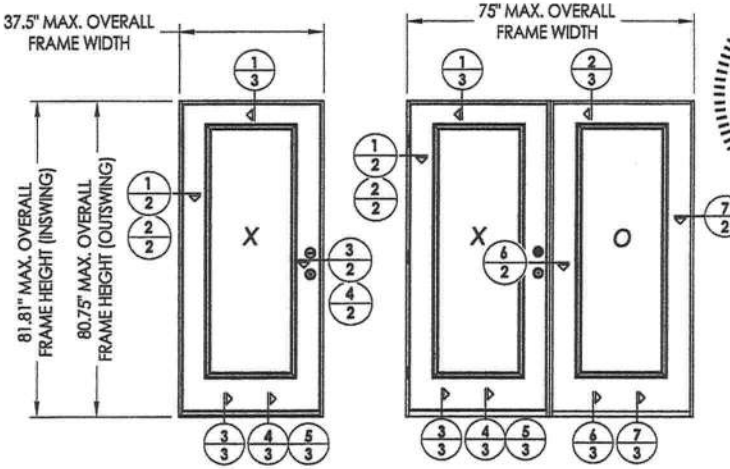
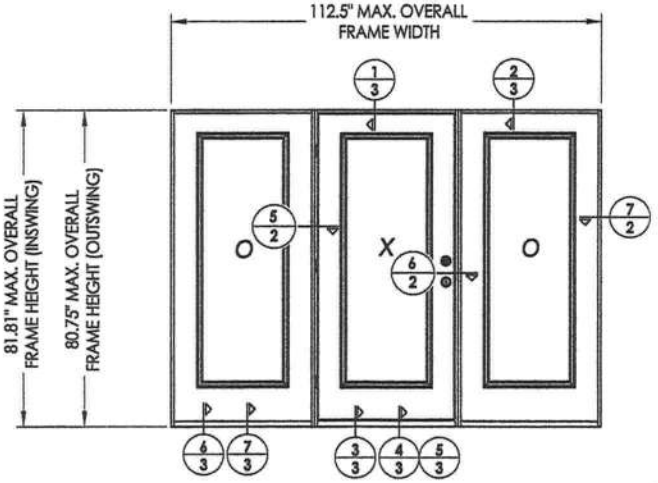
plastpro

5200 W. CENTURY BLVD.
LOS ANGELES, CA 90045

GLAZED FIBERGLASS SINGLE DOOR
w/ or w/out SIDELITE(S)
Inswing / Outswing
"IMPACT"





GENERAL NOTES

1. This product anchoring drawing has been developed and is in compliance with the 6th Edition (2017) Florida Building Code (FBC) structural requirements including the "High Velocity Hurricane Zone" (HVHZ). See the Certification Agency Certificate for sizes, specifications and rating.
2. Product anchors shall be as listed and spaced as shown on details. Anchor embedment to base material shall be beyond wall dressing or stucco.
3. When used in the "HVHZ" this product complies with Section 1626 of the Florida Building Code and does not require an impact resistant covering.
4. When used in areas outside of the "HVHZ" requiring wind borne debris protection this product complies with FBC Sections 1609.1.2 & R301.2.1.2 and does not require an impact resistant covering. This product meets missile level "D" and includes Wind Zone 4 as defined in ASTM E 1996 and FBC Sections 1609.1.2.2 & R301.2.1.2.1.
5. For 2x stud construction, anchoring of these units shall be the same as that shown for 2x buck masonry construction.
6. Site conditions that deviate from the details of this drawing require further engineering analysis by a licensed engineer or registered architect.
7. Outswing configurations utilizing the high dam sill (see Section 5/3), meet water infiltration requirements for "HVHZ". All other configurations do not meet the water infiltration requirements for the "HVHZ" and must be installed only in non-habitable areas or at habitable locations protected by an overhang or canopy such that the angle between the edge of canopy or overhang to sill is less than 45 degrees.

CONFIGURATION	MAX. FRAME DIMENSION	DESIGN PRESSURE (PSF)	
		POSITIVE	NEGATIVE
X	37.5" x 81.81"	+50.0	-50.0
XO/OX	75.0" x 81.81"	+50.0	-50.0
OXO	112.5" x 81.81"	+50.0	-50.0

TABLE OF CONTENTS

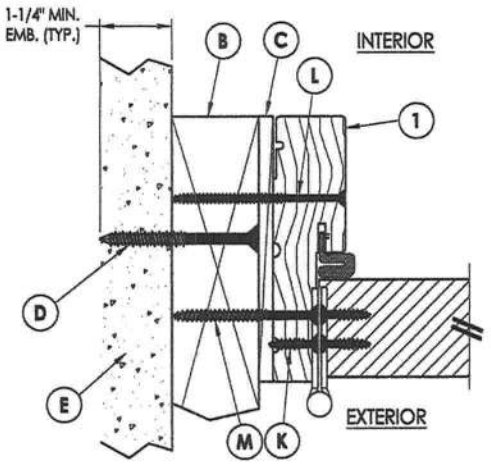
L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER
October 14, 2017
Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409
R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

PRODUCT: PLASTPRO FIBERGLASS DOOR
PART OR ASSEMBLY: TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES

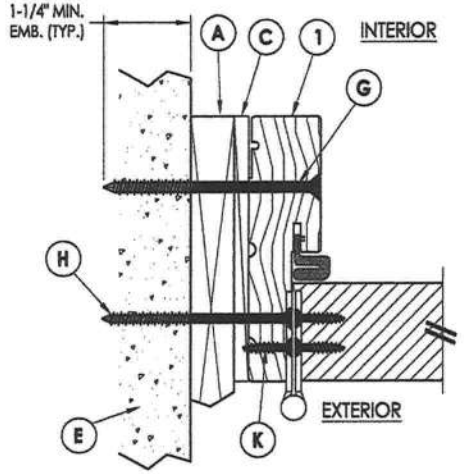
NO.	DATE	REVISIONS	BY
2	10/14/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	8/04/14	CLARIFIED INSTALLATION DETAILS	LFS

DATE: 12/10/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16094.1
SHEET 1 OF 5

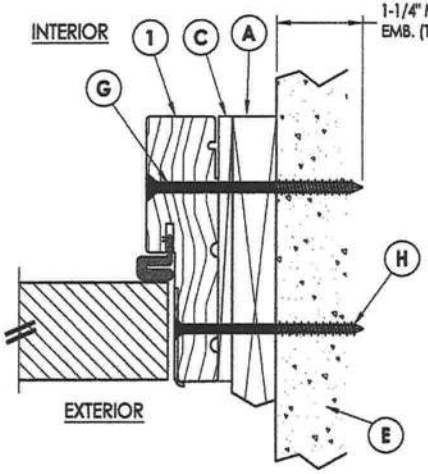
R:\Clients\Plastpro, Inc PERMANENTVA - Florida Product Approvals\FL-16094 N Series HVHZ Impact\C - Drawings\FL-16094 (2017)\FL-16094.1-4.dwg, FL-16094.1



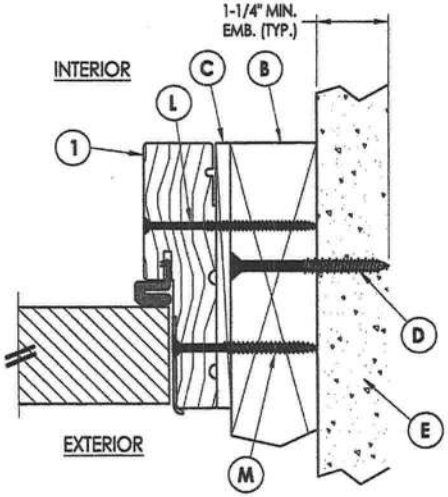
1/2 HORIZONTAL CROSS SECTION
Outswing shown - Inswing similar
2X Buck Construction



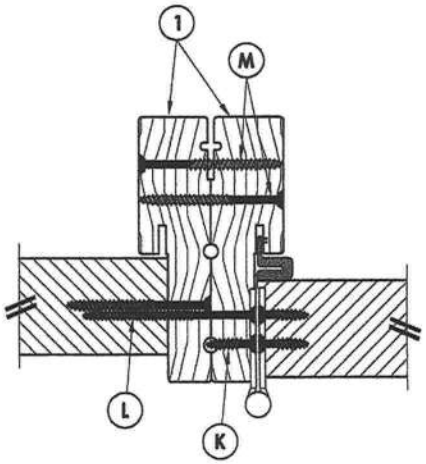
2/2 HORIZONTAL CROSS SECTION
Outswing shown - Inswing similar
1X Buck Construction



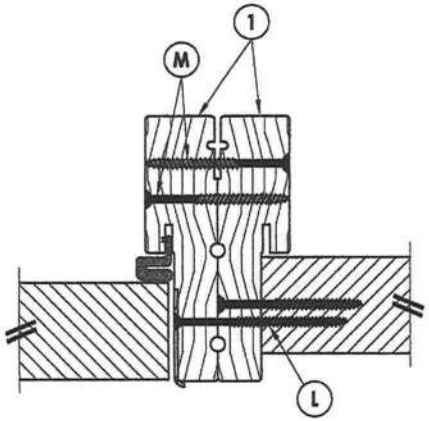
3/2 HORIZONTAL CROSS SECTION
Outswing shown - Inswing similar
1X Buck Construction



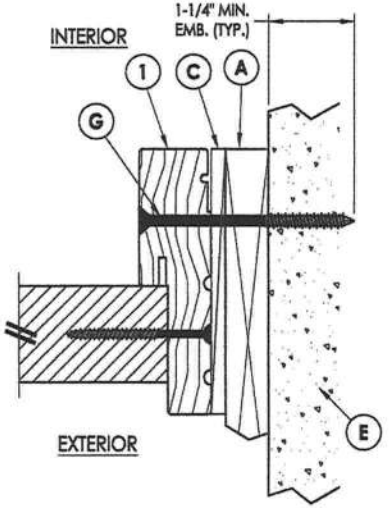
4/2 HORIZONTAL CROSS SECTION
Outswing shown - Inswing similar
2X Buck Construction



5/2 HORIZONTAL CROSS SECTION
@ BACK-TO-BACK JAMBS



6/2 HORIZONTAL CROSS SECTION
@ BACK-TO-BACK JAMBS



7/2 HORIZONTAL CROSS SECTION
Outswing shown - Inswing similar
1X Buck Construction

October 14, 2017

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

LF SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

R|W BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

PRODUCT: PLASTPRO INC. FIBERGLASS DOOR

PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS

NO	DATE	REVISIONS	BY
2	10/14/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	8/04/14	CLARIFIED INSTALLATION DETAILS	LFS

DATE: 12/10/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16094.1
SHEET 2 OF 5

R:\Clients\Plastpro, Inc PERMANENTVA - Florida Product Approvals\FL-16094 N Series HVHZ Impact\C - Drawings\FL-16094 (2017)\FL-16094.1-4.dwg, 2.1

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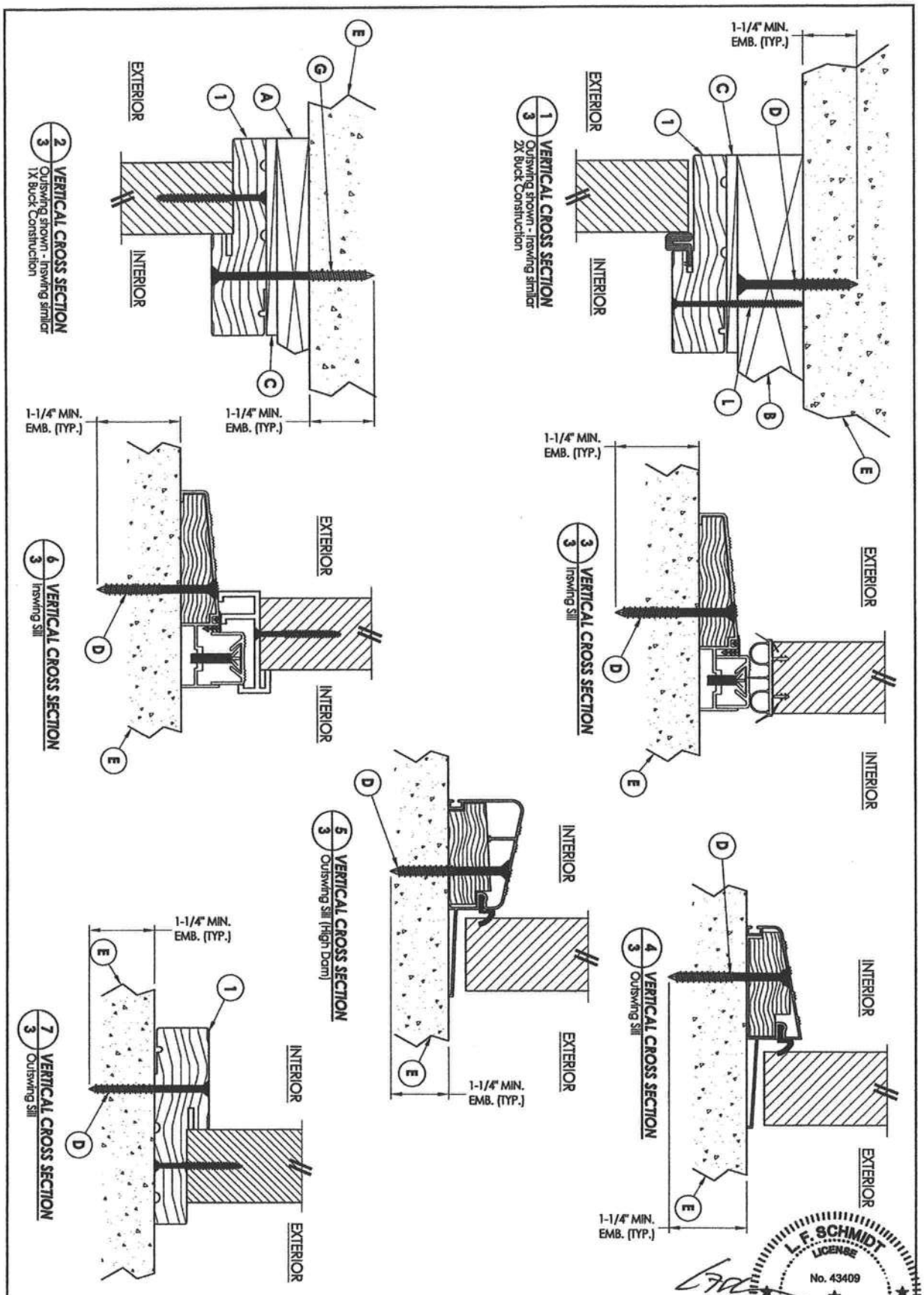


October 14, 2017

L.F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

NO.	DATE		BY
2	10/14/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	8/04/14	CLARIFIED INSTALLATION DETAILS	LFS

REVISIONS

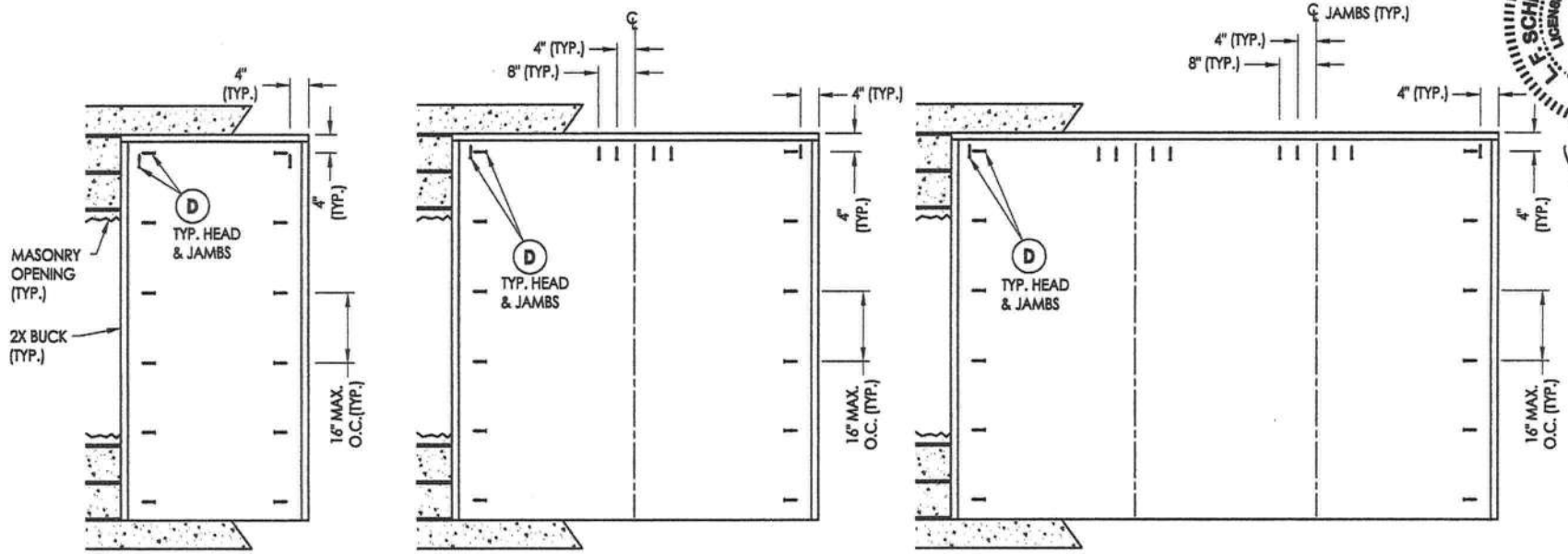
DATE: 12/10/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16094.1
SHEET 3 OF 5

PRODUCT:
PLASTPRO INC.
FIBERGLASS DOOR

PART OR ASSEMBLY:
VERTICAL
CROSS SECTIONS

Documents Prepared By:
Lyndon F. Schmidt
P.E. No. 43409

RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813



BILL OF MATERIALS		
ITEM #	DESCRIPTION	MATERIAL
A	1X BUCK (SG >= 0.55)	WOOD
B	2X BUCK (SG >= 0.55)	WOOD
C	1/4" MAX. SHIM SPACE	-
D	1/4" X 2-3/4" PFH ITW CONCRETE SCREW	STEEL
E	MASONRY - 3,000 PSI MIN. CONCRETE CONFORMING TO ACI 301 OR HOLLOW BLOCK CONFORMING TO ASTM C90	CONCRETE
G	1/4" X 3-3/4" PFH ITW CONCRETE SCREW	STEEL
H	3/16" x 3-1/4" PFH ITW CONCRETE SCREW	STEEL
K	#9 X 3/4" PFH WOOD SCREW	STEEL
L	#8 X 3" PFH WOOD SCREW (1-1/2" MIN. EMBEDMENT)	STEEL
M	#10 X 2-1/2" PFH WOOD SCREW	STEEL
1	FINGER JOINTED PINE HEAD & JAMB (SG >= 0.42)	WOOD

CONCRETE ANCHOR NOTES:

1. *Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.*
2. *Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. Concrete anchor locations noted as "MAX. O.C. (TYP.)" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. O.C. (TYP.)" dimension are not exceeded.*
3. *Concrete anchor table:*

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"

STATE OF FLORIDA
PROFESSIONAL ENGINEER
L.F. SCHMIDT
LICENSE No. 43409
October 14, 2017

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Lyndon F. Schmidt
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R.W. BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

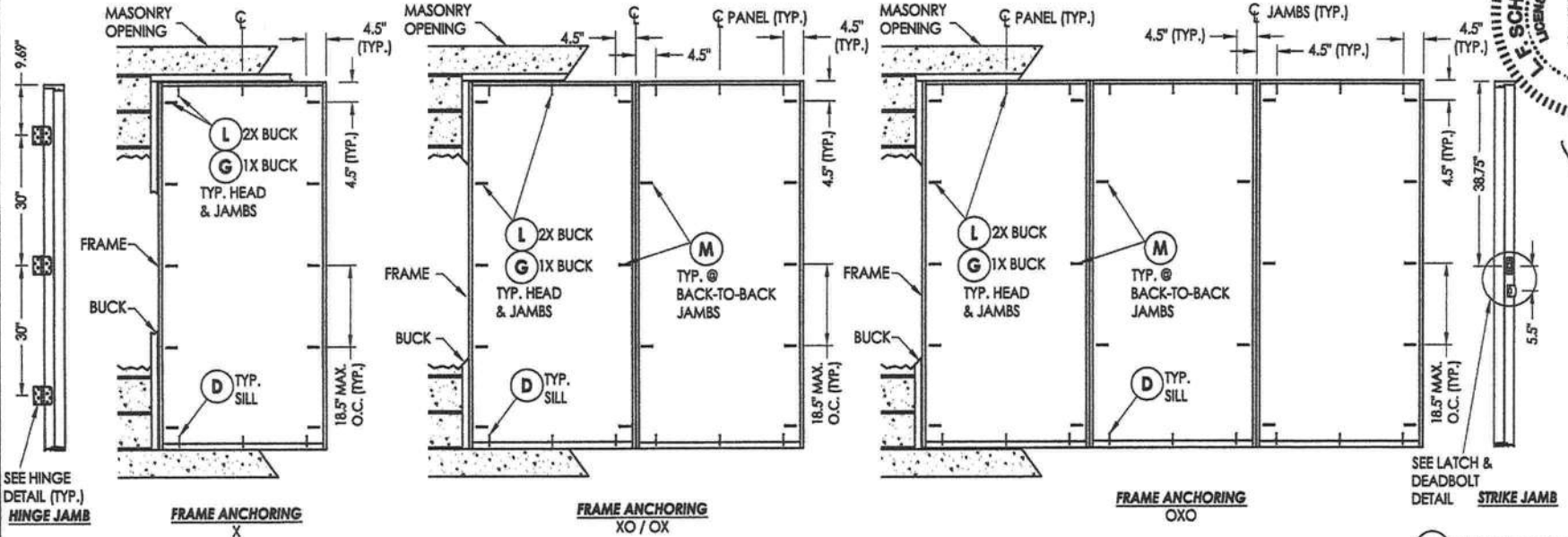
PRODUCT: PLASTPRO FIBERGLASS DOOR

PART OR ASSEMBLY: BUCK ANCHORING & BILL OF MATERIALS

NO.	DATE	REVISIONS	BY
2	10/14/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	8/04/14	CLARIFIED INSTALLATION DETAILS	LFS

DATE: 12/10/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16094.1
SHEET 4 OF 5

R:\Clients\Plastpro, Inc PERMANENT\A - Florida Product Approvals\FL-16094 N Series HVHZ Impact\C - Drawings\FL-16094 (2017)\FL-16094.1-4.dwg, 4:1



HARDWARE TABLE	
MANUFACTURER	MODEL
KWIKSET	KNOB: SIGNATURE SERIES DEADBOLT: SIGNATURE SERIES (980)

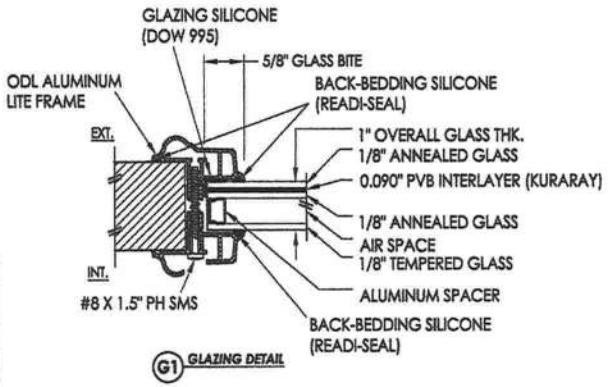
CONCRETE ANCHOR NOTES:

1. Substitution of equal concrete anchors from a different supplier may have different edge distance and center distance requirements.
2. Concrete anchor locations at the corners may be adjusted to maintain the min. edge distance to mortar joints. Concrete anchor locations noted as "MAX. O.C. (TYP.)" must be adjusted to maintain the min. edge distance to mortar joints, additional concrete anchors may be required to ensure the "MAX. O.C. (TYP.)" dimension are not exceeded.
3. Concrete anchor table:

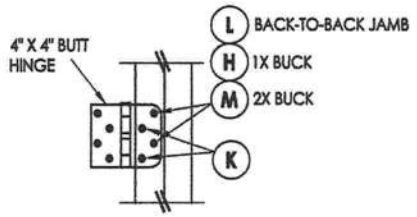
ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT	MIN. CLEARANCE TO MASONRY EDGE	MIN. CLEARANCE TO ADJACENT ANCHOR
ITW TAPCON®	1/4"	1-1/4"	2"	4"
ITW TAPCON®	3/16"	1-1/4"	3"	1-1/2"

WOOD SCREW INSTALLATION NOTES:

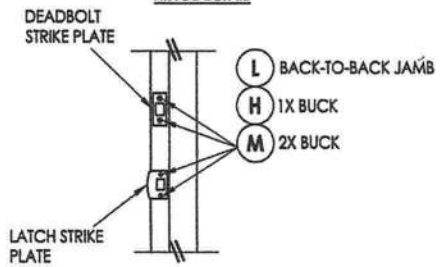
1. Maintain a minimum 5/8" edge distance, 1" end distance, & 1" o.c. spacing of wood screws to prevent the splitting of wood.



G1 GLAZING DETAIL



HINGE DETAIL



LATCH AND DEADBOLT DETAIL

L. F. SCHMIDT LICENSE No. 43409 STATE OF FLORIDA PROFESSIONAL ENGINEER

October 14, 2017

Documents Prepared By:
Lyndon F. Schmidt
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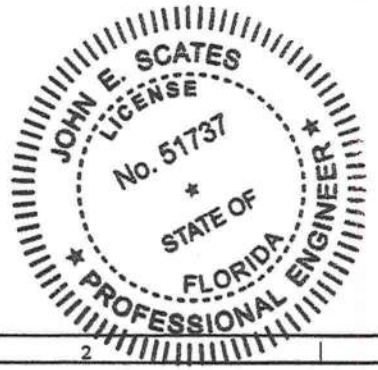
RW BUILDING CONSULTANTS, INC.
P.O. Box 230, Valrico, FL 33595
Phone No.: 813.659.9197
FBPE C.A. No. 9813

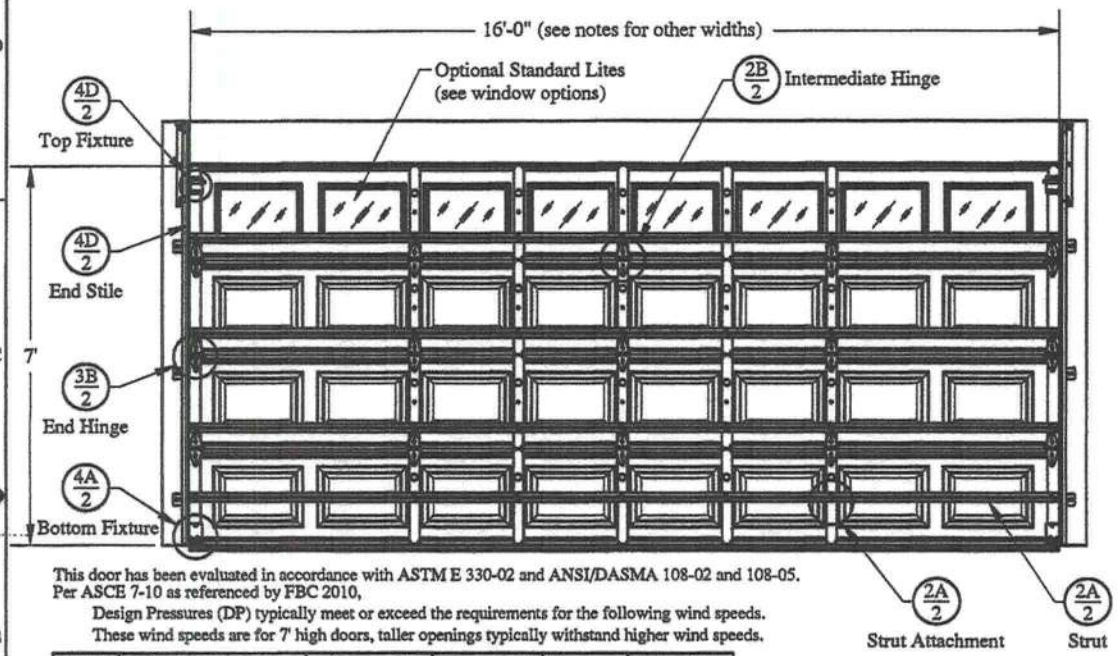
PRODUCT: PLASTPRO FIBERGLASS DOOR

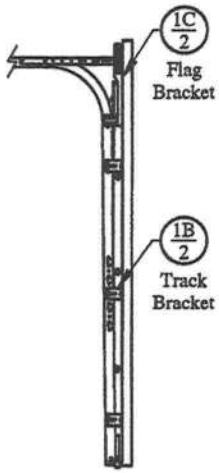
PART OR ASSEMBLY: FRAME ANCHORING & GLAZING DETAILS

NO.	DATE	REVISIONS	BY
2	10/14/17	UPDATE TO 6TH ED. (2017) FBC	LFS
1	8/04/14	CLARIFIED INSTALLATION DETAILS	LFS

DATE: 12/10/12
SCALE: N.T.S.
DWG. BY: JK
CHK. BY: LFS
DRAWING NO.: FL-16094.1
SHEET 5 OF 5







This door has been evaluated in accordance with ASTM E 330-02 and ANSI/DASMA 108-02 and 108-05.
Per ASCE 7-10 as referenced by FBC 2010,
Design Pressures (DP) typically meet or exceed the requirements for the following wind speeds.
These wind speeds are for 7' high doors, taller openings typically withstand higher wind speeds.

Width	Design Pressure	Exposure "B"	Exposure "C"	Windows	Center Stiles
21'-00"	10.9 (psf) / - 12.1 (psf)	110 (mph)	93 (mph)	10	9
20'-00"	12.0 (psf) / - 13.3 (psf)	115 (mph)	98 (mph)	10	9
19'-00"	13.3 (psf) / - 14.8 (psf)	121 (mph)	102 (mph)	10	9
18'-06"	14.0 (psf) / - 15.6 (psf)	124 (mph)	105 (mph)	10	9
18'-00"	14.8 (psf) / - 16.4 (psf)	128 (mph)	108 (mph)	8	7
16'-06"	17.6 (psf) / - 19.6 (psf)	139 (mph)	117 (mph)	8	5
16'-00"	18.7 (psf) / - 20.8 (psf)	143 (mph)	121 (mph)	8	5
15'-00"	19.9 (psf) / - 22.2 (psf)	147 (mph)	124 (mph)	7	4
14'-00"	21.4 (psf) / - 23.8 (psf)	152 (mph)	128 (mph)	7	4
12'-00"	24.9 (psf) / - 27.7 (psf)	163 (mph)	138 (mph)	6	5
11'-00"	27.2 (psf) / - 30.3 (psf)	169 (mph)	143 (mph)	5	4
10'-06"	28.5 (psf) / - 31.7 (psf)	173 (mph)	146 (mph)	5	4
10'-00"	29.9 (psf) / - 33.3 (psf)	177 (mph)	149 (mph)	5	4
09'-06"	31.5 (psf) / - 35.0 (psf)	181 (mph)	153 (mph)	4	3
09'-00"	33.2 (psf) / - 37.0 (psf)	185 (mph)	156 (mph)	4	3
08'-06"	35.2 (psf) / - 39.2 (psf)	190 (mph)	160 (mph)	4	3
08'-00"	37.4 (psf) / - 41.6 (psf)	195 (mph)	165 (mph)	4	3

Pressures must be reduced by the ratio of widths squared for a door wider than one shown.
Pressures may be increased by the simple ratio of widths for a door narrower than one shown.

Supporting structural elements to be designed by registered professional engineer for specified wind loads. If door is not electrically operated, a lock must be installed.
Maximum door height: 20'-0"
Maximum section height: 21"

FL 15012R1

Professional Engineer's seal provided only for verification of windload construction details

5/2/12

John E. Scates, P.E.
3121 Fairgate Drive
Carrollton, Texas 75007
Florida P.E. # 51737

Window Options :
For Glass:
Max daylight opening 39-3/8 x 12-1/2"
(up to +44.3/-51.5 psf)
Max daylight opening 16-3/4 x 10-1/4"
(up to +50.7/-57.5 psf)
1/8" DSB
1/4" Tempered Glass
7/16" Insulated Glass
7/16" Tempered Insulated Glass
For Lexan:
Max daylight opening 16-3/4 x 10-1/4"
(up to +44.7/-51.5 psf)
1/4" Lexan with Aluminum Frame

door height	section quantity	strut quantity	trk brkt per side
6'-6" to 7'-0"	4	4	3
7'-6" to 8'-0"	5	5	4
8'-3" to 8'-9"	5	5	4
9'-0" to 10'-6"	6	6	5
10'-9" to 12'-3"	7	7	6
12'-6" to 14'-0"	8	8	7
14'-3" to 15'-9"	9	9	8
16'-0" to 17'-6"	10	10	9
17'-9" to 19'-3"	11	11	10
19'-6" to 20'-0"	12	12	11

Track bracket quantities shown are for use with grade 2 or better spruce-pine-fir (SPF) or southern pine jambs.

Supplemental Instructions contain details for doors up to 20'-0" high. These are required in addition to this drawing for installation. Always use supplemental instructions in addition to this drawing during door installation.

C.H.I.

SCALE nts
DATE 03-15-2012

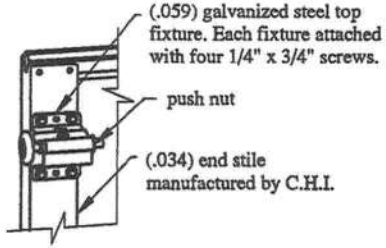
Model 2240, 2241, 2250, 2251

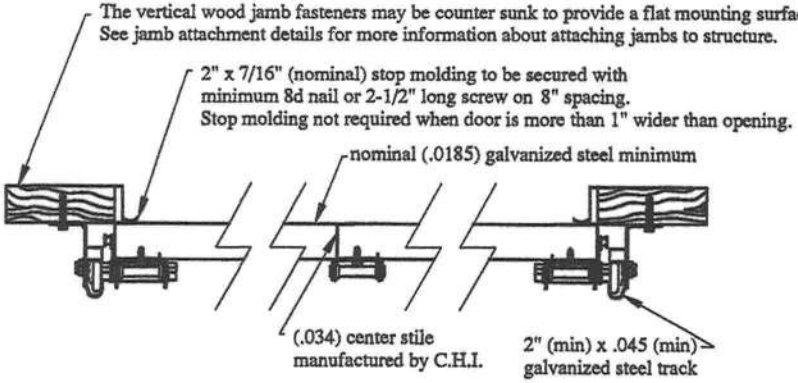
37.4 (psf) / - 41.6 (psf) at 08'-00" through
10.9 (psf) / - 12.1 (psf) at 21'-00"

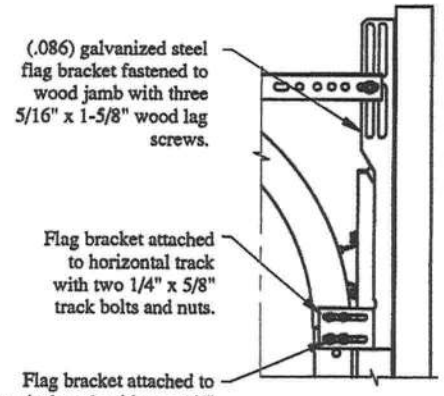
C.H.I. Drawing: FZ3-16-01311

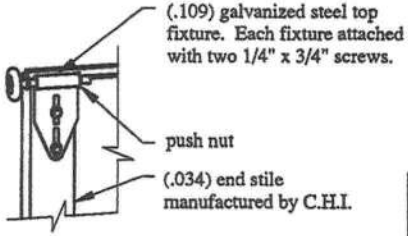
Strut (if applicable) not shown for clarity.

Details on some views may have been omitted for clarity.

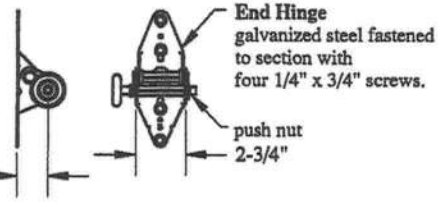


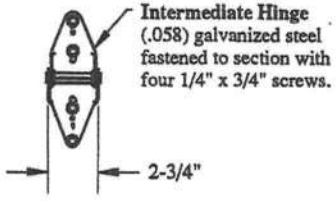


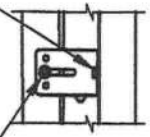


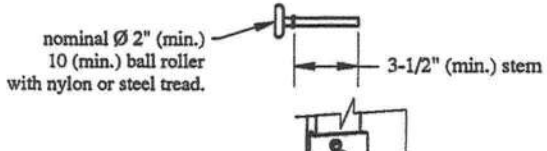


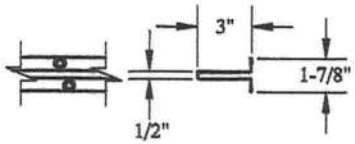
Optional low head room top bracket



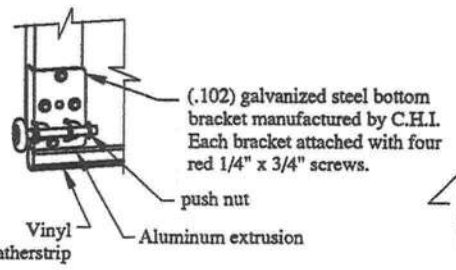


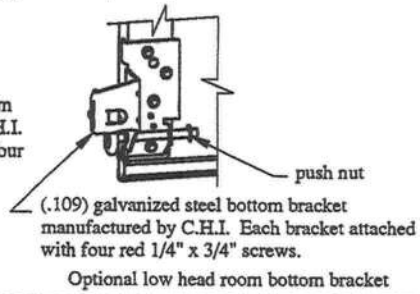






(.051) 50 ksi galvanized steel 3" strut attached with two 1/4" x 3/4" screws per stile or hinge plate.





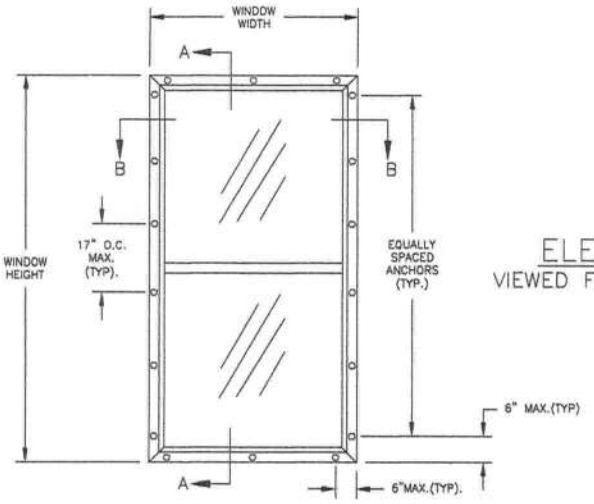
Optional low head room bottom bracket

Professional Engineer's seal provided only for verification of windload construction details

John E. Scates, P.E.
3121 Fairgate Drive
Carrollton, Texas 75007
Florida P.E. # 51737

5/2/12

C.H.I.	SCALE nts
	DATE 03-15-2012
Model 2240, 2241, 2250, 2251	
37.4 (psf) / - 41.6 (psf) at 08'-00" through 10.9 (psf) / - 12.1 (psf) at 21'-00"	
C.H.I. Drawing: FZ3-16-01311	page 2 of 2



ELEVATION
VIEWED FROM EXTERIOR

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER 2007 FBC	8/13/08	R.L.
B	ADDED ANCHOR CHARTS	01/25/12	R.L.
C	REVISED NAME	10/15/13	R.L.

NOTES:

1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE FLORIDA BUILDING CODE.
2) OPENING TO BE DESIGNED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. OPENING DESIGN IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
3) CONTRACTOR IS RESPONSIBLE FOR MAINTAINING STRUCTURAL INTEGRITY OF WINDOW OPENING AND ALL WOOD FRAMING AROUND WINDOW.
4) WINDOW FRAME MATERIAL TO BE PVC.
5) ALL FASTENERS SHALL BE MADE OF CORROSION RESISTANT MATERIAL.
6) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
7) INSTALL UNITS IN SPRUCE PINE FIR OR BETTER USING 6d .120" DIAMETER NAIL OR #8 WOOD SCREWS LOCATE ANCHORS 6" FROM EACH CORNER AND 17" MAX O.C.THEREAFTER.
8) APPROVED IMPACT PROTECTIVE SYSTEM IS REQUIRED ON THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
9) CAULK BEHIND WINDOW FLANGE AT HEAD, SILL AND JAMBS.
10) USE CAULK FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW.
11) WHERE WATER RESISTANCE TEST REQUIREMENT OF 15% OF DESIGN LOAD APPLIES, POSITIVE DESIGN PRESSURE IS LIMITED TO 35PSF DUE TO WATER TEST PRESSURE OF 5.25PSF ACHIEVED IN TEST.
12) IF EXACT WINDOW SIZE IS NOT LISTED USE NEXT LARGER SIZE FOR THE APPROPRIATE DESIGN PRESSURE.
13) UNITS MUST BE GLAZED IN ACCORDANCE WITH ASTM E1300-04 AND MAY VARY DEPENDING UPON SIZE.

Maximum design pressure capacity chart (psf)

Unit width (in)

Height (in)	17.50		19.50		23.50		27.50		29.50		31.75		35.50		39.50		41.50		43.50		47.50		53.13	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
27.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5
35.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5
43.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	48.2
47.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.3	35.0	45.2
51.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	49.6	35.0	42.7
55.50	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	47.4	35.0	40.6
59.75	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	51.9	35.0	45.5	35.0	38.8
72.00	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.5	35.0	52.3	35.0	48.2	35.0	41.7	35.0	35.0

Number of anchors required. Units anchored using 6d nails.

Unit width (in)

Height (in)	17.50		19.50		23.50		27.50		29.50		31.75		35.50		39.50		41.50		43.50		47.50		53.13	
	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb
27.50	2	2	2	2	2	2	2	2	3	2	3	2	3	2	3	3	3	3	3	3	4	3	4	3
35.50	2	3	2	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
43.50	2	3	2	3	2	3	2	3	3	3	3	3	3	4	3	4	3	4	3	4	4	5	4	5
47.50	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	4	3	5	3	5	4	5	4	5
51.50	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	5	3	5	3	5	4	5	4	5
55.50	2	4	2	4	2	4	2	4	3	4	3	5	3	5	3	5	3	5	3	6	4	5	4	5
59.75	2	4	2	4	2	4	2	5	3	5	3	5	3	5	3	6	3	6	3	6	4	6	4	5
72.00	2	5	2	5	2	5	2	6	3	6	3	6	3	7	3	7	3	7	3	7	4	6	4	6

Number of anchors required. Units anchored with #8 wood screw.

Unit width (in)

Height (in)	17.50		19.50		23.50		27.50		29.50		31.75		35.50		39.50		41.50		43.50		47.50		53.13	
	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb	H & S	Jamb
27.50	2	2	2	2	2	2	2	2	3	2	3	2	3	2	3	2	3	2	3	2	4	2	4	2
35.50	2	3	2	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	4	3
43.50	2	3	2	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	4	3
47.50	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	4	3	4	3	4	4	4	4	4
51.50	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	4	3	4	3	4	4	4	4	4
55.50	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	4	3	4	3	4	4	4	4	4
59.75	2	4	2	4	2	4	2	4	3	4	3	4	3	4	3	4	3	4	3	4	4	4	4	4
72.00	2	5	2	5	2	5	2	5	3	5	3	5	3	5	3	5	3	5	3	5	4	5	4	5

SIGNED: 10/18/2013

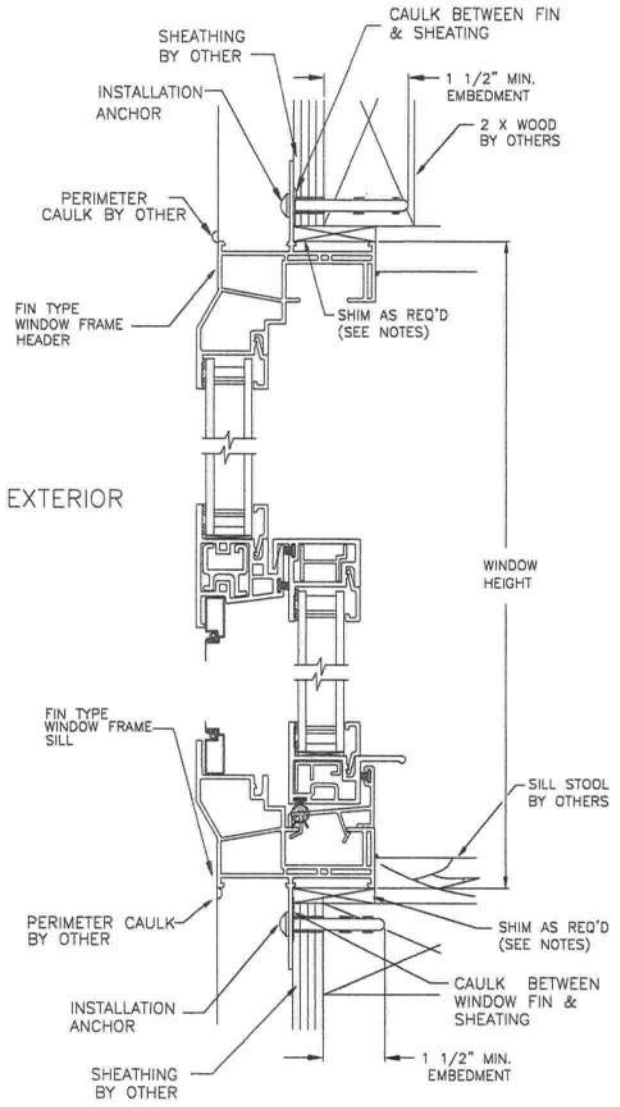
MI WINDOWS AND DOORS LLC
1001 W. CROSBY RD.
CARROLLTON, TX 75006

SERIES GA 7050 RECTANGULAR PVC SH
TILT WINDOW - 53 1/8 X 72
INSTALLATION DETAILS AND DESIGN PRESURE CHART

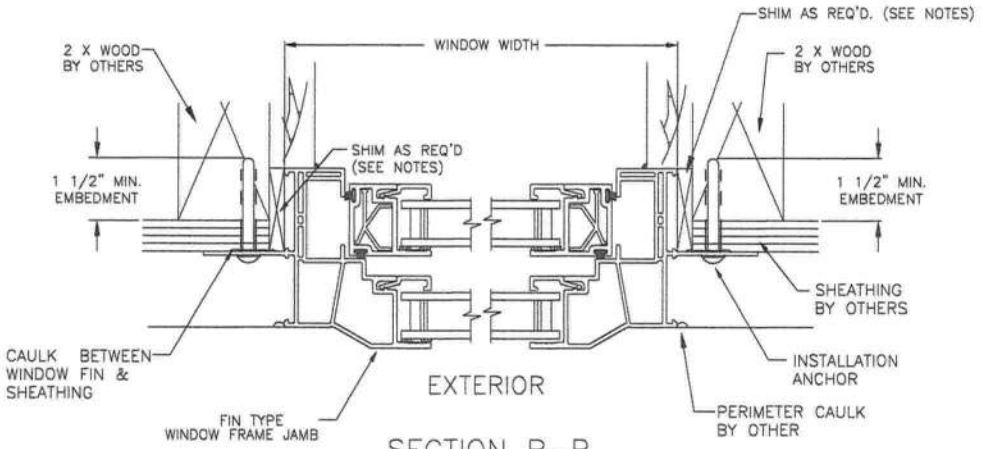
DRAWN:	DWG NO.	REV
R.L.	08-00248	C
SCALE NTS	DATE 9/09/07	SHEET 1 OF 2

LUIS R. LOMAS LICENSE No. 62514 STATE OF FLORIDA PROFESSIONAL ENGINEER

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED PER 2007 FBC	8/13/08	R.L.
B	ADDED ANCHOR CHARTS	01/25/12	R.L.
C	REVISED NAME	10/15/13	R.L.



SECTION A–A



SECTION B–B

Horizontal	
Window Horizontal Call Size	Window Horizontal I F D
1-6	17 1/2
1-8	19 1/2
2-0	23 1/2
2-4	27 1/2
2-6	29 1/2
2-8	31 3/4
3-0	35 1/2
3-4	39 1/2
3-6	41 1/2
3-8	43 1/2
4-0	47 1/2
SPCL	53 1/8

Vertical	
Window Vertical Call Size	Window Vertical I F D
2-4	27 1/2
3-0	35 1/2
3-8	43 1/2
4-0	47 1/2
4-4	51 1/2
4-8	55 1/2
5-0	59 3/4
SPCL	72

MI WINDOWS AND DOORS LLC
1001 W. CROSBY RD.
CARROLLTON, TX 75006

SERIES GA 7050 RECTANGULAR PVC SH
TILT WINDOW – 53 1/8 X 72
INSTALLATION DETAILS AND DESIGN PRESURE CHART

DRAWN:	DWG NO.	REV
R.L.	08-00248	C
SCALE NTS	DATE 9/09/07	SHEET 2 OF 2

LUIS R. LOMAS LICENSE No. 62514 STATE OF FLORIDA PROFESSIONAL ENGINEER

TAMKO BUILDING PRODUCTS

Application Instructions for HERITAGE® LAMINATED ASPHALT SHINGLES

FORMERLY HERITAGE® 30

Tuscaloosa, AL

THESE ARE THE MANUFACTURER'S APPLICATION INSTRUCTIONS FOR THE ROOFING CONDITIONS DESCRIBED. TAMKO BUILDING PRODUCTS, INC. ASSUMES NO RESPONSIBILITY FOR LEAKS OR OTHER ROOFING DEFECTS RESULTING FROM FAILURE TO FOLLOW THE MANUFACTURER'S INSTRUCTIONS. FAILURE TO FOLLOW THESE INSTRUCTIONS WILL ADVERSELY AFFECT COVERAGE UNDER THE LIMITED WARRANTY. SEE THE LIMITED WARRANTY FOR DETAILS.

THIS PRODUCT IS COVERED BY A LIMITED WARRANTY, THE TERMS OF WHICH ARE PRINTED ON THE WRAPPER.

IN COLD WEATHER (BELOW 40°F), CARE MUST BE TAKEN TO AVOID DAMAGE TO THE EDGES AND CORNERS OF THE SHINGLES.

IMPORTANT FASTENING INFORMATION: DO NOT PLACE FASTENERS ON OR ABOVE THE PAINT LINE ON THE SHINGLE. The paint line on the shingle is the upper-most edge of TAMKO's expanded Nail Zone. For complete details regarding TAMKO's expanded Nail Zone, see section 3 of these Application Instructions. Failure to follow fastening instructions, including but not limited to improper placement of fasteners on or above the paint line, will adversely affect coverage under TAMKO's applicable Limited Warranty. Avoid placing fasteners into the sealant strip.

IMPORTANT: It is not necessary to remove the plastic strip from the back of the shingles.

I. ROOF DECK

These shingles are for application to roof decks consisting of plywood or sheathing boards capable of receiving and retaining fasteners, and to inclines of not less than 2 in. per foot. For roofs having pitches 2 in. per foot to less than 4 in. per foot, refer to special instructions titled "Low Slope Application". For roofs having pitches greater than 21 in. per foot, refer to special instructions titled "Mansard Roof or Steep Slope Roof". Shingles must be applied properly. TAMKO assumes no responsibility for leaks or defects resulting from improper application, or failure to properly prepare the surface to be roofed over.

NEW ROOF DECK CONSTRUCTION: Roof deck must be smooth, dry and free from warped surfaces. It is recommended that metal drip edges be installed at eaves and rakes.

PLYWOOD: All plywood shall be exterior grade as defined by APA - The Engineered Wood Association. Plywood shall be a minimum of 3/8 in. thickness and applied in accordance with the recommendations of APA - The Engineered Wood Association.

SHEATHING BOARDS: Boards shall be well-seasoned tongue-and-groove boards and not over 6 in. nominal width. Boards shall be a 1 in. nominal minimum thickness. Boards shall be properly spaced and nailed.

2. VENTILATION

Inadequate ventilation of attic spaces can cause accumulation of moisture in winter months and a build up of heat in the summer. These conditions can lead to:

1. Vapor Condensation
2. Buckling of shingles due to deck movement.
3. Rotting of wood members.
4. Premature failure of roof.

To insure adequate ventilation and circulation of air, the ventilation system must include inlets and outlets. This may be accomplished with a combination of ridge and soffit vents or by using gable end vents. FHA minimum property standards require one square foot of net free ventilation area to each 150 square feet of space to be vented. This may be reduced to one square foot of ventilation area per 300 square feet if at least 40% and not more than 50% of venting is provided not more than 3 feet below the ridge or if a Class I or II vapor barrier is installed on the warm in winter side of the ceiling in climate zones 6, 7, and 8 as recommended by the 2012 International Residential Code. For more information consult your design professional. If the ventilation openings are screened, the total area should be doubled.

IT IS PARTICULARLY IMPORTANT TO PROVIDE ADEQUATE VENTILATION.

3. FASTENERS

WIND CAUTION: Extreme wind velocities can damage these shingles after application when proper sealing of the shingles does not occur. This can especially be a problem if the shingles are applied in cooler months or in areas on the roof that do not receive direct sunlight. These conditions may impede the sealing of the adhesive strips on the shingles. The inability to seal down may be compounded by prolonged cold weather conditions and/or blowing dust. In these situations, hand sealing of the shingles is required. To insure immediate sealing, apply 4 quarter-sized dabs of TAM-PRO® Premium SBS Adhesive or TAMKO Tam-Seal Adhesive on the back of the shingle 1 in. (25mm) and 13 in. (330mm) in from each side and 1 in. (25mm) up from the bottom of the shingle. Press shingle firmly into the adhesive. For maximum wind resistance along rakes, install any TAMKO starter shingle including sealant or cement shingles to the underlayment and each other in a 4 in. (102mm) width of TAM-PRO SBS Adhesive or TAMKO Tam-Seal Adhesive. Caution: Apply ONLY a thin uniform layer of adhesive less than 1/8 in. (3mm) thick. Excessive amounts can cause blistering of the shingles and may soften the asphalt in certain underlayments resulting in the asphalt flowing, dripping and staining. Shingles must also be fastened according to the fastening instructions described below.

Correct placement of the fasteners is critical to the performance of the shingle. If the fasteners are not placed as shown in the diagram and described below, this will result in the termination of TAMKO's liabilities under the Limited Warranty. TAMKO will not be responsible for damage to shingles caused by winds in excess of the applicable mph as stated in the Limited Warranty. See Limited Warranty on the wrapper or tamko.com for details.

(Continued)