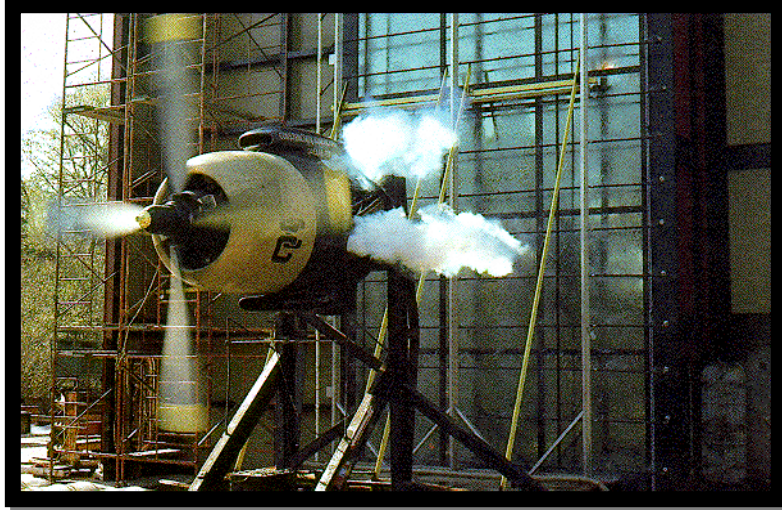


CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*



TEST REPORT:

AAMA 501-05 Performance Test Report

Series: 7000 - 2 1/2" x 7" Curtain Wall

Product/Type: Pressure Plate Stick Curtain Wall

REPORT #CCLI-15-018

Test Date:

Prepared for:



ARCHITECTURAL METALS, INC.

Atlas Architectural Metals, Inc.

9210 Emmott Rd Office: 713-869-9551

Houston, TX 77040

Fax: 713-869-4254

S-UNITED, INC.

A Quality Control Company



TABLE OF CONTENTS

1. PROJECT DATA.....1

2. MOCK-UP DESCRIPTION.....1

3. TEST EQUIPMENT.....1

4. TESTING ALLOWABLES2

5. TESTING SEQUENCE3

6. TESTING and RESULTS3

7. DISCLAIMER7

APPENDIXES

APPENDIX A: 7000 SERIES CURTAIN WALL MOCK-UP DRAWINGS, this report is not complete unless these drawings are stamped and initialed by **CCLI** as illustrated below

Sheet	Detail	Date	Stamped as Illustrated
E1	Elevation	2/03/15	Construction Consulting Laboratory International 1601 Luna Road Carrollton, Texas 75006 (972) 242-0556
BOM1	Bill of Materials	2/03/15	
D1	Jamb at Intermediate Anchor	2/03/15	
D2	Jamb at Sill/ Head Anchor	2/03/15	
D3 & D4	Intermediate Mullion	2/03/15	
D5 & D6	Horizontal	2/03/15	
D7 & D8	Head Horizontal	2/03/15	
D9 & D10	Sill Horizontal	2/03/15	

APPENDIX B: DEFLECTION LOCATIONS

APPENDIX C: PHOTOGRAPHS



1. PROJECT DATA

1.1. REPORT ISSUED

Atlas Architectural Metals, Inc.
 9210 Emmott Rd Office: 713-869-9551
 Houston, TX 77040 Fax: 713-869-4254

1.2. TEST LABORATORY

Construction Consulting Laboratory, International
 1601 Luna Road
 Carrollton, Texas 75006

2. PROJECT SUMMARY

2.1. **PROJECT: MANUFACTURERS AAMA 501-05 PERFORMANCE REPORT**

2.2. **PRODUCT TYPE:** Curtain Wall

2.3. **SERIES / MODEL: 7000 CURTAIN WALL**

2.4. **COMPLIANCE STATEMENT:** Results obtained are tested values and were secured by using the designated test methods. The test specimen was tested per AAMA 501-05 "Methods of Tests for Exterior Walls and met the performance requirements for a +/- 50.0 psf Design Pressure.

2.5. **Test Dates:** January 29, 2015

2.6. **Test Location:** Construction Consulting Laboratory, International in Carrollton, Texas

2.7. **Test Sample Source:** The specimen was manufactured and installed by the Arani Consulting Group for Atlas at CCLI. Reports, drawings, and project photographs will be retained by **CCLI** for a minimum period of four (4) years from the test completion date.

2.8. **Drawing Reference:** The specimen drawings have been reviewed by CCLI and are representative of the specimen installed and tested. If observed, deviations shall be listed on the appended drawings.

2.9. **Observers:**

Witnessed By	(Representative)	
Atlas Architectural Metals, Inc.	Cesar Hernandez	Dennis DiCesare
Arani Consulting Group	Shawn Arani	
CCLI	Brandon Newman	Wesley Wilson

3. TEST SPECIFICATIONS / METHODS

AAMA 501-05 Methods of Tests for Exterior Walls



4. MOCK-UP DESCRIPTION

Product Type:	Aluminum Curtain Wall Product Drawings, Appendix A,		
Series Model:	7000 2 1/2" x 7" Curtain Wall	Test Method: AAMA 501-05 (+/-50.0 psf)	
Frame Size	Width:	Height:	Square Footage
	12'-1 3/4" (145.75")	27'-9" (333")	337.05Ft ²

WEEP ARRANGEMENT: 5/16" weep hole at 1/4 points of exterior pressure plate at intermediate horizontals and 5/16" weep hole at 1/4 points underside of exterior horizontal face caps.

GLASS: Vision Glass is 1" overall thickness sealed insulating glass constructed of 1/4" clear tempered glass at exterior, 1/2" airspace, and 1/4" clear tempered glass at interior. Spandrel glass is 1/4" clear tempered glass

CURTAIN WALL GLAZING: Glass is zone dammed exterior glazed with pressure plate mechanically fastened to the verticals and horizontals with #14-14 x 1" HWH screws Part# 9707 spaced on 2" and 5" from each end and on 10" centers. Part# 9700 EPDM Pre-set gasket at the interior and exterior face of glass. PVC thermal isolator part # 9701 gasket at the interior face of pressure plate in-line with the frame fastener race. Aluminum glazing adaptor at the interior of spandrel glass sealed to frame members with Tremco Dymonic FC sealant.

SEALANT: Curtain wall was perimeter sealed with backer rod and Tremco Dymonic FC Polyurethane sealant. Foam rubber joint plug bed in and covered with Tremco Dymonic FC silicone applied at the ends of the horizontal-to-vertical connections. Splice at jamb and intermediate vertical members sealed with bond breaker tape at the exterior face and Tremco Dymonic FC. Aluminum head and jamb perimeter adaptor bed in Tremco Dymonic sealant and attached to frame members with a #10 x 1" screws spaced 2" from each end and on 24" centers. T and F anchors set in a bed of Tremco Dymonic sealant. Top of shear blocks sealed to vertical mullions prior to horizontal installation.

CURTAIN WALL ANCHORAGE: Aluminum T- Anchors at intermediate mullions and F anchors at jamb mullions attached to chamber steel. T-Anchors attached with one (1) 1/2" x 3" thread cutter bolt with flat and lock washer at each side of intermediate mullion. F-Anchors attached with one (1) 1/2" x 3" thread cutter bolt with flat and lock washer and one (1) 1/4" drill flex to counter rotation. Vertical mullions inserted between two (2) 4" x 6" x 5/16" thick steel angles and are through bolted with one 3/4"-11 x 4-1/2" bolt with two (2) flat washers and hex nut. At jambs a slotted steel back-up plate is attached to one (1) 4" x 6" x 5/16" thick steel angle with one (1) 3/4" -10 x 1 1/2" Grade 5 HH bolt and two flat washers.

OTHER FEATURES: Horizontal-to-vertical members are shear block connected with extruded aluminum shear block attached to vertical members with three (3) #12 x 2" Slotted HWHSMS screws and to horizontals with two (2) #12 x 1/2" PPHSMS screws.



5. TEST EQUIPMENT

- 5.1. Test chamber consisted of structural steel beams, columns, and bulkheads and was accessible through a bulkhead door.
- 5.2. Pressure differentials were created with reversible pumps for positive/negative loading.
- 5.3. Pressure differentials between the specimen interior and the atmosphere were measured with manometers.
- 5.4. Air infiltration was measured with a Meriam laminar flow element and inclined manometers. Chamber pressure was measured with a Dwyer inclined manometer.
- 5.5. Water was applied to the specimen from a spray rack equipped with swirl-type nozzles spaced two feet on center in vertical and horizontal directions, which, under controlled pressure, delivered a minimum of five gallons per square foot per hour on the specimen.
- 5.6. Dynamic Winds generated from a Continental 150 aircraft engine
- 5.7. Structural variations were measured with Chicago Dial gauges with maximum movement hands located throughout the test specimen.

6. TESTING ALLOWABLES

- 6.1. **AIR INFILTRATION:** Total amount of air infiltration shall not exceed **.06 CFM** per square foot (psf) of the exterior wall tested.

Mock-Up: $12'-1\frac{3}{4}" \times 27'-9" = 337.05 \text{ Ft}^2 \times .06 \text{ Cfm} = 20.22 \text{ Cfm}$.

- 6.2. **STATIC WATER PENETRATION:** There shall be no uncontrolled water penetration during or at the conclusion of this test at the static pressure of 12 psf.
- 6.3. **DYNAMIC WATER PENETRATION:** There shall be no uncontrolled water penetration during or at the conclusion of this test at the slipstream velocity of 69 mph, equivalent to 12 psf.

Note: "Uncontrolled water" is defined as any water that appears on any normally exposed interior surfaces, that is not contained or drained back to the exterior, or that can cause damage to adjacent materials or finishes. Water contained within drained flashings, gutters, and sills is not considered water leakage. The collection of up to one half ($\frac{1}{2}$) ounce of water (14.8 cc) in a fifteen (15) minute test period on top of any interior stop or stool integral with the wall system shall not be considered water leakage.

- 6.4. **DESIGN LOAD DEFLECTIONS:** There shall be no system failure and deflection of aluminum members at 100% of design load and shall not exceed $L/175$ for spans up to 13'-6".

Vertical Span: (L): $166.5" / 175 = .943"$ / Horizontal Span (L): $45.25"/175 = 0.258"$

- 6.5. **PROOF LOAD RESIDUAL:** The permanent deformation of the aluminum members shall not exceed 0.2% of span at 150% of design load.

Vertical Span (L): $166.5" / 500" = .333"$ / Horizontal Span (L): $45.25 / 500" = 0.09"$



5. TESTING SEQUENCE

As used throughout this report, positive pressure applied to the test specimen is considered to be **inward** acting and negative pressure is considered to be **outward** acting. All location references or comments are as viewing the test specimen from the interior (room side) of the test chamber and wall system.

Positive Design Load = +50 psf Negative Design Load = -50 psf

	Atlas Architectural Metal Series 7000 Curtain Wall	TEST STANDARD
1	Pre Load Positive 25 psf	ASTM E 330-02
2	Static Pressure Air Infiltration Test @ 6.24 psf	ASTM E 283-04
3	Static Pressure Water Penetration Test @ 12 psf	ASTM E 331-00
4	Dynamic Water Penetration @ 68 mph (approximate 12 psf)	AAMA 501.1-05
5	Structural Load by Static Pressure Test @ 50% & 100% of Design Loads	ASTM E 330-02
6	Static Pressure Air Infiltration Test @ 6.24 psf	ASTM E 283-04
7	Static Pressure Water Penetration Test @ 12 psf	ASTM E 331-00
8	Structural Load by Static Pressure Test @ 150% of Design Load	ASTM E 330-02

6. TESTING and RESULTS

6.1 Preload 50% Positive Pressure in accordance with ASTM E 330-02.

Subject the test specimen to a static pressure differential of **25 psf**. This load was maintained for 10 seconds and released. An inspection was made to determine if any failure occurred.

Results: No visible differences were observed within the specimen or test chamber.

6.2 Static Pressure Air Infiltration Test @ 6.24 psf per ASTM E 283-04

The specimen and perimeter sealant joints were completely covered with an impervious 4 mm plastic material and duct tape, thus allowing no movement of air through the specimen. The exterior face of the specimen was subjected to a positive pressure differential of 6.24 psf to obtain a leakage rate for the test chamber. The plastic bag was removed and the total chamber and specimen infiltration was measured. The chamber infiltration was subtracted from the total air infiltration resulting in the infiltration rate of the test specimen, **Photograph 1, Appendix C**.

MAXIMUM ALLOWABLE

Mock-Up: 12'-1³/₄" x 27'-9" = 337.05 Ft² x .06 Cfm = 20.22 Cfm.

Results: 9.37Cfm/ 337.05 = 0.027 Cfm/ft² / **Report:** 0.03 Cfm/ft²



6.3 Static Pressure Water Penetration Test @ 12 psf per ASTM E 331-00

Water was applied to the exterior face of the specimen at a minimum rate of five (5) gallons per square foot per hour of wall area, in such a way as to continuously and completely cover the exterior face of the specimen. Simultaneously, a positive **inward** differential static pressure of **12 psf** was applied against the face. The application of pressure and water was maintained for a period of fifteen (15) minutes, with observers inside the chamber checking for water penetration, **Photograph 2, Appendix C.**

12.0 Psf Results: Passed with no water penetration observed.

6.4 Dynamic Water Penetration @ 68 mph Slipstream Velocity per AAMA 501.1-05

Water was applied to the exterior face of the specimen at a minimum rate of five (5) gallons per square foot per hour of wall area, in such a way as to completely and continuously cover the face of the specimen. Simultaneously, the wall was subjected to sufficient airflow from an aircraft engine with a two (2) blade propeller, approximately 6'-0" in diameter, approximately 10' in front of the specimen. The application of airflow and water was maintained for a period of fifteen (15) minutes, with observers inside the chamber checking for water penetration, **Photograph 3, Appendix C.**

Results: Passed with no water penetration observed.

6.5 Uniform Structural Load @ 50% & 100% of Design Loads per ASTM E 330-02

Dial indicators were installed to measure deflection and residuals at ends and midspan of typical horizontal and vertical members, **Dial Indicator Location Diagram, Appendix B.**

Test: With the specimen set in a positive mode, all indicators were set at zero. A positive pressure of **25 psf (inward)** equal to 50% of the design load was applied and held for ten (10) seconds, then released. The indicators were read and the data was recorded. At the conclusion of the 50% test load, a positive pressure of **50 psf (inward)** equal to 100% of the design load was applied and held for ten (10) seconds, then released. The indicators were read and the data was recorded.

Test: With the specimen set in a negative mode, all indicators were set at zero. A negative pressure of **-25 psf (outward)** equal to 50% of the design load was applied and held for ten (10) seconds, then released. The indicators were read and the data was recorded. At the conclusion of the 50% test load, a negative pressure of **-50 psf (outward)** equal to 100% of the design load was applied and held for ten (10) seconds, then released. The indicators were read and the data was recorded.

Results: Passed with all Positive and Negative net deflections below the allowable.



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015
Page 6 of 7

50% & 100% DESIGN STRUCTURAL DEFLECTION TABLE													
	+25.0 Psf			+50.0 Psf			-25.0 Psf			-50.0 Psf			
Ind.	Total	Set	Net	Total	Set	Net	Total	Set	Net	Total	Set	Net	Allowable
1	.10	.00		.06	.00		.11	.02		.16	.04		
2	.37	.02	.31	.64	.02	.59	.38	.01	.30	.82	.05	.71	.943
3	.02	.00		.04	.00		.08	.00		.06	.02		
4	.00	.00		.01	.00		.00	.00		.01	.00		
5	.01	.00	.01	.02	.00	.01	.05	.00	.05	.08	.00	.06	.258
6	.00	.00		.00	.00		.01	.00		.02	.00		
7	.01	.00		.00	.00		.00	.00		.01	.00		
8	.02	.00	.01	.02	.00	.01	.01	.00	.01	.03	.00	.02	.258
9	.00	.00		.01	.00		.00	.00		.01	.00		
10	.55	.00		<1.0	.00		.53	.00		.98	.00		

6.1 Repeat Static Pressure Air Infiltration Test @ 6.24 psf per ASTM E 283-04

The exterior face of the specimen was again subjected to a positive pressure differential of 6.24 psf to obtain a Total leakage rate for the specimen and chamber. This value decreased slightly from previous air infiltration test. The reduction in total infiltration was attributed to soaked plywood closures around specimen perimeter

Results: Report: 0.03 Cfm/ft²

6.2 Repeat Static Pressure Water Penetration Test @ 12.0 psf per ASTM E 331-00

Water was again applied to the exterior face of the specimen at a minimum rate of five (5) gallons per square foot per hour of wall area, in such a way as to completely and continuously cover the face of the specimen. Simultaneously, a positive **inward** differential static pressure of **12 psf** was applied against the face. The application of pressure and water was maintained for a period of fifteen (15) minutes, with observers inside the chamber checking for water penetration.

Results: Passed with no water penetration observed.



6.3 Uniform Structural Load @ 150% of Design Loads per ASTM E 330-02

Vertical Span Allowable = .333"

Horizontal Span Allowable = 0.09"

Test: With the specimen set in a positive mode, midspan indicators were set on zero. A positive pressure of **75 psf (inward)** equal to 150% of the design load was applied and held for ten (10) seconds, then released.

Test: With the specimen set in a negative mode, midspan indicators were set on zero. A negative pressure of **75 psf (outward)** equal to 150% of the design load was applied and held for ten (10) seconds, then released. The indicators were read and the data was recorded.

Results: Passed with all Positive and Negative Permanent sets below the allowable.

50% & 150% DESIGN STRUCTURAL DEFLECTION TABLE											
	+50.0 Psf			+75.0 Psf		-50.0 Psf			-75.0 Psf		
Ind.	Total	Set	S-Net	Set	S-Net	Total	Set	S-Net	Set	S-Net	Allowable
1	.06	.00		.02		.16	.04		.05		
2	.64	.02	.02	.08	.06	.82	.05	.02	.10	.05	.333
3	.04	.00		.01		.06	.02		.04		
4	.01	.00		.00		.01	.00		.00		
5	.02	.00	.00	.01	.01	.08	.00	.00	.00	.00	.09
6	.00	.00		.00		.02	.00		.01		
7	.00	.00		.00		.01	.00		.00		
8	.02	.00	.00	.00	.00	.03	.00	.00	.00	.00	.09
9	.01	.00		.00		.01	.00		.00		
10	<1.0	.00		.00		.98	.00		.00		

7. DISCLAIMER

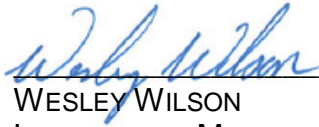
The tested specimen Atlas Architectural Metal Series 7000 Curtain Wall System performed within the specified criteria.

Respectfully submitted,

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL



 JUVENAL AZUA
 SENIOR TEST TECHNICIAN
 SIGNED ELECTRONICALLY



 WESLEY WILSON
 LABORATORY MANAGER
 SIGNED ELECTRONICALLY



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015

APPENDIX A

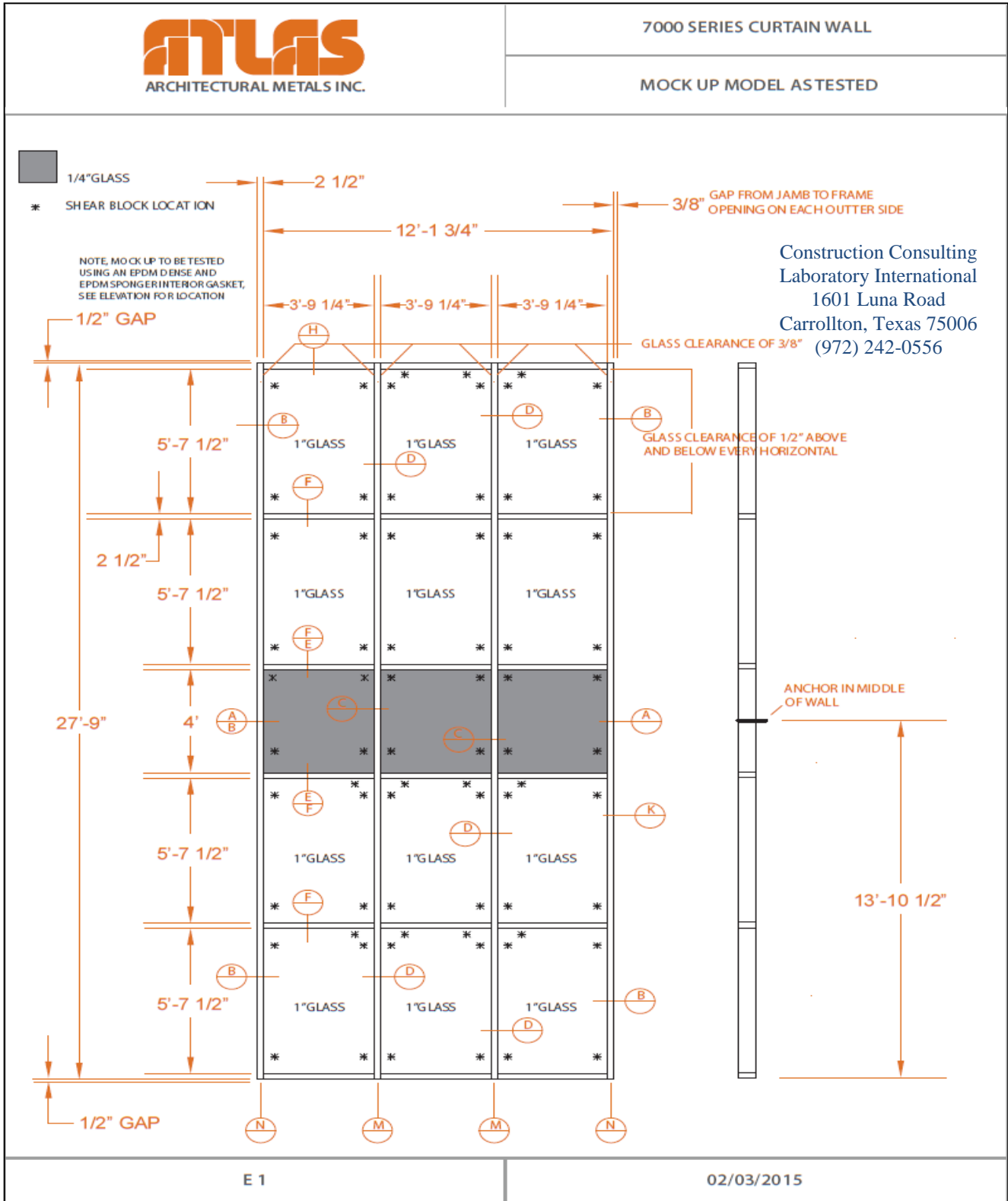
SERIES 7000 CURTAIN WALL MOCK-UP DRAWINGS

Sheet	Detail	Date	Stamped as Illustrated
E1	Elevation	2/03/15	<p>Construction Consulting Laboratory International 1601 Luna Road Carrollton, Texas 75006 (972) 242-0556</p>
BOM1	Bill of Materials	2/03/15	
D1	Jamb at Intermediate Anchor	2/03/15	
D2	Jamb at Sill/ Head Anchor	2/03/15	
D3 & D4	Intermediate Mullion	2/03/15	
D5 & D6	Horizontal	2/03/15	
D7 & D8	Head Horizontal	2/03/15	
D9 & D10	Sill Horizontal	2/03/15	



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
 REPORT #CCLI-15-018


March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

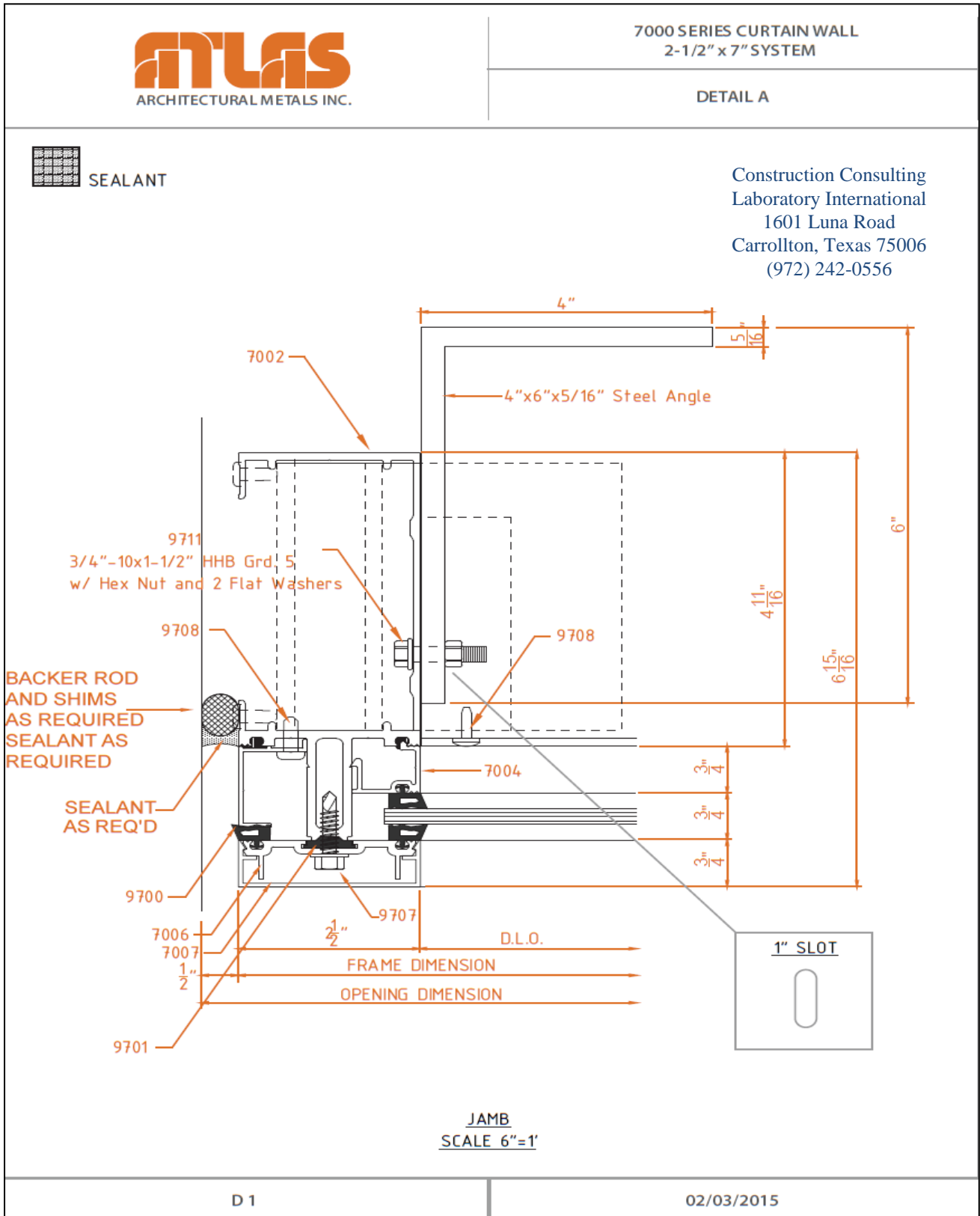
March 4, 2015

 ARCHITECTURAL METALS INC.	7000 SERIES CURTAIN WALL 2-1/2" x 7" SYSTEM
HARDWARE INDEX (BOM)	
ITEM	DESCRIPTION
7000	VERTICAL MULLION
7001	HORIZONTAL MULLION
7002	JAMB/HEAD/SILL
7003	HORIZONTAL POCKET FILLER TRIM
7004	REDUCER 1/4"
7005	PERIMETER ADAPTER
7006	PRESSURE BAR
7007	FACE CAP
7008	CORNER MULLION
7009	CORNER PRESSURE PLATE
7010	90 CORNER ADAPTER
7011	CORNER FACE PLATE
7012	SHEAR BLOCK
7013	MULLION ANCHOR FULL
7014	MULLION ANCHOR HALF
9700	DENSE PRESET GASKET
9701	PRESSURE BAR GASKET
9702	1" SETTING BLOCK
9703	1/4" SETTING BLOCK
9704	1" SPONGE
9705	1/4" SPONGE
9706	12X1-3/4" SLOTTED HEX WASHER SHEET METAL SCREW ZINC
9707	14-14X1 HEX WASHER SELF DRILLING SCREW ZINC
9708	12X1/2 PHILLIPS PAN SHEET METAL SCREW ZINC
9709	10X1 PHILLIPS PAN SHEET METAL SCREW ZINC
9710	3/4"-11X4-1/2" HHB WITH HEX NUT AND 2 FLAT WASHERS
9711	3/4"-10X1-1/2" HHB GRD. 5 WITH HEX NUT AND 2 FLAT WASHERS
9715	CURTAIN WALL JIG
MISC.	
A.	DYNOMIC FC (POLYURETHANE HYBRID SEALANT)
B.	1/2" BACKER ROD
C.	SHIMS
BOM 1	02/03/2015



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

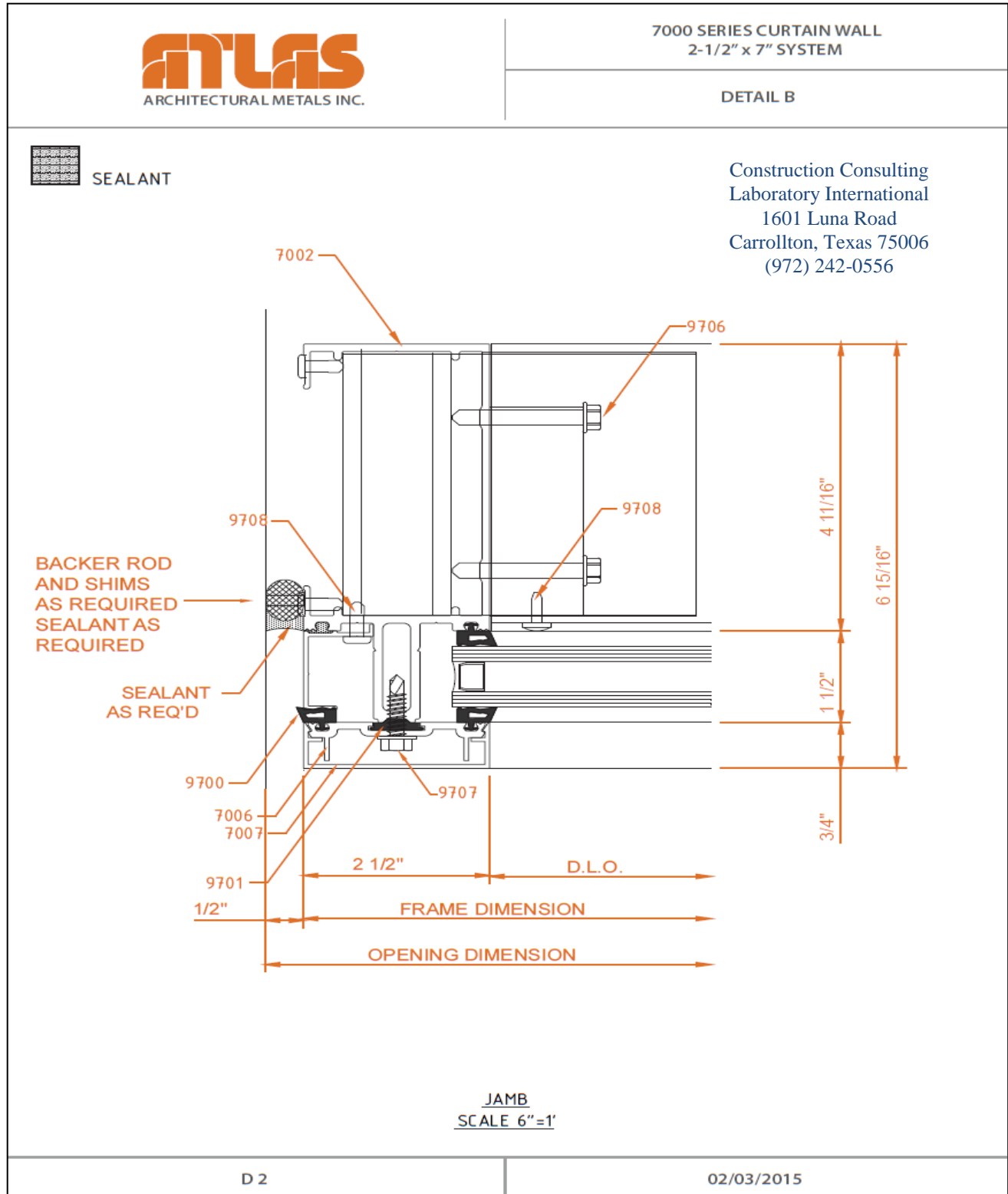
March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015



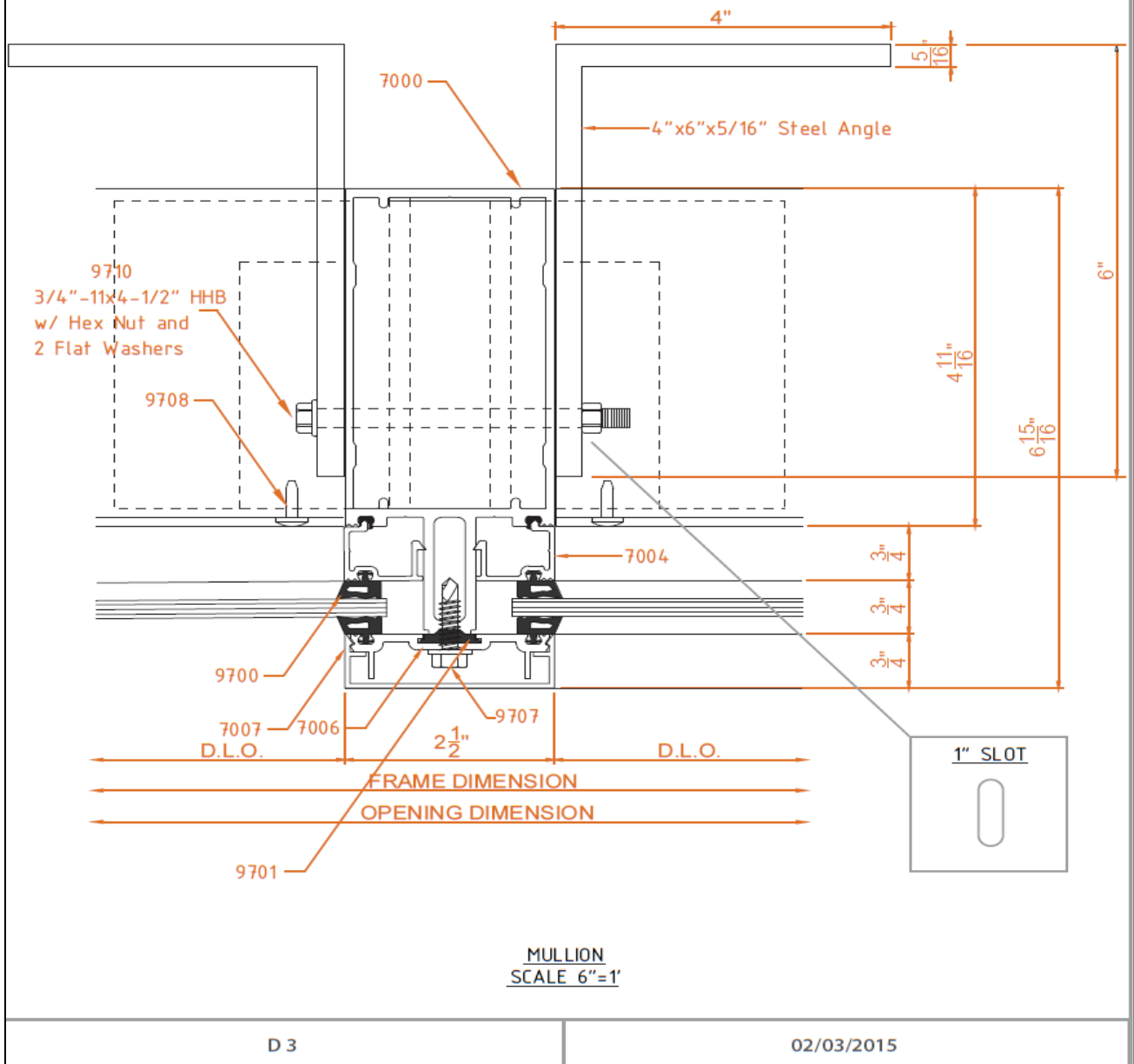
7000 SERIES CURTAIN WALL
2-1/2" x 7" SYSTEM

DETAIL C



SEALANT

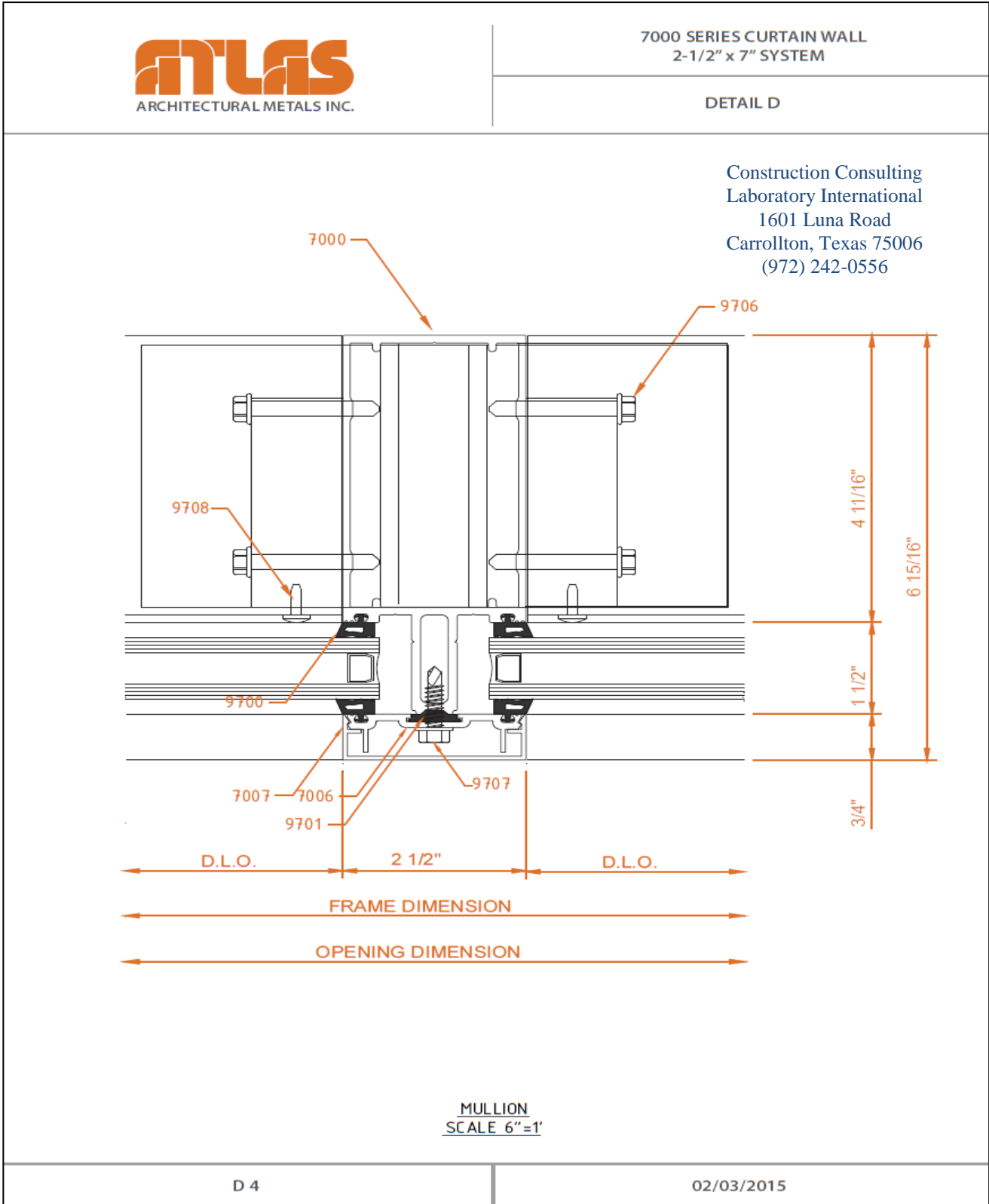
Construction Consulting
Laboratory International
1601 Luna Road
Carrollton, Texas 75006
(972) 242-0556





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

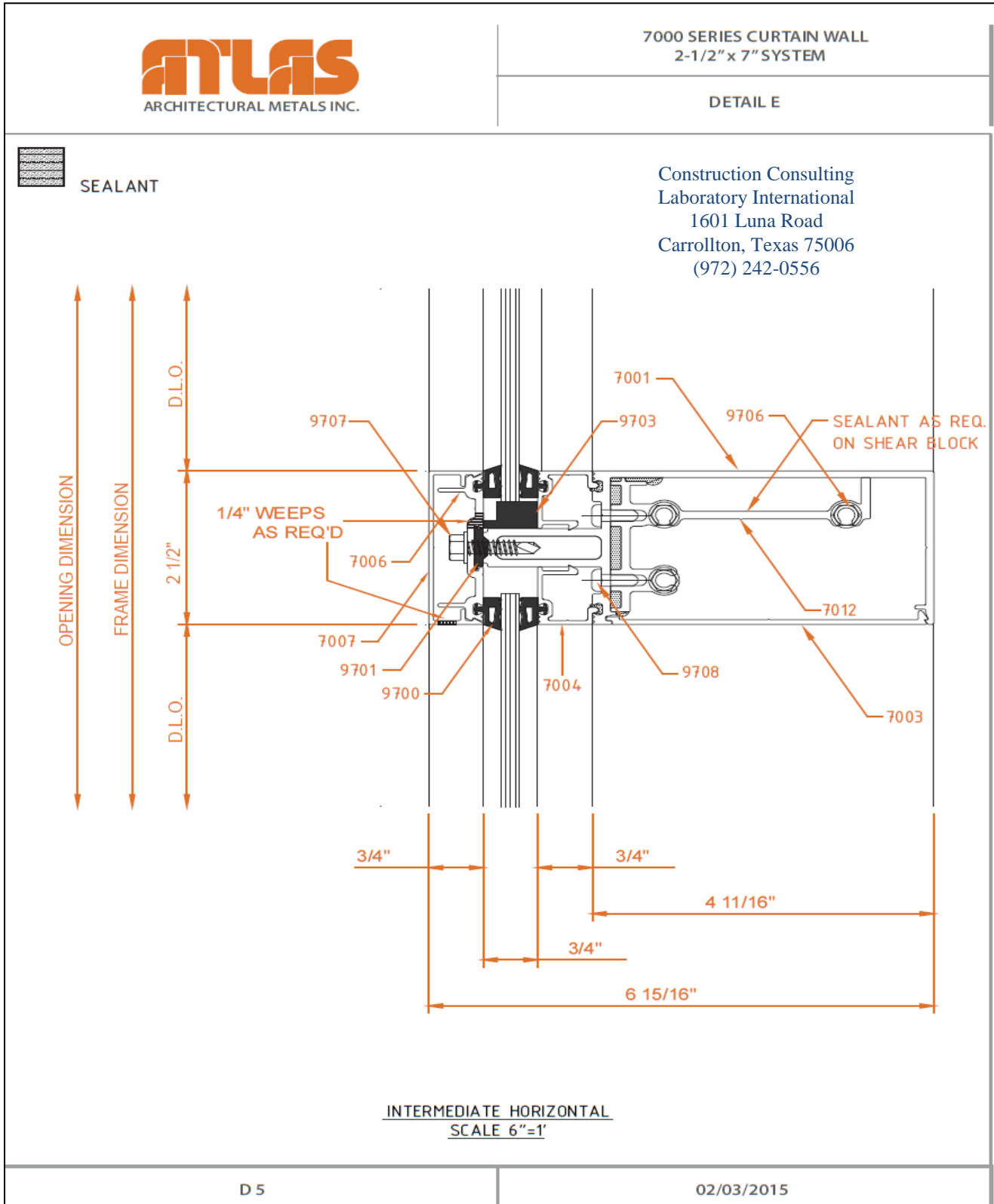
March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

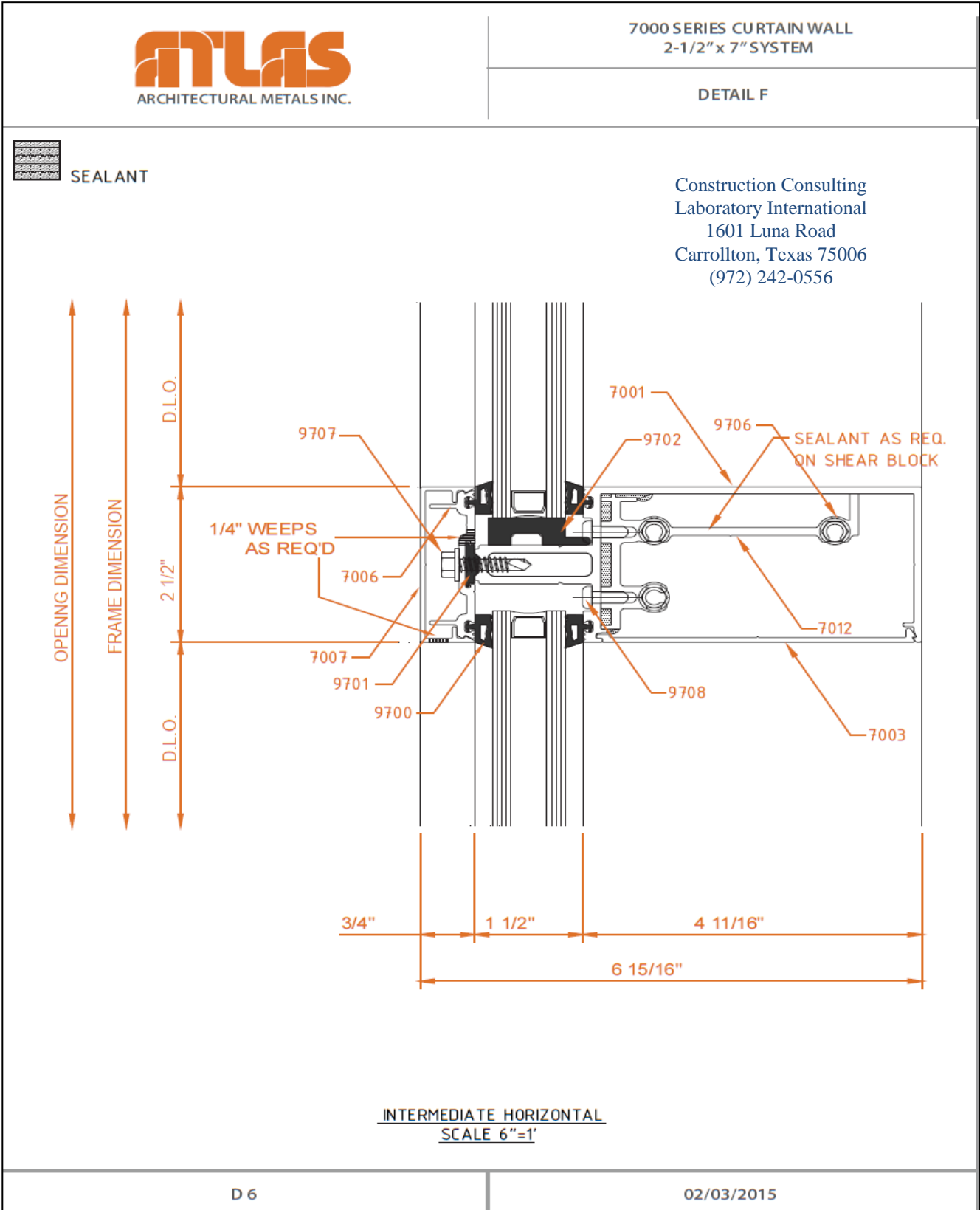
March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
 REPORT #CCLI-15-018

March 4, 2015



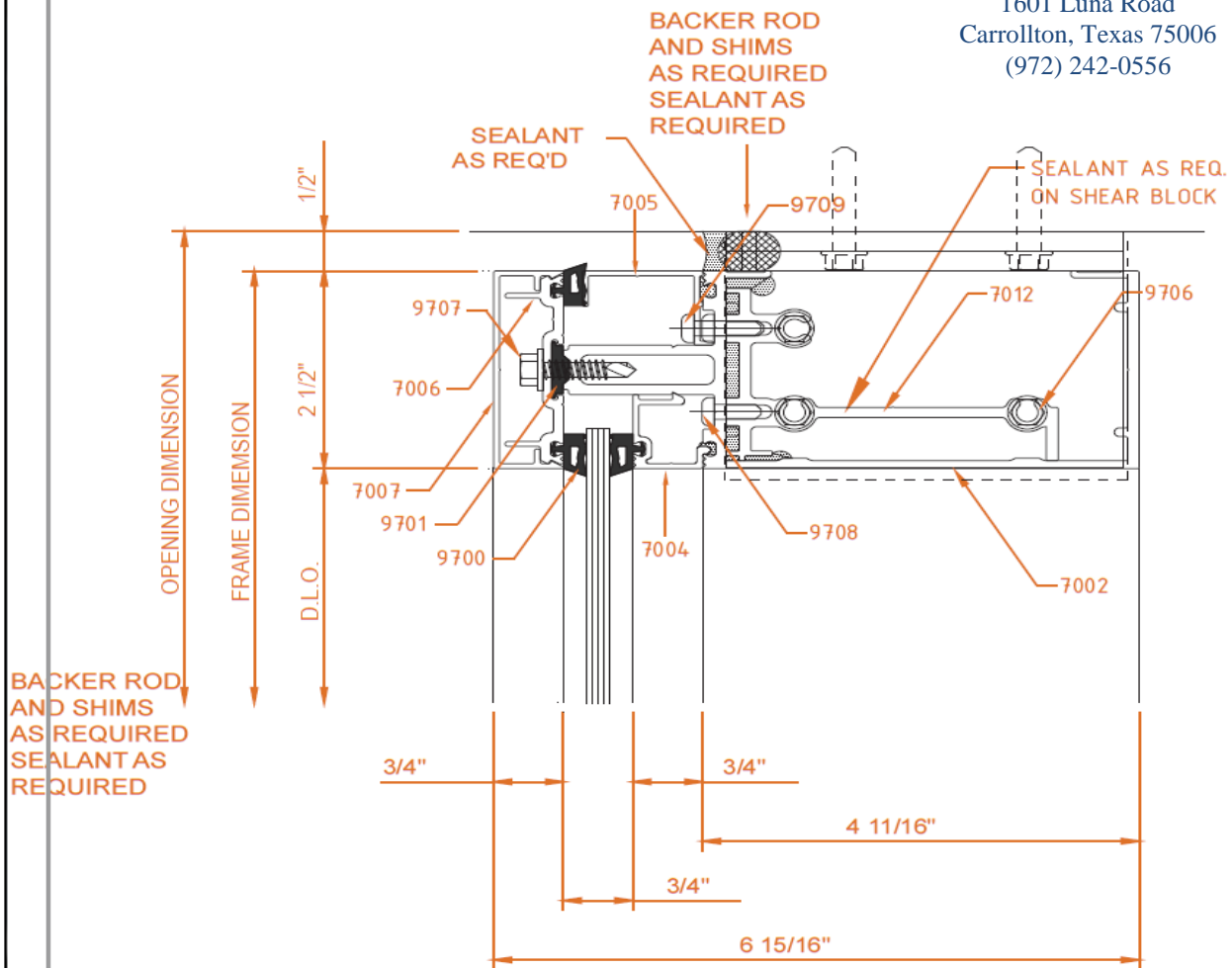
7000 SERIES CURTAIN WALL
 2-1/2" x 7" SYSTEM

DETAIL G



SEALANT

Construction Consulting
 Laboratory International
 1601 Luna Road
 Carrollton, Texas 75006
 (972) 242-0556



D 7

02/03/2015



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
 REPORT #CCLI-15-018

March 4, 2015



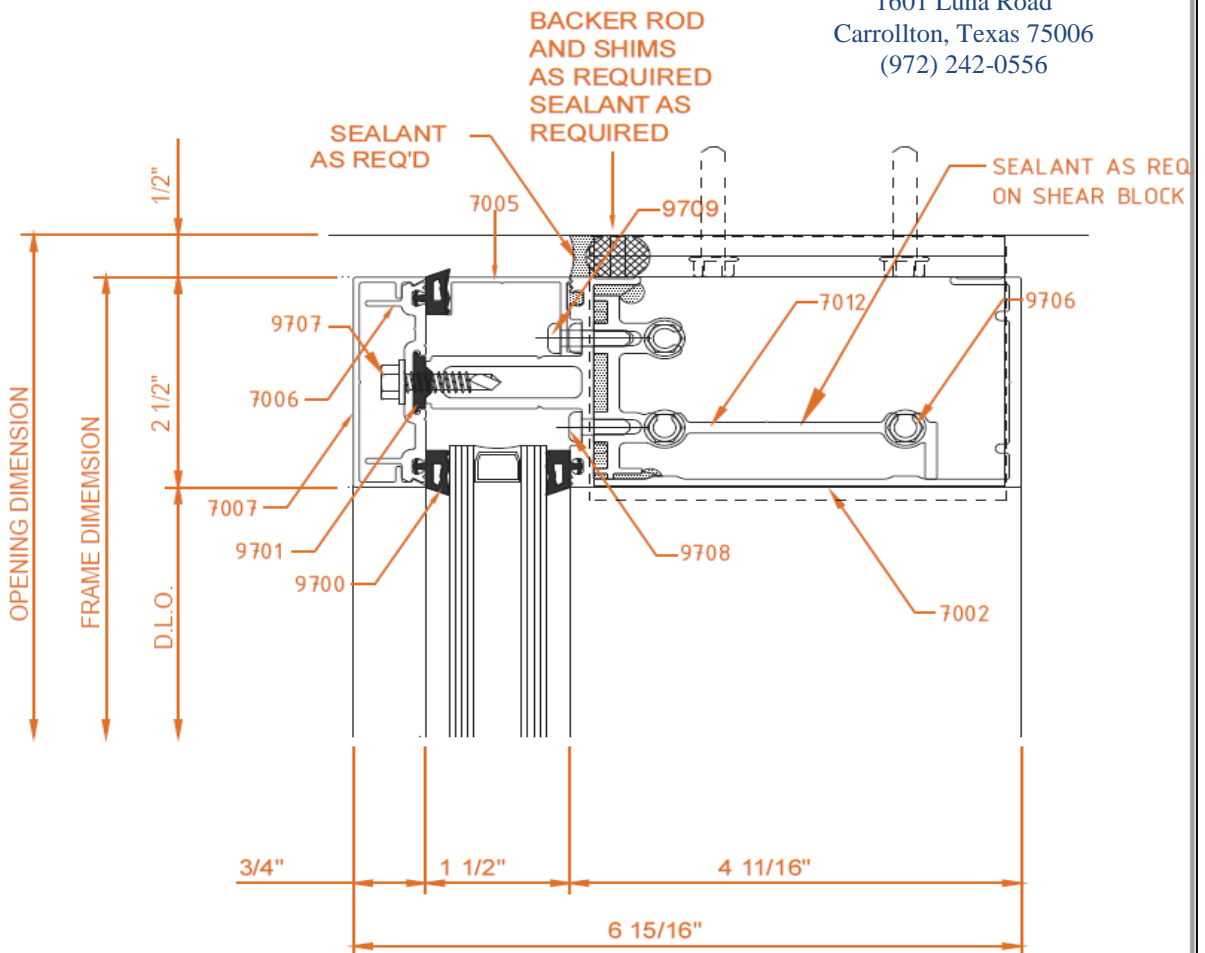
7000 SERIES CURTAIN WALL
 2-1/2" x 7" SYSTEM

DETAIL H



SEALANT

Construction Consulting
 Laboratory International
 1601 Luna Road
 Carrollton, Texas 75006
 (972) 242-0556



HEAD
 SCALE 6"=1'

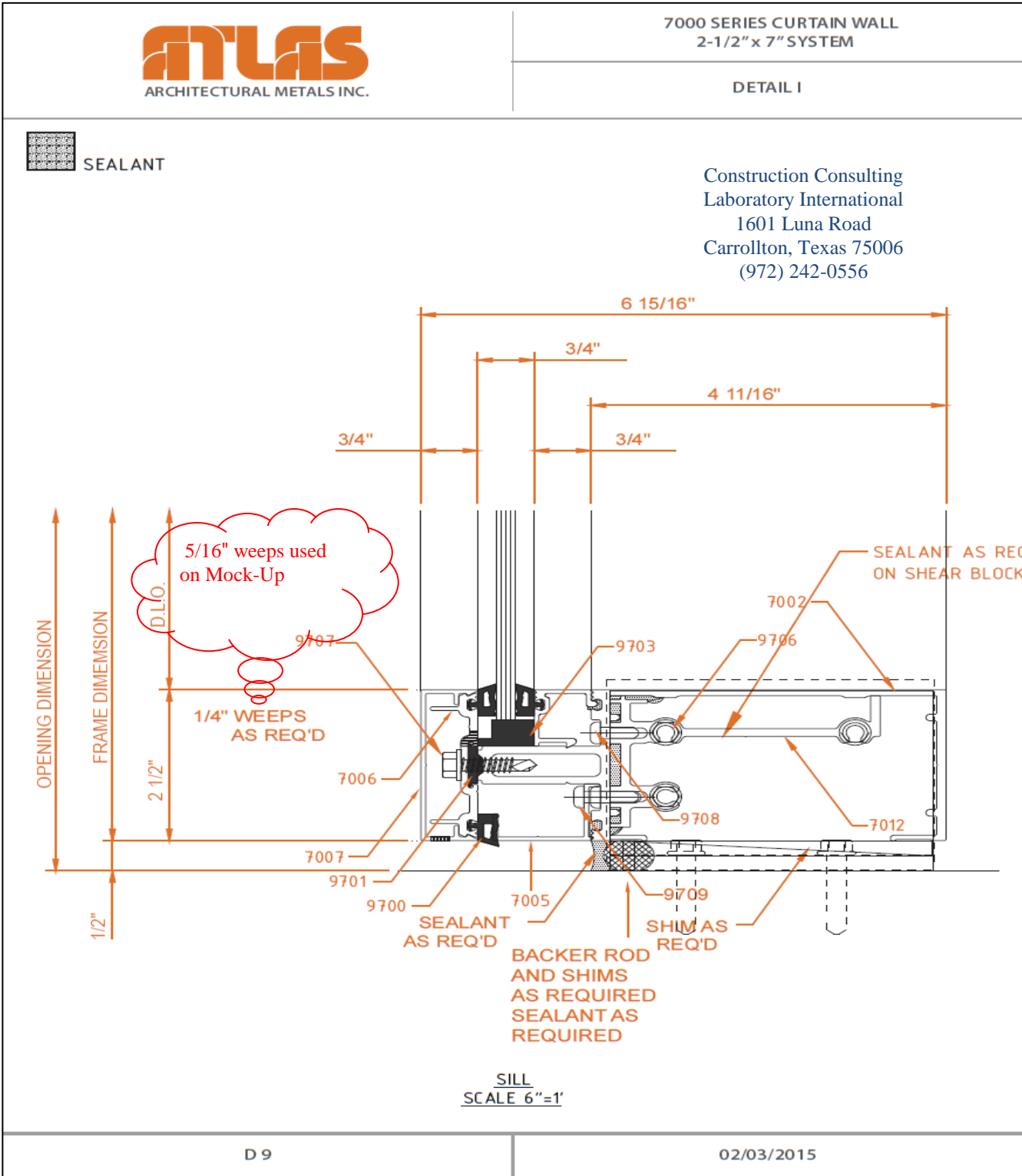
D 8

02/03/2015



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015





AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
 REPORT #CCLI-15-018

March 4, 2015



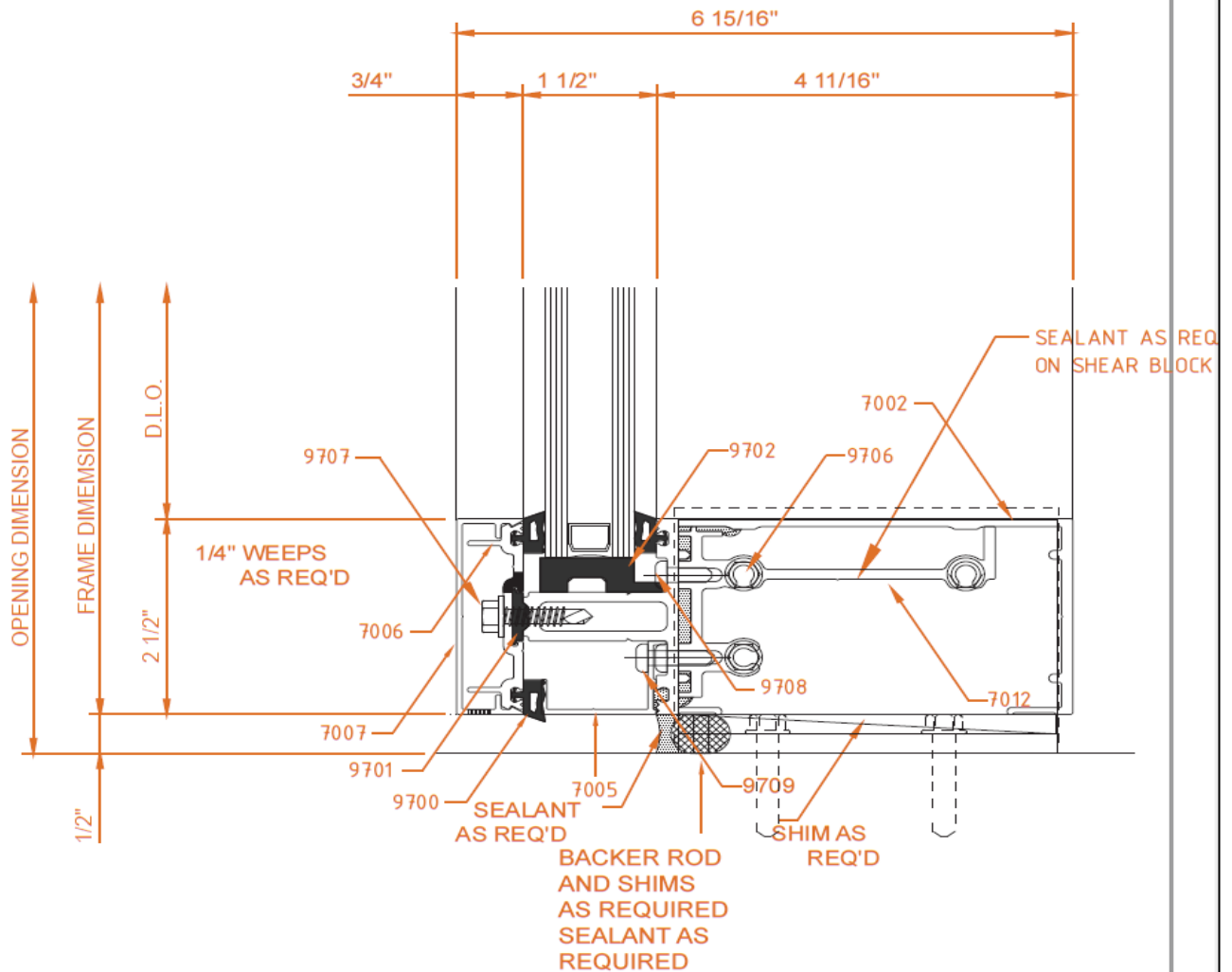
7000 SERIES CURTAIN WALL
 2-1/2" x 7" SYSTEM

DETAIL J



SEALANT

Construction Consulting
 Laboratory International
 1601 Luna Road
 Carrollton, Texas 75006
 (972) 242-0556



SILL
 SCALE 6"=1'

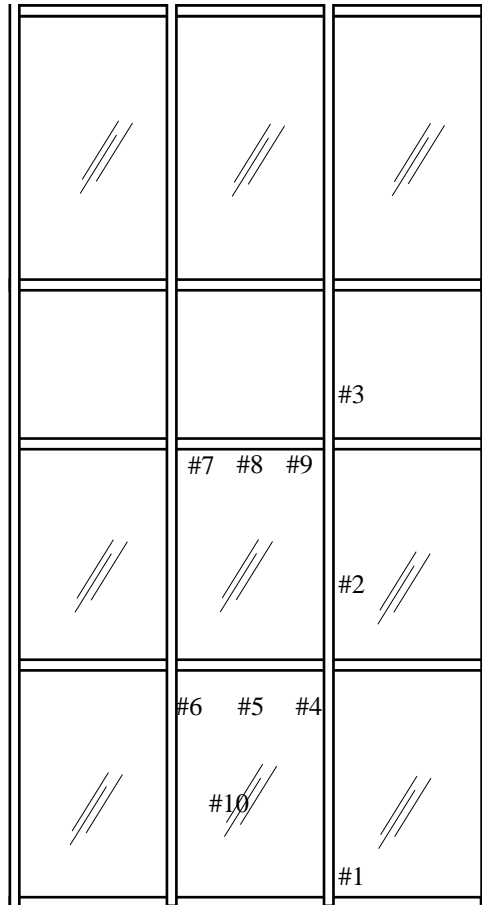
D 10

02/03/2015



APPENDIX B

Dial Indicator Location Diagram





APPENDIX C

PHOTOGRAPHS



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015



PHOTOGRAPH 1

Static Pressure Air Infiltration Test @ 6.24 psf per ASTM E 283-04

MAXIMUM ALLOWABLE

Mock-Up: $12'-1\frac{3}{4}'' \times 27'-9'' = 337.05 \text{ Ft}^2 \times .06 \text{ Cfm} = 20.22 \text{ Cfm}$.

Results: $9.37\text{Cfm} / 337.05 = 0.027 \text{ Cfm/ft}^2$ / **Report:** 0.03 Cfm/ft^2



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015



PHOTOGRAPH 2

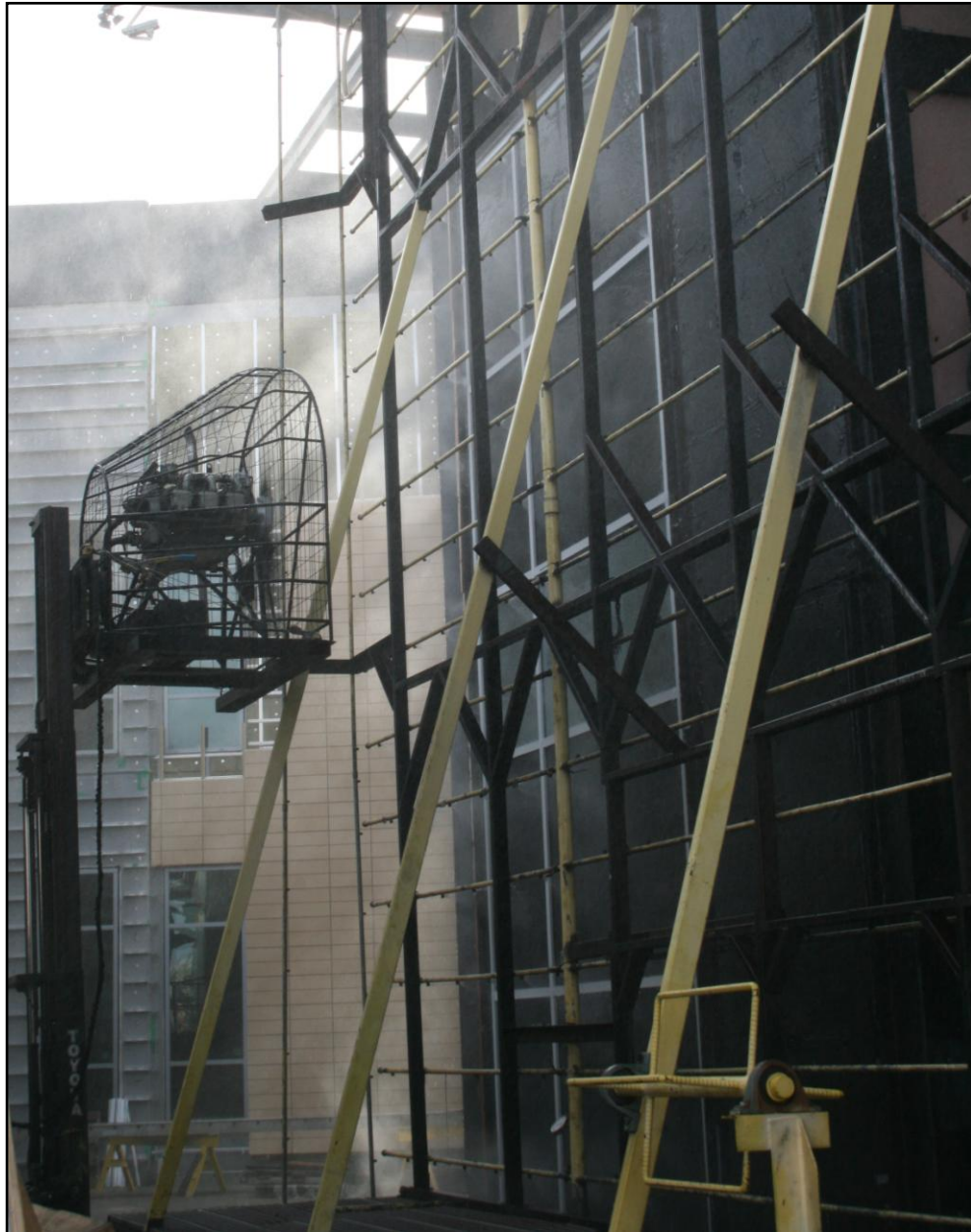
Static Pressure Water Penetration Test @ 12 psf per ASTM E 331-00

12.0 Psf Results: Passed with no water penetration observed.



AAMA 501-05 CURTAIN WALL MOCK-UP TESTING
ATLAS ARCHITECTURAL METALS INC SERIES 7000 CURTAIN WALL
REPORT #CCLI-15-018

March 4, 2015



PHOTOGRAPH 3

Dynamic Water Penetration @ 68 mph Slipstream Velocity per AAMA 501.1-05

Results: Passed with no water penetration observed.

- END OF REPORT -