



Product Approval
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SECRETARY

FL #	FL16107-R17														
Application Type	Revision														
Code Version	2023														
Application Status	Approved														
Comments															
Archived	☐														
Product Manufacturer	Clopay Building Products Company														
Address/Phone/Email	8585 Duke Blvd. Mason, OH 45040 (513) 770-4641 jwheeler@clopay.com														
Authorized Signature	Scott Hamilton shamilton@clopay.com														
Technical Representative															
Address/Phone/Email															
Quality Assurance Representative															
Address/Phone/Email															
Category	Exterior Doors														
Subcategory	Sectional Exterior Door Assemblies														
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	Jim Wheeler														
Florida License	PE-91932														
Quality Assurance Entity	Intertek Testing Services NA, Inc. - QA Entity														
Quality Assurance Contract Expiration Date	12/31/2026														
Validated By	Gary Pfuehler ☒ Validation Checklist - Hardcopy Received														
Certificate of Independence	FL16107_R17_COI_Certification_of_Independence_of_Validation_Entity-Gary_Pfuehler.pdf FL16107_R17_COI_Statement_on_Independence_of_Evaluation_Entity-ScottHamilton_120424.pdf														
Referenced Standard and Year (of Standard)	<table> <thead> <tr> <th>Standard</th><th>Year</th></tr> </thead> <tbody> <tr> <td>ANSI/DASMA 108</td><td>2005</td></tr> <tr> <td>ANSI/DASMA 115</td><td>2005</td></tr> <tr> <td>ASTM E1886</td><td>2005</td></tr> <tr> <td>ASTM E1996</td><td>2009</td></tr> <tr> <td>ASTM E330</td><td>2002</td></tr> <tr> <td>TAS 201</td><td>1994</td></tr> </tbody> </table>	Standard	Year	ANSI/DASMA 108	2005	ANSI/DASMA 115	2005	ASTM E1886	2005	ASTM E1996	2009	ASTM E330	2002	TAS 201	1994
Standard	Year														
ANSI/DASMA 108	2005														
ANSI/DASMA 115	2005														
ASTM E1886	2005														
ASTM E1996	2009														
ASTM E330	2002														
TAS 201	1994														

Equivalence of Product Standards
Certified By

Florida Licensed Professional Engineer or Architect
[FL16107_R17_Equiv_20200812 - FBC - ASTM 1886-1996 equiv.pdf](#)
[FL16107_R17_Equiv_20230712 - FBC - ASTM E330 equiv s.pdf](#)

Sections from the Code

Product Approval Method

Method 1 Option D

Date Submitted

02/29/2024

Date Validated

02/29/2024

Date Pending FBC Approval

03/06/2024

Date Approved

04/16/2024

Summary of Products

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FL #	Model, Number or Name	Description
16107.41	41 W6-09 DSIU-1F171: 9200, 9201, 9203, HDP20, HDPF20, HDPL20, 7200, 7201, 7203, 8200, 8201, 8203	Double-skin Insulated PUR (exterior skin 27 ga. min.; interior skin 27 ga. min.) Single-Car (up to 9'0" wide) WINDCODE® W6 Garage Door with Optional Impact-Resistant Lites
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +38 PSF/-44 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107_R17_II_104184-A-Rev05.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140220-A.pdf Created by Independent Third Party: No
16107.42	42 W6-09 DSIU-1F171: 9200, 9201, 9203, HDP20, HDPF20, HDPL20, 7200, 7201, 7203, 8200, 8201, 8203	Double-skin Insulated PUR (exterior skin 27 ga. min.; interior skin 27 ga. min.) Single-Car (up to 9'0" wide) WINDCODE® W6 Garage Door
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +38 PSF/-44 PSF Other: Doors with standard glazing meet the wind load requirements of the building code but DO NOT meet the impact resistant requirement for windborne debris regions.		Installation Instructions FL16107_R17_II_104184-B-Rev05.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140220-A.pdf Created by Independent Third Party: No
16107.43	43 W6-16 DSIU-1F171: 9200, 9201, 9203, HDP20, HDPF20, HDPL20, 7200, 7201, 7203, 8200, 8201, 8203	Double-skin Insulated PUR (exterior skin 27 ga. min.; interior skin 27 ga. min.) Double-Car (9'2" to 16'2" wide) WINDCODE® W6 Garage Door with Optional Impact-Resistant Lites
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +38 PSF/-42 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107_R17_II_104879-A-Rev05.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140220-A.pdf Created by Independent Third Party: No
16107.44	44 W6-16 DSIU-1F171: 9200, 9201, 9203, HDP20, HDPF20, HDPL20, 7200, 7201, 7203, 8200, 8201, 8203	Double-skin Insulated PUR (exterior skin 27 ga. min.; interior skin 27 ga. min.) Double-Car (9'2" to 16'2" wide) WINDCODE® W6 Garage Door
Limits of Use Approved for use in HVHZ: No		Installation Instructions FL16107_R17_II_104879-B-Rev05.pdf

Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +38 PSF/-42 PSF Other: Doors with standard glazing meet the wind load requirements of the building code but DO NOT meet the impact resistant requirement for windborne debris regions.		Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140220-A.pdf Created by Independent Third Party: No
16107.45	45 W3-09 DSIU-1A171: 9130, 9131, 9133, HDP13, HDPF13, HDPL13, 7130, 7131, 7133, 8130, 8131, 8133	Double-skin Insulated PUR (exterior skin 27 ga. min.; interior skin 27 ga. min.) Single-Car (up to 9'0" wide) WINDCODE® W3 Garage Door
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +20 PSF/-21 PSF Other: The OPTIONAL glazing available for this product meets the wind load requirements of the building code but DOES NOT meet the impact resistant requirement for windborne debris regions. The product without glazing DOES comply with the impact resistant requirement for windborne debris regions (ref 1609.1.2 FBC).		Installation Instructions FL16107_R17_II_104175-Rev04.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140220-A.pdf Created by Independent Third Party: No
16107.46	46 W7-09 PAN-2F153: 73, 75, 84A, 94, 98, 42, 42B, 48, 48B, 4F, 4RST, 6RST, GD5S, GD5SV, GR5S, GR5SV, AR5S, AR5SV, ED5S, ED5SV	Steel Pan (min. 25 ga.) Single Car (up to 9'0" wide) WINDCODE® W7 Garage Door with Optional Impact-Resistant Lites
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +42 PSF/-48 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107_R17_II_101702-Rev13.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140625-A.pdf Created by Independent Third Party: No
16107.47	47 W5-16 PANSP-2F153/6: 73SP, 15SP, 76SP, 76VSP, GD5SSP, GD5SPV	Steel Pan (min. 25 ga.) Double-Car (9'2" to 16'0" wide) WINDCODE® W5 Garage Door with Optional Impact-Resistant Lites
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +32 PSF/-37 PSF Other: Solid doors (no glazing) or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107_R17_II_104818-A-Rev03.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140625-A.pdf Created by Independent Third Party: No
16107.48	48 W5-16 PANSP-2F153/6: 73SP, 15SP, 76SP, 76VSP, GD5SSP, GD5SPV	Steel Pan (min. 25 ga.) Double-Car (9'2" to 16'0" wide) WINDCODE® W5 Garage Door
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: No Design Pressure: +32 PSF/-37 PSF Other: Doors with standard glazing meet the wind load requirements of the building code but DO NOT meet the impact resistant requirement for windborne debris regions.		Installation Instructions FL16107_R17_II_104818-B-Rev03.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_140625-A.pdf Created by Independent Third Party: No
16107.49	49 W8-09 W-1G899: Custom Reserve Collection CR800, MR800, CH800, CRDnnn	Custom Wood Single-Car (up to 9'0" wide) WINDCODE® W8 Garage Door
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +47 PSF/-55 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107_R17_II_104939-Rev03.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107_R17_AE_CBPC_121212-A.pdf Created by Independent Third Party: No
16107.50	50 W7-16 W-1G899: Custom Reserve Collection CR800, MR800,	Custom Wood Double-Car (9'2" up to 16'2" wide) WINDCODE® W7 Garage Door

CH800, CRDnnn		
Limits of Use Approved for use in HVHZ: Yes Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +41 PSF/-48 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors or doors with optional impact-resistant glazing are impact-resistant (large missile impact).		Installation Instructions FL16107 R17 II 104998-Rev02.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107 R17 AE CBPC 121212-A.pdf Created by Independent Third Party: No
16107.51	51 W6-16 SPO-2F449: Grand Harbor, Evanston, Stone Manor	Steel Pan (min. 24 ga.) with Overlay Double-Car (9'2" to 16'2" wide) WINDCODE® W6 Garage Door
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: Yes Design Pressure: +38 PSF/-42 PSF Other: Max. Wind Speed (V _{ult}): 170 MPH. Solid doors are impact-resistant (large missile impact).		Installation Instructions FL16107 R17 II 104790-A-Rev09.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107 R17 AE CBPC 130423-A.pdf Created by Independent Third Party: No
16107.52	52 W6-16 SPO-2F499: Grand Harbor, Evanston, Stone Manor	Steel Pan (min. 24 ga.) with Overlay Double-Car (9'2" to 16'2" wide) WINDCODE® W6 Garage Door
Limits of Use Approved for use in HVHZ: No Approved for use outside HVHZ: Yes Impact Resistant: N/A Design Pressure: +38 PSF/-42 PSF Other: Doors with standard glazing meet the wind load requirements of the building code but DO NOT meet the impact resistant requirement for windborne debris regions.		Installation Instructions FL16107 R17 II 104790-B-Rev09.pdf Verified By: Scott Hamilton FL PE 63286 Created by Independent Third Party: No Evaluation Reports FL16107 R17 AE CBPC 130423-A.pdf Created by Independent Third Party: No

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[Back](#)[Next](#)[Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824](#)The State of Florida is an AA/EEO employer. [Copyright 2007-2013 State of Florida.](#) :: [Privacy Statement](#) :: [Accessibility Statement](#) :: [Refund Statement](#)

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Product Approval Accepts:

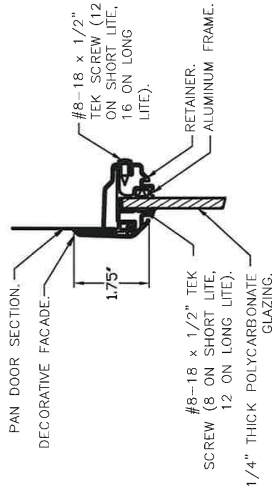
MODELS	SHORT	LONG	BRIDGEPORT	REV. NO.	ZONE	DATE	ECN NO.	APPVD:	DESCRIPTION
CLOPAY GALLERY	GD4S, GR4S	GD4L, GR4L	BD4E, BR4E	09	-	-	-	-	SEE REVISION HISTORY ON SHEET 1.
HOLMES ARTISTRY	AR4S	AR4L	PR4E						
TOTAL EXPRESSIONS	ED4S	ED4L	RR4E						

REVISIONS
SEE SHEET 5 FOR "GRAND HARBOR" MODELS. ALL BRIDGEPORT MODELS ARE LONG PANEL.

SHEET: 2 OF 5

IMPACT-RESISTANT CONSTRUCTION:
SOLID DOORS (NO GLAZING) OR DOORS WITH OPTIONAL IMPACT-RESISTANT GLAZING ARE IMPACT-RESISTANT. OPTIONAL IMPACT RESISTANT ASSEMBLY CONSISTS OF ALUMINUM FRONT FRAME GE LEXAN MR10, AN APPROVED C1 PLASTIC IN ACCORDANCE WITH IBC/FBC 2606 AND AN APPROVED C1 PLASTIC IN ACCORDANCE WITH FBC 2612. THE ENTIRE DOOR ASSEMBLY INSTALLED IN COMPLIANCE WITH THIS SECTION MEETS THE WIND LOAD REQUIREMENTS OF THE FLORIDA BUILDING CODE AND INTERNATIONAL BUILDING CODE AND IS LARGE- AND SMALL- MISSILE IMPACT RESISTANT.

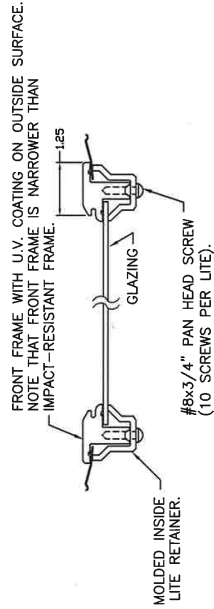
SECTION C-C (IMPACT-RESISTANT GLAZING OPTION)



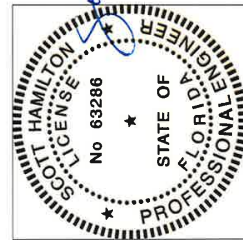
IMPACT-RESISTANT ASSEMBLY DETAILS
DRAWING 104790-A

STANDARD ASSEMBLY CONSTRUCTION:
OPTIONAL DSB OR 1/8" ACRYLIC LITES AVAILABLE. OPTIONAL ACRYLIC GLAZING IS PLASKOLITE OPTX OR LUCITE CP APPROVED C2 PLASTIC IN ACCORDANCE WITH IBC/FBC 2606. THE ENTIRE DOOR ASSEMBLY INSTALLED IN COMPLIANCE WITH THIS SECTION MEETS THE WIND LOAD REQUIREMENTS OF THE FLORIDA BUILDING CODE OR INTERNATIONAL BUILDING CODE BUT DOES NOT MEET THE IMPACT RESISTANT REQUIREMENT FOR WINDBORNE DEBRIS REGIONS (REF. CHAPTER 16 FBC/IBC).

SECTION B-B (NON-IMPACT RESISTANT GLAZING OPTION)



STANDARD ASSEMBLY DETAILS
DRAWING 104790-B



DESIGN ENGINEER:
SCOTT HAMILTON, P.E.
FLORIDA LICENSE No. 63286

MANUFACTURING PRODUCT CODE SHORT: PAN-2F 443	DESIGN LOADS: +38.0 P.S.F. & -42.0 P.S.F. TEST LOADS: +57.0 P.S.F. & -63.0 P.S.F.	8585 Duke Boulevard Mason, OH 45040 USA Tel. No. 513-770-4800 Fax No. 513-770-4885	8585 Duke Boulevard Mason, OH 45040 USA Tel. No. 513-770-4800 Fax No. 513-770-4885
MANUFACTURING PRODUCT CODE LONG: PAN-2F 446	Unless Stated Otherwise TOLERANCES .0 = ±.031 .00 = ±.015 .000 = ±.005 .0000 = ±.001 Degrees = ± 1/2°	Clopay CORPORATION	Clopay CORPORATION
PART NO.: N/A	WINDLOAD RATING W6 DP38T	DESCRIPTION: 2" GALLERY PAN DOORS 16'2"W (SEE TABLE)	DESCRIPTION: 2" GALLERY PAN DOORS 16'2"W (SEE TABLE)
	SCALE: NTS	DRAWN BY: SH	DRAWN BY: SH
	DATE: 4/19/13	CHECKED BY: SH	CHECKED BY: SH
	SHEET 2 OF 5	DWG. NO.: 104790-A/B	DWG. NO.: 104790-A/B
	VER: IBC		

4

3

2

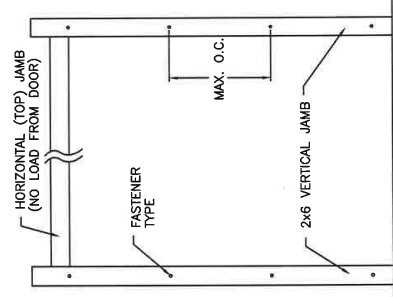
MODELS	SHORT	LONG	BRIDGEPORT
CLOPAY GALLERY	GD4S, GR4S	GD4L, GR4L	BD4E, BR4E
HOLMES ARTISTRY	AR4S	AR4L	PR4E
IDEAL EXPRESSIONS	ED4S	ED4L	RR4E

SEE SHEET 5 FOR "GRAND HARBOR" MODELS. ALL BRIDGEPORT MODELS ARE LONG PANEL.

SHEET 3 OF 5

REV. NO.	ZONE	DATE	ECN NO.	APPVD:
09	-	-	-	-

DESCRIPTION
SEE REVISION HISTORY ON SHEET 1.



JAMB TO SUPPORTING STRUCTURE ATTACHMENT

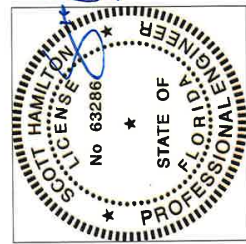
- NOTES: THE LOAD FROM THE DOOR IS TRANSFERRED TO THE TRACK AND THEN FROM THE TRACK TO THE 2x6 VERTICAL SYP (GRADE #2 OR BETTER) JAMBS. NO LOAD FROM THE DOOR IS TRANSFERRED TO THE HORIZONTAL (TOP) JAMB.
1. EACH VERTICAL JAMB SEES A MAXIMUM DESIGN LOAD OF +304 LB & -336 LB. PER LINEAR FOOT OF JAMB.
 2. ALL JAMB FASTENERS MAY BE (BUT ARE NOT REQUIRED TO BE) COUNTERSUNK TO PROVIDE A FLUSH MOUNTING SURFACE.
 3. A 1/3 STRESS INCREASE FOR WIND LOAD WAS NOT USED IN THE CALCULATION OF ALLOWABLE LOADS FOR ANCHORS AND FASTENERS FOR STEEL, CONCRETE AND MASONRY.

2x6 JAMB TO SUPPORTING STRUCTURE ATTACHMENT

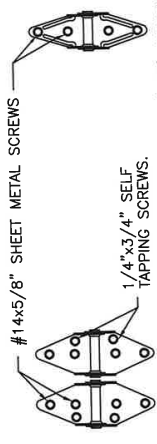
(NOT TO BE USED FOR ATTACHMENT OF TRACK ANGLE TO 2x6 VERTICAL JAMBS OR SUPPORTING STRUCTURE)

BUILDING TYPE	FASTENER TYPE	MAXIMUM ON-CENTER DISTANCE BETWEEN FASTENERS	STEEL WASHERS REQUIRED?
BLOCK WALL	1/4" x 1-1/4" MIN. EMBED TAPCON CONCRETE ANCHOR	7-1/2"	1" O.D.
3000 PSI MIN. CONCRETE	1/4" x 1" MIN. EMBED TAPCON CONCRETE ANCHOR	8-1/4"	1" O.D.
2000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WED-IT ANKRE TITE SLEEVE ANCHOR	16-1/2"	INCLUDED
4000 PSI MIN. CONCRETE	3/8" x 1-3/4" MIN. EMBED WED-IT ANKRE TITE SLEEVE ANCHOR	24"	INCLUDED
WOOD FRAME (SYP 0.55 SGL 1/2" x 3" LAG SCREW (ASTM A307, GRADE A) 1-5/8" EMBED INTO STRUCTURE		17-3/4"	1" O.D.

- * FIRST (BOTTOM) ANCHOR STARTING AT NO MORE THAN HALF OF THE MAXIMUM ON-CENTER DISTANCE. HIGHEST ANCHOR INSTALLED AT LEAST AS HIGH AS THE DOOR OPENING.
- CLOPAY DOES NOT SUPPLY JAMB ATTACHMENT FASTENERS.
- MINIMUM DISTANCE BETWEEN CENTER OF ANCHOR AND EDGE OF CONCRETE BLOCK: 2-1/2", EXCLUDING STUCCO THICKNESS.



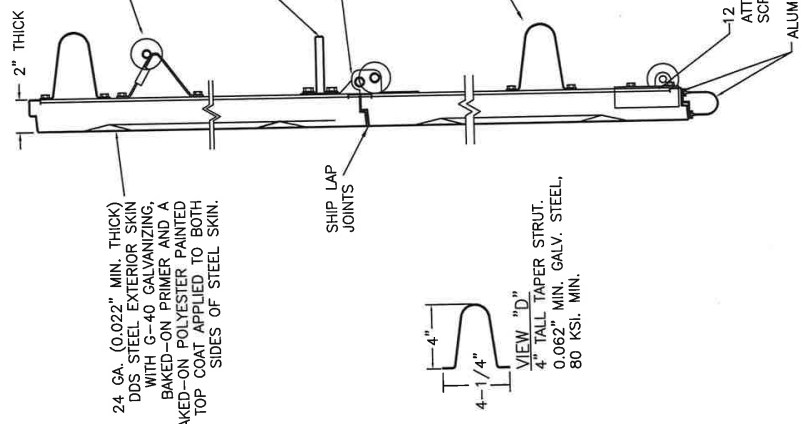
DESIGN ENGINEER:
SCOTT HAMILTON, P.E.
FLORIDA LICENSE No. 63286



VIEW "B"



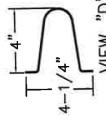
VIEW "C"



SECTION A-A (SIDE VIEW)

- (2) 12 GA. GALV. STEEL TOP ROLLER BRACKETS (2-1/2" x 5-3/8"). EACH BRACKET ATTACHED W/ (4) #14x5/8" SHEET METAL SCREWS. ADJUSTABLE SLIDE ATTACHED TO TOP BRACKET WITH (2) 1/4"x1/2" BOLTS AND NUTS PER BRACKET.
- 3" TALL X 20 GA. GALV. 80 KSI STEEL U-BARS AT THE BOTTOM OF THE TOP SECTION. ATTACH WITH TWO 1/4"x3/4" SELF TAPPING SCREWS PER HINGE LOCATION. U-BAR IS NOT REQUIRED ON 7' TALL DOORS.
- 14 GA. MIN. GALV. ROLLER HINGE. EACH HINGE FASTENED TO END STILES W/ (4) #14x5/8" SHEET METAL AND (2) 1/4"x3/4" SELF TAPPING SCREWS. SEE VIEW "B".

ONE 4" T-STRUT PER SECTION. (SEE VIEW "D") EACH T-STRUT ATTACHED AT EACH HINGE LOCATION WITH (2) 1/4"x3/4" SELF TAPPING SCREWS.



VIEW "D"

MANUFACTURING PRODUCT CODE
SHORT: PAN-2F443
MANUFACTURING PRODUCT CODE
LONG: PAN-2F446

PART NO.: N/A
WINDLOAD RATING
W6 DP38T

DESCRIPTION: 2" GALLERY PAN DOORS 16'2"W (SEE TABLE)
DRAWN BY: SH
CHECKED BY: SH
DATE: 4/19/13
SCALE: NTS
SHEET 3 OF 5
DWG: B

DESIGN LOADS: +38.0 P.S.F. & -42.0 P.S.F.
TEST LOADS: +57.0 P.S.F. & -63.0 P.S.F.
TOLERANCES ARE IN INCHES.
UNLESS NOTED OTHERWISE

2 FLORIDA PRODUCT APPROVAL 16107

CLOPAY 'GRAND HARBOR' SERIES: GHnn, GHRnn, GHRVnn				REVISIONS			
HOLMES 'EVANSTON' SERIES: SPnn, SPVnn				DESCRIPTION			
IDEAL 'STONE MANOR' SERIES: SMnn				SEE REVISION HISTORY ON SHEET 1.			
NOTE: "nn" REPRESENTS THE ARRANGEMENT OF THE DECORATIVE OVERLAYS. THE FIRST DIGIT WILL HAVE A VALUE FROM 1 TO 2 AND THE SECOND DIGIT WILL HAVE A VALUE FROM 1 TO 3.							
</							

April 23, 2013 (Revised 2/12/21)

Evaluation Report for Clopay Corporation Sectional Garage Doors, W6 through W8

I have evaluated the wind load door designs as shown on the drawings listed below. I have reviewed the test reports, which were generated by accredited laboratories as required by the relevant Florida Administrative Rule, the engineering rational analysis, and the product drawings. The test reports are listed below. Assembly testing was conducted by American Test Lab North Carolina. Component testing was conducted by HETI and ETC.

For the doors listed in Tables 1 through 5, Static Pressure Tests were conducted in accordance with TAS 202-1994, ASTM-E330-2002 and ANSI/DASMA 108-2005. Missile Impact and Cyclic Pressure Tests were conducted in accordance with TAS 201-1994 and TAS 203-1994 and ASTM E1886-2005 and ASTM E1996-2009 and ANSI/DASMA 115-2005. The pressures listed on the drawings are either direct results of these tests or results obtained through engineering rational analysis based on actual tests. I have concluded that the door designs listed below in Tables 1 through 5 are in compliance with these High Velocity Hurricane Zone test requirements of the Florida Building Code and therefore are qualified as impact-resistant assemblies (large missile impact).

TABLE 1: Drawings for doors with Manufacturing Product Code (MPC) DSIE-1F471:
103954-A-Rev06, max. door size 9'0" x 16'0"; +36/-44 PSF (design load)
104119-Rev05, max. door size 9'0" x 16'0"; +54/-60 PSF (design load)

TABLE 2: Drawings for doors with Manufacturing Product Code (MPC) DSIE-1A171:
104814-A-Rev05, max. door size 9'0" x 16'0"; +36/-44 PSF (design load)

TABLE 3: Drawings for doors with Manufacturing Product Code (MPC) PAN-2F443:
103488-A-Rev10, max. door size 9'0" x 16'0"; +38/-44 PSF (design load)
104790-A-Rev10, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

TABLE 4: Drawings for doors with Manufacturing Product Code (MPC) PAN-2F446:
103488-A-Rev09, max. door size 9'0" x 16'0"; +38/-44 PSF (design load)
104790-A-Rev09, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

TABLE 5: Drawings for doors with Manufacturing Product Code (MPC) SPO-2F449:
104790-A-Rev09, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

For the doors in Tables 6 through 10, Static Pressure Tests were conducted in accordance with ASTM-E330-2002 and ANSI/DASMA 108-2005. The pressures listed on the drawings are either direct results of these tests or results obtained through engineering rational analysis based on actual tests. I have concluded that the door designs listed below in Tables 6 through 10 are in compliance with these test requirements of the Florida Building Code.

TABLE 6: Drawings for doors with Manufacturing Product Code (MPC) DSIE-1F471:
103954-B-Rev06, max. door size 9'0" x 16'0"; +36/-44 PSF (design load)

TABLE 7: Drawings for doors with Manufacturing Product Code (MPC) DSIE-1F471: 104814-B-Rev05, max. door size 9'0" x 16'0"; +36/-44 PSF (design load)

TABLE 8: Drawings for doors with Manufacturing Product Code (MPC) PAN-2F443: 103488-B-Rev09, max. door size 9'0" x 16'0"; +38/-44 PSF (design load)
104790-B-Rev09, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

TABLE 9: Drawings for doors with Manufacturing Product Code (MPC) PAN-2F446: 103488-B-Rev10, max. door size 9'0" x 16'0"; +38/-44 PSF (design load)
104790-B-Rev10, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

TABLE 10: Drawings for doors with Manufacturing Product Code (MPC) SPO-2F449: 104790-B-Rev09, max. door size 16'2" x 16'0"; +38/-42 PSF (design load)

Test Reports:

ATL-0115.01-13R (3/18/13), ATL-0117.01-13 (3/18/13), ATL-0102.01-13 (2/20/13), ATL-0304.01-13 (5/1/13), ATL-0308.01-13 (5/1/13), ATL-0213.01-13 (4/29/13), ATL-0326.01-13 (5/1/13). These reports document compliance with the TAS testing standards and are signed and sealed by David Johnson, FL PE 61915.

Product Description for doors with MPC DSIE-1F471:

These doors consist of 2" double-skin insulated sections with an EPS core laminated to both skins. Both inner and outer skins are min. 27 ga. (0.016") G40 per ASTM A653. The maximum section height is 24". These doors may have optional Impact-Resistant Glazing (Aluminum). Optional Impact-Resistant Glazing is an aluminum front frame and a separate polycarbonate glazing. The following models are at least structurally equivalent to the tested door: GD2SP, GR2SP, GD2LP, GR2LP, AR2SP, AR2LP, ED2SP, ED2LP, 4302, HDGC, 6202, MFC68, 4305, HDGR, MFR68, 6205, SFR68. Not all models may be shown on a given drawing.

Product Description for doors with MPC DSIE-1A171:

These doors consist of 1-3/8" double-skin insulated sections with an EPS core laminated to both skins. Outer skin is min. 27 ga. (0.016") and inner skin is min. 29 ga. (0.012) G40 per ASTM A653. The maximum section height is 21". The following models are at least structurally equivalent to the tested door: 2050, 2051, 2053, 4050, 4051, 4053, 62, 64, 65, 62G, 64G, 65G, DP38, FL38, RP38, 134, 135, 136, 6130, 6131, 6133. Not all models may be shown on a given drawing.

Product Description for doors with MPC PAN-2F443:

These doors consist of 2" thick steel pan doors with min. 24 ga. (0.022") outer skins. The steel skin is at least G40 per ASTM A653. The maximum section height is 24". The sections may have EPS foam insulation inserted into the pan cavity. These doors may have optional Impact-Resistant Glazing (Aluminum). Optional Impact-Resistant Glazing is an aluminum front frame and a separate polycarbonate glazing. The following models are at least structurally equivalent to the tested door: G4S, GS4, GD4S, GR4S, G4SV, GS4V, GD4SV, GR4SV, E4S, ED4S, E4SV, ED4SV, MR4S, SS4, AR4S, MR4SV, SS4V, AR4SV. Not all models may be shown on a given drawing.

Product Description for doors with MPC PAN-2F446:

These doors consist of 2" thick steel pan doors with min. 24 ga. (0.022") outer skins. The steel skin is at least G40 per ASTM A653. The maximum section height is

24". The sections may have EPS foam insulation inserted into the pan cavity. These doors may have optional Impact-Resistant Glazing (Aluminum). Optional Impact-Resistant Glazing is an aluminum front frame and a separate polycarbonate glazing. The following models are at least structurally equivalent to the tested door: G4L, GL4, GD4L, GR4L, G4LV, GL4V, GD4LV, GR4LV, E4L, ED4L, E4LV, ED4LV, MR4L, SL4, AR4L, MR4LV, SL4V, AR4LV, BD4E, BD4EV, BR4E, BR4EV, PR4E, PR4EV, RR4E, RR4EV, BD4N, BD4NV, BR4N, BR4NV, PR4N, PR4NV, RR4N, RR4NV. Not all models may be shown on a given drawing.

Product Description for doors with MPC SPO-2F449:

These doors consist of 2" thick steel pan doors with min. 24 ga. (0.022") outer skins. The steel skin is at least G40 per ASTM A653. The maximum section height is 24". The sections may have decorative overlays. The following models are at least structurally equivalent to the tested door: GHnn, GHRnn, GHRvnn, SPnn, SPVnn, SMnn where "nn" represents the configuration of the overlays. Not all models may be shown on a given drawing.

Impact Resistant Glazing (Aluminum):

The optional impact resistant glazing is an aluminum front frame and a separate polycarbonate glazing that is an approved C1 plastic in accordance with testing required by FBC-B 2606 and complies with FBC-B 2615 testing requirements. Approved polycarbonate materials are Sabic IP Lexan 9034 (versions also approved: MR10, 9030, 90318, 90316, 90317, 90311, 90314, 90355) and Bayer Makrolon GP (versions also approved: SL, AR, 15). Approval based on review of NOA 13-0717.01 (Sabic) and NOA 12-0605.05 (Bayer) and manufacturer's product datasheets.

Limitations:

The drawing(s) cited above are an explicit part of this evaluation report. The text of this report does not attempt to address all design details and relies on the illustrations and text of these drawings as well.

Jambs, lintels, sills or other structural elements required to prepare openings are not covered. The design of the supporting structural elements shall be the responsibility of the professional of record for the building or structure and in accordance with current building codes for the loads listed on the drawing(s) referenced above.

Installation requirements per the relevant Florida Administrative Rule, including attachments, are detailed on the drawing(s) listed above. Installation must be in accordance with manufacturer's installation instructions and must be as shown on the drawing(s) listed above. The manufacturer's licensed design professional listed on the drawing(s) has reviewed the attachment details and installation requirements.

Signature:

Scott Hamilton Digitally signed by Scott Hamilton
Date: 2021.02.16 19:39:22 -05'00'

Scott Hamilton, P. E.
Florida P. E. No. 63286

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