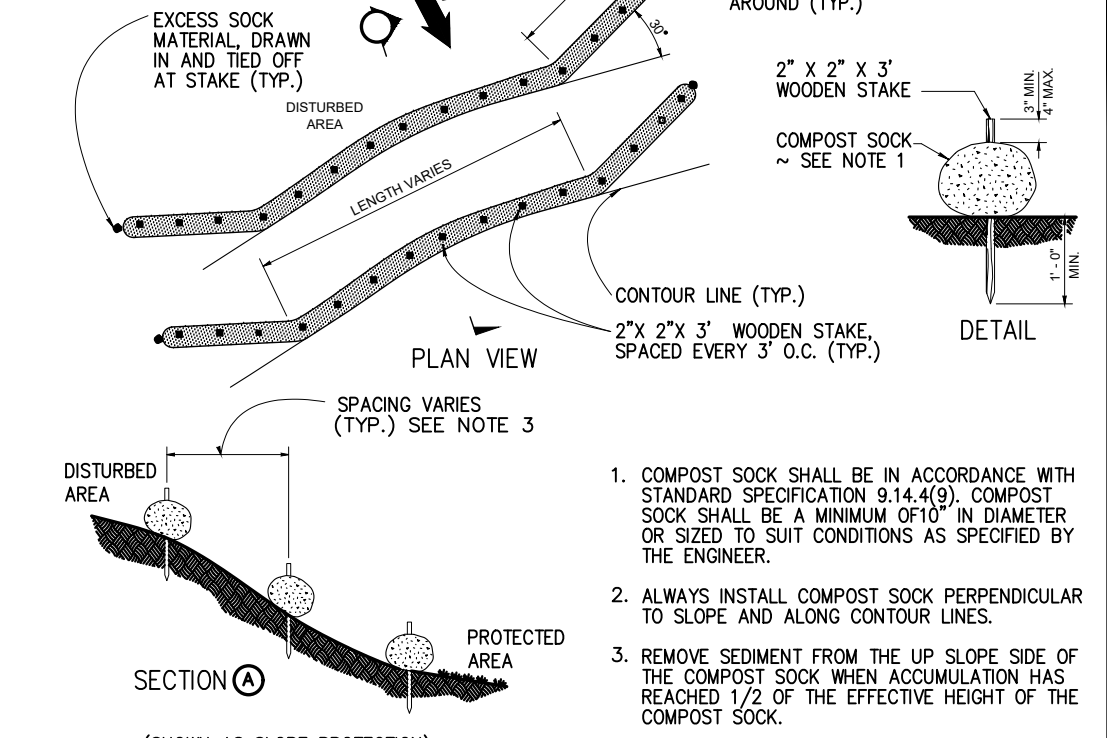
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**TREE & VEGETATION PROTECTION**



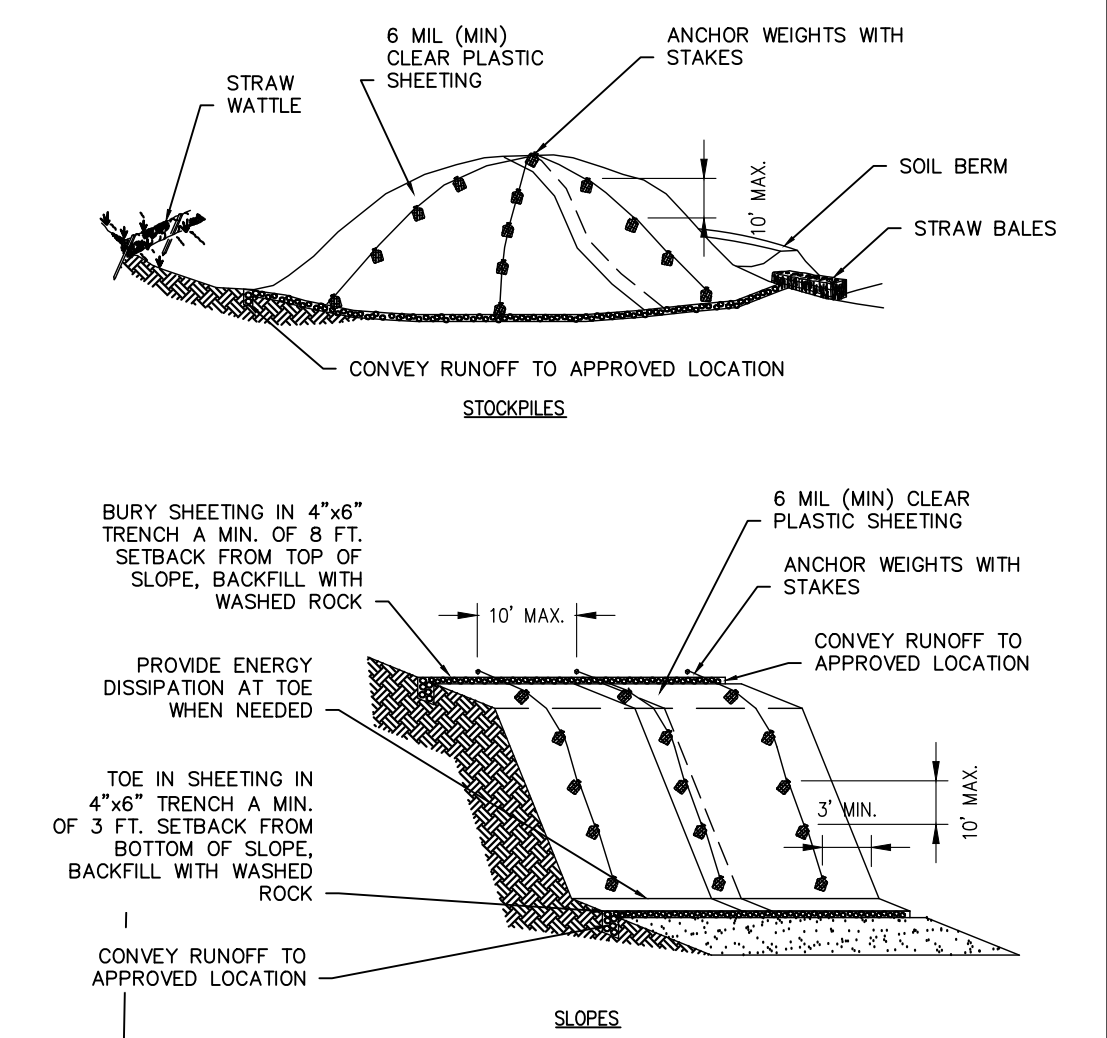
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**COMPOST SOCK**

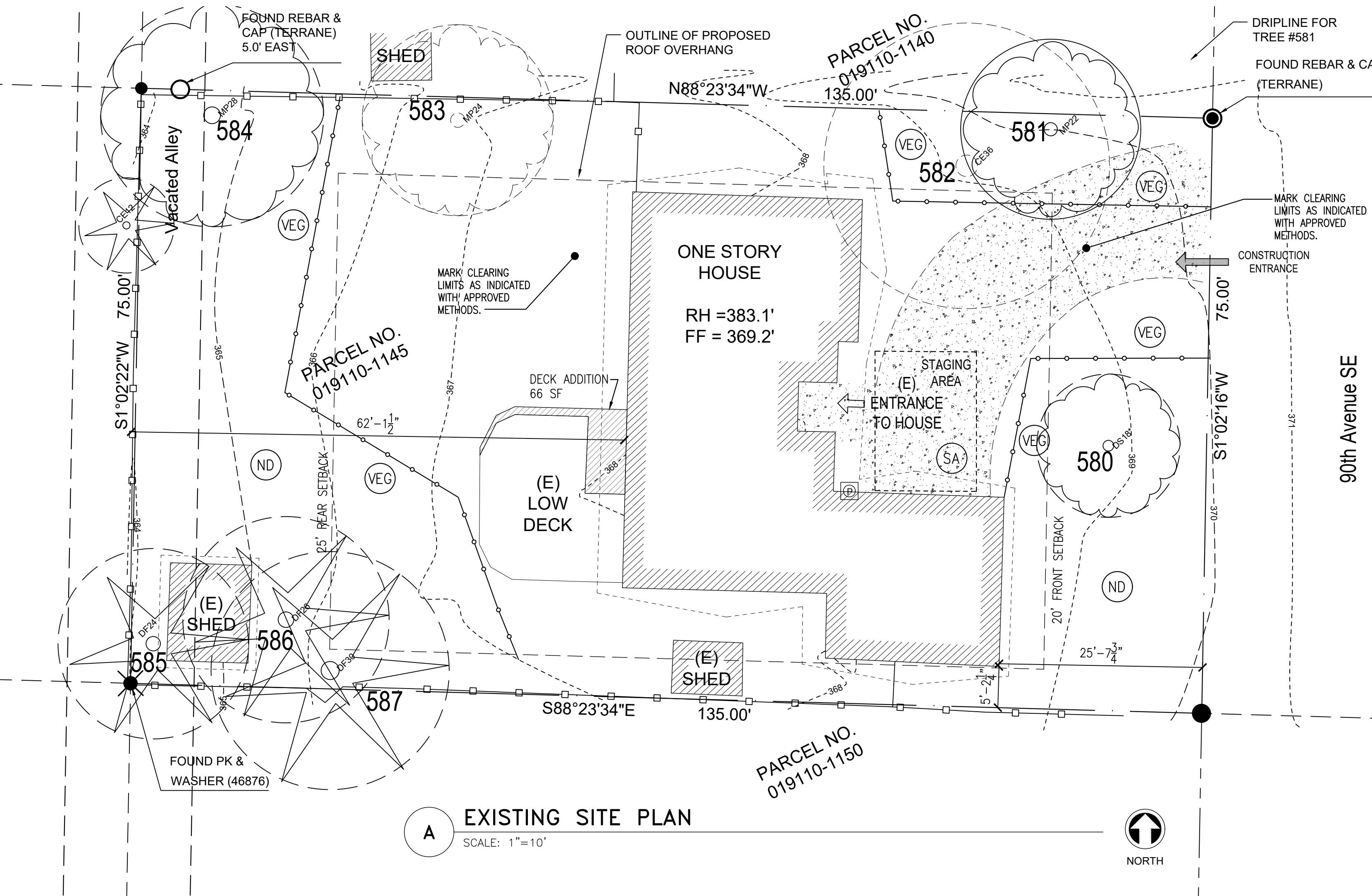


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**STOCKPILE AND EXPOSED SLOPE COVERING**



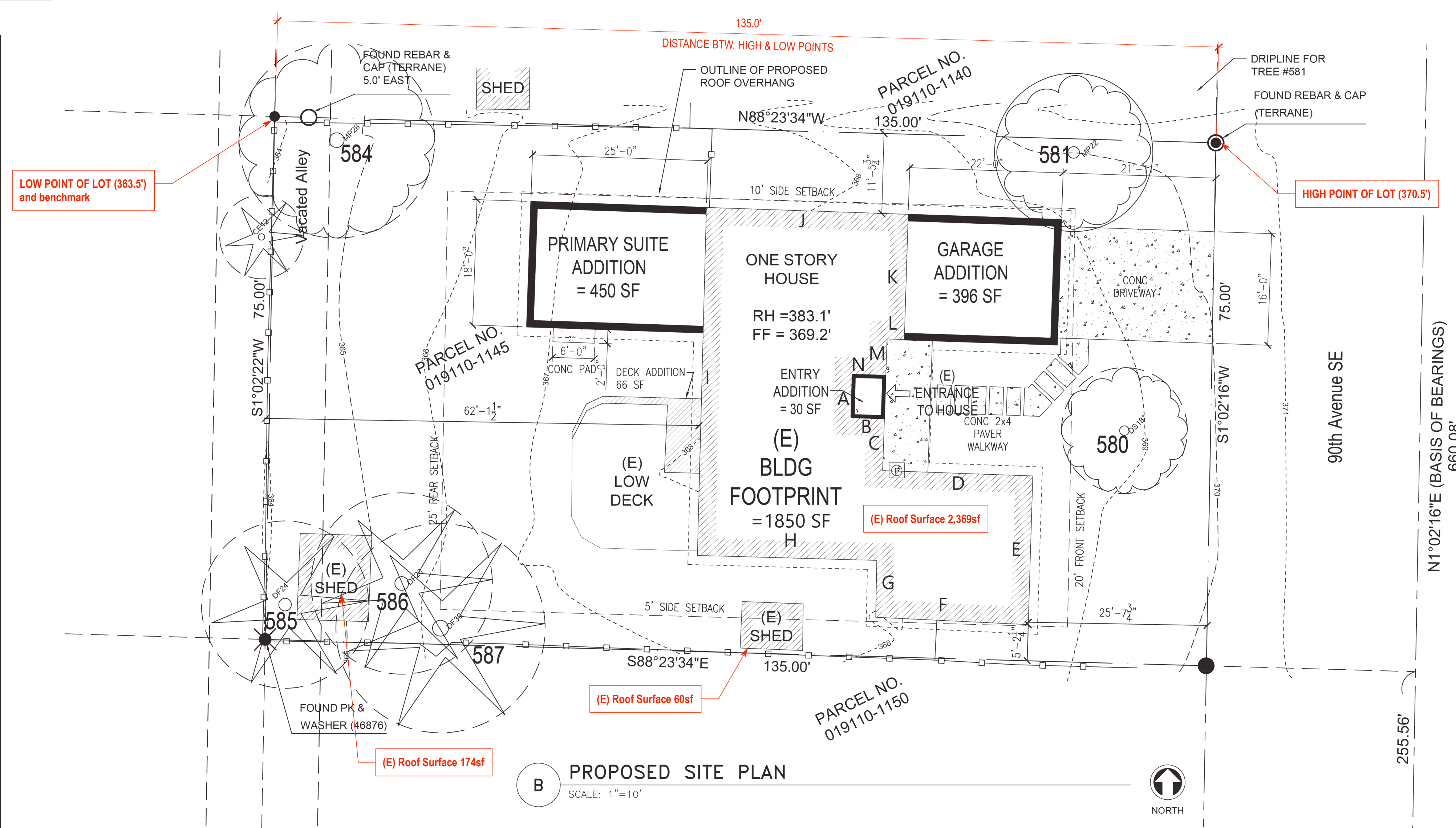
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**A EXISTING SITE PLAN**  
SCALE: 1"=10'

**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.



**Impervious Surface Calculations**

Existing Impervious Surface		
Main Structure Roof Area	2,369 sf	(174+60sf)
Accessory Building Roof Area	234 sf	
Vehicle Use Area/Entry	900 sf	
<b>Total</b>	<b>3,503 sf</b>	

Impervious Surface Removed		
Roof overhangs removed	441 sf	(423.11+9.94+7.9sf)
Vehicle Use/Entry paving removed	900 sf	
<b>Total</b>	<b>-1,341 sf</b>	

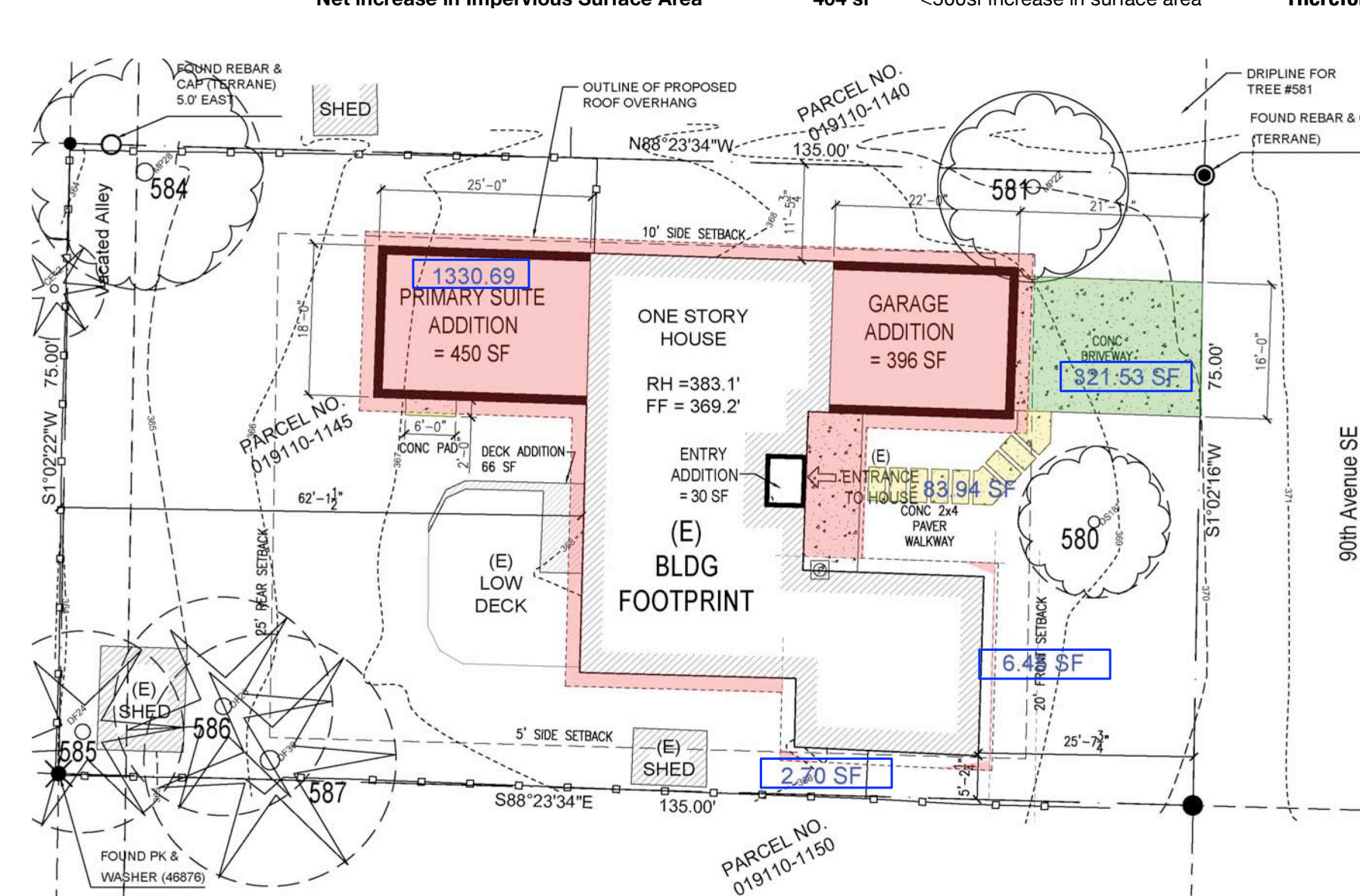
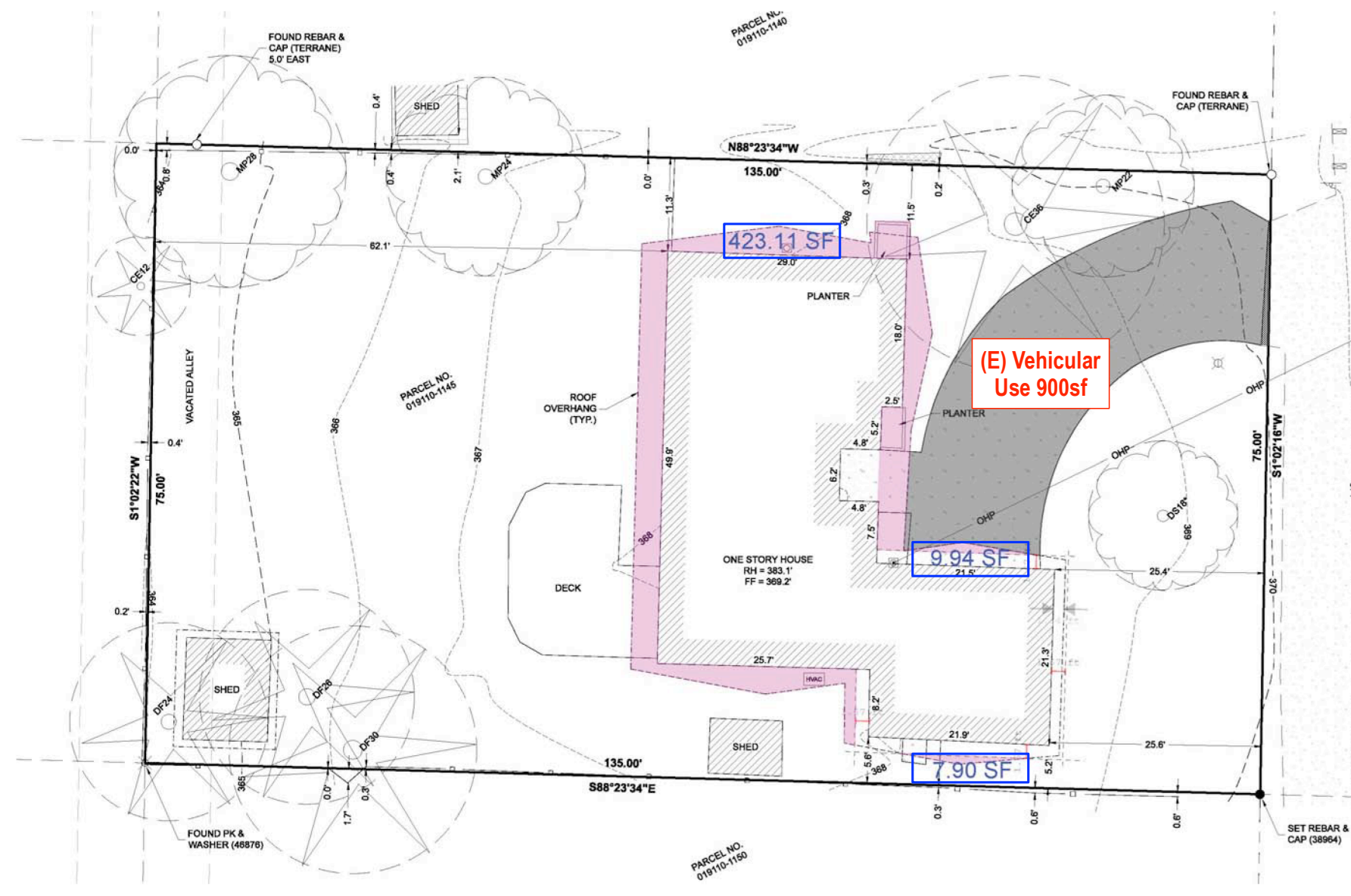
  

Impervious Surface Added		
Main Structure Roof Area added	1,340 sf	(1330.69+6.45+2.7sf)
Concrete Driveway added	322 sf	
Entry Walkway added	84 sf	
<b>Total</b>	<b>1,745 sf</b>	

Net Increase in Impervious Surface Area		
Impervious Surface Added	1,745 sf	
Impervious Surface Removed	-1,341 sf	
<b>Total</b>	<b>404 sf</b>	<500sf increase in surface area

This project does not exceed the thresholds stipulated by MICC 15.09.50 (A)(1)(a), (b) or (c). Therefore drainage review is not required.



**Average Building Elevation**

Midpoint Elevation	Length
a = 368.0 ft	A = 6.2 ft
b = 368.0 ft	B = 4.8 ft
c = 368.0 ft	C = 7.5 ft
d = 368.5 ft	D = 21.5 ft
e = 368.5 ft	E = 21.3 ft
f = 368.5 ft	F = 21.9 ft
g = 368.0 ft	G = 8.2 ft
h = 367.5 ft	H = 25.7 ft
i = 367.5 ft	I = 49.9 ft
j = 368.0 ft	J = 29.0 ft
k = 368.0 ft	K = 18.0 ft
l = 368.0 ft	L = 2.5 ft
m = 368.0 ft	M = 5.2 ft
n = 368.0 ft	N = 4.8 ft

**ABE: 368.0 ft**

**Lot Slope Calculations**

Highest Elevation Point of Lot:	370.50 ft
Lowest Elevation Point of Lot:	363.50 ft
Elevation Difference:	7.00 ft
Horizontal Distance Between High and Low Points:	135.00 ft

**Lot Slope %: 5.19%**

**Lot Coverage Calculations**

A. Gross Lot Area	10,125 sf
B. Net Lot Area	10,125 sf
C. Allowed Lot Coverage Area	4,050 sf
D. Existing Lot Coverage	40 %
E. Existing Lot Coverage	
1. Main Structure Roof Area	2,369 sf
2. Accessory Building Roof Area	234 sf
3. Vehicle Use Area	900 sf
4. Covered Patios and Covered Decks	0 sf
5. Total Existing Lot Coverage	3,503 sf
F. (Total Lot Coverage Area Removed)	-1,333 sf
G. Proposed Adjustment for Single Story (Area)	0 sf
H. Proposed Adjustment for Flag Lot	0 sf
I. Total New Lot Coverage Area:	
1. Main Structure Roof Area	1,340 sf
2. Accessory Building Roof Area	0 sf
3. Vehicular Use Area	322 sf
4. Covered Patios and Decks	0 sf
5. Total New Lot Coverage Area	1,662 sf
J. Total Project Lot Coverage Area	3,832 sf
K. Proposed Lot Coverage Area = (J/B)x100	37.8 %

**Hardscape Calculations**

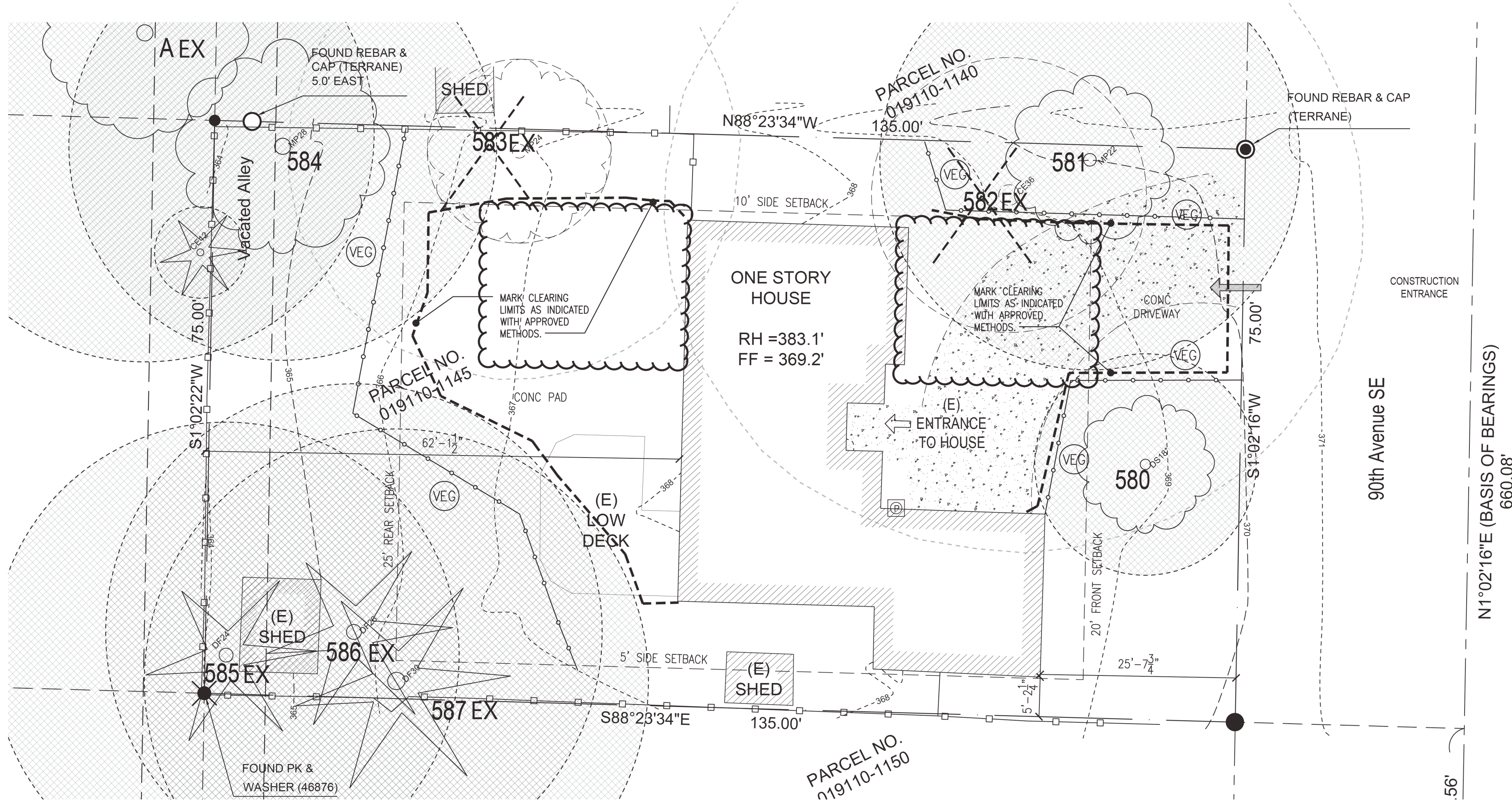
A. Gross Lot Area	10,125 sf
B. Net Lot Area	10,125 sf
C. Area Borrowed from Lot Coverage	0 sf
D. Allowed Hardscape Area = 9% of Lot Area + C	9 %
E. Allowed Hardscape Area	911 sf
F. Total Existing Hardscape Area	0 sf
1. Uncovered Decks	300 sf
2. Uncovered Patios	0 sf
3. Walkways	0 sf
4. Stairs	0 sf
5. Rockeries and Retaining Walls	6 sf
6. Other	0 sf
7. Total Existing Hardscape Area	306 sf
G. (Total Hardscape Area Removed)	-6 sf
H. Total New Hardscape Area	
1. Uncovered Decks	66 sf
2. Uncovered Patios	0 sf
3. Walkways	84 sf
4. Stairs	0 sf
5. Rockeries and Retaining Walls	0 sf
6. Other	0 sf
7. Total New Hardscape Area	150 sf
I. Total Project Hardscape Area	450 sf
J. Total Project Hardscape Area = (I/B)x100	4.4% Lot

**Gross Floor Area Calculations**

Building Area	Existing Area	Removed Area	New/ Addition Area	Total
Upper Floor	0 sf	0 sf	0 sf	0 sf
Main Floor	1,850 sf	262 sf	480 sf	2,068 sf
Gross Basement	0 sf	0 sf	0 sf	0 sf
Garage/Carport	0 sf	0 sf	396 sf	396 sf
<b>Total Floor Area</b>	<b>1,850 sf</b>	<b>262 sf</b>	<b>876 sf</b>	<b>2,464 sf</b>
Accessory Buildings	187 sf			187 sf
Accessory Dwelling Unit				0 sf
Upper Story Roofed Decks				0 sf
Basement Area Excluded				0 sf
150% GFA Modifier			262 sf	393 sf
200% GFA Modifier				0 sf
Staircase GFA Modifier				0 sf
<b>TOTAL Building Area</b>	<b>2,037 sf</b>	<b>262 sf</b>	<b>1,138 sf</b>	<b>3,044 sf</b>
A. Lot Area				10,125 sf
B. Zone				R9.6
[R-8.4: 40% up to 5,000 sf; R-9.6: 40% up to 8,000 sf; R-12: 40% up to 10,000 sf; R-15: 40% up to 12,000 sf]				
C. Allowed Gross Floor Area				4,050 sf
D. Allowed Gross Floor Area				40 %
E. Proposed Gross Floor Area				3,044 sf
F. Proposed Gross Floor Area				30 %

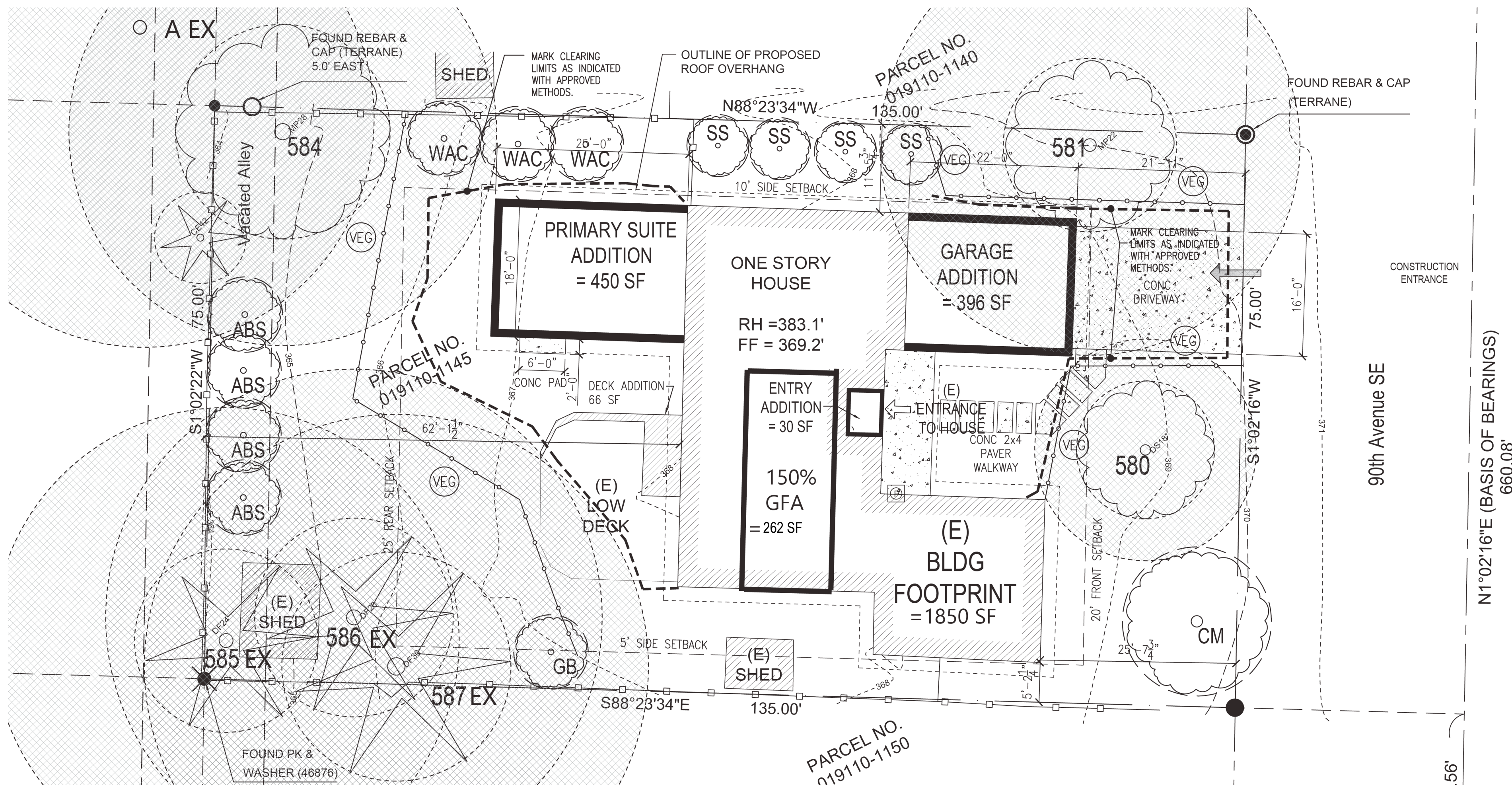
**Building Height Calculations**

A. Average Building Elevation (ABE) calculations located on sheet #:	T3.0
B. Allowable Building Height (ABE + 30 ft.)	398.0 ft
C. Proposed Building Height (Existing)	385.7 ft
D. Benchmark Elevation	
E. Describe Benchmark Location (Must be undisturbed throughout project)	N/A
F. Sloping Lot (Downhill Side) - maximum height of top of exterior wall facade above lowest existing grade (30-ft max)	N/A
G. ABE and Allowable Building Height shown on elevations plan sheet #:	A5.0
H. Topo-survey Accuracy Attested on Plan Sheet #	Survey



**A** EXISTING SITEPLAN  
SCALE: 1"=10'

\* FOR TREE SPECIES SEE ARBORIST REPORT



**B** PROPOSED SITEPLAN (WITH GROSS FLOOR AREA MARKUP)  
SCALE: 1"=10'

\* FOR TREE SPECIES SEE ARBORIST REPORT

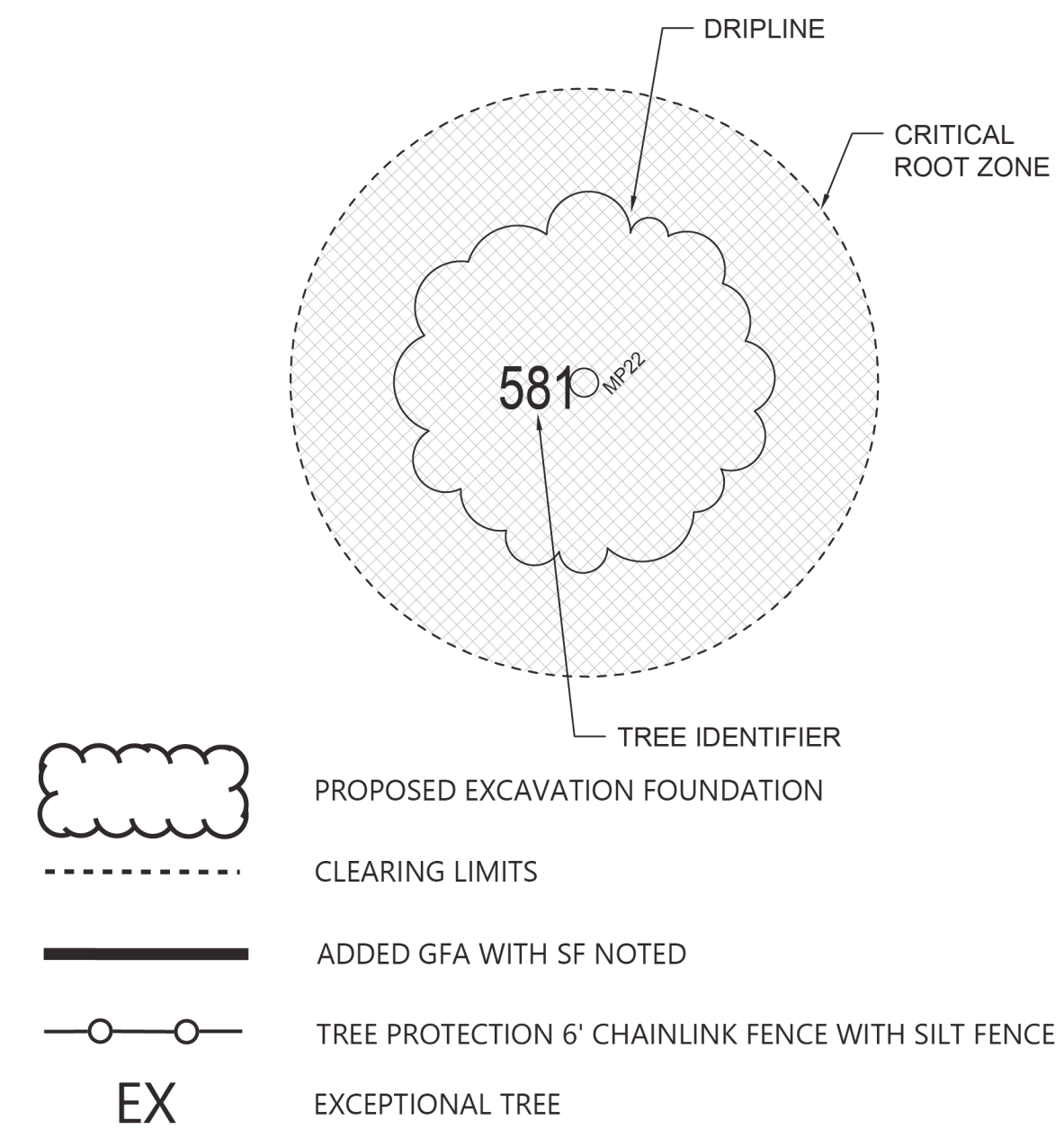


Plant #	Tree Dia 10" min	Tree Dia 24" min	Exceptional	Species	Vigor	Retained	Removed	Location
580	13,13,5,14			<i>Betula pendula</i>	fair	x		onsite
581	27,5			<i>Acer platanoides 'Crimson King'</i>	good	x		onsite
582		46		<i>Thuja plicata</i>	fair		x	onsite
583		30,5		<i>Acer platanoides 'Crimson King'</i>	fair		x	onsite
584	28			<i>Quercus palustris</i>	fair	x		onsite
A		30		<i>Pseudotsuga menziesii</i>	fair	x		offsite
585		30,5		<i>Pseudotsuga menziesii</i>	fair	x		onsite
586		32,5		<i>Pseudotsuga menziesii</i>	fair	x		onsite
587		33		<i>Pseudotsuga menziesii</i>	fair	x		onsite
B*		3(x10)		<i>Cupressus x leylandii</i>	good	x		onsite

\* planted in preparation for this project

DESIGNATION	NAME	SPECIES	SIZE	NATIVE	AMOUNT
ABS	Autumn Brilliance Serviceberries	<i>Amelanchier x grandiflora</i>	1.5-2" cal	yes	4
CM	Crepe Myrtle	<i>Lagerstroemia sp</i>	1.5-2" cal	no	1
GB	Maidenhair	<i>Ginkgo biloba</i>	2" cal	no	1
SS	Serbian Spruce	<i>Picea omorika</i>	8' tall	no	4
WAC	Weeping Alaska Cedar	<i>Cupressus nootkatensis</i>	8' tall	yes	3

LEGEND



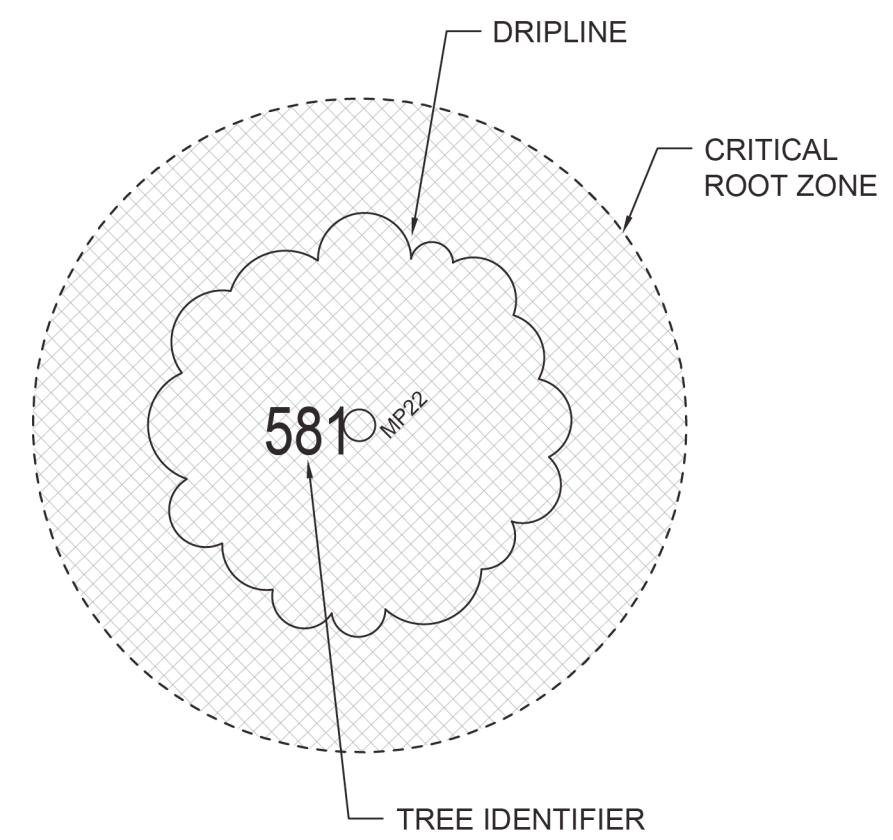
PROPOSED EXCAVATION FOUNDATION

--- CLEARING LIMITS

— ADDED GFA WITH SF NOTED

— TREE PROTECTION 6' CHAINLINK FENCE WITH SILT FENCE

EX EXCEPTIONAL TREE



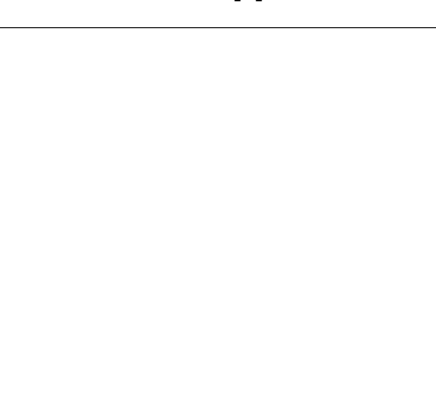
TREE IDENTIFIER

DRIPLINE

CRITICAL ROOT ZONE

No.	Date	Revision Notes
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No.	Date	Issue Notes
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Gross Floor Area Calculations

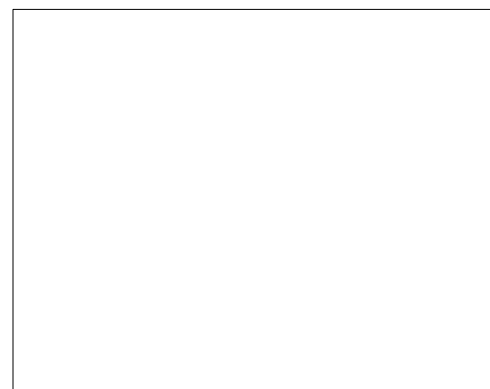
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B. Zone	R9.6

[R-8.4: 40% up to 5,000 sf; R-9.6: 40% up to 8,000 sf;  
R-12: 40% up to 10,000 sf; R-15: 40% up to 12,000 sf]

C. Allowed Gross Floor Area	4,050 sf
D. Allowed Gross Floor Area	40 %
E. Proposed Gross Floor Area	3,044 sf
F. Proposed Gross Floor Area	30 %

85% of 4,050sf (Allowed GFA) = 3,442.5sf  
Proposed GFA is 3,044sf



## 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 SLEEPINGAREAS, 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 SLEEPINGAREAS, AND ON ALL FLOORS (INCLUDING BASEMENTS). SHOW THE ALARM LOCATION(S) ON YOUR PLANS

## 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 ARE 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 DONT 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).

## 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 M1504.5.3.1 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.

### M1505.4.2 SYSTEM CONTROLS

1. THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT COMPLY WITH THE FOLLOWING:
2. 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; 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 PER SECTION M1505.4.3.2.

### M1505.4.3 MECHANICAL VENTILATION RATE

THE WHOLEHOUSE 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. VENTILATION RATE IN CUBIC FEET PER MINUTE = (0.01 x TOTAL SQUARE FOOT AREA OF HOUSE) + [7.5 x (NUMBER OF BEDROOMS + 1)] BUT NOT LESS THAN 30 CFM FOR EACH DWELLING UNIT.

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 m<sup>2</sup>, 1 cubic foot per minute = 0.0004719 m<sup>3</sup>/s.

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

RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
FACTOR <sup>b</sup>	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

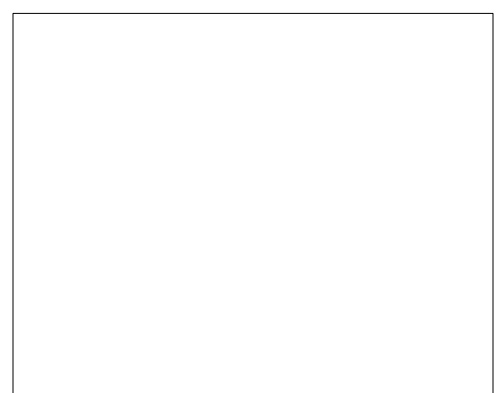
LOCAL EXHAUST SYSTEMS SHALL BE DESIGNED TO HAVE THE CAPACITY TO EXHAUST THE MINIMUM AIRFLOW RATE DETERMINED IN ACCORDANCE WITH TABLE M1505.4.4(1). IF THE LOCAL EXHAUST FAN IS INCLUDED IN THE WHOLE-HOUSE VENTILATION SYSTEM, IN ACCORDANCE WITH SECTION 1505.4.1, THEN THE EXHAUST FAN SHALL BE CONTROLLED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

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.

## SOUND TRANSMISSION CONTROL FOR NEW DUPLEXES AND ACCESSORY DWELLING UNITS :

- FLOORS BETWEEN DWELLING UNITS (OR BETWEEN A UNIT AND A COMMON AREA) ARE REQUIRED TO HAVE SOUND DEADENING (STC = 45 MINIMUM) AND IMPACT SOUND INSULATION (IIC = 50 MINIMUM).
- WALLS BETWEEN DWELLING UNITS AND BETWEEN DWELLING UNITS AND COMMON AREAS ARE REQUIRED TO HAVE SOUND DEADENING (STC = 45 MINIMUM).



**LEGEND**

- (E) 2x WALL CONSTRUCTION.
- EXISTING CONSTRUCTION TO BE REMOVED.
- 2x4 INTERIOR WALL CONSTRUCTION.
- (E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.
- 2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).
- INFILL WALL TO MATCH EXISTING ASSEMBLY.

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

- NEW
- NEW OR RELOCATED WINDOW
- WINDOW NUMBER
- SEE WINDOW SCHEDULE.
- (E) WINDOW TO REMAIN

- SMOKE DETECTOR (IRC - SECTION R314)
- SD**  
**NOTE: REFER TO SECTION R314.3 FOR LOCATIONS AND R314.4 FOR INTERCONNECTION REQUIREMENTS. ALARMS TO BE HARDWIRED EXCEPT WHEN INSTALLED IN ACCORDANCE WITH SECTION R314.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.**

- CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
- CMD**

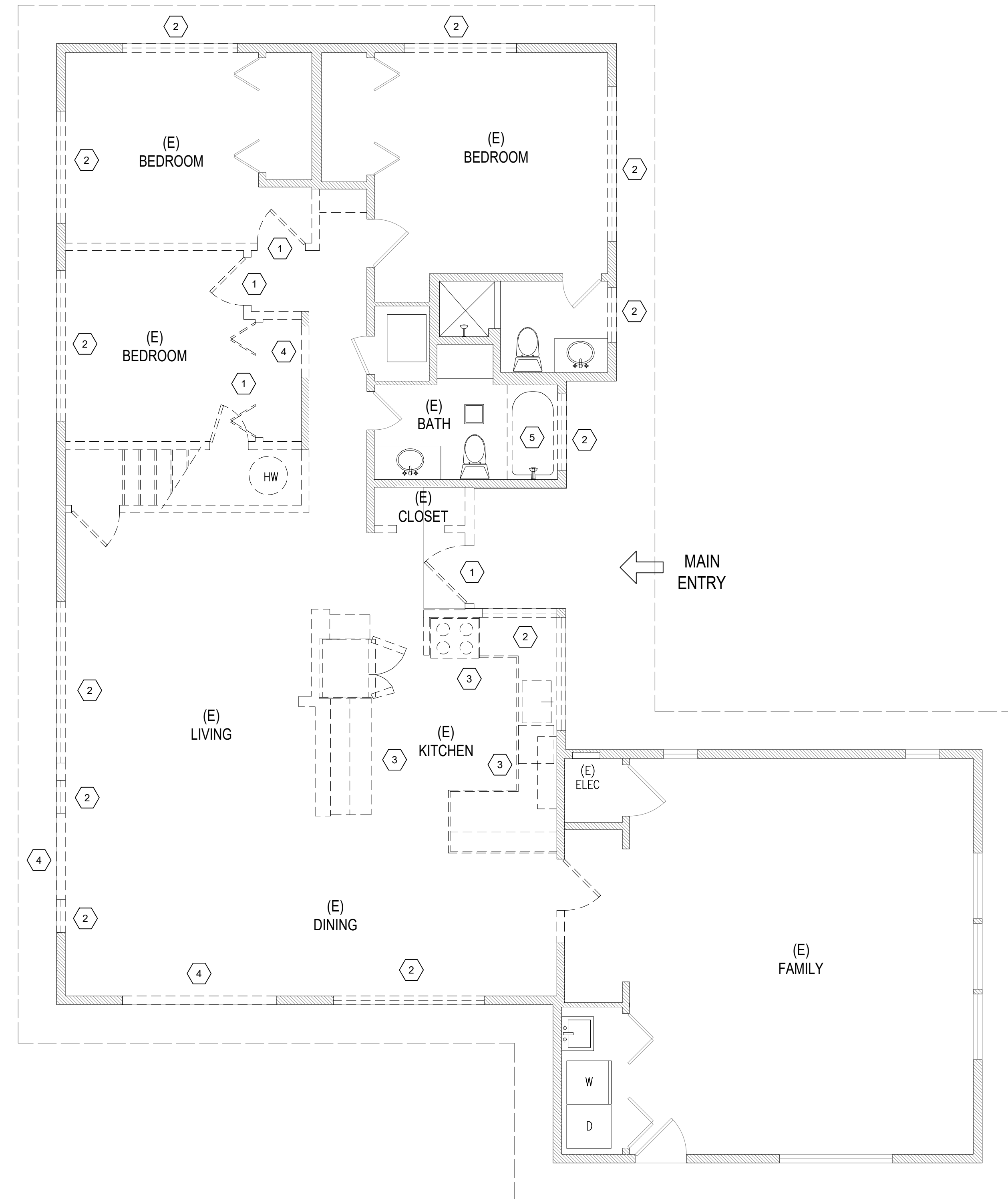
**NOTE: PER R314.5 COMBINATION ALARMS. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS**

- EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VTE).
- VTE**
- CFM**

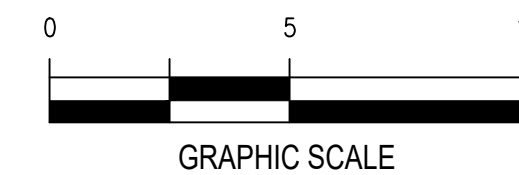
(E) INDICATES EXISTING FIXTURE

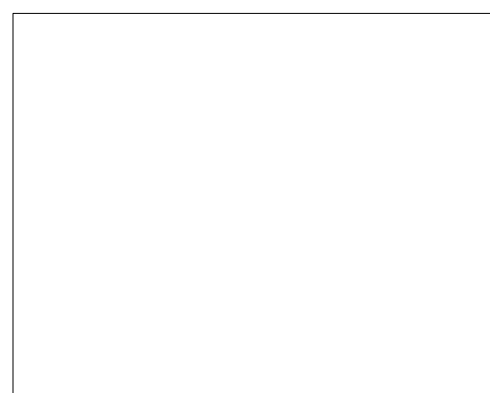
**DEMOLITION PLAN NOTES:**

- REMOVE (E) DOOR AS INDICATED, TYP.
- REMOVE (E) WINDOWS AS INDICATED, TYP.
- DEMO AND REMOVE (E) KITCHEN CABINETS, FIXTURES AND WALLS AS INDICATED. PREP FOR NEW LAYOUT.
- REMOVE WALL FOR NEW DOOR OPENING AS INDICATED.
- REMOVE (E) TUB AND PREP FOR NEW SHOWER.



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





**LEGEND**

	(E) 2x WALL CONSTRUCTION.
	2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).
	2x4 INTERIOR WALL CONSTRUCTION.
	(E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.
	INFILL WALL TO MATCH EXISTING ASSEMBLY.
	DOOR NUMBER SEE DOOR SCHEDULE.
	WINDOW NUMBER SEE WINDOW SCHEDULE.
	SMOKE DETECTOR (IRC - SECTION R314) NOTE: REFER TO SECTION R314.3 FOR LOCATIONS AND R314.4 FOR INTERCONNECTION REQUIREMENTS. ALARMS TO BE HARDWIRED EXCEPT WHEN INSTALLED IN ACCORDANCE WITH SECTION R314.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.
	CARBON MONOXIDE DETECTOR (IRC - SECTION R315) NOTE: PER R314.5 COMBINATION ALARMS. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS
	EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VTE).
(E)	INDICATES EXISTING FIXTURE

**CONSTRUCTION FRAMING PLAN NOTES:**

**MATERIALS**

- ALL NEW EXTERIOR WALLS TO BE 2x6 STUDS @ 16" OC.
- ALL EXISTING EXTERIOR WALLS ARE 2x STUDS @ 16" OC.
- ALL WOOD IN CONTACT WITH CONC TO BE PTW.
- ALL FRAMING HARDWARE TO BE "SIMPSON" OR EQUAL.
- WALL SHEATHING TO BE 1/2" PLYWOOD WITH SPAN RATING OF 24/16.
- ALL HEADER (HDR) TO BE DOUGLAS-FIR #2

**REQUIREMENTS**

- REFER TO STRUCTURAL FOR ADDITIONAL REQUIREMENTS.
- PROVIDE FIREBLOCKING PER SECTION R602.8.

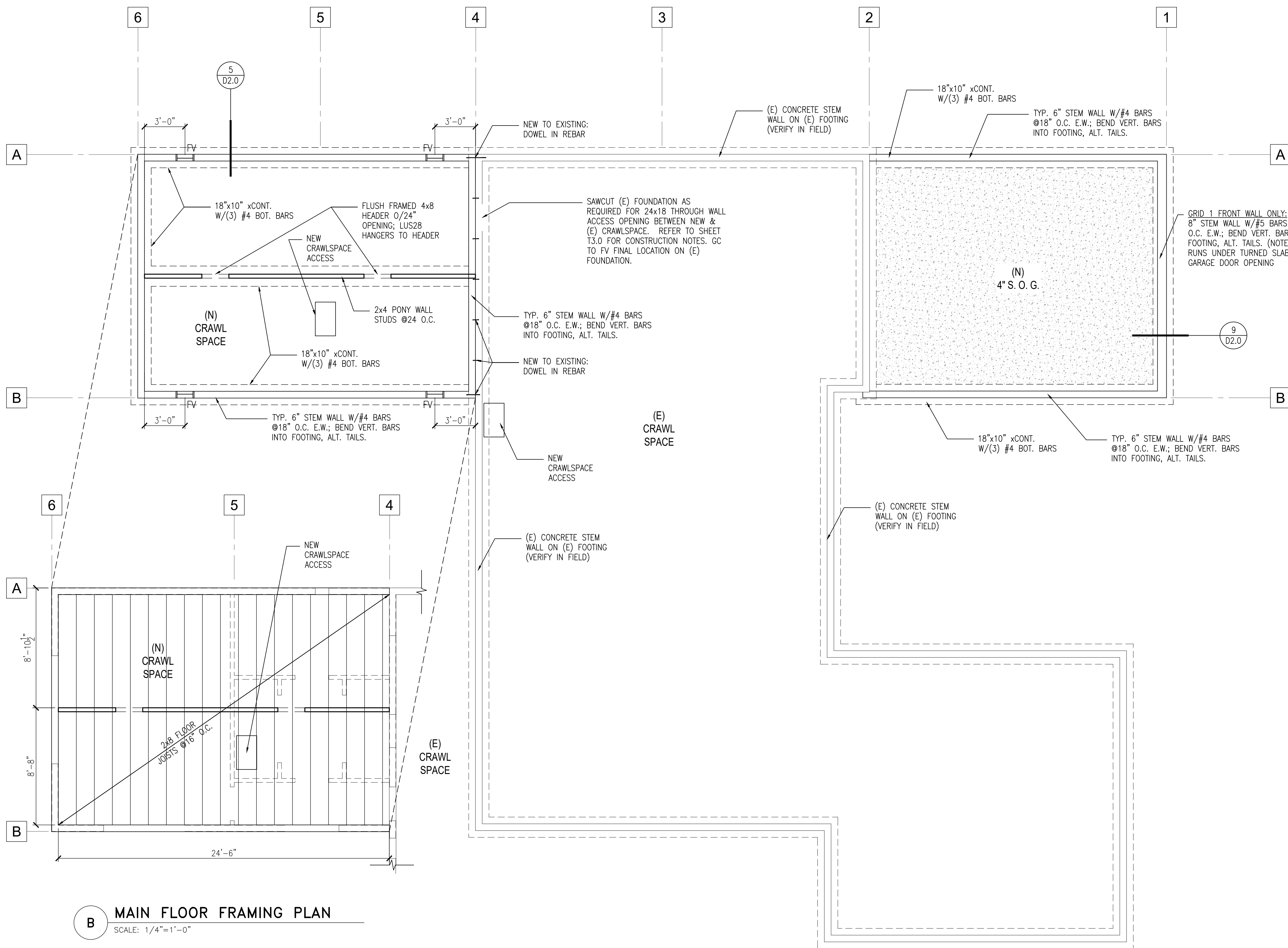
**UNDER-FLOOR (CRAWLSPACE) VENTILATION REQUIREMENTS:**  
MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ FT FOR EACH 300 SQ FT OF UNDER-FLOOR AREA. PROVIDE VAPOR RETARDER PER NOTE #3.

UNDER-FLOOR AREA = 450 SQ FT  
REQUIRED VENTILATION AREA = 450/300 = 1.50 SQ FT  
USE (4) 8" X 16" FOUNDATION VENTS (75% NET) = 2.66 SQ FT  
TOTAL VENTILATION PROVIDED = 2.66 SQ FT

LOCATE FOUNDATION VENTS (FV) PER FOUNDATION PLAN. PROVIDE EACH VENT WITH SCREEN MATERIAL PER SECTION R408.2.

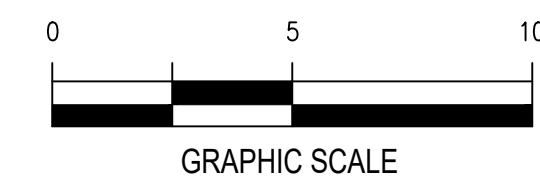
**R503 Residential Alterations Insulation Note**

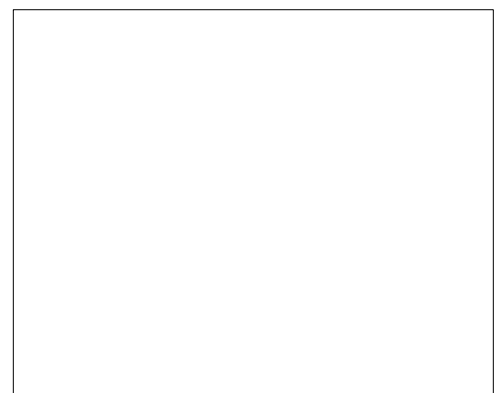
Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 framed walls shall be insulated to a minimum of R-21. Ref. SEC R503.1.1-Exception 2.



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

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





**LEGEND**

- (E) 2x WALL CONSTRUCTION.
  - 2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).
  - 2x4 INTERIOR WALL CONSTRUCTION.
  - (E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.
  - INFILL WALL TO MATCH EXISTING ASSEMBLY.
- 
- DOOR SIZE
  - DOOR NUMBER
  - SEE DOOR SCHEDULE.
  - (E) DOOR TO REMAIN
- NOTE: DOOR TO MATCH EXISTING UNO
- WINDOW NUMBER
  - SEE WINDOW SCHEDULE.
  - (E) WINDOW TO REMAIN
- 
- SMOKE DETECTOR (IRC - SECTION R314)
  - NOTE: REFER TO SECTION R314.3 FOR LOCATIONS AND R314.4 FOR INTERCONNECTION REQUIREMENTS. ALARMS TO BE HARDWIRED EXCEPT WHEN INSTALLED IN ACCORDANCE WITH SECTION R314.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.
  - CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
  - NOTE: PER R314.5 COMBINATION ALARMS. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS
  - EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VTE).
  - (E) INDICATES EXISTING FIXTURE

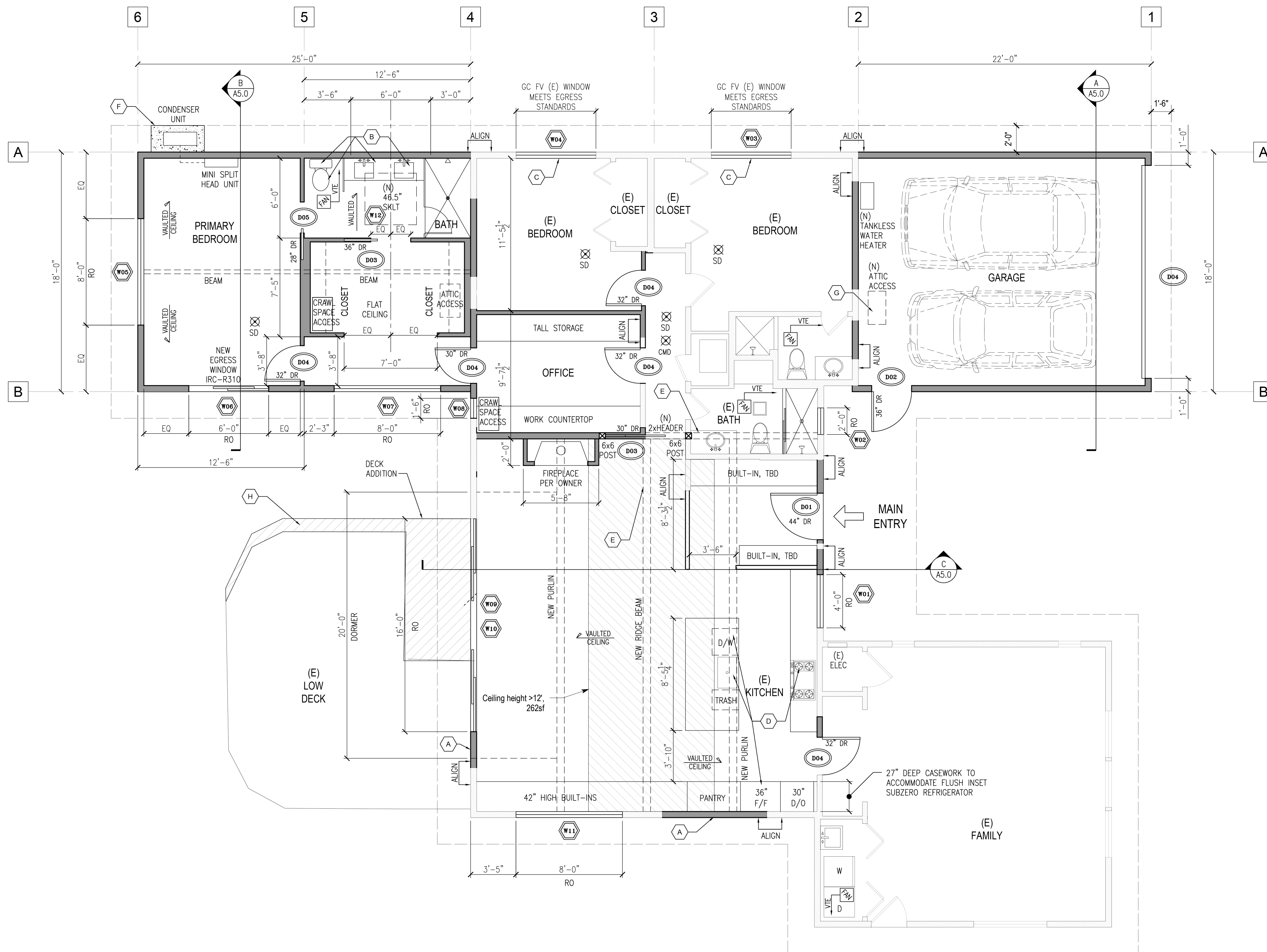
**CONSTRUCTION FRAMING PLAN NOTES:**

- MATERIALS**
- A. ALL NEW EXTERIOR WALLS TO BE 2x6 STUDS @ 16" OC.
  - B. ALL EXISTING EXTERIOR WALLS ARE 2x STUDS @ 16" OC.
  - C. ALL WOOD IN CONTACT WITH CONC TO BE PTW.
  - D. ALL FRAMING HARDWARE TO BE "SIMPSON" OR EQUAL.
  - E. WALL SHEATHING TO BE 1/2" PLYWOOD WITH SPAN RATING OF 24/16.
  - F. ALL HEADER (HDR) TO BE DOUGLAS-FIR #2

- REQUIREMENTS**
1. REFER TO STRUCTURAL FOR ADDITIONAL REQUIREMENTS.
  2. PROVIDE FIREBLOCKING PER SECTION R602.8.

**CONSTRUCTION PLAN NOTES:**

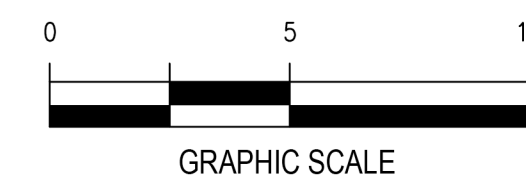
- INFILL WALL. SIDING & PAINT TO MATCH (E) EXTERIOR WALL FINISH.
- GC TO MODIFY & COORDINATE PLUMBING, VENTING & DRAIN LINES FOR BATHROOM FURNITURE & UTILITIES. GC TO PROVIDE SINK, VANITY, TOILET & SHOWER ENCLOSURE AS SELECTED BY OWNER.
- GC TO INSTALL EGRESS WINDOW PER IRC SECTION R310. GC TO FV (E) WINDOW WIDTH PRIOR TO ORDERING WINDOW.
- GC TO INSTALL & COORDINATE PLUMBING, VENTING & DRAIN LINES FOR KITCHEN APPLIANCES. GC TO INSTALL & PROVIDE CABINETRY, FINISHES & COUNTERTOPS AS SELECTED BY OWNER.
- INSTALL NEW BEAM, PER STRUCTURAL.
- NEW 4" THICK CONCRETE SLAB-ON-GRADE PAD FOR CONDENSER UNIT. SIZE PAD PER CONDENSER MFR'S RECOMMENDATION.
- PROVIDE 22x30 MIN ATTIC ACCESS AS INDICATED.
- GC TO FV & MATCH (E) LOW DECK CONSTRUCTION. REFER TO SHEETS D3.0/D4.0 FOR PRESCRIPTIVE DECK CONSTRUCTION & REQUIREMENTS.
- NEW SHOWER AND COSMETIC UPDATES TO THE BATHROOM.
- DOOR TO BE CENTER TO CASEWORK.



**R503 Residential Alterations Insulation Note**

Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 framed walls shall be insulated to a minimum of R-21. Ref. SEC R503.1.1-Exception 2.

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





**LEGEND**

- (E) 2x WALL CONSTRUCTION.
  - 2x6 EXTERIOR WALL CONSTRUCTION (W/ R-21 INSULATION).
  - 2x4 INTERIOR WALL CONSTRUCTION.
  - (E) 2x WALL CONSTRUCTION. FIELD VERIFY THICKNESS AND ADDED FURRING TO MEETING R-21 INSULATION VALUE.
  - INFILL WALL TO MATCH EXISTING ASSEMBLY.
- 
- DOOR SIZE: 30" x 25"
  - DOOR NUMBER: SEE DOOR SCHEDULE.
  - NEW OR RELOCATED DOOR
  - (E) DOOR TO REMAIN
  - NOTE: DOOR TO MATCH EXISTING UNO
- 
- WINDOW NUMBER: SEE WINDOW SCHEDULE.
  - NEW OR RELOCATED WINDOW
  - (E) WINDOW TO REMAIN
- 
- SMOKE DETECTOR (IRC - SECTION R314)
  - NOTE: REFER TO SECTION R314.3 FOR LOCATIONS AND R314.4 FOR INTERCONNECTION REQUIREMENTS. ALARMS TO BE HARDWIRED EXCEPT WHEN INSTALLED IN ACCORDANCE WITH SECTION R314.2.2 SHALL BE PERMITTED TO BE BATTERY POWERED. PHYSICAL INTERCONNECTION OF SMOKE ALARMS SHALL NOT BE REQUIRED WHERE LISTED WIRELESS ALARMS ARE INSTALLED AND ALL ALARMS SOUND UPON ACTIVATION OF ONE ALARM.
- 
- CARBON MONOXIDE DETECTOR (IRC - SECTION R315)
  - NOTE: PER R314.5 COMBINATION ALARMS. COMBINATION SMOKE AND CARBON MONOXIDE ALARMS SHALL BE PERMITTED TO BE USED IN LIEU OF SMOKE ALARMS
- 
- EXHAUST FANS: MIN. 50 CFM FOR BATHROOM AND LAUNDRY; MIN. 100 CFM FOR KITCHEN, WITH DIRECT VENT TO EXTERIOR (VTE).
  - (E) INDICATES EXISTING FIXTURE

**ROOF PLAN NOTES:**

**MATERIALS**

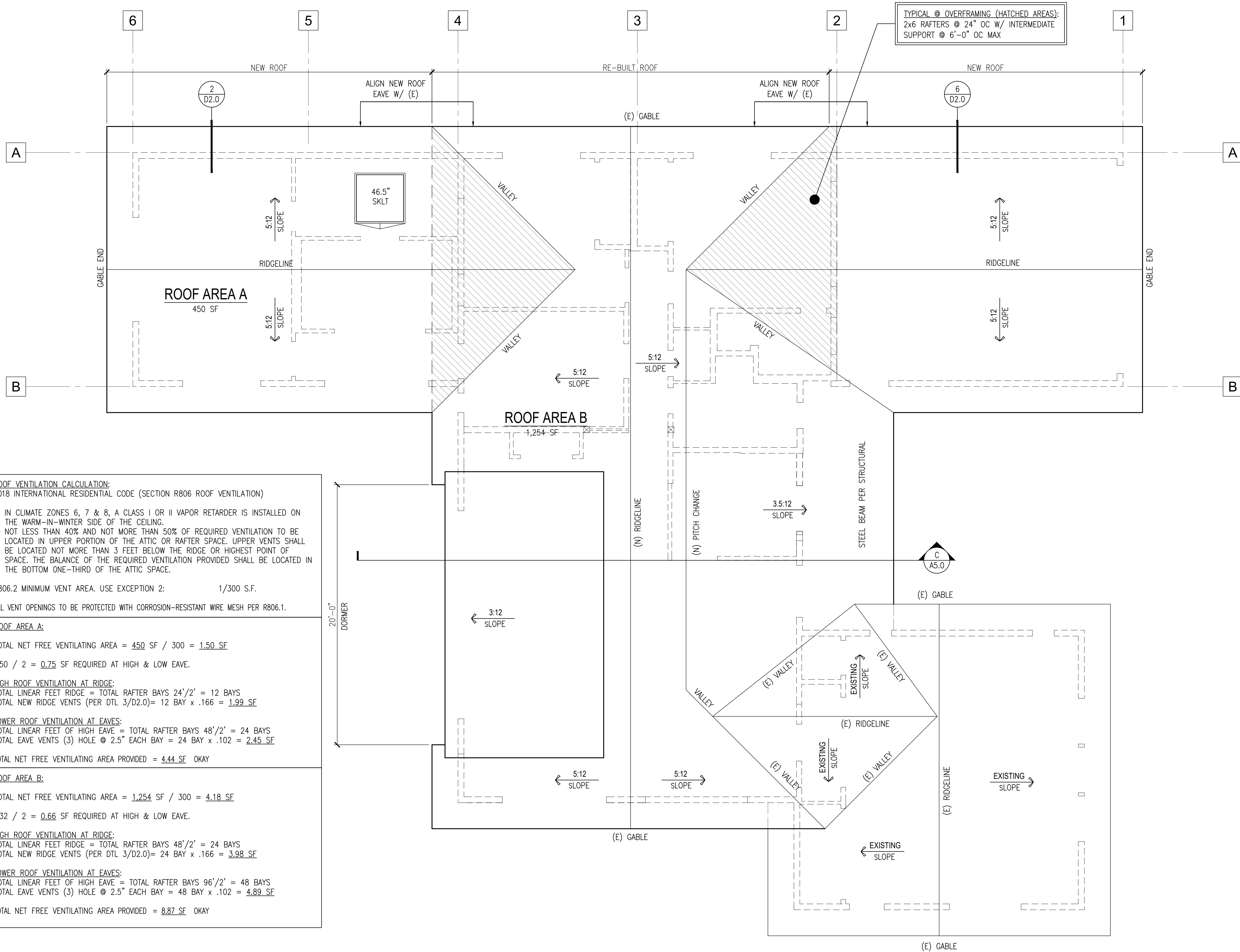
- A. ROOF FRAMING - MEMBER SIZE AND SPACING PER PLAN & DETAILS. WOOD SPECIES AND MECHANICAL PROPERTIES PER STRUCTURAL.
- B. ROOF DECKING TO BE 1/2" EXTERIOR GRADE ROOF SHEATHING WITH 32/16 SPAN RATING.
- C. ALL FRAMING HARDWARE TO BE "SIMPSON" OR EQUAL.

**REQUIREMENTS**

1. MIN R-38 INSULATION @ ALL ROOF/CEILING CONDITIONS.
2. PROVIDE FIREBLOCKING PER SECTION R602.8.

**R503 Residential Alterations Insulation Note**

Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 framed walls shall be insulated to a minimum of R-21. Ref. SEC R503.1.1-Exception 2.



**ROOF VENTILATION CALCULATION:**  
2018 INTERNATIONAL RESIDENTIAL CODE (SECTION R806 ROOF VENTILATION)

- 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 = 450 SF / 300 = 1.50 SF  
1.50 / 2 = 0.75 SF REQUIRED AT HIGH & LOW EAVE.

**HIGH ROOF VENTILATION AT RIDGE:**  
TOTAL LINEAR FEET RIDGE = TOTAL RAFTER BAYS 24'/2' = 12 BAYS  
TOTAL NEW RIDGE VENTS (PER DTL 3/D2.0) = 12 BAY x .166 = 1.99 SF

**LOWER ROOF VENTILATION AT EAVES:**  
TOTAL LINEAR FEET OF HIGH EAVE = TOTAL RAFTER BAYS 48'/2' = 24 BAYS  
TOTAL EAVE VENTS (3) HOLE @ 2.5" EACH BAY = 24 BAY x .102 = 2.45 SF

TOTAL NET FREE VENTILATING AREA PROVIDED = 4.44 SF OKAY

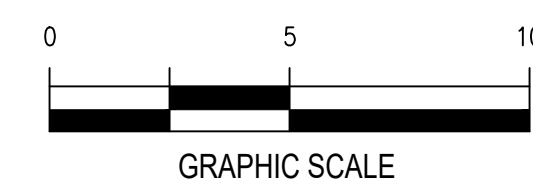
**ROOF AREA B:**  
TOTAL NET FREE VENTILATING AREA = 1,254 SF / 300 = 4.18 SF  
1.32 / 2 = 0.66 SF REQUIRED AT HIGH & LOW EAVE.

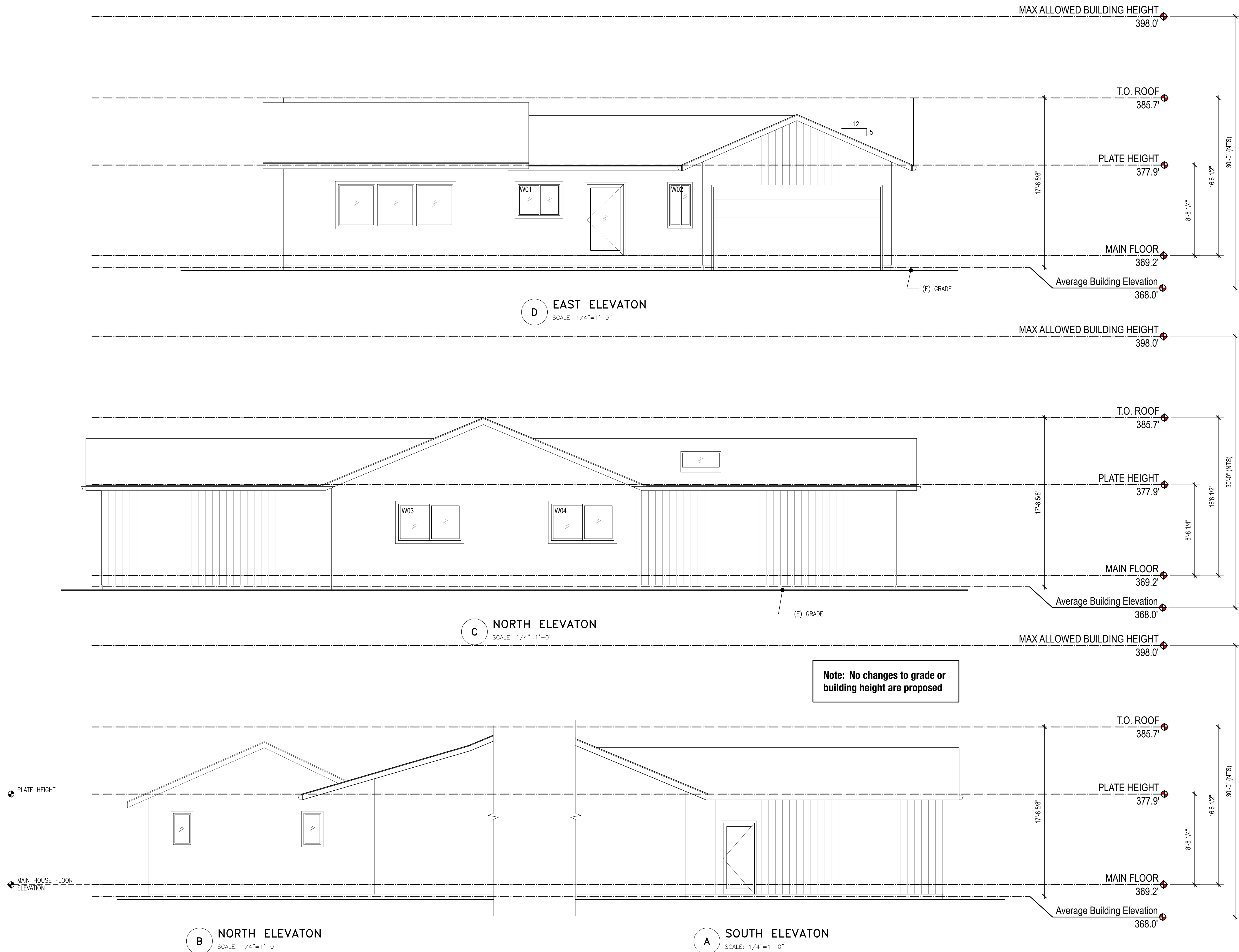
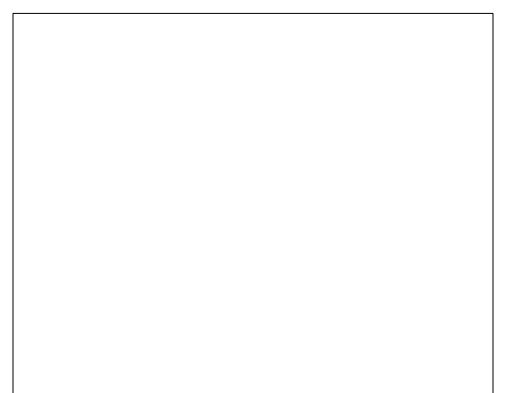
**HIGH ROOF VENTILATION AT RIDGE:**  
TOTAL LINEAR FEET RIDGE = TOTAL RAFTER BAYS 48'/2' = 24 BAYS  
TOTAL NEW RIDGE VENTS (PER DTL 3/D2.0) = 24 BAY x .166 = 3.98 SF

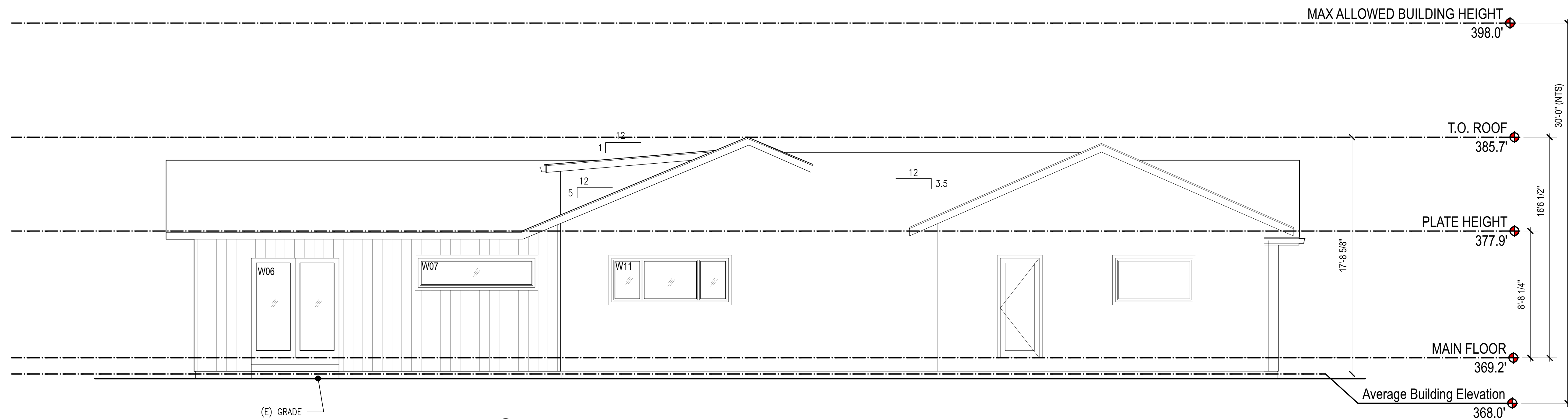
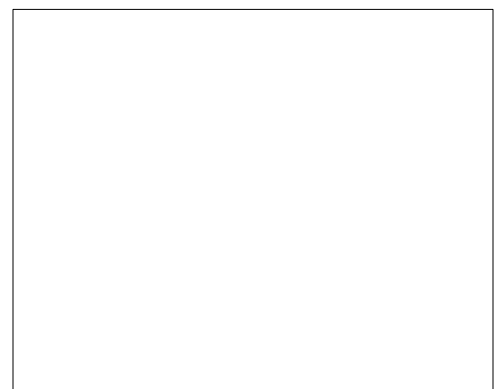
**LOWER ROOF VENTILATION AT EAVES:**  
TOTAL LINEAR FEET OF HIGH EAVE = TOTAL RAFTER BAYS 96'/2' = 48 BAYS  
TOTAL EAVE VENTS (3) HOLE @ 2.5" EACH BAY = 48 BAY x .102 = 4.89 SF

TOTAL NET FREE VENTILATING AREA PROVIDED = 8.87 SF OKAY

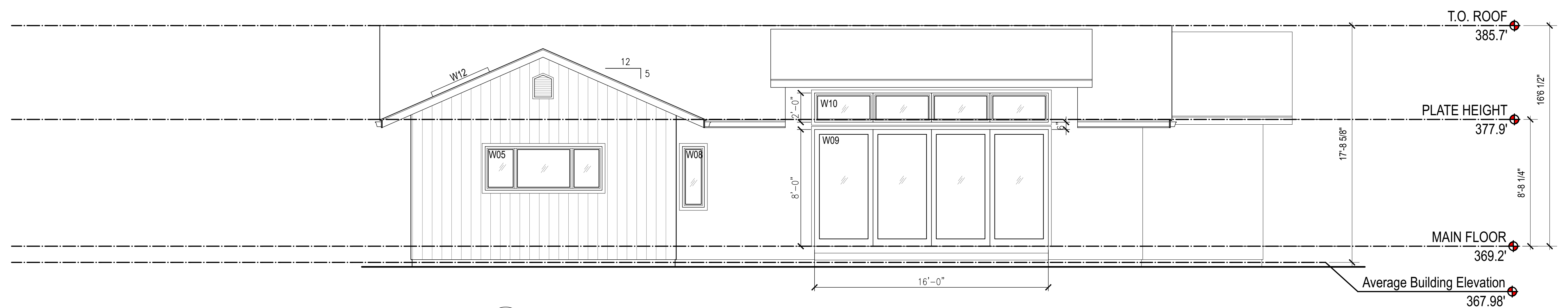
**ROOF PLAN**  
SCALE: 1/4"=1'-0"



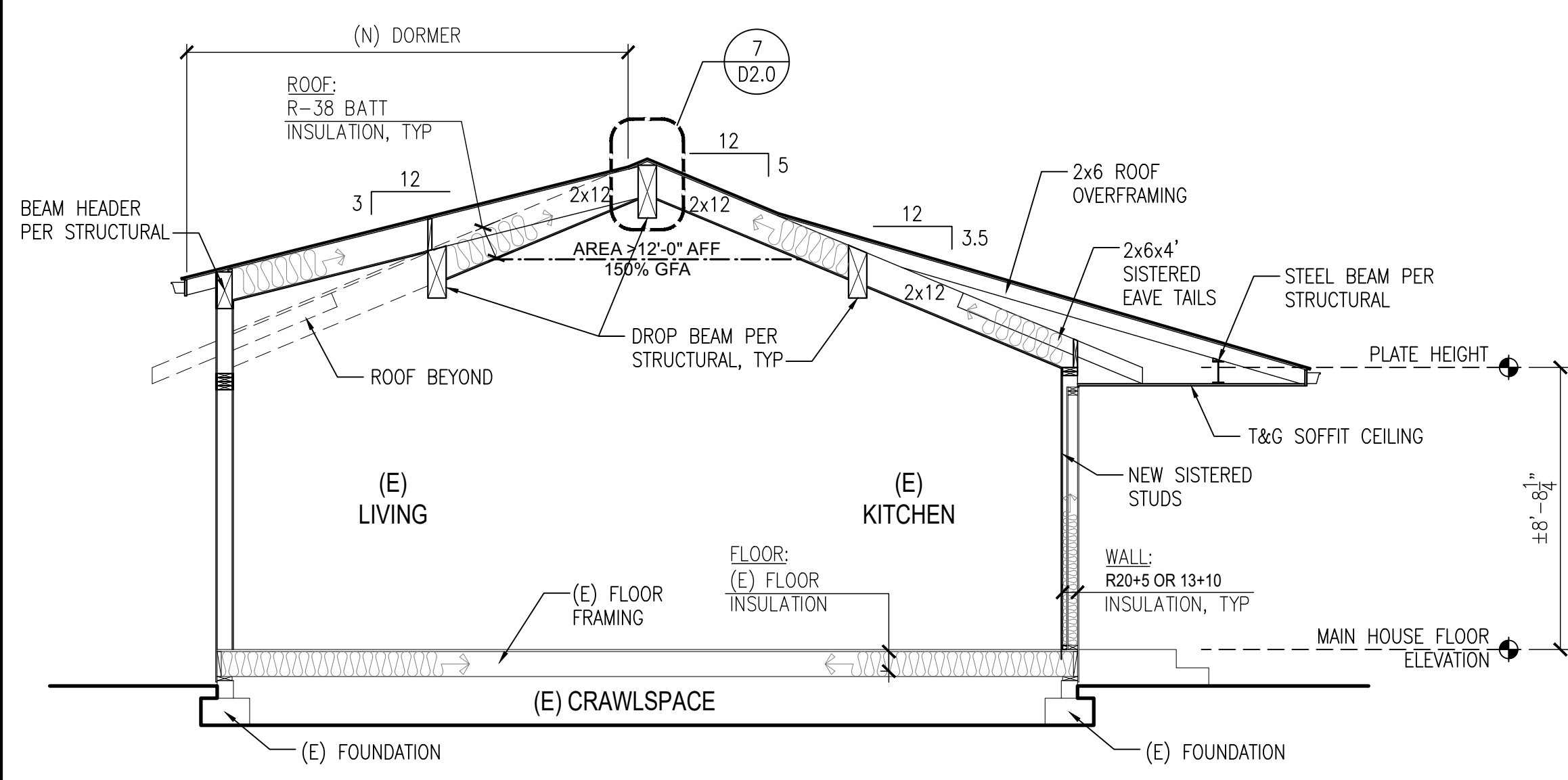




**D SOUTH ELEVATION**  
SCALE: 1/4"=1'-0"

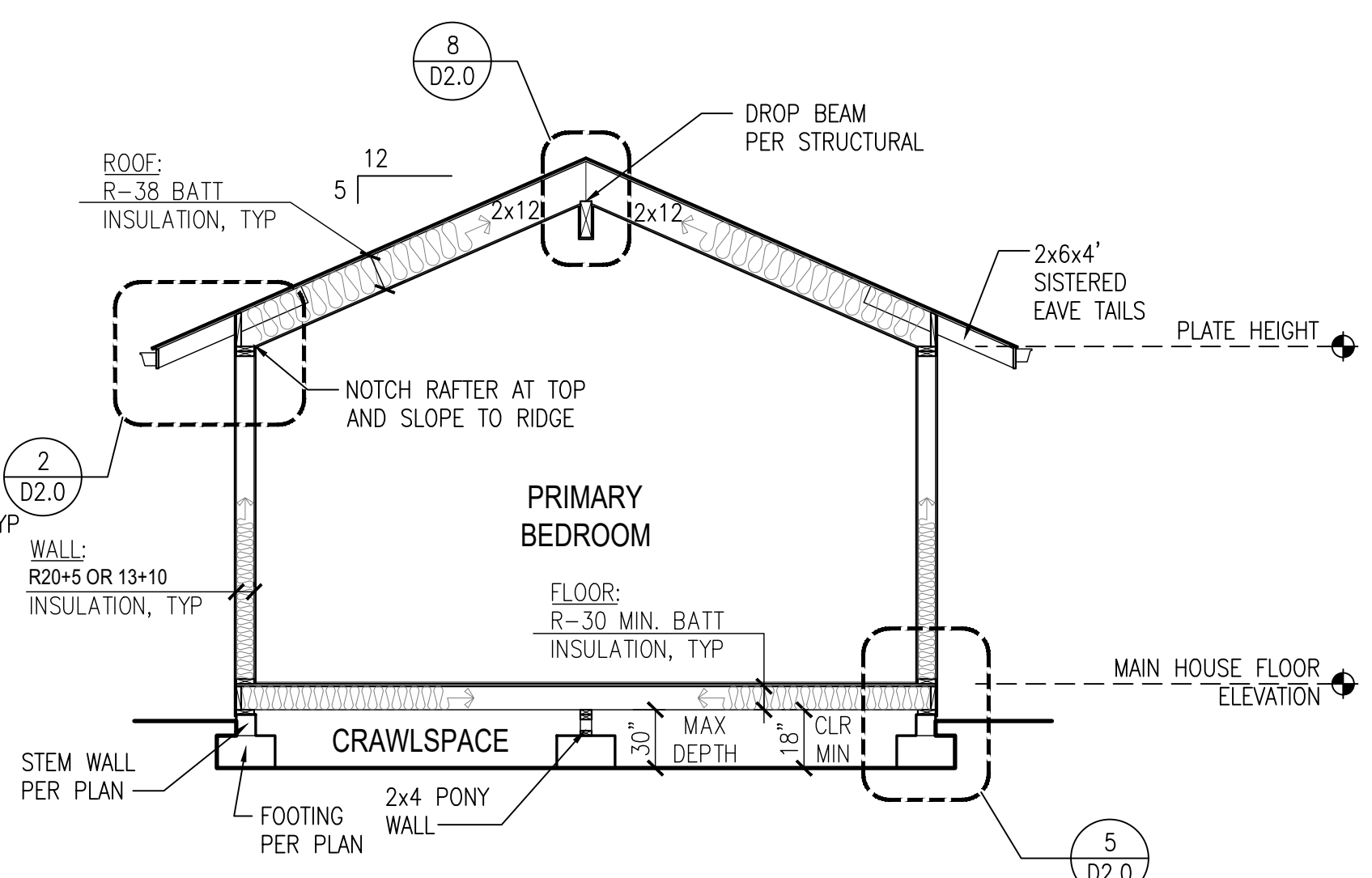


**C WEST ELEVATION**  
SCALE: 1/4"=1'-0"

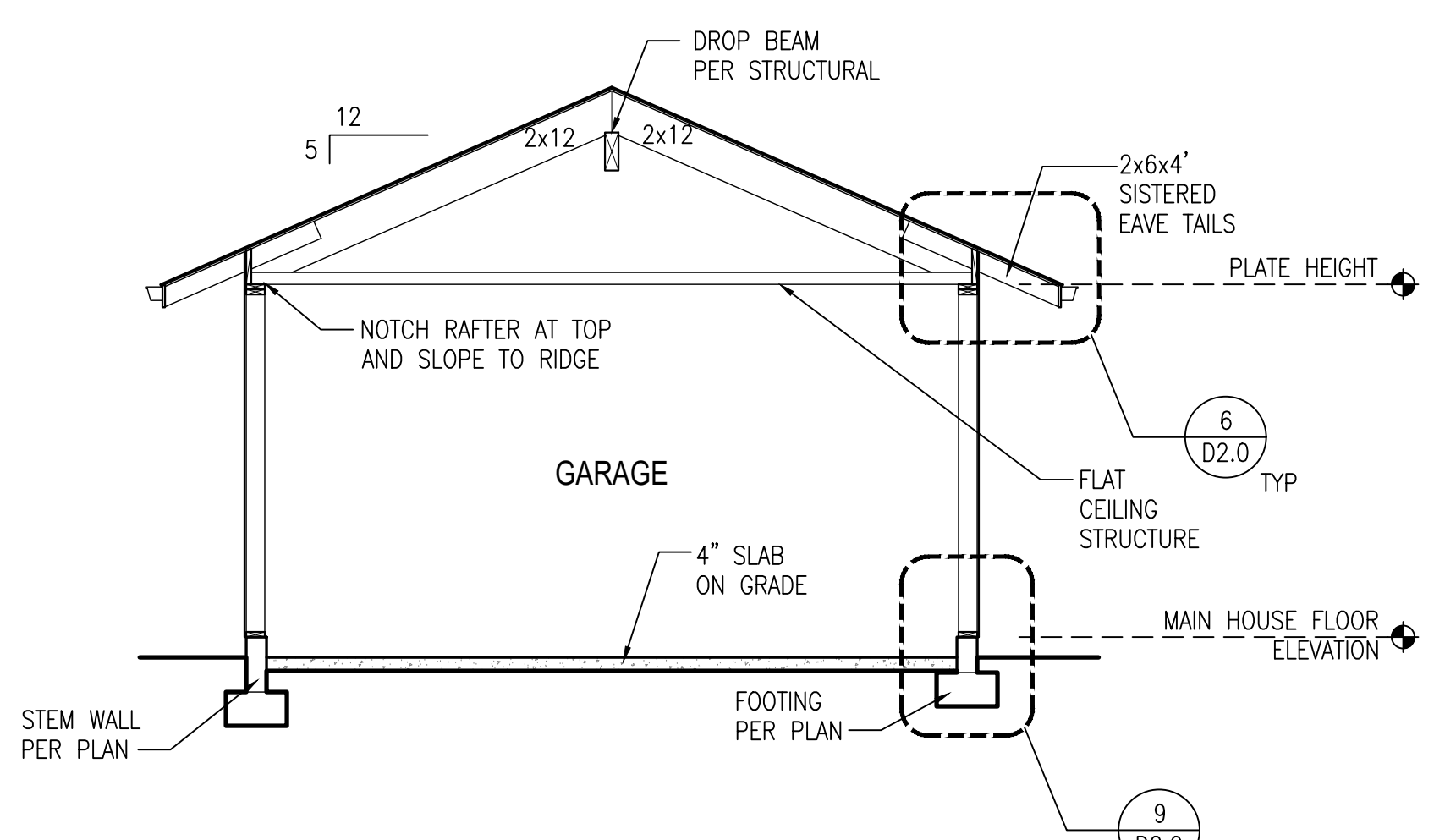


**E SECTION**  
SCALE: 1/4"=1'-0"

NOTE: INSULATION PER WSEC  
TABLE 402.1.3, TYP. SEE  
SHEET T 1.0

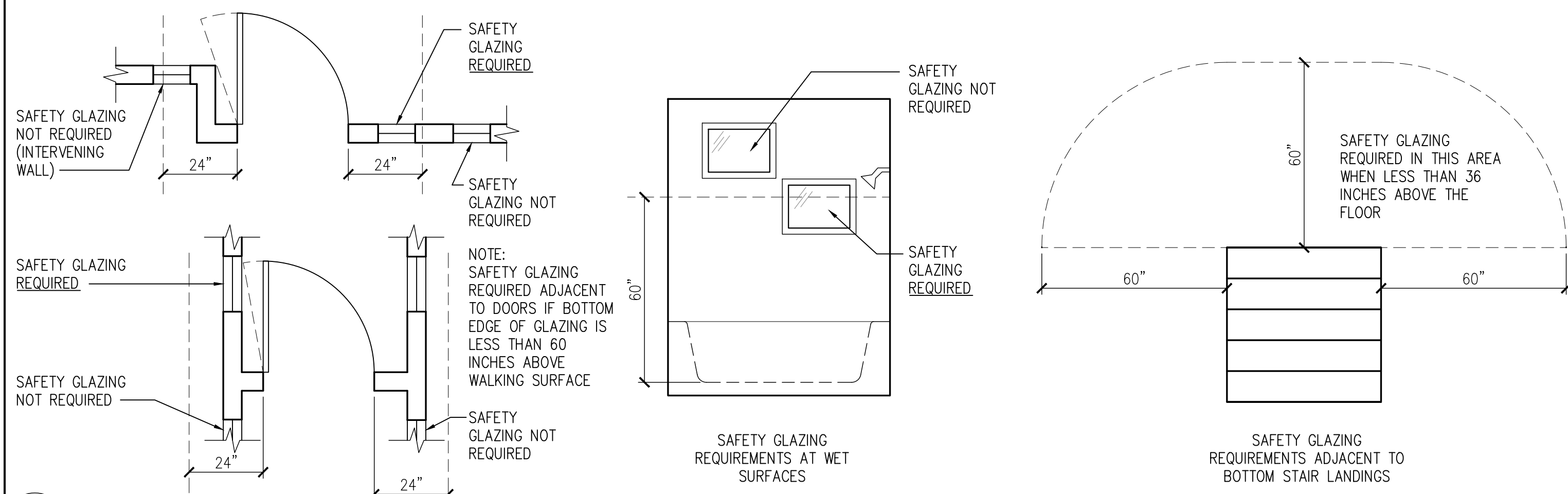


**B SECTION**  
SCALE: 1/4"=1'-0"



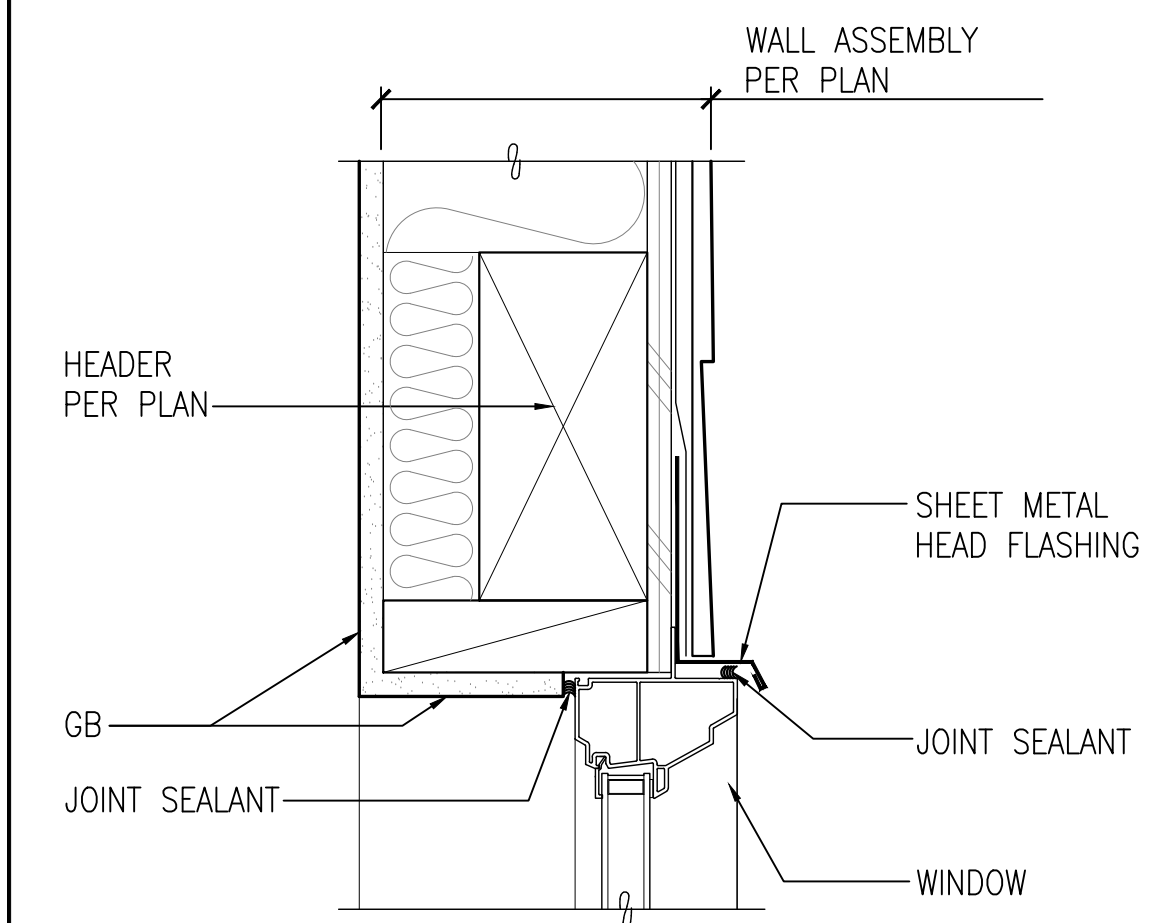
**A SECTION**  
SCALE: 1/4"=1'-0"

**Note: No changes to grade or  
building height are proposed**



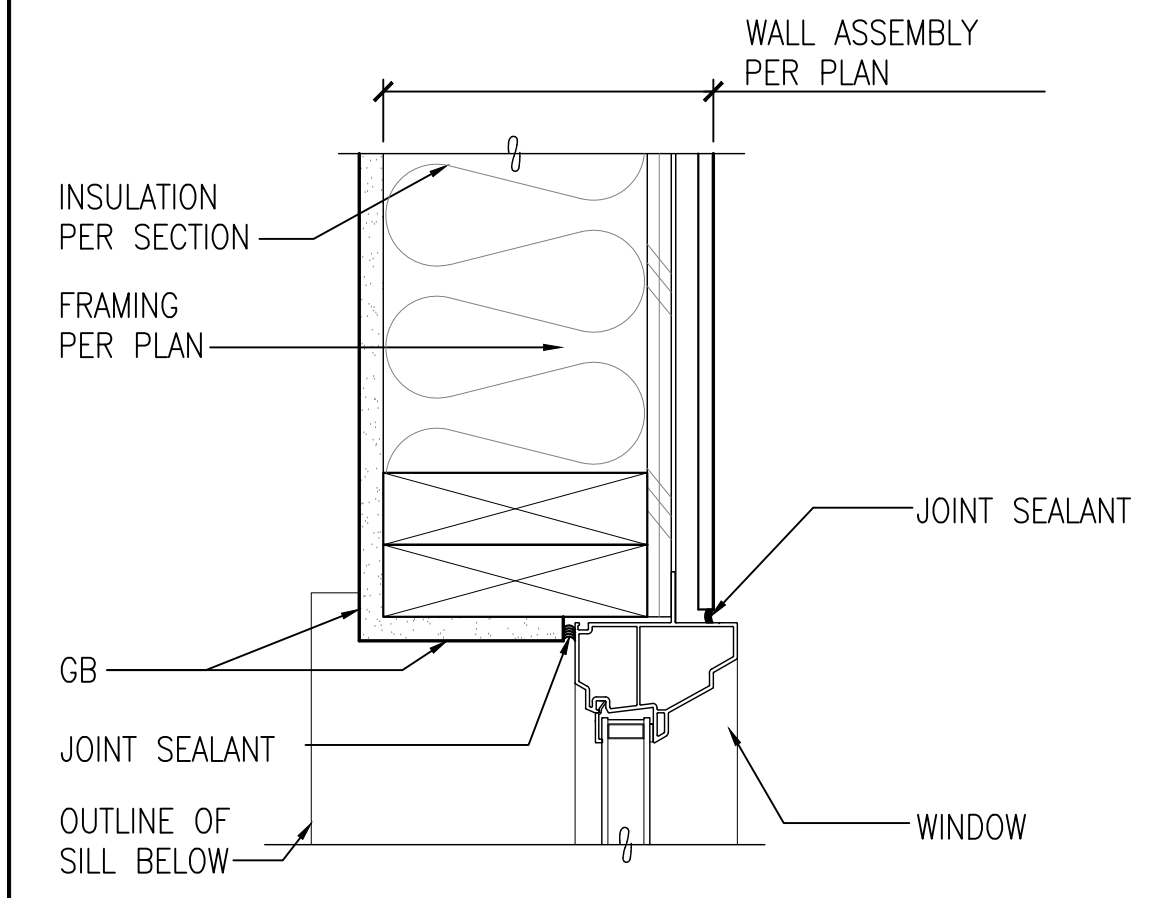
**A SAFETY GLAZING DETAILS**

SCALE: 3/8"=1'-0"



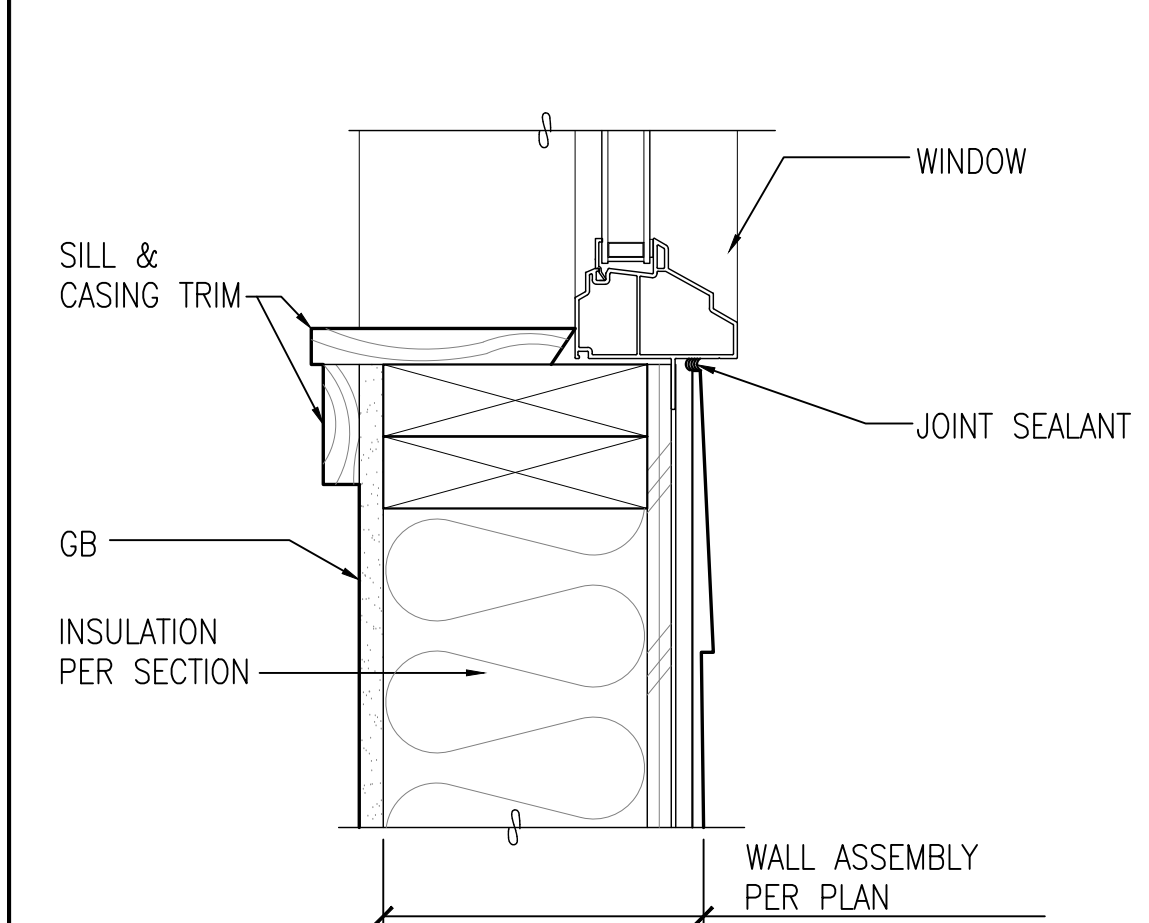
**6 HEAD DETAIL**

SCALE: 3"=1'-0"



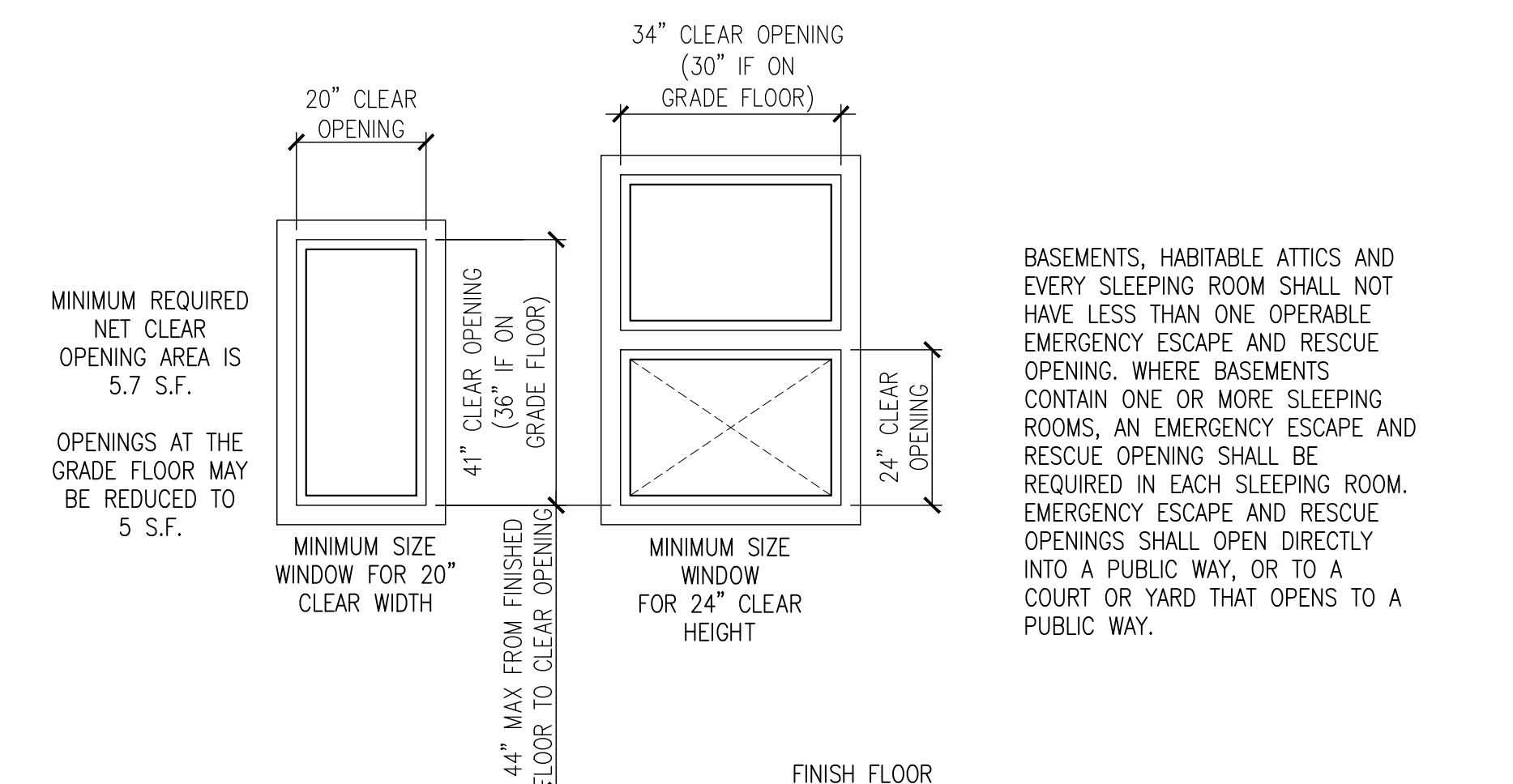
**5 JAMB DETAIL**

SCALE: 3"=1'-0"



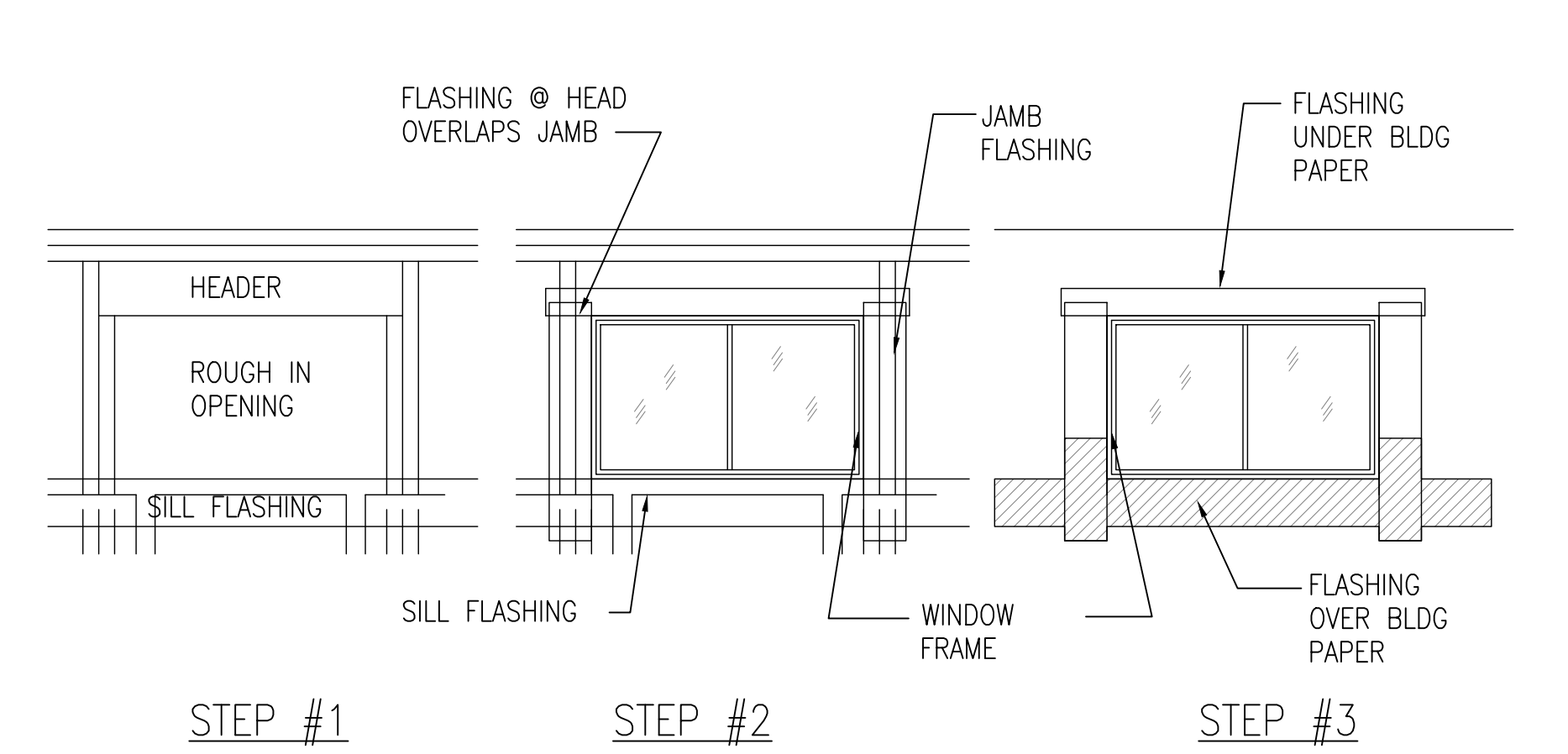
**4 SILL DETAIL**

SCALE: 3"=1'-0"



**2 MINIMUM EMERGENCY EGRESS OPENING REQUIREMENTS**

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



**3 TYPICAL WINDOW OPENING FLASHING REQUIREMENTS**

SCALE: NTS

**FLASHING OF EXTERIOR WALL OPENINGS:**

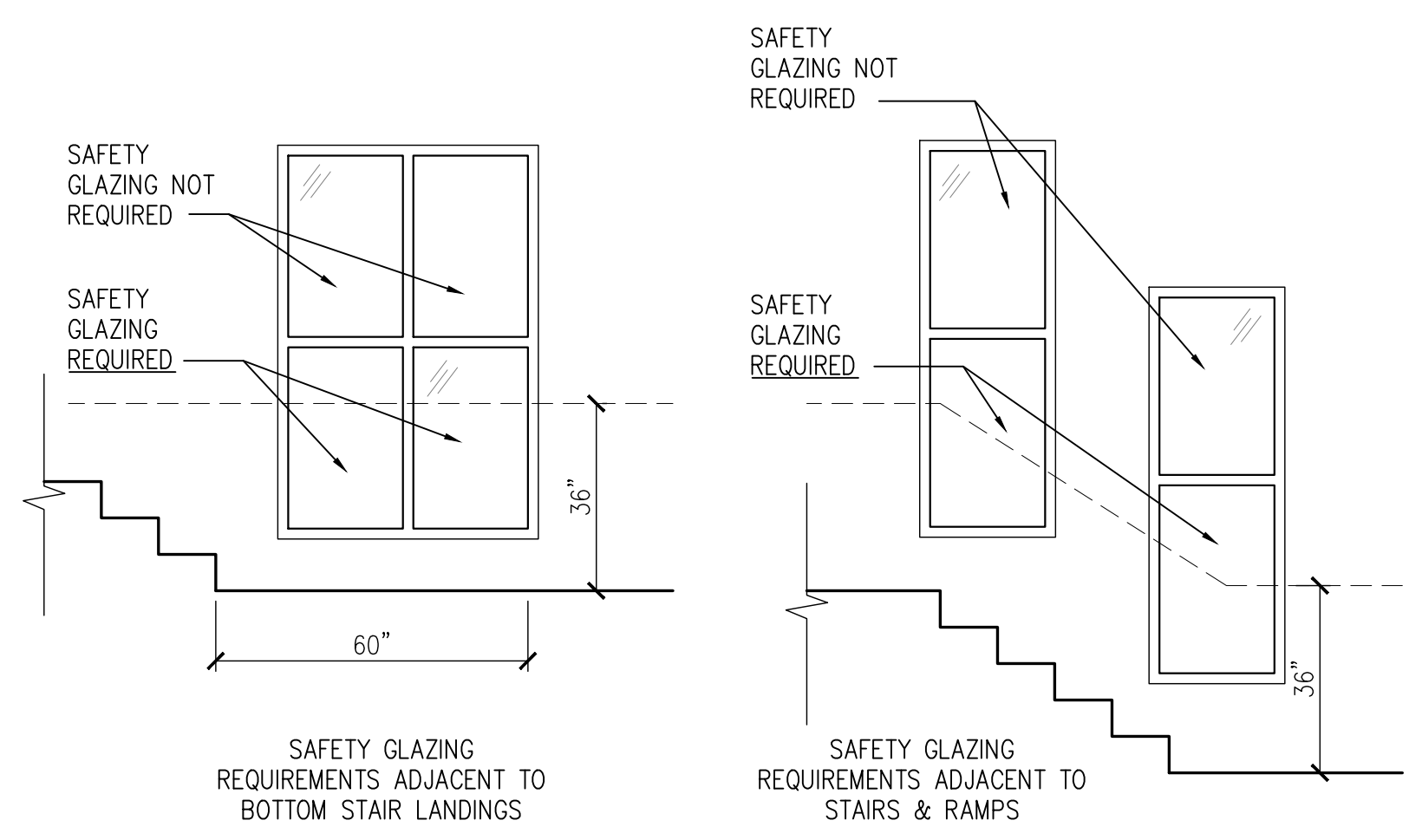
INDIVIDUALLY FLASH ALL EXTERIOR OPENINGS FOR FIXTURE SUCH AS WINDOWS, DOORS, AND VENTS TO MAKE THEM WATERPROOF. FLASHING MATERIAL SHALL BE MOISTPROOF BY MANFUL. SEALANT SHALL BE COMPATIBLE AND APPROVED BY MANFUL. IN HIGH WIND AREAS W.R. GRACE ICE & WATER SHIELD SHALL BE USED, OVER SOLID BACKING. FLASHING 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.



**SAFETY GLAZING IN WINDOWS:**

REQUIRED IF THE INDIVIDUAL PANEL MEETS ALL THE FOLLOWING REQUIREMENTS:

- EXPOSED INDIVIDUAL PANEL IS GREATER THAN 9 SQ FT
- BOTTOM EDGE OF GLAZING IS LESS THAN 18 INCHES FROM FLOOR
- TOP EDGE OF THE GLAZING IS MORE THAN 36 INCHES ABOVE FLOOR
- A WALKING SURFACE WITHIN 36 INCHES, MEASURED HORIZONTALLY, FROM THE GLAZING

**EXCEPTIONS**

- DECORATIVE GLAZING
- 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:**

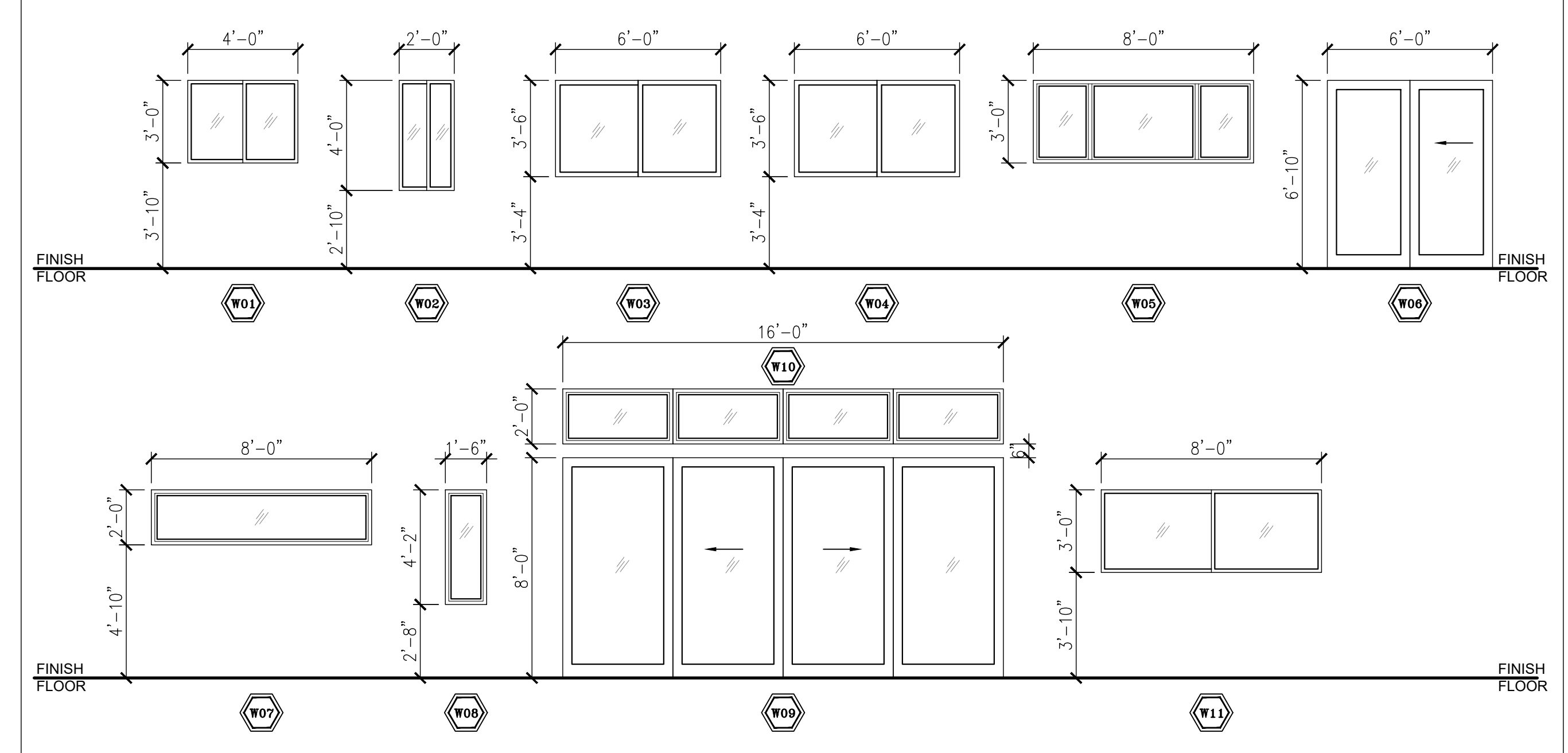
- WHERE HORIZONTAL RAIL CAPABLE OF RESISTING 50 LBS PER LINEAR FOOT OF FORCE W/OUT MAKING CONTACT WITH THE GLAZING IS INSTALLED ON THE ACCESSIBLE SIDE OF THE GLAZING 34 TO 38 INCHES ABOVE THE WALKING SURFACE.
- GLAZING MORE THAN 36 INCHES HORIZONTALLY FROM THE WALKING SURFACE IS NOT REQUIRED TO BE SAFETY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

**WINDOW SCHEDULE (MFR & MODEL OR EQUAL)**

IDEN	TYPE	MATERIAL	SIZE		ROUGH OPENING		QUANTITY	TOTAL AREA	SPEC	DESCRIPTION
			WIDTH	HEIGHT	WIDTH	HEIGHT				
W01	SLIDER	VINYL	4'-0"	3'-0"	PER MFR		1	12.00 SF	(A)	
W02	SLIDER	VINYL	2'-0"	4'-0"	PER MFR		1	8.00 SF	(A)	
W03	SLIDER	VINYL	6'-0"	3'-0"	PER MFR		1	18.00 SF	(A)	
W04	SLIDER	VINYL	6'-0"	3'-0"	PER MFR		1	18.00 SF	(A)	
W05	SLIDER	VINYL	8'-0"	3'-0"	PER MFR		1	24.00 SF	(A)	
W06	SLIDER DOOR	VINYL	6'-0"	6'-8"	PER MFR		1	40.00 SF	(A)	
W07	SLIDER	VINYL	8'-0"	2'-0"	PER MFR		1	16.00 SF	(A)	
W08	CASEMENT	VINYL	1'-6"	3'-0"	PER MFR		1	4.50 SF	(A)	
W09	SLIDER DOOR	VINYL	16'-0"	8'-0"	PER MFR		1	128.00 SF	(A)	
W10	TRANSOM	VINYL	16'-0"	1'-4"	PER MFR		1	32.00 SF	(A)	
W11	SLIDER	VINYL	8'-0"	3'-0"	PER MFR		1	24.00 SF	(A)	
W12	SKYLIGHT	VINYL	3'-10.5"	3'-10.5"	PER MFR		1	15.00 SF	(A)	VELUX 46.5"x46.5" FIXED SKYLIGHT
TOTAL QUANTITY							10	339.5 SF	TOTAL AREA (SQUARE FEET)	

**NOTES:**

1) (A) ALL GLAZING TO HAVE U-FACTOR = 0.24 MAX OR BETTER; 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	SINGLE PANEL	3'-8"	6'-8"	3'-8"	6'-10.5"	FIBERGLASS	1	24.37	-	INSULATED, GLASS INSERT
D02	SINGLE PANEL	3'-0"	6'-8"	3'-2"	6'-10.5"	WOOD	1	-	-	SELF-CLOSING DOOR
D03	POCKET DOOR	3'-0"	6'-8"	6'-2"	6'-10.5"	WOOD	2	-	-	-
D04	SINGLE PANEL	2'-8"	6'-8"	2'-10"	6'-10.5"	WOOD	5	-	-	-
D05	POCKET DOOR	2'-4"	6'-8"	4'-10"	6'-10.5"	WOOD	1	-	-	-

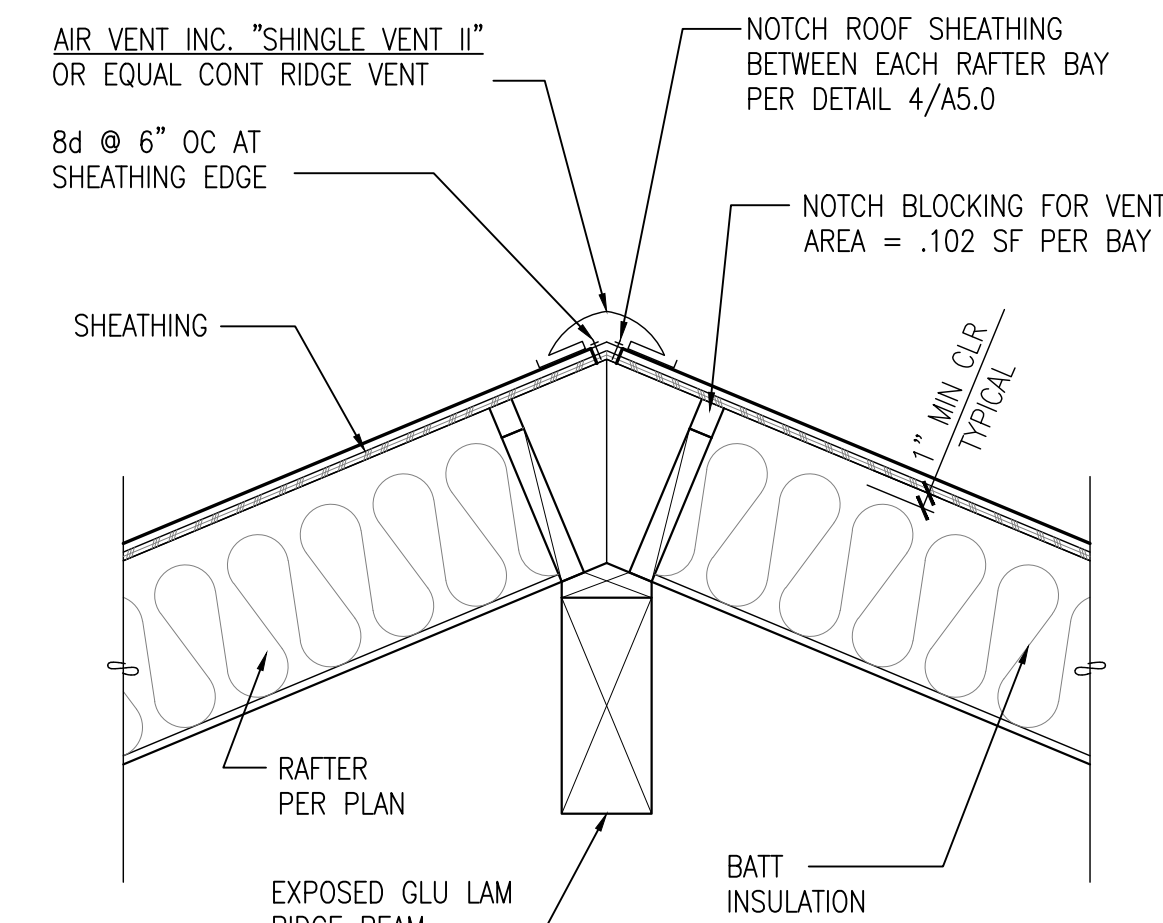
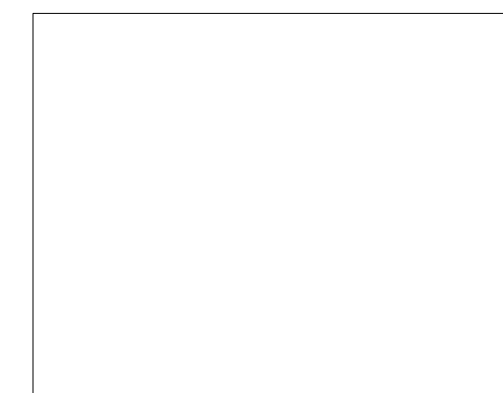
**NOTES:**

1) VERIFY WITH DOOR MFR FOR ACTUAL ROUGH OPENING REQUIREMENTS.

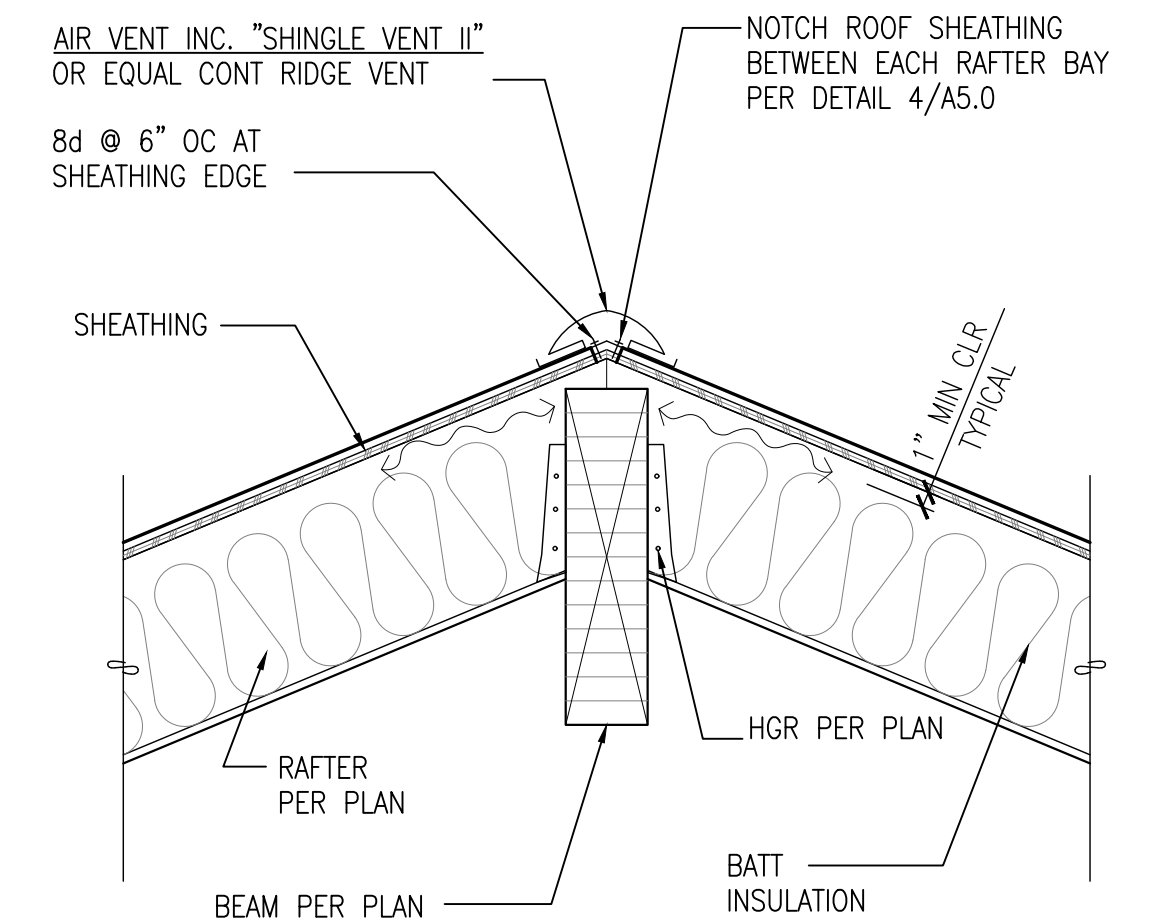
**NOTES:**

(A) ALL VERTICAL PENETRATION TO HAVE U-FACTOR = 0.24 MAX OR BETTER; NFRC-CERTIFIED

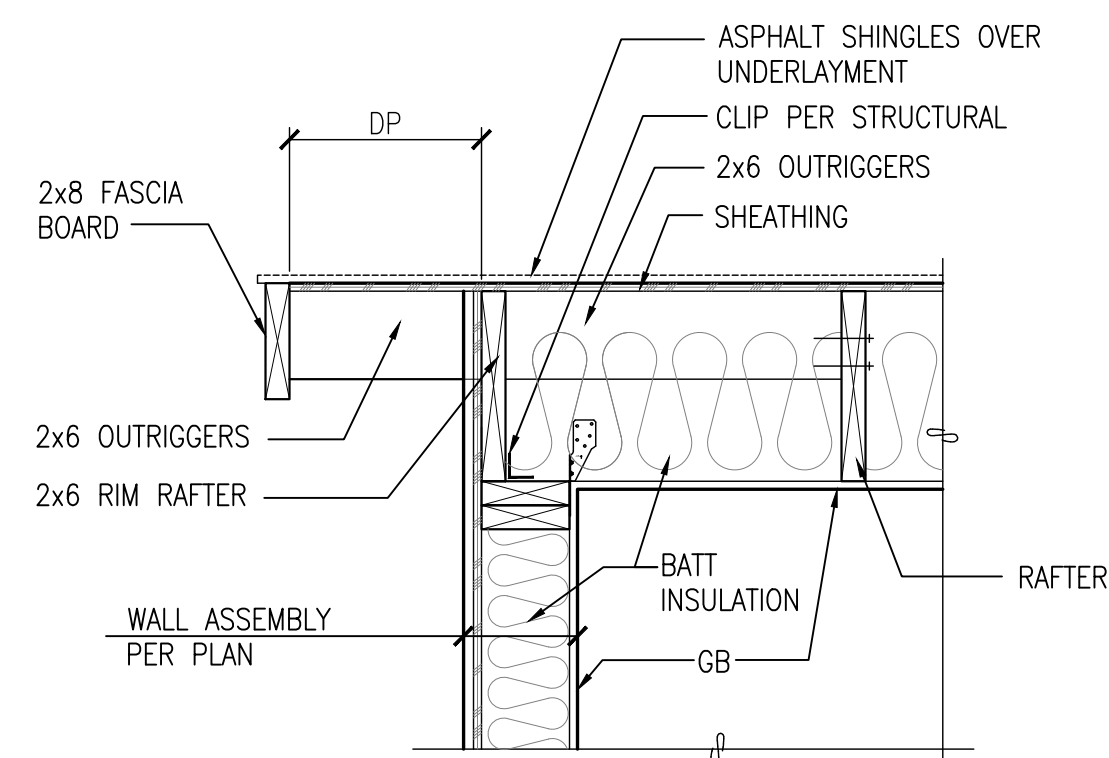




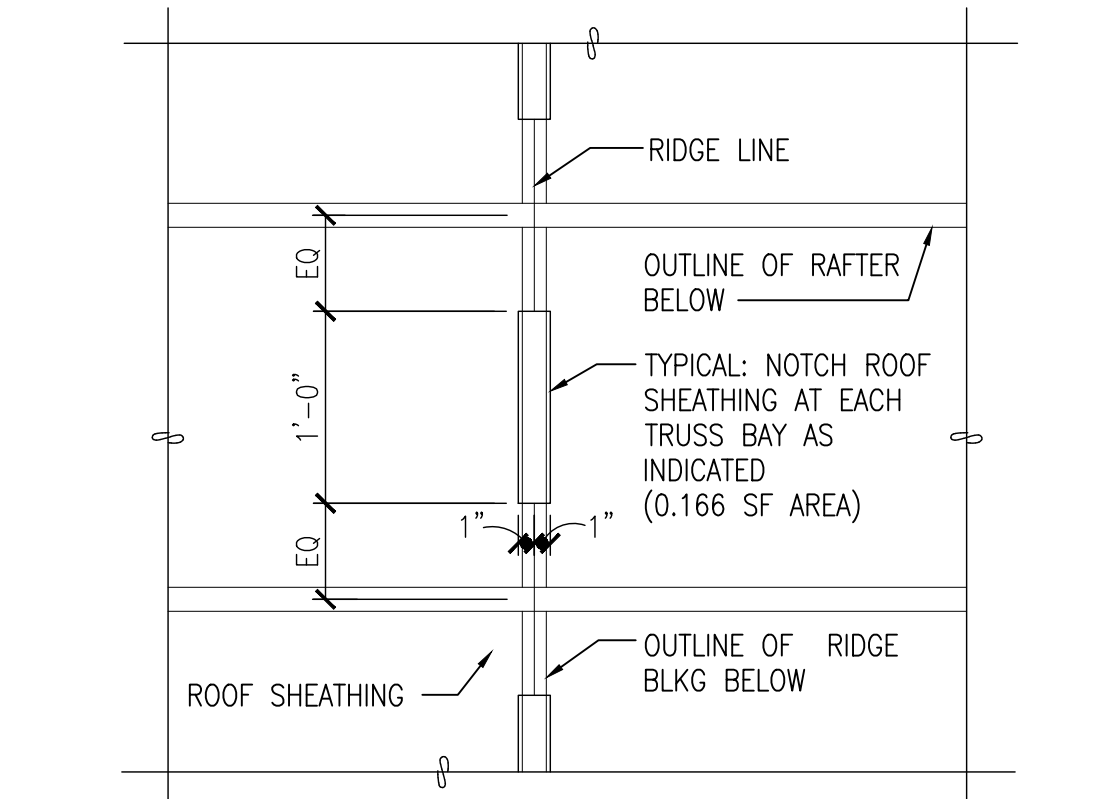
**8 DETAIL**  
SCALE: 1"=1'-0"



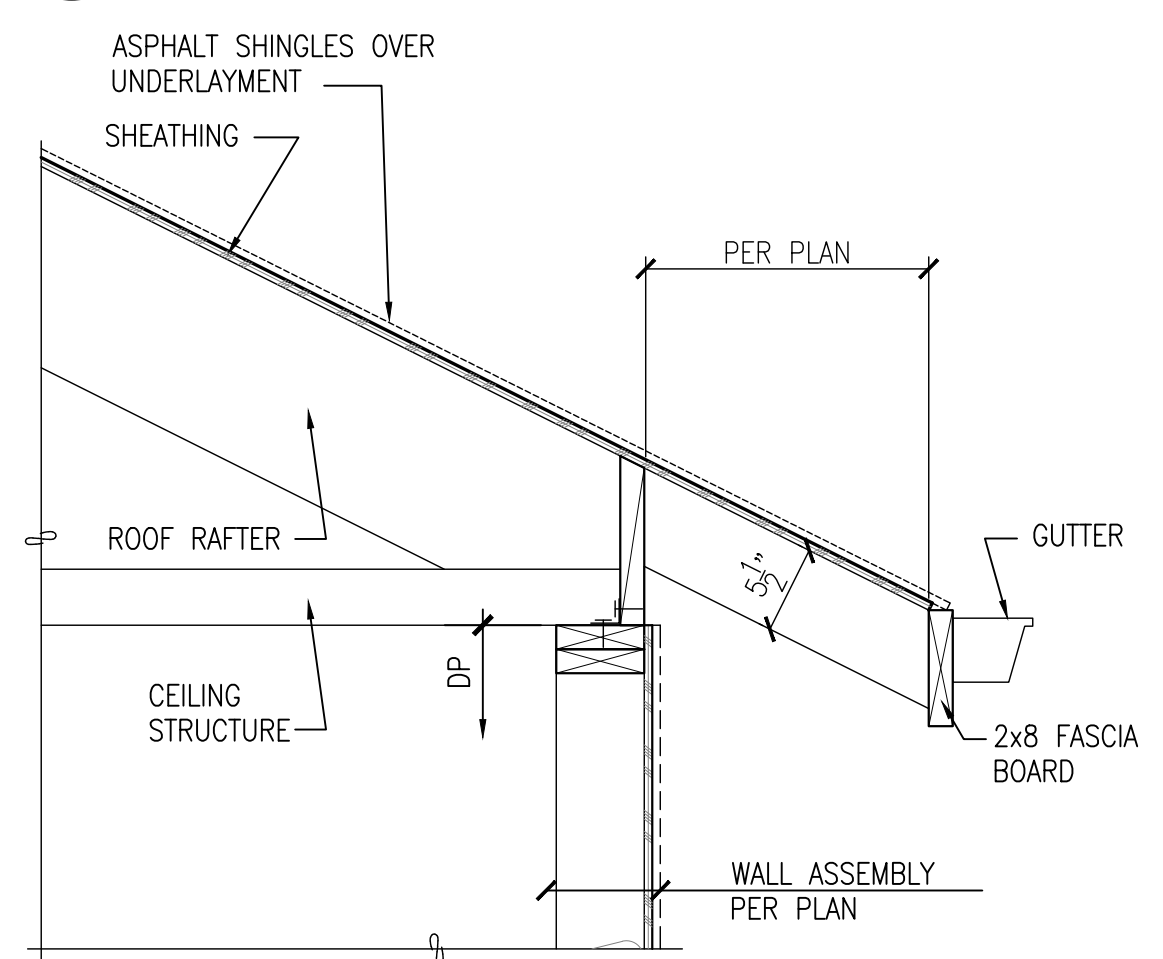
**7 DETAIL**  
SCALE: 1"=1'-0"



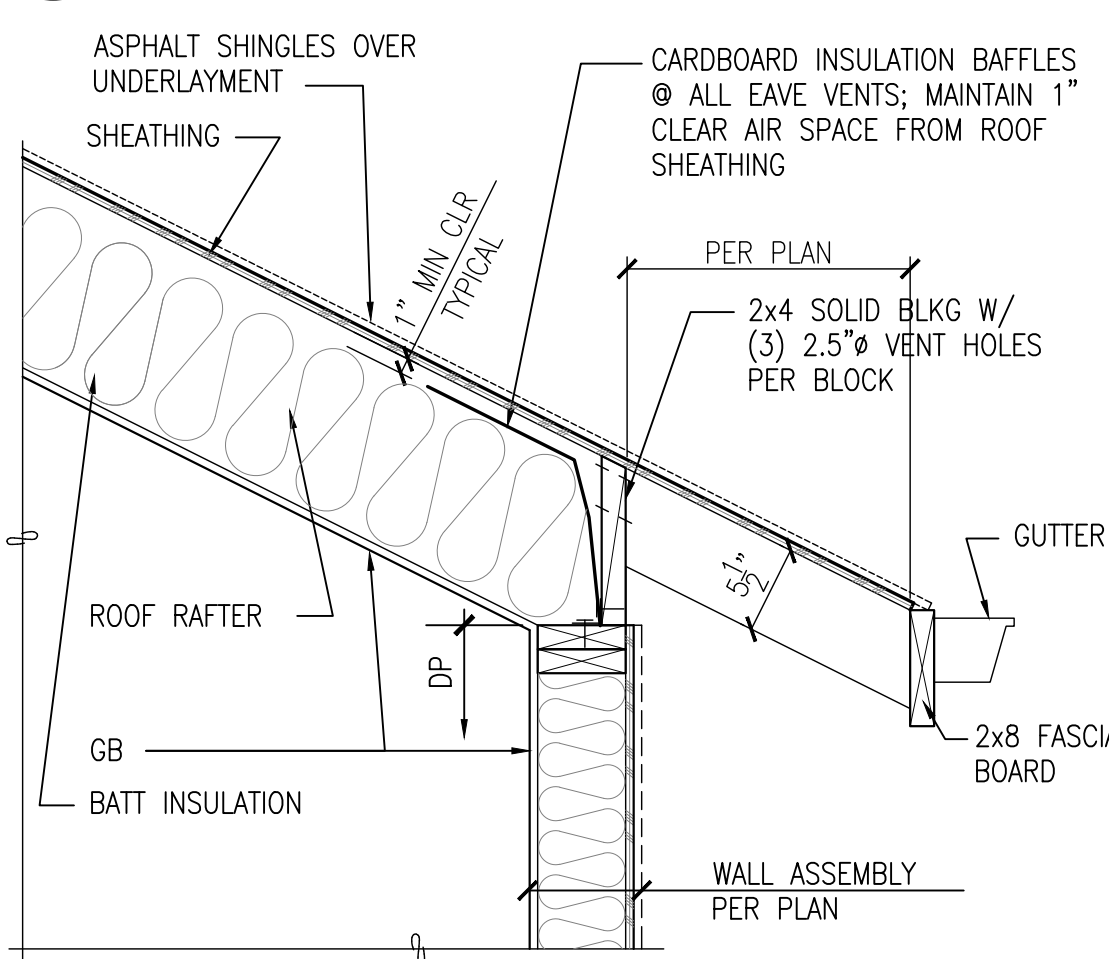
**4 DETAIL**  
SCALE: 1"=1'-0"



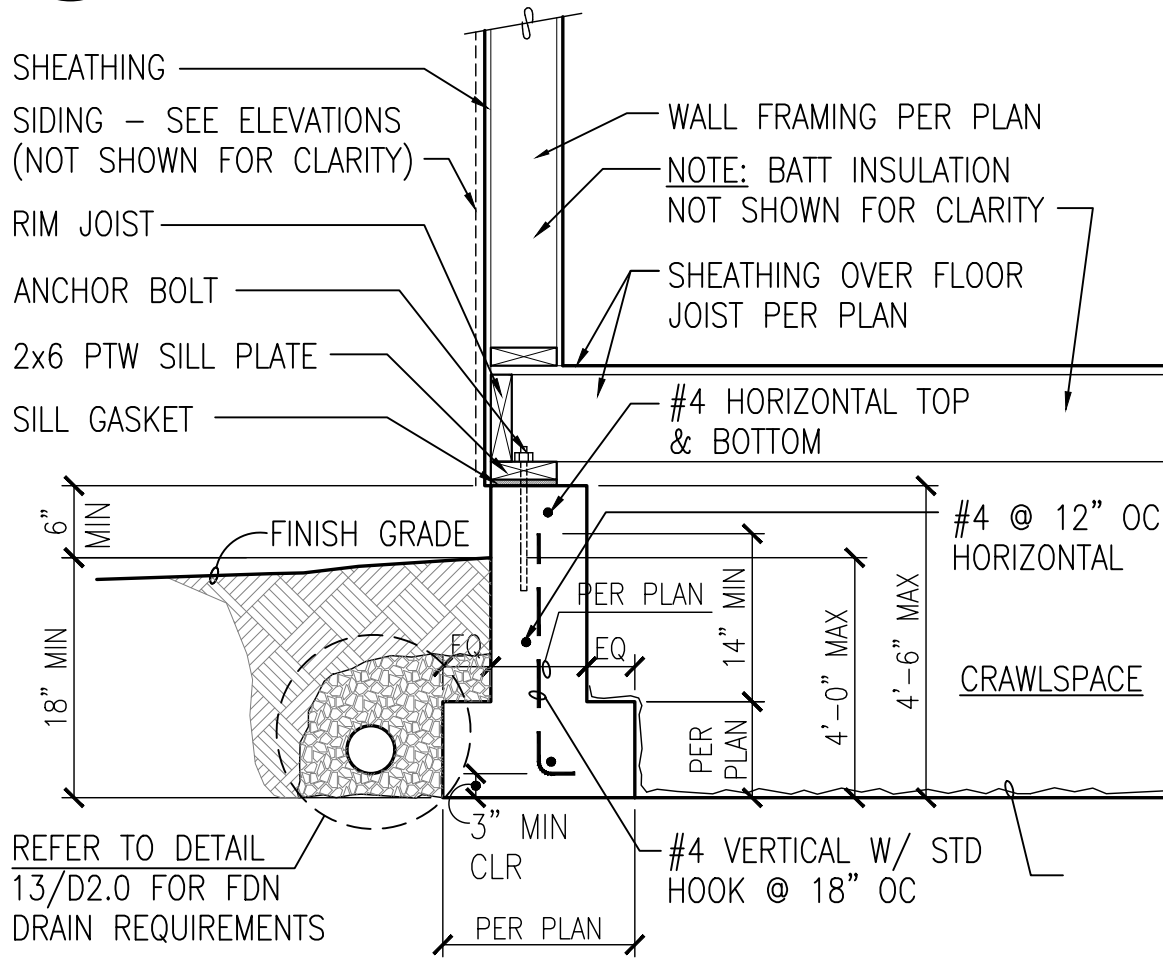
**3 DETAIL**  
SCALE: 1"=1'-0"



**6 DETAIL**  
SCALE: 1"=1'-0"



**2 DETAIL**  
SCALE: 1"=1'-0"



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

**REINFORCEMENT SPECIFICATIONS:**

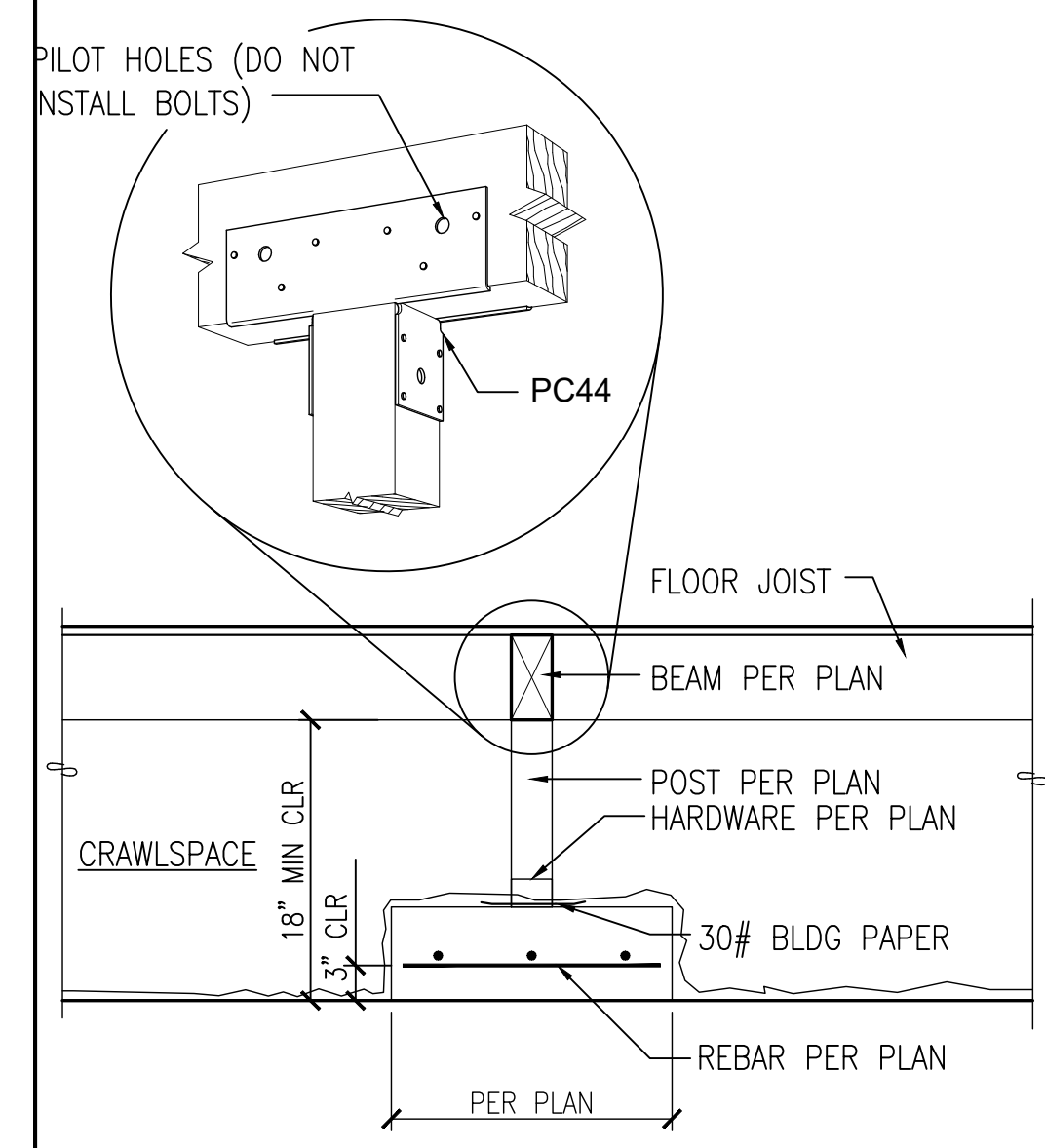
**HORIZONTAL STEEL:** PER STRUCTURAL DETAILS

**VERTICAL STEEL:** PER STRUCTURAL DETAILS

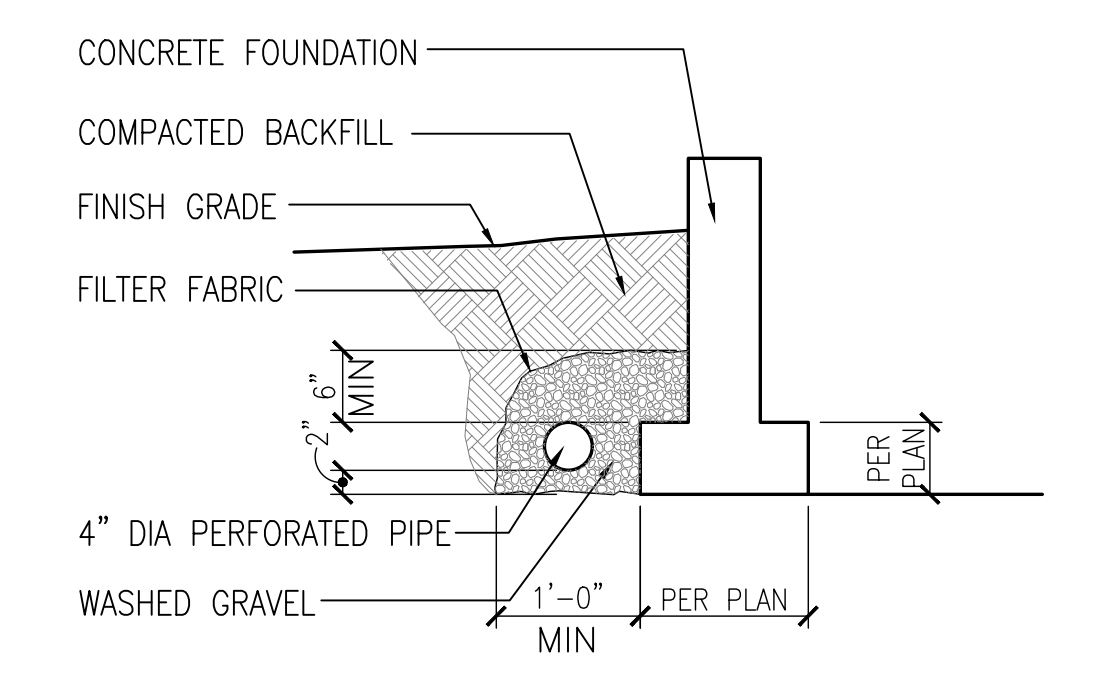
**SILL ANCHORAGE:** 5/8" DIA x 10" LONG GALVANIZED ANCHOR BOLTS @ 6'-0" OC MAX; PROVIDE 1/4" THK x 3" SQUARE PLATE WASHERS BETWEEN SILL PLATE AND NUT

**NOTES:**

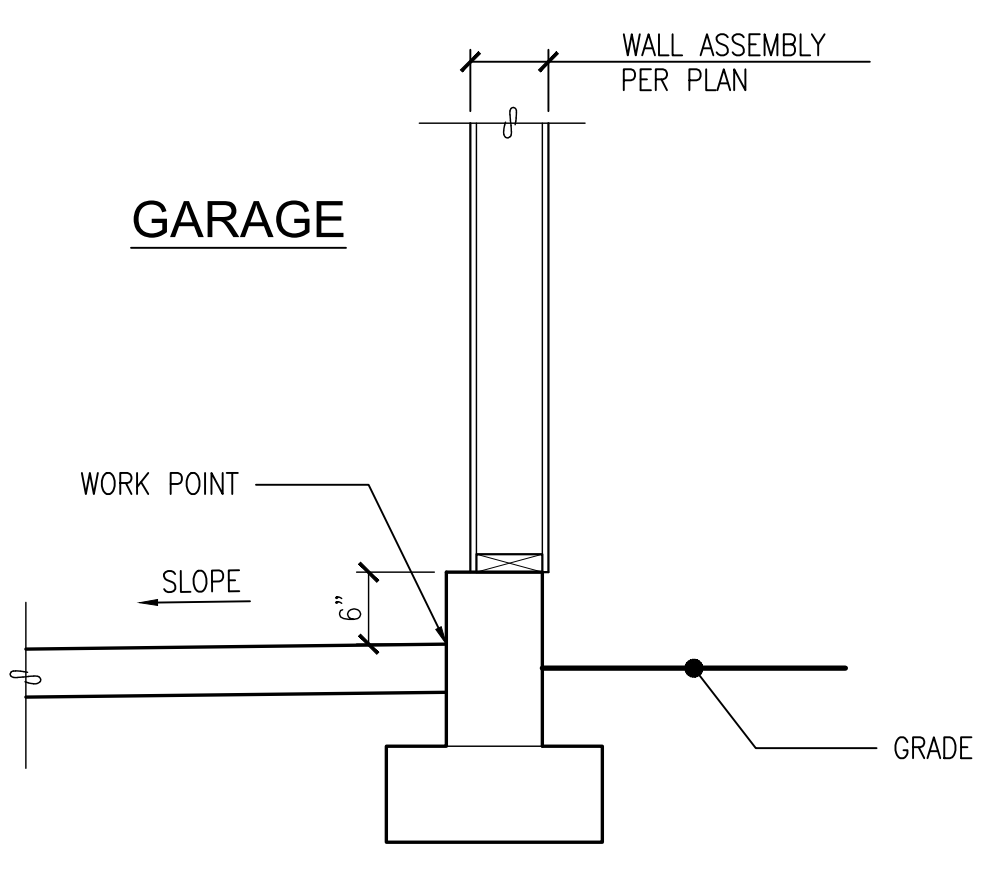
- STEEL SHALL BE PLACED WITHIN CENTER OF FOUNDATION WALL.
- THERE SHALL BE A MINIMUM OF (2) ANCHOR BOLTS PER FOUNDATION SILL PLATE WITH ONE BOLT LOCATED WITHIN 12" OF EACH END OF EACH FOUNDATION SILL PLATE BUT NO CLOSER THAN 4". EMBED ANCHOR BOLTS 7" MIN.



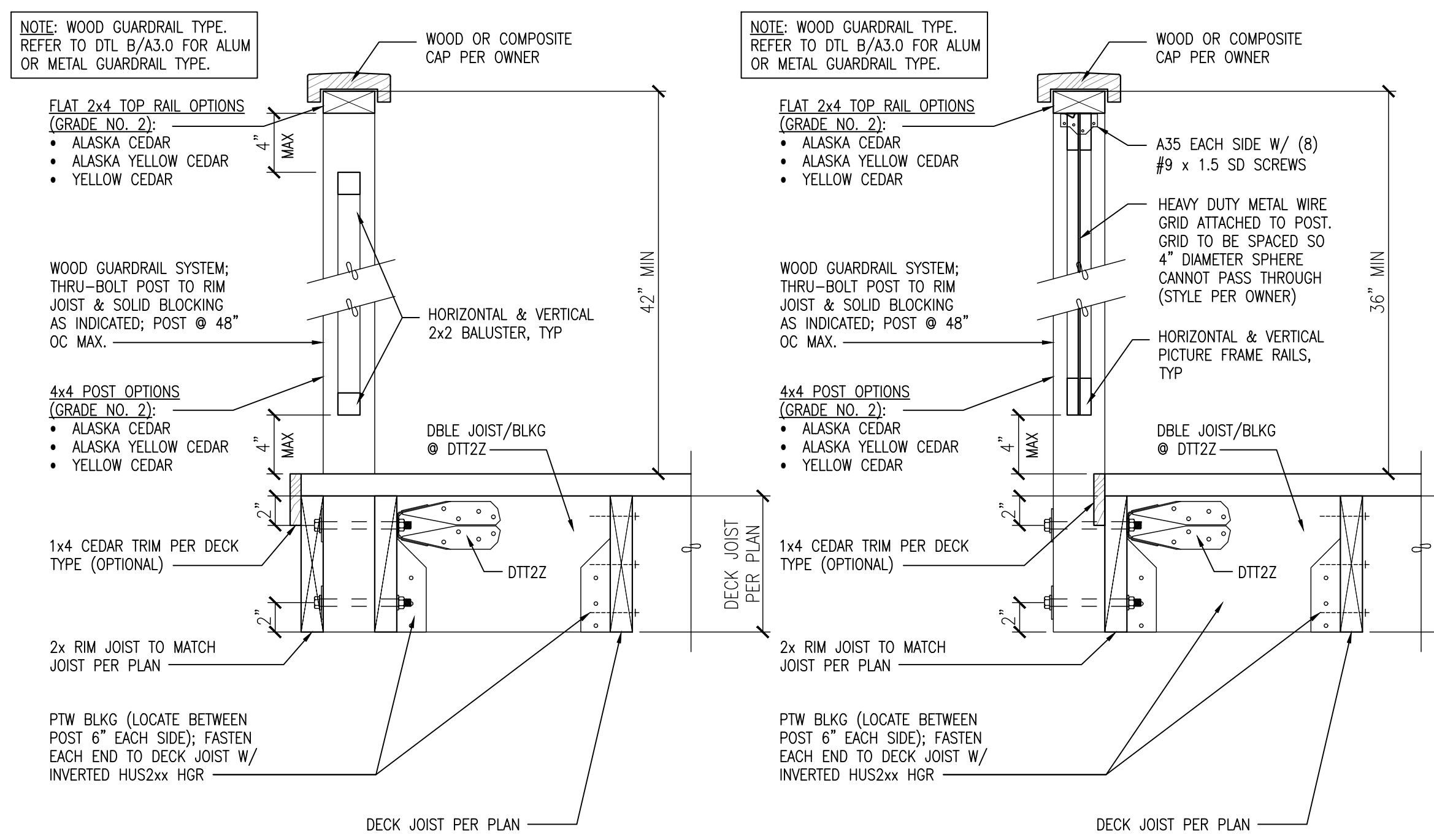
**17 DETAIL**  
SCALE: 3/4"=1'-0"



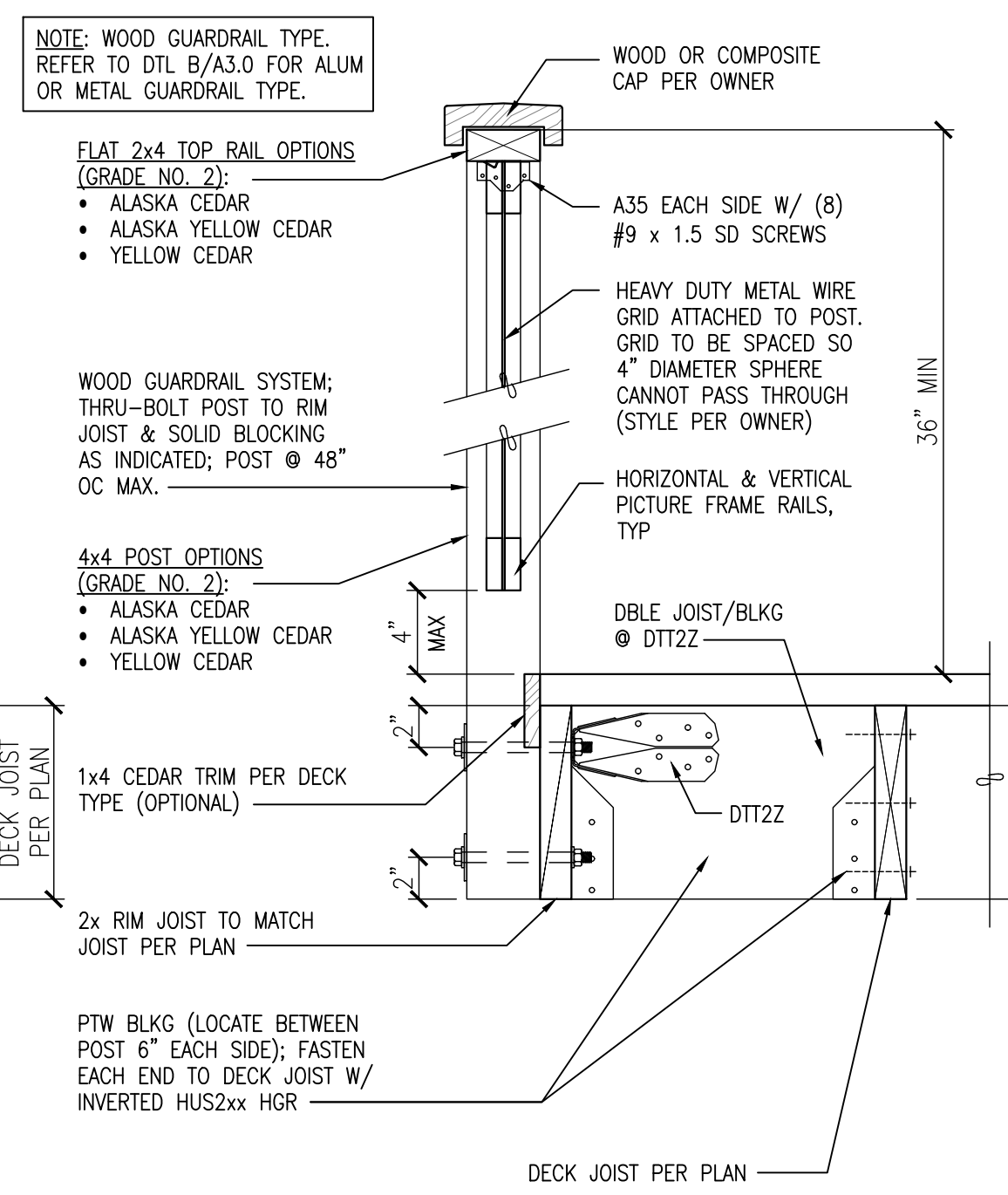
**13 FOUNDATION DRAINAGE SYSTEM**  
SCALE: 3/4"=1'-0"



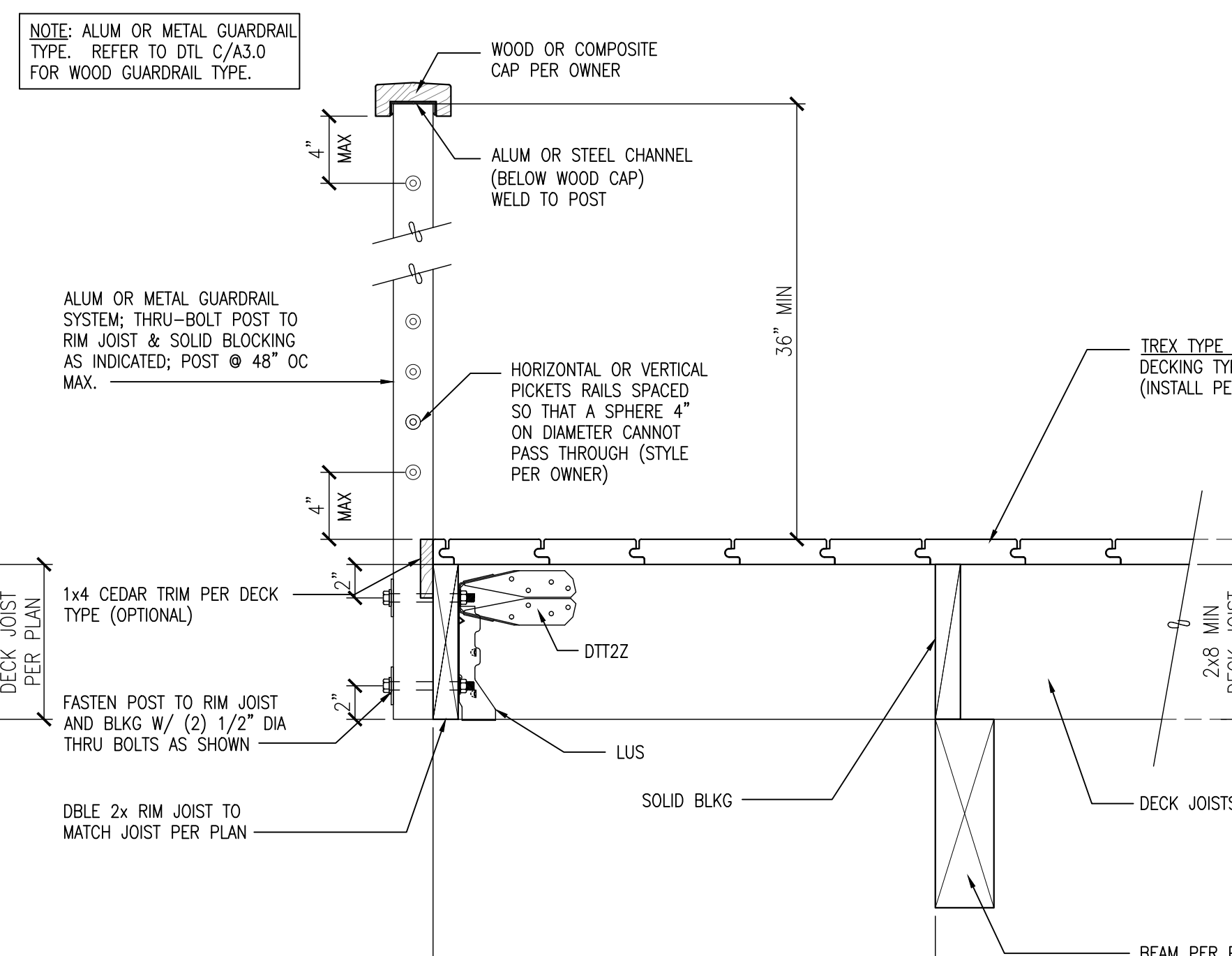
**9 DETAIL**  
SCALE: 3/4"=1'-0"



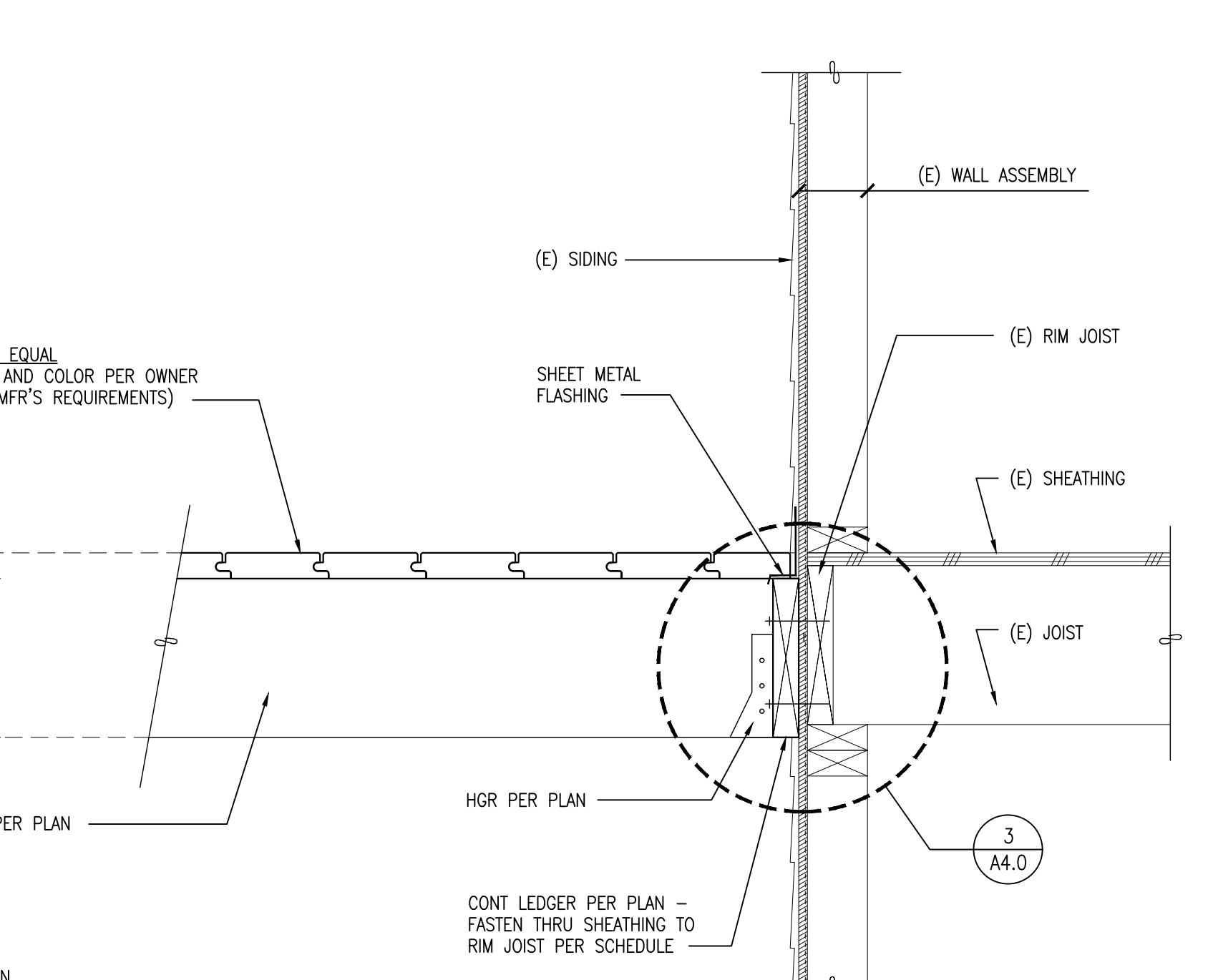
**D** DETAIL – TYPICAL SIDE CONDITION  
SCALE: 1 1/2"=1'-0"



**C** DETAIL – TYPICAL SIDE CONDITION  
SCALE: 1 1/2"=1'-0"



**B** DETAIL – TYPICAL CANTILEVER CONDITION  
SCALE: 1 1/2"=1'-0"



**A** DETAIL – TYPICAL LEDGER CONNECTION  
SCALE: 1 1/2"=1'-0"

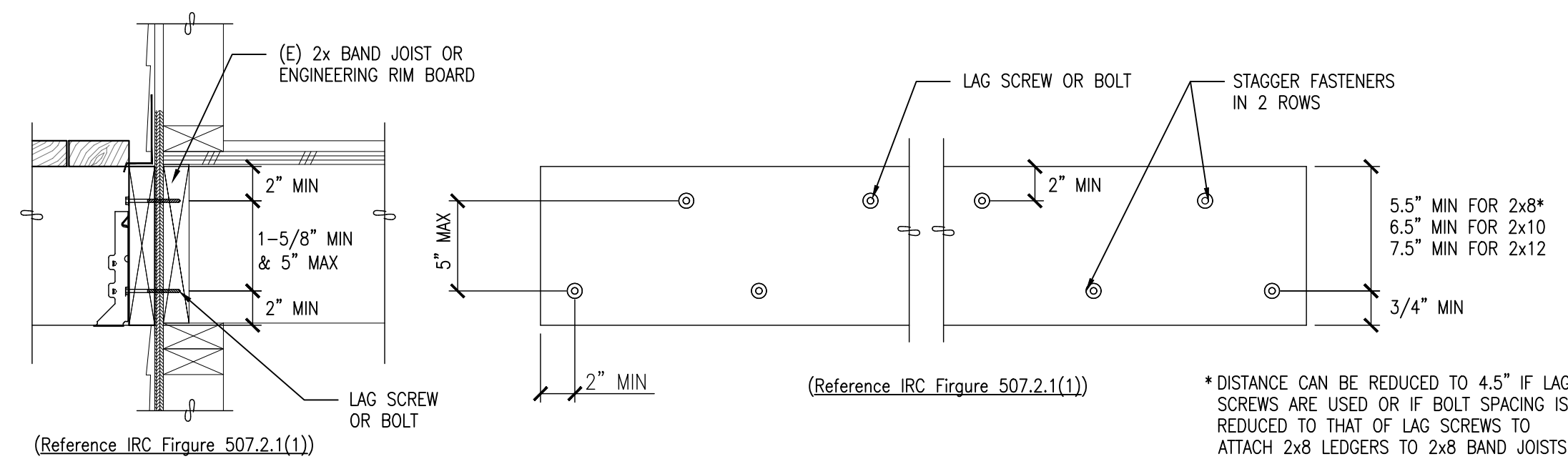
Placement of Lag Screws and Bolts in Ledgers and Band Joists

(Reference IRC Table 507.2.1)

	Minimum End and Edge Distances and Spacing Between Rows			
	Top Edge	Bottom Edge	Ends	Row Spacing
Ledger <sup>a</sup>	2 inches <sup>d</sup>	3/4 inch	2 inches <sup>b</sup>	1 5/8 inches <sup>b</sup>
Band Joist <sup>c</sup>	3/4 inch	2 inches <sup>e</sup>	2 inches <sup>b</sup>	1 5/8 inches <sup>b</sup>

For SI: 1 inch = 25.4 mm

- c. Lag screws or bolts must be staggered from the top and bottom along the horizontal run. See figure below.
- b. Maximum 5 inches
- c. For engineered rim joists, the manufacturer's recommendations govern.
- d. The minimum distance from the bottom row to the top edge of the ledger must be in accordance with figure below.
- e. 2 inches may be reduced to 3/4 inch when the band joist is directly supported by a mudsill, header, or by double top wall plates.



SECTION VIEW ELEVATION VIEW  
(Reference IRC Figure 507.2.1(1)) (Reference IRC Figure 507.2.1(1))

**4** PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS  
SCALE: NTS

Deck Ledger Connection to Band Joist<sup>a, b</sup>

(Reference IRC Table R507.2 – Deck live load = 60 psf, deck dead load, = 10 psf, snow load ≤ 40 psf)  
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa.

Connection Details	Joist Span						
	6' and less	6'1" and 8'	8'1" and 10'	10'1" and 12'	12'1" and 14'	14'1" and 16'	16'1" and 18'
1/2 inch diameter lag screw with 1/2 inch maximum sheathing <sup>d</sup>	22	16	13	11	9	8	7
1/2 inch diameter bolt with 1/2 inch maximum sheathing <sup>d</sup>	30	22	18	15	13	11	10
1/2 inch diameter bolt with 1 inch maximum sheathing <sup>e</sup>	26	19	16	13	11	10	9

- a. Ledgers shall be flashed in accordance with Section R703.4 to prevent water from contacting the house band joist.
- b. Snow load shall not be assumed to act concurrently with live load.
- c. The tip of the lag screw shall fully extend beyond the inside face of the band joist.
- d. Sheathing shall be wood structural panel or solid sawn lumber.
- e. Sheathing shall be permitted to be wood structural panel, gypsum board, fiberboard, lumber or foam sheathing. Up to 1/2-inch thickness of stacked washers shall be permitted to substitute for up to 1/2-inch of allowable sheathing thickness where combined with wood structural panel or lumber sheathing.

Deck Connections

(All fasteners, nails, bolts, screws, and connectors must be corrosion resistant.)

Connection	Fastening:
Manufactured Connectors	Follow manufacturer's instructions
Post to Footing	Post base is required
Post to Footing (High Winds)	Consult with jurisdiction about additional uplift loads where wind exposure is greater than Risk Category B.
Post to Beam	Connector is required
Ledger to House Framing	See information on Details 3 and 4
Joist to Beam or Girder	(3) 8d - Toe nailed or per connector equipment
Blocking or Bridging to Joist	(2) 10d - Toe nailed @ each end or per connector equipment
Wooden Deck Boards	(2) 8d threaded nails OR (2) No. 8 screws
Composite Decking	Follow manufacturer's instructions

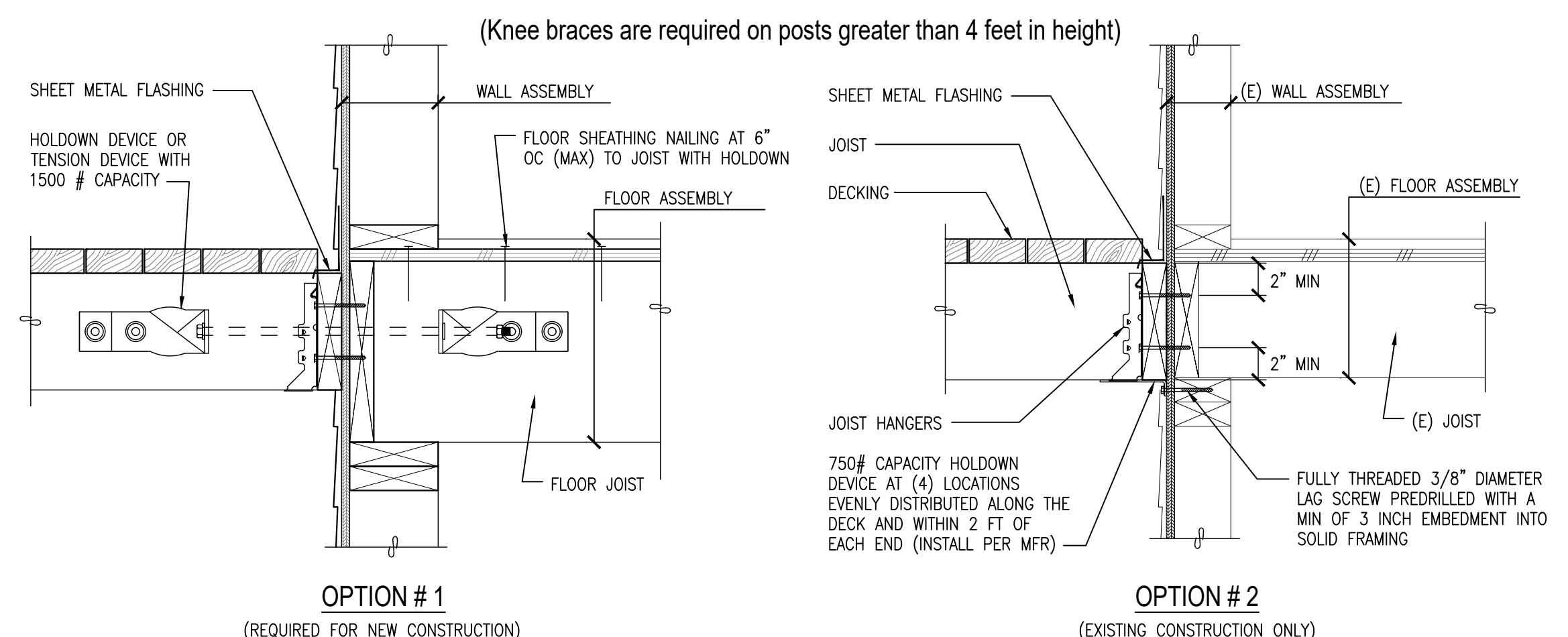
Span Table and Footing Schedule for Decks

Spans and footings assume the maximum 24" cantilever using Hem-Fir/Doug Fir No. 2 or better framing lumber.  
Table uses 70 psf. loading (10 psf. dead load + 60 psf live load) and 2000 psf. soil bearing pressure.

Joist Size	Joist Spacing	Max. Joist Span	Girder Beam Size and Max. Span Between Support Post / Footing Type							
			4x6 Footing	4x8 Footing	4x10 Footing	4x12 Footing	4x12 Footing			
2x6	12" OC	7'-5"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18
	16" OC	6'-9"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18
	24" OC	5'-9"	6'-3"	14x14	8'-9"	16x16	11'-0"	18x18	12'-10"	18x18
2x8	12" OC	9'-7"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	20x20
	16" OC	8'-8"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	18x18
	24" OC	7'-7"	5'-11"	14x14	7'-9"	16x16	9'-6"	18x18	11'-1"	18x18
2x10	12" OC	13'-3"	3'-6"	14x14	4'-8"	16x16	5'-11"	18x18	7'-2"	18x18
	16" OC	11'-6"	4'-1"	14x14	5'-5"	16x16	6'-11"	18x18	8'-5"	20x20
	24" OC	9'-5"	4'-11"	14x14	6'-6"	16x16	8'-3"	18x18	10'-0"	20x20
2x12	12" OC	15'-5"	3'-1"	14x14	4'-1"	16x16	5'-2"	18x18	6'-3"	18x18
	16" OC	13'-4"	3'-6"	14x14	4'-8"	16x16	5'-11"	18x18	7'-2"	18x18
	24" OC	10'-11"	4'-1"	14x14	5'-5"	16x16	6'-11"	18x18	8'-5"	18x18

Footings must have a minimum reinforcement of (2) #4 bars each way with a 3" clearance to the bottom of the footing.  
Note: Footing sizes are based on decks designed with single span joists where there is no center bearing beam.

(Guardrails are required when the deck is more than 30 inches above grade)



**3** LEDGER ATTACHMENT FOR LATERAL LOADS  
SCALE: NTS

**General Notes:**

- Outdoor environments are generally more corrosive to steel. If you choose to use ZMAX® or HDG finish or stainless steel material on an outdoor project, you should periodically inspect your connectors and fasteners or have a professional inspection performed. Regular maintenance, including water-proofing of the wood used in your outdoor project is also a good practice.
- Coatings Available:
  - ZMAX Galvanizer (G185): 1.85 oz. of zinc per square foot of surface area. (hot-dip galvanized per ASTM A653 total both sides). These products require hot-dip galvanized fasteners (fasteners which meet the specifications of ASTM A153).
  - HDG - Hot Dip Galvanized: Products are hot-dip galvanized after fabrication (14 ga. and thicker). The coating weight increases with material thickness. The minimum specified coating weight is 2.0 oz. per square foot. (per ASTM A123 total both sides). These products require hot-dip galvanized fasteners (fasteners which meet the specifications of ASTM A153).
  - SS - Stainless Steel: Connectors are manufactured from Type 316L stainless steel, and provide greater durability against corrosion. Stainless-steel nails are required with stainless-steel products, and are available from Simpson Strong-Tie.
- When using stainless steel connectors, use stainless steel fasteners. When applications allow the use of ZMAX/HDG galvanized connectors, use HDG fasteners that meet the specifications of ASTM A153 or equivalent coating offered on Simpson Strong-Tie products.
- Due to many variables involved with outdoor construction, Simpson Strong-Tie cannot provide estimates on service life of connectors, anchors or fasteners.
- To obtain optimal performance from Simpson Strong-Tie products, the products must be installed properly and used in accordance with the installation instructions and design limits provided by Simpson Strong-Tie.
- All installation notes and guidelines within the current Wood Construction Connectors catalog shall apply for the connectors, anchors, and fasteners shown.
- Simpson Strong-Tie reserves the right to change the specifications, design and models shown without notice or liability for such changes.
- Simpson Strong-Tie does not guarantee the performance or safety of products that are modified, improperly installed or not used in accordance with the design.
- All references to bolts or machine bolts (MB) are structural quality through bolts (not lag screws or carriage bolts) equal to or better than ASTM A307, grade A. Bolt holes shall be at least a minimum 1/32" and no more than a maximum of 1/16" larger than the bolt diameter per 2005 NDS Section 11.1.2.
- Unless noted otherwise, all references to standard cut washers refer to Type A plain washers (W) conforming to the dimensions shown in ASME B18.22.1 for the appropriate rod sizes.
- Unless stated otherwise, Simpson Strong-Tie cannot and does not make any representation regarding the suitability of use or load-carrying capacities of connectors installed with improper fasteners.

**D01 General Notes**

**Installation:**

- For HUC installations, models have triangle and round holes. To achieve maximum loads, fit both round and triangle holes (fastener quantities listed fit both holes).
- For installations into single 2x headers or ledgers, use the specified full length fasteners into the post and the following fasteners into the header for reduced loads in accordance with www.strongtie.com.
- 100% 1/4" nails for installations with Nails
- SD #9x1 1/2" for LUS26Z and LUS210Z installations with SD Screws

Model No.	Dimensions (in.)			Fasteners			
	W	H	B	Header	Joist	Header	Joist
LUC26Z	1 9/16	4 3/4	1 3/4	6-10d	4-10d/1 1/2"	6-SD #9x2 1/2"	4-SD #9x1 1/2"
LUC210Z	1 9/16	7 3/4	1 3/4	10-10d	6-10d/1 1/2"	10-SD #9x2 1/2"	4-SD #9x1 1/2"
HUC26-ZZ	3 1/8	5 3/8	2 1/2	12-16d	6-10d	-	-
HUC26-ZZ	3 1/8	7	2 1/2	14-16d	6-10d	-	-
HUC210-ZZ	3 1/8	8 13/16	2 1/2	18-16d	10-10d	-	-

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D02 Fasteners**

**Installation:**

- Field skewable, bend one time only
- Joint must be constrained against rotation (for example, with solid blocking) when using a single LS per connection.

Model No.	L (m)	Fasteners	
		Header	Joist
LS302	3 3/8	6-10d	-
LS502	4 7/8	8-10d	-
LS702	6 3/8	10-10d	-

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D03 LUS Joist Hangers**

**Installation:**

- Follow 3-step installation sequence for skewed or sloped/levelled applications.
- Do not substitute 10d/1 1/2" nails for 8d nails.
- To see an installation video on the product, visit www.strongtie.com

Model No.	Dimensions (in.)			Fasteners			
	W	H	A	Header	Joist	Header	Joist
LSU26Z	1 9/16	4 7/8	1 1/2	6-10d	5-10d/1 1/2"	-	-
LSSU210Z	1 9/16	8 1/2	1 5/8	10-10d	7-10d/1 1/2"	-	-

1. For skewed LSSU, the inner most face fasteners on the acute angle side are not installed.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D04 LUC, HUC Joist Hangers**

**Installation:**

- ABA, ABU - for pre-pour installed anchors. For Simpson Strong-Tie epoxy or mechanical anchors, select and install in accordance with www.strongtie.com.
- Products require washers between the nut and the base. Washers are supplied with the ABA but not the ABU, which requires a standard cut washer.

Model No.	Post Size	Dimensions (in.)				Nails		Machine Bolts		
		W	L	HB	Anchor Dia.	Qty.	Dia.	Qty.	Dia.	
ABA44Z	4x4	3 9/16	3 1/8	3 1/16	-	1/2	6-10d	6-SD #9x1 1/2"	-	-
ABU44Z	4x4	3 9/16	3	5 1/2	1 3/4	5/8	12-16d	12-SD #10x1 1/2"	2	1/2
ABA48Z	4x6	3 9/16	5 3/16	3 1/8	-	5/8	8-16d	8-SD #10x1 1/2"	-	-
ABU48Z	4x6	3 9/16	5	7	2 5/8	5/8	12-16d	-	2	1/2
ABA62Z	6x6	5 1/2	5 1/4	3 1/8	-	5/8	8-16d	8-SD #10x1 1/2"	-	-
ABU62Z	6x6	5 1/2	5	6 1/16	1 3/4	5/8	12-16d	-	2	1/2
ABA82Z	8x8	7 1/2	7	7	-	2-5/8	18-16d	-	-	-

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D05 SUR/SUL 45° Skewed Joist Hangers**

**Installation:**

- Embed into wet concrete up to the bottom of the 1" standoff baseplate. A 1/2" minimum side cover is required to obtain the full load. Holes in the bottom of the straps allow for free concrete flow.
- Allow concrete to cure before installation of the post.

Model No.	W	L	H	HB	Nails		SD Screws		Machine Bolts	
					Qty.	Dia.	Qty.	Dia.	Qty.	Dia.
PBSA4HDG	3 9/16	3 1/2	6 1/4	3 7/16	14-16d	14-SD #10x1 1/2"	2	1/2	-	-
PBS6HDG	5 1/2	5 3/8	6 1/2	3 11/16	14-16d	-	-	2	1/2	-

1. CD indicates connector is available in stainless steel. Replace HDG in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D06 LS Framing Angles**

**Installation:**

- Install Simpson Strong-Tie SDS 3/4" x 2" wood screws, which are provided with the column base, with a 3/8" hex head driver. (Lag screws will not achieve the same load.)
- Allow concrete to cure before installation of the post.
- For full loads, a minimum of 3" side cover shall be provided.

Model No.	Post Size	Dimensions (in.)				Number of SDS Screws
		W1	W2	D	H	
CSBQ44-SDS2HDG	4x4	3 9/16	3 1/2	7 1/8	8 3/8	14-SDS 3/4"x2"
CSBQ46-SDS2HDG	4x6	3 9/16	5 1/16	7 13/16	8 11/16	14-SDS 3/4"x2"
CSBQ66-SDS2HDG	6x6	5 1/2	5 1/2	6 7/8	8 3/4	14-SDS 3/4"x2"
CSBQ86-SDS2HDG	6x8	7 1/2	5 3/8	6 1/8	8 11/16	12-SDS 3/4"x2"
CSBQ88-SDS2HDG	8x8	7 1/2	7 3/8	6 1/8	8 11/16	12-SDS 3/4"x2"

1. CD indicates connector is available in stainless steel. Replace SDS/HDG in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D07 LSU, LSSU Adjustable Joist Hangers**

**Installation:**

- BCS: Install dome nails on beam; drive nails at an angle through the beam into the post below.
- BC: Do not install bolts into pilot holes.

Model No.	Dimensions (in.)			Fasteners			
	W1	W2	L	H1	H2	Nails	SD Screws
BC4Z	3 9/16	3 9/16	2 7/8	2 7/8	3	6-16d	6-SD #10x1 1/2"
BC6Z	5 1/2	5 1/2	4 3/8	4 3/8	3 3/8	12-16d	12-SD #10x1 1/2"
BC8Z	3 1/8	3 9/16	2 7/8	2 7/8	2 5/16	12-16d	12-SD #10x1 1/2"
BC8Z	4 5/8	5 9/16	4 3/8	2 7/8	3 5/16	12-16d	12-SD #10x1 1/2"

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D08 ABA, ABU Post Bases**

**Installation:**

- For end conditions, specify ECCQ
- Install Simpson Strong-Tie SDS 3/4" x 2" screws, which are provided with the column cap, with a 3/8" hex head driver. SDS screws install best with a low speed 2" drill.
- Beam depth must be a minimum 7".

Model No.	Beam Width	Dimensions (in.)				No. of SDS 3/4" x 2" Screws
		W1	W2	L1	L2	
CCQ3-4HDG	3 1/8	3 1/4	5 1/2	11	8 1/2	7
CCQ4-4HDG	4x	3 5/8	3 5/8	11	8 1/2	7
CCQ6-4HDG	4x	3 5/8	5 1/2	11	8 1/2	7
CCQ8-4HDG	4x	3 5/8	7 1/2	11	8 1/2	7
CCQ6-6HDG	6x	5 1/2	5 1/2	11	8 1/2	7
CCQ8-6HDG	6x	5 1/2	7 1/2	11	8 1/2	7

1. CD indicates connector is available in stainless steel. Replace HDG in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D09 PBS Post Bases**

**Installation:**

- For end conditions, specify ECCQ
- Install Simpson Strong-Tie SDS 3/4" x 2" screws, which are provided with the column cap, with a 3/8" hex head driver. SDS screws install best with a low speed 2" drill.
- Beam depth must be a minimum 7".

Model No.	Beam Width	Dimensions (in.)				No. of SDS 3/4" x 2" Screws
		W1	W2	L1	L2	
CCQ3-4HDG	3 1/8	3 1/4	5 1/2	11	8 1/2	7
CCQ4-4HDG	4x	3 5/8	3 5/8	11	8 1/2	7
CCQ6-4HDG	4x	3 5/8	5 1/2	11	8 1/2	7
CCQ8-4HDG	4x	3 5/8	7 1/2	11	8 1/2	7
CCQ6-6HDG	6x	5 1/2	5 1/2	11	8 1/2	7
CCQ8-6HDG	6x	5 1/2	7 1/2	11	8 1/2	7

1. CD indicates connector is available in stainless steel. Replace HDG in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D10 CBSQ Post Bases**

**Installation:**

- For end conditions, specify ECC
- Bolt holes shall be a minimum 3/4" to a maximum 1/2" larger than the bolt diameter.
- Contact engineered wood manufacturers for connectors that are not through the wide face.
- Beam depth must be at least as tall as H1.

Model No.	Beam Width	Dimensions (in.)				Machine Bolts			
		W1	W2	L	H1	Dia.	CC	ECC	
CC3-14-4HDG	3 1/8	3 1/4	3 5/8	11	7 1/2	6 1/2	5/8	4	2
CC3-14-4HDG	3 1/8	3 1/4	5 1/2	11	7 1/2	6 1/2	5/8	4	2
CC4-4HDG	4x	3 5/8	3 5/8	7	5 1/2	4	5/8	2	1
CC6-4HDG	6x	5 1/2	5 1/2	11	7 1/2	6 1/2	5/8	4	2

1. CD indicates connector is available in stainless steel. Replace HDG in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D11 BC, BCS Post Caps**

**Installation:**

- BCS: Install dome nails on beam; drive nails at an angle through the beam into the post below.
- BC: Do not install bolts into pilot holes.

Model No.	Dimensions (in.)			Fasteners			
	W1	W2	L	Beam Flange	Post Flange	Beam Flange	Post Flange
BC4Z	3 9/16	3 9/16	2 7/8	3	3	6-16d	6-SD #10x1 1/2"
BC6Z	5 1/2	5 1/2	4 3/8	3 3/8	3 3/8	12-16d	12-SD #10x1 1/2"
BC8Z	3 1/8	3 9/16	2 7/8	2 5/16	2 5/16	12-16d	12-SD #10x1 1/2"
BC8Z	4 5/8	5 9/16	4 3/8	2 7/8	3 5/16	12-16d	12-SD #10x1 1/2"

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D12 AC, LPC, LCE Post Caps**

**Installation:**

- Before fastening, position the star stringer with the LSCZ on the carrying member to verify where the bend should be located.
- Tab on the LSCZ must be positioned to the inside of the stairs.
- The fastener that is installed into the bottom edge of the stringer must go into the second-to-last hole.
- A minimum distance of 3" measured from the lower-most fastener to the edge of the post is required.

Model No.	Nails			SD Screws		
	Rim Joist	Stringer Wide Face	Stringer Narrow Face	Rim Joist	Stringer Wide Face	Stringer Narrow Face
LSCZ	8-10d/1 1/2"	8-10d/1 1/2"	1-10d/1 1/2"	8-SD #9x1 1/2"	8-SD #9x1 1/2"	1-SD #9x1 1/2"

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering. Stainless steel models must be fastened with nails.  
2. Refer to current Wood Construction Connectors catalog for additional information.

**D13 PC, EPC Post Caps**

**Installation:**

- Use all specified fasteners.
- For double 2x6 heads, install TA10Z covered with a screws installed into the heads.

Model No.	Post Size	Dimensions (in.)				Fasteners						
		W1	W2	L1	L3	Post	Beam	PC	EPC	Post	Beam	
PC44-16Z	4x4	3 9/16	3 9/16	2 5/8	11	7 5/16	8-16d	12-16d	8-16d	8-SD #10x1 1/2"	12-SD #10x1 1/2"	8-SD #10x1 1/2"
PC46-16Z	4x6	3 9/16	5 1/2	2 5/8	13	9 1/4	8-16d	12-16d	8-16d	-	-	-
PC68-16Z	6x6	5 1/2	5 1/2	4 9/16	13	9 1/4	8-16d	12-16d	8-16d	-	-	-

1. Refer to current Wood Construction Connectors catalog for additional information.

**D14 CCQ, ECCQ Post Caps**

**Installation:**

- 1 1/2" minimum from top of ledger and band joint
- 3" minimum top spacing
- 4" to 5" from end of ledger
- On-center spacing of SDS wood screws per designer
- 1 1/2" minimum from bottom of ledger and band joint

Size (in.)	Model No.	Thread Length (in.)
1/2" x 3 1/2"	SDS25312	2 1/2"
1/2" x 5"	SDS25500	2 1/2"

1. CD indicates connector is available in stainless steel. Add SS to model number when ordering.  
2. Refer to current F-SDS-DGR for spacing and additional information.  
3. The screws shall be staggered from the top to the bottom along the horizontal run of the deck ledger per IRC 2009 Section R502.2.2.1.1.

**D15 CC, ECC Post Caps**

**Installation:**

- Install Simpson Strong-Tie SDS wood screws with a 3/8" hex head driver. SDS screws install best with a low speed 2" drill.
- Bolt holes shall be a minimum 3/4" to a maximum 1/2" larger than the bolt diameter.

Model No.	CL	Anchor Dia.	Fasteners
DTT2Z	13/16"	1/2"	8-SDS 1/4"x1 1/2"

1. CD indicates connector is available in stainless steel. Replace Z in model number with SS when ordering.  
2. Refer to T-GRDRLPST and T-DECKRLTLOAD for additional information.

**D16 H Hurricane Ties**

**Installation:**

- DTT2Z installed as a Lateral Connector for a Deck Guardrail Post. For more information on guardrail post connections, and installation instructions, see technical bulletin T-GRDRLPST (available at www.strongtie.com).
- DTT2Z installed as a Lateral Connector for a Deck-to-House Lateral Load Connection. For more information on this connection, and installation instructions, see technical bulletin T-DECKRLTLOAD (available at www.strongtie.com).

**D17 LSC Stair Stringer Connector**

**Installation:**

- Before fastening, position the star stringer with the LSCZ on the carrying member to verify where the bend should be located.
- Tab on the LSCZ must be positioned to the inside of the stairs.

# 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 2018 INTERNATIONAL BUILDING CODE AS ADOPTED BY THE CITY OF MERCER ISLAND.

**01200: DESIGN LOADS**  
LIVE LOADS  
ROOF LIVE 20 PSF  
FLOORS (RESIDENTIAL) 40 PSF  
DECK 60 PSF  
SNOW LOAD DESIGN DATA:  
SNOW LOAD DESIGN DATA:  
ROOF RAIN-SNOW 25 PSF [SEAW WHITE PAPER, SITE ~36FT ELEV.]

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: EXPOSURE C  
TOPOGRAPHICAL FACTOR: Kzt = 1.00  
INTERNAL PRESSURE COEFFICIENT: Gcpi = +/- 0.18  
COMPONENT/CLADDING WIND PRESSURE: P(C) = 50 PSF\*Kzt (ULT)

EARTHQUAKE DESIGN DATA (BOTH BUILDINGS):  
SEISMIC IMPORTANCE FACTOR: Ie = 1.0  
SPECTRAL RESPONSE ACCELERATIONS: Ss = 1.435, S1 = 0.498  
SITE CLASS: SITE CLASS D [DEFAULT]  
SPECTRAL RESPONSE COEFFICIENTS: SDS = 1.148 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 FOUND 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

NO FOOTINGS SHALL BE FOUND 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.

**02832: 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 $f_c$ (PSI)	MAX. W/C RATIO	MAX. SLUMP (INCHES)	AIR ENTRAINMENT (PERCENT)	SPECIAL REQUIREMENTS	LOCATION APPLICATION
3000	0.45	4±1	0±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.

**03100: REINFORCING STEEL**  
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 ( $f_y=40$  KSI) FOR #3 BARS ONLY  
ASTM A-615 DEFORMED BARS GRADE 60 ( $f_y=60$  KSI) FOR #4 BARS AND LARGER  
ASTM A-706 DEFORMED BARS GRADE 60 ( $f_y=60$  KSI) FOR ALL WELDABLE BARS  
ASTM A-185 SMOOTH BAR ( $f_y=60$  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	#5 AND LARGER	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 = 50 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 PEDESTAL 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**  
SAWN LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU (WCLIB) "GRADING AND DRESSING RULES" NO. 17 LATEST EDITION. SAWN LUMBER SHALL BE S4S 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)	Ft (PSI)	E (PSI)
2X,4X	DOUGLAS FIR-LARCH NO. 2	900	180	625	1350	1,666	
6X	DOUGLAS FIR-LARCH NO. 1	1200	170	625	1000	1,666	

**06101: STRUCTURAL FINGER JOINTED LUMBER**  
STRUCTURAL FINGER JOINTED LUMBER SHALL BE PERMITTED TO BE USED INTERCHANGEABLY WITH SAWN 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	0.148"	3.25"
16d	0.162"	3.5"

UNLESS NOTED OTHERWISE PER SHEARWALL SCHEDULE OR PLANS, MASA AT SILL PLATES SHALL BE PLACED AT 48" O.C.PER 5/S1.2. THERE SHALL BE A MINIMUM OF MASA 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
SAWN LUMBER	"HUS" SERIES TO MATCH LUMBER SIZE [0.162x3]" NAILS
MANUF. WOOD "I" JOIST	"JUS" SERIES TO MATCH "I" JOIST SIZE TO WOOD BM. "BA" SERIES TO 2X MIN. NAILER ON STL. BM.
52.1	FOUNDATION & MAIN FLOOR FRAMING PLAN
52.2	ROOF FRAMING PLAN
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]

DETAILS	DESCRIPTION	DATE
S6.1	FOUNDATION DETAILS	01/02/24
S7.1	SIMPSON WSWH DETAILS	01/02/24
S7.2	SIMPSON WSWH DETAILS	01/02/24
S7.3	SIMPSON WSWH DETAILS	01/02/24
S9.1	FRAMING DETAILS	01/02/24

**06104: SHRINKAGE OF WOOD FRAMING**  
SHRINKAGE IN 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:

ROOF:	EDGE NAILS	FIELD NAILS
APA 40:20 C-D W/EXTERIOR GLUE	10d AT 6"	10d AT 12"
ROOF DECKS & FLOORS:	EDGE NAILS	FIELD NAILS
STURD-I-FLOOR OSB 48/24 T&G	10d AT 6"	10d AT 12"
SHEARWALL:	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 JOISTS 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 FRT ROOF PLY IS REQUIRED AT PARTY WALL STRENGTH PER MFR. SHALL BE EQUAL OR BETTER THAN 24/16 APA-RATED SPAN.

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.

**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:

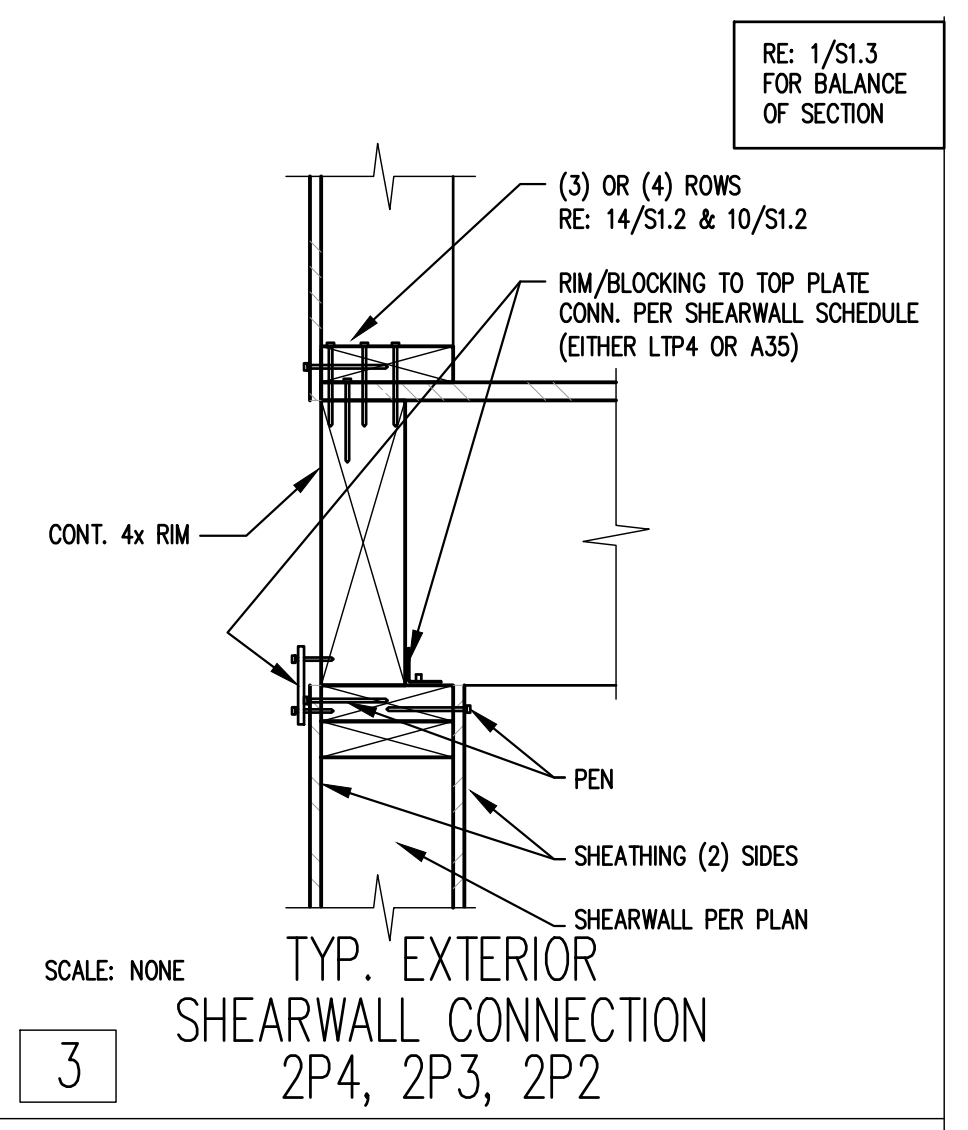
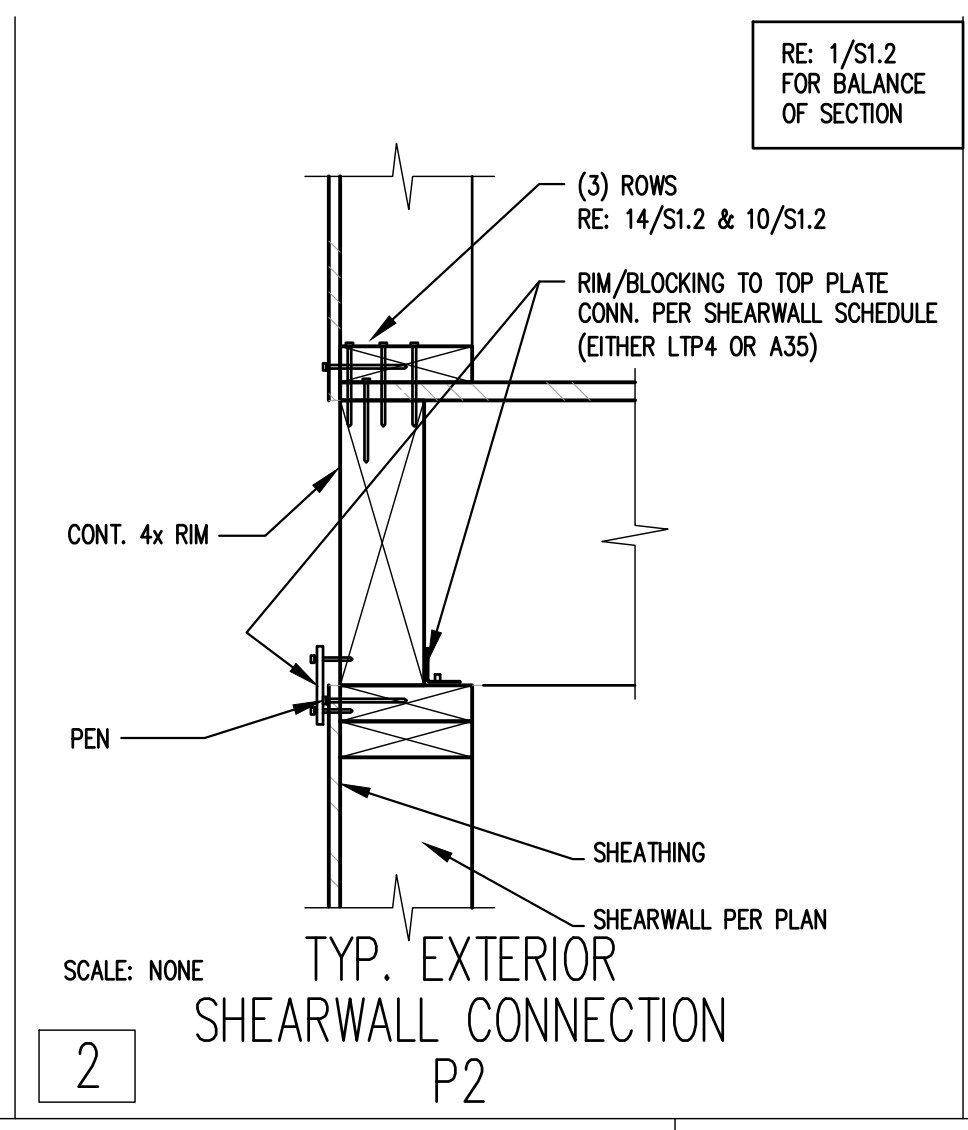
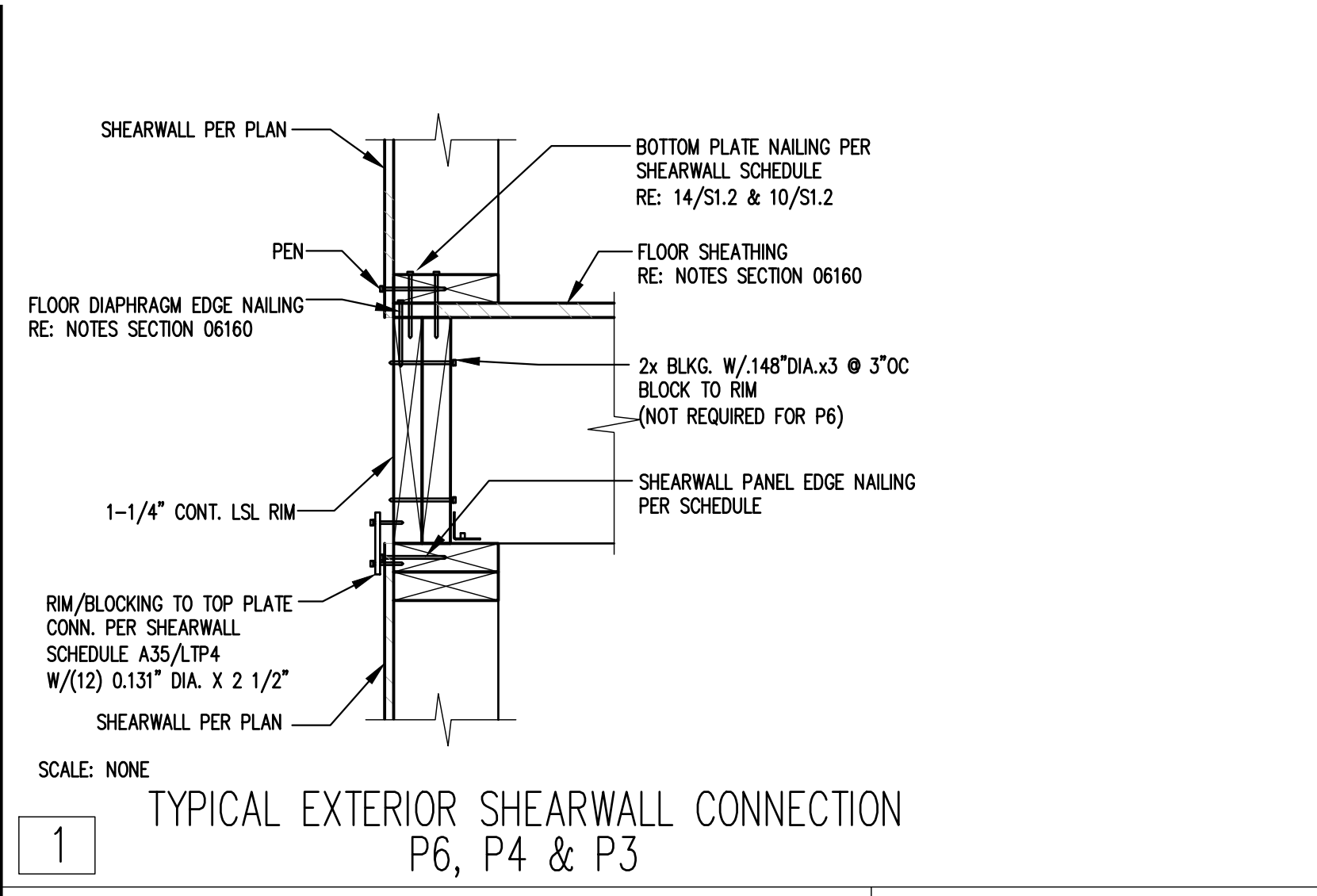
MEMBER	E	Fb	Fcp	Fv	E MIN.
LVL (MICROLAM)	1,966	2600	750	285	965,710
PSL (PARALLAM)	2,066	2900	750	290	1,016,535
1.55E LSL (TIMBERSTRAND)	1,536E	2325	800	310	787,815
LSL RIM (TIMBERSTRAND)	1,36E	1700	680	400	660,750

## STRUCTURAL DETAILS & NOTES SHEET INDEX

SHEET	DESCRIPTION	DATE
S1.1	STRUCTURAL GENERAL NOTES	01/02/24
S1.2	SHEARWALL SCHEDULE AND NOTES	01/02/24
S1.3	HOLD DOWN SCHEDULE AND NOTES	01/02/24
S1.4	SPECIAL INSPECTION TABLES AND NOTES	01/02/24
S2.1	FOUNDATION & MAIN FLOOR FRAMING PLAN	01/02/24
S2.2	ROOF FRAMING PLAN	01/02/24
DETAILS	DESCRIPTION	DATE
S7.1	SIMPSON WSWH DETAILS	01/02/24
S7.2	SIMPSON WSWH DETAILS	01/02/24
S7.3	SIMPSON WSWH DETAILS	01/02/24
S9.1	FRAMING DETAILS	01/02/24

## ABBREVIATIONS

&	AND	JST.	JOIST
@	AT	JT.	JOINT
#	FEET(FOOT)		
"	INCH (INCHES)	K	KIPS(1000)
+	POUND(S), NUMBER	LAT.	LATERAL
=	EQUAL(S)	LB.	POUND(S)
/	PER, OF	L.B.	LAG BOLT(S)
A.B.	ANCHOR BOLT	LG.	LONG(TUDINAL)
ABV.	ABOVE	LGTH.	LENGTH
ADD.	ADDITIONAL	LGFMF	LIGHT GAUGE METAL FRAMING
ADJAC.	ADJACENT	LLH	LONG LEG HORIZONTAL
ALUM.	ALUMINUM	LLV	LONG LEG VERTICAL
ALT.	ALTERNATE	LSH	LONG SLOTTED HOLE(S)
APPRX.	APPROXIMATE(LY)	LSL	LAMINATED STRAND LUMBER
ARCH.	ARCHITECT(URAL)	L.T. WT.	LIGHT WEIGHT
ASSY	ASSEMBLY	LVL	LAMINATED VENEER LUMBER
B.	BOTTOM	L.W.	LIGHT WEIGHT
BEL.	BELOW	MAS.	MASONRY
BEN	BOUNDARY EDGE NAILING	MASN.	MASONRY
B.F.	BRACED FRAME	MAT.	MATERIAL
BLDG.	BUILDING	MAX.	MAXIMUM
BLK.	BLOCK	M.B.	MACHINE BOLT
BLKG.	BLOCKING	MBM	METAL BUILDING MANUFACTURER
BLW.	BELOW	MECH.	MECHANICAL
BW	BEAM	M.E.J.	MASONRY EXPANSION JOINT
BMU	BRICK MASONRY		



REFER TO DETAIL 12

SHEARWALL SCHEDULE - 7/16" APA RATED SHEATHING

WALL TYPE	SHEATHING	PANEL EDGE NAILING (3)	FIELD NAILING (4)	BOTTOM PLATE NAILING (7)		RIM OR BLOCKING TO TOP PLATE CONN.			FRAMING AT ADJOINING PANEL EDGES (5)	FOUNDATION SILL PLATE (12)	ANCHOR BOLT SPACING 5/8" DIA. 7" EMBED (13)
				ROWS	SPACING	0.148"x3.25" TOENAIL	LTP4 DIRECT TO FRAMING	A35 ONLY (10)			
UNMARKED EXTERIOR P6	7/16" SHT. ONE SIDE	6" O.C.	12" O.C.	(1)	4" O.C.	N/A	24" O.C.	16" O.C.	2x	2x 3x	48" O.C. 48" O.C.
P4	7/16" SHT. ONE SIDE	4" O.C.	12" O.C.	(2)	6" O.C.	N/A	16" O.C.	12" O.C.	(2)2x OR 3x	2x 3x	32" O.C. 40" O.C.
P3	7/16" SHT. ONE SIDE	3" O.C.	12" O.C.	(2)	4" O.C.	N/A	12" O.C.	10" O.C.	(2)2x OR 3x	2x 3x	24" O.C. 22" O.C.
P2	7/16" SHT. ONE SIDE	2" O.C.	12" O.C.	(3)	6" O.C.	N/A	10" O.C.	10" O.C.	(2)2x OR 3x	2x 3x	18" O.C. 24" O.C.
2P4	7/16" SHT. BOTH SIDES	4" O.C.	12" O.C.	(3)	5" O.C.	N/A	10" O.C.	10" O.C.	(2)2x OR 3x	2x 3x	16" O.C. 20" O.C.
2P3	7/16" SHT. BOTH SIDES	3" O.C.	12" O.C.	(3)	4" O.C.	N/A	8" O.C.	8" O.C.	(2)2x OR 3x	2x 3x	12" O.C. 16" O.C.
2P2	7/16" SHT. BOTH SIDES	2" O.C.	12" O.C.	(3)	3" O.C.	N/A	6" O.C.	6" O.C.	(2)2x OR 3x	2x 3x	8" O.C. 12" O.C.

SHEARWALL SCHEDULE NOTES:

A. STUDS SHALL NOT BE SPACED MORE THAN 16" O.C.

B. RE: S1.1 SECTION 06100 "ROUGH FRAMING" FOR REQUIRED WALL STUD AND PLATE SPECIES AND GRADE.

C. RE: S1.1 SECTION 06100 "WOOD SHEATHING" FOR REQUIRED SHEAR WALL SHEATHING, THICKNESS AND GRADE. ALL SHEAR WALL PANELS SHALL BE APPLIED DIRECTLY TO FRAMING.

D. SHEATHING PANELS MAY BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY WITH ALL PANEL EDGES BACKED/BLOCKED WITH 2" NOMINAL OR WIDER FRAMING. SEE NOTE 5.

E. FRAMING MEMBERS RECEIVING EDGE NAILING FROM ADJUTING PANELS SHALL NOT BE LESS THAN 3" NOMINAL AND NAILS SHALL BE STAGGERED FOR ALL SHEARWALL MARKS EXCEPT "P6".

F. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER AND NAILS SHALL BE STAGGERED.

G. NAILS FOR PLYWOOD AND OSB PANEL EDGE AND FIELD NAILING SHALL BE 8d COMMON (0.131" X 2 1/2").

H. NAILS FOR BOTTOM PLATE FRAMING SHALL BE 12d COMMON (0.148" X 3.25").

I. FLOOR DIAPHRAGM NAILING SHALL BE PLACED BETWEEN THE SPACING CALLED OUT FOR BOTTOM PLATE NAILING. DO NOT OVER NAIL THE BLOCKING.

J. ANCHOR BOLTS SHALL BE GALVANIZED 5/8" BOLTS. C.I.P. J-BOLTS 10" EMBEDDED 7" OR POST-INSTALLED TITEN HDx8".

K. GALVANIZED 3" X 3" X 0.229" (MIN.) PLATE WASHERS ARE REQUIRED AT EACH ANCHOR BOLT - SEE DETAIL 8 THIS SHEET FOR PLACEMENT DETAILS. RECESSING PLATE WASHERS IN PLATES IS NOT ALLOWED.

L. LTP4 FRAMING PLATES SHALL BE INSTALLED WITH 12-8d X 1 1/2" (0.131" X 2 1/2") NAILS. RE: DETAILS 1, 2, 3 & 6/S1.2.

M. A35 FRAMING ANGLES SHALL BE INSTALLED WITH 12-8d X 1 1/2" (0.131" X 2 1/2") NAILS. RE: DETAILS 1, 2 & 3/S1.2.

N. ALL NAILS INTO PRESSURE TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED CONFORMING TO ASTM 153 OR STAINLESS STEEL.

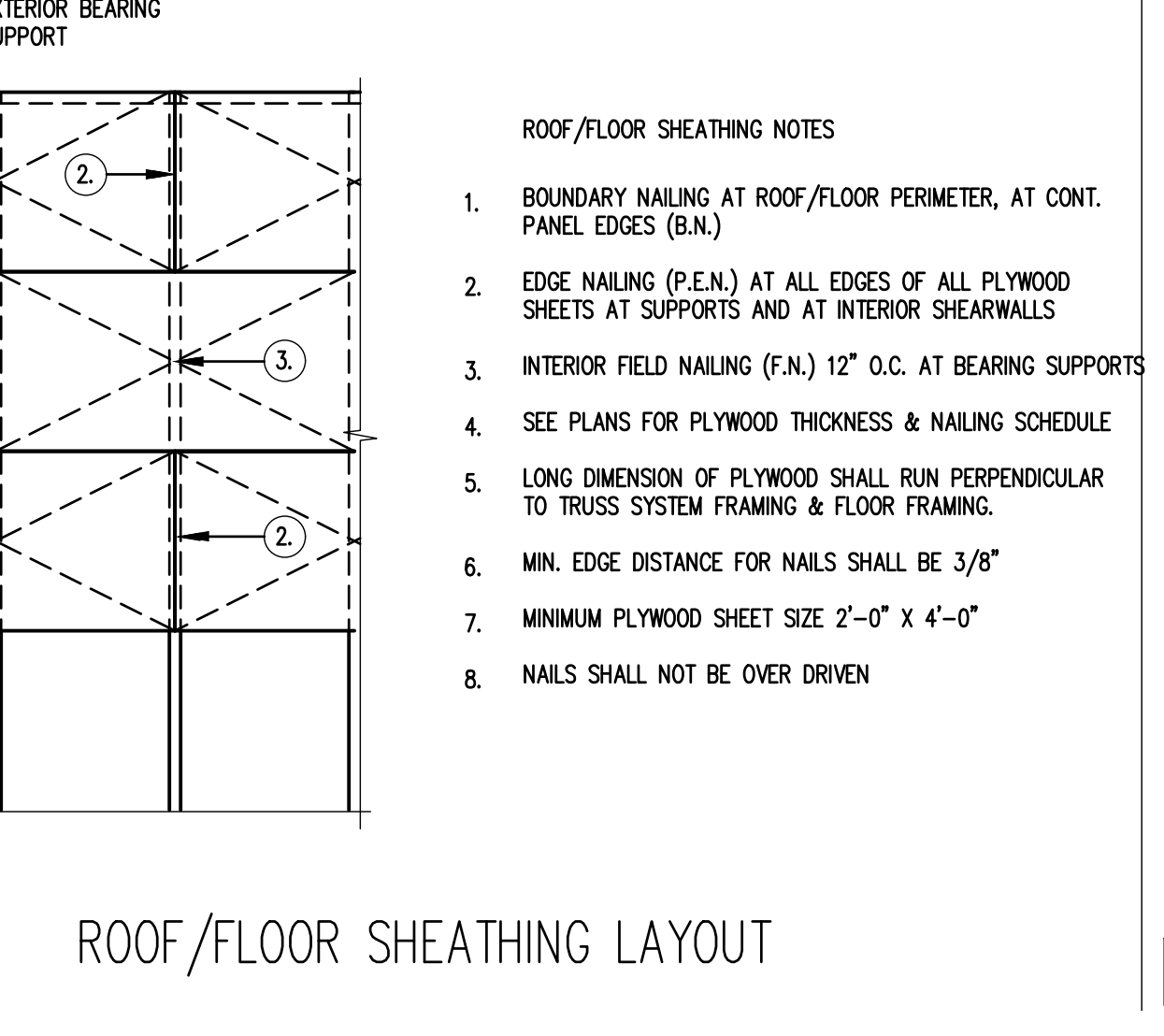
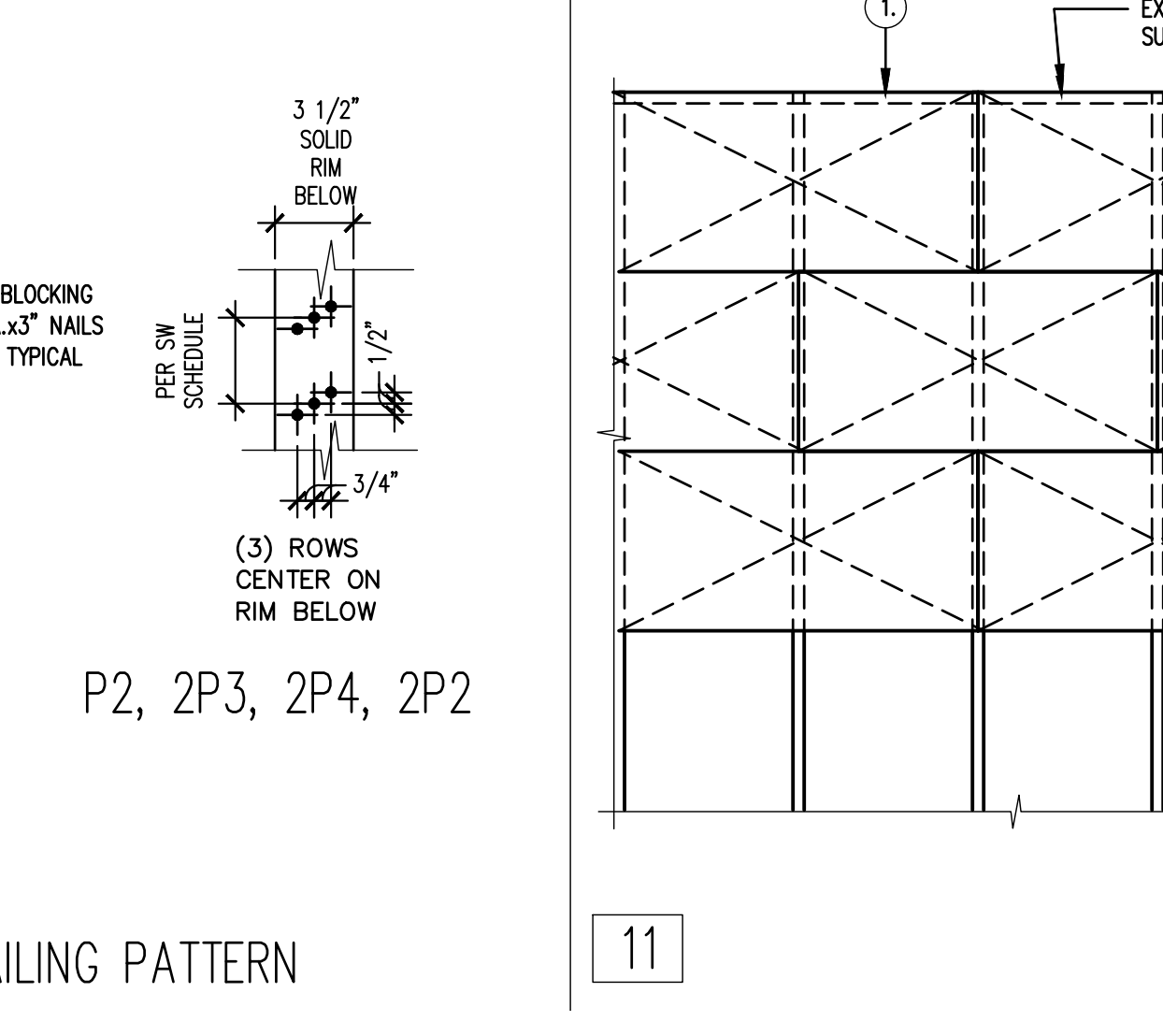
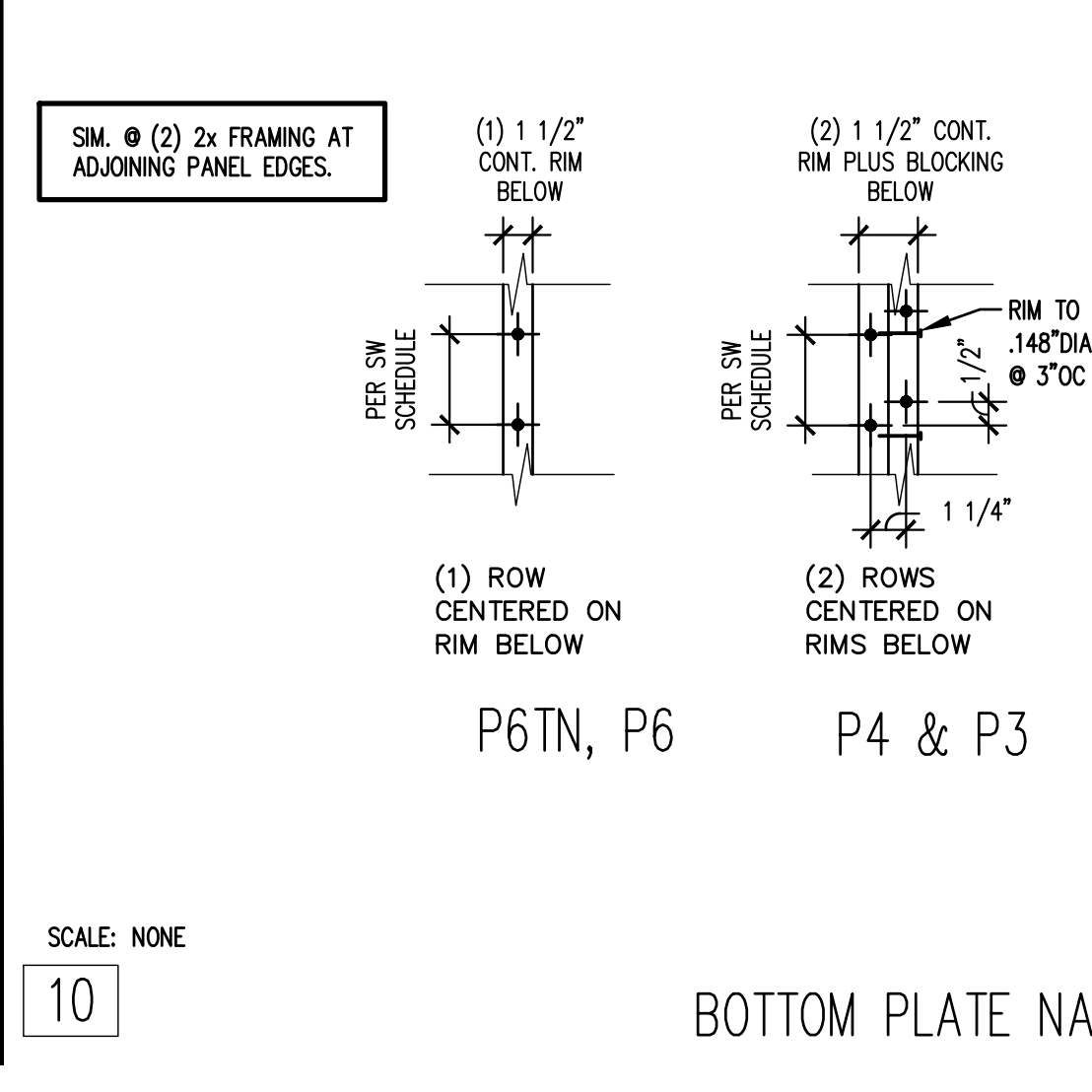
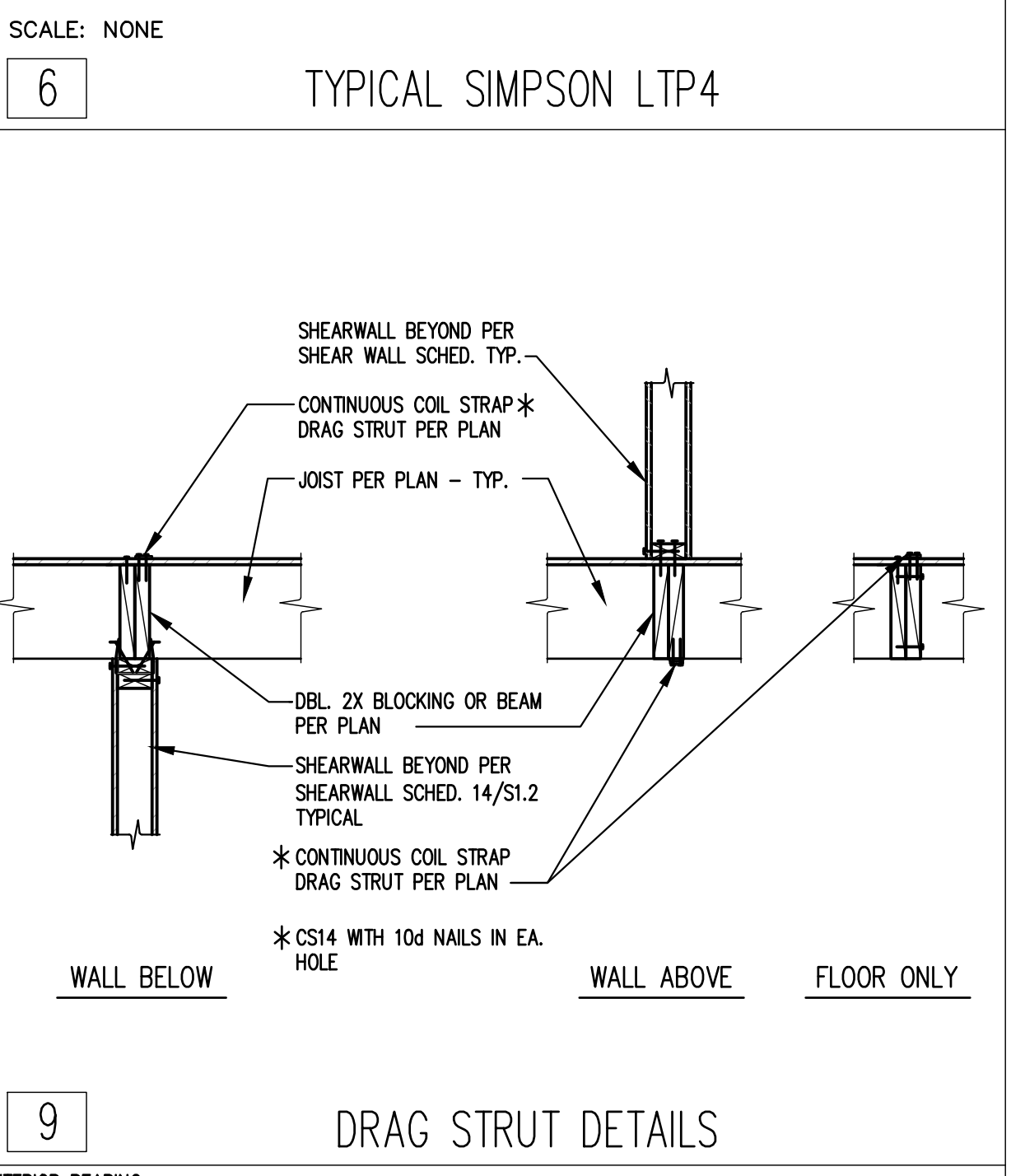
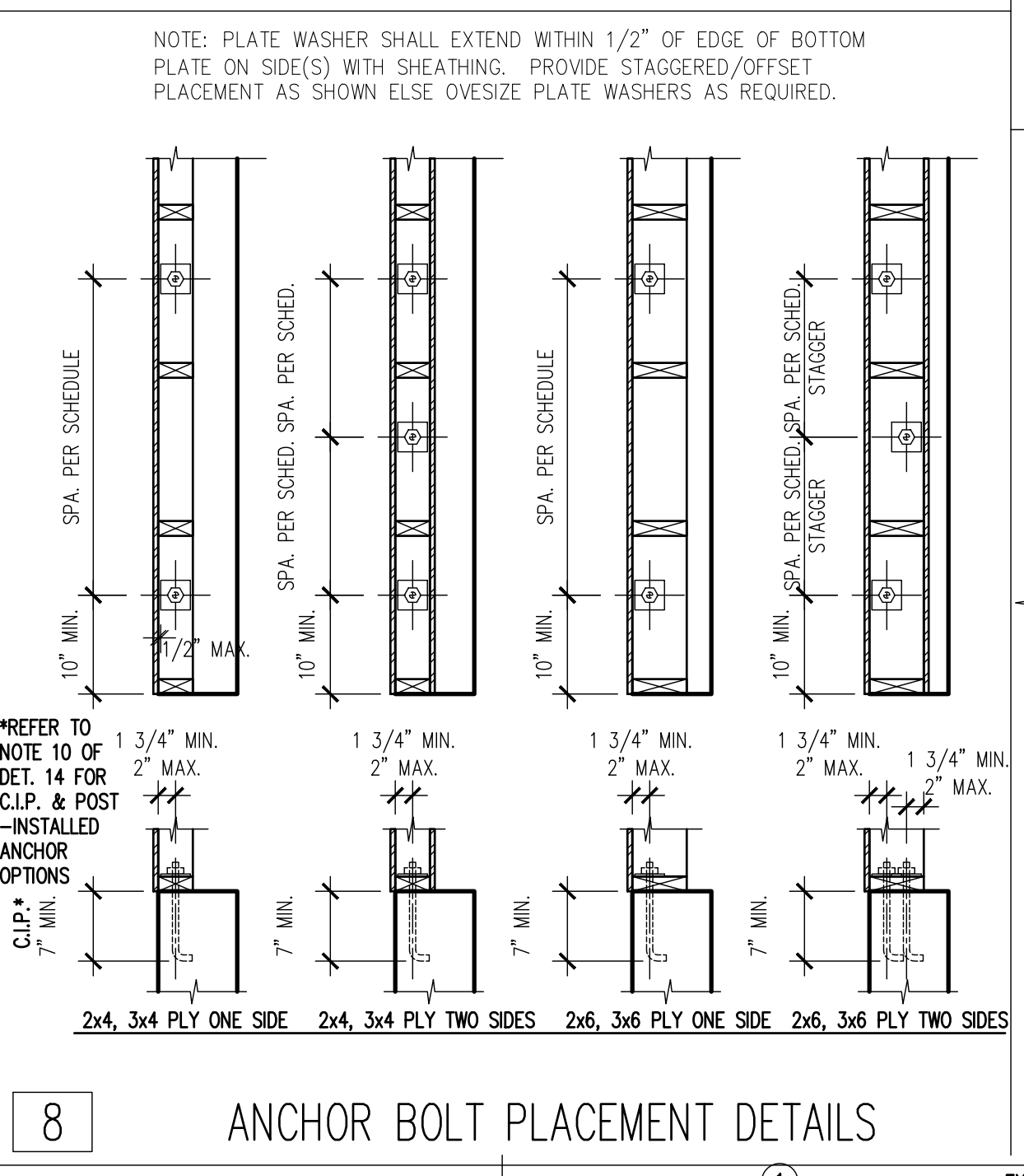
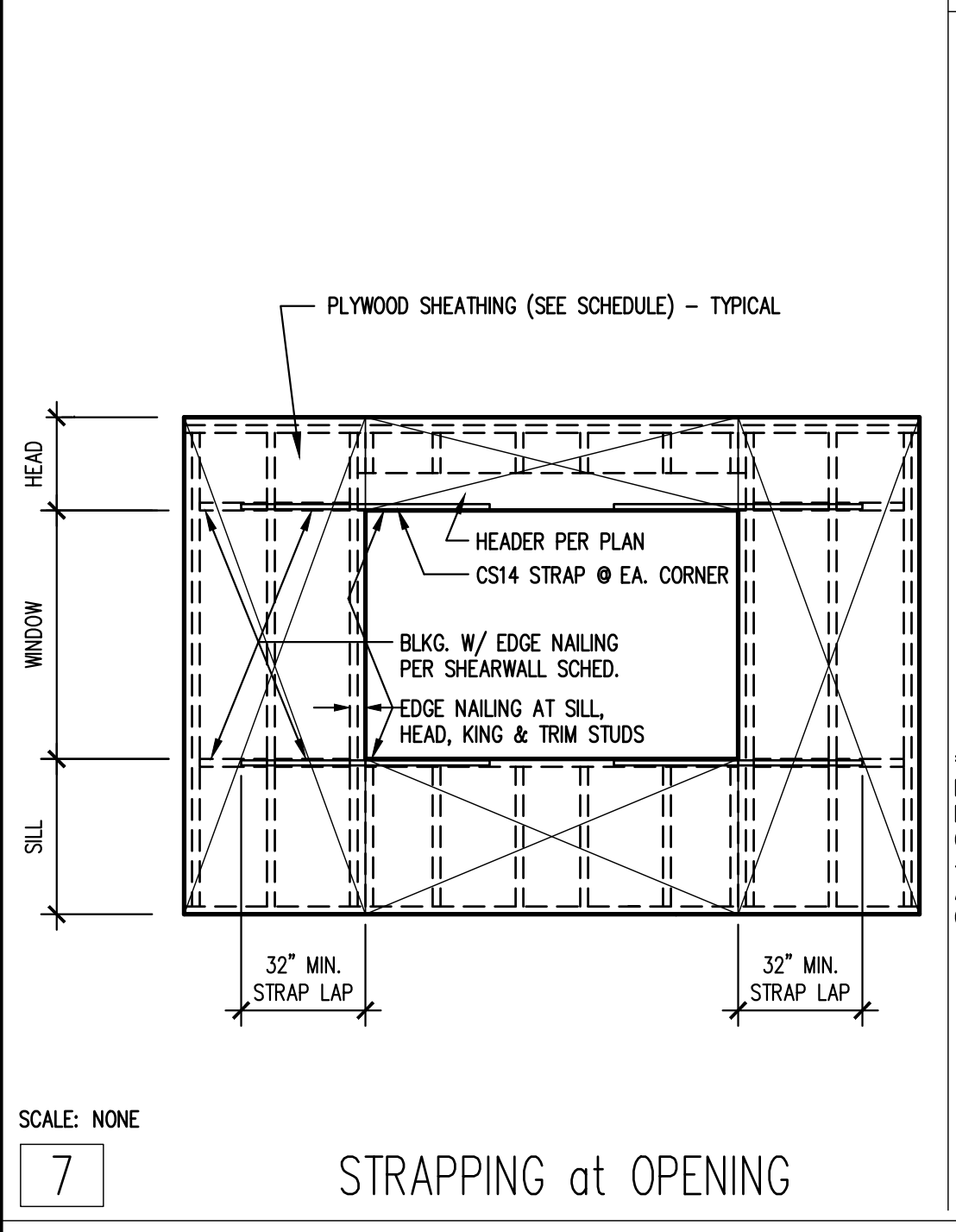
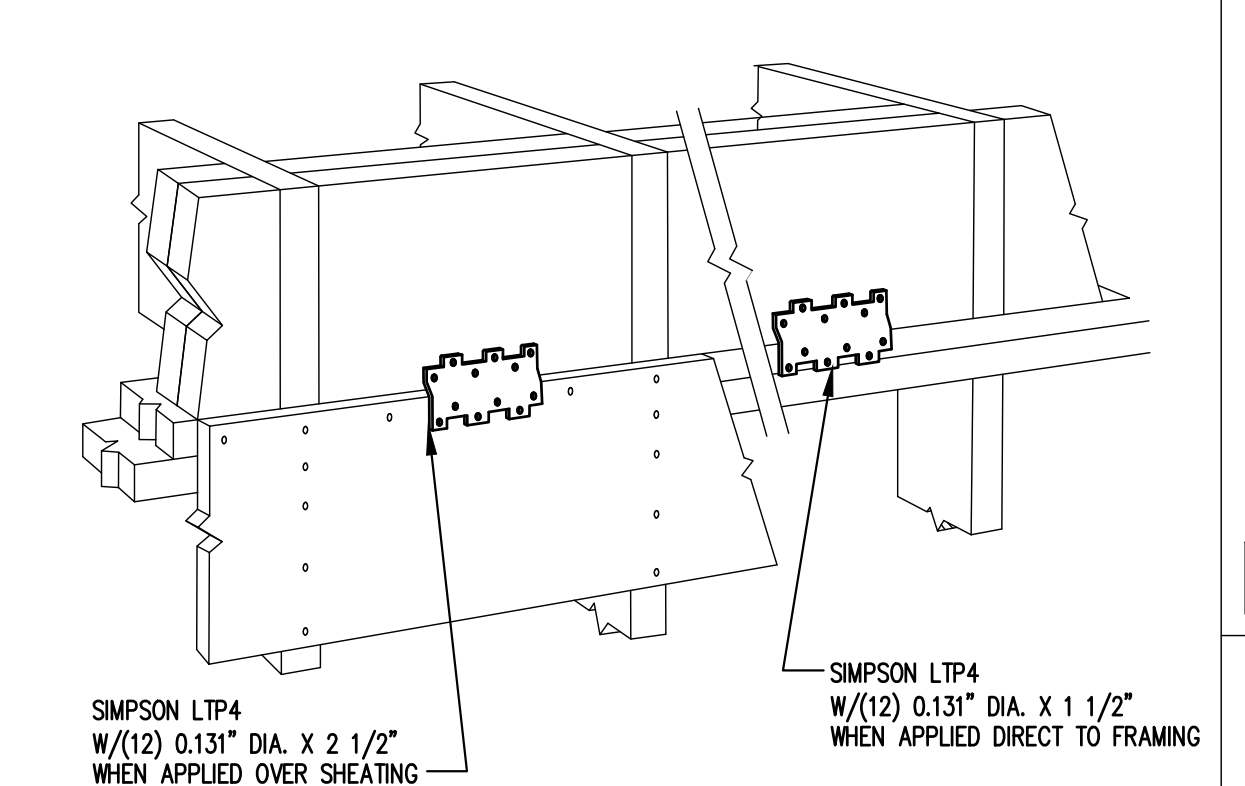
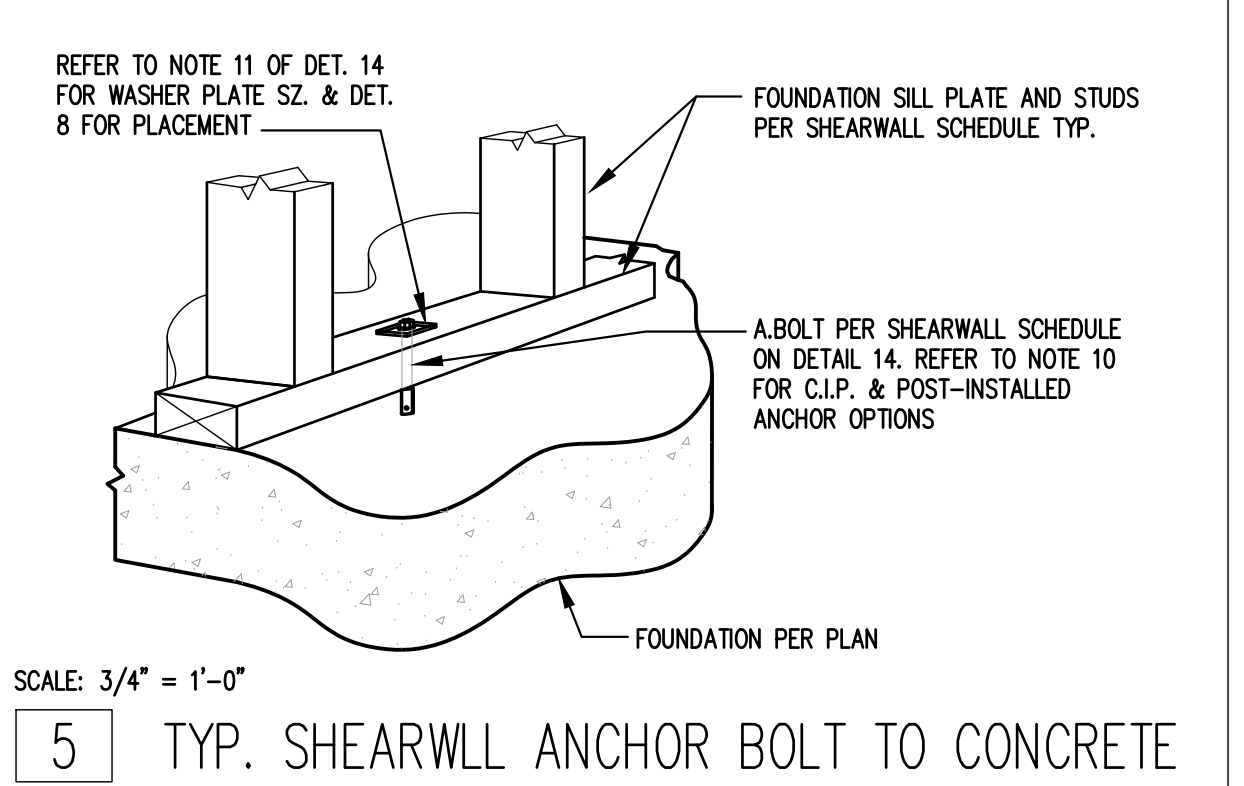
O. ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE TREATED.

P. WHERE BOTTOM PLATE NAILING SPECIFIES A SPACING OF 4 INCHES OR LESS NAILS SHALL BE INSTALLED IN TWO ROWS OFFSET 1/2 INCH AND STAGGERED.

Q. GALVANIZED EXPANSION ANCHORS OF SIMILAR DIAMETER AND EMBEDMENT ALLOWED AT INTERIOR BEARING AND PARTY WALLS.

R. 2-2x'S IN LIEU OF 3x'S AT PANEL EDGES ACCEPTABLE PROVIDED STUDS ARE ATTACHED PER 10/S1.2 SIM. AND BOTTOM PLATE NAILING.

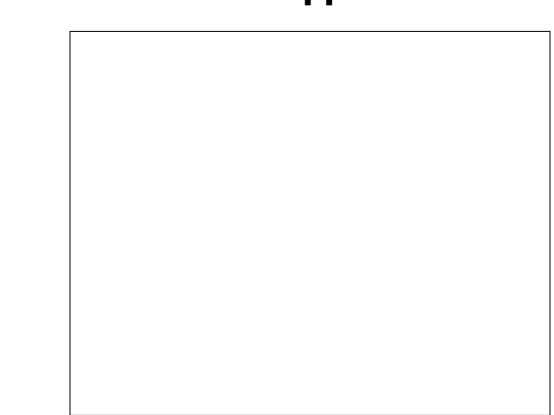
S. WHERE BUILDING OFFICIALS ALLOW, OSB SHEATHING MAY BE APPLIED OVER 1/2" OR 3/8" GYPSUM WALL BOARD PROVIDED SHEATHING IS NAILED WITH 10d NAILS (0.148" DIA X 3" LONG)





No.	Date	Revision Notes

No.	Date	Issue Notes



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 5/8" DIA. THREADED ROD EMBEDDED IN 3/4" DRILLED, CLEANED HOLE X 15" DEEP WITH SIMPSON SET OR AT ADHESIVE (RE: TEMPERATURE LIMITS ON PRODUCT); HDUB 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.
  - HOU 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.

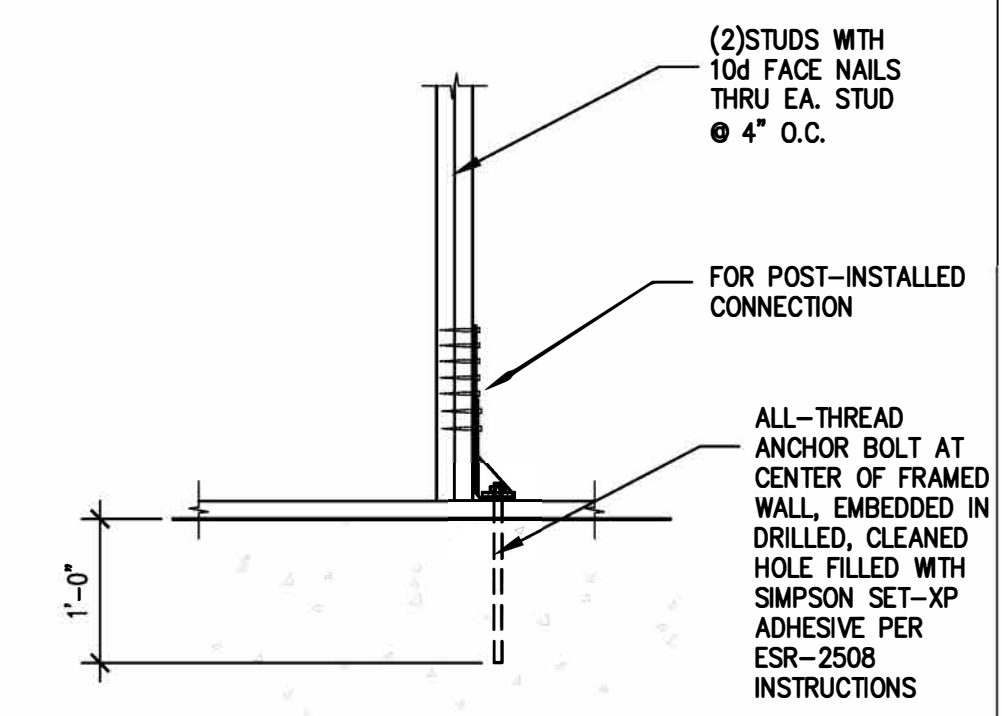
HOLDOWN & FASTENER SCHEDULE

6

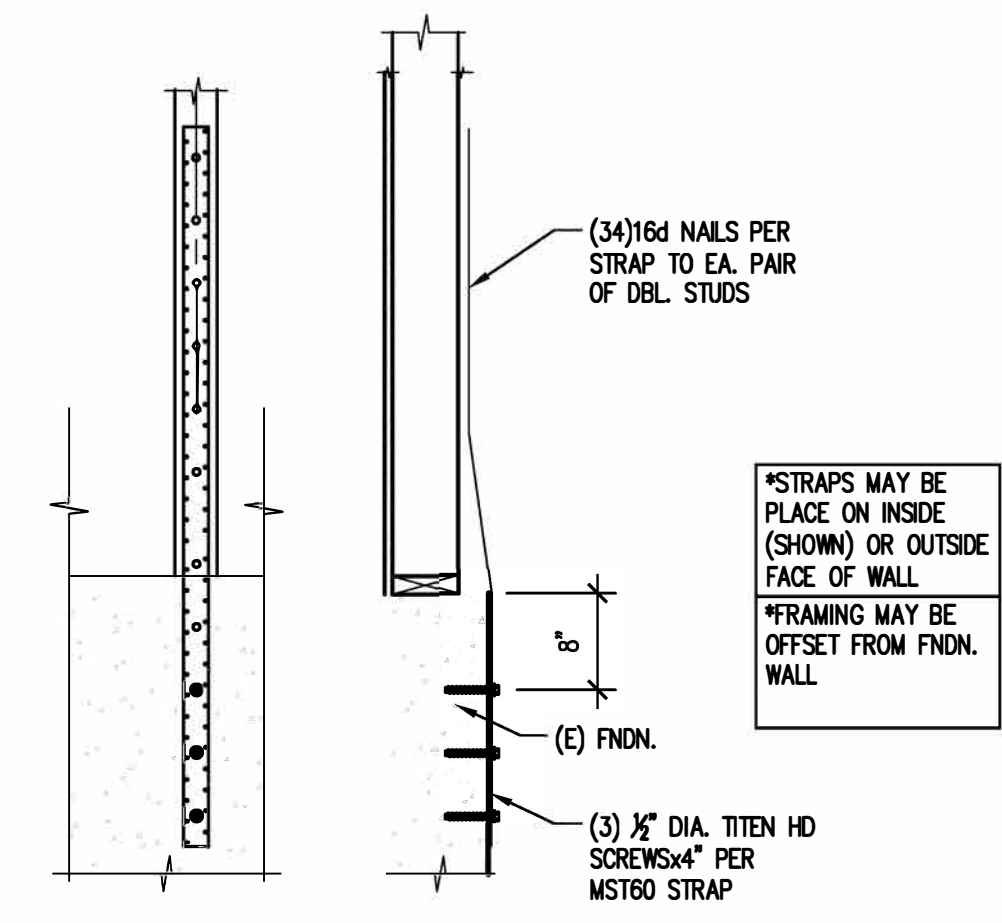
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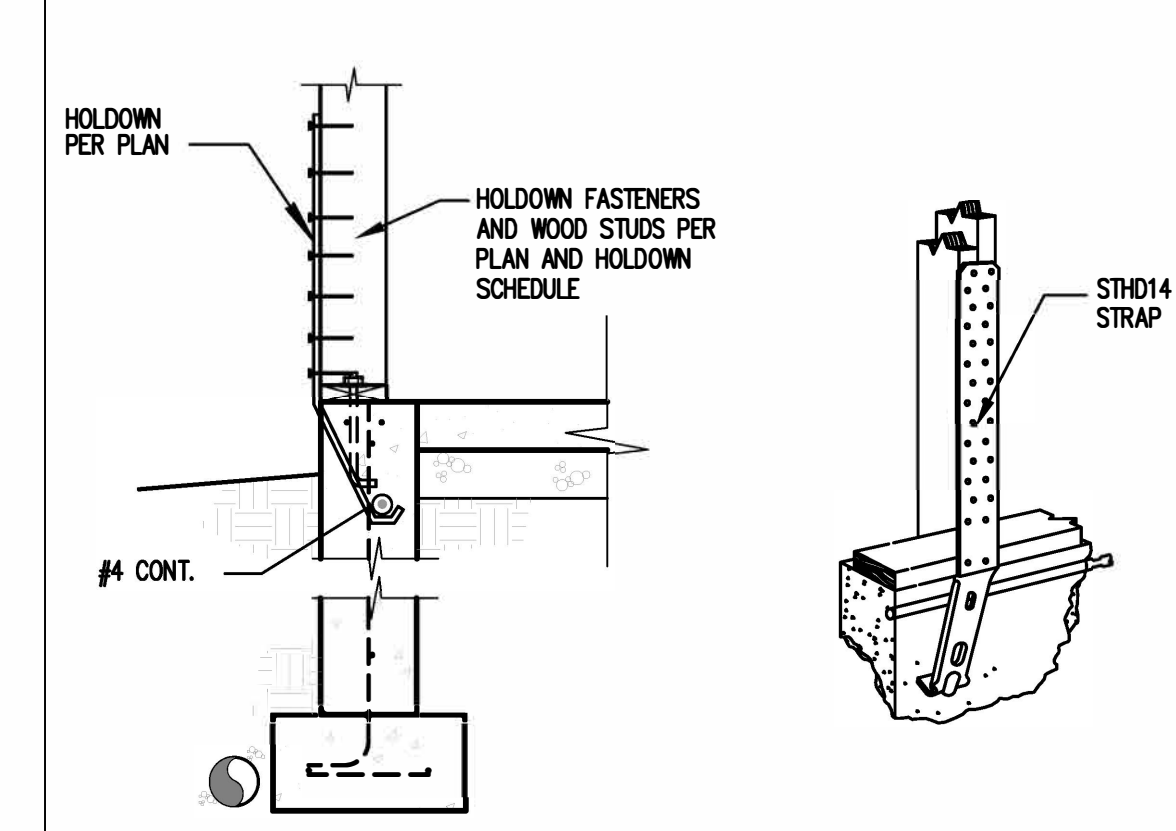
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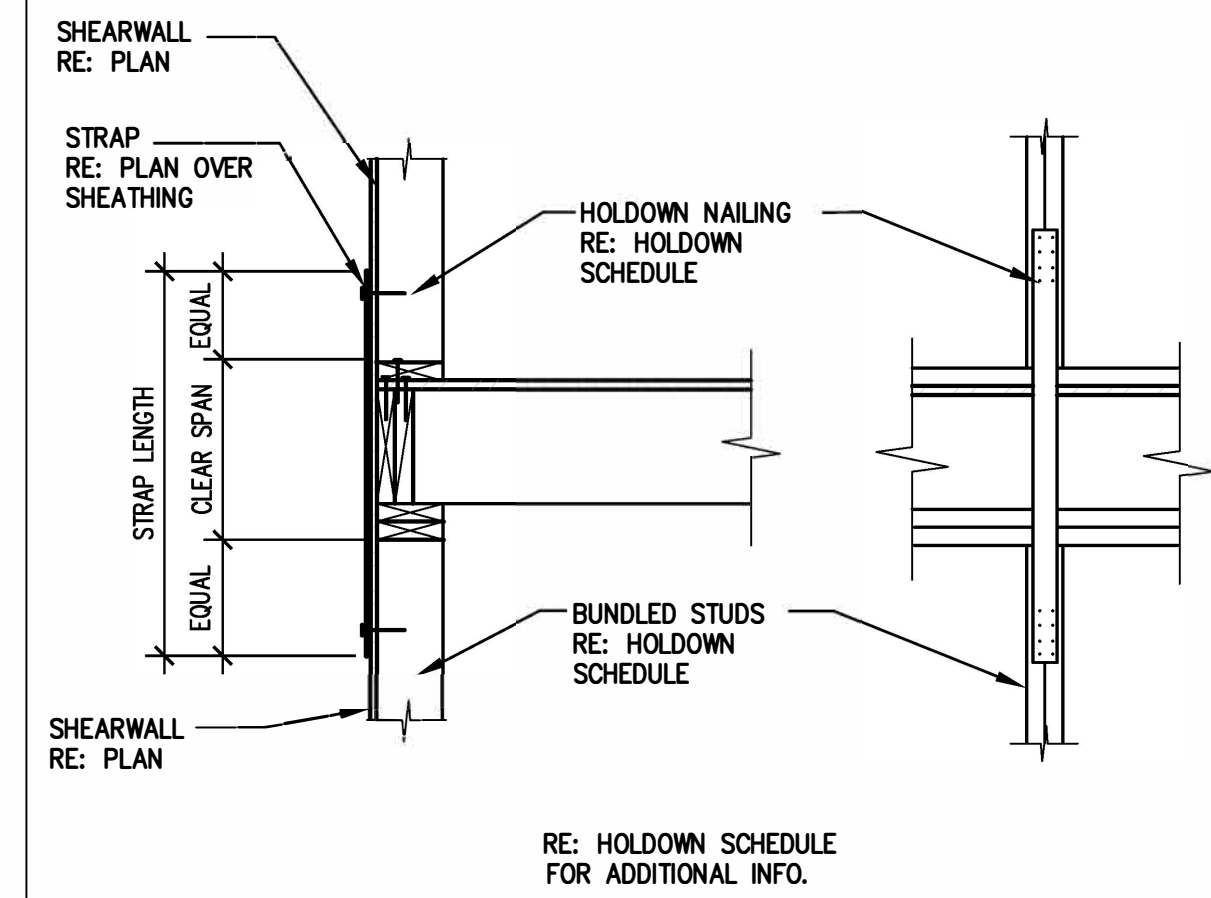
POST-INSTALLED HOLD DOWN



NEW HOLD DOWN



EXTERIOR HOLDOWN @ FOUNDATION



EXTERIOR HOLDOWN @ FLOOR

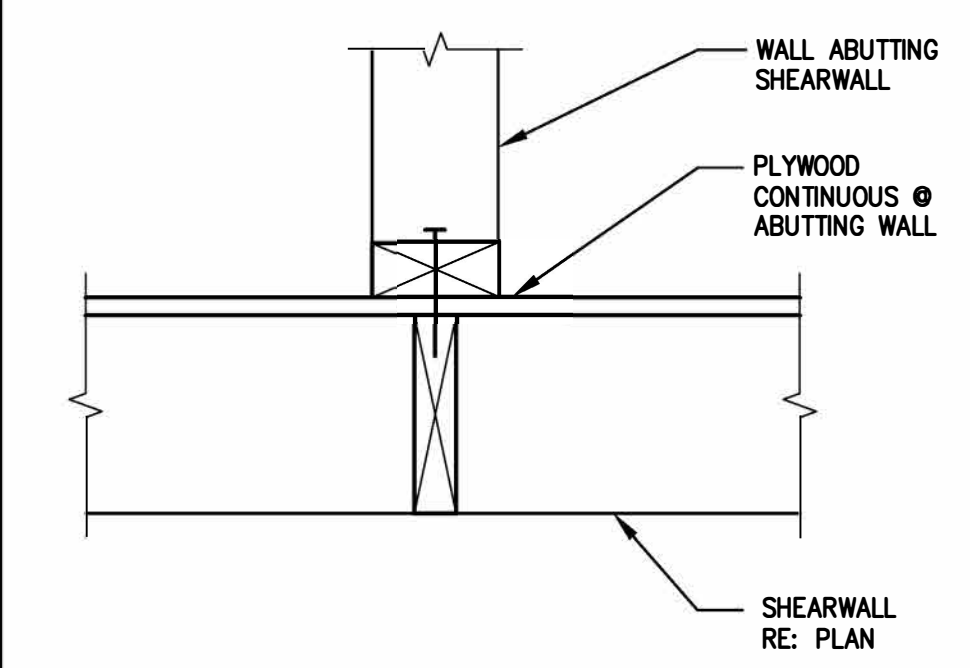
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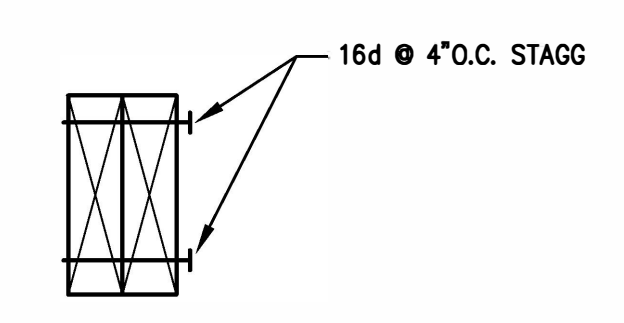
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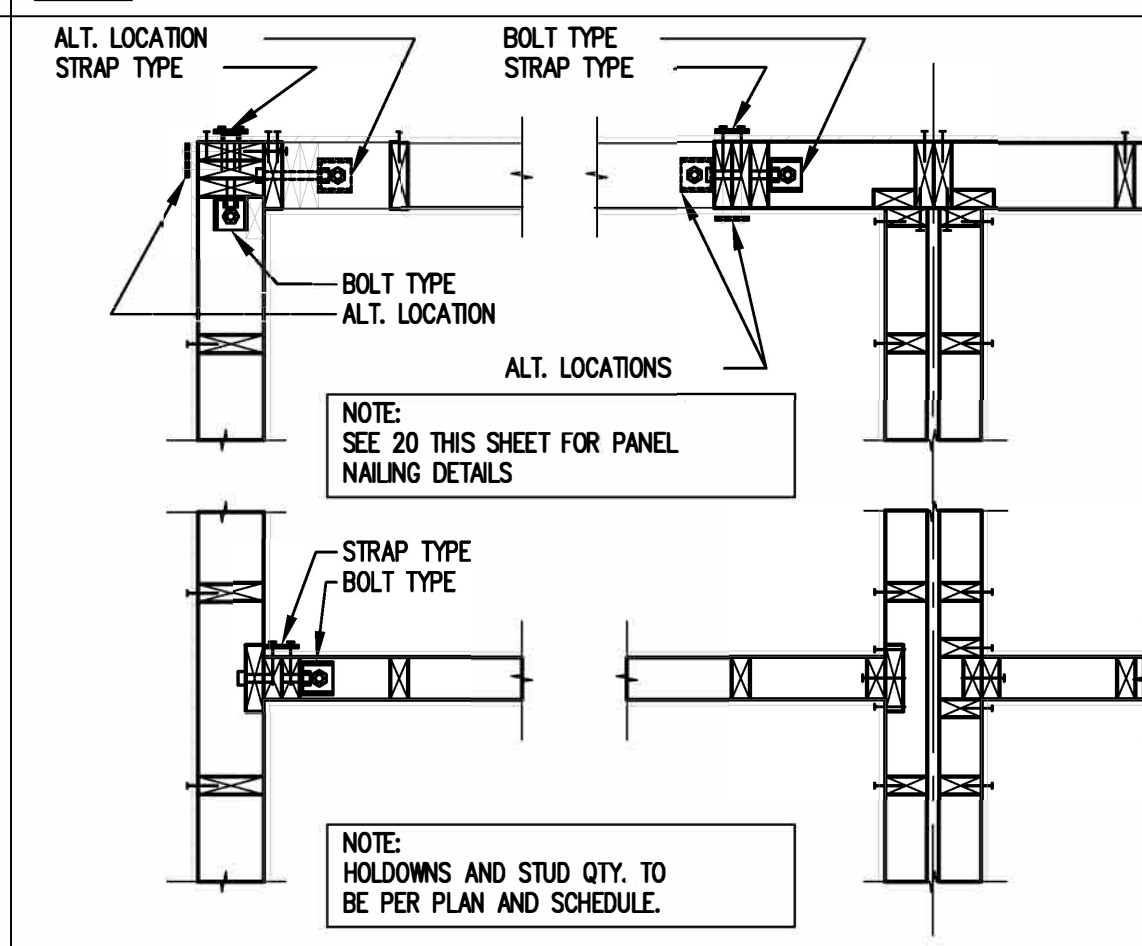
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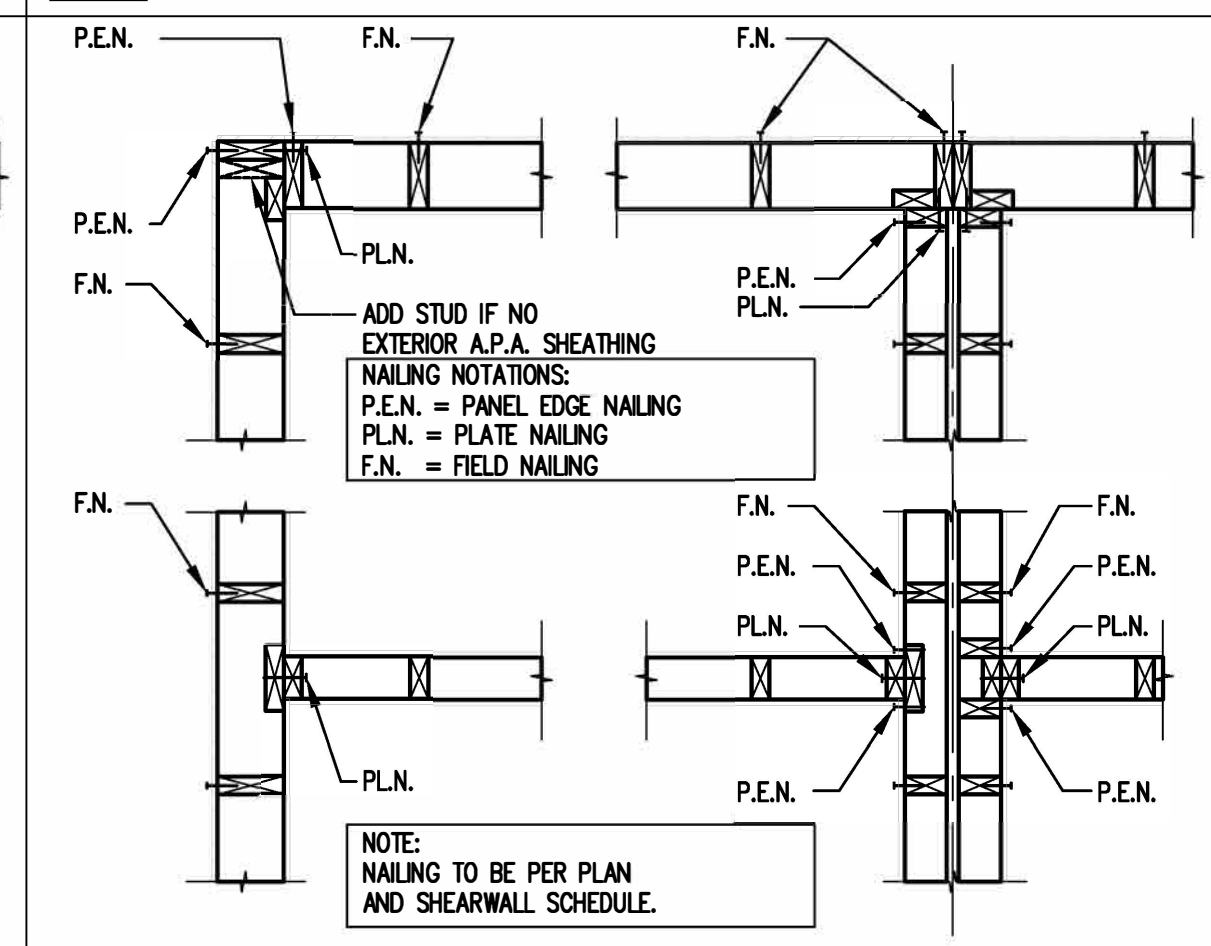
TYP. ABUTTING WALL



TYP. MULTIPLE STUD ATTACHMENT



HOLDOWN PLACEMENTS



STRUCTURAL SHEARWALL INTERSECTIONS

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.	<b>INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.</b>	-	<b>X</b>	-	-
	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.	-	<b>X</b>	<b>ACI 318: 17.8.2</b>	-
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: 26.11.1.2(b)	-

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	
b.	PRESTENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	--	X	AISC 360 SECTION M2.5
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	--	
2.	MULTIPLE PASS FILLET WELDS	X	--	
3.	SINGLE PASS FILLET WELDS > 5/16"	X	--	AWS D1.1
4.	PLUG AND SLOT WELDS	X	--	
5.	SINGLE PASS FILLET WELDS < 5/16"	--	X	
6.	FLOOR AND ROOF DECK WELDS			AWS D1.3
b.	REINFORCING STEEL			
1.	VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706	--	X	
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	--	AWS D1.4, ACI 318 SECTION 4.2.2
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

IBC 2018 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"OC.

IBC 2018 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

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:

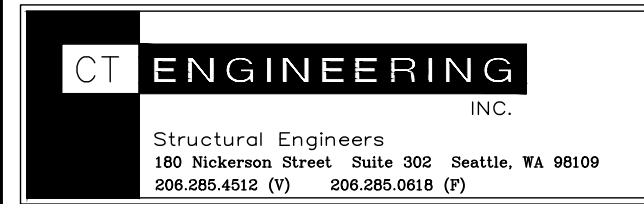
- ITEMS MARKED WITH AND "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC 1704 AND 1705 BY A CERTIFIED SPECIAL INSPECTOR FROM AN AGENCY APPROVED BY THE JURISDICTION.
- SPECIAL INSPECTION SHALL NOT BE REQUIRED FOR WORK PERFORMED IN AN APPROVED FABRICATOR'S PER IBC 1705.2 VERIFY APPROVAL WITH JURISDICTION 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.



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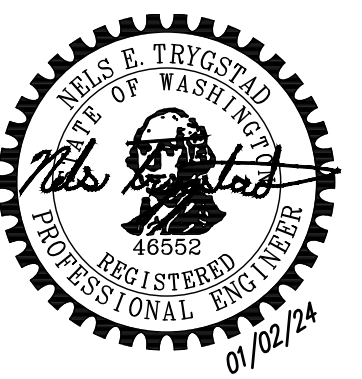


Structural Engineers  
180 Niskomen Street, Suite 303, Seattle, WA 98109  
206.266.4242 (P) 206.266.0818 (F)



4731 90th Ave SE  
Mercer Island, WA 98199

Residential Remodel



Permit Set

April 17, 2024

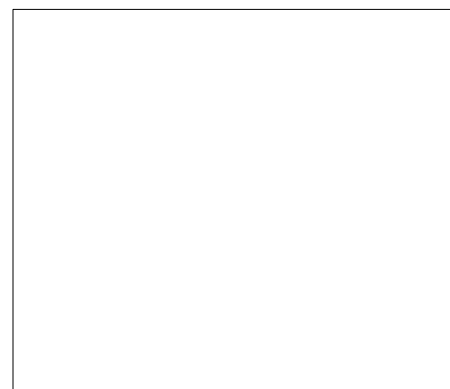
Revisions

No.	Date	Revision Notes

Print Log

No.	Date	Issue Notes

Jurisdiction Approval



Special Inspection Tables

S 1.4

Selby  
Selby-2024-wxk

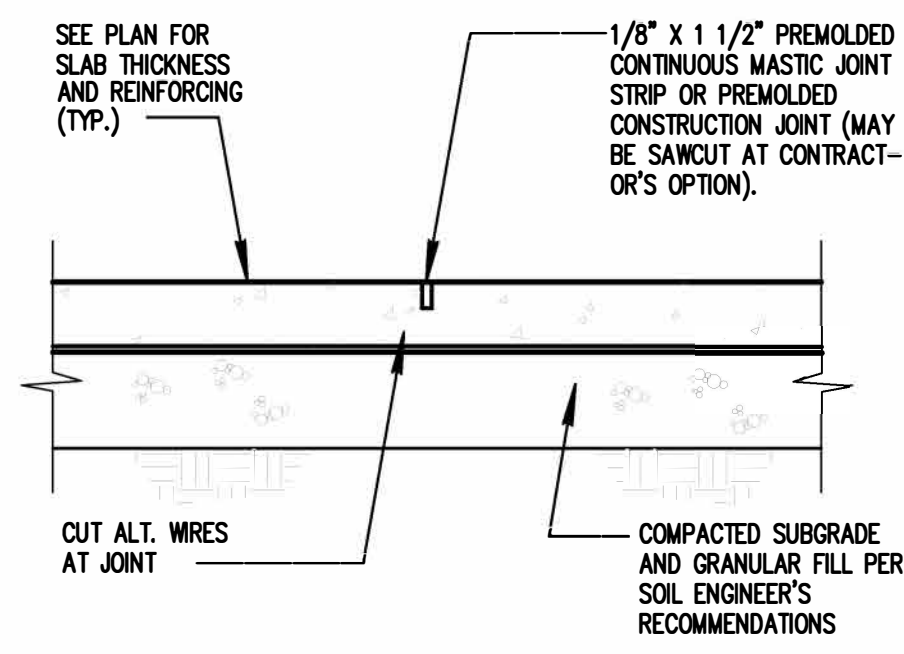




BAR SIZE	LAP CLASS	F <sub>c</sub> = 3000PSI		F <sub>c</sub> = 4000PSI		F <sub>c</sub> = 5000PSI	
		TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	A	17	14	15	12	14	12
	B	23	17	20	15	18	14
#4	A	23	18	20	16	18	14
	B	30	23	26	20	23	18
#5	A	29	22	25	19	22	17
	B	37	29	32	25	29	22
#6	A	35	27	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	91	62	70	54	63	48
	B	105	81	91	70	81	63

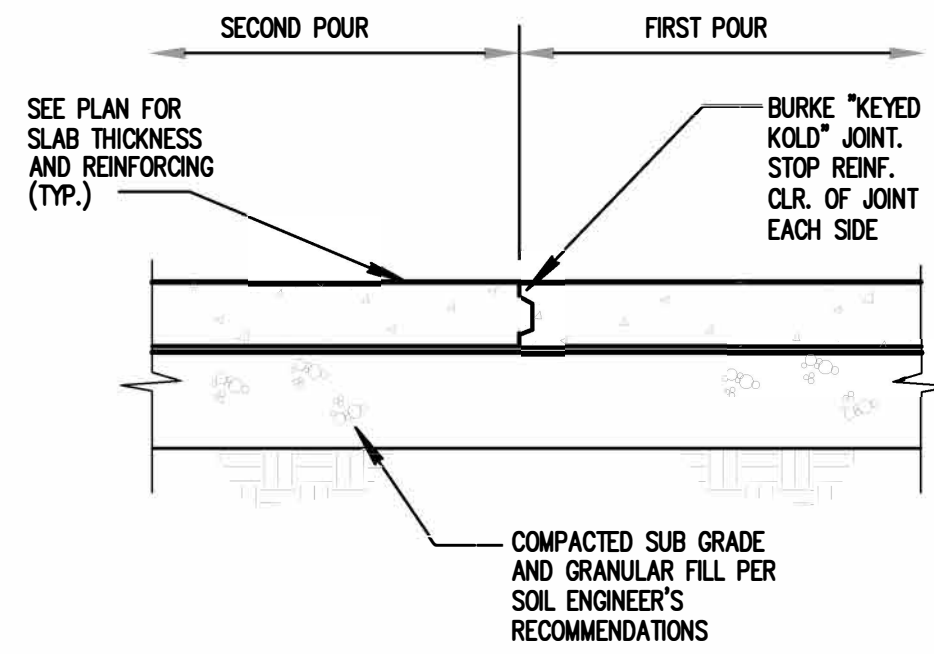
- LENGTHS SHOWN ARE IN INCHES.
- TENSION LAP SPLICES SHALL BE CLASS B UNLESS ONE HALF OR LESS OF THE TOTAL REINFORCEMENT IS SPLICED WITHIN THE REQUIRED LAP LENGTH.
- TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS.
- TENSION LAP SPLICE SHOWN ABOVE ARE FOR CONCRETE COVER 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



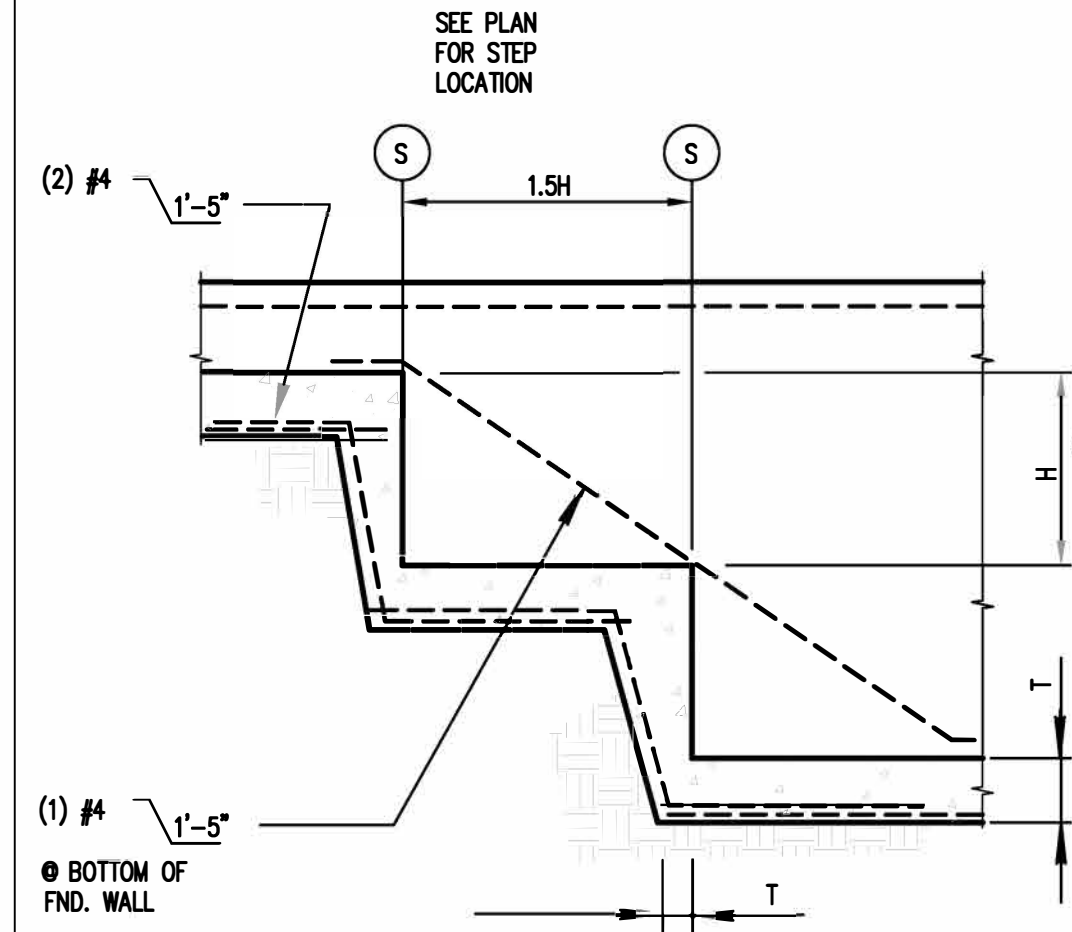
PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS TO BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

2 TYPICAL CONTROL JOINT

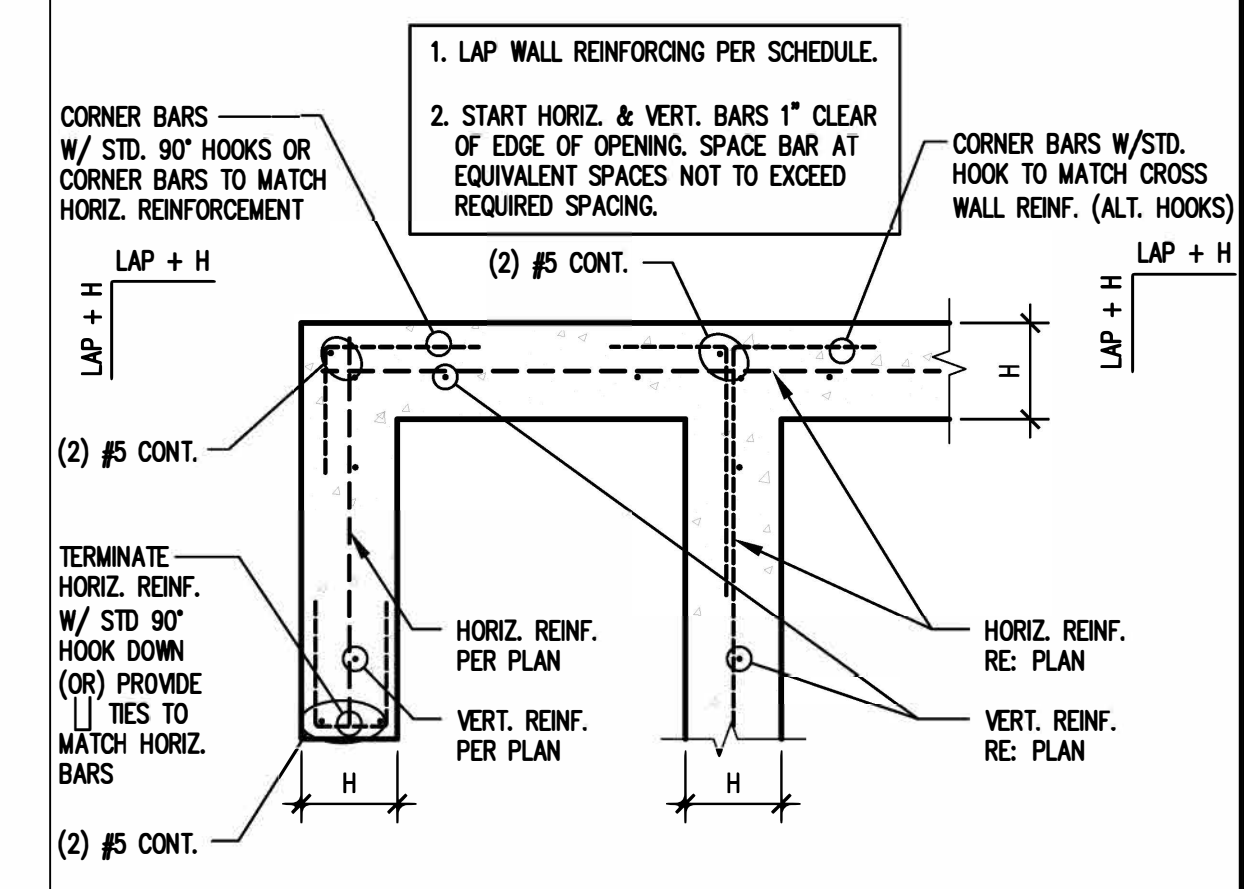


PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF 400 SQUARE FEET OR LESS. AREAS TO BE APPROX. SQUARE AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

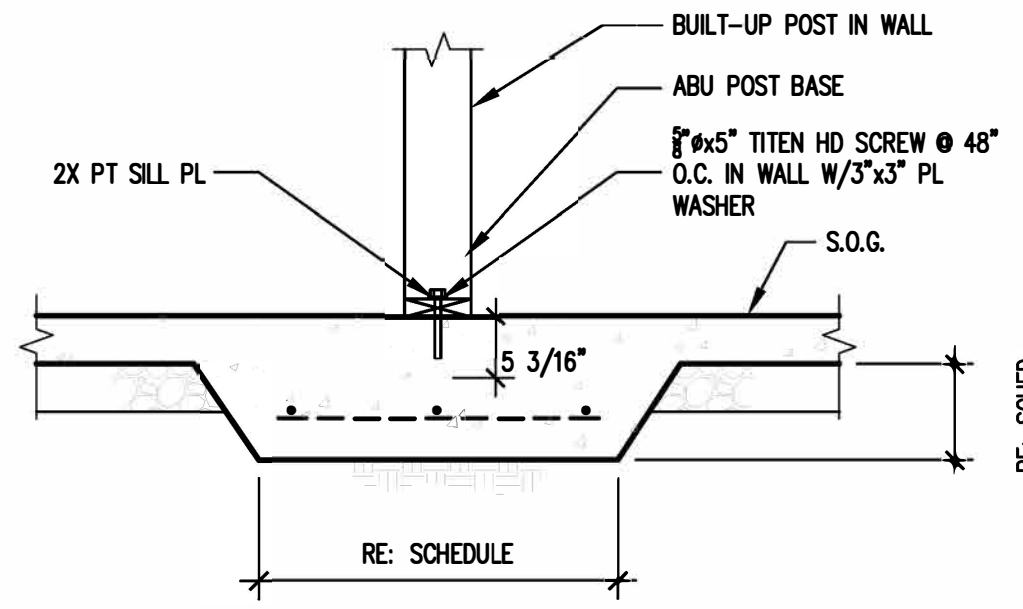
3 TYPICAL CONSTRUCTION JOINT



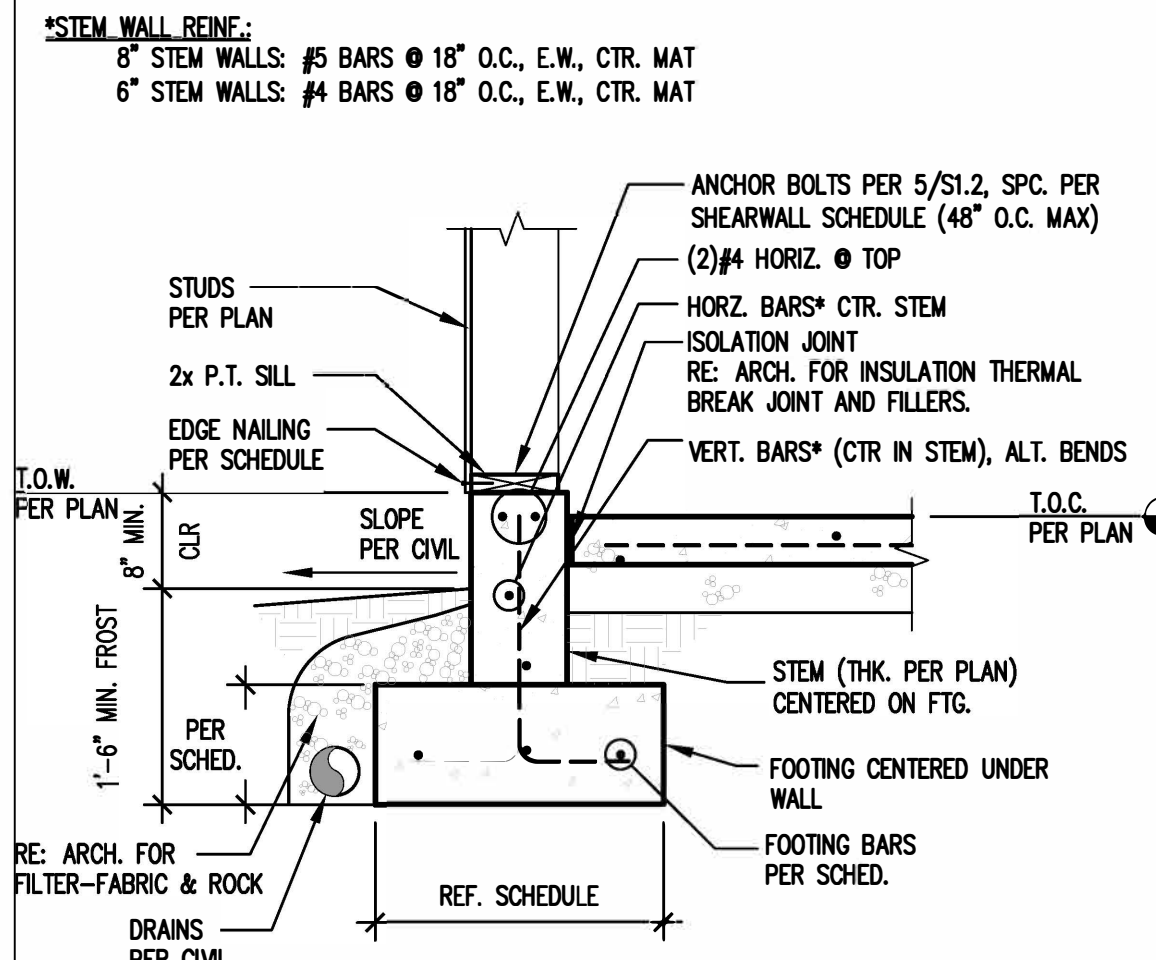
4 TYPICAL STEPPED FOOTING



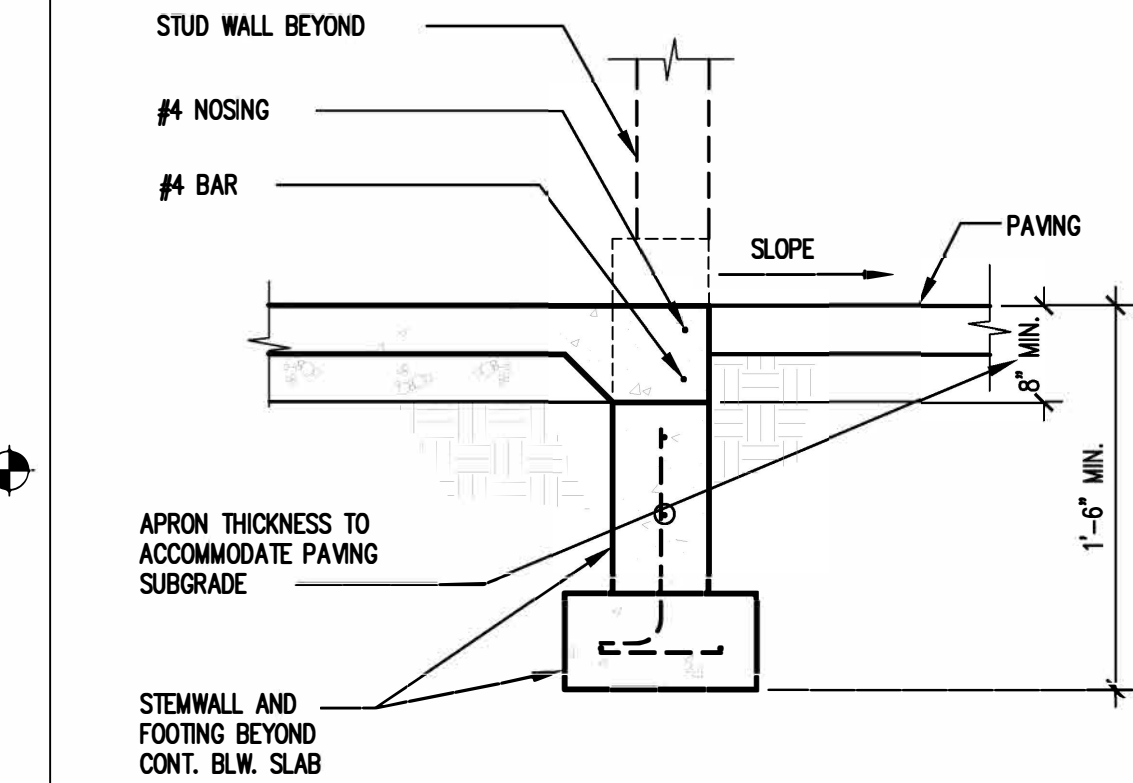
5 SINGLE CURTAIN WALL REINFORCEMENT PLACEMENT



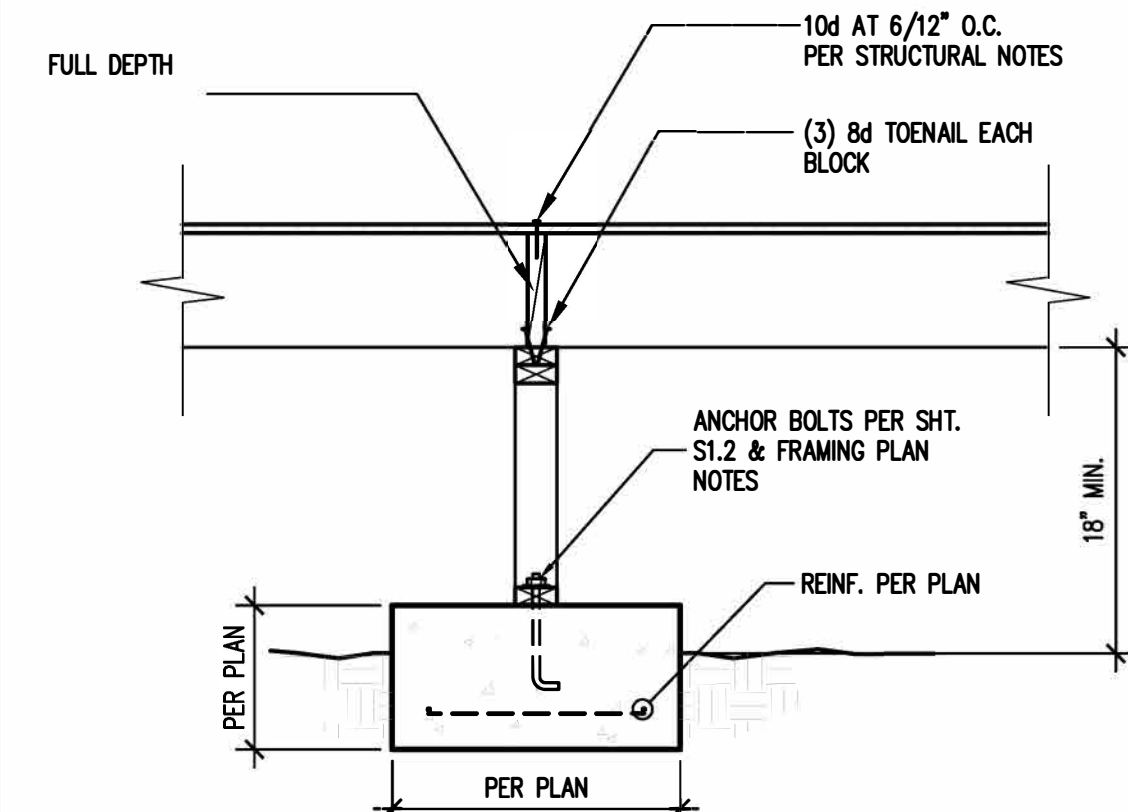
8 TYPICAL INTERIOR POST ON SLAB



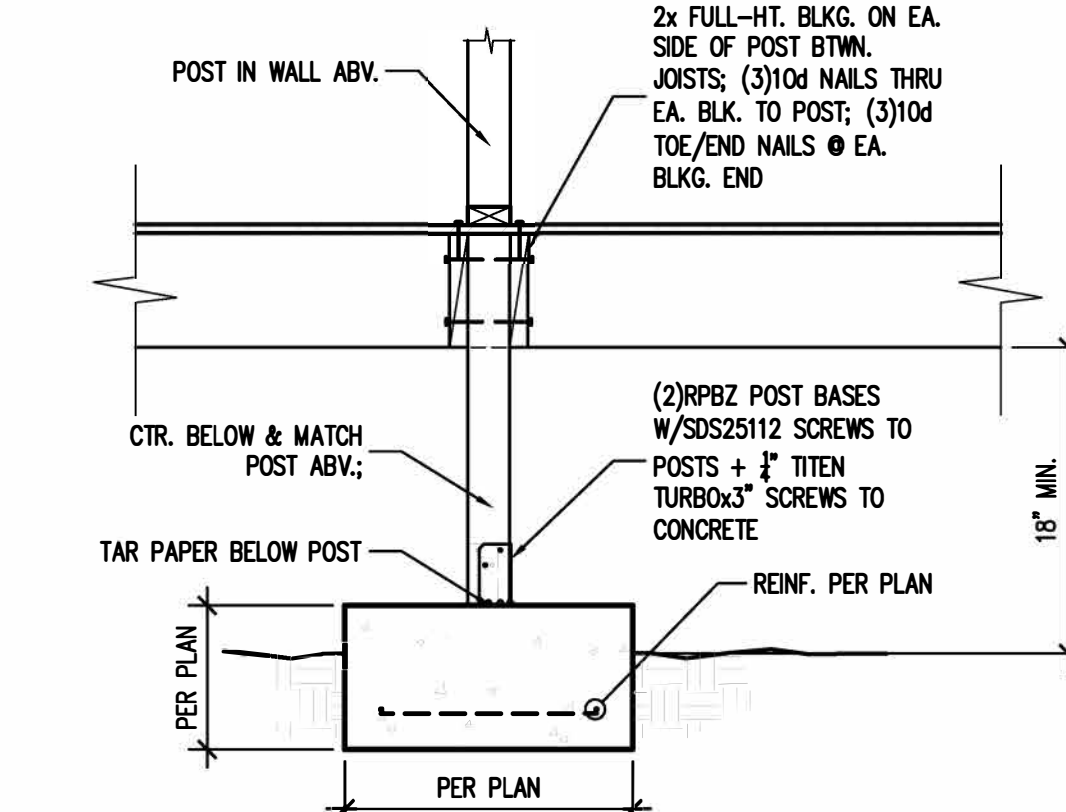
9 TYPICAL EXTERIOR FOOTING



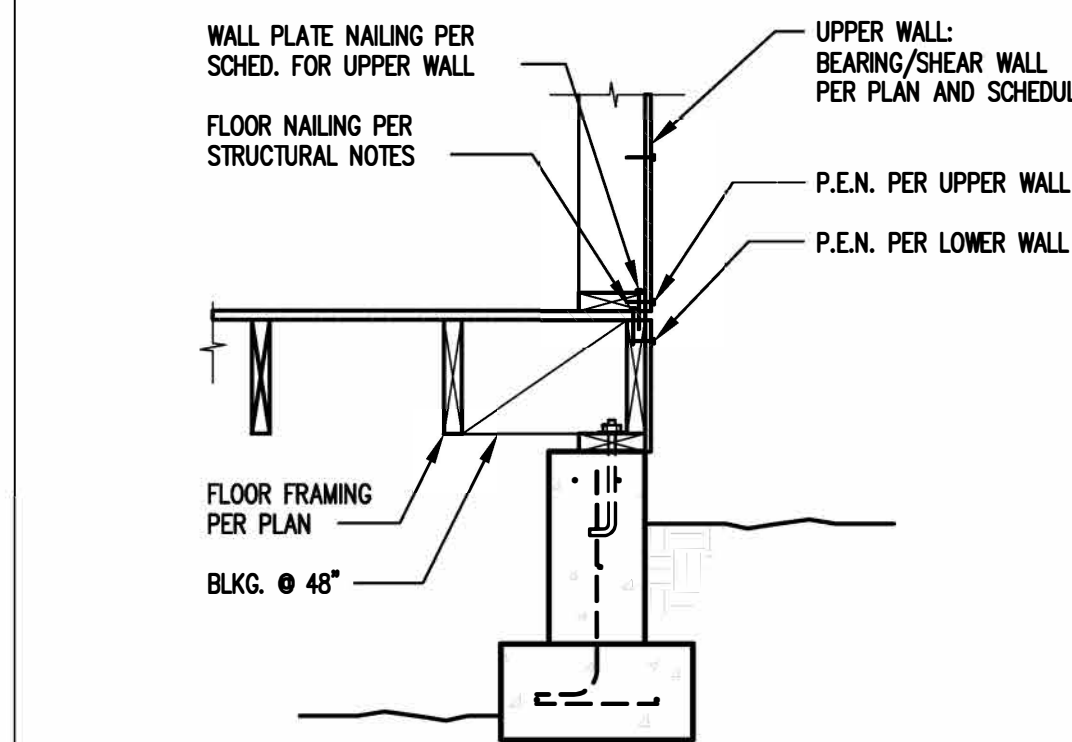
10 GARAGE APRON



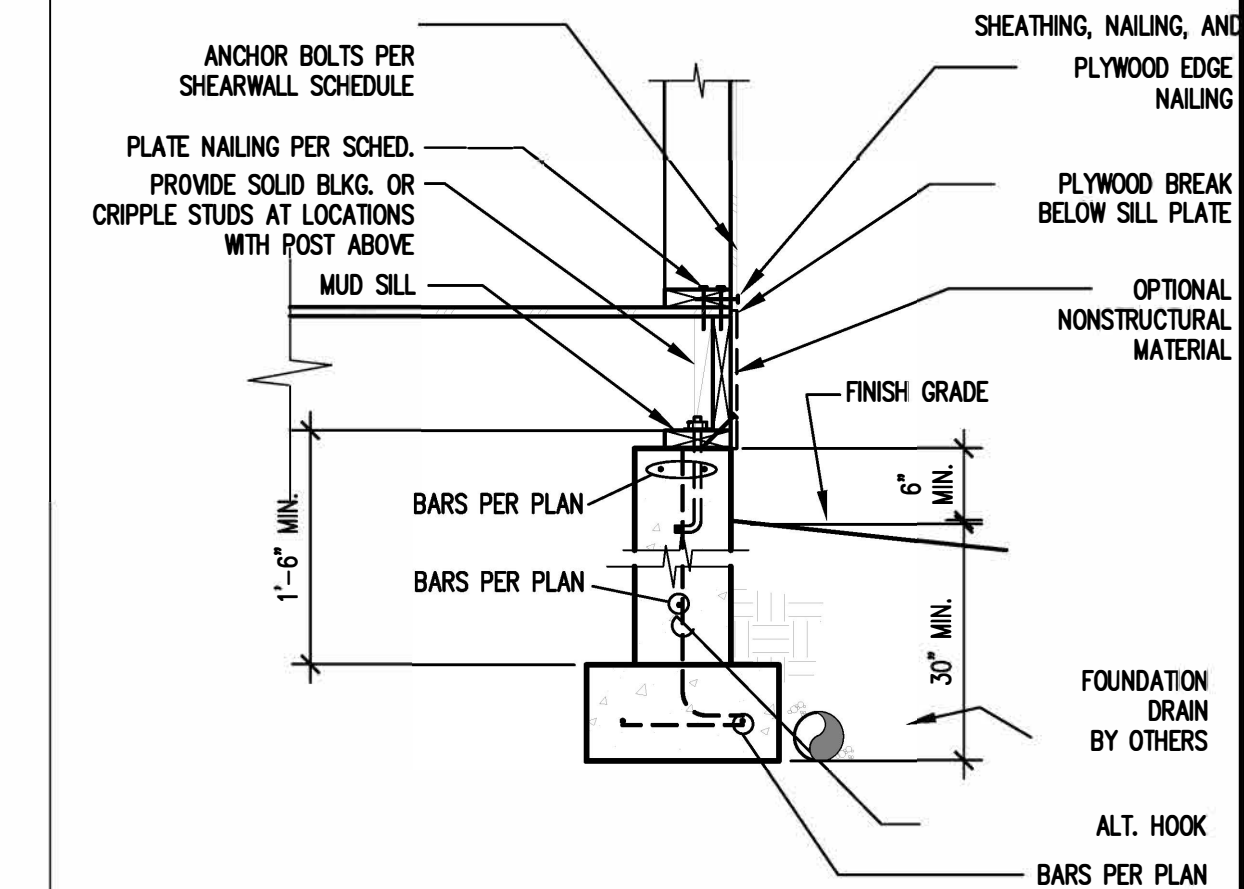
12 WALL IN CRAWL SPACE



13 POST IN CRAWL SPACE



14 FOOTING (FRAMING PARALLEL)



15 FOOTING (FRAMING PERP.)

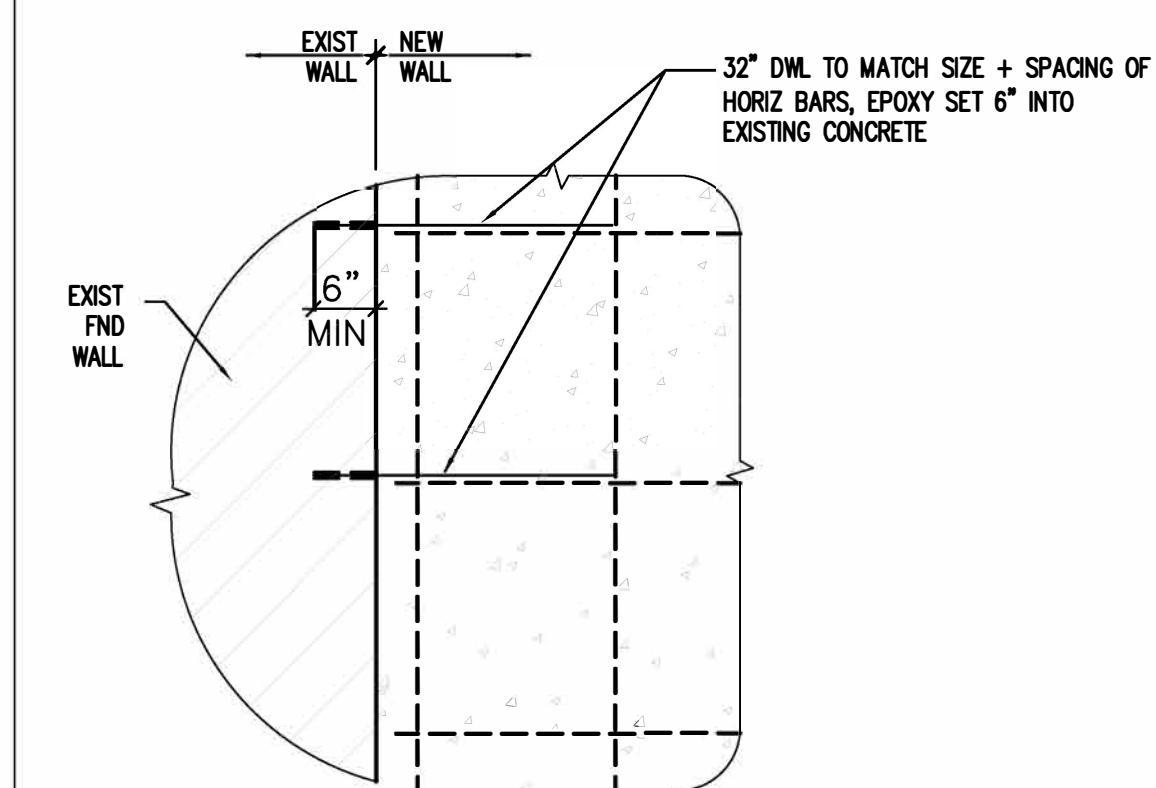
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16

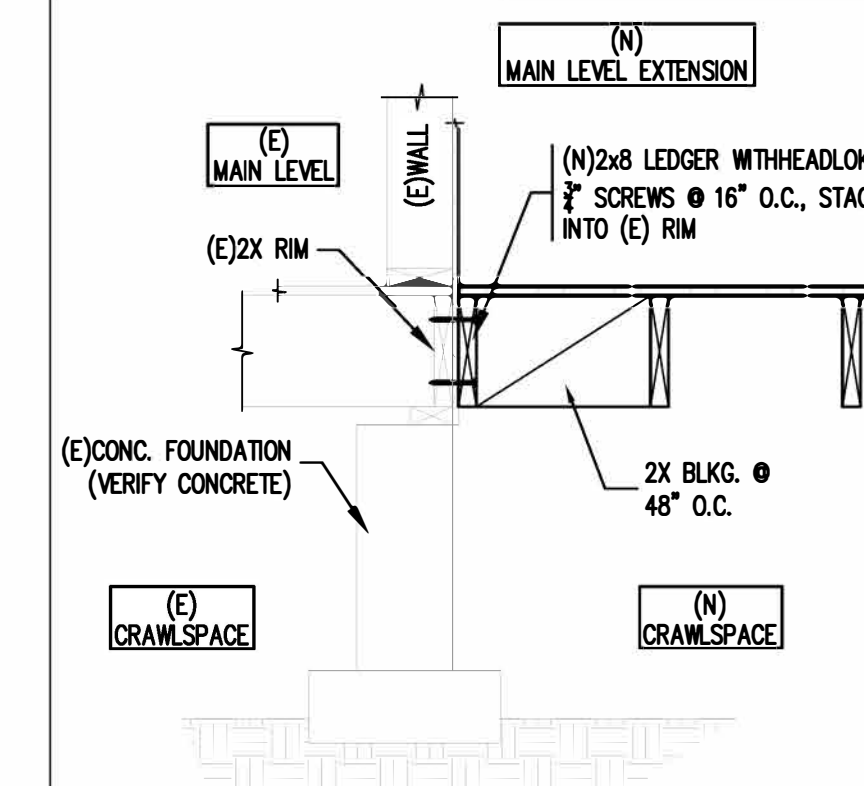
17

18

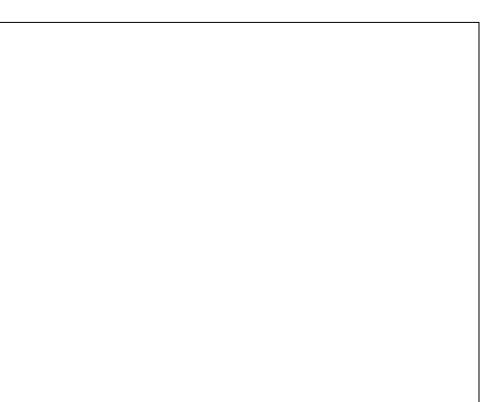
NEW GARAGE TO EXIST. CRAWL FNDN.

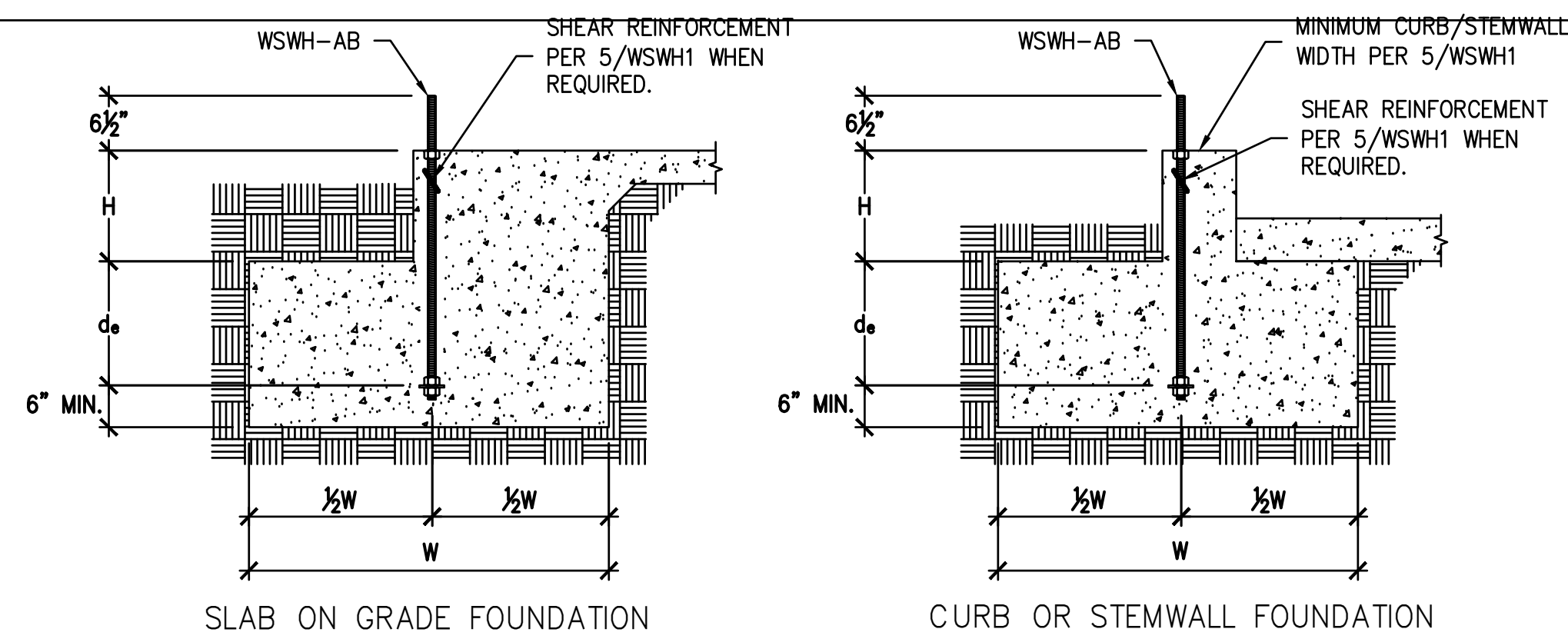


19 NEW FOUNDATION TO EXIST. FND CONN.

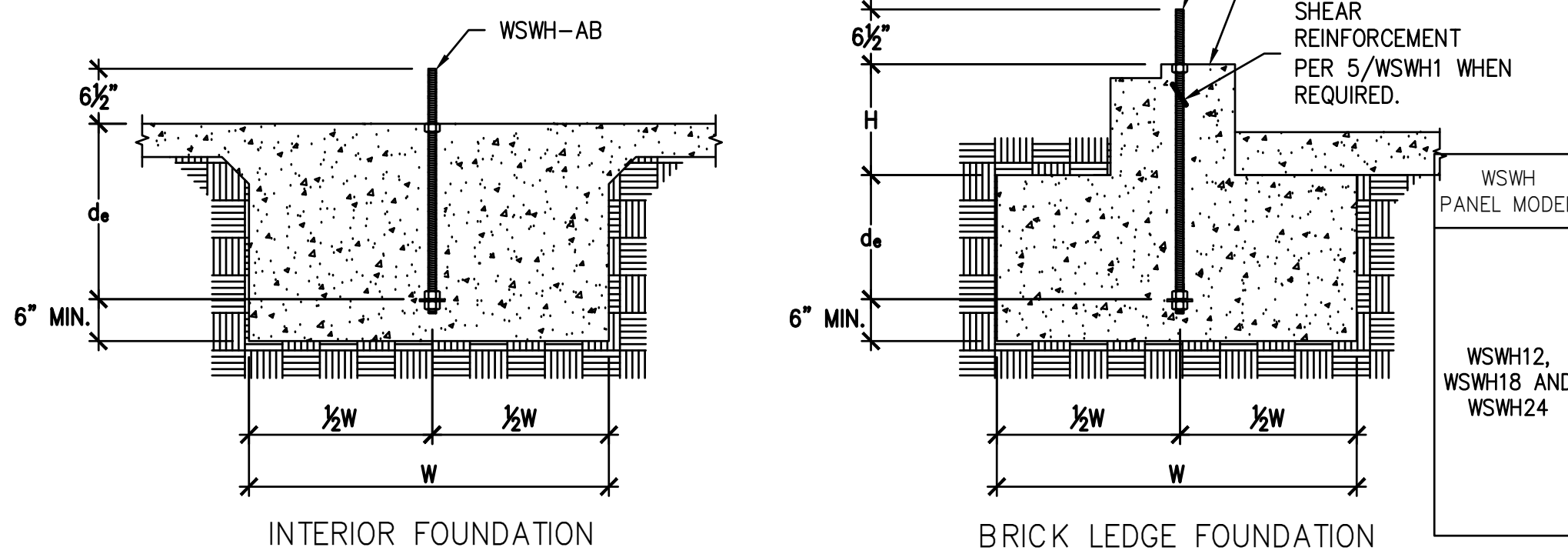


20 NEW TO EXIST. CRAWL FNDN.



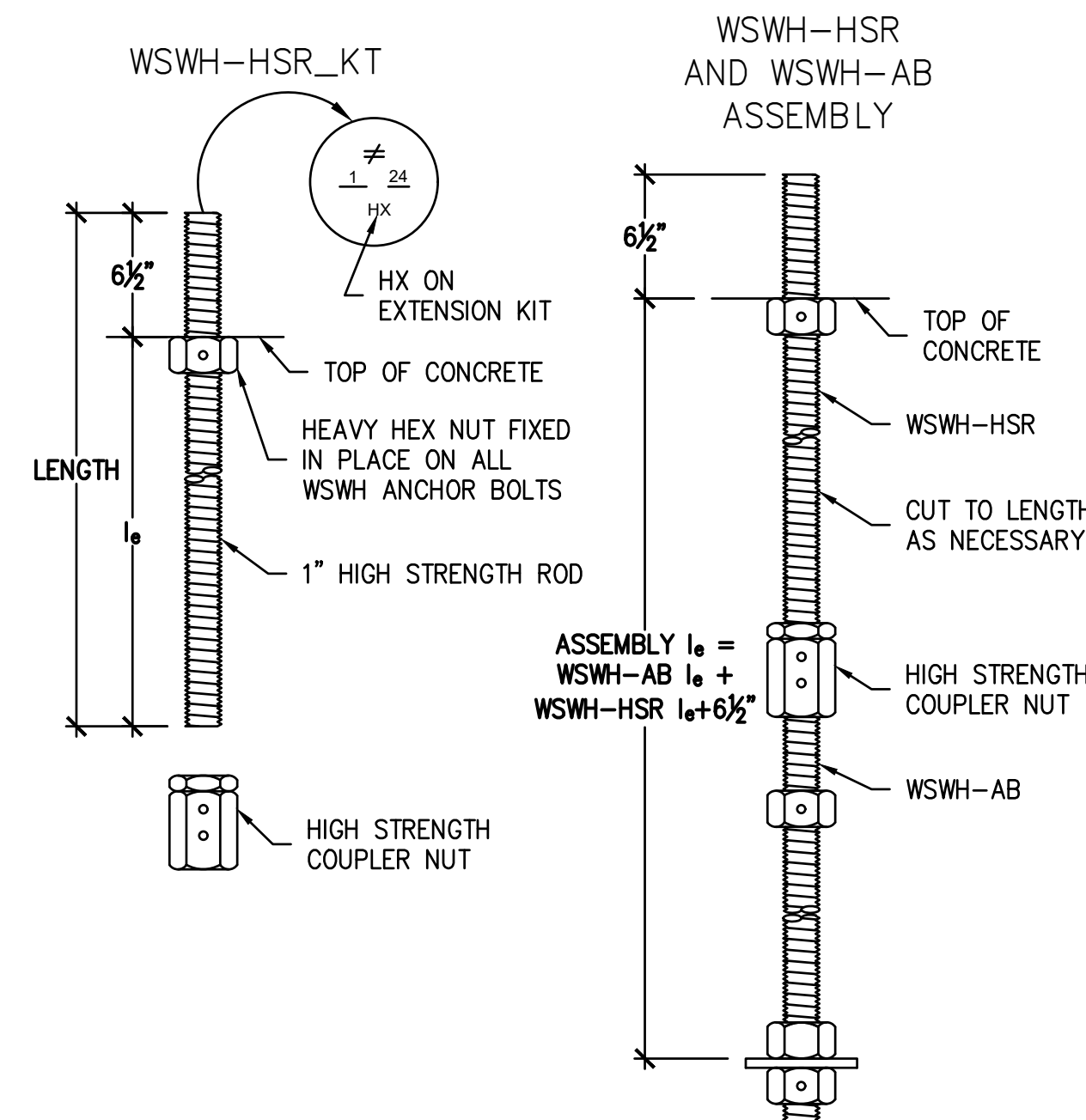
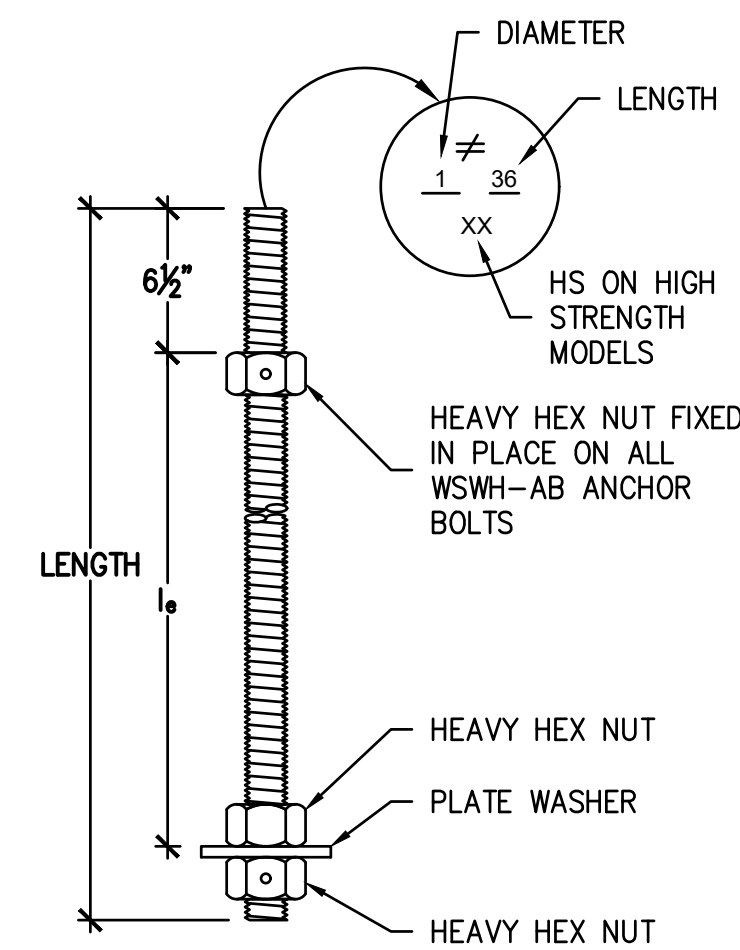


NOTES :  
 1. SEE 2/WSWH1 FOR DIMENSIONS AND ADDITIONAL NOTES.  
 2. SEE 5/WSWH1 FOR SHEAR REINFORCEMENT WHEN REQUIRED.  
 3. MAXIMUM H =  $l_e - d_e$ . SEE 3/WSWH1 AND 4/WSWH1 FOR  $l_e$ .

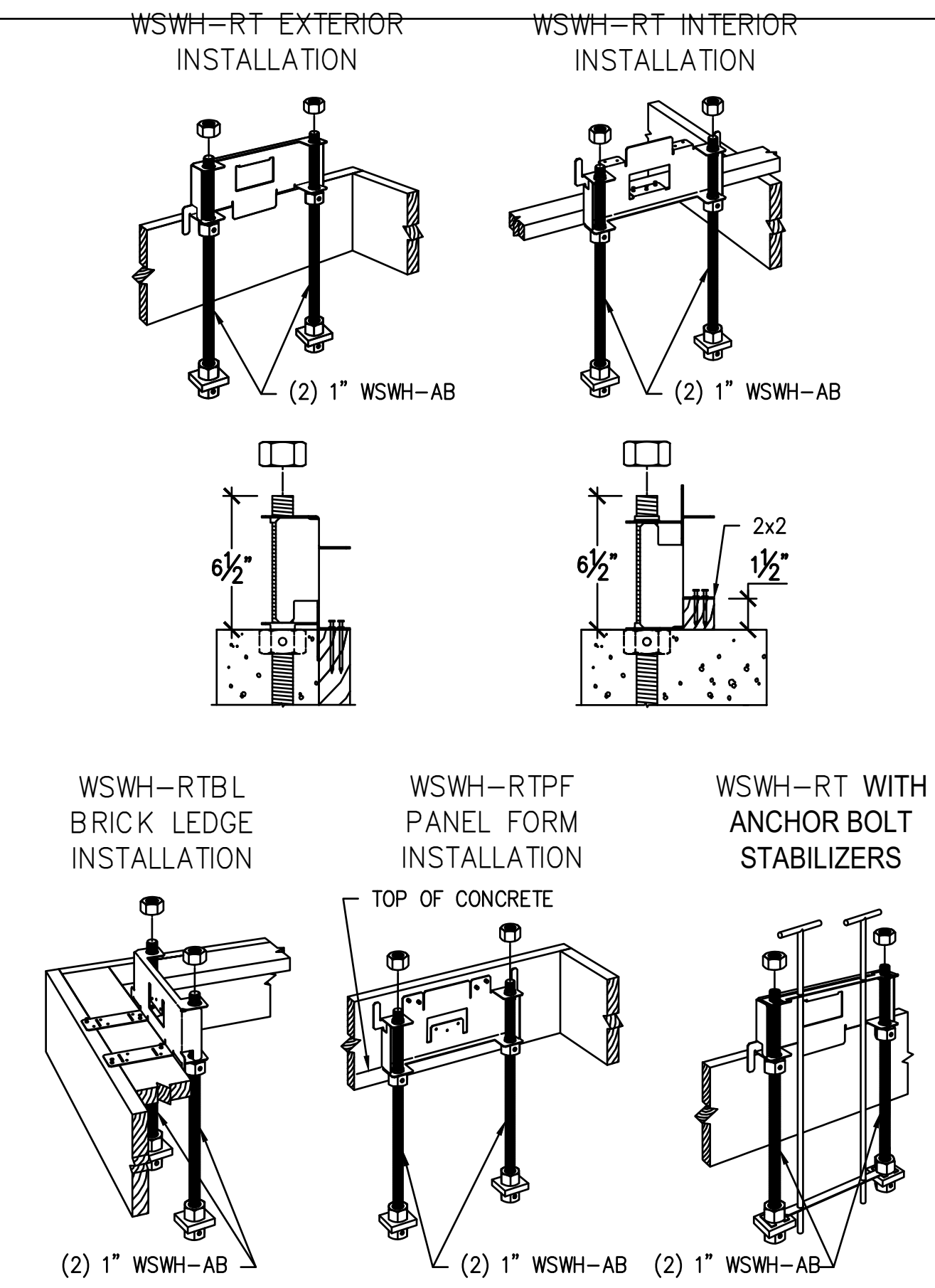


DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

WSWH PANEL MODEL	MODEL NO.	DIA.	LENGTH	$l_e$
WSWH12, WSWH18 AND WSWH24	WSWH-AB1x24	1"	24"	15½"
	WSWH-AB1x24HS	1"	24"	15½"
	WSWH-AB1x30	1"	30"	21½"
	WSWH-AB1x30HS	1"	30"	21½"
	WSWH-AB1x36	1"	36"	27½"
	WSWH-AB1x36HS	1"	36"	27½"
	WSWH-AB1x42	1"	42"	33½"
	WSWH-AB1x42HS	1"	42"	33½"
	WSWH-AB1x48	1"	48"	39½"
	WSWH-AB1x48HS	1"	48"	39½"



WSWH PANEL MODEL	MODEL NO.	DIAMETER	LENGTH	$l_e$
WSWH12, WSWH18 AND WSWH24	WSWH-HSR1x24KT	1"	24"	17½"
	WSWH-HSR1x36KT	1"	36"	29½"



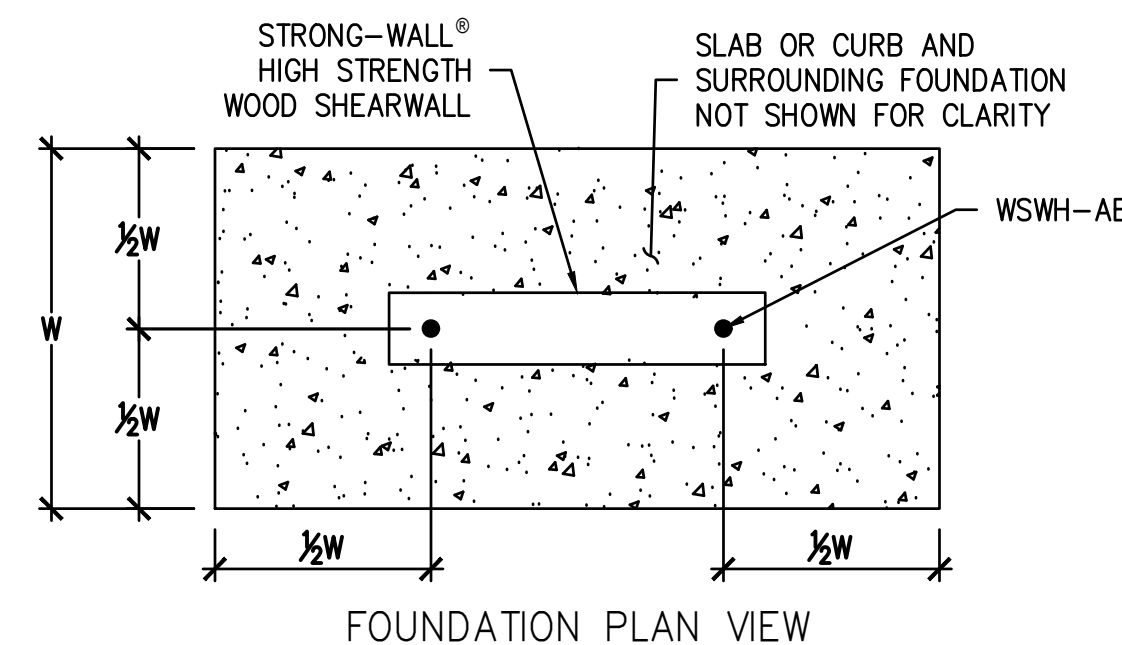
STRONG-WALL® WSWH ANCHORAGE – TYPICAL SECTIONS

1 WSWH ANCHOR BOLTS

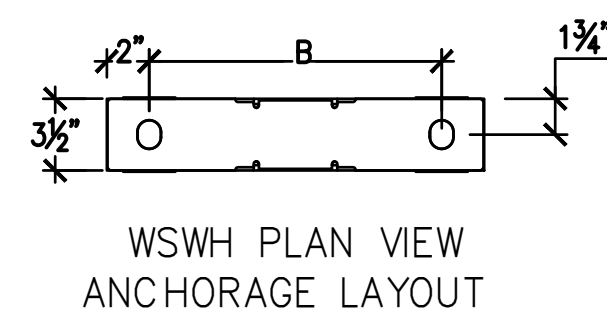
3 WSWH ANCHOR BOLT EXTENSION

4 WSWH ANCHOR BOLT TEMPLATES

6

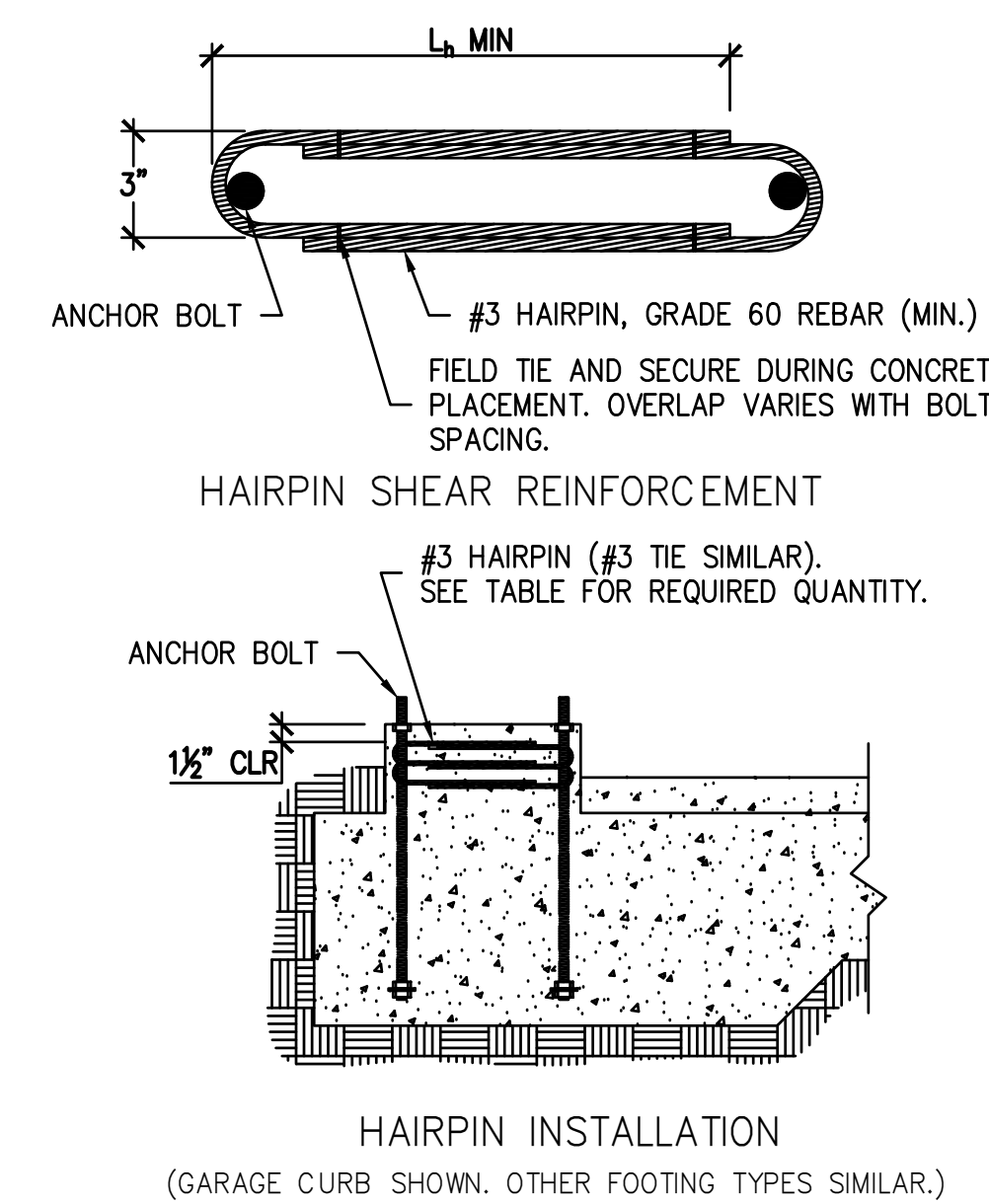


FOUNDATION PLAN VIEW

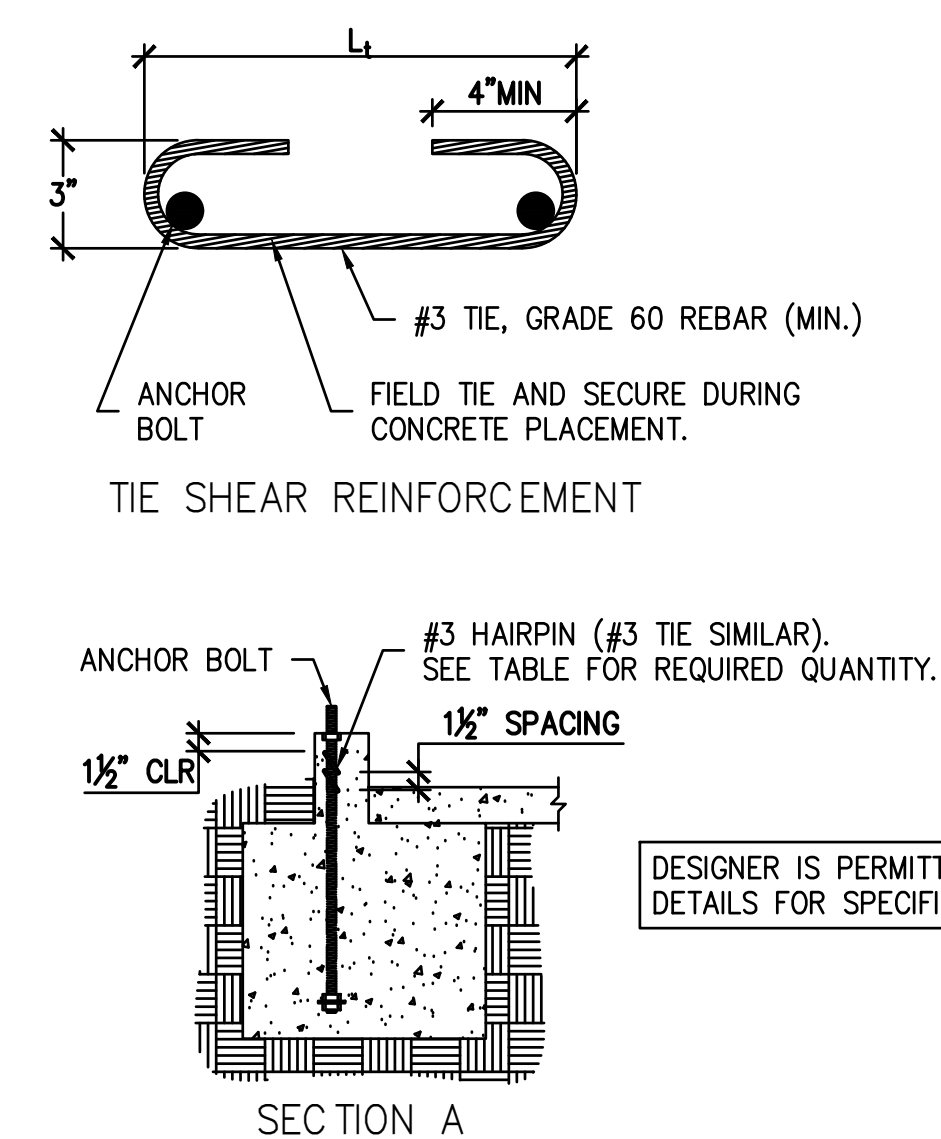


WSWH PLAN VIEW ANCHORAGE LAYOUT

STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODEL NO.	ANCHOR BOLT LAYOUT	DISTANCE FROM CENTER-TO-CENTER OF WSWH-AB, B (in)
WSWH12		8½
WSWH18		14
WSWH24		20



HAIRPIN INSTALLATION (GARAGE CURB SHOWN. OTHER FOOTING TYPES SIMILAR.)



SECTION A

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

NOTES :  
 1. ANCHORAGE DESIGNS CONFORM TO ACI 318-11 APPENDIX D, ACI 318-14 CHAPTER 17 AND ACI 318-19 CHAPTER 17 WITH NO SUPPLEMENTARY REINFORCEMENT FOR CRACKED OR UNCRACKED CONCRETE AS NOTED.  
 2. ANCHOR STRENGTH INDICATES REQUIRED GRADE OF WSWH-AB ANCHOR BOLT. STANDARD (ASTM F1554 GRADE 36) OR HIGH STRENGTH (HS) (ASTM A193 GRADE B7).  
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C-F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC ANCHORAGE DESIGNS CONFORM TO ACI 318-11 SECTION D.3.3.4.3, ACI 318-14 SECTION 17.2.3.4.3 AND ACI 318-19 SECTION 17.10.5.3.  
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B AND DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C.  
 5. FOUNDATION DIMENSIONS ARE FOR ANCHORAGE ONLY. FOUNDATION DESIGN (SIZE AND REINFORCEMENT) BY OTHERS. THE DESIGNER MAY SPECIFY ALTERNATE EMBEDMENT, FOOTING SIZE OR ANCHOR BOLT.  
 6. REFER TO 1/WSWH1 FOR  $d_e$ .

WSWH ANCHORAGE SOLUTIONS FOR 2500 PSI CONCRETE

DESIGN CRITERIA	CONCRETE CONDITION	ANCHOR STRENGTH	WSWH-AB1 ANCHOR BOLT		
			ASD ALLOWABLE UPLIFT (lbs)	W (in)	$d_e$ (in)
SEISMIC	CRACKED	STANDARD	16,000	33	11
		HIGH STRENGTH	17,100	35	12
		HIGH STRENGTH	34,100	52	18
	UNCRAKED	STANDARD	36,800	55	19
		HIGH STRENGTH	15,700	28	10
		HIGH STRENGTH	17,100	30	10
WIND	CRACKED	STANDARD	33,500	45	15
		HIGH STRENGTH	36,800	48	16
		HIGH STRENGTH	6,200	16	6
		HIGH STRENGTH	11,400	24	8
		HIGH STRENGTH	17,100	32	11
		HIGH STRENGTH	21,100	36	12
	UNCRAKED	STANDARD	27,300	42	14
		HIGH STRENGTH	34,100	48	16
		HIGH STRENGTH	36,800	51	17
		HIGH STRENGTH	6,400	14	6
		HIGH STRENGTH	12,500	22	8
		HIGH STRENGTH	17,100	28	10

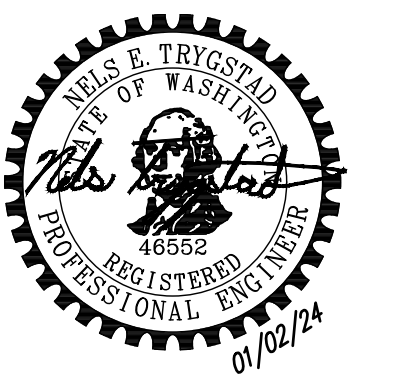
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL TENSION ANCHORAGE SCHEDULE 2,500 PSI

2 STRONG-WALL® WSWH SHEAR ANCHORAGE SCHEDULE AND DETAILS

5

MODEL	STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SHEAR ANCHORAGE					
	SEISMIC <sup>3</sup>			WIND <sup>4</sup>		
	$l_e$ OR $l_e$ (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	SHEAR REINFORCEMENT	MIN. CURB/STEMWALL WIDTH (in.)	ASD ALLOWABLE SHEAR LOAD, V (lb.)
WSWH12	10½	(1) #3 TIE	6	SEE NOTE 7	6	UNCRAKED 1,080 CRACKED 770
WSWH18	15	(2) #3 HAIRPINS <sup>5,6</sup>	6	(1) #3 HAIRPIN	6	HAIRPIN REINF. ACHIEVES MAX. ALLOW SHEAR LOAD OF THE WSWH
WSWH24	19	(2) #3 HAIRPINS <sup>5</sup>	6	(2) #3 HAIRPINS <sup>5</sup>	6	

NOTES :  
 1. SHEAR ANCHORAGE DESIGNS CONFORM TO ACI 318-19, ACI 318-11 AND ACI 318-14 AND ASSUME MINIMUM 2,500 PSI CONCRETE.  
 2. SHEAR REINFORCEMENT IS NOT REQUIRED FOR INTERIOR FOUNDATION APPLICATIONS (PANEL INSTALLED AWAY FROM EDGE OF CONCRETE), OR BRACED WALL PANEL APPLICATIONS.  
 3. SEISMIC INDICATES SEISMIC DESIGN CATEGORY C THROUGH F. DETACHED 1 AND 2 FAMILY DWELLINGS IN SDC C MAY USE WIND ANCHORAGE SOLUTIONS. SEISMIC SHEAR REINFORCEMENT DESIGNS CONFORM TO ACI 318-19, SECTION 17.10.6.3, ACI 318-14, SECTION 17.2.3.5.3  
 4. WIND INCLUDES SEISMIC DESIGN CATEGORY A AND B.  
 5. ADDITIONAL TIES MAY BE REQUIRED AT GARAGE CURB OR STEMWALL INSTALLATIONS BELOW ANCHOR REINFORCEMENT PER DESIGNER.  
 6. USE (1) #3 HAIRPIN FOR WSWH18 WHEN STANDARD STRENGTH ANCHOR IS USED.  
 7. USE (1) #3 TIE FOR WSWH12 WHEN PANEL DESIGN SHEAR FORCE EXCEEDS TABULATED ANCHORAGE ALLOWABLE SHEAR LOAD.  
 8. #4 GRADE 40 SHEAR REINFORCEMENT MAY BE SUBSTITUTED FOR WSWH SHEAR ANCHORAGE SOLUTIONS.  
 9. CONCRETE EDGE DISTANCE FOR ANCHORS MUST COMPLY WITH ACI 318-19 SECTION 17.9.2, ACI 318-14 SECTION 17.7.2 AND ACI 318-11 SECTION D.8.2.  
 10. THE DESIGNER MAY SPECIFY ALTERNATE SHEAR ANCHORAGE.



No.	Date	Revision Notes

No.	Date	Issue Notes

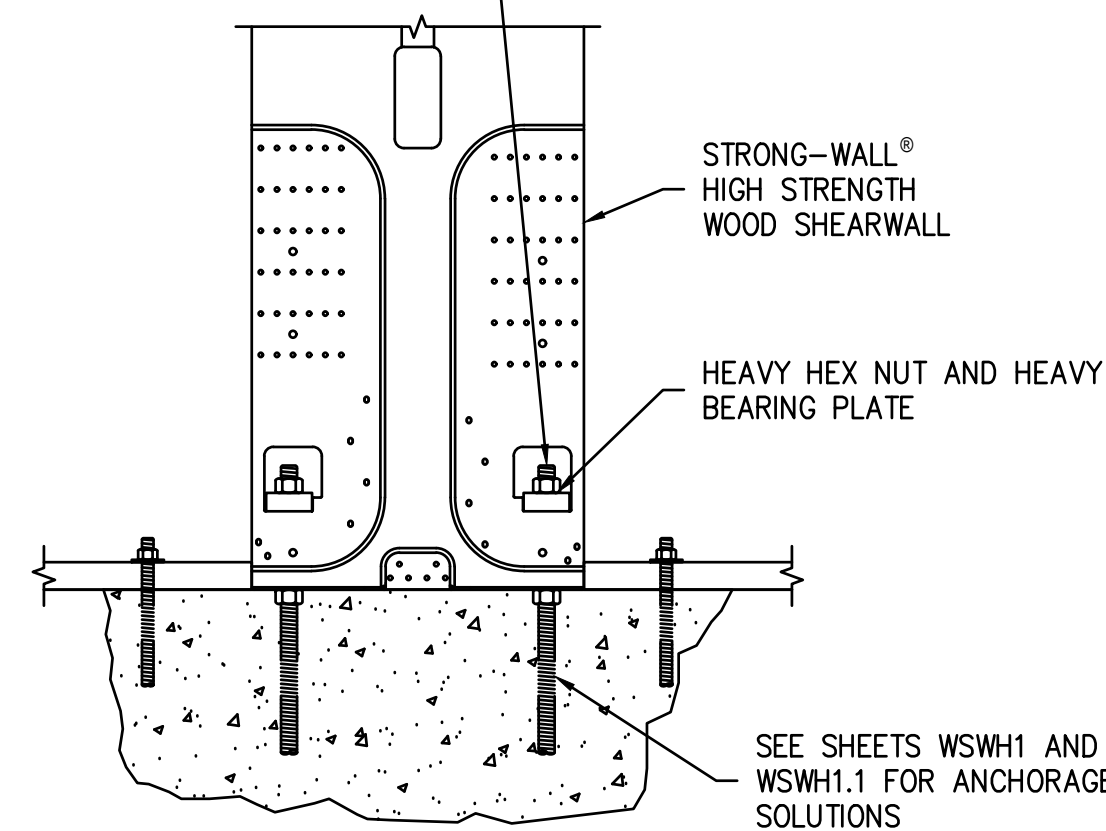


**STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MODELS**

MODEL NO.	W (in.)	H (in.)	ANCHOR BOLTS		TOTAL WALL WEIGHT (lb.)
			QUANTITY	DIA. (in.)	
WSWH12x7	12	84	2	1	105
WSWH18x7	18	84	2	1	155
WSWH12x8	12	96	2	1	120
WSWH18x8	18	96	2	1	175
WSWH24x8	24	96	2	1	225
WSWH12x9	12	108	2	1	130
WSWH18x9	18	108	2	1	195
WSWH24x9	24	108	2	1	250
WSWH12x10	12	120	2	1	145
WSWH18x10	18	120	2	1	210
WSWH24x10	24	120	2	1	275
WSWH12x12	12	144	2	1	165
WSWH18x12	18	144	2	1	245
WSWH24x12	24	144	2	1	325
WSWH18x14	18	168	2	1	285
WSWH24x14	24	168	2	1	370
WSWH24x16	24	192	2	1	420
WSWH18x20	18	240	2	1	390
WSWH24x20	24	240	2	1	520

- NOTES:**
- FOR HEIGHTS NOT LISTED, ORDER THE NEXT TALLEST PANEL AND TRIM TO FIT. MINIMUM TRIMMED HEIGHT FOR ALL PANELS IS 74 1/2".
  - ALL PANELS COME WITH PRE-ATTACHED HOLD-DOWNS, TWO HEAVY HEX NUTS, TWO HEAVY BEARING PLATES, ONE WSWH-TP TOP CONNECTION PLATE WITH REQUIRED FASTENERS AND INSTALLATION INSTRUCTIONS.
  - ALL PANELS ARE 3/8" THICK.

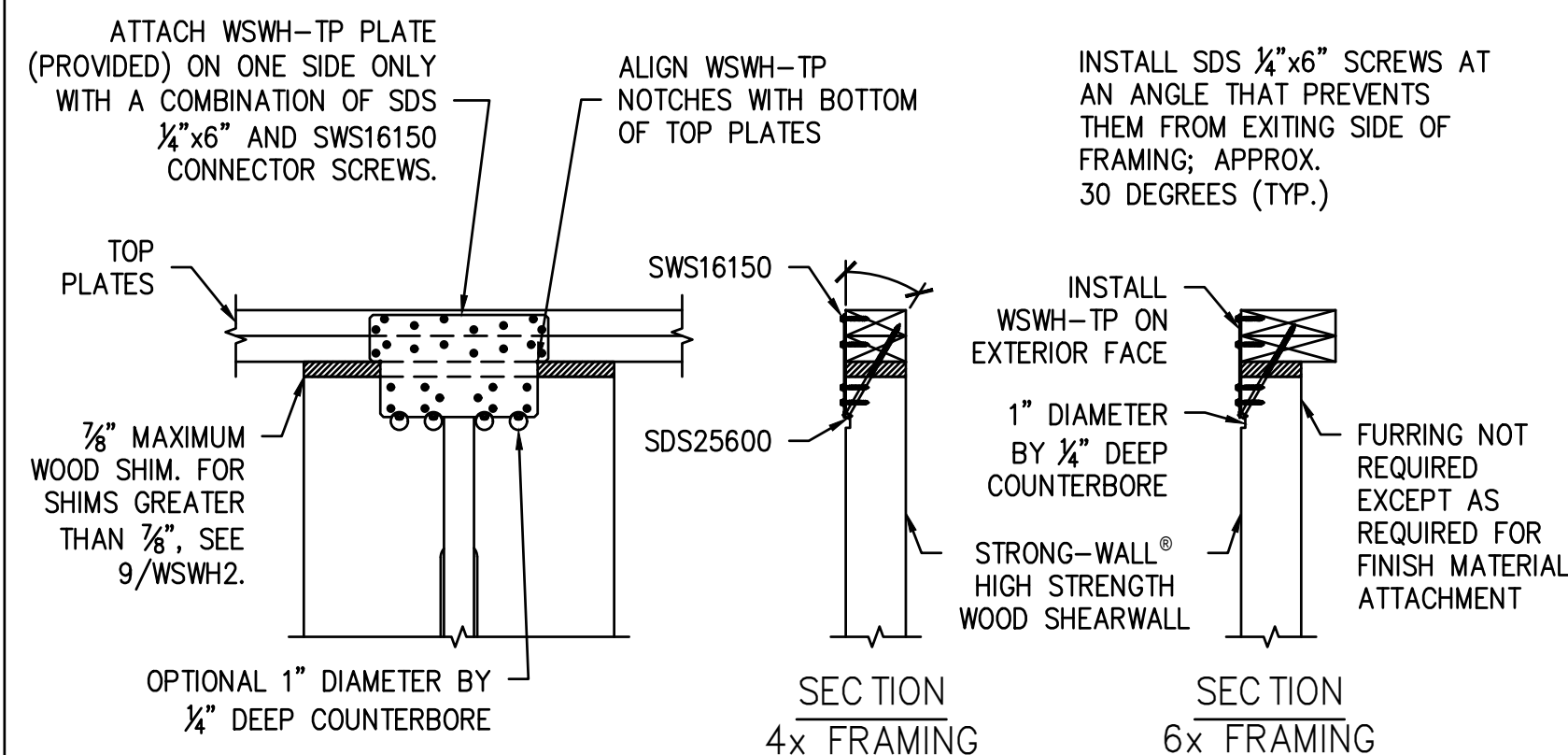
PLACE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL OVER THE ANCHOR BOLTS AND SECURE WITH HEAVY BEARING PLATES AND HEAVY HEX NUTS (PROVIDED). DO NOT USE AN IMPACT WRENCH. USE 1 3/8" WRENCH FOR 1" NUT. TIGHTEN ANCHOR NUTS FINGER TIGHT + 1/2" TURN.



DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

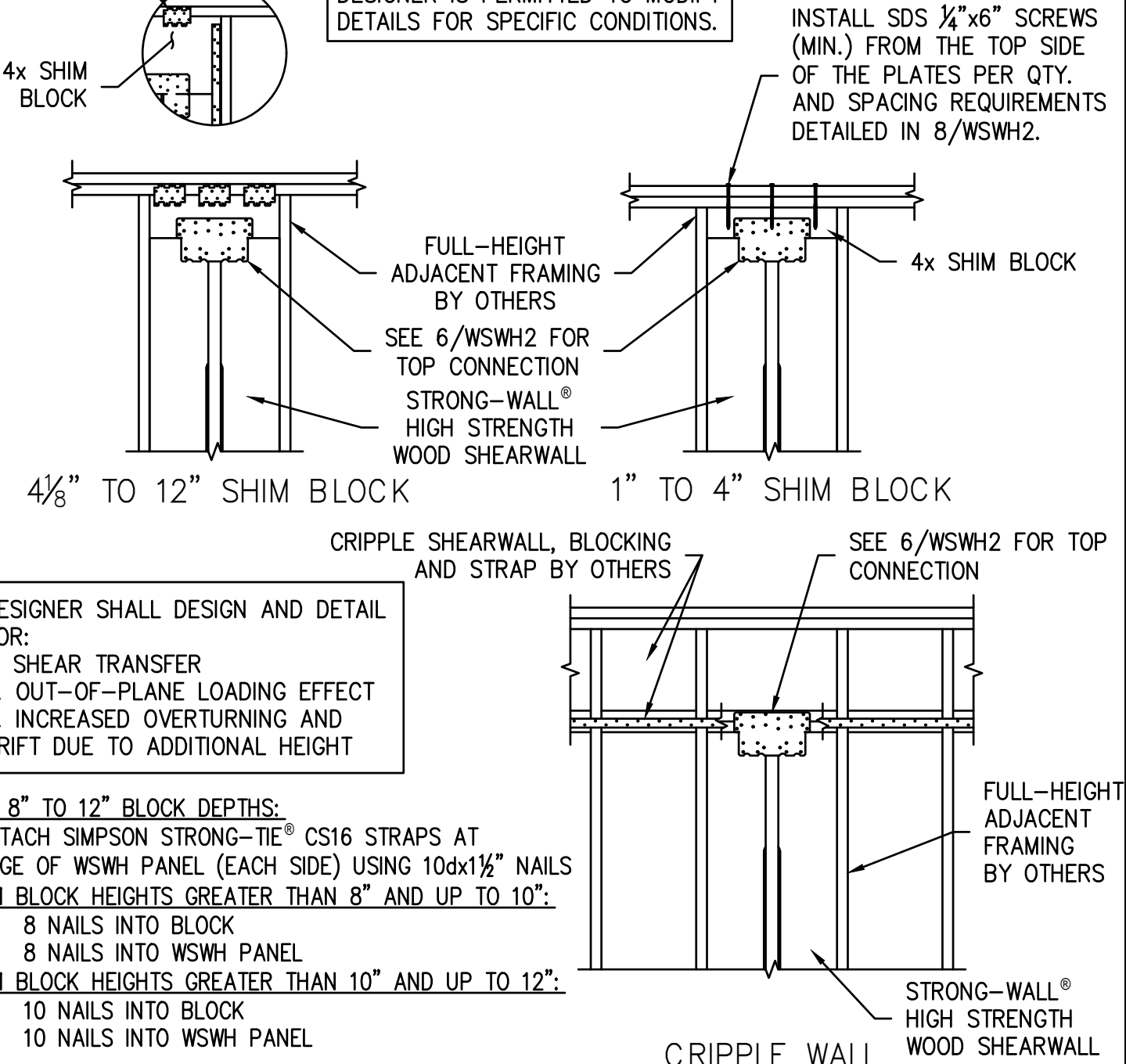
MODEL NO.	FASTENER QUANTITY	
	SWS16150	SDS25600
WSWH-TP12	14	2
WSWH-TP18	26	4
WSWH-TP24	46	8

DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.

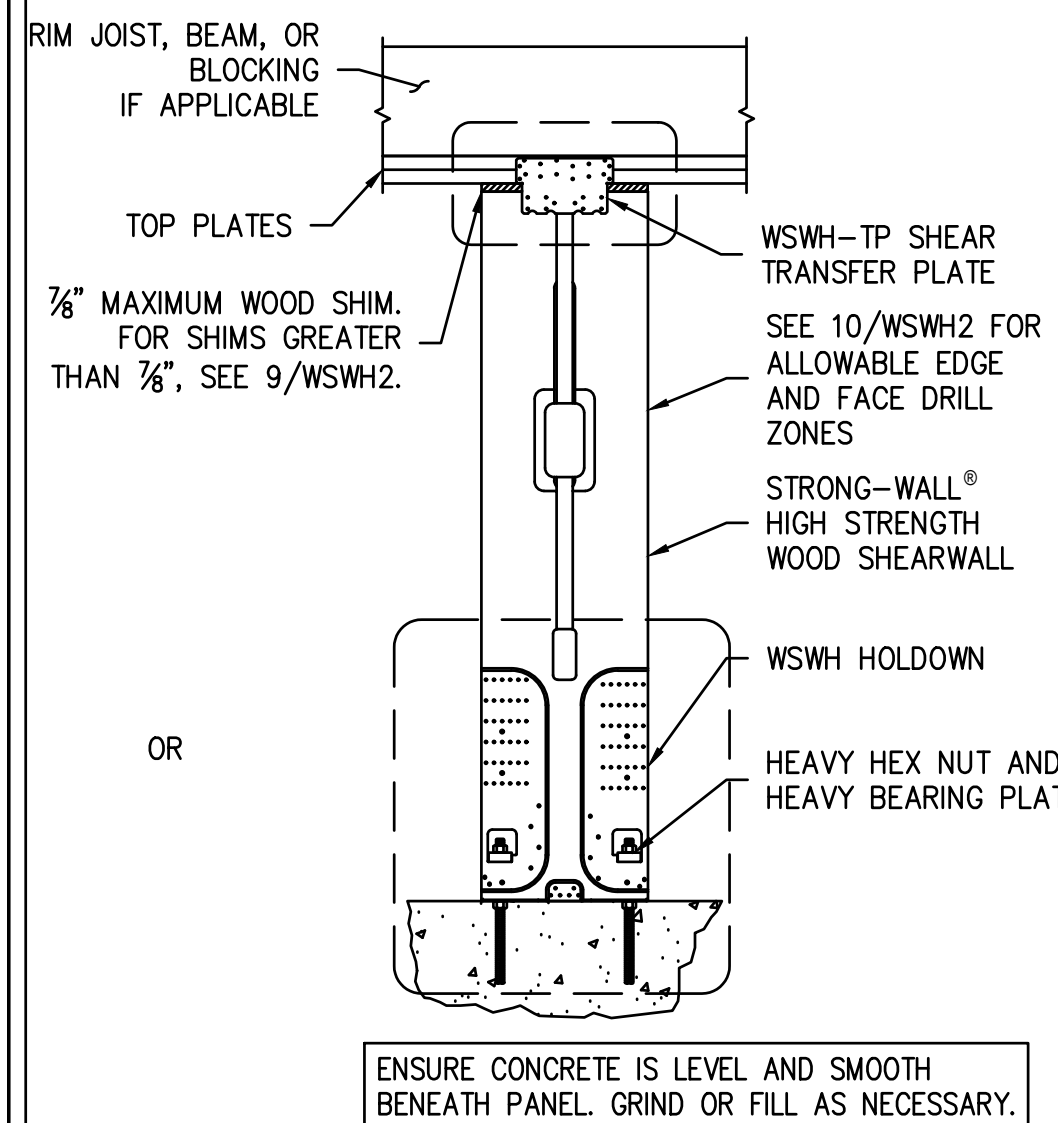


LTP4 SPACING BY OTHERS

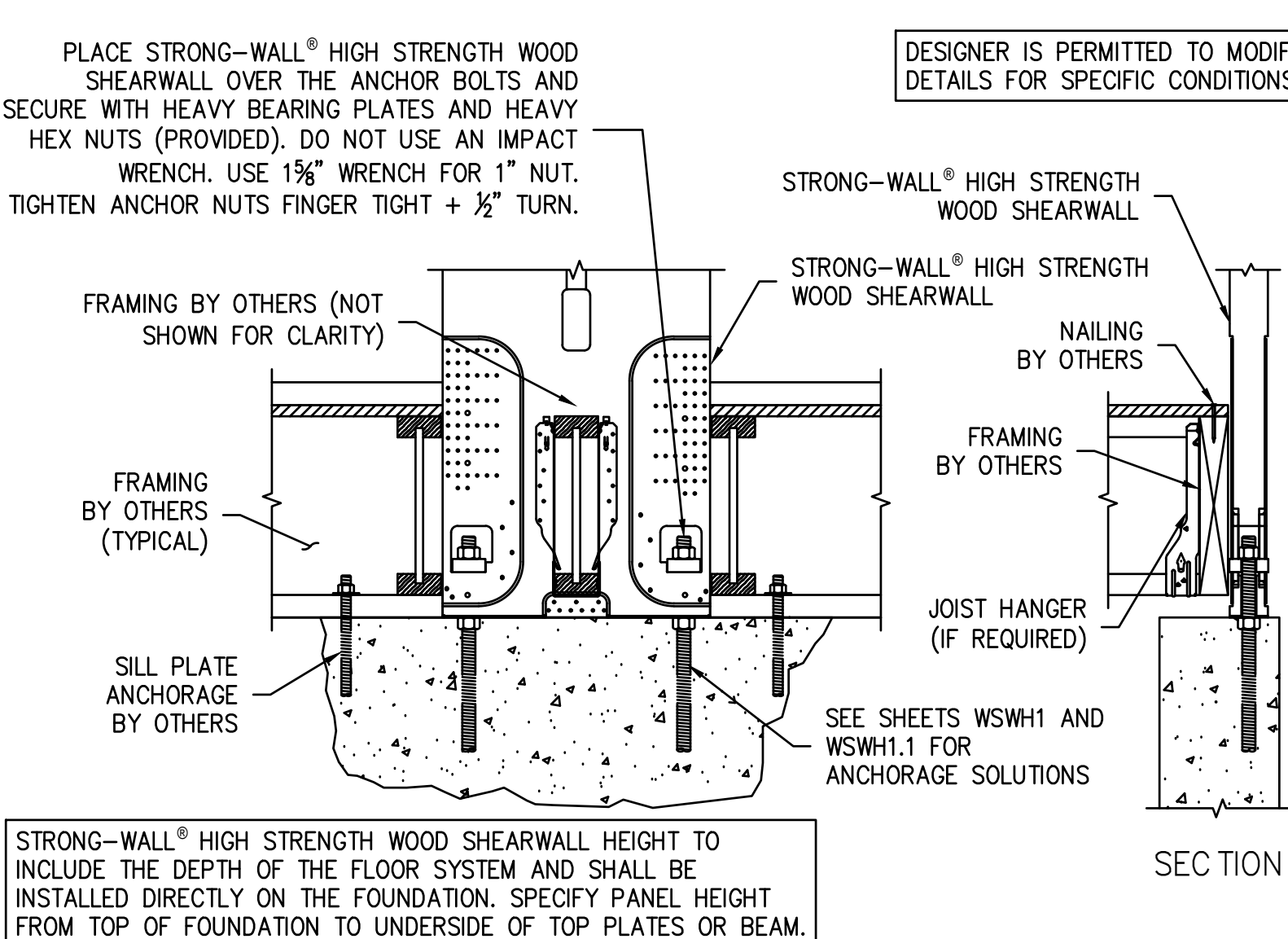
DESIGNER IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.



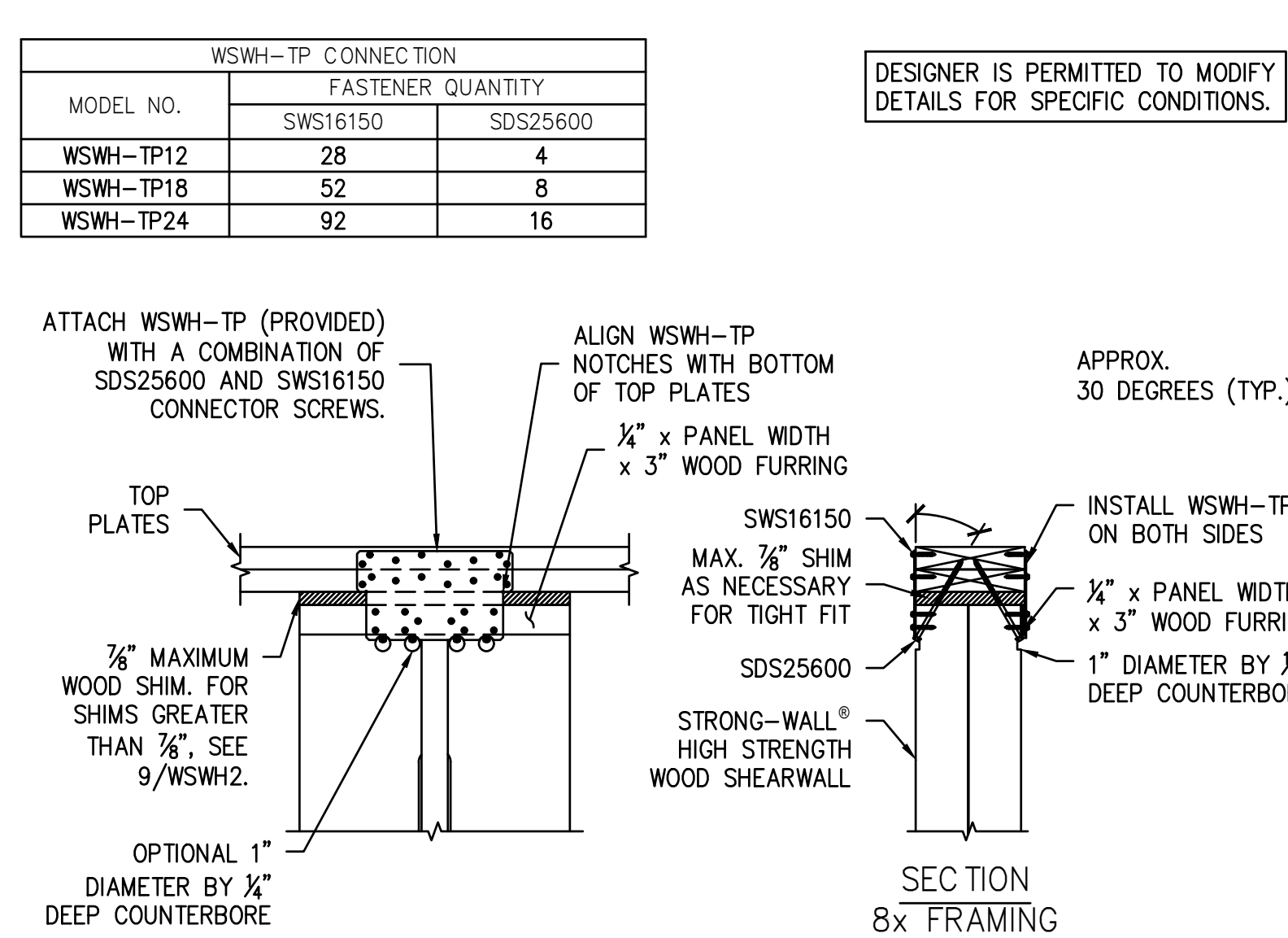
**STRONG-WALL® WSWH MODELS 1**



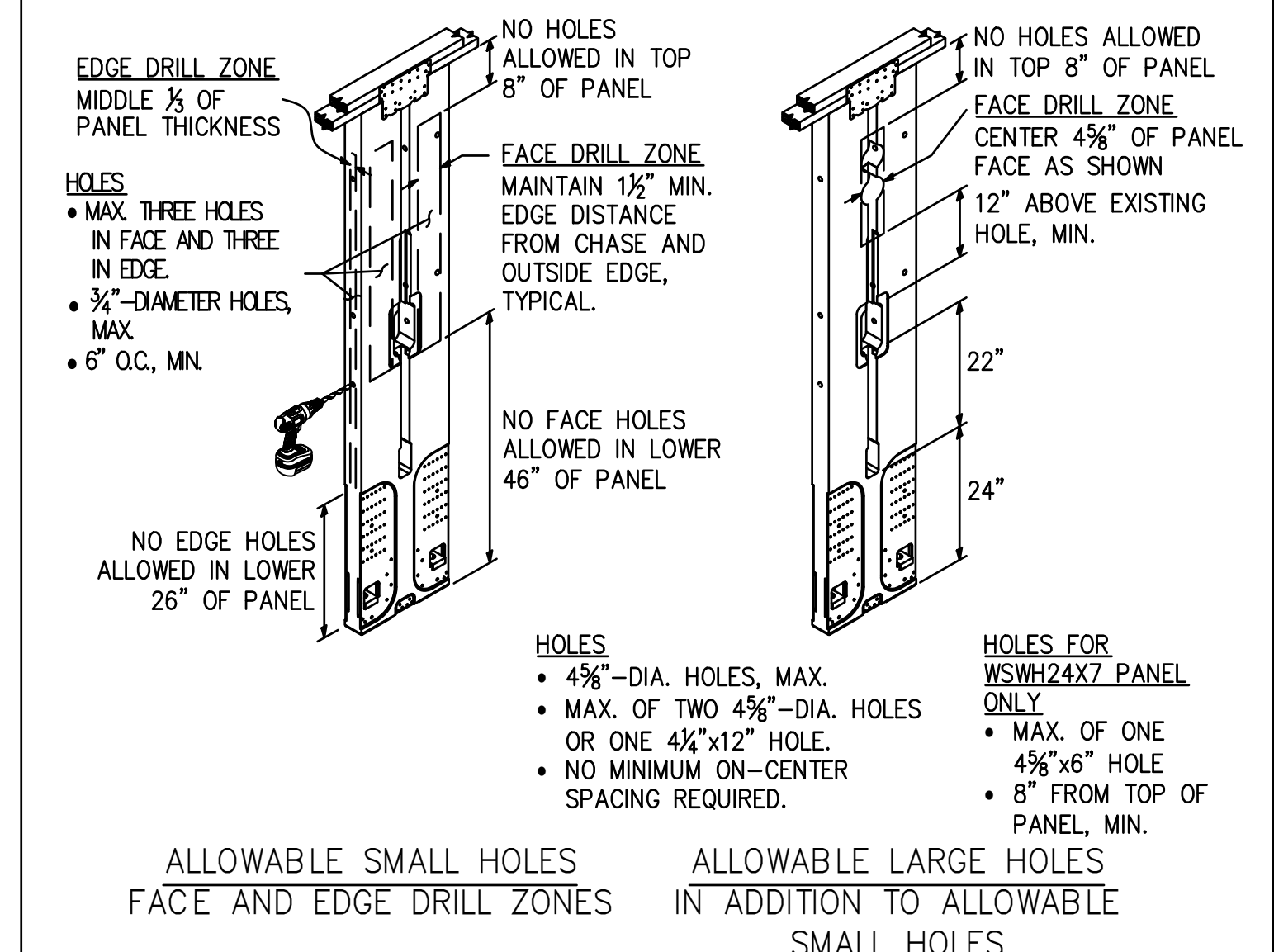
**STANDARD INSTALLATION BASE CONNECTION 4**



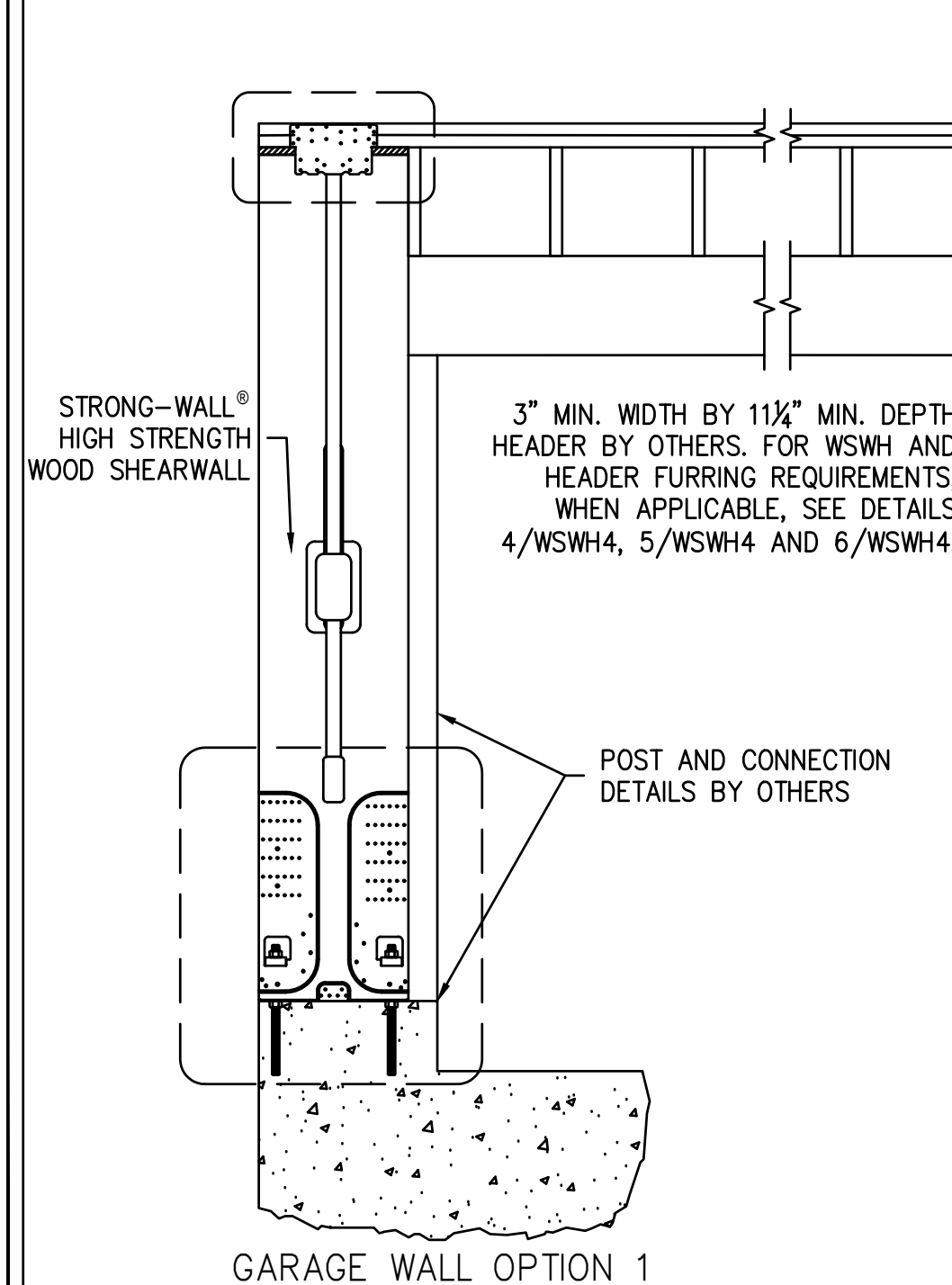
**TOP CONNECTION 6**



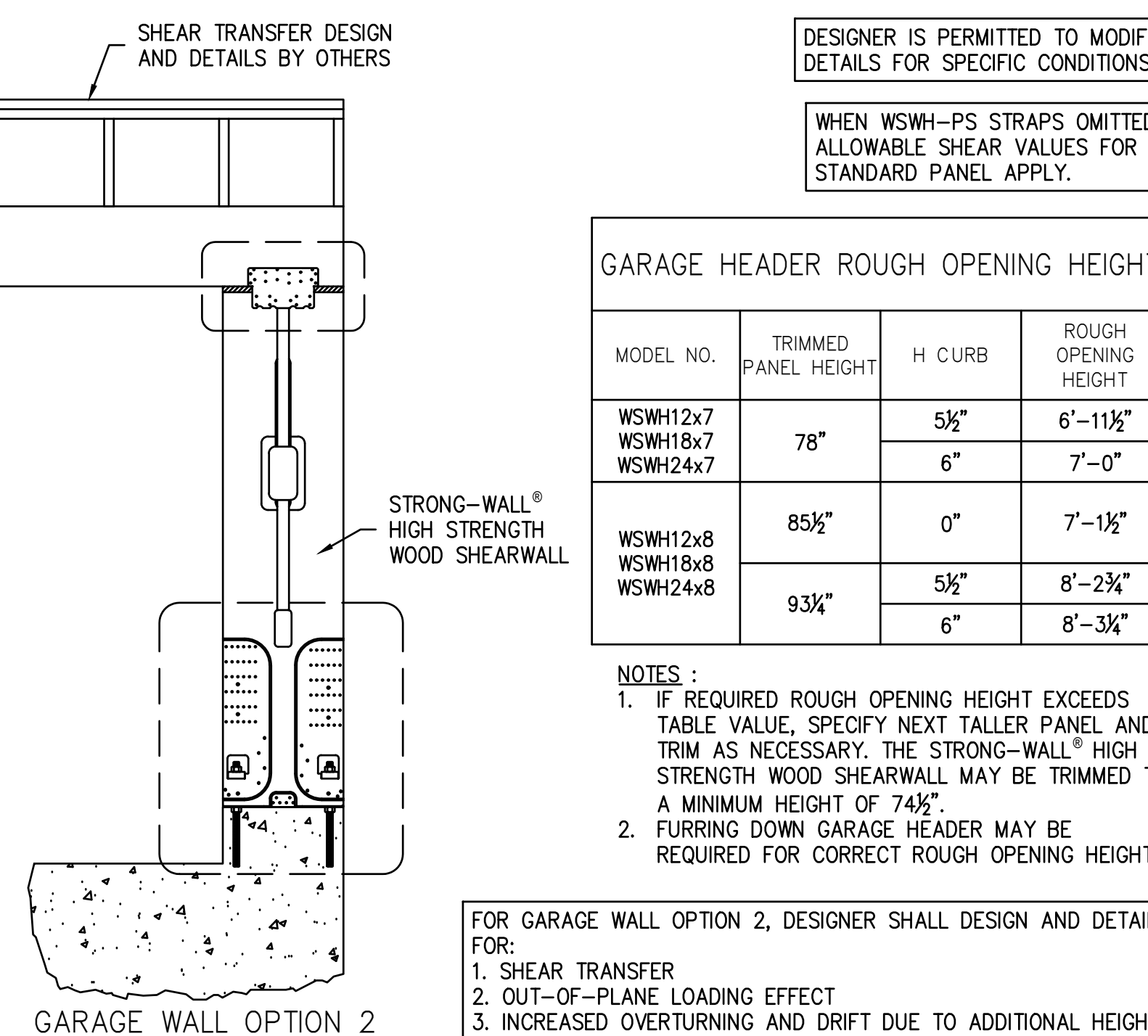
**TOP OF WALL HEIGHT ADJUSTMENTS 9**



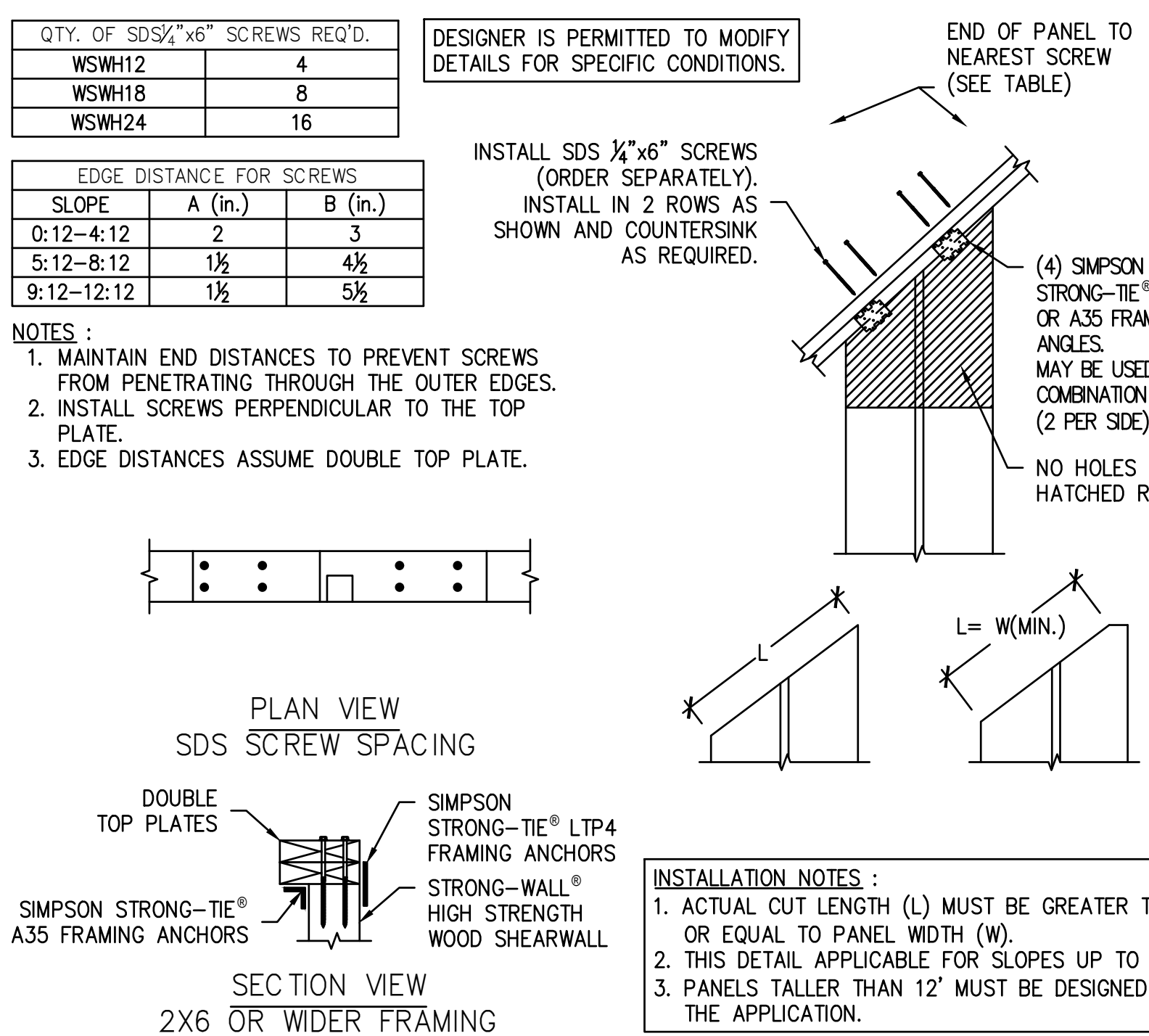
**SINGLE STORY WSWH 2**



**WOOD FLOOR SYSTEM BASE CONNECTION 5**



**BACK-TO-BACK TOP CONNECTION 7**



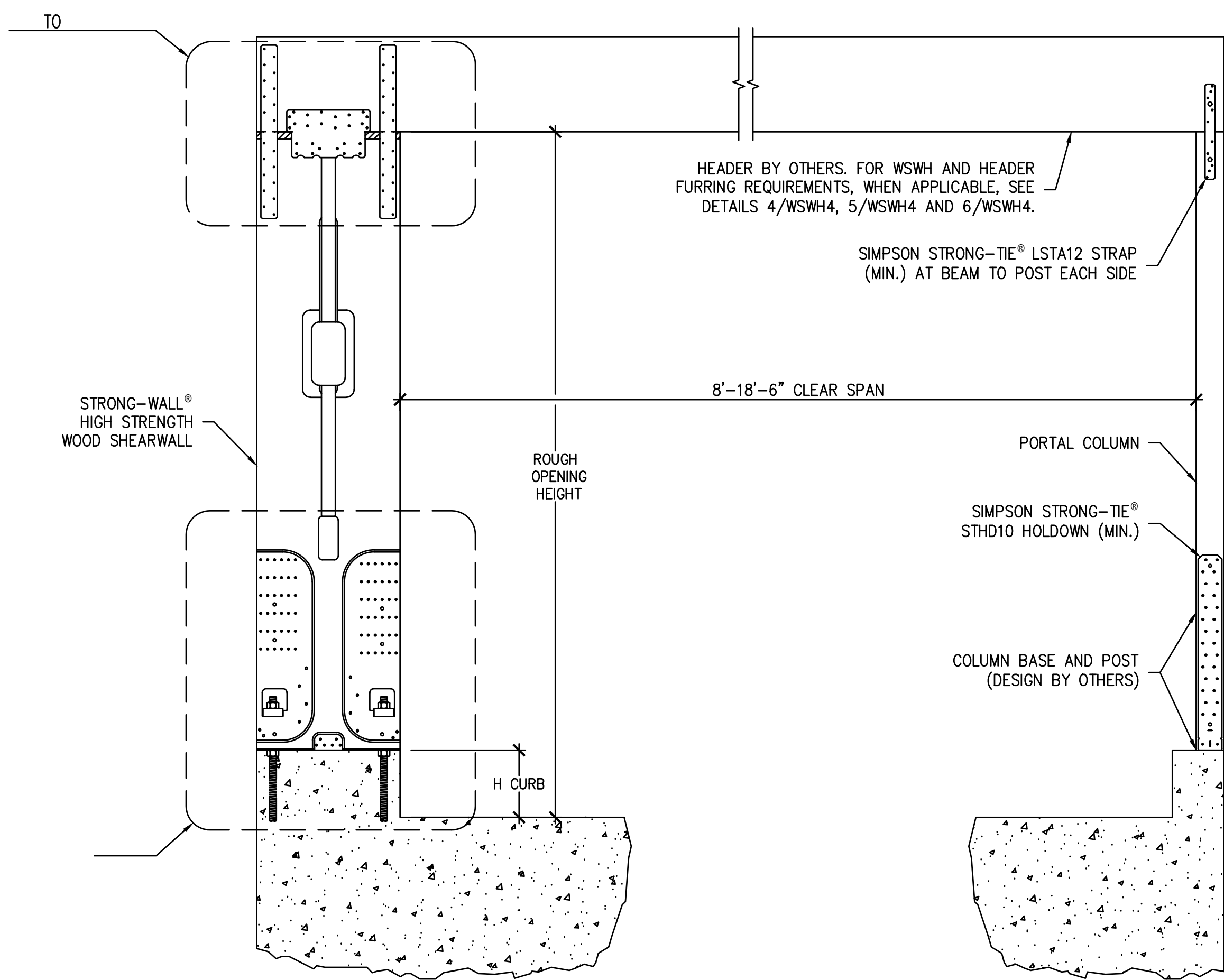
**TRIM ZONE AND ALLOWABLE HOLES 10**

- STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL IS MANUFACTURED AND TRADEMARKED BY "SIMPSON STRONG-TIE COMPANY INC." HOME OFFICE: 5956 W. LAS POSITAS BLVD., PLEASANTON, CA 94588 TEL: (800) 999-5099, FAX: (925) 847-1597. "SIMPSON STRONG-TIE COMPANY INC." IS AN ISO 9001-2008 REGISTERED COMPANY.
- USE OF THIS PRODUCT IS SUBJECT TO THE APPROVAL OF THE LOCAL BUILDING DEPARTMENT.
- THIS PRODUCT IS PART OF THE OVERALL LATERAL FORCE RESISTING SYSTEM OF THE STRUCTURE. DESIGN OF THE BUILDING'S LATERAL FORCE RESISTING SYSTEM, INCLUDING THE LOAD PATH TO TRANSFER LATERAL FORCES FROM THE STRUCTURE TO THE GROUND, IS THE RESPONSIBILITY OF THE DESIGNER.
- ENGINEER OF RECORD IS PERMITTED TO MODIFY DETAILS FOR SPECIFIC CONDITIONS.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ELEVATIONS, ETC. PRIOR TO INSTALLATION OF ANY COMPONENTS FOR THE STRONG-WALL SB SYSTEM. IF ANY DISCREPANCIES ARE FOUND, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER FOR CLARIFICATION PRIOR TO CONSTRUCTION.
- INSTALLATION OF PRODUCT SHALL BE DONE IN CONFORMANCE TO THESE DRAWINGS. THE PERFORMANCE OF MODIFIED PRODUCTS OR ALTERED INSTALLATION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE DESIGNER.
- SIMPSON STRONG-TIE COMPANY INC. RESERVES THE RIGHT TO CHANGE SPECIFICATIONS, DESIGNS, AND MODELS WITHOUT NOTICE OR LIABILITY FOR SUCH CHANGES.
- ALL HARDWARE CALLED OUT IS SIMPSON STRONG-TIE.
- SEE ICC-ES ESR-2652 OR CITY OF LOS ANGELES RR25730 AS APPLICABLE FOR ADDITIONAL INFORMATION.

**ALTERNATE WSWH GARAGE FRONT OPTIONS 3**

**RAKE WALL 8**

**NOTES 11**



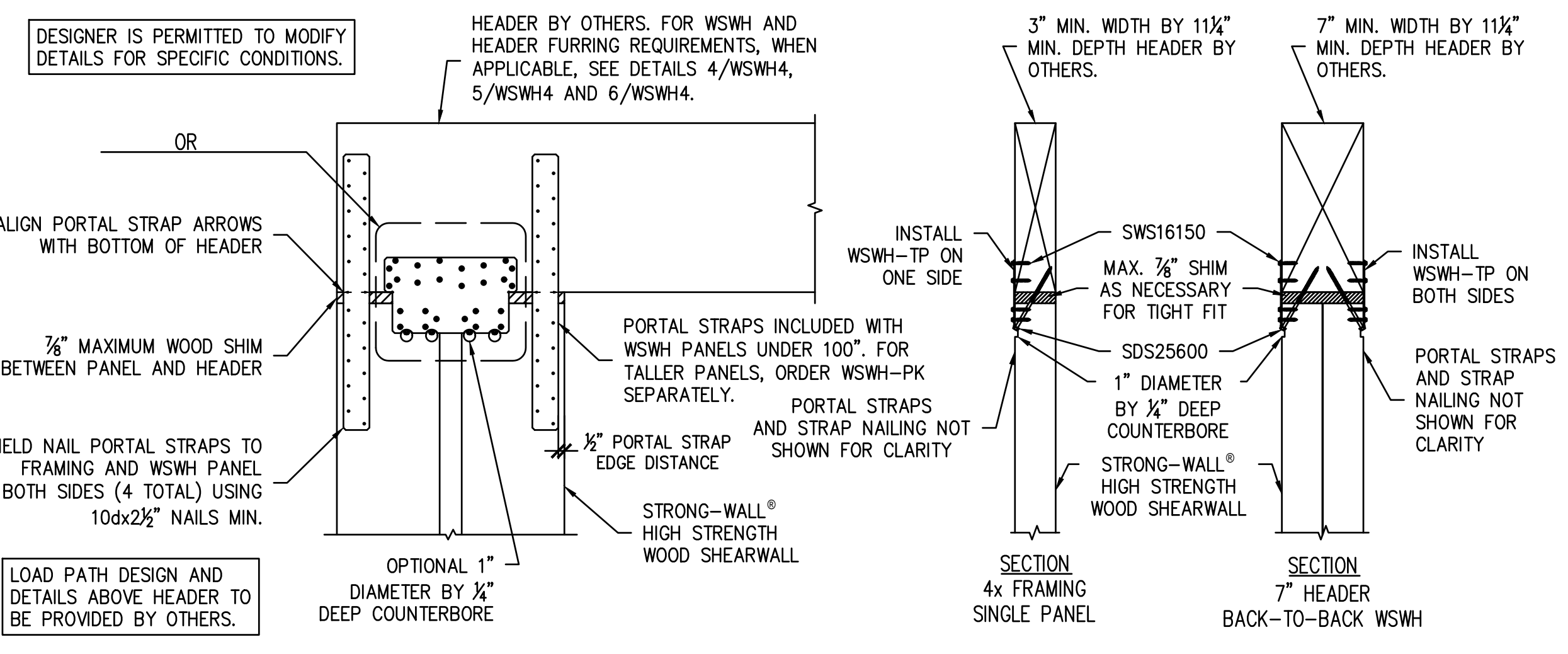
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5½"	6'-11½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	93¼"	0"	7'-1½"
		5½"	8'-2¾"
		6"	8'-3¼"

- NOTES :
- IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
  - FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

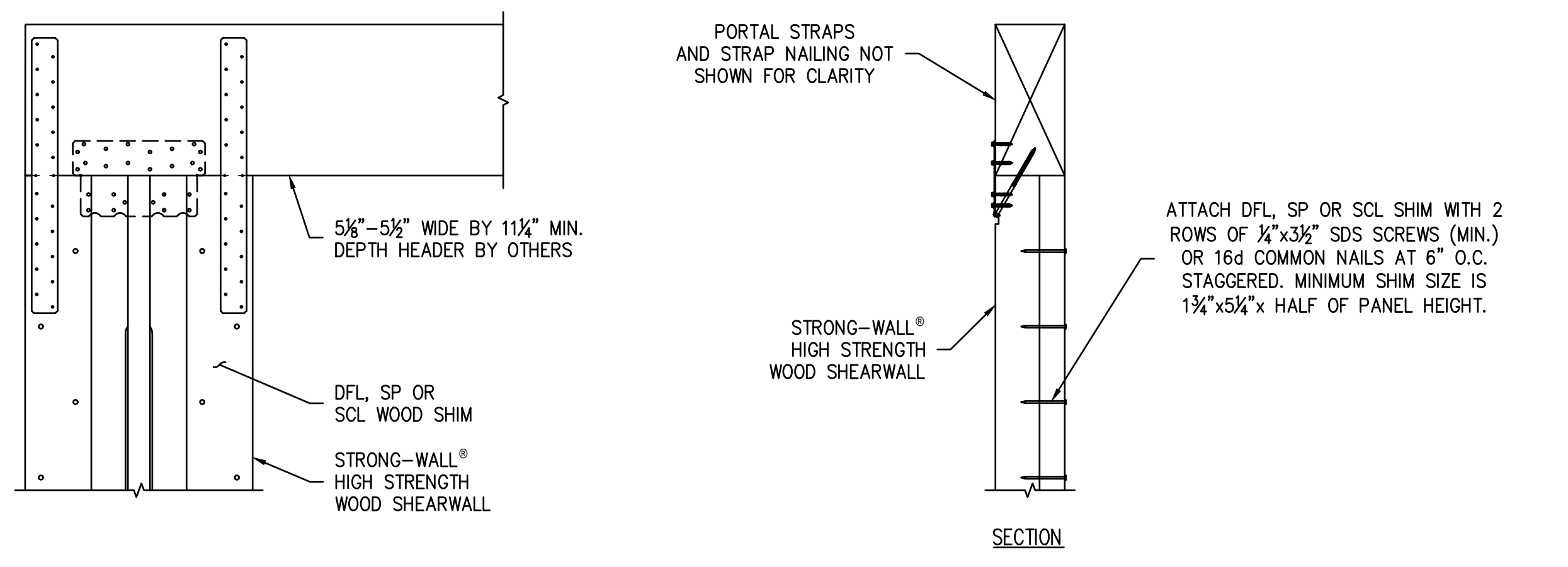
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL SINGLE PORTAL ASSEMBLY

1



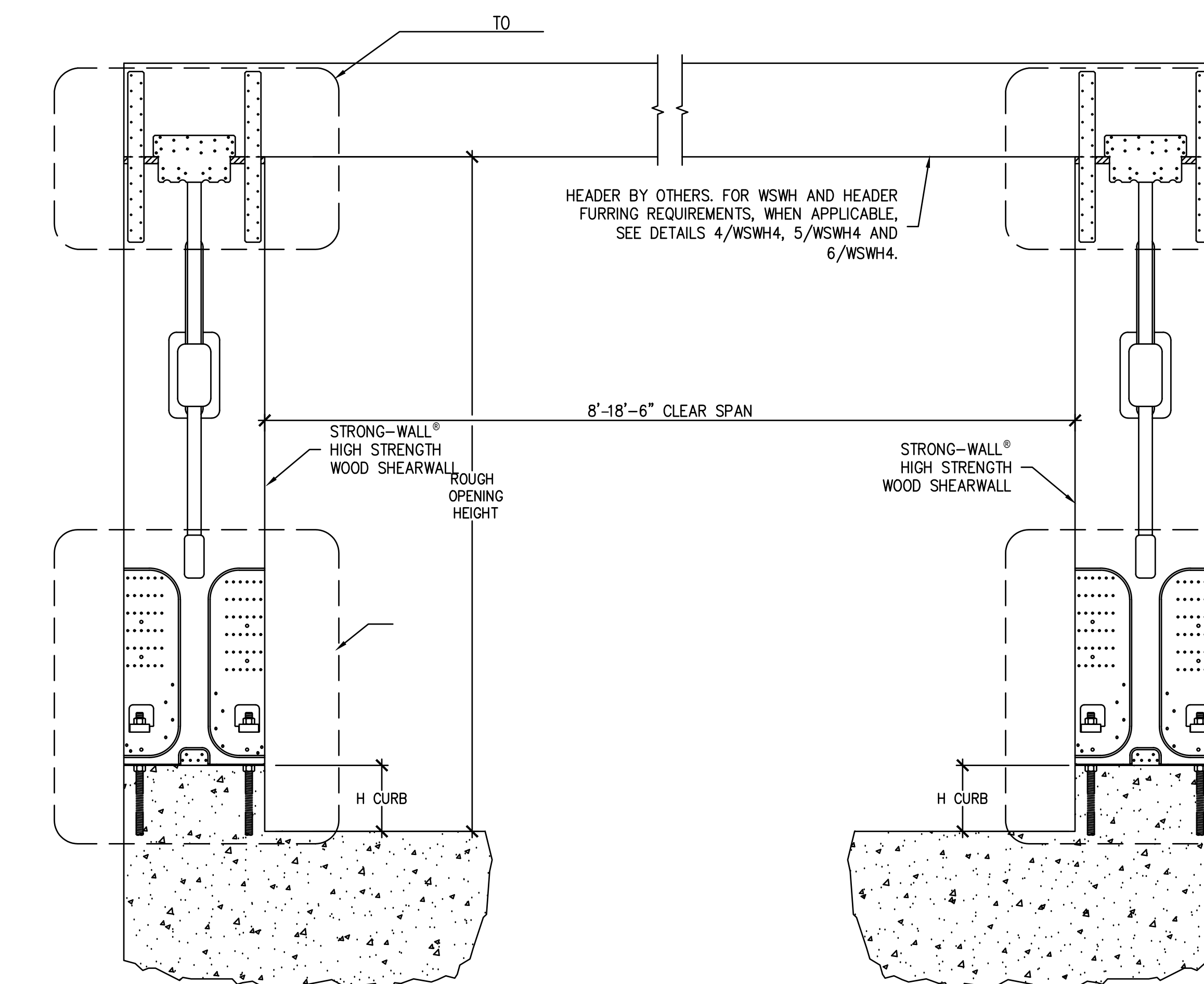
PORTAL TOP CONNECTION

3



FURRING FOR 5/8" TO 5/2" HEADER

4



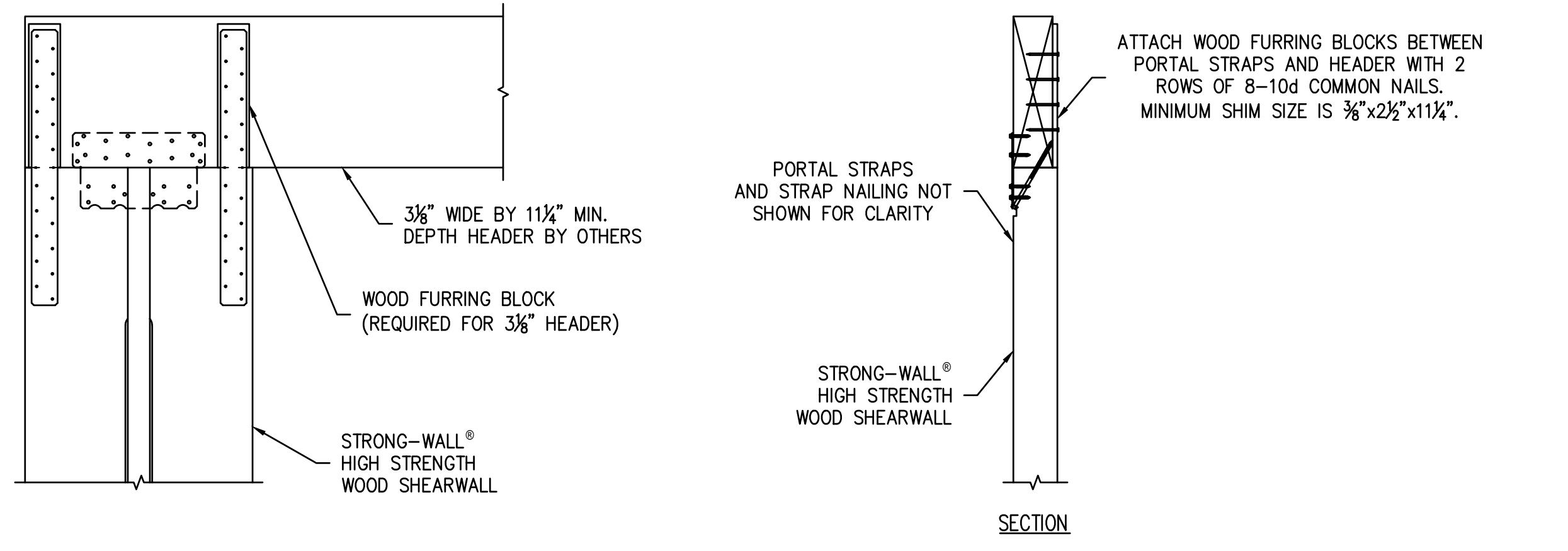
MODEL NO.	TRIMMED PANEL HEIGHT	H CURB	ROUGH OPENING HEIGHT
WSWH12x7 WSWH18x7 WSWH24x7	78"	5½"	6'-11½"
		6"	7'-0"
WSWH12x8 WSWH18x8 WSWH24x8	93¼"	0"	7'-1½"
		5½"	8'-2¾"
		6"	8'-3¼"

- NOTES :
- IF REQUIRED ROUGH OPENING HEIGHT EXCEEDS TABLE VALUE, SPECIFY NEXT TALLER PANEL AND TRIM AS NECESSARY. THE STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL MAY BE TRIMMED TO A MINIMUM HEIGHT OF 74½".
  - FURRING DOWN GARAGE HEADER MAY BE REQUIRED FOR CORRECT ROUGH OPENING HEIGHT.

ENSURE CONCRETE IS LEVEL AND SMOOTH BENEATH PANEL. GRIND OR FILL AS NECESSARY.

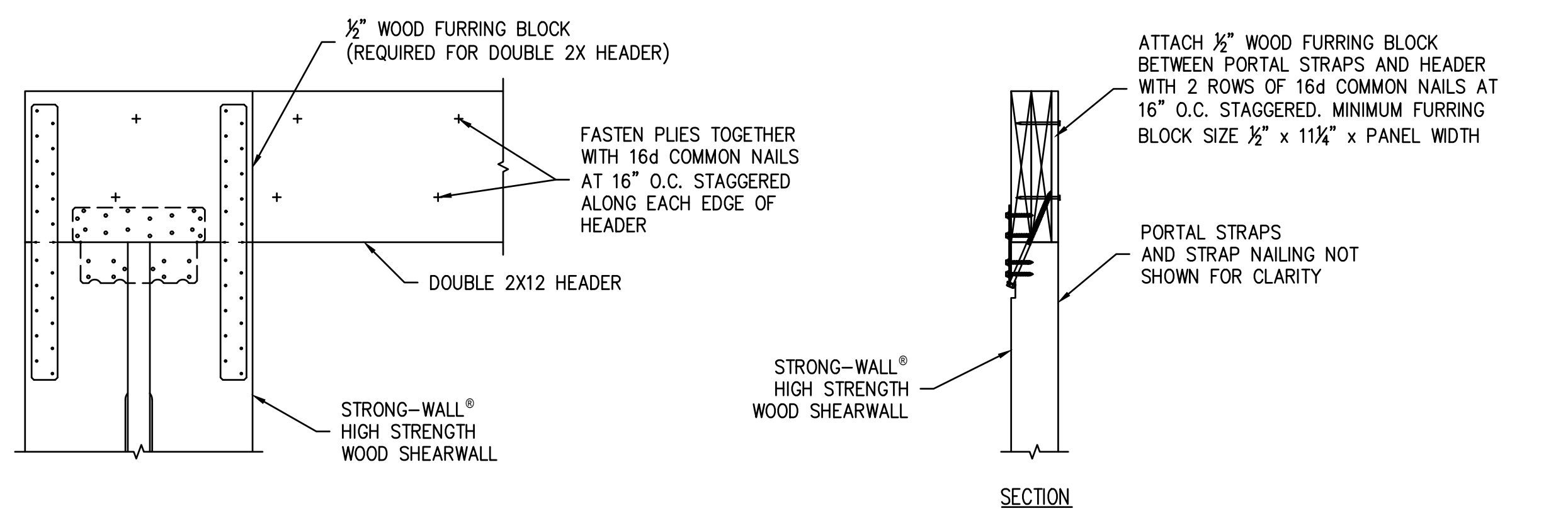
STRONG-WALL® HIGH STRENGTH WOOD SHEARWALL DOUBLE PORTAL ASSEMBLY

2



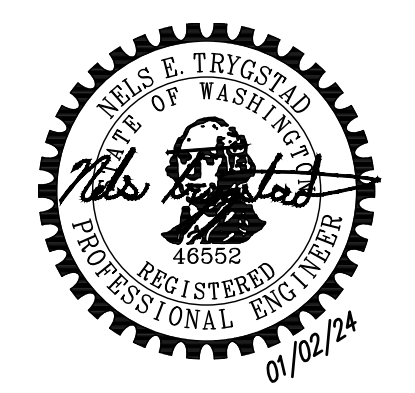
FURRING FOR 3/8" HEADER

5



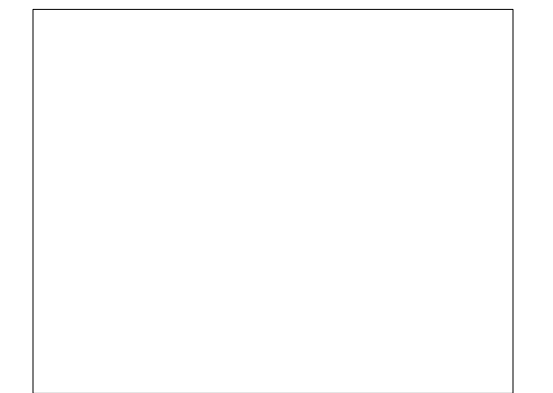
FURRING FOR DOUBLE 2X12 HEADERS

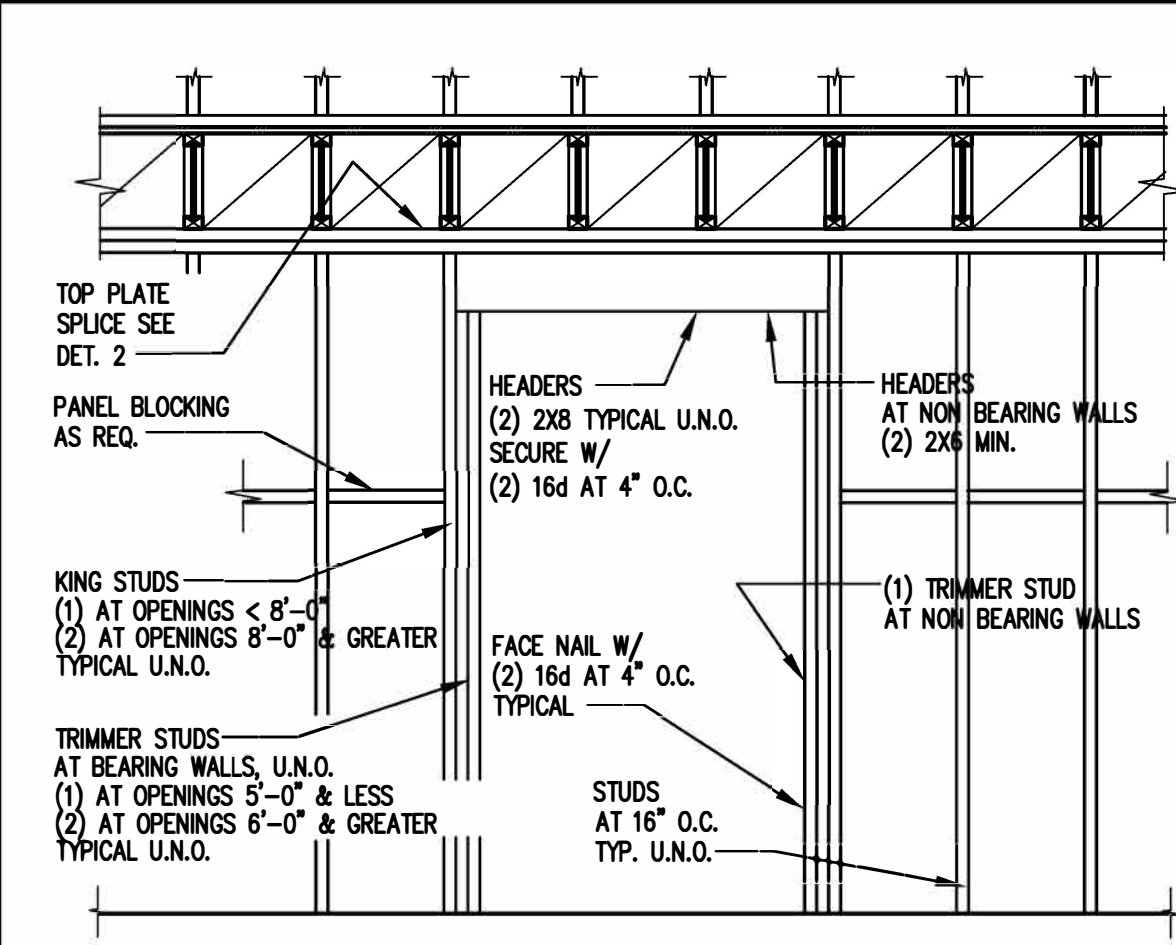
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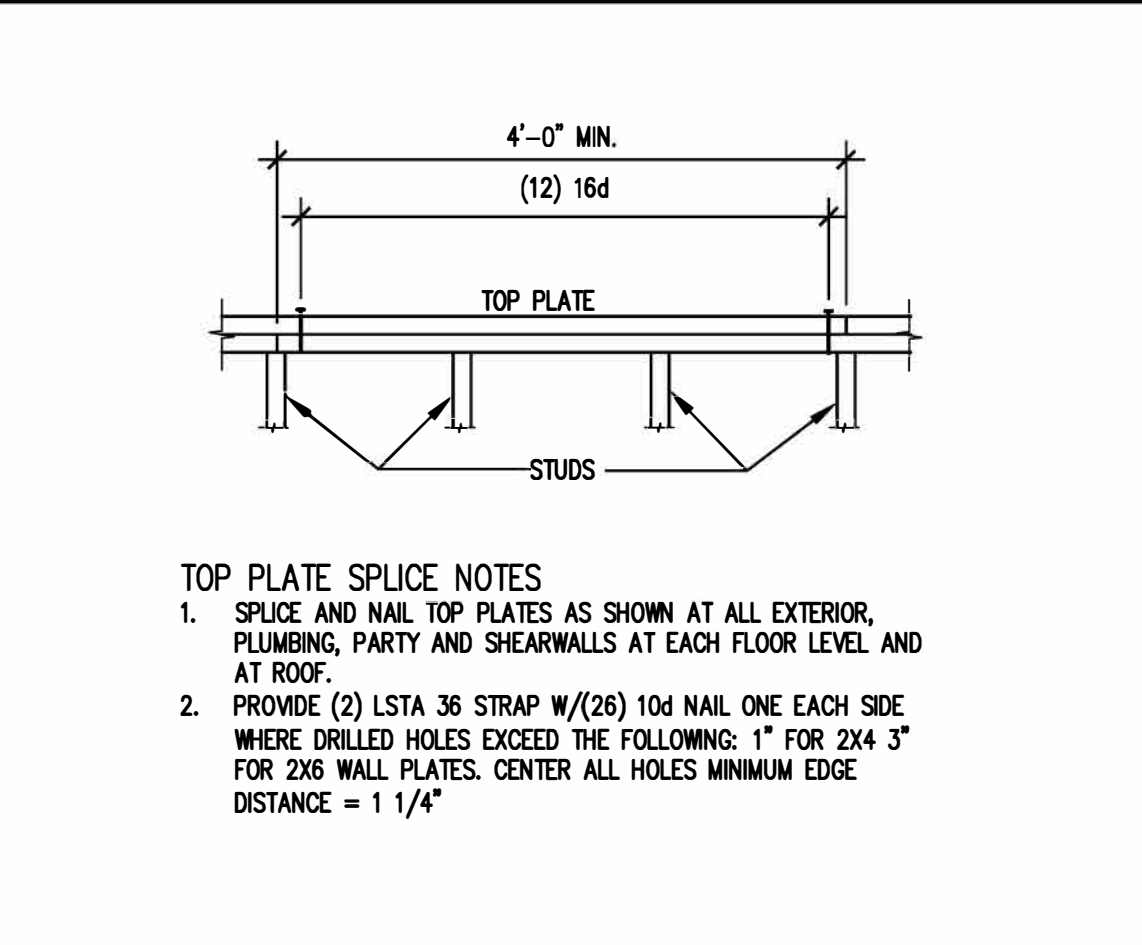
No.	Date	Revision Notes
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No.	Date	Issue Notes
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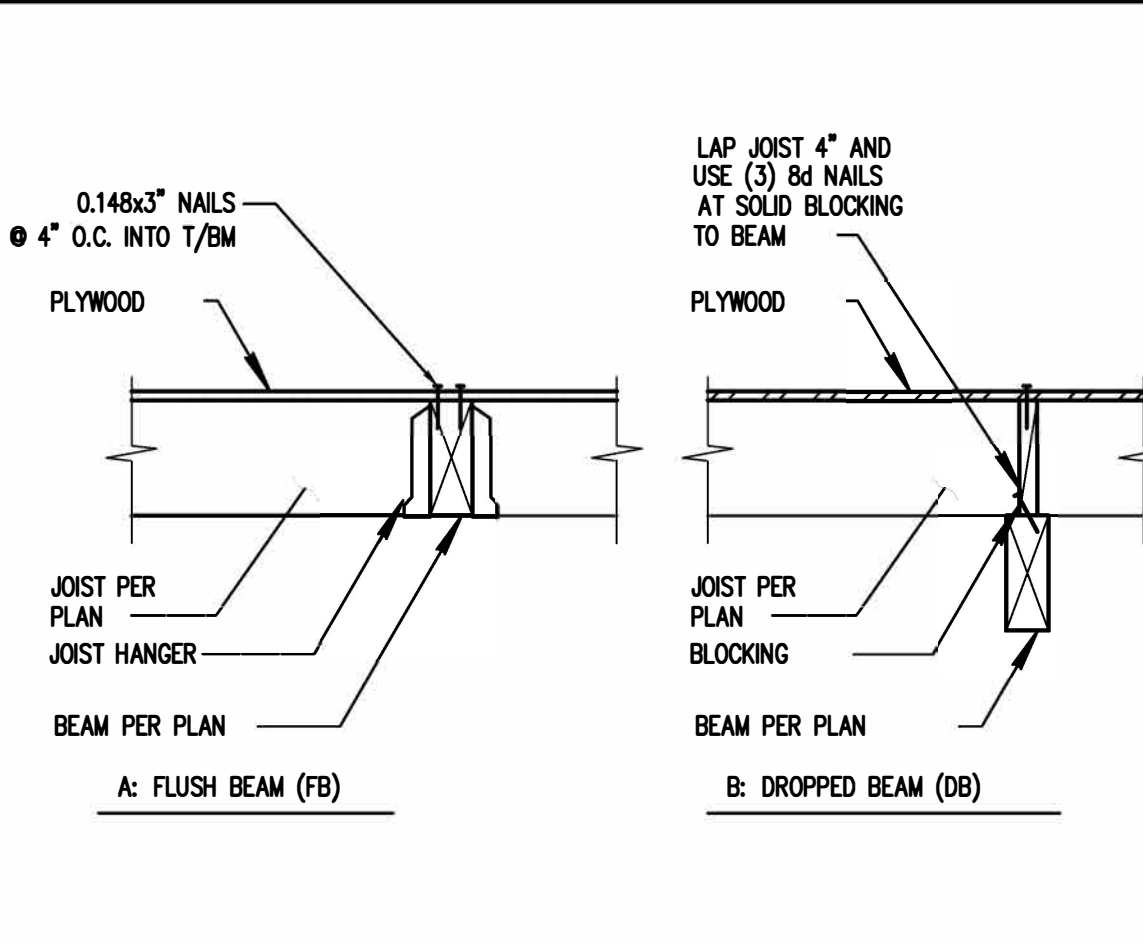




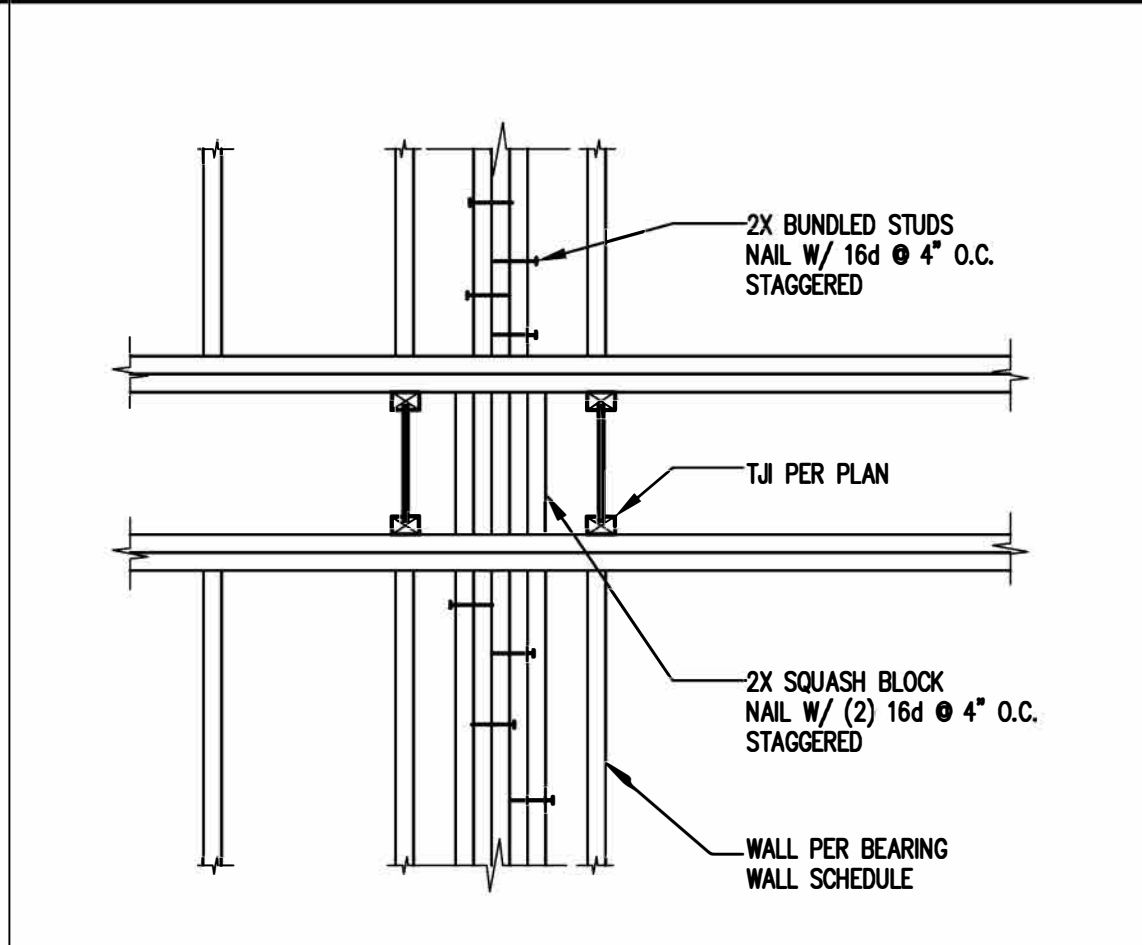
1 TYPICAL HEADER at WALL



2 TYPICAL TOP PLATE SPLICE



3 TYPICAL CONNECTION TO WOOD BEAM



4 TYPICAL BLOCKING at BUNDLED STUDS

NOTE: MOST STRUCTURAL SHEARWALLS SHOWN ON THESE PLANS WILL REQUIRE ADDITIONAL FASTENERS.

FASTENING SCHEDULE (B/C TABLE 2304.10.1)

CONNECTION	FASTENING (a, m)	LOCATION
1. JOIST TO SILL OR GIRDER	(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./GIRDER	(2) 16d COMMON	BLIND & FACE NAIL
6. SOLE PLATE TO JST. OR BLKG.	16d AT 16" O.C. 3" X 0.131" NAILS AT 8" 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
9. DOUBLE STUDS	(2) 16d COMMON (3) 3" X 0.131" NAILS	END NAIL END NAIL
10. DOUBLE TOP PLATES	16d COMMON AT 24" O.C. 3" X 0.131" NAILS AT 8" O.C.	FACE NAIL 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 (3) 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 GIRDER 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
25. 2" PLANKS	(2) 20d COMMON (3) 3" X 0.131" NAILS	FACE NAIL AT ENDS AND AT EACH BEARING
26. COLLAR TIE TO RAFTER	16d COMMON	FACE NAIL
27. JACK RAFTER TO HIP	(3) 10d COMMON (4) 3" X 0.131" NAILS	TOENAIL TOENAIL
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	(2) 16d COMMON (3) 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



6 RAFTERS TO WALL



7 TYP. OUTRIGGER ON-EDGE TO WALL



8 WOOD NAILER PLATE ON STEEL BEAM



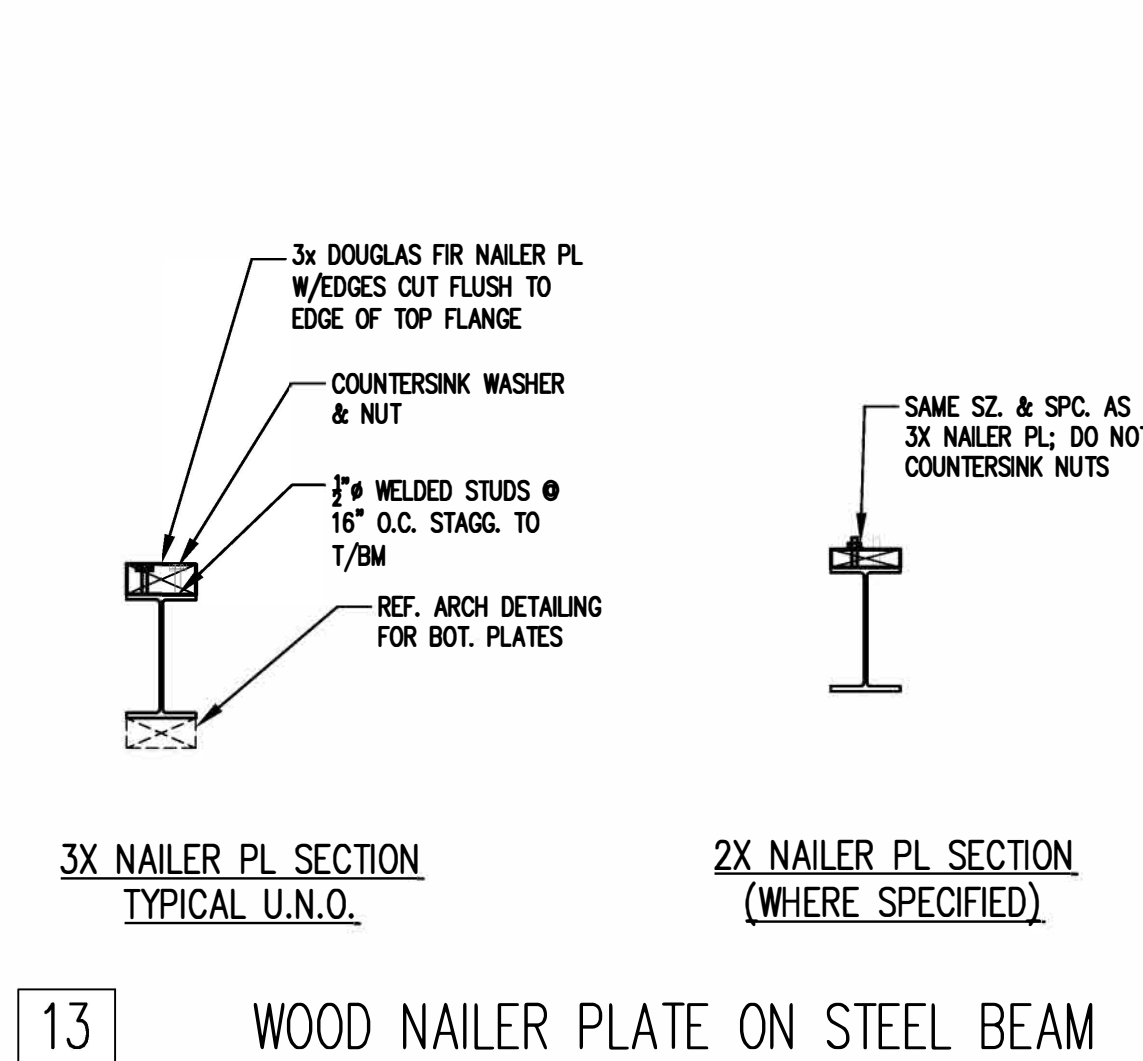
9 STEEL BEAM ON WALL



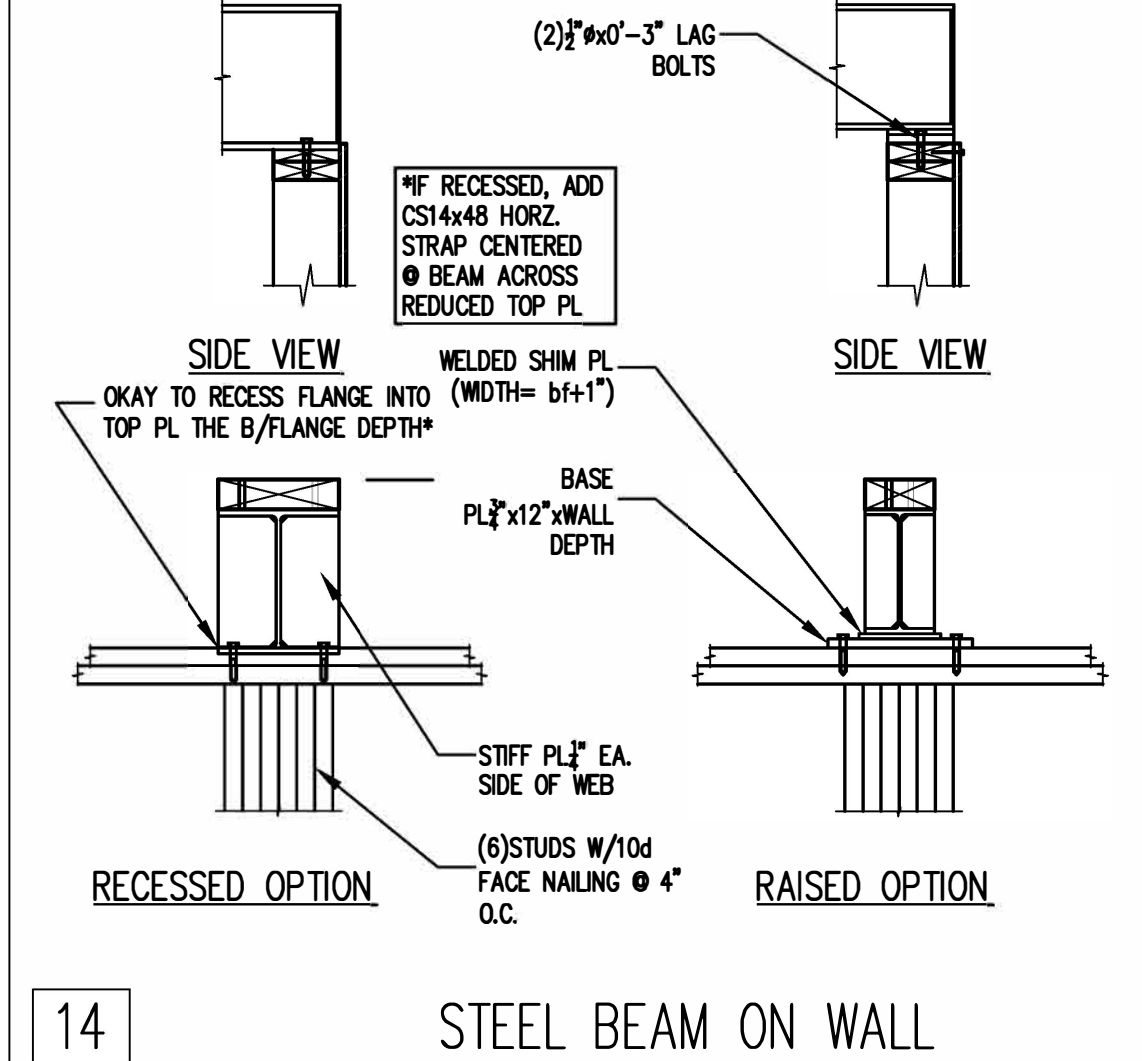
11 RAFTERS TO WALL



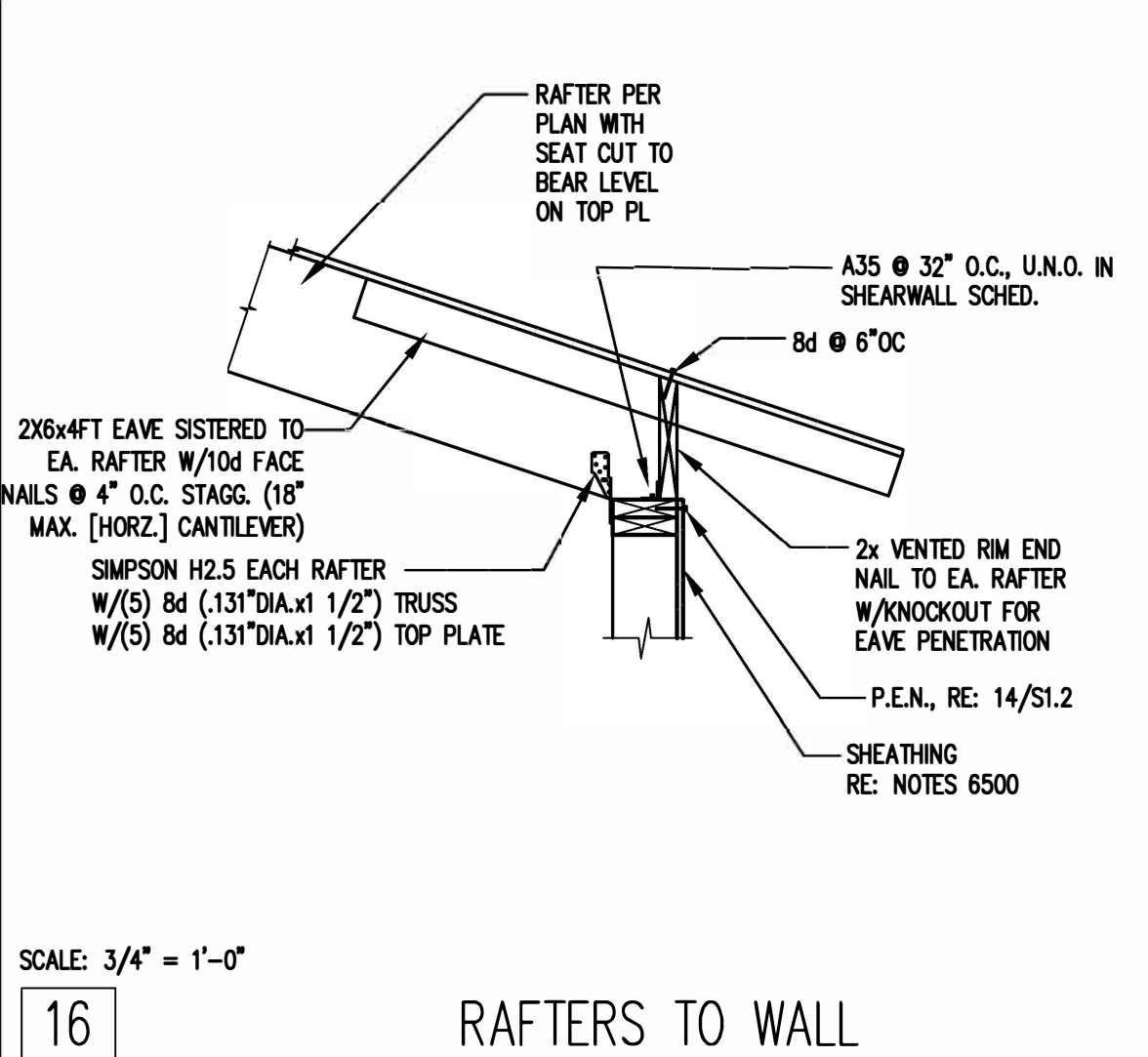
12 TYP. OUTRIGGER ON-EDGE TO WALL



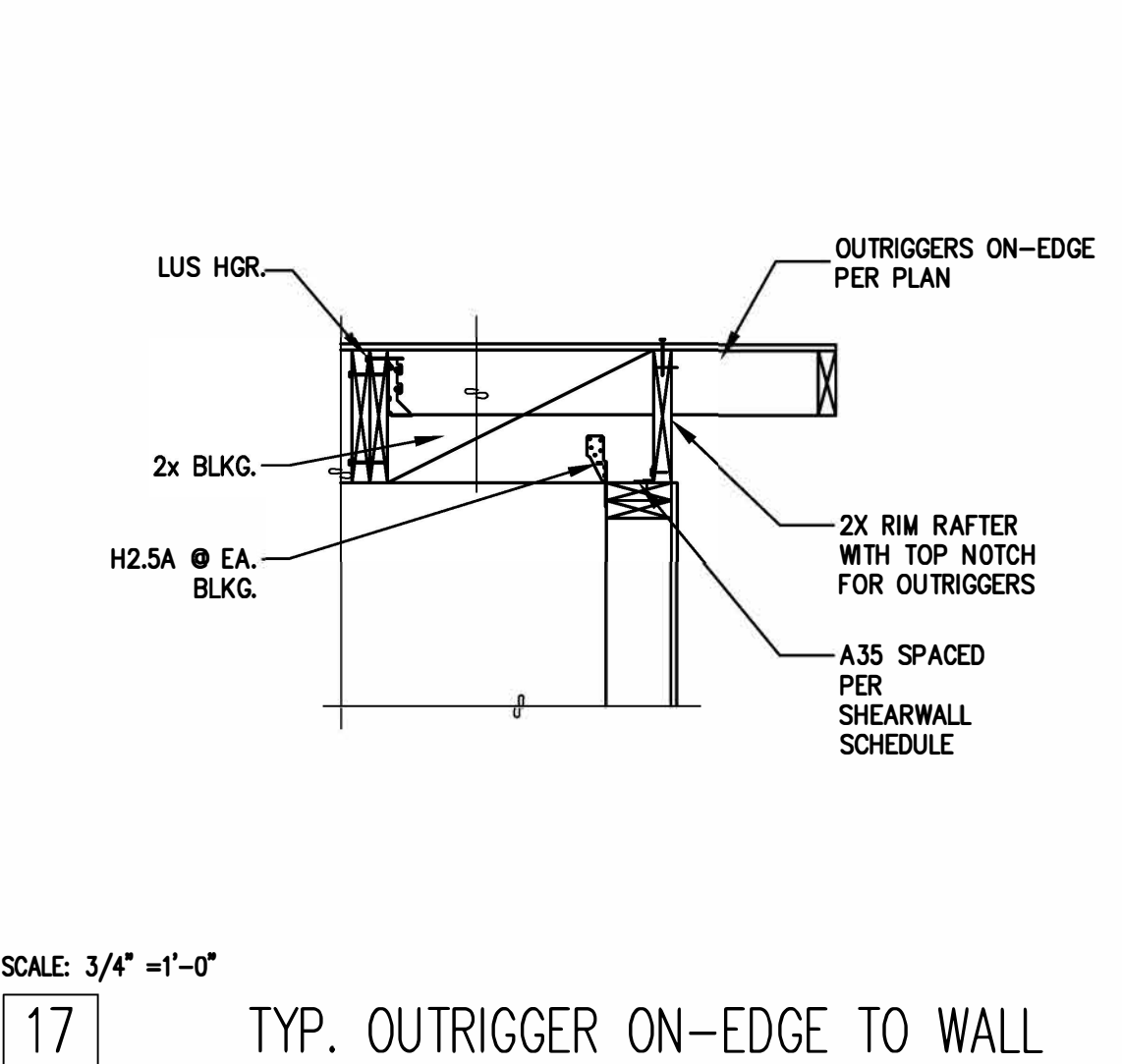
13 WOOD NAILER PLATE ON STEEL BEAM



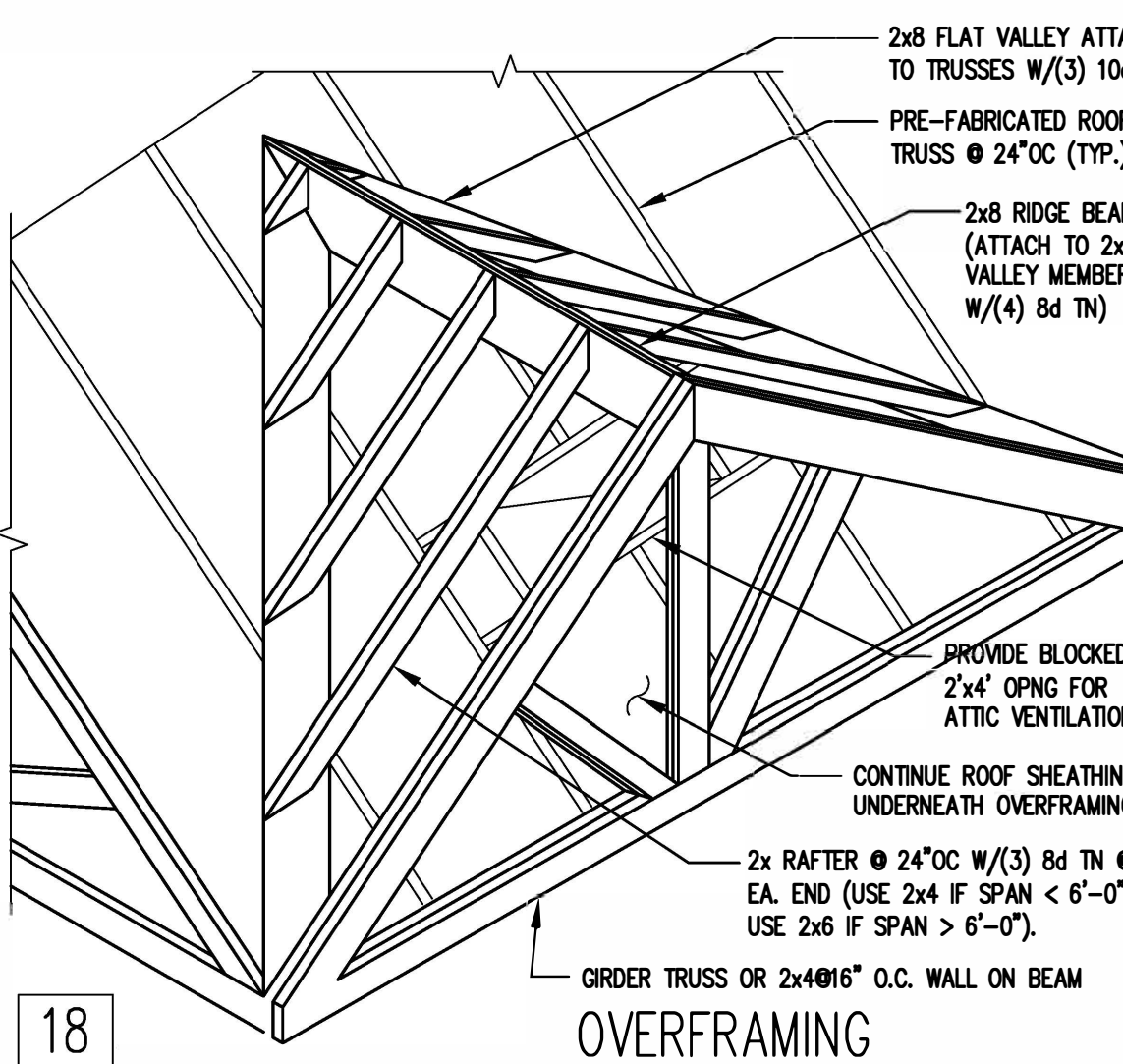
14 STEEL BEAM ON WALL



16 RAFTERS TO WALL



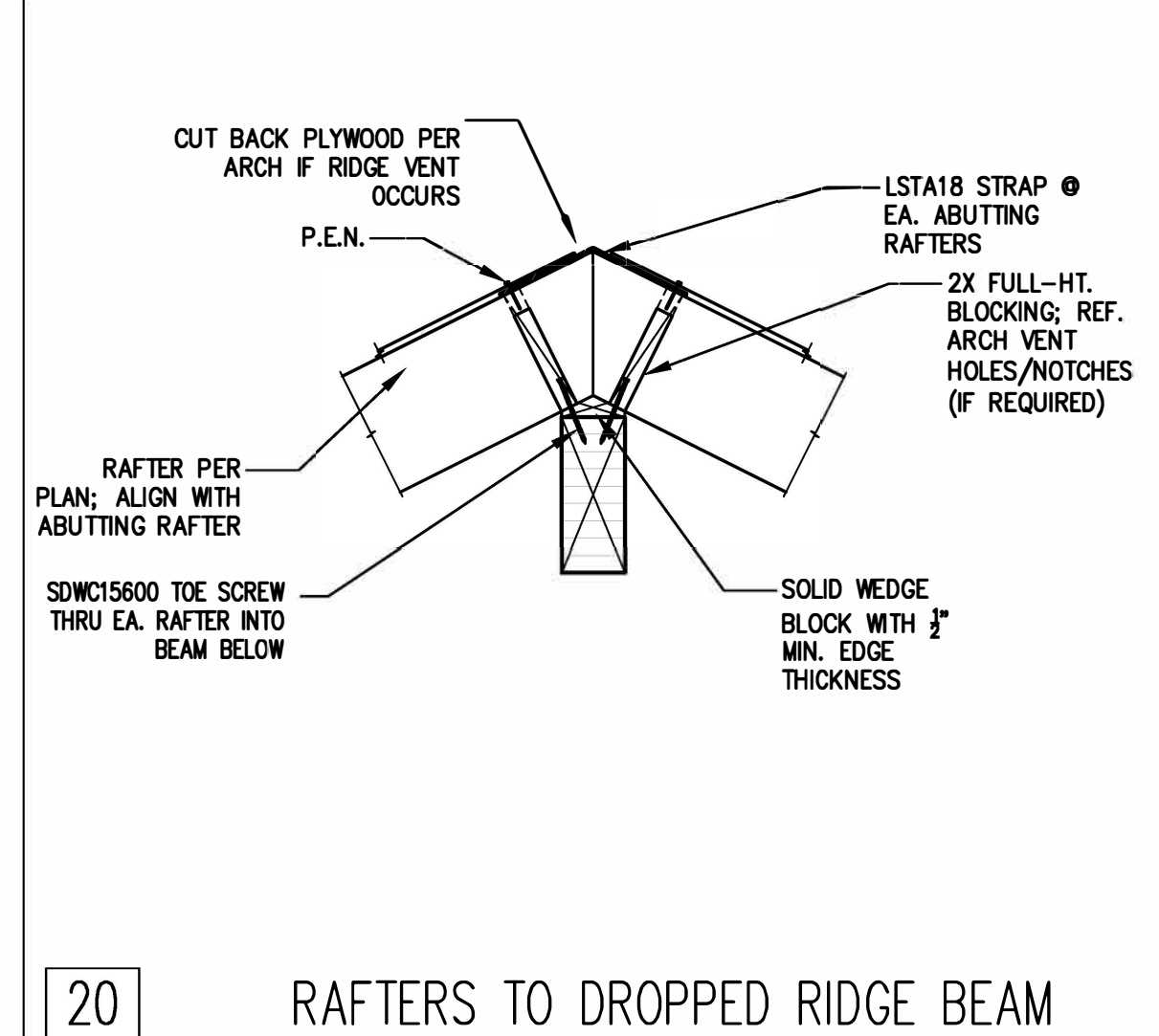
17 TYP. OUTRIGGER ON-EDGE TO WALL



18 OVERFRAMING



19 RAFTERS TO DROPPED RIDGE BEAM



20 RAFTERS TO DROPPED RIDGE BEAM