

TEST REPORT

Report No.: A7901.02-701-44

Rendered to:

PRL ALUMINUM ARCHTECTURAL PRODUCTS
City of Industry, California

PRODUCT TYPE: Aluminum Sliding Glass Door **SERIES/MODEL**: PRL Max Bottom Rolling Sliding Door "CANCUN"

SPECIFICATION: AAMA/WDMA/CSA 101/I.S.2/A440-08, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

Title	Summary of Results
Primary Product Designator	Class R-PG15-SD 2210 x 2134 (87x 84)
Design Pressure	±720 Pa (±15.04 psf)
Air Infiltration	0.86 L/s/m ² (0.17 cfm/ft ²)
Water Penetration Resistance Test Pressure	180 Pa (2.92 psf)

Test Completion Date: 5/3/2011

This report contains in its entirety:

Cover Page: 1 page

Report Body: 7 pages

Alteration Addendum: 1 page

Drawings: 17 pages

Reference must be made to Report No. A7901.02-701-44 dated 07/28/11 for complete test specimen description and detailed test results.

4 Rancho Circle Lake Forest, CA 92630 phone: 949-460-9600 fax: 949-460-9601 www.archtest.com



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1.0 Report Issued To: PRL Aluminum Architectural Products

14760 Don Julian Road

City of Industry, California 91746

2.0 Test Laboratory: Architectural Testing, Inc.

4 Rancho Circle

Lake Forest, CA 92630

949.460.9600

3.0 Project Summary:

3.1 Product Type: Aluminum Sliding Glass Door

3.2 Series/Model: PRL Max Bottom Rolling Sliding Door "CANCUN"

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s). The specimen tested successfully met the performance requirements for a Class R-PG15-SD 2210 x 2134 (87x 84) rating.

3.4 Test Dates: 2/21/2011 - 5/3/2011

3.5 Test Location: Architectural Testing's test facility in Lake Forest, California.

3.6 Test Sample Source: The test specimen was provided by the client. Representative samples of the test specimen will be retained by Architectural Testing for a minimum of four years from the test completion date.

3.7 Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing and are representative of the test specimen reported herein. Test specimen construction was verified by Architectural Testing per the drawings located in Appendix B. Any deviations are documented herein or on the drawings.

3.8 List of Official Observers:

<u>Name</u> <u>Company</u>

Frank Fisher PRL Aluminum

John Mayfield Architectural Testing, Inc.



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4.0 Test Specification(s):

AAMA/WDMA/CSA 101/I.S.2/A440-08, NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area:	Width		Height	
4.7 m ² (50.4 ft ²)	millimeters	inches	millimeters	inches
Overall size	2210	87	2121	83-1/2
Rough opening	2216	87-1/4	2127	83-3/4
Active panel size	1118	44	2045	80-1/2

5.2 Frame Construction:

Frame Member	Material	Description		
Head	Aluminum	Formed from 2 identical custom shape extruded aluminum members that were butte and sealed full length.		
Sill track	Aluminum	Secured to the upturned leg of the sub sill using a 3/8" wide x 1" long bead of sealant located at each end and 10" on center thereafter.		
Sill track cover	Aluminum	Snapped into the exposed exterior sill track and fully sealed along each exterior joint and to the fixed interlocking stile.		
Bottom rail fixed panel shoe	Aluminum	Inserted and secured into the bottom rail of the fixed panel using two rows of 3/8" wide double-sided tape and snapped into the sill track.		
Sub sill	Aluminum	Bedded in sealant full length and fully sealed to each jamb member.		
Jamb	Aluminum	Formed from 2 identical custom shaped extruded aluminum members that were butted and sealed full length.		
Exterior jamb pocket cover	Aluminum	Snapped into the exterior jamb pocket of the strike jamb.		
Interior jamb pocket cover	Aluminum	Snapped into the interior jamb pocket of the fixed panel.		
Exterior head pocket cover	Aluminum	Snapped over the exterior channel of the head and sealed to the fixed interlock.		



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5.0 Test Specimen Description: (Continued)

	Joinery Type	Detail
Head/Jamb	Butted and sealed	Corners were butted and sealed full perimeter using sealant.
Sill track/jamb	Butted and sealed	Corners were butted and sealed full perimeter using sealant.

5.3 Panel Construction:

Fixed Panel Member	Material	Description
Rails	Aluminum	Formed from custom shaped extruded aluminum members; sealed full length at the exterior to the head and sill track.
Stiles	Aluminum	Formed from custom shaped extruded aluminum members; sealed full length at the exterior to the jamb.

Active Panel Member	Material	Description
Rails	Aluminum	Custom shaped extruded aluminum
Stiles	Aluminum	Custom shaped extruded aluminum

	Joinery Type	Detail
Rail/Stile	Butted	Members are butted and secured using a custom-shaped aluminum L-shaped bracket that is secured through the glazing pocket of the rail member using two #10 x1" sheet metal screws and secured to the stile using a #10 x 3/4"socket head cap bolt with a #10 lock nut.



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5.0 Test Specimen Description: (Continued)

5.4 Weatherstripping:

Description	Quantity	Location
0.320" x 0.270 pile w/fin	4 rows	Sill track guide at each exterior panel face
0.320" x 0.270 pile w/fin	4 rows	Interior and exterior facing legs of the exterior sill track
0.320" x 0.270 pile w/fin	2 rows	Jamb face of the lock stile
0.290" x 0.270 pile w/fin	1 row	Interior leg of the interior jamb pocket
0.290" x 0.270 pile w/fin	1 row	Exterior leg of the interior jamb pocket
0.320" x 0.270 pile w/fin	2 rows	Jamb face of the fixed stile
0.290" x 0.270 pile w/fin	1 row	Exterior leg of the exterior jamb pocket
0.290" x 0.270 pile w/fin	1 row	Interior leg of the exterior jamb pocket
0.320" x 0.270 pile w/fin	2 rows	Interior face of the fixed interlock stile
2" x 2" x 0.290" adhesive- backed pile	1 plug	Adhered to the sill track below the interlock of the active panel
2" x 2" x 1" open cell foam	1 plug	Fully sealed into the top hollow of the fixed interlock extrusion
0.290" x 0.270 pile w/fin	2 rows	Exterior face of the interlocking stile of the active panel

5.5 Glazing:

Glass Type	Spacer Type	Interior Lite	Exterior Lite		Glazing	Meth	od	
1-1/4" IG	Aluminum box	1/4" Tempered	1/4" Tempered	Marine glazing g	0	into	a	rubber

Location	Logation Quantity		Daylight Opening			
Location	Quantity	millimeters	inches	Glass Bite		
Fixed panel	1	965 x 1778	38 x 70	0.625"		
Active panel	1	965 x 1778	38 x 70	0.625"		



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5.0 Test Specimen Description: (Continued)

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weep slot	1/2" wide x 1/4" high	6	6" on center from the ends and 16" on center thereafter cut through the sub sill face through each leg of the sill track
Open cell foam baffle	1/2" wide by 1/4" high	6	Exterior face of the sill track; corresponding to each weep slot

5.7 Hardware:

Description	Quantity	Location
Roller assembly	2	Inserted into each end of the bottom rail and secured to each stile and the bottom rail using two #1/4" -20 x 1" machine screws
Stainless steel track cover	1	Snapped over the interior roller track
Adams-Rite lock set	1	Located at the midpoint of the stile

5.8 Reinforcement: No reinforcement was utilized.

5.9 Screen Construction: No screen was utilized.

6.0 Installation:

The specimen was installed into a 2x6 aluminum test frame, which was secured into a 2x10 fir test buck using 3/4" wood stops located at the interior and exterior. The exterior perimeter of the door was sealed with sealant.

Location	Anchor Description	Anchor Location	
Jambs	#10 x 3" Phillips flat head sheet metal screw	3" on center from the head and	
		sill and 16" on center thereafter	
		through each jamb channel	
Head	#10 x 3" Phillips flat head sheet	3" on center from the ends and	
	metal screw	12" on center thereafter though	
	metal screw	each channel of the head	



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7.0 Test Results: The temperature during testing was 25°C (77°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
	Initiate motion:		
	57.9 N (13 lbf)	135.0 N (30 lbf) max.	
Operating Force,	Maintain motion:		
per ASTM E 2068	31.1 N (7 lbf)	90.0 N (20 lbf) max.	
	Lock:		
	17.8 N (4 lbf)	100.0 N (22.5 lbf) max.	
Air Leakage,			
Infiltration per ASTM E 283	0.86 L/s/m ²	1.5 L/s/m ²	
at 75 Pa (1.57 psf)	(0.17 cfm/ft ²)	$(0.3 \text{ cfm/ft}^2) \text{ max.}$	1
Water Penetration,			
per ASTM E 547			
at 180 Pa (2.92 psf)	Pass	No leakage	2
Uniform Load Deflection,			
per ASTM E 330			
taken on the fixed interlock stile			
+720 Pa (+15.04 psf)	3.6 mm (0.14")	Report Only	
-720 Pa (-15.04 psf)	3.3 mm (0.13")	Report Only	4, 5, 6
Uniform Load Structural,			
per ASTM E 330			
taken on the fixed interlock stile	0.0 (0.0411)	E 0 (0.04II)	
+1080 Pa (+22.56 psf)	0.2 mm (0.01")	7.8 mm (0.31") max.	
-1080 Pa (-22.56 psf)	0.2 mm (0.01")	7.8 mm (0.31") max.	5, 6
Forced Entry Resistance,			
per ASTM F 842,	D	NT .	
Type: A - Grade: 10	Pass	No entry	
Deglazing,			
per ASTM E 987			
Operating direction,	D	Maskagaatata	
320 N (70 lbf)	Pass	Meets as stated	
Remaining direction,	Daga	Masta as atata d	
230 N (50 lbf)	Pass	Meets as stated	



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7.0 Test Results: (Continued)

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: Without insect screen.

Note 3: The client opted to start at a pressure higher than the minimum required. Test results are reported under Optional Performance.

Note 4: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

Note 5: Loads were held for 10 seconds.

Note 6: Tape and film were not used to seal against air leakage during structural testing.

The service life of this report will expire on the stated Test Record Retention End Date, at which time such materials as drawings, data sheets, samples of test specimens, copies of this report, and any other pertinent project documentation, shall be discarded without notice.

If test specimen contains glazing, no conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, Inc.

John S. Mayfield	Shawn G. Collins, P.E.
Project Manager	Laboratory Support Engineer

JM:sc/bu

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Alteration Addendum (1)

Appendix-B: Drawings (17)

This report produced from controlled document template ATI 00438, issued 04/26/11.



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Appendix A

Alteration Addendum

Alteration #1: Date - 4/27/11

Cause for alteration - Water infiltration over the interior sill leg

Remedial action taken - Cut additional weep slots into the sill track and

inserted open cell foam baffles



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Appendix B

Drawings

PRL Max sliding door "CANCUN"

Bill of Materia	I				
key number	PRL part number	manufacturer	description	qty required	size
1	2196	PRL proprietary	top frame rail	2	W
2	2204	PRL proprietary	sash top rail	2	(W/2)- 5 1/16"
3	BSP-01	PRL proprietary	sub sill	1	w
4	2205	PRL proprietary	bottom sash rails	2	(W/2)- 5 1/16"
5	2259	PRL proprietary	sill track	1	W- 1 3/8"
6	2195	PRL proprietary	frame jamb	4	H- 2 1/16"
7	2201	PRL proprietary	sash lock/jamb stile	2	H-1 9/16"
8	2237	PRL proprietary	sash interlock stiles	2	H-1 9/16"
9	2197	PRL proprietary	frame jamb closer	2	H-1"
10	2249	PRL proprietary	non operating leaf support shoe	2	6"
11	29027045BKQB	Amesbury	fin seal 0.290 x 0.270 base (typ horizontally)	8	W
11	29027045BKQB	Amesbury	fin seal 0.290 x 0.270 base (typ vertically)	12	Н
12	BL-4288	bandlock	glazing channel	2	(4*H)+(2*W)
13	shg-47	Hagg supply	stainless steel track guide cover (0.031)	1	W- 1 3/8"
21		PRL proprietary	roller wheels	2	as drawn
23	generic		open cell foam	6	2"
			insulated glass width	2	(W/2)- 3 3/4"
			insulated glass height	2	H-7 5/16"



Adams Rite 4189 lock set with 4195 interior handle

Test sample complies with these details.
Deviations are noted.

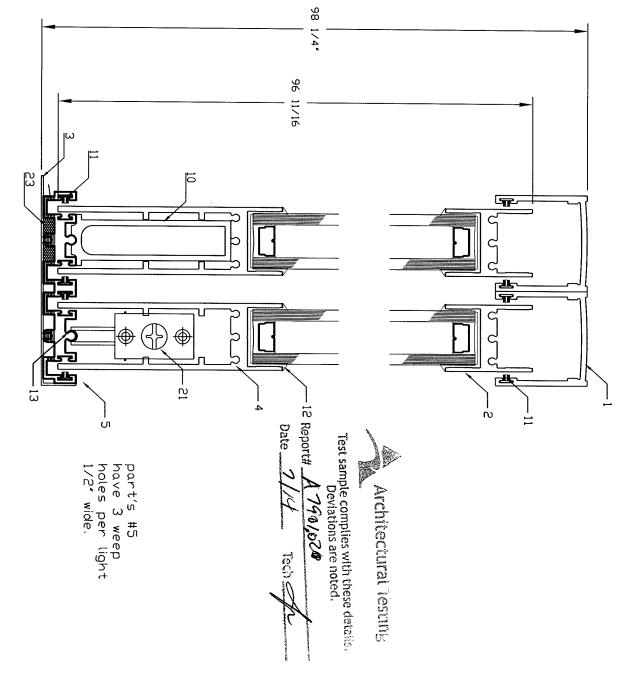
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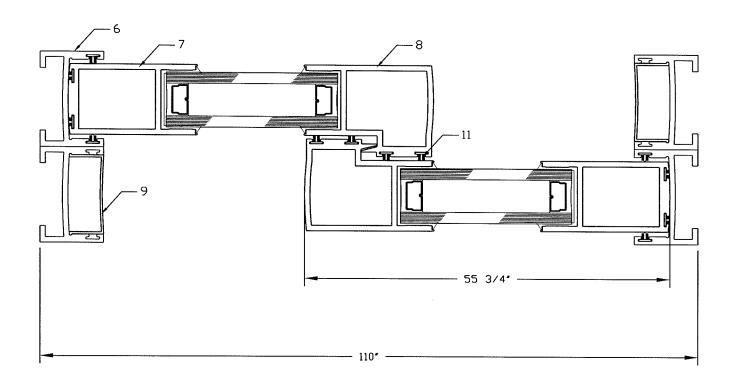
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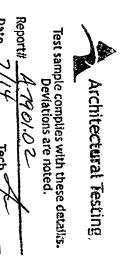
max sliding door "CANCUN"



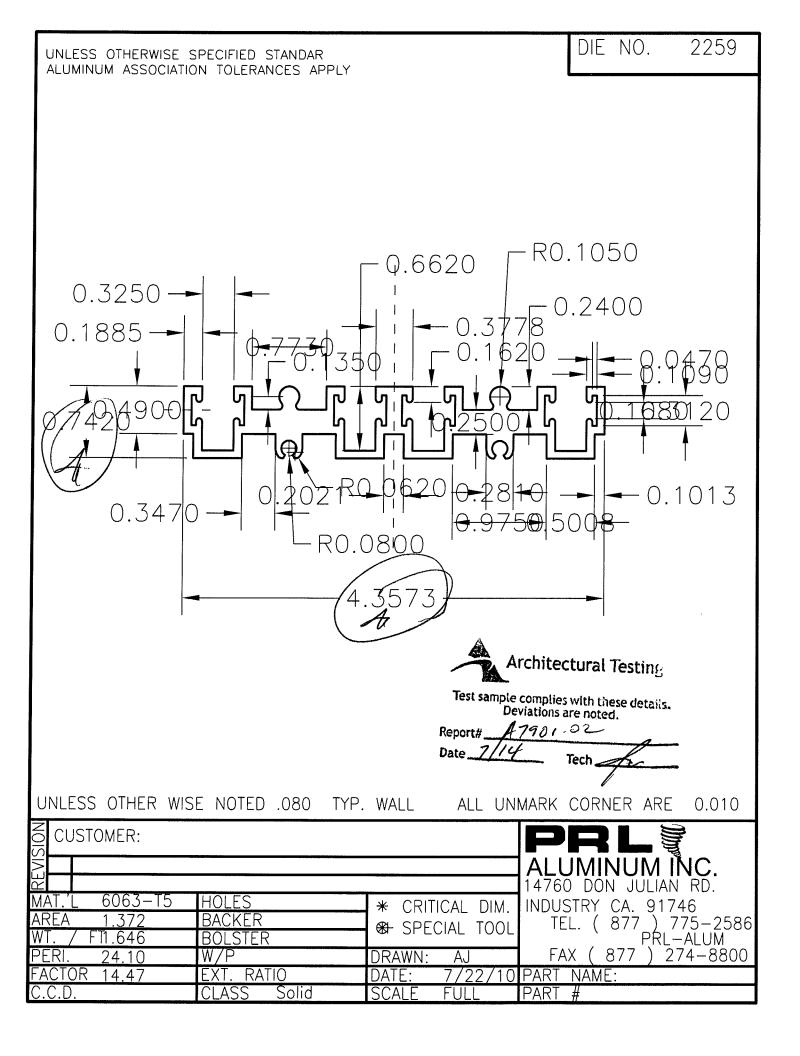


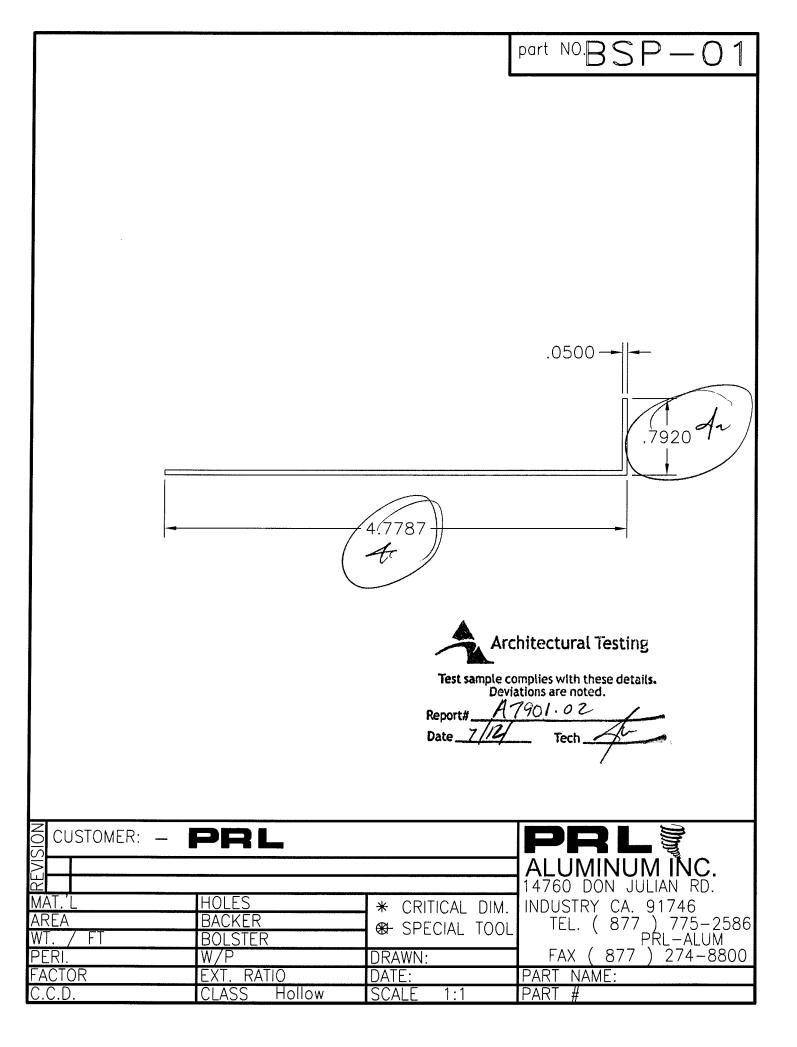
max sliding door "CANCUN"

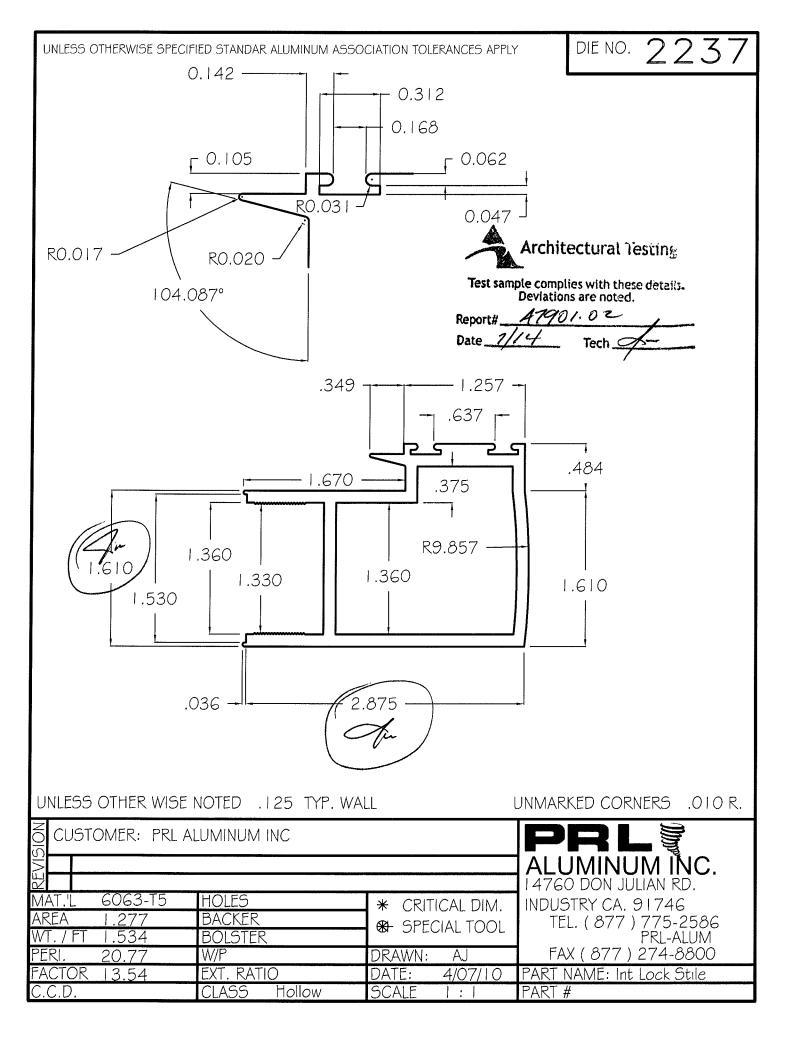


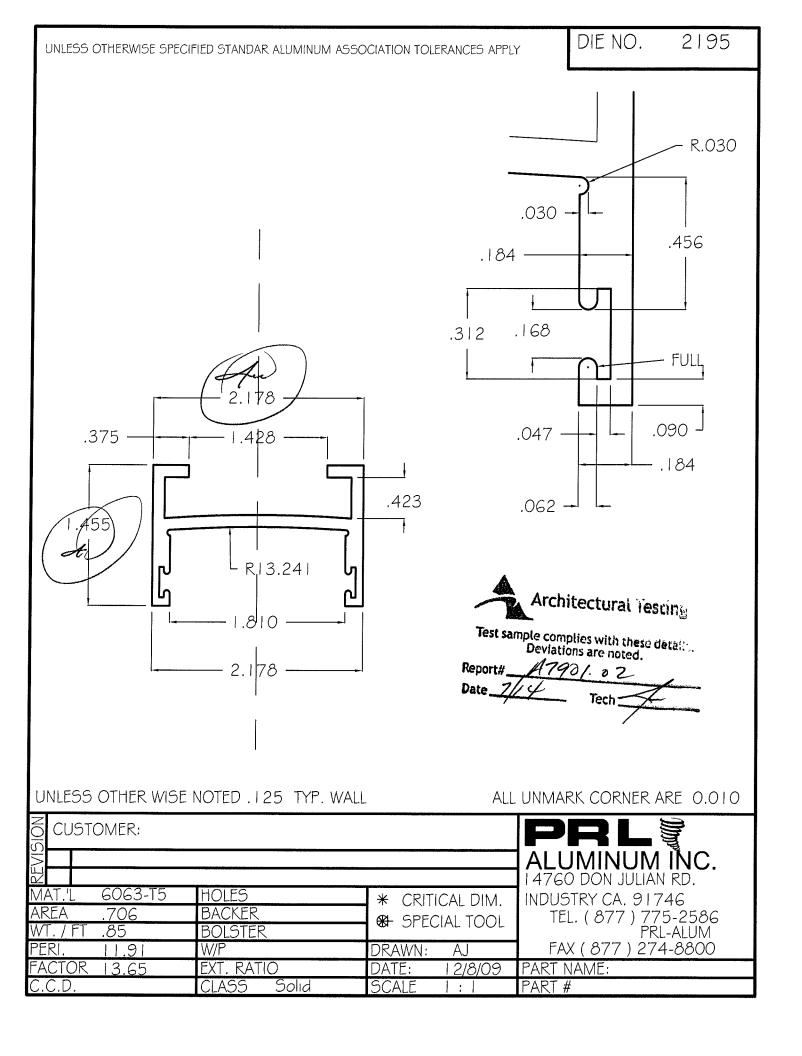


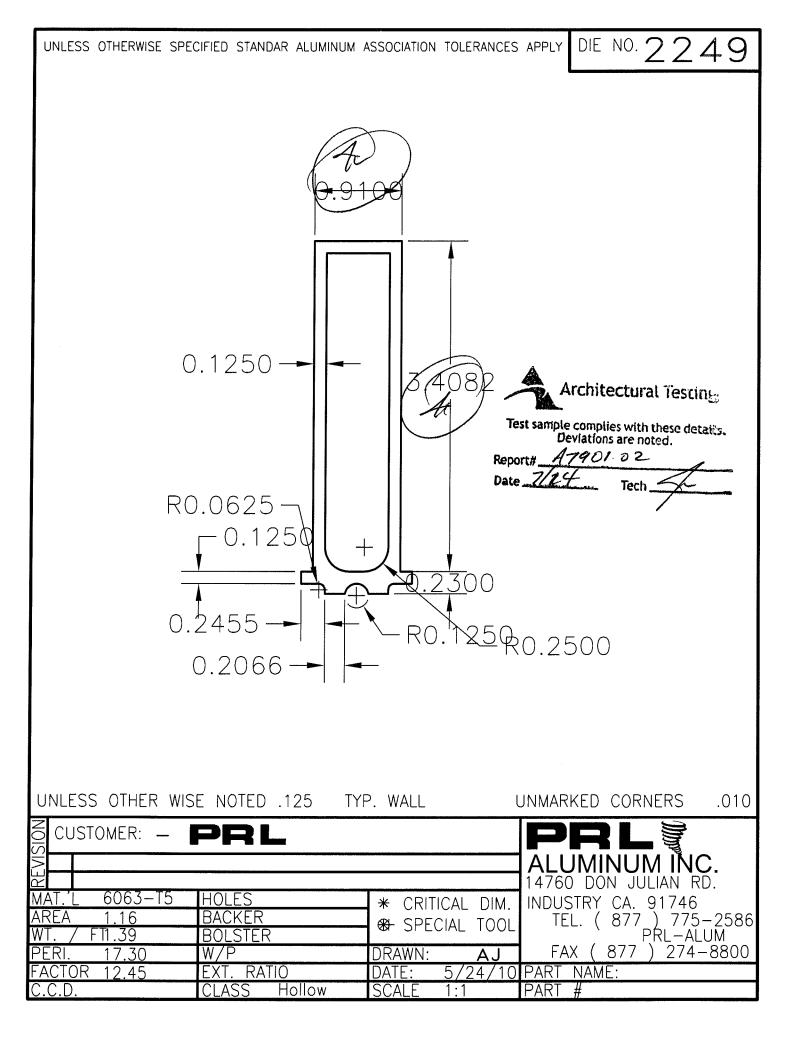


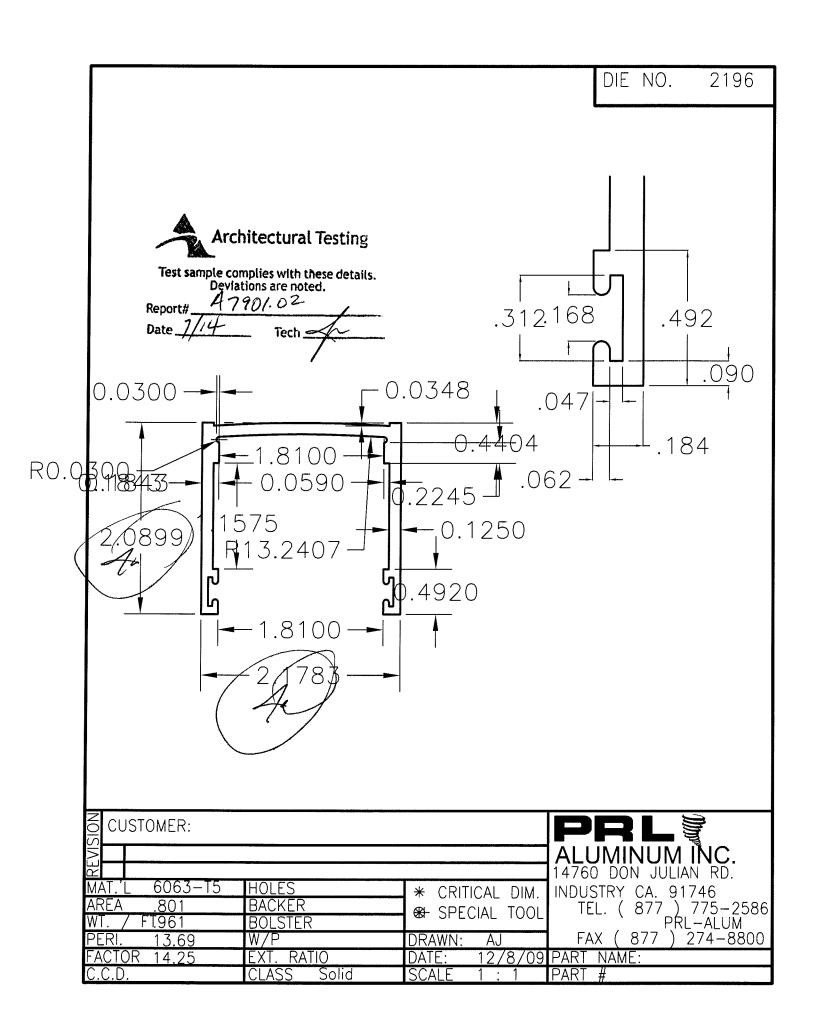


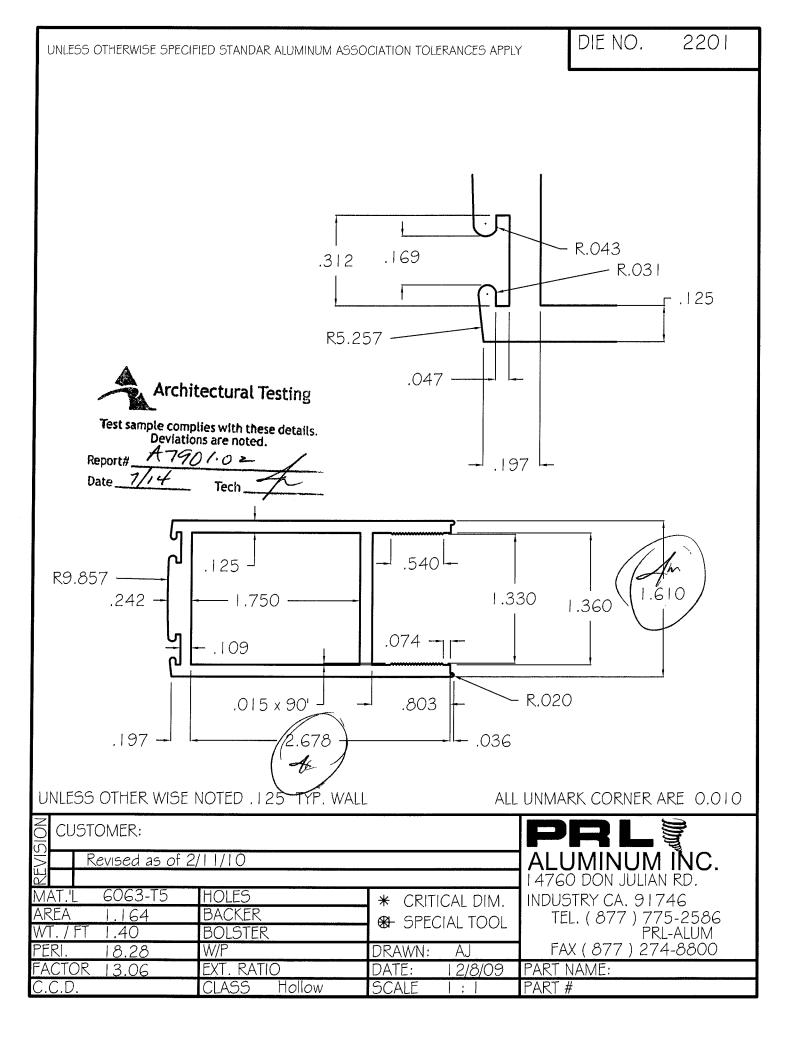


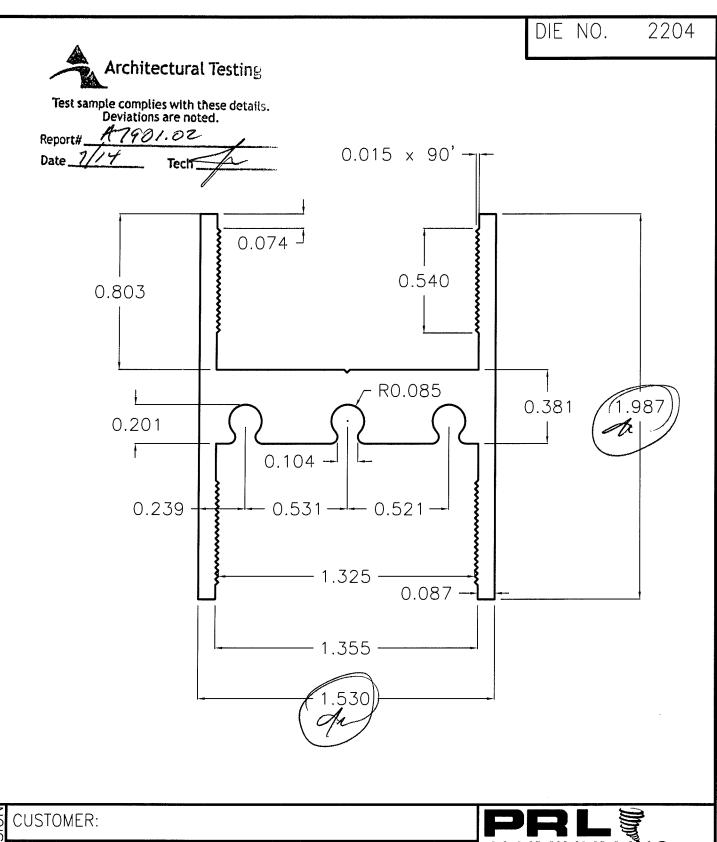


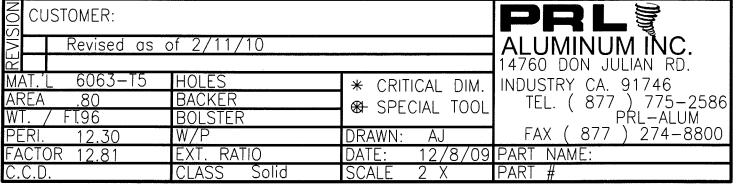


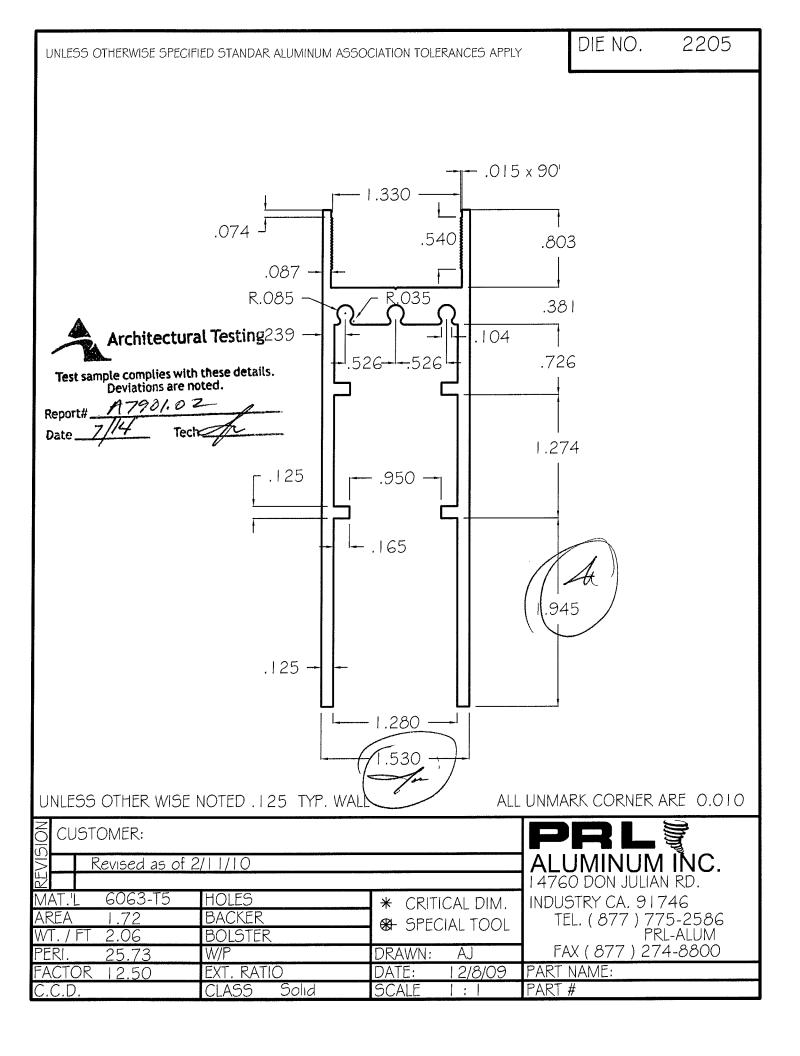






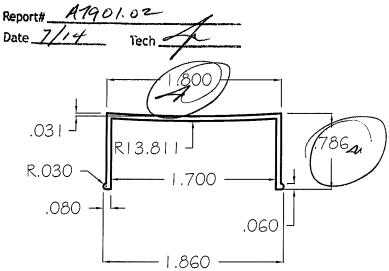








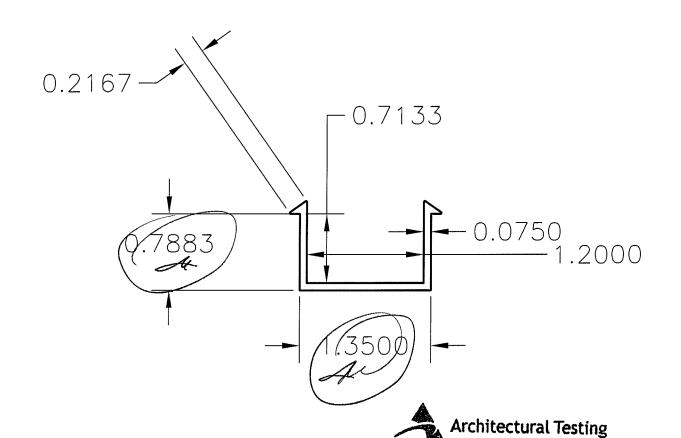
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MAT.'L 60	63-T5 HOLES	* CRITICAL DIM.	INDUSTRY CA. 91746
AREA .16	BACKER BACKER	SPECIAL TOOL	TEL. (877) 775-2586
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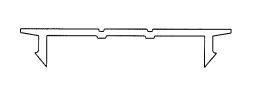
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MAT.'L XX	HOLES	* CRITICAL DIM.	14760 DON JULIAN RD. INDUSTRY CA. 91746
AREA XX	BACKER	SPECIAL TOOL	TEL. (877) 775–2586 PRL-ALUM
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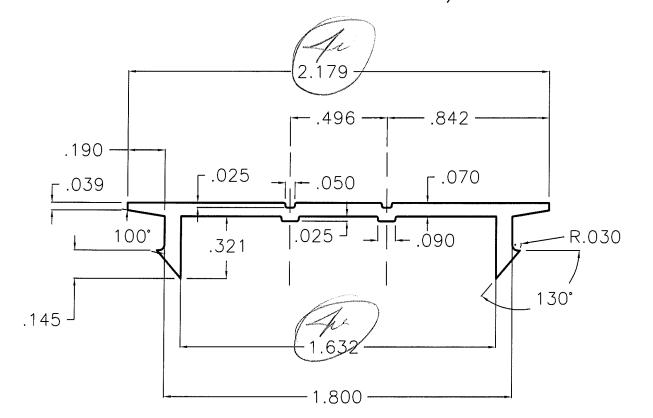


Architectural Testing

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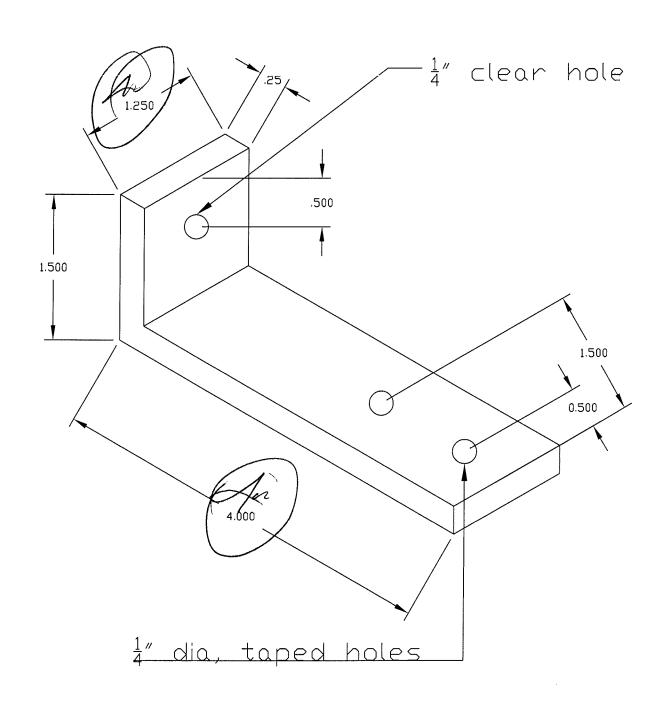


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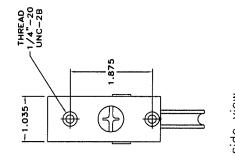


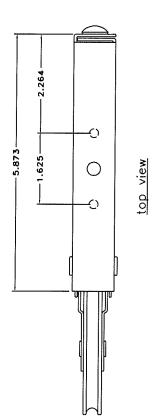
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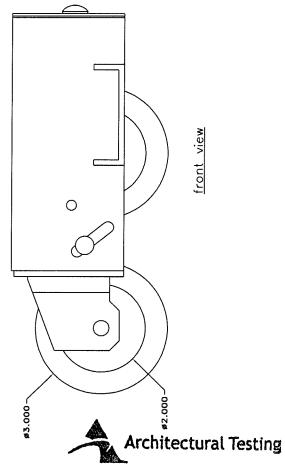
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INDUSTRY CA. 91746

TEL. (877) 775-2586 FAX (877) 274-8800







Test sample complies with these details. Deviations are noted.

Report# 17901.02

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