FLORIDA PRODUCT APPROVAL
FOR PW251 CURTAIN WALL - B.G. AND CAPTURED

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TYPICAL INSTALLATION INSTRUCTIONS

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SHEET A13 HORIZONTAL AND VERTICAL FACE COVER INSTALLATION
SHEET A14 INTERIOR TRIM AND ENTRANCE SUBFRAME INSTALLATION

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2-20-07

2-12-07

ABBRVATIONS:
D.L.O. = DAY LIGHT OPENING
D.O. = DOOR OPENING

D.O. = DOOR OPENING
ELEVATION E1

TYPICAL CAPTURED MULLION

LOCATE FASTENERS AS SHOWN IN APPLICABLE ANCHOR CHART FOR SINGLE SPAN

CENTER OF INTERM. VERT. AND HORIZ. TYP.

DENOTES OPTIONAL REINFORCEMENT WHERE REQUIRED

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ELEVATION E2
TYPICAL B.G. MULLION
NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS BASED ON APPLICABLE WIND LOAD AND ANCHOR CHARTS.
NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS BASED ON APPLICABLE WIND LOAD AND ANCHOR CHARTS.
1 - 90° CORNER

2 - 90° CORNER WITH SR504 STEEL

NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS BASED ON APPLICABLE WIND LOAD AND ANCHOR CHARTS.

Lewis A. Waldrop, P.E.
FLA. P.E. #21959

2/7/2007

2007-01-10 MULLION FRAME DETAILS

ARCHITECTURAL PRODUCTS

PORTER WALKER 50000

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FLORIDA PRODUCT APPROVAL FOR PW251
B.G. AND CAPTURED FRAMING DETAILS

PW251-B

DRAWINGS FOR
FLORIDA
PRODUCT APPROVAL

9 OF 35
1 - WALL JAMB TO STEEL STRUCTURE

REF. DETAIL "C"
SHEET A5

2 - WALL JAMB TO CONCRETE

REF. DETAIL "C"
SHEET A5

NOTE: SELECT APPLICABLE CONNECTION
AND REFERENCE ANCHOR CHARTS FOR
TWIN SPAN
1 - TYPICAL WINDLOAD ANCHOR AT CONCRETE

MATCH DRILL HOLES IN STEEL ANCHOR TO MULLION (TYP. REF A5 DETAIL B)

2 - TYPICAL WINDLOAD ANCHOR AT STEEL

NOTE: DEAD LOAD ANCHOR AT STEEL MAY BE WELDED OR BOLTED AS SHOWN

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MATCH DRILL HOLES IN STEEL ANCHOR AFTER ALIGNMENT (TYP. REF A6 DETAIL "B")

1 - 90° CORNER WITH STEEL PLATE

2 - 90° CORNER ON CONCRETE

MATERIAL PRODUCTS APPROVAL FOR PW251
CURTAIN WALL FRAMING DETAILS
B.G. AND CAPTURED

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DATE
2/14/2007

LEWIS A. WALDROP, P.E.
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DRAWINGS FOR FLORIDA PRODUCT APPROVAL
TYPICAL PW251 FRAMING ELEVATIONS - CAPTURED
WITH SERIES 213 DOORS

SERIES 213 NARROW STILE DOORS SHOWN. 380 MEDIUM
AND 500 WIDE STILE DOORS MAY BE SUBSTITUTED IN ANY
FRAME OPENING.

Lewis A. Waldrop, P.E.
F.L.A. P.E. 521580

Date: 2-12-07

Scale: 3/8"=1'-0"
TYPICAL PW251 FRAMING ELEVATIONS - B.G.
WITH SERIES 213 DOORS

SERIES 213 NARROW STILE DOORS SHOWN. 380 MEDIUM
AND 500 WIDE STILE DOORS MAY BE SUBSTITUTED IN ANY
FRAME OPENING.
**TYPICAL PW251 DOOR FRAME ELEVATIONS WITH SERIES 213 DOORS**

SERIES 213 NARROW STILE DOORS SHOWN. 380 MEDIUM AND 500 WIDE STILE DOORS MAY BE SUBSTITUTED IN ANY FRAME OPENING.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>P/N</th>
<th>DESCRIPTION</th>
<th>DIMENSIONS</th>
<th>MATERIAL</th>
<th>MANUFACTURER</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NG10</td>
<td>GASKET</td>
<td>250 SPACE</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>USED ON EXTERIOR AND INTERIOR (GLASS TO GLASS)</td>
</tr>
<tr>
<td>2</td>
<td>NG11</td>
<td>EXTERIOR PERIMETER GASKET</td>
<td>30 SPACE</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>USE AT PERIMETER (METAL TO METAL)</td>
</tr>
<tr>
<td>3</td>
<td>NG12</td>
<td>PRESSURE BAR GASKET (ISOLATOR)</td>
<td>120 X 235</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>USED ON PRESSURE BAR</td>
</tr>
<tr>
<td>4</td>
<td>NG14</td>
<td>SPACER GASKET (0.5 G. MULLON)</td>
<td>19 X 280</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>USE FOR STRUCTURAL GLAZING</td>
</tr>
<tr>
<td>5</td>
<td>SB251</td>
<td>SETTING BLOCK</td>
<td>1.49 X 4 X 0.37</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>4&quot; LONG (2 PER LITE OF GLASS)</td>
</tr>
<tr>
<td>6</td>
<td>SP203</td>
<td>HORIZONTAL END DAM @ CAPTURED MULL</td>
<td>1.28 X 1 X 0.5</td>
<td>PLASTIC</td>
<td>CORAL</td>
<td>LOCATE ONE AT EACH END OF INTERM. HORIZONTAL</td>
</tr>
<tr>
<td>7</td>
<td>SP207</td>
<td>BRIDGE DAM @ 0.5 G. MULLON</td>
<td>1.38 X 3 X 0.5</td>
<td>PLASTIC</td>
<td>CORAL</td>
<td>LOCATED AT A1 BUTT GASKET MULLON &amp;</td>
</tr>
<tr>
<td>8</td>
<td>SP209</td>
<td>VERTICAL MULLON BARRIER</td>
<td>3.3 X 2.6 X 0.22</td>
<td>INJECTION MOLDED PLASTIC</td>
<td>CORAL</td>
<td>LOCATE AT TOP AND BOTTOM OF VERTICAL</td>
</tr>
<tr>
<td>9</td>
<td>755</td>
<td>PERIMETER SEALANT</td>
<td>VARIOUS SPACE</td>
<td>SILICONE</td>
<td>DOW</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>905</td>
<td>INTERNAL SEALANT</td>
<td>VARIOUS SPACE</td>
<td>SILICONE</td>
<td>DOW</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SM5101</td>
<td>JOINT SEALANT TAPE</td>
<td>1.25 X 0.5 X VARIIES</td>
<td>BUTYL</td>
<td>MONEE-MOREHEAD</td>
<td>AT INTERSECTION OF ALL HORIZ TO VERT JOINTS</td>
</tr>
<tr>
<td>12</td>
<td>AS16</td>
<td>TYPICAL SPINE SCREW</td>
<td>#14 X 1-1/2</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>TYPICAL SPINE SCREW</td>
</tr>
<tr>
<td>13</td>
<td>AS32</td>
<td>PRESSURE BAR SCREW</td>
<td>#12 X 1 X 1-1/4 X 11W1/4 X 3</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>PRESSURE BAR SCREWS (LOCATE 9&quot; O.C.)</td>
</tr>
<tr>
<td>14</td>
<td>PW150</td>
<td>CAPTURED MULLION</td>
<td>2.59 X 0.216 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ HEAD, SILL, AND INTERMEDIATE HORIZONTAL</td>
</tr>
<tr>
<td>15</td>
<td>PW151</td>
<td>BUTT GLAZED MULLION</td>
<td>2.59 X 0.216 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>16</td>
<td>PW152</td>
<td>HEADSILL</td>
<td>2.59 X 0.216 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>17</td>
<td>PW155</td>
<td>INTERMEDIATE HORIZONTAL</td>
<td>2.59 X 0.216 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>18</td>
<td>PW202</td>
<td>MULLION FILLER</td>
<td>1.61 X 0.944 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>19</td>
<td>PW203</td>
<td>HEADSILL/HORIZONTAL TRIM</td>
<td>2.59 X 0.944 X 0.094</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>20</td>
<td>PW204</td>
<td>PRESSURE BAR</td>
<td>2.44 X 0.853 X 0.125</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>21</td>
<td>PW205</td>
<td>VERTICAL/HORIZONTAL FACE COVER</td>
<td>5.0 X 0.241 X 0.062</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>22</td>
<td>PW213</td>
<td>JAMB POCKET FILLER</td>
<td>5.99 X 1.375 X 0.05</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>23</td>
<td>PW216</td>
<td>THREADED ATTACHMENT BOLT</td>
<td>1/4&quot;-20 X 1-1/4&quot; X 1/4&quot; CHANNEL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>USED @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>24</td>
<td>SR151</td>
<td>REINFORCEMENT STEEL</td>
<td>4.04 X 1-1/8 X 1/2 GA.</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>USE AT INTERMEDIATE VERTICAL MULLION (LOCATE AT HEAD, SILL, &amp; INTERMEDIATE HORIZONTAL)</td>
</tr>
<tr>
<td>25</td>
<td>SR215</td>
<td>TUBULAR HEADER</td>
<td>1.735 X 0.300 X 0.10</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>26</td>
<td>PW207</td>
<td>SPLICE SLEEVE</td>
<td>4.17 X 0.190 X 0.125</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>27</td>
<td>PW214</td>
<td>DOOR SUBFRAME</td>
<td>1.00 X 0.300 X 0.50</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>28</td>
<td>PW217</td>
<td>DOOR HEAD/REINFORCEMENT BAR</td>
<td>1.735 X 0.300 X 0.10</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>29</td>
<td>PW119</td>
<td>MULLION FILLER BARRIER</td>
<td>1.675 X 0.110 X 0.294</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>30</td>
<td>PW208</td>
<td>CORNER MULLION FILLER</td>
<td>1.288 X 0.500 X 0.278</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>31</td>
<td>PW210</td>
<td>NYLONATION PAD</td>
<td>4&quot; X 4&quot; X 0.050</td>
<td>NYLONATION</td>
<td>VARIIES</td>
<td>BOLT PAD @ WINDOW/DOOR ANCHOR</td>
</tr>
<tr>
<td>32</td>
<td>DP201</td>
<td>PIVOT STOP</td>
<td>1.02 X 0.400 X 0.168</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>FABRICATED LENGTH = 2.00&quot;</td>
</tr>
<tr>
<td>33</td>
<td>DS201</td>
<td>DOOR STOP</td>
<td>5.00 X 0.119 X 0.050</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>34</td>
<td>DS202</td>
<td>DOOR OFFSET ARM COVER</td>
<td>1.189 X 0.300 X 0.090</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>35</td>
<td>AS20</td>
<td>FASTENER #10-16 X 1/2&quot; FHP SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>AS21</td>
<td>FASTENER #10-16 X 3/8&quot; FHP SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>AS32</td>
<td>FASTENER #4 X 2&quot; FHP/PC (UNDERCUT) SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>AS37</td>
<td>FASTENER #12 X 1/2&quot; HWP #3 SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>AS40</td>
<td>FASTENER #12 X 1/2&quot; HWP-3 SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
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<tr>
<td>40</td>
<td>NW5</td>
<td>DOOR STOP WEATHERING</td>
<td>128 SPACE</td>
<td>EPDM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>41</td>
<td>TH14</td>
<td>THRESHOLD CLIP</td>
<td>3.0 X 0.125</td>
<td>ALUMINUM</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>42</td>
<td>TH400</td>
<td>THRESHOLD CLIP</td>
<td>1.50 X 1.25 X 0.119</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>43</td>
<td>AS27</td>
<td>FASTENER #12 X 1/2&quot; HWP #3 SELF DRILL</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>AS51</td>
<td>SQUARE NUT</td>
<td>1.475 X 0.475 X 0.180</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>LOCATE @ INTERMEDIATE VERTICAL MULLION</td>
</tr>
<tr>
<td>45</td>
<td>AS52</td>
<td>BOLT</td>
<td>1.47 X 0.475 X 0.180</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>THROUGH BOLT @ HORIZONTALS</td>
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<tr>
<td>46</td>
<td>AS56</td>
<td>TAP PLATE</td>
<td>1.47 X 0.475 X 0.180</td>
<td>STEEL</td>
<td>VARIIES</td>
<td>STEEL TAP PLATE @ WALL JAMB-O LONG</td>
</tr>
</tbody>
</table>
WIND LOAD CHARTS

(A 4/3 increase in allowable stress is not reflected in these curves) Curves are based on deflection limitations of L/175 and reflect the limiting value for mullions with horizontals. Allowable wind load stresses for aluminum alloy 6063-T6 (25ks/1.65=15.15ksi) and A36 (36ksi x 0.67=24ksi) were used.

Captured Mullion

FOR UNEQUAL MULLION SPACING
CALCULATE TRIBUTARY WIDTH

TRIBUTARY WIDTH = \( \frac{W_1 + W_2}{2} \)

FOR EXAMPLE:

\( W_1 = 4' - 0" \)
\( W_2 = 5' - 0" \)

TRIBUTARY WIDTH = \( \frac{4' + 5'}{2} \)

TRIBUTARY WIDTH = 4' - 6"

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FLORIDA PRODUCT APPROVAL
CERTAIN WALLS CURTAIN WALLS B.G. AND CAPTURED SINGLE SPAN WIND LOAD CHARTS CAPTURED MULLION

DATE 7/1/2007
PROJECT NO.
DRAFT DRAWN APPROVED
P. 21 OF 35
FLORIDA PRODUCT APPROVAL

2-12-07

Drawings For Florida Product Approval
WIND LOAD CHARTS

(A 4/3 increase in allowable stress is not reflected in these curves) Curves are based on deflection limitations of L/175 and reflect the limiting value for mullions with horizontals. Allowable wind load stresses for aluminum alloy 6063-T6 (25ksi/1.65=15.15ksi) and A36 (36ksi x 0.67=24ksi) were used.

B.G. Mullion

FOR UNEQUAL MULLION SPACING
CALCULATE TRIBUTARY WIDTH

TRIBUTARY WIDTH = \frac{W1 + W2}{2}

FOR EXAMPLE:

W1 = 4'-0"
W2 = 5'-0"

TRIBUTARY WIDTH = \frac{4' + 5'}{2} = 4'-6"

TRIBUTARY WIDTH = 4'-6"
WIND LOAD CHARTS

(A 4/3 increase in allowable stress is not reflected in these curves) Curves are based on deflection limitations of L/175 and reflect the limiting value for mullions with horizontals. Allowable wind load stresses for aluminum alloy 6063-T6 (25ksi/1.65=15.15ksi) and A36 (36ksi x 0.67=24ksi) were used.

Captured Mullion

Twin Span

PW150/202 & PW207 (Alum, Reinforcing)
PW150/202 & SR151 (Stl, Reinforcing)
WIND LOAD CHARTS

(A 4/3 increase in allowable stress is not reflected in these curves) Curves are based on deflection limitations of L/175 and reflect the limiting value for mullions with horizontals. Allowable wind load stresses for aluminum alloy 6063-T6 (25ksi/1.65=15.15ksi) and A36 (36ksi x 0.67=24ksi) were used.

B.G. Mullion

Twin Span

MULLION MIDPOINT ANCHOR
READ CHART AS EQUAL SPAN ABOVE AND ABELOW &

Mullion Span in feet

Mullion Spacing in feet

PW150 /202
1 = 6.009 in
S = 2.472 in²

PW150 /202/207
1 = 9.975 in
S = 4.154 in²

PW150 /202
1 = 6.009 in
S = 2.472 in²

SR151 Steel
1 = 3.049 in
S = 1.355 in²

IAS + Steel
9.058 in²

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FLORIDA PRODUCT APPROVAL, FOR PW251
B.G. AND CAPTURED
TWIN SPAN WIND LOAD CHARTS - B.G. MULLION


DREWINGS FOR FLORIDA PRODUCT APPROVAL

DATE 5/7/2007

DRAWINGS FOR:

FLORIDA PRODUCT APPROVAL

DRAFT 24 OF 35
DEAD LOAD CHARTS

Dead load charts are based on 1/8" maximum allowable deflection at the center of an intermediate horizontal. Curves are based on glass resting on two setting blocks at 1/4 or 1/8 point loading locations.

CURVE A = 1/4 points
CURVE B = 1/8 points or 8' from cornets (whichever is larger)

PW155 & PW203
1/4" glass = 3.25 PSF

PW155 & PW203
1" glass = 6.5 PSF
SINGLE SPAN ANCHOR CHARTS
ATTACH TO CONCRETE AT HEAD/SILL
(3,000 PSI CONCRETE SUBSTRATE)
TRIBUTARY WIDTH IN FEET

WITH ONE (1) ANCHOR EACH SIDE OF MULLION

WITH TWO (2) ANCHORS EACH SIDE OF MULLION

FOR UNEQUAL MULLION SPACING
CALCULATE TRIBUTARY WIDTH

TRIBUTARY WIDTH = \frac{W_1 + W_2}{2}

FOR EXAMPLE:

W_1 = 4'-0''
W_2 = 5'-0''
TRIBUTARY WIDTH = \frac{4' + 5'}{2} = 4.5'

TRIBUTARY WIDTH IN FEET

MULLION HEIGHT FEET

NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS FROM WINDLOAD CHARTS (SHEETS 21-22). MATCH WINDLOAD REQUIREMENTS AND MULLION SPACING TO ANCHOR CHARTS TO DETERMINE NUMBER OF ANCHORS REQUIRED.

ANCHOR TYPE AT HEAD/SILL:
3/8'' LDT TAPCON CONCRETE SCREW (ITW RAMSET/RED HEAD OR EQUIV.) WITH 2'' EMBED. INTO CONCRETE, 5'' MIN. EDGE DISTANCE, 6'' MIN. SPACING

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DRAWS FOR FLORIDA PRODUCT APPROVAL

26 OF 35
SINGLE SPAN ANCHOR CHARTS

ATTACH TO METAL STRUCTURE
AT HEAD/SILL

(ASTM A-36 STEEL)

TRIBUTARY WIDTH IN FEET

WITH ONE (1) ANCHOR EACH SIDE OF MULLION

WITH TWO (2) ANCHORS EACH SIDE OF MULLION

MULLION
HEIGHT
 FEET

TRIBUTARY WIDTH
 IN FEET

FOR UNEQUAL MULLION SPACING:
CALCULATE TRIBUTARY WIDTH

\[
\text{TRIBUTARY WIDTH} = \frac{W_1 + W_2}{2}
\]

FOR EXAMPLE:

\[
\begin{align*}
W_1 &= 4'-0'' \\
W_2 &= 5'-0'' \\
\text{TRIBUTARY WIDTH} &= \frac{4' + 5'}{2} \\
\text{TRIBUTARY WIDTH} &= 4'-6''
\end{align*}
\]

NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS FROM WINDLOAD CHARTS
(SHEETS 21-22). MATCH WINDLOAD REQUIREMENTS AND MULLION SPACING TO
ANCHOR CHARTS TO DETERMINE NUMBER
OF ANCHORS REQUIRED.

ANCHOR TYPE AT HEAD/SILL:

"5/16" DIA. GRADE 2 BOLT.
STEEL: FY=36 KSI MIN.
MINIMUM EDGE DISTANCE EQUALS 1.5 X
BOLT DIAMETER.

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2/18/07

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 флорида подтверждение продукта

Drawing for Florida Product Approval

Sheet 27 of 35
TWIN SPAN ANCHOR CHARTS

ATTACH TO CONCRETE AT HEAD/SILL
(3,000 PSI CONCRETE SUBSTRATE)
TRIBUTARY WIDTH IN FEET

WITH ONE (1) STEEL ANCHOR ON EACH SIDE OF
MULLION AND SILL AND ONE (1) 4" X 4" X 1/4"
STEEL ANGLE AT MIDPOINT OF MULLION
REF. SHEET 30 FOR MIDPOINT CONNECTION

WITH TWO (2) STEEL ANCHOR ON EACH SIDE OF
MULLION AND SILL AND TWO (2) 4" X 4" X 1/4"
STEEL ANGLE AT MIDPOINT OF MULLION
REF. SHEET 30 FOR MIDPOINT CONNECTION

MULLION HEIGHT FEET

TRIBUTARY WIDTH = \( \frac{W1 + W2}{2} \)

FOR EXAMPLE:

W1 = 4'-0"
W2 = 5'-0"
TRIBUTARY WIDTH = \( \frac{4' + 5'}{2} \)
TRIBUTARY WIDTH = 4' 6"

NOTE: SELECT APPROPRIATE MULLION FOR
JOB CONDITIONS FROM WINDLOAD CHARTS
(SHEETS 23-24), MATCH WINDLOAD
REQUIREMENTS AND MULLION SPACING TO
ANCHOR CHARTS TO DETERMINE NUMBER
OF ANCHORS REQUIRED.

ANCHOR TYPE AT HEAD/SILL:
ONE (1) 3/8" LDT TAPCON CONCRETE
SCREW (1/2" RAMSET/RED HEAD OR EQUIV.)
WITH 2" EMBED, INTO CONCRETE, 5" MIN.
EDGE DISTANCE, 6" MIN. SPACING

NOTE: CONSULT FACTORY FOR AVAILABILITY
AND PRICING FOR ANY STOCK LENGTHS
OVER 24' -0"
TWIN SPAN ANCHOR CHARTS

ATTACH TO METAL STRUCTURE AT HEAD/SILL
(ASTM A-36 STEEL)
TRIBUTARY WIDTH IN FEET

WITH ONE (1) EACH ANCHOR ON EACH SIDE OF MULLION AT HEAD AND SILL AND ONE (1) 4" X 4" X 1/4"
STEEL ANGLE AT MIDPOINT OF MULLION
REF. SHEET 31 FOR MIDPOINT CONNECTION

WITH TWO (2) EACH ANCHOR ON EACH SIDE OF MULLION
AT HEAD AND SILL AND TWO (2) 4" X 4" X 1/4"
STEEL ANGLE AT MIDPOINT OF MULLION
REF. SHEET 31 FOR MIDPOINT CONNECTION

FOR UNEQUAL MULLION SPACING CALCULATE TRIBUTARY WIDTH

TRIBUTARY WIDTH = \( \frac{W_1 + W_2}{2} \)

FOR EXAMPLE:

\[ W_1 = 4\text{-}0' \]
\[ W_2 = 5\text{-}0' \]
TRIBUTARY WIDTH = \( \frac{4 + 5}{2} = 4.5' \)

ANCHOR TYPE AT HEAD/SILL:
ONE (1) 5/16" DIA. GRADE 2 BOLT.
STEEL: FY=36 KSI MIN.
MINIMUM EDGE DISTANCE EQUALS 1.5 X BOLT DIAMETER.

NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS FROM WINDLOAD CHARTS
(SHEETS 23-24), MATCH WINDLOAD REQUIREMENTS AND MULLION SPACING TO ANCHOR CHARTS TO DETERMINE NUMBER OF ANCHORS REQUIRED.

*SEE SHEET 31 OF 35 FOR MIDPOINT CONNECTION

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DRAWINGS FOR FLORIDA PRODUCT APPROVAL

DATE: 2/16/2007

DRAWING NO:

PROJECT NO:

TWIN SPAN HEAD & SILL ANCHOR CHART - STEEL

CURTAIN WALL - B.G. AND CAPTURED

LEATHER

ARCHITECTURAL PRODUCTS
TWIN SPAN ANCHOR CHARTS FOR MIDPOINT
ATTACHMENT OF STEEL ANGLE
ATTACH TO CONCRETE SLAB
(3,000 PSI CONCRETE SUBSTRATE)
TRIBUTARY WIDTH IN FEET

WITH ONE (1) 4" X 4" X 1/4" STEEL ANGLE AT
MULLION MIDPOINT

WITH TWO (2) 4" X 4" X 1/4" STEEL ANGLES
AT MULLION MIDPOINT

TRIBUTARY WIDTH = \( \frac{W_1 + W_2}{2} \)

FOR EXAMPLE:

\( W_1 = 4'-0' \)
\( W_2 = 5'-0' \)

TRIBUTARY WIDTH = \( \frac{4' + 5'}{2} = 4'-6'' \)

STEEL ANGLE ATTACHMENT AT MIDPOINT:

▲ TWO (2) 1/2" LDT TAPCON CONCRETE
SCREW/STEEL ANGLE (ITW RAMSET/RED
HEAD OR EQUIV.) WITH 3 1/2" EMBED.
INTO CONCRETE, EACH SIDE OF MULLION:
5" MIN. EDGE DISTANCE, 6" MIN. SPACING

NOTE: SELECT APPROPRIATE MULLION FOR
JOB CONDITIONS FROM WINDLOAD CHARTS
(SHEETS 23-24). MATCH WINDLOAD
REQUIREMENTS AND MULLION SPACING TO
ANCHOR CHARTS TO DETERMINE NUMBER
OF ANCHORS REQUIRED.

NOTE: CONSULT FACTORY FOR AVAILABILITY
AND PRICING FOR ANY STOCK LENGTHS
OVER 24'-0"
TWIN SPAN ANCHOR CHARTS FOR MIDPOINT ATTACHMENT OF STEEL ANGLE

ATTACH TO METAL STRUCTURE
(ASM A-36 STEEL)
TRIBUTARY WIDTH IN FEET

WITH ONE (1) 4" X 4" X 1/4" STEEL ANGLE AT MULLION MIDPOINT

*SEE SHEET 28 OF 35 FOR MIDPOINT CONNECTION

FOR UNEQUAL MULLION SPACING CALCULATE TRIBUTARY WIDTH

TRIBUTARY WIDTH = \( \frac{W_1 + W_2}{2} \)

FOR EXAMPLE:

W1 = 4'-0"
W2 = 5'-0"
TRIBUTARY WIDTH = \( \frac{4' + 5'}{2} \) = 4'-6"

STL ANGLE ATTACHMENT AT MIDPOINT:

Δ TWO (2) 1/2" DIA. GRADE 2 BOLT.
STEEL: FY=36 KSI MIN.
MINIMUM EDGE DISTANCE EQUALS 1.5 X BOLT DIAMETER.

NOTE: SELECT APPROPRIATE MULLION FOR JOB CONDITIONS FROM WINDLOAD CHARTS (SHEETS 23-24), MATCH WINDLOAD REQUIREMENTS AND MULLION SPACING TO ANCHOR CHARTS TO DETERMINE NUMBER OF ANCHORS REQUIRED.

NOTE: CONSULT FACTORY FOR AVAILABILITY AND PRICING FOR ANY STOCK LENGTHS OVER 24'-0"
TYPICAL ANCHOR LOCATIONS FOR FRAMES WITHOUT SIDELIGHTS FOR STEEL AND 3,000 PSI CONCRETE SUBSTRATES FOR LOADS UP TO 40 PSF

PERIMETER FASTENER LOCATIONS

<table>
<thead>
<tr>
<th>DOOR OPENING HEIGHT</th>
<th>⅛&quot;</th>
<th>¾&quot;</th>
<th>1/4&quot;</th>
<th>1/2&quot;</th>
<th>3/4&quot;</th>
<th>1&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; X 1 1/2&quot;</td>
<td>48 1/2&quot;</td>
<td>51 1/2&quot;</td>
<td>70&quot;</td>
<td>89&quot;</td>
<td>95&quot;</td>
<td>100&quot;</td>
</tr>
<tr>
<td>2 1/2&quot; X 5 1/2&quot;</td>
<td>48 1/2&quot;</td>
<td>51 1/2&quot;</td>
<td>88&quot;</td>
<td>94&quot;</td>
<td>100&quot;</td>
<td></td>
</tr>
</tbody>
</table>

TYP. INSTALLATION INTO: STEEL SUBSTRATE

- &frac18;" GRADE 2 BOLT WITH FILLER PLATE FULL LENGTH OF MULLION
- 1/4" GRADE 2 BOLT
- 1/4" GRADE 2 MACHINE SCREW

TYP. INSTALLATION INTO: 3,000 PSI CONCRETE SUBSTRATE

- 5/16" TAPEON, 2 1/2" MIN. Embedment with Filler Plate Full Length of Mullion
- 3/8" TAPEON, 3" MIN. Embedment
- 1/4" TAPEON, 1 1/4" MIN. Embedment
- 1/2" MIN. SPACING & 3/8" TAPEON
- 3" MIN. SPACING & 3/8" TAPEON

DRAWINGS FOR FLORIDA PRODUCT APPROVAL

SPEL 32 OF 35
TYPICAL ANCHOR LOCATIONS FOR FRAMES WITHOUT SIDELIGHTS FOR STEEL AND 3,000 PSI CONCRETE SUBSTRATES FOR LOADS 40 PSF TO 80 PSF

PERIMETER FASTENER LOCATIONS

<table>
<thead>
<tr>
<th>DOOR OPENING HEIGHT</th>
<th>ANCHOR LOCATIONS FOR &quot;LETTER&quot; DIM.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8&quot;</td>
<td>45 1/2&quot; 51 1/2&quot; 76&quot; 82&quot; 89&quot; 95&quot; 46 1/2&quot; 50 1/2&quot;</td>
</tr>
<tr>
<td>9/16&quot;</td>
<td>45 1/2&quot; 51 1/2&quot; 88&quot; 94&quot; 100&quot; 106&quot; 46 1/2&quot; 50 1/2&quot;</td>
</tr>
</tbody>
</table>

TYPICAL INSTALLATION INTO: STEEL SUBSTRATE
- △ 1/8" GRADE 2 BOLT WITH FILLER PLATE FULL LENGTH OF MULLION
- ■ 1/8" GRADE 2 BOLT
- ○ 1/4" GRADE 2 MACHINE SCREW

TYPICAL INSTALLATION INTO: 3,000 PSI CONCRETE SUBSTRATE
- △ 3/8" TAPCON, 2" MNL. EMBEDMENT WITH FILLER PLATE FULL LENGTH OF MULLION
- □ 3/8" TAPCON, 2" MNL. EMBEDMENT
- ○ 1/4" TAPCON, 1 3/4" MNL. EMBEDMENT
- 6" MNL. SPACING @ 3/8" TAPCON
- 3" MNL. SPACING @ 3/8" TAPCON

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Selco

Florida Product Approval for PW251
B.G. and Captured
Door Frame Anchor Chart - 40-80 PSF

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2-12-07

Drawings for Florida Product Approval


2/1/2007

Drawn No.

HTL

Sheet 33 of 35
4 EACH (1/4" X 2" H.H. #3 SELF DRILLING FASTENER) AT HEADER FOR SURFACE CLOSET

4 EACH AS25 (1/4" X 3/4" MINI #3 SELF DRILLING FASTENER) AT JAMB

STEEL SUBSTRATE: 1/4" #8 TEE SCREWS (5 EA.)
CONCRETE SUBSTRATE: 1/4" #6 TAPCOINS (5 EA.)
(WITH 1-3/4" MIN. EMBED.)

FOR C.O.C. TUBULAR HEADER, USE 4 EACH AS25
WITH ACCESS HOLES CONCEALED UNDER 052202-1
OFFSET ARM COVER.
# GLAZING SCHEDULE

<table>
<thead>
<tr>
<th>GLASS MARK SYMBOL</th>
<th>GLASS TYPE</th>
<th>MANUFACTURER</th>
<th>MAXIMUM D.L.O. SIZE</th>
<th>MAXIMUM SQUARE FEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$\frac{3}{8}''$ TEMPERED OUTER SURFACE, $\frac{3}{8}''$ AIR SPACE, $\frac{1}{4}''$ TEMPERED INNER SURFACE</td>
<td>VARIES</td>
<td>57 1/2&quot; x 96&quot;</td>
<td>38.3</td>
</tr>
</tbody>
</table>
FRAME ASSEMBLY

Gasket Installation

STEP 1.

Prior to assembly of frames, install the following gaskets into the fabricated framing members:

Back Members: NG10
Intermediate Pressure Bars: NG10
Perimeter Pressure Bars: NG10 (against glass) and NG11 (against aluminum) (Reference Detail "A" on Sheet A.10).
Spacer gasket for B.G. Mullion: NG14

GASKET INSTALLATION PROCEDURES (Do not stretch gaskets)

1. Cut gaskets allowing for 1/8" extra length per foot of framing members to accommodate shrinkage.
2. NG10 gaskets for vertical back members are cut D.L.O. plus 1-1/4". (Reference Detail "A" on Sheet A.10).
3. NG14 Vertical spacer gasket runs full length on PW151 B.G. mullion. (Reference Detail "B" on Sheet A.10).
4. Cut horizontal spacer gasket to D.L.O.
5. Horizontal pressure bar: glazing gasket should extend 1/8" beyond end of pressure bar.
6. Vertical pressure bar: gasket runs full length.

STEP 2.

Joinery Tape Application

GLAZING TAPE INSTALLATION PROCEDURES: Ref. Step 3.

1. Cut SM5601 1/8" x 1/2" Tacky Tape approximately 2-3/4" long.
2. Clean surfaces where tape is to be applied with isopropyl alcohol or solvent to remove all dirt and cutting oils. Allow surface to dry before applying tape.
3. Position tape on vertical mullions at horizontal joint intersections.
4. Just prior to frame assembly, remove protective cover and screw joints together.
5. Use a box knife to trim excess sealant tape where exposed. Do not pull tape to trim.

Schnee-Morehead
SM5601
1/8" x 1/2" Tacky Tape.
FRAME ASSEMBLY
CAPTURED FRAME
Vertical to Horizontal Joinery

STEP 3.
PW202
Filler

AS16
Spline Screw
(Typ.)

PW150
Vertical

See Anchor Charts for number of anchor holes required at head and sill.

PW152
Head

PW155
Horizontal

PW152
Sill

Note: Reference Sheet A10, Detail "A" for NG10 Gasket location in vertical. (D.L.O. + 1-1/4")

B.G. MULLION FRAME
Vertical to Horizontal Joinery

STEP 4.

PW202
Filler

AS16
Spline Screw
(Typ.)

PW151
Vertical

See Anchor Charts for number of anchor holes required at head and sill.

PW152
Head

PW155
Horizontal

PW152
Sill

Note: NG14 Spacer Gasket Runs through

Tacky Tape
WALL JAMB ASSEMBLY
Vertical to Horizontal Joinery

STEP 5.

PW202
Filler

AS16
Spline Screw
(Typ.)

PW150
Vertical

PW152
Head

PW155
Horizontal

PW213
Pocket Filler

Note:
Snap-in PW213 prior to installing into opening.

OUTSIDE CORNER ASSEMBLY
Corner to Horizontal Joinery

STEP 6.

PW208
Female Half

See Anchor Charts for number of anchor holes required at head and sill.

PW152
Head

PW155
Horizontal

PW152
Sill

PW209
Male Half

See Anchor Charts for number of anchor holes required at head and sill.

PW152
Sill
**FRAME ASSEMBLY**

**OUTSIDE CORNER**
Corner Assembly Fasteners

**MULLION CAP**
Captured and B.G.

**STEP 7.**

- **AS25** (#12 x 3/4" HWH #3 self drilling fastener)
  - Locate 18" O.C. at front and back.
- **PW157** Pressure Bar
- **PW156** 90° Glazing "tee"
- **AS32** (#12 1-1/4" HWH #3 self drilling fastener)
  - Locate 18" O.C.
- **1/4" x 3" bolt with washer and nut.**
- **PW158** Face Cover (2 ea.)
- **SR054** Steel inserted as required.
- **AS13** Steel Spacers

**STEP 8.** Prior to installing frames into opening, install injection molded plastic SP209 mullion caps at top and bottom of vertical members as shown below to ensure continuous perimeter seal.

**Cut line at jamb, when required.**

**PW150** Mullion shown.

**PW151** B.G. Mullion similar.

**SP209**

**Seal reglets to 2" height. Critical seal.**

**Note:**
Remove material on SP209 at raised line on wall jamb when required.

**COMPLETELY SEAL AFTER INSTALLING AND SEAL GLAZING REGLETS ON BOTH SIDES OF MULLION TO 2" HEIGHT.**

**Critical seal.**
Panelized Assembly

STEP 1.
Install assembled frame panels into opening starting with jamb and continue working toward the last bay until the last panel is installed. Reference illustrations shown below for sequencing.

Note: Snap-in PW202 flat filler and PW213 pocket filler into jambs prior to installing. PW213 is difficult to install after jambs are installed due to limited work space.

STEP 2.

Typical Jamb

- PW202
- PW150
- PW152
- SP209
- PW213

Captured Mullions shown (Butt-Glazed Mullions similar)

Last Bay Jamb

- Note: 1/2" minimum caulk joint required for installation of last bay panel

Alternate Jamb

- Note: Location of caulk line. Perimeter sealant is done prior to glazing and installation of pressure bars and face caps.

Jamb Section

- Locate (1) 3/8" x 2" fastener at each intermediate horizontal when required for single span installation.
- Drill 3/16" access hole for installing fastener when required for single span installation to limit mullion deflection.

Head Section shown (Sill Section similar)

Note: Reference CAP Anchor Charts for anchor type and embedment depending on loads and substrate.
FRAME INSTALLATION

STEEL ANCHOR
Twin-Span Condition

Details A and B show fixed (dead load) and expansion (wind load) anchors. Anchor type, size, and quantity vary per job requirements. Details shown are to be used as a guide only. See approved shop drawings for actual conditions.

Step 1. Secure verticals to anchor clips after alignment has been completed.

Note: Mullion spacing must be held to within ± 1/32”. Check overall frame dimension every four bays to monitor dimension build up.

Detail A

Fixed Anchor (Dead Load Anchor)

Primary bolts with nuts flat washer and lock washer

Expansion Anchor (Wind Load Anchor)

Primary bolts with nuts, flat washer and lock washer Back off nut 1/4” turn after tightening to allow for thermal movement.

JAMB ANCHOR
Twin-Span Condition

STEP 2.

Note: Details shown are to be used as a guide only. See approved shop drawings for actual conditions.

8” long SR150-1 Steel tap plate
Attach with AS27 (#12 1-1/2” PFH #3 self drill). Match drill tap plate and verticals with anchor after alignment has been completed. Tap threads to match 5/8” Ø bolt.

Detail C

Fixed Anchor (Dead Load) shown

Note: Reference Detail B for wind load anchor.

Detail B

Match drill holes after alignment has been completed.

Nylatron pad

Primary bolts with nuts flat washer and lock washer

1/16” Nylatron slip pad

5/8” Ø primary bolt with lock washer
FRAME INSTALLATION

1/4" Transition Glazing at Captured or B.G. Mullion

STEP 1. Apply sealant into gasket reglet before installing transition adaptors.
STEP 2. Install vertical adaptors first. Attach PW215 with AS27 fastener approximately 3" from each end and 18" O.C.
STEP 3. Notch horizontal adaptors at intersection of captured and B.G. verticals as shown. (See Detail "B")

Fill gasket reglet with sealant before installing adaptors (This is a continuous seal).

Seal horizontal / vertical joint and tool sealant.

PW212 Horizontal adaptor

PW212 Snap in adaptor

PW202 Horizontal adaptor

PW202 Vertical adaptor

(2) AS27 (2) #12 x 1-1/2" PHH self drilling fastener. (See Step 2).

Note: PW203 covers may be omitted if not visible.

Note: Leave 1/2" gap at vertical adaptors at splice joints.

**Perimeter Sealant Locations**

**STEP 1.** Once all frames are installed and the system has been anchored to the substrate, apply weather seal around the entire perimeter. See details below for the correct location of the perimeter sealant and backer rod. **Interior** cosmetic seal is optional.

- **Head:** Optional cosmetic seal on interior
- **Reference Anchor Chart for fastener size. (Typ.)**
- **Access Hole:** Typ. All vertical mullions. Completely seal bottom SP209 mullion caps as shown.
- **Sill:** Sealant not required.
- **SP209:** Note: Install perimeter couplers prior to installing glass and pressure bars.
- **Jamb:** Seal along tongue of horizontal across face and tongue of mullion before installing SP203 end dams.

**Critical Seal**
- Fill gasket reglet behind end dam with sealant.
- Apply sealant to face of end dam just prior to installing vertical pressure bar.
- Tool sealant along top of end dam to form a water tight seal.

**End Dams**
- **SP203 End Dam**
- Force sealant into gasket reglet.

---

**Additional Information:**
- Sheets A1-14 (Installation instructions) have been removed from the pedestrian drawing. The aluminum curtain wall framing members must be attached to the building structure as shown on Sheets 1-35.
FRAME INSTALLATION
B.G. Frame Bridges

Critical Seal
Apply sealant to all three contact surfaces prior to installation as shown.

STEP 1.

Seal along tongue of horizontal and across face of mullion before installing SP207 bridge.

STEP 2.

Tool sealant along top and sides of bridge to form a water tight seal.

GLAZING
Setting Block Installation

Locate two setting blocks on each sill and intermediate horizontal member as shown. Reference Dead Load Charts for this system in Architectural Detail (sheet A18) and/or shop drawings for correct location based on glass size.

Completely seal around SP207 bridge and NG14 gasket as shown.

SB251 (4" Long) Setting Block (2 per lite)
GLAZING

GLASS SIZE FORMULAS
Captured and B.G. Mullions

Glass Sizes for Captured System:

Glass Width and Height = D.L.O. + 1”

Glass Sizes for Butt Glazed System: (See Detail A below)

Glass Height = D.L.O. + 1”
Glass Width (Butt Glazed on Both Sides) = D.L.O. + 2”
Glass Width (Butt Glazed on One Side and Captured on the Other Side) = D.L.O. + 1 1/2”

Glass Width at 90° Corner:

With Captured Intermediate Vertical = D.L.O. + 1”
With B.G. Intermediate Vertical = D.L.O. + 1-1/2”

Note: Glass tolerances are not addressed in the above formulas. Consult the glass manufacturer for glass tolerances prior to ordering. Structural silicone must be applied from the interior and weatherseal from the exterior.

Sealant at Interior Gasket Corners

Apply silicone to interior gasket corner 2” in each direction just prior to installing glass. Do not allow silicone to cure prior to installing glass.

Note: NG10 Gasket is cut D.L.O. + 1-1/4”

Note: NG14 spacer gaskets run through.

Note: Vertical gaskets do not run through.
GLAZING

Glass Installation

Step 1.
Install glass and center in opening. Retain glass with SP253 temporary retainers.
Retainers should remain in place until structural silicone has fully cured on
B.G. Mullions.

Apply sealant to
face of end and
bridge dams just
prior to installing
the pressure bars.
Critical seal.

Leave SP253 temporary
retainers on B.G. Mullion
until silicone has cured.
Then remove and apply
exterior cosmetic seal.

Torque SP253
Temporary glass
retainer to 30 in. lbs.
Do not over torque.

Note: For B.G. Installation,
position smooth side of SP253
against glass. Use (#12-14 x 2")
self drill screw to attach SP253
at B.G. Mullion. Do not use these fasteners
for attaching PW204 pressure bars.

Pressure Bar Installation - Captured

Install AS32 vertical pressure bar fasteners from bottom to top and horizontal
pressure bar fasteners from center outward. Make sure one fastener is located
1-1/2" maximum from vertical/horizontal joint intersections to ensure proper
pressure over end dams. While installing pressure bar fasteners, take care
not to disengage NG12.

Note: Wep holes (two per lift)
are always on top.

Locate fastener
at center line of
each horizontal
Pressure Bar Length

D.L.O. (-) 1/4" NG12 Gasket
(Factory installed)

Frame Height

1/8" Pressure Bar Length

1/16" min

9" O.C. Typical

Vertical Pressure Bar

1/8" Frame Height

1/16" min

1/2" Typical

6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6"

Note: Recommended drive speed for AS32 is 2000 rpm.

Step 1. Attach vertical pressure bars leaving a 1/8" gap at top and bottom with AS32
(#12 x 1-1/4") #3 self-drilling fasteners. Using electrically powered hand held drill/driver, torque
AS32 fasteners to 85-90 in. lbs. If using battery power tools, it is recommended that installer
frequently check for accurate torque settings, as battery power will diminish over time.

Step 2. Center horizontal pressure bars in opening leaving a
1/8" gap at each end and attach.

Step 3. Seal gaps at vertical/horizontal intersections
and at top and bottom of vertical pressure bars.
PRESSURE BAR INSTALLATION

Pressure Bar Installation - B.G.

Install AS32 vertical pressure bar fasteners from bottom to top and horizontal pressure bar fasteners from center outward. Make sure one fastener is located 1-1/2" maximum from vertical/horizontal joint intersections to ensure proper pressure over end caps. While installing pressure bar fasteners, take care not to disengage NG12 pressure bar spacer.

At B.G. Mullions

1. Remove temporary retainers one vertical at a time and install pressure bars using AS32 (#12 x 1-3/4") #3 self-drilling fasteners and a cordless adjustable clutch drill/driver with a 3/8" driver. Torque fasteners to 85-90 inch pounds. Periodically check the torque setting on the adjustable clutch drill/driver. Note: Recommended drive speed for AS32 is 2000 rpm.

2. Install wall jamb pressure bar fasteners from bottom to top and horizontals from center outward. Locate AS32 fasteners 1-1/2" maximum from vertical/horizontal intersections to ensure proper pressure over end and bridge caps.

3. Remove temporary retainers from horizontals, one bay at a time, and center horizontal pressure bars in opening leaving 1/8" gaps at ends and 1/2" at splice joints. Attach with AS32 fasteners.

4. Upon completion of pressure bars installation and just prior to installing face covers, seal all gaps at intersections of vertical/horizontal pressure bar joints and tool the sealant.

5. Seal between pressure bar & face cover splices. Keep sealant away from face cover snap area.

Step 1. Remove temporary retainers one mullion at a time. Attach vertical pressure bars leaving a 1/8" gap at top and bottom with AS32 (#12 x 1-1/4" #3 self-drilling fasteners). Using an electrically powered hand held drill/driver, torque AS32 fasteners to 85-90 in. lbs. If using battery power tools, it is recommended that installer frequently check for accurate torque settings, as battery power will diminish over time.

Step 2. Center horizontal pressure bars in opening leaving a 1/8" gap at each end and attach.

Step 3. Seal gaps at vertical/horizontal intersections and at top and bottom of vertical pressure bars.
**HORIZONTAL FACE COVER**  
Splice Joints - B.G. Installation

1. Locate 1/2" wide splice joints at center line of vertical members.
2. Do not align face cover splices directly over pressure bar splices. Offset 6" minimum, see Detail "D".
3. Set backer rod between face cover and pressure bars at joint and seal. Tool sealant, see Detail "E".

**Note:** Pin one end of each face cover with AS21 fastener to prevent slippage. Reference Detail "C".

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**FACE COVER INSTALLATION**

1. Care must be taken to prevent damage of face covers during installation. Use a piece of wood such as 2" x 4" approximately 8-10" long and a 3" diameter Stanley 3 lb. Compo-Cast dead blow soft face hammer.
2. Install vertical face covers first. Do not displace top and bottom mullion caps when installing face covers. Finishing of vertical face cover is required to prevent slippage. Use one AS21 on each side per cut length, concealed behind horizontal face cover as shown. See Detail B.
3. Install snap-in horizontal face covers with the weep holes located on the bottom side.
4. Horizontal face covers exceeding 1-1/2" in depth must be pinned on top side with AS21 fastener to prevent disengagement. Locate one fastener at mid-point for 3-5 ft.

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**SEALING MULLION END CAPS**  
Top and Bottom (Top Shown - Bottom Similar)

1. Seal top and bottom of each vertical mullion end cap as shown.
   **Note:** Vertical face covers are cut mullion length -1/4". Leave 1/8" gap at top and bottom.
**INTERIOR TRIM INSTALLATION**
Checking Joinery Seals and Anchor Bolts

**Step 1.** Check seals at all vertical/horizontal joints and reseal if required.

**Step 2.** Check all perimeter anchor bolts to make sure they are installed and secure.

**Step 3.** Insert PW203 interior trim cover into receiver and snap downward into place. Use dead blow mallet and wooden block as required. Take care not to ding or bend cover.

**Note:** Interior trim covers may be omitted in spandrel areas when not visible from interior.

**Detail A**

**Detail B**

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**ENTRANCE SUBFRAMES**

**Note:** Refer to FRAMES & ENTRANCES section of this manual for additional fabrication and installation instructions. Entrance Frames may be installed simultaneously with Curtain Wall or after Curtain Wall installation has been completed.

**Optional steel reinforcement when required**

**PW150**

**PW202**

**PW213**

**Pocket Filler**

**PW214**

**Door jamb**

**Attach door jamb to vertical with AS25 (#12 x 3/4" HWH #3 self drilling fastener)**

**DS200-1**

**Snap-in door stop for Offset Hung Door.**

**SP209**

**Bottom end cap. Seal as shown.**

**Seal pocket of door subframe up to top of threshold.**

**TH4**

**Threshold for Offset Hung Door.** Ref. Subframe Fastener Chart for attachment to substrate.**