

BUILDER/CONTRACTOR IS RESPONSIBLE TO
CHECK ALL DIMENSIONS FOR ACCURACY
BETWEEN FLOORS, FOUNDATION, AND ELEVATIONS.
ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS,
AND COLUMN SIZES.

FRONT ELEVATION

1/4" = 1'0"

ALL NOTES, SECTIONS, AND DRAWINGS
ARE IN ACCORDANCE WITH THE 2018 IRC

NOTE:
ACTUAL ELEVATIONS MAY VARY FROM ARCHITECTURAL
DRAWINGS, DUE TO TERRAIN/BACKFILL PROCESS.
FRONT ELEVATION IS ARCHITECTURAL DRAWING AND
MAY VARY DUE TO MATERIALS AVAILABILITY.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/02/2024 9:35:16

THE ESTATES AT
WOODSIDE RIDGE

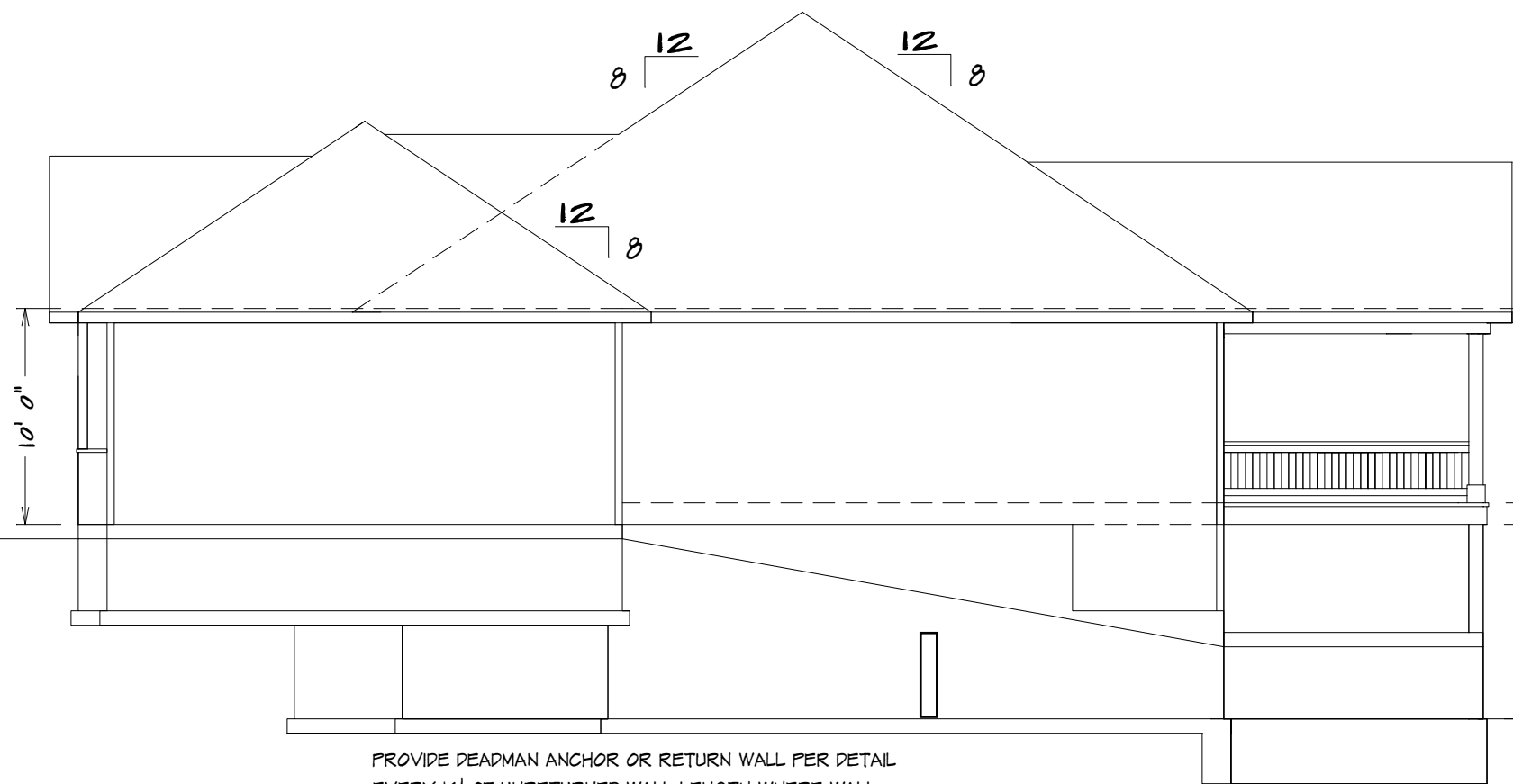
361 PATCH CT.
LEES SUMMIT MO



PROVIDE DEADMAN ANCHOR OR RETURN WALL PER DETAIL EVERY 16' OF UNRETURNED WALL
LENGTH WHERE WALL HEIGHT IS NOT FULL HEIGHT AND ADJACENT GRADE IS 4'0" OR
GREATER. FIELD COORDINATE WITH SITE GRADE. HOLD TOP 1' BELOW ADJ. GRADE.

REAR ELEVATION

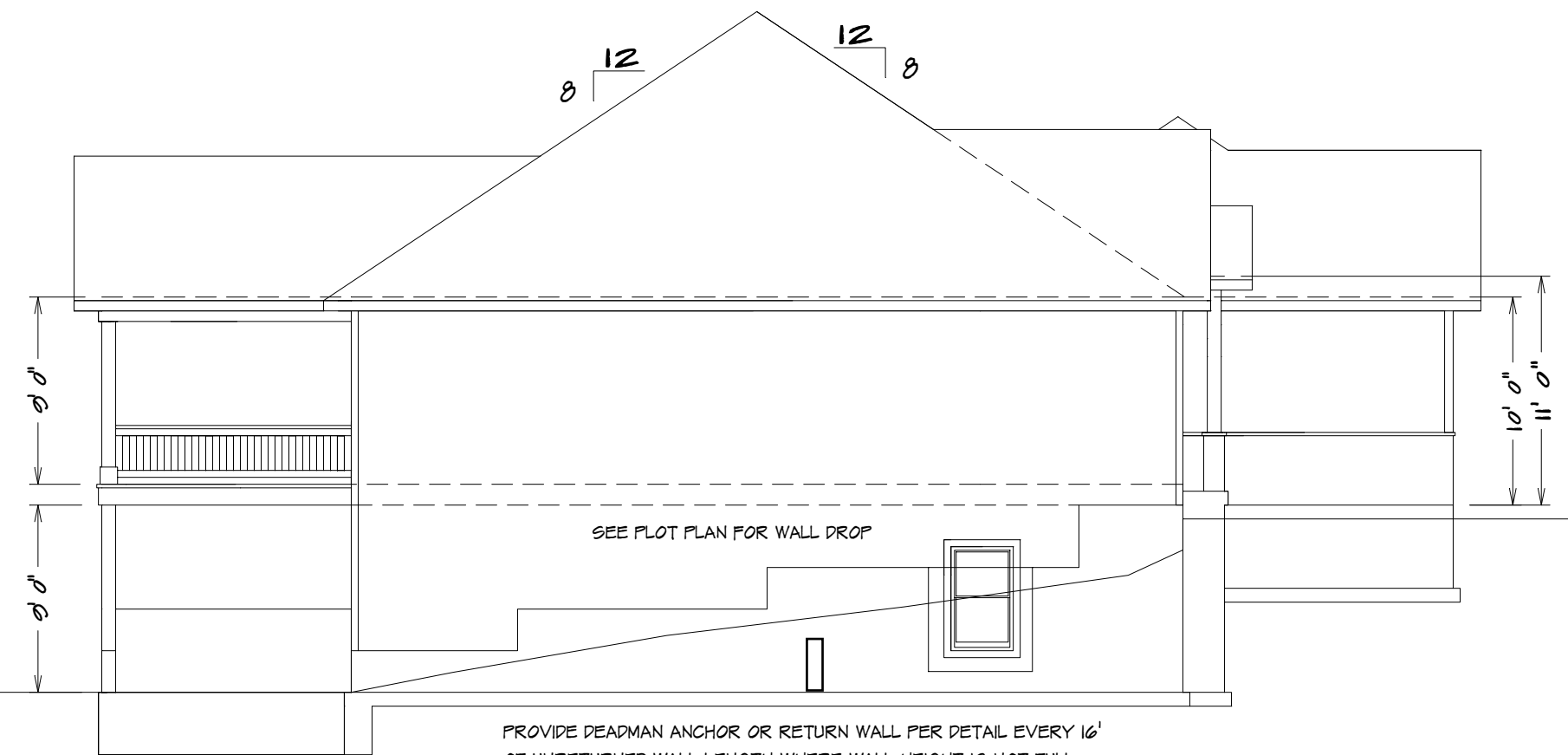
1/8" = 1'0"



PROVIDE DEADMAN ANCHOR OR RETURN WALL PER DETAIL EVERY 16' OF UNRETURNED WALL
LENGTH WHERE WALL HEIGHT IS NOT FULL HEIGHT AND ADJACENT GRADE IS 4'0" OR
GREATER. FIELD COORDINATE WITH SITE GRADE. HOLD TOP 1' BELOW ADJ. GRADE.

RIGHT ELEVATION

1/8" = 1'0"



PROVIDE DEADMAN ANCHOR OR RETURN WALL PER DETAIL EVERY 16'
OF UNRETURNED WALL LENGTH WHERE WALL HEIGHT IS NOT FULL
HEIGHT AND ADJACENT GRADE IS 4'0" OR GREATER. FIELD
COORDINATE WITH SITE GRADE. HOLD TOP 1' BELOW ADJ. GRADE.

LEFT ELEVATION

1/8" = 1'0"

SQUARE FOOTAGE

LIVING AREA
FIRST FLOOR = 1867
BASEMENT = 1327
COVERED DECK = 284

UNFINISHED AREA
GARAGE = 727
MEC RM = 370

STRUCTURAL MEMBER REVIEW AND CERTIFICATION:

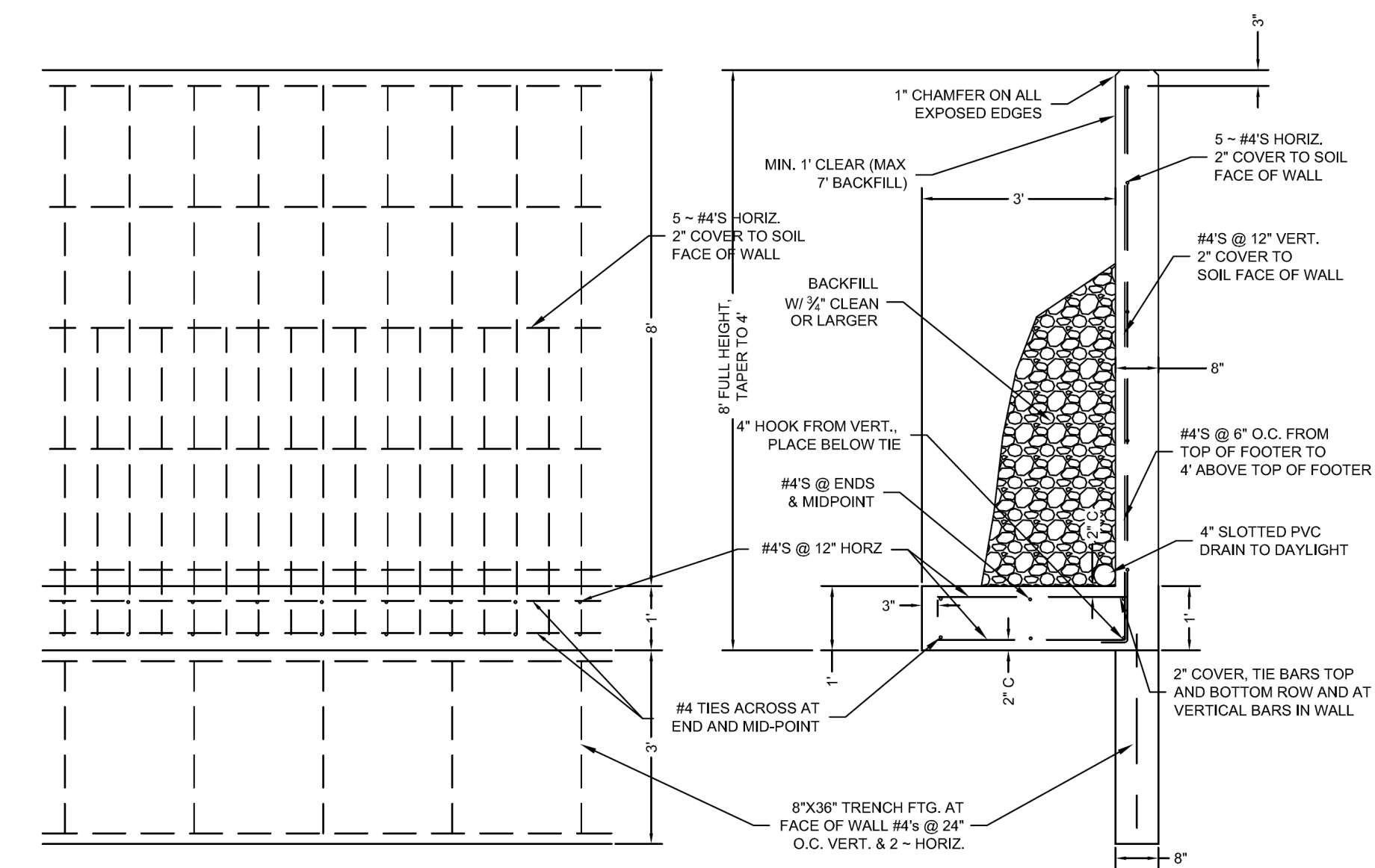


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MO. CERTIFICATE OF AUTHORITY #2002002187

AARON D. OBERMILLER, P.E.
CERTIFICATION IS PROVIDED HEREON FOR STRUCTURAL ITEMS NOT OTHERWISE ADDRESSED IN THE REQUIREMENTS OF THE 2018
INTERNATIONAL RESIDENTIAL CODE. ALL CONSTRUCTION, MATERIALS, FASTENING NOT SPECIFICALLY IDENTIFIED SHALL COMPLY
WITH THE REQUIREMENTS OF THE 2018 IRC AND THEREIN REFERENCED STANDARDS. ANY REQUIRED CLARIFICATIONS OR
MODIFICATIONS TO STRUCTURAL ITEMS SHALL BE APPROVED BY THE ENGINEER OF RECORD OR OTHER LICENSED PROFESSIONAL
CAPABLE OF CERTIFYING COMPLIANCE WITH THE MINIMUM STANDARDS OF THE APPLICABLE CODE. ENGINEER SHALL NOT BE HELD
RESPONSIBLE FOR DRAWING ERRORS AND OMISSIONS IN PLAN OR ELEVATION OF PROVIDED PLANS.

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SUE-DIVISION:	LOT NO.	DESIGNER:	FILE NAME: 7044 ELEV	APPROX. SQ.FT. 7044

S.D.
M = SMOKE DETECTOR



S1.1 SCALE: $\frac{1}{2}" = 1'$

FOUNDATION WALL HEIGHT PER PLAN

3'

HORIZONTAL BARS
TIE INTO FOUNDATION
@ 24" O.C.

6"X36" DEADM
SET HEIGHT AT 2'
WALL HEIGHT 8'

16"X36" W/ 2 -

THREE (3) VERTIC

STANDARD FOOT

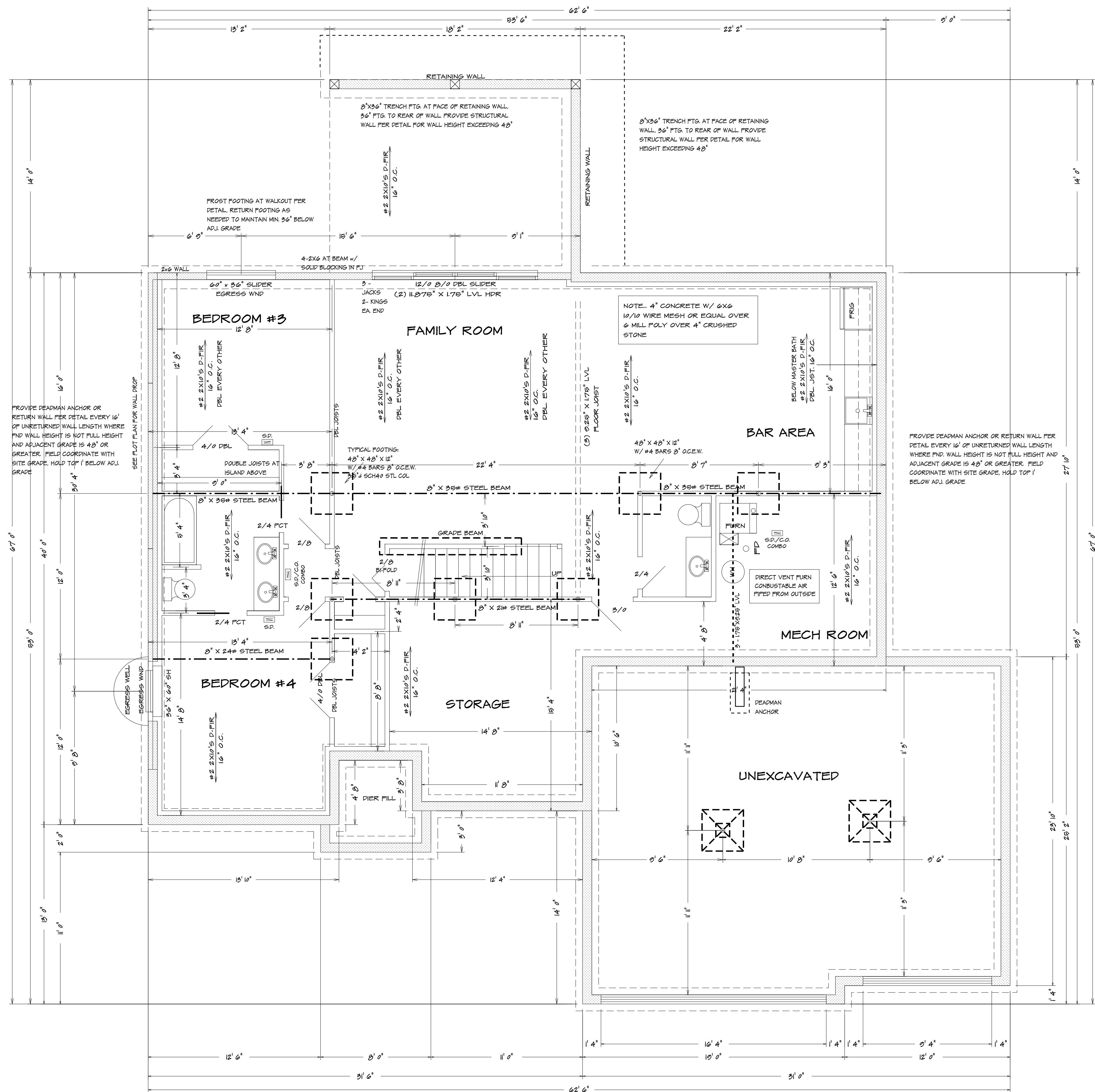
4" FLOOR SLAB

Technical drawing showing the reinforcement details for a patio slab and walkout area. The drawing includes two cross-sections and a plan view.

Reinforcement Details:

- Top Section:** Shows a 12" CONC. CURB AT WALKOUT, ADJACENT GRADE OR TOP OF PATIO CONC., SET PATIO AT TOP OF FOUNDATION, and 1/2"x10" J BOLTS @ 3' O.C.
- Bottom Section:** Shows 2" RIGID INSUL. FOR 24" BELOW SLAB IN CONDITIONED AREAS, 1/2"x10" J BOLTS @ 3' O.C., and 12" CONC. CURB AT WALKOUT.
- Plan View:** Shows a 10' x 10' area with 2 - #4'S CONTINUOUS, 1/2"x10" J BOLTS @ 3' O.C., and 12" CONC. CURB AT WALKOUT.
- Notes:**
 - 1. MIN. 2" CONC. CURB
 - 2. 1" DEPTH MIN. 2" CONC. CURB

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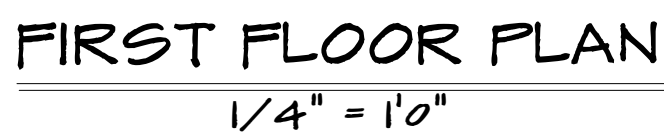


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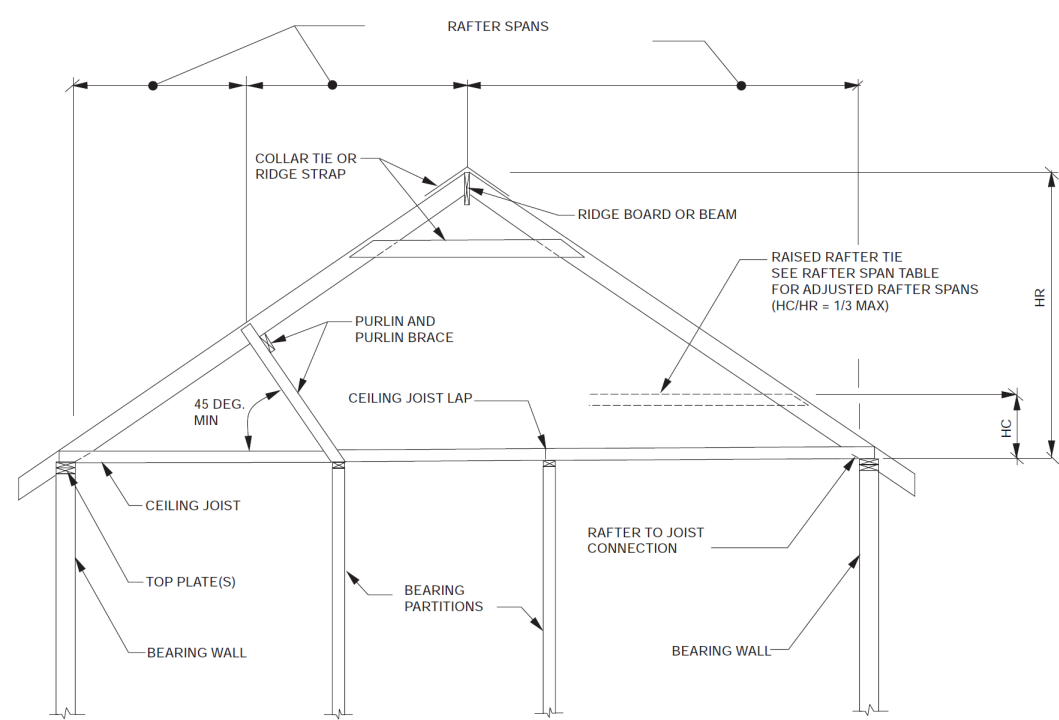
S.D.
[M] = SMOKE DETECTOR

MAXIMUM HEADER SPAN (feet)	ULTIMATE DESIGN WIND SPEED AND EXPOSURE CATEGORY	
	< 140 mph, Exposure B or < 130 mph, Exposure C	≥ 115 mph, Exposure B ¹
4	1	1
6	2	1
8	2	1
10	3	2
12	3	2
14	3	2
16	4	2
18	4	2

b. The tabulated minimum number of full-height studs is applicable where jack studs are provided to support the header at each end in accordance with Table R602.7(1). Where a framing anchor is used to support the header in lieu of a jack stud in accordance with Note d of Table R602.7(1), the minimum number of full-height studs at each end of a header shall be in accordance with requirements for wind speed < 140 mph, Exposure B.

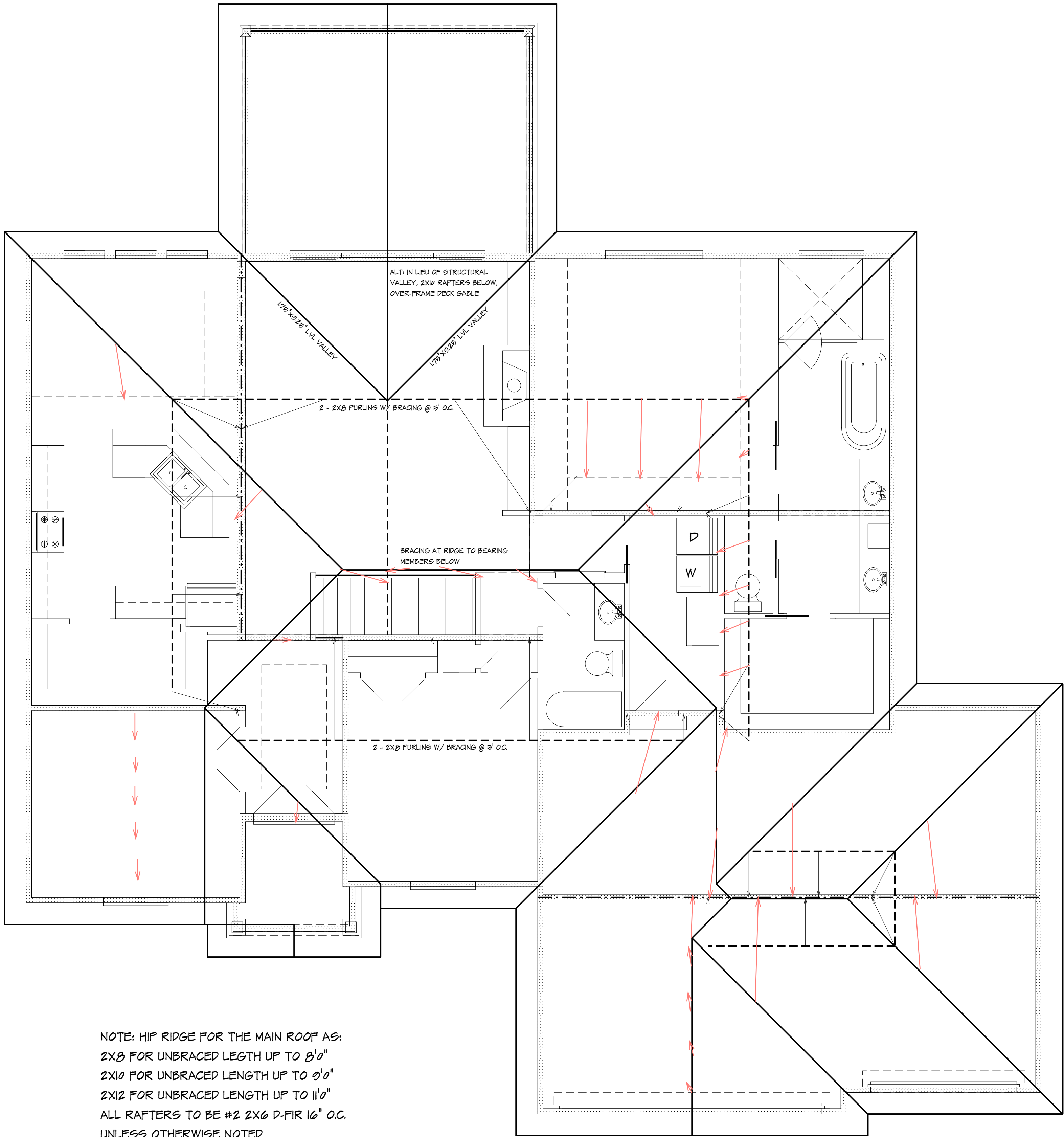


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For SI: 1 inch = 25.4 mm, 1 foot = 305 mm, 1 degree = 0.018 rad.
H_c = Height of ceiling joists or rafter ties measured vertically above the top of rafter support walls.
H_r = Height of roof ridge measured vertically above the top of the rafter support walls.

FIGURE R802.4.5
BRACED RAFTER CONSTRUCTION



NOTE: HIP RIDGE FOR THE MAIN ROOF AS:
2X8 FOR UNBRACED LEGTH UP TO 8'0"
2X10 FOR UNBRACED LENGTH UP TO 9'0"
2X12 FOR UNBRACED LENGTH UP TO 11'0"
ALL RAFTERS TO BE #2 2X6 D-FIR 16" O.C.
UNLESS OTHERWISE NOTED
PURLING RAFTERS TO BEARING WALL LINES
CONNECT RAFTERS TO CEILING JOIST W/ 4-16d
GALV. NAILS
CONNECT RAFTERS TO RIDGE, VALLEY, AND
HIP W/ 4-16d GALV.NAILS
VERT. RIDGE AND RAFTER SUPPORTS TO BE
EQUAL TO OR GREATER THAN THE DEPTH OF
RAFTERS

ROOF ELEVATION

1/4" = 1'0"

BEARING WALL LINES

ROOF DESIGNED WITH:
LIVE LOAD = 20 PSF
DEAD LOAD = 10 PSF

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ACCEPTS ALL RESPONSIBILITY FOR LOT PLACEMENT, SETBACKS, AND PLANS.
BUILDER/CONTRACTOR AND HOME OWNER ACCEPTS RESPONSIBILITY FOR ANY AND ALL
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BUILDER/CONTRACTOR ACCEPTS RESPONSIBILITY FOR ANY ON SITE CHANGES MADE
TO STRUCTURE.



THE ESTATES AT
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BRACED WALL LINES				
WALL	SPACING	TYPE	REQ'D	PROVIDED
1	15' 0"	WSP	6' 6"	12' 0"
2	26' 0"	LI B/GB	9' 6"	16' 0"
3	15' 6"	WSP	6' 6"	12' 0"
4	4' 6"	WSP	3' 6"	8' 0"
A	14' 0"	WSP/CS-WSP	6' 6"	14' 0"
B	20' 0"	LI B/GB	9' 6"	16' 0"
C	12' 6"	LI B	6' 6"	12' 0"
D	6' 6"	FFH	2' 0"	6' 0"

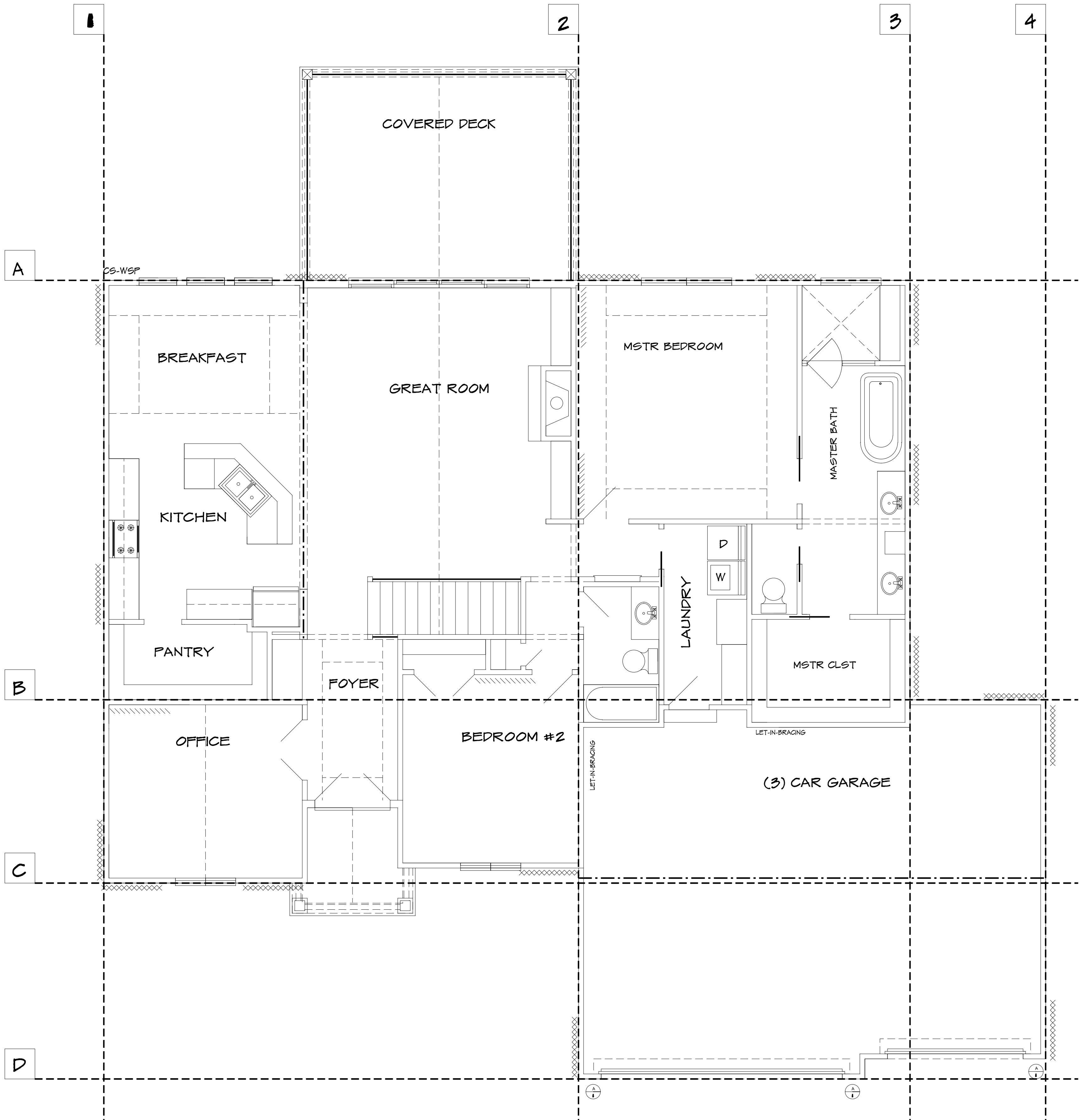
WSP - WOOD STRUCTURAL PANEL, 7/16" WSP FASTENED w/ B4 @ 6' O.C. PERIMETER, 12' O.C. INTERIOR FOR MIN. 48" WHERE LOCATED

CS-WSP CONTINUOUSLY SHEATHED WOOD STRUCTURAL PANEL, 7/16" WSP w/ B4 @ 6' O.C. PERIMETER, 12' O.C. INTERIOR

LI B - LET-IN-BRACING PER CODE OR ALTERNATE MANUFACTURER RATED STEEL STRAP INSTALLED PER MANUFACTURER'S REQUIREMENTS

GB - GYPSUM BOARD, 1/2" GYP. BOARD WITH FASTENERS AT 7' O.C. THROUGHOUT

FFH - PORTAL FRAME WITH HOLD-DOWNS PER CODE DETAIL



FIRST FLOOR
WALL BRACE PLAN
1/4" = 1'0"

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GENERAL NOTES

WINDOW SIZES SHOWN ARE APPROXIMATE. THE BUILDER SHALL SELECT WINDOWS TO MEET BUILDING CODE REQUIREMENTS AND TO FIT IN THE AVAILABLE SPACE. OVERALL ROUGH OPENINGS FOR MULLED UNITS WILL VARY BY WINDOW / DOOR MANUFACTURER.

EXTERIOR WALLS ARE 2x4 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED.

GARAGE THE GARAGE FLOOR SHALL BE SLOPED TOWARD GARAGE DOORS DOORS BETWEEN GARAGE AND DWELLING - MIN 1/8" / 8' SOLD CORE OR HONEY COMBED STEEL DOOR OR 2x MIN RATED GARAGE TO HAVE 8" / 8' TYPE X GYPSUM THROUGHOUT THE H-FRAME SHALL CONSIST OF 2X6 FRAMING

GLAZING GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN 2x10 IRC SHALL BE APPROVED SAFETY GLAZING MATERIALS: GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARCH OF THE DOOR IN CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR. WALLS ENCLOSED STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF THE STAIR ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRPOOLS. GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING 9 SQ. FT. AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITH IN 36"

EMERGENCY EGRESS PROVIDE ONE WINDOW FROM EACH BEDROOM THAT HAS A MIN. OPENABLE AREA OF 5.7 SQ. FT. WITH A MIN. OPENABLE HEIGHT OF 24" AND WIDTH OF 21"

ELECTRICAL OUTLETS ALL OUTLETS TO BE ARC FAULT CIRCUIT-INTERRUPTER OR GROUND FAULT CIRCUIT-INTERRUPTER PROTECTED EXCEPT, REFRIGERATOR, SINGLE OUTLET FOR SUMP PUMP AND SINGLE OUTLET IN GARAGE FOR A FREEZER ALL OUTLETS TO BE TAMPER RESISTANT

CARBON MONOXIDE ALARMS CARBON MONOXIDE ALARMS FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGE.

CARBON MONOXIDE DETECTION SYSTEMS CARBON MONOXIDE DETECTION SYSTEMS THAT INCLUDE CARBON MONOXIDE DETECTORS AND AUDIBLE NOTIFICATION APPLIANCES, INSTALLED AND MAINTAINED IN ACCORDANCE WITH THIS SECTION FOR CARBON MONOXIDE ALARMS AND NFPA 720, SHALL BE PERMITTED. THE CARBON MONOXIDE DETECTORS SHALL BE LISTED AS COMPLYING WITH UL 20378. WHERE A HOUSEHOLD CARBON MONOXIDE DETECTION SYSTEM IS INSTALLED, IT SHALL BECOME A PERMANENT FEATURE OF THE OCCUPANCY, OWNED BY THE HOMEOWNER AND SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION.

GUARD OPENING LIMITATIONS REQUIRED GUARDS ON OPEN SIDES OF STAIRWAYS, RAISED FLOOR AREA, BALCONIES, AND PORCHES SHALL HAVE INTERMEDIATE RAILS OR ORNAMENTAL CLOSURES THAT DO NOT ALLOW PASSAGE OF A SPHERE 4" OR MORE IN DIAMETER.

OPENING PROTECTION OPENING FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS BETWEEN THE GARAGE AND RESIDENCE SHALL BE EQUIPPED WITH SOLID WOOD DOORS NOT LESS THAN 1 3/8" IN THICKNESS, SOLID OR HONEYCOMB-CORE STEEL DOOR NOT LESS THAN 1 3/8" THICK, OR 20 MINUTE FIRE-RATED DOORS, EQUIPPED WITH A SELF-CLOSING DEVICE.

SMOKE ALARMS PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING ROOM AND ON EACH FLOOR, INCLUDING BASEMENT. ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING.

FRAMING NOTE

ALL LUMBER SIZES ARE FOR #2 D-FIR LARCH ALL HEADERS TO BE MIN (2) #2 2X10 BLOCK CANTILEVERS, DOOR JAMBS, AND OVER BEAMS ALL HEADERS TO BEAR ON MIN (3) (2) 2X4 STUDS JOIST UNDER BEARING PARTITIONS SHALL BE DOUBLED AND COMPLY WITH 2x10 IRC WATER-RESISTIVE BARRIER SHALL BE PROVIDED OVER ALL EXTERIOR WALLS PER 2x10 IRC ROOF PLAN NOTES ALL ROOF RAFTERS NOT CALLED OUT ARE TO BE 2x6 SPF #1/#2 @ 16". ALL VAULTS TO BE PURRED DOWN w/ 2x4 MATERIAL TO PROVIDE FOR R-8.8 INSULATION ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 D-FIR #2 UNLESS NOTED OTHERWISE ON PLANS ALL RIDGES, HPs, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS CEILING JOISTS AND RAFTERS SHALL BE NAILED TO EACH OTHER WITH (3) 16d COM (3 1/2"x16d2) NAILS AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8d COM (2 1/2"x16d1) NAILS. CEILING JOISTS SHALL BE CONTINUOUS OR SECURELY JOINED WITH (3) 16d COM (3 1/2"x16d2) NAILS WHERE THEY MEET OVER INTERIOR PARTITIONS AND ARE NAILED TO ADJACENT RAFTERS TO PROVIDE A CONTINUOUS TIE ACROSS THE BUILDING WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS, WHERE CEILING JOISTS ARE NOT CONNECTED TO THE RAFTERS AT THE TOP WALL PLATE (= AT LOCATIONS WHERE C.J. ARE PERPENDICULAR TO RAFTERS), INSTALL 2x4 RAFTER TIES, IN THE LOWER 1/3 OF ATTIC SPACE @ 16" WITH (3) 16d COM (3 1/2"x16d2) NAILS EX END. COLLAR TIES SHALL BE PROVIDED IN THE ATTIC SPACE IN THE UPPER 1/3 OF ATTIC RAFTER CONNECTIONS DESIGNED TO RESIST UPLIFT FORCES PER 2x10 IRC TABLE D-2.1. ROOF HEADERS DO NOT HAVE NOTABLE UPLIFT TO REQUIRE HOLD DOWNS. PROVIDE METAL FLASHING AT ALL ROOF VALLEYS. ROOF AND SOFFIT VENTS PER LOCAL CODES. WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF. EXACT GUTTER AND DOWNSPOUT LOCATION BY GUTTER INSTALLER. ROOF IS DESIGNED FOR 20 PSF. ROOF SNOW LOAD (MN) MIN 20 YR. ASPHALT SHINGLES RAFTER TIES SHALL NOT BE REQUIRED WHEN A STRUCTURAL RIDGE HAS BEEN PROVIDED AND ADEQUATELY DESIGNED (AS IN A FULLY VAULTED ROOM) SUCH SHALL BE NOTED AS "STRUCTURAL" ON THE PLAN. PER 2x10 IRC

ROOF BRACING ROOF FURLING TO BE PLACED APPROXIMATELY WHERE SHOWN ON ROOF FURLING, USE 2x6 STUD GRADE FURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS) RIDGE, HP, VALLEY, AND FURLIN BRACE STRUTS TO BE PLACED AS SHOWN ON PLANS. STRUTS TO BE 2x4 STUD GRADE w/ MAXIMUM UNBRACED LENGTH OF 8'-0" AND AT A 45° ANGLE w/ HORIZONTAL OR GREATER (VERTICAL WHERE POSSIBLE) BRACES LONGER THAN 8'-0" SHALL BE 2x4 STRONG BACK BRACES

EXCEPTIONS: WINDOWS WHOSE OPENING WILL NOT ALLOW A 4" DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION. OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES, WHICH COMPLY WITH ASTM F 2099. WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2.

EXHAUST AIR BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA IN WINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPERABLE EXCEPTION: THE GLAZED AREAS SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A LOCAL EXHAUST SYSTEM ARE PROVIDED. THE MINIMUM LOCAL EXHAUST RATE SHALL BE DETERMINED IN ACCORDANCE WITH SECTION M107.1. EXHAUST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS

BRIDGING JOISTS EXCEEDING A NOMINAL 2" X 12" SHALL BE SUPPORTED LATEROALLY BY SOLID BLOCKING, DIAGONAL BRIDGING (WOOD OR METAL), OR A CONTINUOUS 1" X 3" STRIP NAILED ACROSS THE BOTTOM OF THE JOIST PERPENDICULAR TO JOIST AT INTERVALS NOT EXCEEDING 8 FEET

WINDOW AND DOOR NOTES

1. ALL WINDOWS ARE SHOWN IN FEET (IE 3'0"0" IS A 3'0"x6'0" WINDOW). ALL DOORS SHOWN IN FEET AND INCHES (IE 2'0"0" DOOR IS A 2'-0"x6'-0" DOOR). CONTRACTOR/INSTALLER TO VERIFY R.O. DIMENSIONS WITH BUILDER SUPPLIED CUT SHEET PRIOR TO FRAMING. 2. ALL WINDOWS TO BE LOW-E GLASS TO MEET ALL LOCAL ENERGY CODE REQUIREMENTS. 3. PROVIDE EGRESS WINDOW IN ALL SLEEPING ROOMS. WINDOWS SHALL COMPLY WITH THE FOLLOWING: A. MINIMUM OPEN AREA 5.7 SQ.FT. B. MINIMUM OPENING HEIGHT 24 INCHES C. MINIMUM OPENING WIDTH 21 INCHES D. SILL HEIGHT 44" MAX ABOVE FLOOR 4. ALL WINDOW SILLS ARE TO BE 24" MIN ABOVE FINISH FLOOR, OR SHALL BE FIXED/NONOPERABLE 5. ALL WINDOWS AND GLAZED DOORS SHALL COMPLY WITH IRC SECTION R310.8.1. GLAZING IN HAZARDOUS LOCATIONS SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR. WALLS ENCLOSED STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF STAIR ENCLOSURES FOR TUBS, SHOWERS AND WHIRPOOLS. GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING 9 SF AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36". 6. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC R612.2. 7. ALL GLAZING IN WINDOWS AND DOORS SHALL COMPLY WITH THE TEST CRITERIA FOR CATEGORY I IN ACCORDANCE WITH CPSC 16 CFR 1241. 8. WINDOW MANUFACTURER TO CONFIRM EXACT SAFETY AND EGRESS WINDOW LOCATIONS PER LOCAL CODES.

GENERAL PLAN REQUIREMENTS

1. ALL STUD WALL FRAMING SHALL BE CONTINUOUS FROM THE FLOOR TO ROOF OR CEILING DIAPHRAGM. UNDO ALL WALLS OVER 10'-0" ARE TO BE 2x6 @ 16" LONG. 2. PROVIDE WATER-RESISTANT EXTERIOR WALL COVERING ON ALL FRAMED WALLS TO COMPLY WITH IRC SECTION D-2.3. 3. PROVIDE GFI ELECTRICAL OUTLETS ON EXTERIOR, IN UNFINISHED BASEMENT, IN BATHROOMS, ABOVE KITCHEN COUNTERS, IN GARAGE, AND WITHIN 6'-0" OF ANY SINK. 4. ALL EXTERIOR DOORS SERVED BY LANDING. 5. INSTALL CARBON MONOXIDE DETECTORS PER IRC SECTION 516 OUTSIDE OF EACH SLEEPING AREA. 6. INSTALL SMOKE DETECTORS IN EACH SLEEPING ROOM. OUTSIDE OF EACH SLEEPING AREA, WITH A MINIMUM OF ONE ON EACH FLOOR PER IRC SECTION 314. 7. PROVIDE A "UPER" GROUND PER IRC 360.8.1. 8. REFER TO WALL BRACE SHEET FOR ALL WALL BRACING DETAILS AND/OR CALCULATIONS. 9. INSTALL BLOCKING FOR TP HOLDERS, TOWEL BARS, AND TRIM BEAMS. 10. GARAGE DOOR H-FRAME: THE H-FRAME FOR ATTACHMENT OF THE GARAGE DOOR TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING ATTACHED WITH 3 1/4"x12d NAILS @ 7", STAGGERED WITH (7) 3 1/4"x12d NAILS THRU JAMB INTO HEADER. MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM. 11. OVERHEAD GARAGE DOORS TO MEET 90 MPH WIND LOAD RESISTANCE REQUIREMENTS OF PASMA 10-B-3 AND ASTM E 530-02 PER IRC SECTION R 612.4. 12. MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 3/4". MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 3/4". AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10". 13. ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 D-FIR #2 UNLESS NOTED OTHERWISE ON PLANS 14. ALL HEADER BEARINGS (OTHER THAN WINDOWS) TO BE (2) 2x4 STUDS UNLESS NOTED OTHERWISE. WINDOW HEADER BEARING TO BE (1) 2x4 EA END UNLESS NOTED OTHERWISE.

GENERAL FOUNDATION REQUIREMENTS

1. ALL FOOTINGS ARE TO BE EXTENDED TO MIN 36" BELOW FINISHED GRADE. 2. THE INTERIOR FOOTINGS FOR LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB. 3. FOR ALL CONC WALL OPENINGS, FOOTING & WALL STEPS, PROVIDE ONE #4 BAR, 48" LONG DIAGONALLY AS CLOSE AS PRACTICAL TO CORNER. 4. ALL REINFORCEMENT SHALL BE LAPPED A MIN OF 24" AT ENDS SPLICES AND AROUND CORNERS. 5. ANCHOR BOLTS ARE TO BE SPACED @ 36" w/ THE 7" MIN EMBED. A BOLT SHALL BE PLACED WITHIN 12" OF THE END OF EACH PLATE SECTION. 6. FASTEN JOISTS TO SILL PLATES WITH (3) 8d COM NAILS. 7. WHERE JOIST IS PARALLEL TO FOUNDATION, PROVIDE SOLID BLOCKING @ 32" FOR (3) JOIST SPACES. FASTEN TO SILL PLATE PER NOTE 6. 8. VAPOR BARRIER: 6 MIL PE VAPOR RETARDER WITH JOINTS LAPPED A MIN OF 6" BETWEEN SLAS & BASE. 9. DAMP PROOFING: ONE COAT (MIN) OF DAMP PROOFING OR EQUIVALENT FOUNDATION MEMBRANE SHALL BE APPLIED TO EXTERIOR WALL SURFACES BELOW GRADE. SEAL TIE HOLES, VOIDS BEFORE APPLICATION. 10. FOUNDATION DRAIN: INSTALL CONT. 1/4" - PERFORATED PVC DRAIN TILE. DRAIN TILE TO BE EXTENDED TO SQUARE SUMP. FIT WHICH EXTENDS A MIN 24" BELOW BASEMENT FLOOR. 11. ALL FRAMING MEMBERS IN CONTACT WITH CONCRETE SHALL BE ACQ TREATED LUMBER. 12. ALL STEEL FASTENERS (INCLUDING FOUND. ANCHOR BOLTS) ON ACQ TO BE (DOUBLE HOT-DIPPED) GALVANIZED. 13. PROVIDE A "UPER" GROUND PER IRC 360.8.1. EGRESS WELL REQUIREMENTS: A. IF THE VERTICAL DISTANCE FROM THE WINDOW SILL TO ADJACENT GRADE IS GREATER THAN 44", PROVIDE A LADDER. B. ADD DRAIN TO DAYLIGHT OR SUMP PUMP.

ENERGY REQUIREMENTS

CONTRACTOR TO PROVIDE ENERGY AUDIT USING THE HERS ENERGY RATING SYSTEM. IN LIEU OF AN ENERGY AUDIT, THE FOLLOWING PRESCRIPTIVE REQUIREMENTS MAY BE FOLLOWED: A. ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES TO BE SEALED PER IRC SECTION M102.2. B. THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED PER IRC SECTION M102.4. C. CONTRACTOR TO SUBMIT "MANUAL J" AND "MANUAL D" CALCULATIONS FOR THE HVAC SYSTEM D. INSULATION TO COMPLY WITH IECC AS FOLLOWS: INSULATION TO COMPLY WITH IECC AS FOLLOWS:

WALLS R-19 CEILING (PLAT) R-49 CEILING (VAULTED) R-59 FLOORS OVER UNCONDITIONED SPACE R-19 CRAWL SPACE WALLS R-19 (w/ R-10 CONTINUOUS) BASEMENT WALLS R-19 (w/ R-10 CONTINUOUS) SLABS N/R DUCTWORK R-8 WINDOWS U-FACTOR 0.35 (MAX) SHGC 0.40 (MAX) SKYLIGHTS U-FACTOR 0.35 (MAX) SHGC 0.40 (MAX)

TABLE D002.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENERS	SPACING OF FASTENERS
Roof			
1	Blocking between joists or rafters to top plate, toe nail	1-8d (2 1/2" x 0.131")	---
2	Ceiling joists to plate, toe nail	3-8d (2 1/2" x 0.131")	---
3	Ceiling joists not attached to parallel rafter, laid on partitions, face nail	3-10d	---
4	Collar tie to rafter, face nail or 1 1/4" x 20 gage ridge strap	3-10d (3" x 0.138")	---
5	Rafter or roof truss to plate, toe nail	3-16d box nails (3 1/2" x 0.135") or 3-10d common (2 1/2" x 0.135")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
6	Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d (3 1/2" x 0.135")	---
Wall			
7	Built-up studs-face nail	10d (3" x 0.138")	24" o.c.
8	Abutting studs at intersecting wall corners, face nail	1-16d (3 1/2" x 0.135")	12" o.c.
9	Built-up header, two pieces with 1 1/2" spacer	1-16d (3 1/2" x 0.135")	16" o.c. along each edge
10	Continued header, two pieces	1-16d (3 1/2" x 0.135")	16" o.c. along each edge
11	Continuous header to stud, toe nail	4-16d (3 1/2" x 0.135")	---
12	Double top plates, face nail	10d (3" x 0.138")	24" o.c.
13	Double top plates, face nail	10d (3" x 0.138")	24" o.c.
14	Double top plates, minimum 24-inch offset of end joints; face nail in lapped area	8-16d (3 1/2" x 0.135")	---
15	Sole plate to joist or blocking; face nail	1-16d (3 1/2" x 0.135")	16" o.c.
16	Sole plate to joist or blocking at braced wall panels	3-16d (3 1/2" x 0.135")	16" o.c.
17	Stud to sole plate, toe nail	3-16d (3 1/2" x 0.135") or 3-16d (3 1/2" x 0.135")	---
18	Top or sole plate to stud, and nail	2-16d (3 1/2" x 0.135")	---
19	Top plates, laps at corners and intersections, face nail	2-16d (3 1/2" x 0.135")	---
20	1" brace to each stud and plate, face nail	2-8d (2 1/2" x 0.135")	---
21	1" x 6" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.135")	---
22	1" x 8" sheathing to each bearing, face nail	2-8d (2 1/2" x 0.135")	---
23	Wider than 1" x 8" sheathing to each bearing, face nail	3-8d (2 1/2" x 0.135")	---
Floor			
24	Joist to sill or girder, toe nail	3-16d (3 1/2" x 0.135")	---
25	Kim joist to top plate, toe nail (roof applications also)	8d (2 1/2" x 0.135")	6" o.c.
26	Rim joist or blocking to sill plate, toe nail	8d (2 1/2" x 0.135")	6" o.c.
27	1" x 6" subfloor or less to each joist, face nail	2-8d (2 1/2" x 0.135")	---
28	2" subfloor to joist or girder, blind and face nail	2-16d (3 1/2" x 0.135")	---
29	2" planks (plank & beam - floor & roof)	2-16d (3 1/2" x 0.135")	at each bearing
30	Built-up girders and beams, 2-inch lumber layers	10d (3" x 0.138")	Nail each layer as follows: 32" o.c. at top and bottom and around corners. Two nails at ends and at each splice.
31	Ledge strip supporting joists or rafters	3-16d (3 1/2" x 0.135")	At each joist or rafter

TABLE D002.3(2) -continued FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

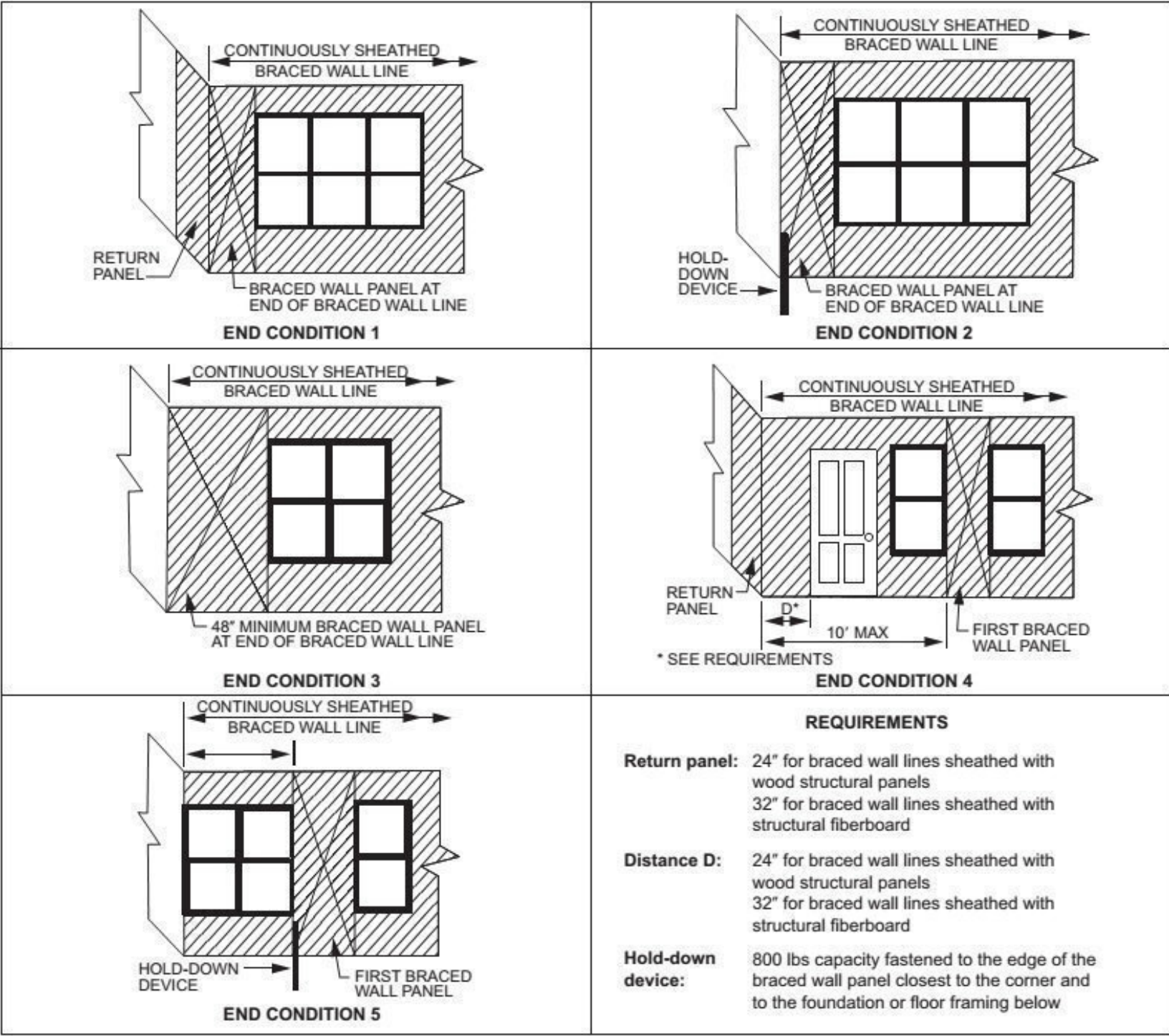
ITEM	DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENERS	Edges (Ends) Spacing	Intermediate Spacing
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
32	3/8" - 1/2"	1st common (2" x 0.131") nail (subfloor wall) 1st common (2 1/2" x 0.131") nail (roof)	6	12"
33	3/8" - 1"	1st common nail (2 1/2" x 0.131")	6	12"
34	1 1/4" - 1 3/4"	1st common (3" x 0.148") nail 1st (2 1/2" x 0.131") deformed nail	6	12
Other wall sheathing				
35	1/2" structural cellulose fiberboard sheathing	1 1/2" galvanized roofing nail, 1 1/4" x 10mm or 1" o.c. staple 16 ga., 1 1/4" long	3	6
36	5/8" structural cellulose fiberboard sheathing	1 1/2" galvanized roofing nail, 1 1/4" x 10mm or 1" o.c. staple 16 ga., 1 1/4" long	3	6
37	1/2" gypsum sheathing	1 1/2" galvanized roofing nail; staple galvanized, 1 1/4" x 10mm Type W or S	7	7
38	5/8" gypsum sheathing	1 1/2" galvanized roofing nail; staple galvanized, 1 1/4" x 10mm Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
39	7/8" and less	1st deformed (2" x 0.120") nail 1st common (2 1/2" x 0.131")	6	12
40	7/8" - 1"	1st common (2 1/2" x 0.131") 1st deformed (2 1/2" x 0.120")	6	12
41	1 1/4" - 1 3/4"	1st common (3" x 0.148") 1st deformed (2 1/2" x 0.120")	6	12

For S2: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s, 1 psi = 6.895 kPa.

Foundation Wall Reinforcement Schedule - Table 2

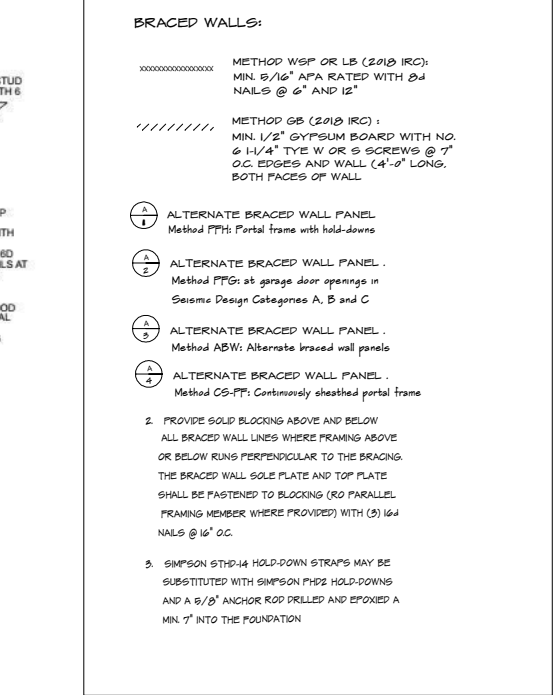
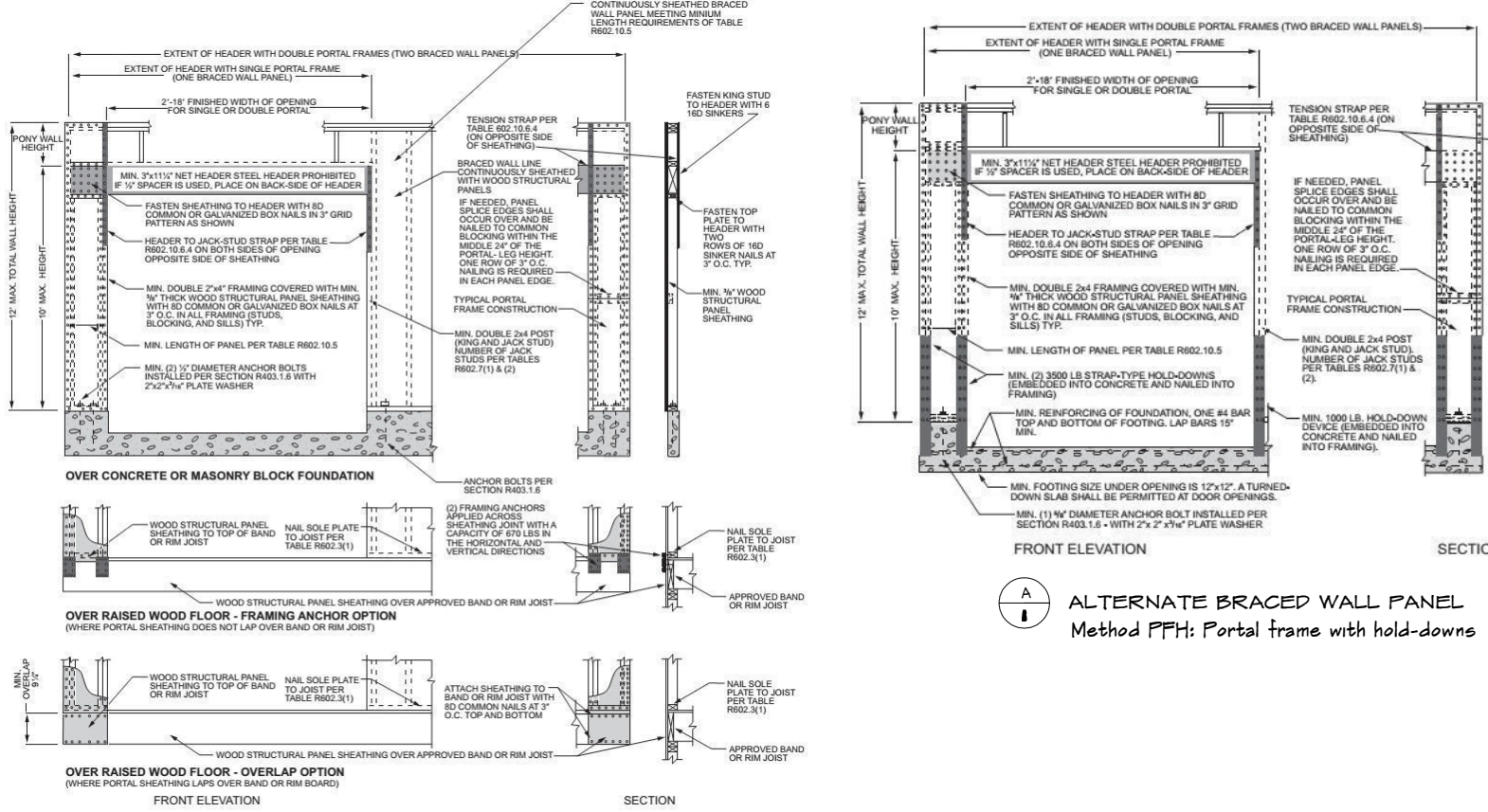
Vertical reinforcement spacing 60 psf soil											
Concrete strength/Grade		8 inch thick wall			10 inch thick wall			12 inch thick wall			
Reinforcement #4 bar		8'	9'	10'	8'	9'	10'	8'	9'	10'	
3,000 psi / Grade 40		16	12	NP	24	16	12	24	16	12	
3,500 psi / Grade 40		16	12	NP	24	16	12	24	16	12	
3,000 psi / Grade 60		24	16	NP	24	16	NP	24	20	16	
3,500 psi / Grade 60		24	16	NP	24	16	NP	24	24	12	
Horizontal reinforcement - Minimum Grade 40 steel #4 bar											
One bar 12" from top of wall; maximum spacing 24" o.c.											
		4-#4	5-#4	6-#4	4-#4	5-#4	6-#4	4-#4	5-#4	6-#4	

Footnotes: 1. Wall height is measured from the top of the wall to the top of the floor slab. 2. Vertical reinforcement for concrete walls that are not full height and for reinforcement spaced 24 inch on center may be placed in the middle of the wall. Other walls shall have vertical reinforcement placed as follows: a. 8-inch wall - Minimum 5 inches from the outside face. b. 10-inch wall - Minimum 5.75 inches from the outside face. c. Extend bars to within 8 inches of the top of the wall. 3. Reinforcement clearances: a. Concrete exposed to earth - minimum 1-1/2 inches. b. Not exposed to weather (interior side of walls) - minimum 3/4 inch. c. Concrete exposed to weather (top clearance in garage and driveway slabs) - 1-1/2 inches. 4. Horizontal reinforcement: a. One bar shall be placed within 12 inches of the top of the wall. b. Other bars shall be equally spaced with spacing not to exceed 24 inches on center. c. Horizontal bars should be as close to the tension face as possible (interior) and behind the vertical reinforcement (i.e. 2" towards the inside). 5. Supplemental reinforcement at corners - Place 1 #4 bar 48 inches long at 45 degree angle at corners of openings per Figure 4a. Place reinforcement within 6" of the edge of inside corners. 6. Reinforcement shall be lapped a minimum 24 inches at ends, splices, and around corners. 7. At masonry ledges the minimum wall thickness shall be 3-1/2 inches. Ledges shall not exceed a depth of more than 24 inches below the top of the wall. For wall thicknesses less than 4 inches provide #4 bars at maximum 24 inches on center to within 8 inches of the top of the wall. 8. Straight walls more than 5 feet tall and more than 16 feet long shall be provided with exterior braced return walls. Wall length shall be measured using inside the shortest dimension between intersecting walls (See 7/52).



GENERAL HEADER SPECIFICATIONS:

REQUIRED AREAS NEEDING HEADERS:	HEADER DESCRIPTIONS:
WINDOWS/DOORS UP TO 38" R.O.	(2) #2 D-FIR 2X10'S
WINDOWS/DOORS 38" UP TO 72" R.O.	(2) #2 D-FIR 2X10'S W/1/2" GLUE PLY
WINDOWS/DOORS 72" UP TO 96" R.O.	(2) 9 1/2" L.V.L.
80" GARAGE DOORS W/CEILING & ROOF LOAD	(2) 9 1/2" L.V.L.
90" GARAGE DOORS W/CEILING & ROOF LOAD	(2) 9 1/2" L.V.L.
80" GARAGE DOORS W/SECOND FLOOR	(2) 9 1/2" L.V.L.
90" GARAGE DOORS W/SECOND FLOOR	(2) 11 7/8" L.V.L.
160" GARAGE DOOR W/NO SECOND FLOOR	(2) 11 7/8" L.V.L.
160" GARAGE DOORS W/SECOND FLOOR	(2) 14" L.V.L.
USE HEADERS FOR OPENINGS ABOVE UNLESS SPECIFIED OTHERWISE.	



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