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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

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

Title	Page
Cover	CV
Floor Plan	FP
Floor Plan 2	FP-2
Electrical Plan	EP
Electrical Plan 2	EP-2
Elevations	EL
2x10 Marriage Line with Stair Foundation	FD40#
Typical Water Supply Lines	WT
Typical DWV System	DT
DWV Notes	DN
Typical Gas Lines	GT
Cross Section	XS
Braced Walls-Prescriptive	BWP
Braced Walls-Prescriptive 2	BWP-2
Schedules and General Notes	NG
Truss Diagram	ATTACHED
Span Calcs	ATTACHED
Braced Wall-Calculations	ATTACHED

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

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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.

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

See Schedules and General Notes Page

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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.

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

See Schedules and General Notes Page

Builder: Pennwest Homes	Callout: 2634	Revisions: Date / Number	Scale: 3/16" = 1'-0"	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Floor Plan 2			Drawn By: RM	Reference: NONE	Dlr: Schiavi Home Builders	Pg.: FP-2
					S/N: .	

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

See Schedules and General Notes Page

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

FRONT ELEVATION

RIGHT ELEVATION

REAR ELEVATION

LEFT ELEVATION

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

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

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 OTHERS TO THE SITE CONDITIONS. SEISMIC DESIGN AND ATTACHING THE FOUNDATION, ALONG WITH RE LATERAL, LONGITUDINAL SHEAR, DOWNLIFT FORCES IN BOTH DIRECTIONS.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

- 2X10 OR TRUSS FLOOR NOTES -

1. 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.).
2. 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 DISCRETIONOF THE INSTALLER.
3. FOR DEVIATIONS &/OR OTHER FOUNDATION DESIGNS CONSULT A LOCAL PROFESSIONAL ENGINEER & YOUR LOCAL BUILDING OFFICIAL.
4. 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.
5. CONCRETE COMPRESSIVE STRENGTH (FC'): 2500 PSI MINIMUM.
6. CENTERLINE LINE SUPPORTS AND SPACING ARE BASED ON (2) 2X10's SPF#2 ON EACH HALF (4-2X10'S TOTAL).
7. FOUNDATION CONSTRUCTION AND TIE DOWN REQUIREMENTS FOR HOMES LOCATED IN 90 MPH OR LESS WIND ZONES MAY USE IRC GUIDELINES UNLESS NOTED OTHERWISE.

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

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.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

LEGEND:

COLD LINE
HOT LINE
SHUT-OFF VALVE

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.

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.

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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	Dlr: Schiavi Home Builders	Pg.: WT
		.	.	.	.			S/N: .	

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

NOTES:

1 DENOTES BOTTOM-BOARD PASS-THRU.

2 DENOTES (1) & DISCONNECT FOR LOOSE SHIP/CAP & CHAIN.

3 SITE INSTALLED

DRAIN LINES

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

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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	Number	.	.	Drawn By: RM	Reference: NONE	Dlr: Schiavi Home Builders	Pg.: DT
		.	.	.	.			S/N: .	

PIPE SU
VERTICA
SUPPORTS A
OR BETWEEI
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'.

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

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.

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Builder: Pennwest Homes	Callout: 2634	Revisions		.	.	Scale: N.T.S.	Date: 03/03/2014	Cust: Stock
Title: Typical Gas Lines		Date	Number	.	.	Drawn By: RM	Reference: NONE	Dlr: Schiavi Home Builders
		.	.	.	.			S/N: .
		.	.	.	.			

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

(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) AVAILIABLE 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

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

APPROVED BY NTA INC. 04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Builder: Pennwest Homes	Callout: 2634	Revisions		.	.	Scale: 3/16" = 1'-0"	Date: 03/03/2014	Cust: Stock	Model/Eng. No.: HZ106-A1
Title: Braced Walls-Prescriptive 2		Date	Number	.	.	Drawn By: RM	Reference: NONE	Dlr: Schiavi Home Builders	Pg.: BWP-2
		.	.	.	.			S/N: .	

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

=15 AMP RECPT
=15 AMP FLOOR RECPT
=STD LIGHT
=RECESSED LIGHT
=SWITCHED RECPT
=WIRE
=STANDARD VENT
S =SWITCH
=20 AMP RECPT
=20 AMP FLOOR RECPT
=DOORBELL
=CHIMES
=220 VOLT RECPT
S3DM =3-WAY DIMMER SWITCH
SDM =DIMMER SWITCH
=24" STRIPLIGHT
S3W =3-WAY SWITCH
=SMOKE/CO DETECTOR
=THERMOSTAT
=STANDARD FAN
=STANDARD FAN w/LIGHT
=SMOKE DETECTOR
=PHONE JACK
=DATA JACK
=TV JACK
=JUNCTION BOX
=HOSE BIBB
GFI =GROUND FAULT CIRCUIT INTERRUPTER
=BULLET
=PANEL BOX
WP =WEATHERPROOF
=SPEAKER
=AV JACK
=MEDIA RECEPT
FLOURESCENT =18" =48"
=UNDER CABINET LIGHT
=UNDER CABINET STEREO
=VENTILATION FAN

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

Doors Exterior

Door Type	Size	Width	Height	RO SF	Light	Vent	Desi Loa		
9 Lite	3476	2'-10"	6'-4"	17.94	-	-	50		
6 Panel Fire Rated	3680	3'-1"	6'-9 1/8"	20.85	-	-	50		
2 Lite	3882	3'-2"	6'-10"	21.64	0.51	20	50		
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	32.13	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"

CITY OF PORTLAND, MAINE — RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/24/16

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
: COLUMN SUPPORT LOCATION

ELECTRICAL PLAN NOTES:
1. ALL KITCHEN AND BATHROOM COUNTER RECEPTS TO BE GFCI PROTECTED.
2. ALL CLOSET LIGHTS TO BE ENCLOSED SURFACE MOUNT FIXTURES, 12" MIN. FROM STORAGE SPACE.
3. ALL RECEPTS TO BE GROUNDINGTYPE, PER 210-7/NEC.
4. SPECS, WIRING, INSTALLATIONS, ETC. TO COMPLY WITH NEC REGULATIONS.
5. SERVICE PANEL MAY BE LOCATED IN GARAGE.
6. ALTERNATE GAS APPLIANCES MAY BE USED.
7. 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.
8. EXTERIOR LIGHT AT GARAGE SIDE MAY BE REPLACED.
9. 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.
10. 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
11. 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.
10. 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.

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 No	Egress Yes	Design Load	SHGC w/o Grids	SHGC w/ Grids	Air Infil
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

APPROVED BY NTA INC. 04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

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

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

Laminated Veneer Lumber Spans

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

Total truss load at CL: 808 #

Truss load per half: 808 #

Truss # HMC03401

MODEL: HZ106-A1

Truss spacing : 24 "

T Load = 404.0 plf

L Load = 303.0 plf

Δ TL 240

Δ LL 360

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	Δ TL in	Δ LL 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												

APPROVED BY NTA INC. 04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
03/19/2014

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

Laminated Veneer Lumber Spans

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

Truss # HMC03401 MODEL: HZ106-A1

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

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												

APPROVED BY NTA INC. 04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
03/19/2014

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

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}	Max Span
1	3	#2	1.5	5.5	875	135	1400000	E	62.39	22.69	1.15	1.3	6 ft - 8 in
2													
3													
4													
5													
6													
7													
8													
9													
10													

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	80	123	96	96	6 ft - 8 in
2									
3									
4									
5									
6									
7									
8									
9									
10									

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
03/19/2014

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

Dimensional Lumber Header Spans

Truss type: **NON-STORAGE**

Truss load: 1000 #

Truss spacing : 24 "

Truss # HMC03401

Floor width per section : 156 "

Commodore Homes

MODEL: HZ106-A1

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 in⁴	S_x in³	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	5 ft - 3 in
2	3	#2	1.5	7.25	875	135	1400000	E	142.90	39.42	1.15	1.2	6 ft - 7 in
3													
4													
5													
6													
7													
8													
9													
10													

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									

APPROVED BY
NTA INC.
04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
03/19/2014

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													

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				100	189	101	95		7 ft - 11 in
2														
3														
4														
5														
6														
7														
8														
9														
10														

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
03/19/2014

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

Reviewed for C
Inspectio
Approved w
Date: 05/2

C + C LOAD

90 MPH EXP C

SF = 4 ft (12.16 ft) = 48.67 ft²

ZONE 4 = 14.3 psf (1.4) = 20.02 psf

ZONE 5 = 16.5 psf (1.4) = 23.1 psf

a = 3 ft

$$\text{AVG C + C LOAD} = \frac{23.1\ \text{psf}(2.5\ \text{ft}) + 20.02\ \text{psf}(9.67\ \text{ft})}{12.17\ \text{ft}}$$

= 20.65 psf

PLF LOAD = 20.65 psf (9.81 ft) = 202.63 plf

MWFRS LOAD

90 MPH EXP C

ZONE A = 14.4 psf (1.4) = 20.16 psf

ZONE C = 11.5 psf (1.4) = 16.1 psf

2a = 6 ft

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

= 17.94 psf

C + C LOADS CONTROL

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
04/01/2014

Reviewed for Code Con
Inspections Divisi
Approved with Conc
Date: 05/24/1

Dimensional Lumber Header Spans

Truss type: **Wind Beam**

Commodore Homes
HZ106-A1

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

T Load = 202.63 plf Δ TL 120 C_d = 1.6
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	12 ft - 5 in
2													
3													
4													
5													
6													
7													
8													
9													
10													

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														

APPROVED BY
NTA INC.
04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

STATE OF MAINE
Nader Tomasbi
10835
REGISTERED PROFESSIONAL ENGINEER
04/01/2014

Job	Truss	Truss Type	Qty	Ply	Pennwest Homes (P26M7X)
72209	HMC03401	HINGE MONO	1	1	26' 0" wide 7/12 hinged mono (80#)
					Designed by ATM 274

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

Date: 05/2

Optional 1-0-0 Cantilever

REACTIONS (lb/size)
10 = 1009/0-3-8 (min. 0-1-12)
8 = 577/Mechanical
7 = 0/Mechanical
Max Horz
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		SPACING: 1-4-0		SPACING	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
LOADING (psf)		LOADING (psf)		Plates Increase	1.15	TC	0.79	Vert(LL)	-0.32	8-9	>468	240	MT20	197/144
TCLL	41.0	TCLL	61.6	Lumber Increase	1.15	BC	0.83	Vert(TL)	-0.76	8-9	>197	180	MT18HS	197/144
(Ground Snow=53.3)		(Ground Snow=80.0)		Rep Stress Incr	YES	WB	0.90	Horz(TL)	0.02	8	n/a	n/a		
TCDL	7.0	TCDL	10.5	Code	IBC2009/TPI2007	(Matrix)							Weight: 60 lb	
BCLL	0.0 *	BCLL	0.0 *										FT = 0%	
BCDL	10.0	BCDL	15.0											

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
WEDGE
Left: 2x4 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

APPROVED BY NTA INC. 04/02/14
Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

REACTIONS (lb/size) 2=921/0-3-8 (min. 0-1-9), 8=663/Mechanical, 7=-0/Mechanical
Max Horz 2=345(LC 9), 7=-196(LC 14)
Max Uplift2=-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.

E-signed by Kevin Freeman

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEVIN W. FREEMAN PE-054541-E
3/11/2014

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.

WARNING - ***Verify design parameters and READ NOTES***

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

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.

Job	Truss	Customer	MFG
72209	HMC03401	PENNWEST HOMES	274

Reviewed for C
Inspectio
Approved w
Date: 05/2

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 a design 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.

APPROVED BY
NTA INC.
04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Corporate Engineering
2801 East Beltline, NE Grand Rapids, MI 49525-9736 (616) 364-6161 Fax (616) 365-0060
ufpi.com

Check for 2009 IRC Prescriptive Braced Wall Requirements

Reviewed for C
Inspectio
Approved w
Date: 05/2

Bracing Compliance Checklist

✓ 1. Each braced wall line contains:
- ✓ (4' * C_{SH}) = 4ft braced wall sections, unless meeting requirements of Table 1 on Page B-40-21,
- ✓ Offset between bw sections and designated bw line ≤ 4' each; total ≤ 8'.
- ✓ Braced wall sections 25'o.c. max,
- ✓ Total end distance on any line ≤ 12.5'

✓ 2. Total braced wall length in each braced wall line (L_p) ≥ 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 ≥ 4'.

✓ 3. For exterior bw panels only: if the total bw length provided (Lp) for a bw line is double that required (Lr) 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} = (Interior Vertical Wall Height + (Ceiling or Truss BC Depth)) / 10ft , 1.0 min

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

APPROVED BY
NTA INC.
04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

HZ106-A1 One Story or Top of Two Story Issued: 3/3/14

APPROVED BY NTA INC. 04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Reviewed for Code Inspection Approved w

Date: 05/2

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	
BW Type:	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	
BW Type:	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	(Table 2)
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.

Check for 2009 IRC Prescriptive Braced Wall Requirements

Reviewed for C
Inspectio
Approved w
Date: 05/2

Bracing Compliance Checklist

✓ 1. Each braced wall line contains:
- ✓ (4' * C_{SH}) = 4ft braced wall sections, unless meeting requirements of Table 1 on Page B-40-21,
- ✓ Offset between bw sections and designated bw line ≤ 4' each; total ≤ 8'.
- ✓ Braced wall sections 25'o.c. max,
- ✓ Total end distance on any line ≤ 12.5'

✓ 2. Total braced wall length in each braced wall line (L_p) ≥ 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 ≥ 4'.

✓ 3. For exterior bw panels only: if the total bw length provided (Lp) for a bw line is double that required (Lr) 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		
Flr Joist & Ceiling Joist Height	22	in		
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 =	0.93 (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)

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

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

APPROVED BY
NTA INC.
04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

HZ106-A1 First Floor of Two Story Issued: 3/3/2014

APPROVED BY NTA INC. 04/02/14

Approval of this document does not authorize or approve any deviation or deviations from the requirements of applicable State Laws.

Reviewed for Code Compliance Inspection Approved w

Date: 05/2

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	
BW Type:	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	
BW Type:	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	(Table 2)
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.