

29172

Hogle's Heat & Air

1/14/11
William Hogle
(352)-332-1508

To Whom it May Concern,

The addition at the Payne residence is only 312 square feet, the bathroom and closet can be supplied by the existing system, where as the bedroom will require a 9000 BTU heat pump mini split system.

Bill Hogle



Hogle's Heating and Air



Certificate of Product Ratings

AHRI Certified Reference Number: 3577499

Date: 1/14/2011

Product: Variable Speed Mini-Split Heat Pump, with Remote Outdoor Unit Air-Source, Free Delivery

Outdoor Unit Model Number: MUZ-GE09NA

Indoor Unit Model Number: MSZ-GE09NA

Manufacturer: MITSUBISHI ELECTRIC AND ELECTRONICS USA, INC.

Trade/Brand name: MR. SLIM

Manufacturer responsible for the rating of this system combination is MITSUBISHI ELECTRIC AND ELECTRONICS USA, INC.

Rated as follows in accordance with AHRI Standard 210/240-2006 for Unitary Air-Conditioning and Air-Source Heat Pump Equipment and subject to verification of rating accuracy by AHRI-sponsored, independent, third party testing:

Cooling Capacity (Btuh):	9000
EER Rating (Cooling):	13.60
SEER Rating (Cooling):	21.00
Heating Capacity(Btuh) @ 47 F:	10900
Region IV HSPF Rating (Heating):	10.00
Heating Capacity(Btuh) @ 17 F:	6800

CERTIFIED RATINGS FOR VARIABLE-SPEED, MINI- AND MULTI-SPLIT SYSTEMS ARE VALID FOR ALL COMBINATIONS OF INDOOR UNITS (BASED ON COMBINATION TYPES) WITH THE SPECIFIC OUTDOOR UNIT LISTED ABOVE AND IN THE AHRI DIRECTORY OF CERTIFIED EQUIPMENT. VISIT WWW.AHRIDIRECTORY.ORG TO VERIFY THAT THIS COMBINATION IS AN ACTIVE LISTING AND THE DATA LISTED ON THIS CERTIFICATE IS ACCURATE. SEARCH ON THE AHRI REFERENCE # TO QUICKLY LOCATE THIS COMBINATION IN THE DIRECTORY.

* Ratings followed by an asterisk (*) indicate a voluntary rerate of previously published data, unless accompanied with a VARS, which indicates an involuntary rerate.

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Air-Conditioning, Heating,
and Refrigeration Institute

Hogle's

Heating & Air

Project Summary

Entire House

HOGLE'S HEATING & AIR

Job: PAYNE ADDITION
Date: Jan 17, 2011
By: W.D.HOGLE

13815 NWY 39TH AVE, GAINESVILLE, FL 32606 Phone: 352-332-1508 Fax: 352-332-1601

Project Information

For: BILL CASON BUILDERS

Notes:

Design Information

Weather: Gainesville, FL, US

Winter Design Conditions

Outside db	33 °F
Inside db	70 °F
Design TD	37 °F

Summer Design Conditions

Outside db	92 °F
Inside db	75 °F
Design TD	17 °F
Daily range	M
Relative humidity	50 %
Moisture difference	52 gr/lb

Heating Summary

Structure	1833 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Humidification	0 Btuh
Piping	0 Btuh
Equipment load	1833 Btuh

Sensible Cooling Equipment Load Sizing

Structure	1072 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Blower	0 Btuh

Infiltration

Method	Simplified Average	
Construction quality	0	
Fireplaces	0	
Area (ft²)	Heating 144	Cooling 144
Volume (ft³)	1152	1152
Air changes/hour	0.61	0.32
Equiv. AVF (cfm)	12	6

Use manufacturer's data	n
Rate/swing multiplier	0.97
Equipment sensible load	1040 Btuh

Latent Cooling Equipment Load Sizing

Structure	616 Btuh
Ducts	0 Btuh
Central vent (0 cfm)	0 Btuh
Equipment latent load	616 Btuh

Equipment total load	1656 Btuh
Req. total capacity at 0.70 SHR	0.1 ton

Heating Equipment Summary

Make	MITSUBISHI ELECTRIC
Trade	MR. SLIM
Model	MUZ-GE09NA
ARI ref no.	3577499
Efficiency	10 HSPF
Heating input	10900 Btuh @ 47°F
Heating output	31 °F
Temperature rise	321 cfm
Actual air flow	0.175 cfm/Btuh
Air flow factor	0 in H2O
Static pressure	
Space thermostat	

Cooling Equipment Summary

Make	MITSUBISHI ELECTRIC
Trade	MR. SLIM
Cond	MUZ-GE09NA
Coil	MSZ-GE09NA
ARI ref no.	3577499
Efficiency	21 SEER
Sensible cooling	6300 Btuh
Latent cooling	2700 Btuh
Total cooling	9000 Btuh
Actual air flow	321 cfm
Air flow factor	0.299 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.64

Printout certified by ACCA to meet all requirements of Manual J 8th Ed.

Hogle's

Heating & Air

AED Assessment Entire House

HOGLE'S HEATING & AIR

Job: PAYNE ADDITION
Date: Jan 17, 2011
By: W.D.HOGLE

13815 NW 38TH AVE, GAINESVILLE, FL 32608 Phone: 352-332-1508 Fax: 352-332-1501

Project Information

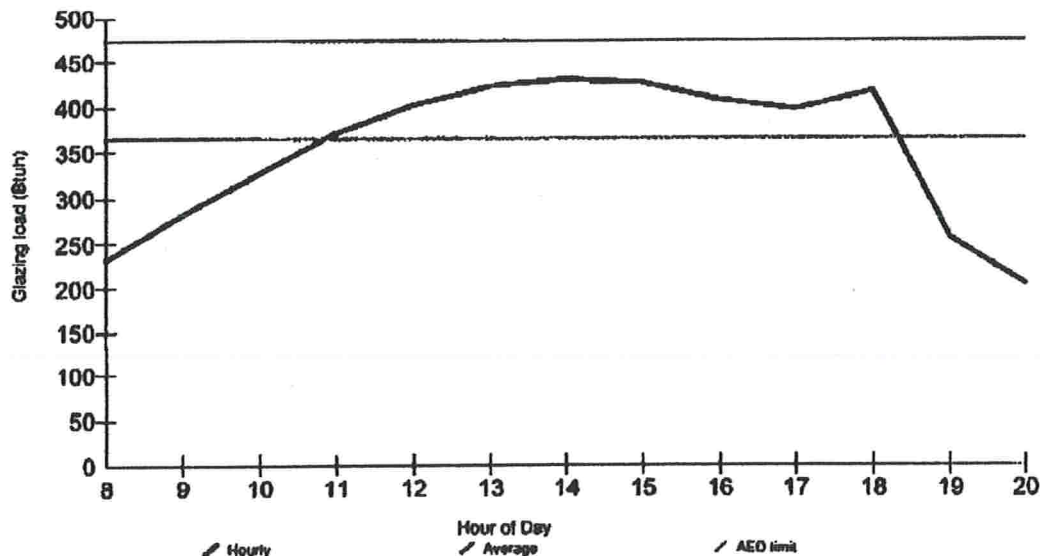
For: BILL CASON BUILDERS

Design Conditions

Location:		Indoor:		Heating	Cooling
Geinsville, FL, US		Indoor temperature (°F)		70	75
Elevation: 151 ft		Design TD (°F)		37	17
Latitude: 30°N		Relative humidity (%)		50	50
Outdoor:		Moisture difference (gr/lb)		32.8	52.0
Dry bulb (°F)	33	Cooling	82	Infiltration:	
Daily range (°F)	-		19 (M)		
Wet bulb (°F)	-		77		
Wind speed (mph)	15.0		7.5		

Test for Adequate Exposure Diversity

Hourly Glazing Load



Maximum hourly glazing load exceeds average by 18.1%.

House has adequate exposure diversity (AED), based on AED limit of 30%.

AED excursion: 0 Btuh

Hogle's
Heating & Air

Right-J® Worksheet
Entire House
HOGLE'S HEATING & AIR

Job: PAYNE ADDITION
Date: Jan 17, 2011
By: W.D.HOGLE

13015 NW 30TH AVE, GAINESVILLE, FL 32606 Phone: 352-332-1508 Fax: 352-332-1501

1	Room name					Entire House				BEDROOM				
2	Exposed wall					24.0 ft				24.0 ft				
3	Ceiling height					8.0 ft				8.0 ft				
4	Room dimensions					12.0 x 12.0 ft				12.0 x 12.0 ft				
5	Room area					144.0 ft ²				144.0 ft ²				
	Ty	Construction number	U-value (Btu/h/ft ² ·°F)	Or	HTM (Btu/h/ft ²)		Area (ft ²) or perimeter (ft)		Load (Btu/h)		Area (ft ²) or perimeter (ft)		Load (Btu/h)	
					Heat	Cool	Gross	N/P/S	Heat	Cool	Gross	N/P/S	Heat	Cool
6	W L C F	12C-0sw	0.091	n	3.37	2.20	0	-15	-51	-33	0	-15	-51	-33
10-C20b		0.650	n	24.05	19.21	15	0	361	288	16	0	361	288	
16S-30ed		0.032	-	1.18	1.68	144	144	170	243	144	144	170	243	
22A-lpl		0.989	-	36.59	0.00	144	24	678	0	144	24	678	0	
11														
6	c) AED excursion									0				0
	Envelope loss/gain								1359	498			1359	498
12	a) infiltration								474	114			474	114
	b) Room ventilation								0	0			0	0
13	Internal gains:		Occupants @ 230				2		460		2		460	
									0				0	
	Subtotal (lines 6 to 13)								1833	1072			1833	1072
	Less external load								0	0			0	0
	Less transfer								0	0			0	0
	Redistribution								0	0			0	0
14	Subtotal								1833	1072			1833	1072
15	Duct loads						0%	0%	0	0	0%	0%	0	0
	Total room load								1833	1072			1833	1072
	Air required (cfm)								321	321			321	321

Printout certified by ACCA to meet all requirements of Manual J 8th Ed.

ALL CLIMATE ZONES

FD-302 (Rev. 11-27-70)

Confidential Component Foundation United States

FC-121200-09

Residential Component Form for Method 1

Comply: as with Method 2 of Chapter 11 of the Florida Building Code, Residential, or Subchapter 13-6 of the Florida Building Code. Building may be constructed by the use of Form 12120 for single and multiple family residences at three stories or less in height, and additions to existing residential buildings. To comply, a building must meet or exceed: 1) of the energy efficiency requirements on Table 110-2 and all applicable mandatory requirements contained in Table 110-2 of this form, if a building does not comply with this method, it may still comply under Method A of Chapter 11 or Subchapter 13-6 of the applicable code.

FROM: Payne Add'l 2 **BUILDER:** Cason Blairs
 AND: **PERMITTING OFFICE:**
PERMIT NO.: **JURISDICTION NO.:**
OWNER:

1. **Flow:** Information including conditions which incorporate any of the following features cannot comply using this method: steel stud walls, single assembly overhanging concrete, lean, or dryfitting or other conventional wall joint.

2. **Fill in:** If the applicable spaces of the "Is It Installed" column on "This TIS-1 with the information requested. All "Is It Installed" entries must be equal to or more efficient than the required limit.

3. **Copy:** In page 1 based on the "Is It Installed" column information.

4. **Final:** Minimum Requirements for All Products, Table TIS-2 and check each box to indicate your intent to comply with all applicable items.

5. **Sign:** Sign and date the "Proposed By" certification statement at the bottom of page 1. The owner or owner's agent must also sign and date the form.

1. **N:** construction or addition
2. **S:** single-family detached or multiple-family attached
3. **M:** multiple-family-No. of units covered by this submission
4. **I:** is a worst case? (yes/no)
5. **G:** conditioned floor area (sq. ft.)
6. **G:** glazing type and area:
 - a. U-factor
 - b. SHGC
 - c. Glass area
7. **R:** ratings of glass to floor area
8. **R:** air type, area or perimeter, and insulation:
 - a. Slab-on-grade (R-value)
 - b. Wood, mixed (R-value)
 - c. Wood, common (R-value)
 - d. Concrete, tiled (R-value)
 - e. Concrete, common (R-value)
9. **M:** air type, area and insulation:
 - a. Exterior:
 1. Masonry (Insulation R-value)
 2. Wood frame (Insulation R-value)
 - b. Adjacent:
 1. Masonry (Insulation R-value)
 2. Wood frame (Insulation R-value)
10. **G:** Bag type, area and insulation:
 - a. Under slab (Insulation R-value)
 - b. Single assembly (Insulation R-value)
11. **A:** Distribution system: duct insulation, location
List report required if duct in unconditioned space
12. **G:** Bag system:
(Type: control, room unit, package terminal A/C, gas, none)
13. **M:** Bag system:
(Type: hot pump, elec. strip, nat. gas, LP-Gas, gas hp., room or FIDAC, none)
14. **R:** greenhouse thermostat installed on HVAC systems:
15. **M:** water systems:
(Type: elec., nat. gas, LP-gas, solar, hot rec., dist. heat pump, other, none)

Please Print

1. Addition

2. Single

3. _____

4. N/O

5. 3/2

6a. _____

6b. _____

6c. 21 sq. ft.

7. 7 %

8a. R# _____ R# _____

8b. R# 19 3/2 sq. ft.

8c. R# _____ sq. ft.

8d. R# _____ sq. ft.

8e. R# _____ sq. ft.

9a. R# _____ sq. ft.

9b. R# 13 352 sq. ft.

9c. R# _____ sq. ft.

9d. R# _____ sq. ft.

10a. R# 30 sq. ft. 3/2

10b. R# _____ sq. ft.

11a. R# _____

11b. Test report attached? Yes No

12a. Type: Mini Split

12b. ~~Capacity~~ 21

12c. Capacity: _____

12d. Type: M.A. Split HP

12e. ~~Capacity~~ 10.9

12f. Capacity: _____

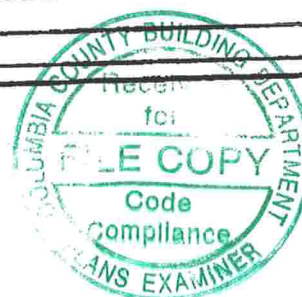
13. Yes No

14a. Type: /

14b. HP: _____

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code. <u>M. G. Foltz</u> PROJECTS - INC. DATE: <u>9/17/10</u>	Review of plans and calculations checked by this calculation indicating compliance with the Florida Energy Code. Unless otherwise indicated, this building will be inspected for energy code as accordance with Section 608.006, P.S. BUILDING OFFICIAL: DATE: _____ 
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2017 FLORENDA BUILDING CODE—BUILDING
Effective 3/1/2019



15-0122

TABLE 11B-1

MINIMUM REQUIREMENTS (See Note 1)

All Climate Zones

BUILDING COMPONENT	PERFORMANCE CRITERIA	INSTALLED VALUES:
Windows (see Note 2):	U-factor = 0.65 SHGC = 0.35 % CFA = 16%	U-factor = SHGC = % of CFA =
Exterior door type:	Wood or insulated	Type:
Walls - Ext. and Int. (See Note 3):		
Frame	R-13	R-value =
Mass		
Interior of wall:	R-6	R-value =
Exterior of wall:	R-4	R-value =
Ceilings (see Notes 3 & 4)	R-30	R-value =
Floors:		
Sub-on-grade	No requirement	R-value =
Over unconditioned spaces (see Note 3)	R-13	
Hot water systems (storage type)		
Electric (see Note 5):	40 gal: EF = 0.92 50 gal: EF = 0.90 40 gal: EF = 0.59 50 gal: EF = 0.58	Gallons = EF = Gallons = EF =
Gas fired (see Note 6):		
Air conditioning systems (see Note 7)	SEER = 13.0	SEER =
Heat pump systems (see Note 8)	SEER = 13.0 HSPF = 7.7	HSPF =
Gas furnaces	AFUE = 78%	AFUE =
Oil furnaces	AFUE = 78%	AFUE =
Programmable thermostat	Must be installed on all HVAC systems	Installed? Yes No
Ductwork (see Note 9):		
Unconditioned spaces:	R-6, Tested	Location: Unconditioned space R-value = Test report:
Conditioned space:	NA	Conditioned space R-value = (No test report required)
Unvented attic assembly per R806.4 with insulation at the roof plane	R-4.2	
Air Handler location:		
Unconditioned attic or garage	Requires test report	Location: Test report:
Conditioned space or		
Unvented attic assembly per R806.4 with insulation at the roof plane	No duct test required	

(1) Each component present in the As-Built home must meet or exceed each of the applicable performance criteria in order to comply with this code using this method; otherwise Method A compliance must be used.

(2) Windows and doors qualifying as glazed fenestration areas must comply with both the maximum U-Factor and the maximum SHGC (Solar Heat Gain Coefficient) criteria as well as have a maximum total window area equal to or less than 16 % of the conditioned floor area (CFA), otherwise Method A must be used for compliance. Exception: Additions of 600 square feet (56 m²) or less may have maximum CFA of 50 percent.

(3) R-Values are for insulation material only as applied in accordance with manufacturers' installation instructions. For mass walls, the interior (Int) requirement must be met unless at least 50% of the insulation value is on the exterior (Ext) or integral to the wall.

(4) Attic knee walls shall be insulated to same level as ceilings and shall have a positive means of maintaining insulation in place. Such means may include rigid insulation board or air barrier sheet materials adequately fastened to the attic sides of knee wall framing materials.

(5) For other electric storage volumes, minimum EF = 0.97 - (0.00132 * volume)

(6) For other natural gas storage volumes, minimum EF = 0.57 - (0.0019 * volume)

(7) For all conventional units with capacities greater than 30,000 Btu/hr. For Small-Duct, High-Velocity units, Space Constrained units, and units with capacities less than 31,000 Btu/hr see Table 13-607 AB.3.2A of the Florida Building Code, Building, or Table N1107 AB.3.2A of the FBC-Residential.

(8) For all conventional units with capacities greater than 30,000 Btu/hr. For Small-Duct, High-Velocity units, Space Constrained units, and units with capacities less than 31,000 Btu/hr see Table 13-607 AB.3.2B of the Florida Building Code, Building, or Table N1107 AB.3.2B of the FBC-Residential.

(9) All ducts and air handlers shall be either located in conditioned space or tested by a Class 1 LEERS refer to be "substantially" leak free.

"Substantially leak free" shall mean distribution system air leakage to outdoors no greater than 3 cfm per 100 square feet of conditioned floor area at a pressure differential of 25 Pascal (0.10 in. w.c.) across the entire air distribution system, including the manufacturer's air handler enclosure.

TABLE 11B-2 MINIMUM REQUIREMENTS FOR ALL PACKAGES			
COMPONENTS	SECTION	REQUIREMENTS	CHECK
Exterior joints & cracks	N1106 AB.1.2	To be caulked, gasketed, weather-stripped or otherwise sealed.	
Exterior windows & doors	N1106 AB.1.1	Max. 0.3 cfm/sq.ft. window area; 0.5 cfm/sq.ft. door area.	
Sole & top plates	N1106 AB.2.1	Sole plates and penetrations through top plates of exterior walls must be sealed.	
Recessed lighting	N1106 AB.1.2.4	Type IC rated with no penetrations (two alternatives allowed)	
Multistory houses	N1106 AB.1.2.5	Air barrier on perimeter of floor cavity between floors.	
Exhaust fans	N1106 AB.1.3	Exhaust fans vented to unconditioned space shall have dampers, except for combustion devices with integral exhaust ductwork.	
Water heaters	N1112 AB.3	Comply with efficiency requirements in Table N1112 AB.3. Switch or clearly marked circuit breaker electric or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.	
Swimming pools & spas	N1112 AB.2.3.4	Spas & heated pools must have covers (except solar heated). Noncommercial pools must have a pump timer. Gas spa & pool heaters must have minimum thermal efficiency of 70%. Heat pump pool heaters shall have a minimum COP of 4.0.	
Hot water pipes	N1112 AB.5	Insulation is required for hot water circulating systems (including heat recovery units).	
Shower heads	N1112 AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 psi.	
HVAC duct construction, insulation & installation	N1110 AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110 AB. Ducts in attics must be insulated to a minimum of R-6.	
HVAC controls	N1107 AB.2	Separate readily accessible manual or automatic thermostat for each system.	

13-D.24

2007 FLORIDA BUILDING CODE - BUILDING

TABLE 11B-1		MINIMUM REQUIREMENTS (See Note 1)		All Climate Zones	
BUILDING COMPONENT		PERFORMANCE CRITERIA		INSTALLED VALUES:	
Windows (see Note 2):		U-factor = 0.65 SHGC = 0.35 % CFA ≤ 16%		U-factor = SHGC = % of CFA =	
Exterior door type		Wood or insulated		Type:	
Walls - Ext. and Adj. (See Note 3):		R-13		R-value =	
Frame		R-6		R-value =	
Mass		R-4		R-value =	
Interior of wall:		R-30		R-value =	
Exterior of wall:				R-value =	
Ceilings (see Notes 3 & 4)					
Floors:		No requirement		R-value =	
Slab-on-grade		R-13			
Over unconditioned spaces (see Note 3)					
Hot water systems (storage type)		40 gal: EF = 0.92		Gallons =	
Electric (see Note 5):		50 gal: EF = 0.90		EF =	
Gas fired (see Note 6):		40 gal: EF = 0.59		Gallons =	
		50 gal: EF = 0.58		EF =	
Air conditioning systems (see Note 7)		SEER = 13.0		SEER =	
Heat pump systems (see Note 8)		SEER = 13.0 HSPF = 7.7		HSPF =	
Gas furnaces		AFUE = 78%		AFUE =	
Oil furnaces		AFUE = 78%		AFUE =	
Programmable thermostat		Must be installed on all HVAC systems		Installed? Yes No	
Ductwork (see Note 9)		R-6, Tested		Location:	
Unconditioned space				Unconditioned space	
				R-value =	
				Test report:	
				Conditioned space	
				R-value =	
				(No test report required)	
Air Handler location:				Location:	
Unconditioned attic or garage		Requires test report		Test report:	
Conditioned space or		No duct test required			
Unvented attic assembly per R806.4 with					
insulation at the roof plane					

- (1) Each component present in the As-Built home must meet or exceed each of the applicable performance criteria in order to comply with this code using this method; otherwise Method A compliance must be used.
- (2) Windows and doors qualifying as glazed fenestration areas must comply with both the minimum U-Factor and the maximum SHGC (Solar Heat Gain Coefficient) criteria and have a maximum total window area equal to or less than 16 % of the conditioned floor area (CFA), otherwise Method A must be used for compliance. Exception: Additions of 600 square feet (55 m²) or less may have maximum CFA of 50 percent.
- (3) R-Values are for insulation material only as applied in accordance with manufacturers' installation instructions. For mass walls, interior (Int) requirement must be met unless at least 50% of the insulation value is on the exterior (Ext) or integral to the wall.
- (4) Attic knee walls shall be insulated to same level as ceilings and shall have a positive means of maintaining insulation in place. Such means may include rigid insulation board or air barrier sheet materials adequately fastened to the attic sides of knee wall framing materials.
- (5) For other electric storage volumes, minimum EF = 0.97 - (0.00132 * volume)
- (6) For other natural gas storage volumes, minimum EF = 0.67 - (0.0019 * volume)
- (7) For all conventional units with capacities greater than 30,000 Btu/hr. For Small-Duct, High-Velocity units, Space Constrained units, and units with capacities less than 30,000 Btu/hr see Table 13-607.AB.3.2A of the Florida Building Code, Building, or Table N1107.AB.3.2A of the 2007 Florida Building Code, Residential.
- (8) For all conventional units with capacities greater than 30,000 Btu/hr. For Small-Duct, High-Velocity units, Space Constrained units, and units with capacities less than 30,000 Btu/hr see Table 13-607.AB.3.2B of the Florida Building Code, Building, or Table N1107.AB.3.2B of the 2007 Florida Building Code, Residential.
- (9) All ducts and air handlers shall be either located in conditioned space or tested by a Class 1 BERS rater to be "substantially" leak free. "Substantially leak free" shall mean distribution system air leakage to outdoors no greater than 3 cfm per 100 square feet of conditioned floor area at a pressure differential of 25 Pascal (0.10 in. w.c.) across the entire air distribution system, including the manufacturer's air handler enclosure.

TABLE 11B-2				MINIMUM REQUIREMENTS FOR ALL PACKAGES	
COMPONENTS	SECTION	REQUIREMENTS		CHECK	
Exterior joints & cracks	N1108.AB.1.2	To be caulked, gasketed, weather-stripped or otherwise sealed.			
Exterior windows & doors	N1108.AB.1.1	Max. 0.3 cfm/sq.ft. window area; 0.5 cfm/sq.ft. door area.			
Sole & top plates	N1108.AB.2.1	Sole plates and penetrations through top plates of exterior walls must be sealed.			
Recessed lighting	N1108.AB.1.2.4	Type IC rated with no penetrations (two alternatives allowed)			
Multistory houses	N1108.AB.1.2.5	Air barrier on perimeter of floor cavity between floors.			
Exhaust fans	N1108.AB.1.3	Exhaust fans vented to unconditioned space shall have dampers, except for combination devices with integral exhaust ductwork.			
Water heaters	N1112.AB.3	Comply with efficiency requirements in Table N1112.AB.3. Switch or clearly marked circuit breaker electric or cutoff (gas) must be provided. External or built-in heat trap required for vertical pipe risers.			
Swimming pools & spas	N1112.AB.2.3.4	Spas & heated pools must have covers (except solar heated). Noncommercial pools must have a pump filter. Gas spa & pool heaters must have minimum thermal efficiency of 78%. Heat pump pool heaters shall have a minimum COP of 4.0.			
Hot water pipes	N1112.AB.5	Insulation is required for hot water circulating systems (including heat recovery unit).			
Shower heads	N1112.AB.2.4	Water flow must be restricted to no more than 2.5 gallons per minute at 80 psig.			
HVAC duct construction, insulation & installation	N1110.AB	All ducts, fittings, mechanical equipment and plenum chambers shall be mechanically attached, sealed, insulated and installed in accordance with the criteria of Section N1110.AB. Ducts in attics must be insulated to a minimum of R-6.			
HVAC controls	N1107.AB.2	Separate readily accessible manual or automatic thermostat for each system.			

ALL GUNITE 201999

51000 11000 00

Residential Construction Methods

Compliance with Method 2 of Chapter 11 of the Florida Building Code, Residential or Subchapter 13-6 of the Florida Building Code, Building, as it is demonstrated by the use of Form 11000 for single and multiple family residences of these stories or less in height, and addition in existing residential buildings. To comply a building must meet or exceed all of the energy efficiency requirements on Table 1101-2 and all applicable mechanical requirements contained in Table 1101-2 of this code. If a building does not comply with this method, it may still comply under Method 1 of Chapter 11 or Subchapter 13-6 of the applicable code.

PROJECT NAME AND ADDRESS: Pope Addition

CITY: _____

SUBJECT: Garage Blows

PERMITTING OFFICE: _____

PERMIT NO.: _____

JANUARY 1968

2. New construction including additions which incorporate any of the following features cannot comply using this method: steel stud walls, slabs, assembly enclosures, balconies, or decks or other suspended rail glass.

2. Fill in all of the applicable spaces of the "To Be Insulated" column on "Table 11B-2" with the information requested. All "To Be Insulated" values are: 1. Be equal to or more efficient than the required level.

3. Complete page 3 based on the "To Be Insulated" column information.

4. Read "Minimum Requirements for All Packages", Table 11B-2 and check each box to indicate your intent to comply with all applicable items.

5. Read, sign and date the "Required by" certification statement at the bottom of page 1. The owner or owner's agent must also sign and date the form.

1. New construction or addition
2. Single-family detached or multiple-family attached
3. If multiple-family-No. of units covered by this submission
4. Is this a worst case? (yes/no)
5. Conditioned floor area (sq. ft.)
6. Glass type and area:
 - a. U-factor
 - b. SHGC
 - c. Glass area
7. Percentage of glass in floor area
8. Floor type, area or perimeter, and insulation:
 - a. Sub-on-grade (R-value)
 - b. Wood, nailed (R-value)
 - c. Wood, common (R-value)
 - d. Concrete, nailed (R-value)
 - e. Concrete, common (R-value)
9. Wall type, area and insulation:
 - a. Exterior:
 1. Masonry (Insulation R-value)
 2. Wood frame (Insulation R-value)
 - b. Adjacent:
 1. Masonry (Insulation R-value)
 2. Wood frame (Insulation R-value)
10. Ceiling type, area and insulation:
 - a. Under attic (Insulation R-value)
 - b. Single assembly (Insulation R-value)
11. Air distribution system: Duct insulation, location
that report required if duct in unconditioned space
12. Cooling system:
(Type: central, room unit, package terminal A.C., gas, none)
13. Heating system:
(Type: heat pump, elec. strip, nat. gas, LP-Gas, gas h.p., oil, or F.T.C., none)
14. Programmable thermostat installed on HVAC systems:
15. Hot water system:
(Type: elec., nat. gas, LP-gas, solar, heat rec., dist. heat pump, other, none)

Please Print

1. Addition

2. Single

3. _____

4. No

5. 312

6a. _____

6b. _____

6c. 21 sq. ft.

7. 7 %

8a. No. _____

8b. No. 14 312 sq. ft.

8c. No. _____ sq. ft.

8d. No. _____ sq. ft.

8e. No. _____ sq. ft.

9a-1. No. _____ sq. ft.

9a-2. No. 13 35 sq. ft.

9b-1. No. _____ sq. ft.

9b-2. No. _____ sq. ft.

10a. No. 30 sq. ft. 12

10b. No. _____ sq. ft.

11a. No. _____

11b. Test report attached? ☐ Yes ☒ No

12a. Type: Mini Split

12b. ~~Capacity~~ 21

12c. Capacity: _____

12d. Type: Mini Split HP

12e. ~~Capacity~~ 10

12f. Capacity: _____

13. Yes ☐ No ☒

14a. Type: _____

14b. HP: _____

I hereby certify that the plans and specifications covered by the certification are in compliance with the Florida Building Code.

PREPARED BY: M/LC. GUN DATE: 10/17/10
I hereby certify that this building is in compliance with the Florida Energy Code.
[Signature]

Review of photo and specifications covered by this citation letter is contingent upon the Florida Energy Code. Before membership is completed, this holding will be reported for compliance in accordance with Florida Rule 61A.02, F.S.

BUILDING OFFICIAL: _____
DATE: _____

Installation Instructions Pre-Hung Door Systems In High Wind Velocity Areas

These instructions apply to all Therma-Tru wood-framed door systems. Some apply specifically to:

Inswing Doors



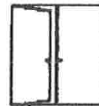
Outswing Doors



Doors with sidelights



Double Doors



Patio Doors

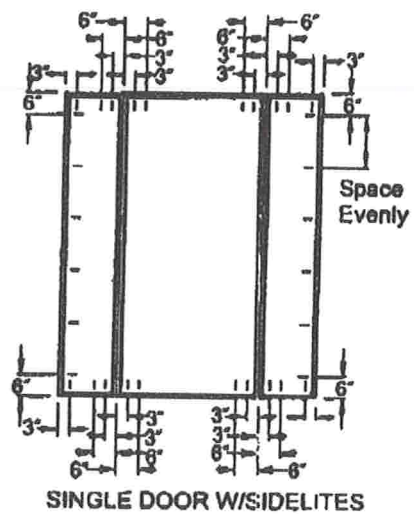
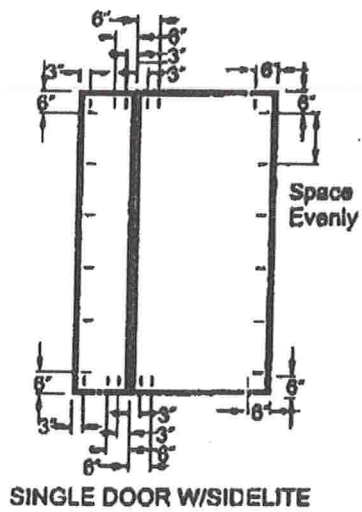
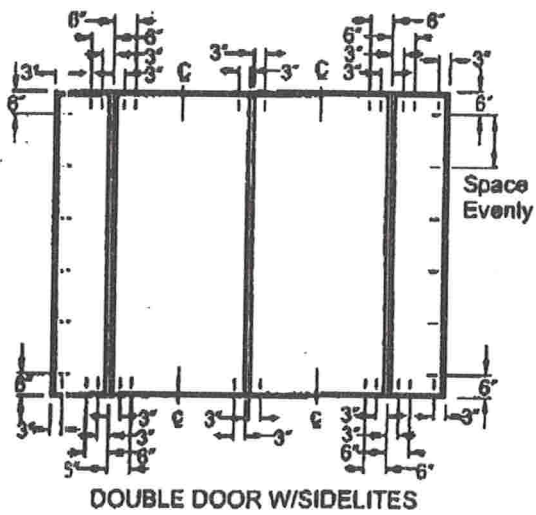
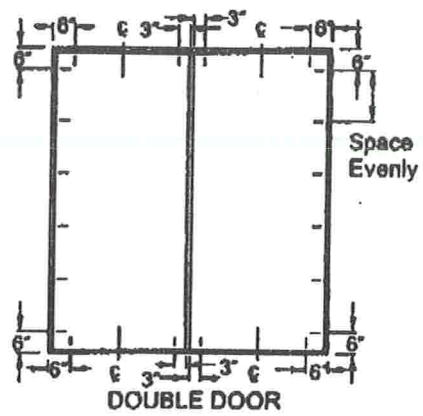
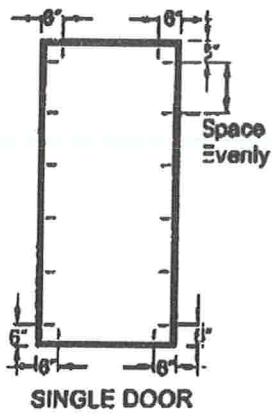


Read all instructions before starting.

THERMATRU
DOORS

The Most Preferred Brand In the Business™

P.O. Box 8780 Maumee, Ohio 43537



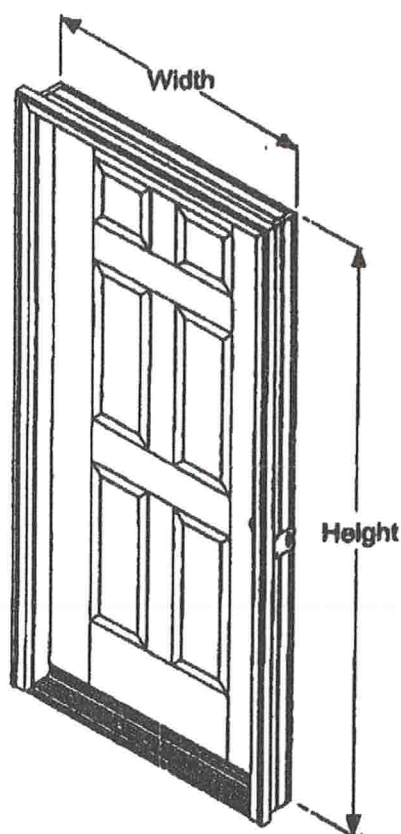
1

CHECK DOOR UNIT.

Check width and height.

Measure size of frame (width and height), not brickmold.

Remove cleats and packaging, but keep door fastened closed with transport clip. Do not remove clip or open door until instructed to do so.



2

CHECK AND PREPARE OPENING.

Is subfloor level and solid? Provide a flat, level, clean bearing surface so the sill may be caulked and sealed to the opening. Scrape, sand, or fill as required.

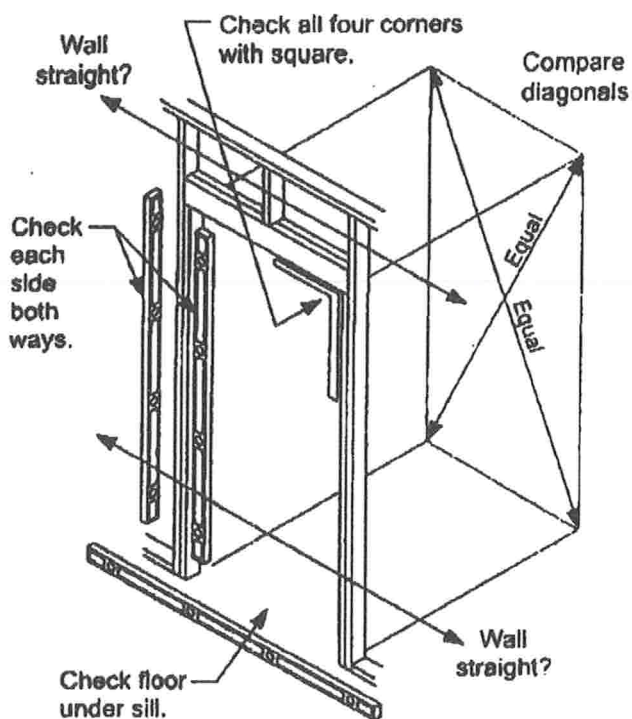
Shim subfloor for floor covering clearance, if required. If shimming, caulk under shims.

Is opening square? Check all corners with a framing square. Double-check by comparing diagonal measurements. Fix any problems now.

Are framing and walls plumb? Use a 6-foot level and check both sides of opening, both ways. Fix any problems now.

Are the wall surfaces around the opening in the same plane? There must be no "warps" or "jogs". Fix any problems now.

Is the opening the correct size? Check it against the door frame size now, before installation. Opening should be frame height plus $\frac{1}{4}$ ", and frame width plus $\frac{1}{2}$ ". Remember to use only $\frac{1}{4}$ " shims.



**PLACE UNIT IN OPENING AND TEMPORARILY FASTEN HINGE JAMB.
DO NOT FASTEN THROUGH BRICKMOULD.**

If the jamb and head does not come with pilot holes, drill 1/8" pilot holes before using screws.

For single or double doors, note hinge locations and mark jamb faces near door surface, for fastener placement later.

Lift unit up. With top edge tilted away from opening, center unit and place sill down onto caulk beads. Tilt into place.

Work from the side of the door that is weather-stripped. (outside for inswing doors, inside for outswing doors) Plumb hinge side jamb both ways. Use a 6-foot level.

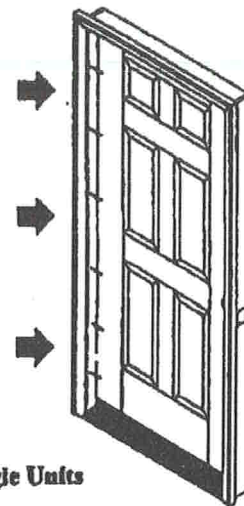
Use shims totaling a maximum of 1/4" thickness, not the usual 1/2".

Use 2-1/2" wood screws. Do NOT substitute nails, deck screws, or drywall screws. Place six #8 wood screws through jambs into "two-by" studs, at each location where shown in diagrams. For single or double doors, refer to marks on jambs and place fasteners below each hinge location, so that shims may be placed behind hinges. Fasteners will keep shims from falling down while adjustments are made.

Do not drive screws completely in at this time.

6" from
top and
bottom

6 wood
screws
evenly
spaced



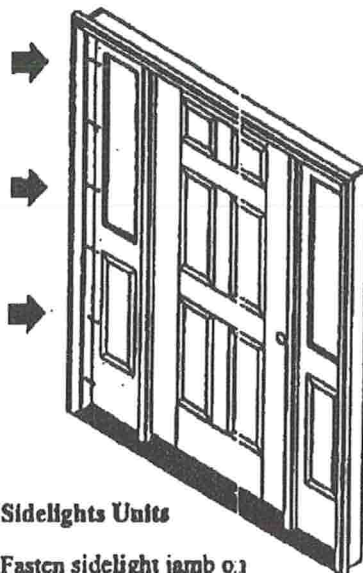
Single Units

Fasten hinge jamb.

All screws used outside should be coated or galvanized to prevent rusting and staining.

6" from
top and
bottom

6 wood
screws;
evenly
spaced

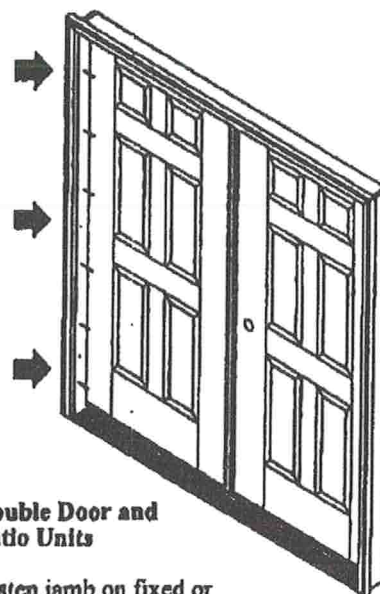


Sidelights Units

Fasten sidelight jamb on hinge side of door.

6" from
top and
bottom

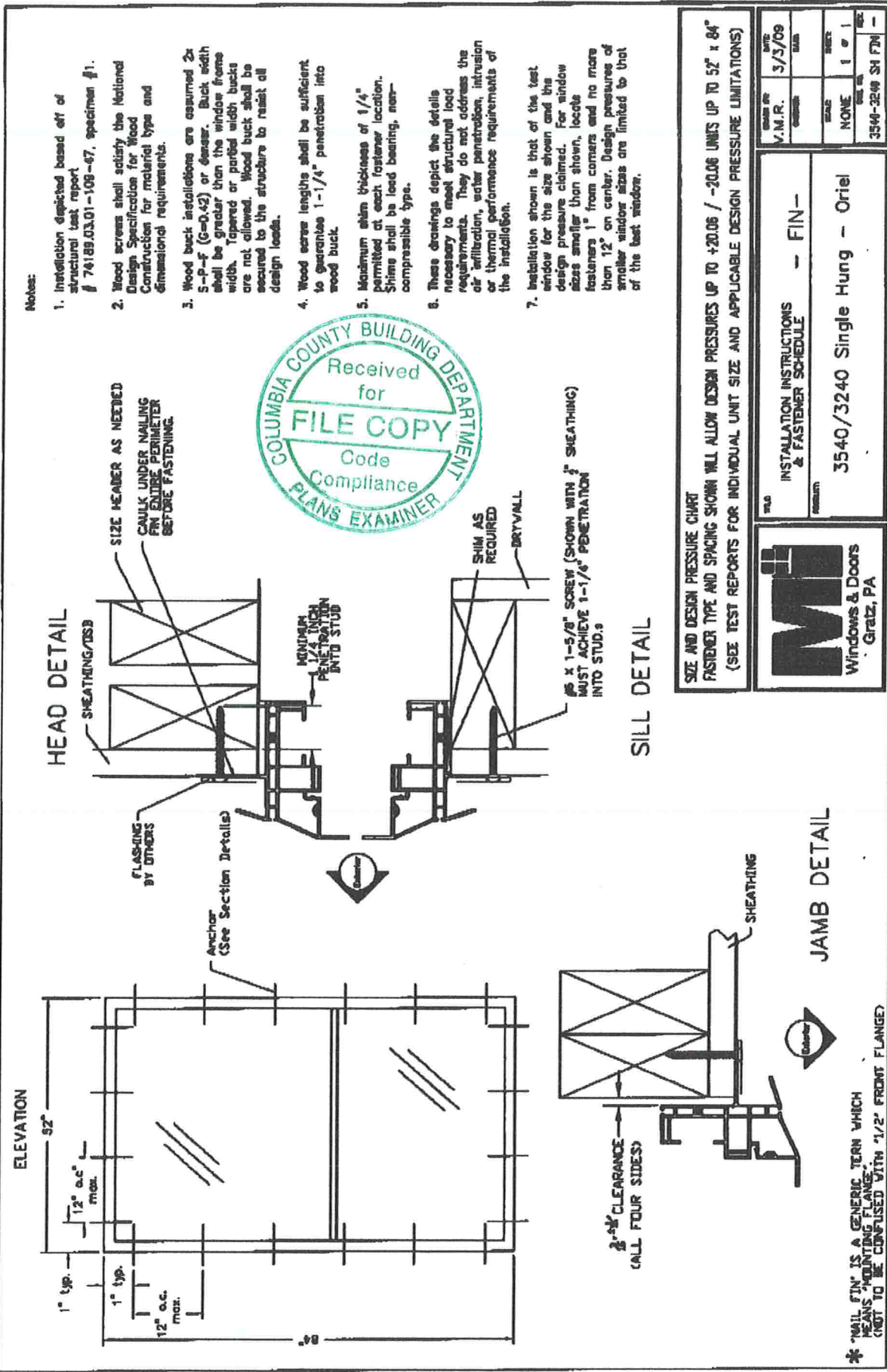
6 wood
screws
evenly
spaced

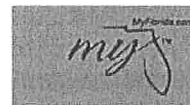


Double Door and
Patio Units

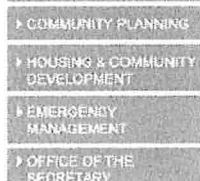
Fasten jamb on fixed or passive side of door.

FL12250-R4




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**Product Approval**

USER: Public User

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FL # FL9107-R1
 Application Type Revision
 Code Version 2007
 Application Status Approved
 Comments
 Archived ☐

Product Manufacturer Metal Sales Manufacturing Corporation
 Address/Phone/Email 545 South 3rd Street, Suite 200
 Louisville, KY 40202
 (812) 218-7342
 dstermer@metalsales.us.com

Authorized Signature David Stermer
 dstermer@metalsales.us.com

Technical Representative
 Address/Phone/Email

Quality Assurance Representative
 Address/Phone/Email

Category Roofing
 Subcategory Metal Roofing

Compliance Method Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer
☒ Evaluation Report - Hardcopy Received

Florida Engineer or Architect Name who developed the Evaluation Report Bala Sockalingam
 Florida License PE-62240
 Quality Assurance Entity Keystone Certifications, Inc.
 Quality Assurance Contract Expiration Date 12/31/2011
 Validated By Yoosef Lavi, P.E.
☒ Validation Checklist - Hardcopy Received

Certificate of Independence [FL9107_R1_COI_CertificateIndependence.pdf](#)

Referenced Standard and Year (of Standard)	Standard	Year
	UL 1897	1998
	UL 580	1994

Equivalence of Product Standards
 Certified By

Sections from the Code



Product Approval Method

Method 1 Option D

Date Submitted

05/19/2008

Date Validated

05/21/2008

Date Pending FBC Approval

05/23/2008

Date Approved

06/24/2008

Summary of Products

FL #	Model, Number or Name	Description
9107.1	5V-Crimp	26 ga., 24 wide through fastened roof panel over plywood deck
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-149.6 Other: 84.5 psf @ fastener spacing of 2' 0", 131.3 psf @ fastener spacing of 1' 6" and 149.6 psf @ fastener spacing of 1' 0"		Installation Instructions FL9107_R1_II_1582_8.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes Evaluation Reports FL9107_R1_AE_EvaluationReportC1582_8.pdf Created by Independent Third Party: Yes
9107.2	Classic Rib	26 ga., 36" wide through fastened roof panel over plywood deck
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-133.9 Other: 92.3 psf @ fastener spacing of 2' 0" and 133.9 psf @ fastener spacing of 1' 6"		Installation Instructions FL9107_R1_II_1582_9.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes Evaluation Reports FL9107_R1_AE_EvaluationReportC1582_9.pdf Created by Independent Third Party: Yes
9107.3	Image II	26 ga., 16" wide standing seam roof panel over plywood deck
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +N/A/-139.1 Other: 102.7 psf @ fastener spacing of 6" and 139.1 psf @ fastener spacing of 6" with 3/8" bead adhesive in sidelap		Installation Instructions FL9107_R1_II_1582_10.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes Evaluation Reports FL9107_R1_AE_EvaluationReportC1582_10.pdf Created by Independent Third Party: Yes
9107.4	Stile	26 ga., 39.4" wide through fastened roof panel over plywood deck
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +N/A/-149.6 Other: 106.8 psf @ fastener spacing of 2' 0" and 149.6 psf @ fastener spacing of 1' 0"		Installation Instructions FL9107_R1_II_1582_11.pdf Verified By: Bala Sockalingam PE 62240 Created by Independent Third Party: Yes Evaluation Reports FL9107_R1_AE_EvaluationReportC1582_11.pdf Created by Independent Third Party: Yes

Back

Next

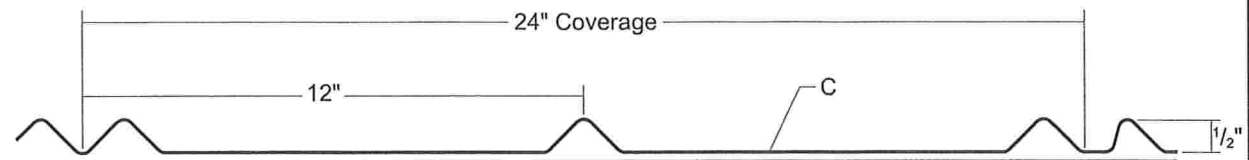
Department of Community Affairs
 Florida Building Code Online
 Codes and Standards
 2555 Shumard Oak Boulevard
 Tallahassee, Florida 32399-2100
 (850) 487-1824, Fax (850) 414-8436
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Product Approval Accepts:

5V-CRIMP

CONDENSED TECHNICAL REFERENCE



ARCHITECTURAL
RESIDENTIAL
PANEL

DIRECT
FASTEN

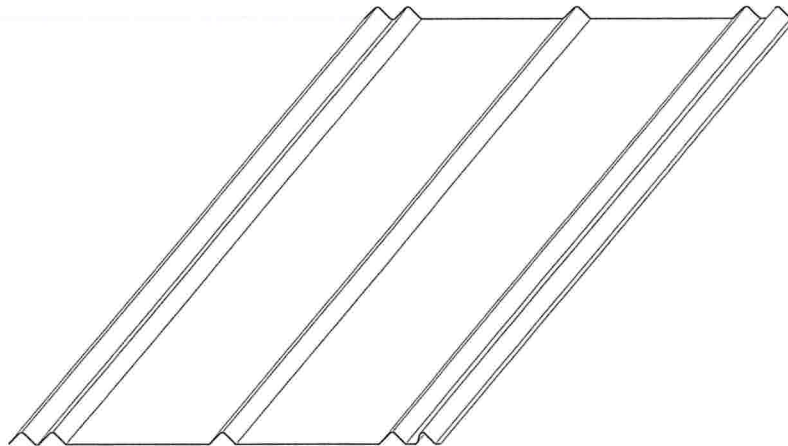
24"
COVERAGE

MINIMUM
SLOPE
3:12

SOLID WOOD
SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: MS Colorfast45® and Acrylic Coated Galvalume®
- ▶ Gauges: 26ga standard, 24ga optional
- ▶ 24" panel coverage, 1/2" rib height
- ▶ Exposed fastened panel, traditional "V" rib
- ▶ Applies over plywood substrate with 30 pound felt underlayment
- ▶ 3:12 slope minimum



TESTING

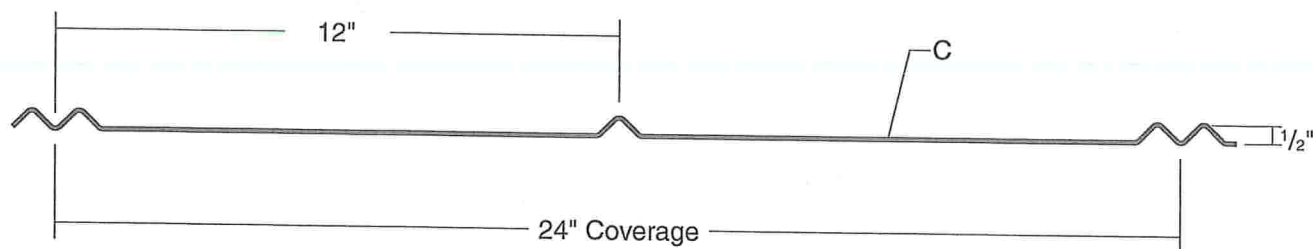
- ▶ UL 2218, Class 4 Impact Rating
- ▶ UL 790, Class A Fire Resistance Rating
- ▶ Florida Building Code Approved 9107.1, 8131.1, 10916.2
- ▶ Miami-Dade County Approved 08-0229.13
- ▶ UL 580, Class 90 Wind Uplift Construction #579 over 1/2" Plywood
- ▶ UL 580, Class 90 Wind Uplift Construction #453 over 5/8" Plywood
- ▶ Texas Windstorm Evaluation R-160

metal sales
manufacturing corporation



5V-CRIMP PANEL OVERVIEW

PANEL PROFILE



SLOPE

The minimum recommended slope for any 5V-Crimp roofing panel is 3:12.

SUBSTRATE

The recommended substrate is $\frac{5}{8}$ " plywood with a 30 pound felt moisture barrier. To avoid panel distortion, use a properly aligned and uniform substructure. **Please note that 5V-Crimp panels are not recommended for use over open framing.**

COVERAGE

5V-Crimp is available in 24" width with a $\frac{1}{2}$ " rib height.

LENGTH

Lengths under 5'-0" are available with some cutting restrictions. Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping, and erection. Please consult your Metal Sales branch for recommendations (see PGI-2 and 3 for locations).

AVAILABILITY

26 Gauge

APPLICATION

Architectural and Residential panel.

PERFORMANCE TEST

UL 580, UL 790, UL 263, UL 2218, Miami-Dade County

FASTENING SYSTEM

Direct fastened (exposed).

FASTENERS

The fastener selection guide should be consulted for choosing proper fasteners for specific applications. Quantity and type of fastener must meet necessary loading and code requirements (see PGI-12-14).

MATERIALS

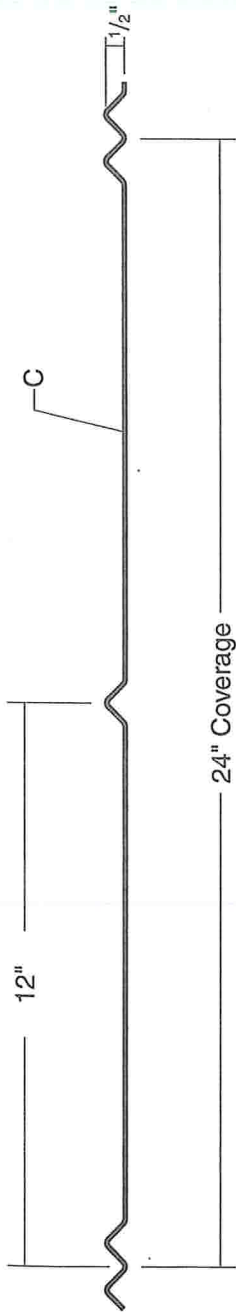
Steel grade 50, per ASTM A-792

FINISH

- ▶ *Acrylic Coated Galvalume® (ACG) / ASTM A-792 - AZ55
- ▶ Prepainted Galvalume / ASTM A-792 - AZ50
- ▶ **Fluorocarbon (PVDF)

* Differential appearance of Acrylic Coated Galvalume roofing materials is not a cause for rejection.

** Meets both Kynar 500 and Hylar 5000 specifications.



5V-CRIMP SECTION PROPERTIES

GAUGE	WIDTH (in)	YEILD KSI	WEIGHT PSF	TOP IN COMPRESSION ¹			BOTTOM IN COMPRESSION ¹		
				Ixx in ⁴ /ft	Sxx in ³ /ft	Ma (k-in)	Ixx in ⁴ /ft	Sxx in ³ /ft	Ma (k-in)
26	24	50	0.85	0.0025	0.0069	0.2066	0.0015	0.0054	0.162

5V-CRIMP ALLOWABLE UNIFORM LIVE LOADS PSF^{1,2,3,4}

1-Span	Inward (Gravity / Deflection) Load ^{2,4}						Outward Uplift (Stress) Load ³					
	GA. Width	Ksi	0.75'	1'	1.5'	1.75'	2'	2.5'	0.75'	1'	1.5'	1.75'
26	24"	50	243	137	61	41	27	14	253	142	63	46
2-Equal Spans	Inward (Gravity / Deflection) Load ^{2,4}						Outward Uplift (Stress) Load ³					
	GA. Width	Ksi	0.75'	1'	1.5'	1.75'	2'	2.5'	0.75'	1'	1.5'	1.75'
26	24"	50	181	104	47	35	27	17	302	175	79	59
3 or more-Equal Spans	Inward (Gravity / Deflection) Load ^{2,4}						Outward Uplift (Stress) Load ³					
	GA. Width	Ksi	0.75'	1'	1.5'	1.75'	2'	2.5'	0.75'	1'	1.5'	1.75'
26	24"	50	209	121	55	40	31	20	345	202	92	68

- Theoretical section properties have been calculated per AISI 1996. "Specifications for the design of cold formed steel members." Ixx and Sxx are effective section properties for deflection and bending.
- Tabulated loads are allowable loads calculated in accordance with good engineering practices and with AISI 1996 specifications for bending stresses. Panel weight has not been subtracted from allowable gravity loads. Allowable load does not address web crippling requirement, or fasteners/support connection.
- Allowable loads are calculated in accordance with AISI 1996 specifications, and have been increased by 33 1/3% for wind uplift. Contact Metal Sales Technical Services Department for more information.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Note: 5V-Crimp is not recommended for open frame construction.**