

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
 Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION
 DR-689

Effective Date: August 1, 2014
 Reevaluation Date: **April 2015**

The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**.

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code and the Texas Engineering Practice Act.

Fiberglass Outswing Hinged Glazed Doors with Sidelites, Impact Resistant, manufactured by

Nan Ya Plastics Corporation USA / Neuma Doors
8989 North Loop East
Houston, Texas 77029
Telephone: (713) 674-7822

General Description:

System	Description	Label Rating	Design Pressure Rating
1	Fiberglass Outswing Hinged Glazed Doors with Sidelites	R-PG70 143 x 83-SHD Missile Level D; DP +70/-70	+70/-70 psf

Product Dimensions:

System	Overall Size	Active/Passive Panel Size	Sidelite Panel Size	Glass Daylight Opening Size
1	143.00" x 82.50"	Two: 34.50" x 80.31"	Two: 34.50" x 80.31"	25.00" x 63.00"

Product Identification (Certification Agency Label on Door (Two Labels)):

System	Certification Agency Label on Door (Two Labels):	
1	Certification Agency	NAMI
	Manufacturer's Name or Code Name	Nan Ya Plastics USA
	Product Name	<u>Label 1:</u> Outswing Fiberglass Patio Door w/ or w/o Sidelites
		<u>Label 2:</u> Out-Swing Impact Rated Fiberglass Clad Entrance Door w/ or w/o Sidelites
Test Standards	<u>Label 1:</u> AAMA/WDMA/CSA 101/I.S.2/A440-08 AAMA 506-08; ASTM E 1886-05 ASTM E 1996-05; Missile Level D	
	<u>Label 2:</u> ASTM E 1886-05 ASTM E 1996-05; Missile Level D; Wind Zone 4	

Hardware:

- Hinges; Three required per door; Secured to the door panel with four No. 10 x 2" flat head screws. Secured to the door jamb with two No. 10 x $\frac{7}{8}$ " screws and two No. 10 x 2" screws.
- Surface mount 4-point locking system with lever type handle key operator; Located on the active door panel.
- Surface mount 2-point locking system with lever type handle key operator; Located on the inactive panel.
- Strike plate; One required; Located on the inactive panel lockstile; Secured with two No. 10 x $\frac{7}{8}$ " screws and two No. 10-32 x $\frac{5}{16}$ " screws.
- Strike plate; Two required; Located on the inactive panel lockstile; Secured with two No. 10 x $\frac{7}{8}$ " screws.
- Strike plate – head; One required; Located on the door frame head; Secured with two No. 10 x $\frac{7}{8}$ " screws.
- Strike plate – threshold; One required; Secured to the threshold with two No. 8 x $\frac{5}{8}$ " screws.

Sill and Threshold:

- 1.63" high aluminum outswing sill

Impact Resistance:

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the Inland I and Seaward zone . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Qualified Configurations: O / X / OX / XO / OXO / XX / XXO / OXX / OXXO. Sidelites may be installed without doors.

Installation:

Design Drawings: The doors shall be installed in accordance with Drawing No. 08-01539, titled "Out-Swing Entrance Door w/ & w/o Sidelites," sheets 1 through 9 of 9, dated May 30, 2012, revision B, dated March 17, 2014, signed and sealed by Luis R. Lomas., P.E on March 20, 2014. The stated drawings will be referred to as the approved drawings in this evaluation report.

Wall Framing Construction: The doors may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

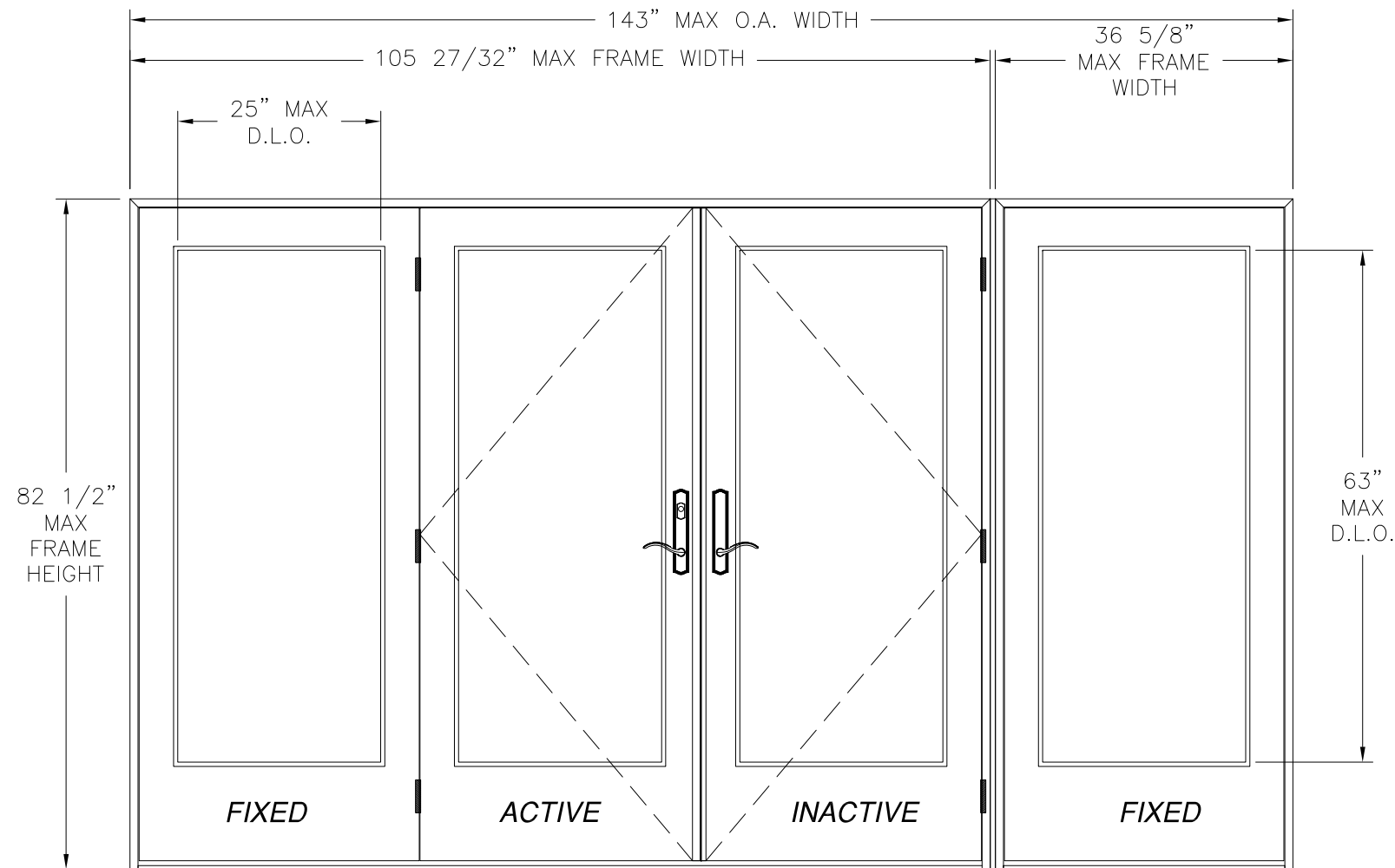
- Concrete (minimum compressive strength: 3,200 psi)
- Hollow concrete block; ASTM C-90, Grade N, Type 1 (or greater)
- Wood dimension lumber (minimum Spruce-Pine-Fir)

Installation Details:

- Refer to Sheet 1 of 9 of the approved drawings for the elevation and notes.
- Refer to Sheets 3 of 9 and 4 of 9 of the approved drawings for the anchor layout.
- Refer to Sheets 5 of 9 through 9 of 9 of the approved drawings for installation details.
- The approved drawings indicate the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



OUT-SWING ENTRANCE DOUBLE DOOR W/ SIDELITES
FIBERGLASS CLAD
EXTERIOR VIEW

DESIGN PRESSURE RATING	IMPACT RATING
±70.0PSF	LARGE AND SMALL MISSILE IMPACT

NOTES:

- 1) THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH REQUIREMENTS OF THE 2006 IRC, 2006 IBC WITH STATE OF TEXAS MODIFICATIONS.
- 2) WOOD FRAMING AND MASONRY OPENING TO BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO STRUCTURE. WOOD FRAMING OPENING IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 3) 1X BUCK OVER MASONRY/CONCRETE IS OPTIONAL. WHERE 1X BUCK IS NOT USED DISSIMILAR MATERIALS MUST BE SEPARATED WITH APPROVED COATING OR MEMBRANE. SELECTION OF COATING OR MEMBRANE IS THE RESPONSIBILITY OF THE ARCHITECT OR ENGINEER OF RECORD.
- 4) APPROVED IMPACT PROTECTIVE SYSTEM IS NOT REQUIRED FOR THIS PRODUCT IN WIND BORNE DEBRIS REGIONS.
- 5) UNITS MUST BE GLAZED PER ASTM E1300-04. SEE SHEET 3 FOR GLAZING DETAIL.
- 6) ALLOWABLE STRESS INCREASE OF 1/3 WAS NOT USED IN THE DESIGN OF THE PRODUCT SHOWN HEREIN. WIND LOAD DURATION FACTOR Cd=1.6 WAS USED FOR WOOD ANCHOR CALCULATIONS.
- 7) FRAME JAMB AND HEAD MATERIAL: CO-EXTRUDED PVC FOAM.
- 8) FRAME SILL MATERIAL: CO-EXTRUDED PVC FOAM WITH ALUMINUM CLADDING.
- 9) DOOR PANEL SIDELITE MATERIAL: FIBERGLASS SKIN WITH PVC FOAM TOP AND BOTTOM RAILS, AND PVC FOAM VERTICAL STILES WITH PINE REINFORCEMENTS AND POLYURETHANE FOAM CORE.
- 10) HINGE LOCATION: 9", 40 7/8" AND 72 1/2" FROM BOTTOM.
- 11) MAX PANEL SIZE: 34 1/2" X 80 5/16"

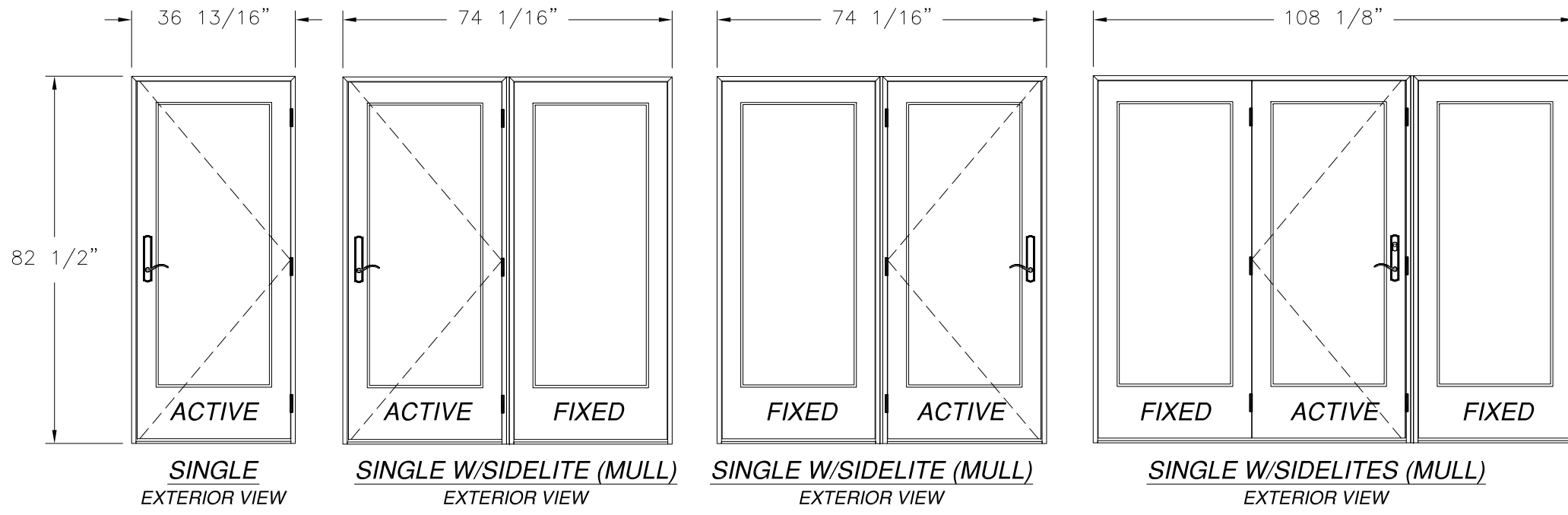
SIGNED: 03/20/2014

TABLE OF CONTENTS	
SHEET NO.	DESCRIPTION
1, 2	ELEVATION AND NOTES
3, 4	ANCHORING LAYOUTS
5 - 9	INSTALLATION DETAILS

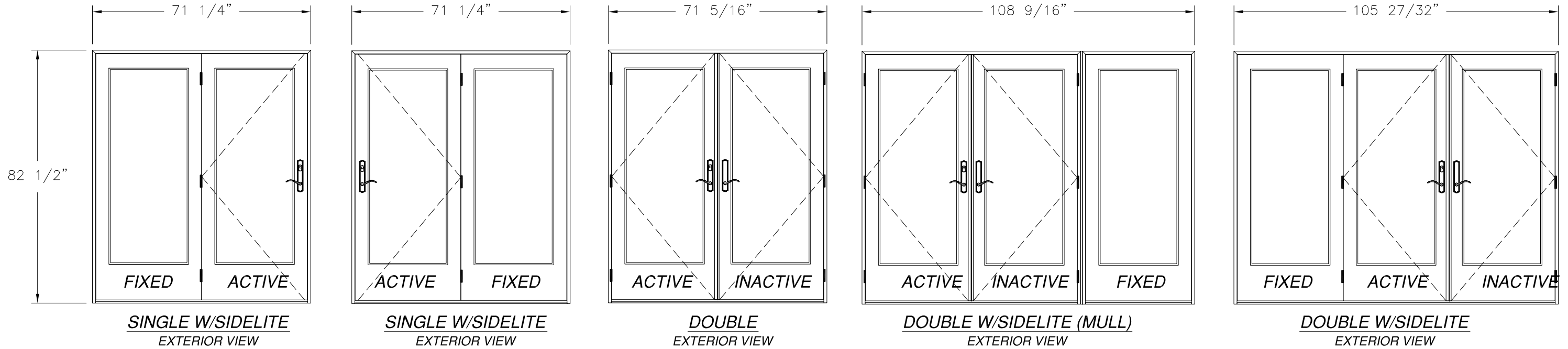
NAN YA PLASTICS CORP. USA 8989 NORTH LOOP EAST HOUSTON, TX 77029		
OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES FIBERGLASS CLAD ELEVATION AND NOTES		
DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 1 OF 9



Luis R. Lomas P.E.
TX No. 101889



REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



SIGNED: 03/20/2014

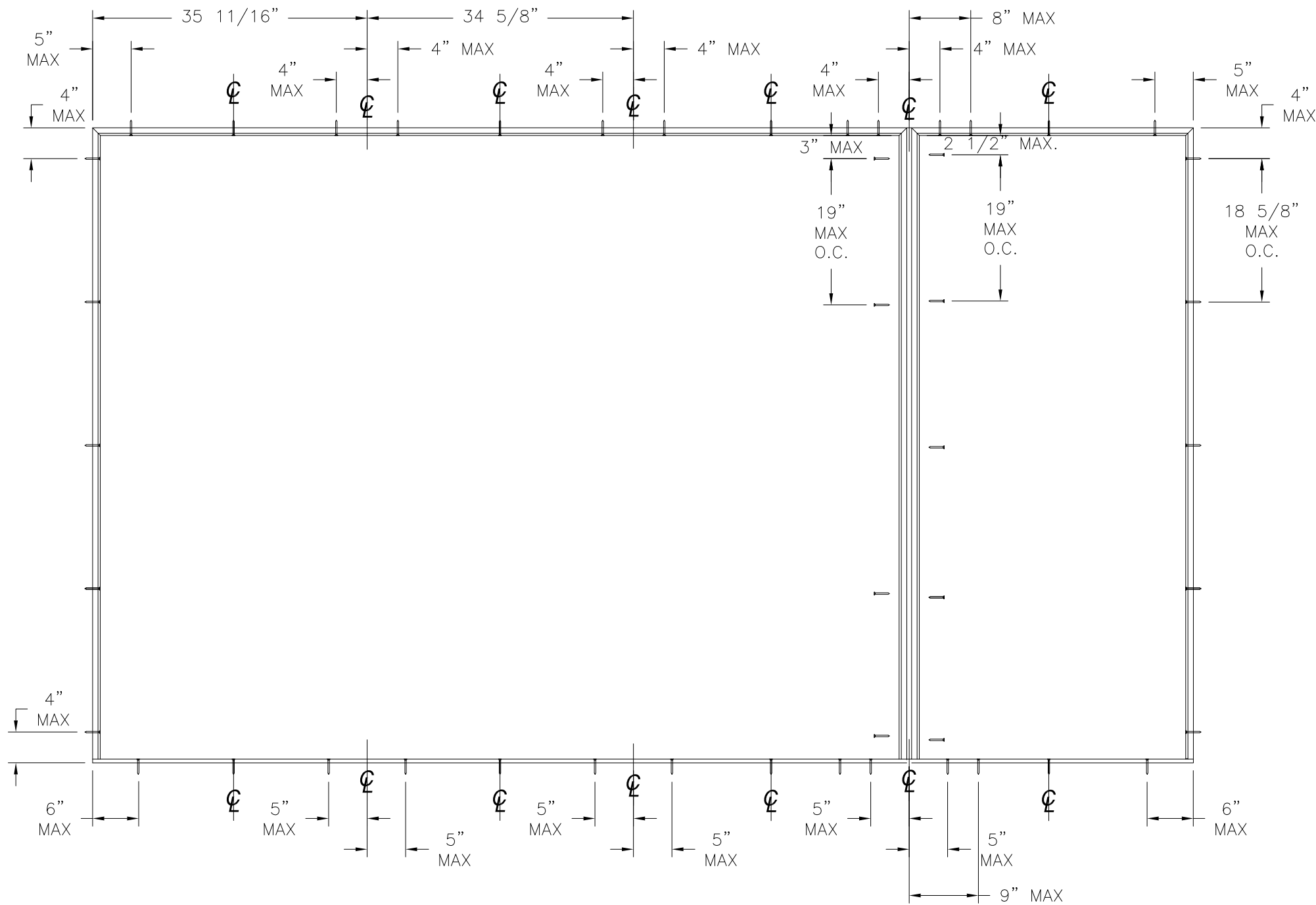
NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES
 FIBERGLASS CLAD
 APPROVED ELEVATIONS

DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 2 OF 9

Luis R. Lomas P.E.
 TX No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



ANCHORING NOTES:

- 1) SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM. SHIM WHERE SPACE OF 1/16" OR GREATER OCCURS. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4".
- 2) FOR ANCHORING INTO MASONRY/CONCRETE USE 3/16" TAPCON OF SUFFICIENT LENGTH TO ACHIEVE A 1 1/4" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ANCHORING LAYOUT AND INSTALLATION DETAILS.
- 3) FOR ANCHORING INTO 2X BUCK OR WOOD FRAMING USE #10 WOOD SCREW OF SUFFICIENT LENGTH TO ACHIEVE A 1 3/8" MINIMUM EMBEDMENT INTO SUBSTRATE. LOCATE ANCHORS AS SHOWN IN ANCHORING LAYOUT AND INSTALLATION DETAILS.
- 4) ALL FASTENERS TO BE CORROSION RESISTANT.
- 5) INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BELOW:
 A. WOOD – MINIMUM SPECIFIC GRAVITY OF G=0.42
 B. CONCRETE – MINIMUM COMPRESSIVE STRENGTH OF 3,200 PSI.
 C. MASONRY – STRENGTH CONFORMANCE TO ASTM C-90, GRADE N, TYPE 1 (OR GREATER).

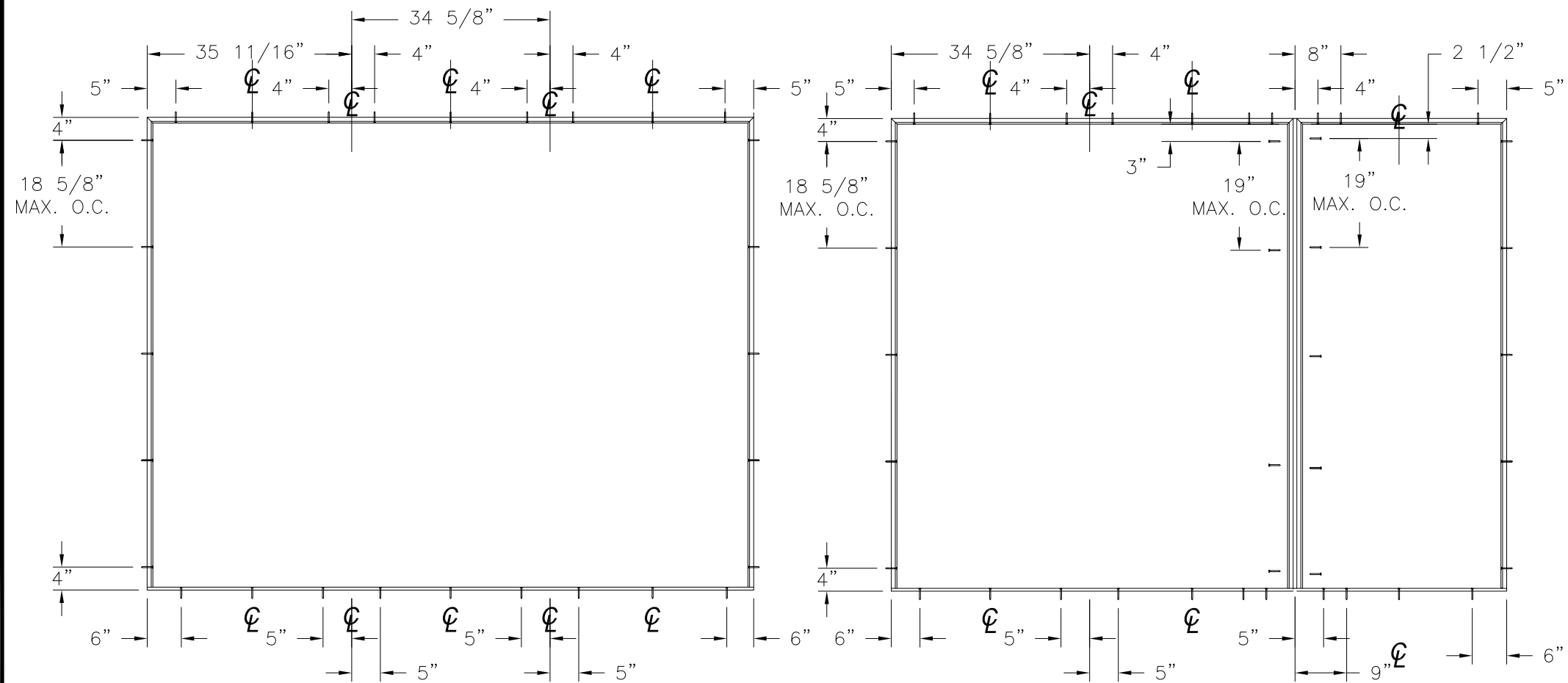
ANCHORING LAYOUT

SIGNED: 03/20/2014

NAN YA PLASTICS CORP. USA 8989 NORTH LOOP EAST HOUSTON, TX 77029		
OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES FIBERGLASS CLAD ANCHORING LAYOUT		
DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 3 OF 9

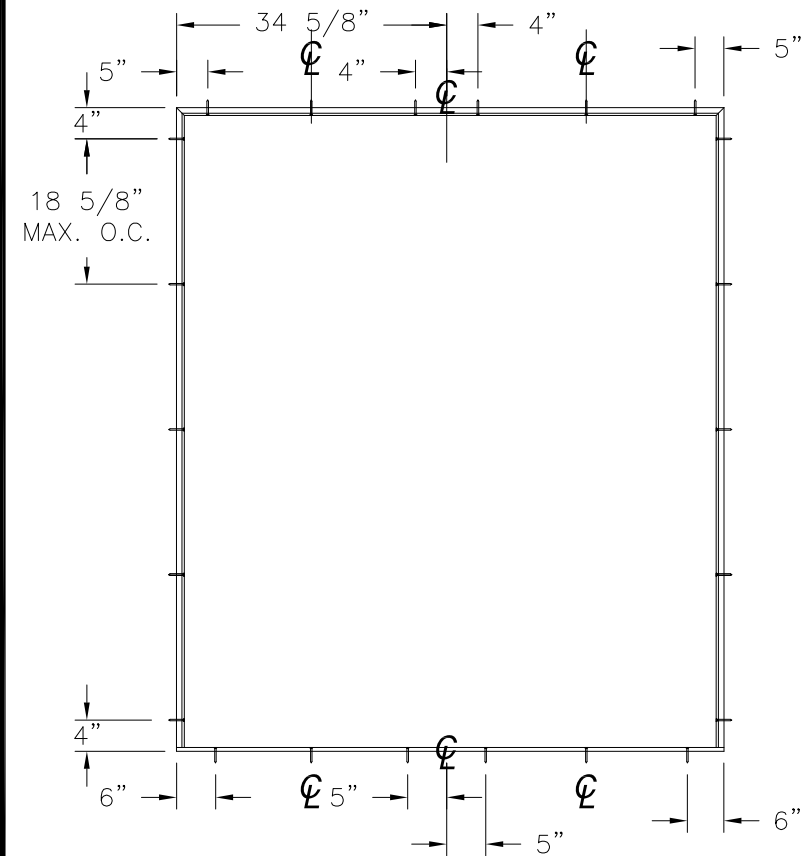


Luis R. Lomas P.E.
 TX No. 101889

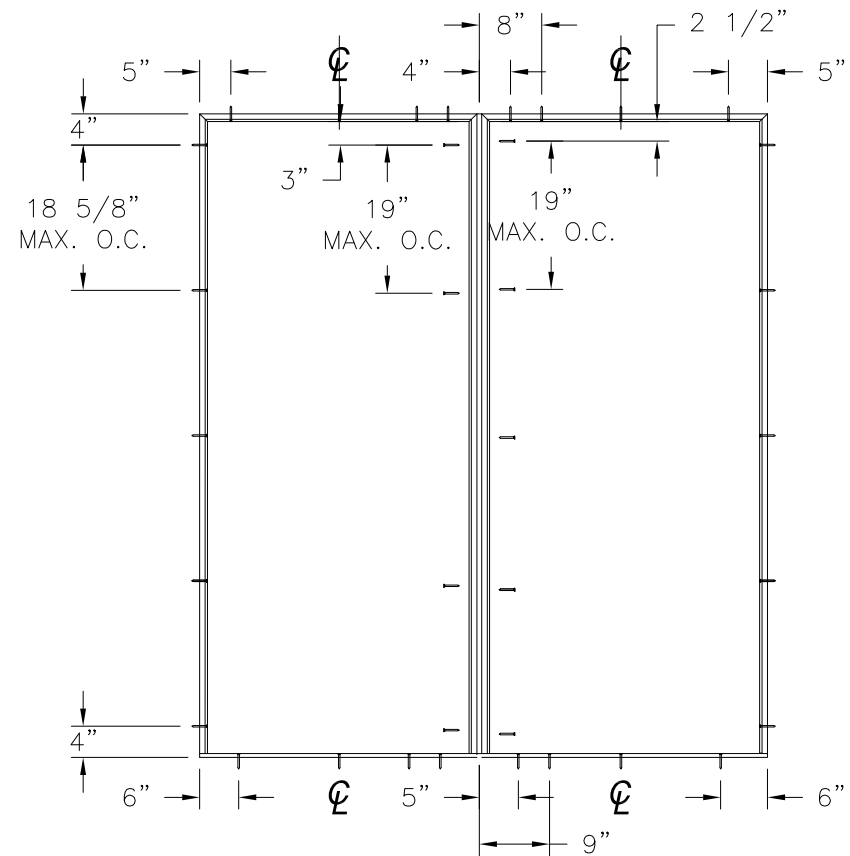


ANCHORING LAYOUT FOR OXO, XXO AND OXX

ANCHORING LAYOUT FOR OXO, XXO AND OXX (MULL)

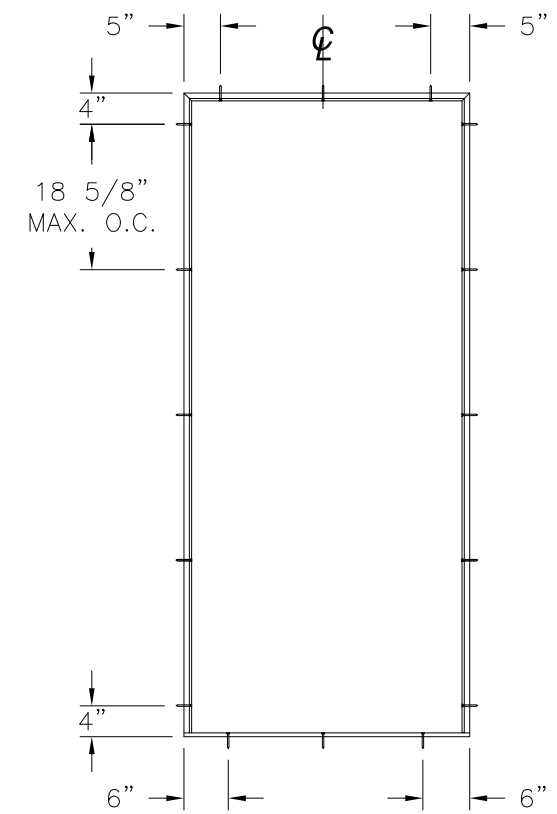


ANCHORING LAYOUT FOR XX, OX AND XO



ANCHORING LAYOUT FOR OX AND XO (MULL)

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



ANCHORING LAYOUT FOR X

SIGNED: 03/20/2014

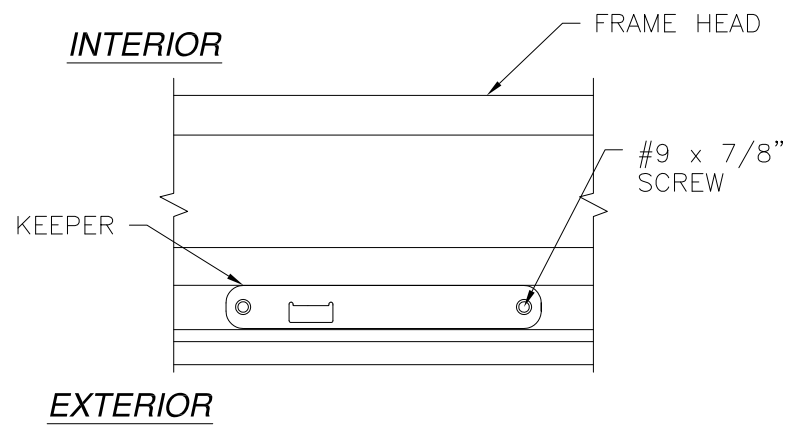
NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES
 FIBERGLASS CLAD
 ANCHORING LAYOUTS

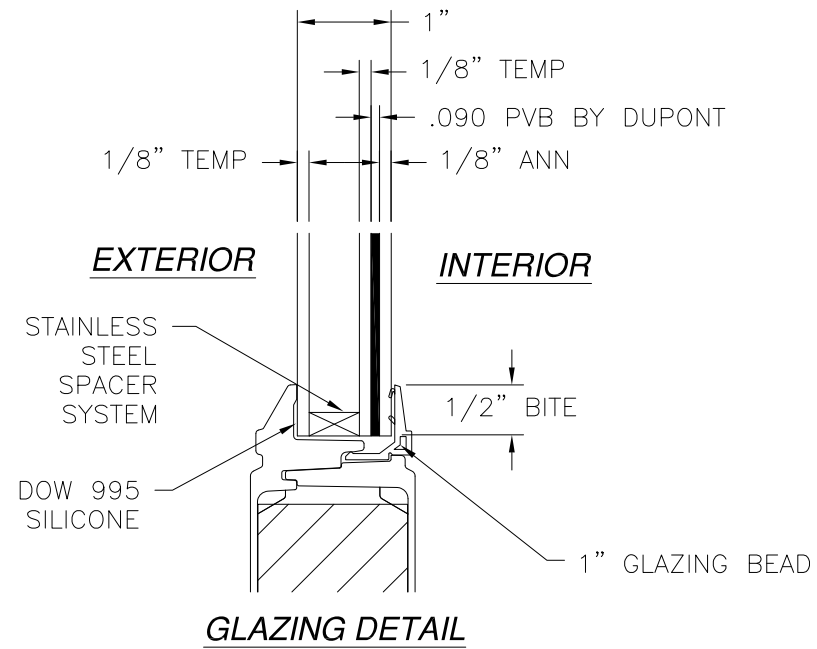
DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 4 OF 9

Luis R. Lomas P.E.
 TX No. 101889

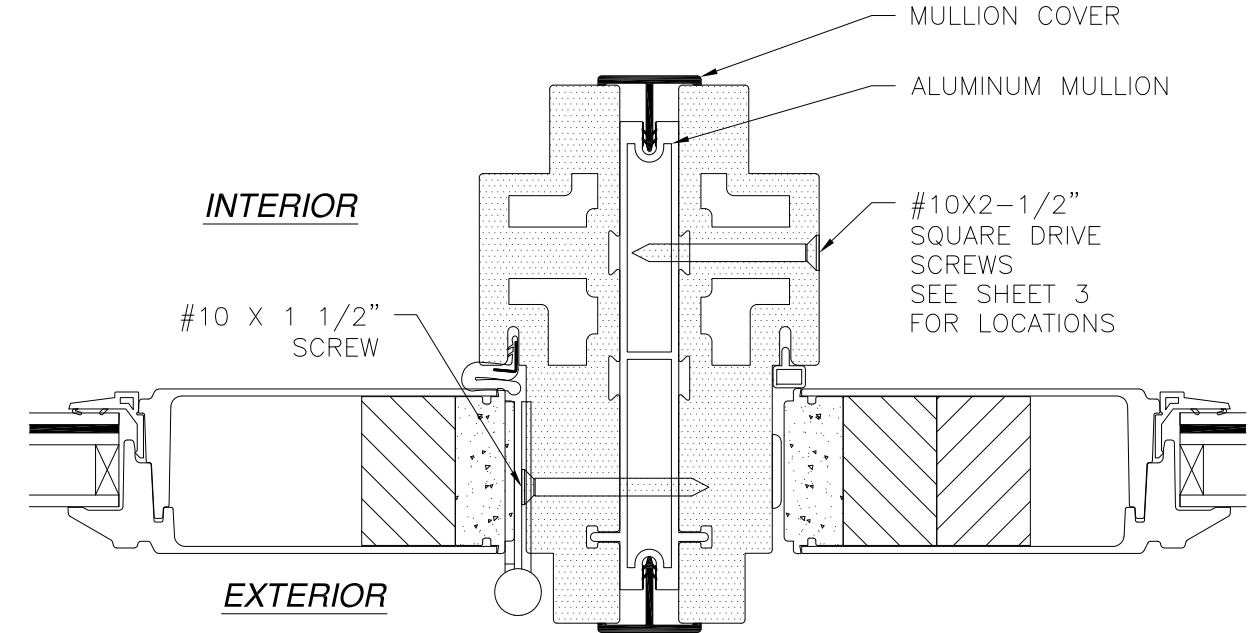
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



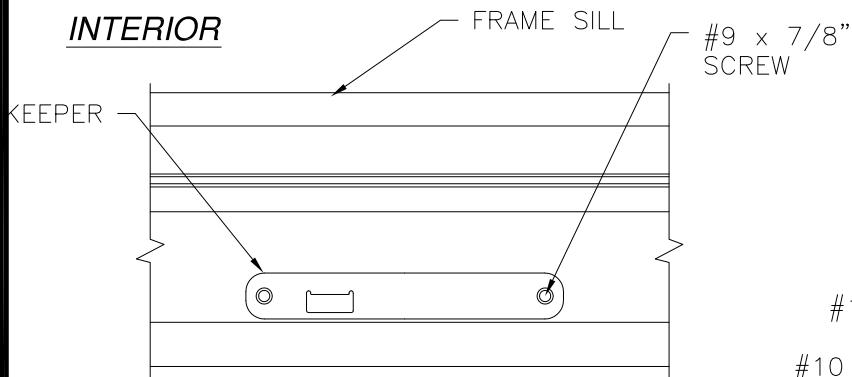
HEAD KEEPER DETAIL



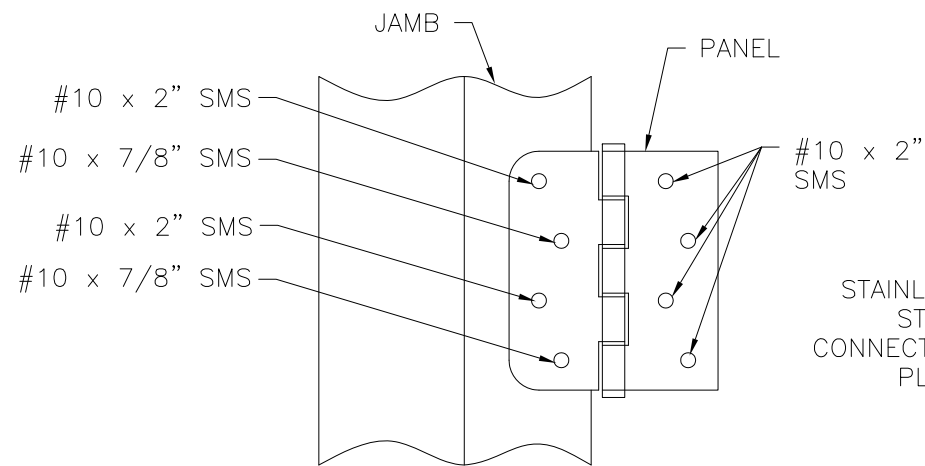
GLAZING DETAIL



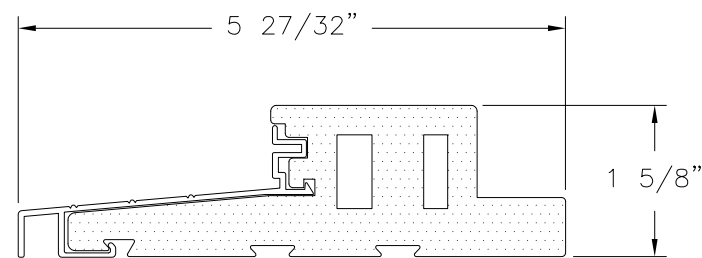
MULLION DETAIL



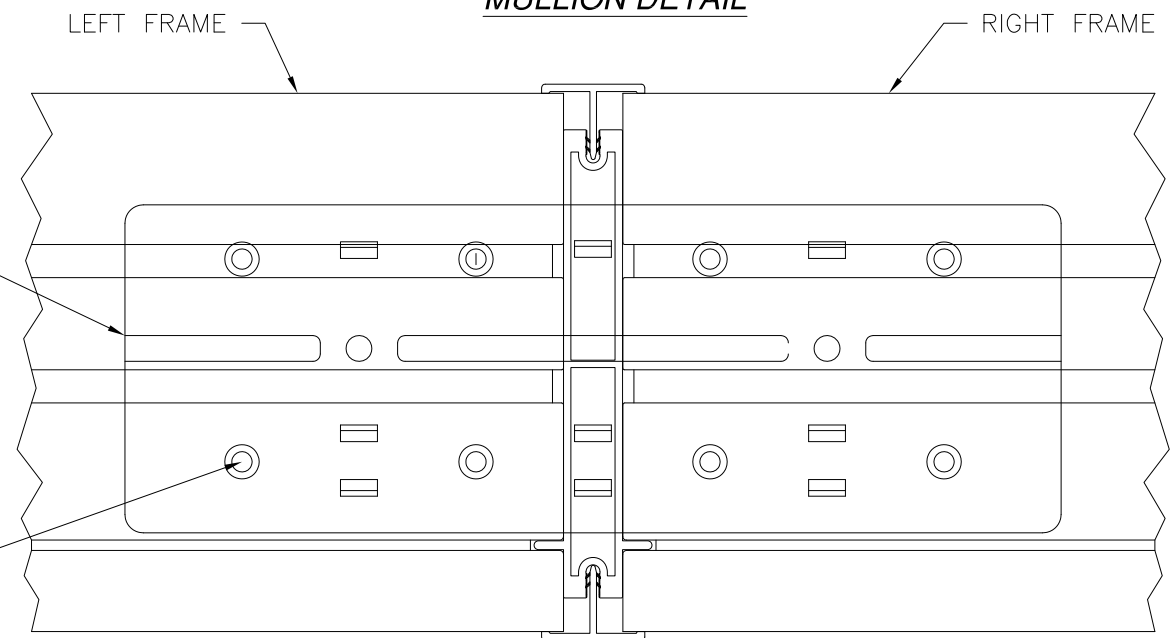
SILL KEEPER DETAIL



HINGE INSTALLATION DETAIL



OUTSWING DOOR SILL DETAIL



FRAME CONNECTION DETAIL

SIGNED: 03/20/2014

NAN YA PLASTICS CORP. USA
 8989 NORTH LOOP EAST
 HOUSTON, TX 77029

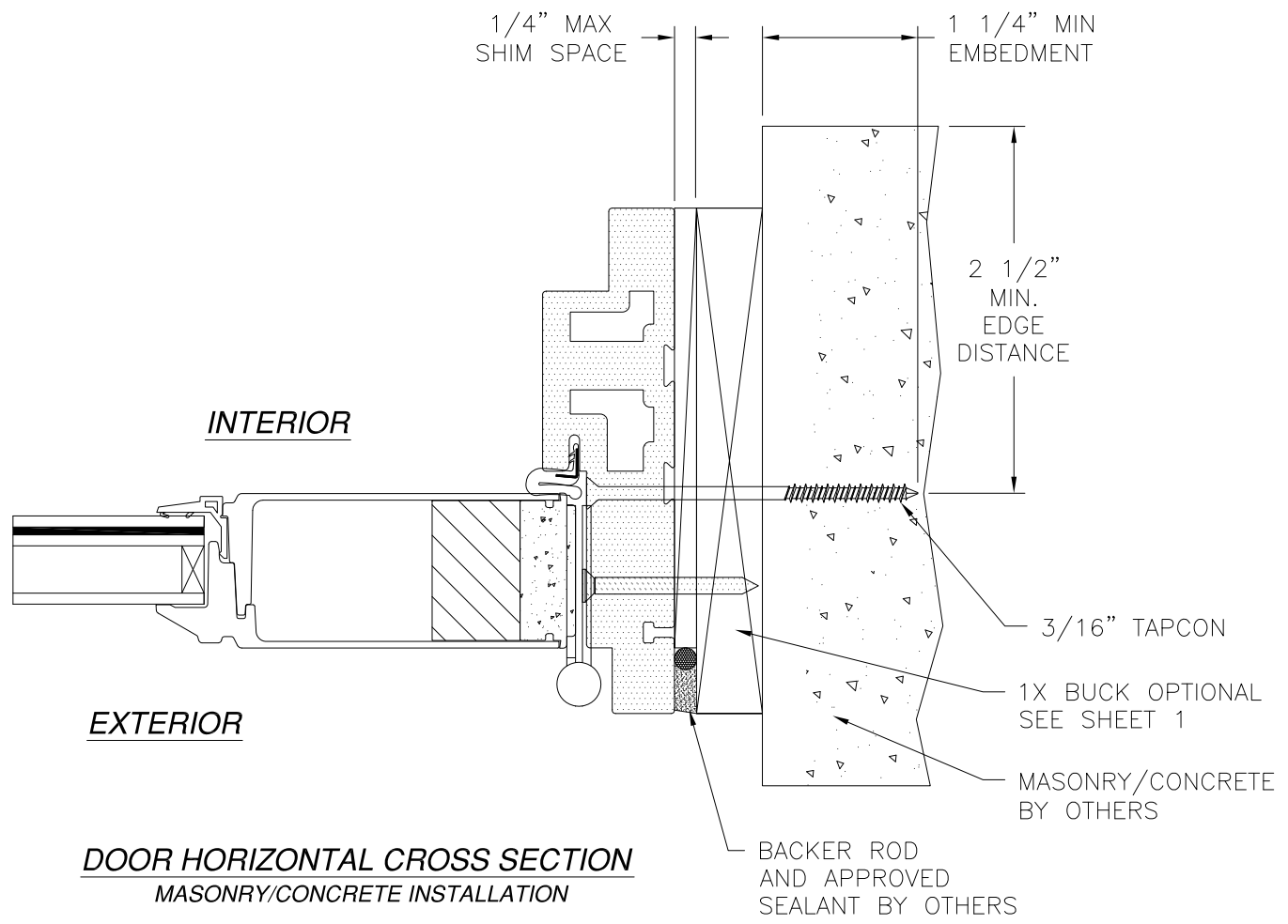
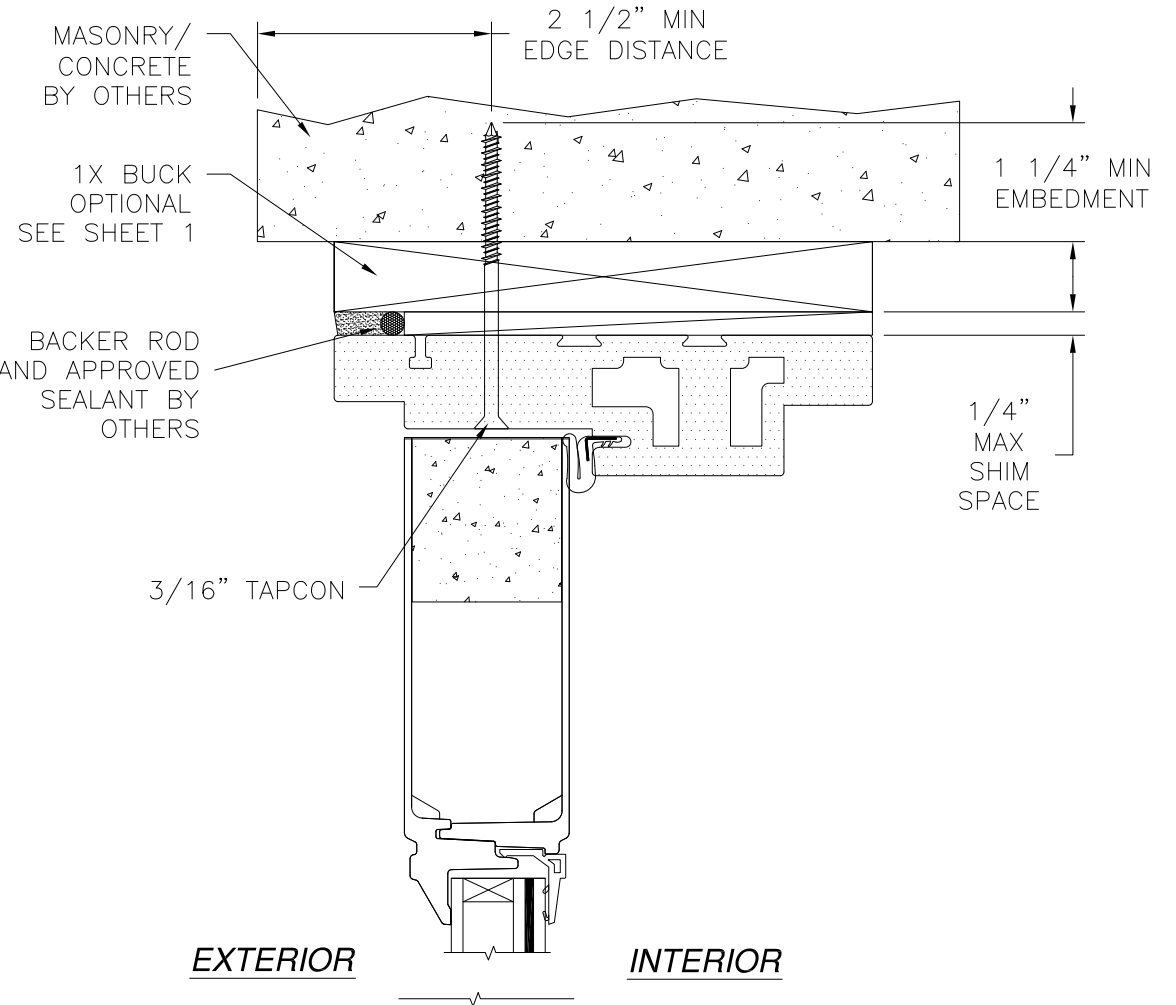
OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES
 FIBERGLASS CLAD
 INSTALLATION DETAILS

DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 5 OF 9

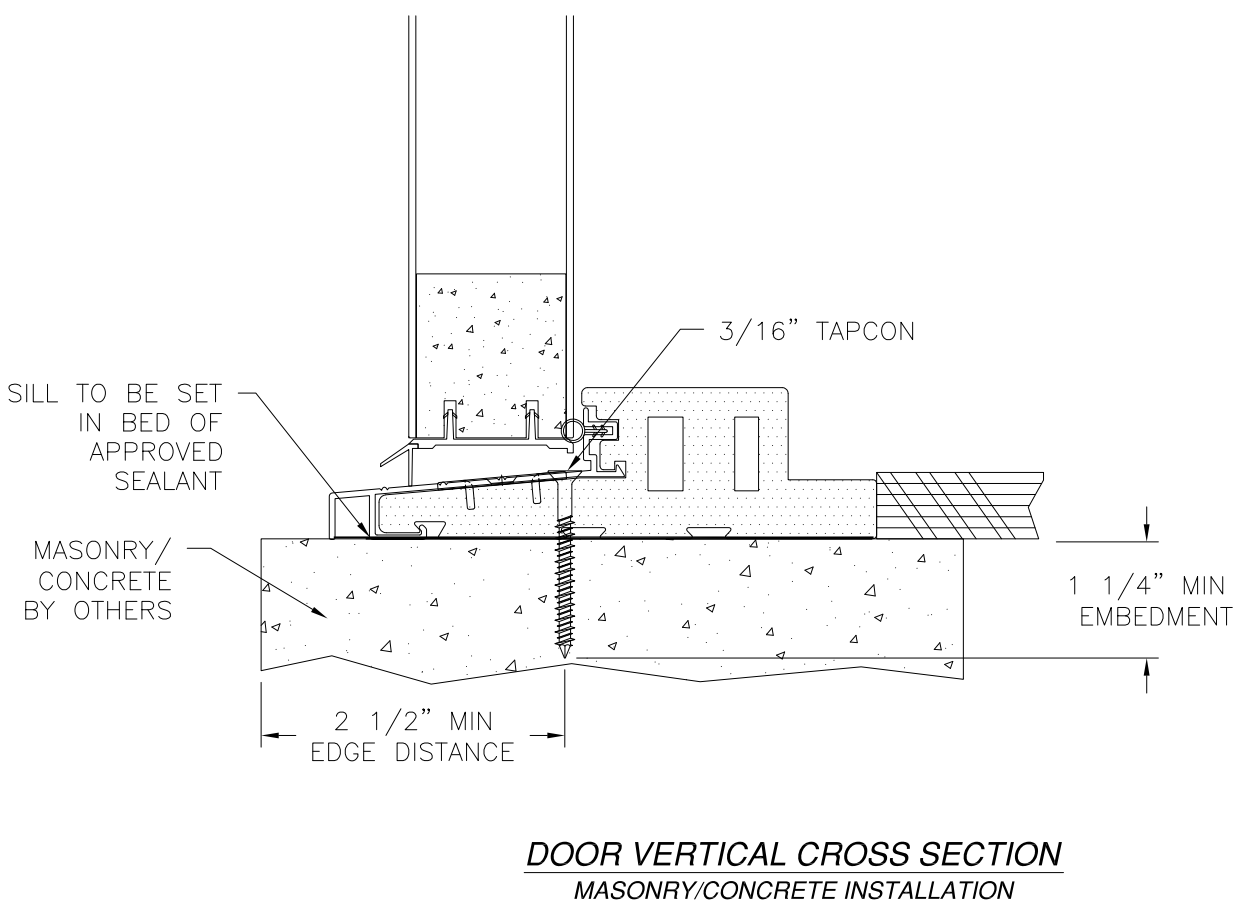


Luis R. Lomas P.E.
 TX No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



NOTE:
 INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
 ANCHORS MAY BE INSTALLED INSIDE OR OUTSIDE FRAME

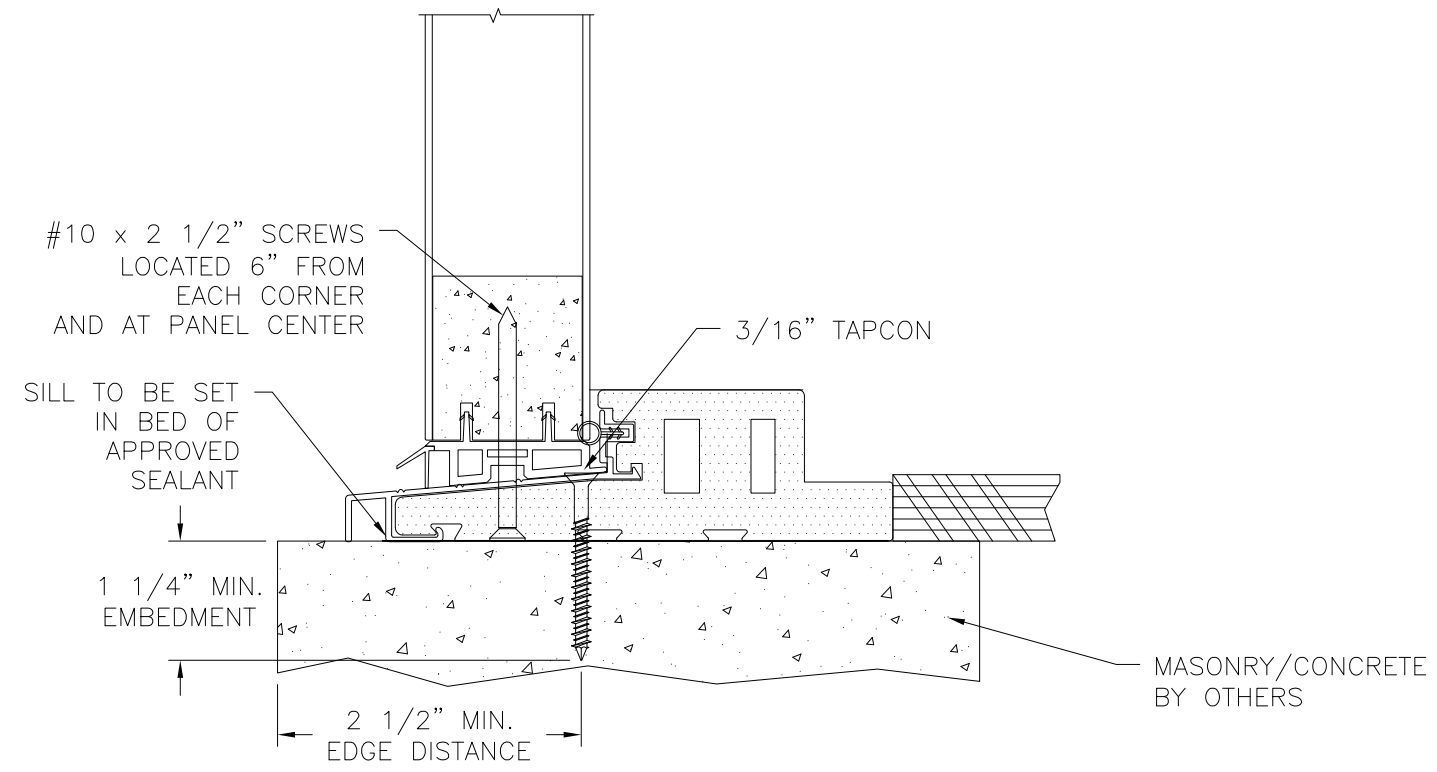
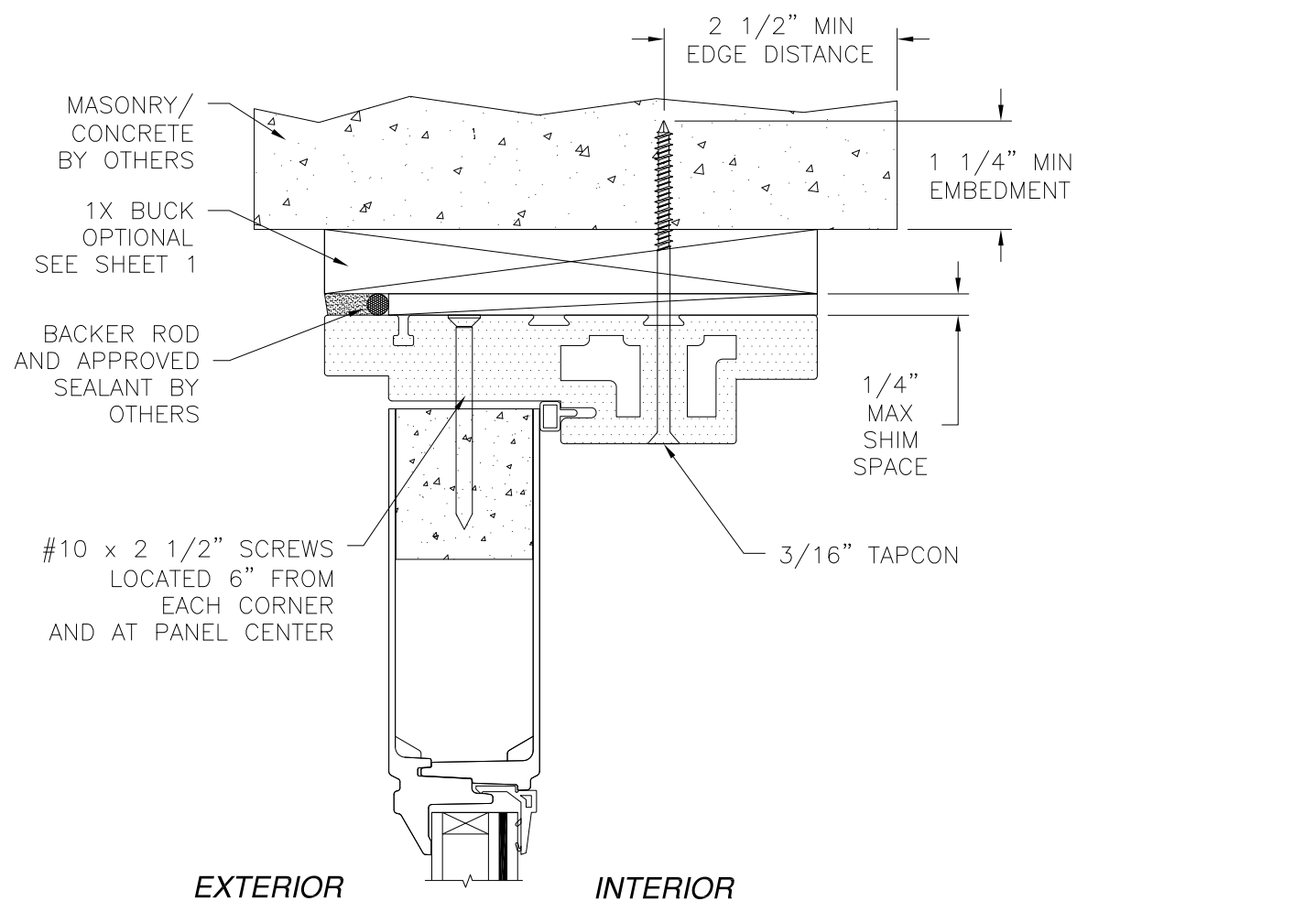


SIGNED: 03/20/2014

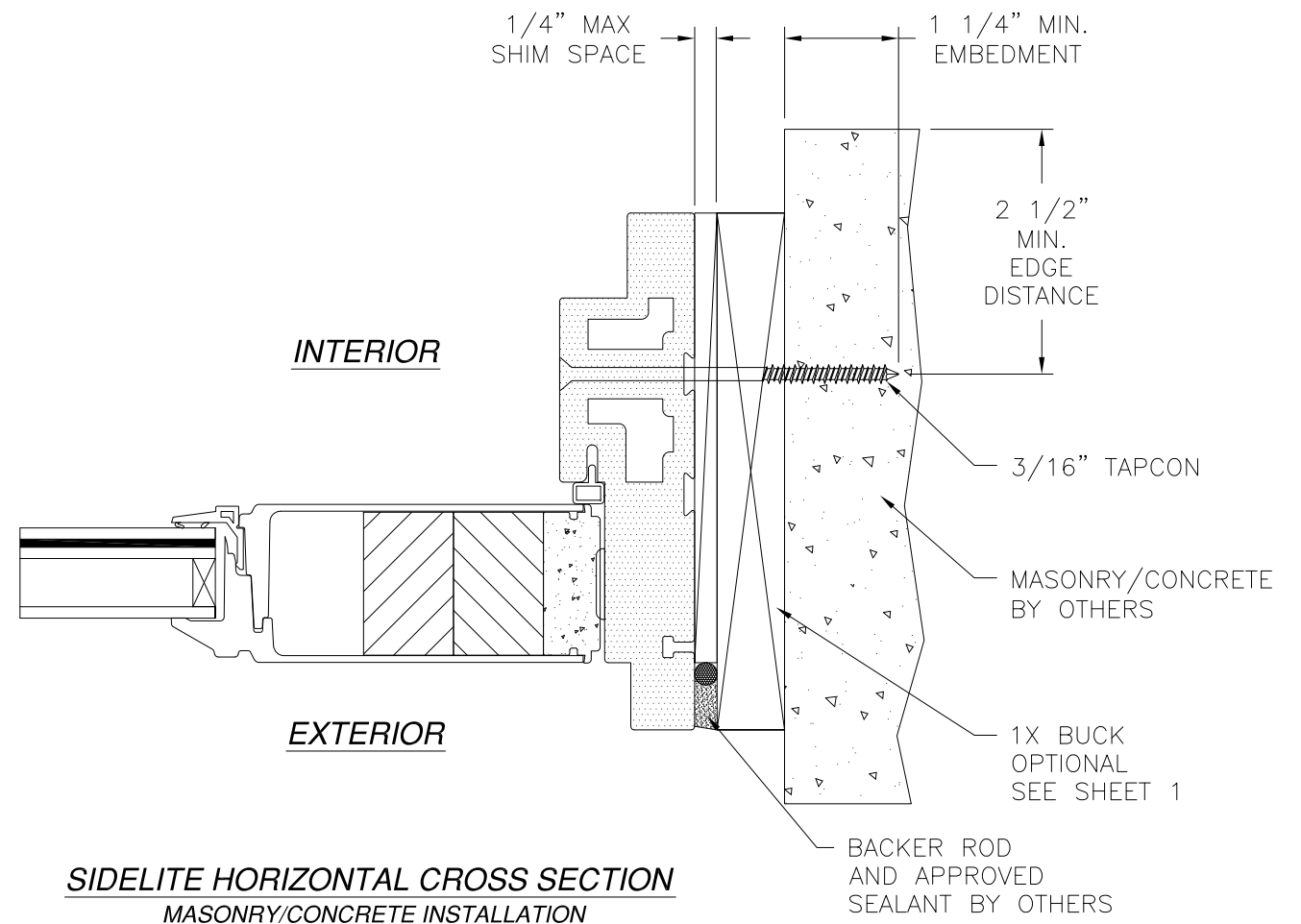
NAN YA PLASTICS CORP. USA 8989 NORTH LOOP EAST HOUSTON, TX 77029		
OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES FIBERGLASS CLAD INSTALLATION DETAILS		
DRAWN: L.M.P	DWG. NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 6 OF 9

Luis R. Lomas P.E.
 TX No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



SIDELITE VERTICAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION



SIDELITE HORIZONTAL CROSS SECTION
MASONRY/CONCRETE INSTALLATION

NOTE:
INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.

SIGNED: 03/20/2014

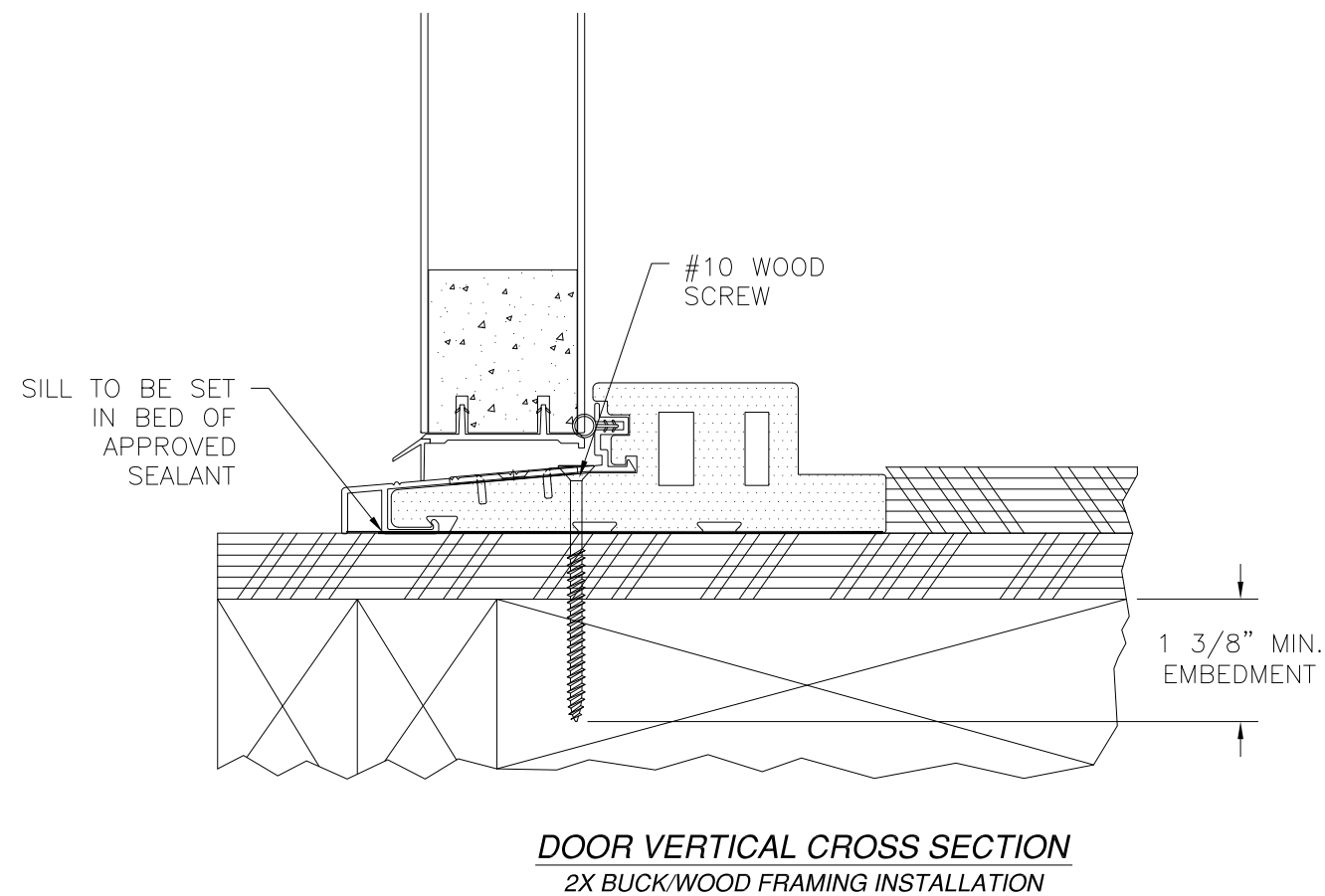
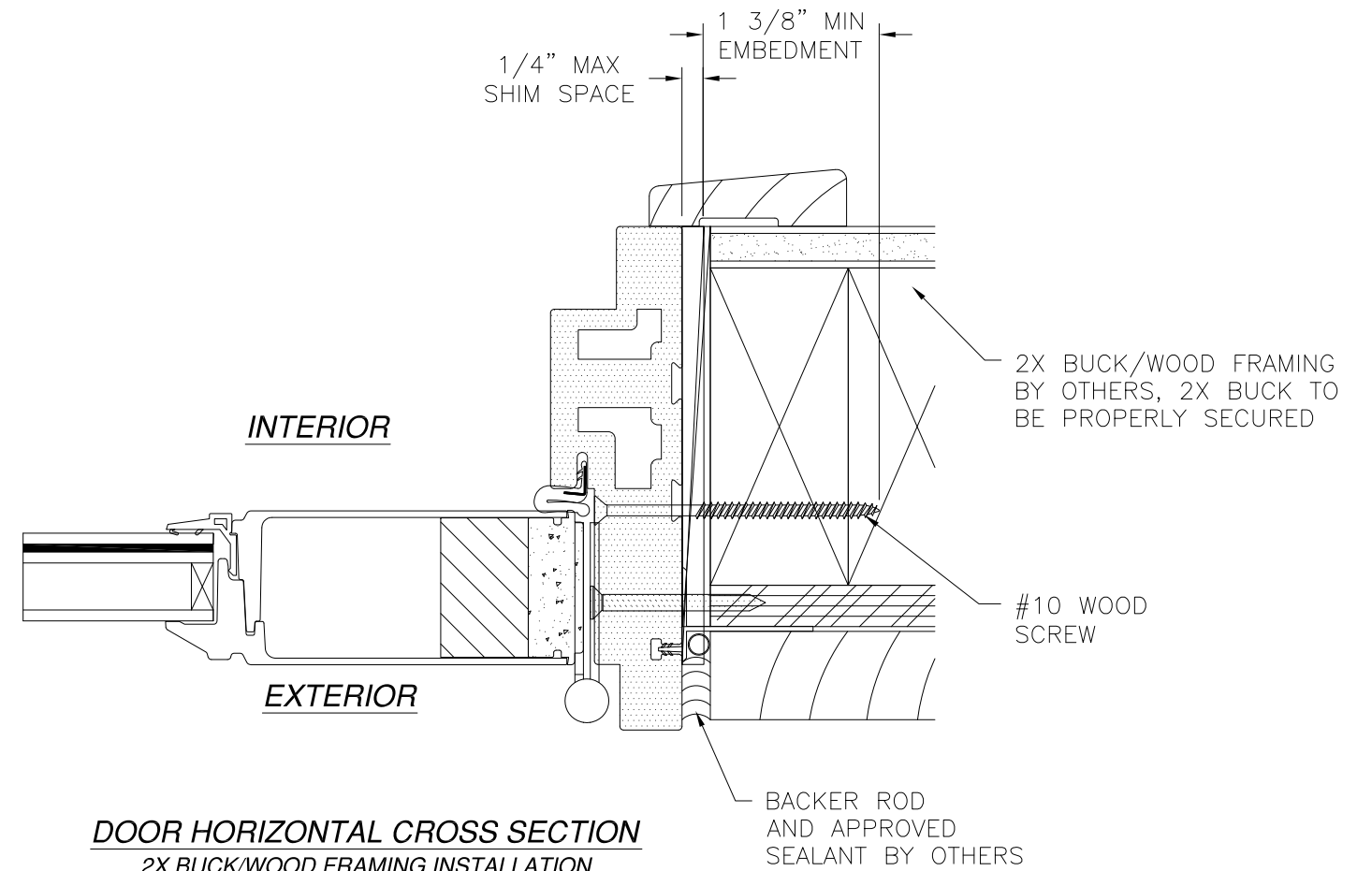
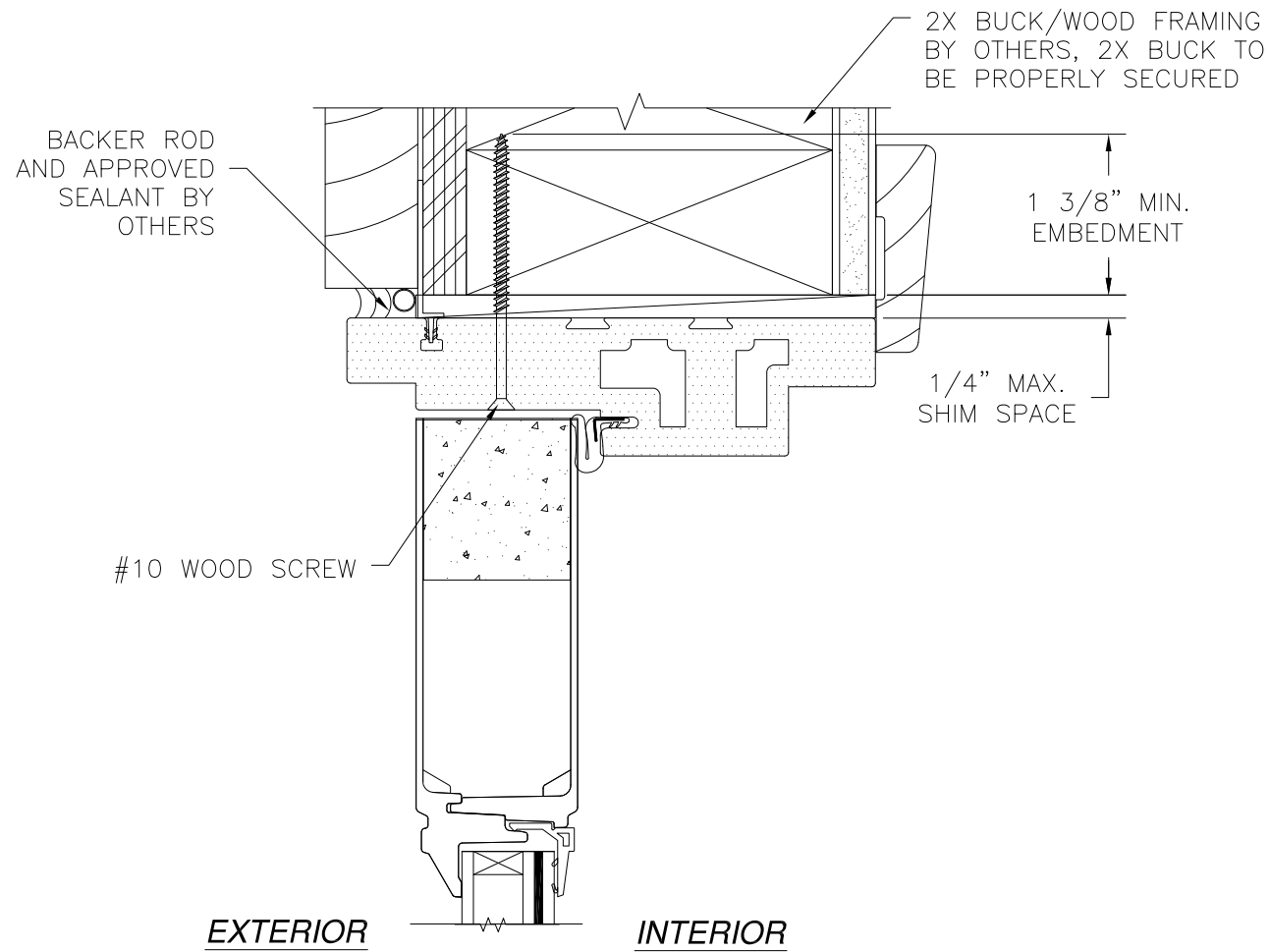
NAN YA PLASTICS CORP. USA
8989 NORTH LOOP EAST
HOUSTON, TX 77029

OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES
FIBERGLASS CLAD
INSTALLATION DETAILS

DRAWN: L.M.P	DWG. NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 7 OF 9

Luis R. Lomas P.E.
TX No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



DOOR HORIZONTAL CROSS SECTION
2X BUCK/WOOD FRAMING INSTALLATION

DOOR VERTICAL CROSS SECTION
2X BUCK/WOOD FRAMING INSTALLATION

NOTE:
INTERIOR AND EXTERIOR FINISHES, BY OTHERS, NOT SHOWN FOR CLARITY.
ANCHORS MAY BE INSTALLED INSIDE OR OUTSIDE FRAME

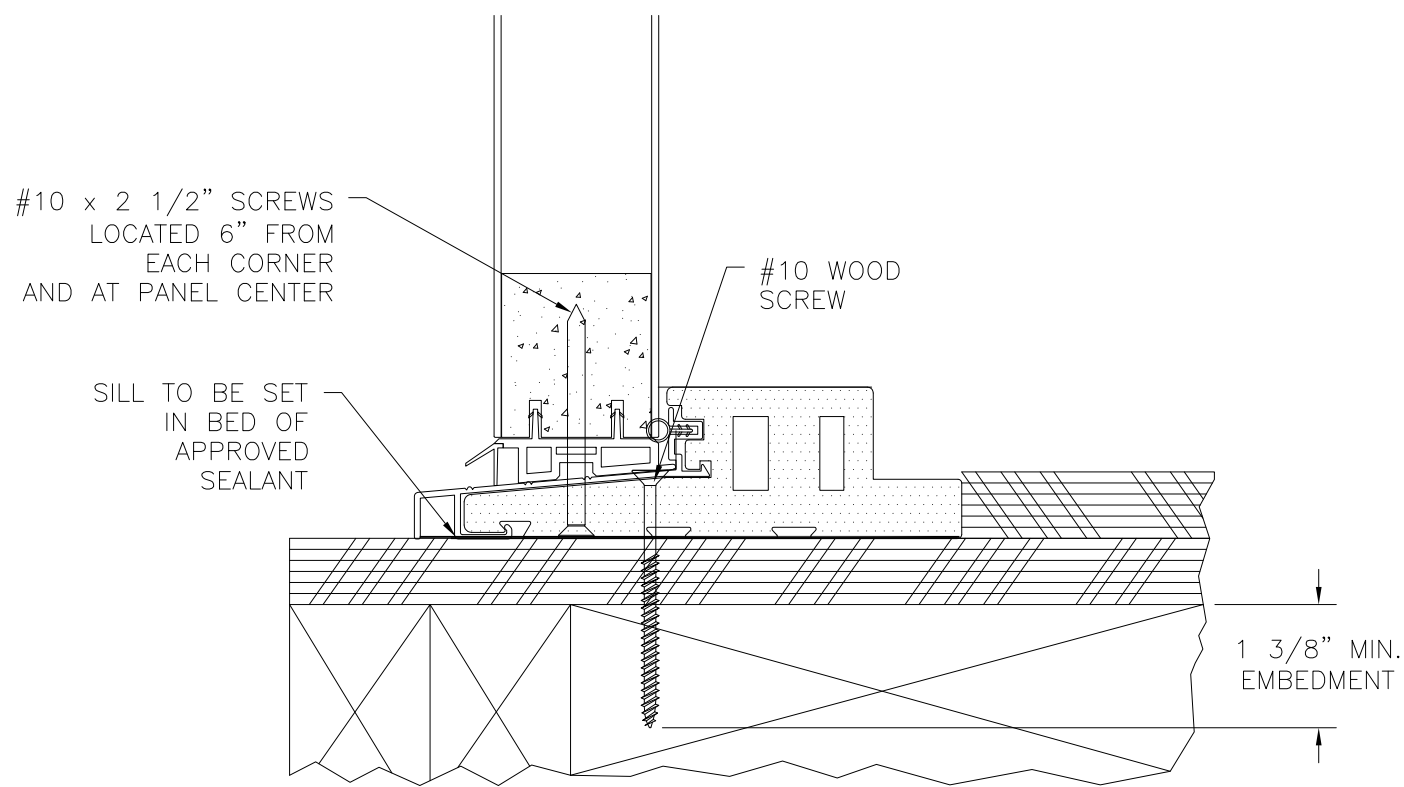
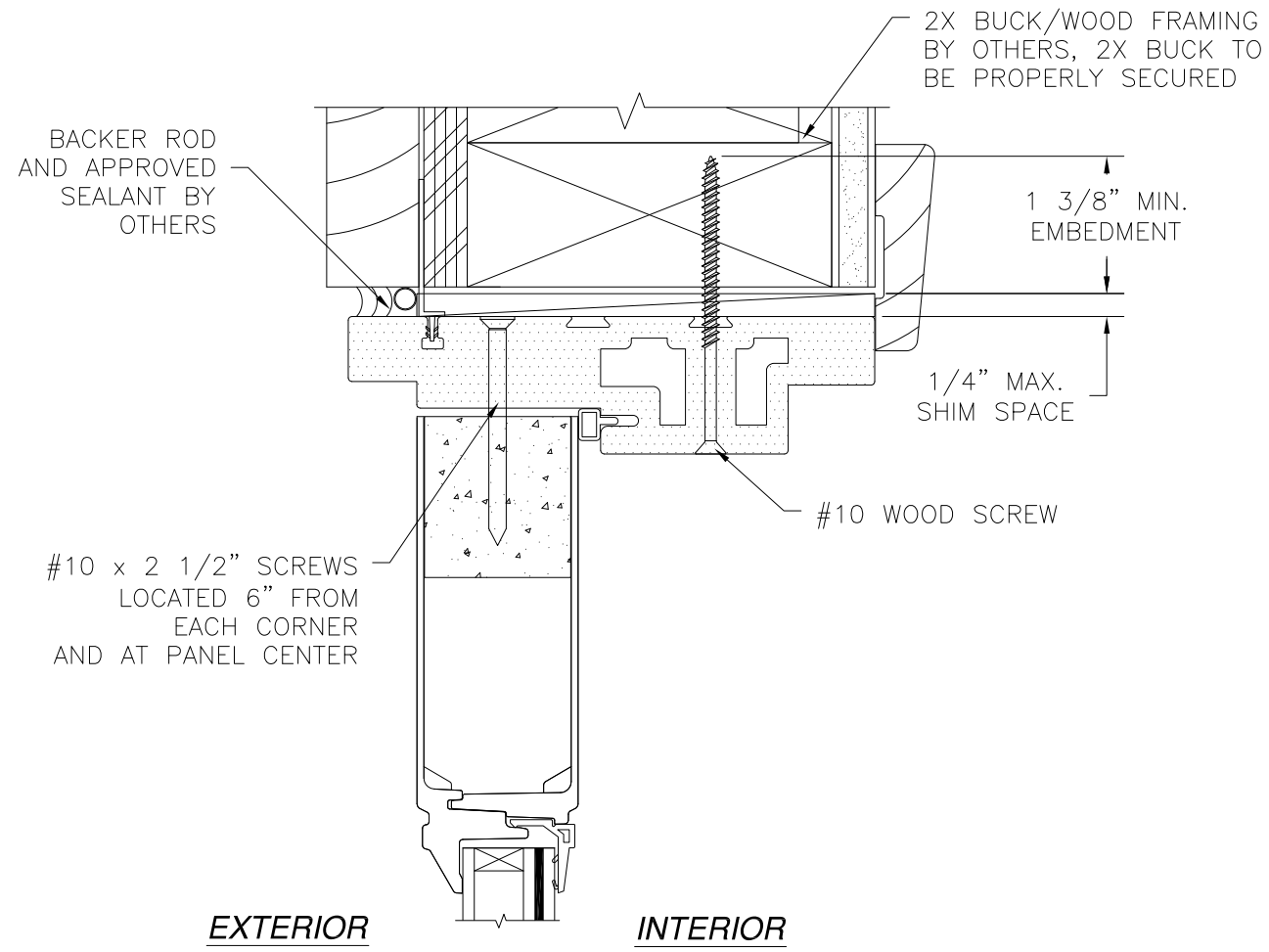
SIGNED: 03/20/2014

NAN YA PLASTICS CORP. USA 8989 NORTH LOOP EAST HOUSTON, TX 77029		
OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES FIBERGLASS CLAD INSTALLATION DETAILS		
DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 8 OF 9



Luis R. Lomas P.E.
TX No. 101889

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	REVISED ANCHOR LOCATION	06/13/12	R.L.
B	REVISED RATING	03/17/14	R.L.



SIDELITE HORIZONTAL CROSS SECTION
2X BUCKWOOD FRAMING INSTALLATION

SIDELITE VERTICAL CROSS SECTION
2X BUCK/WOOD FRAMING INSTALLATION

NAN YA PLASTICS CORP. USA
8989 NORTH LOOP EAST
HOUSTON, TX 77029

OUT-SWING ENTRANCE DOOR W/ & W/O SIDELITES
FIBERGLASS CLAD
INSTALLATION DETAILS

DRAWN: L.M.P	DWG NO. 08-01539	REV B
SCALE NTS	DATE 05/30/2012	SHEET 9 OF 9

SIGNED: 03/20/2014



Luis R. Lomas P.E.
TX No. 101889