



TEST REPORT

Report No.: F5723.01-301-47

Rendered to:

CR LAURENCE CO., INC.
Vernon, California

PRODUCT TYPE: Double Side Hinged Door
SERIES/MODEL: Entice

Title	Summary of Results
Design Pressure	±1200 Pa (±25.06 psf)
Air Infiltration	3.2 L/s/m ² (0.63 cfm/ft ²)
Water Penetration Resistance Test Pressure	0 Pa (0.00 psf)
Uniform Load Structural Test Pressure	±1800 Pa (±37.59 psf)

Reference must be made to Report No. F5723.01-301-47, dated 03/08/16 for complete test specimen description and detailed test results.

1.0 Report Issued To: CR Laurence Co., Inc.
2100 East 38th Street
Vernon, California 90058

2.0 Test Laboratory: Architectural Testing, Inc., an Intertek company ("Intertek-ATI")
4 Rancho Circle
Lake Forest, California 92630
949-460-9600

3.0 Project Summary:

3.1 Product Type: Double Side Hinged Door

3.2 Series/Model: Entice

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test methods. Test specimen description and results are reported herein.

3.4 Test Dates: 02/16/16 – 02/17/16

3.5 Test Record Retention End Date: All test records for this report will be retained until February 17, 2020.

3.6 Test Location: CR Laurence Co., Inc. test facility in Vernon, California. Calibration of test equipment was performed by Intertek-ATI in accordance with AAMA 205-01 "In-Plant Testing Guidelines for Manufacturers and Independent Laboratories".

3.7 Test Specimen Source: The test specimen was provided by the client. Representative samples of the test specimen will not be retained by Intertek-ATI, customer opted to hold on to specimen.

3.8 Drawing Reference: The test specimen drawings were not reviewed by Intertek-ATI because of customer holding on to specimen. Drawings showing specimen construction are located in Appendix C.

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Garrett Osterode	CR Laurence Co., Inc.
Ron Wooten	CR Laurence Co., Inc.
Jarod Hardman	Intertek-ATI

4.0 Test Methods:

ASTM E283-04 (2012), 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, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E331-00 (2009), Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference

ASTM E2068-00 (2008), Standard Test Method for Determination of Operating Force of Sliding Windows and Doors

AAMA 925-13, Specification for Determining the Vertical Loading Resistance of Side-Hinged Doors

AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 6.28 m ² (67.65 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall size	2199	86-9/16	2858	112-1/2
Left leaf	1067	42	2816	110-7/8
Right leaf	1067	42	2816	110-7/8

5.0 Test Specimen Description: (Continued)

5.2 Frame Construction:

Frame Member	Material	Description
Sill	Aluminum	Saddle threshold, Part No. 1GTH700ML.
Head	Aluminum	Header clad, Part No. 1GDCHCLAD.
Jamb	Aluminum	Wall jamb mount, Part No. 1GWJM300.
Jamb	Aluminum	Ultra narrow vertical stile, Part. No. 1GVS.
Jamb	Aluminum	Ultra narrow vertical stile cladding, Part No. 1GVSCCLAD.

	Joinery Type	Detail
All corners	Coped	Secured with shear clips and cap screws and CRL 335 clear silicone applied to the corner joints

5.3 Leaf Construction:

Leaf Member	Material	Description
Top and bottom rail	Aluminum	1" IG DRS 4" rail housing, Part No. 1GSDR4SDU.
Top and bottom rail	Aluminum	Door rail glass clamp, Part No. 1GDRGCDU.
Vertical stiles	Aluminum	Ultra narrow vertical stile, Part. No. 1GVS.
Vertical stiles	Aluminum	Ultra narrow vertical stile cladding, Part No. 1GVSCCLAD.
Vertical stiles	Aluminum	Stile glass attachment strip, Part No. 1GVSGC100DU.

	Joinery Type	Detail
All corners	Flush	Secured with shear clips and cap screws.

5.4 Reinforcement: No reinforcement was utilized.

5.0 Test Specimen Description: (Continued)

5.5 Weatherstripping:

Description	Quantity	Location
0.187 x 0.310 Pile with fin	1 row	Inserted into channel of top and bottom rails of leaf at exterior leg.
0.270 x 0.290 Pile with fin	1 row	Inserted into channel of outside perimeter of leaf stiles.
Amesbury foam filled bulb gasket	2 rows	Inserted into the interior and exterior side of the glazing pocket in channels of the door rail glass clamp.

5.6 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
1" IG	Aluminum spacer	1/4" clear tempered	1/4" clear tempered	Channel glazed system with set screws at jambs and a roll in gasket at the head and sill interior and exterior (Part No. NP238)

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Panel	2	1006 x 2607	39-5/8 x 102-5/8	1/2"

5.7 Drainage: No drainage was utilized.

5.0 Test Specimen Description: (Continued)

5.8 Hardware:

Description	Quantity	Location
Riksen 180 Top Closure	2	Secured to the frame head and leaf top rail at each jamb with four 1/4" – 20 x 1-1/4" fasteners
CRL Bottom Mortised Pivot	2	Secured to the frame sill and leaf bottom rail at each jamb with four 1/4" – 20 x 1-1/4" fasteners.
CRL-Blumcraft "J" Exterior Top Securing Deadbolt Handle	2	Secured to glass of each leaf and to the top rail of each leaf with two 5/16" – 24 x 1-1/2" fasteners.
Zinc Lock	2	Inserted into the bottom rail of each leaf and secured with two 1/4" – 20 x 2-1/2" fasteners.

5.9 Screen Construction: No screen was utilized.

6.0 Installation:

The specimen was installed into a Pine wood buck. The rough opening allowed for a 1/4" shim space at the head and jambs. The exterior and interior perimeter of the door was sealed with silicone sealant.

Location	Anchor Description	Anchor Location
Through frame	#10 x 2" Phillips pan head screw	9" on center spacing.

7.0 Test Results: The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Operating Force, per ASTM E2068	Force to Latch: 4.4 N (1.0 lbf) Deadbolt: 40.0 N (9.0 lbf)	Report only Report only	
Air Leakage, per ASTM E283 at 75 Pa (1.57 psf)	3.15 L/s/m ² (0.63 cfm/ft ²)	5.0 L/s/m ² (1.0 cfm/ft ²) max.	
Water Penetration, per ASTM E331 at 0 Pa (0.00 psf)	Pass	No leakage	1
Uniform Load Deflection, per ASTM E330 Deflections taken at lock stile +1200 Pa (+25.06 psf) -1200 Pa (-25.06 psf)	20.1 mm (0.81") 20.1 mm (0.81")	Report only	2, 3
Uniform Load Structural, per ASTM E330 Permanent sets taken at lock stile +1800 Pa (+37.59 psf) -1800 Pa (-37.59 psf)	0.3 mm (0.01") 0.3 mm (0.01")	Report only	2, 3
Forced Entry Resistance, per AAMA 1304, 1330 N (300 lbf) point load	Pass	No entry	
Vertical Loading Resistance, per AAMA 925 Pre-load – 200 N (45 lbf) Vertical deflection Vertical permanent set	0.0 mm (0.00") 0.0 mm (0.00")	Report only	
Vertical Loading Resistance, per AAMA 925 Test load – 1112 N (250 lbf) Vertical deflection Vertical permanent set	6.4 mm (0.25") 3.3 mm (0.13")	Report only	

7.0 Test Results: (Continued)

Title of Test	Results	Allowed	Note
Vertical Loading Resistance, per AAMA 925 Diagonal deformation	3.3 mm (0.13")	Report only	
Vertical Loading Resistance, per AAMA 925 Force to latch	Force to Latch: 4.4 N (1.0 lbf) Deadbolt: 40.0 N (9.0 lbf)	Report only Report only	

General Note: All testing was performed in accordance with the referenced standard(s).

Note 1: Side hinged door configuration tested to Limited Water performance.

Note 2: Loads were held for 10 seconds.

Note 3: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

Intertek-ATI will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period.

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 tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI.

For ARCHITECTURAL TESTING, INC.:



Digitally Signed by: Jarod Hardman

Jarod S. Hardman
Laboratory Manager

JSH:ss

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

Appendix A: Location of air seal (1)

Appendix B: Installation Instructions (35)

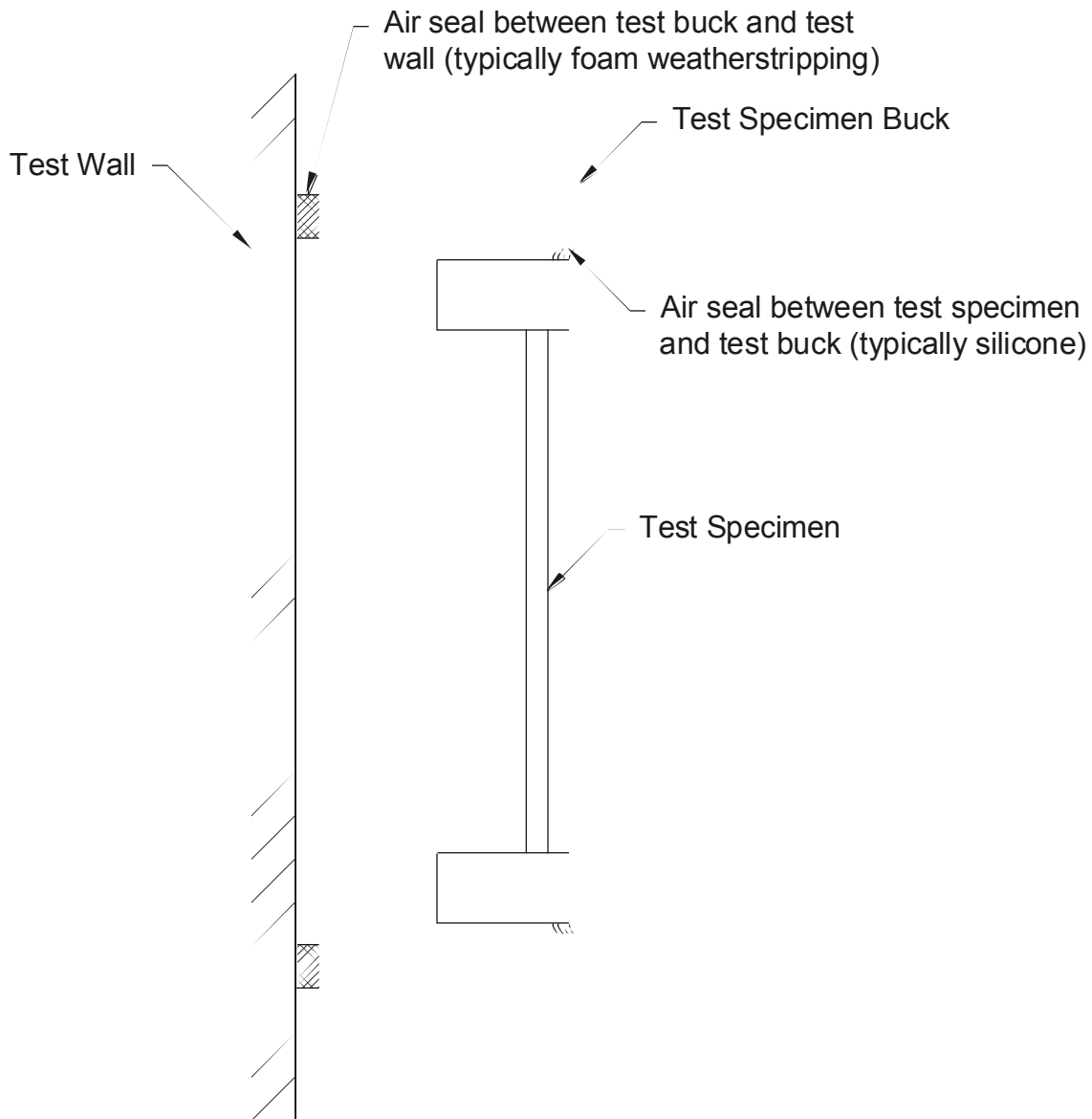
Appendix C: Drawings (16)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	03/08/16	N/A	Original report issue.

Appendix A

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.



Appendix C

Drawings

LINE	QTY	DESCRIPTION	UNIT
C1		ULTRA NARROW OFFSET PIVOT VERTICAL STILE	
C2		SIDEITE RAIL EXT. TYP. AND BOTTOM ANCHOR	
C3		DOOR RAIL GLASS CLAMP	
C4		SHOULDER THRESHOLD HOLD OFFSET PIVOT	
C5		1" R. DRS. 4" RAIL HOUSING	
C6		VERTICAL STILE CLAMPING GASKET	
C7		WALL JAMB MOUNT	
C8		ULTRA NARROW VERTICAL TILE CLADDING	
C9		4" DOOR RAIL CLADDING	
C10		STILE GLASS ATTACHMENT STRIP	
C11			
C12			
W1		AMESBURY FOAM GASKET W/ T SLOT MOUNT	
W2			
W3		INACTIVE DOOR LEAF FILLER	
W4		VERTICAL STILE FIN	
W5		DOOR RAIL FIN	
W6		INSULATED 20% X 20% X 20% (PERIOD)	
W7		ALUMINUM SPACER	
W8		DUAL GLAZED	
G1		SETTING BLOCK	
G2		TPR BLOCKS-1/4" X 1/2" X 2"	
G3			
H1		3/4" DIAMETER BRASS BUSHING (FOR DOOR)	
H2		CRL-BULMCRAFT "J" EXTERIOR TOP SECURING DEBOBUL HANDLE	
H3			
H4		SHEAR CLIP (FOR CLADDING SPACE)	
H5		ZINC LOCK 1 9/16"	
H6		CRL-335 SILICONE SEALANT	
H7		ZINC LOCK 1 9/16"	
H8		RIKSEN 180 TOP CLOSURE	
H9		CRL BOTTOM MORTISED PIVOT	
S1		108X58MM5022 1/2" X 1/2" HEX HEAD SELF TAPPING	
S2		108X122MM5022 1/2" X 1/2" HEX HEAD SELF TAPPING	
S3		35056A123 1/4" X 2" FLANGE HEAD SCREWS	
S4		108X122MM5022 1/2" X 1/2" SOCKET SET SCREW 1B-B SS	
S5		14201125MM6022 ZINC LOCK 1 9/16"	

TEST REQUIREMENTS

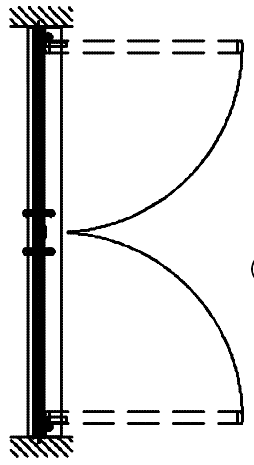
AIR INFILTRATION:
 < .06 CFM/SQ.FT. @ 1.57 PSF

LIMITED WATER:
 SEE AAMA SFM-1-14 Note 5-11

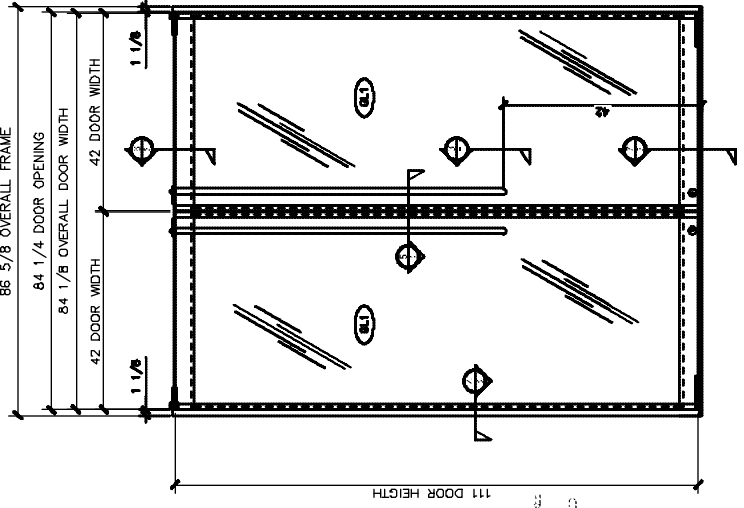
STRUCTURAL DEFLECTION:
 20PSF (0.2% permanent set)

STRUCTURAL OVERLOAD:
 30 PSF (0.2% permanent set)

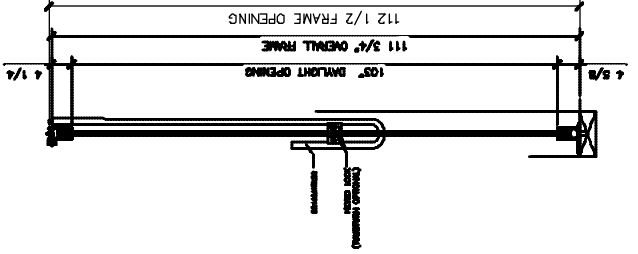
TESTING SEQUENCE:
 Static Air
 Limited Water
 Structural Deflection
 Structural Overload



1 PLAN
 ARCH. REF: 1-1-0



2 INTERIOR ELEVATION
 ARCH. REF: 1-1-0



3 SECTION
 ARCH. REF: 1-1-0

<u>ITEM</u>		<u>PT. NO.</u>	<u>PART DESCRIPTION</u>		
C1	FRAME COMPONENTS	1GVSDU	ULTRA NARROW OFFSET PIVOT VERTICAL STILE		
C2		1G200SA	SIDELITE RAIL EXT. TOP AND BOTTOM ANCHOR		
C3		1GDRGCDU	DOOR RAIL GLASS CLAMP		
C4		1GTH700DU	SADDLE THRESH HOLD OFFSET PIVOT		
C5		1GSDR4SDU	1' IG DRS 4" RAIL HOUSING		
C6		1GVSGCG	VERTICAL STILE CLAMPING GASKET		
C7		1GWJM300DU	WALL JAMB MOUNT		
C8		DH029			
C10		1GVSCLAD	ULTRA NARROW VERTICAL TILE CLADDING		
C11		1GDR4SCLAD	4" DOOR RAIL CLADDING		
C12		1GVSGC100DU	STILE GLASS ATTACHMENT STRIP		
W1	WTHR. STRIP	WH3420012	AMESBURY FOAM GASKET W/ T SLOT MOUNT		
W2					
W3		1GVSG	INACTIVE DOOR LEAF FILLER		
W4		29027045BKGB	VERTICAL STILE FIN		
W5		31018745BKGBT	DOOR RAIL FIN		
G1	GLASS		.025 X .050 X .025 INSULATED GLASS (TEMPERED) ALUMINUM SPACER DUAL GLAZED		
G2		SB592	SETTING BLOCK		
G3		TPR563	TPR BLOCKS-1/4" X 1/2" X 2"		
H1	HARDWARE	EF38C	3/8" CLOSED CELL FOAM BACKER (FOR CLADDING)		
H2		494534	CRL-BLUMCRAFT "J" EXTERIOR TOP SECURING DEADBOLT HANDLE		
H3		DB160J4RKBS			
H4		1GSJCL1PAL	SHEAR CLIP (FOR CLADDING SPACE)		
H5		CRL33S	CRL 33S SILICONE SEALANT		
H6		L777S	ZINC LOCK 1 9/16"		
H7		R180SC	RIKSEN 180 TOP CLOSURE		
H8		CRL9075BS	CRL BOTTOM MORTISED PIVOT		
S1		106X58HWSZP	#10-16X5/8" U/S HEX HEAD SELF TAPPING		
S2		1016X112HWSZP	#10-16X1 1/2 U/S HEX HEAD SELF TAPPING		
S3		95526A125	1/4' X 2" FLANGE HEAD SCREWS		
S4		1014X14SETSCREWSSNP	#10-24 X 1 1/4" SOCKET SET SCREW 18-8 SS		
S5		1420X112SHCFMSBOX	ZINC LOCK 1 9/16"		

REVISIONS



C.R. LAURENCE CO.
ARCHITECTURAL PRODUCTS
2100 E. 38TH STREET, LOS ANGELES, CA 90008

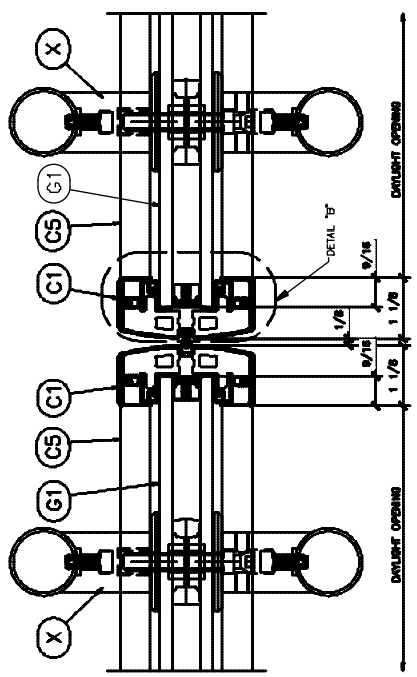
ENTICE DOUBLE DOOR
AIR/WATER/STRUCTURAL
PTC477007

Job Name:

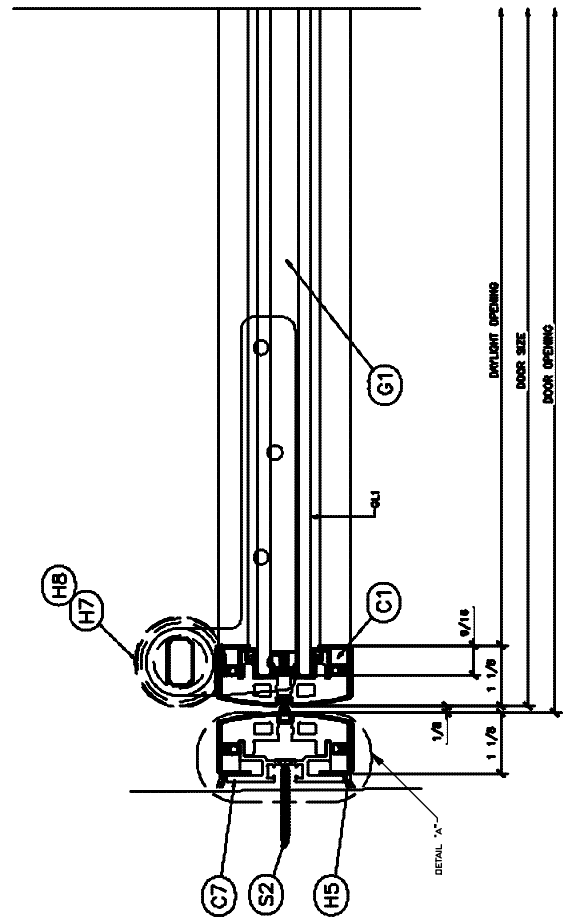
Checking Contractor:

DATE: 6/2/2015
DRAWN BY: GDO
CHECKED BY: XX
SCALE: AS SHOWN
JOB #: 1085663-1-1

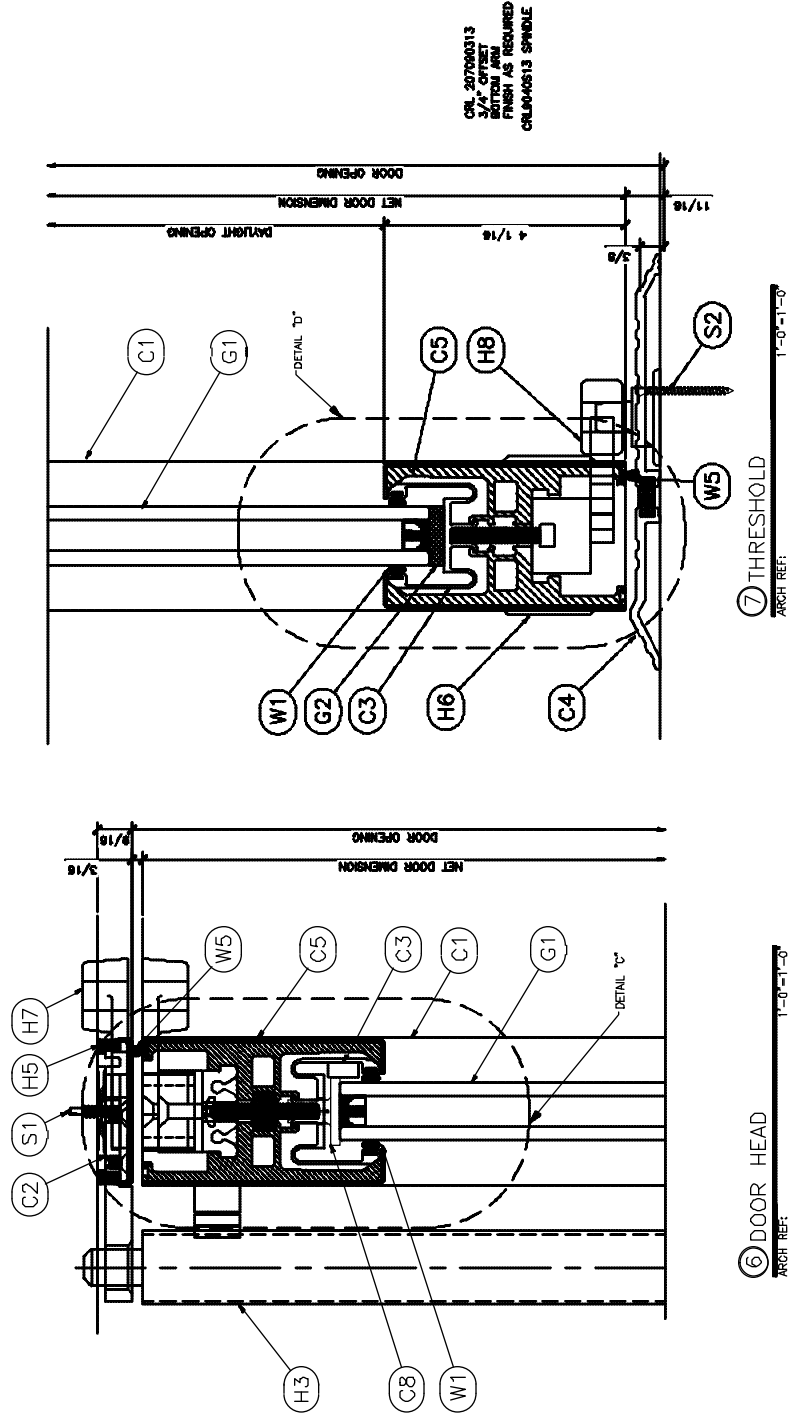
SHT 2 of 6



⑤ MEETING STILES
ARCH REF: 1-0-11-0



④ SIDELITE JAMB AT WALL
ARCH REF: 1-0-11-0



REVISIONS



CRL
C.R. LAURENCE CO.
ARCHITECTURAL PRODUCTS

2100 E. 28TH STREET, LOS ANGELES, CA 90008
www.crl.com

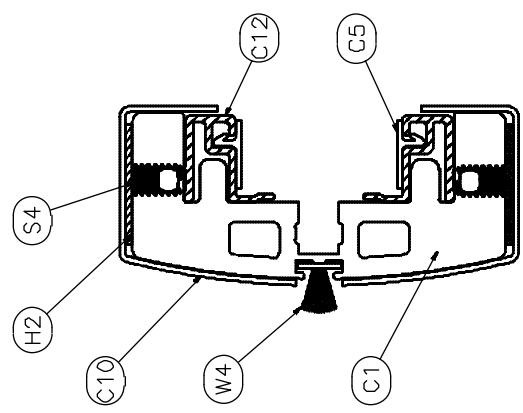
ENTICE DOUBLE DOOR
AIR/WATER/STRUCTURAL
PTC477007

Job Name:

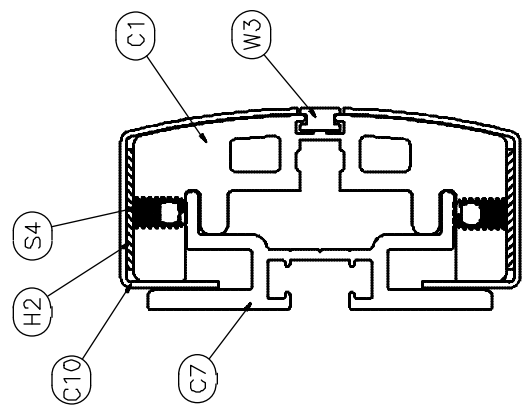
Checking Contractor:

DATE: 6/2/2015
DRAWN BY: GDO
CHECKED BY: XX
SCALE: AS SHOWN
JOB #: 1085663-1-1

SHT 4 of 6



Ⓑ VERTICAL DOOR MULLION
ARCH REF: N.T.S.



Ⓐ JAMB DETAIL
ARCH REF: N.T.S.

REVISIONS



GRL
C.R. LAURENCE CO.
ARCHITECTURAL PRODUCTS

1100 E. 38TH Street, Los Angeles, CA 90008
www.grlusa.com

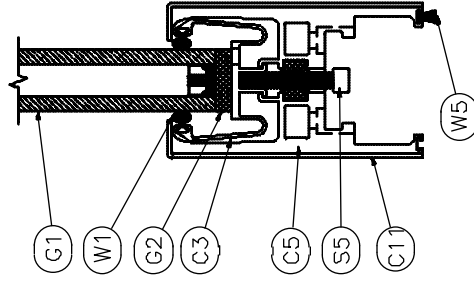
ENTICE DOUBLE DOOR
AIR/WATER/STRUCTURAL
PTC477007

Job Name:

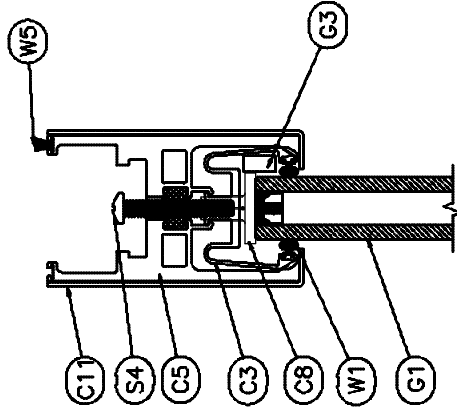
Glazing Contractor:

DATE: 8/2/2015
DRAWN BY: GDO
CHECKED BY: XX
SCALE: AS SHOWN
JOB #: 1085863-1-1

SHT 5 of 6



Ⓓ BTM DOOR RAIL
ARCH REF: _____ N.T.S.



Ⓒ TOP DOOR RAIL
ARCH REF: _____ N.T.S.