

NORTH EAST WINDOWS USA, INC. TEST REPORT

SCOPE OF WORK

AAMA/WDMA/CSA 101/I.S.2/A440 TESTING ON PD400, SLIDING GLASS DOOR

REPORT NUMBER

I1276.01-525-44

TEST DATE(S)

03/16/18 – 05/17/18

ISSUE DATE

10/17/18

REVISED DATE

10/15/19

RECORD RETENTION END DATE

03/16/22

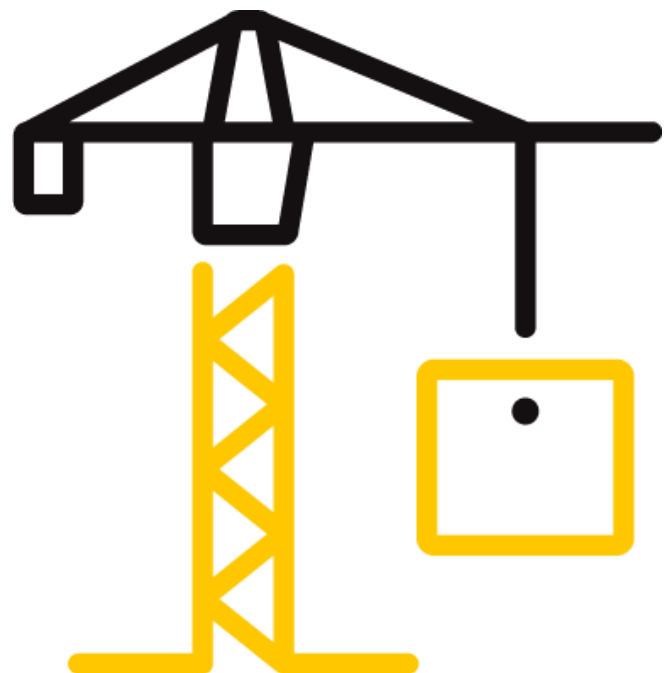
PAGES

21

DOCUMENT CONTROL NUMBER

RT-R-AMER-Test-2804 (04/17/18)

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TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

Report No.: I1276.01-525-44

Revision 1: 10/15/19

Date: 10/17/18

REPORT ISSUED TO

NORTH EAST WINDOWS USA, INC.

Once Kees Place

P.O. Box 159

Merrick, NY 11566

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by North East Windows USA, Inc., to perform testing in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 on their PD 400, Sliding Glass Door. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek test facility in Farmingdale, NY. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

TITLE	RESULTS
AAMA/WDMA/CSA 101/I.S.2/A440-17	R-PG35 1816 x 2019 (71-1/2" x 79-1/2")-SD
Design Pressure	±1675 Pa (±35.00 psf)
Air Infiltration	0.35 L/s/m ² (0.07 cfm/ft ²)
Air Exfiltration	0.30 L/s/m ² (0.06 cfm/ft ²)
Canadian Air Infiltration/Exfiltration	A3
Water Penetration Resistance Test Pressure	250 Pa (5.25 psf)

For INTERTEK B&C:

COMPLETED BY:	Craig Ginsberg	REVIEWED BY:	Heather Stahl
TITLE:	Mockup Manager	TITLE:	Lab Manager
SIGNATURE:		SIGNATURE:	
DATE:	10/15/19	DATE:	10/15/19

cg:cns

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SECTION 3

TEST SPECIFICATION(S)/METHOD(S)

The specimens were evaluated in accordance with the following:

AAMA/WDMA/CSA 101/I.S.2/A440-17- *North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

CSA A440S1-09, Canadian Supplement to **AAMA/WDMA/CSA 101/I.S.2/A440**, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

The following test methods were used during testing:

ASTM E283-04(2012), *Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen*

ASTM E330/E330M-14, *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

ASTM E547-00(2016), *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference*

ASTM E987-88(2017), *Standard Test Methods for Deglazing Force of Fenestration Products*

ASTM E2068-00(2016), *Standard Test Method for Determination of Operating Force of Sliding Windows and Doors¹*

ASTM F842-17, *Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact*

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MATERIAL SOURCE/INSTALLATION

Test specimen was provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

The specimen was installed into a Douglas-Fir wood buck. The rough opening allowed for a 1" shim space and the exterior perimeter of the specimen was sealed to the test buck. Installation of the tested product was performed by Intertek B&C.

LOCATION	ANCHOR DESCRIPTION	ANCHOR SPACING
Nail Fin	Typical Roofing nail	Every 6"
Nail Fin	Structural silicone	Applied to interior perimeter

SECTION 5

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Norman Salmon	North East Windows
Craig Ginsberg	Intertek B&C

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SECTION 6

TEST SPECIMEN DESCRIPTION

Product Type: PVC Sliding Door

Series/Model: PD400

Product Size(s): 71-1/2" x 79-1/2"

Test Specimen

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
3.7 m ² (39.4 ft ²)				
Overall size	1822	71-3/4	2010	79-1/8
Stationary Panel	914	36	914	76-3/8
Operable Panel	1940	36	1940	76-3/8

Frame Construction:

MEMBER	MATERIAL	DESCRIPTION
Head Sill and Jambs	PVC	Extrusion that has track features for sliding door panels
	JOINERY TYPE	DETAIL
All corners	Mitred	PVC welded

Panel Construction:

MEMBER	MATERIAL	DESCRIPTION
Rails and Stiles	PVC	Extrusion with groove feature for track roller hardware
	JOINERY TYPE	DETAIL
All corners	Mitred	PVC welded

Reinforcement:

LOCATION	MATERIALS
One located in every stile	1/8" x 1-1/2" steel bar stock

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Weatherstripping:

DESCRIPTION	QUANTITY	LOCATION
0.270/0.290 wool pile weatherstripping	12 rows	Two rows located on each rail and jamb stiles
0.270/0.290 wool pile weatherstripping	2 rows	one rows located on each meeting stile interlock
Silicone caulking seal	4 rows	Perimeter of stationary panel to frame
Silicone caulking seal	2 rows	Seam between press in place interlock and meeting stile members
Wool pile pads	2 pcs	On sill and head above and below meeting stiles

Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
23mm I.G.	Aluminium Channel 16.5 mm tick with grey duraseal	Tempered 3.3 mm thick	Tempered 3.3 mm thick	Exterior wet glaze with dual durometer gasket/pvc glazing beads outside with silicone cap and heal beads.

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		millimeters	inches	
Stationary Panel	1	762 x 1790	30 x 70-1/2	1/2"
Operable Panel	1	762 x 1790	30 x 70-1/2	1/2"

Drainage:

METHOD	SIZE	QUANTITY	LOCATION
Weep holes with covers	1/4" holes	2	Under stationary panel in frame track. 5" and 32-1/4" from right side of unit.
Weep holes	1/4" holes	2	Screen track of frame sill
Sloped	33-3/4" x 3-3/4"	1	Aluminium threshold

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Hardware:

DESCRIPTION	QUANTITY	LOCATION
Locking Handle set with keeper	1	Centred at 36-1/2" from bottom of unit on the locking stile/jamb.
Roller Assembly	2	Centred at 6-3/8" from either side of operable panel in the bottom rail.

Screen Construction: No screen was utilized

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SECTION 7

TEST RESULTS

The temperature range during testing was 21°C (70°F) – 27°C (80°F). The results are tabulated as follows:

Test Specimen #1:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Operating Force, per ASTM E2068	Initiate Motion: 93.4 N (21 lbf) Maintain Motion: 106.8 N (24 lbf) Latch - Lock: 44.5 N (10 lbf) Latch - Unlock: 13.3 N (3 lbf)	135 N (30.35 lbf) max 110 N (24.73 lbf) max 100 N (22.48 lbf) max 100 N (22.48 lbf) max	
Air Leakage, Infiltration per ASTM E283 at 75 Pa (1.57 psf)	0.35 L/s/m ² (0.07 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1, 2
Air Leakage, Exfiltration per ASTM E283 at 75 Pa (1.57 psf)	0.30 L/s/m ² (0.06 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1, 2
Canadian Air Infiltration/Exfiltration Level	A3 level	0.5 L/s/m ² (0.1 cfm/ft ²) max. @±75 Pa (1.57 psf)	
Water Penetration, per ASTM E547 at 250 Pa (5.25 psf)	Pass	No leakage	3
Uniform Load Deflection, per ASTM E330 Deflections taken at meeting stile +1680 Pa (+35.09 psf) -1680 Pa (-35.09 psf)	27.2 mm (1.07") 29.0 mm (1.14")	Report only	4,5
Uniform Load Structural, per ASTM E330 Permanent set taken at meeting stile +2520 Pa (+52.63 psf) -2520 Pa (-52.63 psf)	2.3 mm (0.09") 5.1 mm (0.20")	7.9 mm (0.31") max. 7.9 mm (0.31") max.	4,5
Forced Entry Resistance, per F842, Type: A - Grade: 10	Pass	No entry	
Thermoplastic Corner Weld	Pass	Meets as stated	

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Test Specimen #1:

TITLE OF TEST	RESULTS	ALLOWED	NOTE
Deglazing, per ASTM E987 Operating direction, 320 N (70 lbf) Remaining direction, 230 N (50 lbf)	Pass	Meets as stated	
	Pass	Meets as stated	

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: Test Date 05/17/18

Note 3: Without insect screen.

Note 4: Loads were held for 10 seconds.

Note 5: Tape and film were not used to seal against air leakage during structural testing.

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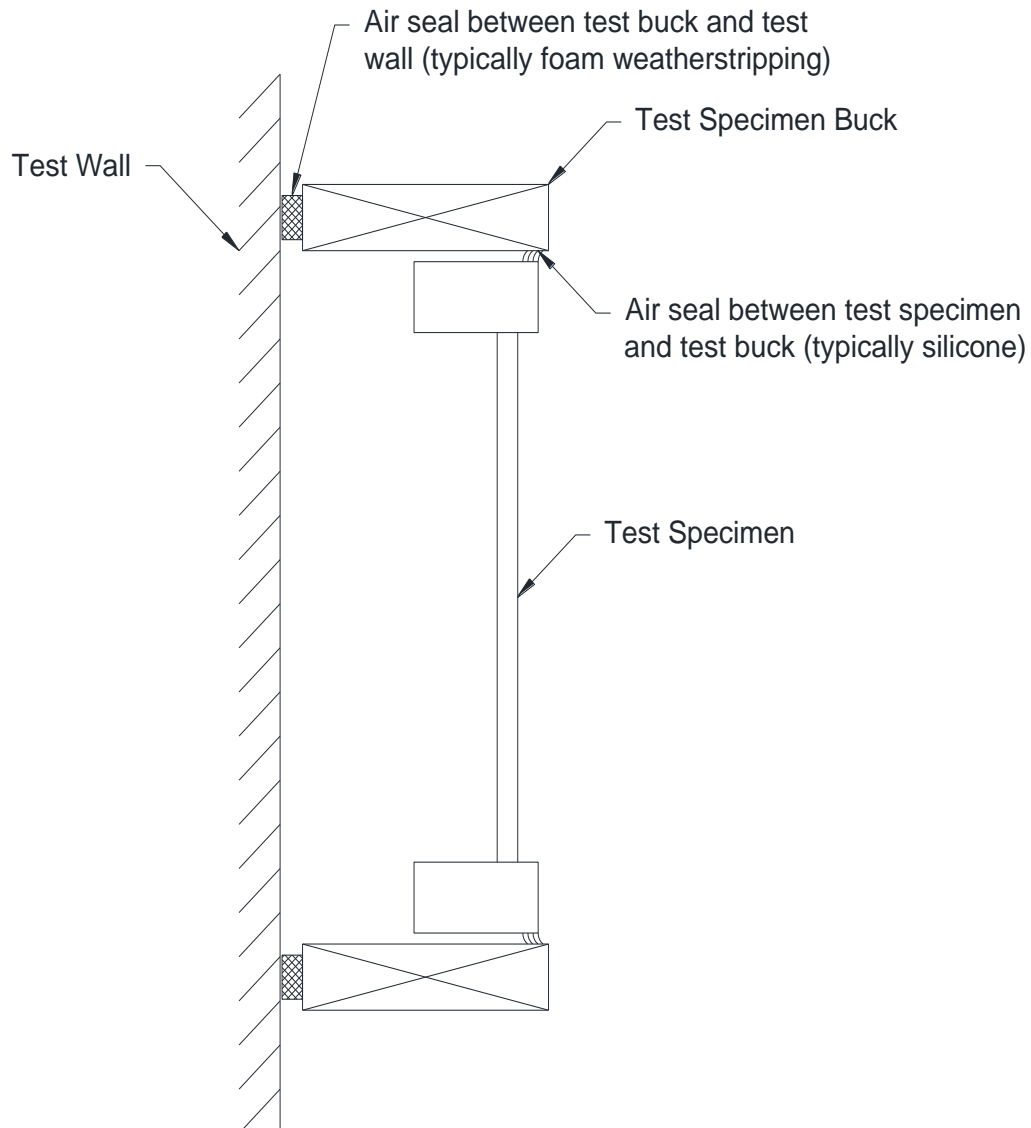
Revision 1: 10/15/19

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SECTION 8

LOCATION OF AIR SEAL

The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.





Total Quality. Assured.

TEST REPORT FOR NORTH EAST WINDOWS USA, INC.

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Date: 10/17/18

145 Sherwood Avenue
Farmingdale, New York 11735

Telephone: 631-815-1900
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SECTION 9

CONCLUSION

The specimen tested successfully met the performance requirements for an R-PG35 1816 x 2019 (71-1/2" x 79-1/2")-SD rating.

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SECTION 10 PHOTOGRAPHS



Photo No. 1
Exterior View



Photo No. 2
Interior View



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SECTION 11

DRAWINGS

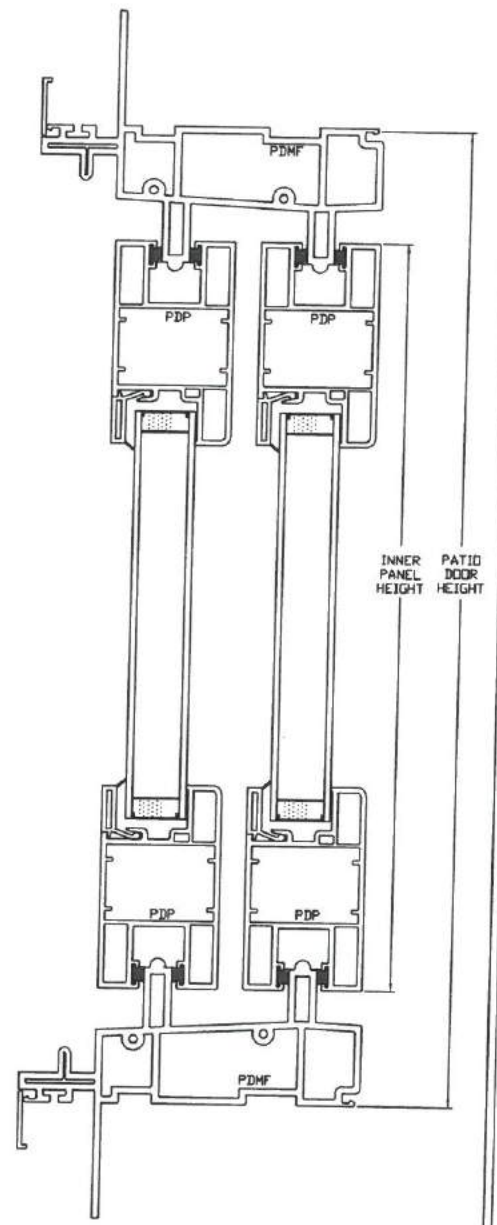
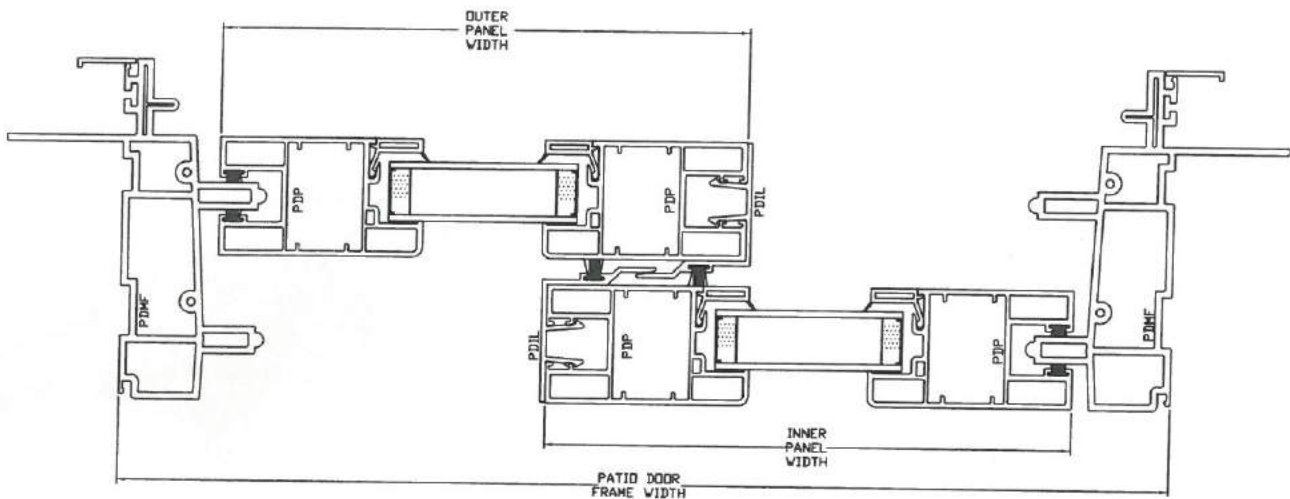
The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

North East Windows USA, Inc.		
1 Kees Place		
Merrick, NY 11566		
B.O.M. PD400 Sliding Glass Door		
Part	Part#	Supplier
Master frame	PDMF	Quality Linels
Sliding & fixed panel	PDP	Quality Linels
Interlock	PDIL	Quality Linels
Glazing bead	3008	Quality Linels
Aluminum threshold	22956	Aerolite
Silicone		Silco
Lock handle (int & ext)	7000	Fasco
Keeper	CD346	Fasco
1/8" tempered glass		AGC
Woolpile weatherstripping	.270/.290	Amesbury
Woolpile pads	D5098AMW	Ultra-Fab
Roller assembly	TA8488125	Truth Hardware
Screws		Merchants
Steel reinforcement	.125x.500	Eastern Steel
Spacer	0.625	Duralite

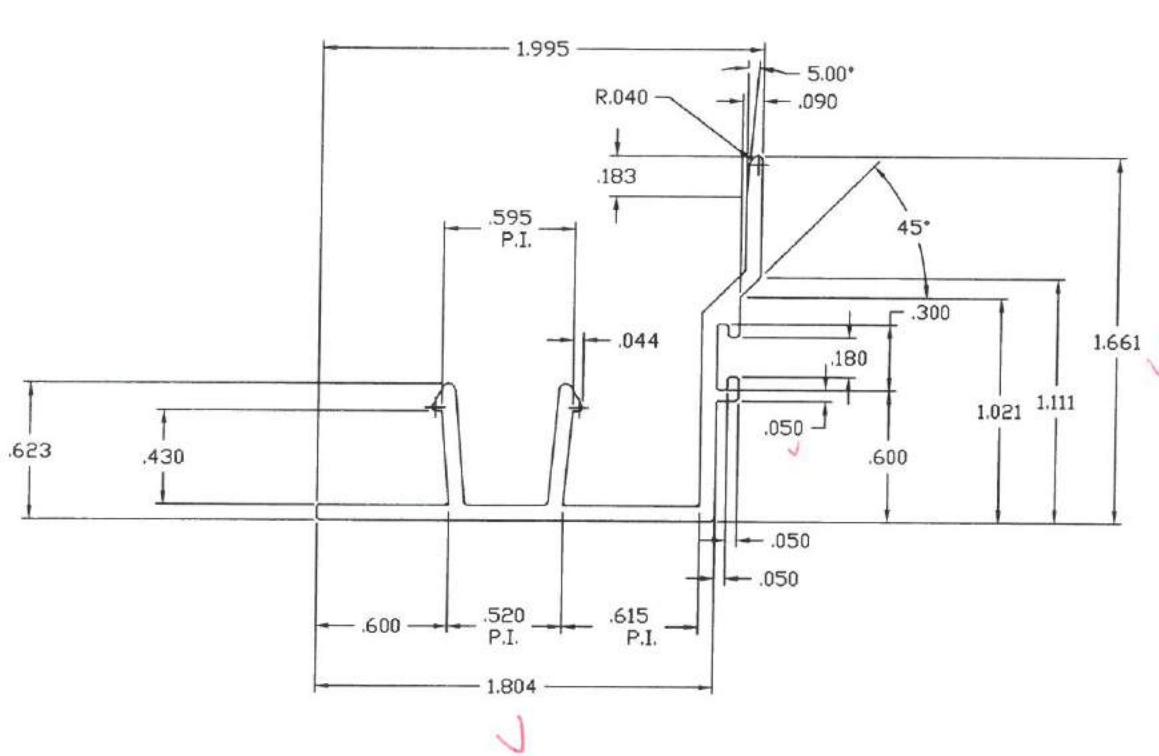
1.5"

TEST SPECIMEN COMPLIES
 WITH THESE DETAILS
 ANY DEVIATION IS NOTED
 REPORT NO. 11276.01-525-44
 TEST DATE: 10/5/18

TEST SPECIMEN COMPLIES
 WITH THESE DETAILS
 ANY DEVIATION IS NOTED
 REPORT NO. F1276-01-525-44
 TEST DATE: 1/15/15





		LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"		ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2°		
		DRAW FOR		1) MATERIAL RIGID PVC		
				2) CAPSTOCK		
				3) UNSPECIFIED WALLS		
				4) BREAK ALL CORNERS .015 R		
				5) AREA SQ. IN.		
				6) WT/FT LBS/FT		
				TITLE PATIO DOOR		
				DRAWN BY		
				SCALE		
				DATE		
				CHKD BY		
				APPD BY		
				COMPUTER NO.		
				BVG NO C-PATIO DOOR CROSS SECTION		
NO.	REVISION	BY	DATE			

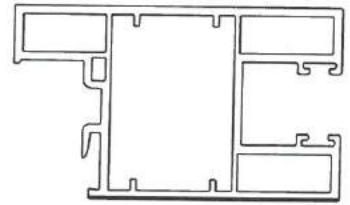
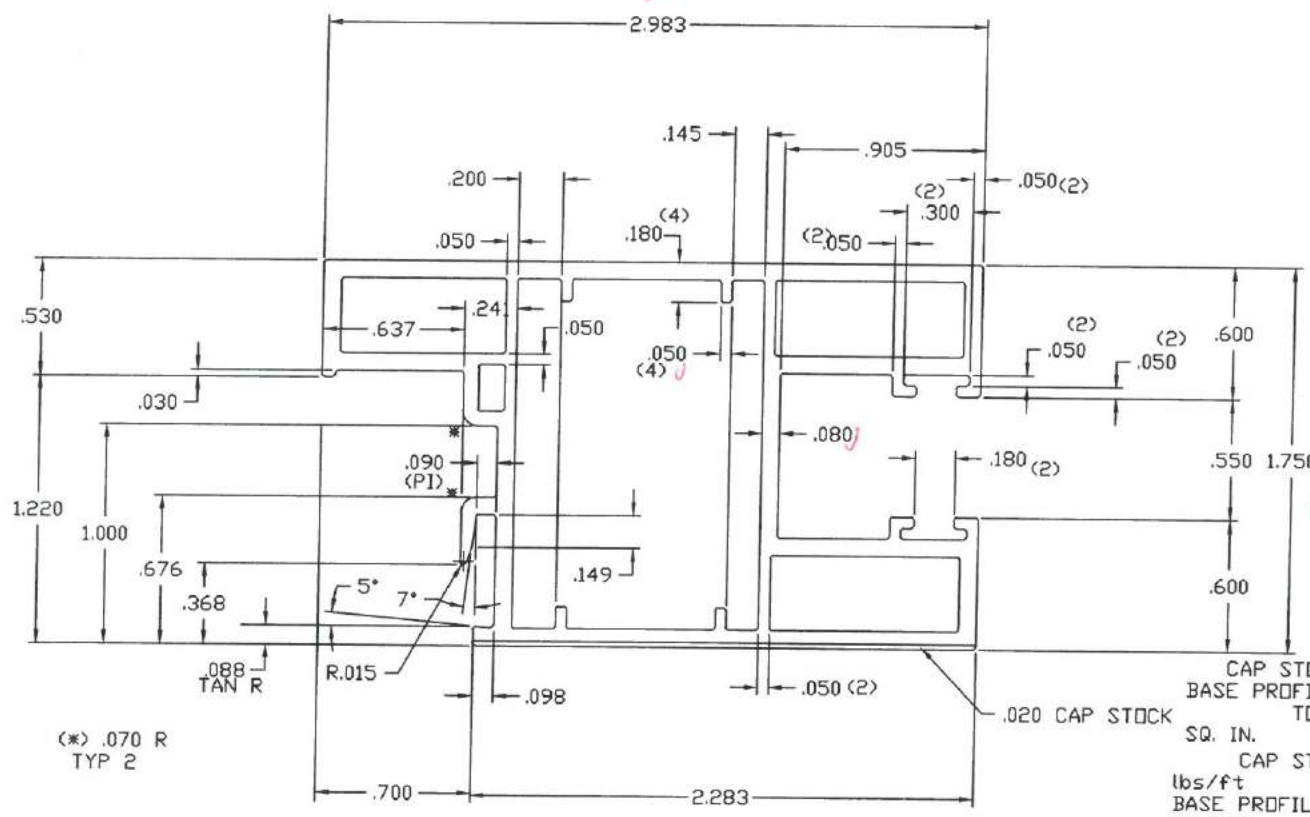


TEST SPECIMEN COMPLIES
WITH THESE DETAILS
ANY DEVIATION IS NOTED
REPORT NO. I-1276-01-525-4
TEST DATE: 12/5/15

DO NOT SCALE DRAWING

☒ LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"		ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2	
DRAWN FOR  QUALITY LINEALS BY  DDS DESIGNS "OUR NAME SAYS IT ALL"		1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .070 4) BREAK ALL CORNERS .015 R 5) AREA .340 SQ.IN. 6) WT/FT .214 LBS/FT	
		TITLE PATIO DOOR INTERLOCK	
DWN BY DDS	SCALE 2:1	DATE 01/27/12	CHKD BY APPD BY
COMPUTER NO			
DWG NO			

NO.	REVISION	BY	DATE



TEST SPECIMEN COMPLIES WITH THESE DETAILS ANY DEVIATION IS NOTED
 REPORT NO. *21326-9-525-44*
 TEST DATE: *10/18/11*

CAP STOCK AREA = .046 SQ. IN.
 BASE PROFILE AREA = .982 SQ. IN.
 TOTAL AREA = 1.028 SQ. IN.
 CAP STOCK WT/FT = .029 lbs/ft
 BASE PROFILE WT/FT = .618 lbs/ft
 TOTAL WT/FT = .647 lbs/ft
 DO NOT SCALE DRAWING

☒ LOCATION FOR IMPACT TEST SPECIFICATION—LENGTHS TO 3/8"

ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2

DRAWN FOR

QUALITY LINEALS

BY DDS DESIGNS

"OUR NAME SAYS IT ALL"

- 1) MATERIAL RIGID PVC
- 2) CAPSTOCK
- 3) UNSPECIFIED WALLS .080
- 4) BREAK ALL CORNERS .015 R
- 5) AREA 1.028 SQ. IN.
- 6) WT/FT .647 LBS/FT

TITLE PATIO DOOR SASH SQUARE NOSE				
DVN BY DDS	SCALE 2:1	DATE 02/13/12	CHKD BY	APPD BY
COMPUTER NO				
DWG NO				

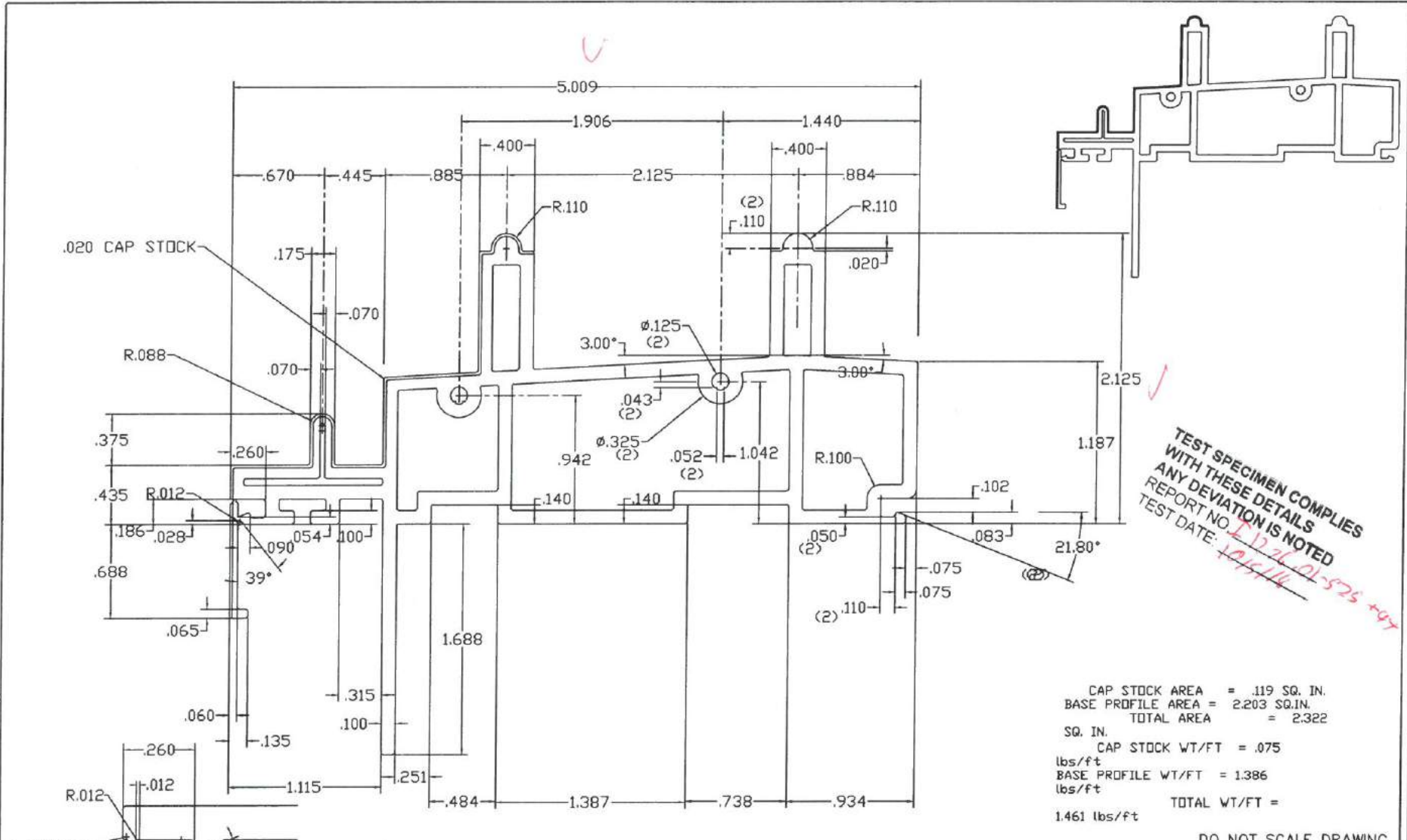
NO.	REVISION	BY	DATE

(*).070 R TYP 2

.088 TAN R

R.015

.020 CAP STOCK



TEST SPECIMEN COMPLIES WITH THESE DETAILS ANY DEVIATION IS NOTED
REPORT NO. 122101525-47
TEST DATE: 10/15/16


CAP STOCK AREA = .119 SQ. IN.
BASE PROFILE AREA = 2.203 SQ. IN.
TOTAL AREA = 2.322 SQ. IN.
CAP STOCK WT/FT = .075 lbs/ft
BASE PROFILE WT/FT = 1.386 lbs/ft
TOTAL WT/FT = 1.461 lbs/ft

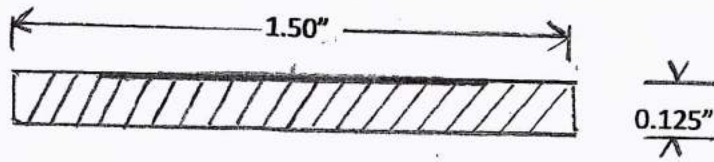
DO NOT SCALE DRAWING

LOCATION FOR IMPACT TEST SPECIFICATION-LENGTHS TO 3/8"		ALLOWABLE BOW MAX. 1" PER 14' ANGULARITY TO BE ± 1/2		TITLE PATIO DOOR MAIN FRAME	
DRAWN FOR QUALITY LINEALS BY DDS DESIGNS		1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .100 4) BREAK ALL CORNERS .015 R 5) AREA 2.322 SQ. IN. 6) WT/FT 1.461 LBS/FT		DWN BY DDS	
NO.		REVISION		DATE	
OUR NAME SAYS IT ALL		COMPUTER NO		DWG NO	

NO.	REVISION	BY	DATE

North East Windows USA, Inc.			
1 Kees Place			
Merrick, NY 11566			
B.O.M. PD400 Sliding Glass Door			
Part		Part#	Supplier
Master frame		PDMF	Quality Linels
Sliding & fixed panel		PDP	Quality Linels
Interlock		PDIL	Quality Linels
Glazing bead		3008	Quality Linels
Aluminum threshold		22956	Aerolite
Silicone			Silco
Lock handle (int & ext)		7000	Fasco
Keeper		CD346	Fasco
1/8" tempered glass			AGC
Woolpile weatherstripping		.270/.290	Amesbury
Woolpile pads		D5098AMW	Ultra-Fab
Roller assembly		TA8488125	Truth Hardware
Screws			Merchants
Steel reinforcement		.125x1.50	Eastern Steel
Spacer		0.625	Duralite

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	Date:	03/21/18
	Verified by:	Craig Ginsberg



PD400 Steel Reinforcement

	Report #:	11276.01-525-44
	Date:	03/21/18
	Verified by:	Craig Ginsberg

NO.	REVISION	BY	DATE

DO NOT SCALE DRAWING

LOCATION FOR IMPACT TEST SPECIFICATION LENGTHS TO ± 3/8"	ALLOWABLE BOW MAX. 1" PER 14" ANGULARITY TO BE ± 1/2°	TOLERANCES - .JXX ± .010 .JXX ± .005
DRAWN FOR 	1) MATERIAL RIGID PVC 2) CAPSTOCK 3) UNSPECIFIED WALLS .062 4) BREAK ALL CORNERS .016 R 5) AREA SQ. IN. 6) WT/FT LBS/FT.	TITLE SILL TRIM PIECE DRAWN BY: DDS SCALE: 2:1 DATE: 06-04-18 CHECKED BY: APPROVED BY: COMPUTER NO: DWG NO:



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SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	10/17/18	N/A	Original Report Issue
1	10/15/19	N/A	Added two drawings