



October 10, 2019



Mr. Mike Hamm, P.E.
Chief Building Code Consultant
North Carolina Department of Insurance - OSFM
325 North Salisbury Street
Raleigh, NC 27603

RE: Champion Home Builders #23
Lillington, NC
Model: 23-3264-01 130

Dear Mr. Hamm:

Enclosed is one set of PFS accepted documents for the above referenced manufacturer. PFS has reviewed these documents and to the best of our knowledge have found them to conform to the North Carolina codes:

2018 NC Residential Code w/Amendments (includes plumbing, mechanical, & energy codes – Chapter 11)
2017 NC Electrical Code w/Amendments

If you have any questions, please contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Ian Lehrer".

Ian Lehrer, P.E.
Agency Engineer

Enclosure: As Stated

cc: Jon Tyndall
File

Mr. Mike Hamm, P.E.
October 10, 2019
Page Two

PFS Corporation has reviewed and approved the above referenced material and to the best of our knowledge these documents conform to the referenced codes.



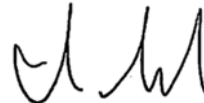
Construction Review
Ian Lehrer, P.E.



Structural Review
Ian Lehrer, P.E.



Plumbing Review
Ian Lehrer, P.E.



Mechanical Review
Ian Lehrer, P.E.



Electrical Review
Ian Lehrer, P.E.

N//A

Quality Control Review
Ian Lehrer, P.E.




ADDITIONAL OR MODIFIED ACCEPTANCE (MODULARS/PANELIZED)

This form is to be used only when the manufacturer is seeking acceptance of an additional model, modified model or model name change which uses a previously accepted building system.

Current PFS Building System Acceptance #: _____
 Model Name/ No. 23-3264-01 130
 Manufacturer's Name: CHAMPION HOME BUILDERS
 Plant(s) at which model will be produced PLANT #23 LILLINGTON, NC

Check One: Y NEW MODEL _____ Revised Model*

TECHNICAL DATA		Conforms		
		Yes	No	N/A
Floor Plan Showing:				
Braced Wall Method or Shearwalls		Y		
Building Size (LxW Dimensions)		Y		
Room Sizes, Light & Ventilation Schedule		Y		
Exit Requirements		Y		
Electrical Outlet Spacing & Smoke Detector		Y		
Location of Labels & Data Plates		Y		
Use Group, Type Const., Total Sq.Ft. Area		Y		
Plumbing System Design or Reference No. (<u>PROVIDED ON PP-101</u>)		Y		
Heat Loss Calculations or Reference No. (<u>PROVIDED ON RS-101</u>)		Y		
HVAC/Furnace Size/Model No. (<u>BY OTHERS</u>)	Y			
Thermal Performance Calculations or Reference No. (<u>PROVIDED ON RS-101</u>)	Y			
Electrical Load Calculations or Reference No. (<u>PROVIDED ON EP-101</u>)	Y			
Service Size and Location (<u>200A/UTILITY</u>)	Y			
Applicable Building Codes <u>SEE GE-101</u>	Y			
Submit model to the following states: <u>NC</u>				
*Description of Modification: _____				
Requested by: <u>JON TYNDALL</u> Date: <u>9-24-19</u>				
(designer)				

For PFS Use

Staff Plan Reviewer Sharon Barry IBC Certification #: _____ Date: 10-03-19

Structural Calculation(s) Reviewed By: _____ P.E. #: _____ Date: _____

Remarks: _____

**** (1) copy sent to IBC within 15 days of approval.**

VERBAL APPROVAL GIVEN By Whom: _____ To Whom: _____ Date: _____

MODEL WAS DEVIATED Revision Number: _____

THIS FORM SHALL BE FILLED OUT COMPLETELY WITH EACH MODEL ACCEPTANCE OR MODIFICATION PRIOR TO SUBMITTAL TO PFS.

NORTH CAROLINA		
MODULAR PLANS REVIEW CHECKLIST		
	PAGE 1 of 3	revised May 2011
Manufacturer	Champion Home Builders, Inc.	
Model number/name	23-3264-01	
3rd Party	PFS Corporation	
Review Date		
Reviewer		
	Plan Sheet Page # and NOTES	
QC MANUAL (current and complete)	8-15-19	
APPENDIX B (required and attached)	N/A	
PLAN SHEETS		
Each plan sheet third-party stamped with approver's name	10/3/2019 Sharron Barry QA MANUAL Current and complete PLAN SHEETS 3rd Party stamped Numbered and/or indexed	
Each plan sheet is numbered and/or indexed		
GENERAL (cover sheet)		
Code References	GE-101	
Statement regarding connection to public utilities	GE-101	
Statement regarding bathrooms if not included	N/A	
Construction type	GE-101	
Occupancy classification	GE-101	
Fire resistance ratings (if required)	GE-101	
Floor live load	GE-101	
Roof live load	GE-101	
Design wind velocity	GE-101	
Seismic information (commercial projects)	GE-101	
Thermal zones	RS-101/GE-101 UNDER GENERAL NOTES	
Notice to inspections department regarding items to be site installed	GE-101	
FLOOR PLANS		
Interior and exterior wall layouts	AP-101	
Door and window schedule	AP-101	
Light and Ventilation requirements	AP-101	
Attic access (size and locaiton)	AP-101	
Non-prescriptive headers	AP-101/Page 23-25 in Calculations	
Safety glazing requirements	ap-101	
Fire rating of Exterior walls (if applicable)	N/A	
EXTERIOR ELEVATIONS		
Exterior materials	EV-101-EV-104/SE-101	
Attic ventilation requirements	SE-101/AP-101/WORKSHEET 1	
PLUMBING		
Plan	PP-101/WP-101	
All fixtures furnished by mfg. shown on plans	PP-101/WP-101/GE-101	
Materials (water supply & distribution, DWV, storm drainage)	PP-101/WP-101	
Supply and waste risers, including DWV system (generic) beneath the building	PP-101/WP-101	
Water heater (type and capacity)	WP-101	



**NORTH CAROLINA
MODULAR PLANS REVIEW CHECKLIST**

PAGE 2 of 3

revised May 2011

Plan Sheet Page # and NOTES

MECHANICAL

Design calculations	BY OTHERS
Installed unit capacity	BY OTHERS
Supply and returns (locations and sizes)	AP-101
Duct sizes	BY OTHERS
Specifications (units, ducts)	BY OTHERS
All appliances furnished by mfg. shown on plans	AP-101/EP-101

ELECTRICAL

Plan	EP-101
Location of all electrical boxes	EP-101
Electrical panel location	EP-101
Note regarding main disconnect (if applicable)	GE-101
Exterior lighting and receptacles	EP-101
Ground level receptacles (if applicable)	BY OTHERS
Smoke detector location(s)	EP-101
Electrical load calculations	EP-101
Electrical panel layout (breaker and wire sizes, circuit schedule)	EP-101
Panel and service entrance sizes	GE-101/EP-101
All fixtures furnished by mfg. shown on plans	EP-101

ACCESSIBILITY

(for other than 1 & 2 family dwellings)

Entrances and means of egress	N/A
Doors, doorways, and door hardware	N/A
Stairs and handrails	N/A
Toilet rooms, plumbing fixtures, grab bars, etc	N/A
Bathrooms and shower rooms	N/A
Occupancy specific requirements	N/A
Multi-family dwellings: Type A and B units	N/A



FLOOR X-SECTION

Joist and beam sizes and spacing	SE-101/Calculation Page 31
Materials species and grade	SE-101/Calculation Page 31
Sheathing, decking, and concrete as applicable	SE-101
Fastening instructions	SE-101
Insulation	SE-101
Details as required for clarification	SE-101

WALL X-SECTION

Stud and column sizes and spacing	SE-101
Materials species and grade	SE-101/Calculation Page 28-29
Sheathing and bracing	AP-101/SE-101
Headers and lintels	AP-101/SE-101
Finishes	AP-101
Fastening instructions	AP-101
Insulation	AP-101
Details as required for clarificaiton	AP-101

**NORTH CAROLINA
MODULAR PLANS REVIEW CHECKLIST**

PAGE 3 of 3

revised May 2011

Plan Sheet Page # and NOTES

CEILING/ROOF X-SECTION

Truss, rafter, and beam spacing	AP-101/TR-101
Lumber species and grade	SE-101/TR-101
Sheathing and decking	SE-101/TR-101
Finishes	SE-101
Fastening instructions	SE-101
Insulation	SE-101
Details including NC sealed truss designs or manual reference	TR-101

FOUNDATION PLAN

Footings, pier, and curtain wall locations and specifications	F-101
X-sections with dimensions	F-101
Anchorage - sill plate to piers and curtain wall	F-102-103
Anchorage - building to sill plate	F-102-103
Anchorage - tie downs (lateral and longitudinal)	N/A
Soil bearing capacity	F-103
Minimum concrete compressive strength	F-103
Mortar type	F-103

Ventilation requirements (with and without vapor barrier)	F-101
Crawl space access requirements	F-101

ENERGY COMPLIANCE

Demonstrate compliance	RS-101
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SET-UP INSTRUCTIONS

Floor and ceiling connections	GE-101/SE-101
Marriage wall connections	N/A
Roof set-up connections	GE-101/SE-101/SET UP MANUAL
Plumbing connections	GE-101/SE-101/SET UP MANUAL
Mechanical connections	GE-101/SE-101/SET UP MANUAL
Electrical connections	GE-101/SE-101/SET UP MANUAL
Fire stopping	GE-101/SE-101/SET UP MANUAL
Air infiltration elimination	GE-101/SE-101/SET UP MANUAL
Notice to inspections department attachment if set-up instructions are by attachment	GE-101/SE-101

ITEMS NOT INSPECTED IN PLANT

List of items not inspected by 3rd. Party	GE-101
Notice to inspections department	GE-101



Inspection Checklist

Energy Code: 2015 IECC



Text in the "Comments/Assumptions" column is provided by the user in the REScheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Pre-Inspection/Plan Review	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
103.1, 103.2 [PR1] ¹	Construction drawings and documentation demonstrate energy code compliance for the building envelope. Thermal envelope represented on construction documents.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
103.1, 103.2, 403.7 [PR3] ¹	Construction drawings and documentation demonstrate energy code compliance for lighting and mechanical systems. Systems serving multiple dwelling units must demonstrate compliance with the IECC Commercial Provisions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
302.1, 403.7 [PR2] ²	Heating and cooling equipment is sized per ACCA Manual S based on loads calculated per ACCA Manual J or other methods approved by the code official.	Heating: Btu/hr _____ Cooling: Btu/hr _____	Heating: Btu/hr _____ Cooling: Btu/hr _____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Foundation Inspection	Complies?	Comments/Assumptions
303.2.1 [FO11] ² 	A protective covering is installed to protect exposed exterior insulation and extends a minimum of 6 in. below grade.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.9 [FO12] ² 	Snow- and ice-melting system controls installed.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:



1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Framing / Rough-In Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.3.4 [FR1] ¹	Door U-factor.	U- ____	U- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values. FACTORY
402.1.1, 402.3.1, 402.3.3, 402.5 [FR2] ¹	Glazing U-factor (area-weighted average).	U- ____	U- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values. FACTORY
303.1.3 [FR4] ¹	U-factors of fenestration products are determined in accordance with the NFRC test procedure or taken from the default table.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
402.4.1.1 [FR23] ¹	Air barrier and thermal barrier installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
402.4.3 [FR20] ¹	Fenestration that is not site built is listed and labeled as meeting AAMA /WDMA/CSA 101/I.S.2/A440 or has infiltration rates per NFRC 400 that do not exceed code limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.5 [FR16] ²	IC-rated recessed lighting fixtures sealed at housing/interior finish and labeled to indicate ≤2.0 cfm leakage at 75 Pa.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
405.2 [FR25] ¹	All ducts in unconditioned spaces or outside the building envelope are insulated to ≥R-6.	R- ____	R- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.5 [FR15] ³	Building cavities are not used as ducts or plenums.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4 [FR17] ²	HVAC piping conveying fluids above 105 °F or chilled fluids below 55 °F are insulated to ≥R-3.	R- ____	R- ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.4.1 [FR24] ¹	Protection of insulation on HVAC piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.6 [FR19] ²	Automatic or gravity dampers are installed on all outdoor air intakes and exhausts.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:



1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Insulation Inspection	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.1 [IN13] ²	All installed insulation is labeled or the installed R-values provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
402.1.1, 402.2.6 [IN1] ¹	Floor insulation R-value.	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i> FACTORY
303.2, 402.2.7 [IN2] ¹	Floor insulation installed per manufacturer's instructions and in substantial contact with the underside of the subfloor, or floor framing cavity insulation is in contact with the top side of sheathing, or continuous insulation is installed on the underside of floor framing and extends from the bottom to the top of all perimeter floor framing members.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
402.1.1, 402.2.5, 402.2.6 [IN3] ¹	Wall insulation R-value. If this is a mass wall with at least ½ of the wall insulation on the wall exterior, the exterior insulation requirement applies (FR10).	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	R-_____ <input type="checkbox"/> Wood <input type="checkbox"/> Mass <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<i>See the Envelope Assemblies table for values.</i> FACTORY
303.2 [IN4] ¹	Wall insulation is installed per manufacturer's instructions.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY

Additional Comments/Assumptions:




1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
402.1.1, 402.2.1, 402.2.2, 402.2.6 [FI1] ¹	Ceiling insulation R-value.	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	R-____ <input type="checkbox"/> Wood <input type="checkbox"/> Steel	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	See the Envelope Assemblies table for values. FACTORY
303.1.1.1, 303.2 [FI2] ¹	Ceiling insulation installed per manufacturer's instructions. Blown insulation marked every 300 ft ² .			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
402.2.3 [FI22] ²	Vented attics with air permeable insulation include baffle adjacent to soffit and eave vents that extends over insulation.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
402.4.1.2 [FI17] ¹	Blower door test @ 50 Pa. <=5 ach in Climate Zones 1-2, and <=3 ach in Climate Zones 3-8.	ACH 50 = ____	ACH 50 = ____	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.4 [FI4] ¹	Duct tightness test result of <=4 cfm/100 ft ² across the system or <=3 cfm/100 ft ² without air handler @ 25 Pa. For rough-in tests, verification may need to occur during Framing Inspection.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.3 [FI27] ¹	Ducts are pressure tested to determine air leakage with either: Rough-in test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the system including the manufacturer's air handler enclosure if installed at time of test. Postconstruction test: Total leakage measured with a pressure differential of 0.1 inch w.g. across the entire system including the manufacturer's air handler enclosure.	____ cfm/100 ft ²	____ cfm/100 ft ²	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.3.2.1 [FI24] ¹	Air handler leakage designated by manufacturer at <=2% of design air flow.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.1.1 [FI9] ²	Programmable thermostats installed for control of primary heating and cooling systems and initially set by manufacturer to code specifications.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY
403.1.2 [FI10] ²	Heat pump thermostat installed on heat pumps.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1 [FI11] ²	Circulating service hot water systems have automatic or accessible manual controls.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.6.1 [FI25] ²	All mechanical ventilation system fans not part of tested and listed HVAC equipment meet efficacy and air flow limits.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	



1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
403.2 [FI26] ²	Hot water boilers supplying heat through one- or two-pipe heating systems have outdoor setback control to lower boiler water temperature based on outdoor temperature.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1.1 [FI28] ²	Heated water circulation systems have a circulation pump. The system return pipe is a dedicated return pipe or a cold water supply pipe. Gravity and thermos-syphon circulation systems are not present. Controls for circulating hot water system pumps start the pump with signal for hot water demand within the occupancy. Controls automatically turn off the pump when water is in circulation loop is at set-point temperature and no demand for hot water exists.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.1.2 [FI29] ²	Electric heat trace systems comply with IEEE 515.1 or UL 515. Controls automatically adjust the energy input to the heat tracing to maintain the desired water temperature in the piping.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.2 [FI30] ²	Water distribution systems that have recirculation pumps that pump water from a heated water supply pipe back to the heated water source through a cold water supply pipe have a demand recirculation water system. Pumps have controls that manage operation of the pump and limit the temperature of the water entering the cold water piping to 104°F.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
403.5.4 [FI31] ²	Drain water heat recovery units tested in accordance with CSA B55.1. Potable water-side pressure loss of drain water heat recovery units < 3 psi for individual units connected to one or two showers. Potable water-side pressure loss of drain water heat recovery units < 2 psi for individual units connected to three or more showers.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
404.1 [FI6] ¹	75% of lamps in permanent fixtures or 75% of permanent fixtures have high efficacy lamps. Does not apply to low-voltage lighting.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
404.1.1 [FI23] ³	Fuel gas lighting systems have no continuous pilot light.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
401.3 [FI7] ²	Compliance certificate posted.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY

1 High Impact (Tier 1)	2 Medium Impact (Tier 2)	3 Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection Provisions	Plans Verified Value	Field Verified Value	Complies?	Comments/Assumptions
303.3 [FI18] ³	Manufacturer manuals for mechanical and water heating systems have been provided.			<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	FACTORY

Additional Comments/Assumptions:



1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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4055 HIGHWAY 401 SOUTH
LILLINGTON, NC 27546

130 Vult MAX

SHEET INDEX

CP-101 COVER SHEET
 GE-101 GENERAL NOTES
 L-101 LITERATURE PLAN
 EV-101 ELEVATIONS
 EV-102 ELEVATIONS
 EV-103 ELEVATIONS
 EV-104 ELEVATIONS
 AP-101 FLOOR PLAN
 AP-102 OPTIONS
 AP-201 STRUCTURAL BRACING
 AP-202 STRUCTURAL BRACING DETAILS
 AP-203 STRUCTURAL BRACING DETAILS
 EP-101 ELECTRICAL PLAN
 PP-101 DWV PLAN OFF-FRAME

SHEET INDEX-CONT.

WP-101 WATER LINE PLAN
 SE-101 SECTION PLAN OFF-FRAME
 F-101 PERIMETER FOUNDATION PLAN
 F-102 PERIMETER FOUNDATION DETAILS
 F-103 PERIMETER FOUNDATION DETAILS
 RESCHECK

APPENDIX E (USED FOR NON ATTIC DECKING THERMAL REQUIREMENTS)
 WORK SHEET 1 VENT CALCS
 WORK SHEET 2 BRACE WALLS CALCS

* SHEARWALL CALCULATIONS SHEETS SECTION 6 PAGES 1-31 (5/12)
 SHEARWALL CALCULATIONS SHEETS SECTION 8 PAGES 1-30 (7/12)

"23-3264-01"
 3 BEDROOM 2 BATH
 1941 SQ. FT.

A HOME DESIGNED FOR:

* ANY COUNTY THAT MEETS REQUIREMENTS
 OF GE-101.

* SEE GE-101 FOR MAXIMUM WIND SPEED



PFS CORPORATION

Approval Limited to Factory Built Portion Only

State: North Carolina

Signature: *Sharon Barry*

Title: Staff Plan Reviewer

Date: 10/10/19

CHAMPION

4055 HWY. 401 SOUTH LILLINGTON, NC 27546

PROJECT

TITLE: COVER SHEET

MODEL: 023-3264-01
BELLE VUE

30'-4" B44F 3 BEDROOM 2 BATH

DATE: 11-08-2012

SCALE:

DRAWN BY: STAFF

REVISER:

REVISIONS:

SHEET NO:

CP-101

PAGE:

THIS MODEL NOT DESIGNED FOR OCEAN HIGH HAZARD AREAS OR SPECIAL MOUNTAIN REGIONS OR FLOOD ZONES OR SPECIAL WIND REGIONS.

CP-1 Revised or Added page per PFS review of 10-03-19

GENERAL:	ELECTRICAL:	PLUMBING:	MECHANICAL:	ENERGY:
NC CODES 2018 NC RESIDENTIAL CODE WITH CURRENT NC AMENDMENTS	2017 NC ELECTRICAL CODE WITH CURRENT NC AMENDMENTS	2018 NC PLUMBING CODE FROM 2012 NC RESIDENTIAL CODE	2018 NC MECHANICAL CODE FROM 2012 NC RESIDENTIAL CODE	2018 NORTH CAROLINA ENERGY CONSERVATION CODE WITH CURRENT NC AMENDMENTS
<p>2018 IECC for REScheck, used for code compliance (with attic reroofing) * N1102.1.2 and Appendix E used for code compliance (without attic decking)</p>				

ATTENTION LOCAL INSPECTIONS DEPARTMENT

THE FOLLOWING ITEMS HAVE NOT BEEN COMPLETED BY CHAMPION HOMES. HAVE NOT BEEN INSPECTED BY STATE MODULAR CERTIFICATION LABEL CODE COMPLIANCE MUST BE DETERMINED AT THE LOCAL LEVEL.

SITE CONNECTION OF ROOFS, FLOORS, WALLS (setup manual) pages 11-13, pages AP-101, SE-101-102, CALCULATION SHEETS (in plan set)

FOUNDATIONS, PORCHES, DECKS, EXTERIOR STAIRS

4X10 REGISTER BOOT PROVIDED IN TYPICAL LOCATIONS (SEE AP-101)

ELECTRICAL CONNECTIONS ON SITE (pages 26-28 setup manual), PLUMBING CONNECTIONS ON SITE (pages 23-25 setup manual).

TRUNKLINE, MANUAL D & J BY OTHERS ON SITE, DRYER VENTING BY OTHERS (page 20 setup manual).

- * BLOWER DOOR TEST TO BE COMPLETED BY OTHERS ON SITE.
- ** ON BASEMENT ENTRY HOMES, FLOOR INSULATION IS NOT PROVIDED BY FACTORY.
- ALL BASEMENT WORK, INCLUDING FOUNDATION DESIGN, STAIRS, HVAC AND CONNECTION OF SMOKE DETECTOR AND REQUIRED OUTLETS, DONE BY OTHERS.
- PROVISIONS FOR EGRESS FROM BASEMENT MUST BE PROVIDED ON SITE BY OTHERS.
- ALL ENERGY COMPLIANCE FOR BASEMENTS MUST BE DONE ON SITE BY OTHERS.
- * RODENT PROOFING TO BE COMPLETED ON-SITE BY OTHERS PER RP-101 (IN HOME OWNERS PACKET)
- IN WINDBORNE DEBRIS AREAS, WINDOW/DOOR PROTECTION PROVIDED BY OTHERS PER LOCAL CODE
- ANY SITE INSTALLED ATTIC ACCESS SHOWN ON AP-101
- NO SPRINKLER SYSTEMS REQUIRED FOR UNIT. A FIRE EXTINGUISHER TO BE PROVIDED ON SITE BY OTHERS
- ** SEE ENERGY CODE INSPECTION CHECKLIST FOR FACTORY COMPLETED ITEMS AND SITE COMPLETED ITEMS**
- ** ALL FALL PROTECTION DEVICES REQUIRED PER R612.2, MUST BE INSTALLED ON SITE BY OTHERS**

ATTENTION LOCAL INSPECTIONS DEPARTMENT

SET-UP INSTRUCTIONS ARE INCLUDED ON THE PLAN SHEETS & IN SET-UP MANUAL INCLUDED IN HOMES.

ATTENTION LOCAL INSPECTIONS DEPARTMENT

IF THESE PLANS ARE SET ON A THERMAL ZONE MORE STRINGENT THAN THAT LISTED ON COASTAL HIGH HAZARD SITE SUCH THAT WIND OR OTHER DESIGN PARAMETERS ARE INCORPORATED INTO THE DESIGN, ALTERATIONS MAY BE REQUIRED TO BRING THE HOME INTO COMPLIANCE WITH THE MORE STRINGENT CONDITIONS.

DESIGN INFORMATION

OCCUPANCY	SINGLE FAMILY
CONSTRUCTION TYPE	VB UNP
MAXIMUM WIND SPEED	130 MPH Valt
WIND EXPOSURE	C
SEISMIC CATEGORY	C
FLOOR LIVE LOAD	40 PSF
2ND FLOOR LIVE LOAD (for homes with fixed walkup stairs/cases)	30 PSF
FLOOR DEAD LOAD	10 PSF
ROOF LIVE LOAD	20 PSF STANDARD 30 PSF OPTIONAL
ROOF DEAD LOAD	10 PSF
GROUND SNOW LOAD	30 PSF
FIRE RATING EXT WALL	0 Hrs.
TENANT SEPARATION	0 Hrs.
MAX MEAN ROOF HT.	20.00'

MECHANICAL NOTES

- * FACTORY INSTALLED SUB PANEL BOX SHALL HAVE 2" MIN. CONDUIT FOR WIRE FEEDERS
- * MECHANICAL NOTES
- * EXCEPT WHERE OTHERWISE SPECIFIED INTERIOR DOORS SHALL BE UNDERCUT 1" MIN ABOVE FINISHED FLOOR FOR AIR RETURN
- * BATHROOMS SHALL BE PROVIDED WITH A MINIMUM OF .35 AIR CHANGE EVERY HOUR.
- * BATH VENT FANS SHALL BE DUCTED TO THE EXTERIOR AND TERMINATE AT AN APPROVED VENT CAP
- * OUTSIDE EXHAUST INTAKES SHALL BE WITH DESIGNED AND INSTALLED BY OTHERS
- * ALL DUCTS SHALL HAVE A MIN. OF R-4 INSULATION
- * ALL REGISTER BOOT SHALL BE TAPED OR SEALED OTHERWISE.
- * ALL RETURN GRILLS BY FACTORY UNLESS SPECIFIED OTHERWISE SHALL BE VERIFIED BY OTHERS WITH SITE PROVIDED MANUAL D & J.
- * OPTIONAL FURNACE (W/ BEAM) TO BE VERIFIED BY OTHERS FOR OPTIMAL EFFICIENCY, A HEAT PUMP SHOULD BE INSULATED.
- * ON-SITE PLUMBING CONNECTIONS:
- FOR SITE CONNECTIONS REFER TO SECTION DRAWINGS, FOUNDATION PLANS, AND THE DOWN PLAN (ON-FRAME)
- * ON-SITE ELECTRICAL CONNECTIONS:
- MULTI-SECTION UNITS WILL HAVE THE ELECTRICAL CROSSOVERS LOCATED EITHER IN THE END WALLS NEAR THE CENTER OF THE UNIT, LOCATE THE JUNCTION BOXES OR MARKED FOR EASY IDENTIFICATION, DO NOT INTERCONNECT CIRCUITS OR CROSS CONDUCTORS.
- * WATER LINES:
- LOCATE AND CONNECT WATERLINE CROSS-OVERS LOCATED UNDER THE FLOOR AT THE MARRIAGE LINE, TURN DRAIN LINES ON AND CHECK FOR LEAKS.
- * CONNECT DRAIN DROPOUTS TO THE MAIN DRAIN, BE SURE ALL CONNECTIONS ARE MADE TO COMPLY WITH LOCAL PLUMBING CODES.
- * TWO STORY DESIGNS:
- ADDITIONAL VERTICAL CONNECTIONS SEE PLAN SHEETS FOR LOCATIONS AND ACCESS POINTS
- * INTEGRITY OF MARRIAGE LINE RIDGE BEAM SHALL NOT BE COMPROMISED UNLESS SPECIFICALLY DESIGNED FOR AND SHOWN ON APPROVED DRAWINGS.
- * ON-SITE GAS DISCONNECT AND CONNECT LOCATE GAS DISCONNECT AND CONNECT TO THE FLOOR AT THE MARRIAGE LINE. THE "QUICK DISCONNECT" IS LOCATED UNDER THE TIGHT AND HAVE BEEN CHECKED FOR LEAKS.

ELECTRICAL NOTES

- * ALL PLUMBING FIXTURES/PIPING SHALL COMPLY WITH SECTIONS: P2908, P2701 & TABLES P2701.1, P2904.1, & P2904.6 OF INTERNATIONAL PLUMBING CODE AND TABLES P2904.1, & P2904.6 OF INTERNATIONAL PLUMBING CODE AND TABLES P2904.1, & P2904.6 OF NORTH CAROLINA PLUMBING CODE.
- * ALL TUBS AND SHOWER SHALL HAVE TEMPERATURE LIMITING VALVES PER IRC AND NC PLUMBING.
- * ELECTRICAL NOTES
- * ALL CIRCUITS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE APPROPRIATE ARTICLES OF THE NATIONAL ELECTRIC CODE (NEC).
- * WIRELESS TV ANTENNAS BE INSTALLED IN THE SHARED SERVICE AREA
- * MOUNTED OR INCISED, INCADESCENT FIXTURES SHALL SURFACE MOUNTED INCANDESCENT FIXTURES SHALL HAVE A MINIMUM OF 12 INCHES AND ALL OTHER FIXTURES SHALL HAVE A CLEARANCE OF 6 INCHES FROM STORAGE AREAS AS DEFINED BY NEC 410-16(C)
- * WHEN WATER HEATERS, DISH WASHERS, AND REFRIGERATORS ARE INSTALLED, THEY SHALL BE PROVIDED WITH READY ACCESSIBLE DISCONNECTS. THE BRANCH CIRCUIT SWITCH OR CIRCUIT BREAKER SHALL BE PERMITTED TO SERVE THE DISCONNECTING MEANS ONLY WHERE THE SWITCH OR CIRCUIT BREAKER IS LOCATED IN ANY SPECIAL MOUNTAIN REGION OR OPEN POSITION.
- * HVAC EQUIPMENT SHALL BE PROVIDED WITH DISCONNECTING MEANS LOCATED ADJACENT TO THE EQUIPMENT SERVED, A UNIT SWITCH WITH A MARKED "OFF" POSITION THAT IS PART OF THE HVAC EQUIPMENT AND DISCONNECTS ALL UNGROUNDED CONDUCTORS SHALL BE PERMITTED AS THE DISCONNECTING MEANS LOCATED ADJACENT TO THE EQUIPMENT SHALL ALSO PROVIDED BY A READY ACCESSIBLE CIRCUIT BREAKER.
- * PRIOR TO ENERGIZING THE ELECTRICAL SYSTEM THE INTERRUPTING RATING OF THE MAIN BREAKER MUST BE DESIGNED AND VERIFIED AS BEING IN COMPLIANCE WITH SECTION 110-9 OF THE NEC BY LOCAL ELECTRICAL CONSULTANT.
- * THE MAIN ELECTRICAL PANEL(DISCONNECT) AND FEEDERS ARE DESIGNED BY OTHERS, SITE TO BE INSTALLED TO LOCAL JURISDICTION APPROVAL.
- * SMOKE DETECTORS SHALL BE WIRED SO THAT THE OPERATION OF ANY ONE SMOKE DETECTOR WILL CAUSE SIMULTANEOUS ACTIVATION OF ALL OTHERS.
- * ALL CIRCUITS CROSSING OVER MODULE MATING LINES SHALL BE SITE CONNECTED IN APPROVED ACCESSIBLE JUNCTION BOXES OR WITH APPROVED CABLE CONNECTIONS.
- * ANY STRIP RECEPT MOUNTED BENEATH COUNTER SHALL BE WITHIN 6" OF THE EDGE
- * ALL BRANCH CIRCUITS SUPPLYING 15 & 20 AMPRE OUTLETS IN LIVING AREAS ARE PROTECTED IN ACCORDANCE WITH SECTION 210.72, NEC
- * ALL ELECTRICAL FIXTURES/WIRING SHALL COMPLY WITH SECTION E3303.3 (SC & VAL) VARIETY TO PROVIDE WATER RESISTANT FOR ANY "MOBILE" WORKSTATION IF IT IS PERMANENTLY MOUNTED.

PLUMBING NOTES

- * THIS UNIT MUST BE CONNECTED TO PUBLIC SEWER AND SEWAGE SYSTEM IF THE SEWER SERVICE IS AVAILABLE.
- * ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
- * WATER HEATER SHALL HAVE A SAFETY PAN WITH 1 INCH DRAIN TO EXTERIOR.
- * WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE INSULATED WITH AN INSULATION OF R-4.5 MINIMUM.
- * DWV SYSTEM SHALL EITHER BE PVC-DWV POLYETHYLENE (PEX) OR COPPER, WHEN POLYETHYLENE (PEX) SUPPLY LINES ARE INSTALLED THE MAXIMUM WATER HEATER SETTING IS 180 deg F. THE POLYETHYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS LIMITATIONS AND INSTRUCTIONS.
- * ALL PIPING AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS, SUBJECT TO LOCAL JURISDICTION APPROVAL.
- * TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE NOTED.
- * SHOWER STALLS SHALL BE COVERED WITH NON-ABSORBANT MATERIAL TO A HEIGHT OF 72 INCHES ABOVE FINISH FLOOR.
- * T&P RELIEF VALVE W/RAIN TO EXTERIOR SUPPLY WATER HEATER.
- * WATER HAMMER ARRESTERS SHALL BE INSTALLED AT EACH QUICK CLOSING VALVE IN ICE MAKERS, DISH WASHERS, AND CLOTHES WASHERS WHEN ON G.C. 10/27/21.
- * WATER HEATERS (WHEN ON G.C. 10/27/21)

APPROVAL STAMP

Approval Limited to Factory Built Portion Only

State: North Carolina

Signature: *Raymond Barry*

Title: Staff Plan Reviewer

Date: 10/10/19

APPROVAL STAMP

ALL OPERABLE WINDOWS TO INCLUDE INSECT SCREENS, ALL PATIO AND TRIUM DOORS TO INCLUDE INSECT SCREENS. IF HOME IS EQUIPPED WITH WOOD BURNING FIREPLACE, SEE PAGE 22 OF SET UP MANUAL AND MANUFACTURERS INSTALLATION MANUAL FOR REQUIRED SITE INSTALLATION. VIRGINIA MODS TO HAVE ICE DAM PROTECTION AS REQUIRED BY STATE/LOCAL CODES.

APPROVAL STAMP

ALL OPERABLE WINDOWS TO INCLUDE INSECT SCREENS, ALL PATIO AND TRIUM DOORS TO INCLUDE INSECT SCREENS. IF HOME IS EQUIPPED WITH WOOD BURNING FIREPLACE, SEE PAGE 22 OF SET UP MANUAL AND MANUFACTURERS INSTALLATION MANUAL FOR REQUIRED SITE INSTALLATION. VIRGINIA MODS TO HAVE ICE DAM PROTECTION AS REQUIRED BY STATE/LOCAL CODES.

DESIGN INFORMATION

OCCUPANCY	SINGLE FAMILY
CONSTRUCTION TYPE	VB UNP
MAXIMUM WIND SPEED	130 MPH Valt
WIND EXPOSURE	C
SEISMIC CATEGORY	C
FLOOR LIVE LOAD	40 PSF
2ND FLOOR LIVE LOAD (for homes with fixed walkup stairs/cases)	30 PSF
FLOOR DEAD LOAD	10 PSF
ROOF LIVE LOAD	20 PSF STANDARD 30 PSF OPTIONAL
ROOF DEAD LOAD	10 PSF
GROUND SNOW LOAD	30 PSF
FIRE RATING EXT WALL	0 Hrs.
TENANT SEPARATION	0 Hrs.
MAX MEAN ROOF HT.	20.00'

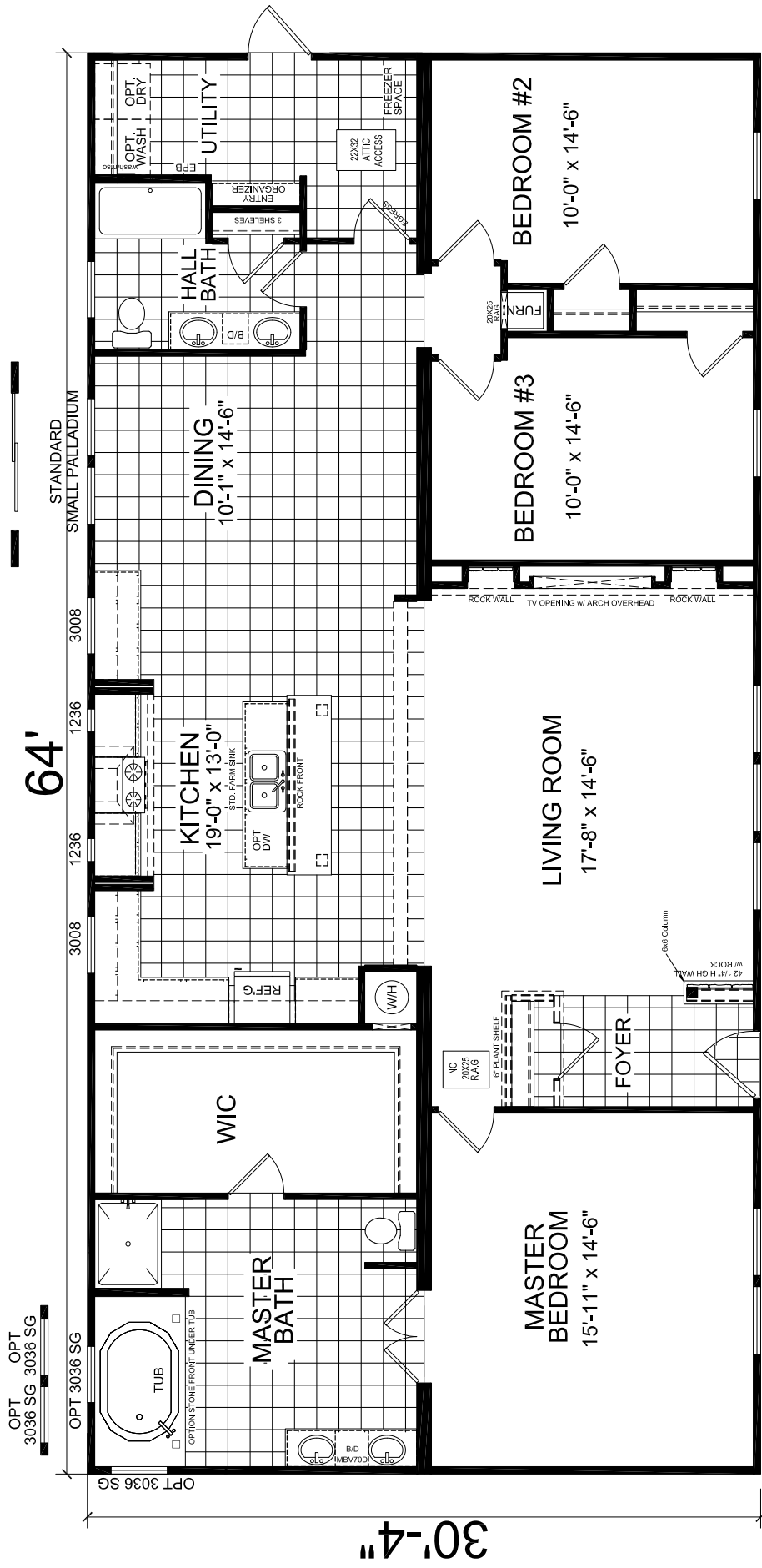
NOTE: ALL HIGH WIND DESIGNS, CONSTRUCTION, FASTENING, ETC. BUILT PER CALCULATION MANUAL OR SPECIFIC ENGINEERING (MEETING OR EXCEEDING CHAPTER 45-NC)

PROJECT

PFS CORPORATION
DATE: 10/10/19
APPROVED
Sharon Barry
Cottage Grove, WI

TITLE:	LITERATURE PLAN
MODEL:	023-3264-01
PROJECT:	BELLE VUE
DATE:	11-08-2012
SCALE:	3/8" = 1'-0"
DRAWN BY:	STAFF
REVISIONS:	

MODEL 23-3264-01
BELLE VUE
CHATEAU SERIES
3 BDRM, 2 BATH
ACTUAL SIZE: 64'-0" X 30'-4"
TOTAL AREA: 1941 SQ.FT.

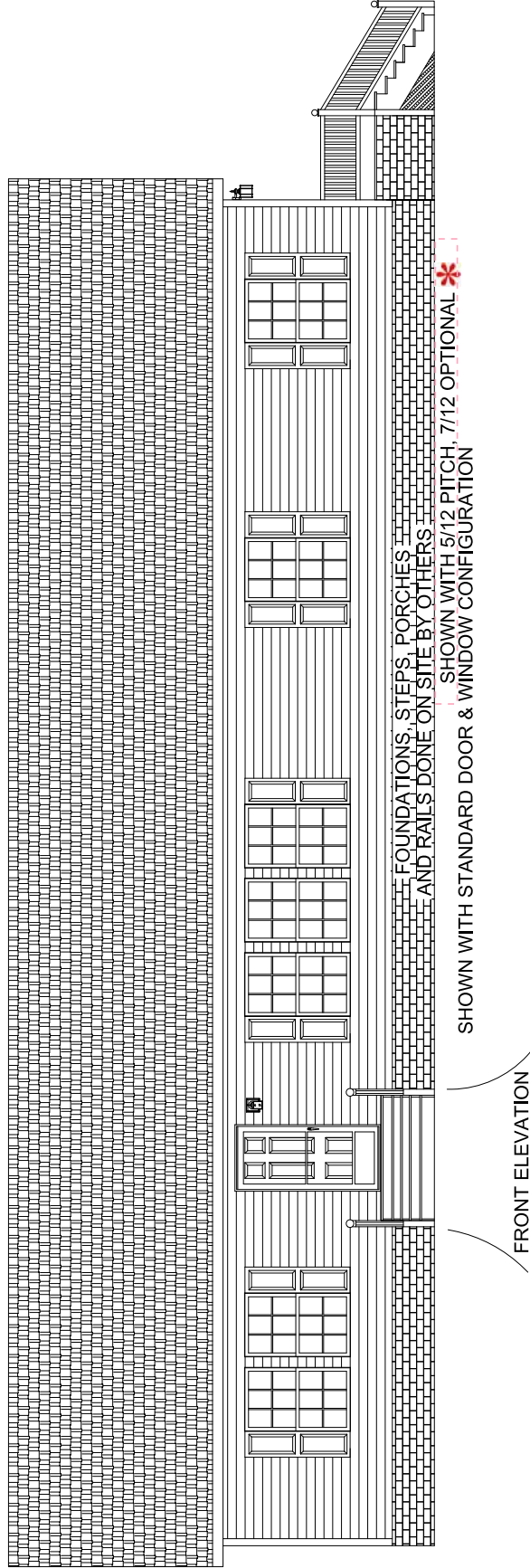


MATERIALS AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE FOR PRODUCTION AND CODE PURPOSES. ALL DIMENSIONS ARE NOMINAL AND APPROXIMATE. SQUARE FOOTAGE IS MEASURED FROM EXTERIOR WALL TO EXTERIOR WALL AND IS AN APPROXIMATE FIGURE. THIS DRAWING IS A RENDERING AND IS MEANT FOR SALE PURPOSES ONLY.

PROJECT

APPROVED  **DATE 10/10/19**
PFS CORPORATION
 Cottage Grove, WI
 Approval Limited to Factory Built Portion Only

TITLE	ELEVATIONS
MODEL:	023-3264-01
	BELLE VUE
	30'-4" x 64'-0" 3-BEDROOM BATH
DATE:	11-26-2012
SCALE:	N.T.S.
DRAWN BY:	STAFF
REVISIONS:	
SHEET NO.:	EV-101
PAGE:	

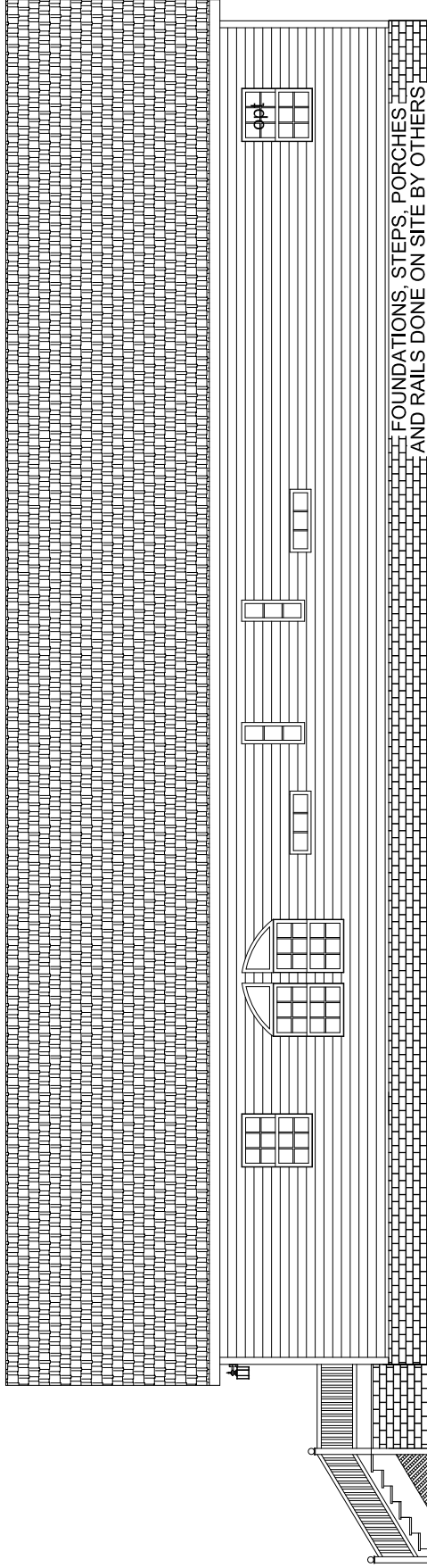


PROJECT

APPROVED
Sharon Berry
DATE 10/10/19
PFS CORPORATION
Cottage Grove, WI
Approval Limited to Factory Built Portion Only

TITLE	ELEVATIONS
MODEL:	023-3264-01
	BELLE VUE
	30'-4" x 64'-0" 3. BEDROOM 2 BATH
DATE:	11-26-2012
SCALE:	N.T.S.
DRAWN BY:	STAFF
REVISIONS:	REVISIONS
SHEET NO.:	EV-102
PAGE:	

RIDGE VENT COMPOSITE SHINGLE

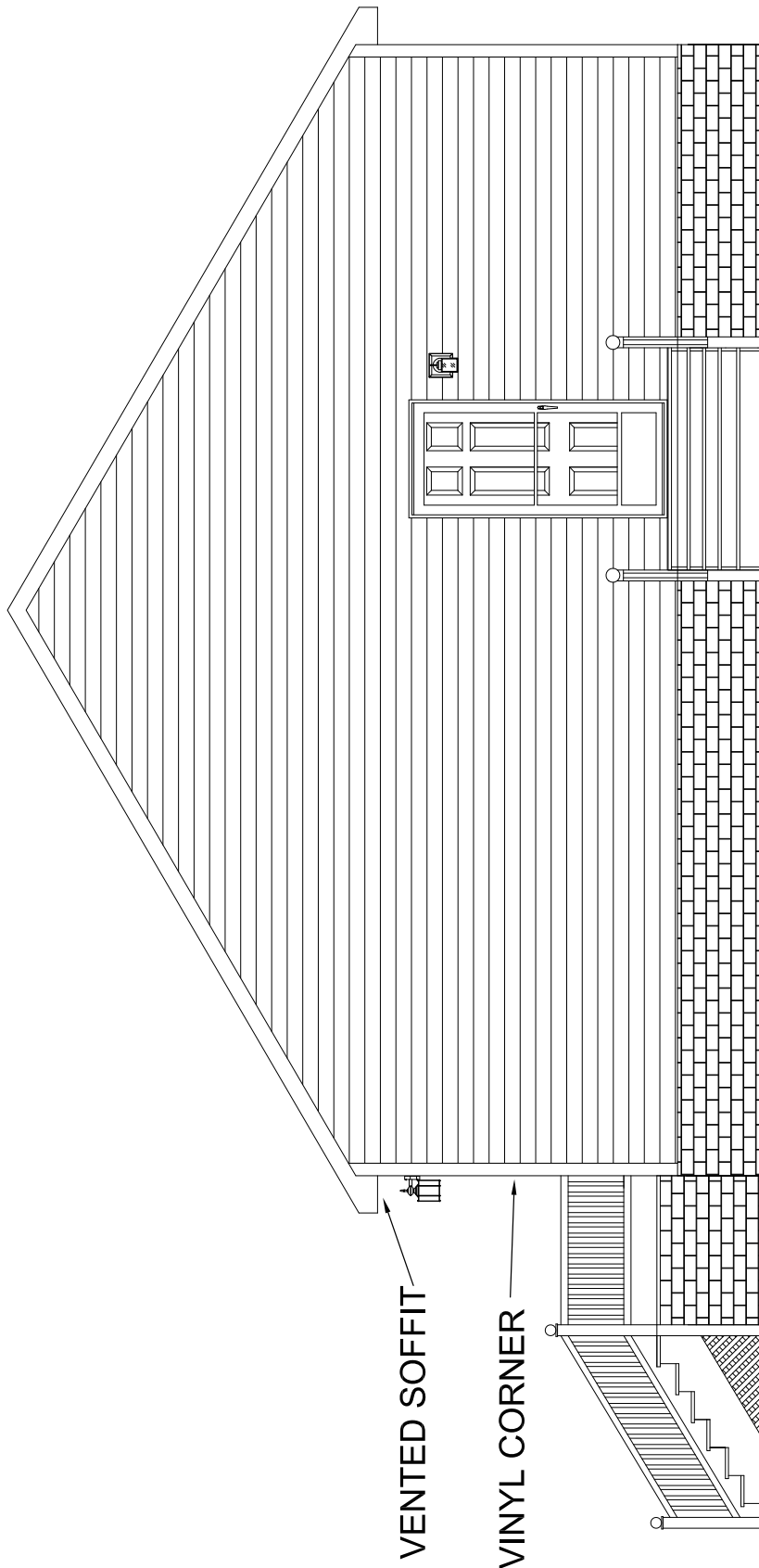


REAR ELEVATION

PROJECT

PFS
APPROVED
Sharon Berry
DATE: 10/10/19
PFS CORPORATION
Cottage Grove, WI
Approval Limited to Factory Built Portion Only

TITLE: ELEVATIONS
MODEL: 023-3264-01
BELLEVUE
3B+1, 6B+2, 3 BEDROOM 2 BATH
DATE: 11-28-2012
SCALE: NTS
DRAWN BY: STAFF
REVISIONS:
SHEET NO.: EV-103
PAGE:



RIGHT ELEVATION

FOUNDATIONS, STEPS, PORCHES
AND RAILS DONE ON SITE BY OTHERS

PROJECT

PFS
APPROVED
Sharon Berry
DATE 10/10/19
PFS CORPORATION
Cottage Grove, WI
Approval Limited to Factory Built Portion Only

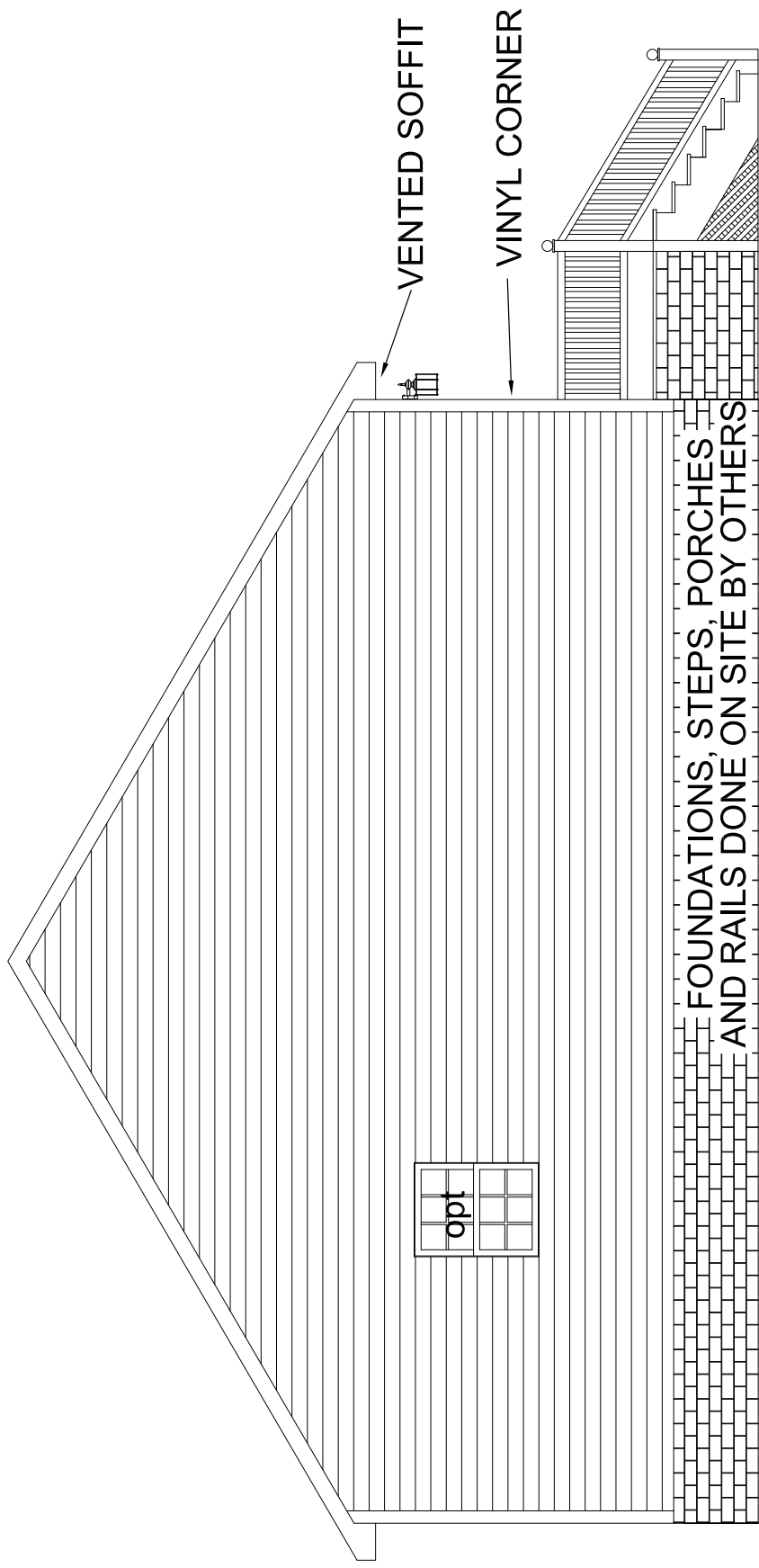
TITLE
ELEVATIONS

MODEL: 023-3264-01
BELLEVUE
30'-4" x 64'-0" 3: BEDROOM 2 BATH
DATE: 11-26-2012
SCALE: NTS
DRAWN BY: STAFF
REVISED:
REVISIONS:

SHEET NO.:

EV-104

PAGE:



LEFT ELEVATION

PROJECT



TITLE	FLOOR PLAN
MODEL	023-3264-01
PROJECT	BEYOND VALUE
DATE	11/09/2012
SCALE	3/16" = 1'-0"
DRAWN BY	STAFF
REVISIONS	

SHEET NO. **AP-101**

DATE 10/10/19

MANUFACTURER	DESCRIPTION	CLARING SQ. FT.	SEAMING SQ. FT.	SHEEN PRESSURE	WINDOW SCHEDULE	DOOR SCHEDULE	COLUMN SUPPORT	AREA
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	1 30" x 80" EXTERIOR	1-2M's	1st FLOOR
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	2 30" x 70" EXTERIOR	2-2M's	1941 SQ. FT
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	3 30" x 70" EXTERIOR	3-2M's	2nd FLOOR
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	4 30" x 70" EXTERIOR	4-2M's	N/A
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	5 72" x 80" SG GLASS DOOR	5-2M's	GLAZING
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	6 48" x 80" BIFOLD	6-2M's	158.0 SQFT
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	7 60" x 80" BIFOLD	7-2M's	
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	8 74" x 80" ATRIUM DOOR	8-2M's	
3036 SG	3036 SG	12.2	12.2	5.14	3036 SG	9 30" x 80" INTERIOR	9-2M's	

15KW Nordyne EG Furnace with 53,000 Btu/h provided by Champion Homes. The builder to provide HVAC layout and Manual D and J to be approved and inspected by local jurisdiction. Furnace may be omitted and return air(s) installed instead.

SEE ATTACHED WORKSHEET 2 FOR SHEARWALL PAGE NUMBER REFERENCES TRUSSES LOCATED IN ATTACHED CALCULATIONS. SECTION 6 PAGES 1 FOR 5/12 TRUSSES LOCATED IN ATTACHED CALCULATIONS. SECTION 8 PAGES 1 FOR 7/12

ALL BEAMS REFERENCED TO ATTACHED CALCULATION SHEETS SECTION 6 PAGE 15 AS PREPARED BY BARLOW ENGINEERING

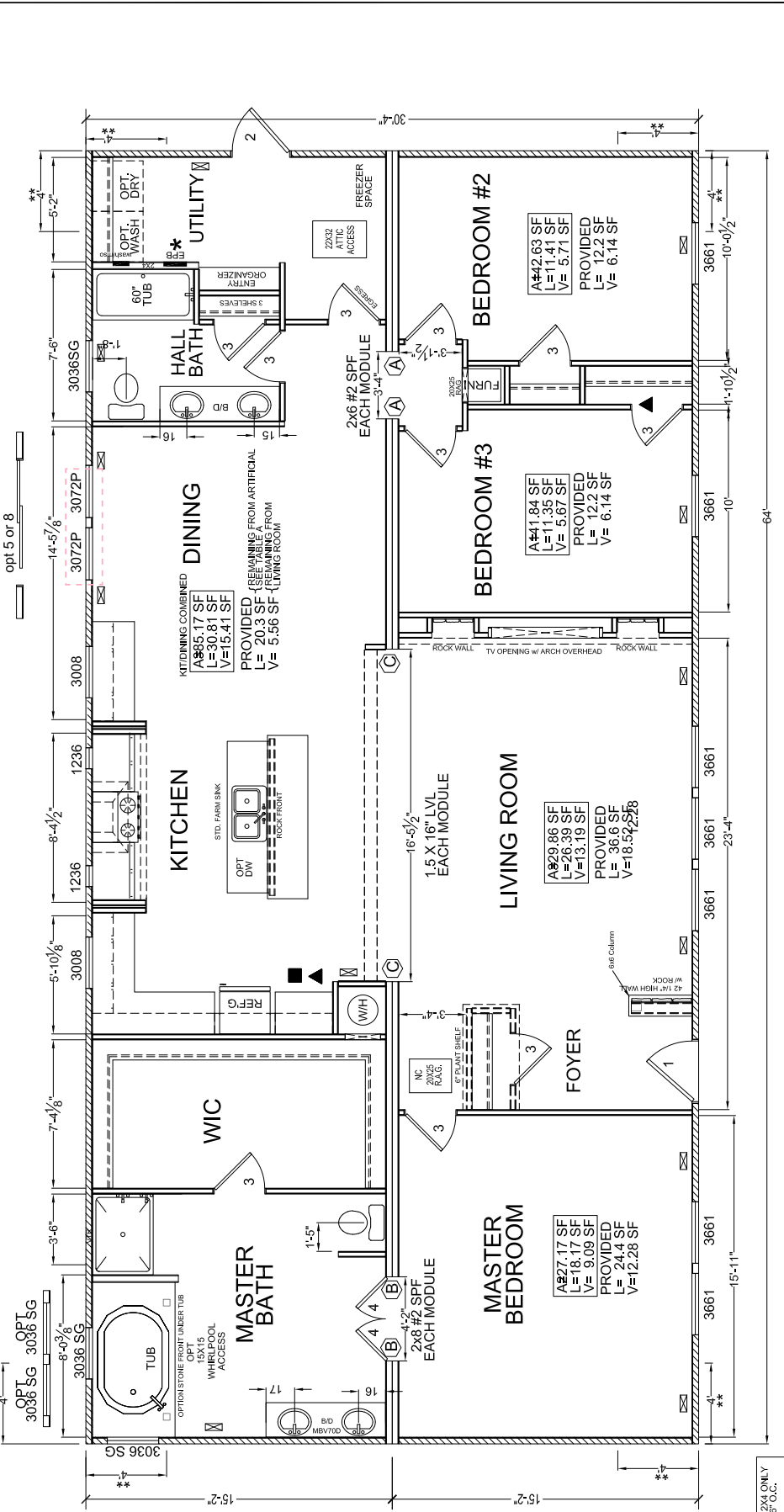
LIVE LOAD (L240) = 198 PLF * TOTAL LOAD (L198) = 387 PLF * 5/12 used for worst case

4x10 REGISTER (12" O.C. STUDS W/ 9" 2x4 ONLY ALL OTHER, 16" O.C.)

DATA PLATE

ENERGY CERTIFICATION LABEL

ATTIC VENTILATION: SEE WORKSHEET #1 CALCULATIONS DRYER VENT TO BE INSTALLED ONSITE



CP-2 Revised or Added page per PFS review of 08-02-19

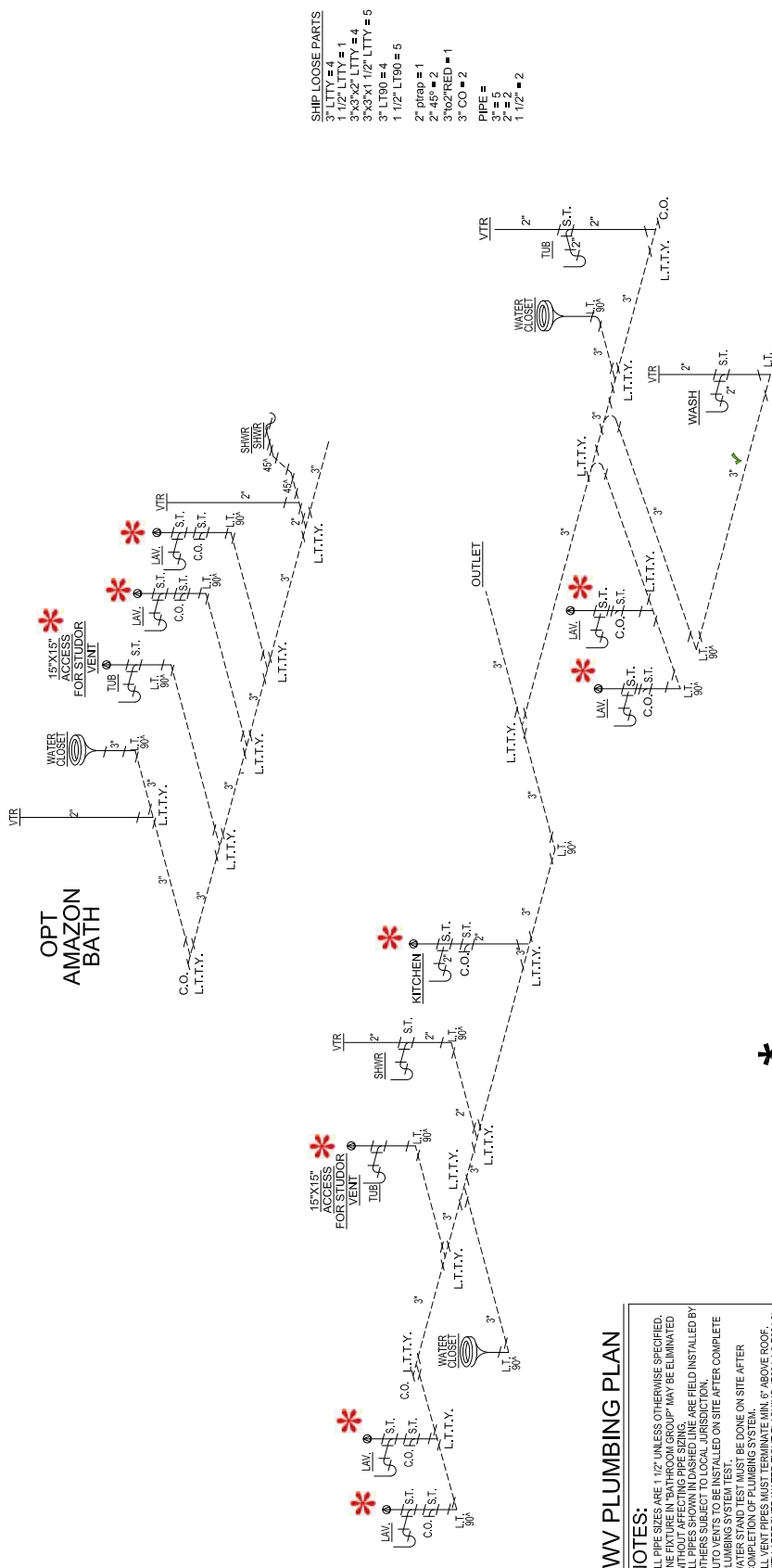
12" O.C. STUDS W/ 9" 2x4 ONLY ALL OTHER, 16" O.C.

PROJECT

APPROVED
 DATE 10/10/19
 PFS CORPORATION
 Sherron Barry
 Cottage Grove, WI

TITLE: DWV PLAN
 OFF-FRAME
 MODEL: 023-3264-01
 BELLE VUE
 30'-4" x 64'-0" 3-BEDROOM BATH
 DATE: 11-26-2012
 SCALE: NTS
 DRAWN BY: STAFF
 REVISIONS:

SHEET NO.: PP-101
 PAGE:



- SHIP LOOSE PARTS
- 3" L.T.T.Y. = 4
 - 1 1/2" L.T.T.Y. = 1
 - 3" S.T. = 4
 - 3" x 3" x 1" 1/2" L.T.T.Y. = 5
 - 3" L.T.T.Y. = 4
 - 1 1/2" L.T.T.Y. = 5
 - 2" pitrap = 1
 - 2" 45° = 2
 - 3" 90° RED = 1
 - 3" CO = 2
- PIPE =
- 3" = 5
 - 2" = 2
 - 1 1/2" = 2

PIPE SUPPORT TO BE AS FOLLOWS:
MAX HORIZONTAL SPACING = 4'
MAX VERTICAL SPACING = 10'

REFERENCE: TABLE 300.5

DWV PLUMBING PLAN

- NOTES:**
- 1-ALL PIPE SIZES ARE 1 1/2" UNLESS OTHERWISE SPECIFIED.
 - 2-ONE FIXTURE IN "BATHROOM GROUP" MAY BE ELIMINATED.
 - 3-ALL PIPES SHOWN IN DASHED LINE ARE FIELD INSTALLED BY OTHERS SUBJECT TO LOCAL JURISDICTION.
 - 4-AUTO VENTS TO BE INSTALLED ON SITE AFTER COMPLETE PLUMBING SYSTEM TEST.
 - 5-RODENT STOPPING SHALL BE DONE ON SITE AFTER COMPLETION OF PLUMBING SYSTEM.
 - 6-ALL VENT PIPES MUST TERMINATE MIN. 6" ABOVE ROOF.
 - 7-IF HOME LOCATED IN AREA WHERE 97.5% FOR OUTSIDE EXPOSURE SHALL BE MIN. 3". THIS TO BE DONE ON SITE BY OTHERS. (P994.2)
 - 8-RODENT STOPPING AT ALL SHOWERS, TUBS, TUBSHOWER TO BE COMPLETED ON SITE BY OTHERS AFTER PLUMBING TEST COMPLETED.

SEE O/A MANUAL FOR APPROVED PLUMBING FIXTURES SECTION 4 PAGE 5

****ATTN. LOCAL BUILDING OFFICIAL****

ALL P-TRAPS AT TUBS, SHOWERS & TUB/SHOWERS MUST BE RODENT PROOFED AND FINAL DRAFT STOPPING COMPLETED ON SITE BY OTHERS AFTER COMPLETION OF ALL PLUMBING TESTS. ALL OTHER RODENT STOPPING AND DRAFT STOPPING AT FLOOR LEVEL DONE AT FACTORY.

SEE PAGE AE-101 IN SETUP MANUAL IN HOME FOR DETAILS (SECTION 5, PG 36 GA MANUAL).

- ① 1 1/2" PVC OR ABS
- ② 2" PVC OR ABS
- ③ 3" PVC OR ABS
- Ⓢ APPROVED AUTOVENT
- S/O STUB OUT
- VTR VENT THROUGH ROOF
- INSTALLED ON SITE

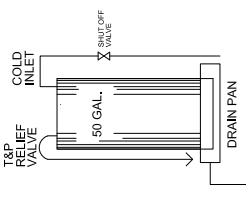
PROJECT



TITLE:	WATER LINE PLAN
MODEL:	023-3264-01
	BELLE VUE
	30'-4" x 6'-4" 3. BEDROOM 2 BATH
DATE:	11-28-2012
DRAWN BY:	NYS
REVISIONS:	
SHEET NO.:	WP-101
PAGE:	

WATER HEATER SECURED IN PLACE FOR TRANSIT WITH METAL SHIPPING STRAPS FROM WALL TO WALL

STATE WATER HEATER
MODEL # SC 152 DORTE 3 (ELECTRIC)
COT1084 IM 50 NHDST 2 (GAS)
MANUFACTURER LOCATED
IN CO. MANUAL SECTION 4,
PAGE 04.01.01

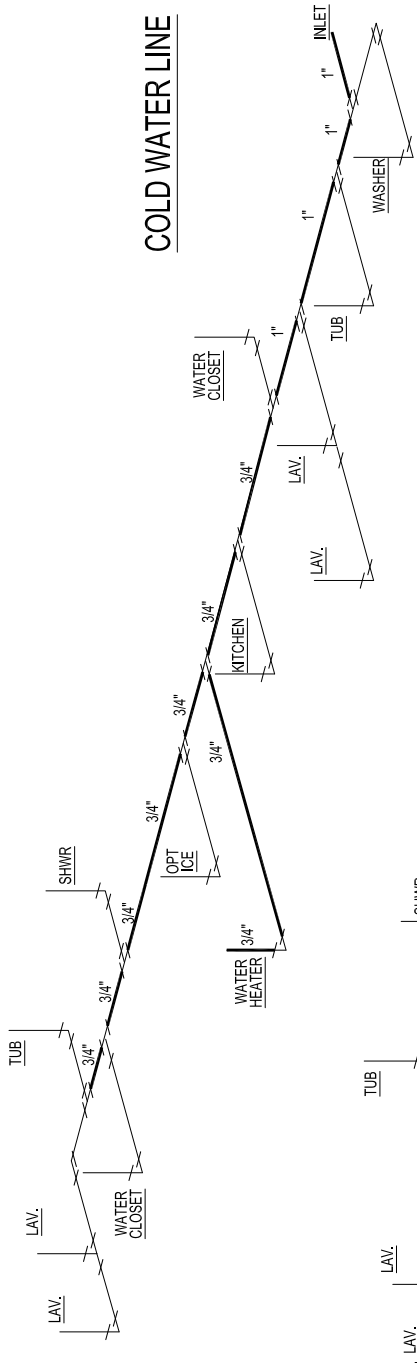


1" DRAIN TO EXTERIOR

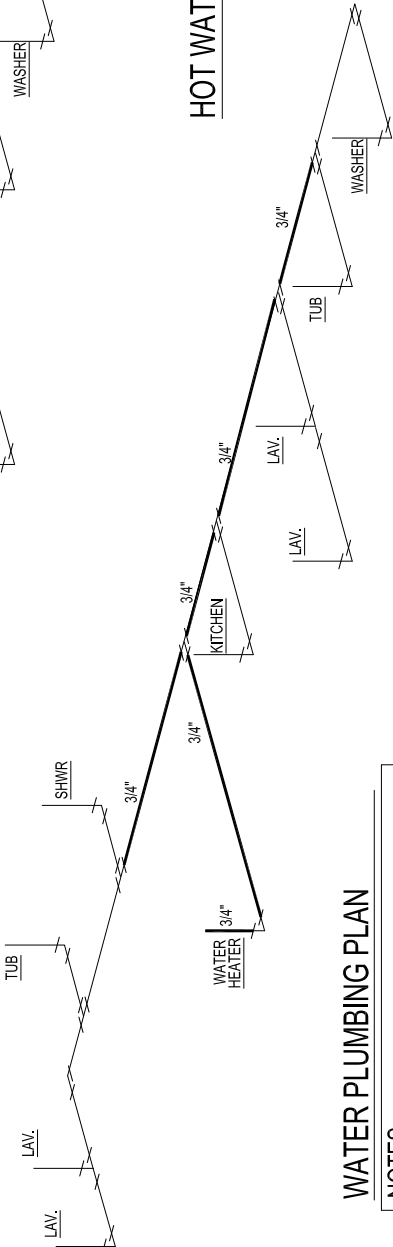
SUPPLY AT WATER HEATER

1. ALL PLUMBING FIXTURES HAVE SEPARATE SHUTOFF VALVES.
2. WATER HEATER SHALL BE SECURED IN PLACE WITH 1" X 1" DRAIN TO EXTERIOR.
3. WATER PIPES INSTALLED IN A WALL EXPOSED TO THE EXTERIOR SHALL BE WALL INSULATED. WATER PIPING INSTALLED IN WALLS SHALL BE INSULATED WITH MINIMUM INSULATION OF R-6.5.
4. DWV SYSTEM SHALL EITHER BE PVC-DWV OR POLYPROPYLENE (PP), CPVC, OR COPPER. WHEN INSTALLED IN WALLS, THE POLYETHYLENE GLYCOL (PEGL) SHALL BE INSTALLED TO THE MANUFACTURER'S RECOMMENDATIONS WITH THE MANUFACTURER'S LIMITATIONS AND CONDITIONS.
5. ALL DRAIN AND CLEANOUTS ARE DESIGNED AND SITE INSTALLED BY OTHERS. APPROVAL LOCAL JURISDICTION.
7. TUB ACCESS PROVIDED UNDER HOME UNLESS OTHERWISE SPECIFIED.
8. SUPPLIES SHALL BE COVERED w/ NON-ABRASIVE MATERIAL TO A HEIGHT OF 4" ABOVE FINISH FLOOR.
9. T&P RELIEF VALVE W/ DRAIN TO EXTERIOR OR PAN AND SHUTOFF WITHIN 3' OF WATER SUPPLY AT WATER HEATER.
10. INSULANT MUST BE CONNECTED TO PUBLIC UTILITY MAINS. IF THESE ARE AVAILABLE.
11. PRESSURE OF 80 PSI. SEE SETUP MANUAL FOR APPROVED PLUMBING FIXTURES.

COLD WATER LINE

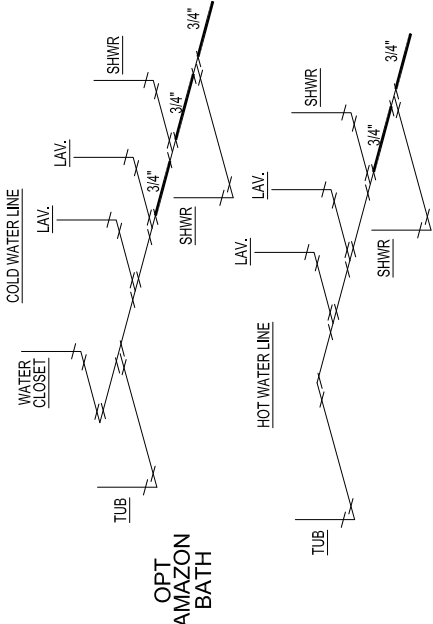


HOT WATER LINE



WATER PLUMBING PLAN

NOTES:
-ALL PIPE SIZES ARE 1/2" UNLESS OTHERWISE SPECIFIED.



OPT
AMAZON
BATH

PROJECT

APPROVED
 DATE 10/10/19
 PFS CORPORATION
 Cottage Grove, WI

TITLE: OFF FRAME CROSS SECTION

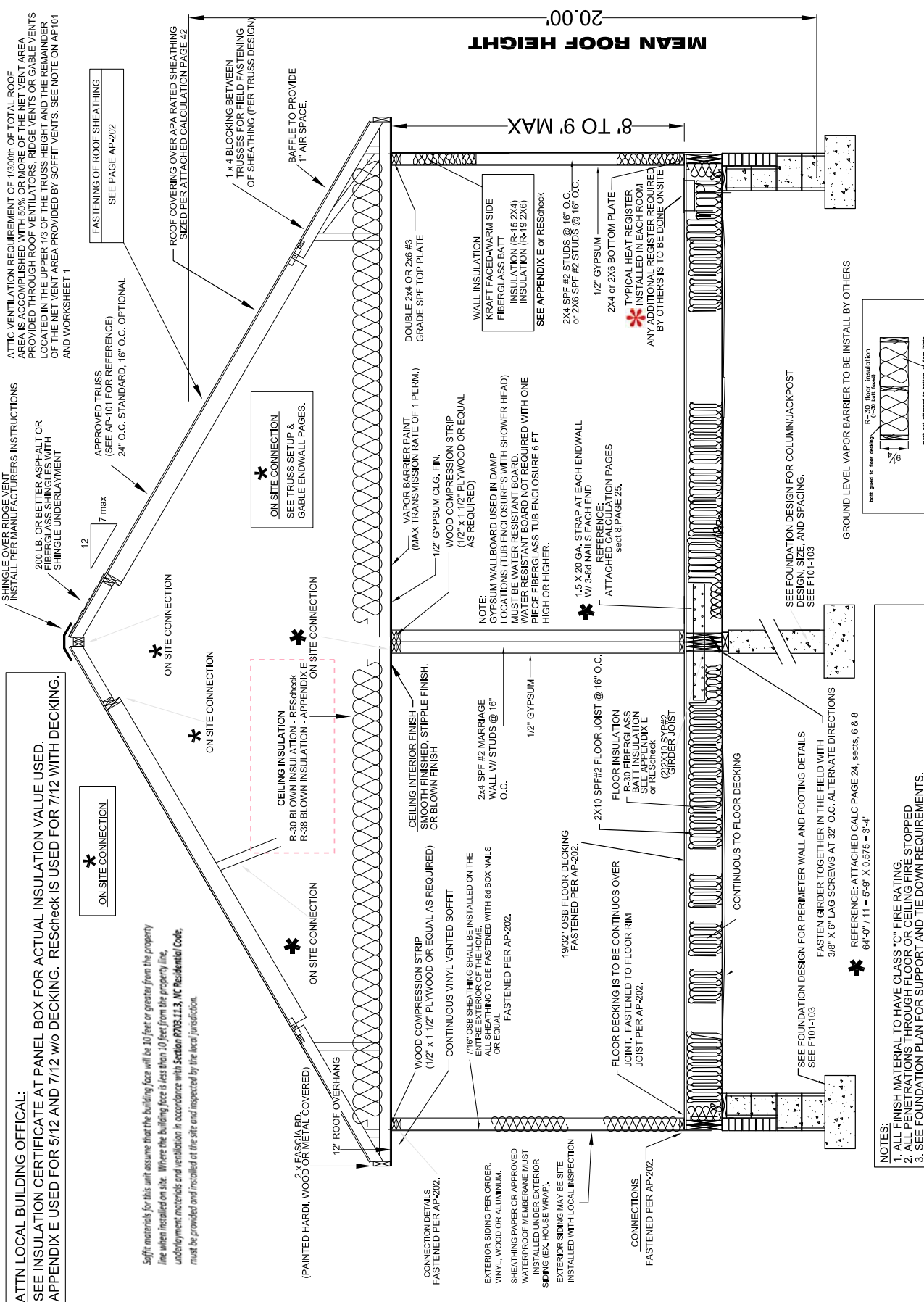
MOD# 23-3264-01
 BELLE VUE
 30'-4" x 64'-0" - 3 BEDROOM 2 BATH

DATE: 10/7/03
 SCALE: 1/8" = 1'-0"
 DRAWN BY: JPT
 REVISION: 04-13-04

REVISIONS
 CDB: ADDED CORNER INFORMATION
 SFA: ADDED P-RAP RODENT PROOF

SHEET NO: SE-101

CP-1 Revised or Added page per PFS review of 10-03-19



ATTN LOCAL BUILDING OFFICIAL:
 SEE INSULATION CERTIFICATE AT PANEL BOX FOR ACTUAL INSULATION VALUE USED.
 APPENDIX E USED FOR 5/12 AND 7/12 w/o DECKING. RESCHECK IS USED FOR 7/12 WITH DECKING.

SOFT MATERIALS FOR THIS UNIT ASSUME THE BUILDING FACE WILL BE 10 FEET OR GREATER FROM THE PROPERTY LINE WHEN INSTALLED ON SITE. WHERE THE BUILDING FACE IS LESS THAN 10 FEET FROM THE PROPERTY LINE, UNDERLayment MATERIALS AND VENTILATION IN ACCORDANCE WITH SECTION R703.11.3, IRC RESIDENTIAL CODE, MUST BE PROVIDED AND INSTALLED AT THE SITE AND INSPECTED BY THE LOCAL JURISDICTION.

ATTIC VENTILATION REQUIREMENT OF 1/300th OF TOTAL ROOF AREA IS COMPLETED WITH 10% OR MORE OF THE NET VENT AREA PROVIDED THROUGH ROOF VENTILATORS, RIDGE VENTS OR GABLE VENTS LOCATED IN THE UPPER 1/3 OF THE TRUSS HEIGHT AND THE REMAINDER OF THE NET VENT AREA PROVIDED BY SOFFIT VENTS. SEE NOTE ON AP-101 AND WORKSHEET 1

SHINGLE OVER RIDGE VENT
 INSTALL PER MANUFACTURERS INSTRUCTIONS
 200 LB. OR BETTER ASPHALT OR FIBERGLASS SHINGLES WITH SHINGLE UNDERLAYMENT

FASTENING OF ROOF SHEATHING
 SEE PAGE AP-202

ROOF COVERING OVER AREA RATED SHEATHING
 SIZED PER ATTACHED CALCULATION PAGE 42

1 x 4 BLOCKING BETWEEN TRUSSES FOR FIELD FASTENING OF SHEATHING (PER TRUSS DESIGN)

BAFFLE TO PROVIDE 1" AIR SPACE.

DOUBLE 2x4 OR 2x6 #3 GRADE SPF TOP PLATE

WALL INSULATION
 KRAFT FACED-WARM SIDE
 FIBERGLASS BATT
 INSULATION (R-15 2X4)
 INSULATION (R-19 2X6)
 SEE APPENDIX E OR RESCHECK

2x4 SPF #2 STUDS @ 16" O.C.
 OR 2x6 SPF #2 STUDS @ 16" O.C.

1/2" GYPSUM
 2x4 OR 2x6 BOTTOM PLATE
 TYPICAL HEAT REGISTER INSTALLED IN EACH ROOM
 ANY ADDITIONAL REGISTER REQUIRED BY OTHERS IS TO BE DOUBLE ON SITE

NOTE:
 GYPSUM WALLBOARD USED IN DAMP LOCATIONS (TUB ENCLOSURES WITH SHOWER HEAD) MUST BE WATER RESISTANT BOARD.
 WATER RESISTANT BOARD NOT REQUIRED WITH ONE PIECE FIBERGLASS TUB ENCLOSURE 6 FT HIGH OR HIGHER.

1.5 X 20 GA. STRAP AT EACH ENDWALL W/ 3-8d NAILS EACH END
 REFERENCE: ATTACHED CALCULATION PAGES sect 8, PAGE 25.

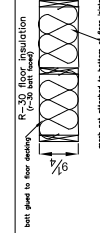
GROUND LEVEL VAPOR BARRIER TO BE INSTALLED BY OTHERS

SEE FOUNDATION DESIGN FOR COLUMN/JACKPOST DESIGN, SIZE, AND SPACING.
 SEE P101-103

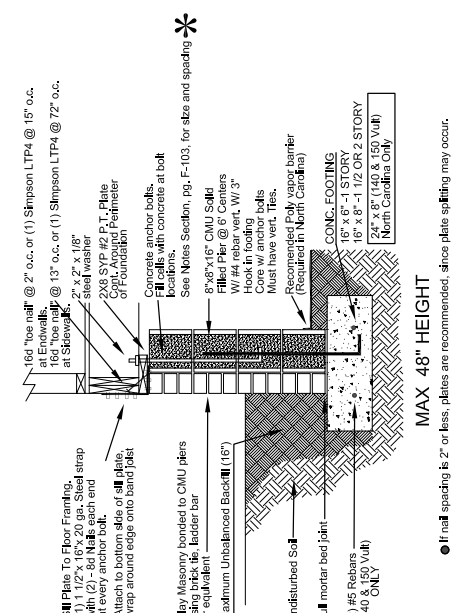
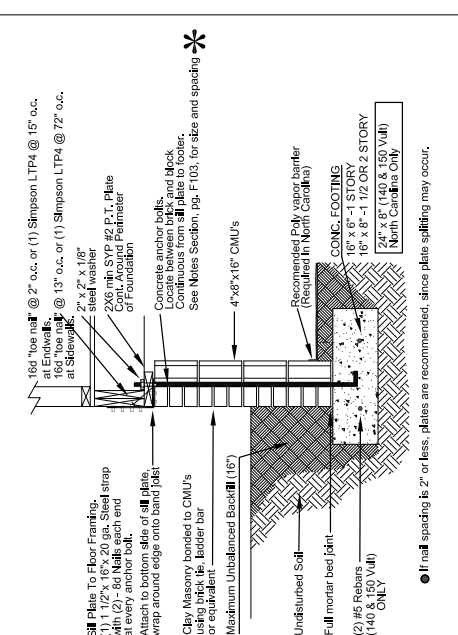
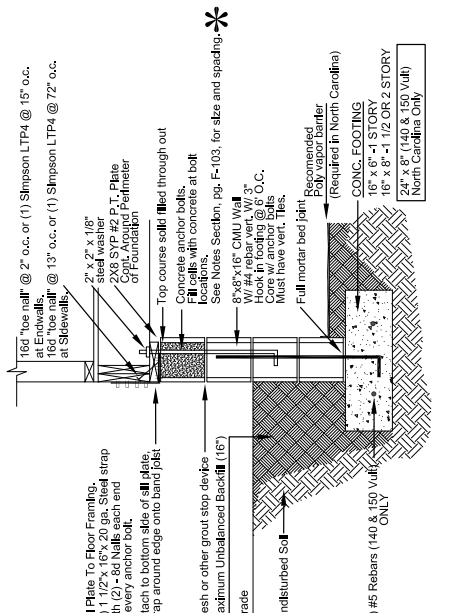
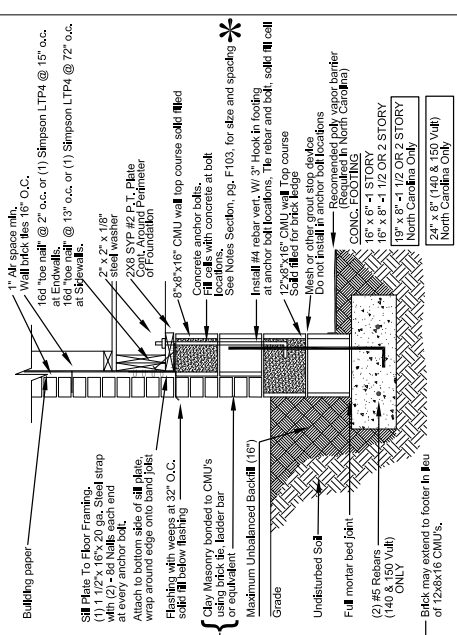
SEE FOUNDATION DESIGN FOR PERIMETER WALL AND FOOTING DETAILS
 FASTEN GIRDER TOGETHER IN THE FIELD WITH 3/8" X 6" LAG SCREWS AT 32" O.C. ALTERNATE DIRECTIONS
 REFERENCE: ATTACHED CALC PAGE 24, sects. 6 & 8
 64'-0" / 11" = 5'-0" X 0.575" = 3'-4"

NOTE:
 1. ALL FINISH MATERIAL TO HAVE CLASS "C" FIRE RATING.
 2. ALL PENETRATIONS THROUGH FLOOR OR CEILING FIRE STOPPED
 3. SEE FOUNDATION PLAN FOR SUPPORT AND TIE DOWN REQUIREMENTS.

SEE FOUNDATION DESIGN FOR PERIMETER WALL AND FOOTING DETAILS
 FASTEN GIRDER TOGETHER IN THE FIELD WITH 3/8" X 6" LAG SCREWS AT 32" O.C. ALTERNATE DIRECTIONS
 REFERENCE: ATTACHED CALC PAGE 24, sects. 6 & 8
 64'-0" / 11" = 5'-0" X 0.575" = 3'-4"



SEE FOUNDATION DESIGN FOR PERIMETER WALL AND FOOTING DETAILS
 FASTEN GIRDER TOGETHER IN THE FIELD WITH 3/8" X 6" LAG SCREWS AT 32" O.C. ALTERNATE DIRECTIONS
 REFERENCE: ATTACHED CALC PAGE 24, sects. 6 & 8
 64'-0" / 11" = 5'-0" X 0.575" = 3'-4"



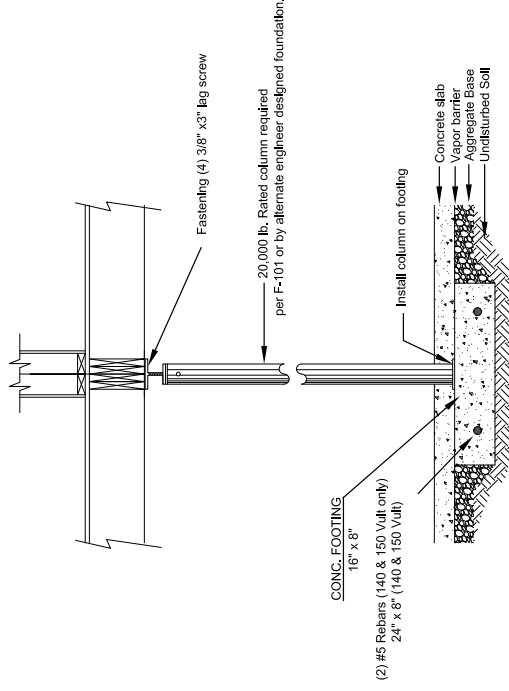
TYPICAL FOUNDATION NOTES :

- Foundation and its structural elements shall be capable of accommodating all superimposed live, dead, and other loads in accordance with applicable codes and all lateral loads in accordance with accepted design practices.
- Lots shall be provided with adequate drainage and shall be graded so as to drain surface water away from foundation walls - by lot owner.
- Materials shall conform to applicable standards and codes.
- Concrete subject to weathering shall have a minimum compressive strength and air content in accordance with code - 2500 psi concrete minimum.
- All exterior walls, bearing walls, columns, and piers shall be supported on continuous solid concrete footings which shall be of sufficient design to support safely the loads imposed as determined from the character of the soil, and shall in all cases, extend below the frost line. Top surface shall be level and bottom not exceeding 1 in 40 slope. Footings shall be not less than shown on drawings for 2000 psf soil.
- Foundation walls shall be constructed in accordance with the code and not less than as shown on the Drawings.
- Foundations shall extend not less than 12 inches below the finished natural grade or engineered fill and in no case less than the frost line depth. Footings on soil with a lower allowable soil pressure shall be designed in accordance with accepted engineering practice. However, where there is evidence that the groundwater table can rise to within 6 inches of the finished grade at the building perimeter or where there is evidence that the surface water does not readily drain from the building site, the building official may require that the grade in the under-floor space be as high as the outside finished grade, unless an approved drainage system is provided. Termitte shields and/or protection shall be provided as per code. Local and state requirements for footings may exceed that shown on drawings. If there are any questions, contact your local building inspections department.
- Crawl space ventilation and access space shall be by openings in the foundation walls {cross-ventilation as required by code and/or as follows}. Provide 1 sq. Ft. of ventilation area for each 150 sq. Ft. of crawl space floor area. Use 8"x16" foundation vents with corrosion resistant wire mesh (1/8" mesh) or equal.
- Mortar shall be type "m" or "s".
- Minimum soil bearing capacity shall be 2000 psf.
- Anchorbolt length to be: masonry wall-20" ,
- Poured concrete footing w/two #5 rebar (120 & 130 only) continuous w'a minimum 25" lap. Place bars 3" from bottom.
- This foundation plan is provided for reference as a typical. Actual foundation conditions must be evaluated for applicability if this plan is to be used. Alternate foundation plans may be designed by others in accordance with the requirements of the jurisdiction having authority.

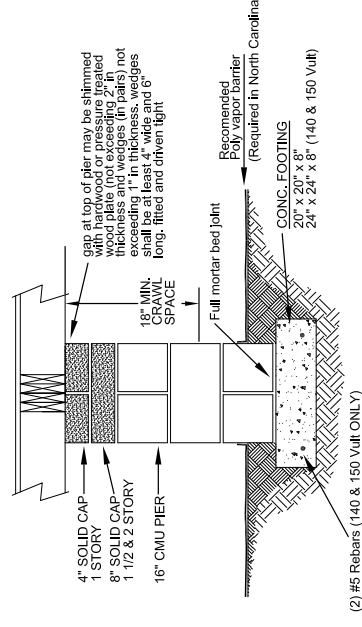
✱ Vertical wall reinforcement or continuous anchorage is as follows:

- Sidewall anchor bolt spacing see F-101
- Endwall anchor bolt spacing see F-101

There shall be a minimum of (2) bolts per sill plate section, with one bolt located not more than 12" from each end of the plate section.



SECTION B-B
BASEMENT WALL



SECTION B-B
PIER & CURTAIN WALL, BLOCK WALL
& BRICK VENEER WALL
(where required on module mate lines)

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	U-Factor	UA
Window 4: Vinyl/Fiberglass Frame:Double Pane with Low-E SHGC: 0.28 Orientation: Unspecified	12			0.350	4
Floor 1: All-Wood Joist/Truss:Over Unconditioned Space	1,941	30.0 ✓	0.0	0.033	64

Compliance Statement: The proposed building design described here is consistent with the building plans, specifications, and other calculations submitted with the permit application. The proposed building has been designed to meet the 2015 IECC requirements in REScheck Version 4.6.5 and to comply with the mandatory requirements listed in the REScheck Inspection Checklist.

Jon Tyndall

9-24-19

Name - Title

Signature

Date





2015 IECC Energy Efficiency Certificate

Insulation Rating	R-Value
Above-Grade Wall	15.00
Below-Grade Wall	0.00
Floor	30.00
Ceiling / Roof	30.00
Ductwork (unconditioned spaces):	_____

Glass & Door Rating	U-Factor	SHGC
Window	0.35	0.28
Door	0.14	0.28

Heating & Cooling Equipment	Efficiency
Heating System: _____	_____
Cooling System: _____	_____
Water Heater: _____	_____

Name: Jon Tyndall Date: 9-24-19

Comments



APPENDIX E (E-1 THROUGH E-4) RESIDENTIAL REQUIREMENTS FOR ENERGY CONSERVATION

This appendix is a North Carolina addition and not part of the 2015 *International Residential Code*.

There will be no underlined text.

(The provisions contained in this appendix are adopted as part of this code.)

APPENDIX E-1 Energy Efficiency Certificate (Section N1101.14)

ENERGY EFFICIENCY CERTIFICATE (N1101.14)

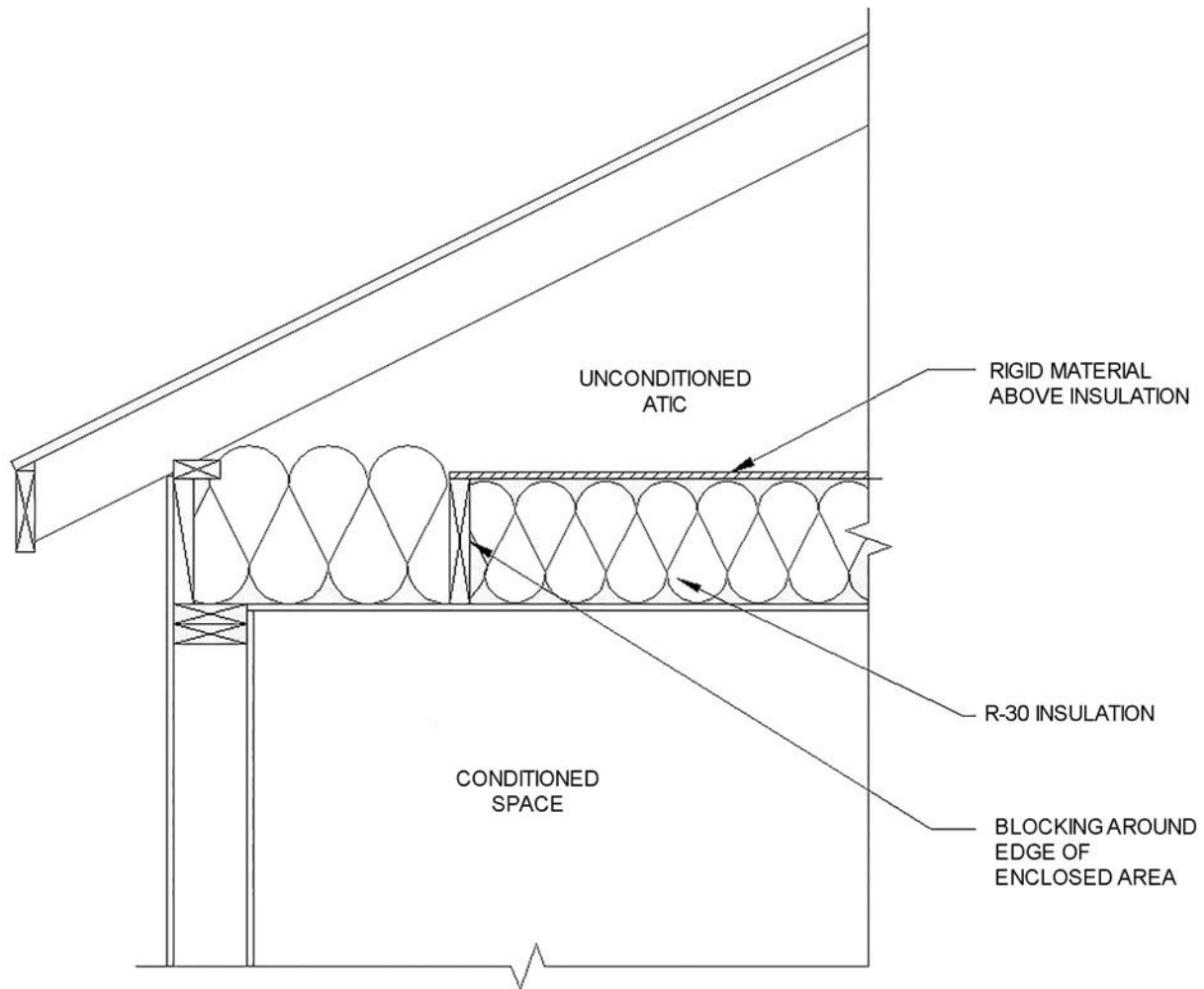
Builder, Permit Holder or Registered Design Professional	
Print Name:	
Signature:	
Property Address:	
Date:	
Insulation Rating – List the value covering largest area to all that apply	R-Value
Ceiling/roof:	R- 38
Wall:	R- 15 min
Floor:	R- 30
Closed crawl space wall:	R-
Closed crawl space floor:	R-
Slab:	R-
Basement wall:	R-
Fenestration:	
U-Factor	0.34
Solar Heat Gain Coefficient (SHGC)	0.28
Building Air Leakage	
<input type="checkbox"/> Visually inspected according to N1102.4.2.1 OR	
<input type="checkbox"/> Building air leakage test results (Sec. N1102.4.2.2) ACH50 [Target: 5.0] or CFM50/SFSA [Target: 0.30]	
Name of Tester/Company:	
Date:	Phone:
Ducts:	
Insulation	R- 8 flex only by factory
Total duct leakage test result (Sect. N1103.3.3) Circle one: Total duct leakage test (CFM25 Total/100SF) [Target: 5] or Duct leakage to the outside test (CFM25 Total/100SF) [Target: 4]	
Name of Tester or Company:	
Date:	Phone:
Certificate to be displayed permanently	



**APPENDIX E-2
INSULATION AND AIR SEALING DETAILS**

APPENDIX E-2.1

N1102.2.1 Ceilings with attic spaces: Exception for fully enclosed attic floor systems



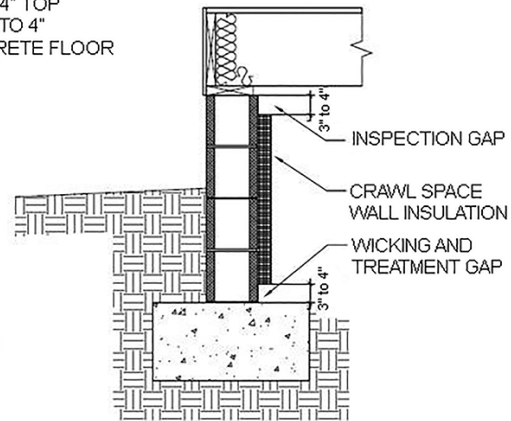
SECTION VIEW OF CEILING WITH ATTIC SPACE



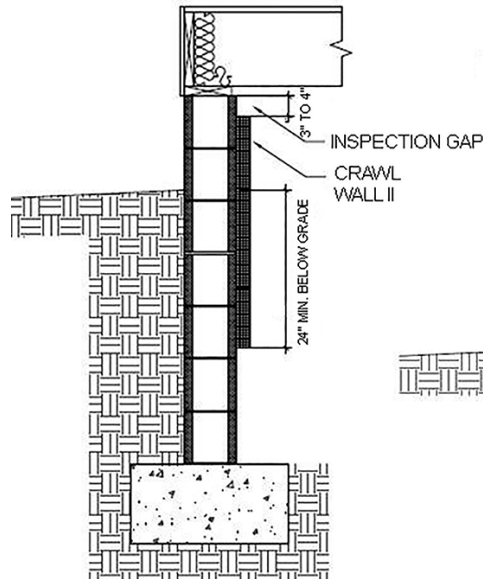
APPENDIX E-2.2

N1102.2.11 Closed crawl space walls. Insulation illustrations

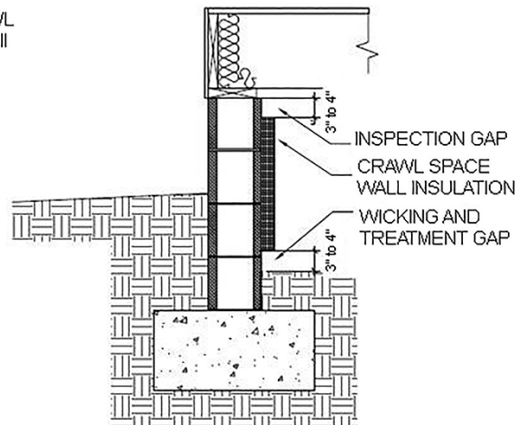
FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 3" TO 4" ABOVE TOP OF WALL FOOTING OR CONCRETE FLOOR



FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 24" BELOW GRADE

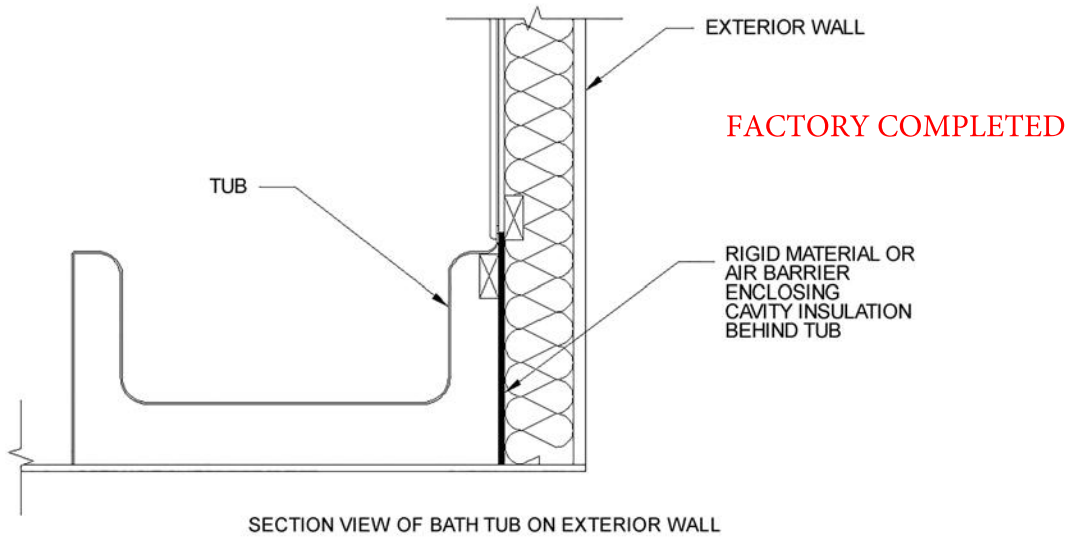


FOAM OR POROUS INSULATION HAS 3" TO 4" TOP INSPECTION GAP AND EXTENDS DOWN 3" TO 4" ABOVE INTERIOR GROUND SURFACE

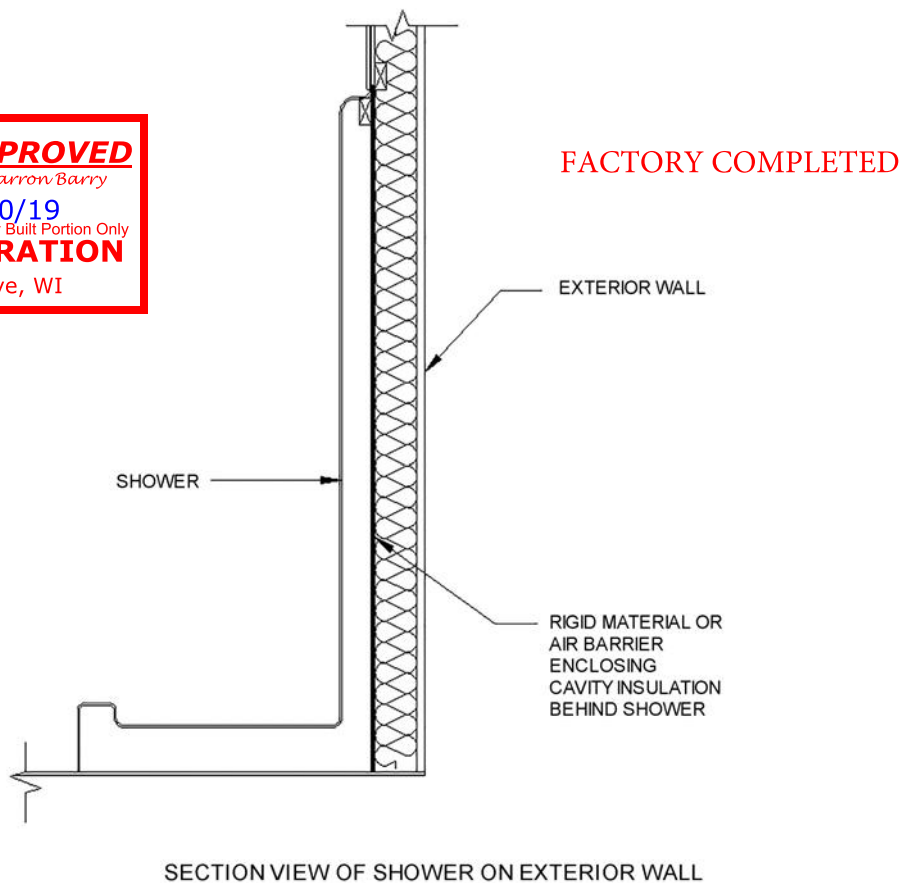


APPENDIX E-2.3

N1102.2.14 Framed cavity walls. Insulation enclosure—1. Tubs

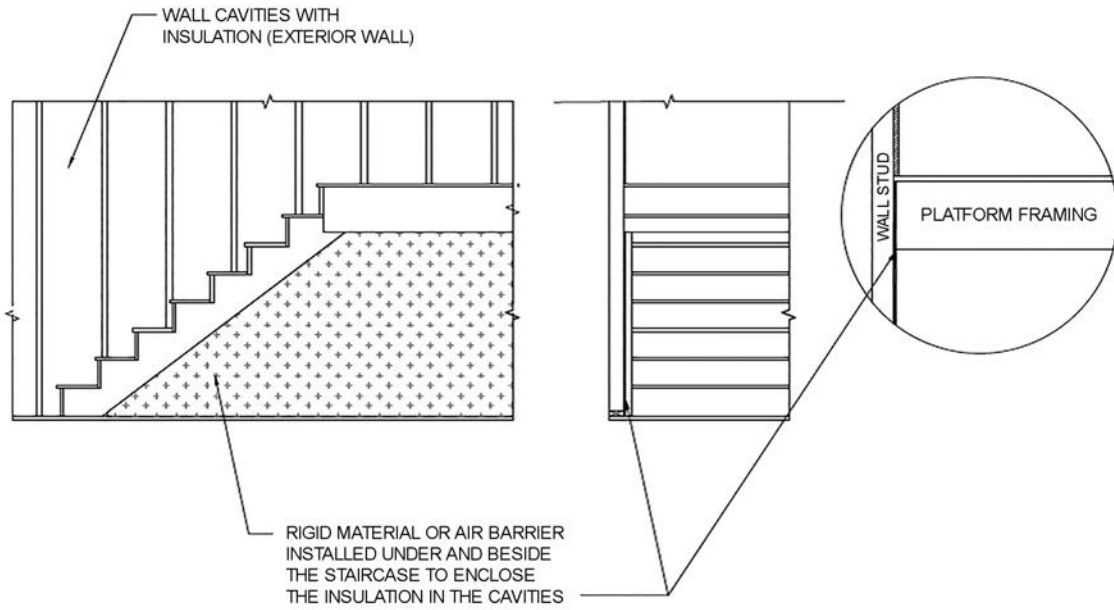


N1102.2.14 Framed cavity walls. Insulation enclosure—2. Showers



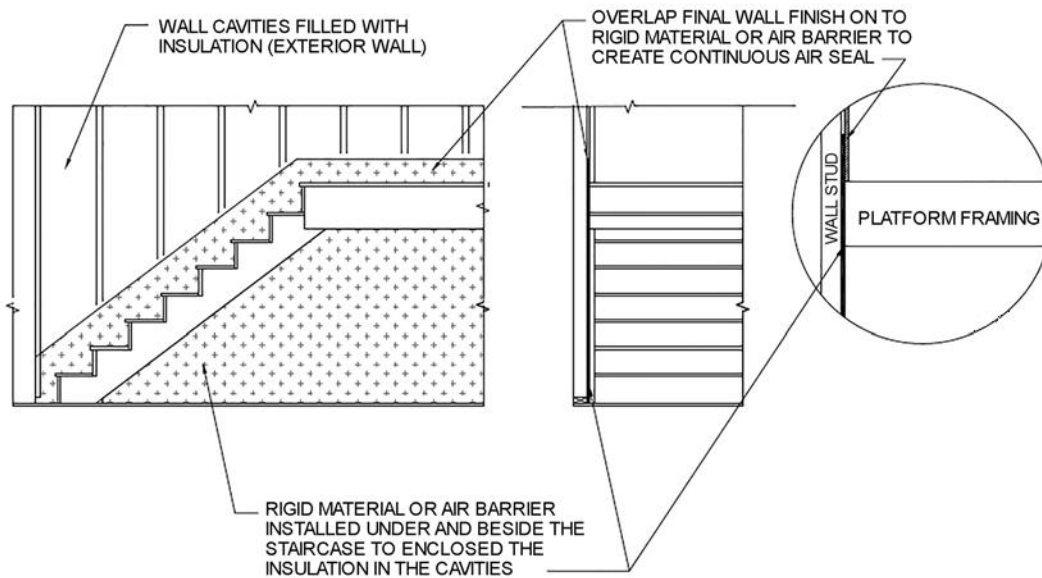
N1102.2.14 Framed cavity walls. Insulation enclosure—3. Stairs

FACTORY COMPLETED, IF APPLICABLE



SECTION VIEW OF INTERIOR STAIRCASE ON EXTERIOR WALL (OPTION 1)

N1102.2.14 Framed cavity walls. Insulation enclosure—3. Stairs

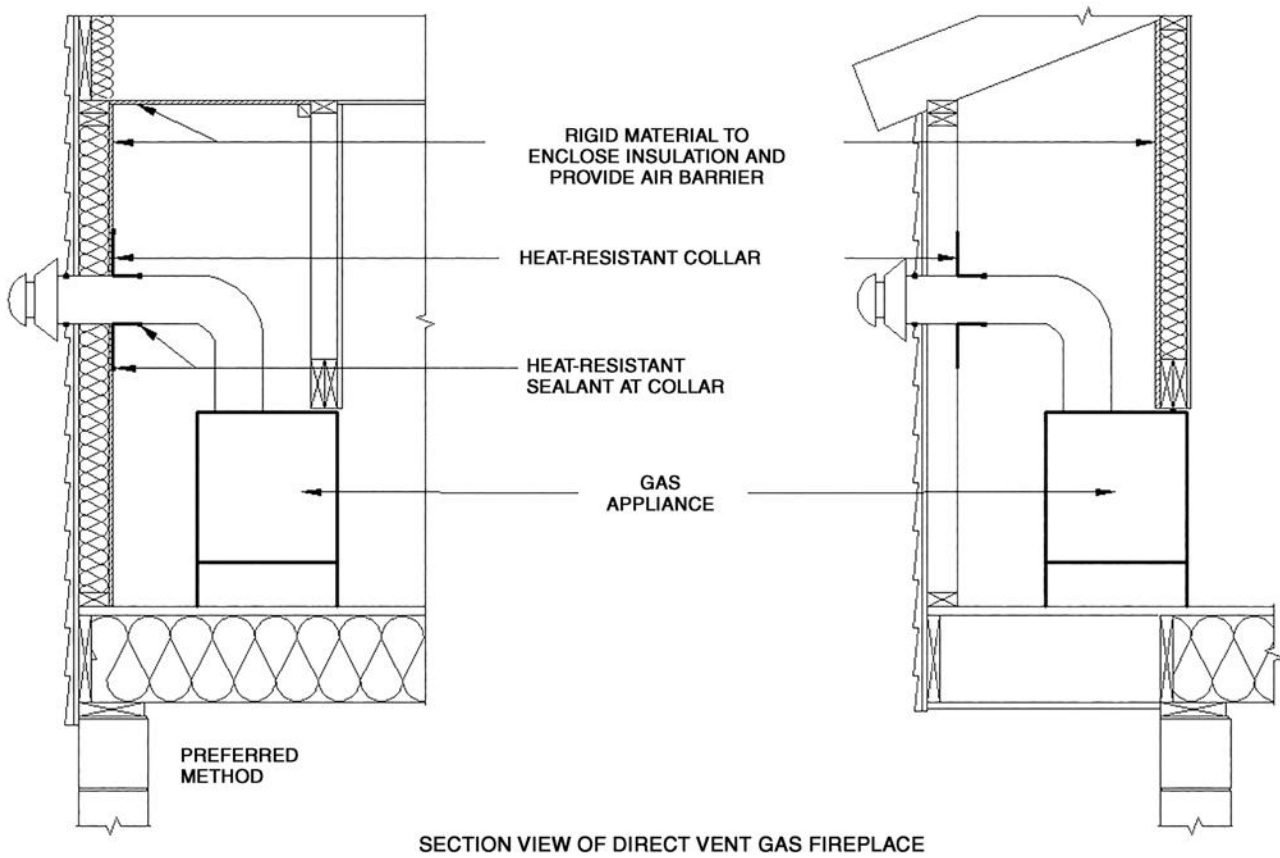


SECTION VIEW OF INTERIOR STAIRCASE ON EXTERIOR WALL (OPTION 2)

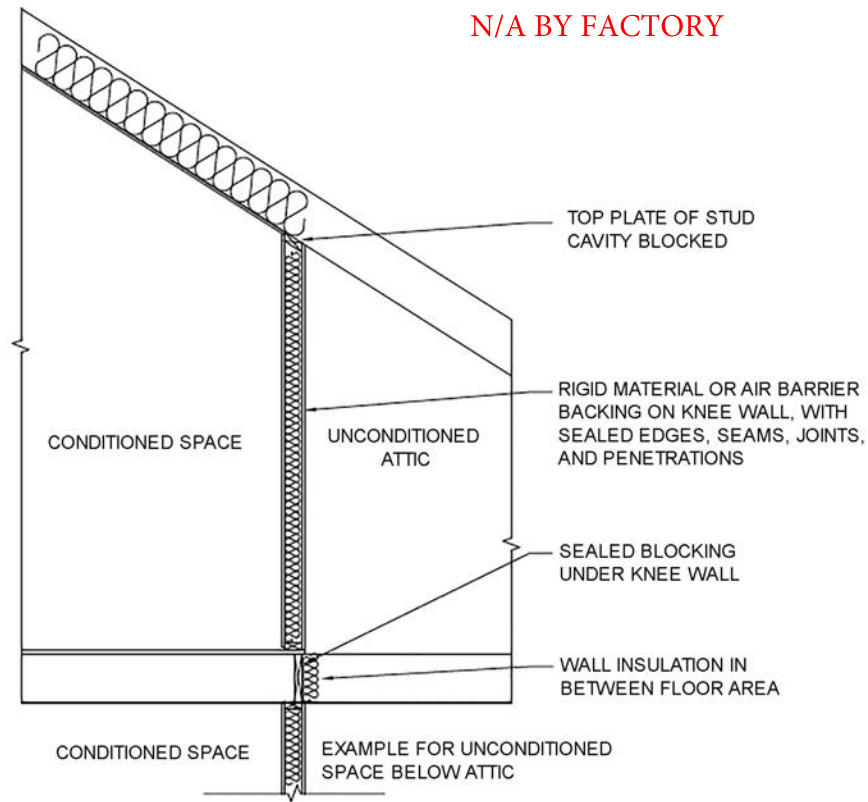


N1102.2.14 Framed cavity wall. Insulation enclosure—4. Direct vent gas fireplace

N/A BY FACTORY



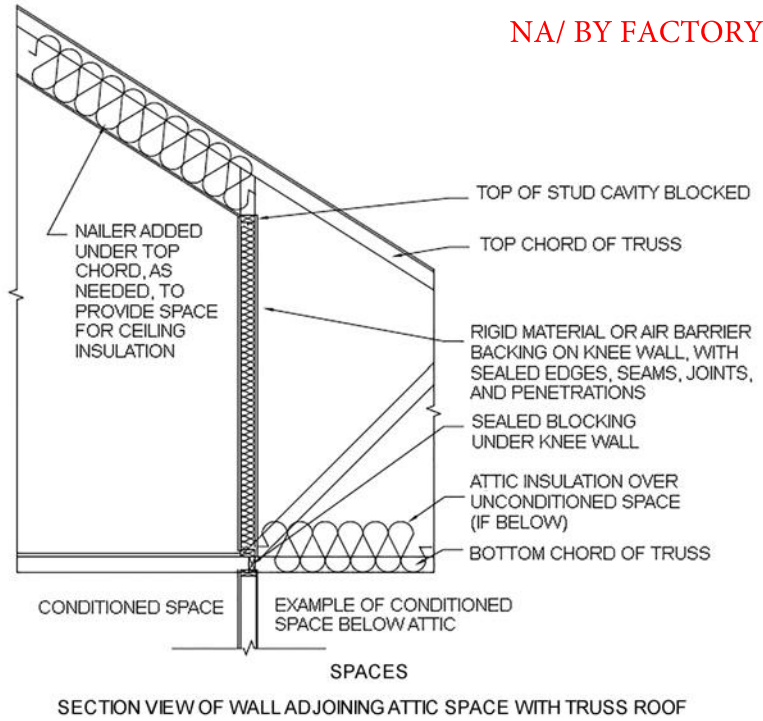
N1102.2.15 Framed cavity walls. Insulation enclosure—5. Walls that adjoin attic spaces



SECTION VIEW OF WALL ADJOINING ATTIC SPACE WITH STICK FRAMED ROOF



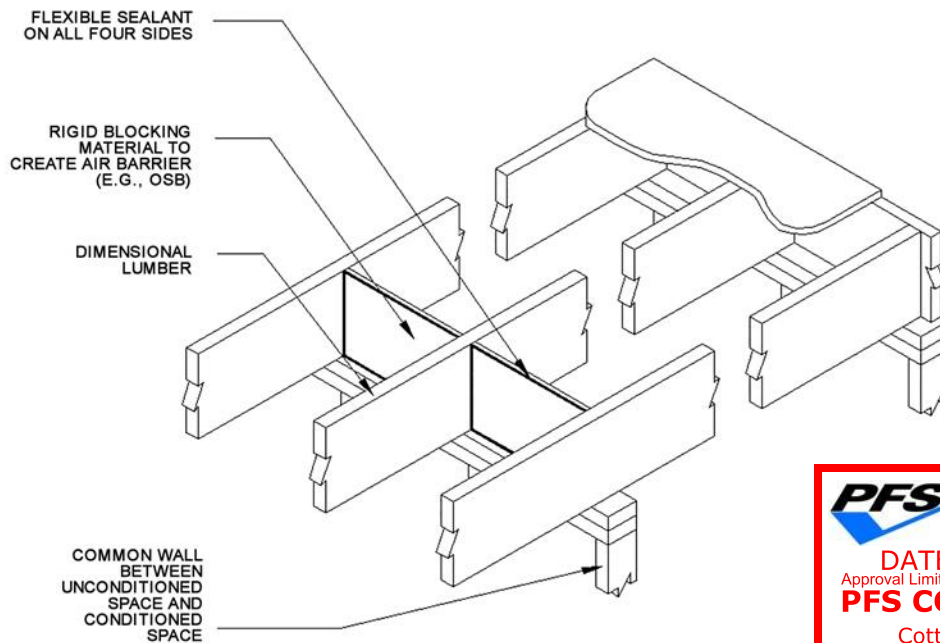
N1102.2.15 Framed cavity walls. Insulation enclosure—5. Walls that adjoin attic spaces



APPENDIX E-2.4

N1102.4.1 Building thermal envelope.—1. Block and seal floor/ceiling systems

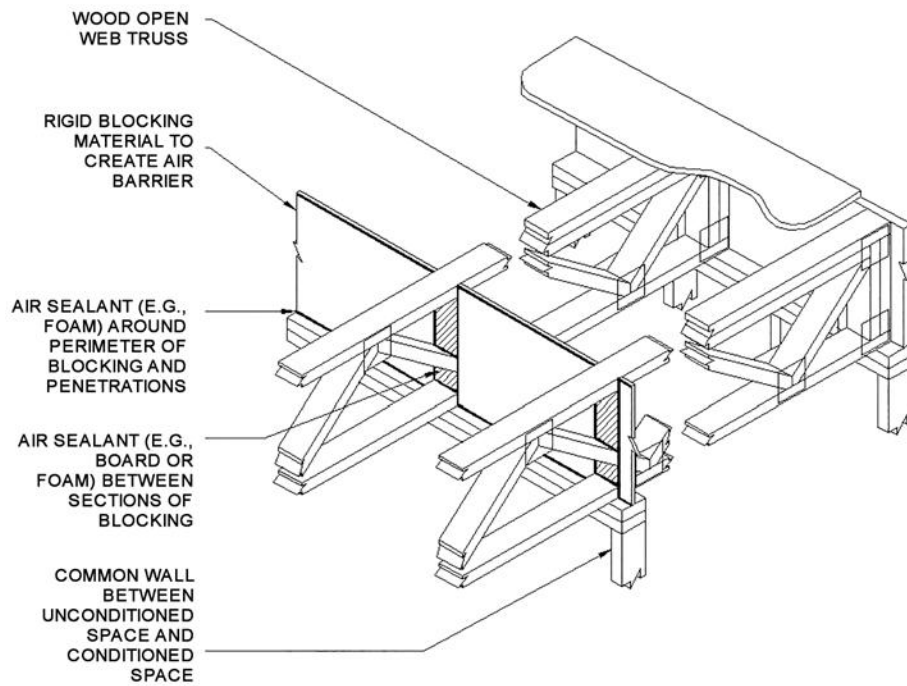
N/A BY FACTORY



ISOMETRIC VIEW OF DIMENSIONAL LUMBER FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope.—1. Block and seal floor/ceiling systems

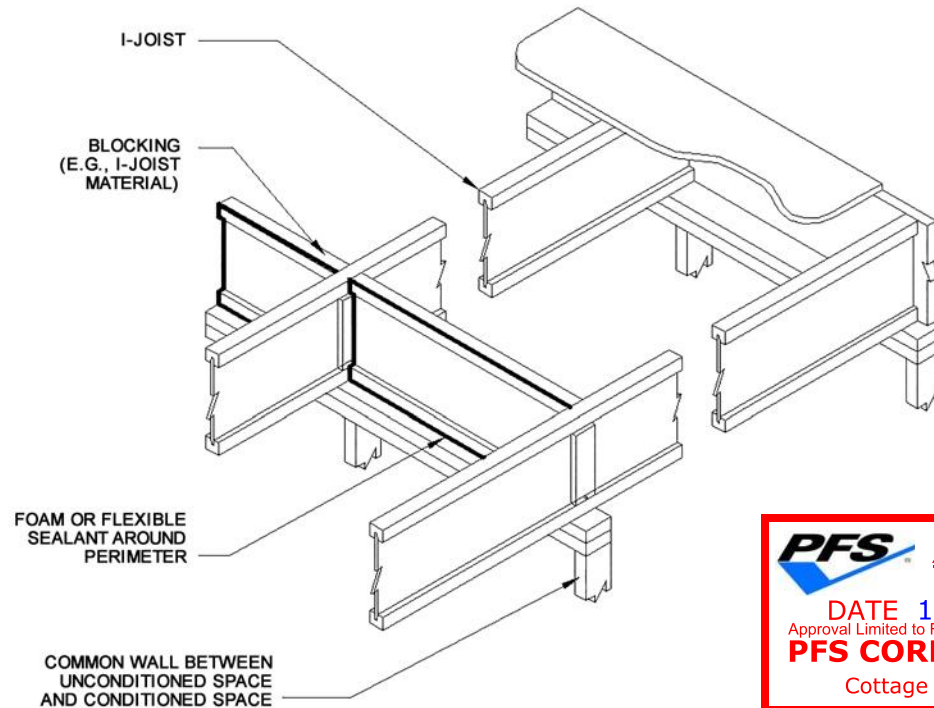
N/A BY FACTORY



ISOMETRIC VIEW OF WOOD TRUSS FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope. —1. Block and seal floor/ceiling systems

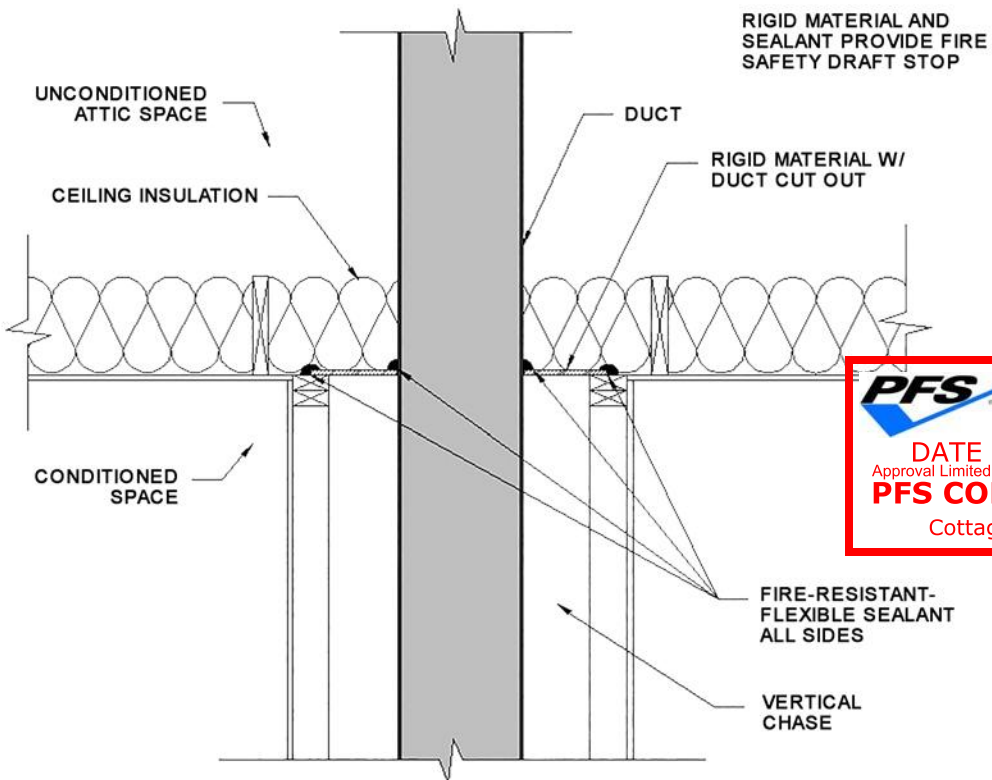
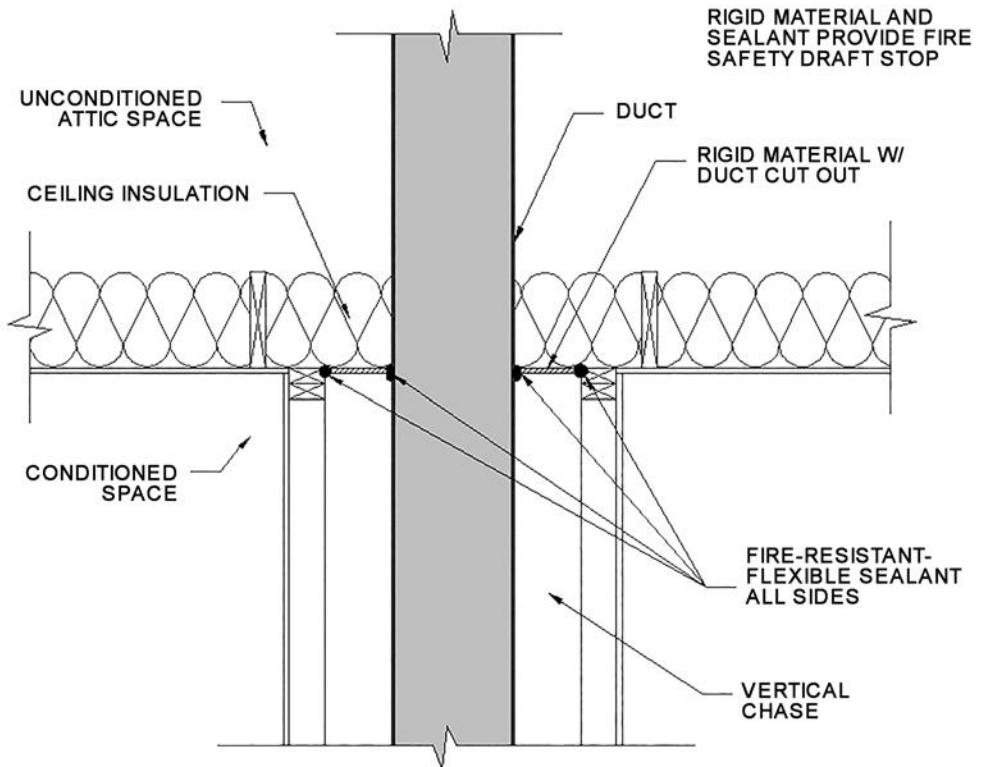
N/A BY FACTORY



ISOMETRIC VIEW OF I-JOIST FLOOR/CEILING SYSTEM ABOVE COMMON WALL BETWEEN UNCONDITIONED AND CONDITIONED SPACE

N1102.4.1 Building thermal envelope—2. Cap and seal shafts and chases

BY OTHERS IF APPLICABLE

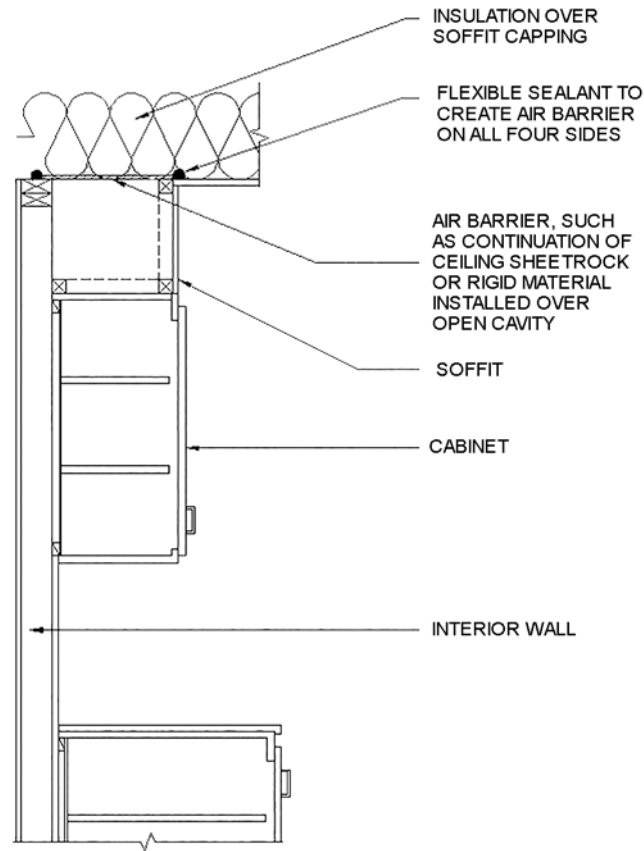


PFS **APPROVED**
Sharron Barry
 DATE 10/10/19
 Approval Limited to Factory Built Portion Only
PFS CORPORATION
 Cottage Grove, WI

SECTION VIEWS OF DUCT PENETRATING INTO ATTIC

N1102.4.1 Building thermal envelope. —3. Cap and seal soffit or dropped ceiling

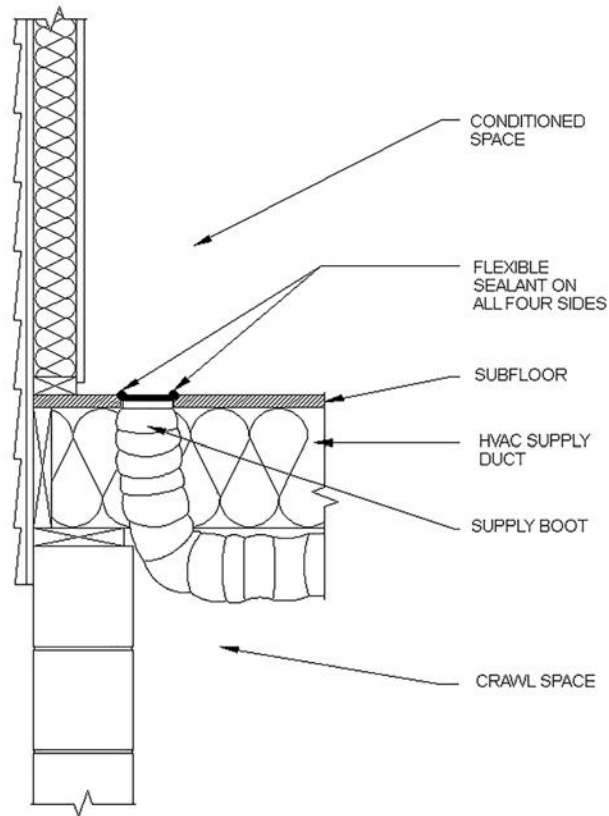
N/A



SECTION VIEW OF SOFFIT OVER CABINET

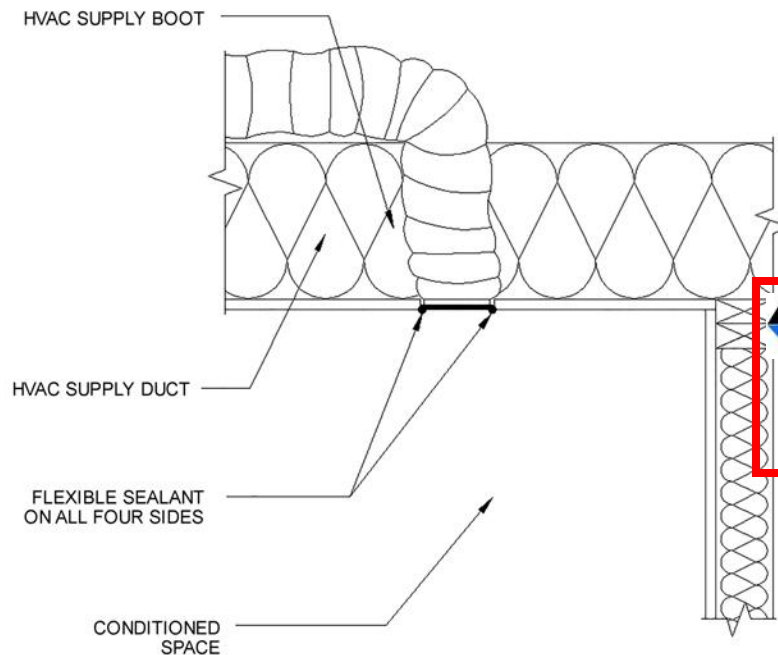


N1102.4.1 Building thermal envelope.—4. Seal HVAC boot penetration—floor **FACTORY COMPLETED**



SECTION VIEW OF FLOOR HVAC BOOT PENETRATION

N1102.4.1 Building thermal envelope.—4. Seal HVAC boot penetration—ceiling



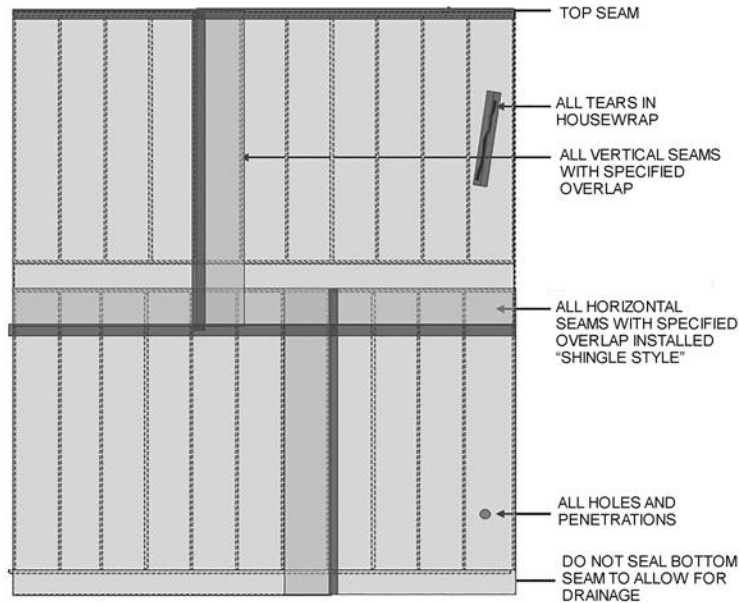
SECTION VIEW OF CEILING HVAC BOOT PENETRATION

PFS **APPROVED**
Sharron Barry
 DATE 10/10/19
 Approval Limited to Factory Built Portion Only
PFS CORPORATION
 Cottage Grove, WI

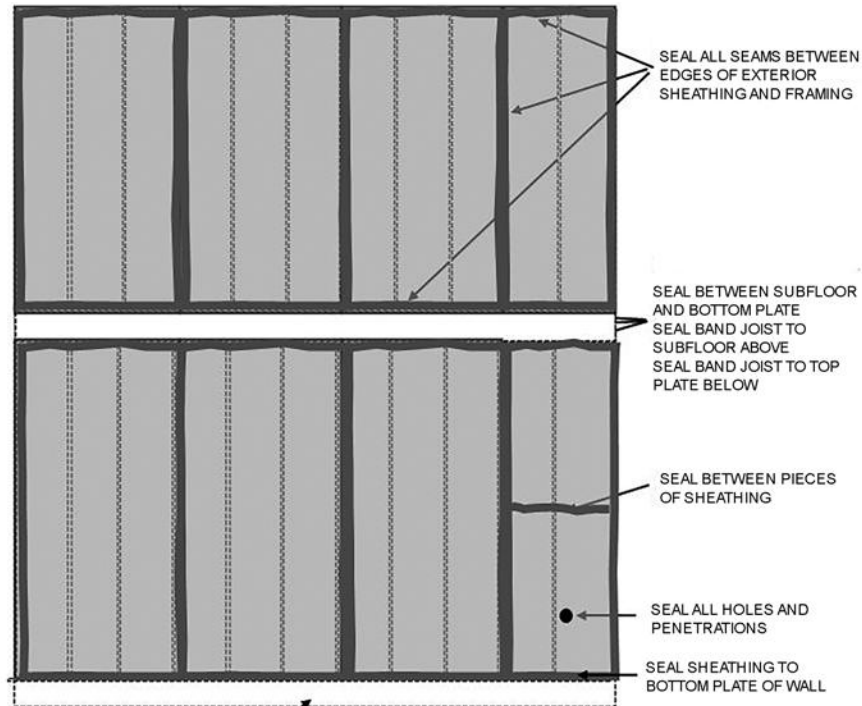
MUST BE INSPECTED ON SITE BY OTHERS FOR TEARS

N1102.4.1 Building thermal envelope.—5. Sealed exterior air barrier with housewrap

Follow manufacturer’s instructions for sealing air barrier-rated housewrap, including choice of materials, to provide an exterior air barrier at the following locations:



N1102.4.1 Building thermal envelope.—5. Sealed exterior air barrier with sheathing

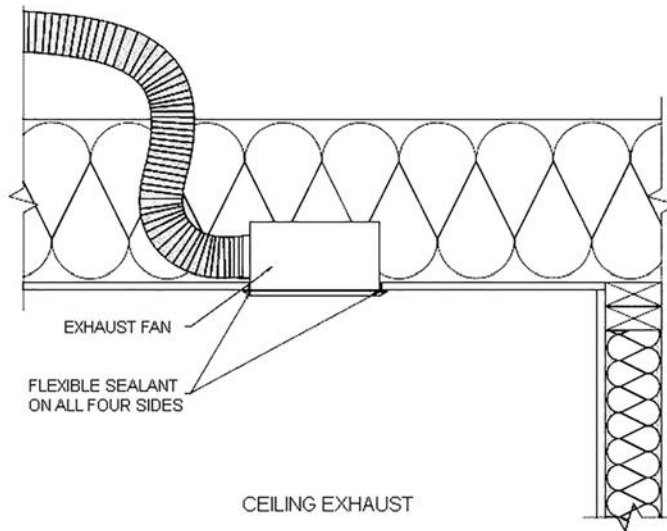


- 1) IF FIRST FLOOR IS SLAB-ON-GRADE, INSTALL SEAL SEALER UNDER BOTTOM PLATE OF EXTERIOR WALL.
- 2) IF FIRST FLOOR IS OVER UNCONDITIONED CRAWL SPACE OR BASEMENT, INSTALL SEAL SEALER UNDER BOTTOM PLATE AND SEAL SUBFLOOR TO BAND JOIST.
- 3) IF FIRST FLOOR IS OVER CONDITIONED BASEMENT OR CLOSED CRAWL SPACE WITH CRAWL SPACE WALL INSULATION BELOW, SEAL BETWEEN SUBFLOOR AND BOTTOM PLATE, SEAL BAND JOIST TO SUBFLOOR ABOVE, AND SEAL BAND JOIST TO TOP PLATE BELOW.



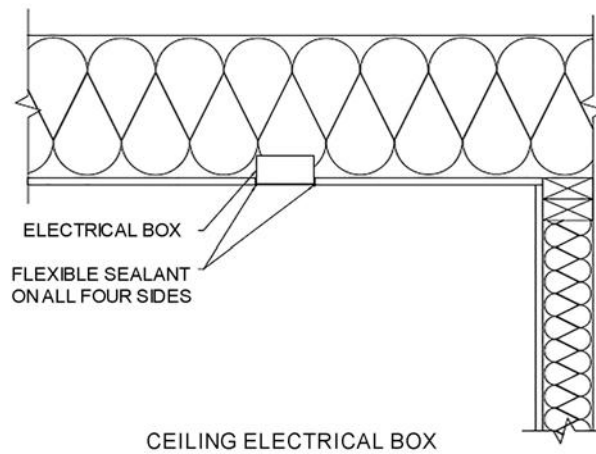
N1102.4.2.1 Visual inspection option. — Table N1102.4.2 Seal ceiling mechanical box penetrations

FACTORY COMPLETED



N1102.4.2.1 Visual inspection option. — Table N1102.4.2 Seal ceiling electrical box penetrations

FACTORY COMPLETED



**APPENDIX E-3:
SAMPLE WORKSHEETS FOR RESIDENTIAL AIR AND DUCT LEAKAGE TESTING**

**APPENDIX E-3A
AIR SEALING: VISUAL INSPECTION OPTION (Section N1102.4.2.1)**

SAMPLE WORKSHEET

N1102.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.1 or N1102.4.2.2.

N1102.4.2.1 Visual inspection option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure and

air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when the items listed in Table N1102.4.2, applicable to the method of construction, are certified by the builder, permit holder or *registered design professional* via the certificate in Appendix E-1.

**TABLE N1102.4.2
AIR BARRIER INSPECTION**

COMPONENT	CRITERIA
factory done Ceiling/attic	Sealants or gaskets provide a continuous air barrier system joining the top plate of framed walls with either the ceiling drywall or the top edge of wall drywall to prevent air leakage. Top plate penetrations are sealed. For ceiling finishes that are not air barrier systems such as tongue-and-groove planks, air barrier systems (for example, taped house wrap), shall be used above the finish. Note: It is acceptable that sealants or gaskets applied as part of the application of the drywall will not be observable by the code official.
Walls	Sill plate is gasketed or sealed to subfloor or slab. factory done
Windows and doors	Space between window and exterior door jambs and framing is sealed. factory done
Floors (including above-garage and cantilevered floors)	Air barrier system is installed at any exposed edge of insulation. factory done
Penetrations	Utility penetrations through the building thermal envelope, including those for plumbing, electrical wiring, ductwork, security and fire alarm wiring, and control wiring, shall be sealed. factory done
Garage separation	Air sealing is provided between the garage and conditioned spaces. An air barrier system shall be installed between the ceiling system above the garage and the ceiling system of interior spaces.
Ceiling penetrations	Ceiling electrical box penetrations and ceiling mechanical box penetrations shall be caulked, gasketed, or sealed at the penetration of the ceiling finish. See Appendix E-2.4. factory done Exception: Ceiling electrical boxes and ceiling mechanical boxes not penetrating the building thermal envelope
Recessed lighting	Recessed light fixtures are air tight, IC rated, and sealed to drywall. factory done Exception: Fixtures in conditioned space.

****Attic Access insulated and weatherstripped per N1102.2.2.4****

Property Address:

N1102.4.2.1 Visual Inspection Option. The inspection information including tester name, date, and contact shall be included on the certificate described in Section N1101.14.

Signature _____

Date _____



**APPENDIX E-3B
Air sealing: Testing option (Section N1102.4.2.2)**

Sample Worksheet

N1102.4.2 Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.1 or N1102.4.2.2:

N1102.4.2.2 Testing option. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure and air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when tested air leakage is less than or equal to one of the two following performance measurements:

1. 0.30 CFM50/Square Foot of Surface Area (SFSa) or
2. Five (5) air changes per hour (ACH50)

When tested with a blower door fan assembly, at a pressure of 33.5 psf (50 Pa). A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the blower door fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E779—03. Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be reported by the permit holder, a North Carolina licensed general contrac-

tor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a *registered design professional*, a certified *BPI Envelope Professional* or a certified *HERS rater*.

During testing:

1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, backdraft, and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems, air intake ducted to the return side of the conditioning system, and energy or heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off; and
6. Supply and return registers shall not be sealed.

The air leakage information, including building air leakage result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.14.

For Test Criteria 1 in this section, the report shall be produced in the following manner: Perform the blower door test and record the *CFM50* _____. Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area _____. Divide *CFM50* by the total square feet and record the result below. If the result is less than or equal to **[0.30 CFM50/SFSa]** the envelope tightness is acceptable; or

For Test Criteria 2, the report shall be produced in the following manner: Perform a blower door test and record the *CFM50* _____. Multiply the *CFM50* by 60 minutes to create CFHour50 and record _____. Then calculate the total conditioned volume of the home and record _____. Divide the CFH50 by the total volume and record the result below. If the result is less than or equal to **[5 ACH50]** the envelope tightness is acceptable.

Property Address: _____

Fan attachment location _____ Company Name _____

Contact Information: _____

Signature of Tester _____ Date _____

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor,
NC Licensed Home Inspector, *Registered Design Professional*,
Certified BPI Envelope Professional, or *Certified HERS Rater*
(circle one).



APPENDIX E-3C
Duct sealing. Duct air leakage test (Section N1103.2.2 & Section N1103.3.3)

Sample Worksheet

N1103.3.2 Sealing (Mandatory Requirements). Ducts, air handlers, filter boxes, and building cavities used as ducts shall be sealed. Joints and seams shall comply with either the *International Mechanical Code* or *International Residential Code*, as applicable.

N1103.3.3 Duct leakage (Prescriptive) and duct testing (Mandatory). Duct testing and duct leakage shall be verified by compliance with either Section N1103.3.3.1 or N1103.3.3.2. Duct testing shall be verified using one of the two following methods:

N1103.3.3.1 Total duct leakage. Total duct leakage shall be less than or equal to 5 CFM (12 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

N1103.3.3.2 Duct leakage to the outside. Conduct the test using fan pressurization of distribution system and building at a fixed reference pressure for combined supply and return leaks. Duct leakage to the outside shall be less than or equal to 4 CFM (12 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, relative to the outside, including the manufacturer's air handler enclosure.

During testing:

1. Block, if present, the ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the power shall be turned off.

4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight or as tight as possible.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Open all interconnecting doors in the building, close dampers for fireplaces and other operable dampers.
7. Set up an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door, following the manufacturer's prescribed procedure.
8. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage used in combination with a blower door. Typical steps are as follows:

- a. Depressurize the ductwork system to 25 Pa using the measurement hose in Step 5 above.
- b. Depressurize the house to 25 Pa using an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door.
- c. Correct the duct pressure to measure 0 Pa of pressure differential between the house and the ductwork system.
- d. Read the CFM of duct leakage using the procedures for the specific equipment being used. (Note that most automatically calculating pressure gauges cannot compute the CFM25 automatically with a duct-to-house difference in pressure of 0 Pa, so the gauge setting should be set to read CFM instead of CFM25).

Testing shall be performed and reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554-07.

The duct leakage information, including duct leakage test selected and result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.14.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and



APPENDIX E

record the result. If the result is less than or equal to 5 CFM25/100SF for the "Total duct leakage test" or less than or equal to 4 CFM25/100SF for the "Duct leakage to the outside" test, then the HVAC system air tightness is acceptable.

Complete one duct leakage report for each HVAC system serving the home:

Property Address: _____

Test Performed: Total duct leakage or Duct leakage to the outside (circle one)

HVAC System Number: _____ Describe area of home served: _____

CFM25 Total _____ Conditioned Floor Area (CFA) served by system: _____ s.f.

CFM25 x 100 divided by CFA = _____ CFM25/100SF (e.g. 100 CFM25 x 100/2,000 CFA = 5 CFM25/100SF)

Fan attachment location _____

Company Name _____

Contact Information: _____

Signature of Tester

Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor,
NC Licensed Home Inspector, *Registered Design Professional*,
Certified *BPI Envelope Professional*, or Certified *HERS Rater*
(circle one)



E-4D:

SAMPLE WORKSHEETS FOR RESIDENTIAL AIR AND DUCT LEAKAGE TESTING

E-4D.1 AIR SEALING: TESTING (Section N1102.4.2.2)

Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency

Air sealing. Building envelope air tightness shall be demonstrated by Section N1102.4.2.2:

Air sealing: Testing option (Section N1102.4.2.2) Sample Worksheet for Alternative Residential Energy Code for Higher Efficiency

N1102.4.2.2 Testing. Building envelope tightness shall be considered acceptable when items providing insulation enclosure in Section N1102.2.14 and enclosure air sealing in Section N1102.2.15 and air sealing in Section N1102.4.1 are addressed and when tested air leakage is less than or equal to one of the two following performance measurements:

- 1. 0.24 CFM50 (6.8 L/min)/square foot of surface area (SFSA) or
2. Four (4) air changes per hour (ACH50)

When tested with a blower door fan assembly, at a pressure of 0.2 inches water gauge (50 Pa), a single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the blower door fan assembly has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E779—03.

Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. Testing shall be reported by the permit holder, a North Carolina licensed general contractor, a North Carolina licensed HVAC contractor, a North Carolina licensed Home Inspector, a registered design professional, a certified BPI Envelope Professional or a certified HERS rater.

During testing:

- 1. Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
2. Dampers shall be closed, but not sealed, including exhaust, backdraft, and flue dampers;
3. Interior doors shall be open;
4. Exterior openings for continuous ventilation systems, air intake ducted to the return side of the conditioning system, and energy or heat recovery ventilators shall be closed and sealed;
5. Heating and cooling system(s) shall be turned off; and
6. Supply and return registers shall not be sealed.

The air leakage information, including building air leakage result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.14.

For Test Criteria 1 in this section, the report shall be produced in the following manner: Perform the blower door test and record the CFM50. Calculate the total square feet of surface area for the building thermal envelope, all floors, ceilings, and walls (this includes windows and doors) and record the area. Divide CFM50 by the total square feet and record the result below. If the result is less than or equal to [0.24 CFM50/SFSA] the envelope tightness is acceptable; or

For Test Criteria 2, the report shall be produced in the following manner: Perform a blower door test and record the CFM50 =. Multiply the CFM50 by 60 minutes to create CF/Hour50 and record =. Then calculate the total conditioned volume of the home and record = cubic feet. Divide the CF/Hour50 by the total volume and record the result = ACH50. If the result is less than or equal to [4 ACH50] the envelope tightness is acceptable.

Property Address:
Fan attachment location Company Name
Contact Information:

Signature of Tester

Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor, NC Licensed Home Inspector, Registered Design Professional, Certified BPI Envelope Professional, HERS Rater



**E-4D.2
DUCT SEALING. Duct air leakage test
(Section N1103.3.3)
Sample Worksheet for Alternative Residential
Energy Code for Higher Efficiency**

N1103.3.3 Duct leakage (Prescriptive) and duct testing (Mandatory). Duct testing and duct leakage shall be verified by compliance with either Section N1103.3.3.1 or N1103.3.3.2. Duct testing shall be performed and reported by the permit holder, a NC licensed general contractor, a NC licensed HVAC contractor, a NC licensed Home Inspector, a *registered design professional*, a certified *BPI Envelope Professional* or a certified *HERS rater*. A single point depressurization, not temperature corrected, test is sufficient to comply with this provision, provided that the duct testing fan assembly(s) has been certified by the manufacturer to be capable of conducting tests in accordance with ASTM E1554—07.

The duct leakage information, including duct leakage test selected and result, tester name, date, and contact information, shall be included on the certificate described in Section N1101.3.

For the Test Criteria, the report shall be produced in the following manner: perform the HVAC system air leakage test and record the CFM25. Calculate the total square feet of Conditioned Floor Area (CFA) served by that system. Multiply CFM25 by 100, divide the result by the CFA and record the result. If the result is less than or equal to 4 CFM25/100SF for the “Total duct leakage test or less than or equal to 3 CFM25/100SF for the Duct leakage to the outside” test, then the HVAC system air tightness is acceptable.

Exceptions to testing requirements:

1. Duct systems or portions thereof inside the building thermal envelope shall not be required to be leak tested.
2. Installation of a partial system as part of replacement, renovation or addition does not require a duct leakage test.

1103.3.3.1 Total duct leakage. Total duct leakage less than or equal to 4 CFM (113 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer’s air handler enclosure. During testing:

1. Block, if present, ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.

6. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage.

1103.3.3.2 Duct leakage to the outside. Conduct the test using fan pressurization of distribution system and building at a fixed reference pressure for combined supply and return leak. Duct leakage to the outside shall be less than or equal to 3 CFM (85 L/min) per 100 ft² (9.29 m²) of conditioned floor area served by that system when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, relative to the outside, including the manufacturer’s air handler enclosure.

During testing:

1. Block, if present, the ventilation air duct(s) connected to the conditioning system.
2. The duct air leakage testing equipment shall be attached to the largest return in the system or to the air handler.
3. The filter shall be removed and the air handler power shall be turned off.
4. Supply boots or registers and return boxes or grilles shall be taped, plugged, or otherwise sealed air tight or as tight as possible.
5. The hose for measuring the 25 Pascals of pressure differential shall be inserted into the boot of the supply that is nominally closest to the air handler.
6. Open all interconnecting doors in the building, close dampers for fireplaces and other operable dampers.
7. Set up an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door, following the manufacturer’s prescribed procedure.
8. Specific instructions from the duct testing equipment manufacturer shall be followed to reach duct test pressure and measure duct air leakage used in combination with a blower door. Typical steps are as follows:
 - a. Depressurize the ductwork system to 25 Pa using the measurement hose in Step 5 above.
 - b. Depressurize the house to 25 Pa using an envelope air moving/flow-regulating/flow measurement assembly, such as a blower door.
 - c. Correct the duct pressure to measure 0 Pa of pressure differential between the house and the ductwork system.
 - d. Read the CFM of duct leakage using the procedures for the specific equipment being used. (Note that most automatically calculating pressure gauges cannot compute the CFM25 automatically with a duct-to-house difference in pressure of 0 Pa, so the gauge setting should be set to read CFM instead of CFM25).



MUST BE COMPLETED BY BUILDER ON SITE

APPENDIX E

Complete one duct leakage report for each HVAC system serving the home:

Property Address: _____

HVAC System Number: _____ Describe area of home served: _____

CFM25 Total _____. Conditioned Floor Area (CFA) served by system: _____ s.f.

CFM25 × 100 divided by CFA = _____ CFM25/100 SF

(e.g. 50 CFM25 × 100/ 2,000 CFA = 2.5 CFM25/100SF)

Fan attachment location _____

Company Name _____

Contact Information: _____

Signature of Tester

Date

Permit Holder, NC Licensed General Contractor, NC Licensed HVAC Contractor,
NC Licensed Home Inspector, *Registered Design Professional*,
Certified *BPI Envelope Professional*, or Certified *HERS Rater*
(circle one)



Required Ventilation

Model Number: 23-3264-01

Floor Length: ft.

Floor Type

28 Wide 32 Wide Triple Wide T-Ranch

Check if pod

Manufacturer Specifications

Ridge Vent: **18 sq. in. per lf.**

Soffit Vent: **5.89 sq. in. per lf.**

House Required Ventilation

Required Ventilation for House:	<input type="text" value="931.84"/>	sq. in.
Inches Required for Soffit Ventilation:	<input type="text" value="465.92"/>	sq. in.
Inches Required for Ridge Ventilation:	<input type="text" value="465.92"/>	sq. in.
Number of Ridge Vents Required:	<input type="text" value="6.471111"/>	pc.
	25.88444	lf. of Ridge Vent

Ventilation in House

Soffit Ventilation in house:	<input type="text" value="736"/>	sq. in.	
Ridge Ventilation in house:	<input type="text" value="504"/>	sq. in.	54.09% through Ridge Vent
Number of Ridge Vents in house:	<input type="text" value="7"/>	pc.	
	28	lf. of Ridge Vent	

Code can be found at R806.2 in the NC Residential and the IRC



Champion Homes Engineered Shear Wall Calculations

23-3264-01

- a) House Mean Roof Height 20' Max. Mean Roof Height = 33'-0"
- b) Number of Stories 1 Max. Number of Stories = 3
- c) House Length 64 Max. Length = 80'-0"
- d) House Width 30.3 Min. Width = Mean Roof Height 20'
- e) House Aspect Ratio 2.112211 Min. Ratio = 1:4
= L / W
- f) House Vertical Offset
- g) Floor Diaphragm Aspect 2.112211
Ratio = L / W
- h) House Floor Diaphragm Opening Width 0 Max. = 12'-0"
- House Floor Diaphragm Opening Length 0 Max. = 12'-0"
- i) Max. Shearwall Plan Offset 0 (If wall offset is more than 4'-0", count
as 2 different shear walls)
- j) Min. Shearwall Segment = h/3.5 2.571429
- k) Wall Height 9 Max. Wall Height = 10'
- l) Roof Diaphragm Aspect Ratio 2.112211 Max. Ratio = 4:1
= L / W
- m) Roof Slope 7/12 Min. 0/12
Max. 12/12

- ✓ House meets all applicability limits.
(Calculation sheet referenced to structural package)
USE 26.417 FOR 28 WIDES
USE 32.083 FOR 32 WIDES

Front Sidewall	USE PG. 55	<u>60</u>	% of Sheathing
Rear Sidewall	USE PG. 55	<u>72</u>	% of Sheathing
Right Endwall	USE PG 48	<u>90</u>	% of Sheathing
Left Endwall	USE PG 48	<u>92</u>	% of Sheathing



SECTION 6

TRUSS HM773855

UFP TRUSS SHEET (FOR REFERENCE ONLY)

TRUSS CONNECTIONS

TRUSS LOAD SUMMARY

EXTERIOR WALL STUDS

EXTERIOR WALL HEADER / JACKSTUDS

MATING WALL STUDS

MATING WALL HEADER / JACKSTUDS

PERIMETER BANDS

FLOOR JOISTS

CENTER GIRDER

SHEARWALL CALCULATIONS

P1 - P3

P4 - P5

P6

P7 - P12

P13

P14

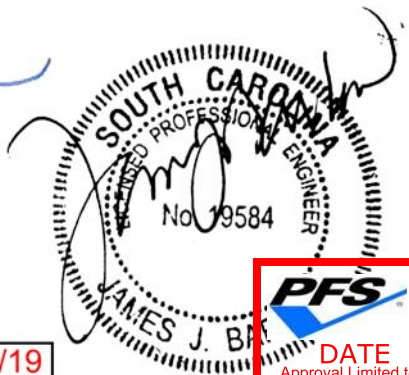
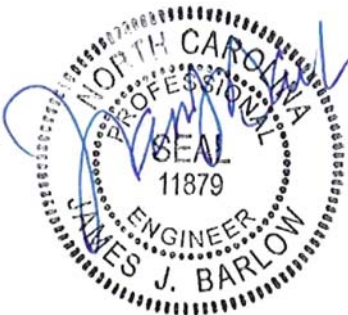
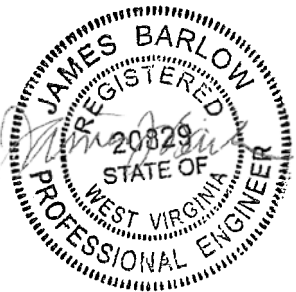
P15

P16

P17

P18

P19 - P58



07/22/19



Job 89373	Truss HM773855	Truss Type HINGE MONO	Qty 1	Ply 1	Champion Homes 315 NC Ref. #3157316
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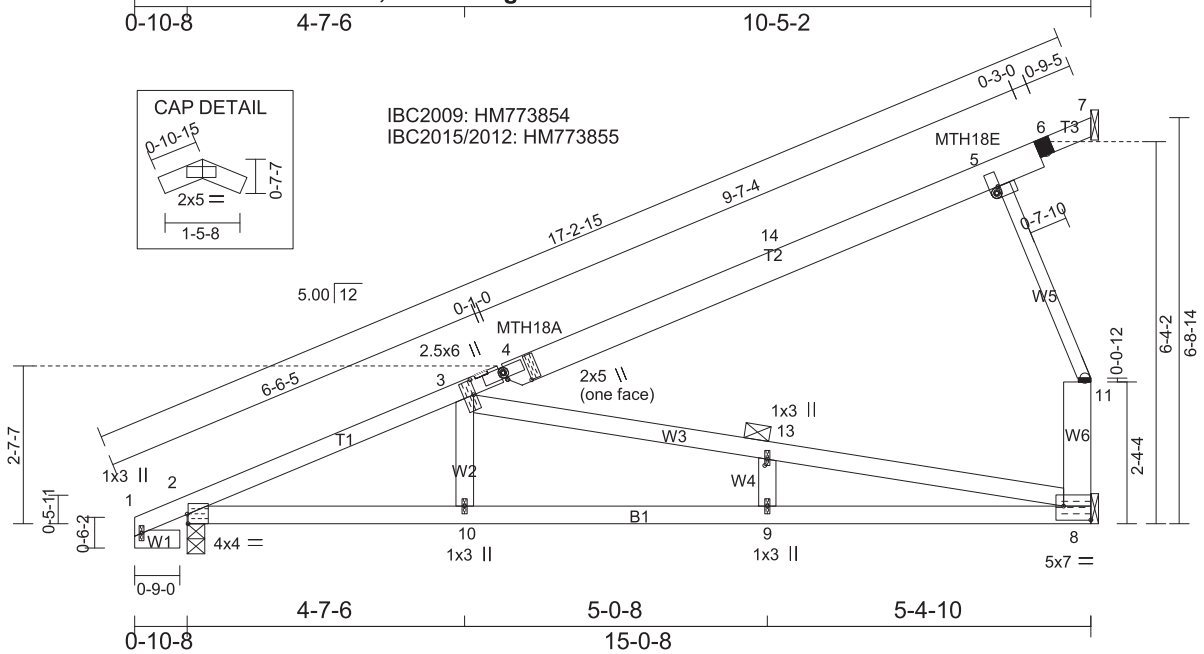


Plate Offsets (X,Y)-- [2:0-0-3,Edge], [3:0-3-0,0-0-8], [4:0-0-5,0-1-9], [4:0-1-15,0-4-6], [5:0-0-11,0-1-2], [8:Edge,0-2-12], [13:0-1-4,0-0-8]

SPACING-- 2-0-0 LOADING (psf)	SPACING-- 1-4-0 LOADING (psf)	SPACING-- 2-0-0 LOADING (psf)	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 23.1	TCLL 34.7	Plate Grip DOL 1.15	TC 0.90	Vert(LL) -0.22	8-9	>808	240	MT20	197/144
(Ground Snow=30.0)	(Ground Snow=45.0)	Lumber DOL 1.15	BC 0.85	Vert(CT) -0.40	8-9	>442	180	MT18HS	197/144
TCDL 10.0	TCDL 15.0	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.02	8	n/a	n/a		
BCLL 0.0	BCLL 0.0	Code IBC2015/TPI2014	Matrix-R						
BCDL 10.0	BCDL 15.0	IBC2012/TPI2007							
								Weight: 83 lb	
								FT = 0%	

LUMBER--
TOP CHORD 2x4 SP No.1 *Except*
T2: 2x6 SP No.1 or 2x6 SPF No.2, T3: 2x4 SPF No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2 *Except*
W3: 2x4 SP No.2 or 2x4 SPF No.2
W6: 2x6 SP No.1 or 2x6 SPF No.2, W5: 2x3 SPF Stud
W1: 2x4 SPF Stud

BRACING--
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-2-10 oc bracing.
JOINTS 1 Brace at Jt(s): 11, 13

REACTIONS. (lb/size) 2=721/0-3-8 (min. 0-1-8), 8=622/Mechanical, 7=-0/Mechanical
Max Horz 2=419(LC 9), 7=-62(LC 14)
Max Uplift 2=-392(LC 9), 8=-497(LC 9)
Max Grav 2=752(LC 14), 8=733(LC 14)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-15=-1319/623, 3-15=-1219/625, 3-16=-326/0, 16-17=-322/0, 4-17=-318/0, 4-14=-338/22, 5-14=-225/32, 5-6=-111/49, 6-7=-70/57, 8-11=-404/414
BOT CHORD 2-10=-960/1108, 9-10=-960/1108, 8-9=-960/1108
WEBS 3-10=0/330, 3-13=-973/825, 8-13=-975/815, 5-11=-433/443, 9-13=0/76

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in)
6=86/55/38/0, 11=433/443/157/0

NOTES--
1) Dado: 0-2-10 length x 0-0-12 deep dado, 0-2-4 to right edge from joint 4 on the top face.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph @24in o.c.; TCDL=4.0psf; BCDL=4.0psf; (Alt. 180mph @16in o.c.; TCDL=6.0psf; BCDL=6.0psf); h=30ft; Cat. II; Exp C; enclosed; MWFRS (envelope) 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

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.



2/22/2019

WARNING - Verify design parameters and READ NOTES Universal Forest Products, Inc. 2801 EAST BELTLINE RD, NE GRAND RAPIDS, MI 49525
PHONE (616)-364-0101 FAX (616)-365-0060

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 for lifting methods and system design. Builder responsibilities are defined under TPI1. This approval is limited to Factory Built Portion Only.
The manufacturer is responsible for the design of the component and its proper incorporation into the building. The 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 Institute or the Wood Truss Plate Institute Recommendation available from WTCA, 6300 Enterprise LN, Madison, WI 53719 J:\support\MitekSupp\template\truss\truss.tpe Cottage Grove, WI

APPROVED
DATE 10/10/19
PFS CORPORATION

SECTION 6/ pp. 1

Job 89373	Truss HM773855	Truss Type HINGE MONO	Qty 1	Ply 1	Champion Homes 315 NC Ref. #3157316
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- 3) TLL: ASCE 7-10; Pg=30.0 psf (ground snow); Ps=23.1 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 19.0 psf or 2.00 times flat roof load of 23.1 psf on overhangs non-concurrent with other live loads.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) See HINGE PLATE DETAILS for plate placement.
- 9) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 10) All additional member connections shall be provided by others for forces as indicated.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 392 lb uplift at joint 2 and 497 lb uplift at joint 8.
- 13) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 14) **This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1**
- 15) **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.**
- 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) Based on: HM773854
- 18) Revision: IBC2015/2012 Version



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\lufp.tpe





Universal Forest Products®

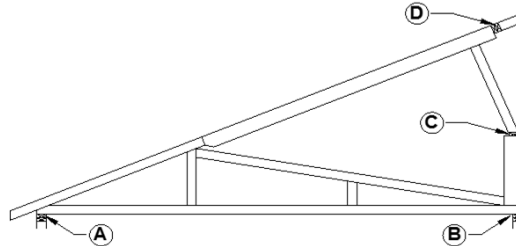
Job	Truss	MFG	Customer
89373	HM773855	315	CHAMPION HOMES

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.



TRUSS CONNECTIONS

TRUSS NUMBER : **HM773855**
 PROJECT NUMBER : **190127**
 TRUSS PITCH : **5/12**
 TRUSS SPAN : **15'-2"**
 UNIT WIDTH : **30'-4"**



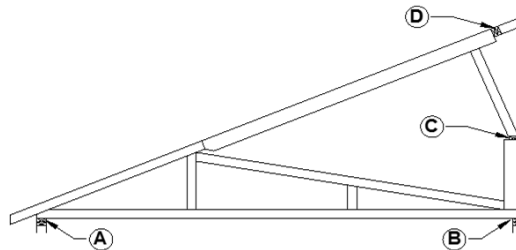
UPLIFT CONNECTIONS (MWFRS LOADS):

150 / 119 mph									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H8 TWIST STRAP
392	WIND	1.6	OK	3	4	OK	2	4	OK
ALTERNATE: (5) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (1) SIMPSON SDWC15600 SCREW									
ALTERNATE: (2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP
497	WIND	1.6	NO GOOD	N/A	N/A	OK	2	5	OK
ALTERNATE: (6) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (4) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
130 / 101 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
294	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE: (4) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (1) SIMPSON SDWC15600 SCREW									
ALTERNATE: (2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H8 TWIST STRAP
373	WIND	1.6	OK	3	4	OK	2	4	OK
ALTERNATE: (5) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
115 / 90 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
231	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE: (3) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (2) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (1) SIMPSON SDWC15600 SCREW									
ALTERNATE: (2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
292	WIND	1.6	OK	2	3	OK	2	3	OK
ALTERNATE: (4) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (3) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									



TRUSS CONNECTIONS

TRUSS NUMBER : HM773855
 PROJECT NUMBER : 190127
 TRUSS PITCH : 5/12
 TRUSS SPAN : 15'-2"
 UNIT WIDTH : 30'-4"



MAXIMUM OF DL + LL + 30 psf GSL & 150 / 119 mph WIND										
CONDITION "C" - KNEEWALL TO WEB MEMBER:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END
TENSION (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP	10 d NAILS
443	SNOW	1.15	OK	4	5	OK	2	5	OK	5
SHEAR (lbs)	CASE	CD								
157	SNOW	1.15	USE (3) 8 d NAILS TOENAILED KNEEWALL TO PLATE AND WEB MEMBER TO PLATE							
CONDITION "D" - TOP CHORD FLIP:										
TENSION (lbs)	CASE	CD								
55	SNOW	1.15	USE (2) 6 d NAILS THROUGH SHEATHING EACH SIDE							
ALTERNATE: USE (2) 16 ga STAPLE THROUGH SHEATHING EACH SIDE										
SHEAR (lbs)	CASE	CD								
38	SNOW	1.15	USE (2) 16 d NAILS TOENAILED EACH END PLUS USE 10 d NAILS AT 24 in O.C. THROUGH PLATES							

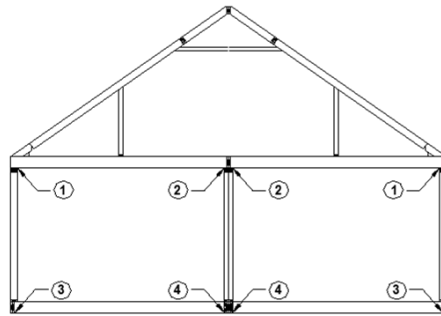


COMPONENT LOAD SUMMARY

EXTERIOR WALL DEAD LOAD = 12 psf x 10 ft = 120 plf
 MATING WALL DEAD LOAD = 8 psf x 10 ft = 80 plf
 FLOOR DEAD LOAD = 10 psf x 15.16 ft / 2 = 75.8 plf
 FLOOR LIVE LOAD = 40 psf x 15.16 ft / 2 = 303.2 plf
 CEILING DEAD LOAD = 5 psf x 15.16 ft / 2 = 37.9 plf

LOCATION 1 = EXT. WALL HEADER & EXT. WALL STUD
LOCATION 2 = M. WALL HEADER & M. WALL STUD
LOCATION 3 = PERIMETER BAND
LOCATION 4 = CENTER GIRDER
LOCATIONS 3 & 4 MAY BE USED TO GENERATE FOUNDATION LOADS

* CROSS SECTION IS FOR REFERENCE ONLY
 AND MAY NOT REFLECT ACTUAL TRUSS



TRUSS HM773855, 5/12 PITCH, 15'-2" WIDTH

COMPONENT LOADS (lbs/ft)

30 psf GROUND SNOW (MATING WALL LOADS ARE PER SIDE OF LINE)

LOCATION	1	2	3	4
DEAD LOAD	175	171	371	327
LIVE LOAD	201	196	505	500
TOTAL LOAD	376	367	876	827

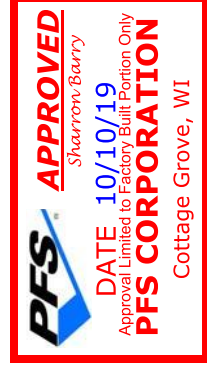
C & C UPLIFT

LOCATION	1	2	3	4
UPLIFT (0.6) DEAD LOAD	105	103	223	196
150 / 119 mph UPLIFT	196	249	-	-53
130 / 101 mph UPLIFT	147	187	-	-
115 / 90 mph UPLIFT	116	146	-	-



101/130 mph WIND, 5/12 PITCH, FIELD PRESSURE (27.47 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)
8 ft	2 x 4 SPF STUD GRADE	12	755	0.227	9 ft	2 x 4 SPF STUD GRADE	12	295	0.372	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-
		16	295	0.303			16	**NG**	-					
		19.2	295	0.364			19.2	**NG**	-					
	2 x 4 SPF #2	24	**NG**	-	9 ft	2 x 4 SPF #2	24	**NG**	-	10 ft	2 x 4 SPF #2	24	**NG**	-
		12	1565	0.195			12	1035	0.319					
		16	1265	0.26			16	740	0.426					
	2 x 4 SYP #2	19.2	1035	0.312	9 ft	2 x 4 SYP #2	19.2	**NG**	-	10 ft	2 x 4 SYP #2	19.2	**NG**	-
		24	685	0.39			24	**NG**	-					
		12	1395	0.195			12	865	0.319					
	2 x 6 SPF #2	16	1045	0.26	9 ft	2 x 6 SPF #2	16	510	0.426	10 ft	2 x 6 SPF #2	16	**NG**	-
		19.2	765	0.312			19.2	**NG**	-					
		24	320	0.39			24	**NG**	-					
	2 x 6 SYP #2	12	4790	0.059	9 ft	2 x 6 SYP #2	12	3605	0.096	10 ft	2 x 6 SYP #2	12	2610	0.149
		16	4180	0.078			16	2940	0.128					
		19.2	3705	0.094			19.2	2420	0.154					
	2 x 6 SPF #2	24	2995	0.117	9 ft	2 x 6 SPF #2	24	1605	0.192	10 ft	2 x 6 SPF #2	24	375	0.298
		12	7380	0.05			12	5625	0.082					
		16	6810	0.067			16	5055	0.11					
	2 x 6 SYP #2	19.2	6380	0.08	9 ft	2 x 6 SYP #2	19.2	4625	0.132	10 ft	2 x 6 SYP #2	19.2	3300	0.204
		24	5770	0.1			24	4010	0.164					
		12	7285	0.05			12	5450	0.082					
	2 x 6 SYP #2	16	6635	0.067	9 ft	2 x 6 SYP #2	16	4815	0.11	10 ft	2 x 6 SYP #2	16	3455	0.17
		19.2	6150	0.08			19.2	4330	0.132					
		24	5455	0.1			24	3635	0.164					



THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS

EVEN IF RATIO MEETS CODE REQUIREMENTS

190284

101/130 mph WIND, 5/12 PITCH, EDGE PRESSURE (33.35 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)
8 ft	2 x 4 SPF STUD GRADE	12	470	0.276	9 ft	2 x 4 SPF STUD GRADE	12	**NG**	-	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-
		16	295	0.368			16	**NG**	-			16	**NG**	-
		19.2	**NG**	-			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
		12	1370	0.237			12	845	0.387			12	**NG**	-
		16	1020	0.316			16	**NG**	-			16	**NG**	-
	2 x 4 SPF #2	19.2	735	0.379	9 ft	2 x 4 SPF #2	19.2	**NG**	-	10 ft	2 x 4 SPF #2	19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
		12	1170	0.237			12	640	0.387			12	**NG**	-
		16	745	0.316			16	**NG**	-			16	**NG**	-
		19.2	385	0.379			19.2	**NG**	-			19.2	**NG**	-
		24	**NG**	-			24	**NG**	-			24	**NG**	-
	2 x 4 SYP #2	12	4395	0.071	9 ft	2 x 4 SYP #2	12	3175	0.116	10 ft	2 x 4 SYP #2	12	2160	0.181
		16	3670	0.095			16	2380	0.155			16	1300	0.241
		19.2	3095	0.114			19.2	1725	0.186			19.2	530	0.289
		24	2205	0.142			24	625	0.233			24	295	0.361
		12	7005	0.061			12	5250	0.1			12	3915	0.155
		16	6350	0.081			16	4595	0.133			16	3265	0.206
	2 x 6 SPF #2	19.2	5855	0.098	9 ft	2 x 6 SPF #2	19.2	4095	0.16	10 ft	2 x 6 SPF #2	19.2	2770	0.248
		24	5140	0.122			24	3370	0.2			24	2025	0.31
		12	6860	0.061			12	5035	0.1			12	3670	0.155
		16	6115	0.081			16	4300	0.133			16	2945	0.206
		19.2	5555	0.098			19.2	3735	0.16			19.2	2375	0.248
		24	4740	0.122			24	2900	0.2			24	1505	0.31



THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS

EVEN IF RATIO MEETS CODE REQUIREMENTS

190284



**EXTERIOR WALL HEADER - 1 STORY (LOCATION 1)
TRUSS HM773855**

5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

2x3 FOR (1) MEMBER HEADERS
2x4 FOR (2) MEMBER HEADERS
2x6 FOR (3) MEMBER HEADERS

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END			UPLIFT (plf)	UPLIFT REACTION (lbs)
							SPF #2	SYP #2	SPF STUD		
2 x 4 SPF #2	1	201	378	2' - 10"	Lb	0.075	1	1	1	196	280
2 x 6 SPF #2	1	201	378	4' - 2"	Lb	0.088	2	2	2	196	409
2 x 8 SPF #2	1	201	378	5' - 3"	Lb	0.1	2	2	2	196	518
2 x 10 SPF #2	1	201	378	6' - 5"	Lb	0.107	2	2	2	196	633
2 x 12 SPF #2	1	201	378	7' - 5"	Lb	0.108	2	2	2	196	734
2 x 4 SYP #2	1	201	378	2' - 7"	Lb	0.053	1	1	1	196	256
2 x 6 SYP #2	1	201	378	3' - 10"	Lb	0.068	2	2	2	196	383
2 x 8 SYP #2	1	201	378	4' - 11"	Lb	0.078	2	2	2	196	487
2 x 10 SYP #2	1	201	378	5' - 10"	Lb	0.074	2	2	2	196	577
2 x 12 SYP #2	1	201	378	7' - 1"	Lb	0.09	2	2	2	196	702
1.5 x 3.5 LVL	1	201	378	4' - 0"	Lb	0.206	2	2	2	196	393
1.5 x 5.5 LVL	1	201	378	6' - 2"	Lb	0.304	2	2	2	196	609
1.5 x 7.25 LVL	1	201	378	8' - 1"	Lb	0.387	2	2	2	196	795
1.5 x 9.25 LVL	1	201	378	10' - 3"	Lb	0.479	2	2	3	196	1007
1.5 x 11.25 LVL	1	201	378	12' - 4"	Lb	0.568	3	3	3	196	1217
1.5 x 12 LVL	1	201	378	13' - 2"	Lb	0.6	3	3	3	196	1295
1.5 x 14 LVL	1	201	378	15' - 4"	Lb	0.687	3	3	3	196	1503
1.5 x 16 LVL	1	201	378	17' - 5"	Lb	0.771	3	3	3	196	1711
1.5 x 18 LVL	1	201	378	19' - 6"	Lb	0.854	3	3	3	196	1917
1.5 x 20 LVL	1	201	378	21' - 7"	Lb	0.936	3	3	3	196	2123
1.5 x 22 LVL	1	201	378	23' - 9"	Lb	1.017	3	3	3	196	2328
1.5 x 24 LVL	1	201	378	25' - 10"	Lb	1.097	3	3	3	196	2532
2 x 4 SPF #2	2	201	378	4' - 0"	Lb	0.151	1	1	1	196	396
2 x 6 SPF #2	2	201	378	5' - 10"	Lb	0.177	1	1	1	196	578
2 x 8 SPF #2	2	201	378	7' - 5"	Lb	0.2	1	1	1	196	733
2 x 10 SPF #2	2	201	378	9' - 1"	Lb	0.214	1	1	2	196	896
2 x 12 SPF #2	2	201	378	10' - 7"	Lb	0.215	2	2	2	196	1039
2 x 4 SYP #2	2	201	378	3' - 8"	Lb	0.106	1	1	1	196	362
2 x 6 SYP #2	2	201	378	5' - 6"	Lb	0.136	1	1	1	196	542
2 x 8 SYP #2	2	201	378	7' - 0"	Lb	0.155	1	1	1	196	688
2 x 10 SYP #2	2	201	378	8' - 3"	Lb	0.148	1	1	1	196	817
2 x 12 SYP #2	2	201	378	10' - 1"	Lb	0.18	2	2	2	196	993
1.5 x 3.5 LVL	2	201	378	5' - 8"	Lb	0.411	1	1	1	196	556
1.5 x 5.5 LVL	2	201	378	8' - 9"	Lb	0.609	1	1	2	196	861
1.5 x 7.25 LVL	2	201	378	11' - 5"	Lb	0.775	2	2	2	196	1125
1.5 x 9.25 LVL	2	201	378	14' - 6"	Lb	0.957	2	2	2	196	1424
1.5 x 11.25 LVL	2	201	378	17' - 6"	Lb	1.135	2	2	3	196	1721
1.5 x 12 LVL	2	201	378	18' - 8"	Lb	1.2	2	2	3	196	1831
1.5 x 14 LVL	2	201	378	21' - 8"	Lb	1.373	3	3	3	196	2126
1.5 x 16 LVL	2	201	378	24' - 8"	Lb	1.542	3	3	3	196	2419
1.5 x 18 LVL	2	201	378	27' - 7"	Lb	1.708	3	3	3	196	2711
1.5 x 20 LVL	2	201	378	30' - 7"	Lb	1.872	3	3	3	196	3002
1.5 x 22 LVL	2	201	378	33' - 7"	Lb	2.034	3	3	3	196	3292
1.5 x 24 LVL	2	201	378	36' - 6"	Lb	2.194	3	3	3	196	3581
2 x 4 SPF #2	3	201	378	4' - 11"	Lb	0.226	1	1	1	196	485
2 x 6 SPF #2	3	201	378	7' - 2"	Lb	0.265	1	1	1	196	708
2 x 8 SPF #2	3	201	378	9' - 1"	Lb	0.3	1	1	1	196	898
2 x 10 SPF #2	3	201	378	11' - 2"	Lb	0.321	1	1	1	196	1097
2 x 12 SPF #2	3	201	378	12' - 11"	Lb	0.323	1	1	1	196	1272
2 x 4 SYP #2	3	201	378	4' - 6"	Lb	0.159	1	1	1	196	444
2 x 6 SYP #2	3	201	378	6' - 9"	Lb	0.205	1	1	1	196	664
2 x 8 SYP #2	3	201	378	8' - 7"	Lb	0.233	1	1	1	196	843
2 x 10 SYP #2	3	201	378	10' - 2"	Lb	0.222	1	1	1	196	1000
2 x 12 SYP #2	3	201	378	12' - 4"	Lb	0.27	1	1	1	196	1216
1.5 x 3.5 LVL	3	201	378	6' - 11"	Lb	0.617	1	1	1	196	681
1.5 x 5.5 LVL	3	201	378	10' - 9"	Lb	0.913	1	1	1	196	1054
1.5 x 7.25 LVL	3	201	378	14' - 0"	Lb	1.162	1	1	1	196	1378
1.5 x 9.25 LVL	3	201	378	17' - 9"	Lb	1.436	1	1	1	196	1744
1.5 x 11.25 LVL	3	201	378	21' - 6"	Lb	1.703	1	1	1	196	2107
1.5 x 12 LVL	3	201	378	22' - 10"	Lb	1.801	1	1	1	196	2243
1.5 x 14 LVL	3	201	378	26' - 6"	Lb	2.06	1	1	2	196	2604
1.5 x 16 LVL	3	201	378	30' - 2"	Lb	2.313	1	1	2	196	2963
1.5 x 18 LVL	3	201	378	33' - 10"	Lb	2.561	2	1	2	196	3320
1.5 x 20 LVL	3	201	378	37' - 6"	Lb	2.808	2	2	2	196	3677
1.5 x 22 LVL	3	201	378	41' - 1"	Lb	3.052	2	2	2	196	4032
1.5 x 24 LVL	3	201	378	44' - 9"	Lb	3.291	2	2	2	196	4386

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS



ALL WINDS, ALL PITCHES, LATERAL PRESSURE (5 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)			
8 ft	2 x 3 SPF STUD GRADE	12	610	0.114	9 ft	2 x 3 SPF STUD GRADE	12	435	0.186	10 ft	2 x 3 SPF STUD GRADE	12	310	0.288			
		16	540	0.151			16	370	0.248			16	295	0.385			
		19.2	490	0.182			19.2	320	0.298			19.2	295	0.461			
	2 x 3 SPF #2	24	420	0.227		2 x 3 SPF #2	24	295	0.372		2 x 3 SYP #2	24	**NG**	2 x 3 SYP #2	24	335	0.494
		12	830	0.097			12	615	0.159			12	465		0.247		
		16	775	0.13			16	565	0.213			16	415		0.33		
	2 x 3 SYP #2	19.2	735	0.156		2 x 3 SYP #2	19.2	525	0.255		2 x 4 SYP #2	19.2	345	2 x 4 SYP #2	19.2	385	0.395
		24	680	0.195			24	475	0.319			24	435		0.247		
		12	800	0.097			12	585	0.159			12	385		0.33		
	8 ft	2 x 4 SPF STUD GRADE	16	740		0.13	9 ft	2 x 4 SPF STUD GRADE	16		530	0.213	10 ft	2 x 4 SPF STUD GRADE	16	1110	0.105
			19.2	695		0.156			19.2		485	0.255			16	1010	0.14
			24	630		0.195			24		430	0.319			19.2	940	0.168
2 x 4 SPF #2		12	1920	0.041	2 x 4 SPF #2	12		1450	0.068	2 x 4 SYP #2	12	1110		2 x 4 SYP #2	12	830	0.21
		16	1810	0.055		16		1345	0.09		16	1400			0.12		
		19.2	1725	0.066		19.2		1265	0.108		19.2	1340			0.144		
2 x 4 SYP #2		24	1605	0.083	2 x 4 SYP #2	24		1155	0.136	2 x 6 SPF STUD GRADE	24	1255		2 x 6 SPF STUD GRADE	24	1440	0.09
		12	2495	0.035		12		1905	0.058		12	1440			0.09		
		16	2400	0.047		16		1815	0.077		16	1345			0.12		
2 x 4 SYP #2		19.2	2330	0.057	2 x 4 SYP #2	19.2		1750	0.093	2 x 6 SPF #2	19.2	1685		2 x 6 SPF #2	19.2	1280	0.144
		24	2230	0.071		24		1660	0.116		24	1185			0.18		
		12	2450	0.035		12		1855	0.058		12	4600			0.027		
2 x 6 SPF STUD GRADE	16	2340	0.047	9 ft	2 x 6 SPF STUD GRADE	16	1755	0.077	10 ft	2 x 6 SPF STUD GRADE	16	4405	0.036				
	19.2	2260	0.057			19.2	1685	0.093			16	4260	0.043				
	24	2150	0.071			24	1585	0.116			19.2	4060	0.054				
2 x 6 SPF #2	12	6495	0.011		2 x 6 SPF #2	12	5520	0.017		2 x 6 SYP #2	12	6055	2 x 6 SYP #2	12	5545	0.046	
	16	6345	0.014			16	5340	0.023			16	6040		0.023			
	19.2	6230	0.017			19.2	5205	0.028			16	5870		0.031			
2 x 6 SYP #2	24	6065	0.021		2 x 6 SYP #2	24	5010	0.035		2 x 6 SYP #2	24	5545	2 x 6 SYP #2	24	5835	0.031	
	12	9150	0.009			12	7445	0.015			19.2	5735		0.037			
	16	8980	0.012			16	7260	0.02			24	5545		0.046			
2 x 6 SYP #2	19.2	8855	0.015		2 x 6 SYP #2	19.2	7125	0.024		2 x 6 SYP #2	19.2	7125	2 x 6 SYP #2	19.2	5685	0.037	
	24	8670	0.018			24	6935	0.03			12	6040		0.023			
	12	9325	0.009			12	7490	0.015			16	5835		0.031			
2 x 6 SYP #2	16	9125	0.012	2 x 6 SYP #2	16	7280	0.02	2 x 6 SYP #2	16	7280	2 x 6 SYP #2	16	5480	0.046			
	19.2	8970	0.015		19.2	7125	0.024		19.2	5685		0.037					
	24	8760	0.018		24	6910	0.03		24	5480		0.046					

*** LOADS AND QUANTITIES ARE PER SIDE OF MATING WALL

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS



MATING WALL HEADER - 1 STORY (LOCATION 2)
TRUSS HM778355
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

2x3 FOR (1) MEMBER HEADERS
 2x4 FOR (2) MEMBER HEADERS
 2x6 FOR (3) MEMBER HEADERS

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END	SPF #2	SYP #2	SPF STUD	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 4 SPF #2	1	198	367	2' - 10"	Lb	0.078	1	1	1	1	249	361
2 x 6 SPF #2	1	198	367	4' - 2"	Lb	0.091	2	2	2	2	249	527
2 x 8 SPF #2	1	198	367	5' - 4"	Lb	0.103	2	2	2	2	249	668
2 x 10 SPF #2	1	198	367	6' - 6"	Lb	0.111	2	2	2	2	249	816
2 x 12 SPF #2	1	198	367	7' - 7"	Lb	0.111	2	2	2	2	249	947
2 x 4 SYP #2	1	198	367	2' - 7"	Lb	0.055	1	1	1	1	249	330
2 x 6 SYP #2	1	198	367	3' - 11"	Lb	0.07	2	2	2	2	249	494
2 x 8 SYP #2	1	198	367	5' - 0"	Lb	0.08	2	2	2	2	249	627
2 x 10 SYP #2	1	198	367	5' - 11"	Lb	0.076	2	2	2	2	249	744
2 x 12 SYP #2	1	198	367	7' - 3"	Lb	0.093	2	2	2	2	249	905
1.5 x 3.5 LVL	1	198	367	4' - 0"	Lb	0.212	2	2	2	2	249	507
1.5 x 5.5 LVL	1	198	367	6' - 3"	Lb	0.314	2	2	2	2	249	785
1.5 x 7.25 LVL	1	198	367	8' - 2"	Lb	0.399	2	2	2	2	249	1025
1.5 x 9.25 LVL	1	198	367	10' - 5"	Lb	0.493	2	2	3	3	249	1298
1.5 x 11.25 LVL	1	198	367	12' - 7"	Lb	0.585	3	3	3	3	249	1569
1.5 x 12 LVL	1	198	367	13' - 4"	Lb	0.618	3	3	3	3	249	1670
1.5 x 14 LVL	1	198	367	15' - 6"	Lb	0.707	3	3	3	3	249	1938
1.5 x 16 LVL	1	198	367	17' - 8"	Lb	0.794	3	3	3	3	249	2205
1.5 x 18 LVL	1	198	367	19' - 10"	Lb	0.879	3	3	3	3	249	2471
1.5 x 20 LVL	1	198	367	21' - 11"	Lb	0.964	3	3	3	3	249	2737
1.5 x 22 LVL	1	198	367	24' - 1"	Lb	1.048	3	3	3	3	249	3001
1.5 x 24 LVL	1	198	367	26' - 2"	Lb	1.13	3	3	3	3	249	3265
2 x 4 SPF #2	2	198	367	4' - 1"	Lb	0.155	1	1	1	1	249	510
2 x 6 SPF #2	2	198	367	5' - 11"	Lb	0.182	1	1	1	1	249	745
2 x 8 SPF #2	2	198	367	7' - 7"	Lb	0.206	1	1	1	1	249	945
2 x 10 SPF #2	2	198	367	9' - 3"	Lb	0.221	1	1	2	2	249	1155
2 x 12 SPF #2	2	198	367	10' - 9"	Lb	0.222	2	2	2	2	249	1339
2 x 4 SYP #2	2	198	367	3' - 9"	Lb	0.109	1	1	1	1	249	467
2 x 6 SYP #2	2	198	367	5' - 7"	Lb	0.141	1	1	1	1	249	699
2 x 8 SYP #2	2	198	367	7' - 1"	Lb	0.16	1	1	1	1	249	887
2 x 10 SYP #2	2	198	367	8' - 5"	Lb	0.152	1	1	1	1	249	1053
2 x 12 SYP #2	2	198	367	10' - 3"	Lb	0.185	1	1	2	2	249	1280
1.5 x 3.5 LVL	2	198	367	5' - 9"	Lb	0.423	1	1	1	1	249	717
1.5 x 5.5 LVL	2	198	367	8' - 10"	Lb	0.627	1	1	2	2	249	1110
1.5 x 7.25 LVL	2	198	367	11' - 7"	Lb	0.798	2	2	2	2	249	1450
1.5 x 9.25 LVL	2	198	367	14' - 8"	Lb	0.986	2	2	2	2	249	1836
1.5 x 11.25 LVL	2	198	367	17' - 9"	Lb	1.169	2	2	3	3	249	2218
1.5 x 12 LVL	2	198	367	18' - 11"	Lb	1.236	2	2	3	3	249	2361
1.5 x 14 LVL	2	198	367	22' - 0"	Lb	1.414	3	3	3	3	249	2741
1.5 x 16 LVL	2	198	367	25' - 0"	Lb	1.588	3	3	3	3	249	3119
1.5 x 18 LVL	2	198	367	28' - 0"	Lb	1.759	3	3	3	3	249	3495
1.5 x 20 LVL	2	198	367	31' - 1"	Lb	1.928	3	3	3	3	249	3870
1.5 x 22 LVL	2	198	367	34' - 1"	Lb	2.095	3	3	3	3	249	4245
1.5 x 24 LVL	2	198	367	37' - 1"	Lb	2.26	3	3	3	3	249	4617
2 x 4 SPF #2	3	198	367	5' - 0"	Lb	0.233	1	1	1	1	249	625
2 x 6 SPF #2	3	198	367	7' - 3"	Lb	0.273	1	1	1	1	249	913
2 x 8 SPF #2	3	198	367	9' - 3"	Lb	0.309	1	1	1	1	249	1158
2 x 10 SPF #2	3	198	367	11' - 4"	Lb	0.331	1	1	1	1	249	1414
2 x 12 SPF #2	3	198	367	13' - 2"	Lb	0.333	1	1	1	1	249	1640
2 x 4 SYP #2	3	198	367	4' - 7"	Lb	0.164	1	1	1	1	249	572
2 x 6 SYP #2	3	198	367	6' - 10"	Lb	0.211	1	1	1	1	249	856
2 x 8 SYP #2	3	198	367	8' - 8"	Lb	0.24	1	1	1	1	249	1087
2 x 10 SYP #2	3	198	367	10' - 4"	Lb	0.229	1	1	1	1	249	1289
2 x 12 SYP #2	3	198	367	12' - 7"	Lb	0.278	1	1	1	1	249	1568
1.5 x 3.5 LVL	3	198	367	7' - 0"	Lb	0.635	1	1	1	1	249	878
1.5 x 5.5 LVL	3	198	367	10' - 11"	Lb	0.941	1	1	1	1	249	1359
1.5 x 7.25 LVL	3	198	367	14' - 3"	Lb	1.197	1	1	1	1	249	1776
1.5 x 9.25 LVL	3	198	367	18' - 0"	Lb	1.479	1	1	1	1	249	2248
1.5 x 11.25 LVL	3	198	367	21' - 9"	Lb	1.754	1	1	1	1	249	2717
1.5 x 12 LVL	3	198	367	23' - 2"	Lb	1.855	1	1	1	1	249	2892
1.5 x 14 LVL	3	198	367	26' - 11"	Lb	2.121	1	1	2	2	249	3357
1.5 x 16 LVL	3	198	367	30' - 8"	Lb	2.382	1	1	2	2	249	3820
1.5 x 18 LVL	3	198	367	34' - 4"	Lb	2.638	1	1	2	2	249	4281
1.5 x 20 LVL	3	198	367	38' - 0"	Lb	2.892	2	2	2	2	249	4740
1.5 x 22 LVL	3	198	367	41' - 9"	Lb	3.143	2	2	2	2	249	5198
1.5 x 24 LVL	3	198	367	45' - 5"	Lb	3.39	2	2	2	2	249	5655

*** LOADS AND QUANTITIES ARE PER SIDE OF MATING LINE

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
 EVEN IF RATIO MEETS CODE REQUIREMENTS



PERIMETER BAND - 1 STORY (LOCATION 3)
TRUSS HM773855
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	505	878	3' - 5"	Lb	0.043	0	0
2 x 10 SPF #2	1	505	878	4' - 2"	Lb	0.046	0	0
2 x 12 SPF #2	1	505	878	4' - 11"	Lb	0.046	0	0
2 x 8 SYP #2	1	505	878	3' - 3"	Lb	0.033	0	0
2 x 10 SYP #2	1	505	878	3' - 10"	Lb	0.032	0	0
2 x 12 SYP #2	1	505	878	4' - 8"	Lb	0.039	0	0
1.5 x 7.25 LVL	1	505	878	5' - 3"	Lb	0.167	0	0
1.5 x 9.25 LVL	1	505	878	6' - 8"	Lb	0.206	0	0
1.5 x 11.25 LVL	1	505	878	8' - 1"	Lb	0.244	0	0
2 x 8 SPF #2	2	505	878	4' - 10"	Lb	0.086	0	0
2 x 10 SPF #2	2	505	878	5' - 11"	Lb	0.092	0	0
2 x 12 SPF #2	2	505	878	6' - 11"	Lb	0.093	0	0
2 x 8 SYP #2	2	505	878	4' - 7"	Lb	0.067	0	0
2 x 10 SYP #2	2	505	878	5' - 5"	Lb	0.064	0	0
2 x 12 SYP #2	2	505	878	6' - 7"	Lb	0.077	0	0
1.5 x 7.25 LVL	2	505	878	7' - 6"	Lb	0.333	0	0
1.5 x 9.25 LVL	2	505	878	9' - 6"	Lb	0.412	0	0
1.5 x 11.25 LVL	2	505	878	11' - 6"	Lb	0.489	0	0
2 x 8 SPF #2	3	505	878	6' - 0"	Lb	0.129	0	0
2 x 10 SPF #2	3	505	878	7' - 4"	Lb	0.138	0	0
2 x 12 SPF #2	3	505	878	8' - 6"	Lb	0.139	0	0
2 x 8 SYP #2	3	505	878	5' - 7"	Lb	0.1	0	0
2 x 10 SYP #2	3	505	878	6' - 8"	Lb	0.096	0	0
2 x 12 SYP #2	3	505	878	8' - 1"	Lb	0.116	0	0
1.5 x 7.25 LVL	3	505	878	9' - 2"	Lb	0.5	0	0
1.5 x 9.25 LVL	3	505	878	11' - 8"	Lb	0.618	0	0
1.5 x 11.25 LVL	3	505	878	14' - 1"	Lb	0.733	0	0

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
 EVEN IF RATIO MEETS CODE REQUIREMENTS



**FLOOR JOIST (10 psf DEAD LOAD / 40 psf LIVE LOAD)
 ALL LEVELS**

MEMBER	QTY	SPACING (in O.C.)	TOTAL LOAD (plf)	LIVE LOAD (plf)	MAX. SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)
2 x 8 SPF #2	1	12	50	40	13' - 6"	Ld LL - I/360	0.563
2 x 10 SPF #2	1	12	50	40	17' - 2"	Ld LL - I/360	0.719
2 x 12 SPF #2	1	12	50	40	20' - 7"	Lb	0.814
2 x 8 SYP #2	1	12	50	40	13' - 6"	Ld LL - I/360	0.563
2 x 10 SYP #2	1	12	50	40	16' - 2"	Lb	0.559
2 x 12 SYP #2	1	12	50	40	19' - 8"	Lb	0.68
2 x 8 SPF #2	1	16	66.67	53.33	12' - 3"	Ld LL - I/360	0.512
2 x 10 SPF #2	1	16	66.67	53.33	15' - 4"	Lb	0.607
2 x 12 SPF #2	1	16	66.67	53.33	17' - 10"	Lb	0.61
2 x 8 SYP #2	1	16	66.67	53.33	11' - 9"	Lb	0.44
2 x 10 SYP #2	1	16	66.67	53.33	14' - 0"	Lb	0.419
2 x 12 SYP #2	1	16	66.67	53.33	17' - 0"	Lb	0.51
2 x 8 SPF #2	1	19.2	80	64	11' - 5"	Lb	0.472
2 x 10 SPF #2	1	19.2	80	64	14' - 0"	Lb	0.506
2 x 12 SPF #2	1	19.2	80	64	16' - 3"	Lb	0.509
2 x 8 SYP #2	1	19.2	80	64	10' - 9"	Lb	0.366
2 x 10 SYP #2	1	19.2	80	64	12' - 9"	Lb	0.35
2 x 12 SYP #2	1	19.2	80	64	15' - 6"	Lb	0.425
2 x 8 SPF #2	1	24	100	80	10' - 3"	Lb	0.378
2 x 10 SPF #2	1	24	100	80	12' - 6"	Lb	0.405
2 x 12 SPF #2	1	24	100	80	14' - 6"	Lb	0.407
2 x 8 SYP #2	1	24	100	80	9' - 7"	Lb	0.293
2 x 10 SYP #2	1	24	100	80	11' - 5"	Lb	0.28
2 x 12 SYP #2	1	24	100	80	13' - 11"	Lb	0.34

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
 EVEN IF RATIO MEETS CODE REQUIREMENTS



CENTER GIRDER - 1 STORY (LOCATION 4)
TRUSS HM778355
5/12 PITCH, 30.33 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	500	827	3' - 6"	Lb	0.046	53	95
2 x 10 SPF #2	1	500	827	4' - 4"	Lb	0.049	53	116
2 x 12 SPF #2	1	500	827	5' - 0"	Lb	0.049	53	134
2 x 8 SYP #2	1	500	827	3' - 4"	Lb	0.035	53	89
2 x 10 SYP #2	1	500	827	3' - 11"	Lb	0.034	53	106
2 x 12 SYP #2	1	500	827	4' - 10"	Lb	0.041	53	128
1.5 x 7.25 LVL	1	500	827	5' - 5"	Lb	0.177	53	145
1.5 x 9.25 LVL	1	500	827	6' - 11"	Lb	0.219	53	184
1.5 x 11.25 LVL	1	500	827	8' - 4"	Lb	0.259	53	222
2 x 8 SPF #2	2	500	827	5' - 0"	Lb	0.091	53	134
2 x 10 SPF #2	2	500	827	6' - 2"	Lb	0.098	53	164
2 x 12 SPF #2	2	500	827	7' - 1"	Lb	0.098	53	190
2 x 8 SYP #2	2	500	827	4' - 8"	Lb	0.071	53	126
2 x 10 SYP #2	2	500	827	5' - 7"	Lb	0.068	53	149
2 x 12 SYP #2	2	500	827	6' - 10"	Lb	0.082	53	182
1.5 x 7.25 LVL	2	500	827	7' - 9"	Lb	0.354	53	206
1.5 x 9.25 LVL	2	500	827	9' - 9"	Lb	0.438	53	260
1.5 x 11.25 LVL	2	500	827	11' - 10"	Lb	0.519	53	315
2 x 8 SPF #2	3	500	827	6' - 2"	Lb	0.137	53	164
2 x 10 SPF #2	3	500	827	7' - 6"	Lb	0.147	53	201
2 x 12 SPF #2	3	500	827	8' - 9"	Lb	0.148	53	233
2 x 8 SYP #2	3	500	827	5' - 9"	Lb	0.106	53	154
2 x 10 SYP #2	3	500	827	6' - 10"	Lb	0.101	53	183
2 x 12 SYP #2	3	500	827	8' - 4"	Lb	0.123	53	222
1.5 x 7.25 LVL	3	500	827	9' - 6"	Lb	0.531	53	252
1.5 x 9.25 LVL	3	500	827	12' - 0"	Lb	0.656	53	319
1.5 x 11.25 LVL	3	500	827	14' - 6"	Lb	0.778	53	385

*** LOADS AND QUANTITIES ARE PER SIDE OF MATING LINE

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
DESIGN LIMITATIONS:				
MINIMUM BUILDING LENGTH :	7.6	7.6	7.6	ft (1.1.3.1, pp. 3)
MAXIMUM BUILDING LENGTH :	121.3	121.3	121.3	ft (1.1.3.1, pp. 3)
MAX. VERTICAL FLOOR OFFSET :	FLOOR DEPTH	FLOOR DEPTH	FLOOR DEPTH	ft (2.1.3.2 pp. 16)
MAXIMUM FLOOR DIAPHRAM LENGTH :	121.3	121.3	121.3	ft (2.1.3.2 pp. 16)
MAX. FLOOR DIAPHRAM OPENING WIDTH :	12	12	12	ft (2.1.3.2 pp. 16)
MAX. FLOOR DIAPHRAM OPENING LENGTH :	12	12	12	ft (2.1.3.2 pp. 16)
MAXIMUM CEILING DIAPHRAM LENGTH :	60	60	60	ft (2.1.3.2 pp. 16)
MAXIMUM SHEARWALL LINE OFFSET :	4	4	4	ft (2.1.3.3 pp. 16)
MAXIMUM SHEARWALL STORY OFFSET :	FLOOR DEPTH	FLOOR DEPTH	FLOOR DEPTH	ft (2.1.3.3 pp. 16)
MINIMUM SHEARWALL SEGMENT LENGTH :	2' - 7"	2' - 7"	2' - 7"	ft (2.1.3.3 pp. 16)
MAXIMUM ROOF DIAPHRAM LENGTH :	121.3	121.3	121.3	ft (2.1.3.4, pp. 16)

	5/12 PITCH, 30.33 ft WIDTH	12 PITCH, 30.33 ft WIDTH	12 PITCH, 30.33 ft WIDTH	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	11	150	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
UPLIFT CONNECTIONS:				
MRH ADJUSTMENT FACTOR (C _{MRH}):	1.208	1.208	1.208	(TABLE 2.1.3.1, pp. 15)
UPLIFT CONNECTION LOADS FROM WIND :	58	74	98	plf (TRUSS SHEETS)
<u>REQUIRED TRUSS TIE DOWN :</u>				
AT 12" O.C.:	58	74	98	lbs AT 12" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	
AT 16" O.C.:	78	99	131	lbs AT 16" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	
AT 19.2" O.C.:	93	119	157	lbs AT 19.2" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	
AT 24" O.C.:	116	148	196	lbs AT 24" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
<u>1ST FLOOR STUD TO TOP PLATE / CEILING BAND</u>				
AT 12" O.C.:	58	74	98	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	1	
QTY OF 16 ga. STAPLES EACH END	2	2	3	
AT 16" O.C.:	78	99	131	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	3	3	
AT 19.2" O.C.:	93	119	157	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	3	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	3	4	
AT 24" O.C.:	116	148	196	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	3	3	
8d COMMON NAIL (FACE NAILED)	2	2	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	2	2	
QTY OF 16 ga. STAPLES EACH END	3	4	5	
<u>REQUIRED DOUBLE TOP PLATE SPLICE LENGTH :</u>				
w/ (2) ROWS 16d COMMON NAILS AT	6	6	6	ft
OR	12	12	12	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	6	6	6	ft
OR	9	9	9	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	4	4	4	ft
OR	6	6	6	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	2	2	2	ft
OR	3	3	3	in O.C.
<u>1st FLOOR STUD TO FLOOR BAND CONNECTION :</u>				
AT 12" O.C.:	0	10	34	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	1	
AT 16" O.C.:	0	13	45	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	1	
AT 19.2" O.C.:	0	16	54	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	2	
AT 24" O.C.:	0	19	67	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	1	1	
QTY OF 16 ga. STAPLES EACH END	0	1	2	
<u>FLOOR BAND TO SILL PLATE CONNECTION:</u>				
ANCHOR BOLT UPLIFT AT 72 in (MAX) SPACING	0	0	0	plf
CONNECTOR EACH STUD WRAPPED AROUND SILL	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	0	0	0	
QTY OF 16 ga. STAPLES EACH END	0	0	0	
<u>CHECK BENDING IN RIMBAND:</u>				
DBL. 2x10 SPF #2 RIMBAND DESIGN VALUES:	OK FOR BENDING	OK FOR BENDING	OK FOR BENDING	





	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
LATERAL CONNECTIONS:				
LATERAL LOADS AT ROOF/CEILING DIAPHRAGM				
WALL HEIGHT ADJUSTMENT FACTOR (C_{WH}):	1.125	1.125	1.125	(H / 8)
WIND PERPENDICULAR TO RIDGE:				
W_{l-per} :	78	84	111	plf (TABLE 2.5A, pp. 68)
$W_{l-per} \times C_{MRH} \times C_{WH} =$	107	115	151	plf
WIND PARALLEL TO RIDGE:				
W_{l-para} :	78	94	125	plf (TABLE 2.5B, pp. 69)
$W_{l-para} \times C_{MRH} \times C_{WH} =$	107	129	171	plf
LATERAL LOADS AT FLOOR DIAPHRAGM				
WIND PERPENDICULAR TO RIDGE:				
FL_{l-per} :	148	189	251	plf (TABLE 2.5A, pp. 68)
$FL_{l-per} \times C_{MRH} \times C_{WH} =$	202	257	342	plf
WIND PARALLEL TO RIDGE:				
FL_{l-para} :	100	128	171	plf (TABLE 2.5B, pp. 69)
$FL_{l-para} \times C_{MRH} \times C_{WH} =$	136	174	233	plf
LATERAL FRAMING CONNECTION LOADS FROM WIND				
W_{l-wall} :	80	102	136	plf (TABLE 2.1, pp. 62)
$W_{l-wall} \times C_{MRH} =$	97	124	165	plf
TRUSS TO TOP PLATE CONNECTION FOR LATERAL LOAD:				
AT 12" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	97	124	165	lbs AT 12" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	1	1	TOENAILS
AT 16" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	130	166	220	lbs AT 16" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	1	6	TOENAILS
AT 19.2" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	156	199	264	lbs AT 19.2" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	2	7	TOENAILS
AT 24" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	194	248	330	lbs AT 24" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	2	6	8	TOENAILS
PLATE TO PLATE CONNECTION				
AND BOTTOM PLATE TO FLOOR CONNECTION:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED	9	7	5	in O.C.
PLATE TO STUD CONNECTION:				
AT 12" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	97	124	165	lbs AT 12" O.C.
AT 16" O.C.:	2	2	3	FACE
AT 16" O.C.:	130	166	220	lbs AT 16" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	2	3	4	FACE
AT 19.2" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	156	199	264	lbs AT 19.2" O.C.
AT 24" O.C.:	3	3	4	FACE
AT 24" O.C.:	194	248	330	lbs AT 24" O.C.
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	3	4	5	FACE



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF SHEATHING SUCTION CONNECTION				
FOR ZONE 1 (FIELD) PRESSURE:				
$x C_{MRH} =$	14.7	18.7	25	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	18	23	31	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	31	lbs AT 12" O.C.
AT 16" O.C.:	24	31	41	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	29	37	50	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	36	46	62	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
FOR ZONE 2 (EDGE) PRESSURE:				
$x C_{MRH} =$	24.6	31.5	41.9	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	30	39	51	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	lbs AT 12" O.C.
AT 16" O.C.:	40	52	68	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	48	62	82	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	10	in O.C.
AT 24" O.C.:	60	78	102	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	11	8	in O.C.
FOR ZONE 3 (CORNER) PRESSURE:				
$x C_{MRH} =$	37	47.3	63	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	45	58	77	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	11	lbs AT 12" O.C.
AT 16" O.C.:	60	77	103	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	11	8	in O.C.
AT 19.2" O.C.:	72	93	123	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	9	7	in O.C.
AT 24" O.C.:	90	116	154	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	9	7	5	in O.C.
FOR ZONE 3OH (CORNER OVERHANG) PRESSURE:				
$x C_{MRH} =$	46	58.8	78.3	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	56	72	95	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	9	lbs AT 12" O.C.
AT 16" O.C.:	75	96	127	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	11	9	7	in O.C.
AT 19.2" O.C.:	90	115	152	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	9	7	5	in O.C.
AT 24" O.C.:	112	144	190	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	7	6	4	in O.C.
WALL SHEATHING SUCTION CONNECTION:				
FOR ZONE 4 (FIELD) PRESSURE:				
$x C_{MRH} =$	15.9	20.3	27.1	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	20	25	33	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	lbs AT 12" O.C.
AT 16" O.C.:	27	33	44	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	32	40	53	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	40	50	66	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
FOR ZONE 5 (EDGE) PRESSURE:				
$x C_{MRH} =$	19.6	25.1	33.4	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	24	31	41	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	lbs AT 12" O.C.
AT 16" O.C.:	32	41	55	lbs AT 16" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 19.2" O.C.:	38	50	66	lbs AT 19.2" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	12	in O.C.
AT 24" O.C.:	48	62	82	lbs AT 24" O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	12	12	10	in O.C.



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF DIAPHRAM:				(TABLE A-3.12A, pp. 193)
REQUIRED SHEATHING THICKNESS:				
AT 12" O.C.:	3/8	3/8	3/8	FOR 12" O.C.
AT 16" O.C.:	3/8	3/8	3/8	FOR 16" O.C.
AT 19.2" O.C.:	3/8	3/8	7/16	FOR 19.2" O.C.
AT 24" O.C.:	3/8	7/16	19/32	FOR 24" O.C.
ROOF SHEATHING DIAPHRAM CONNECTION:				(TABLES 2.5-1 & 2, pp. 70-
$V_{roof} =$				
AT 30 ft LENGTH:	53	64	85	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	62	74	99	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	71	85	113	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	79	96	127	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	88	106	141	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	97	117	155	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	106	128	169	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	115	138	183	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	123	149	197	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	132	159	211	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	141	170	226	plf AT 80 ft LENGTH
USE HORIZONTAL DIAPHRAM ASSEMBLIES (WFCM 2001 TABLE 2C, pp. 272)				
TO DETERMINE APPLICABLE ROOF SHEATHING FASTENING				
HORIZONTAL FLOOR DIAPHRAM CONTINUITY:				
$V_{floor} =$				
AT 30 ft LENGTH:	100	127	169	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	117	148	197	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	133	169	226	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	150	191	254	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	167	212	282	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	183	233	310	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	200	254	338	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	216	275	366	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	233	297	395	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	250	318	423	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	266	339	451	plf AT 80 ft LENGTH



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG MATE LINE):				
TO ATTACH MODULE TO MODULE ALONG MATE LINE:				
$V_r =$				
AT 30 ft LENGTH:	2273	2892	3848	lbs AT 30 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	4	5	7	
MAXIMUM BOLT SPACING:	72	72	56	
AT 35 ft LENGTH:	2652	3374	4489	lbs AT 35 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	6	8	
MAXIMUM BOLT SPACING:	72	72	56	
AT 40 ft LENGTH:	3030	3855	5130	lbs AT 40 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	7	9	
MAXIMUM BOLT SPACING:	72	72	57	
AT 45 ft LENGTH:	3409	4337	5772	lbs AT 45 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	6	7	10	
MAXIMUM BOLT SPACING:	72	72	57	
AT 50 ft LENGTH:	3788	4819	6413	lbs AT 50 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	8	11	
MAXIMUM BOLT SPACING:	72	72	57	
AT 55 ft LENGTH:	4167	5301	7054	lbs AT 55 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	9	12	
MAXIMUM BOLT SPACING:	72	72	57	
AT 60 ft LENGTH:	4545	5783	7695	lbs AT 60 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	8	10	13	
MAXIMUM BOLT SPACING:	72	72	58	
AT 65 ft LENGTH:	4924	6265	8337	lbs AT 65 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	8	11	14	
MAXIMUM BOLT SPACING:	72	72	58	
AT 70 ft LENGTH:	5303	6747	8978	lbs AT 70 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	9	11	15	
MAXIMUM BOLT SPACING:	72	72	58	
AT 75 ft LENGTH:	5682	7229	9619	lbs AT 75 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	12	16	
MAXIMUM BOLT SPACING:	72	72	58	
AT 80 ft LENGTH:	6060	7710	10260	lbs AT 80 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	13	17	
MAXIMUM BOLT SPACING:	72	72	58	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG ENDWALLS):				
T =				
AT 30 ft LENGTH:	391	501	670	lbs AT 30 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	4	4	6	
QTY OF 16 ga. STAPLES EACH END	9	11	14	
AT 35 ft LENGTH:	336	429	575	lbs AT 35 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	4	5	
QTY OF 16 ga. STAPLES EACH END	7	9	12	
AT 40 ft LENGTH:	294	376	503	lbs AT 40 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	3	4	
QTY OF 16 ga. STAPLES EACH END	7	8	11	
AT 45 ft LENGTH:	261	334	447	lbs AT 45 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	3	4	
QTY OF 16 ga. STAPLES EACH END	6	7	10	
AT 50 ft LENGTH:	235	301	402	lbs AT 50 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	4	
QTY OF 16 ga. STAPLES EACH END	5	7	9	
AT 55 ft LENGTH:	214	273	366	lbs AT 55 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	3	
QTY OF 16 ga. STAPLES EACH END	5	6	8	
AT 60 ft LENGTH:	196	251	335	lbs AT 60 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	5	6	7	
AT 65 ft LENGTH:	181	231	310	lbs AT 65 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	7	
AT 70 ft LENGTH:	168	215	288	lbs AT 70 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	
AT 75 ft LENGTH:	157	201	268	lbs AT 75 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	
AT 80 ft LENGTH:	147	188	252	lbs AT 80 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	2	
QTY OF 16 ga. STAPLES EACH END	4	4	6	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 60 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
FOR BUILDING LENGTH = 65 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
TRUSS BOTTOM CHORD TO TOP PLATE CONNECTION:				
$V_{MAX} =$				
AT 30 ft SIDEWALL LENGTH:	1605	1725	2265	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	18	17	13	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	72	
AT 35 ft SIDEWALL LENGTH:	1873	2013	2643	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	16	15	11	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	72	
AT 40 ft SIDEWALL LENGTH:	2140	2300	3020	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	14	13	10	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	69	
AT 45 ft SIDEWALL LENGTH:	2408	2588	3398	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	12	11	8	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	61	
AT 50 ft SIDEWALL LENGTH:	2675	2875	3775	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	11	10	8	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	72	55	
AT 55 ft SIDEWALL LENGTH:	2943	3163	4153	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	10	9	7	
OR SPACING OF (1) SIMPSON LTP4 PLATE	71	66	50	
AT 60 ft SIDEWALL LENGTH:	3210	3450	4530	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	9	8	6	
OR SPACING OF (1) SIMPSON LTP4 PLATE	65	60	46	
AT 65 ft SIDEWALL LENGTH:	3478	3738	4908	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	8	8	6	
OR SPACING OF (1) SIMPSON LTP4 PLATE	60	55	42	
AT 70 ft SIDEWALL LENGTH:	3745	4025	5285	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	8	7	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	55	51	39	
AT 75 ft SIDEWALL LENGTH:	4013	4313	5663	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	7	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	52	48	36	
AT 80 ft SIDEWALL LENGTH:	4280	4600	6040	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	6	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	48	45	34	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
	$V_{MAX} =$			
AT 30 ft SIDEWALL LENGTH:	3878	4617	6113	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	6	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	53	45	34	
AT 35 ft SIDEWALL LENGTH:	4525	5387	7132	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	6	5	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	46	38	29	
AT 40 ft SIDEWALL LENGTH:	5170	6155	8150	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	40	34	25	
AT 45 ft SIDEWALL LENGTH:	5817	6925	9170	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	35	30	22	
AT 50 ft SIDEWALL LENGTH:	6463	7694	10188	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	32	27	20	
AT 55 ft SIDEWALL LENGTH:	7110	8464	11207	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	29	24	18	
AT 60 ft SIDEWALL LENGTH:	7755	9233	12225	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	26	22	17	
AT 65 ft SIDEWALL LENGTH:	8402	10003	13245	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	24	20	15	
AT 70 ft SIDEWALL LENGTH:	9048	10772	14263	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	23	19	14	
AT 75 ft SIDEWALL LENGTH:	9695	11542	15282	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	21	18	13	
AT 80 ft SIDEWALL LENGTH:	10340	12310	16300	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	20	17	12	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
SILL PLATE TO FOUNDATION CONNECTION:				
$V_{MAX} =$				
AT 30 ft LENGTH:	3878	4617	6113	lbs AT 30 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	72	72	67	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	
AT 35 ft LENGTH:	4525	5387	7132	lbs AT 35 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	72	67	56	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	
AT 40 ft LENGTH:	5170	6155	8150	lbs AT 40 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	72	67	48	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	67	
AT 45 ft LENGTH:	5817	6925	9170	lbs AT 45 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	67	56	42	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	56	
AT 50 ft LENGTH:	6463	7694	10188	lbs AT 50 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	56	48	37	
SPACING OF 5/8" ANCHOR BOLTS:	72	67	56	
AT 55 ft LENGTH:	7110	8464	11207	lbs AT 55 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	56	42	33	
SPACING OF 5/8" ANCHOR BOLTS:	72	67	48	
AT 60 ft LENGTH:	7755	9233	12225	lbs AT 60 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	48	42	30	
SPACING OF 5/8" ANCHOR BOLTS:	67	56	42	
AT 65 ft LENGTH:	8402	10003	13245	lbs AT 65 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	48	37	28	
SPACING OF 5/8" ANCHOR BOLTS:	67	56	42	
AT 70 ft LENGTH:	9046	10772	14263	lbs AT 70 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	42	33	26	
SPACING OF 5/8" ANCHOR BOLTS:	56	48	37	
AT 75 ft LENGTH:	9695	11542	15282	lbs AT 75 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	37	33	24	
SPACING OF 5/8" ANCHOR BOLTS:	56	48	33	
AT 80 ft LENGTH:	10340	12310	16300	lbs AT 80 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	37	30	22	
SPACING OF 5/8" ANCHOR BOLTS:	56	42	33	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	mph
WIND:	115	130	150	
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 50 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	14.972	16.092	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	14.413	15.491	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	13.796	14.827	19.469	
FOR 70 PERCENT ENDWALL SHEATHING :	13.229	14.218	18.669	
FOR 75 PERCENT ENDWALL SHEATHING :	12.624	13.567	17.815	
FOR 80 PERCENT ENDWALL SHEATHING :	12.071	12.974	17.035	
FOR 85 PERCENT ENDWALL SHEATHING :	11.428	12.283	16.128	
FOR 90 PERCENT ENDWALL SHEATHING :	10.851	11.662	15.313	
FOR 95 PERCENT ENDWALL SHEATHING :	10.219	10.983	14.421	
FOR 100 PERCENT ENDWALL SHEATHING :	9.657	10.379	13.628	
FOR BUILDING LENGTH = 55 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	16.472	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	15.858	17.043	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	15.178	16.313	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	14.554	15.642	20.538	
FOR 75 PERCENT ENDWALL SHEATHING :	13.888	14.927	19.598	
FOR 80 PERCENT ENDWALL SHEATHING :	13.281	14.273	18.741	
FOR 85 PERCENT ENDWALL SHEATHING :	12.573	13.513	17.743	
FOR 90 PERCENT ENDWALL SHEATHING :	11.938	12.83	16.846	
FOR 95 PERCENT ENDWALL SHEATHING :	11.243	12.083	15.865	
FOR 100 PERCENT ENDWALL SHEATHING :	10.625	11.419	14.993	
FOR BUILDING LENGTH = 60 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	17.296	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	16.555	17.793	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	15.875	17.061	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	15.148	16.281	21.378	
FOR 80 PERCENT ENDWALL SHEATHING :	14.486	15.569	20.442	
FOR 85 PERCENT ENDWALL SHEATHING :	13.714	14.739	19.354	
FOR 90 PERCENT ENDWALL SHEATHING :	13.021	13.994	18.375	
FOR 95 PERCENT ENDWALL SHEATHING :	12.263	13.18	17.306	
FOR 100 PERCENT ENDWALL SHEATHING :	11.588	12.455	16.354	
FOR BUILDING LENGTH = 65 ft:				
FOR 30 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 50 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 55 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 60 PERCENT ENDWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 65 PERCENT ENDWALL SHEATHING :	17.937	19.278	** NG **	
FOR 70 PERCENT ENDWALL SHEATHING :	17.2	18.486	** NG **	
FOR 75 PERCENT ENDWALL SHEATHING :	16.413	17.64	** NG **	
FOR 80 PERCENT ENDWALL SHEATHING :	15.695	16.868	22.148	
FOR 85 PERCENT ENDWALL SHEATHING :	14.869	16.07	20.969	
FOR 90 PERCENT ENDWALL SHEATHING :	14.108	15.162	19.908	
FOR 95 PERCENT ENDWALL SHEATHING :	13.287	14.28	18.75	
FOR 100 PERCENT ENDWALL SHEATHING :	12.556	13.495	17.718	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 60 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
FOR BUILDING LENGTH = 65 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
SHEARWALL REACTION (R _{end}) =	1623	1957	2594	lbs
V _{MAX} =	3170	3937	5245	lbs
V =				
AT 30 ft LENGTH:	106	132	175	plf AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	9	7	5	
SPACING OF (1) SIMPSON LTP4 PLATE:	65	52	39	
AT 35 ft LENGTH:	91	113	150	plf AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	10	8	6	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	61	46	
AT 40 ft LENGTH:	80	99	132	plf AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	12	10	7	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	69	52	
AT 45 ft LENGTH:	71	88	117	plf AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	14	11	8	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	58	
AT 50 ft LENGTH:	64	79	105	plf AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	15	12	9	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	65	
AT 55 ft LENGTH:	58	72	96	plf AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	17	13	10	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	71	
AT 60 ft LENGTH:	53	66	88	plf AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	18	15	11	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 65 ft LENGTH:	49	61	81	plf AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	20	16	12	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 70 ft LENGTH:	46	57	75	plf AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	21	17	13	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 75 ft LENGTH:	43	53	70	plf AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	23	18	14	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 80 ft LENGTH:	40	50	66	plf AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	24	19	15	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
SILL PLATE TO FOUNDATION CONNECTION:				
V _{MAX} =	3170	3937	5245	lbs
SPACING OF 1/2" ANCHOR BOLTS:	72	72	72	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
PERFORATED SHEARWALL LENGTH REQUIREMENTS				
WALL CONSTRUCTION:				
EXTERIOR: 7/16" OSB (BLOCKED) FASTENED w/ 16 ga. STAPLES 6" EDGE / 12" FIELD				
INTERIOR: 1/2" GWB FASTENED w/ 5D NAILS 7" EDGE / 10" FIELD				
$V_{ALLOW} =$	277	277	277	plf
SIDEWALL - FULL HEIGHT SHEATHING REQUIRED (ft):				
FOR 30 PERCENT SIDEWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT SIDEWALL SHEATHING :	10.463	** NG **	** NG **	
FOR 40 PERCENT SIDEWALL SHEATHING :	10.102	** NG **	** NG **	
FOR 45 PERCENT SIDEWALL SHEATHING :	9.765	11.769	** NG **	
FOR 50 PERCENT SIDEWALL SHEATHING :	9.45	11.389	** NG **	
FOR 55 PERCENT SIDEWALL SHEATHING :	9.084	10.948	14.513	
FOR 60 PERCENT SIDEWALL SHEATHING :	8.745	10.539	13.972	
FOR 65 PERCENT SIDEWALL SHEATHING :	8.37	10.088	13.373	
FOR 70 PERCENT SIDEWALL SHEATHING :	8.026	9.673	12.823	
FOR 75 PERCENT SIDEWALL SHEATHING :	7.659	9.231	12.237	
FOR 80 PERCENT SIDEWALL SHEATHING :	7.324	8.827	11.701	
FOR 85 PERCENT SIDEWALL SHEATHING :	6.934	8.357	11.078	
FOR 90 PERCENT SIDEWALL SHEATHING :	6.583	7.934	10.518	
FOR 95 PERCENT SIDEWALL SHEATHING :	6.2	7.472	9.906	
FOR 100 PERCENT SIDEWALL SHEATHING :	5.859	7.061	9.361	



	5/12 PITCH, 30.33 ft WIDTH 115	5/12 PITCH, 30.33 ft WIDTH 130	5/12 PITCH, 30.33 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FIRST FLOOR CORNER HOLDDOWN				
CORNER STUD CONNECTION:				
ENDWALL:				
SHEARWALL REACTION (Rend):				
AT 30 ft SIDEWALL LENGTH:	1605	1725	2265	lbs
AT 35 ft SIDEWALL LENGTH:	1873	2013	2643	lbs
AT 40 ft SIDEWALL LENGTH:	2140	2300	3020	lbs
AT 45 ft SIDEWALL LENGTH:	2408	2588	3398	lbs
AT 50 ft SIDEWALL LENGTH:	2675	2875	3775	lbs
AT 55 ft SIDEWALL LENGTH:	2943	3163	4153	lbs
AT 60 ft SIDEWALL LENGTH:	3210	3450	4530	lbs
AT 65 ft SIDEWALL LENGTH:	3478	3738	4908	lbs
AT 70 ft SIDEWALL LENGTH:	3745	4025	5285	lbs
AT 75 ft SIDEWALL LENGTH:	4013	4313	5663	lbs
AT 80 ft SIDEWALL LENGTH:	4280	4600	6040	lbs
DEAD LOAD REACTION (DL):	1328	1328	1328	lbs
SIDEWALL:				
SHEARWALL REACTION (Rend):	1623	1957	2594	lbs
DEAD LOAD REACTION (DL):				
AT 30 ft SIDEWALL LENGTH:	1996	1996	1996	lbs
AT 35 ft SIDEWALL LENGTH:	2328	2328	2328	lbs
AT 40 ft SIDEWALL LENGTH:	2661	2661	2661	lbs
AT 45 ft SIDEWALL LENGTH:	2993	2993	2993	lbs
AT 50 ft SIDEWALL LENGTH:	3326	3326	3326	lbs
AT 55 ft SIDEWALL LENGTH:	3659	3659	3659	lbs
AT 60 ft SIDEWALL LENGTH:	3991	3991	3991	lbs
AT 65 ft SIDEWALL LENGTH:	4324	4324	4324	lbs
AT 70 ft SIDEWALL LENGTH:	4656	4656	4656	lbs
AT 75 ft SIDEWALL LENGTH:	4989	4989	4989	lbs
AT 80 ft SIDEWALL LENGTH:	5322	5322	5322	lbs



SECTION 8

TRUSS CC557327

UFP TRUSS SHEET (FOR REFERENCE ONLY)

TRUSS CONNECTIONS

TRUSS LOAD SUMMARY

EXTERIOR WALL STUDS

EXTERIOR WALL HEADER / JACKSTUDS

MATING WALL STUDS

MATING WALL HEADER / JACKSTUDS

PERIMETER BANDS

FLOOR JOISTS

CENTER GIRDER

SHEARWALL CALCULATIONS

P1 - P3

P4 - P5

P6

P7 - P12

P13

P14

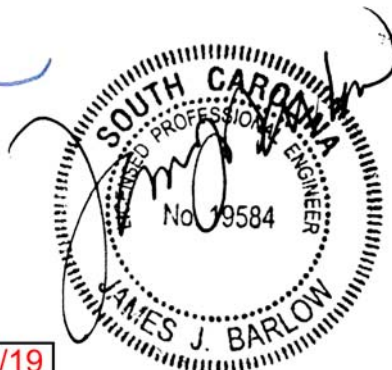
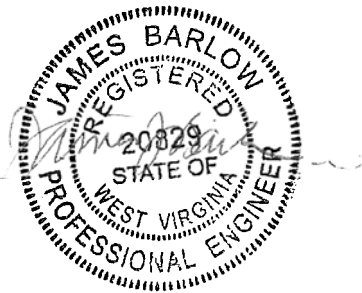
P15

P16

P17

P18

P19 - P58



07/22/19

Job 90954	Truss CC557327	Truss Type HINGED ATTIC	Qty 1	Ply 1	Champion Homes 315 NC #108 Ref. #3157393
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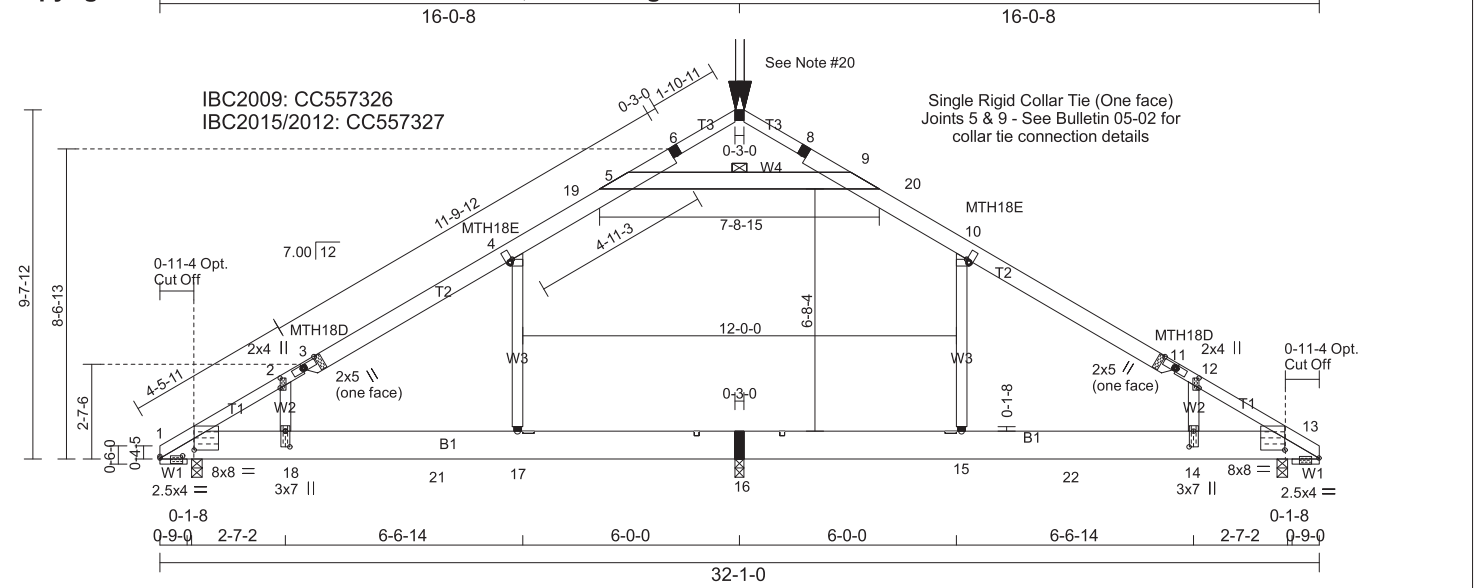


Plate Offsets (X,Y)-- [1:0-11-6,0-2-7], [2:0-2-0,0-0-0], [3:0-1-8,0-5-6], [3:0-0-11,0-0-0], [4:0-0-11,0-1-2], [10:0-0-11,0-1-2], [11:0-0-11,0-0-0], [11:0-1-8,0-5-6], [12:0-2-0,0-0-0], [13:0-11-6,0-2-7], [14:0-5-4,0-1-8], [18:0-5-4,0-1-8], [18:2-10-14,0-8-6], [18:3-5-10,0-8-6]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 23.1 (Ground Snow=30.0)	Plate Grip DOL 1.15		TC 0.73	Vert(LL) 0.55	17-18	>344	240	MT20	197/144
TCDL 7.0	Lumber DOL 1.15		BC 0.95	Vert(CT) -0.52	17-18	>369	180	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr NO		WB 0.94	Horz(CT) 0.02	13	n/a	n/a		
BCDL 7.0	Code IBC2015/TPI2014		Matrix-R	Attic -0.35	16-17	421	360		
	IBC2012/TPI2007							Weight: 215 lb	
								FT = 0%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except* T2: 2x6 SP No.1 or 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-4-5 oc purlins.
BOT CHORD 2x10 SP No.1 or 2x10 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-11-2 oc bracing.
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except* W4: 2x6 SP No.2 or 2x6 SPF No.2 W1: 1-1/2x1-11/16 SPF Stud	WEBS 1 Row at midpt

REACTIONS. (lb/size) 1=1151/0-3-8 (min. 0-1-13), 13=1150/0-3-8 (min. 0-1-13), 16=359/0-3-0 (min. 0-1-8)
Max Horz 1=497(LC 8)
Max Uplift 1=-789(LC 9), 13=-791(LC 10), 16=-189(LC 9)
Max Grav 1=1151(LC 1), 13=1150(LC 1), 16=675(LC 2)

FORCES. (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1411/840, 2-3=-1502/1077, 3-4=-1469/1065, 4-35=-1287/1114, 5-35=-1188/1128, 5-6=-371/286, 6-7=-271/296, 7-8=-268/293, 8-9=-368/285, 9-36=-1187/1127, 10-36=-1287/1113, 10-11=-1469/1065, 11-12=-1502/1077, 12-13=-1411/835
BOT CHORD 1-18=-686/1191, 18-37=-686/1191, 19-37=-686/1191, 17-19=-686/1191, 17-24=-686/1191, 24-25=-686/1191, 25-26=-686/1191, 22-26=-686/1191, 20-22=-686/1191, 20-21=-686/1191, 21-23=-686/1191, 16-23=-686/1191, 16-29=-686/1191, 27-29=-686/1191, 27-28=-686/1191, 28-30=-686/1191, 30-33=-686/1191, 31-33=-686/1191, 31-32=-686/1191, 15-32=-686/1191, 15-34=-686/1191, 34-38=-686/1191, 14-38=-686/1191, 13-14=-686/1191
WEBS 10-15=-143/262, 2-18=-350/526, 12-14=-351/526, 4-17=-148/261, 5-9=-1012/983

REQUIRED FIELD JOINT CONNECTIONS - Maximum Compression (lb)/ Tension (lb)/ Shear (lb)/ Moment (lb-in)
5=1012/983/106/7091, 6=315/292/82/0, 7=212/247/162/0, 8=311/289/80/0, 9=1012/983/105/7175, 15=143/262/0/0, 16=686/1191/385/0, 17=148/261/0/0

NOTES-
1) Dado: 0-1-8 length x 0-1-8 deep dado, 1-0-0 to right edge from joint 16 on the top face.
2) Dado: 0-3-10 length x 0-0-12 deep dado, 5-6-14 to right edge from joint 16 on the top face.
3) Dado: 0-1-8 length x 0-1-8 deep dado, 1-0-0 to left edge from joint 16 on the top face.

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.



2/13/2019



Job 90954	Truss CC557327	Truss Type HINGED ATTIC	Qty 1	Ply 1	Champion Homes 315 NC #108 Ref. #3157393
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- 4) Dado: 0-3-10 length x 0-0-12 deep dado, 5-6-14 to left edge from joint 16 on the top face.
- 5) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=2.8psf; BCDL=2.8psf; h=30ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 6) TLL: ASCE 7-10; Pg=30.0 psf (ground snow); Ps=23.1 psf (roof snow); Category II; Exp C; Partially Exp.; Ct=1.1
- 7) Roof design snow load has been reduced to account for slope.
- 8) Unbalanced snow loads have been considered for this design.
- 9) All plates are MT20 plates unless otherwise indicated.
- 10) See HINGE PLATE DETAILS for plate placement.
- 11) Provisions must be made to prevent lateral movement of hinged member(s) during transportation.
- 12) All additional member connections shall be provided by others for forces as indicated.
- 13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 14) * 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, with BCDL = 7.0psf.
- 15) Ceiling dead load (5.0 psf) on member(s). 4-5, 9-10, 5-9
- 16) Bottom chord live load (30.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 16-17, 15-16
- 17) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 789 lb uplift at joint 1, 791 lb uplift at joint 13 and 189 lb uplift at joint 16.
- 18) Fixity of member 5 - 9 has been changed.
- 19) This truss is designed in accordance with the 2015 International Building Code section 2306.1 and referenced standard ANSI/TPI 1.
- 20) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 180 lb down and 238 lb up at 16-0-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 21) Attic room checked for L/360 deflection.
- 22) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 23) This truss is designed in accordance with the 2012 IBC Sec 2306.1 and referenced standard ANSI/TPI 1
- 24) 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.
- 25) 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.
- 26) Reference UFP Engineering Bulletin 06-06 for information on re-grading ripped lumber.
- 27) Based on: CC557326
- 28) Revision: IBC2015/2012 version



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

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\lufp.tpe

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PHONE (616)-364-6161 FAX (616)-365-0060 GRAND RAPIDS, MI 49525





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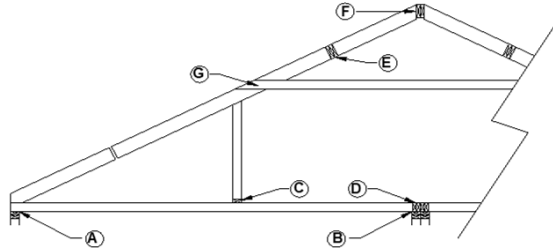
Job	Truss	MFG	Customer
90954	CC557327	315	CHAMPION HOMES

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.



TRUSS CONNECTIONS

TRUSS NUMBER : CC557327
 PROJECT NUMBER : 190284
 TRUSS PITCH : 7/12
 MODULE WIDTH : 15'-2"
 TRUSS WIDTH : 32'-1"



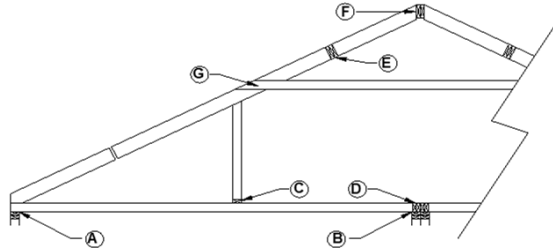
UPLIFT CONNECTIONS (MWFRS LOADS):

150 / 119 mph									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H6 TWIST STRAP
791	WIND	1.6	NO GOOD	N/A	N/A	OK	3	8	OK
ALTERNATE: (9) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (6) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (2) SIMPSON SDWC15600 SCREW									
ALTERNATE: (4) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP
95	WIND	1.6	OK	2	2	OK	2	2	OK
ALTERNATE: (2) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (2) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
130 / 101 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H6 TWIST STRAP
594	WIND	1.6	NO GOOD	N/A	N/A	OK	2	6	OK
ALTERNATE: (7) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (5) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (2) SIMPSON SDWC15600 SCREW									
ALTERNATE: (3) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
71	WIND	1.6	OK	2	2	OK	2	2	OK
ALTERNATE: (2) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (2) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
115 / 90 mph (ADJUSTED)									
CONDITION "A" - EXTERIOR WALL:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H8 TWIST STRAP
464	WIND	1.6	OK	3	5	OK	2	5	OK
ALTERNATE: (6) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (4) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									
ALTERNATE: (1) SIMPSON SDWC15600 SCREW									
ALTERNATE: (2) #10 x 5" WOOD SCREW WITH MINIMUM 2 in PENETRATION									
CONDITION "B" - MATING WALL (PER SIDE):			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP
UPLIFT (lbs / PER SIDE)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON H3 TWIST STRAP
56	WIND	1.6	OK	2	2	OK	2	2	OK
ALTERNATE: (2) 16 d NAILS TOENAILED THROUGH BC INTO BAND PLUS (2) 16 d NAILS THROUGH SHEATHING INTO BAND AND STUD									



TRUSS CONNECTIONS

TRUSS NUMBER : CC557327
 PROJECT NUMBER : 190284
 TRUSS PITCH : 7/12
 MODULE WIDTH : 15'-2"
 TRUSS WIDTH : 32'-1"



MAXIMUM OF DL + LL + 30 psf GSL & 150 / 119 mph WIND										
CONDITION "C" - KNEEWALL TO BOTTOM CHORD:			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END
TENSION (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP	10 d NAILS
261	SNOW	1.15	OK	3	3	OK	2	3	OK	3
CONDITION "D" - BOTTOM CHORD AT MATTING LINE:										
			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END
TENSION (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS16 STRAP	10 d NAILS
1191	SNOW	1.15	NO GOOD	N/A	N/A	NO GOOD	N/A	N/A	OK	11
ALTERNATE: USE (10) 16 d NAILS THROUGH DECKING EACH SIDE										
SHEAR (lbs)	CASE	CD								
385	SNOW	1.15	USE (5) 16 d NAILS TOENAILED INTO BEAM (WHERE NO BEARING WALL BELOW)							
ALTERNATE: OK FOR SIMPSON L90 ANGLE										
CONDITION "E" - TOP CHORD FLIP:										
TENSION (lbs)	CASE	CD								
289	SNOW	1.15	USE (6) 6 d NAILS THROUGH SHEATHING EACH SIDE							
ALTERNATE: USE (7) 16 ga STAPLE THROUGH SHEATHING EACH SIDE										
SHEAR (lbs)	CASE	CD								
80	SNOW	1.15	USE (2) 16 d NAILS TOENAILED EACH END PLUS USE 10 d NAILS AT 24 in O.C. THROUGH PLATES							
CONDITION "F" - RIDGE:										
			CHECK STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END	QTY / END	CHECK ALT. STRAP	QTY / END
TENSION (lbs)	CASE	CD	1 1/2" x 26ga STRAP	10 d NAILS	16 ga STAPLE	1 1/2" x 20 ga STRAP	10 d NAILS	16 ga STAPLE	SIMPSON CS20 STRAP	10 d NAILS
247	SNOW	1.15	OK	2	3	OK	2	3	OK	3
SHEAR (lbs)	CASE	CD								
162	SNOW	1.15	USE (2) 16 d NAILS TOENAILED INTO BEAM EACH RAFTER							
CONDITION "G" - COLLAR TIE: SEE UFP BULLETIN 05-02										

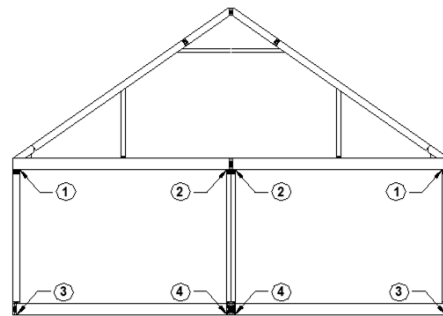


COMPONENT LOAD SUMMARY

EXTERIOR WALL DEAD LOAD =	12	psf	x	10	ft	=	120	plf
MATING WALL DEAD LOAD =	8	psf	x	10	ft	=	80	plf
FLOOR DEAD LOAD =	10	psf	x	16	ft / 2	=	80	plf
FLOOR LIVE LOAD =	40	psf	x	16	ft / 2	=	320	plf
CEILING DEAD LOAD =	5	psf	x	16	ft / 2	=	40	plf

LOCATION 1 = EXT. WALL HEADER & EXT. WALL STUD
LOCATION 2 = M. WALL HEADER & M. WALL STUD
LOCATION 3 = PERIMETER BAND
LOCATION 4 = CENTER GIRDER
LOCATIONS 3 & 4 MAY BE USED TO GENERATE FOUNDATION LOADS

* CROSS SECTION IS FOR REFERENCE ONLY
AND MAY NOT REFLECT ACTUAL TRUSS



TRUSS CC557327, 7/12 PITCH, 32'-1" WIDTH

COMPONENT LOADS (lbs/ft)

30 psf GROUND SNOW (MATING WALL LOADS ARE PER SIDE OF LINE)

LOCATION	1	2	3	4
DEAD LOAD	294	86	494	246
LIVE LOAD	282	83	602	403
TOTAL LOAD	576	169	1096	649

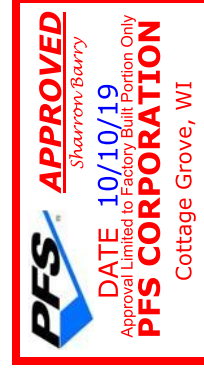
C & C UPLIFT

LOCATION	1	2	3	4
UPLIFT (0.6) DEAD LOAD	176	52	296	148
150 / 119 mph UPLIFT	396	47	-100	-
130 / 101 mph UPLIFT	297	36	-1	-
115 / 90 mph UPLIFT	232	28	-	-



101/130 mph WIND, 7/12 PITCH, FIELD PRESSURE (27.73 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)		
8 ft	2 x 4 SPF STUD GRADE	12	740	0.23	9 ft	2 x 4 SPF STUD GRADE	12	295	0.376	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-		
		16	295	0.306			16	**NG**	-							
		19.2	295	0.367			19.2	**NG**	-							
	2 x 4 SPF #2	24	**NG**	-		2 x 4 SPF #2	2 x 4 SPF #2	24	**NG**		-	2 x 4 SPF #2	2 x 4 SPF #2	24	**NG**	-
		12	1555	0.197				12	1025		0.322					
		16	1255	0.262				16	730		0.43					
	2 x 4 SYP #2	19.2	1020	0.315		2 x 4 SYP #2	2 x 4 SYP #2	19.2	**NG**		-	2 x 4 SYP #2	2 x 4 SYP #2	19.2	**NG**	-
		24	665	0.394				24	**NG**		-					
		12	1385	0.197				12	855		0.322					
	2 x 6 SPF STUD GRADE	16	1030	0.262		2 x 6 SPF STUD GRADE	2 x 6 SPF STUD GRADE	16	495		0.43	2 x 6 SPF STUD GRADE	2 x 6 SPF STUD GRADE	16	**NG**	-
		19.2	750	0.315				19.2	**NG**		-					
		24	295	0.394				24	**NG**		-					
	2 x 6 SPF #2	12	4770	0.059		2 x 6 SPF #2	2 x 6 SPF #2	12	3580		0.097	2 x 6 SPF #2	2 x 6 SPF #2	12	2585	0.15
		16	4155	0.079				16	2915		0.129					
		19.2	3675	0.095				19.2	2385		0.155					
	2 x 6 SYP #2	24	2955	0.118		2 x 6 SYP #2	2 x 6 SYP #2	24	1560		0.194	2 x 6 SYP #2	2 x 6 SYP #2	24	320	0.3
		12	7360	0.051				12	5605		0.083					
		16	6785	0.068				16	5030		0.111					
	2 x 6 SYP #2	19.2	6355	0.081		2 x 6 SYP #2	2 x 6 SYP #2	19.2	4660		0.133	2 x 6 SYP #2	2 x 6 SYP #2	19.2	3270	0.206
		24	5740	0.101				24	3980		0.166					
		12	7265	0.051				12	5430		0.083					
	2 x 6 SYP #2	16	6610	0.068		2 x 6 SYP #2	2 x 6 SYP #2	16	4790		0.111	2 x 6 SYP #2	2 x 6 SYP #2	16	3430	0.172
		19.2	6120	0.081				19.2	4305		0.133					
		24	5420	0.101				24	3600		0.166					



THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS

101/130 mph WIND, 7/12 PITCH, EDGE PRESSURE (33.66 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)			
8 ft	2 x 4 SPF STUD GRADE	12	455	0.279	9 ft	2 x 4 SPF STUD GRADE	12	**NG**	-	10 ft	2 x 4 SPF STUD GRADE	12	**NG**	-			
		16	295	0.372			16	**NG**	-			16	**NG**	-			
		19.2	**NG**	-			19.2	**NG**	-			19.2	**NG**	-			
	24	**NG**	-	24		**NG**	-	24	**NG**		-						
	2 x 4 SPF #2	12	1360	0.239		12	835	0.391	12		835	0.391	12	2 x 4 SPF #2	12	**NG**	-
		16	1005	0.318		16	**NG**	-	16		**NG**	-	16	2 x 4 SPF #2	16	**NG**	-
		19.2	720	0.382		19.2	**NG**	-	19.2		**NG**	-	19.2	2 x 4 SPF #2	19.2	**NG**	-
	2 x 4 SYP #2	24	**NG**	-		24	**NG**	-	24		**NG**	-	24	2 x 4 SYP #2	24	**NG**	-
		12	1160	0.239		12	630	0.391	12		630	0.391	12	2 x 4 SYP #2	12	**NG**	-
		16	730	0.318		16	**NG**	-	16		**NG**	-	16	2 x 4 SYP #2	16	**NG**	-
	2 x 6 SPF STUD GRADE	19.2	365	0.382		19.2	**NG**	-	19.2		**NG**	-	19.2	2 x 6 SPF STUD GRADE	19.2	**NG**	-
		24	**NG**	-		24	**NG**	-	24		**NG**	-	24	2 x 6 SPF STUD GRADE	24	**NG**	-
12		4375	0.072	12	3155	0.118	12	3155	0.118	12	2 x 6 SPF STUD GRADE	12	2140	0.182			
2 x 6 SPF #2	16	3645	0.096	16	2350	0.157	16	2350	0.157	16	2 x 6 SPF #2	16	1265	0.243			
	19.2	3065	0.115	19.2	1690	0.188	19.2	1690	0.188	19.2	2 x 6 SPF #2	19.2	485	0.292			
	24	2165	0.144	24	570	0.235	24	570	0.235	24	2 x 6 SPF #2	24	295	0.365			
2 x 6 SYP #2	12	6990	0.062	12	5235	0.101	12	5235	0.101	12	2 x 6 SYP #2	12	3895	0.156			
	16	6325	0.082	16	4575	0.134	16	4575	0.134	16	2 x 6 SYP #2	16	3245	0.208			
	19.2	5830	0.098	19.2	4070	0.161	19.2	4070	0.161	19.2	2 x 6 SYP #2	19.2	2745	0.25			
2 x 6 SYP #2	24	5110	0.123	24	3340	0.202	24	3340	0.202	24	2 x 6 SYP #2	24	1995	0.313			
	12	6840	0.062	12	5015	0.101	12	5015	0.101	12	2 x 6 SYP #2	12	3650	0.156			
	16	6090	0.082	16	4275	0.134	16	4275	0.134	16	2 x 6 SYP #2	16	2920	0.208			
2 x 6 SYP #2	19.2	5525	0.098	19.2	3705	0.161	19.2	3705	0.161	19.2	2 x 6 SYP #2	19.2	2345	0.25			
	24	4705	0.123	24	2865	0.202	24	2865	0.202	24	2 x 6 SYP #2	24	1465	0.313			



THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS

EVEN IF RATIO MEETS CODE REQUIREMENTS

190284



**EXTERIOR WALL HEADER - 1 STORY & 2 / 3 STORY UPPER LEVEL (LOCATION Cottage Grove, WI) MEMBER HEADERS
TRUSS CC557327 2x4 FOR (2) MEMBER HEADERS
7/12 PITCH, 32.08 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD 2x6 FOR (3) MEMBER HEADERS**

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END			UPLIFT (plf)	UPLIFT REACTION (lbs)
							SPF #2	SYP #2	SPF STUD		
2 x 4 SPF #2	1	282	576	2' - 3"	Lb	0.049	1	1	2	396	458
2 x 6 SPF #2	1	282	576	3' - 4"	Lb	0.058	2	2	2	396	669
2 x 8 SPF #2	1	282	576	4' - 3"	Lb	0.066	2	2	2	396	849
2 x 10 SPF #2	1	282	576	5' - 2"	Lb	0.07	2	2	2	396	1037
2 x 12 SPF #2	1	282	576	6' - 0"	Lb	0.071	2	2	3	396	1202
2 x 4 SYP #2	1	282	576	2' - 1"	Lb	0.035	1	1	2	396	419
2 x 6 SYP #2	1	282	576	3' - 2"	Lb	0.045	2	2	2	396	627
2 x 8 SYP #2	1	282	576	4' - 0"	Lb	0.051	2	2	2	396	796
2 x 10 SYP #2	1	282	576	4' - 9"	Lb	0.049	2	2	2	396	945
2 x 12 SYP #2	1	282	576	5' - 9"	Lb	0.059	2	2	2	396	1149
1.5 x 3.5 LVL	1	282	576	3' - 2"	Lb	0.135	2	2	2	396	643
1.5 x 5.5 LVL	1	282	576	5' - 0"	Lb	0.2	2	2	2	396	996
1.5 x 7.25 LVL	1	282	576	6' - 6"	Lb	0.254	2	2	3	396	1302
1.5 x 9.25 LVL	1	282	576	8' - 3"	Lb	0.314	3	3	3	396	1648
1.5 x 11.25 LVL	1	282	576	10' - 0"	Lb	0.373	3	3	3	396	1991
1.5 x 12 LVL	1	282	576	10' - 8"	Lb	0.394	3	3	3	396	2119
1.5 x 14 LVL	1	282	576	12' - 5"	Lb	0.451	3	3	3	396	2461
1.5 x 16 LVL	1	282	576	14' - 1"	Lb	0.506	3	3	3	396	2800
1.5 x 18 LVL	1	282	576	15' - 10"	Lb	0.56	3	3	3	396	3137
1.5 x 20 LVL	1	282	576	17' - 6"	Lb	0.614	3	3	3	396	3474
1.5 x 22 LVL	1	282	576	19' - 2"	Lb	0.668	3	3	4	396	3810
1.5 x 24 LVL	1	282	576	20' - 11"	Lb	0.72	3	3	4	396	4145
2 x 4 SPF #2	2	282	576	3' - 3"	Lb	0.099	1	1	1	396	648
2 x 6 SPF #2	2	282	576	4' - 9"	Lb	0.116	1	1	1	396	946
2 x 8 SPF #2	2	282	576	6' - 0"	Lb	0.131	1	1	2	396	1200
2 x 10 SPF #2	2	282	576	7' - 4"	Lb	0.141	2	2	2	396	1466
2 x 12 SPF #2	2	282	576	8' - 7"	Lb	0.141	2	2	2	396	1700
2 x 4 SYP #2	2	282	576	2' - 11"	Lb	0.069	1	1	1	396	593
2 x 6 SYP #2	2	282	576	4' - 5"	Lb	0.09	1	1	1	396	887
2 x 8 SYP #2	2	282	576	5' - 8"	Lb	0.102	1	1	2	396	1126
2 x 10 SYP #2	2	282	576	6' - 8"	Lb	0.097	2	2	2	396	1336
2 x 12 SYP #2	2	282	576	8' - 2"	Lb	0.118	2	2	2	396	1625
1.5 x 3.5 LVL	2	282	576	4' - 7"	Lb	0.27	1	1	1	396	910
1.5 x 5.5 LVL	2	282	576	7' - 1"	Lb	0.4	2	2	2	396	1409
1.5 x 7.25 LVL	2	282	576	9' - 3"	Lb	0.508	2	2	2	396	1841
1.5 x 9.25 LVL	2	282	576	11' - 9"	Lb	0.628	2	2	3	396	2330
1.5 x 11.25 LVL	2	282	576	14' - 2"	Lb	0.745	3	3	3	396	2816
1.5 x 12 LVL	2	282	576	15' - 1"	Lb	0.788	3	3	3	396	2997
1.5 x 14 LVL	2	282	576	17' - 6"	Lb	0.901	3	3	3	396	3480
1.5 x 16 LVL	2	282	576	19' - 11"	Lb	1.012	3	3	3	396	3959
1.5 x 18 LVL	2	282	576	22' - 4"	Lb	1.121	3	3	3	396	4437
1.5 x 20 LVL	2	282	576	24' - 9"	Lb	1.228	3	3	4	396	4913
1.5 x 22 LVL	2	282	576	27' - 2"	Lb	1.335	3	3	4	396	5388
1.5 x 24 LVL	2	282	576	29' - 7"	Lb	1.44	3	3	4	396	5861
2 x 4 SPF #2	3	282	576	4' - 0"	Lb	0.148	1	1	1	396	793
2 x 6 SPF #2	3	282	576	5' - 10"	Lb	0.174	1	1	1	396	1158
2 x 8 SPF #2	3	282	576	7' - 5"	Lb	0.197	1	1	1	396	1470
2 x 10 SPF #2	3	282	576	9' - 0"	Lb	0.211	1	1	1	396	1795
2 x 12 SPF #2	3	282	576	10' - 6"	Lb	0.212	1	1	1	396	2082
2 x 4 SYP #2	3	282	576	3' - 8"	Lb	0.104	1	1	1	396	726
2 x 6 SYP #2	3	282	576	5' - 5"	Lb	0.134	1	1	1	396	1086
2 x 8 SYP #2	3	282	576	6' - 11"	Lb	0.153	1	1	1	396	1379
2 x 10 SYP #2	3	282	576	8' - 3"	Lb	0.146	1	1	1	396	1637
2 x 12 SYP #2	3	282	576	10' - 0"	Lb	0.177	1	1	1	396	1991
1.5 x 3.5 LVL	3	282	576	5' - 7"	Lb	0.405	1	1	1	396	1114
1.5 x 5.5 LVL	3	282	576	8' - 8"	Lb	0.599	1	1	1	396	1726
1.5 x 7.25 LVL	3	282	576	11' - 4"	Lb	0.763	1	1	1	396	2255
1.5 x 9.25 LVL	3	282	576	14' - 4"	Lb	0.942	1	1	1	396	2854
1.5 x 11.25 LVL	3	282	576	17' - 5"	Lb	1.118	1	1	2	396	3449
1.5 x 12 LVL	3	282	576	18' - 6"	Lb	1.182	1	1	2	396	3671
1.5 x 14 LVL	3	282	576	21' - 6"	Lb	1.352	1	1	2	396	4262
1.5 x 16 LVL	3	282	576	24' - 5"	Lb	1.518	2	2	2	396	4849
1.5 x 18 LVL	3	282	576	27' - 5"	Lb	1.681	2	2	2	396	5434
1.5 x 20 LVL	3	282	576	30' - 4"	Lb	1.843	2	2	2	396	6017
1.5 x 22 LVL	3	282	576	33' - 3"	Lb	2.003	2	2	3	396	6599
1.5 x 24 LVL	3	282	576	36' - 3"	Lb	2.16	2	2	3	396	7179

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
EVEN IF RATIO MEETS CODE REQUIREMENTS



ALL WINDS, ALL PITCHES, LATERAL PRESSURE (5 psf)

HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)	HEIGHT	SIZE	SPACING	LOAD (lbs)	DEF. (in)			
8 ft	2 x 3 SPF STUD GRADE	12	610	0.114	9 ft	2 x 3 SPF STUD GRADE	12	435	0.186	10 ft	2 x 3 SPF STUD GRADE	12	310	0.288			
		16	540	0.151			16	370	0.248			16	295	0.385			
		19.2	490	0.182			19.2	320	0.298			19.2	295	0.461			
	2 x 3 SPF #2	24	420	0.227		2 x 3 SPF #2	24	295	0.372		2 x 3 SYP #2	24	**NG**	2 x 3 SYP #2	24	335	0.494
		12	830	0.097			12	615	0.159			12	465		0.247		
		16	775	0.13			16	565	0.213			16	415		0.33		
	2 x 3 SYP #2	19.2	735	0.156		2 x 3 SYP #2	19.2	525	0.255		2 x 4 SYP #2	19.2	345	2 x 4 SYP #2	19.2	385	0.395
		24	680	0.195			24	475	0.319			24	435		0.247		
		12	800	0.097			12	585	0.159			12	385		0.33		
	2 x 4 SPF STUD GRADE	16	740	0.13		2 x 4 SPF STUD GRADE	16	530	0.213		2 x 4 SYP #2	16	345	2 x 4 SYP #2	16	345	0.395
		19.2	695	0.156			19.2	485	0.255			19.2	295		0.494		
		24	630	0.195			24	430	0.319			24	295		0.494		
2 x 4 SPF #2	12	1920	0.041	2 x 4 SPF #2	12	1450	0.068	2 x 6 SPF STUD GRADE	12	1110	2 x 6 SPF STUD GRADE	12	1110	0.105			
	16	1810	0.055		16	1345	0.09		16	1010		0.14					
	19.2	1725	0.066		19.2	1265	0.108		19.2	940		0.168					
2 x 6 SPF #2	24	1605	0.083	2 x 6 SPF #2	24	1155	0.136	2 x 6 SYP #2	24	830	2 x 6 SYP #2	24	830	0.21			
	12	2495	0.035		12	1905	0.058		12	1485		0.09					
	16	2400	0.047		16	1815	0.077		16	1400		0.12					
2 x 4 SYP #2	19.2	2330	0.057	2 x 4 SYP #2	19.2	1750	0.093	2 x 6 SYP #2	19.2	1340	2 x 6 SYP #2	19.2	1340	0.144			
	24	2230	0.071		24	1660	0.116		24	1255		0.18					
	12	2450	0.035		12	1855	0.058		12	1440		0.09					
2 x 6 SPF STUD GRADE	16	2340	0.047	2 x 6 SPF STUD GRADE	16	1755	0.077	2 x 6 SYP #2	16	1345	2 x 6 SYP #2	16	1345	0.12			
	19.2	2260	0.057		19.2	1685	0.093		19.2	1280		0.144					
	24	2150	0.071		24	1585	0.116		24	1185		0.18					
2 x 6 SPF #2	12	6495	0.011	2 x 6 SPF #2	12	5520	0.017	2 x 6 SYP #2	12	4600	2 x 6 SYP #2	12	4600	0.027			
	16	6345	0.014		16	5340	0.023		16	4405		0.036					
	19.2	6230	0.017		19.2	5205	0.028		19.2	4260		0.043					
2 x 6 SYP #2	24	6065	0.021	2 x 6 SYP #2	24	5010	0.035	2 x 6 SYP #2	24	4060	2 x 6 SYP #2	24	4060	0.054			
	12	9150	0.009		12	7445	0.015		12	6055		0.023					
	16	8980	0.012		16	7260	0.02		16	5870		0.031					
2 x 6 SYP #2	19.2	8855	0.015	2 x 6 SYP #2	19.2	7125	0.024	2 x 6 SYP #2	19.2	5735	2 x 6 SYP #2	19.2	5735	0.037			
	24	8670	0.018		24	6935	0.03		24	5545		0.046					
	12	9325	0.009		12	7490	0.015		12	6040		0.023					
2 x 6 SYP #2	16	9125	0.012	2 x 6 SYP #2	16	7280	0.02	2 x 6 SYP #2	16	5835	2 x 6 SYP #2	16	5835	0.031			
	19.2	8970	0.015		19.2	7125	0.024		19.2	5685		0.037					
	24	8760	0.018		24	6910	0.03		24	5480		0.046					

*** LOADS AND QUANTITIES ARE PER SIDE OF MATING WALL

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS

EVEN IF RATIO MEETS CODE REQUIREMENTS



MATING WALL HEADER - 1 STORY & 2 / 3 STORY UPPER LEVEL (LOCATION 2) ER HEADERS
TRUSS CC557327 ER HEADERS
7/12 PITCH, 32.08 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD 2x6 FOR (3) MEMBER HEADERS

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	MIN. NUMBER OF JACKSTUDS REQ'D EACH END			UPLIFT (plf)	UPLIFT REACTION (lbs)
							SPF #2	SYP #2	SPF STUD		
2 x 4 SPF #2	1	83	169	4' - 3"	Lb	0.169	1	1	1	47	100
2 x 6 SPF #2	1	83	169	6' - 2"	Lb	0.197	1	1	1	47	147
2 x 8 SPF #2	1	83	169	7' - 10"	Lb	0.223	1	1	2	47	186
2 x 10 SPF #2	1	83	169	9' - 7"	Lb	0.24	2	2	2	47	227
2 x 12 SPF #2	1	83	169	11' - 2"	Lb	0.241	2	2	2	47	263
2 x 4 SYP #2	1	83	169	3' - 10"	Lb	0.118	1	1	1	47	92
2 x 6 SYP #2	1	83	169	5' - 10"	Lb	0.153	1	1	1	47	137
2 x 8 SYP #2	1	83	169	7' - 5"	Lb	0.173	1	1	2	47	175
2 x 10 SYP #2	1	83	169	8' - 9"	Lb	0.165	2	2	2	47	207
2 x 12 SYP #2	1	83	169	10' - 8"	Lb	0.201	2	2	2	47	252
1.5 x 3.5 LVL	1	83	169	5' - 11"	Lb	0.46	1	1	1	47	141
1.5 x 5.5 LVL	1	83	169	9' - 3"	Lb	0.681	2	2	2	47	218
1.5 x 7.25 LVL	1	83	169	12' - 1"	Lb	0.866	2	2	2	47	285
1.5 x 9.25 LVL	1	83	169	15' - 4"	Lb	1.071	2	2	2	47	361
1.5 x 11.25 LVL	1	83	169	18' - 6"	Lb	1.27	2	2	2	47	436
1.5 x 12 LVL	1	83	169	19' - 9"	Lb	1.342	2	2	2	47	464
1.5 x 14 LVL	1	83	169	22' - 11"	Lb	1.536	2	2	3	47	539
1.5 x 16 LVL	1	83	169	26' - 1"	Lb	1.724	3	3	3	47	613
1.5 x 18 LVL	1	83	169	29' - 3"	Lb	1.91	3	3	3	47	687
1.5 x 20 LVL	1	83	169	32' - 4"	Lb	2.093	3	3	3	47	761
1.5 x 22 LVL	1	83	169	35' - 6"	Lb	2.275	3	3	3	47	835
1.5 x 24 LVL	1	83	169	38' - 7"	Lb	2.454	3	3	3	47	908
2 x 4 SPF #2	2	83	169	6' - 0"	Lb	0.337	1	1	1	47	142
2 x 6 SPF #2	2	83	169	8' - 9"	Lb	0.395	1	1	1	47	207
2 x 8 SPF #2	2	83	169	11' - 2"	Lb	0.447	1	1	1	47	263
2 x 10 SPF #2	2	83	169	13' - 8"	Lb	0.479	1	1	1	47	321
2 x 12 SPF #2	2	83	169	15' - 10"	Lb	0.481	1	1	1	47	372
2 x 4 SYP #2	2	83	169	5' - 6"	Lb	0.237	1	1	1	47	130
2 x 6 SYP #2	2	83	169	8' - 3"	Lb	0.305	1	1	1	47	194
2 x 8 SYP #2	2	83	169	10' - 6"	Lb	0.347	1	1	1	47	247
2 x 10 SYP #2	2	83	169	12' - 5"	Lb	0.331	1	1	1	47	293
2 x 12 SYP #2	2	83	169	15' - 1"	Lb	0.402	1	1	1	47	356
1.5 x 3.5 LVL	2	83	169	8' - 3"	Ld TL - I/240	0.846	1	1	1	47	195
1.5 x 5.5 LVL	2	83	169	13' - 0"	Ld TL - I/240	1.33	1	1	1	47	307
1.5 x 7.25 LVL	2	83	169	17' - 1"	Lb	1.733	1	1	1	47	403
1.5 x 9.25 LVL	2	83	169	21' - 8"	Lb	2.141	1	1	2	47	511
1.5 x 11.25 LVL	2	83	169	26' - 3"	Lb	2.539	2	2	2	47	617
1.5 x 12 LVL	2	83	169	27' - 11"	Lb	2.685	2	2	2	47	657
1.5 x 14 LVL	2	83	169	32' - 5"	Lb	3.071	2	2	2	47	762
1.5 x 16 LVL	2	83	169	36' - 10"	Lb	3.448	2	2	2	47	868
1.5 x 18 LVL	2	83	169	41' - 4"	Lb	3.819	2	2	3	47	972
1.5 x 20 LVL	2	83	169	45' - 9"	Lb	4.187	3	3	3	47	1077
1.5 x 22 LVL	2	83	169	50' - 2"	Lb	4.55	3	3	3	47	1181
1.5 x 24 LVL	2	83	169	54' - 7"	Lb	4.908	3	3	3	47	1284
2 x 4 SPF #2	3	83	169	7' - 4"	Lb	0.506	1	1	1	47	174
2 x 6 SPF #2	3	83	169	10' - 9"	Lb	0.592	1	1	1	47	254
2 x 8 SPF #2	3	83	169	13' - 8"	Lb	0.67	1	1	1	47	322
2 x 10 SPF #2	3	83	169	16' - 8"	Lb	0.719	1	1	1	47	393
2 x 12 SPF #2	3	83	169	19' - 4"	Lb	0.722	1	1	1	47	456
2 x 4 SYP #2	3	83	169	6' - 9"	Lb	0.355	1	1	1	47	159
2 x 6 SYP #2	3	83	169	10' - 1"	Lb	0.458	1	1	1	47	238
2 x 8 SYP #2	3	83	169	12' - 10"	Lb	0.52	1	1	1	47	302
2 x 10 SYP #2	3	83	169	15' - 3"	Lb	0.496	1	1	1	47	359
2 x 12 SYP #2	3	83	169	18' - 6"	Lb	0.604	1	1	1	47	436
1.5 x 3.5 LVL	3	83	169	9' - 6"	Ld TL - I/240	0.968	1	1	1	47	224
1.5 x 5.5 LVL	3	83	169	14' - 11"	Ld TL - I/240	1.522	1	1	1	47	351
1.5 x 7.25 LVL	3	83	169	19' - 8"	Ld TL - I/240	2.006	1	1	1	47	463
1.5 x 9.25 LVL	3	83	169	26' - 7"	Lb	3.212	1	1	1	47	625
1.5 x 11.25 LVL	3	83	169	32' - 1"	Lb	3.809	1	1	1	47	756
1.5 x 12 LVL	3	83	169	34' - 2"	Lb	4.027	1	1	1	47	804
1.5 x 14 LVL	3	83	169	39' - 8"	Lb	4.607	1	1	1	47	934
1.5 x 16 LVL	3	83	169	45' - 2"	Lb	5.172	1	1	1	47	1063
1.5 x 18 LVL	3	83	169	50' - 7"	Lb	5.729	1	1	1	47	1191
1.5 x 20 LVL	3	83	169	56' - 1"	Lb	6.28	1	1	2	47	1319
1.5 x 22 LVL	3	83	169	61' - 6"	Lb	6.825	2	2	2	47	1446
1.5 x 24 LVL	3	83	169	66' - 11"	Lb	7.362	2	2	2	47	1573

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
 EVEN IF RATIO MEETS CODE REQUIREMENTS



**PERIMETER BAND - 1 STORY & 2 / 3 STORY UPPER LEVEL (LOCATION 3)
TRUSS CC557327
7/12 PITCH, 32.08 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD**

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	602	1096	3' - 1"	Lb	0.034	-100	-155
2 x 10 SPF #2	1	602	1096	3' - 9"	Lb	0.037	-100	-190
2 x 12 SPF #2	1	602	1096	4' - 4"	Lb	0.037	-100	-220
2 x 8 SYP #2	1	602	1096	2' - 10"	Lb	0.027	-100	-146
2 x 10 SYP #2	1	602	1096	3' - 5"	Lb	0.026	-100	-173
2 x 12 SYP #2	1	602	1096	4' - 2"	Lb	0.031	-100	-210
1.5 x 7.25 LVL	1	602	1096	4' - 9"	Lb	0.134	-100	-238
1.5 x 9.25 LVL	1	602	1096	6' - 0"	Lb	0.165	-100	-302
1.5 x 11.25 LVL	1	602	1096	7' - 3"	Lb	0.196	-100	-365
2 x 8 SPF #2	2	602	1096	4' - 4"	Lb	0.069	-100	-220
2 x 10 SPF #2	2	602	1096	5' - 4"	Lb	0.074	-100	-268
2 x 12 SPF #2	2	602	1096	6' - 2"	Lb	0.074	-100	-311
2 x 8 SYP #2	2	602	1096	4' - 1"	Lb	0.053	-100	-206
2 x 10 SYP #2	2	602	1096	4' - 10"	Lb	0.051	-100	-245
2 x 12 SYP #2	2	602	1096	5' - 11"	Lb	0.062	-100	-298
1.5 x 7.25 LVL	2	602	1096	6' - 8"	Lb	0.267	-100	-337
1.5 x 9.25 LVL	2	602	1096	8' - 6"	Lb	0.33	-100	-427
1.5 x 11.25 LVL	2	602	1096	10' - 3"	Lb	0.392	-100	-516
2 x 8 SPF #2	3	602	1096	5' - 4"	Lb	0.103	-100	-269
2 x 10 SPF #2	3	602	1096	6' - 6"	Lb	0.111	-100	-329
2 x 12 SPF #2	3	602	1096	7' - 7"	Lb	0.111	-100	-381
2 x 8 SYP #2	3	602	1096	5' - 0"	Lb	0.08	-100	-253
2 x 10 SYP #2	3	602	1096	5' - 11"	Lb	0.077	-100	-300
2 x 12 SYP #2	3	602	1096	7' - 3"	Lb	0.093	-100	-364
1.5 x 7.25 LVL	3	602	1096	8' - 3"	Lb	0.401	-100	-413
1.5 x 9.25 LVL	3	602	1096	10' - 5"	Lb	0.495	-100	-522
1.5 x 11.25 LVL	3	602	1096	12' - 7"	Lb	0.587	-100	-631

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS BARLOW ENGINEERING, P.C.



**FLOOR JOIST (10 psf DEAD LOAD / 40 psf LIVE LOAD)
 ALL LEVELS**

MEMBER	QTY	SPACING (in O.C.)	TOTAL LOAD (plf)	LIVE LOAD (plf)	MAX. SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)
2 x 8 SPF #2	1	12	50	40	13' - 6"	Ld LL - I/360	0.563
2 x 10 SPF #2	1	12	50	40	17' - 2"	Ld LL - I/360	0.719
2 x 12 SPF #2	1	12	50	40	20' - 7"	Lb	0.814
2 x 8 SYP #2	1	12	50	40	13' - 6"	Ld LL - I/360	0.563
2 x 10 SYP #2	1	12	50	40	16' - 2"	Lb	0.559
2 x 12 SYP #2	1	12	50	40	19' - 8"	Lb	0.68
2 x 8 SPF #2	1	16	66.67	53.33	12' - 3"	Ld LL - I/360	0.512
2 x 10 SPF #2	1	16	66.67	53.33	15' - 4"	Lb	0.607
2 x 12 SPF #2	1	16	66.67	53.33	17' - 10"	Lb	0.61
2 x 8 SYP #2	1	16	66.67	53.33	11' - 9"	Lb	0.44
2 x 10 SYP #2	1	16	66.67	53.33	14' - 0"	Lb	0.419
2 x 12 SYP #2	1	16	66.67	53.33	17' - 0"	Lb	0.51
2 x 8 SPF #2	1	19.2	80	64	11' - 5"	Lb	0.472
2 x 10 SPF #2	1	19.2	80	64	14' - 0"	Lb	0.506
2 x 12 SPF #2	1	19.2	80	64	16' - 3"	Lb	0.509
2 x 8 SYP #2	1	19.2	80	64	10' - 9"	Lb	0.366
2 x 10 SYP #2	1	19.2	80	64	12' - 9"	Lb	0.35
2 x 12 SYP #2	1	19.2	80	64	15' - 6"	Lb	0.425
2 x 8 SPF #2	1	24	100	80	10' - 3"	Lb	0.378
2 x 10 SPF #2	1	24	100	80	12' - 6"	Lb	0.405
2 x 12 SPF #2	1	24	100	80	14' - 6"	Lb	0.407
2 x 8 SYP #2	1	24	100	80	9' - 7"	Lb	0.293
2 x 10 SYP #2	1	24	100	80	11' - 5"	Lb	0.28
2 x 12 SYP #2	1	24	100	80	13' - 11"	Lb	0.34

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS
 EVEN IF RATIO MEETS CODE REQUIREMENTS



**CENTER GIRDER - 1 STORY & 2 / 3 STORY UPPER LEVEL (LOCATION 4)
TRUSS CC557327
7/12 PITCH, 32.08 ft UNIT WIDTH, 30 psf GROUND SNOW LOAD**

MEMBER	QUANTITY	HEADER LL (plf)	HEADER TL (plf)	MAXIMUM SPAN	LIMITED BY	MID-SPAN DEFLECTION (in)	UPLIFT (plf)	UPLIFT REACTION (lbs)
2 x 8 SPF #2	1	403	649	4' - 0"	Lb	0.058	0	0
2 x 10 SPF #2	1	403	649	4' - 11"	Lb	0.062	0	0
2 x 12 SPF #2	1	403	649	5' - 8"	Lb	0.063	0	0
2 x 8 SYP #2	1	403	649	3' - 9"	Lb	0.045	0	0
2 x 10 SYP #2	1	403	649	4' - 5"	Lb	0.043	0	0
2 x 12 SYP #2	1	403	649	5' - 5"	Lb	0.052	0	0
1.5 x 7.25 LVL	1	403	649	6' - 2"	Lb	0.226	0	0
1.5 x 9.25 LVL	1	403	649	7' - 10"	Lb	0.279	0	0
1.5 x 11.25 LVL	1	403	649	9' - 5"	Lb	0.331	0	0
2 x 8 SPF #2	2	403	649	5' - 8"	Lb	0.116	0	0
2 x 10 SPF #2	2	403	649	6' - 11"	Lb	0.125	0	0
2 x 12 SPF #2	2	403	649	8' - 1"	Lb	0.125	0	0
2 x 8 SYP #2	2	403	649	5' - 4"	Lb	0.09	0	0
2 x 10 SYP #2	2	403	649	6' - 4"	Lb	0.086	0	0
2 x 12 SYP #2	2	403	649	7' - 8"	Lb	0.105	0	0
1.5 x 7.25 LVL	2	403	649	8' - 9"	Lb	0.451	0	0
1.5 x 9.25 LVL	2	403	649	11' - 1"	Lb	0.558	0	0
1.5 x 11.25 LVL	2	403	649	13' - 4"	Lb	0.661	0	0
2 x 8 SPF #2	3	403	649	6' - 11"	Lb	0.175	0	0
2 x 10 SPF #2	3	403	649	8' - 6"	Lb	0.187	0	0
2 x 12 SPF #2	3	403	649	9' - 10"	Lb	0.188	0	0
2 x 8 SYP #2	3	403	649	6' - 6"	Lb	0.135	0	0
2 x 10 SYP #2	3	403	649	7' - 9"	Lb	0.129	0	0
2 x 12 SYP #2	3	403	649	9' - 5"	Lb	0.157	0	0
1.5 x 7.25 LVL	3	403	649	10' - 8"	Lb	0.677	0	0
1.5 x 9.25 LVL	3	403	649	13' - 6"	Lb	0.836	0	0
1.5 x 11.25 LVL	3	403	649	16' - 4"	Lb	0.992	0	0

THE DESIGNER IS TO DETERMINE IF ACTUAL DEFLECTION IS WITHIN ACCEPTABLE LIMITS BARLOW ENGINEERING, P.C.



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
DESIGN LIMITATIONS:				
MINIMUM BUILDING LENGTH :	8	8	8	ft (1.1.3.1, pp. 3)
MAXIMUM BUILDING LENGTH :	128.3	128.3	128.3	ft (1.1.3.1, pp. 3)
MAX. VERTICAL FLOOR OFFSET :	FLOOR DEPTH	FLOOR DEPTH	FLOOR DEPTH	ft (2.1.3.2 pp. 16)
MAXIMUM FLOOR DIAPHRAM LENGTH :	128.3	128.3	128.3	ft (2.1.3.2 pp. 16)
MAX. FLOOR DIAPHRAM OPENING WIDTH :	12	12	12	ft (2.1.3.2 pp. 16)
MAX. FLOOR DIAPHRAM OPENING LENGTH :	12	12	12	ft (2.1.3.2 pp. 16)
MAXIMUM CEILING DIAPHRAM LENGTH :	60	60	60	ft (2.1.3.2 pp. 16)
MAXIMUM SHEARWALL LINE OFFSET :	4	4	4	ft (2.1.3.3 pp. 16)
MAXIMUM SHEARWALL STORY OFFSET :	FLOOR DEPTH	FLOOR DEPTH	FLOOR DEPTH	ft (2.1.3.3 pp. 16)
MINIMUM SHEARWALL SEGMENT LENGTH :	2' - 7"	2' - 7"	2' - 7"	ft (2.1.3.3 pp. 16)
MAXIMUM ROOF DIAPHRAM LENGTH :	128.3	128.3	128.3	ft (2.1.3.4, pp. 16)



DATE 10/10/19

Approval Limited to Factory Built Ductwork Only

PFS CORPORATION

SHEARWALL DESIGN

CHAMPION HOMES OF NC

	7/12 PITCH, 32.08 ft WIDTH 15	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS L Cottage Grove, WI	YES	YES	YES	
WIND:	15	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
UPLIFT CONNECTIONS:				
MRH ADJUSTMENT FACTOR (C _{MRH})	1.236	1.236	1.236	(TABLE 2.1.3.1, pp. 15)
UPLIFT CONNECTION LOADS FROM WIND :	116	149	198	plf (TRUSS SHEETS)
REQUIRED TRUSS TIE DOWN :				
AT 12" O.C.:	116	149	198	lbs AT 12" O.C.
CONNECTOR EACH TRUSS:	#10 x 5" WOOD SCREW (TOENAILED)	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
AT 16" O.C.:	155	199	264	lbs AT 16" O.C.
CONNECTOR EACH TRUSS:	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
AT 19.2" O.C.:	186	239	317	lbs AT 19.2" O.C.
CONNECTOR EACH TRUSS:	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
AT 24" O.C.:	232	298	396	lbs AT 24" O.C.
CONNECTOR EACH TRUSS:	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	(1) SIMPSON SDWC15600 SCREW	
1ST FLOOR STUD TO TOP PLATE / CEILING BAND				
AT 12" O.C.:	116	149	198	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	3	3	
8d COMMON NAIL (FACE NAILED)	2	2	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	2	2	
QTY OF 16 ga. STAPLES EACH END	3	4	5	
AT 16" O.C.:	155	199	264	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	3	3	4	
8d COMMON NAIL (FACE NAILED)	2	3	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	
AT 19.2" O.C.:	186	239	317	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	3	4	5	
8d COMMON NAIL (FACE NAILED)	2	3	4	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	7	
AT 24" O.C.:	232	298	396	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	4	5	6	
8d COMMON NAIL (FACE NAILED)	3	4	5	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	4	
QTY OF 16 ga. STAPLES EACH END	5	7	9	
REQUIRED DOUBLE TOP PLATE SPLICE LENGTH :				
w/ (2) ROWS 16d COMMON NAILS AT	7	7	7	ft
OR	12	12	12	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	6	6	6	ft
OR	9	9	9	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	4	4	4	ft
OR	6	6	6	in O.C.
w/ (2) ROWS 16d COMMON NAILS AT	2	2	2	ft
OR	3	3	3	in O.C.
1st FLOOR STUD TO FLOOR BAND CONNECTION :				
AT 12" O.C.:	52	85	134	lbs AT 12" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	2	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	2	3	
AT 16" O.C.:	69	113	178	lbs AT 16" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	3	
8d COMMON NAIL (FACE NAILED)	2	2	2	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	1	2	
QTY OF 16 ga. STAPLES EACH END	2	3	4	
AT 19.2" O.C.:	83	136	214	lbs AT 19.2" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	2	3	
8d COMMON NAIL (FACE NAILED)	2	2	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	2	2	
QTY OF 16 ga. STAPLES EACH END	2	3	5	
AT 24" O.C.:	103	169	267	lbs AT 24" O.C.
THROUGH 7/16" OSB SHEATHING INTO STUD AND BAND:				
15 ga. STAPLE (FACE)	2	3	4	
8d COMMON NAIL (FACE NAILED)	2	2	3	
CONNECTOR EACH STUD:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	1	2	3	
QTY OF 16 ga. STAPLES EACH END	3	4	6	
FLOOR BAND TO SILL PLATE CONNECTION:				
ANCHOR BOLT UPLIFT AT 72 in (MAX) SPACING	4	37	86	plf
CONNECTOR EACH STUD WRAPPED AROUND SILL	24	222	516	
QTY OF 8d NAILS EACH END	1	2	5	
QTY OF 16 ga. STAPLES EACH END	1	5	11	
CHECK BENDING IN RIMBAND:				
DBL. 2x10 SPF #2 RIMBAND DESIGN VALUES:	OK FOR BENDING	OK FOR BENDING	OK FOR BENDING	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
LATERAL CONNECTIONS:				
LATERAL LOADS AT ROOF/CEILING DIAPHRAGM				
WALL HEIGHT ADJUSTMENT FACTOR (C_{WH}):	1.125	1.125	1.125	(H / 8)
WIND PERPENDICULAR TO RIDGE:				
W_{l-per} :	140	178	237	plf (TABLE 2.5A, pp. 68)
$W_{l-per} \times C_{MRH} \times C_{WH} =$	195	248	330	plf
WIND PARALLEL TO RIDGE:				
W_{l-para} :	93	112	149	plf (TABLE 2.5B, pp. 69)
$W_{l-para} \times C_{MRH} \times C_{WH} =$	130	156	207	plf
LATERAL LOADS AT FLOOR DIAPHRAGM				
WIND PERPENDICULAR TO RIDGE:				
FL_{l-per} :	148	189	251	plf (TABLE 2.5A, pp. 68)
$FL_{l-per} \times C_{MRH} \times C_{WH} =$	206	263	350	plf
WIND PARALLEL TO RIDGE:				
FL_{l-para} :	100	128	171	plf (TABLE 2.5B, pp. 69)
$FL_{l-para} \times C_{MRH} \times C_{WH} =$	140	178	238	plf
LATERAL FRAMING CONNECTION LOADS FROM WIND				
W_{l-wall} :	80	102	136	plf (TABLE 2.1, pp. 62)
$W_{l-wall} \times C_{MRH} =$	99	127	169	plf
TRUSS TO TOP PLATE CONNECTION FOR LATERAL LOAD:				
AT 12" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	99	127	169	lbs AT 12" O.C.
IN ADDITION TO THE #10 x 5" WOOD SCREW (TOENAILED)	1	4	5	TOENAILS
AT 16" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	132	170	226	lbs AT 16" O.C.
IN ADDITION TO THE (1) SIMPSON SDWC15600 SCREW	4	5	6	TOENAILS
AT 19.2" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	159	204	271	lbs AT 19.2" O.C.
IN ADDITION TO THE (1) SIMPSON SDWC15600 SCREW	4	5	7	TOENAILS
AT 24" O.C.:				
QTY OF #10 x 5" WOOD SCREW (TOENAILED) REQUIRED	198	254	338	lbs AT 24" O.C.
IN ADDITION TO THE (1) SIMPSON SDWC15600 SCREW	5	7	9	TOENAILS
PLATE TO PLATE CONNECTION				
AND BOTTOM PLATE TO FLOOR CONNECTION:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED	9	7	5	in O.C.
PLATE TO STUD CONNECTION:				
AT 12" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	99	127	169	lbs AT 12" O.C.
AT 16" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	2	2	3	FACE
AT 16" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	132	170	226	lbs AT 16" O.C.
AT 19.2" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	2	3	4	FACE
AT 19.2" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	159	204	271	lbs AT 19.2" O.C.
AT 24" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	3	3	4	FACE
AT 24" O.C.:				
QTY OF 15 ga. STAPLE (FACE) REQUIRED :	198	254	338	lbs AT 24" O.C.
FACE	3	4	5	FACE



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF SHEATHING SUCTION CONNECTION				
FOR ZONE 1 (FIELD) PRESSURE:				
$x C_{MRH} =$	14.7	18.7	25	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	19	24	31	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	19	24	31	lbs AT 12" O.C.
AT 16" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	25	32	41	lbs AT 16" O.C.
AT 19.2" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	30	38	50	lbs AT 19.2" O.C.
AT 24" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	38	48	62	lbs AT 24" O.C.
FOR ZONE 2 (EDGE) PRESSURE:	12	12	12	in O.C.
$x C_{MRH} =$	24.6	31.5	41.9	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	31	39	52	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	31	39	52	lbs AT 12" O.C.
AT 16" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	41	52	69	lbs AT 16" O.C.
AT 19.2" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	50	62	83	lbs AT 19.2" O.C.
AT 24" O.C.:	12	12	10	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	62	78	104	lbs AT 24" O.C.
FOR ZONE 3 (CORNER) PRESSURE:	12	11	8	in O.C.
$x C_{MRH} =$	37	47.3	63	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	46	59	78	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	46	59	78	lbs AT 12" O.C.
AT 16" O.C.:	12	12	11	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	61	79	104	lbs AT 16" O.C.
AT 19.2" O.C.:	12	10	8	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	74	94	125	lbs AT 19.2" O.C.
AT 24" O.C.:	11	9	7	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	92	118	156	lbs AT 24" O.C.
FOR ZONE 3OH (CORNER OVERHANG) PRESSURE:	9	7	5	in O.C.
$x C_{MRH} =$	46	58.8	78.3	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	57	73	97	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	57	73	97	lbs AT 12" O.C.
AT 16" O.C.:	12	11	9	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	76	97	129	lbs AT 16" O.C.
AT 19.2" O.C.:	11	9	6	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	91	117	155	lbs AT 19.2" O.C.
AT 24" O.C.:	9	7	5	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	114	146	194	lbs AT 24" O.C.
FOR ZONE 4 (FIELD) PRESSURE:	7	6	4	in O.C.
$x C_{MRH} =$	15.9	20.3	27.1	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	20	26	34	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	20	26	34	lbs AT 12" O.C.
AT 16" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	27	35	45	lbs AT 16" O.C.
AT 19.2" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	32	42	54	lbs AT 19.2" O.C.
AT 24" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	40	62	68	lbs AT 24" O.C.
FOR ZONE 5 (EDGE) PRESSURE:	12	12	12	in O.C.
$x C_{MRH} =$	19.6	25.1	33.4	psf (TABLE 2.4, pp. 67)
AT 12" O.C.:	25	32	42	psf
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	25	32	42	lbs AT 12" O.C.
AT 16" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	33	43	56	lbs AT 16" O.C.
AT 19.2" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	40	51	67	lbs AT 19.2" O.C.
AT 24" O.C.:	12	12	12	in O.C.
SPACING OF 0.131" x 2.5" COMMON NAIL (FACE NAILED)	50	64	84	lbs AT 24" O.C.
FOR ZONE 6 (FIELD) PRESSURE:	12	12	10	in O.C.



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
ROOF DIAPHRAM:				(TABLE A-3.12A, pp. 193)
REQUIRED SHEATHING THICKNESS:				
AT 12" O.C.:	3/8	3/8	3/8	FOR 12" O.C.
AT 16" O.C.:	3/8	3/8	3/8	FOR 16" O.C.
AT 19.2" O.C.:	3/8	3/8	7/16	FOR 19.2" O.C.
AT 24" O.C.:	3/8	7/16	19/32	FOR 24" O.C.
ROOF SHEATHING DIAPHRAM CONNECTION:				(TABLES 2.5-1 & 2, pp. 70-
$V_{roof} =$				
AT 30 ft LENGTH:	91	116	154	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	106	135	180	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	122	155	206	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	137	174	231	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	152	193	257	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	167	213	283	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	182	232	309	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	198	251	334	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	213	271	360	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	228	290	386	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	243	309	411	plf AT 80 ft LENGTH
USE HORIZONTAL DIAPHRAM ASSEMBLIES (WFCM 2001 TABLE 2C, pp. 272)				
TO DETERMINE APPLICABLE ROOF SHEATHING FASTENING				
HORIZONTAL FLOOR DIAPHRAM CONTINUITY:				
$V_{floor} =$				
AT 30 ft LENGTH:	96	123	164	plf AT 30 ft LENGTH
AT 35 ft LENGTH:	112	143	191	plf AT 35 ft LENGTH
AT 40 ft LENGTH:	128	164	218	plf AT 40 ft LENGTH
AT 45 ft LENGTH:	144	184	245	plf AT 45 ft LENGTH
AT 50 ft LENGTH:	161	205	273	plf AT 50 ft LENGTH
AT 55 ft LENGTH:	177	225	300	plf AT 55 ft LENGTH
AT 60 ft LENGTH:	193	246	327	plf AT 60 ft LENGTH
AT 65 ft LENGTH:	209	266	355	plf AT 65 ft LENGTH
AT 70 ft LENGTH:	225	287	382	plf AT 70 ft LENGTH
AT 75 ft LENGTH:	241	307	409	plf AT 75 ft LENGTH
AT 80 ft LENGTH:	257	328	436	plf AT 80 ft LENGTH



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG MATE LINE):				
TO ATTACH MODULE TO MODULE ALONG MATE LINE:				
$V_r =$				
AT 30 ft LENGTH:	2318	2959	3938	lbs AT 30 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	4	5	7	
MAXIMUM BOLT SPACING:	72	72	56	
AT 35 ft LENGTH:	2704	3452	4594	lbs AT 35 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	6	8	
MAXIMUM BOLT SPACING:	72	72	56	
AT 40 ft LENGTH:	3090	3945	5250	lbs AT 40 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	5	7	9	
MAXIMUM BOLT SPACING:	72	72	57	
AT 45 ft LENGTH:	3477	4439	5907	lbs AT 45 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	6	8	10	
MAXIMUM BOLT SPACING:	72	72	57	
AT 50 ft LENGTH:	3863	4932	6563	lbs AT 50 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	8	11	
MAXIMUM BOLT SPACING:	72	72	57	
AT 55 ft LENGTH:	4249	5425	7219	lbs AT 55 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	7	9	12	
MAXIMUM BOLT SPACING:	72	72	57	
AT 60 ft LENGTH:	4635	5918	7875	lbs AT 60 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	8	10	13	
MAXIMUM BOLT SPACING:	72	72	58	
AT 65 ft LENGTH:	5022	6411	8532	lbs AT 65 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	9	11	14	
MAXIMUM BOLT SPACING:	72	72	58	
AT 70 ft LENGTH:	5408	6904	9188	lbs AT 70 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	9	12	15	
MAXIMUM BOLT SPACING:	72	72	58	
AT 75 ft LENGTH:	5794	7397	9844	lbs AT 75 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	12	16	
MAXIMUM BOLT SPACING:	72	72	58	
AT 80 ft LENGTH:	6180	7890	10500	lbs AT 80 ft LENGTH
QTY OF 1/2" DIA. THRU BOLTS:	10	13	17	
MAXIMUM BOLT SPACING:	72	72	58	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
MODULE TO MODULE CONNECTION AT FLOOR RIMBAND: (ALONG ENDWALLS):				
T =				
AT 30 ft LENGTH:	451	573	766	lbs AT 30 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	4	5	7	
QTY OF 16 ga. STAPLES EACH END	10	12	16	
AT 35 ft LENGTH:	386	491	657	lbs AT 35 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	4	4	6	
QTY OF 16 ga. STAPLES EACH END	8	11	14	
AT 40 ft LENGTH:	338	430	575	lbs AT 40 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	4	5	
QTY OF 16 ga. STAPLES EACH END	7	9	12	
AT 45 ft LENGTH:	301	382	511	lbs AT 45 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	4	5	
QTY OF 16 ga. STAPLES EACH END	7	8	11	
AT 50 ft LENGTH:	271	344	460	lbs AT 50 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	3	3	4	
QTY OF 16 ga. STAPLES EACH END	6	8	10	
AT 55 ft LENGTH:	246	313	418	lbs AT 55 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	4	
QTY OF 16 ga. STAPLES EACH END	6	7	9	
AT 60 ft LENGTH:	226	287	383	lbs AT 60 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	4	
QTY OF 16 ga. STAPLES EACH END	5	6	8	
AT 65 ft LENGTH:	208	265	354	lbs AT 65 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	3	3	
QTY OF 16 ga. STAPLES EACH END	5	6	8	
AT 70 ft LENGTH:	193	246	329	lbs AT 70 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	6	7	
AT 75 ft LENGTH:	181	229	307	lbs AT 75 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	7	
AT 80 ft LENGTH:	169	215	288	lbs AT 80 ft LENGTH
CONNECTOR EACH ENDWALL:	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	1.5 x 20 ga STRAP	
QTY OF 8d NAILS EACH END	2	2	3	
QTY OF 16 ga. STAPLES EACH END	4	5	6	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 60 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	(4) ROWS AT 2 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
FOR BUILDING LENGTH = 65 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(3) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	(4) ROWS AT 2 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	(4) ROWS AT 2 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	(3) ROWS AT 2 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	(2) ROWS AT 2 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	(2) ROWS AT 3 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	(1) ROWS AT 2 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
TRUSS BOTTOM CHORD TO TOP PLATE CONNECTION:				
$V_{MAX} =$				
AT 30 ft SIDEWALL LENGTH:	2925	3720	4950	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	10	8	6	
OR SPACING OF (1) SIMPSON LTP4 PLATE	72	59	44	
AT 35 ft SIDEWALL LENGTH:	3413	4340	5775	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	9	7	5	
OR SPACING OF (1) SIMPSON LTP4 PLATE	64	51	38	
AT 40 ft SIDEWALL LENGTH:	3900	4960	6600	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	8	6	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	56	44	33	
AT 45 ft SIDEWALL LENGTH:	4388	5580	7425	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	7	5	4	
OR SPACING OF (1) SIMPSON LTP4 PLATE	50	39	29	
AT 50 ft SIDEWALL LENGTH:	4875	6200	8250	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	6	5	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	45	35	26	
AT 55 ft SIDEWALL LENGTH:	5363	6820	9075	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	41	32	24	
AT 60 ft SIDEWALL LENGTH:	5850	7440	9900	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	37	29	22	
AT 65 ft SIDEWALL LENGTH:	6338	8060	10725	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	34	27	20	
AT 70 ft SIDEWALL LENGTH:	6825	8680	11550	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	32	25	19	
AT 75 ft SIDEWALL LENGTH:	7313	9300	12375	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	30	23	17	
AT 80 ft SIDEWALL LENGTH:	7800	9920	13200	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	28	22	16	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
	$V_{MAX} =$			
AT 30 ft SIDEWALL LENGTH:	5243	6679	8888	lbs AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	6	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	42	33	24	
AT 35 ft SIDEWALL LENGTH:	6117	7792	10369	lbs AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	5	4	3	
OR SPACING OF (1) SIMPSON LTP4 PLATE	36	28	21	
AT 40 ft SIDEWALL LENGTH:	6990	8905	11850	lbs AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	31	24	18	
AT 45 ft SIDEWALL LENGTH:	7865	10019	13332	lbs AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	4	3	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	28	22	16	
AT 50 ft SIDEWALL LENGTH:	8738	11132	14813	lbs AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	2	
OR SPACING OF (1) SIMPSON LTP4 PLATE	25	19	14	
AT 55 ft SIDEWALL LENGTH:	9612	12245	16294	lbs AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	23	18	13	
AT 60 ft SIDEWALL LENGTH:	10485	13358	17775	lbs AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	3	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	21	16	12	
AT 65 ft SIDEWALL LENGTH:	11360	14471	19257	lbs AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	19	15	11	
AT 70 ft SIDEWALL LENGTH:	12233	15584	20738	lbs AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	2	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	18	14	10	
AT 75 ft SIDEWALL LENGTH:	13107	16697	22219	lbs AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	1	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	16	13	9	
AT 80 ft SIDEWALL LENGTH:	13980	17810	23700	lbs AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED)	2	1	1	
OR SPACING OF (1) SIMPSON LTP4 PLATE	15	12	9	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
SILL PLATE TO FOUNDATION CONNECTION:				
$V_{MAX} =$				
AT 30 ft LENGTH:	5243	6679	8888	lbs AT 30 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	72	60	45	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	
AT 35 ft LENGTH:	6117	7792	10369	lbs AT 35 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	72	51	40	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	60	
AT 40 ft LENGTH:	6990	8905	11850	lbs AT 40 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	60	45	32	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	51	
AT 45 ft LENGTH:	7865	10019	13332	lbs AT 45 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	51	40	30	
SPACING OF 5/8" ANCHOR BOLTS:	72	60	45	
AT 50 ft LENGTH:	8738	11132	14813	lbs AT 50 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	45	36	25	
SPACING OF 5/8" ANCHOR BOLTS:	72	51	40	
AT 55 ft LENGTH:	9612	12245	16294	lbs AT 55 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	40	32	24	
SPACING OF 5/8" ANCHOR BOLTS:	60	45	36	
AT 60 ft LENGTH:	10485	13358	17775	lbs AT 60 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	40	30	22	
SPACING OF 5/8" ANCHOR BOLTS:	51	45	32	
AT 65 ft LENGTH:	11360	14471	19257	lbs AT 65 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	36	27	20	
SPACING OF 5/8" ANCHOR BOLTS:	51	40	30	
AT 70 ft LENGTH:	12233	15584	20738	lbs AT 70 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	32	25	18	
SPACING OF 5/8" ANCHOR BOLTS:	45	36	27	
AT 75 ft LENGTH:	13107	16697	22219	lbs AT 75 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	30	24	17	
SPACING OF 5/8" ANCHOR BOLTS:	45	32	25	
AT 80 ft LENGTH:	13980	17810	23700	lbs AT 80 ft LENGTH
SPACING OF 1/2" ANCHOR BOLTS:	27	22	16	
SPACING OF 5/8" ANCHOR BOLTS:	40	32	24	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FOR BUILDING LENGTH = 60 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
FOR BUILDING LENGTH = 65 ft:				
WITH 30% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	(1) ROWS AT 3 in O.C.	
WITH 35% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	(1) ROWS AT 4 in O.C.	
WITH 40% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 5 in O.C.	
WITH 45% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 50% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 55% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 60% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 65% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 70% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 75% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 80% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 85% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 90% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 95% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	
WITH 100% SHEATHING: USE SHEATHING CONNECTION WITH 8d NAILS:	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	(1) ROWS AT 6 in O.C.	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
RIMBAND TO SILL PLATE CONNECTION:				
SHEARWALL REACTION (R _{end}) =	2086	2503	3321	lbs
V _{MAX} =	3771	4645	6185	lbs
V =				
AT 30 ft LENGTH:	126	155	207	plf AT 30 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	7	6	4	
SPACING OF (1) SIMPSON LTP4 PLATE:	54	44	33	
AT 35 ft LENGTH:	108	133	177	plf AT 35 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	9	7	5	
SPACING OF (1) SIMPSON LTP4 PLATE:	63	51	38	
AT 40 ft LENGTH:	95	117	155	plf AT 40 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	10	8	6	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	58	44	
AT 45 ft LENGTH:	84	104	138	plf AT 45 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	11	9	7	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	66	50	
AT 50 ft LENGTH:	76	93	124	plf AT 50 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	13	10	8	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	55	
AT 55 ft LENGTH:	69	85	113	plf AT 55 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	14	11	8	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	61	
AT 60 ft LENGTH:	63	78	104	plf AT 60 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	15	12	9	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	66	
AT 65 ft LENGTH:	59	72	96	plf AT 65 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	16	13	10	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	71	
AT 70 ft LENGTH:	54	67	89	plf AT 70 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	18	14	11	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 75 ft LENGTH:	51	62	83	plf AT 75 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	19	16	12	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
AT 80 ft LENGTH:	48	59	78	plf AT 80 ft LENGTH
SPACING OF 0.131" x 2.5" COMMON NAIL (TOENAILED):	20	16	12	
SPACING OF (1) SIMPSON LTP4 PLATE:	72	72	72	
SILL PLATE TO FOUNDATION CONNECTION:				
V _{MAX} =	3771	4645	6185	lbs
SPACING OF 1/2" ANCHOR BOLTS:	72	72	72	
SPACING OF 5/8" ANCHOR BOLTS:	72	72	72	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
PERFORATED SHEARWALL LENGTH REQUIREMENTS				
WALL CONSTRUCTION:				
EXTERIOR: 7/16" OSB (BLOCKED) FASTENED w/ 16 ga. STAPLES 6" EDGE / 12" FIELD				
INTERIOR: 1/2" GWB FASTENED w/ 5D NAILS 7" EDGE / 10" FIELD				
$V_{ALLOW} =$	277	277	277	plf
SIDEWALL - FULL HEIGHT SHEATHING REQUIRED (ft):				
FOR 30 PERCENT SIDEWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 35 PERCENT SIDEWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 40 PERCENT SIDEWALL SHEATHING :	** NG **	** NG **	** NG **	
FOR 45 PERCENT SIDEWALL SHEATHING :	12.545	** NG **	** NG **	
FOR 50 PERCENT SIDEWALL SHEATHING :	12.14	14.569	** NG **	
FOR 55 PERCENT SIDEWALL SHEATHING :	11.67	14.004	** NG **	
FOR 60 PERCENT SIDEWALL SHEATHING :	11.234	13.481	17.889	
FOR 65 PERCENT SIDEWALL SHEATHING :	10.753	12.904	17.122	
FOR 70 PERCENT SIDEWALL SHEATHING :	10.311	12.373	16.419	
FOR 75 PERCENT SIDEWALL SHEATHING :	9.839	11.807	15.667	
FOR 80 PERCENT SIDEWALL SHEATHING :	9.409	11.291	14.982	
FOR 85 PERCENT SIDEWALL SHEATHING :	8.908	10.689	14.184	
FOR 90 PERCENT SIDEWALL SHEATHING :	8.457	10.149	13.467	
FOR 95 PERCENT SIDEWALL SHEATHING :	7.965	9.558	12.683	
FOR 100 PERCENT SIDEWALL SHEATHING :	7.527	9.032	11.986	



	7/12 PITCH, 32.08 ft WIDTH 115	7/12 PITCH, 32.08 ft WIDTH 130	7/12 PITCH, 32.08 ft WIDTH 150	
DESIGN INFORMATION:				
MEETS LIMITATIONS OF WFCM:	YES	YES	YES	
WIND:	115	130	150	mph
EXPOSURE:	C	C	C	
WALL HEIGHT:	9	9	9	ft
FLOOR DEAD LOAD (FDL):	10	10	10	psf
WALL DEAD LOAD (WDL):	12	12	12	psf
ROOF & CEILING ASSEMBLY DEAD LOAD =	15	15	15	psf
FIRST FLOOR CORNER HOLDDOWN				
CORNER STUD CONNECTION:				
ENDWALL:				
SHEARWALL REACTION (Rend):				
AT 30 ft SIDEWALL LENGTH:	2925	3720	4950	lbs
AT 35 ft SIDEWALL LENGTH:	3413	4340	5775	lbs
AT 40 ft SIDEWALL LENGTH:	3900	4960	6600	lbs
AT 45 ft SIDEWALL LENGTH:	4388	5580	7425	lbs
AT 50 ft SIDEWALL LENGTH:	4875	6200	8250	lbs
AT 55 ft SIDEWALL LENGTH:	5363	6820	9075	lbs
AT 60 ft SIDEWALL LENGTH:	5850	7440	9900	lbs
AT 65 ft SIDEWALL LENGTH:	6338	8060	10725	lbs
AT 70 ft SIDEWALL LENGTH:	6825	8680	11550	lbs
AT 75 ft SIDEWALL LENGTH:	7313	9300	12375	lbs
AT 80 ft SIDEWALL LENGTH:	7800	9920	13200	lbs
DEAD LOAD REACTION (DL):	1580	1580	1580	lbs
SIDEWALL:				
SHEARWALL REACTION (Rend):	2086	2503	3321	lbs
DEAD LOAD REACTION (DL):				
AT 30 ft SIDEWALL LENGTH:	2055	2055	2055	lbs
AT 35 ft SIDEWALL LENGTH:	2397	2397	2397	lbs
AT 40 ft SIDEWALL LENGTH:	2740	2740	2740	lbs
AT 45 ft SIDEWALL LENGTH:	3082	3082	3082	lbs
AT 50 ft SIDEWALL LENGTH:	3425	3425	3425	lbs
AT 55 ft SIDEWALL LENGTH:	3767	3767	3767	lbs
AT 60 ft SIDEWALL LENGTH:	4109	4109	4109	lbs
AT 65 ft SIDEWALL LENGTH:	4452	4452	4452	lbs
AT 70 ft SIDEWALL LENGTH:	4794	4794	4794	lbs
AT 75 ft SIDEWALL LENGTH:	5137	5137	5137	lbs
AT 80 ft SIDEWALL LENGTH:	5479	5479	5479	lbs