



ASTM E 330-97 PERFORMANCE TESTING  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
REPORT #CCLI-03-052

March 28, 2003

**APPENDIX A**

**PRODUCT DRAWINGS**

| <u>Detail</u>            | <u>Drawing #</u> | <u>Date</u> |
|--------------------------|------------------|-------------|
| Cantera Elevation Detail | Sheet 1          | 2/03        |
| Plan & Bill of Materials | Sheet 2          | 2/03        |
| Frame Attachment         | Sheet 3          | 2/03        |
| Assembly Detail          | Sheet 4          | 2/03        |
| Hardware Detail          | Sheet 5          | 2/03        |
| Hardware Detail          | Sheet 6          | 2/03        |

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

Florida Registered Professional Engineer's Review: Reg. #52849, March 10, 2003  
Abdol Rezadad, P.E. Signature: *A. Rezadad*

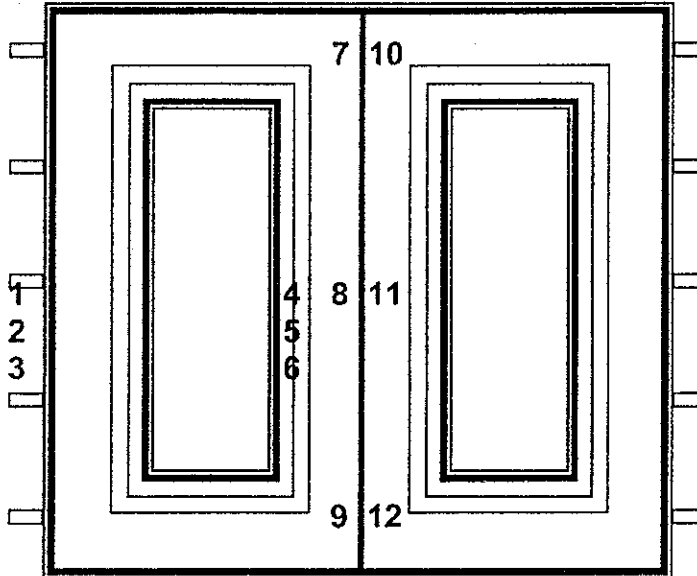
4/2/03



ASTM E 330-97 PERFORMANCE TESTING  
CANTERA DOORS SERIES 6080  
STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR  
REPORT #CCLI-03-052

March 28, 2003  
Page 5 of 8

Dial Indicator Locations



Positive (Inward) half load at 50.25 PSF: 30 Second Duration

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

| Indicator | Movement/Set | Deflection | Set | Allowable L/175 |
|-----------|--------------|------------|-----|-----------------|
| 1         | .15/.02      |            |     |                 |
| 2         | .12/.02      | -.01       | 00  | .120            |
| 3         | .11/.02      |            |     |                 |
| 4         | .59/.11      |            |     |                 |
| 5         | .66/.12      | .12        | .02 |                 |
| 6         | .50/.10      |            |     |                 |
| 7         | .47/.12      |            |     |                 |
| 8         | .59/.12      | .15        | .01 | .541            |
| 9         | .42/.10      |            |     |                 |
| 10        | .44/.09      |            |     |                 |
| 11        | .56/.08      | .14        | 00  | .541            |
| 12        | .40/.07      |            |     |                 |

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**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
REPORT #CCLI-03-052

March 28, 2003  
Page 6 of 8

**Positive (Inward) design load at 67 PSF: 30 Second Duration**

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

| Indicator | Movement/Set | Deflection | Set  | Allowable L/175 |
|-----------|--------------|------------|------|-----------------|
| 1         | .19/.01      |            |      |                 |
| 2         | .19/.04      | .02        | .02  | .120            |
| 3         | .15/.01      |            |      |                 |
| 4         | .72/.06      |            |      |                 |
| 5         | .69/.05      | .02        | -.02 |                 |
| 6         | .63/.08      |            |      |                 |
| 7         | .66/.16      |            |      |                 |
| 8         | .72/.09      | .09        | -.09 | .541            |
| 9         | .60/.19      |            |      |                 |
| 10        | .63/.13      |            |      |                 |
| 11        | .80/.15      | .21        | .01  | .514            |
| 12        | .56/.16      |            |      |                 |

**Positive (Inward) Full load at 100.5 PSF: 30 Second Duration**

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

| Indicator | Movement/Set | Deflection | Set  | Allowable L/175 |
|-----------|--------------|------------|------|-----------------|
| 1         | .44/.11      |            |      |                 |
| 2         | .40/.11      | .00        | -.01 | .120            |
| 3         | .36/.12      |            |      |                 |
| 4         | 1.45/.16     |            |      |                 |
| 5         | 1.44/.16     | .05        | .02  |                 |
| 6         | 1.42/.12     |            |      |                 |
| 7         | 1.22/.16     |            |      |                 |
| 8         | 1.47/.18     | 0.180      | .01  | .541            |
| 9         | 1.36/.19     |            |      |                 |
| 10        | 1.08/.13     |            |      |                 |
| 11        | 1.48/.19     | .40        | .03  | .541            |
| 12        | 1.25/.20     |            |      |                 |

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Abdol Rezadad, P.E. Signature: Abdol Rezadad



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**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
 REPORT #CCLI-03-052

March 28, 2003  
Page 8 of 8

**Negative (Outward) Full load at 100.5 PSF: 30 Second Duration**

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

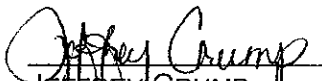
| Indicator | Movement/Set | Deflection | Set  | Allowable L/175 |
|-----------|--------------|------------|------|-----------------|
| 1         | .32/.08      |            |      |                 |
| 2         | .29/.08      | .00        | .01  |                 |
| 3         | .26/.07      |            |      |                 |
| 4         | .99/.31      |            |      |                 |
| 5         | .89/.30      | -.09       | -.02 |                 |
| 6         | .96/.32      |            |      |                 |
| 7         | >1.00/.20    |            |      |                 |
| 8         | .67/.08      |            | .00  | .541            |
| 9         | >1.00/.22    |            |      |                 |
| 10        | >1.00/.18    |            |      |                 |
| 11        | .91/.29      |            | .05  | .541            |
| 12        | .76/.31      |            |      |                 |

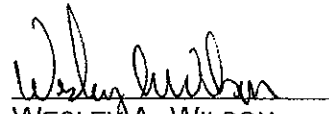
**8. CONCLUSION**

The test specimen, Cantera Doors Series 6080 Straight Glazed Steel In-Swing Entry Door was tested in accordance with ASTM E 330-97 Test Method. This report does not constitute certification of this product.

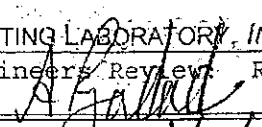
Respectfully submitted,

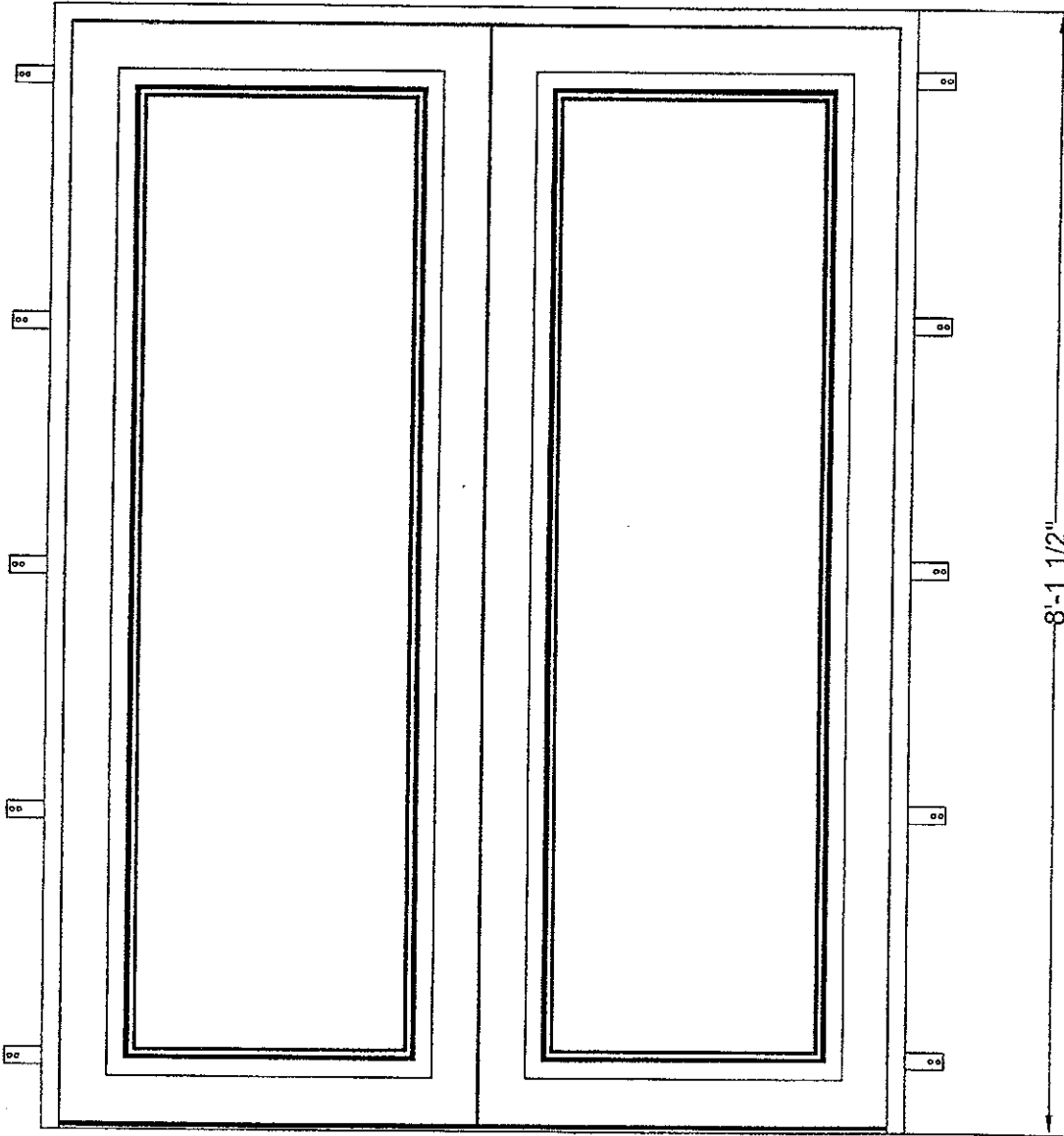
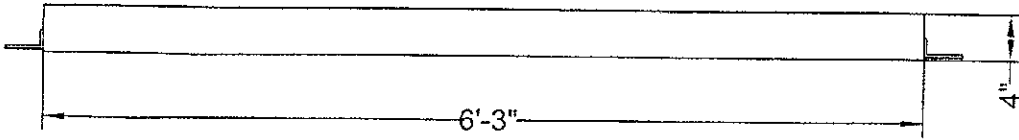
**CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL**

  
 JEFFREY CRUMP  
 TESTING TECHNICIAN

  
 WESLEY A. WILSON  
 LABORATORY MANAGER

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

|  |   |
|--|---|
| Florida Registered Professional Engineer | Reg. #52849, March 10, 2003   |
| Abdol Rezadad, P.E. Signature:           |  |



Construction Consulting  
Laboratory, International

1601 Luna Road

Carrollton, Texas 75006

Phone (972) 242-0556

Report # 03-07 Reviewed By AW

Date: 3/18/03

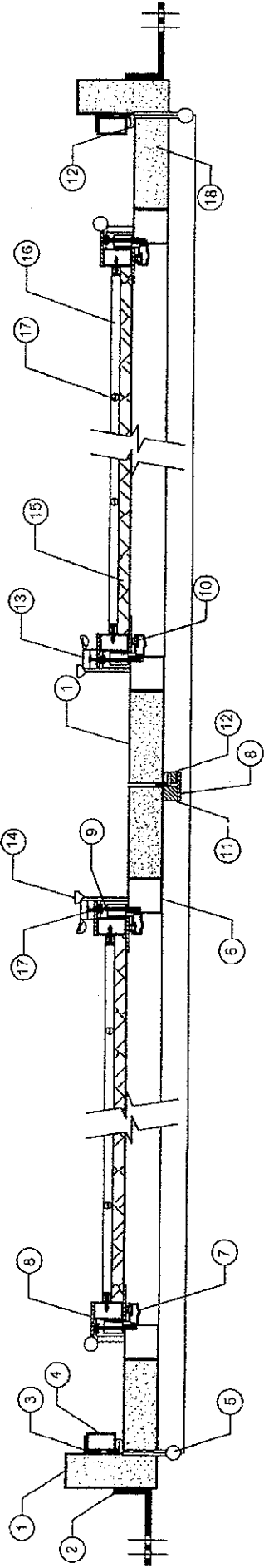
**Cantera  
Doors™**  
www.canteradoors.com

DATE: FEB/2003

SCALE: N.T.S.

DRAWING NAME:  
GENERAL VIEWS

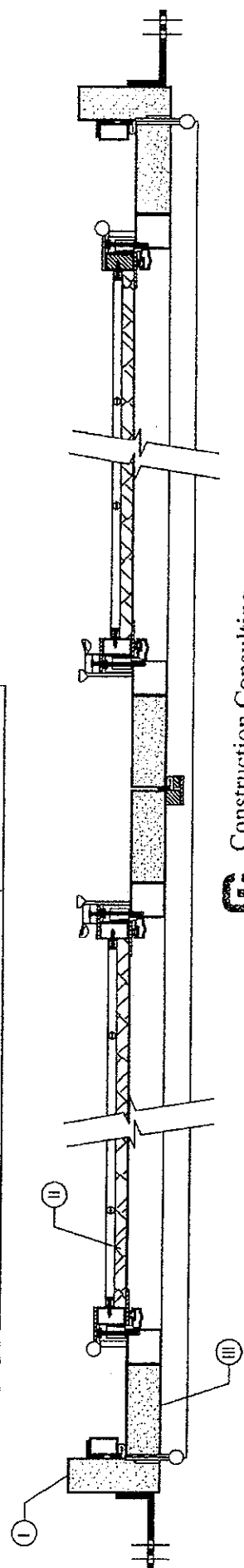
SHEET 1



| Item | DESCRIPTION                         | MATERIAL  |
|------|-------------------------------------|-----------|
| 1    | 1 1/2" X 4" RECTANGULAR TUBING      | STEEL     |
| 2    | 1/4" X 1 1/4" FLAT BAR              | STEEL     |
| 3    | 1/8" X 3/4" ANGLE                   | STEEL     |
| 4    | 3/4" X 1 1/4" RECTANGULAR TUBING    | STEEL     |
| 5    | HINGE                               | STEEL     |
| 6    | 1 1/2" SQUARE TUBING                | STEEL     |
| 7    | ALUMINIUM TUBING (1)                | ALUMINIUM |
| 8    | 1/8" X 1 1/2" FLAT BAR              | STEEL     |
| 9    | # 8 X 2" LG SCREW                   | STEEL     |
| 10   | SANTOPRENE THERMOPLASTIC RUBBER (2) | STEEL     |
| 11   | 5/8" SQUARE SOLID BAR               | STEEL     |
| 12   | Q-LON DOOR SEAL                     | STEEL     |
| 13   | BROCHE PARA VENTANA                 | STEEL     |
| 14   | 1/8" X 1/2" FLAT BAR                | STEEL     |
| 15   | 1/2" GLASS                          | STEEL     |
| 16   | 3/8" SQUARE TUBING                  | STEEL     |
| 17   | # 8 X 3/8" LG SCREW                 | STEEL     |
| 18   | POLYURETHANE                        | STEEL     |

(1)ALUMINIUM TUBING  
 Alloy: 6063-T5 % weight:  
 Si 0.43  
 Mg 0.51  
 Ti 0.02  
 Al 98.93  
 Fe 0.13

(2) SANTOPRENE THERMOPLASTIC RUBBER  
 -FATIGUE RESISTANCE: Doesn't crack or craze after millions of cycles, in temperatures from 60°F up to 150°F.  
 -DIMENSIONAL STABILITY: Low coefficient of linear thermal expansion (82 x 10<sup>-6</sup> in/in/°C from -40°C to 70°C) and shrinkage values of .2%-.5% (even after aging at 158°F) are less than 1/4 what you usually find from flexible PVC.



SUB-ASSEMBLINGS  
 I- FRAME  
 II- STILE  
 III- WINDOW FRAME

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

Report # CC-02 Reviewed By AW  
 Date: 5/21/03

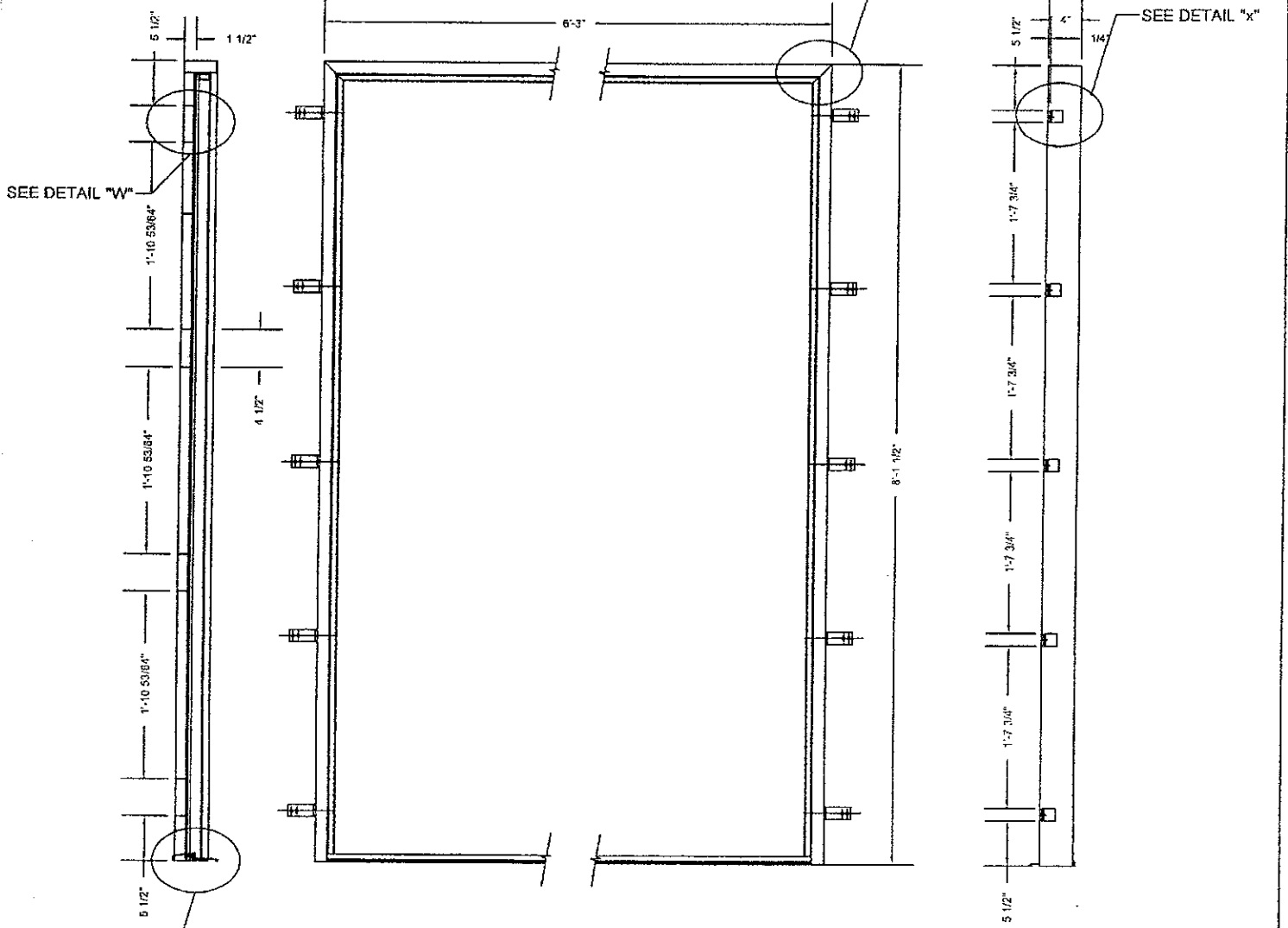
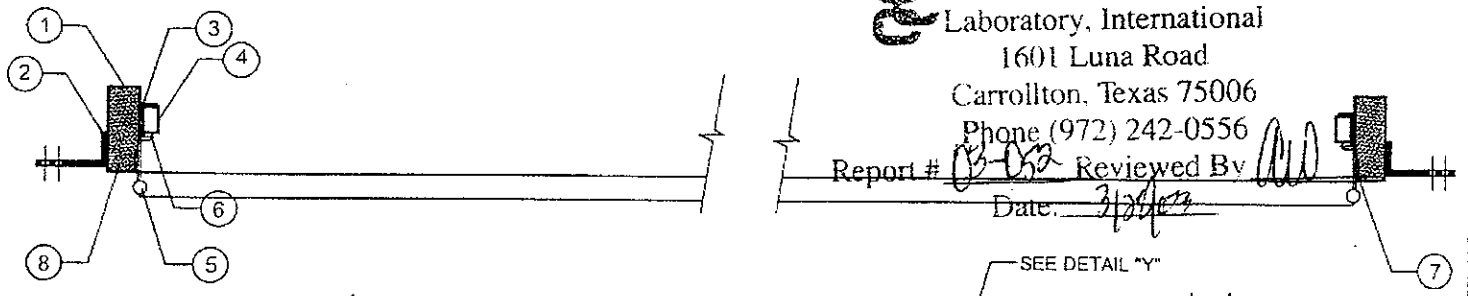
**Cantera Doors™**  
www.canteradoors.com

DATE: FEB/2003  
 SCALE: N.T.S.  
 DRAWING NAME: HORIZONTAL CROSS SECTION  
 SHEET 2



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Report # 03-032 Reviewed By [Signature]  
 Date: 3/2/03



| Item | DESCRIPTION                      | Material |
|------|----------------------------------|----------|
| 1    | 1 1/2" X 4" RECTANGULAR TUBING   | STEEL    |
| 2    | 1/4" X 1 1/4" FLAT BAR           | STEEL    |
| 3    | 1/8" x 3/4" ANGLE                | STEEL    |
| 4    | 3/4" X 1 1/4" RECTANGULAR TUBING | STEEL    |
| 5    | HINGE                            | STEEL    |
| 6    | Q-LON DOOR SEAL                  |          |
| 7    | 1/8" X 1" FLAT BAR               | STEEL    |
| 8    | POLYURETHANE                     |          |
| 9    | THRESHOLD 5 3/8" X 1"            |          |

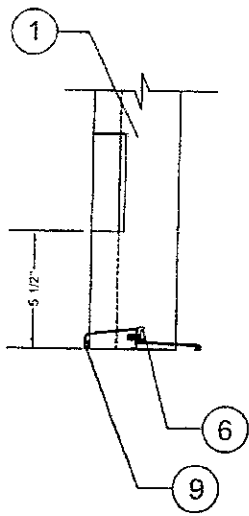
SEE DETAIL "Z"

\*Union with welding  
 Champion Welding  
 Micro Alambre soldado  
 CH-S6  
 .035" (0,9 mm)  
 According to specifications AWS A5.18 y  
 ASME SFA 5.18 ER70S-6

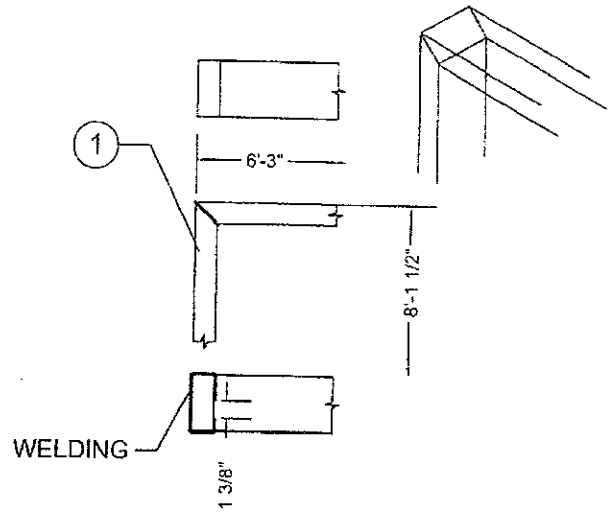
Construction Consulting Laboratory, International  
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 Carrollton, Texas 75006  
 Phone (972) 242-0556  
 Reviewed By \_\_\_\_\_  
 Date: \_\_\_\_\_

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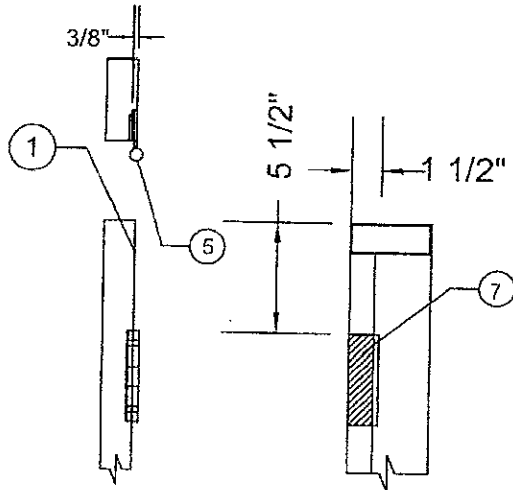
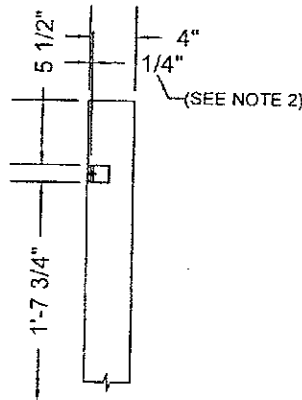
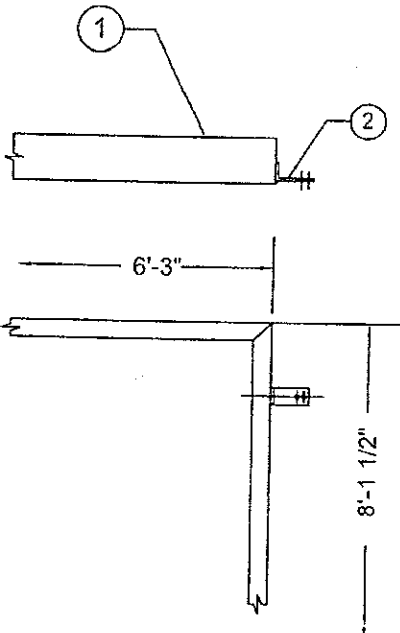
DATE: FEB/2003  
 SCALE: N.T.S.  
 DRAWING NAME:  
 SUB-ASSEMBLING 1  
 SHEET 3



DETAIL "Z"

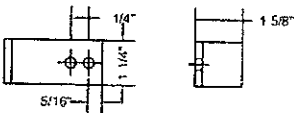
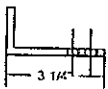


DETAIL "Y"



SEE DETAIL "X"

SEE DETAIL "W"



INSTALLATION TABS  
GENERAL VIEWS  
AND DIMENSIONS



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1601 Luna Road  
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Report # 02-09 Reviewed By [Signature]

Date: 3/21/03


NOTE:

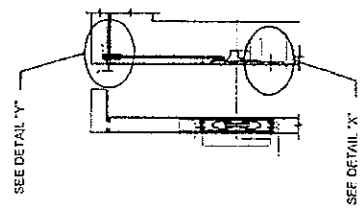
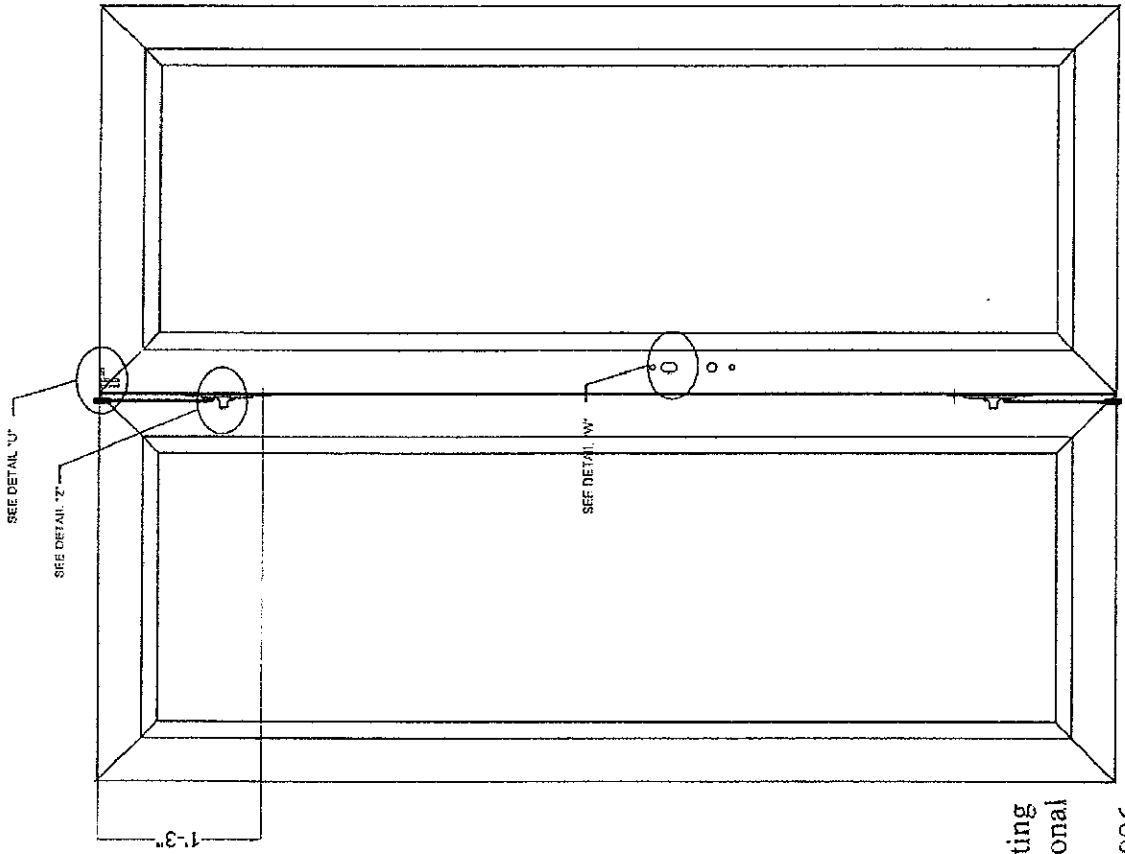
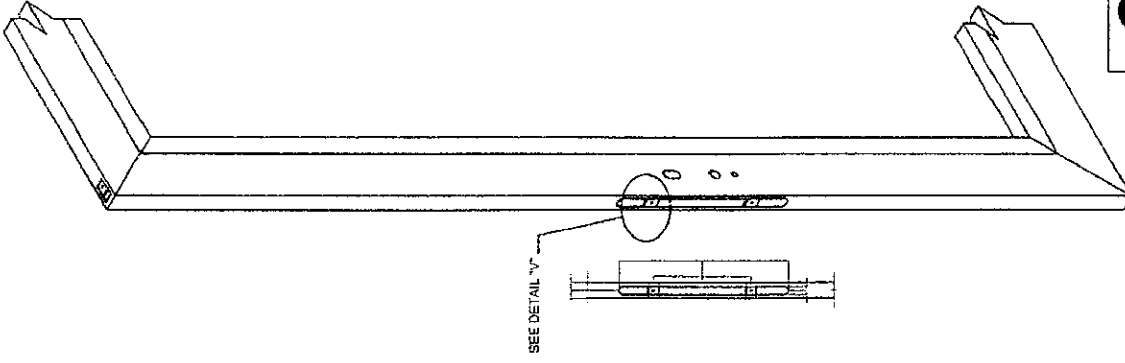
1- Plane welding all surroundings except in the inferior part where a free space is (approximately 1 3/8") to be able to place the stop.


2- Instalation tabs: move 1/4"


3- The flat bar introduce to all the long of the lateral tubing.

\*\* SEE MATERIAL DESCRIPTION ON DRAWING "SUB-ASSEMBLING 1"

|  |                          |
|--|--------------------------|
| <br><small>www.canteradoors.com</small> |                          |
| DATE:  | FEB/2003                 |
| SCALE:   | N.T.S.                   |
| DRAWING NAME:  | DETAILS SUB-ASSEMBLING 1 |
| SHEET 4  |                          |



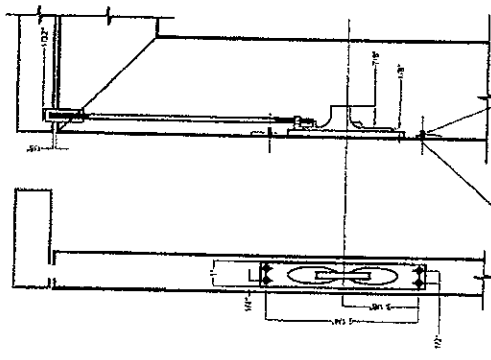
|  |          |
|--|----------|
| <br><b>Cantera Doors™</b><br><small>with Cantera® technology</small> |          |
| DATE:  | FEB/2003 |
| SCALE:   | N.T.S.   |
| DRAWING NAME:  |          |
| SUB-ASSEMBLING 2   |          |
| SHEET 5  |          |


**Construction Consulting Laboratory, International**  
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 Carrollton, Texas 75006  
 Phone (972) 242-0556

Report # 3122 Reviewed By AW  
 Date: 3/24/03

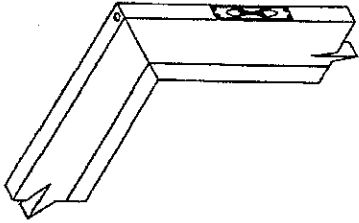
SEE DETAIL "Z"

Placement of Flush bolt



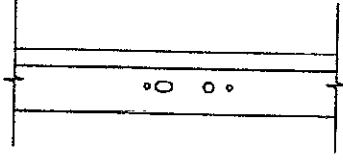
SEE DETAIL "Y"

Hole for Flush bolt



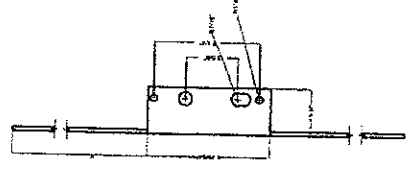
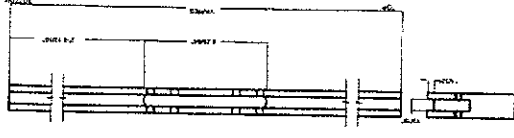
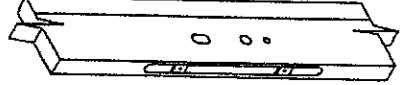
SEE DETAIL "W"

Holes for hardware



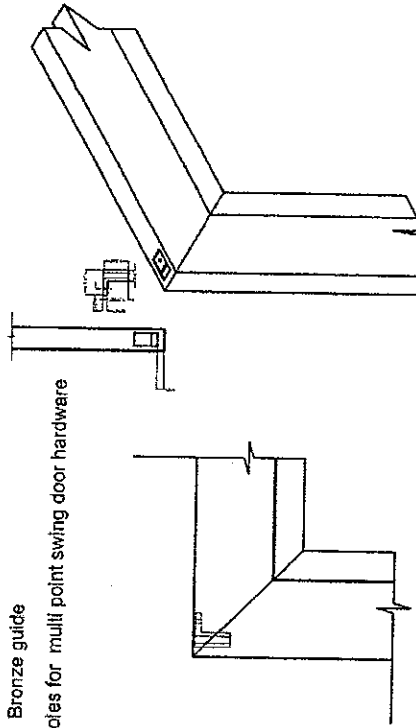
SEE DETAIL "V"

Flat bars for hardware installation (multi-point swing door locking system)

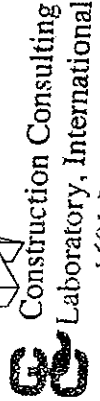


SEE DETAIL "U"

Bronze guide  
Holes for multi point swing door hardware




SEE DETAIL "X"  
Galvanize plain head screw



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

Report #

Reviewed By *[Signature]*  
Date: *2/24/23*

|  |          |
|--|----------|
| <br>Cantera Doors™<br>www.canteradoors.com |          |
| DATE:  | FEB/2003 |
| SCALE:   | N.T.S.   |
| DRAWING NAME:  |          |
| DETAILS SUB-ASSEMBLY 2   |          |
| SHEET 6  |          |



ASTM E 330-97 PERFORMANCE TESTING  
CANTERA DOORS SERIES 6080  
STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR  
REPORT #CCLI-03-052

March 28, 2003

- END OF REPORT -

CONSTRUCTION CONSULTING LABORATORY, *INTERNATIONAL*

Florida Registered Professional Engineers Review: Reg. #52849, March 10, 2003  
Abdol Rezadad, P.E. Signature: \_\_\_\_\_



ASTM E 330-97 PERFORMANCE TESTING  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
REPORT #CCLI-03-052

March 28, 2003  
Page 1 of 8

1. PROJECT DATA

|                                |   |   |
|--------------------------------|---|---|
| <b>Project:</b>                | ASTM E 330-97 Performance Testing<br>Cantera Doors Series 6080<br>Straight Glazed Steel In-Swing Entry Door |   |
| <b>Date Testing Completed:</b> | February 12, 2003   |   |
| <b>Tested For:</b>             | Cantera Doors<br>3698 Hwy 620<br>Suite 101<br>Austin, TX 78738  | Office: (512) 263-8881<br>Fax: (512) 263-8849 |

Witnessed By:

(All or Partial Viewing)

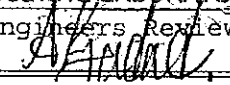
Mauricio Trevinio

Cantera Doors

Jeffrey Crump  
Wesley A. Wilson

Construction Consulting Laboratory, International  
Construction Consulting Laboratory, International

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

Florida Registered Professional Engineers Review: Reg. #52849, March 10, 2003  
Abdol Rezadad, P.E. Signature: 



ASTM E 330-07 PERFORMANCE TESTING  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
 REPORT #CCL1-03-052

March 28, 2003

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2. INTRODUCTION.....2

3. SECTION 1-DESCRIPTION OF SERIES.....2

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6. SECTION 4-TEST SEQUENCE.....4

7. SECTION 7-UNIFORM STATIC LOAD TEST.....4

8. CONCLUSION .....8

**APPENDIX**

APPENDIX A: CANTERA DOORS SERIES 6080 STRAIGHT GLAZED  
 STEEL IN-SWING ENTRY DOOR PRODUCT DRAWINGS

*A. Galad*  
 4/3/03

**S-UNITED, INC.**  
*A Quality Control Company*



**ASTM E 330-97 PERFORMANCE TESTING**  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
 REPORT #CCLI-03-052

March 28, 2003  
Page 2 of 8

**2. INTRODUCTION**

This report presents the performance results of Cantera Doors Series 6080 Straight Glazed Steel In-Swing Entry Door. Tests were conducted at Construction Consulting Laboratory, International testing facility in Carrollton, Texas.

**Report No:** CCLI-03-052  
**Test Start Date:** February 12, 2003  
**Test End Date:** February 12, 2003

**Test Requested By:** Cantera Doors  
 3698 Hwy 620  
 Suite 101  
 Austin, TX 78738  
 Phone: 512.263.8881  
 Facsimile 512.263.8849

**Model Designation:** Cantera Doors Series 6080  
 Straight Glazed Steel In-Swing Entry Door

**Configuration Tested:** X.X

**Tests Conducted:** ASTM E 330-97 (Uniform Static Air)

**Design Pressures:** Specimen(s) +67.0 psf. -67.0 psf.

**3. SECTION 1 - DESCRIPTION OF SERIES:**

**Model Designation:** Cantera Doors Series 6080 Straight Door (Photograph #1)  
**Overall Frame Size:** 6' 3" x 8' 1 1/2"  
**Active Panel Size:** 2' 11 15/16" x 7' 10 3/4"  
**Non-Active Panel Size:** 2' 11 15/16" x 7' 10 3/4"  
**Frame Depth:** 2.500"  
**Configuration:** X.X

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

Florida Registered Professional Engineers Review: Reg. #52849, March 10, 2003  
 Abdol Rezadad, P.E. Signature: *[Signature]*



ASTM E 330-97 PERFORMANCE TESTING  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
 REPORT #CCLI-03-052

March 28, 2003  
Page 3 of 8

Refer to Mock-Up drawing in **Appendix A**. This report is not complete unless this drawing is stamped and initialed by CCLI as illustrated below.

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

Report # 03-052 Reviewed By AW  
 Date: 3/28/03

**4. SECTION 2 - MATERIAL CHARACTERISTICS:**

**Frame and Panel Construction:**

The screen frame and operable panel were constructed of the following components.

| Description                | Part /Item# | Cross Sectional                | Alloy |
|----------------------------|-------------|--------------------------------|-------|
| Frame Jamb                 | 1           | 1.500" x 4.000" Tube x 97.500" | Steel |
| Frame Anchor               | 2           | .250" x 1.250" Angle           | Steel |
| Frame Retaining Angle      | 3           | .125" x .750" Angle            | Steel |
| Frame Panel Stop           | 4           | .750" x 1.250" Tube            | Steel |
| Operable Glazing Jamb      | 6           | 1.500" x 1.500" Tube           | Steel |
| Non-Active Astragal        | 8           | .125" x 1.500" Flat Bar        | Steel |
| Non-Active Astragal Spacer | 11          | .625" Solid Square Bar         | Steel |
| Glazing Panel Anchor       | 14          | .125" x 1.500" Flat Bar        | Steel |

**Frame Corner Construction:** Frame jamb to header corners are welded. Door panel corners are welded

**Glass:** 1/2" (0.500") overall thickness sealed insulating glass, 2 pcs 1/8" tempered glass with 1/4" metal air spacer.

**Glazing:** Interior glazed with silicone sealant at exterior of glass and steel glazing bead at the interior of glass. Glazing bead attached to panel with #8 x 3/4" screws 2" from each end and on 8" centers.

**Weather-stripping:** Kerf mounted Q-Lon Weather Seal at the exterior face of frame panel stop and threshold, interior perimeter of screen frame head, jambs and bottom rail. Weather strip was removed at mulled jamb prior to the installation of mullion cover.

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 Abdol Rezadad, P.E. Signature:

4/2/03



ASTM E 330-97 PERFORMANCE TESTING  
CANTERA DOORS SERIES 6080  
STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR  
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**Hardware:** Surface bolt at lateral face of non-active panel lock stile top and bottom with keeper drilled into frame head and threshold. Triple point lock at active panel lock stile with handle actuator 36" from bottom rail. Triple point lock engages non-active panel at handle actuator and at the frame head and threshold. Dead bolt at active panel with keeper at non-active lock stile. Four (4) 5 - knuckle butt hinges at panel hinge stile fully welded to frame hinge jambs and panel hinge stile.

**Reinforcement:** None

**Sealant:** None

### 5. SECTION 3 - INSTALLATION:

**Screws and Method of Attachment:** Frame was attached to rough cut pine wood test buck at the frame attachment angles with one (1) #14 x 3" wood screw per angle spaced 5 1/2" from each end of jamb and on 19.75" centers.

### 6. SECTION 4 - TEST SEQUENCE:

ASTM E 330-97 Uniform Static Air Test +67 and -67

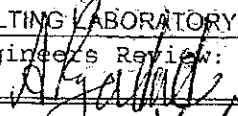
### 7. SECTION 5 - UNIFORM STATIC LOAD TEST PER ASTM E 330-97

| Test Method | Test Design Pressure | Results |
|-------------|----------------------|---------|
| ASTM E330   | +67 PSF and -67 PSF  | Pass    |

#### Test Sequence

1. Uniform static load test at 50% of positive test pressure.
2. Uniform static load test at positive design pressure.
3. Uniform static load test at 150% of positive test pressure.
4. Uniform static load test at 50% of negative test pressure.
5. Uniform static load test at negative design pressure.
6. Uniform static load test at 150% of negative test pressure.

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ASTM E 330-97 PERFORMANCE TESTING  
**CANTERA DOORS SERIES 6080**  
**STRAIGHT GLAZED STEEL IN-SWING ENTRY DOOR**  
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**Negative (Outward) half load at 50.25 PSF: 30 Second Duration**

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

| Indicator | Movement/Set | Deflection | Set | Allowable L/175 |
|-----------|--------------|------------|-----|-----------------|
| 1         | .15/.05      |            |     |                 |
| 2         | .14/.04      | .01        |     | .120            |
| 3         | .12/.04      |            |     |                 |
| 4         | .66/.07      |            |     |                 |
| 5         | .55/.15      |            |     |                 |
| 6         | .57/.16      | -.07       |     |                 |
| 7         | .52/.19      |            |     |                 |
| 8         | .80/.03      | .30        |     | .541            |
| 9         | .49/.16      |            |     |                 |
| 10        | .38/.11      |            |     |                 |
| 11        | .54/.15      | .11        |     | .541            |
| 12        | .49/.16      |            |     |                 |

**Negative (Outward) design load at 67 PSF: 30 Second Duration**

Deflections were recorded using a Chicago brand dial indicator 0-1" range in increments of .01". Indicators are manufactured with a max movement indicator arm.

| Indicator | Movement/Set | Deflection | Set  | Allowable L/175 |
|-----------|--------------|------------|------|-----------------|
| 1         | .21/.06      |            |      |                 |
| 2         | .19/.04      | .00        | -.01 | 1.2             |
| 3         | .17/.04      |            |      |                 |
| 4         | .89/.07      |            |      |                 |
| 5         | .76/.15      | -.07       | .04  |                 |
| 6         | .76/.16      |            |      |                 |
| 7         | .56/.19      |            |      |                 |
| 8         | .80/.03      | .18        | .01  | .541            |
| 9         | .68/.16      |            |      |                 |
| 10        | .53/.11      |            |      |                 |
| 11        | .74/.15      | .21        | .02  | .541            |
| 12        | .53/.16      |            |      |                 |

CONSTRUCTION CONSULTING LABORATORY, INTERNATIONAL

Florida Registered Professional Engineer, Review Reg. #52849, March 10, 2003  
 Abdol Rezadad, P.E. Signature: *[Signature]*