



AOR: AARON BROWN  
 MO #: A-7215  
 4334 QUARTER HORSE LANE  
 BATES CITY, MO 64011  
 816-588-1178

EAGLE 1 CONSTRUCTION  
 LAKEHOUSE # 3

DATE: 02-10-2022

SUBDIVISION: \_\_\_\_\_  
 PLOT #: \_\_\_\_\_

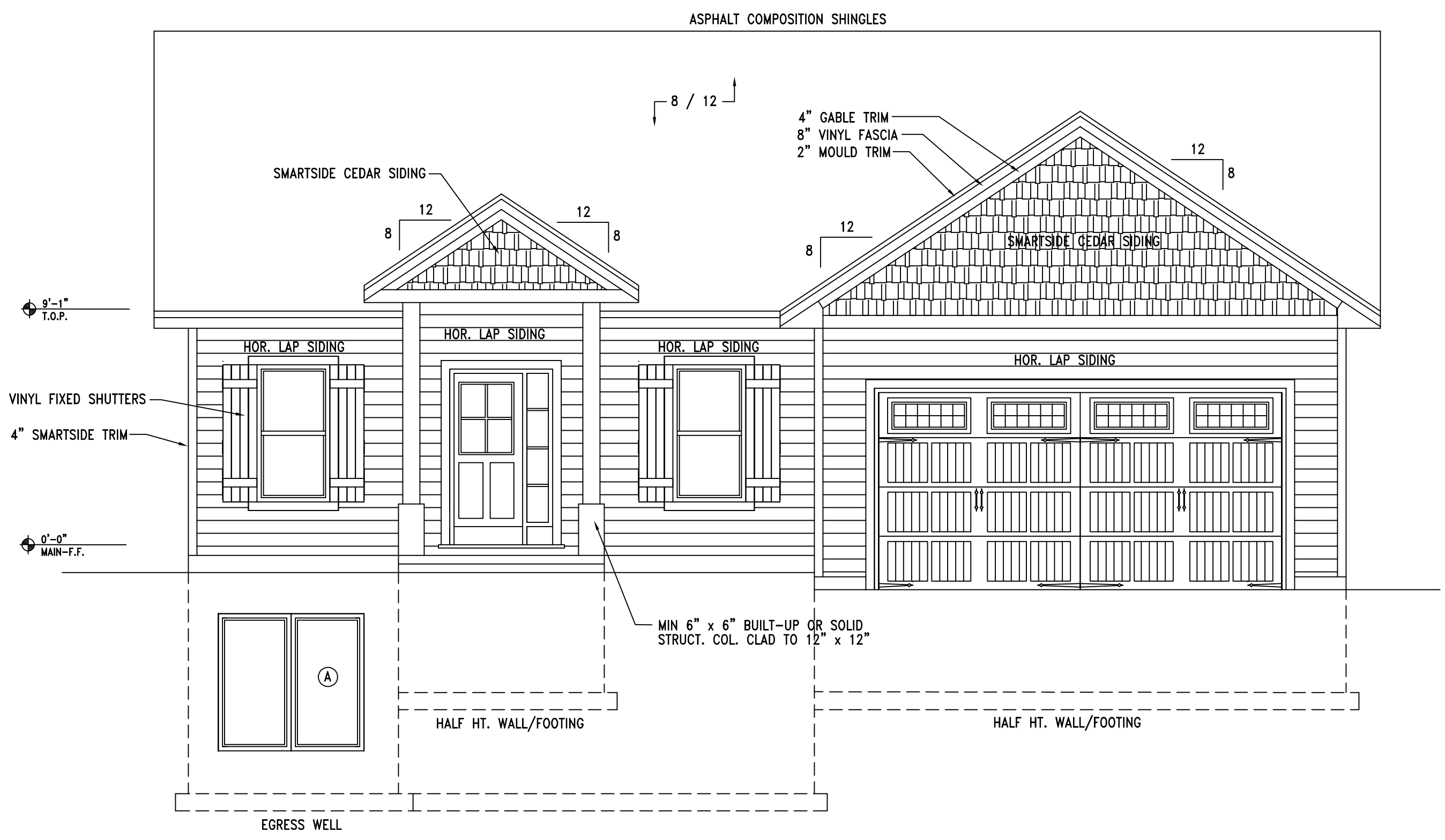
REVISION	DATE

ISSUED: PERMIT/CONSTRUCTION

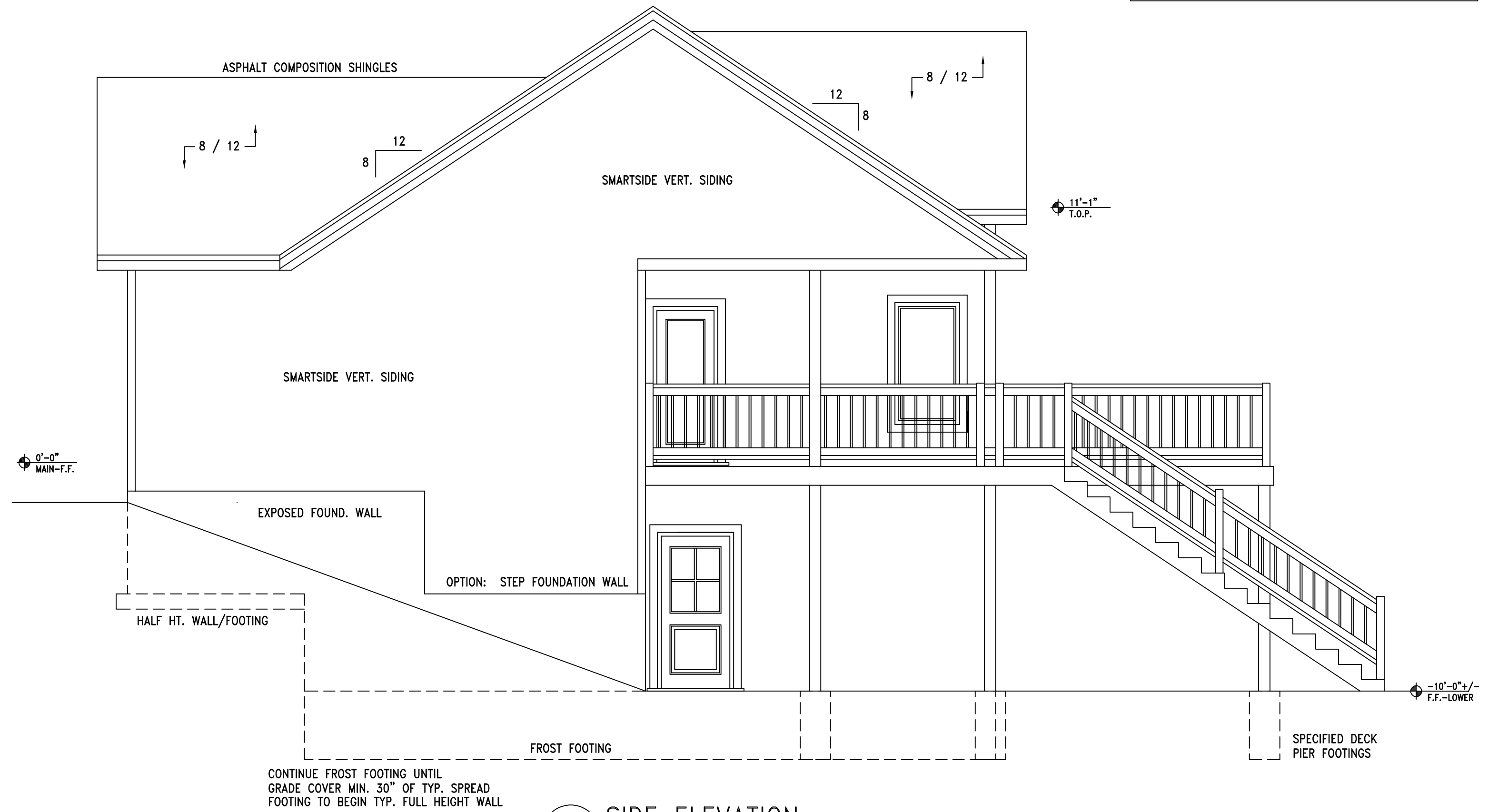
A1

**SQUARE FOOTAGE CALCULATIONS**  
 MAIN LEVEL = 910 GSF  
 LOWER LEVEL = 770 GSF (FINISHED)  
 2-CAR GARAGE = 465 GSF  
 COVERED RAISED DECK = 140 GSF  
 OPEN RAISED DECK = 170 GSF  
 COVERED ENTRY PORCH = 40 GSF

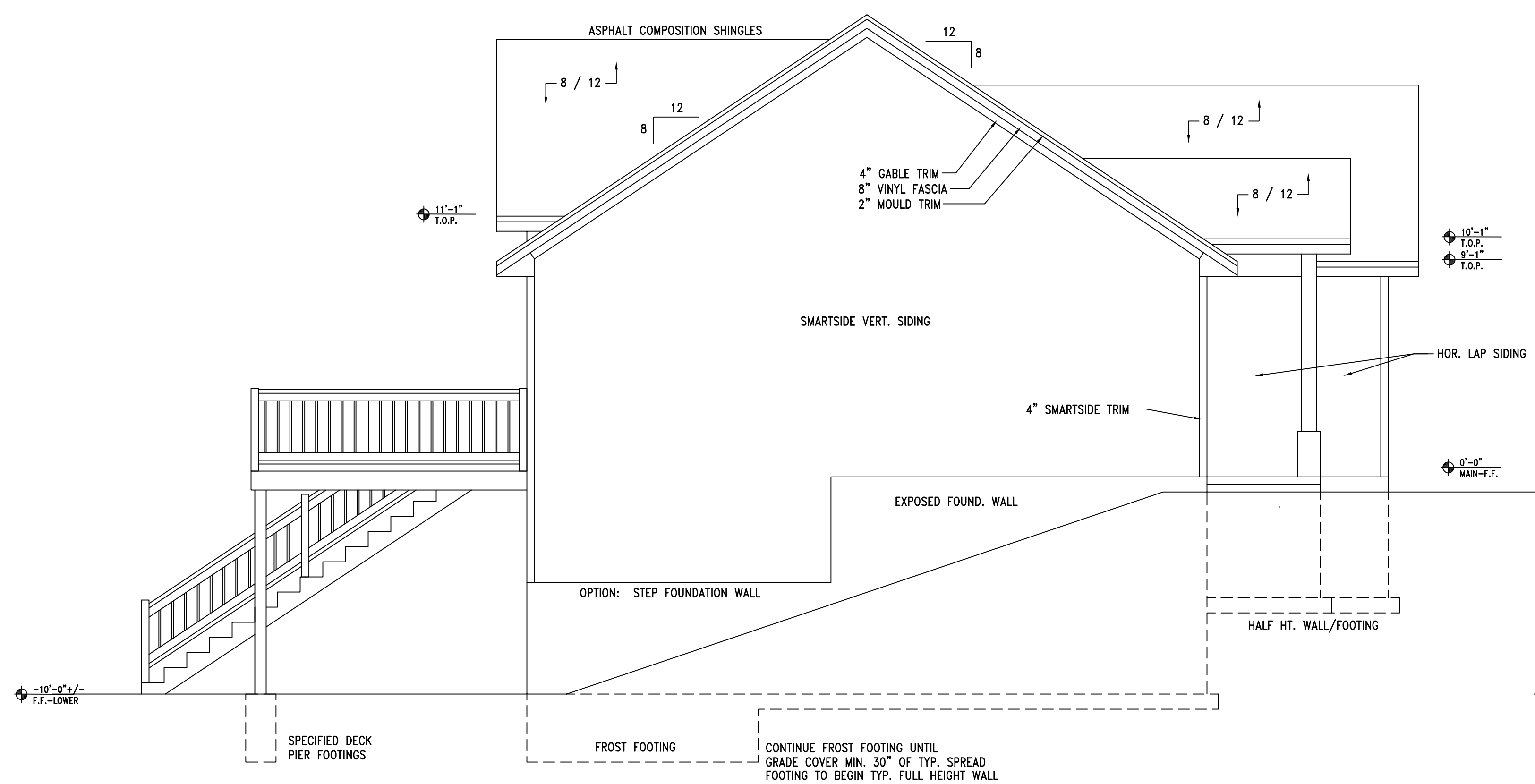
EMERGENCY ESCAPE WINDOWS-  
 44" MAX. TO LOWEST PORTION  
 & MIN. 5.7 SQUARE FEET OF  
 WINDOW OPENING



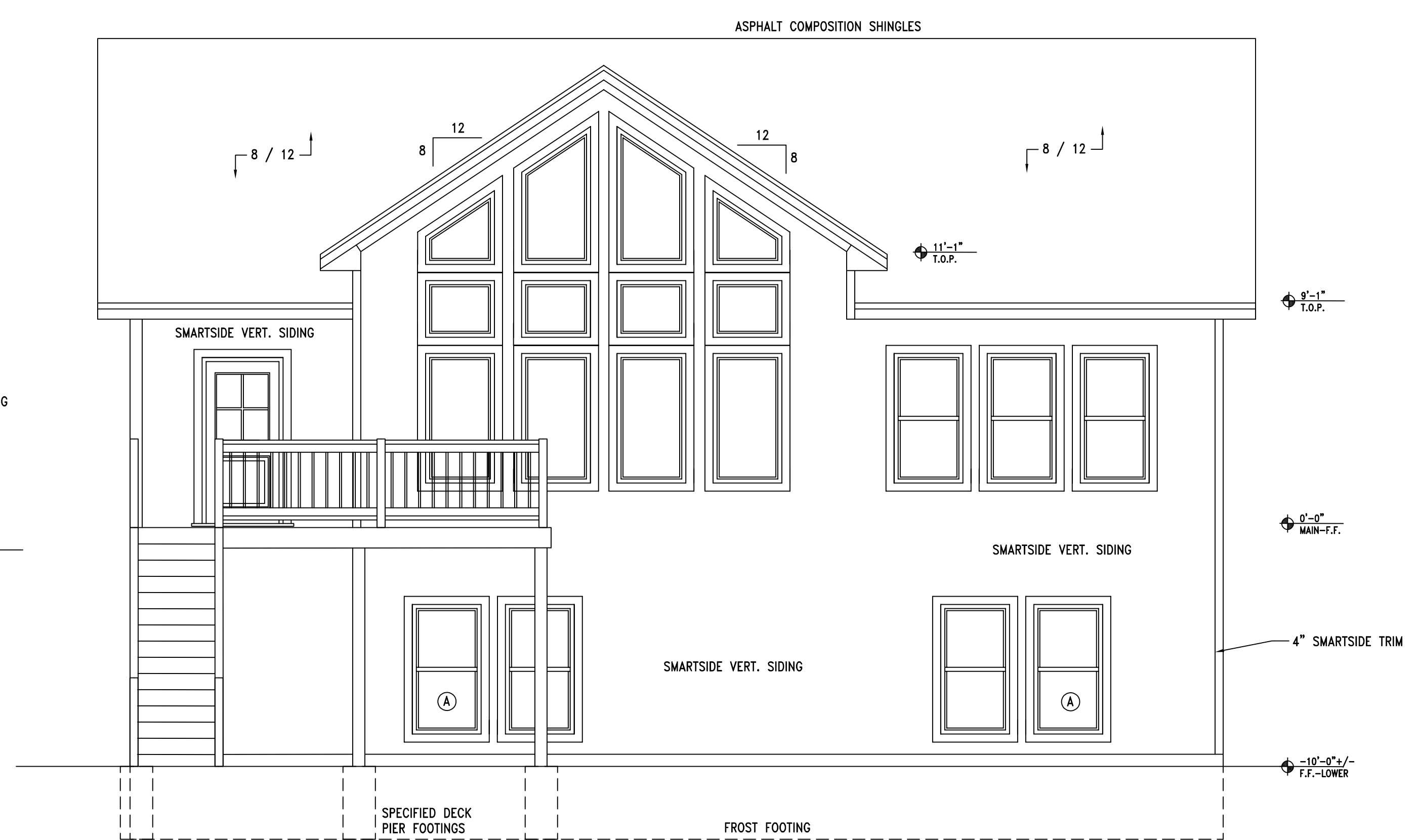
**D** FRONT ELEVATION  
 1/4" = 1'-0"



**C** SIDE ELEVATION  
 1/4" = 1'-0"



**B** SIDE ELEVATION  
 1/4" = 1'-0"



**A** REAR ELEVATION  
 1/4" = 1'-0"



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2012 INTERNATIONAL ENERGY CONSERVATION CODE (TABLE R402.1.1)

DOORS & WINDOWS:	U-0.35 MAX (HEAT GAIN MAX 0.25)
SKYLIGHTS:	U-0.55 MAX
ATTIC CEILINGS:	R-49 MIN.
WOOD FRAME WALLS:	20 OR 13 + 5 MIN.
FLOOR (OVER UNHEATED):	R-19 MIN.
SLAB ON GRADE:	R-10 FOR 24" IN
FUEL FIRED FURNACE:	80% AFUE MIN.
ELECTRIC FURNACE:	NO MINIMUM
COOLING SYSTEM:	13 SEER MIN.
WATER HEATER:	
GAS FIRED STORAGE:	0.67 EF MIN
GAS FIRED INSTANT:	0.62 EF MIN
ELECTRIC STORAGE:	0.97 EF MIN
ELECTRIC INSTANT:	0.93 EF MIN

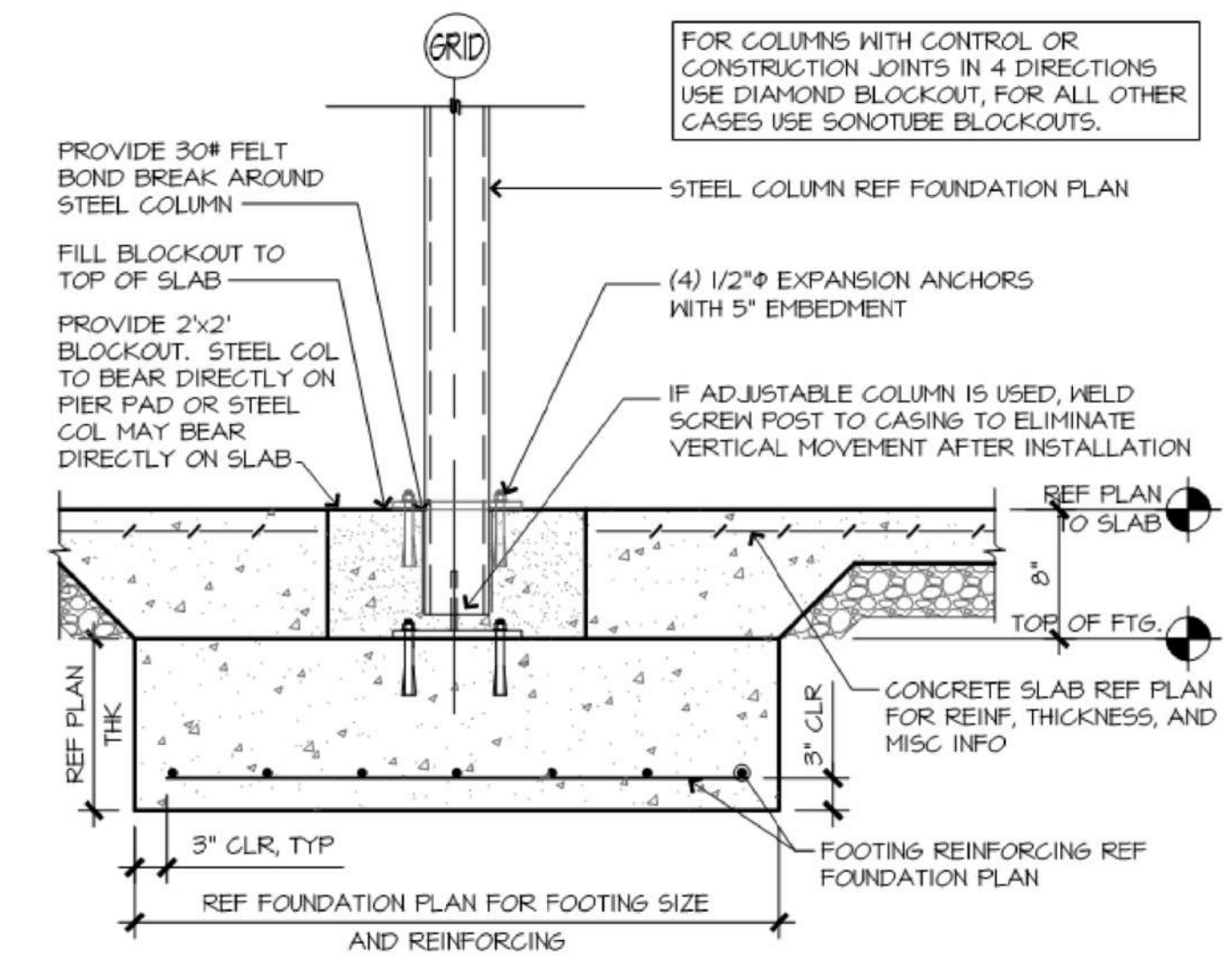
- Smoke alarms shall be listed in accordance with UL 2034 and comply with Section R314. Combination smoke/carbon monoxide alarms shall be in accordance w/ UL 217 & UL 2034.
- Smoke alarms shall be installed in the following locations:
  - In each sleeping room.
  - Outside each separate sleeping area in the immediate vicinity of the bedrooms.
  - On each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics.
- Where more than one smoke alarm is required to be installed w/in an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all alarms in the individual unit.

**E** ENERGY CODE COMPLIANCE  
 N.T.S.

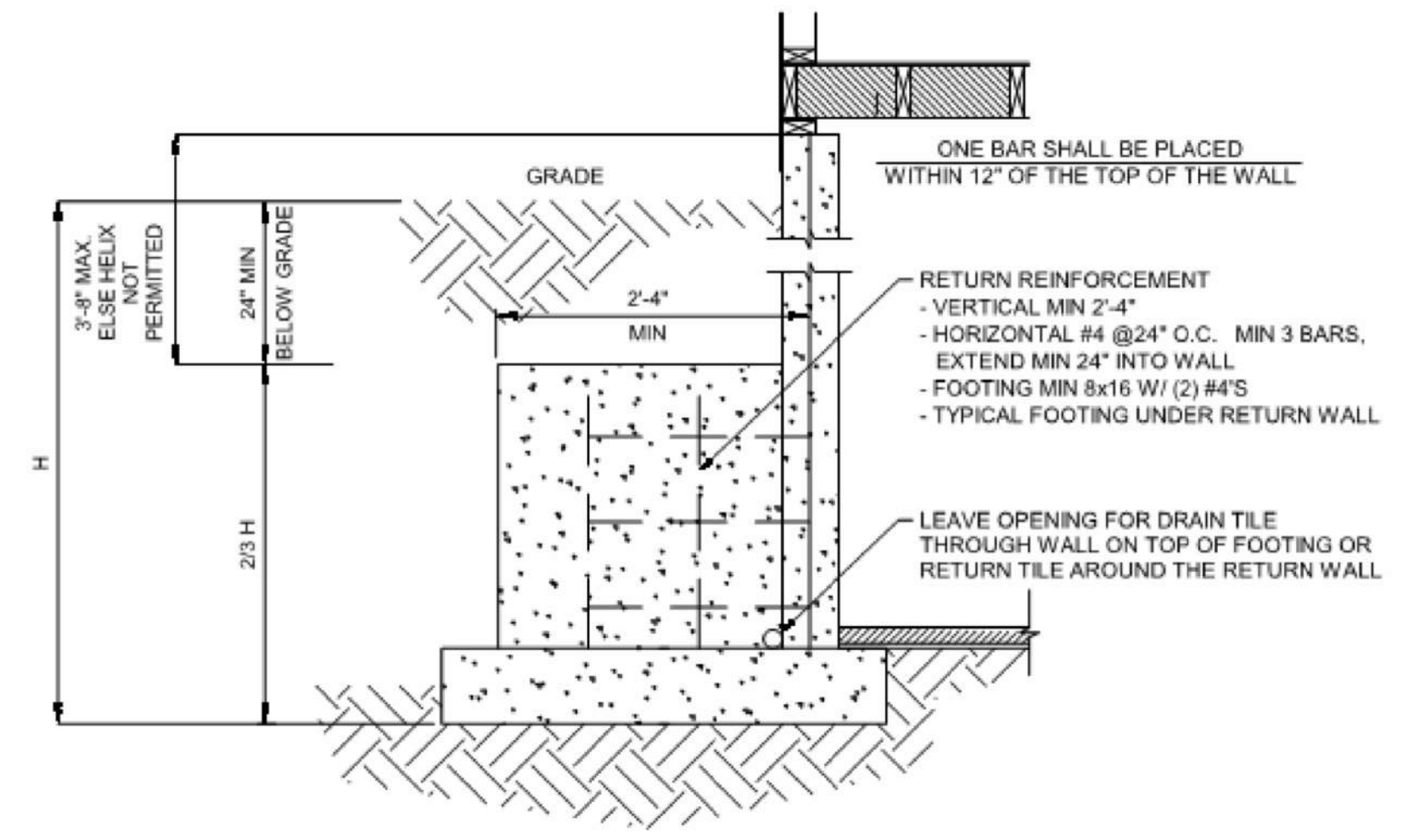
**D** SMOKE & CARBON MON. DETECTOR REQ'S.  
 N.T.S.

DOOR SCHEDULE  
 \*ALL DOORS ARE 6'-8" HIGH

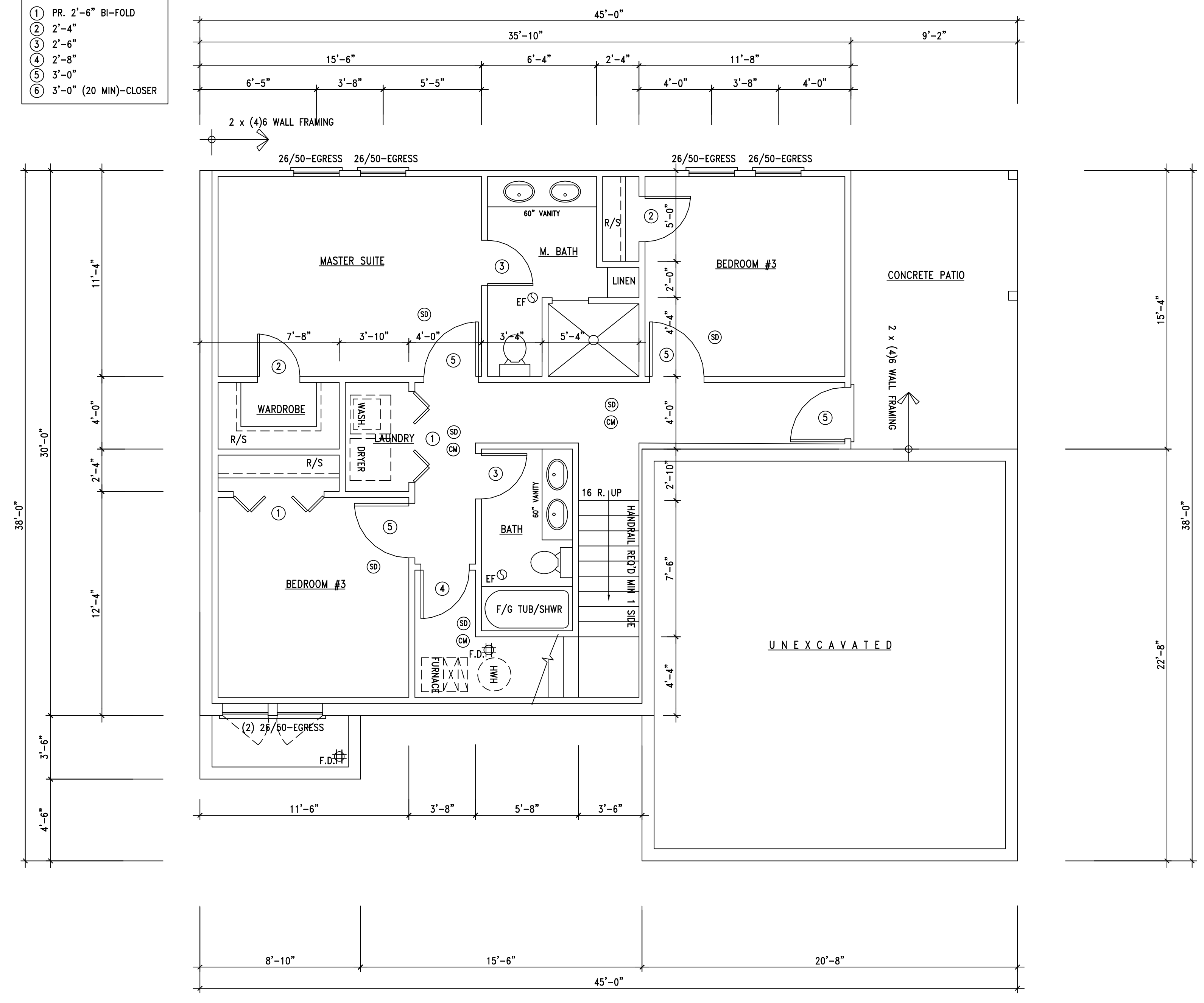
1	PR. 2'-6" BI-FOLD
2	2'-4"
3	2'-6"
4	2'-8"
5	3'-0"
6	3'-0" (20 MIN)-CLOSER



**C** COLUMN/PAD DETAIL  
 N.T.S.



**B** TYP. DEADMAN DETAIL  
 N.T.S.



**A** LOWER LEVEL FLOOR PLAN  
 1/4" = 1'-0"

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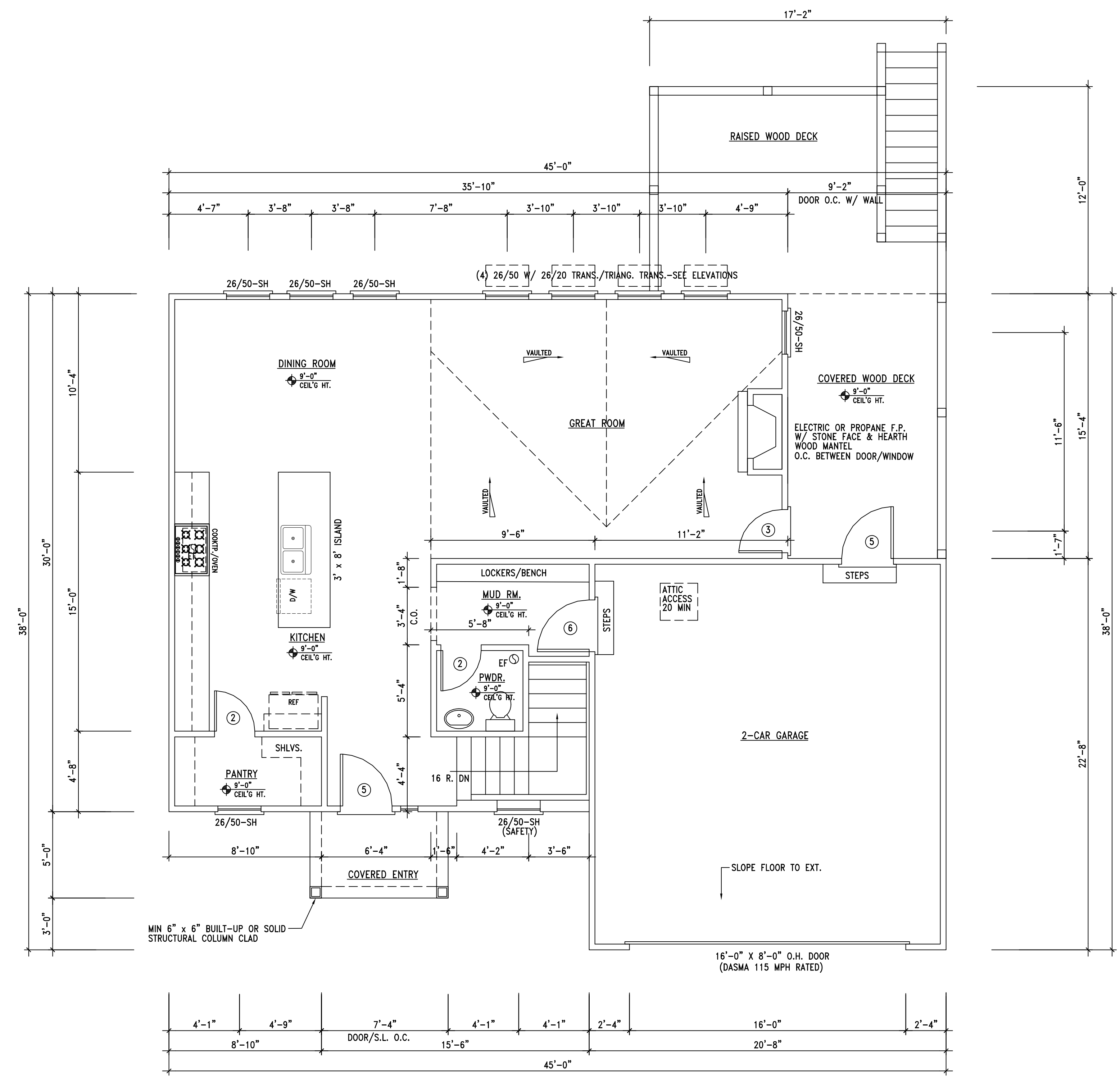
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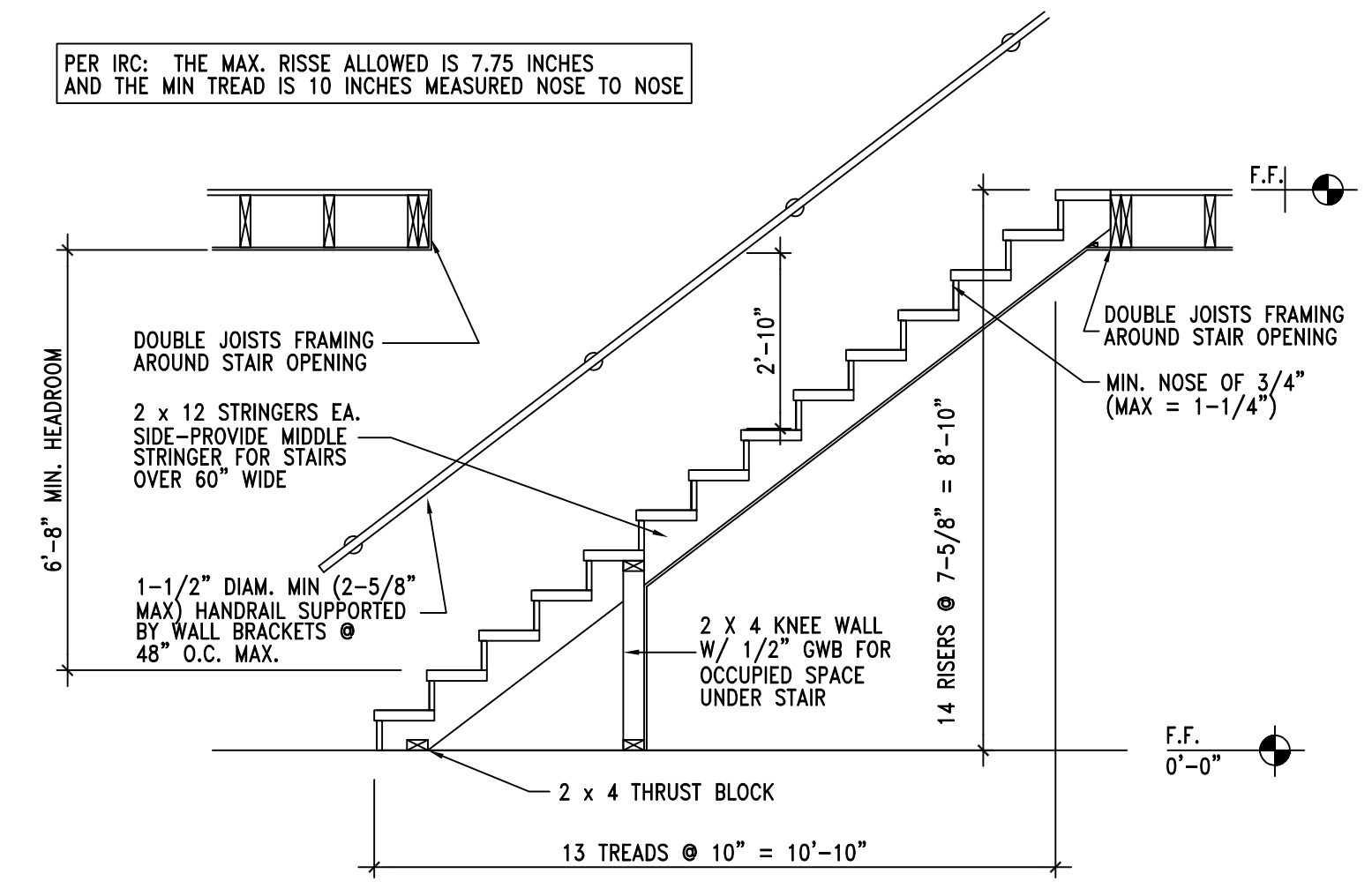
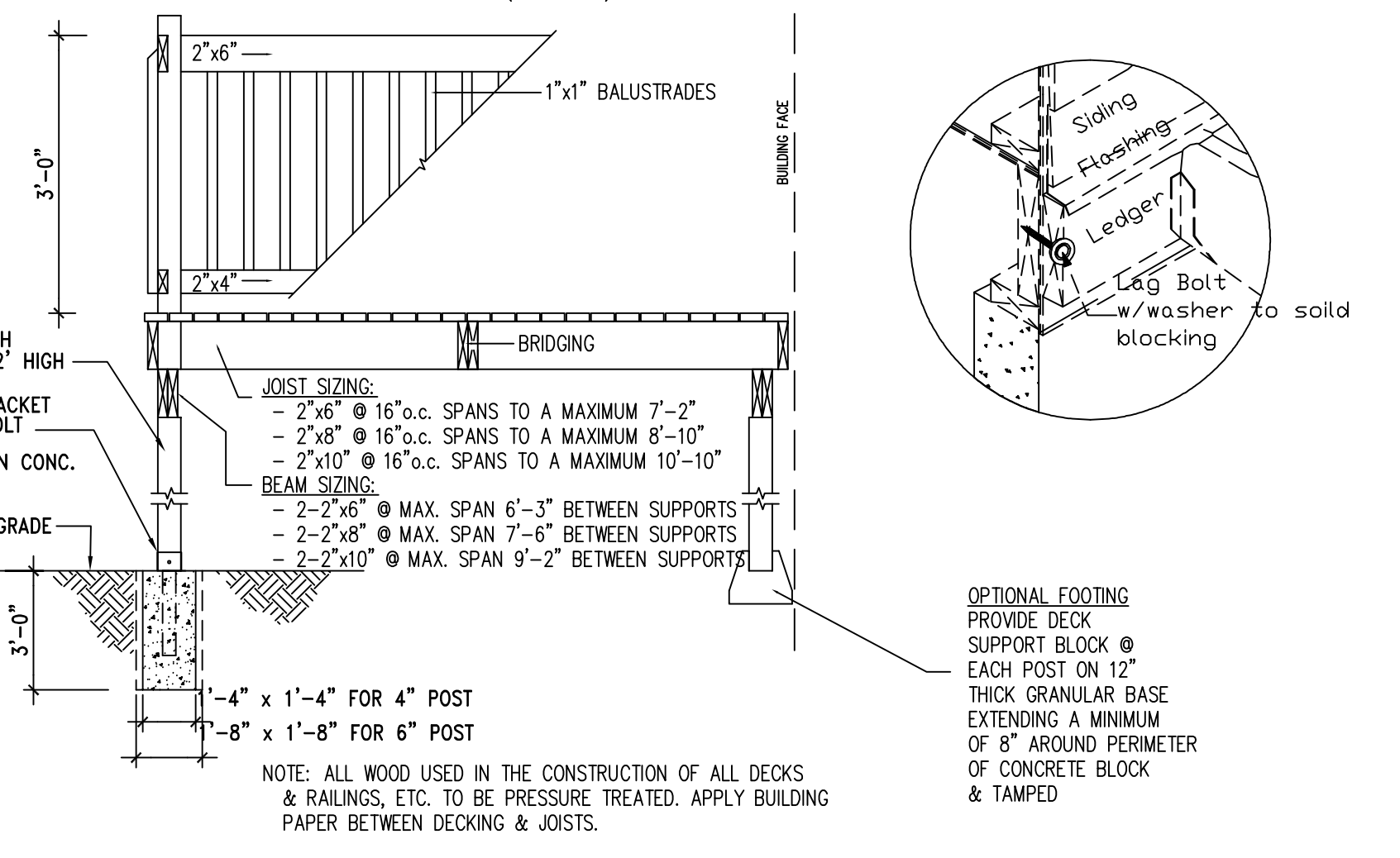
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A3



**NOTE:**  
 - WHERE ADJACENT GRADE IS 2'-0" OR LESS A GUARD IS NOT REQUIRED.  
 - DECK DESIGN LOAD IS BASED ON 100 lb./sq.ft. AS PER NATIONAL BUILDING CODE.  
 - WHERE JOIST SPAN EXCEEDS 7'-0", PROVIDE BRIDGING @ MID-SPAN (AS SHOWN)

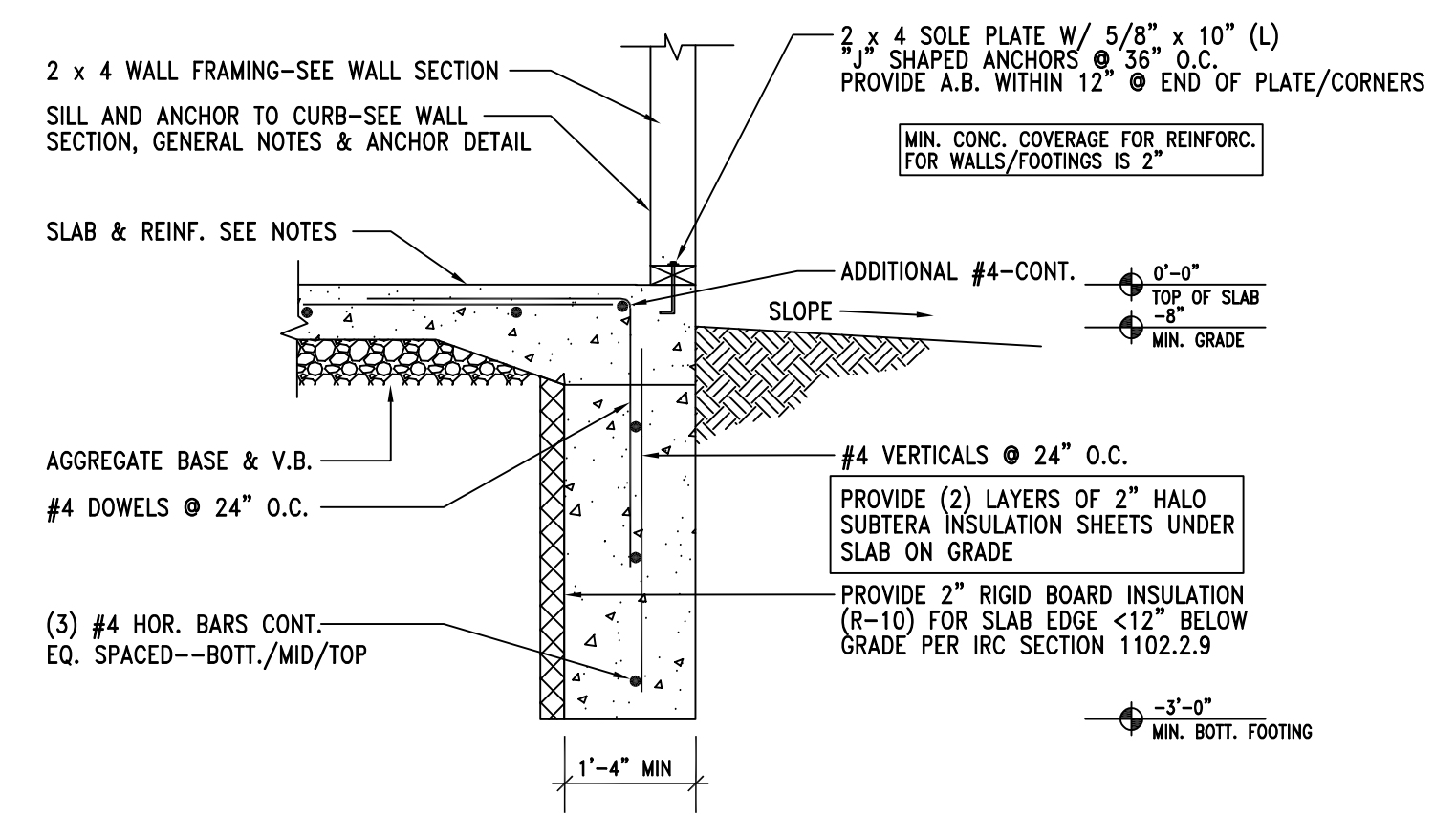
**DECK LEDGER ATTACHMENT**  
 1. (2) LAGS REQUIRED AT EA. END 2" FROM ENDS  
 2. PROVIDE 1 x 4 TREATED SPACED BEHIND EA. LAG  
 3. PROVIDE LAGS IN EA. JOIST SPACE W/ (2) EVERY OTHER SPACE, 2" FROM EDGES  
 4. MIN. SIZE LAG IS 1/2" DIAM x 6" LENGTH  
 5. PROVIDE FLASHING BETWEEN RIM JOIST & LEDGER



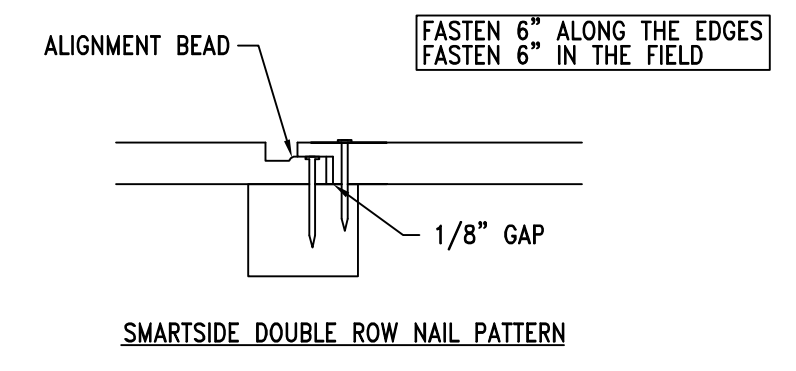
**A MAIN LEVEL FLOOR PLAN**

**B TYP. STAIR SECTION/REQUIREMENTS**

**C TYPICAL RAISED WOOD DECK FRAMING**



**G** FROST FOOTING DETAIL (TYPE F7) N.T.S.

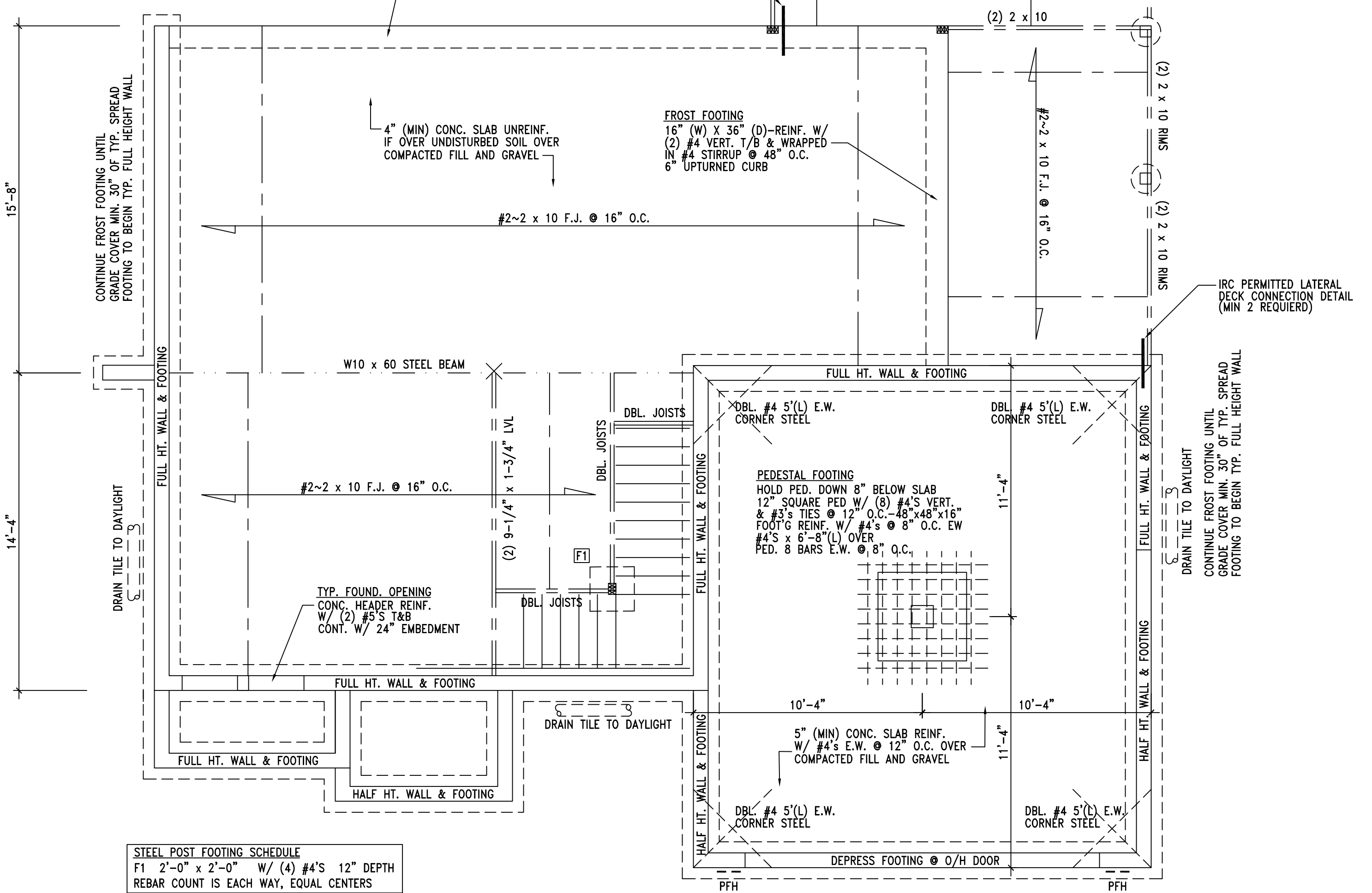


**H** SMARTSIDE PANEL NAILING PATTERN N.T.S.

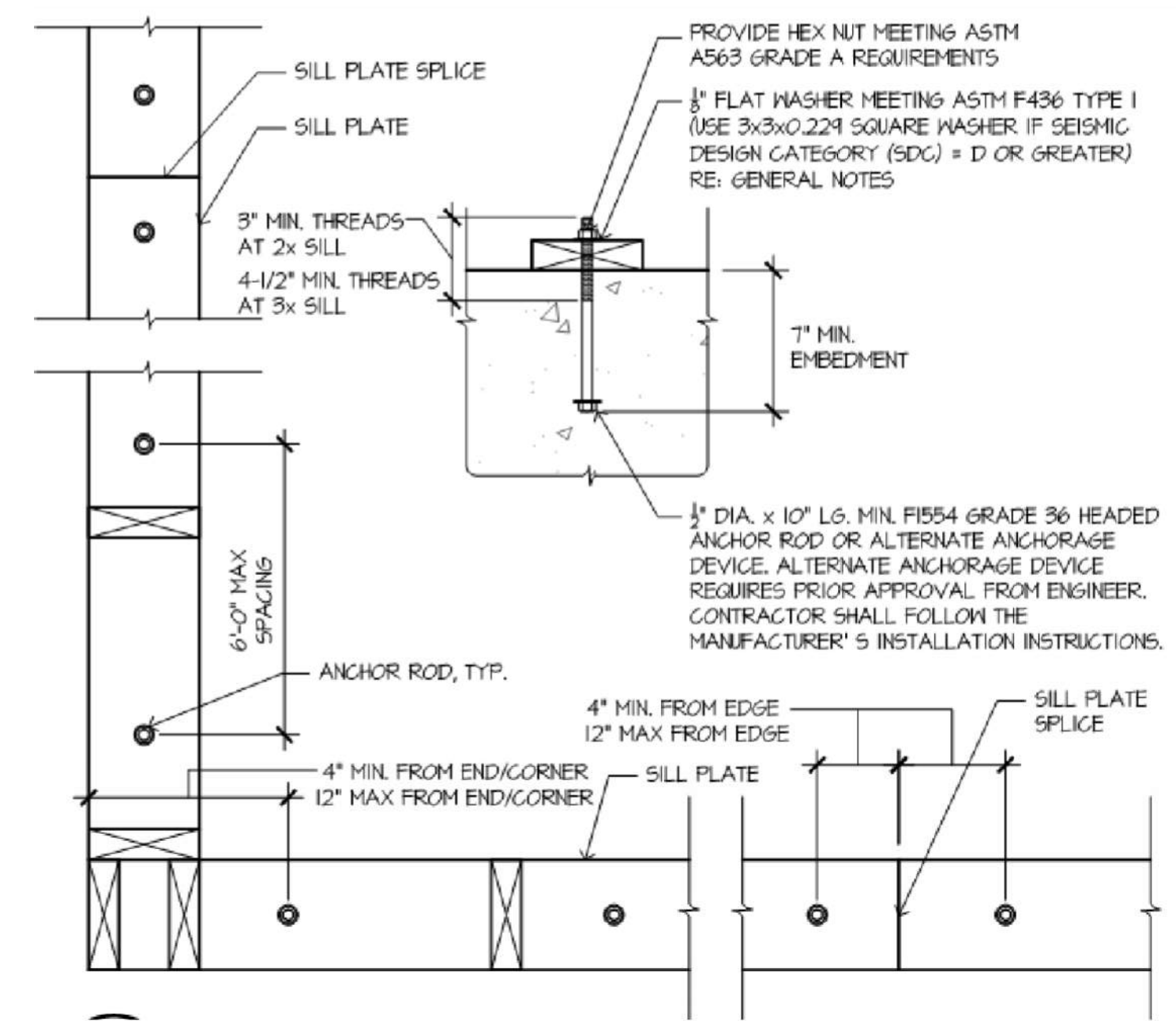
**FOUNDATION WALL (TYPICAL FOR ALL U.N.O.)**  
 9'-0" (H) X 8" (W) CONC. FOUNDATION WALLS  
 REINF. W/ (1) #4 VERT. @ 24" O.C./ (1) #4 HOR. @ 24" O.C.

**FOUNDATION WALL (TYPICAL FOR ALL U.N.O.)**  
 4'-0" (H) X 8" (W) CONC. FOUNDATION WALLS  
 REINF. W/ (1) #4 VERT. @ 24" O.C./ (1) #4 HOR. @ 24" O.C.

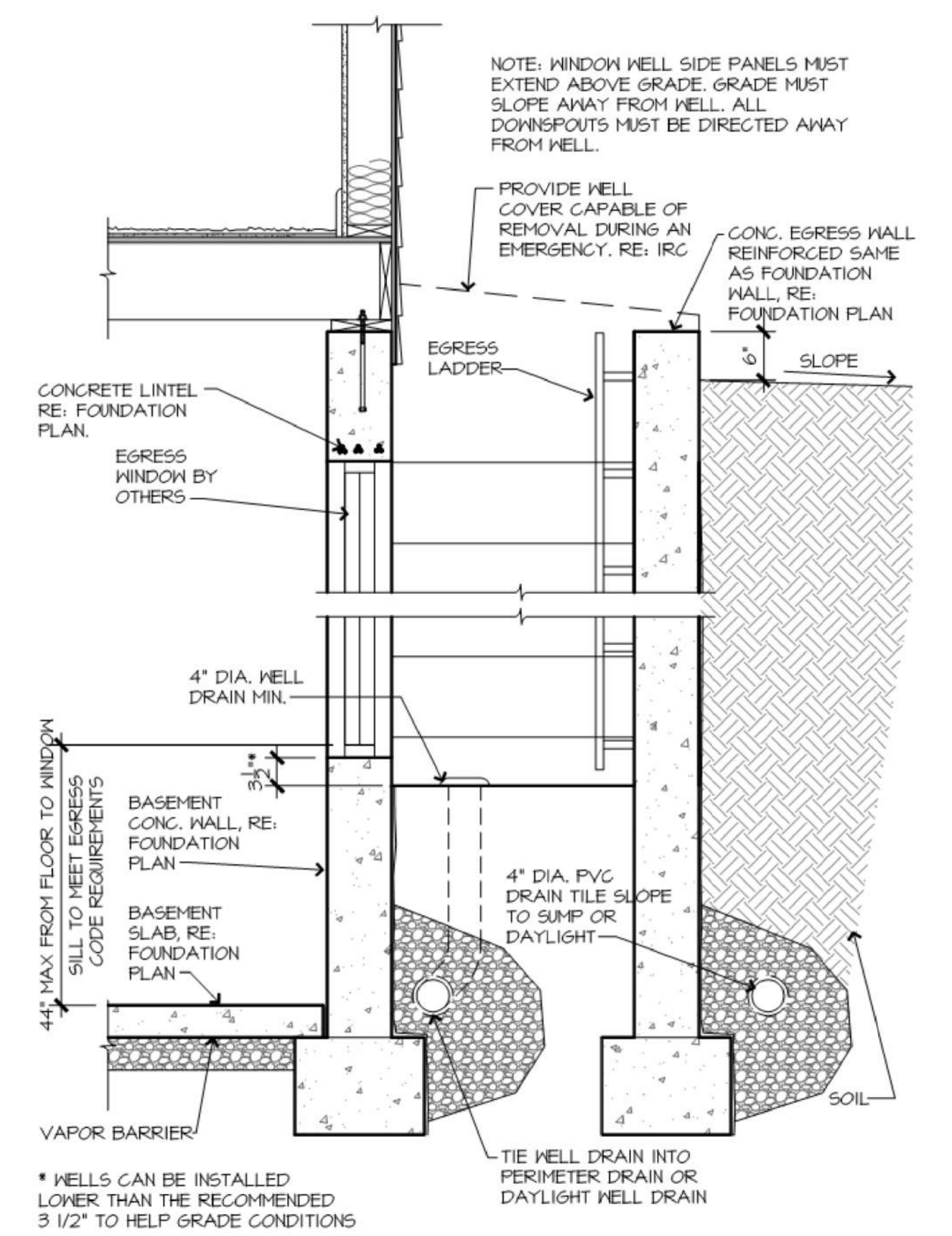
**FOOTING (TYPICAL FOR ALL U.N.O.)**  
 16" (W) X 8" (D) O.C. W/ WALL ABOVE-REINF.  
 W/ (2) #4 BOT. EQ. SPACED-DOWEL INTO WALL  
 W/ (1) #4 TURNED UP @ 12" O.C.



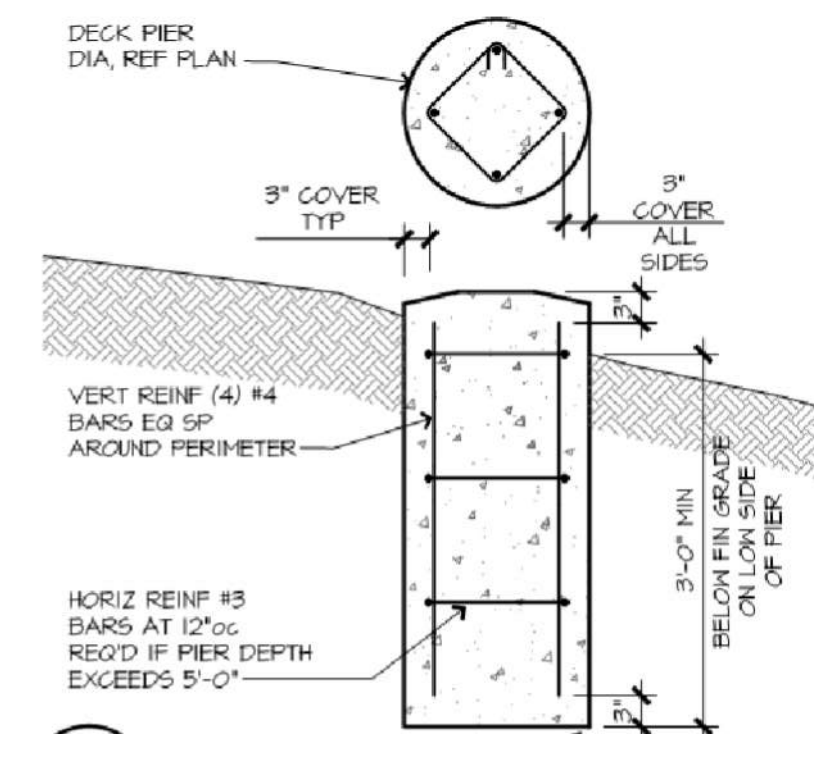
**A** FOUNDATIONS PLAN/LOWER FRAMING  
 1/4" = 1'-0"



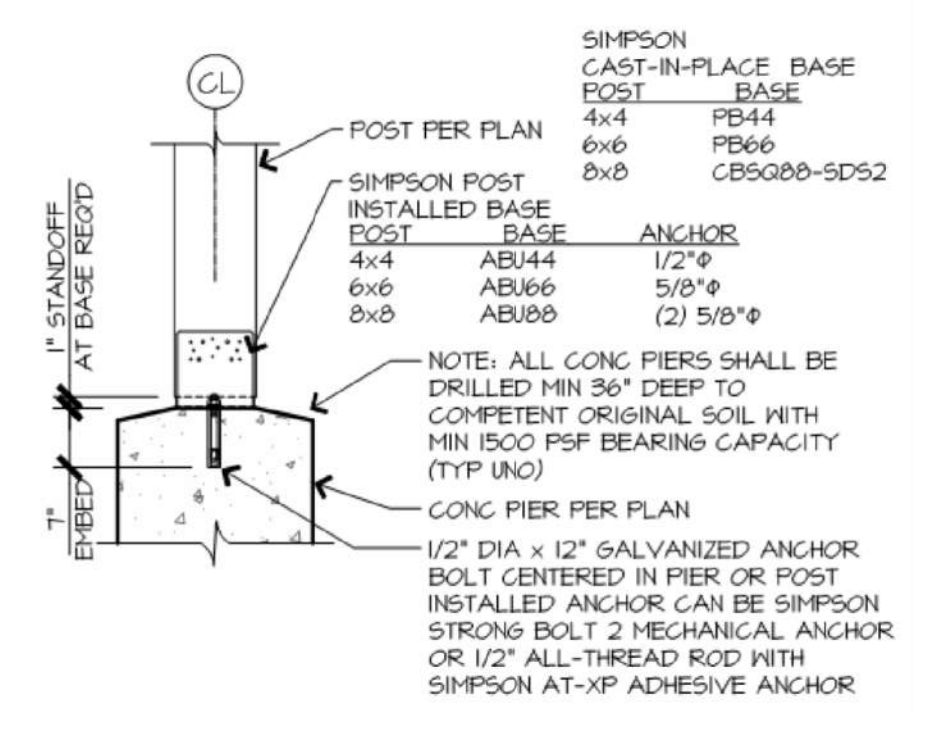
**E** SILL PLATE LAYOUT/DETAILS N.T.S.



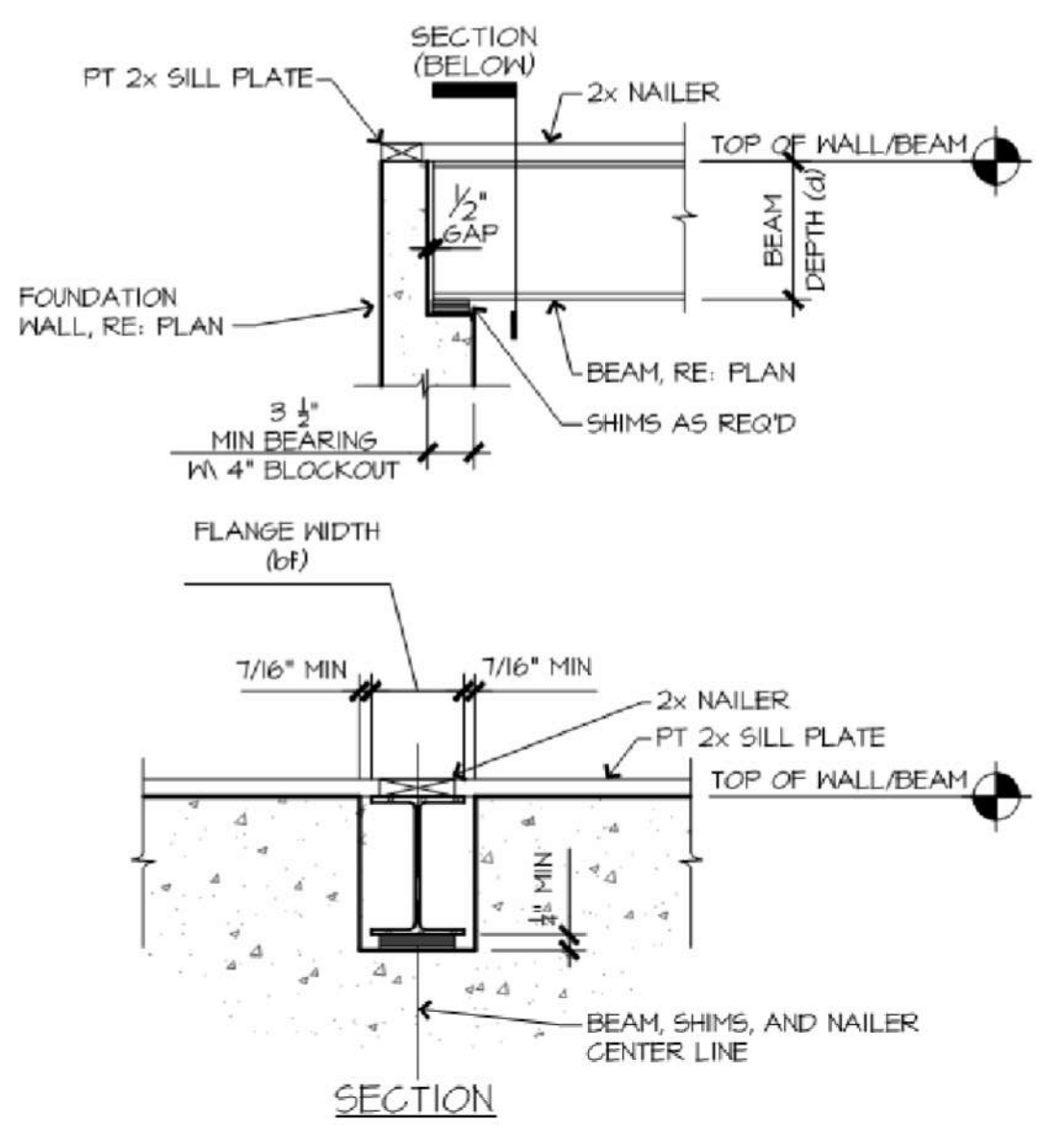
**B** EGRESS WELL CONSTRUCTION/DETAIL N.T.S.



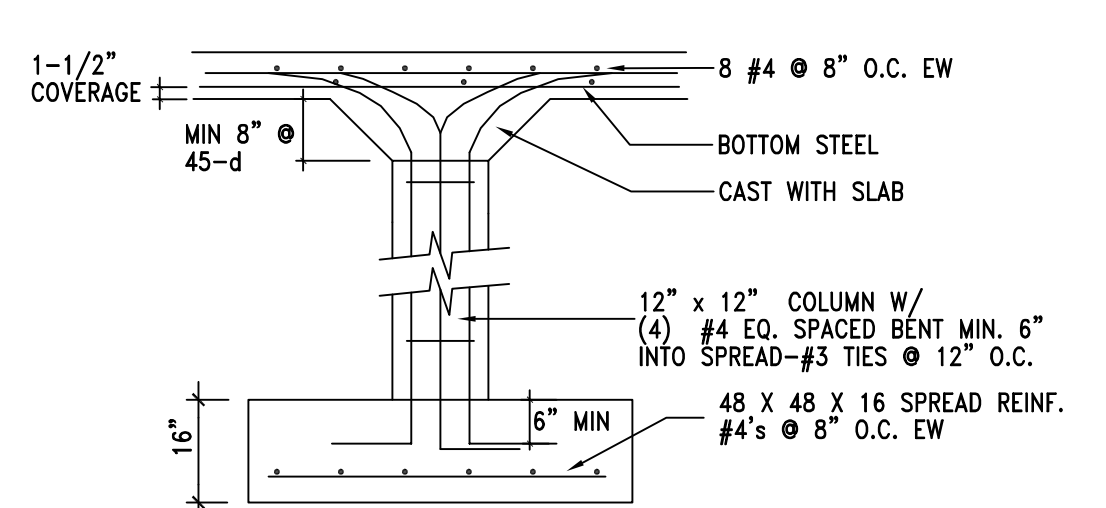
**F** TYP. DETAILS FOR POST/PIER N.T.S.



**C** PEDESTAL FOOTING DETAIL N.T.S.



**D** BEAM POCKET DETAIL N.T.S.



**G** FROST FOOTING DETAIL (TYPE F7) N.T.S.



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WALL LINE	REQ'D LENGTH	PROVIDED LENGTH		END CONDITION
		M A I N	F L O O R	
A	8.67'	11.25'	3-3	
B	7.72'	11.25'	3-3	
C	5.05'	6.83'	3-3	
D	3.89'	4.67'	2-2	
1	10.02'	12.00'	3-3	
2	5.11'	8.00'	3-3	
3	10.50'	12.00'	3-3	

- CS-WSP PANELS: DISTANCE FROM END OF BRACED WALL LINE TO FIRST BRACED WALL PANEL CANNOT EXCEED A COMBINED TOTAL OF 10' PER R602.10.2.2
- WOOD STRUCTURAL PANELS: MIN. 48" AND COVER 3 STUDS FOR FRAMING AT 16" O.C. OR 2 STUDS FOR 24" O.C.
- CS-WSP PANELS: MIN. 2" PANELS AT BOTH CORNERS WITHOUT USING HOLD DOWNS PER R602.10.4.4 AND MAX. 12" FROM CORNER
- CS-WSP PANELS: MIN PANELS LENGTH ADJACENT TO AN OPENING FOR 9" PLATE = 27" PER R602.10.4.2
- METH. GB SHALL USE MIN. 5d COOLER NAILS OR #6 SCREWS ATTACHED 7" O.C. ALONG EDGES & IN THE FIELD OF PANEL

**F** BRACED WALL CALCULATIONS

N.T.S.

INTERIOR WALL (1 FLOOR)						EXTERIOR WALL (ROOF ONLY)					
SPAN	SIZE	NO.	J.S.	SPAN	SIZE	NO.	J.S.	SPAN	SIZE	NO.	J.S.
0'-0" - 4'-5"	(2) 2x8	2		0'-0" - 5'-4"	(2) 2x8	2					
4'-6" - 5'-5"	(2) 2x10	2		5'-5" - 6'-6"	(2) 2x10	2					
5'-6" - 6'-3"	(2) 2x12	2		6'-7" - 7'-6"	(2) 2x12	2					
INTERIOR WALL (2 FLOORS)						EXTERIOR WALL (ROOF + FLOOR)					
0'-0" - 3'-2"	(2) 2x8	2		0'-0" - 4'-6"	(2) 2x8	2					
3'-3" - 3'-10"	(2) 2x10	3		4'-7" - 5'-6"	(2) 2x10	2					
3'-11" - 4'-5"	(2) 2x12	3		5'-7" - 6'-5"	(2) 2x12	2					
EXTERIOR WALL (ROOF + 2 FLOORS)											
0'-0" - 3'-4"	(2) 2x8	2									
3'-10" - 4'-7"	(2) 2x10	2									
4'-8" - 5'-3"	(2) 2x12	2									

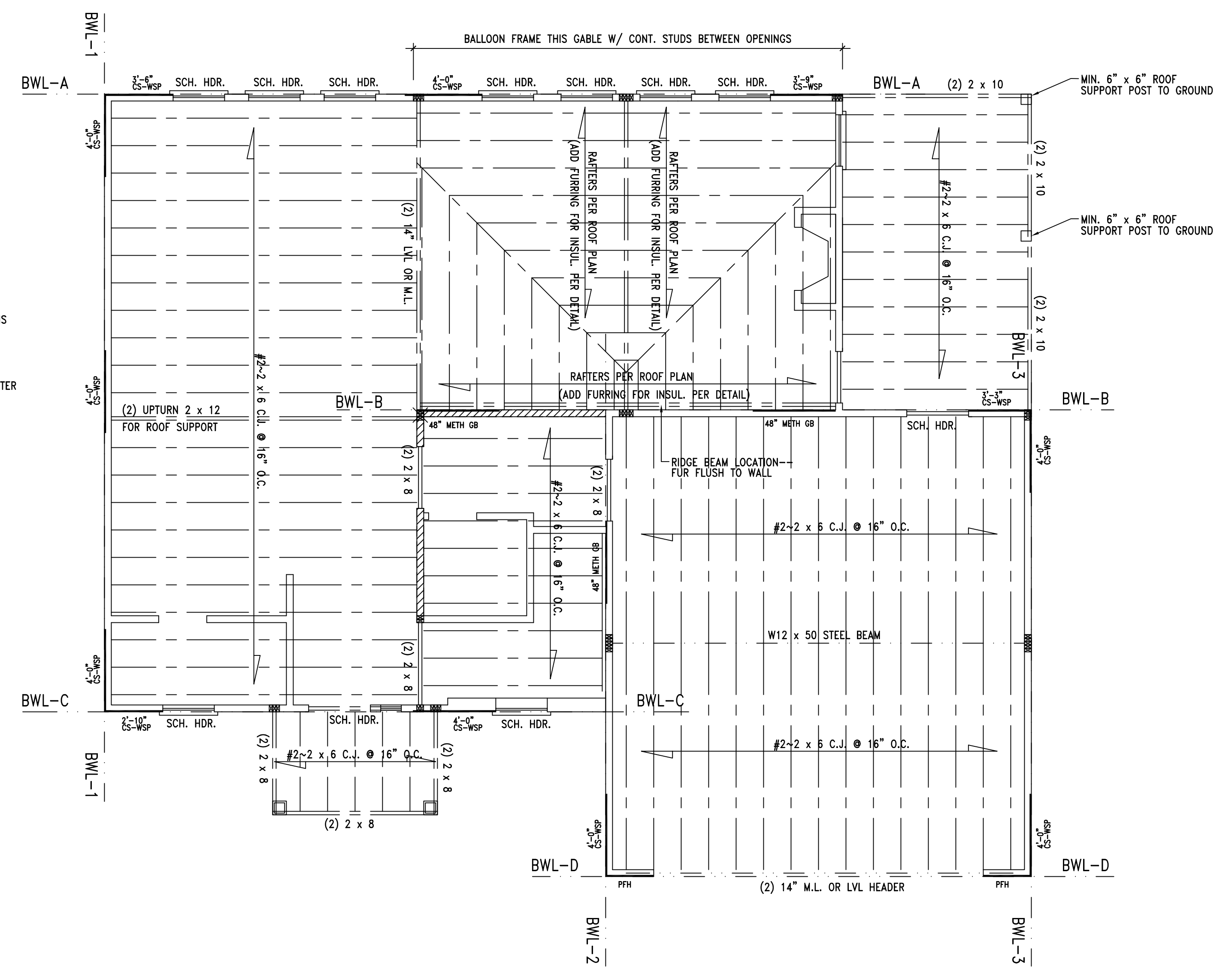
- TYPICAL HEADER**
- NOT FOR OPEN WEB FLOOR TRUSS SYSTEMS
  - BASED ON A MAXIMUM JOIST SPAN OF 16FT
  - HEADERS SUPPORT FLOOR LOADS ONLY; REI. PLANS OR CONTACT ENGINEER IF ROOF LOADS NEED TO BE SUPPORTED.
  - FRAMER SHOULD CONSULT IRC TABLE R502.5(1) FOR LOAD BEARING HEADERS USING 30PSF GROUND SNOW LOAD AND THE MAX. BUILDING WIDTH. FRAMER SHALL PROVIDE THE MORE STRINGENT CHOICE BETWEEN THE IRC TABLE AND THIS DETAIL.
  - FRAMER SHALL CONTACT ENGINEER IF ENGINEERED LUMBER IS TO BE UTILIZED.

**G** BEARING WALL HEADER SCHEDULE

N.T.S.

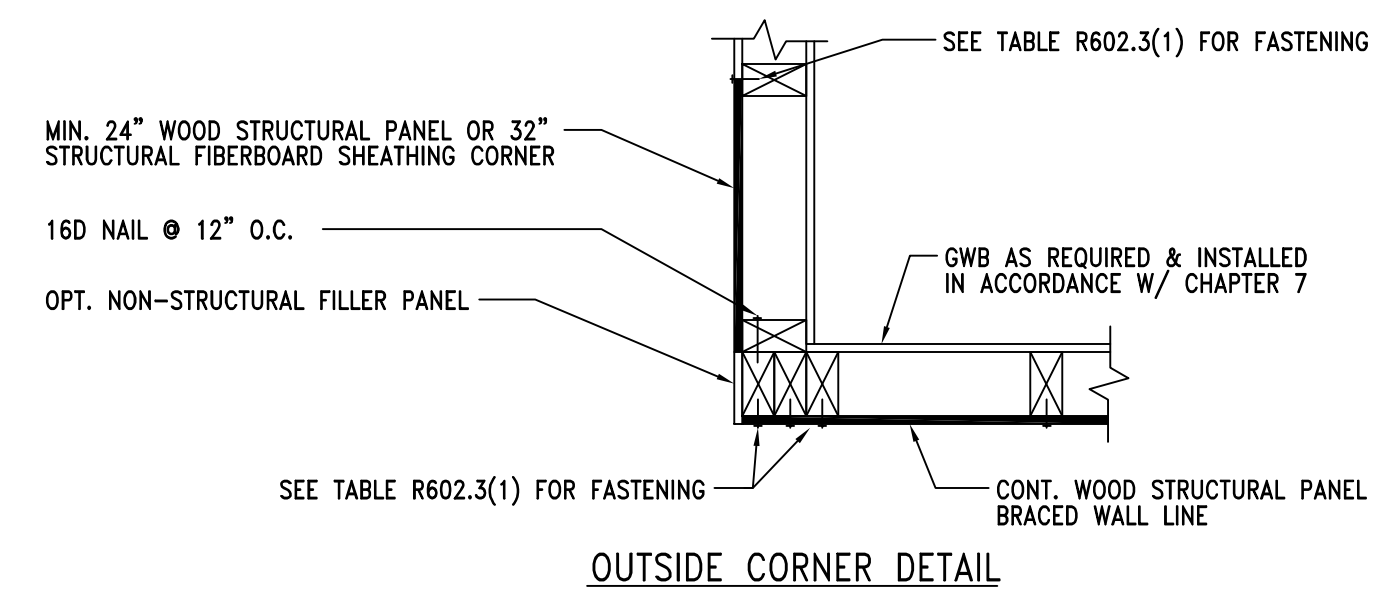
- ALL STUD PACKS NOT SHOWN ARE TO BE MIN (2) 2 x 4(6) S.U.S.O.
- INTERIOR POINT LOADS - NOT ON FOUNDATION
- INTERIOR LOAD BEARING WALL
- LOAD BEARING WALL FROM ABOVE
- CS-WSP STRONG TIE HUS10, 412 OR 414 OR EQUAL, W/ LVL REQUIRED FASTENING
- SIMPSON STRAP/SADDLE HANGERS @ LVL'S & BEAMS ALL BEAMS/HEADERS ARE ASSUMED FLUSH U.N.O.

- LVL REQUIRED BEARING (PARALLEL W/ BEARING WALL)  
MIN. 50% OF TOTAL LVL THICKNESS (I.E. 9-1/4" LVL = 4.6")
- LVL REQUIRED FASTENING  
2 PLY LVL CONNECTED WITH SIMPSON ASSEMBLY A STRONG-DRIVE SCREWS (2) 1-3/4" SDS x 1/4" x 3-1/2" W/ (2) ROWS NAILING PATTERN AT 12" O.C.
- LVL TO LVL BEAM CONNECTION  
SIMPSON STRONG TIE HUS410 OR EQ. W. LVL REQ. FASTENING

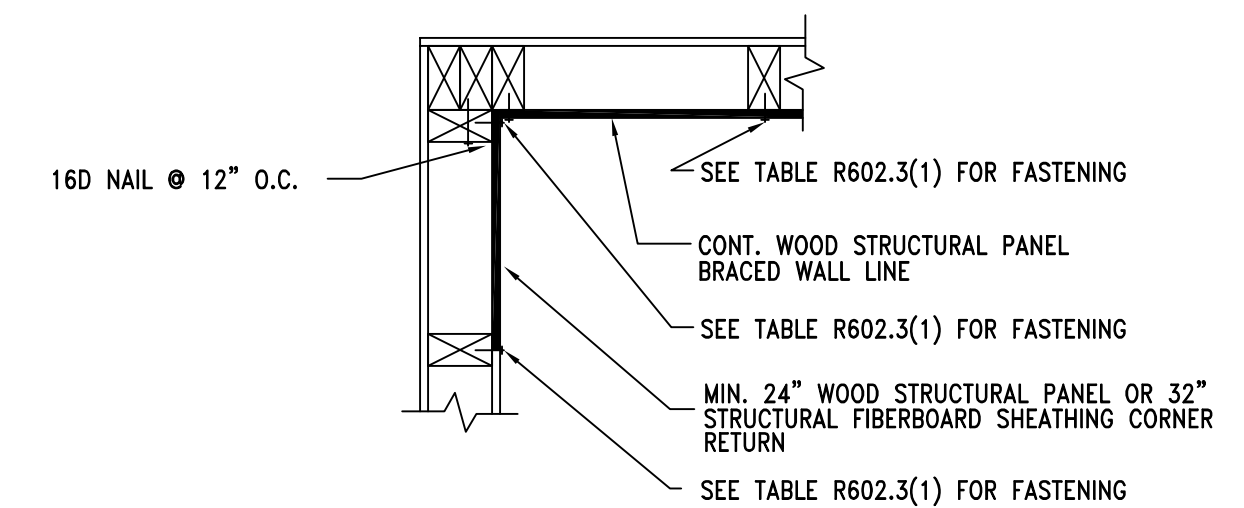


**A** MAIN LEVEL FRAMING PLAN

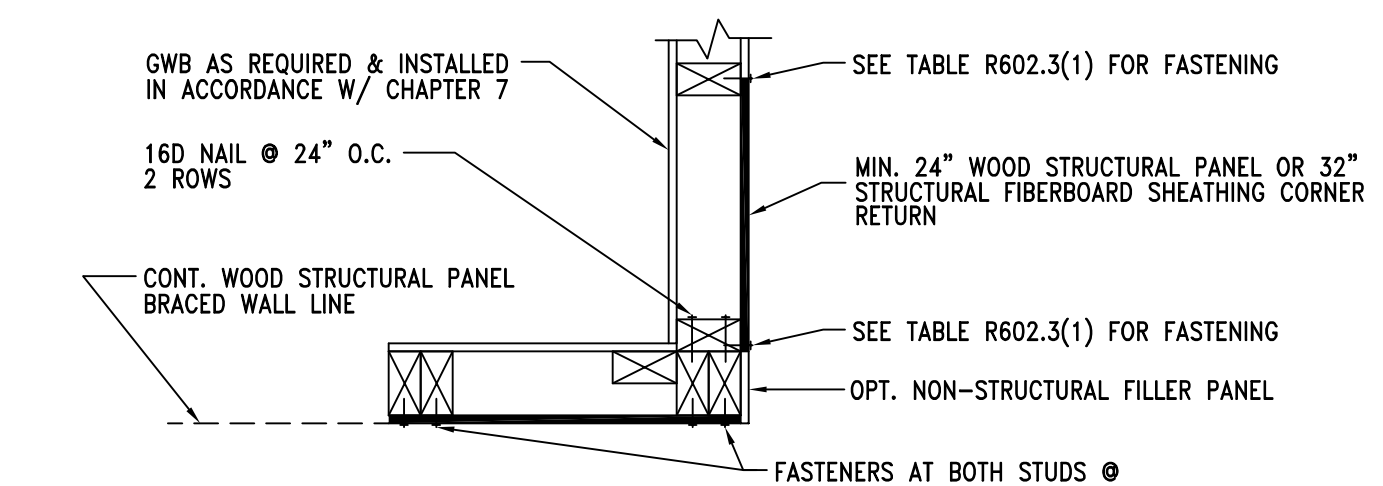
1/4" = 1'-0"



OUTSIDE CORNER DETAIL



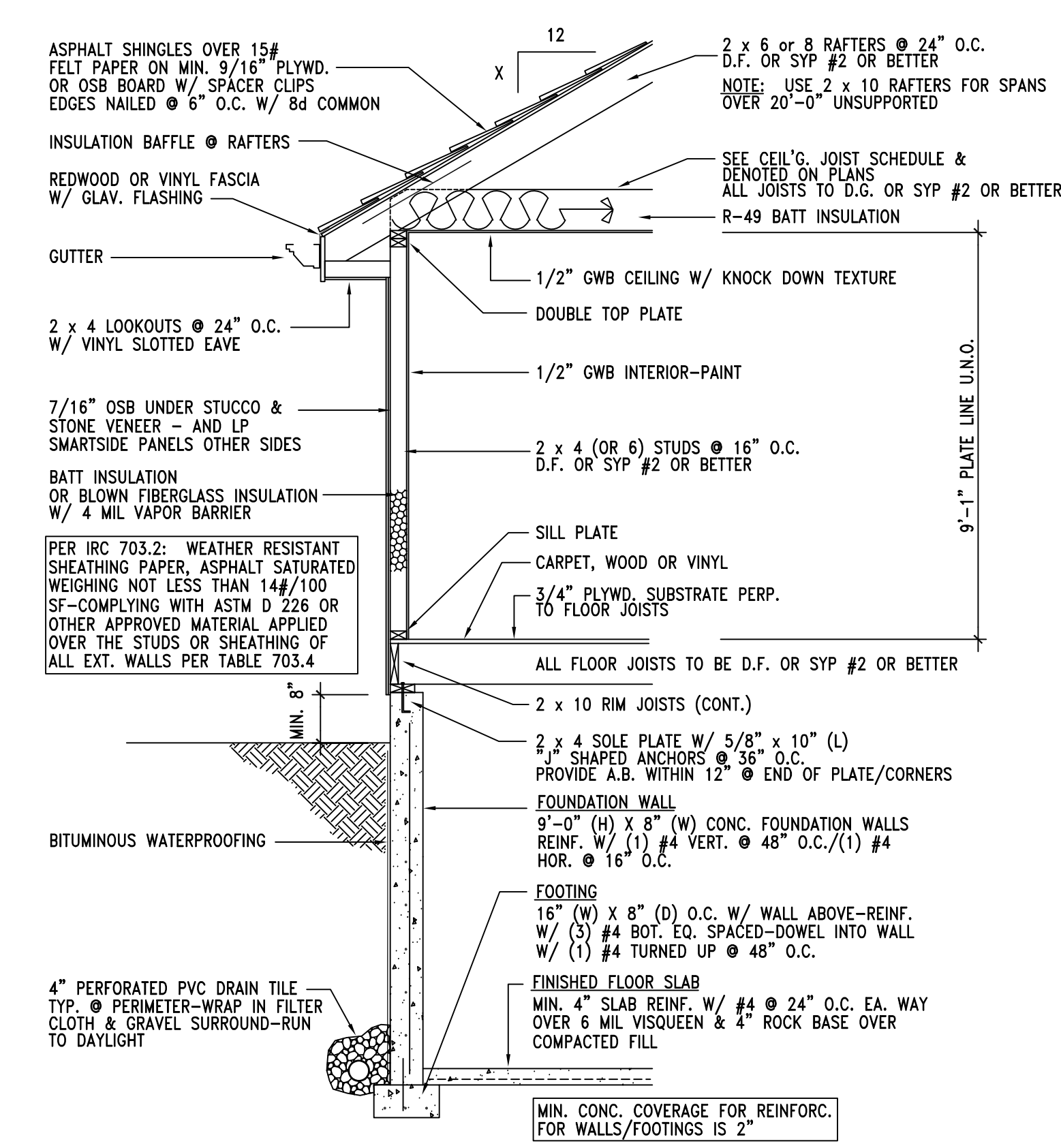
INSIDE CORNER DETAIL



GARAGE DOOR CORNER

**E** CS-WSP CORNER FRAMING DETAILS

N.T.S.

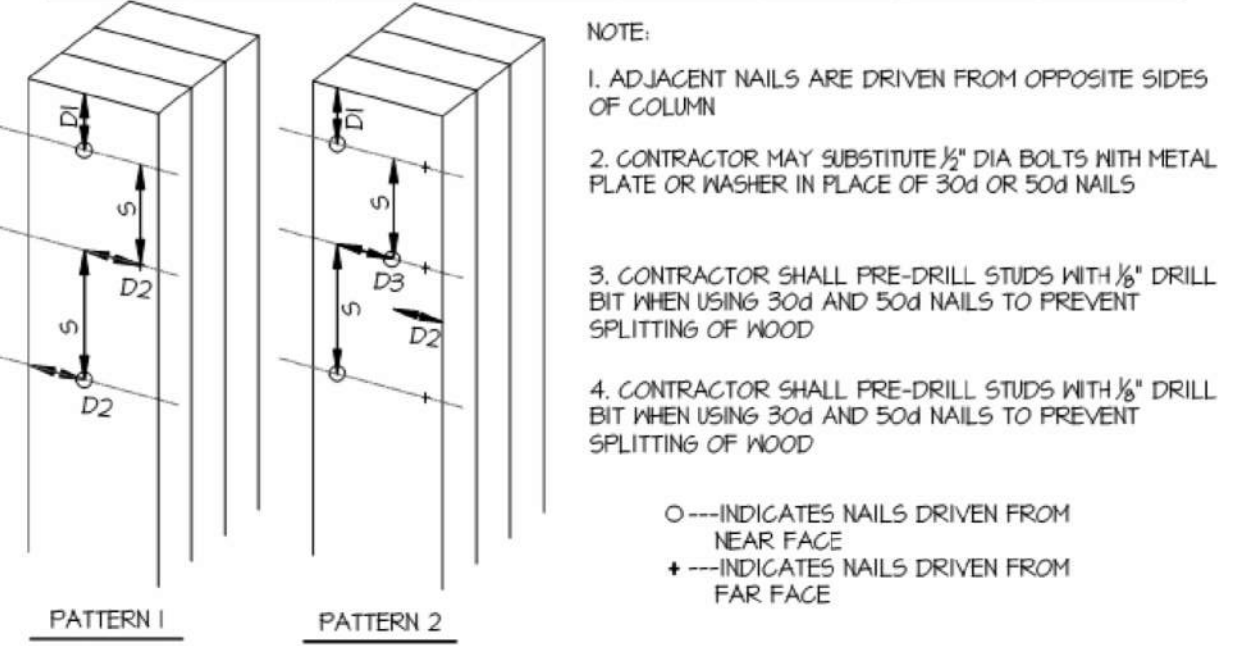


**B** TYP. WALL FRAMING SECTION

N.T.S.

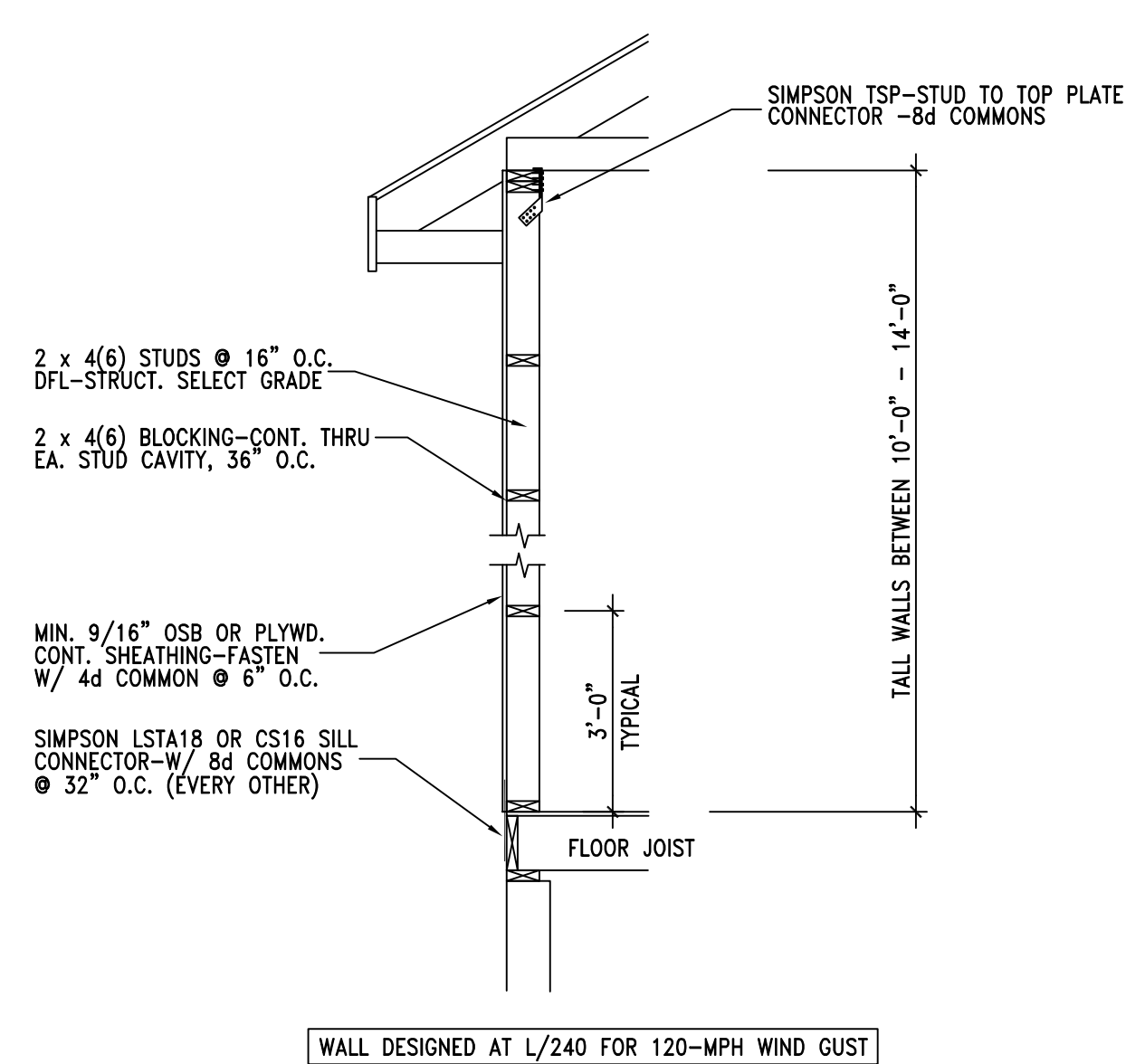
NOTE: U.N.O. ALL BUILT UP STUDS (NOT WALL STUDS) SHALL BE DF #2

BUILT UP COL. DESIG.	BUILT UP SECTION	PATTERN	END DISTANCE	EDGE DISTANCE	ROW SPACING	NAIL SPACING	NAIL SIZE
BC26	(2) 2x6	2	3 1/2"	1 1/2"	2 1/2"	4"	10d
BC36	(3) 2x6	2	3 1/2"	1 1/2"	2 1/2"	4"	30d
BC46	(4) 2x6	2	4"	1 1/2"	2 1/2"	4"	50d
BC24	(2) 2x4	1	2 1/2"	1"	---	6"	10d
BC34	(3) 2x4	1	3 1/2"	1 1/2"	---	8"	30d



**D** BUILT-UP COLUMN DETAIL REQUIREMENTS

N.T.S.



**C** TALL WALL FRAMING DETAIL

N.T.S.



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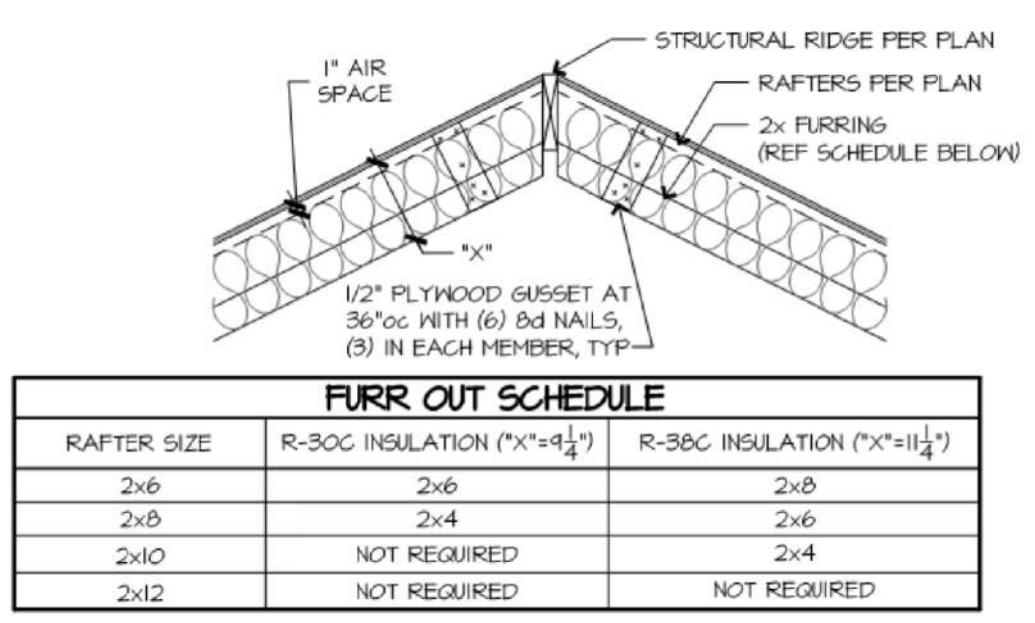
ISSUED: PERMIT/CONSTRUCTION

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**CEILING JOISTS AND RAFTER CONNECTIONS**  
 CEILING JOISTS AND RAFTERS SHALL BE TIED TO ONE ANOTHER PER TABLES R602.3(1) AND R602.5.1(9) AND THE ASSEMBLY SHALL BE NAILED TO THE TOP PLATE PER R602.3(1)  
 CEILING JOIST NOT PARALLEL TO RAFTERS USE SUBFLOORING OR METAL STRAPS ATTACHED TO END OF THE RAFTERS TO PROVIDE A CONT. TIE ACROSS THE STRUCTURE  
 TIE DOWN REQUIREMENTS (R602.11)  
 FOR RAFTER SPANS OVER 20'-0" INTERPOLATING TABLE 802.11 PROVIDE RAFTER TIE-DOWNS CAPABLE OF RESISTING OVER 226 POUNDS AT EACH RAFTER  
 PER TABLE R602.5.1(2) THE MAX RAFTER SPAN FOR D.F.L. 2 x 6 RAFTERS #2 GRADE = 14'-1" AND IS THE BASIS OF DESIGN FOR PURLIN PLACEMENT

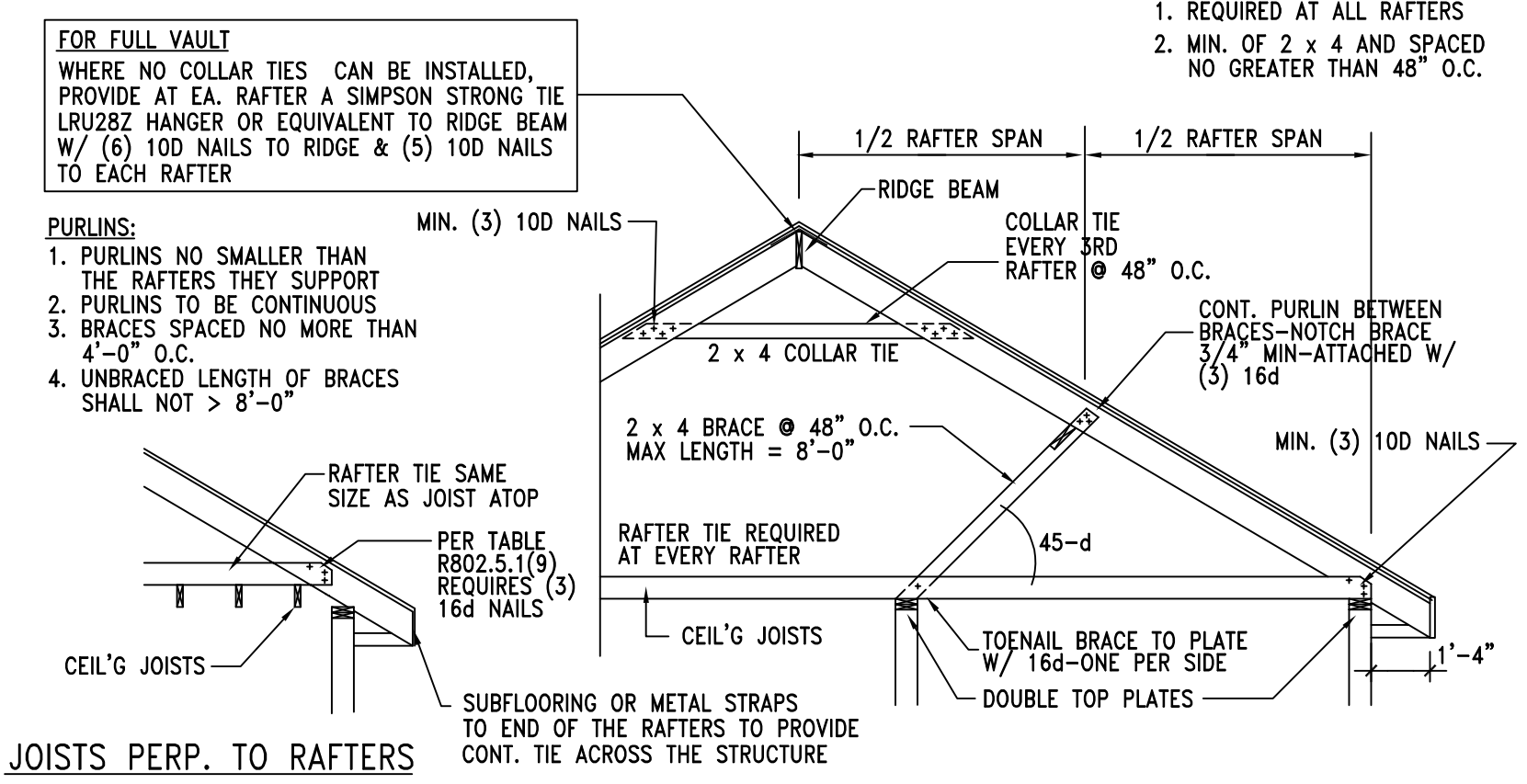
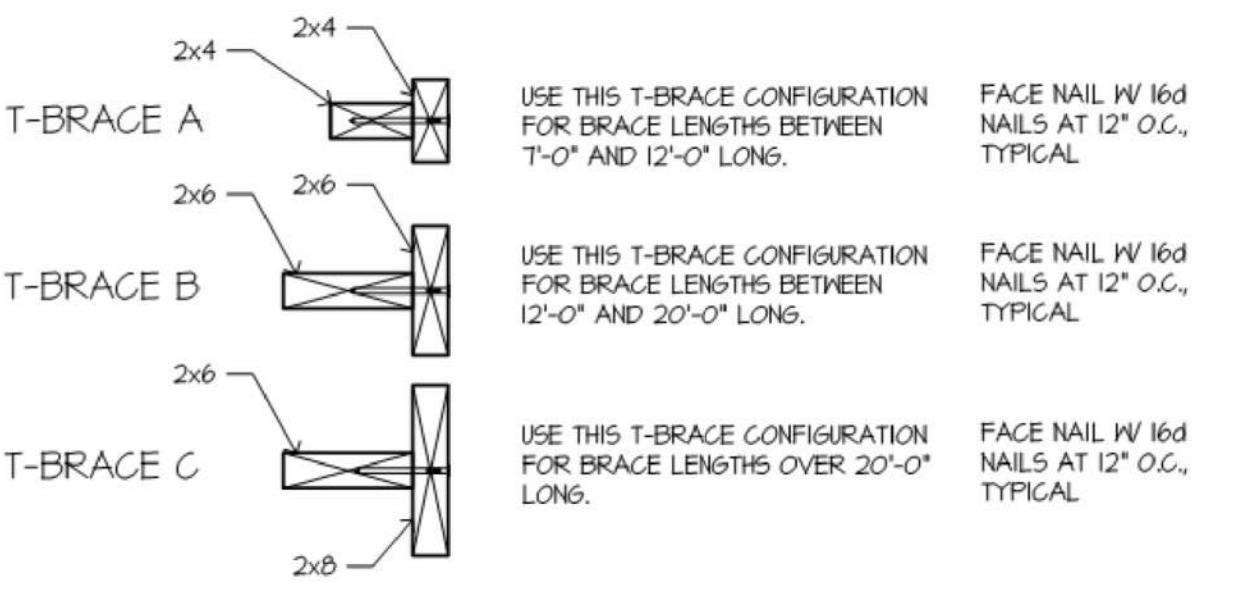
**RAFTER/CEILING JOIST HEEL CONNECTIONS**  
 PROVIDE (5) 16d NAILS AT EACH HEEL JOINT (RAFTER-JOIST, RAFTER-TIE) CONNECTION. ALSO DENOTED IN DETAIL FOR TYP. ROOF/RAFTER FRAMING. THIS MEETS/EXCEEDS TABLE 802.5.1(9) FOR ROOF SPANS UP TO 28'-0" MAX. 9/12 PITCH AND RAFTERS 16" O.C.  
**ALL RIDGE BEAMS TO BE 2 x 12 OR 2 x 10 RAFTER TIES/COLLARS REQUIRED AT ALL LOCATIONS**  
**ROOF FRAMING CONNECTION TO BEAMS**  
 WHERE LVL IS BE INSTALLED IN PLANE, PROVIDE SIMPSON STRONG TIE LRU282 RAFTER HANGERS EA. RAFTER TO LVL. EACH END OF LVL TO BE SECURED TO SUPPORTING CONSTRUCTION WITH SST LSTA15 OR EQUIVALENT STRAP W/ 1100 LBS. CAPACITY. STRAPPING SHALL BE REQUIRED AT ALL NON-CONT. MEMBERS BETWEEN BEAM & TOP OF FLOOR

GRADE	MEMBER SIZE / SPACING	MAX SPAN CEILING JOISTS AT TOP PLATE	MAX SPAN H <sub>c</sub> /h <sub>r</sub> =0.16	MAX SPAN H <sub>c</sub> /h <sub>r</sub> =0.20	MAX SPAN H <sub>c</sub> /h <sub>r</sub> =0.25	MAX SPAN H <sub>c</sub> /h <sub>r</sub> =0.33
#2 DFL	2x6 / 16"oc	14'-1"	12'-8"	11'-8"	10'-4"	9'-5"
#2 DFL	2x8 / 16"oc	18'-2"	16'-4"	15'-1"	13'-4"	12'-2"
#2 DFL	2x10 / 16"oc	22'-3"	20'-0"	18'-5"	16'-8"	14'-8"
#2 DFL	2x12 / 16"oc	25'-4"	23'-2"	21'-4"	19'-7"	17'-3"

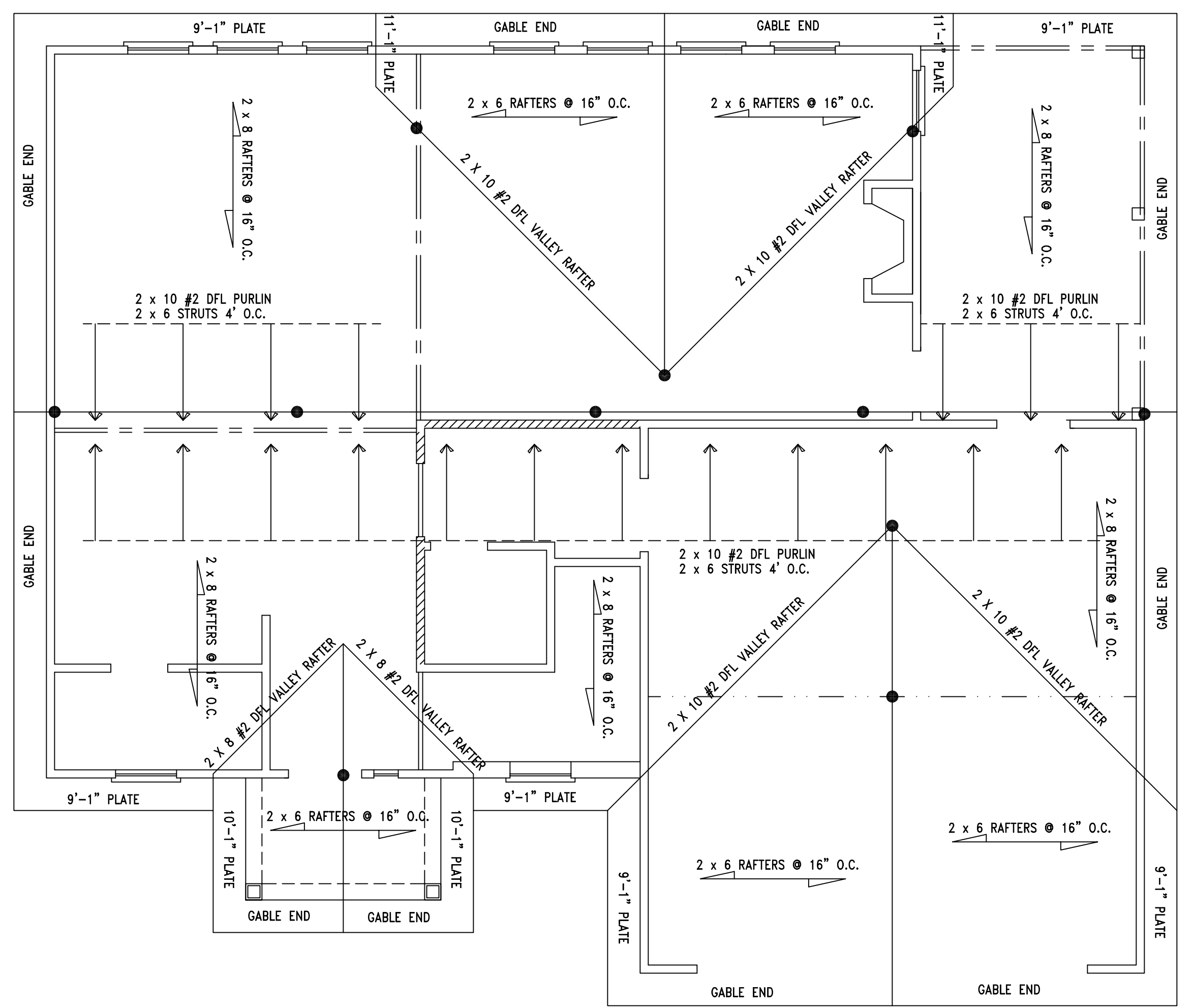


RAFTER SIZE	R-30G INSULATION (X"=R <sub>13</sub> )	R-38G INSULATION (X"=R <sub>19</sub> )
2x6	2x6	2x8
2x8	2x4	2x6
2x10	NOT REQUIRED	2x4
2x12	NOT REQUIRED	NOT REQUIRED

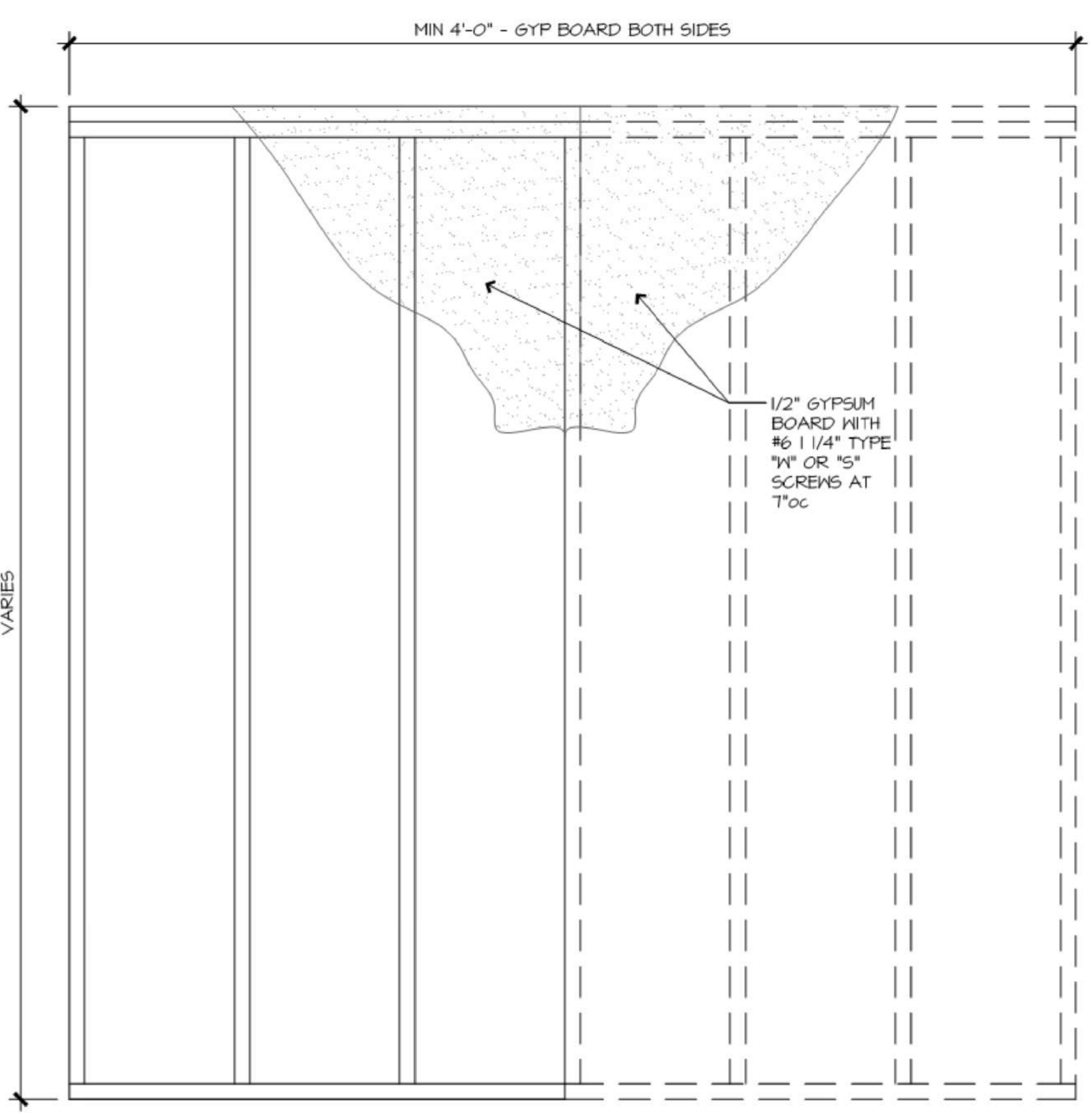
**E** FUR DOWN RAFTER REQUIREMENTS  
 N.T.S.



**D** TYP. ROOF/RAFTER FRAMING  
 N.T.S.



**A** ROOF PLAN  
 1/4" = 1'-0"



**B** METHOD GB CRITERIA  
 N.T.S.

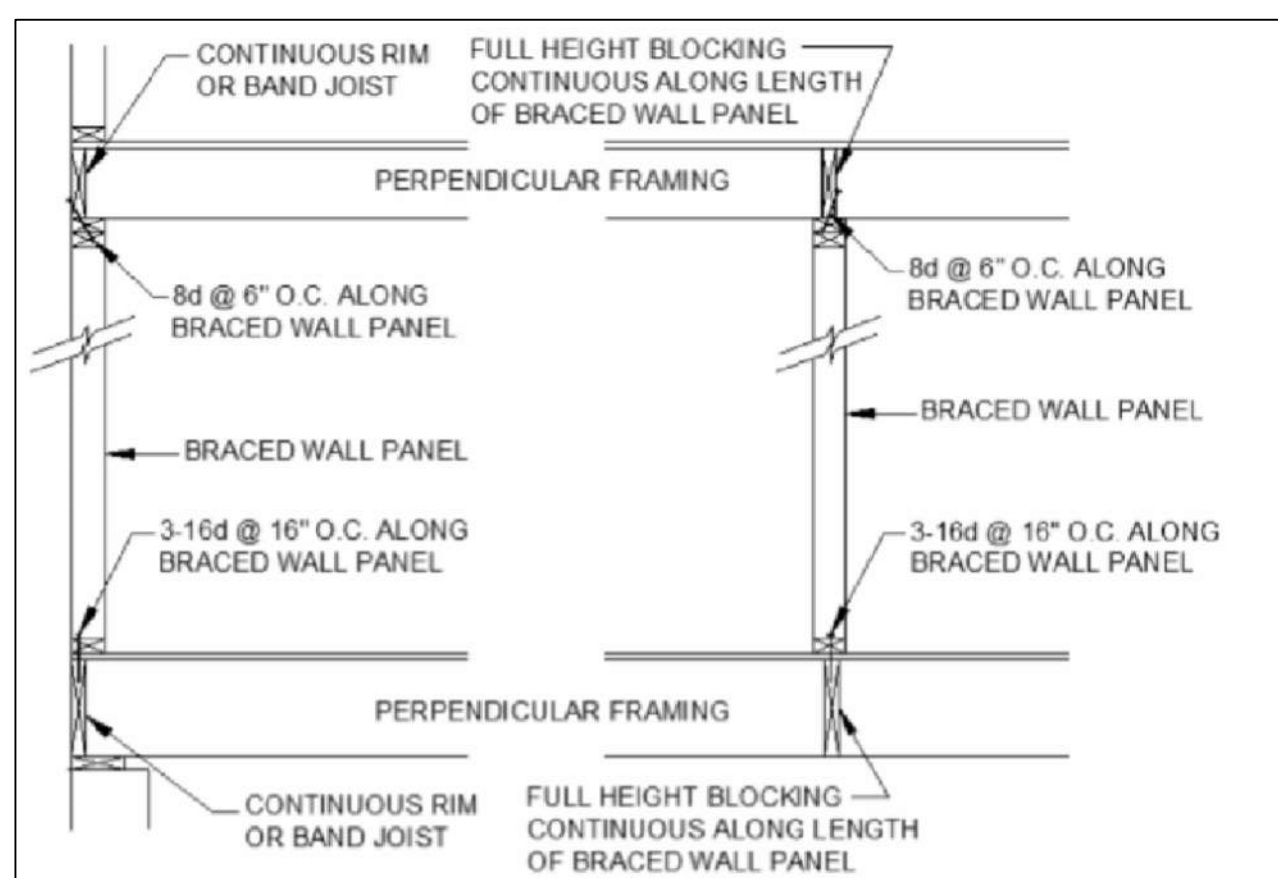


Figure R602.10.8(1) Braced Wall Panel Connection When Perpendicular to Floor/Ceiling Framing

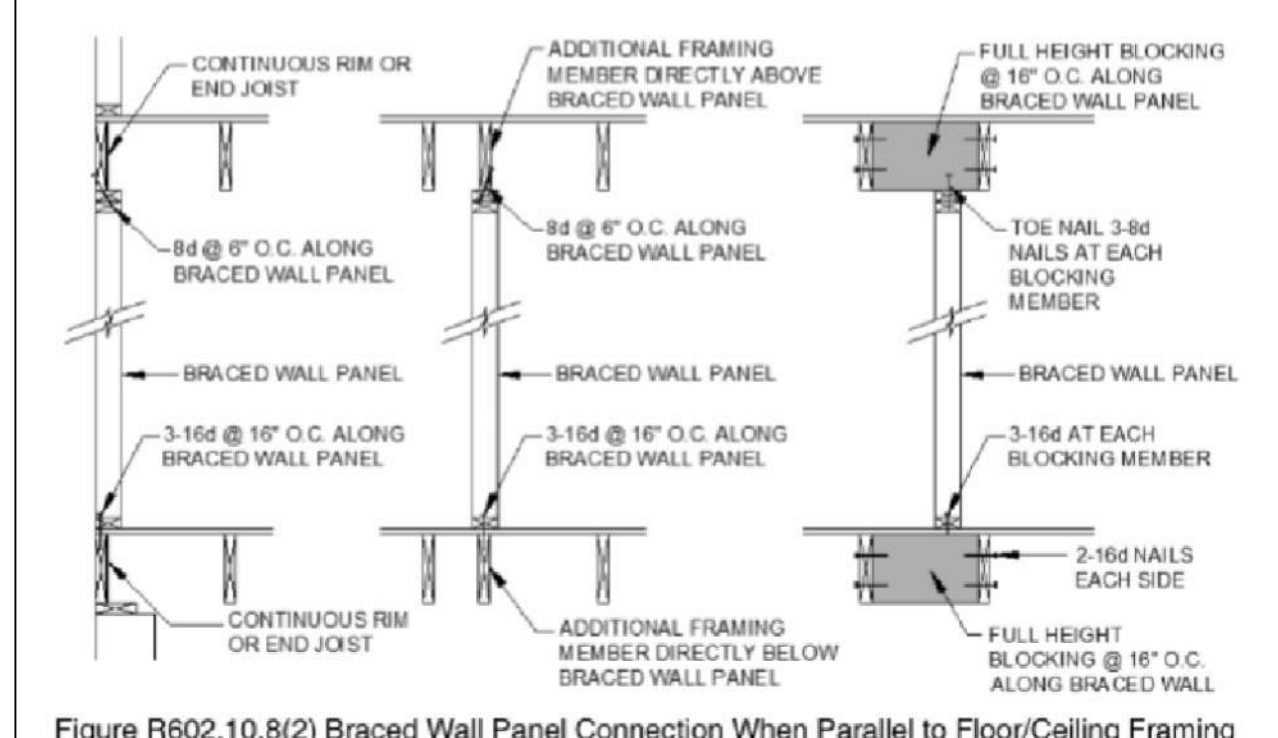
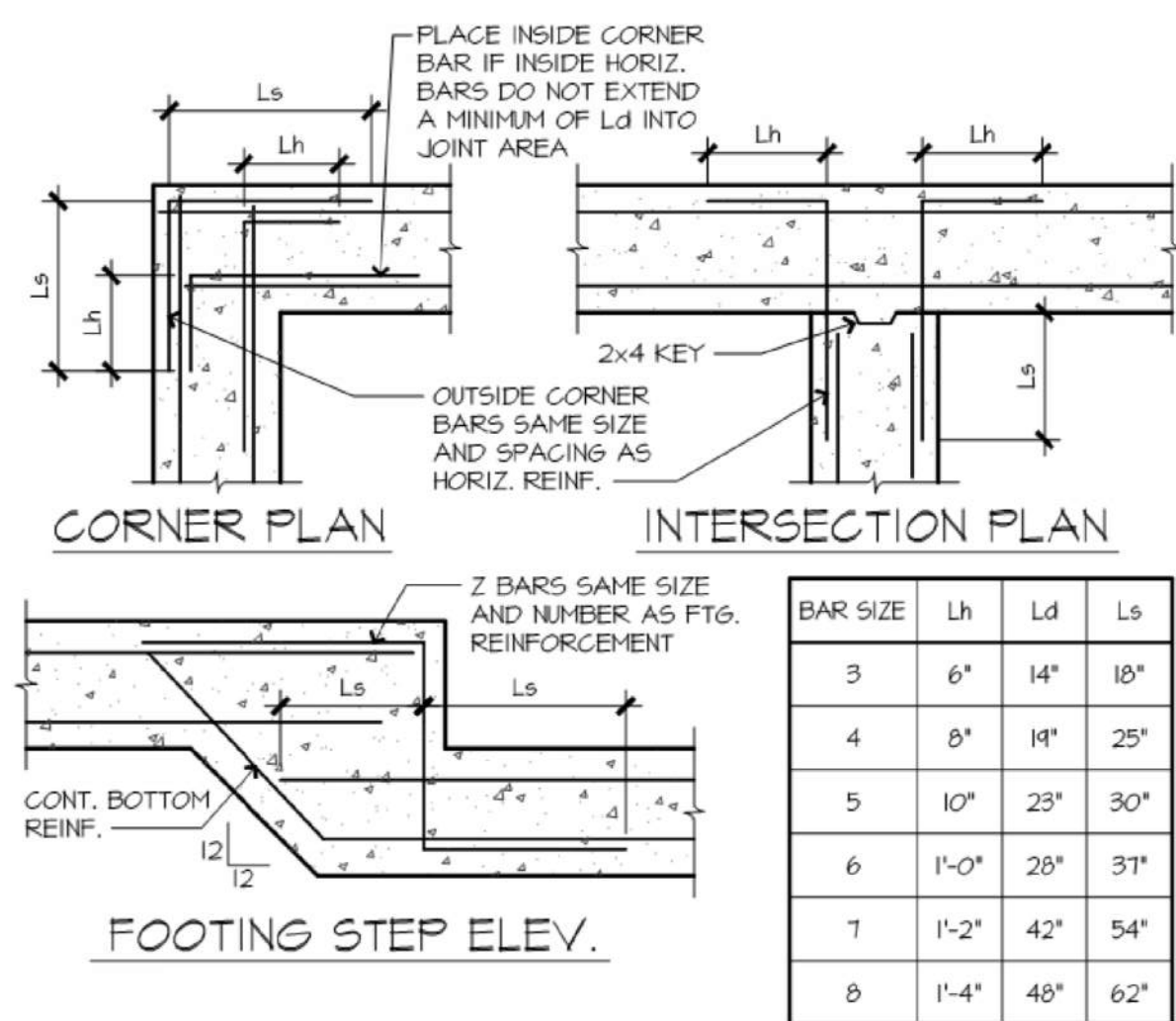


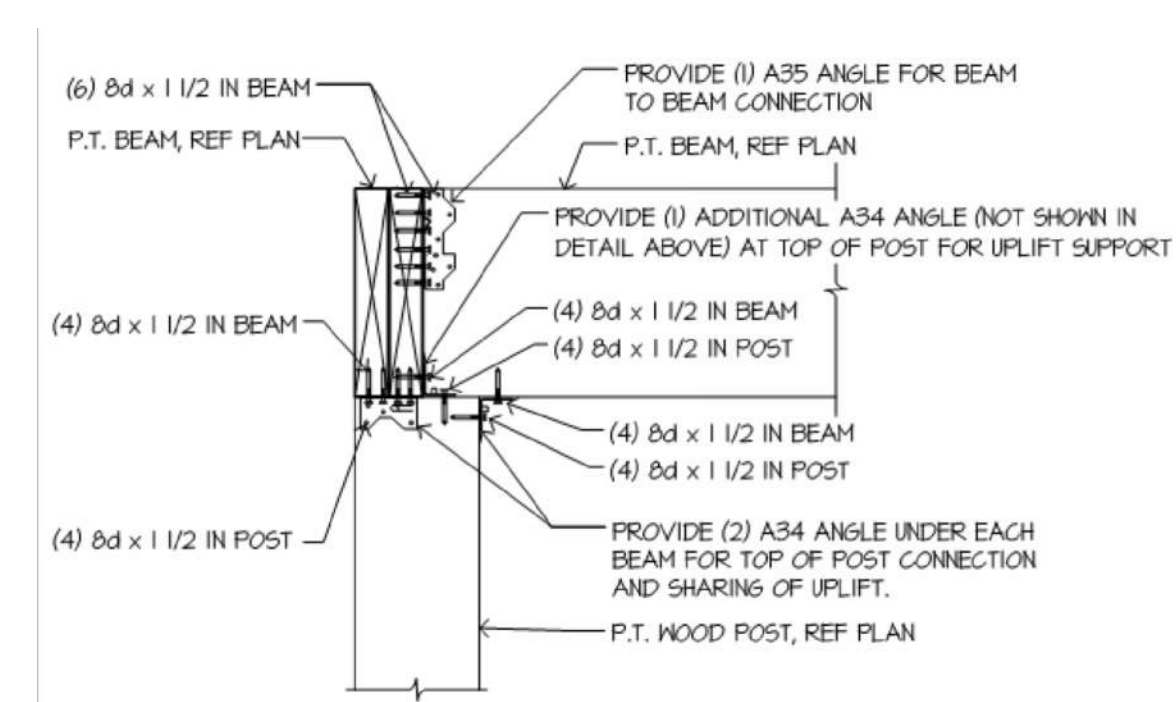
Figure R602.10.8(2) Braced Wall Panel Connection When Parallel to Floor/Ceiling Framing

**C** BRACED WALL SEGMENT ATTACHMENT CEILING/FLOOR  
 2012 IRC SECTION R602.10.8  
 N.T.S.



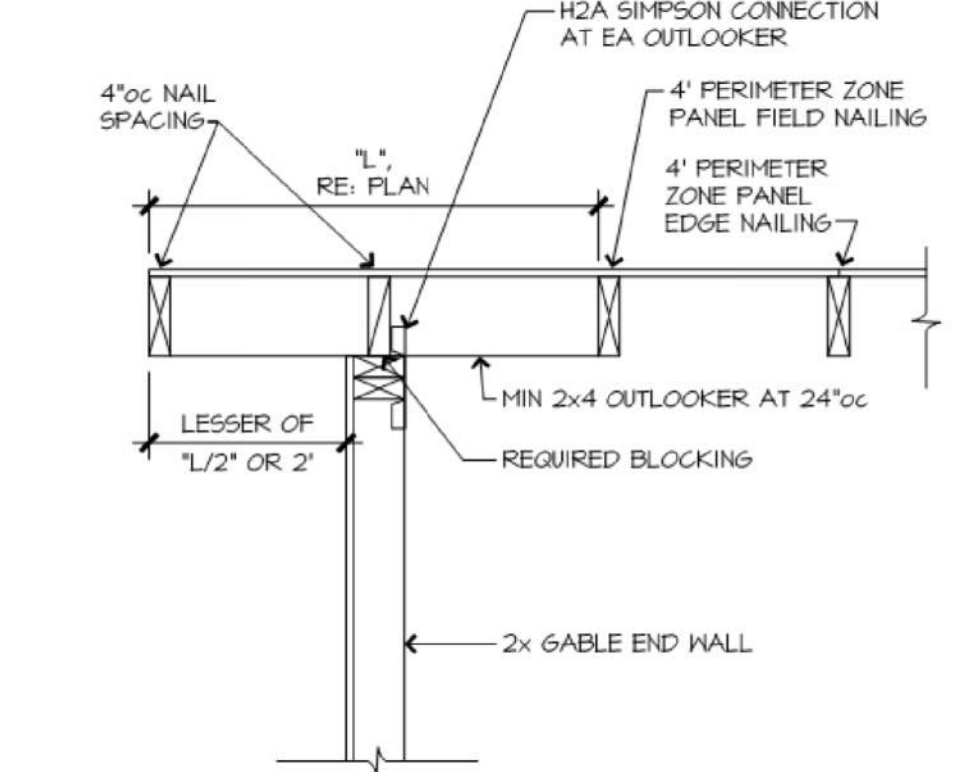
**G** CONCRETE ENCASED ELECTRODE

N.T.S.



**F** POST TO BEAM CONNECTION

N.T.S.

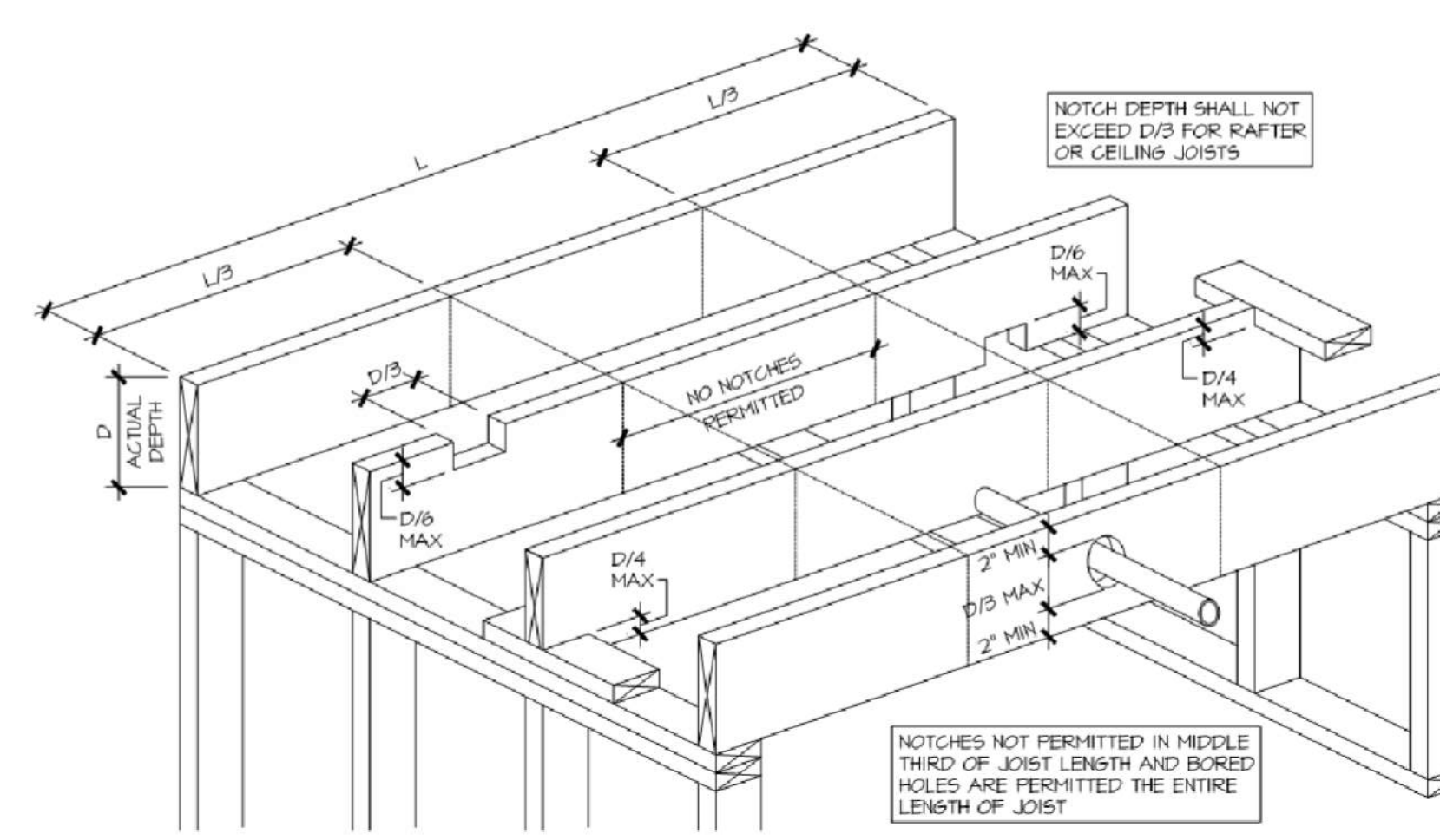


**E** GABLE END FRAMING REQUIREMENTS

N.T.S.

**H** TYP. CONCRETE DETAILS

N.T.S.



**D** NOTCHING AND BORING CEILING AND FLOOR JOISTS

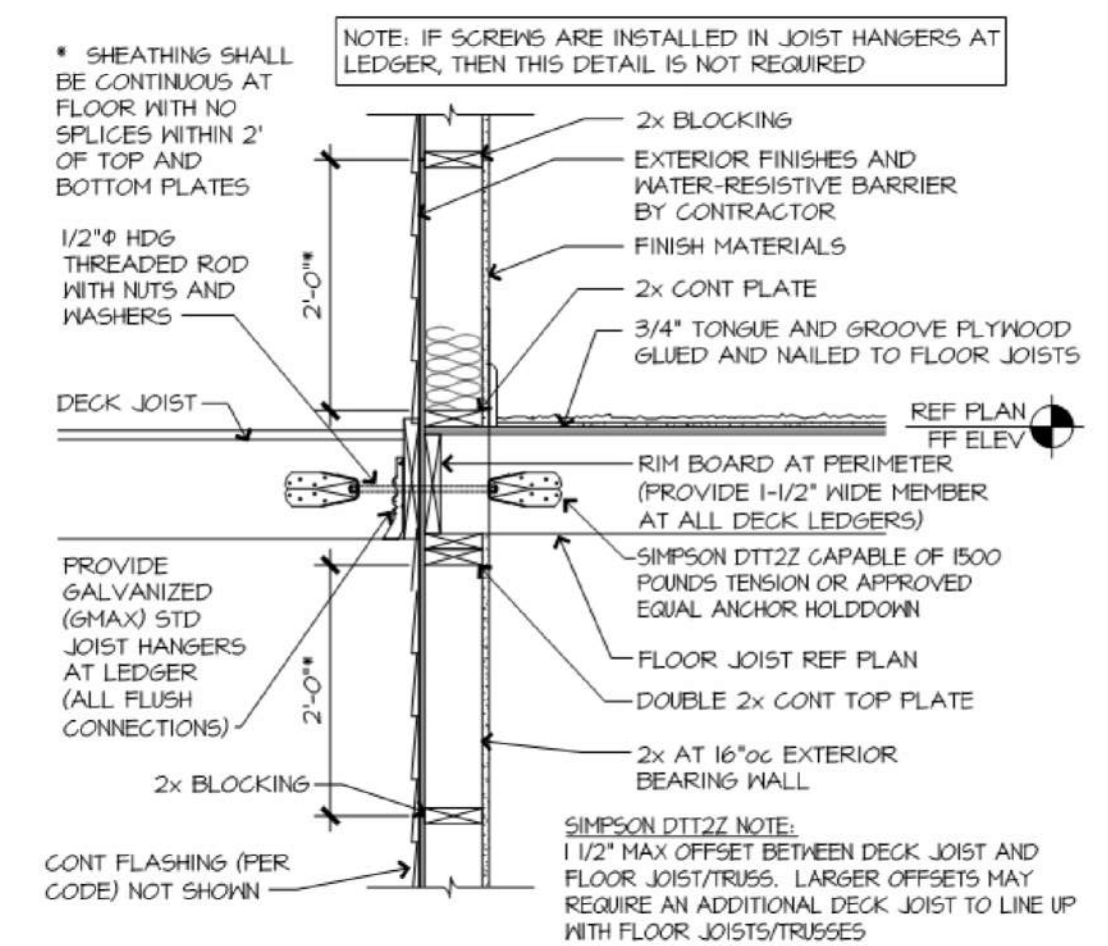
N.T.S.

Description of Building Elements	Number & Type of Fastener (a,b,c)	Spacing of Fasteners
Joist to sill or girder, toe nail	3 - 8d (2½" x 0.113")	
1" x 6" subfloor or less to each joist, face nail	2 - 8d (2½" x 0.113") 2 staples, 1¾"	
2" subfloor to joist or girder, blind & face nail	2 - 16d (3½" x 0.135")	
Sole plate to joist or blocking, face nail	16d (3½" x 0.135")	16" o.c.
Top or sole plate to end stud, toe nail	2 - 16d (3½" x 0.135")	
Stud to sole plate, toe nail	3 - 8d (2½" x 0.113") or 2 - 16d (3½" x 0.135")	
Double studs, face nail	10d (3" x 0.128")	24" o.c.
Double top plates, face nail	10d (3" x 0.128")	24" o.c.
Sole plate to joist or blocking at braced wall panels	3 - 16d (3½" x 0.135")	16" o.c.
Double top plates, minimum 24" offset of end joints, face nail in lapped area	2 - 16d (3½" x 0.135")	
Blocking between joists or rafters to top plate, toe nail	3 - 8d (2½" x 0.113")	
Rim joist to top plate, toe nail	3 - 8d (2½" x 0.113")	6" o.c.
Top plates, laps at corners and intersections, face nail	2 - 10d (3" x 0.128")	
Built up header, two pieces with ½" spacer	16d (3½" x 0.135")	16" o.c. along ea. edge
Continued header, two pieces	16d (3½" x 0.135")	16" o.c. along ea. edge
Ceiling joists to plate, toe nail	3 - 8d (2½" x 0.113")	
Continuous header to stud, toe nail	4 - 8d (2½" x 0.113")	
Ceiling joist, laps over partitions, face nail	3 - 10d (3" x 0.128")	
Ceiling joist to parallel rafters, face nail	3 - 10d (3" x 0.128")	
Rafter to plate, toe nail	2 - 16d (3½" x 0.135")	
1" brace to each stud and plate, face nail	2 - 8d (2½" x 0.113") 2 staples, 1¾"	
1" x 6" sheathing to each bearing, face nail	2 - 8d (2½" x 0.113") 2 staples, 1¾"	
1" x 8" sheathing to each bearing, face nail	2 - 8d (2½" x 0.113") 3 staples, 1¾"	
Built-up corner studs	10d (3" x 0.128")	24" o.c.
Built-up girders and beams, 2-inch lumber layers	10d (3" x 0.128")	Nail ea. layer as follows: 32" o.c. at top & bott. & staggered. Two nails at ends and at ea. splice
2" planks	2 - 16d (3½" x 0.135")	At each bearing
Roof rafters to ridge, valley or hip rafters: toe nail	4 - 16d (3½" x 0.135")	
face nail	3 - 16d (3½" x 0.135")	
Rafter ties to rafters, face nail	3 - 8d (2½" x 0.113")	
Collar tie to rafter, face nail, or 1¼" x 20 gage ridge strap	3 - 10d (3" x 0.128")	

**A** FASTNER SCHEDULE

PER IRC SECTION R602.3(1)

N.T.S.



**C** LATERAL DECK CONNECTION PER IRC

N.T.S.

**B** PARTITION NOTCHING REQUIREMENTS

N.T.S.



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816-588-1178

EAGLE 1 CONSTRUCTION # 3  
LAKEHOUSE

DATE: 02-10-2022

SUBMISSION: \_\_\_\_\_  
PLOT #: \_\_\_\_\_

REVISION	DATE

ISSUED: PERMIT/CONSTRUCTION

A7

