### GENERAL NOTES:
1. This product has been tested, analyzed, and approved for design pressures not to exceed those shown in the allowable design pressure table.
2. Opening, building, and fastening members must be properly designed and installed to transfer wind load to the structure.
3. All hardware and fasteners shall be in accordance with these drawings and shall not vary unless specifically noted on the drawings. Specified anchor embed to base material shall be beyond wall finish or stucco.
4. The drawings specifications shown herein represent the products tested and proposed for water, air, impact, cyclical & uniform static air pressure testing in conformance with the 2016 IRC referenced standards. AAWC 3200, ETA 13X-020, ETA 13X-021 for large, small impact, and wind pressure. All testing of this product to standards less current than those specified in the 2016 IRC has been determined equivalent to the more current versions of those standards referenced in the 2016 IRC.
5. This product has been designed in accordance with the guidelines of the 2016 International Building Code (IBC).
6. Impact shutters are not required with this product.
7. All anchor, securing product frames to pressure treated blocks or wood framing shall be capable of resisting corrosion caused by the pressure treating chemicals in the wood.
8. Drawings shall be written in BOLD and not to be used when referencing these elements in accordance with the governing code and governing wind velocity. For wind load calculations in accordance with the International Building Code, a directional factor of 0.8 may be applied per the IBC-7 standard.
9. Materials, including cutouts to fit steel splices, that come into contact with other dissimilar materials shall be separated or coated as required to avoid corrosion of other material.
10. To the best of our knowledge, the product shown herein are quality assured by an approved certification/audit entity and shall be labeled in accordance with applicable standards. These drawings show all applicable elevation, combination, installation, and comparative analysis conditions as determined through testing and engineering analysis. Product assembly shall be in accordance with these drawings, the manufacturer’s quality assurance specifications, and construction reports.
11. Certification of this product is considered void if they are installed without a building permit from the appropriate local building department or if they are installed by anyone other than a licensed contractor experienced with installations of this type of product.

### CORNER & FRAME END CONSTRUCTION:
- Frame head corner (applicable to items #1 and #1B): head is square cut, butt to side, fastened with three (3) no. 12 x 1 in. #8 flathead screws through the side member into the head member screw splices and sealed with silicone.
- Frame head corner (applicable to item #1C): head is square cut, butt to side, fastened with two (2) no. 12 x 1 in. #8 flathead screws through the side member into the head member screw splices and sealed with silicone.
- Frame sill corner: sill is square cut, butt to side, fastened with two (2) no. 12 x 1 in. #8 flathead screws through the side member into the sill member screw splices and sealed with silicone.
- Frame corner (applicable to item #1D): sill is square cut, butt to side, fastened with one (1) #8 flathead screw assembly. Each joint assembly was fastened to the side with three (3) no. 12 x 1 in. #8 flathead screws. The threshold is then fastened to the joint assembly with two (2) no. 12 x 3 in. 3/4” flathead screws and sealed with silicone.
- Horizontal frame corner (applicable to item #2): horizontal frame corner is square cut, butt to side, fastened with two (2) no. 12 x 1 in. #8 flathead screws through the side member into the sill member screw splices and sealed with silicone.
- Horizontal frame corner (applicable to item #2B): horizontal frame corner is square cut, butt to side, joined via a shear block (part #2B). The shear block is fastened to the vertical frame member with four (4) no. 12 x 1 in. #8 flathead screws and the horizontal member is fastened to the shear block with three (3) no. 12 x 1 in. #8 flathead screws. Each corner is sealed with Dow 795 silicone sealant.

### FRAME ANCHOR REQUIREMENTS TABLE

| OPENING TYPE | OPENING TYPE (SUBSTRATE) | FRAME TO OPENING FASTENER TYPE | MINIMUM EMBED | MINIMUM EDGE DIST.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>MIN. 2X6 WOOD FRAME OR BUCK (MIN. 3 &amp; G=0.55)</td>
<td>NO. 14 SMS OR WOOD SPOOL</td>
<td>1 1/4”</td>
<td>3/4”</td>
</tr>
<tr>
<td>B</td>
<td>MIN. 1 1/4” THK A36 STEEL</td>
<td>1/4” GR. 5 SELF TAP/DRILL SCREW</td>
<td>FULL</td>
<td>1/2”</td>
</tr>
<tr>
<td>C</td>
<td>MIN. 3000 PSI CONCRETE</td>
<td>(1/4”) 1/4” CONCRETE SCREW</td>
<td>1 1/2”</td>
<td>2 1/2”</td>
</tr>
<tr>
<td>D</td>
<td>MIN. 18 GA. 33 ksi METAL STUD</td>
<td>(1/4”) 1/4” SELF TAP/DRILL SCREW</td>
<td>FULL</td>
<td>1 1/2”</td>
</tr>
<tr>
<td>E</td>
<td>MIN. 18 GA. 33 ksi METAL STUD</td>
<td>1/4” 1/4” CONCRETE SCREW</td>
<td>1 1/4”</td>
<td>2 1/2”</td>
</tr>
<tr>
<td>F</td>
<td>MIN. 3000 PSI CONCRETE</td>
<td>(3/8”) 3/8” WEDGE/SEAT ANCHOR</td>
<td>2 1/2”</td>
<td>3”</td>
</tr>
</tbody>
</table>

1. Concrete screws shall be AEC ULTRA-C (C.S.), ELCO CRETE-FLEX (S.S.) or HILTI Kwik-Con II (C.S. or S.S.)
2. Wedge anchors shall be RAMSET/RED HEAD DYNABOLT, HILTI KBK-BOLT 3, or POWERS RAW POWER BOLT (STL. S.S.)
3. Anchor type F is only applicable for use with the sash anchor block at the vertical door Mullion bottom end.

### EXTERIOR ELEVATION

**MULTIPLE FIXED PANEL STORE FRONT ASSEMBLY**

**WHEN ANCHORED TO CONCRETE OR CMU**

HORIZONTAL STACKING & OVERALL UNIT WIDTH IS UNLIMITED PROVIDING DIMENSIONS ARE NOT EXCEEDED. NUMBER OF VERTICAL PANELS IS UNLIMITED BUT MUST FIT INSIDE MAXIMUM UNIT HEIGHT SHOWN.

**NOTE:** CMU IS APPLICABLE ONLY AT SIDES.

---

### EVALUATION OF THIS PRODUCT IS BASED ON APPLICABLE STANDARDS AND/OR INFORMATION & RESULTS FROM TEST REPORTS. THE FOLLOWING CODE VERSION CONSIDERED WITH THIS EVALUATION WAS THAT IN EFFECT AT THE TIME OF THE EVALUATION. ANY EVENT OF CODE VERSION CHANGES UPDATES OR IN THE EVENT THAT NEW OR ADDITIONAL TESTING IS COMPLETED ON THIS PRODUCT, PRIOR TO STARTING CODE COMPLIANCE, THE MANUFACTURER IS RESPONSIBLE FOR THE EVALUATION ENGINEER OF RECORD THAT EVERYTHING SPECIFIED HEREIN IS CURRENT WITH ALL CURRENT TESTING, CODES AND APPLICABLE STANDARDS.
**Exterior Elevation**

*Multiple Fixed Panel Store Front Assembly (When Anchored to Steel)*

**Scale:** 1/2" = 1'-0"

---

**Mullion Allowable Design Pressure**

<table>
<thead>
<tr>
<th>Maximum Unit Height (In.)</th>
<th>Maximum D.L.O. Width (In.)</th>
<th>Allowable Pressure (+/- PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non Reinf.</td>
</tr>
<tr>
<td>60</td>
<td>N/A</td>
<td>54.7</td>
</tr>
<tr>
<td>54</td>
<td>N/A</td>
<td>80.8</td>
</tr>
<tr>
<td>50 1/2</td>
<td>N/A</td>
<td>65.0</td>
</tr>
<tr>
<td>48</td>
<td>N/A</td>
<td>68.4</td>
</tr>
<tr>
<td>36</td>
<td>N/A</td>
<td>78.2</td>
</tr>
<tr>
<td>60</td>
<td>N/A</td>
<td>90.0</td>
</tr>
<tr>
<td>54</td>
<td>N/A</td>
<td>63.2</td>
</tr>
<tr>
<td>50 1/2</td>
<td>N/A</td>
<td>70.2</td>
</tr>
<tr>
<td>48</td>
<td>N/A</td>
<td>79.0</td>
</tr>
<tr>
<td>42</td>
<td>N/A</td>
<td>90.0</td>
</tr>
<tr>
<td>60</td>
<td>N/A</td>
<td>75.0</td>
</tr>
<tr>
<td>54</td>
<td>N/A</td>
<td>83.4</td>
</tr>
<tr>
<td>50 1/2</td>
<td>N/A</td>
<td>89.1</td>
</tr>
<tr>
<td>48</td>
<td>N/A</td>
<td>90.0</td>
</tr>
</tbody>
</table>

**Glass Allowable Pressure Table**

<table>
<thead>
<tr>
<th>Maximum D.L.O. Height (In.)</th>
<th>Allowable Pressure (+/- PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>57 1/2</td>
</tr>
<tr>
<td>92 3/4</td>
<td>48</td>
</tr>
<tr>
<td>97</td>
<td>54</td>
</tr>
<tr>
<td>97</td>
<td>45 3/4</td>
</tr>
<tr>
<td>103</td>
<td>50 3/4</td>
</tr>
<tr>
<td>103</td>
<td>43 1/2</td>
</tr>
<tr>
<td>109</td>
<td>48</td>
</tr>
<tr>
<td>109</td>
<td>45 1/2</td>
</tr>
<tr>
<td>115</td>
<td>45 3/4</td>
</tr>
<tr>
<td>115</td>
<td>38 3/4</td>
</tr>
</tbody>
</table>

Notes:
1. See Elevations for Dimensioning of D.L.O. Height & Width.
2. Allowable Unit Pressure shall be the lesser of the Pressure shown in this Table & that specified for the Glass.
3. "N/A" Designates a Size Not Applicable to that Reinforcement Condition.
4. See Section H2/B for detail of non-reinforced Mullion & Section H1/B for reinforced Mullion.

---

*For all Framing & D.L.O. Dimensions and other Information Not Shown, See Elevation on Sheet 1.*

*If sill is concrete, See Elevation on Sheet 1 for Sill Anchorage Requirements.*
EXTerior ELEVATION

STORE FRONT ASSEMBLY WITH DOORS & TRANSOM
(WHEN ANCHORED TO WOOD, METAL STUD, CONCRETE OR CMU)

SCALE: 1/2"=1'-0"

* SINGLE SIDELIGHT SHOWN, MULTIPLE SIDELIGHT CONDITION ALSO APPLIES WITH SIDELIGHT AT ONE OR BOTH SIDES.
* DOUBLE DOOR CONDITION SHOWN. SINGLE DOOR CONDITION ALSO APPLIES.
* HORIZONTAL STACKING & OVERALL UNIT WIDTH IS UNLIMITED. NUMBER OF VERTICAL PANELS IS UNLIMITED BUT MUST FIT INSIDE MAXIMUM FRAME HEIGHT SHOWN.

ALLOWABLE DESIGN PRESSURE
(Door Units)

+/-65 PSF

ONLY THE DOOR/TRANSOM AREA & THE PANEL SECTIONS DIRECTLY NEXT TO THE DOOR AREA ARE RESTRICTED TO +/-65 PSF. FOR ALLOWABLE PRESSURE ON GLASS PANEL AREAS OF THE STOREFRONT ASSEMBLY AWAY FROM THE DOORS, SEE GLASS AND MULLION PRESSURE TABLES ON SHEET 2.

350 IR LARGE MISSILE IMPACT
OUT-SWING DOORS & SILL ANCHORS
UNDER SEPARATE APPROVAL

SEE MULLION END DETAILS ON SHEET 9

SEE ELEVATION ON SHEET 1 FOR CONDITonal OMISSION OF THIS ANCHOR
(TYP. HEAD & SILL)

FOR FIXED PANEL
SIDE JAMB ANCHOR
REQUIREMENTS; SEE
ELEVATION ON
SHEET 1.

FOR MAX. D.L.O. HEIGHT, SEE GLASS
PRESSURE TABLE ON SHEET 2.

16B
MULLION
REINFORCEMENT

01
OPPOSITE

10
SILL
ANCHOR
BLOCK

2 1/2"

96" MAX. D.L.O.

1/2" MAX. O.C.

1 1/2"

1 1/2"

2 1/2"

4 1/2" MAX.

6" MAX.

2 1/2"

2 1/2"

1/3 POINT

1/3 POINT

1/3 POINT

1/3 POINT

6" MAX.

6" MAX.

16 1/4" MAX.

O.C.

TYP. FRAME OR STRAP ANCHOR SCREWS WHERE SHOWN FOR OPENING TYPE A, C, D OR E. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR SCREW REQUIREMENTS (STRAP ANCHORS ARE NOT APPLICABLE AT SILL.)

FOR MAX. D.L.O. WIDTH, SEE GLASS PRESSURE TABLE ON SHEET 2.

MID-HEIGHT OF UNIT
TYP. FRAME OR STRAP ANCHOR SCREWS WHERE SHOWN FOR OPENING TYPE B. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR SCREW REQUIREMENTS (STRAP ANCHORS ARE NOT APPLICABLE AT SILL).

FOR FIXED PANEL SIDE JAMB ANCHOR REQUIREMENTS, SEE ELEVATION ON SHEET 1.

MID-HEIGHT OF UNIT

350 IR LARGE MISSILE IMPACT OUT-SWING DOORS & SILL ANCHORS UNDER SEPARATE APPROVAL.

SEE MULLION END DETAILS ON SHEET 9

ALLOWABLE DESIGN PRESSURE (DOOR UNITS)

\[+/-65 \text{ PSF}\]

ONLY THE DOOR/TRANSOM AREA & THE PANEL SECTIONS DIRECTLY NEXT TO THE DOOR AREA ARE RESTRICTED TO +/-65 PSF. FOR ALLOWABLE PRESSURE ON GLASS PANEL AREAS OF THE STOREFRONT ASSEMBLY AWAY FROM THE DOORS, SEE GLASS AND MULLION PRESSURE TABLES ON SHEET 2.
TYP. FRAME OR STRAP ANCHOR SCREWS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS (STRAP ANCHORS ARE NOT APPLICABLE AT DOOR SIDE JAMS AND SILL).  

16 1/4" MAX. O.C. (AT HEAD) 

17 1/2" MAX. O.C. (AT HEAD) 

6" MAX. 

3/4" MAX. FRAME HEIGHT (F.H.) 

3/4" MAX. FRAME HEIGHT (F.H.) 

1/2 POINT 

1/2 POINT 

2 1/2" 

3/4" D.L.O./DOOR OPENING 

3/4" D.L.O./DOOR OPENING 

6" MAX. 

6" MAX. 

96" MAX. D.L.O./DOOR OPENING 

96" MAX. D.L.O./DOOR OPENING 

101" MAX. FRAME WIDTH (F.W.) 

101" MAX. FRAME WIDTH (F.W.) 

EXTerior Elevation 

STORE FRONT FRAMING WITH DOORS & EYEBROW TRANSOM (APPLICABLE WITH ALL SUBSTRATES) 

(DOUBLE DOOR CONDITION SHOWN, SINGLE DOOR CONDITION ALSO APPLIES) 

Scale: 1/2"=1'-0" 

-350 IR LARGE MISSILE IMPACT OUT-SWING DOORS & SILL ANCHORS UNDER SEPERATE APPROVAL 

350 IR LARGE MISSILE IMPACT OUT-SWING DOORS & SILL ANCHORS UNDER SEPERATE APPROVAL 

ALLOWABLE DESIGN PRESSURE (DOOR WITH TRANSOM UNITS) 

+/-65 PSF
TYP. GLAZING DETAIL

(WET GLAZED: SINGLE GLAZING BEAD CONDITION)

CLASS OPTIONS (WET GLAZED):

OPTION 1: 9/16" THICK LAMINATED GLASS (1/4" HT. ST./0.09 EASTMAN CHEM. CO. SAFLEX/1/4" HT. ST.)

OPTION 2: 9/16" THICK LAMINATED GLASS (1/4" HT. ST./0.09 KURARAY BUTYRIC PVB/1/4" HT. ST.)

OPTION 3: 9/16" THICK LAMINATED GLASS (1/4" HT. ST./0.09 KURARAY SSG/1/4" HT. ST.)

OPTION 4: 9/16" THICK LAMINATED GLASS (1/4" HT. ST./0.10 EASTMAN CHEM. CO. SAFLEX HP/1/4" HT. ST.)

TYP. GLAZING DETAIL

(DRY GLAZED: SINGLE GLAZING BEAD CONDITION)

CLASS OPTION (DRY GLAZED):

OPTION 5: 9/16" THICK LAMINATED GLASS (1/4" HT. ST./0.09 KURARAY SSG/1/4" HT. ST.)

NOTE: KURARAY WAS PREVIOUSLY DUPONT.

CONTINUOUS WOOD MEMBER
LESS IN THICKNESS THAN A
2X1 BUCK TO BE MIN. 4 1/2" DEEP (NOT REQUIRED WHEN
SHIM SPACE IS WITHIN
ALLOWABLE DIMENSIONS SHOWN
IN SECTIONS)

SEALANT BY
OTHERS

TO SUBSTRATE WITH SPACER

SUBSTRATE BY OTHERS
PER "FRAME ANCHOR
REQUIREMENTS TABLE"

FRAME SCREW
PER ELEVATION
& "FRAME
ANCHOR
REQUIREMENTS TABLE"

OPTIONAL DIRECT MOUNT DETAIL

HEAD SECTION SHOWN WITH HEAD FRAME PART #1b; SILL &
SIDES WITH OTHER APPLICABLE FRAME PARTS MAY BE INSTALLED
THE SAME (NOT APPLICABLE WITH STRAP ANCHOR INSTALLATIONS).

(For detail not shown, see other sections)
MULLION END CONNECTION DETAILS AT VERTICAL MULLIONS ALONG SIDE DOORS
(TYPICAL AT SILL ONLY)

ANCHOR TYPE F
(3 ANCHORS PER SILL ANCHOR BLOCK)

ANCHOR TYPE B
(4 ANCHORS PER SILL ANCHOR BLOCK)

ANCHOR TYPES "A" & "D"
(7 ANCHORS PER SILL ANCHOR BLOCK)

16A HEAD FRAME (RECTANGULAR UNITS)

11 HEAD FRAME (RECTANGULAR UNITS)

3 DOOR JAMB

4 HP SILL

5 HP SILL FLASHING

6A TRANSOM BAR WITH FIN

6B C.O.C. BAR WITH OUT FIN

7 HORIZONTAL

8A GLASS STOP

8C GLASS STOP

9 HP COVER

10 DEEP POCKET FILLER

11 ANCHOR BLOCK AT DOOR JAMB

12 JAMB

13 SILL ANCHOR BLOCK

14 SILL ANCHOR BLOCK

15 SILL ANCHOR BLOCK

17 SILL ANCHOR BLOCK