

Product Evaluation Report
TRI COUNTY METALS

29 Ga. Ultra-Rib Roof Panel over 7/16" OSB

Florida Product Approval # 17094.1

Florida Building Code 2010

Per Rule 61G20-3

Method: 1-D

Category: Roofing

Subcategory: Metal Roofing

Compliance Method: 61G20-3.005(1)(d)

NON HVHZ

Product Manufacturer:

Tri County Metals

301 SE 16th Street

Trenton, Florida 32693

Engineer Evaluator:

Terrence E. Wolfe, P.E., # 44923

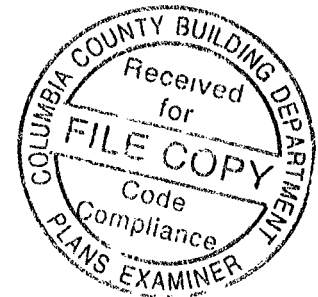
Florida Evaluation ANE ID: 1920

Validator:

Locke Bowden, P.E., FL #49704

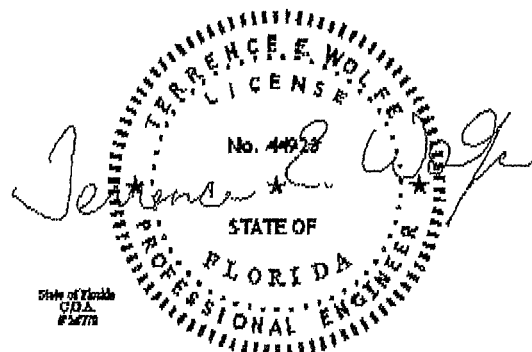
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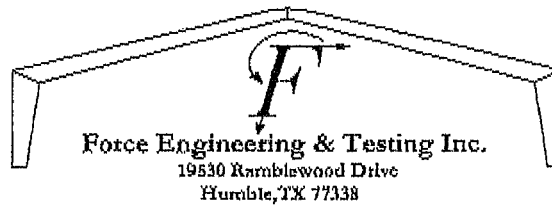
Montgomery, AL 36117



Contents:

Evaluation Report Pages 1-4





Compliance Statement: The product as described in this report has demonstrated compliance with the Florida Building Code 2010, Sections 1504.3.2, 1504.7.

Product Description: Ultra-Rib Roof Panel, Min. 29 Ga. Steel, 36" Wide, through fastened roof panel over one layer of asphalt shingles (optional) over 7/16" APA OSB decking, Non-Structural Application

Panel Material/Standards: Material: Minimum 29 Ga. Steel conforming to Florida Building Code 2010 Section 1507.4.3.
Yield Strength: Min. 80.0 ksi
Corrosion Resistance: Panel Material shall comply with Florida Building Code 2010, Section 1507.4.3.

Panel Dimension(s): Thickness: 0.0145" min
Width: 36"
Rib Height: 3/4" major rib at 9" O.C.
Panel Rollformer: MRS Metal Rollforming Systems

Panel Fastener: #12-8 x 1-1/2" Woodgrip XG HWH with sealing washing or approved equal
1/4" minimum penetration through decking.
Corrosion Resistance: Per Florida Building Code 2010, Section 1506.6, 1507.4.4

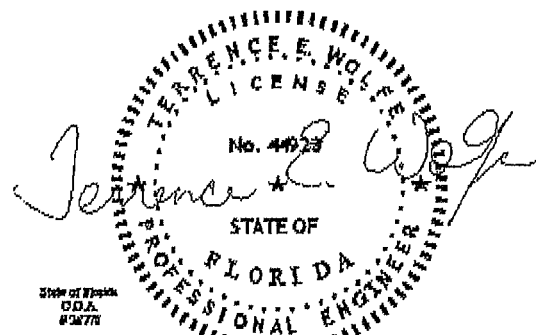
Substrate Description: One layer of asphalt shingles/felt paper (optional) over minimum 7/16" thick, APA Rated OSB over supports at maximum 24" O.C. Design of OSB and OSB supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2010

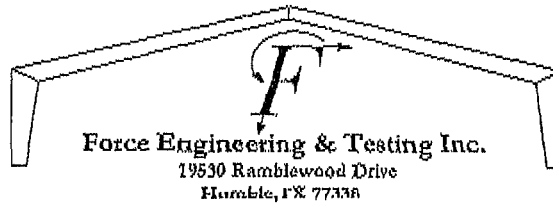
Design Uplift Pressures:

Table "A"

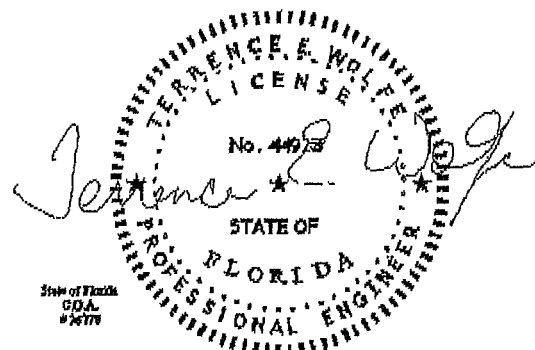
Maximum Total Uplift Design Pressure:	41.7 psf	123.5 psf
Fastener Pattern Type:	#1	#2
Fastener Pattern:	9"-9"-9"-9"	6"-3"-6"-3"-6"-3"-6"
Fastener Spacing:	24" O.C.	12" O.C.

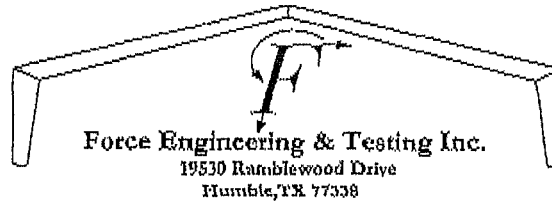
*Design Pressure includes a Safety Factor = 2.0.



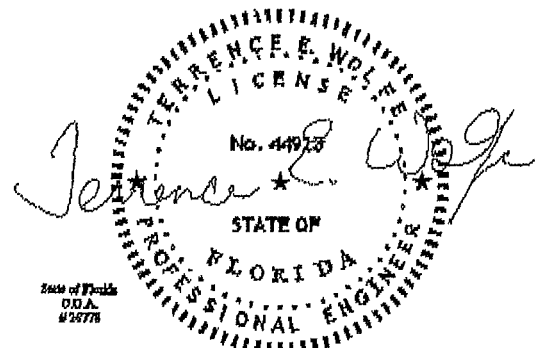


Code Compliance:	The product described herein has demonstrated compliance with The Florida Building Code 2010, Section 1504.3.2, 1504.7
Evaluation Report Scope:	The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2010, as relates to Rule 61G20-3
Performance Standards:	The product described herein has demonstrated compliance with: ▪ UL 580-06 - Test for Uplift Resistance of Roof Assemblies ▪ UL 1897-04 - Uplift Test for Roof Covering Systems ▪ FM 4471, Section 4.4 - Foot Traffic Resistance Test.
Reference Data:	1. UL 580-06 / 1897-04 Uplift Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0044T-14A, B 2. FM 4471-10, Section 4.4 Foot Traffic Resistance Test Force Engineering & Testing, Inc. (FBC Organization # TST-5328) Report No. 136-0027T-12C 3. Certificate of Independence By Terrence E. Wolfe, P.E. (No. 44923) @ Force Engineering & Testing, Inc. (FBC Organization # ANE ID 1920)
Quality Assurance Entity:	The manufacturer has established compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity
Minimum Slope Range:	Minimum Slope shall comply with Florida Building Code 2010, including Section 1507.4.2 and in accordance with Manufacturers recommendations. For slopes less than 3:12, lap sealant must be used in the panel side laps.
Installation:	Install per manufacturer's recommended details
Underlayment:	Per Manufacturer's installation guidelines per Florida Building Code 2010 Section 1507.4.5
Roof Panel Fire Classification:	Fire classification is not part of this acceptance.
Shear Diaphragm:	Shear diaphragm values are outside the scope of this report.

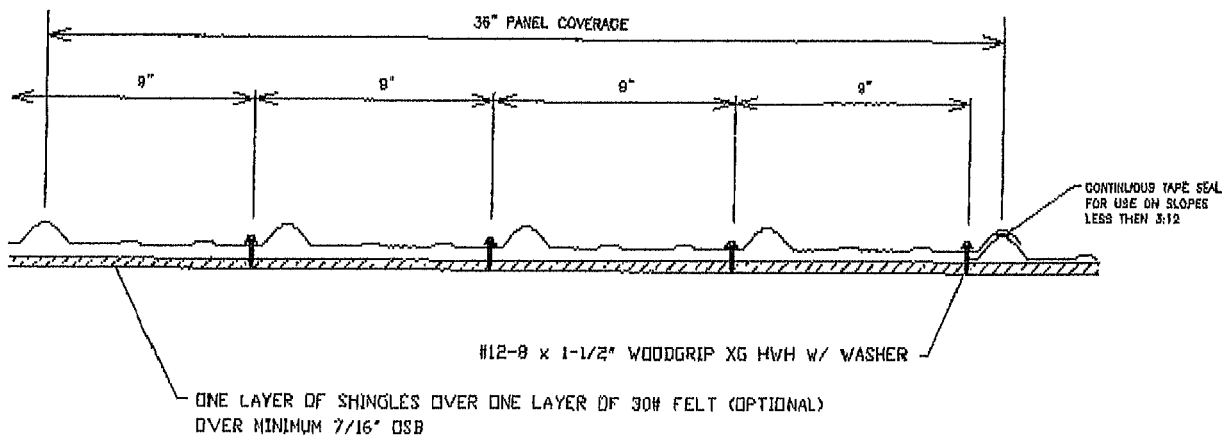


**Design Procedure:**

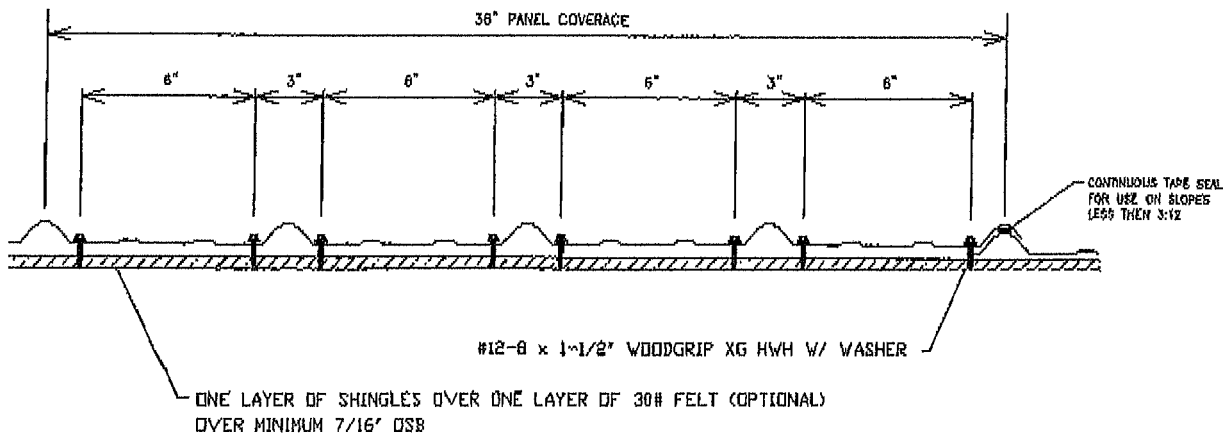
Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2010 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2010 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.



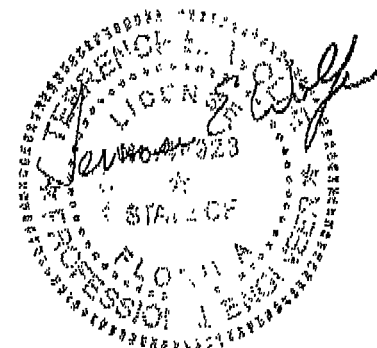
MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #1 FASTENER PATTERN AT 24" O.C.



MINIMUM 29 GA. ULTRA-RIB PANEL
TYPE #2 FASTENER PATTERN AT 12" O.C.



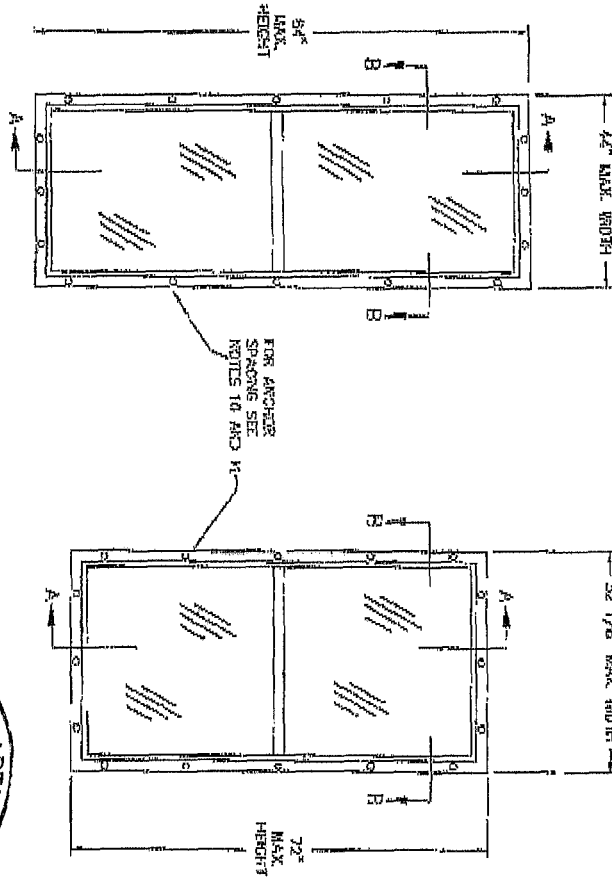
State of Florida
C.O.A.
#80770



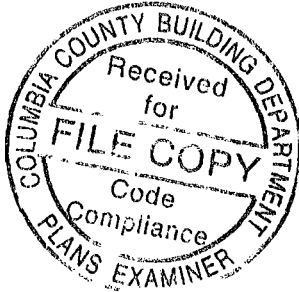
JUN 26 2014

Alan Troy
Fred Allen
Scott Job.

FLA #
15217.13



DESIGN PRESSURE RATING	IMPACT RATING
440.0 PSF	MOORE



GENERAL ALUMINUM COMPANY	
1001 W. GROSSBY RD	
CAROLTON, TX 75006	
SERIES 5000/5500 RUI RECTANGULAR SH	
48" X 84" AND 52 1/8" X 72" NON-IMPACT	
ELEVATION AND GENERAL NOTES	
DATE	10/08/08
SHEET	1 OF 3
DESIGNER	DB-085830
DATE	10/08/08
SHEET	1 OF 3

SIGNED: 02/10/2012



GENERAL NOTES:

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF FLORIDA BUILDING CODE.
- 2) OPERATING TO BE DESIGNED AND ANCHORED TO PERMIT TRANSMIT ALL LOADS TO STRUCTURE. OPERATING DISCHARGE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OR FIELD.
- 3) APPROVED IMPACT PROTECTING SYSTEM IS FURNISHED ON THIS PROJECT IN HAND BEFORE DESIGN REVISIONS.
- 4) SHOWN AS DELIVERED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING STEEL LAYERS ALLOWABLE SAW STICK TO BE 1/4". SHOWN WHERE SPACE IS 1/16" FOR GREATER OCCURS.
- 5) WINDOW FRAME MATERIAL TO BE ALUMINUM ALLOY 6063-T5.
- 6) USE GASKET FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FRAME.
- 7) USE GASKET FOR PERIMETER SEAL AROUND EXTERIOR OF WINDOW FRAME.
- 8) GLASS THICKNESS MAY VARY PER THE REQUIREMENT OF ASTM F1064 CLASS C-2.
- 9) WHEN THE WINDOW RESISTANCE TEST REQUIREMENT OF 1000 LBS OF DESIGN LOAD APPLIED POSITIVE DESIGN LOADS WILL BE TESTED TO 4000 LBS OF WATER RESISTANCE FOR 15 MINUTES.
- 10) MATERIAL FOR FRAME WINDOW WITH 2 1/2" DIA. HOLE WITH A MINIMUM 1-1/2" SPACING INTO FRAMING. HOLE NUMBER OF ANCHORS NEEDED REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" FROM SPACING BETWEEN ANCHORS WAS NOT EXCEED 11".
- 11) REINFORCE FOR FRAME WINDOW WITH 5/8" WOOD SCREW OF SUPPLYMAN. LENGTH TO ADJUST MAX. 1-1/2" PERMANENT AND TO SUBSTITUTED FOR NUMBER OF ANCHORS REFER TO ANCHOR CHARTS IN SHEET 3. LOCATE ANCHORS 6" FROM FRAMING. SPACING BETWEEN ANCHORS MUST NOT EXCEED 11".
- 12) EXACT WINDOW SIZE IS NOT LISTED IN ANCHOR CHART. USE ANY OR QUANTITY USED WITH NEXT LARGER SIZE FOR THE APPROPRIATE DESIGN PRESSURE REQUIRED.
- 13) ALLOWABLE STRESS INCREASE OF 1/2 WAS NOT USED IN THE DESIGN OF THE WINDOW FRAME. WINDOW FRAME AND LOAD DURATION FACTOR C₁ WAS USED FOR WINDOW ANCHORS ON ALL ANCHORS.
- 14) INSTALLATION AND/OR OPERATING FOR PRODUCTS HEREIN ARE BASED ON SUBSTITUTE MATERIAL WITH THE FOLLOWING PROPERTIES:
A. WOOD: UNKNOWN SPECIFIC GRAVITY OF 0.40-0.5

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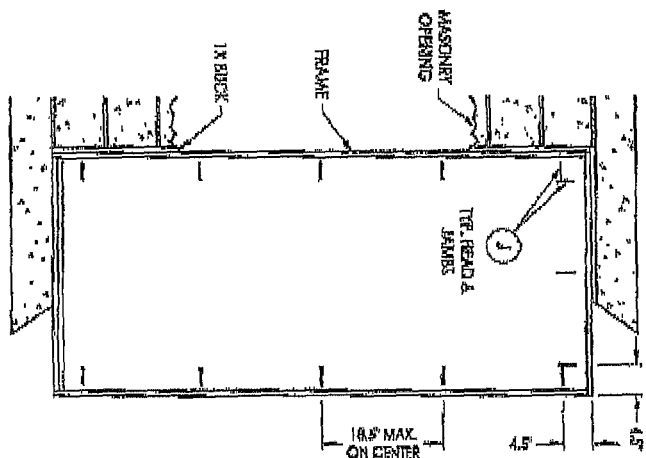
CONCRETE ANCHOR BOLT:
 1. Selection of correct concrete anchor from a different supplier may have different edge clearance and center distance to the concrete. They are assigned to indicate the min. edge clearance and center distance. If concrete anchor locations noted on MAX. ON CENTER must be installed, the min. edge distances to provide adequate, undisturbed concrete sections may be applied to meet the MAX. ON CENTER dimensions are not established.
 2. Concrete anchor type:

ANCHOR TYPE	ANCHOR DIMENSION	MIN. CLEARANCE TO EDGE	MAX. ON CENTER	MIN. TO MIN. ON CENTER
HW	1/4"	1-1/4"	2-1/2"	8"
HW	3/16"	1-1/8"	2-5/8"	2-1/4"

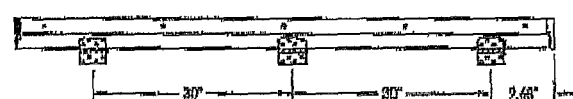
STONE WALL



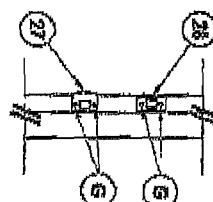
FRAME ANCHORING
 MASONRY IS BUCK CONSTRUCTION



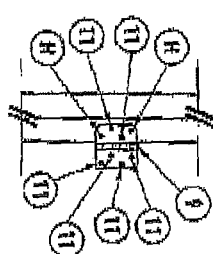
BRICK WALL



LATCH & DEADBOLT DETAIL

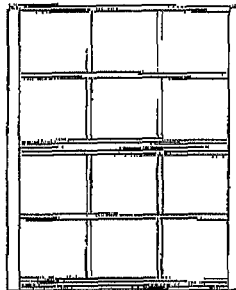


REINFORCED



DATE 02/15/12 DRAWN: M.S. CHECKED: J.R. DESIGNED: L.S. PROJECT: PL-152151.1 SHEET 6 OF 7		PRODUCT: PLASTPRO INC. FIBERGLASS DOOR PART OR ASSEMBLY: FRAME ANCHORING 1X BUCK MASONRY CONSTRUCTION	Document Prepared by: BUILDING CONSULTANTS, INC. P.O. Box 530 Valrico FL 33487 PHONE No. 813.959.8107 Florida Board of Professional Engineers Certificate Of Authorization No. 28113 License No. 2-26-22 Lyndon F. Schmidt, P.E. No. 43419
REVISIONS NO. DATE BY			

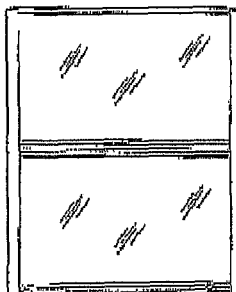
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SINGLE HUNG**



**DIVIDED
LITES**

Report No.: FTC-11-014-25175.0
Expiration Date: June 20, 2015

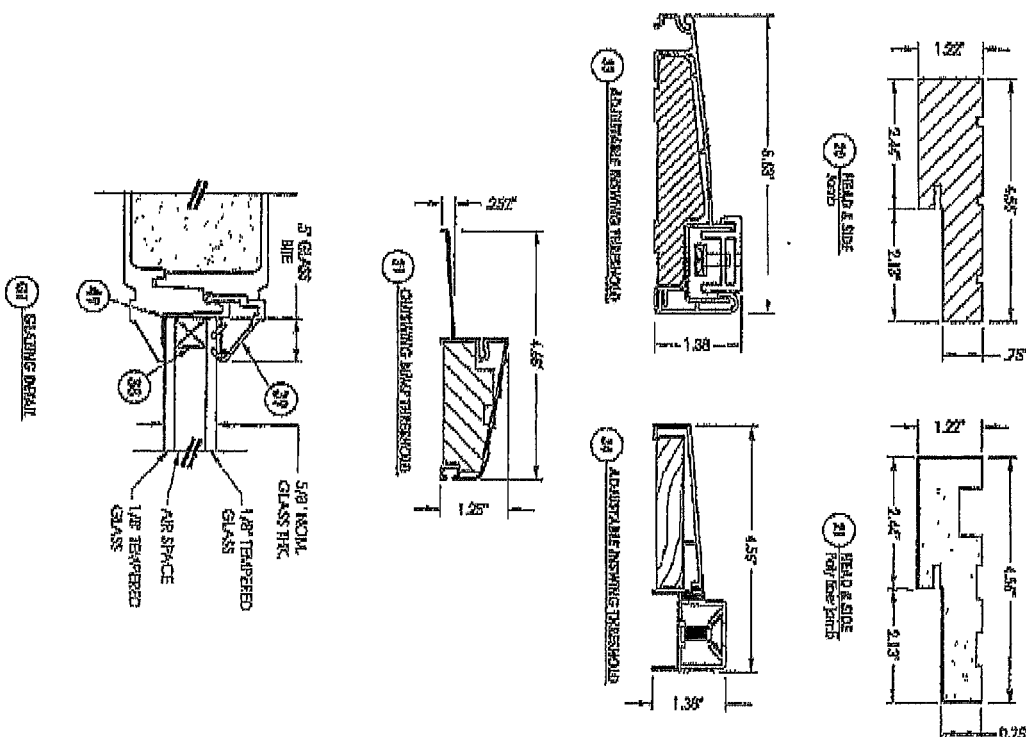
**5000
5300
SINGLE HUNG**



**1/1
LITE**

Clear / Clear	
 National Fenestration Rating Council ® CERTIFIED	 Series 5000/5300 Aluminum Frame Double Glazed Clear / Clear AIR FILL With Muntins Product Type: Single Hung GEN-A-13-00022-00002
ENERGY PERFORMANCE RATINGS	
U-Factor(U.S./I.P.) 0.64	Solar Heat Gain Coefficient 0.61
ADDITIONAL PERFORMANCE RATING	
Visible Transmittance 0.62	_____
Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information. www.nfrc.org	
Clear / Clear	

Clear / Clear	
 National Fenestration Rating Council ® CERTIFIED	 Series 5000/5300 Aluminum Frame Double Glazed Clear / Clear AIR FILL Without Muntins Product Type: Single Hung GEN-A-13-00022-00001
ENERGY PERFORMANCE RATINGS	
U-Factor(U.S./I.P.) 0.64	Solar Heat Gain Coefficient 0.67
ADDITIONAL PERFORMANCE RATING	
Visible Transmittance 0.69	_____
Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. NFRC does not recommend any product and does not warrant the suitability of any product for any specific use. Consult manufacturer's literature for other product performance information. www.nfrc.org	
Clear / Clear	

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DATE: 02/15/72 DRAWN: JKS CHECKED: JKS DESIGNED: JKS PROJECT: 7 of 7		NO. DATE REVISIONS BY		PRODUCT PLASTPRO INC. FIBERGLASS DOOR PART OR ASSEMBLY BILL OF MATERIALS, GLAZING DETAIL & COMPONENTS		Drawings Prepared By R.W. BUILDING CONSULTANTS, INC. P.O. Box 233 Vero Beach, FL 33588 Phone No. 813.555.5117 Florida Board of Architectural Examiners Certificate of Authorization No. 3015 Gordon E. Schmitt, P.E. No. 15140	
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3. Concrete anchor table:

ANCHOR TYPE	ANCHOR SIZE	MIN. EMBEDMENT
IR#	1/2"	1/4"
ECCO	1/4"	1/4"

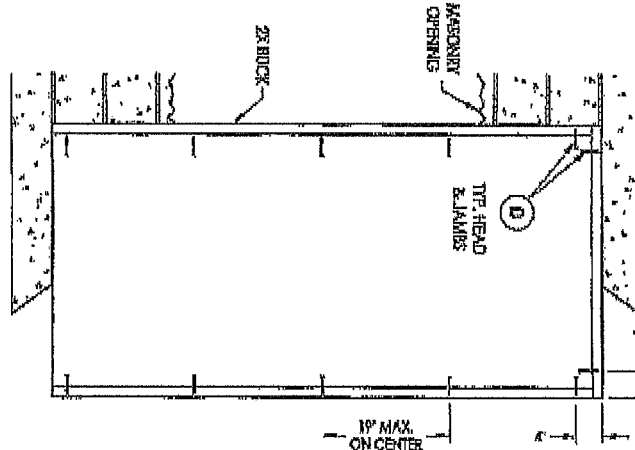
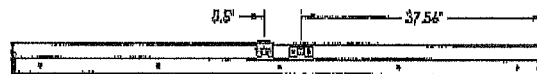
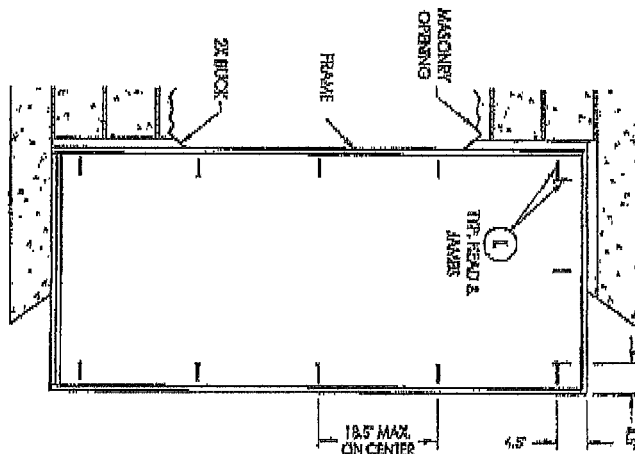


PLATE 1



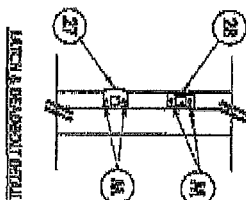
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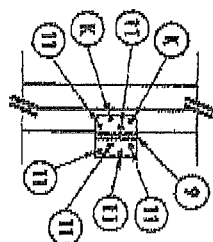
FRANKLIN COUNTY
MOSELEY 2X BUCKE BARRECHMENT



PHASE 2: 2010-2011



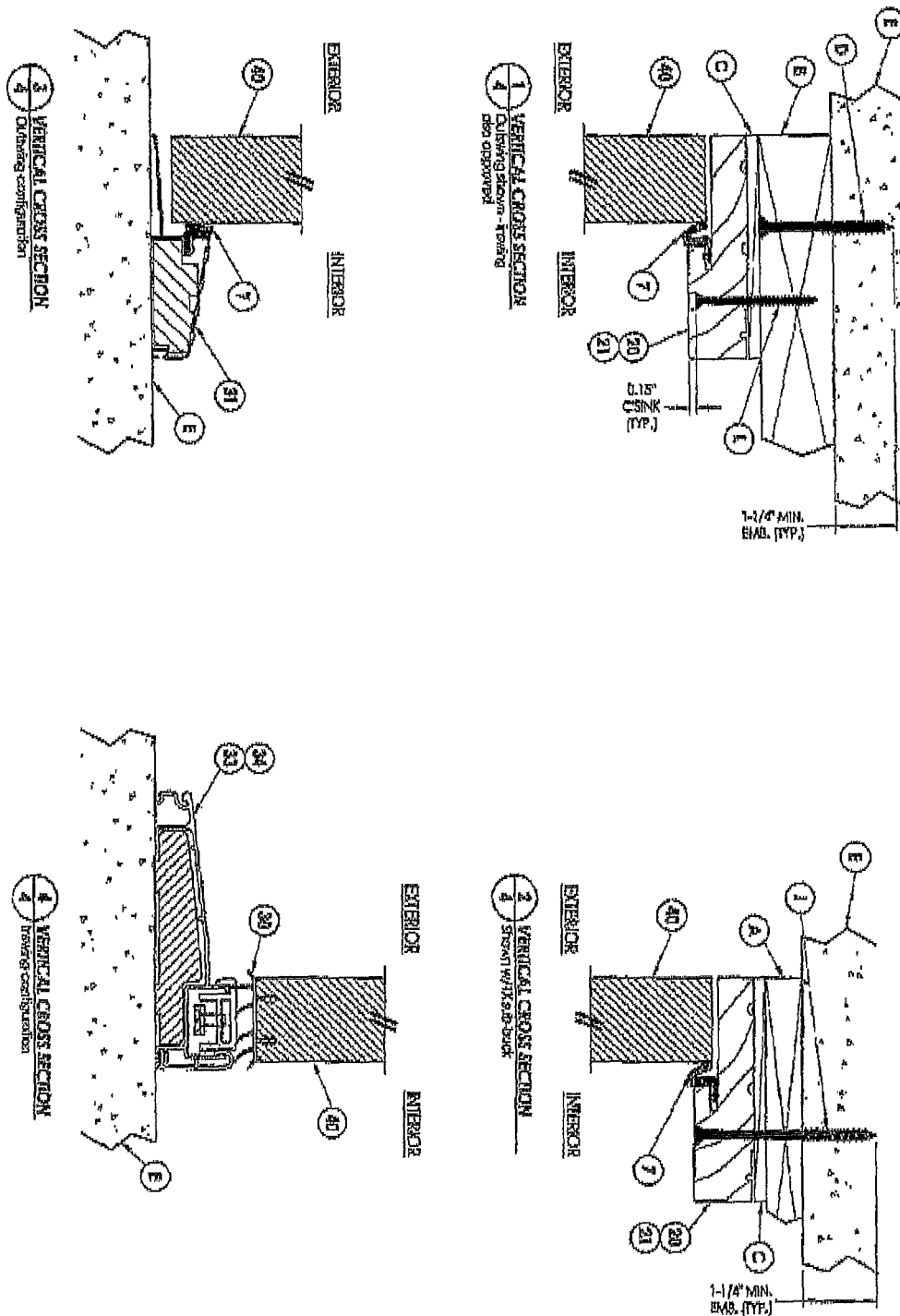
NOTICE OF RESOLUTION SETBACK



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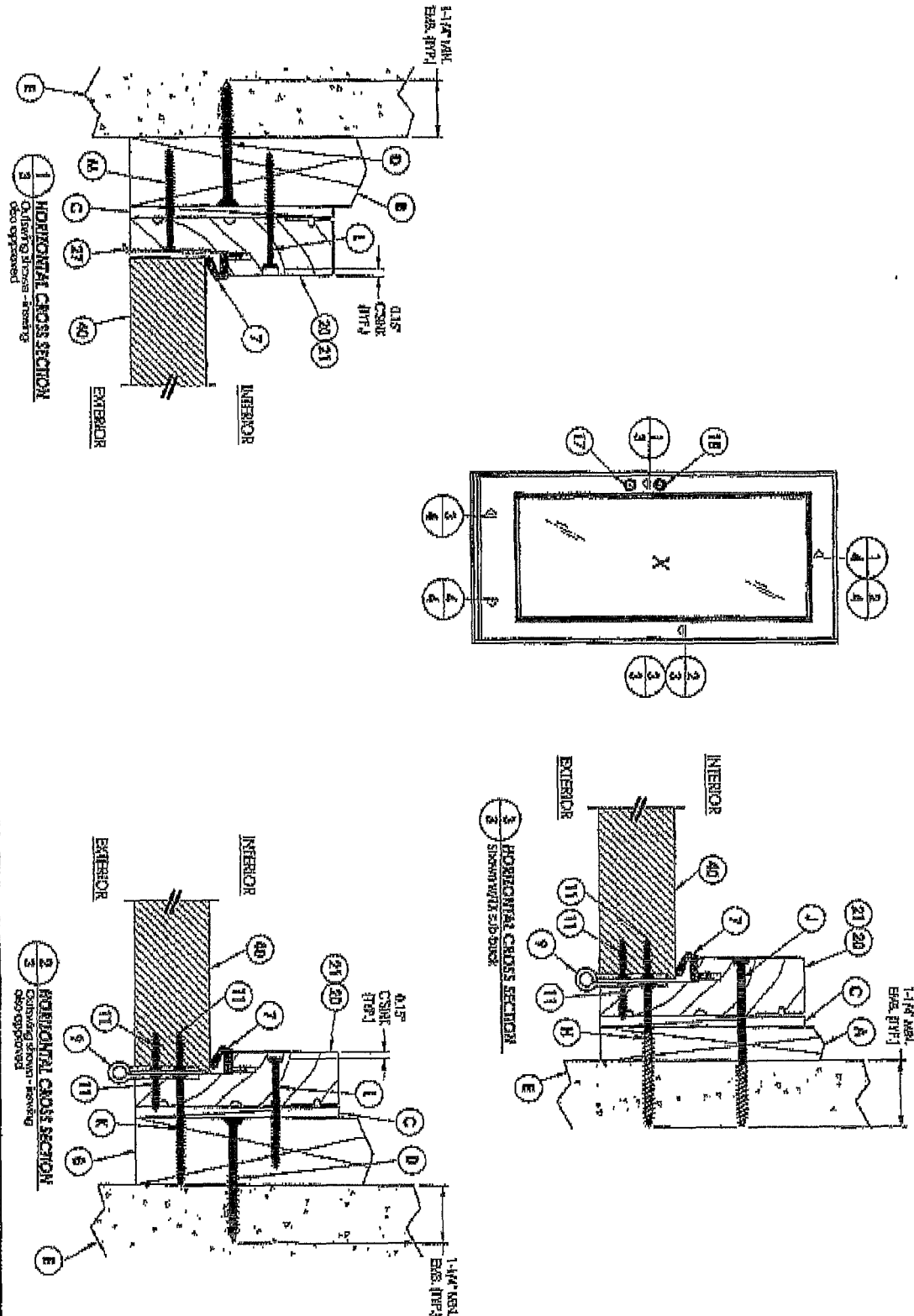


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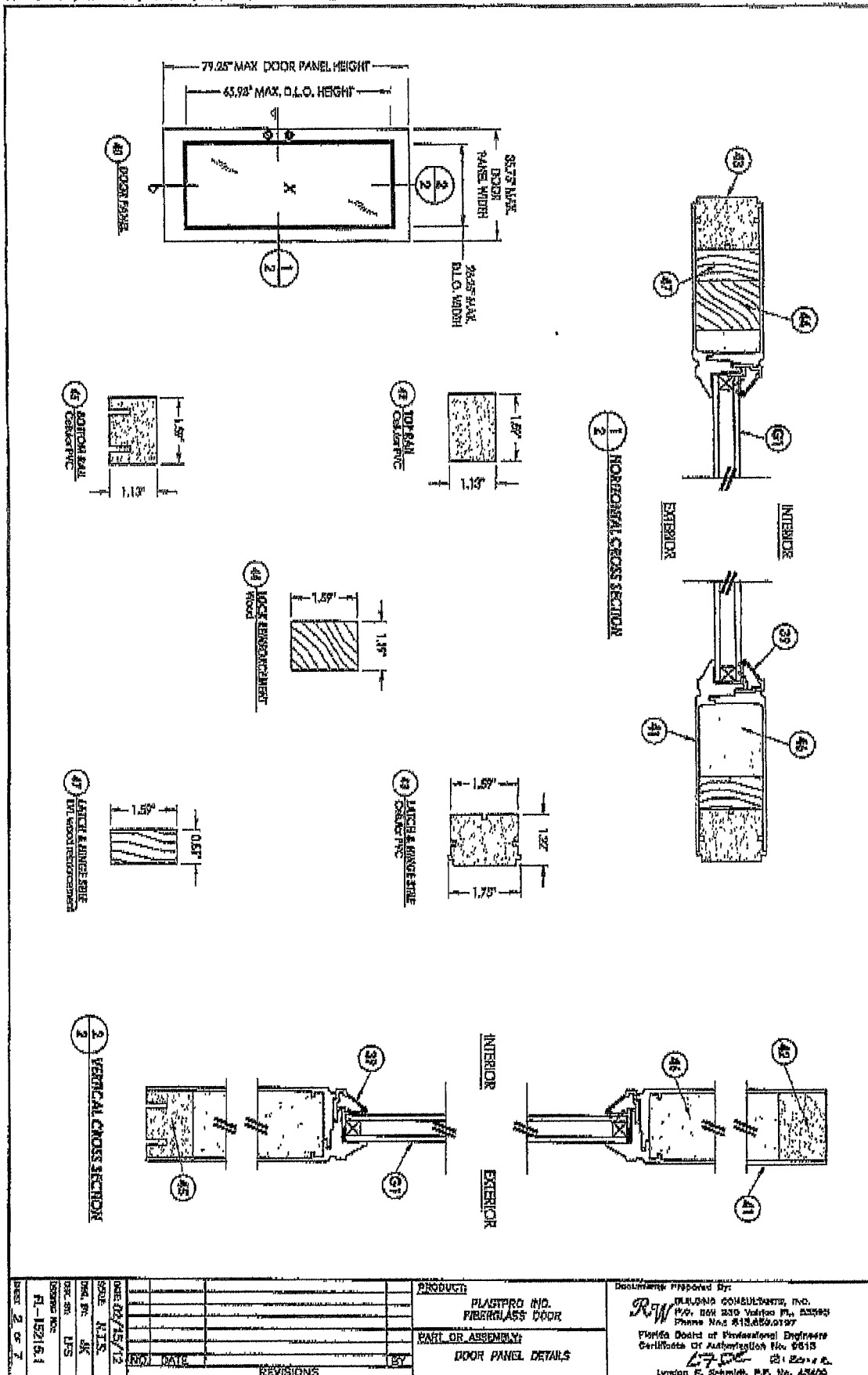
Documents Prepared By
RW BUILDING CONSULTANTS, INC.
 200 NW 230 Street St., 33093
 Miami, FL 33133-0997
 Florida Board of Professional Engineers
 Certificate of Authorization No. 0013
 6752 2-20-12
 LINDSEY F. SANDERS, P.E. No. 45400

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SHEET 3 OF 7 DATE 02/19/12 DRAWN BY JKS CHECKED BY JKS DESIGNED BY JKS FL-15215.1	NO. DATE REVISIONS	PRODUCT: PLASTPRO INC. FIBERGLASS DOOR PART OR ASSEMBLY: HORIZONTAL CROSS SECTIONS	Documents Prepared By: R.W. BUILDING CONSULTANTS, INC. P.O. Box 250 Venice FL 33596 Phone No. 813.939.9107 Florida Board of Professional Engineers Certificate Of Authorization No. 0570 E. Tech 2 Lyndon E. Schenck, P.E. No. 43488
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PRODUCT PLASTPRO INC. FIBERGLASS DOOR		Document Prepared By: R.W. BUILDING CONSULTANTS, INC. P.O. Box 230 Valrico FL 33593 Phone No. 813.855.0197 Florida Board of Professional Engineers Certificate of Authorization No. 0018 L750 Lyndon F. Schmitt, P.E. No. 43466	
PART OR ASSEMBLY DOOR PANEL DETAILS		REVISIONS NO. DATE BY	
SHEET 2 OF 7		DATE: 08/15/12 DRAWN: J.T.S. CHECKED: J.K. DESIGNED: L.F.S. PROJECT NO.: FI-15215.1	

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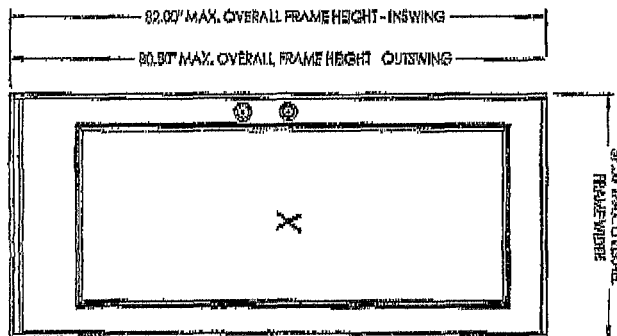
5200 W. CENTURY BLVD.
 LOS ANGELES, CA 90045

ONELITE SERIES FLUSH GLAZED FIBERGLASS DOOR INSWING / OUTSWING "NON-IMPACT"

GENERAL NOTES

1. This product has been evaluated and is in compliance with the 2010 Florida Building Code (FBC) structural requirements excluding the High Velocity Hurricane Zone (HVHZ).
2. Product sections shall be as listed and spaced as shown on details. Any other substitution to door materials shall be beyond the drawing or stated.
3. Material used in areas requiring wind borne debris protection (the product is required to be protected with an impact resistant glazing that complies with Section 1601.1.2 of the 2010 FBC).
4. For 2x and framing construction, anchoring of these units shall be the same as that shown for 2x block masonry construction.
5. Site conditions that deviate from the details of the drawing require further engineering analysis by a licensed engineer or registered architect.

SHEET #	DESCRIPTION	NAME OF CONTRACTOR
1	Typical elevation, design pressure, & general notes	
2	Door frame detail	
3	Horizontal cross section	
4	Vertical cross section	
5	Back end frame detailing - 2x block masonry construction	
6	Frame anchoring - 1x4 masonry construction	
7	Detail of hardware, glazing detail & components	



SYMBOL	INSWING	OUTSWING	OVERALL FRAME DIMENSION	OVERALL GLASS DIMENSION	GLASS TYPE	DESIGN PRESSURE (PSF)
						POSITIVE
						NEGATIVE
INSWING	82.50\"	82.00\"	84.25\" x 45.93\"		G1	+50.0
OUTSWING	87.50\" x 80.50\"	86.25\" x 45.93\"				-50.0

PRODUCT PLASTPRO INC. FIBERGLASS DOOR		Drawn/Prepared by: R.W. BUILDING CONSULTANTS, INC. P.O. Box 332 Venice FL 33596 Phone 813-975-5127	
PART OR ASSEMBLY TYPICAL ELEVATION, DESIGN PRESSURES & GENERAL NOTES		Permit issued by: Florida Board of Professional Engineers Certificate of Authorization No. 00113 [Signature] License No. 00113	
REVISIONS		DATE	
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