

Adopted Codes: State of Maine

2009 International Residential Code w/ Amendments
 2009 Uniform Plumbing Code w/ Amendments
 2011 NFPA 31, Std for the Installation of Oil Burning Equipment
 2009 NFPA 54, National Fuel Gas Code
 2001 NFPA 58, Liquefied Petroleum Gas Code
 2011 NFPA 70, National Electrical Code
 2010 NFPA 211 Standards for Chimneys, Fireplaces, Vents and
 Solid Fuel Burning Appliances
 2012 State of Maine Oil and Solid Fuel Board Law and Rules

Model: HZ106-A1

Customer: Stock

Dealer: Schiavi Home Builders

Builder:

TCC-Pennwest Homes-LLC

Division of The Commodore Corporation

4 Pennwest Way

Emlenton, PA 16373



Project Location:

Rte. 26 754 Main St.
 Oxford, ME. 04270
 Oxford County

Occupancy:

Occupancy:IRC - Single Family Dwelling
 Construction Type:5B (Wood Frame - Unprotected)
 Number of Floors:One Story Ranch

Design Load:

Floor Area:1801 Sq.Ft. Floor Live Load:40 psf
 Ground Snow Load:40 psf Floor Dead Load:10 psf
 Top Chord Dead Load:7 psf Bottom Chord Live Load:.....See Truss psf
 Wind Speed:90 mph Wind Exposure Category:C
 Seismic Design Category: ...C IECC Geographical Code: ...N/A
 Maximum Elevation above Sea Level:N/A ft

Insulation

Reference Cross Section for Requirements.

Attention Local Inspection Departments:

1. Set-up instructions for the modular unit are included in the home.
2. The following items have not been completed by Commodore Homes Inc., have not been inspected by in-plant third party inspectors, and are not certified by the compliance modular label: heating or air conditioning systems which are not factory installed, below floor ducts and DWV, gas piping, electrical service disconnect, and foundation designs and attachments. Code compliance must be determined at the local level.
3. Site installed furnace must meet IECC Energy Efficiency Certificate if applicable.

Drawing Index

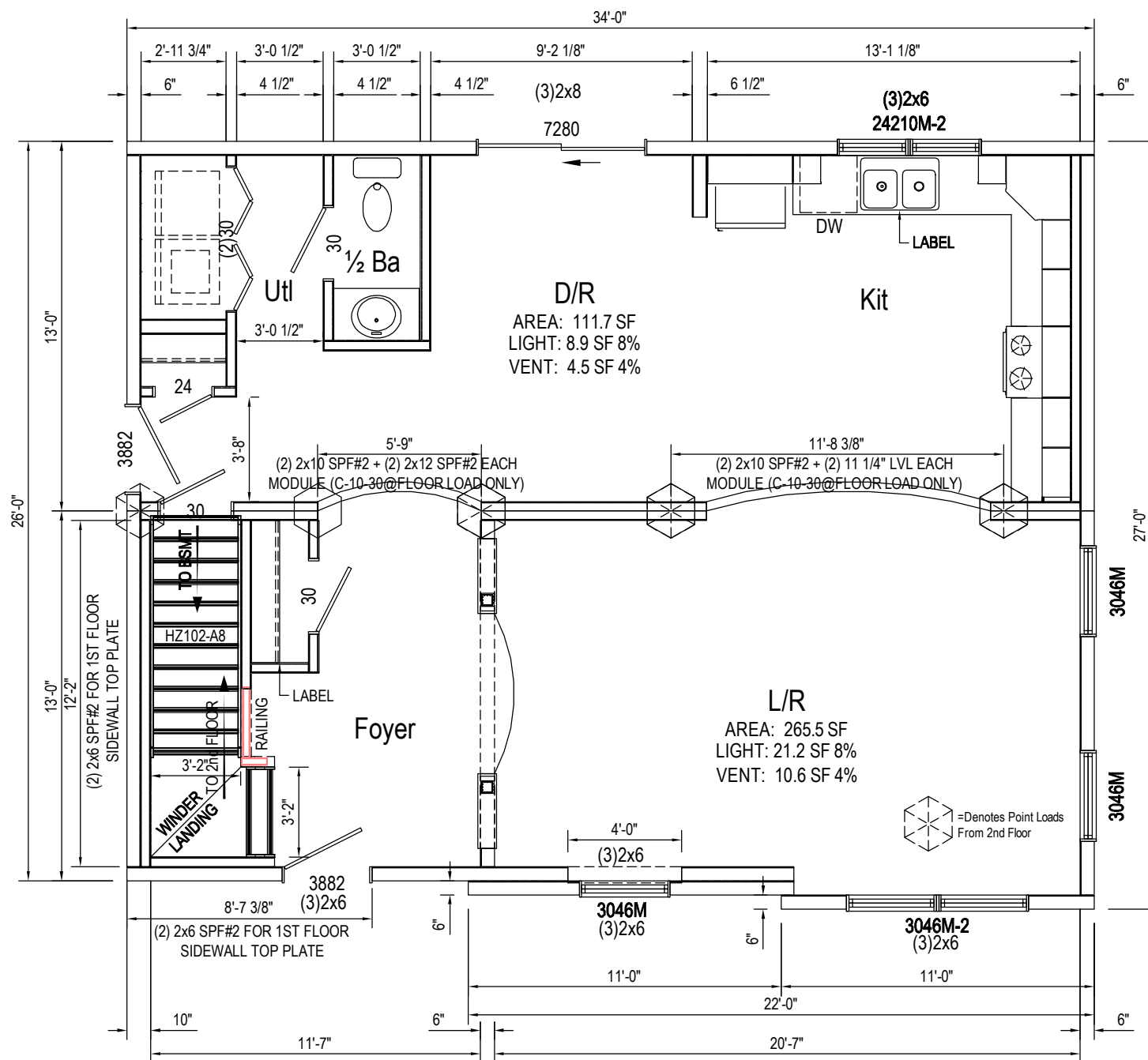
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NOTE:

- 1) HOT AND COLD WATER LINES INSTALL BY FACTORY.
- 2) 1st FLOOR DWV SYSTEM STUBBED THRU FLOOR AND FINISHED ONSITE BY OTHERS.
- 3) 2nd FLOOR DWV SYSTEM COMPLETED BY FACTORY

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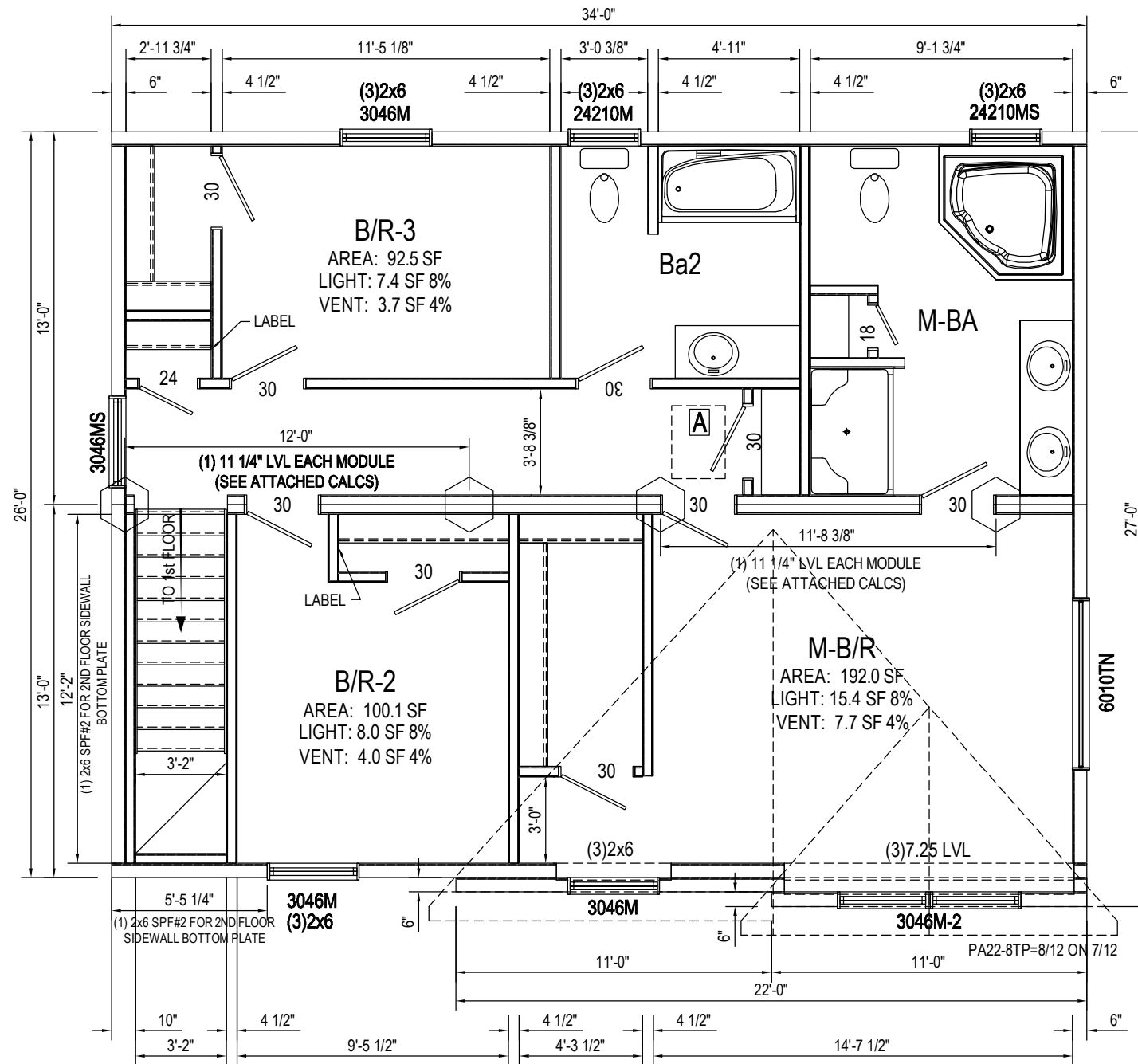


Note:
 Opening headers are SPF #2 unless otherwise noted
 LVL's where specified to be minimum of 1 1/2" wide, M.O.E. = 2.0 and fb = 2925 PSI.

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See Schedules and General Notes Page

Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: 3/16" = 1'-0"	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Floor Plan		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: FP
		Number			S/N:	

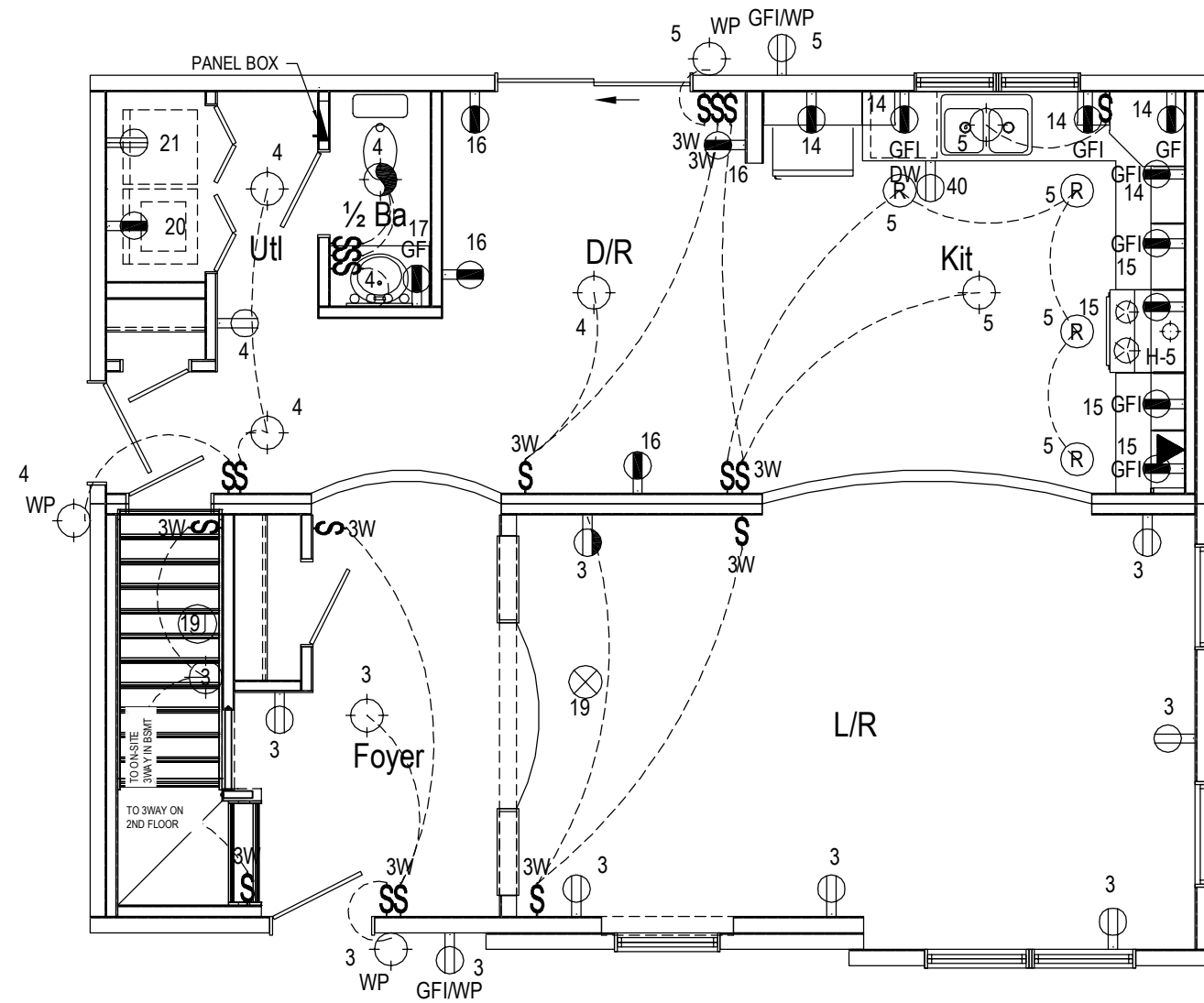


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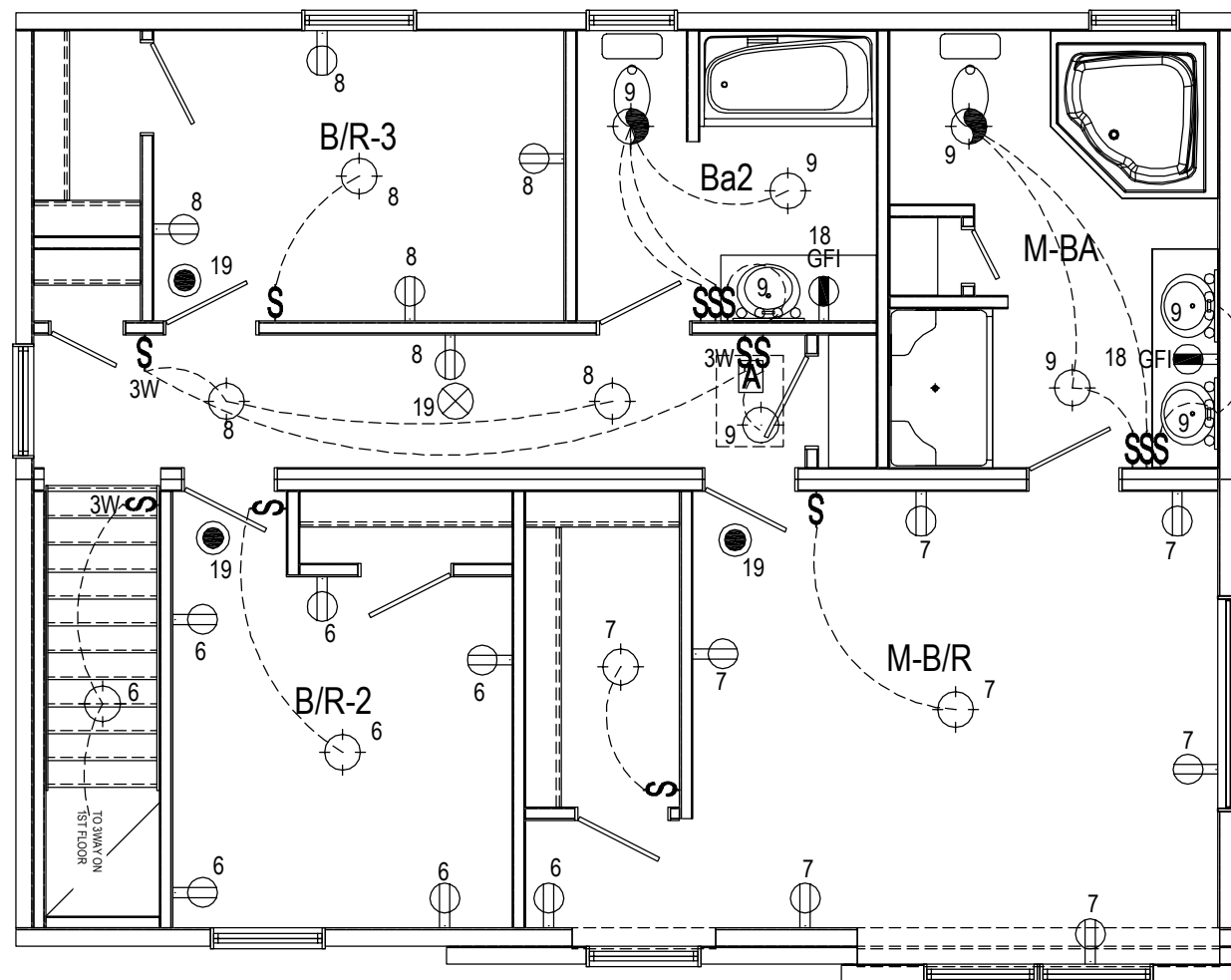
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Title: Floor Plan 2		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: FP-2
		Number				



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Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: 3/16" = 1'-0"	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Electrical Plan		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: EP
		Number			S/N:	

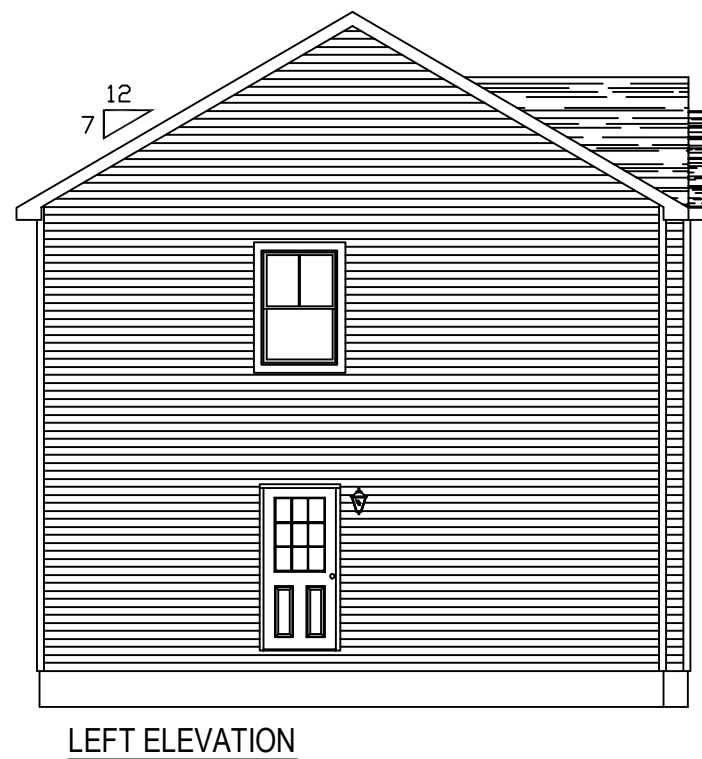
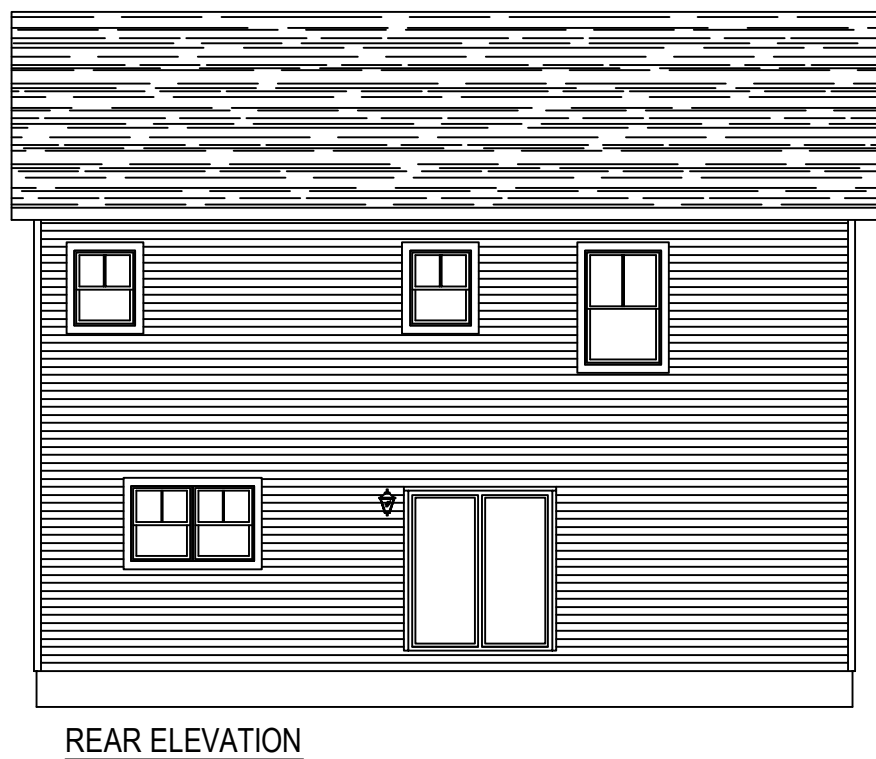
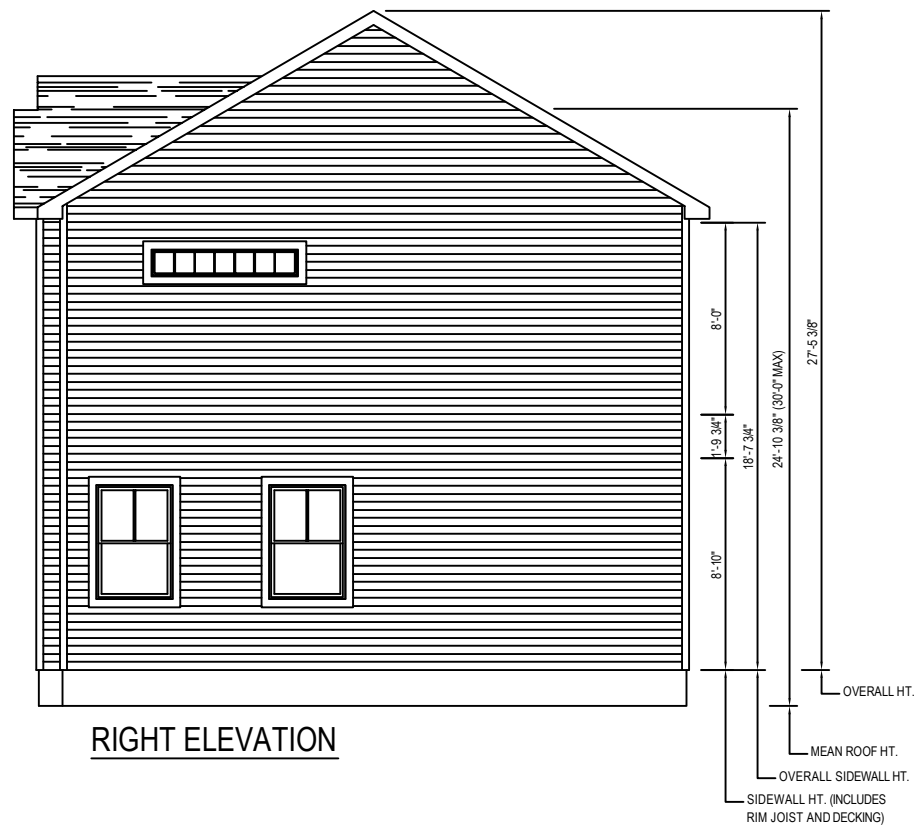


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Title: Electrical Plan 2		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: EP-2
		Number			S/N:	



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FEATURES ON THIS PAGE REPRESENT BASIC COMPONENTS AND ARE NOT INTENDED TO ILLUSTRATE SPECIFIC AVAILABLE OPTIONS OR OTHER CUSTOM FEATURES.

Builder: Pennwest Homes

Title: Elevations

Callout: 2634

Revisions	
Date	Number

Scale: N.T.S.

Drawn By: RM

Date: 03/03/2014

Reference: NONE

Cust: Stock

Dir: Schiavi Home Builders

S/N: .

Model/Eng. No.: HZ106-A1
Pg.: EL

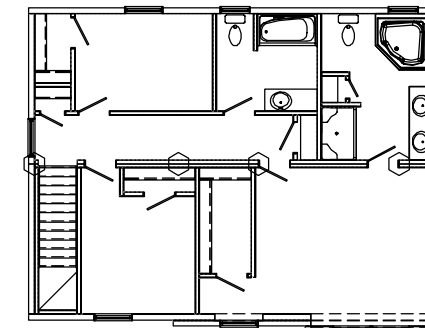
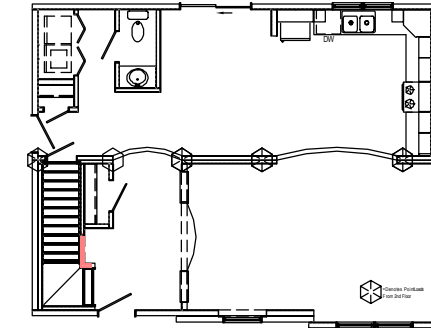
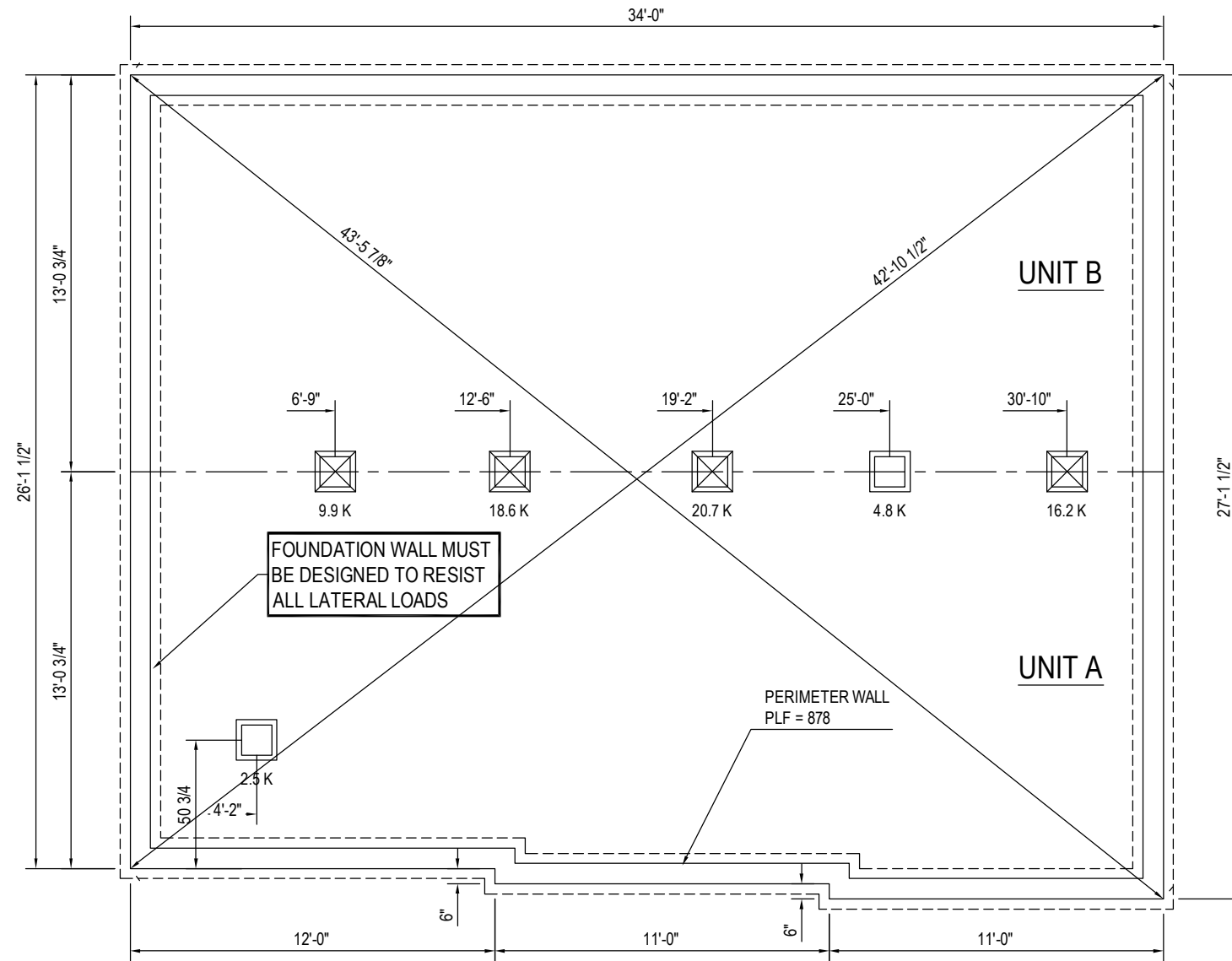
FOOTING SIZE BASED ON 2500 PSF	
FOOTING SIZE W/STEEL POSTS	SIZE MAX. LOAD (LBS.)
16"x16"x6"	4.3K
20"x20"x8"	6.7K
24"x24"x10"	9.6K
30"x30"x12"	14.8K
36"x36"x14"	20.7K

COLUMNS & FOOTINGS MUST BE RATED TO MEET THE CENTER LINE LOADS LISTED

**GROUND SNOW LOAD
40
PSF**

FOR CONNECTION OF THE HOME TO FOUNDATION AT BRACING WALLS, REFER TO "BRACED WALLS-CALCULATED" PAGE, IF APPLICABLE. WHEN THIS PAGE IS PRESENT, HORIZONTAL AND OVERTURNING (RACKING) LOADS AT BRACING WALL LOCATIONS ARE INDICATED FOR THESE FOUNDATION CONNECTIONS. THESE LOADS MAY BE RECALCULATED AND REDESIGNED PER LOCAL CODES TO CONFORM TO SITE CONDITIONS AS REQUIRED. REFER TO CHAPTER 4 (4.5.3 FOUNDATION TIE-DOWNS) OF THE "MODULAR HOME INSTALLATION MANUAL" FOR ADDITIONAL INFORMATION. REFER TO IRC GUIDELINES FOR CONNECTION OF HOME TO FOUNDATION WHEN "BRACED WALLS-PRESCRIPTIVE" PAGE IS APPLICABLE.

FOUNDATION SHOWN MUST BE DESIGNED BY OTHERS TO THE SITE CONDITIONS. THIS INCLUDES SEISMIC DESIGN AND ATTACHING THE HOME TO THE FOUNDATION, ALONG WITH RESISTANCE TO LATERAL, LONGITUDINAL SHEAR, UPLIFT AND DOWNLIFT FORCES IN BOTH DIRECTIONS.



- 2X10 OR TRUSS FLOOR NOTES -
- FOUNDATION LAYOUT IS APPLICABLE TO NOTED MAXIMUM SNOW LOADING AND MINIMUM SOIL BEARING PRESSURE. REFER TO INSTALLATION MANUAL FOR OTHER APPLICABLE INFORMATION. CONSULT LOCAL OFFICIALS AND THE APPLICABLE LOCAL CODES FOR OTHER REQUIREMENTS (I.E. DRAINAGE, DAMP-PROFFING, BACKFILL SUPPORT, ETC.).
 - WIDTH DIMENSIONS SHOWN INCLUDE A 3/4" ALLOWANCE PER HOME SECTION FOR HOMES WITH FACTORY-INSTALLED O.S.B. ON THE MARRIAGE WALL MATE LINE. THIS ALLOWANCE TAKES INTO ACCOUNT THE 7/16" O.S.B. MATERIAL INSTALLED ON EACH MARRIAGE WALL PLUS ALLOWANCE DUE TO OTHER FACTORS. IF HOME DOES NOT INCLUDE O.S.B. ON THE MARRIAGE WALL MATE LINE, FOUNDATION WIDTH IS TO BE SIZED EQUAL TO ACTUAL MANUFACTURED FLOOR WIDTH. LESSER DIMENSION, IF SHOWN, INDICATES ACTUAL FLOOR WIDTH. THESE DIMENSIONS DO NOT ALLOW FOR ANY VARIANCE THAT MAY OCCUR IN SITE INSTALLATION SUCH AS GAPPING, OFF CENTER SET OR OTHER FIELD-ENCOUNTERED VARIABLES. ANY ADJUSTMENTS NEEDED IN FOUNDATION WIDTH DUE TO SUCH VARIANCES ARE AT THE DISCRETION OF THE INSTALLER.
 - FOR DEVIATIONS &/OR OTHER FOUNDATION DESIGNS CONSULT A LOCAL PROFESSIONAL ENGINEER & YOUR LOCAL BUILDING OFFICIAL.
 - SILL PLATE FASTENING TO BE PER INSTALLATION MANUAL AND/OR LOCAL CODES. SILL FASTENING REQUIREMENT IS PER APPLICABLE WIND SPEED AND SEISMIC ZONES. SEE YOUR HOME DATA PLATE FOR APPLICABLE ZONES.
 - CONCRETE COMPRESSIVE STRENGTH (FC): 2500 PSI MINIMUM.
 - CENTERLINE LINE SUPPORTS AND SPACING ARE BASED ON (2) 2X10'S SPF#2 ON EACH HALF (4-2X10'S TOTAL).
 - FOUNDATION CONSTRUCTION AND TIE DOWN REQUIREMENTS FOR HOMES LOCATED IN 90 MPH OR LESS WIND ZONES MAY USE IRC GUIDELINES UNLESS NOTED OTHERWISE.

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Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: 3/16" = 1'-0"	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: 2x10 Marriage Line with Stair Foundation		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: FD40#

TYPICAL LAYOUT SHOWN FOR GENERAL DETAIL ONLY. WATER LINES ON-SITE PER LOCAL CODES AND REQUIREMENTS.

NOTES:

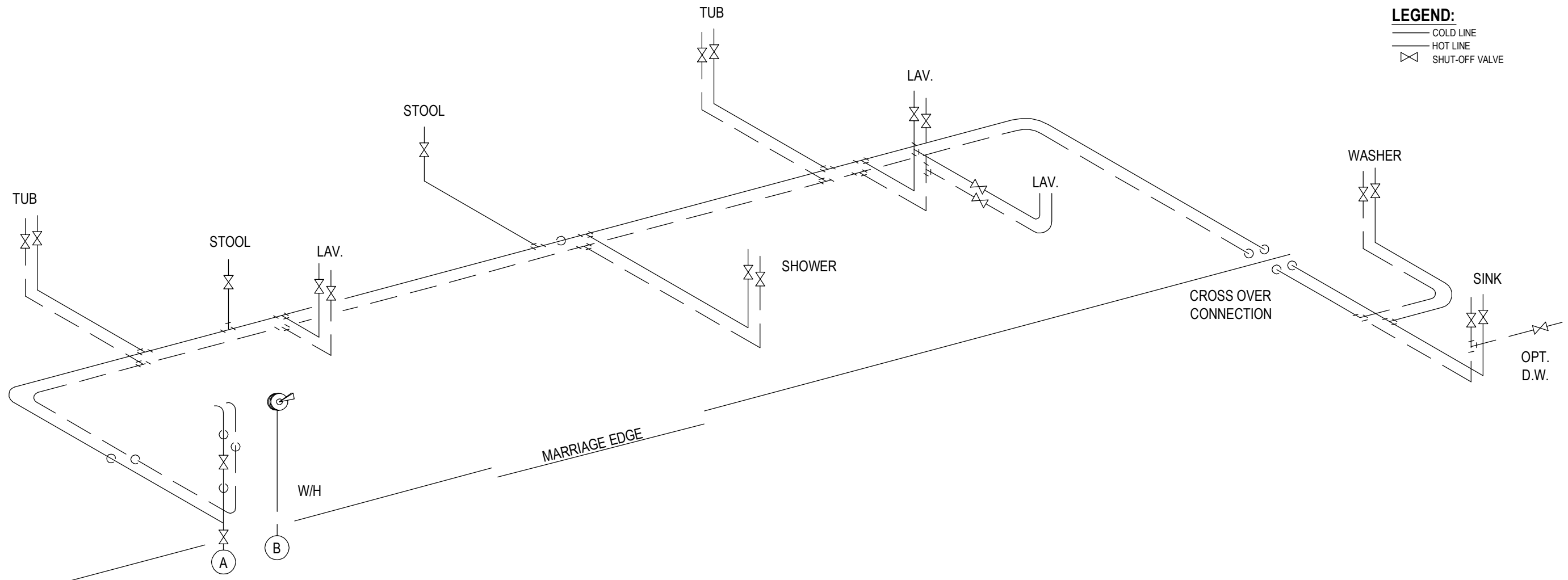
- Ⓐ= INLET WITH 1" CAP & CHAIN.
- Ⓑ= 3/4" RELIEF DRAIN THRU FLOOR.

PIPE SUPPORT:

VERTICAL PIPING:
SUPPORTS AT 10' O.C. MAX. OR AT EACH STORY HEIGHT WITH MID-STORY GUIDE.
HORIZONTAL PIPING:
SUPPORTS AT 32" O.C. MAX. ENDS OF BRANCHES, AND AT CHANGES IN ELEVATION AND/OR DIRECTION.

LEGEND:

- COLD LINE
- - - HOT LINE
- ⊗ SHUT-OFF VALVE



NOTES:

- SHOWER AND/OR TUB/SHOWER VALVES TO BE ANTI-SCALD (TEMP. SET 110 DEGREES MAXIMUM.)
- EXTERIOR WATER SPIGOT(S) TO BE FREEZELESS WITH VACUUM BREAK (INSTALLATION OF SPIGOT REQUIRES USE OF 3/4" LINE TO POINT OF SINGLE USER FIXTURE. LOCATION OF SPIGOT(S) WILL VARY PER PLAN).
- INSTALL DRAIN PAN UNDER WATER HEATER WHEN HOME IS CONSTRUCTED FOR THE STATE OF TENNESSEE.
- ALL BELOW FLOOR PLUMBING ILLUSTRATIONS ARE RECOMMENDATIONS ONLY. ON-SITE CONDITIONS AND/OR RESTRICTIONS MAY REQUIRE SOME MODIFICATIONS.
- WATER HEATER MAY BE SUPPLIED AND INSTALLED IN BASEMENT ON-SITE BY OTHERS.
- WATER SUPPLY SYSTEM PLUMBING TO BE CPVC OR PEX MATERIAL, OR EQUAL, APPROVED FOR FRESH WATER APPLICATIONS.
- ANY TRANSITIONS TO MATERIALS OTHER THAN THE SPECIFIED MATERIAL MUST INCORPORATE AN APPROVED FITTING FOR CONNECTION.
- ALL LINES ARE 1/2" UNLESS NOTED.

NOTE

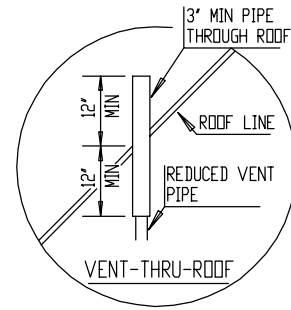
1. INLET WITH 1" CAP
2. WATER LINE SIZING SHALL BE DONE IN ACCORDANCE TO UPC TABLES 6-5 AND 6-6.
3. ALL WATER SUPPLY PIPING CONSTRUCTED OF PEX MATERIAL
4. WATER-HAMMER ARRESTORS INSTALLED WHERE EVER THERE IS A QUICK-CLOSING VALVE CONFORMING TO ASSE 1010 & MANUFACTURER'S INSTRUCTIONS.
5. SHUT-OFF VALVE IS REQUIRED AT EACH FIXTURE.
6. METAL PIPING SHALL BE INSTALLED FOR A MIN. DISTANCE OF 18" AT CONNECTION TO THE WATER HEATER PER UPC 604.11.2.

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Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: N.T.S.	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Typical Water Supply Lines		Date Number	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: WT

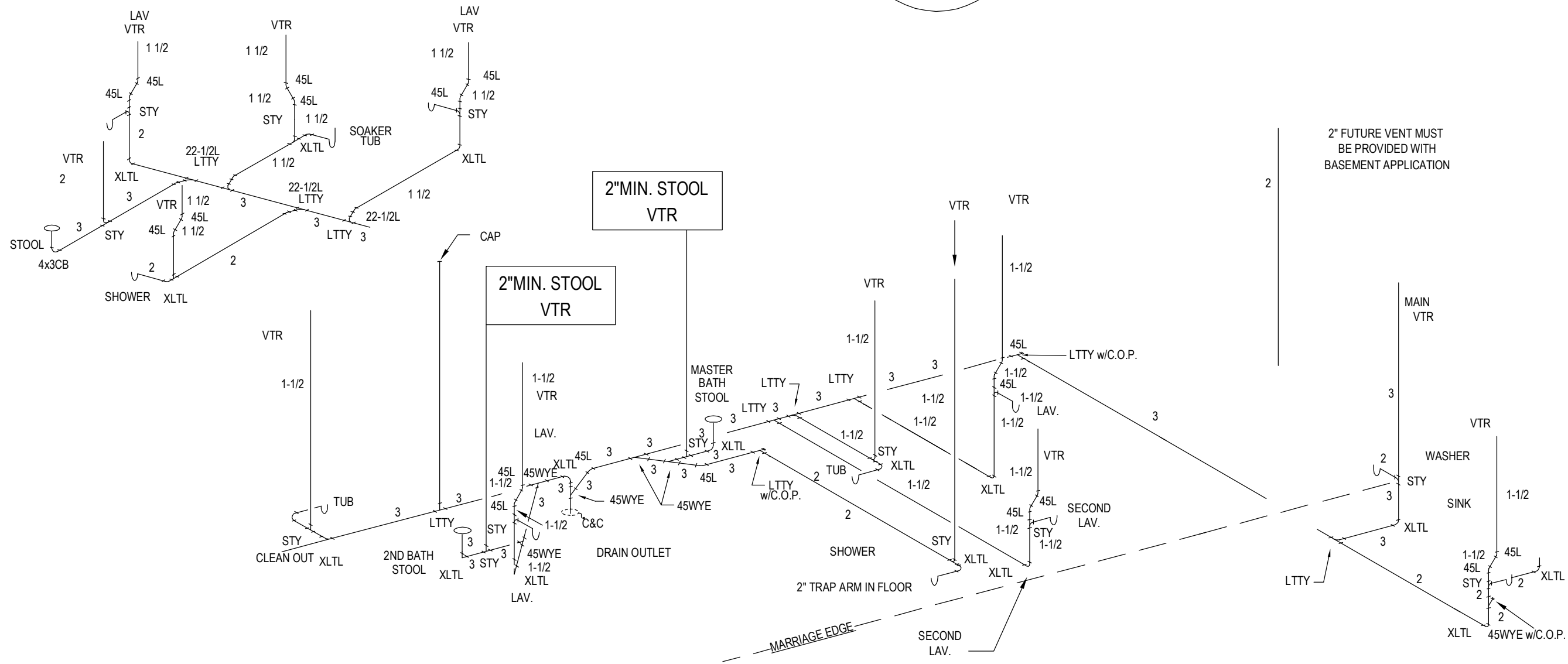
TYPICAL LAYOUT SHOWN FOR GENERAL DETAIL ONLY. DRAIN LINES ON-SITE PER LOCAL CODES AND REQUIREMENTS.



VENT STACK MUST BE A MIN. DIAMETER OF 3" WHEREVER IT EXTENDS THROUGH ROOF TO OUTSIDE. A REDUCER MAY BE INSTALLED WHERE STACK IS LESS THAN 3" OFF ITS RESPECTIVE FIXTURE

NOTES:

- 1 DENOTES BOTTOM-BOARD PASS-THRU.
- 2 DENOTES (1) & DISCONNECT FOR LOOSE SHIP/CAP & CHAIN.
- 3 SITE INSTALLED



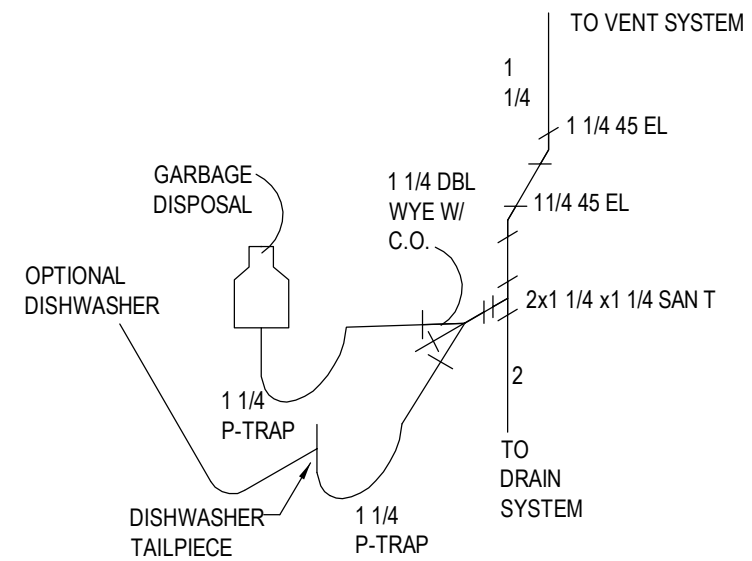
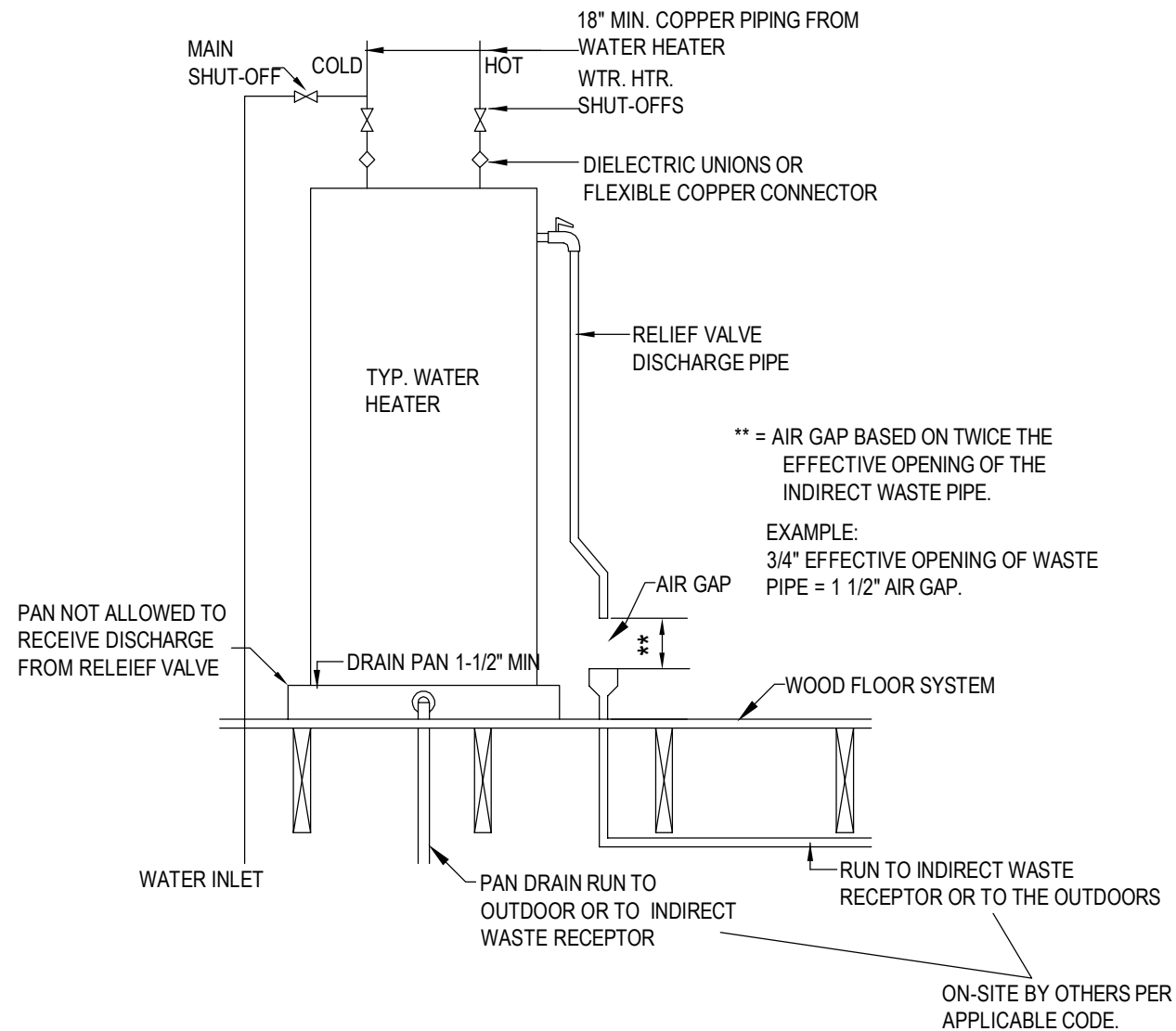
2" FUTURE VENT MUST BE PROVIDED WITH BASEMENT APPLICATION

- LTTY = LONG SWEEP TEE
- XLTL = LONG SWEEP ELBOW
- STY = SANITARY TEE
- C.O.P. = CLEAN OUT PLUG
- XLSL = LONG SWEEP STREET ELBOW
- 45° WYE = 45° Y
- C & C = CAP & CHAIN

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Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: N.T.S.	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Typical DWV System		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: DT
		Number				



OPTIONAL GARBAGE DISPOSAL PLUMBING
ILLINOIS MODELS ONLY - USE DETAIL ABOVE FOR
OPTIONAL GARBAGE DISPOSAL.

PIPE SUPPORT:
VERTICAL PIPING:
SUPPORTS AT 10' O.C. MAX.
OR BETWEEN FLOOR
LEVELS.
HORIZONTAL PIPING:
SUPPORTS AT 4' O.C. MAX.
ENDS OF BRANCHES, AND
AT CHANGES IN ELEVATION
AND/OR DIRECTION.
TRAP ARMS:
SUPPORT LOCATED AS
CLOSE TO TRAP AS
POSSIBLE WHEN TRAP TO
VENT EXCEEDS 3'.

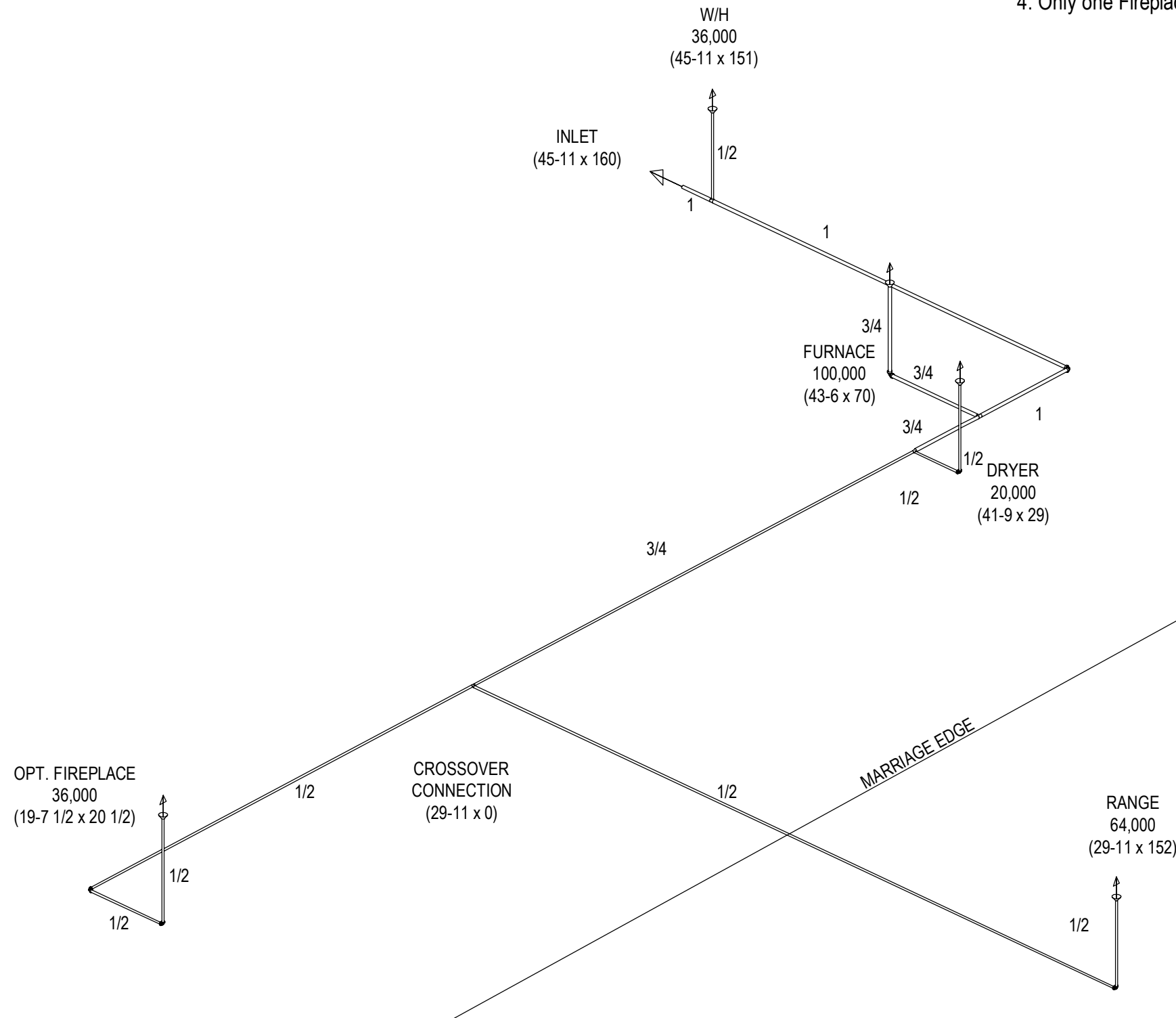
NOTES:
ALL BELOW FLOOR PLUMBING BY OTHERS. ALL FITTINGS BELOW BOTTOM CAN BE SHIPPED LOOSE.
ALL BELOW FLOOR PLUMBING ILLUSTRATIONS ARE RECOMMENDATIONS ONLY. ON-SITE CONDITIONS AND/OR RESTRICTIONS MAY REQUIRE SOME MODIFICATIONS.
OPT. GARBAGE DISPOSAL TO BE LOCATED ON KITCHEN SINK WASTE ASSEMBLY. ALL VENTS THRU ROOF TO BE 3", 12" MIN. ABOVE AND BELOW ROOF PENETRATION.
ALL P-TRAPS TO BE 1 1/2" UNLESS NOTED.
HORIZONTAL VENT SLOPE : 1/8" PER FOOT
HORIZONTAL DRAIN SLOPE: 1/4" PER FOOT
DRAIN, WASTE, AND VENT PLUMBING TO BE PVC PLASTIC OR EQUAL, APPROVED FOR DWV APPLICATIONS.
ANY TRANSITIONS TO MATERIALS, OTHER THAN THE SPECIFIED MATERIAL, MUST INCORPORATE AN APPROVED FITTING FOR CONNECTION.
ALL TUBS WITH WHIRLPOOL MUST BE PROVIDED WITH ACCESS TO MOTOR. ALL PLUMBING TO MEET OR EXCEED CURRENT ADOPTED PLUMBING CODES.
IN CONCEALED SPACES WHERE PIPING IS INSTALLED THRU HOLES OR NOTCHES IN STUDS, JOISTS, TRUSSES, OR SIMILAR MEMBERS LESS THAN 1 1/2" FROM NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY SHIELD PLATES. PROTECTIVE SHIELD PLATES SHALL BE A MINIMUM OF 16 GA. STEEL. PLATES SHALL COVER AREA OF THE PIPE WHERE THE MEMBERS ARE NOTCHED OR BORED, AND SHALL EXTEND A MINIMUM OF 2" ABOVE SOLE PLATES AND BELOW TOP PLATES.
ALL WATER HEATERS AND WATER HEATER PLUMBING TO BE SUPPLIED AND INSTALLED IN BASEMENT BY OTHERS IN ACCORDANCE WITH ALL RECOGNIZED PLUMBING CODES.
AIR ADMITTANCE VALVES MAY SUBSTITUTE ROOF VENTS AT VARIOUS LOCATIONS PER APPLICABLE STATE AND LOCAL PLUMBING CODES. THE 3" MAIN VENT MUST BE VENTED THRU THE ROOF AND CANNOT BE MECHANICALLY VENTED.

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Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: N.T.S.	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: DWV Notes		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders	Pg.: DN
		Number				

TYPICAL LAYOUT SHOWN FOR GENERAL DETAIL ONLY. GAS LINES ON-SITE PER LOCAL CODES AND REQUIREMENTS.

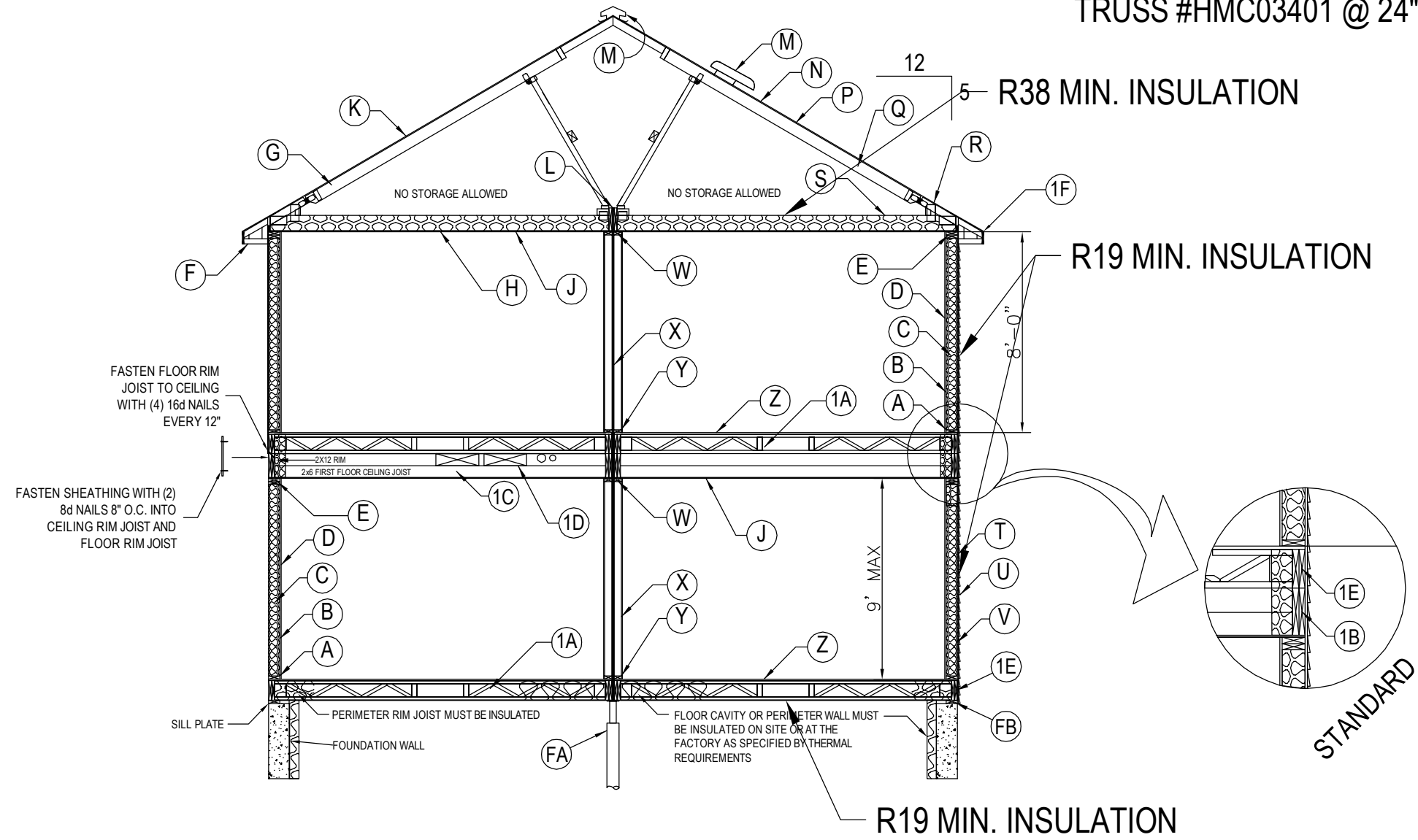
- Note:
1. Total BTU's = 256,000
 2. Max. Column Length = 40'
 3. Shut-off Valve Req'd for Each Appliance
 4. Only one Fireplace



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TRUSS #HMC03401 @ 24"o.c.

- (A) 2x6 #3 SPF SIDEWALL BOTTOM PLATE
- (B) 2x6 #3 SPF EXTERIOR WALL STUDS, 24" OR 16" O.C.
- (C) EXTERIOR WALL INSULATION WITH VAPOR BARRIER PER THERMAL REQUIREMENTS.
- (D) WALL COVERING (MIN. 1/2" GYPSUM)
- (E) 2x6 #3 SPF DOUBLE TOP PLATE
- (F) VENTED SOFFIT 50% OF LOWER ROOF VENTILATION
- (G) ENGINEERED TRUSSES SPACED TO MEET DESIGNED GROUND SNOW LOAD.
- (H) VAPOR BARRIER
- (J) CEILING BOARD 1/2" GYPSUM.
- (K) 7/16" 24/16 RATING ROOF DECKING MIN. TYP.
- (L) MIN 2x6 #3 SPF BOTTOM RAIL OR LVL BEAM OVER OPEN SPANS
- (M) ROOF VENT (OPT RIDGE VENT) MIN. 50% VENTILATION OF ROOF CAVITY (UPPER PORTION), INSTALLED PER CODE REQUIREMENTS
- (N) TYPICAL SHINGLES, INSTALLED PER MFGR'S INSTRUCTIONS
- (P) SHINGLE UNDERLAYMENT TYP.
- (Q) 1" MIN SPACE FOR ATTIC VENTILATION
- (R) TYPICAL ICE BARRIER PER IRC 905.2.7.1
- (S) CEILING INSULATION TYP. (PER THERMAL REQUIREMENTS.)
- (T) 7/16" RATED SHEATHING
- (U) VINYL OR HARDBOARD SIDING (RAN VERT. OR HORZ.) INSTALLED PER MFGR.'S INSTRUCTIONS
- (V) AIR INFILTRATION AND WATER RESISTANT BARRIER
- (W) 2x4 #3 SPF SINGLE TOP PLATE ON MATE WALLS, SINGLE TOP PLATES ON OTHER INTERIOR WALLS
- (X) 2x4 #3 SPF INTERIOR WALL STUD, 16" OC.
- (Y) 2x4 #3 SPF BOTTOM PLATE INTERIOR WALLS, TYP
- (Z) FLOOR DECKING RATED FOR 19.2" O.C JOIST SPACING, MIN
- (1A) MIN 2x10 #2 SPF FLOOR JOIST 16" O.C.
- (1B) MIN 2x12 #2 SPF DOUBLE PERIMETER CEILING RIM
- (1C) MIN 2x6 #2 SPF CEILING JOIST 16" O.C.
- (1D) AVAILABLE MECHANICAL SPACE
- (1E) MIN 2X10 DOUBLE PERIMETER RIM JOIST
- (1F) ALUM., VINYL, OR HARDIE BOARD FACIA & DRIP EDGE.
- (FA) JACK POST, PIER OR CONCRETE FILLED POST THAT MEETS OR EXCEEDS REQUIRED SUPPORT CAPACITY PER FOUNDATION DESIGN.
- (FB) 2x6 TREATED SILL PLATE. FASTENING OF SILL AND HOME TO FOUNDATION ON SITE PER CODES



NOTES:

CRAWLSPACE STANDARD - HOME MAY BE PLACED ON BASEMENT (REFER TO FOUNDATION PLAN). FOLLOW RECOMMENDED ATTACHMENTS FOR FASTENING OF HOME TO FOUNDATION. FOUNDATIONS TO BE BUILT AND CONSTRUCTED BY OTHERS ON SITE. FOUNDATIONS (BY OTHERS) MUST MEET ALL APPLICABLE CODES. NOTES AND/OR ILLUSTRATIONS SHOWN ARE TYPICAL AND MAY NOT APPLY TO ALL HOMES CONSTRUCTED. CONSTRUCTION & SPECS MAY VARY PER PLAN. REFERENCE THE APPROVED SYSTEMS PACKAGE FOR ADDITIONAL AND SPECIFIC CROSS SECTION INFORMATION

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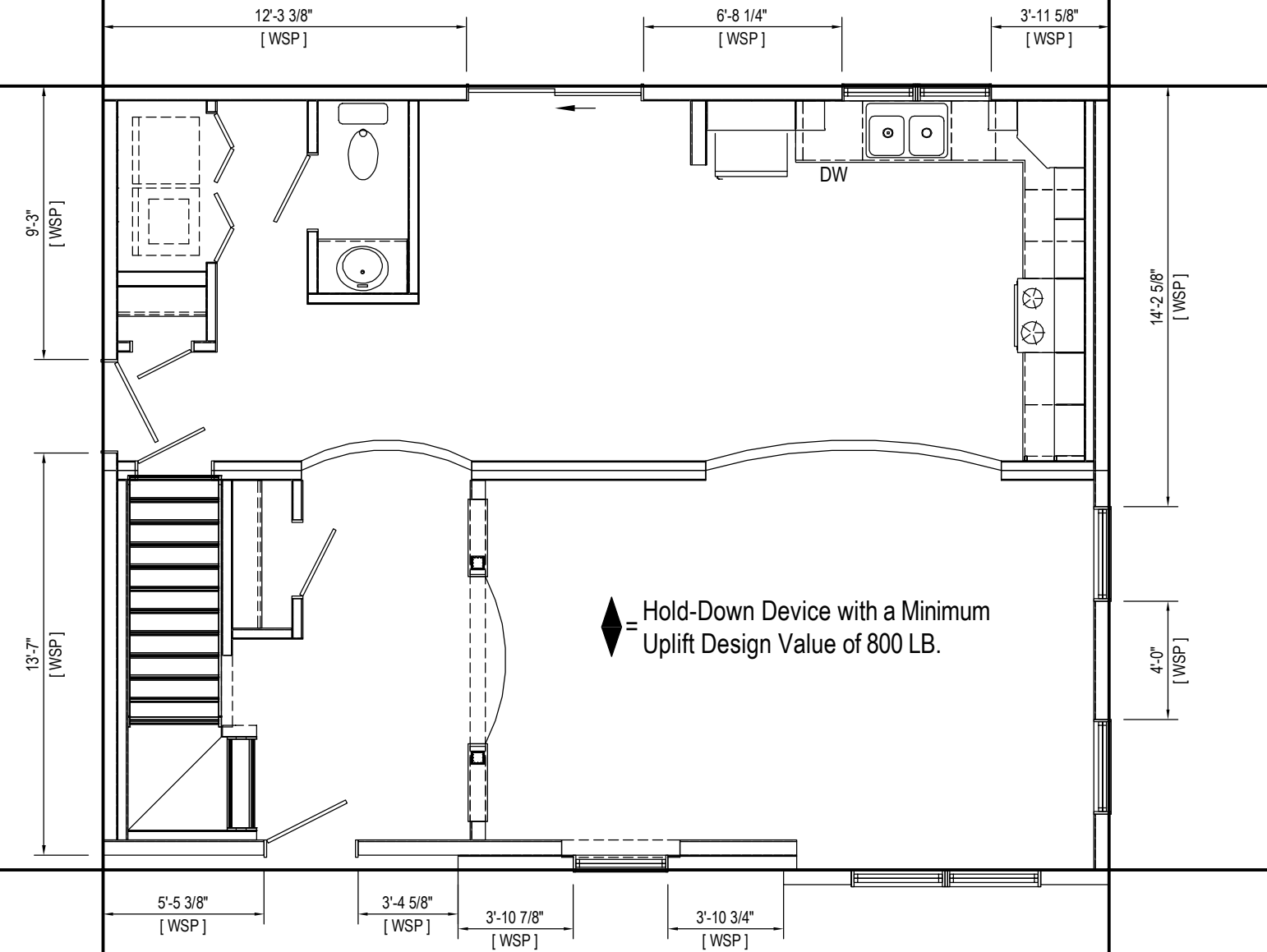
Builder: Pennwest Homes	Callout: 2634	Revisions	Scale: N.T.S.	Date: 03/03/2014	Cust: Stock
Title: Cross Section		Date	Drawn By: RM	Reference: NONE	Dir: Schiavi Home Builders
		Number			
					Model/Eng. No.: HZ106-A1
					Pg.: XS

VERTICAL BWL1	
REQUIRED	12.91
PROVIDED	22.83
MEETS REQ	OK
BLOCKING REQ	YES

VERTICAL BWL2	
REQUIRED	12.91
PROVIDED	18.22
MEETS REQ	OK
BLOCKING REQ	YES

HORIZONTAL BWL 1	
REQUIRED	10.09
PROVIDED	21.97
MEETS REQ	OK
BLOCKING REQ	NO

HORIZONTAL BWL 2	
REQUIRED	10.09
PROVIDED	13.70
MEETS REQ	OK
BLOCKING REQ	YES



Braced Wall									
Unit	Method	Wind Load	Width	Length	Exposure	Roof Pitch	Sidewall Height	Seismic	Max. Mean Roof Height
MAIN	IRC_2009	90 mph	26'-0"	34'-0"	C	7/12	8'-0"	C	IRC

FOUNDATION TIE-DOWN MUST BE CONNECTED ON-SITE BY POINT LOAD LOCATIONS AS NOTED (BY OTHERS). ALTERNATIVE TIE DOWN CONNECTION METHODS APPROVED BY A LOCAL ENGINEER MAY BE USED. REFER TO THE IRC FOR FOUNDATION TIE DOWN REQUIREMENTS FOR 100 MPH OR LESS WIND ZONES

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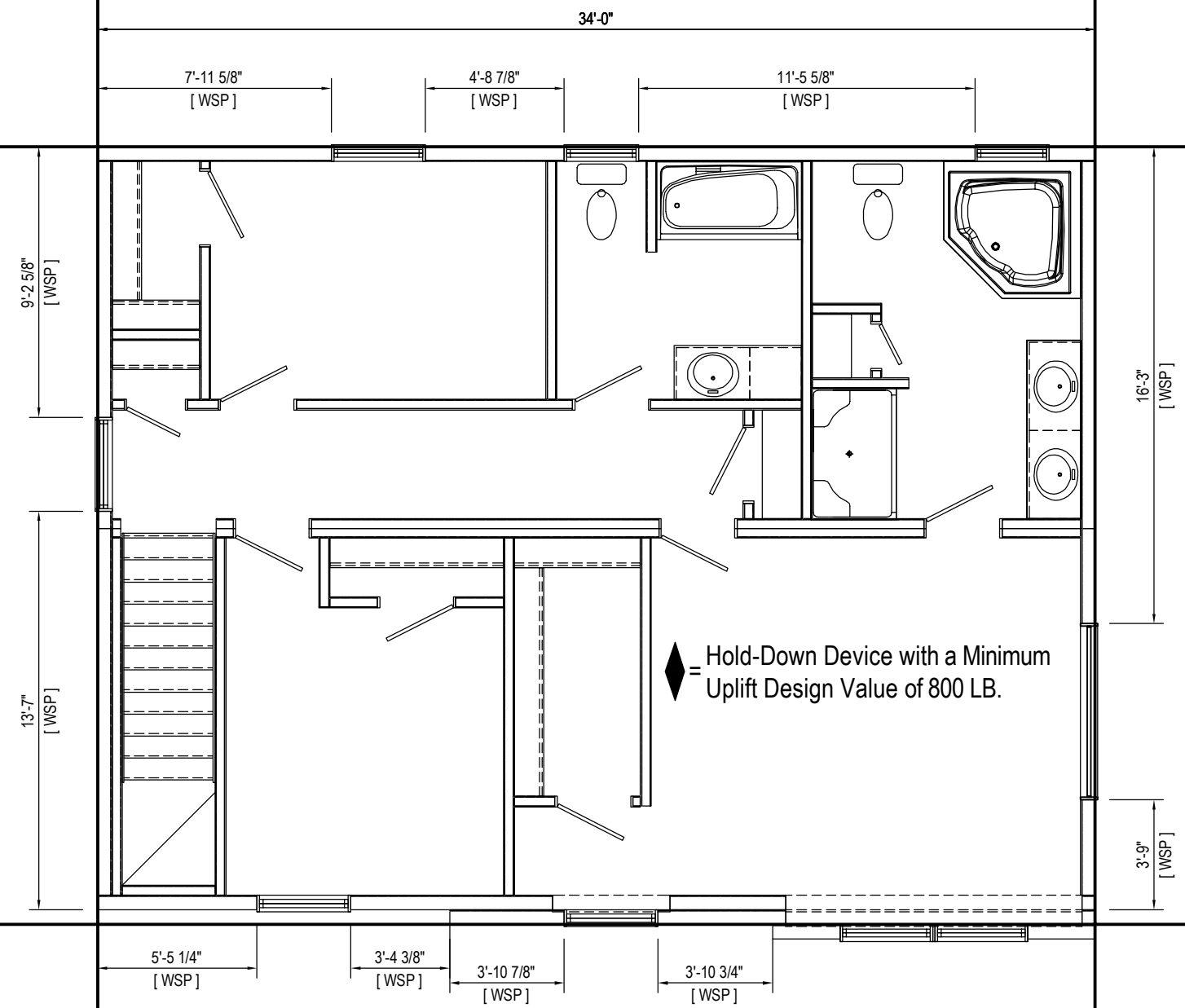
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VERTICAL BWL1	
REQUIRED	6.30
PROVIDED	22.80
MEETS REQ	OK
BLOCKING REQ	NO

VERTICAL BWL2	
REQUIRED	6.30
PROVIDED	19.25
MEETS REQ	OK
BLOCKING REQ	NO

HORIZONTAL BWL 1	
REQUIRED	4.90
PROVIDED	24.17
MEETS REQ	OK
BLOCKING REQ	NO

HORIZONTAL BWL 2	
REQUIRED	4.90
PROVIDED	13.68
MEETS REQ	OK
BLOCKING REQ	NO



Braced Wall									
Unit	Method	Wind Load	Width	Length	Exposure	Roof Pitch	Sidewall Height	Seismic	Max. Mean Roof Height
MAIN	IRC_2009	90 mph	26'-0"	34'-0"	C	7/12	8'-0"	C	IRC

FOUNDATION TIE-DOWN MUST BE CONNECTED ON-SITE BY POINT LOAD LOCATIONS AS NOTED (BY OTHERS). ALTERNATIVE TIE DOWN CONNECTION METHODS APPROVED BY A LOCAL ENGINEER MAY BE USED. REFER TO THE IRC FOR FOUNDATION TIE DOWN REQUIREMENTS FOR 100 MPH OR LESS WIND ZONES

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COMMODORE HOMES
ELECTRICAL LOAD CALCULATIONS

26 FT. x 69.269 FT. x 3 W / SQ.FT. = 5.4 KVA
5.4 KVA / 120 VOLTS = 45 AMPS
45 AMPS / 15 AMPS = 3.00 CIRCUITS

MINIMUM NUMBER OF CIRCUITS REQUIRED:

- 3 - GENERAL PURPOSE @ 15 AMPS
- 3 - SMALL APPLIANCE @ 20 AMPS
- 1 - LAUNDRY @ 20 AMPS
- 1 - BATH @ 20 AMPS

COMPUTE MINIMUM SERVICE:

GENERAL LIGHTING.....	5.4 KVA
SMALL APPLIANCE.....	4.5 KVA
LAUNDRY.....	1.5 KVA
BATH.....	1.5 KVA
RANGE.....	9.7 KVA
WATER HEATER.....	4.5 KVA
DRYER.....	5.3 KVA
FURNACE (GAS OR OIL).....	1.5 KVA
VENT FANS(4 TL.).....	0.3 KVA
MICROWAVE OVEN.....	1.5 KVA
DISHWASHER.....	1.1 KVA
GARBAGE DISPOSAL.....	0.6 KVA
TOTAL.....	37.4 KVA

10 KVA @ 100% = 10 KVA
37.4 KVA - 10 KVA = 27.4 KVA @ 40% = 10.96 KVA
10 KVA + 10.96 KVA = 20.96 KVA / 240 VOLTS = 87.33 AMPS
MINIMUM ENTRANCE TO BE: 100 AMPERE SERVICE

ELECTRIC SPACE HEATING IN PLACE OF GAS/OIL.....

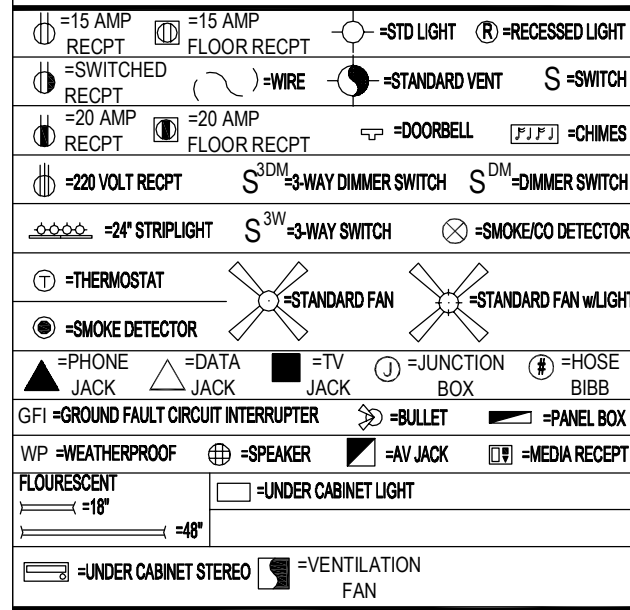
(AIR CONDITIONER LOAD LESS THAN SPACE HEATING)
23 KVA ELECTRIC FURNACE @ 65% = 14.95 KVA
20.36 KVA + 14.95 KVA = 35.31 KVA / 240 VOLTS = 147.125 AMPS
MINIMUM ENTRANCE TO BE: 200 AMPERE SERVICE

COMPUTE NEUTRAL LOAD

GENERAL LIGHTING + SMALL APPLIANCE = 11.4 KVA
FIRST 3.0 KVA @ 100% = 3 KVA
11.4 KVA - 3.0 KVA = 8.4 KVA x 35% = 2.94 KVA
NET TOTAL = 3.0 KVA + 2.94 KVA = 5.94 KVA
RANGE (8 KVA @ 70%)..... 5.6 KVA
DRYER (5 KVA @ 70%)..... 3.71 KVA
DISHWASHER..... 1.1 KVA
FURNACE..... 1.5 KVA
MICROWAVE OVEN..... 1.5 KVA
FANS..... 0.3 KVA
GARBAGE DISPOSAL..... 0.6 KVA
TOTAL = 20.25 KVA / 240 VOLTS = 84.38 AMPS

200 AMP SERVICE PANEL INSTALLED

LEGEND



CIRCUIT ID NO.	LOAD	AMPS	POLES REQ'D	WIRE SIZE	MAX CONNECTED LOAD (KW)
1-12	General Lighting	15	1	NM14-2/WG	1.44
13-16	Small Appliance	20	1	NM12-2/WG	1.50
17-18	Bath (GFCI)	20	1	NM12-2/WG	1.50
19	Smoke Alarms	15	1	NM14-2/WG	1.44
20	Laundry	20	1	NM12-2/WG	1.50
21	Electric Dryer	30	2	NM10-3/WG	5.76
22	Electric Range	50	2	NM6-3/WG	13.10
23	Electric Cooktop	40	2	NM8-3/WG	7.6
24	Electric Wall Oven	20	2	NM12-2/WG	3.4
25	Electric W/H	20	2	NM12-2/WG	1.92
	Electric W/H	25	2	NM10-2/WG	5.76
26	Gas Furnace	15	1	NM14-2/WG	1.44
27	Electric Furnace	60/30	4	NM4-2/WG	20.40
	Electric Furnace	60/60	4	NM4-2/WG	
28-37	Electric BB Heat	20	2	NM12-2/WG	1.92
38	A/C	50	2	NM6-2/WG	10.56
39	Freezer	20	1	NM12-2/WG	1.92
40	Dishwasher	15	1	NM14-2/WG	1.44
41	Disposal	15	1	NM14-2/WG	1.44
42	Whirlpool Tub (GFCI)	20	1	NM12-2/WG	1.92
43	Microwave Oven	20	1	NM12-2/WG	1.92

FLOOR PLAN NOTES

ALL EXTERIOR OPTIONS SUCH AS DORMERS, BOX BAYS, ETC. MAY VARY PER HOME. SEE SYSTEMS MANUAL FOR CONSTRUCTION SPECS.
BOOTS, REGISTERS, AND/OR R.A.G.'S MAY BE INSTALLED IN FLOOR, WALL, AND/OR DOOR FOR FIELD INSTALLED HVAC SYSTEMS BY OTHERS-PER HVAC MFG'S INSTALLATION INSTRUCTIONS.
TOE KICK REGISTERS MAY BE USED WHERE VENT SLOT IS 1" MIN. FROM EDGE TO FINISHED FLOOR.
EXTERIOR AND MARRIAGE WALL SPANS: REFER TO SYSTEMS MANUAL. SEE COLUMN CHARTS FOR REQUIREMENTS.
HVAC SYSTEMS AND GAS LINE SYSTEMS MAY BE SUPPLIED, INSTALLED, AND INSPECTED ON SITE BY OTHERS.
ANY FURNACE INSTALLED MUST HAVE A MINIMUM AFUE OF 90.0.
SERVICE PANEL MAY BE LOCATED IN GARAGE.
DOOR AT THE BOTTOM OF ATTIC STORAGE STAIRS MUST BE REMOVED (WHEN APPLICABLE) FOR PROPER LANDING WHEN STORAGE SPACE IS CONVERTED TO HABITABLE SPACE. SEE CROSS SECTION FOR ADDITIONAL REQUIREMENTS.
[A] = 22 1/2"x30 1/2" ATTIC ACCESS REQUIRED WHEN CLEAR HEIGHT OF ATTIC IS 30" OR GREATER (5/12 ROOF OR GREATER).
[AP] = 22 1/2"x54" PULL DOWN ATTIC ACCESS.
FIREPLACE BY MANUFACTURER, FLUE BY OUTSIDE CONTRACTOR
[C] : COLUMN SUPPORT LOCATION

ELECTRICAL PLAN NOTES:

- ALL KITCHEN AND BATHROOM COUNTER RECEPTS TO BE GFCI PROTECTED.
- ALL CLOSET LIGHTS TO BE ENCLOSED SURFACE MOUNT FIXTURES, 12" MIN. FROM STORAGE SPACE.
- ALL RECEPTS TO BE GROUNDINGTYPE, PER 210-7/NEC.
- SPECS, WIRING, INSTALLATIONS, ETC. TO COMPLY WITH NEC REGULATIONS.
- SERVICE PANEL MAY BE LOCATED IN GARAGE.
- ALTERNATE GAS APPLIANCES MAY BE USED.
- ALL SMOKE DETECTORS TO HAVE BATTERY BACK-UP AND TO BE INTERCONNECTED WITH A 14 GA. MIN. INTERCONNECTION WIRE OR EQUIVALENT PER MFG.S RECOMMENDATIONS.
- EXTERIOR LIGHT AT GARAGE SIDE MAY BE REPLACED.
- ALL BRANCH CIRCUITS SUPPLYING 15A AND 20A OUTLETS IN BEDROOMS ARE PROTECTED BY AN ARC-FAULT CIRCUIT INTERRUPTER IN ACCORDANCE WITH SECTION 210.12, OF THE NEC.
- GAS APPLIANCES MAY BE SUBSTITUTED FOR ELECTRIC APPLIANCES WHERE APPLICABLE. WHEN GAS APPLIANCES ARE INSTALLED, ALL GAS PIPING, CONNECTIONS, HOOK-UPS, ETC, TO BE INSTALLED ON SITE BY OTHERS. PANEL SIZE INSTALLED: 200A
- A CIRCUIT BREAKER LOCKING DEVICE SHALL BE PROVIDED TO LOCK THE APPLICABLE BREAKERS IN THEIR "OFF" POSITION. THIS APPLIES TO CIRCUIT BREAKERS WHICH SERVE AS THE DISCONNECT FOR ELECTRIC WATER HEATERS, ELECTRIC BASEBOARD HEATERS, AND ANY APPLIANCE RATED OVER 300 WATTS OR 1/8 HORSEPOWER, WHICH ARE NOT LOCATED WITHIN CLEAR SIGHT OF THEIR DISCONNECT.
- IF THE PERIMETERS OF THE AREAS OF THE ON-SITE INSTALLED STOOPS, PORCHES OR DECKS ARE NOT UNDER THE EXTERIOR ELECTRICAL RECEPTACLES SHOWN IN THE ELECTRICAL FLOOR PLAN, THEN ADDITIONAL RECEPTACLES SHALL BE SITE INSTALLED WITHIN THESE AREAS BY THE CONTRACTOR.

Doors Exterior										
Door Type	Size	Width	Height	RO SF	Light	Vent	Design Load	Air Infil	Max U-Factor	
9 Lite	3476	2'-10"	6'-4"	17.94	-	-	50	0.27	0.35	
6 Panel Fire Rated	3680	3'-1"	6'-9 1/8"	20.85	-	-	50	0.04	0.35	
2 Lite	3882	3'-2"	6'-10"	21.64	0.51	20	50	0.27	0.35	
Oval	3882	3'-2"	6'-10"	21.64	5.73	20	50	0.27	0.35	
9 Lite	3882	3'-2"	6'-10"	21.64	4.378	20	50	0.27	0.35	
Sunburst	3882	3'-2"	6'-10"	21.64	0.893	20	50	0.27	0.35	
15 Lite	3882	3'-2"	6'-10"	21.64	7.073	20	50	0.27	0.35	
Slider	7280	6'-0"	6'-8"	40.00	32.113	16.2	50	0.13	0.45	
Exterior Door	3482	2'-10"	6'-10"	20.00	-	-	50	0.27	0.35	
Atrium	7582	6'-3"	6'-8"	42.70	14.69	19.45	50	0.11	0.45	
Atrium	7276	6'-3 1/2"	6'-4 1/4"	39.98	18.5	17.72	50	0.30	0.45	
French	7282	6'-3 5/8"	6'-10 1/4"	43.15	18.4	38.4	18	0.10	0.45	
Side Light	1782	1'-4 1/2"	6'-10"	10.25	1.85	-	50	0.10	0.35	
Half Lite	3882	3'-2"	6'-10 1/4"	21.70	9.25	19.13	0	0.00	0.35	
Atrium	7280	6'-3 1/8"	6'-10"	42.78	18.4	19.2	35	0.04	0.45	
1-Lite	3882	3'-2"	6'-10 1/4"	21.70	5.45	19.125	50	0.27	0.35	

Doors Interior			
Door Type	Size	Width	Height
Int. Passage	24	2'-2 1/8"	6'-10 1/2"
Int. Passage	28	2'-6 1/8"	6'-10 1/2"
Int. Passage	30	2'-8 1/8"	6'-10 1/2"
Int. Passage	32	2'-10 1/8"	6'-10 1/2"
Int. Passage	36	3'-2 1/8"	6'-10 1/2"
Int. Passage	48	4'-1"	6'-10"

WINDOW SCHEDULE - MOD SINGLE HUNG

S SUFFIX DENOTES SAFETY GLAZING

Mfg	Label	Width R/O	Height R/O	R/O SF	Light	Vent	Room SF	U Value	Egress		Design Load	SHGC w/o Grids	SHGC w/ Grids	Air Infil
									No	Yes				
PLY GEM	6010TN	72	12	6.00	3.10	0.00	0.00	0.29	●		50	0.28	0.25	0.01
PLY GEM	24210M	30.38	37.63	7.94	5.10	2.53	63.25	0.29	●		50	0.28	0.25	0.18
PLY GEM	24210MS	30.38	37.63	7.94	5.10	2.53	63.25	0.29	●		50	0.28	0.25	0.18
PLY GEM	3046M	38.38	57.63	15.36	11.30	5.70	141.25	0.29		●	50	0.28	0.25	0.18
PLY GEM	3046MS	38.38	57.63	15.36	11.30	5.70	141.25	0.29		●	50	0.28	0.25	0.18
PLY GEM	24210M-2	60.75	37.63	15.87	10.20	5.06	126.50	0.29	●		50	0.28	0.25	0.18
PLY GEM	3046M-2	76.75	57.63	30.71	22.60	11.40	282.50	0.29		●	50	0.28	0.25	0.18

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Builder: Pennwest Homes

Title: Schedules and General Notes

Callout: 2634

Revisions	
Date	Number

Scale: N.T.S.
Drawn By: RM

Date: 03/03/2014
Reference: NONE

Cust: Stock
Dir: Schiavi Home Builders
S/N: .

Model/Eng. No.: HZ106-A1
Pg.: NG

Laminated Veneer Lumber Spans

Total truss load at CL: 808 #

Truss spacing : 24 "

T Load = 404.0 plf

L Load = 303.0 plf

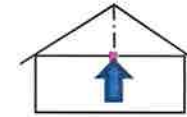
ΔTL 240

ΔLL 360

Truss type: **Non-storage** Commodore Corporation
 Truss load per half: 808 # Truss # HMC03401 MODEL: HZ106-A1

$C_d = 1$

Coef. per ESR 1387




Member	No.	Manufacturer	Width in	Depth in	F_b psi	F_v psi	E psi	Coef	I_x in ⁴	S_x in ³	C_f
1	1	Microllam	1.5	11.25	2925	285	2000000	0.136	177.98	31.64	1.009
2											
3											
4											
5											
6											
7											
8											
9											
10											

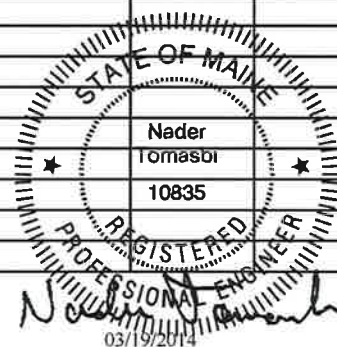
Max Span
12 ft - 0 in

Max Spans

Member	F_b' psi	F_v' psi	M in*lb	V lb	Moment in	Shear in	ΔTL in	ΔLL in	Max Span
1	2951	285	93365	3206	148	190	150	144	12 ft - 0 in
2									
3									
4									
5									
6									
7									
8									
9									
10									

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Laminated Veneer Lumber Spans

Truss reaction at the sidewall : 1000 #

Truss spacing : 24 "

T Load = 500.0 plf

Δ TL 180

L Load = 375.0 plf

Δ LL 240

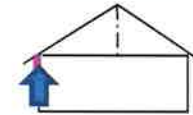
$C_d = 1.15$

Truss type: **Non-storage** Commodore Corporation

Truss # HMC03401

MODEL: HZ106-A1

Coef. per ESR 1387



Member	No.	Manufacturer	Width in	Depth in	F_b psi	F_v psi	E psi	Coef	I_x in ⁴	S_x in ³	C_f
1	3	Microllam	1.5	7.25	2925	285	2000000	0.136	142.90	39.42	1.071
2											
3											
4											
5											
6											
7											
8											
9											
10											

Max Span
11 ft - 11 in

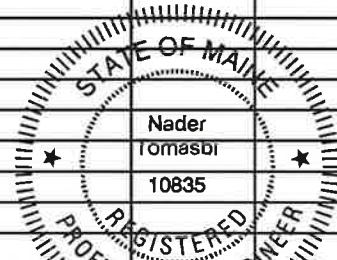
Max Spans

Member	F_b' psi	F_v' psi	M in*lb	V lb	Moment in	Shear in	Δ TL in	Δ LL in	Max Span
1	3602	328	142012	7129	165	342	143	143	11 ft - 11 in
2									
3									
4									
5									
6									
7									
8									
9									
10									

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Nader Tomasbi
 03/19/2014

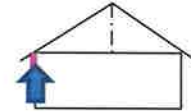
Dimensional Lumber Header Spans

Truss load: **1000 #**
 Truss spacing : **24 "**

Truss type: **NON-STORAGE**
 Truss # **HMC03401**

Commodore Homes
 MODEL: HZ106-A1

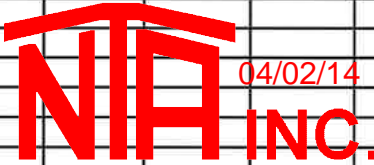
T Load = 500 plf Δ TL 180 C_d = 1.15
 L Load = 375 plf Δ LL 240 C_H = 1
 Lumber species: **SPF**



Member	No.	Sp / Grade	Width in	Depth in	F _b psi	F _v psi	E psi	Flat or Edge	I _x in ⁴	S _x in ³	C _r	C _f x C _{fu}
1	3	#2	1.5	5.5	875	135	1400000	E	62.39	22.69	1.15	1.3
2												
3												
4												
5												
6												
7												
8												
9												
10												

Max Span
6 ft - 8 in

Member	Max Spans										Max Span
	F _b ' psi	F _v ' psi	M in*lb	V lb	Moment in	Shear in	Δ TL in	Δ LL in			
1	1504	155	34130	2562	80	123	96	96			6 ft - 8 in
2											
3											
4											
5											
6											
7											
8											
9											
10											

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Dimensional Lumber Header Spans

Truss type: **NON-STORAGE**

Commodore Homes

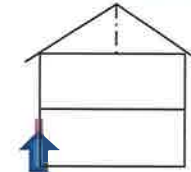
Truss load: **1000 #**

Truss # **HMC03401**

MODEL: HZ106-A1

Truss spacing : **24 "**

Floor width per section : **156 "**



T Load = 825 plf Δ TL 240 C_d = 1.15
 L Load = 635 plf Δ LL 360 C_H = 1
 Lumber species: **SPF**

Member	No.	Sp / Grade	Width in	Depth in	F _b psi	F _v psi	E psi	Flat or Edge	I _x in ⁴	S _x in ³	C _r	C _f x C _{fu}
1	3	#2	1.5	5.5	875	135	1400000	E	62.39	22.69	1.15	1.3
2	3	#2	1.5	7.25	875	135	1400000	E	142.90	39.42	1.15	1.2
3												
4												
5												
6												
7												
8												
9												
10												

Max Span
5 ft - 3 in
6 ft - 7 in

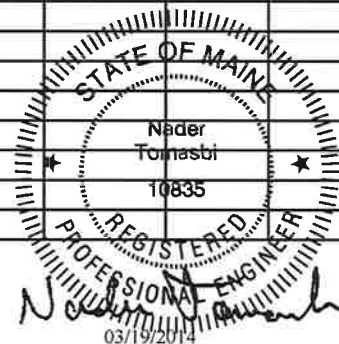
Max Spans

Member	F _b ' psi	F _v ' psi	M in*lb	V lb	Moment in	Shear in	Δ TL in	Δ LL in	Max Span
1	1504	155	34130	2562	63	75	74	71	5 ft - 3 in
2	1389	155	54742	3377	79	98	98	93	6 ft - 7 in
3									
4									
5									
6									
7									
8									
9									
10									

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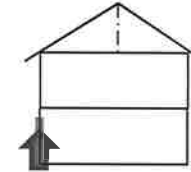
Dimensional Lumber Header Spans

Truss load: 0 #
Truss spacing : **24 "**

Truss type: **Non-storage**
Truss # **HMC03401**
Floor width per section : **156 "**

Commodore Homes
MODEL: HZ106-A1

T Load = 325 plf Δ TL 240 C_d = 1.15
L Load = 260 plf Δ LL 360 C_H = 1
Lumber species: SPF

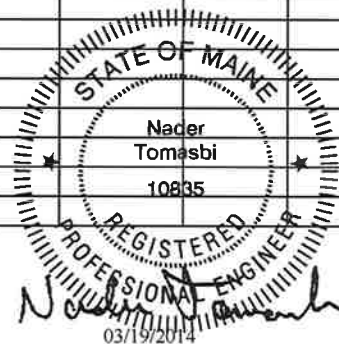


Member	No.	Sp / Grade	Width in	Depth in	F _b psi	F _v psi	E psi	Flat or Edge	I _x in ⁴	S _x in ³	C _r	C _f x C _{fu}	Max Span
1	3	#2	1.5	5.5	875	135	1400000	E	62.39	22.69	1.15	1.3	7 ft - 11 in
2													
3													
4													
5													
6													
7													
8													
9													
10													

Member	F _b ' psi	F _v ' psi	M in*lb	V lb	Moment in	Shear in	Δ TL in	Δ LL in	Max Span
1	1504	155	34130	2562	100	189	101	95	7 ft - 11 in
2									
3									
4									
5									
6									
7									
8									
9									
10									

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C + C LOAD

90 MPH EXP C

$$SF = 4 \text{ ft} (12.16 \text{ ft}) = 48.67 \text{ ft}^2$$

$$\text{ZONE 4} = 14.3 \text{ psf} (1.4) = 20.02 \text{ psf}$$

$$\text{ZONE 5} = 16.3 \text{ psf} (1.4) = 22.82 \text{ psf}$$

$$a = 3 \text{ ft}$$

$$\begin{aligned} \text{AVG C + C LOAD} &= \frac{22.82 \text{ psf} (2.5 \text{ ft}) + 20.02 \text{ psf} (9.67 \text{ ft})}{12.17 \text{ ft}} \\ &= 20.65 \text{ psf} \end{aligned}$$

$$\text{PLF LOAD} = 20.65 \text{ psf} (9.81 \text{ ft}) = \underline{\underline{202.63 \text{ plf}}}$$

MWFRS LOAD

90 MPH EXP C

$$\text{ZONE A} = 14.4 \text{ psf} (1.4) = 20.16 \text{ psf}$$

$$\text{ZONE C} = 11.5 \text{ psf} (1.4) = 16.1 \text{ psf}$$

$$z_c = 6 \text{ ft}$$

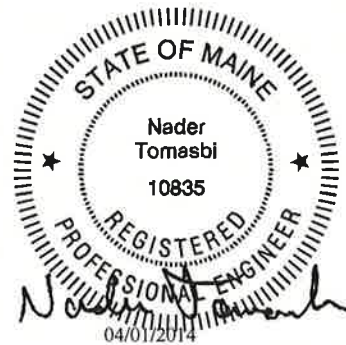
$$\begin{aligned} \text{AVG MWFRS LOAD} &= \frac{20.16 \text{ psf} (5.5 \text{ ft}) + 16.1 \text{ psf} (6.67 \text{ ft})}{12.17 \text{ ft}} \\ &= 17.44 \text{ psf} \end{aligned}$$

C + C LOADS CONTROL

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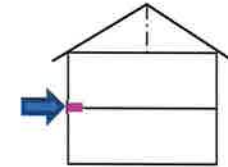
Dimensional Lumber Header Spans

Truss type: **Wind Beam**

Commodore Homes
HZ106-A1

T Load = 202.63 plf Δ TL 120 C_d = 1.6
C_H = 1
Lumber species: **SPF**

*In addition to top and bottom plates,
floor and ceiling rim bands also provide
load resistance



Member	No.	Sp / Grade	Width in	Depth in	F _b psi	F _v psi	E psi	Flat or Edge	I _x in ⁴	S _x in ³	C _r	C _f x C _{FU}
1	3	#2	1.5	5.5	875	135	1400000	E	62.39	22.69	1.15	1.3
2												
3												
4												
5												
6												
7												
8												
9												
10												

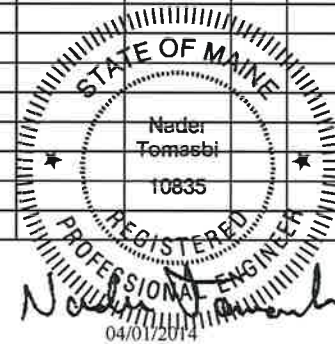
Max Span
12 ft - 5 in

Max Spans

Member	F _b ' psi	F _v ' psi	M in*lb	V lb	Moment in	Shear in	Δ TL in	Max Span
1	2093	216	47485	3564	149	422	168	12 ft - 5 in
2								
3								
4								
5								
6								
7								
8								
9								
10								

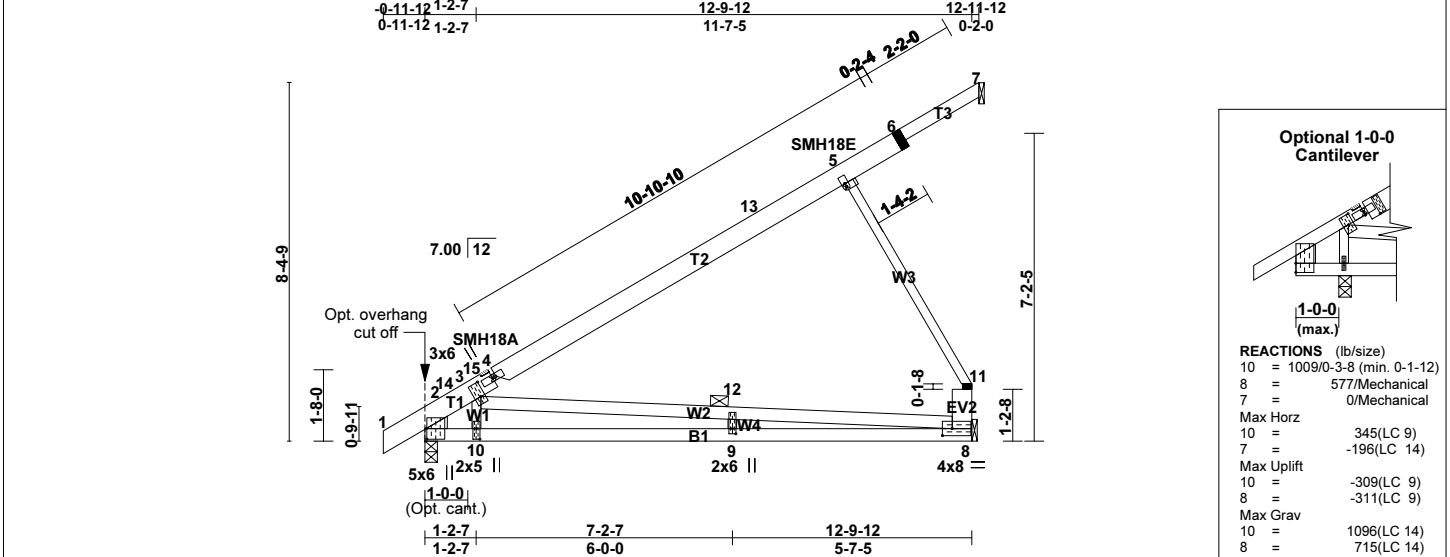
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Job 72209	Truss HMC03401	Truss Type HINGE MONO	Qty 1	Ply 1	Pennwest Homes (P26M7X) 26' 0" wide 7/12 hinged mono (80#) Designed by ATM 274
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Universal Forest Products Inc., Grand Rapids, MI 49525, Andrew Muisiner 7.430 e Jul 25 2013 MiTek Industries, Inc. Tue Mar 11 10:38:01 2014 Page 1 of 1



Optional 1-0-0 Cantilever

REACTIONS (lb/size)

10	=	1009/0-3-8 (min. 0-1-12)
8	=	577/Mechanical
7	=	0/Mechanical
Max Horiz		
10	=	345(LC 9)
7	=	-196(LC 14)
Max Uplift		
10	=	-309(LC 9)
8	=	-311(LC 9)
Max Grav		
10	=	1096(LC 14)
8	=	715(LC 14)

Plate Offsets (X,Y): [2:0-3-0,0-0-4], [3:0-4-0,0-1-4], [4:0-1-0,0-0-0], [5:0-0-0,0-1-0], [8:0-2-12,0-2-0], [10:0-3-0,0-1-0], [12:0-1-8,0-1-0]

SPACING: 2-0-0 LOADING (psf) TCLL 41.0 (Ground Snow=53.3) TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING: 1-4-0 LOADING (psf) TCLL 61.6 (Ground Snow=80.0) TCDL 10.5 BCLL 0.0 * BCDL 15.0	SPACING 2-0-0 Plates Increase 1.15 Lumber Increase 1.15 Rep Stress Incr YES Code IBC2009/TPI2007	CSI TC 0.79 BC 0.83 WB 0.90 (Matrix)	DEFL in (loc) l/defl L/d Vert(LL) -0.32 8-9 >468 240 Vert(TL) -0.76 8-9 >197 180 Horz(TL) 0.02 8 n/a n/a	PLATES GRIP MT20 197/144 MT18HS 197/144 Weight: 60 lb FT = 0%
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LUMBER TOP CHORD 2x6 SPF No.2 *Except* T3: 2x4 SPF No.2 BOT CHORD 2x4 SPF 1650F 1.5E WEBS 2x3 SPF No.2 *Except* W2: 2x4 SPF No.2, EV2: 2x6 SPF No.2	BRACING TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals. BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. WEBS 1 Row at midpt 3-8
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WEDGE
Left: 2x4 SPF No.2

REACTIONS (lb/size) 2=921/0-3-8 (min. 0-1-9), 8=663/Mechanical, 7=0/Mechanical
Max Horiz 2=345(LC 9), 7=-196(LC 14)
Max Uplift 2=-253(LC 9), 8=-336(LC 9)
Max Grav 2=1000(LC 14), 8=808(LC 14)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-14=-1334/7, 3-14=-1276/9, 3-15=-834/38, 4-15=-824/38, 4-13=-793/50, 5-13=-506/62, 5-6=-391/71, 6-7=-233/81, 8-11=-624/330
BOT CHORD 2-10=-389/799, 9-10=-386/800, 8-9=-386/800
WEBS 3-10=0/703, 3-12=-625/206, 8-12=-633/203, 5-11=-713/378, 9-12=0/82

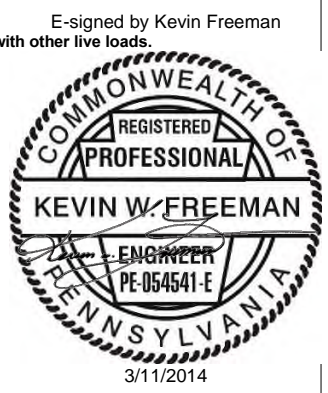
REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Maximum Tension (lb)/ Maximum Shear (lb)/ Maximum Moment (lb-in)
6=300/76/117/0, 11=713/378/346/0

- NOTES**
- 1) Dado: 0-2-8 length x 0-0-12 deep dado, 0-0-0 to right edge from joint 4 on the top face.
 - 2) Wind: ASCE 7-05; 100mph @24in o.c.; TCDL=2.8psf; BCDL=4.0psf; (Alt. 122mph @16in o.c.; TCDL=4.2psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; enclosed; MWFRS (low-rise) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) TCLL: ASCE 7-05; Pg=53.3 psf (ground snow); Ps=41.0 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
 - 4) Roof design snow load has been reduced to account for slope.
 - 5) Unbalanced snow loads have been considered for this design.
 - 6) This truss has been designed for greater of min roof live load of 17.0 psf or 2.00 times flat roof load of 41.0 psf on overhangs non-concurrent with other live loads.
 - 7) This truss has been designed for basic load combinations, which include cases with reductions for multiple concurrent live loads.
 - 8) All plates are MT20 plates unless otherwise indicated.
 - 9) See BEH18 DETAILS for plate placement.
 - 10) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
 - 11) All additional member connections shall be provided by others for forces as indicated.
 - 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 253 lb uplift at joint 2 and 336 lb uplift at joint 8.
 - 15) This truss has been designed in accordance with the 2009 IBC Section 2303.4.6, 2009 IRC Section 802.10.2.
 - 16) The field-installed members are an integral part of the truss design. Retain a design professional to specify final field connections and temporary supports. All field-installed members must be properly fastened prior to applying any loading to the truss. This design anticipates the final set position.
 - 17) Take precaution to keep the chords in plane, any bending or twisting of the hinge plate must be repaired before the building is put into service.
 - 18) Truss has been designed per 2006 IBC Sec. 2303.4.2; 2006 IRC Sec. 802.10.2.

The professional engineering seal indicates that a licensed professional has reviewed the design under the standards referenced within this document, not necessarily the current state building code. The engineering seal is not an approval to use in a specific state. The final determination on whether a truss design is acceptable under the locally adopted building code rest with the building official or designated appointee.



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WARNING - Verify design parameters and READ NOTES

Truss shall not be cut or modified without approval of the truss design engineer.

This component has only been designed for the loads noted on this drawing. Construction and lifting forces have not been considered. The builder is responsible for lifting methods and system design. Builder responsibilities are defined under TPI1. This design is based only upon parameters shown, and is for an individual building component to be installed and loaded vertically. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult BCSI 1-06 from the Wood Truss Council of America and Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\templates\ufp.tpe© copyright 2014 by: Universal Forest Products, Inc.

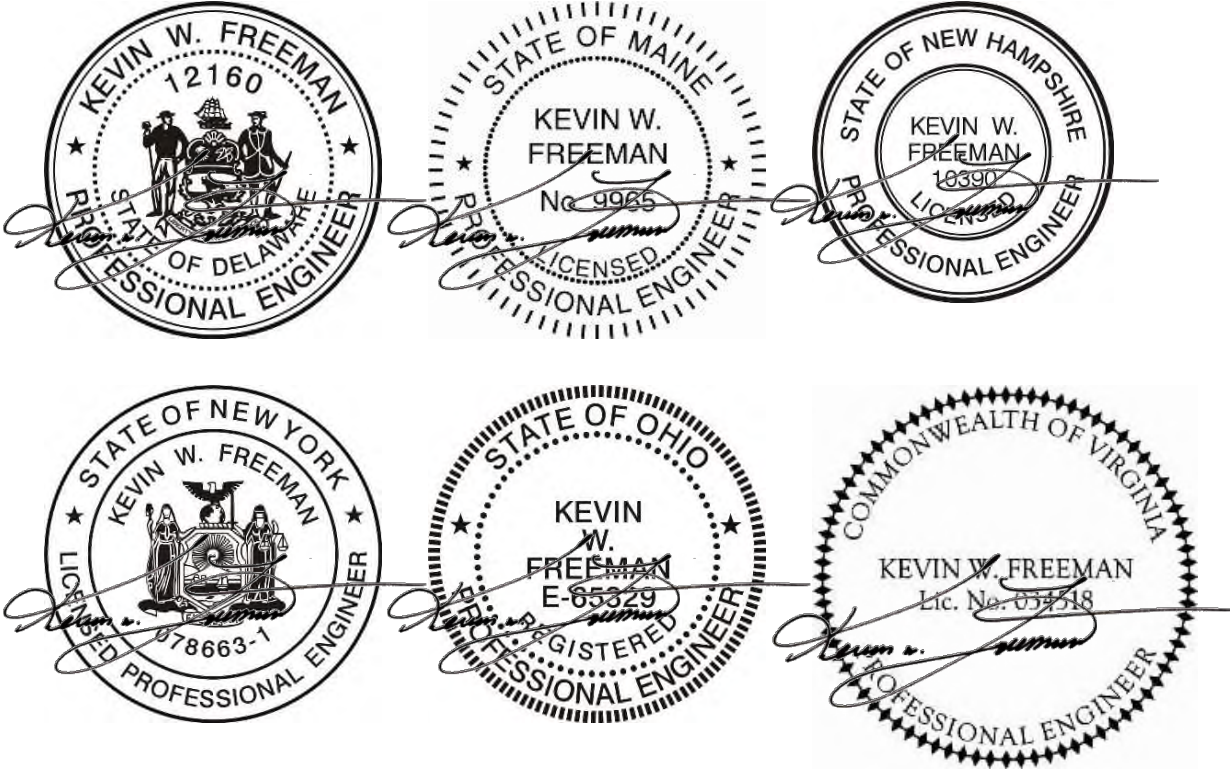
Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE
PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525



UNIVERSAL FOREST PRODUCTS, INC.

Job 72209	Truss HMC03401	Customer PENNWEST HOMES	MFG 274
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Check for 2009 IRC Prescriptive Braced Wall Requirements

Bracing Compliance Checklist

- ✓ 1. Each braced wall line contains:
 - ✓ $(4' * C_{SH}) = 4\text{ft}$ braced wall sections, unless meeting requirements of Table 1 on Page B-40-21,
 - ✓ Offset between bw sections and designated bw line $\leq 4'$ each; total $\leq 8'$.
 - ✓ Braced wall sections 25'o.c. max,
 - ✓ Total end distance on any line $\leq 12.5'$
- ✓ 2. Total braced wall length in each braced wall line (L_p) $\geq L_r = L * C_S * C_R * C_E * C_W * C_N$ for that line; all variables can be found in Tables 2-7 and Figure 1 on B-40-21. Must be $\geq 4'$.
- ✓ 3. For exterior bw panels only: if the total bw length provided (L_p) for a bw line is double that required (L_r) in item 2, blocking shall not be required at horizontal joints in bw panels. Else, horizontal joints in bw panels shall occur over, and be fastened to, common blocking of a min 1-1/2" thickness. No horizontal blocking is required at interior bw panels with horizontal gypsum board.

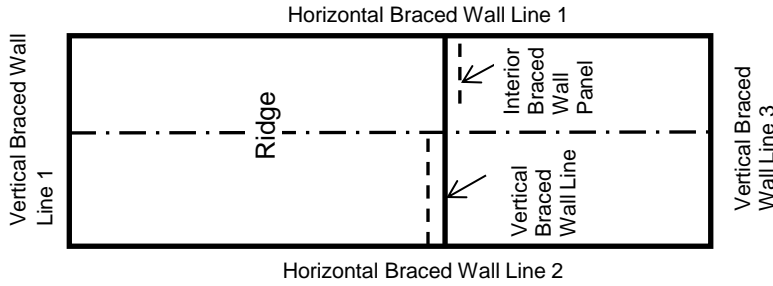
Number of Stories =	2	$C_S =$	1.3 (Table 3)
Wind Load =	90 mph		
Exposure =	C (30' max. mean roof height)		
Seismic Category =	A, B, or C		
Width of Home =	26 ft		
Roof Pitch =	7 /12		
Ceiling / Truss BC Depth =	22 in		
Cathedral Truss?	NO		
Interior Sidewall Height =	8 ft		
Number of BW lines, vertical =	2	$C_{NV} =$	1.00 (Table 7)
Number of BW lines, horizontal =	2	$C_{NH} =$	1.00 (Table 7)
Roof Eave to Ridge Height =	7.583 ft	$C_E =$	0.86 (Table 5)
Exterior Horizontal Wall Height =	8.000 ft	$C_{WEH} =$	0.9 (Table 6)
Exterior Vertical Height =	8.000 ft	$C_{WEV} =$	0.9 (Table 6)
Interior Vertical Wall Height =	8.000 ft	$C_{WIV} =$	0.9 (Table 6)

For one-story home, $C_{SH} = (\text{Interior Vertical Wall Height} + (\text{Ceiling or Truss BC Depth})) / 10\text{ft}$, 1.0 min

$C_{SH} = 1.00$ Therefore, min fully effective braced wall sections = 4.00 ft



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Distance from Vert BWL 1 to Vert BWL 2 = 34 ft



Input Panel Lengths Below, ft							
Exterior Horizontal Braced Wall Lines				Exterior Vertical Braced Wall Lines			
Horizontal BWL 1		Horizontal BWL 2		Vertical BWL1		Vertical BWL2	
WSP		WSP		WSP		WSP	
Actual	Effective	Actual	Effective	Actual	Effective	Actual	Effective
11.464	11.464	5.432	5.432	13.583	13.583	16.25	16.25
7.969	7.969	3.901	3	9.219	9.219	3.75	3
4.74	4.74	3.901	3	0	0	0	0
0	0	3.37	2.25	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Lp = 24.173 ft 13.682 ft 22.802 ft 19.25 ft
 Lr = 4.902 ft 4.902 ft 6.302 ft 6.302 ft

Meets Requirements? **OK** **OK** **OK** **OK**

Horizontal Joint Blocking Required? **NO** **NO** **NO** **NO**

Interior Vertical Braced Wall Lines, Method GB					
N/A		N/A		N/A	
GB		GB		GB	
Actual	Effective	Actual	Effective	Actual	Effective
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

Lp = 0 ft 0 ft 0 ft
 Lr = 0.000 ft 0.000 ft 0.000 ft

Meets Requirements? **N/A** **N/A** **N/A**

Horizontal Joint Blocking? **N/A** **N/A** **N/A**

Note: All GB BW panels must have GYP on both sides of the wall section. All WSP BW panels must have GYP on the other side of the wall section.

(Table 2)

Check for 2009 IRC Prescriptive Braced Wall Requirements

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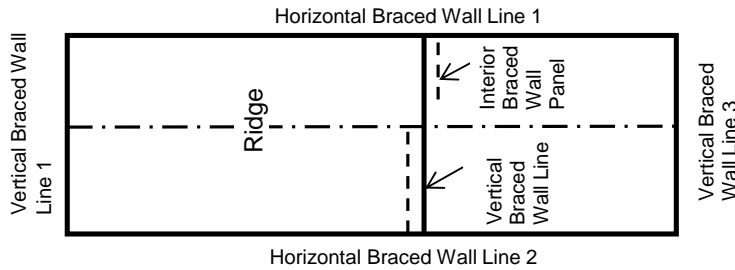
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Seismic Category =	A, B, or C		
Width of Home =	26 ft		
Roof Pitch =	7 /12		
Flr Joist & Ceiling Joist Height	22 in		
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Exterior Vertical Height =	8.000 ft	$C_{WEV} =$	0.9 (Table 6)
Interior Vertical Wall Height =	8.000 ft	$C_{WIV} =$	0.9 (Table 6)

$C_{SH} = (\text{Interior Sidewall Height} + \text{Flr Joist \& Ceiling Joist Height}) / 10ft, 1.0 \text{ min}$

$C_{SH} = 1.00$ Therefore, min fully effective braced wall sections = **4.00 ft**



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Distance from Vert BWL 1 to Vert BWL 2 = 34 ft

Input Panel Lengths Below, ft							
Exterior Horizontal Braced Wall Lines				Exterior Vertical Braced Wall Lines			
Horizontal BWL 1		Horizontal BWL 2		Vertical BWL1		Vertical BWL2	
WSP		WSP		WSP		WSP	
Actual	Effective	Actual	Effective	Actual	Effective	Actual	Effective
12.276	12.276	5.448	5.448	13.583	13.583	14.219	14.219
6.693	6.693	3.901	3	9.25	9.25	4	4
3.969	3	3.901	3	0	0	0	0
0	0	3.385	2.25	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Lp = 21.969 ft 13.698 ft 22.833 ft 18.219 ft

Lr = 10.092 ft 10.092 ft 12.914 ft 12.914 ft

Meets Requirements? **OK** **OK** **OK** **OK**

Horizontal Joint Blocking Required ?

NO **YES** **YES** **YES**

Interior Vertical Braced Wall Lines, Method GB					
N/A		N/A		N/A	
GB		GB		GB	
Actual	Effective	Actual	Effective	Actual	Effective
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

Lp = 0 ft 0 ft 0 ft

Lr = 0.000 ft 0.000 ft 0.000 ft

Meets Requirements? **N/A** **N/A** **N/A**

Horizontal Joint Blocking? **N/A** **N/A** **N/A**

Note: All GB BW panels must have GYP on both sides of the wall section. All WSP BW panels must have GYP on the other side of the wall section.

(Table 2)