



Testing Evaluation Laboratories, Inc.

2002 Wood Court Suite 1 – Plant City, FL 33563
Phone: 813-754-9887

Missile Level "D" (Includes Wind Zone 4)

TEST REPORT SUMMARY

Test Report Issued To:

Fleetwood Windows and Doors
1 Fleetwood Way
Corona, CA 92879

350-T ALUMINUM CASEMENT WINDOWS/3800-T FIXED WINDOWS

| Title of Test | Results | | |
|-------------------------|--|--|---|
| | Specimens 1a, 1b, 1c 1102 mm x 2194 mm (43.375 x 86.375) | Specimens 2a, 3a, 3c, 4a 1067 mm x 2134 mm (42.00 x 84.00) | Specimen 5a, 6a 1102 mm x 4572 mm (44.375 x 180.00) |
| Impact | Pass | Pass | Pass |
| Fatigue Load Cycling | +3112 /- 3112 Pa (+65.0/- 65.0 psf) | +3112 /- 3112 Pa (+65.0/- 65.0 psf) | +3112 /- 3112 Pa (+65.0/- 65.0 psf) |

Reference should be made to Report No. TEL 01993390 for complete test specimen description and data. For corresponding data regarding AAMA/WDMA/CSA 101/I.S./2/A440-17 reference should be made to Report No. TEL 01993389.

For Testing Evaluation Laboratories, Inc.

Vivian K. Wright,
President



Testing Evaluation Laboratories, Inc.

2002 Wood Court Suite 1 – Plant City, FL 33563
Phone: 813-754-9887

TEST RESULTS

IAS Lab Certification Number: TL-299

Report No: TEL 01993390
Test Dates: October 19-28, 2021
Report Date: December 14, 2021
Revision Date: March 19, 2022

Issued to:

Fleetwood Windows and Doors
One Fleetwood Way
Corona, CA 92879

Project Summary: Testing Evaluation Laboratories, Inc. (TEL) was contracted by Fleetwood Windows and Doors to perform tests on the 350-T Aluminum Casement Windows/3800-T Fixed Windows at TEL's Plant City, FL test facility.

Test specimen descriptions and results are reported herein.

Test Specifications: The test specimens were evaluated in accordance with the following:

ASTM E 1886-13a / ASTM E 1996-14a
Missile Level "D" (Includes Wind Zone 4)

Test Specimen Description:

| | |
|--------------------------|--|
| Series / Model: | 350-T Aluminum Casement Windows/3800-T Fixed Windows |
| Type: | Aluminum Casement Window – X Specimens 1a, 1b, 1c, 2a, 3a, 3c, 4a Aluminum Casement Window with Fixed Windows – O/X/O Specimens 5a, 6a |
| Overall Size: | 1102 x 2194 (44.375" x 86.375") – (X) - Specimens 1a, 1b, 1c 1067 x 2134 (42.00" x 84.00") – (X) - Specimens 2a, 3a, 3c, 4a 1102 x 4572 (44.375" x 180.00") – (O/X/O) - Specimens 5a, 6a |
| Daylight Opening: | 902 x 1969 (35.50" x 77.50") – Specimens 1a, 1b, 1c, 2a, 3a, 3c, 4a 1048 x 794 (41.25" x 31.25") – Specimens 5a, 6a – Upper Fixed Panel 902 x 1969 (35.50" x 77.50") – Specimens 5a, 6a – Casement 1048 x 1454 (41.25" x 57.25") – Specimens 5a, 6a – Lower Fixed Panel |
| Glazing Detail: | (See attached drawings for details) |
| Frame Material: | Aluminum |
| Finish: | Mill Finish |

For Tested Elevation, Vertical Cross Sections, Horizontal Cross Sections, Components, Frame Anchoring, Glazing Detail and Bill of Materials See Attached Drawing #'s L-9484, L-9485, L-9486, L-9487, L-9488, L-9489 and L-9490.

Test Results: Specimen 1a 1102 mm x 2194 mm (43.375" x 86.375") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|--------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 572 | 22.50 | 1130 | 44.50 | 15.1 | 49.5 |
| Lower Right Corner of Operable Panel | Pass | 826 | 32.50 | 267 | 10.50 | 15.2 | 49.8 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.81 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.18 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.76 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.82 |

Observations: Glass deflected 48 mm (1.88") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.74 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 2.18 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.44 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.87 |

Observations: Glass deflected 48 mm (1.88") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 1b 1102 mm x 2194 mm (43.375" x 86.375") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|--------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 559 | 22.00 | 1118 | 44.00 | 15.3 | 50.3 |
| Lower Right Corner of Operable Panel | Pass | 826 | 32.50 | 318 | 12.50 | 15.2 | 50.0 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 2.36 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.80 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 2.33 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.79 |

Observations: Glass deflected 48 mm (1.88") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.82 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 2.01 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.92 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 2.30 |

Observations: Glass deflected 44 mm (1.75") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 1c 1102 mm x 2194 mm (43.375" x 86.375") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|-------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 572 | 22.50 | 1181 | 46.50 | 15.1 | 49.6 |
| Upper Left Corner of Operable Panel | Pass | 267 | 10.50 | 1981 | 78.00 | 15.1 | 49.5 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.63 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.19 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.50 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.30 |

Observations: Glass deflected 48 mm (1.88") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.01 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 1.75 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.05 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.18 |

Observations: Glass deflected 44 mm (1.75") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 2a 1067 mm x 2134 mm (42.00" x 84.00") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 597 | 23.50 | 1156 | 45.50 | 15.1 | 49.5 |
| Bottom Right Corner of Operable Panel | Pass | 787 | 31.00 | 267 | 10.50 | 15.2 | 49.8 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.90 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.74 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.76 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.28 |

Observations: Glass deflected 70 mm (2.75") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.40 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 1.94 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.56 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.75 |

Observations: Glass deflected 83 mm (3.25") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 3a 1067 mm x 2134 mm (42.00" x 84.00") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 521 | 20.50 | 1080 | 42.50 | 15.3 | 50.1 |
| Bottom Right Corner of Operable Panel | Pass | 826 | 32.50 | 229 | 9.00 | 15.1 | 49.4 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 2.00 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.75 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 2.55 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.45 |

Observations: Glass deflected 64 mm (2.50") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.76 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 2.21 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.88 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 2.35 |

Observations: Glass deflected 67 mm (2.63 ") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 3c 1067 mm x 2134 mm (42.00" x 84.00") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 533 | 21.00 | 1181 | 46.50 | 15.1 | 49.5 |
| Bottom Right Corner of Operable Panel | Pass | 794 | 31.25 | 216 | 8.50 | 15.2 | 49.8 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.97 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.16 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.64 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.25 |

Observations: Glass deflected 54 mm (2.13") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.63 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 2.00 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.41 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.95 |

Observations: Glass deflected 83 mm (3.25") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 4a 1067 mm x 2134 mm (42.00" x 84.00") - Casement

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 533 | 21.00 | 1041 | 41.00 | 15.3 | 50.1 |
| Bottom Right Corner of Operable Panel | Pass | 826 | 32.50 | 267 | 10.50 | 15.3 | 50.2 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 2.20 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 2.16 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.69 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.10 |

Observations: Glass deflected 57 mm (2.25") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 2.40 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 1.70 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.75 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.35 |

Observations: Glass deflected 57 mm (2.25") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 5a 1102 mm x 4572 mm (44.375" x 180.00") – Fixed/Casement/Fixed

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 559 | 22.00 | 2667 | 105.00 | 15.2 | 50.0 |
| Bottom Right Corner of Operable Panel | Pass | 845 | 33.25 | 1829 | 72.00 | 15.1 | 49.4 |
| Center of Fixed Panel | Pass | 572 | 22.50 | 775 | 30.50 | 15.3 | 50.1 |
| Bottom Right Corner of Fixed Panel | Pass | 902 | 35.50 | 267 | 10.50 | 15.2 | 49.8 |
| Center of Mullion | Pass | 559 | 22.00 | 1524 | 60.00 | 15.3 | 50.1 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.30 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 1.71 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.20 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 2.05 |

Observations: Glass deflected 57 mm (2.25") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------|-------------------------|----|------|-------|----|-------|------------------|------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 1.35 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 1.15 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.28 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.21 |

Observations: Glass deflected 57 mm (2.25") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

Test Results: Specimen 6a 1102 mm x 4572 mm (44.375" x 180.00") – Fixed/Casement/Fixed

ASTM E1886 (13a) / ASTM E1996 (14a) - Large Missile Impact (2 x 4 Southern Yellow Pine)

| Conditioning Temperature: | | Missile Weight: (Level D) Excluding Wind Zone 4 | | Missile Length: | | Muzzle Distance: | |
|---------------------------|-----------|---|----------------|-----------------|--------|------------------|-------|
| 24° C | (76.0° F) | 4.03 Kg | (8 lbs 14 oz.) | 2.40 m | 7'-10" | 5.23 m | 17'2" |

| Impact Location | Results | (X) Measurement | | (Y) Measurement | | Speed | |
|---------------------------------------|---------|-----------------|--------|-----------------|--------|-------|------|
| | | mm | inches | mm | inches | m/s | fps |
| Center of Operable Panel | Pass | 572 | 22.50 | 2654 | 104.50 | 15.2 | 49.8 |
| Bottom Right Corner of Operable Panel | Pass | 889 | 35.00 | 1778 | 70.00 | 15.1 | 49.5 |
| Center of Fixed Panel | Pass | 584 | 23.00 | 775 | 30.50 | 15.2 | 50.0 |
| Bottom Right Corner of Fixed Panel | Pass | 914 | 36.00 | 254 | 10.00 | 15.2 | 50.0 |
| Center of Mullion | Pass | 565 | 22.25 | 1524 | 60.00 | 15.2 | 49.8 |

Observations: Missile impacted @ X, Y coordinates fracturing exterior and interior lites with no rupture of interlayer

| Positive % of Test Load | Positive Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3500 | 1.05 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 300 | 1.72 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 600 | 1.06 |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 100 | 1.70 |

Observations: Glass deflected 76 mm (3.00") from original plane @ 100% Positive Load

| Negative % of Test Load | Negative Pressure Range | | | | | | Number Of Cycles | Average Cycle Time (Seconds) |
|-------------------------------|----------------------------|----|------|-------|----|-------|------------------------|------------------------------------|
| | Pa | to | Pa | (psf) | to | (psf) | | |
| 30% to 100% | 934 | to | 3112 | 19.5 | to | 65.0 | 50 | 1.57 |
| 50% to 80% | 1556 | to | 2490 | 32.5 | to | 52.0 | 1050 | 1.40 |
| 0% to 60% | 0 | to | 1867 | 0.0 | to | 39.0 | 50 | 2.39 |
| 20% to 50% | 622 | to | 1556 | 13.0 | to | 32.5 | 3350 | 1.37 |

Observations: Glass deflected 70 mm (2.75") from original plane @ 100% Positive Load

- Note:
1. Orientation of missile at impact was within +/- 5° of horizontal.
 2. "X" measurement is from left edge of test specimen.
 3. "Y" measurement is from bottom edge of test specimen.
 4. At the completion of test there were no tears in the interlayer.

Test Technician: Christian Seifried

General Note:

Tape and film were used to seal against air leakage during fatigue loading/cycling. In our opinion, the tape and film did not influence the results of the tests.

Drawing Reference

The test specimen drawings have been reviewed by TEL and are representative of the test specimens reported herein.

Conditions, Terms, and General Notes Regarding These Tests

The product tested Has Been compared to the detailed drawing, bill of materials and fabrication information supplied by the client so named herein. Our analysis, which includes dimensional and component description comparisons, indicate the tested product and engineering information supplied by the client "Are Equivalent".

The report and representative samples will be retained for four years from the date of initial test.

These test results were obtained by employing all requirements of the designated test methods with no Deviations unless explicitly noted in test report. The test results and specimen supplied for testing are in compliance with the reference.

The test results are specific to the product tested by this laboratory and of the sample supplied by the client named herein, and they relate to no other product either manufactured by the client, a fabricator of the client or of installed field performance.

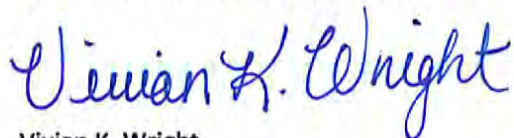
This test report does not constitute certification of this product, but only that the above test results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specifications.

Testing Evaluation Laboratories, Inc. makes no opinions or endorsements regarding this product and its performance. This report may not be reproduced or quoted in partial form without the expressed written approval of Testing Evaluation Laboratories, Inc.

Testing Evaluation Laboratories, Inc.'s letter, reports, its name or insignia or mark are for the exclusive use of the client so named herein and any other use is strictly prohibited. The report, letters and the name of Testing Evaluation Laboratories, Inc., its seal or mark shall not be used in any circumstance to the general public or in any advertising.

Limitation of liability: Due diligence was used in performing the tests and reporting the results. By acceptance of this report, this client agrees to hold harmless and indemnify Testing Evaluation Laboratories, Inc., its employees, sub-contractors and officers and owners against all claims and demands of any kind whatsoever, which arise out of or in any manner connected with the performance of work referred to herein.

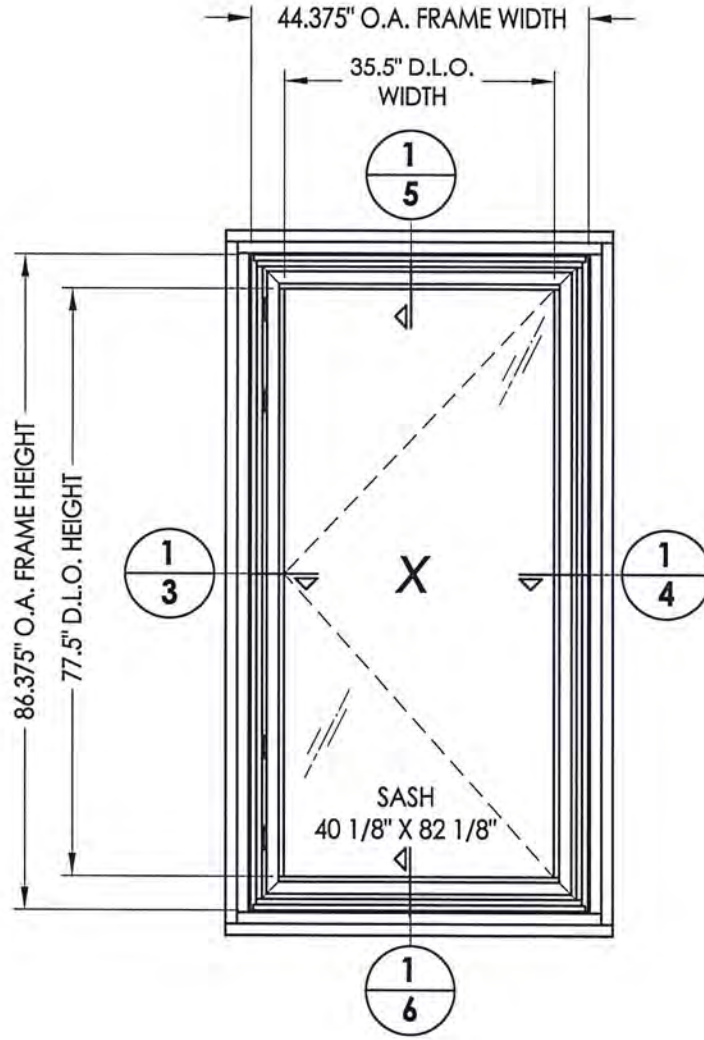
Testing Evaluation Laboratories, Inc.



Vivian K. Wright,
President

Revision Log

| Rev No. | Date | Page(s) | Revision(s) |
|---------|------------|----------------------------|------------------------|
| 0 | 12/14/2021 | NA | Original Report Issue |
| 1 | 3/19/2022 | Cover, Report Page 1 | Corrected Product Name |

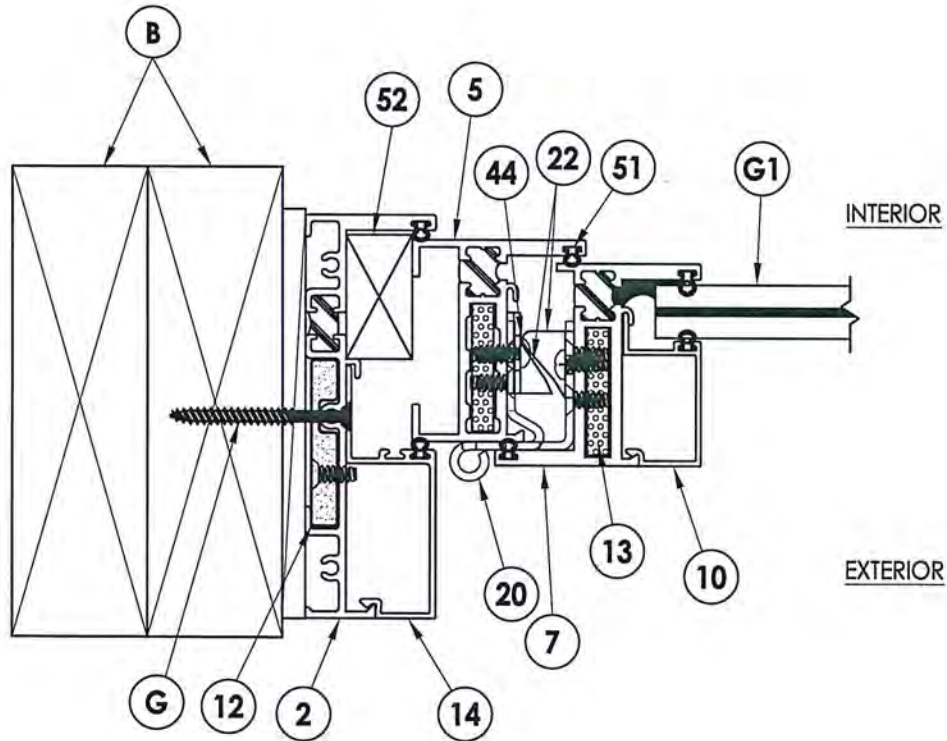


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.:
 L-9484
 SHEET 2 OF 9

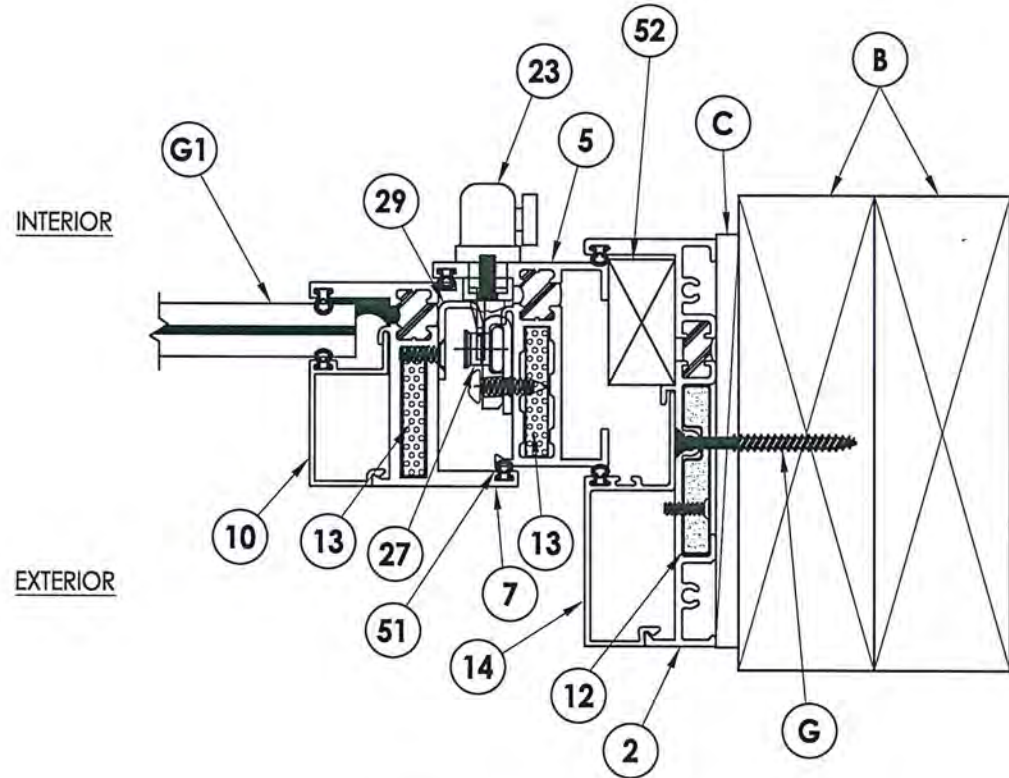
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|--|------|--------------------------------------|----|
| PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c | | PART OR ASSEMBLY: TEST ELEVATIONS | |
| NO. | DATE | REVISIONS | BY |
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1 HORIZONTAL CROSS SECTION
3

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

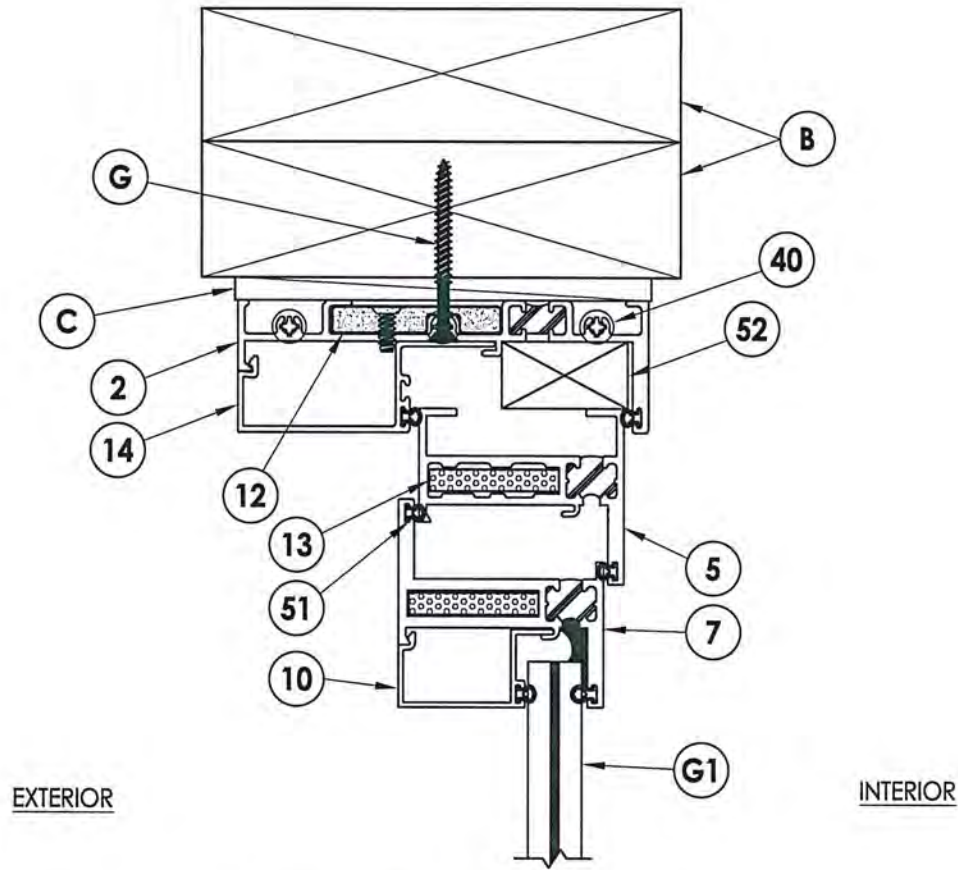
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| PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c | | PART OR ASSEMBLY: CROSS SECTION | |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9484 | | | |
| SHEET 3 OF 9 | | | |



1
4 HORIZONTAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

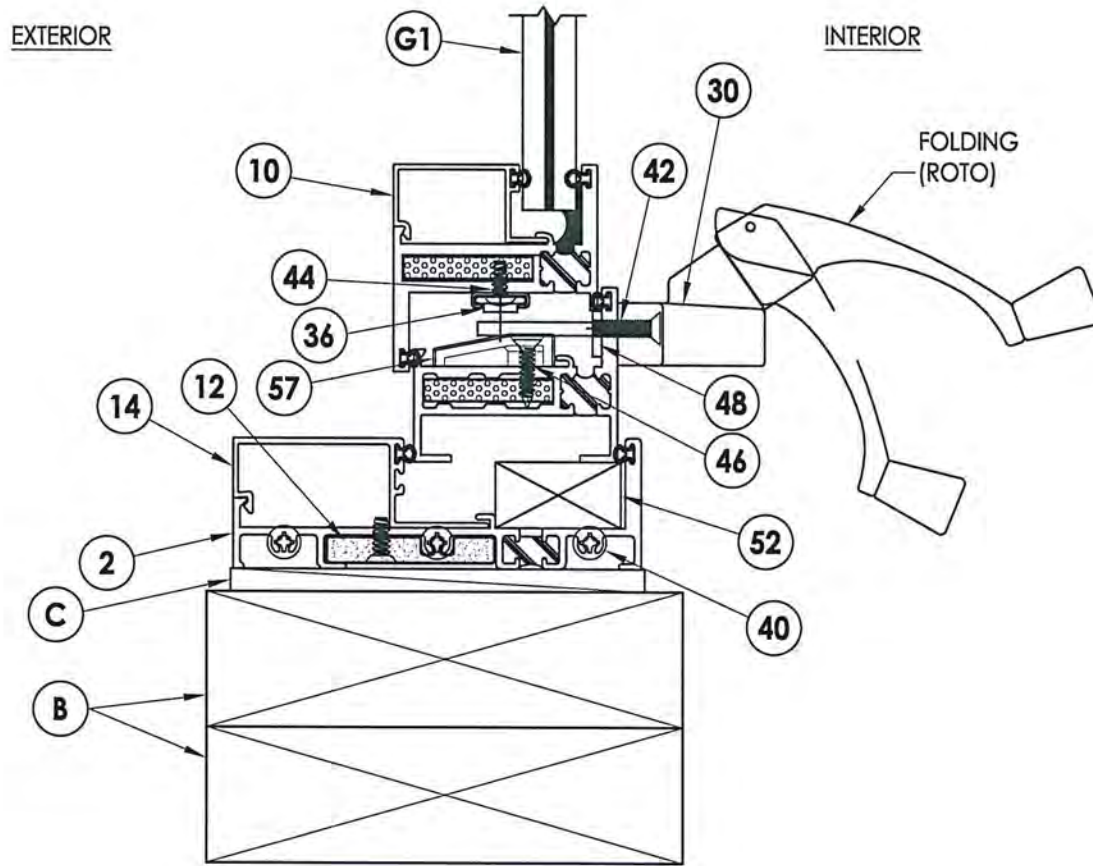
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| PART OR ASSEMBLY: | | CROSS SECTION | |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: | | | |
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| SHEET <u>4</u> OF <u>9</u> | | | |



1 VERTICAL CROSS SECTION
5

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

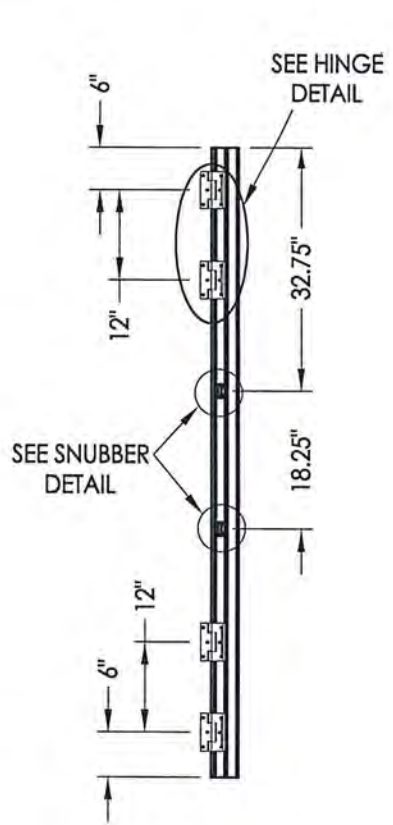
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9484 | | | |
| SHEET <u>5</u> OF <u>9</u> | | | |



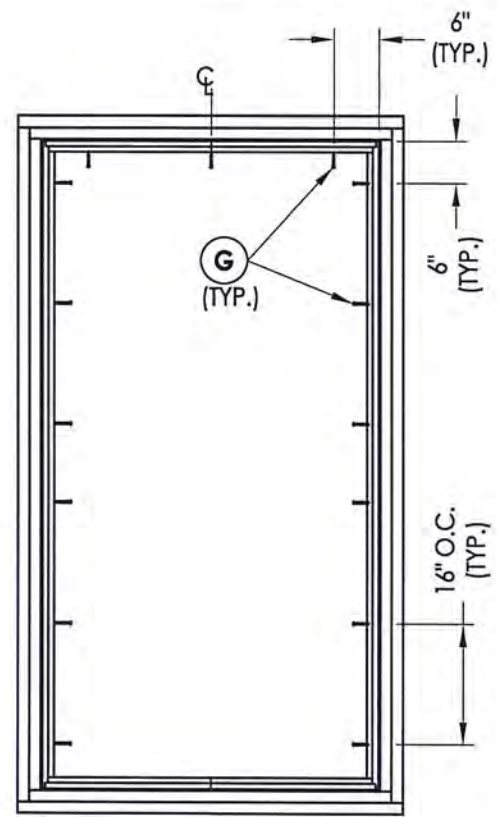
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6 **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

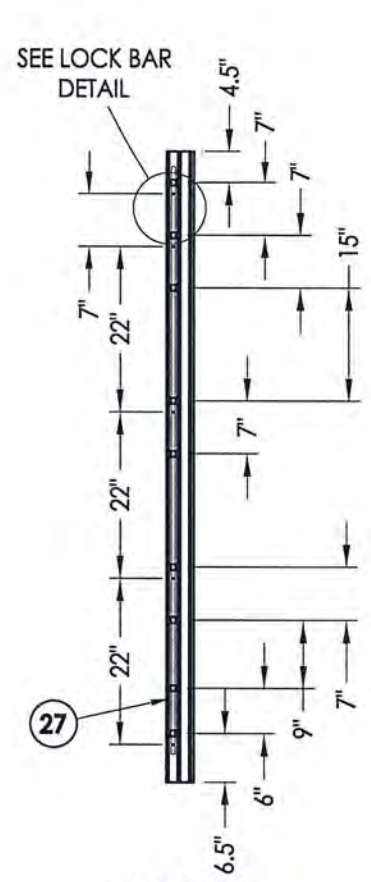
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9484 | | | |
| SHEET 6 OF 9 | | | |



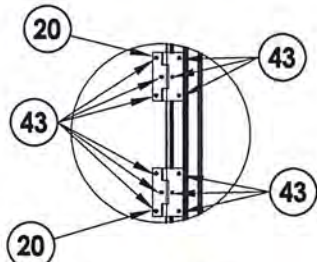
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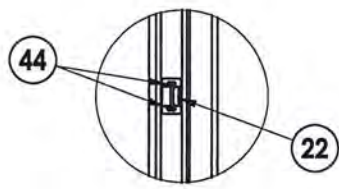
**FRAME ANCHORING
2X TEST BUCK**



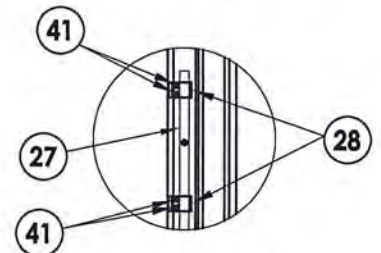
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LOCKING POINTS (5)**



HINGE DETAIL



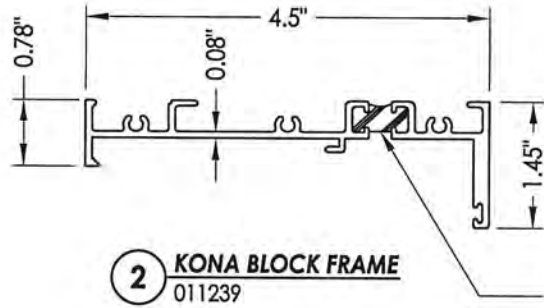
SNUBBER DETAIL



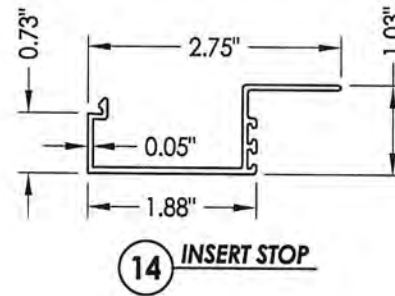
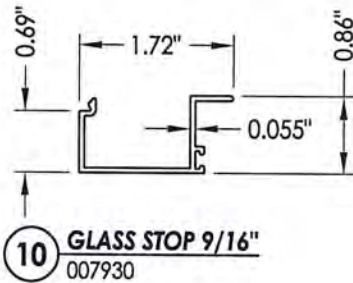
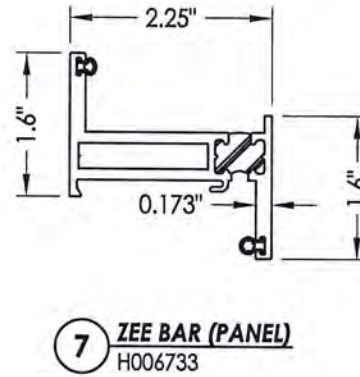
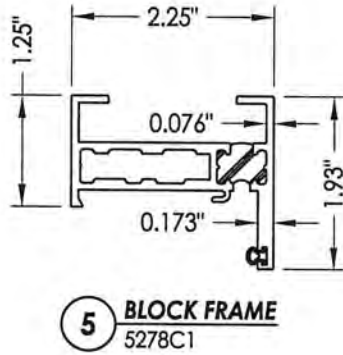
LOCK BAR DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 1, 1a, 1b, 1c | | PART OR ASSEMBLY: FRAME ANCHORING | |
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| DATE: 10/19/21 | | | |
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| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9484 | | | |
| SHEET 7 OF 9 | | | |

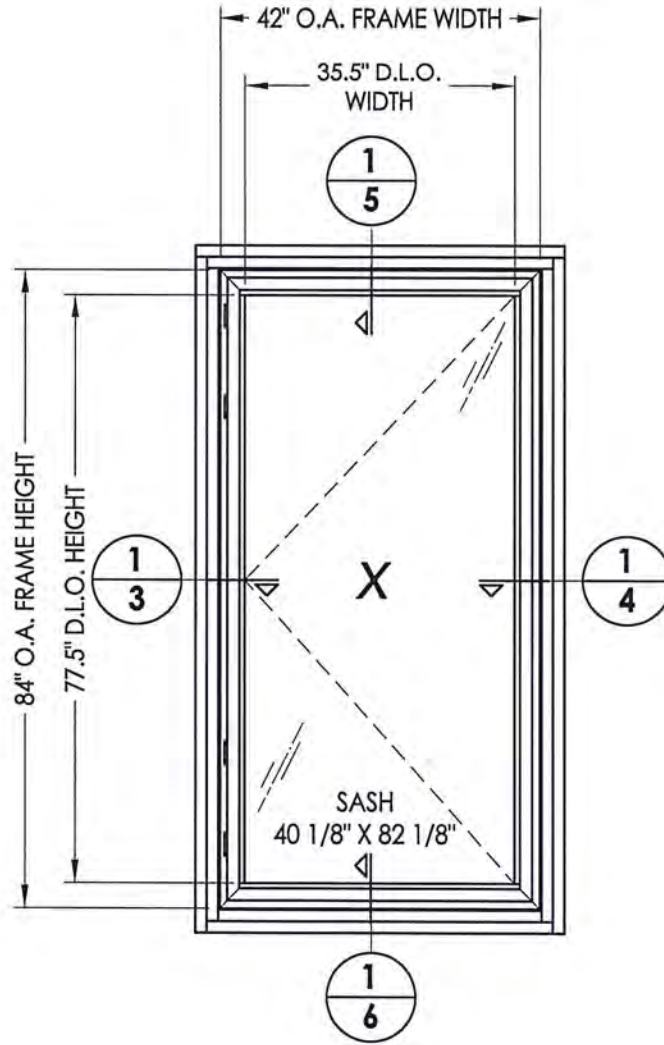


THERMAL BREAK
(LIQUID POLYURETHANE)
BY AZON
(TYP.)



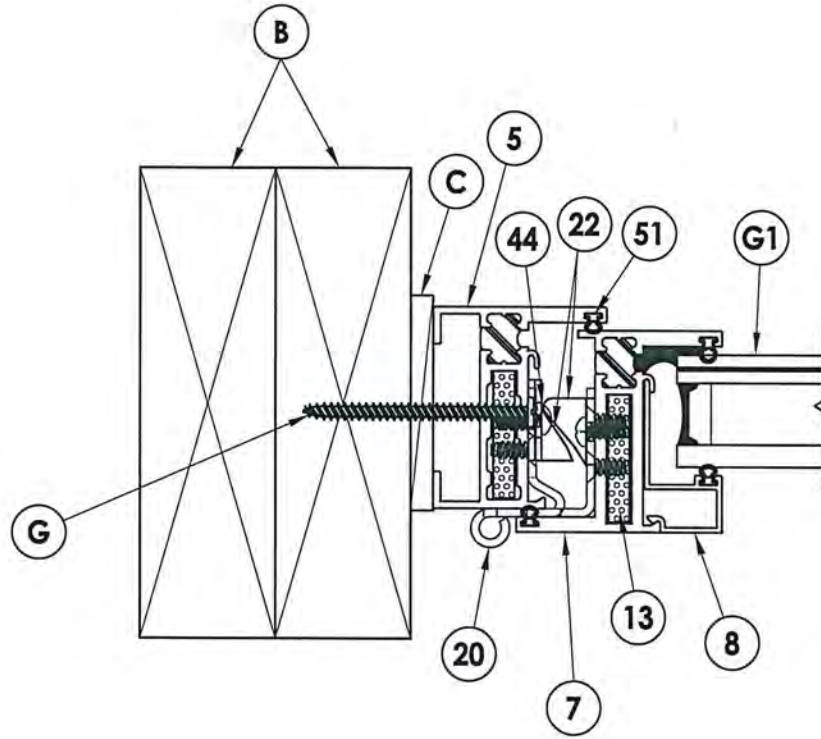
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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|------------------------|------|----------------------------------|----|
| PRODUCT: | | FLEETWOOD SPEC. 1, 1a, 1b, 1c | |
| PART OR ASSEMBLY: | | COMPONENTS | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: L-9484 | | | |
| SHEET 8 OF 9 | | | |




Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

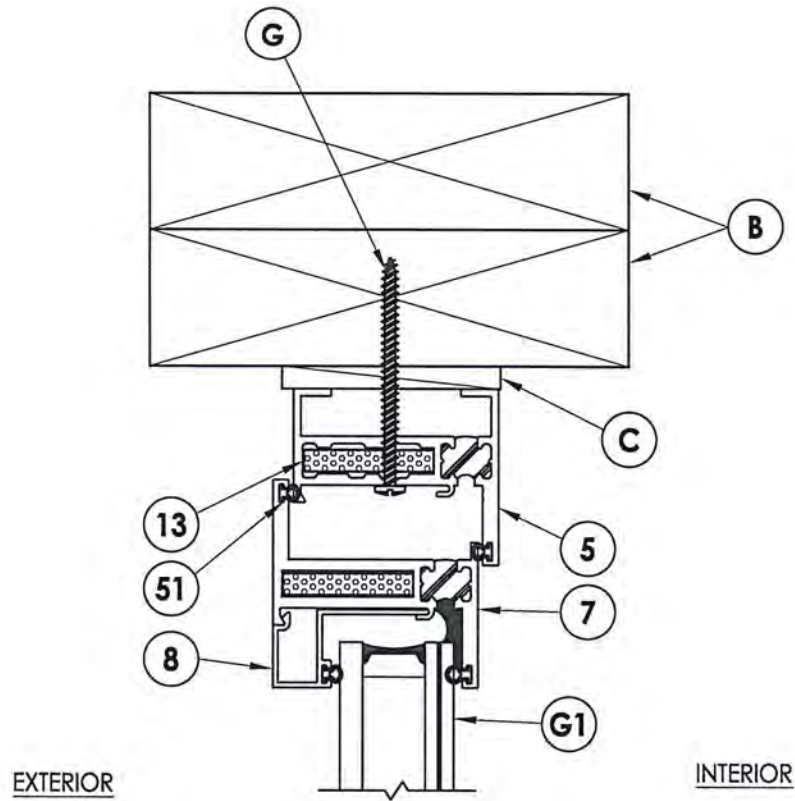
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET <u>2</u> OF <u>9</u> | | | |



1 HORIZONTAL CROSS SECTION
3


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

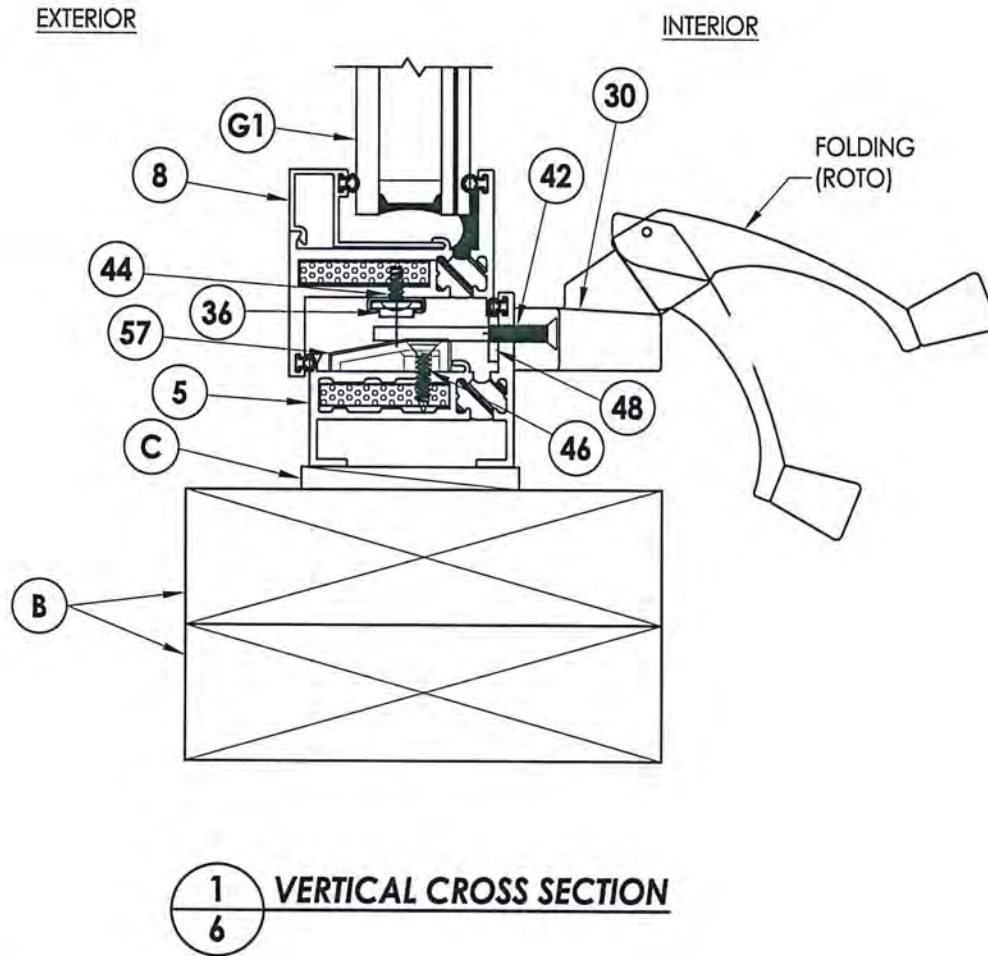
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET 3 OF 9 | | | |



1 VERTICAL CROSS SECTION
5

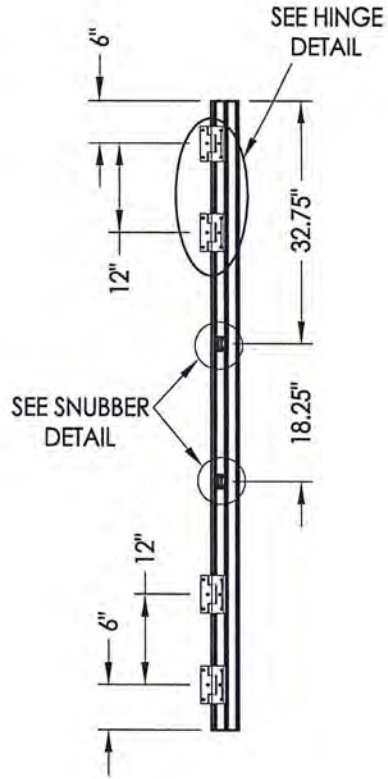
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 2, 2a | | PART OR ASSEMBLY: CROSS SECTION | |
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| | | | REVISIONS |
| | | NO. | DATE |
|  RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET <u>5</u> OF <u>9</u> | | | |

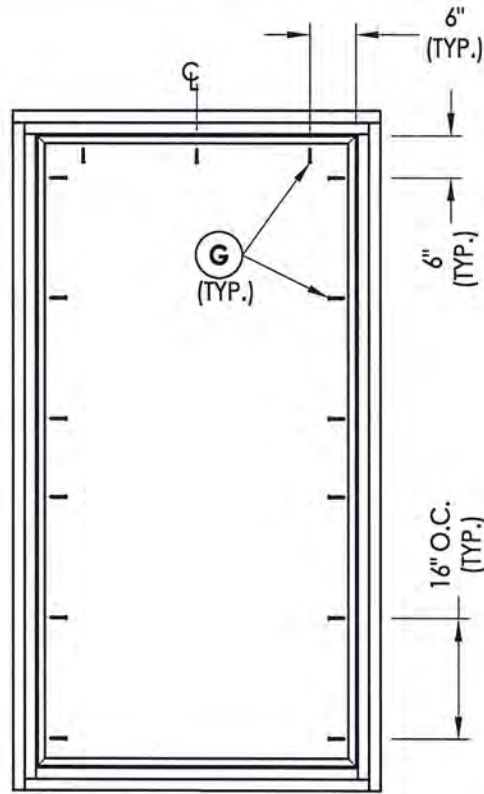


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

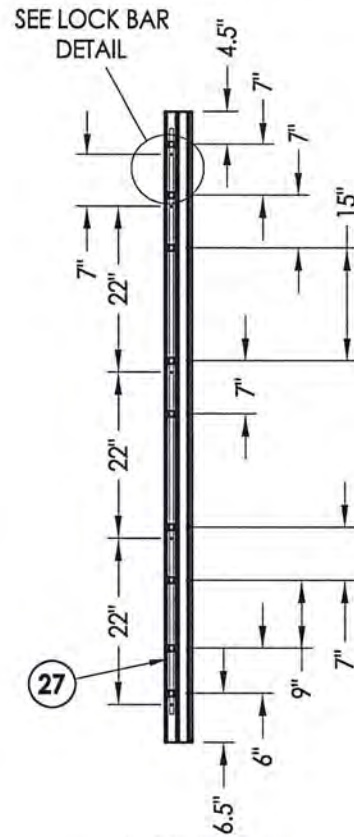
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| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET <u>6</u> OF <u>9</u> | | | |



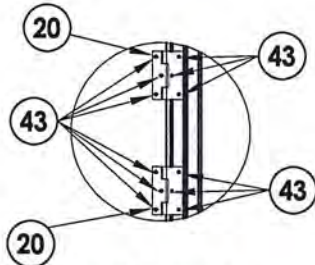
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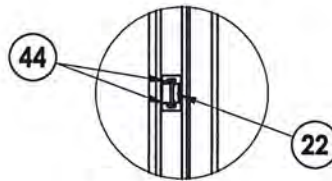
**FRAME ANCHORING
2X TEST BUCK**



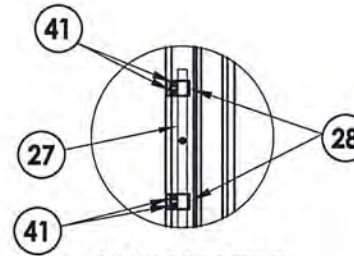
**LOCK JAMB
LOCKING POINTS (5)**



HINGE DETAIL



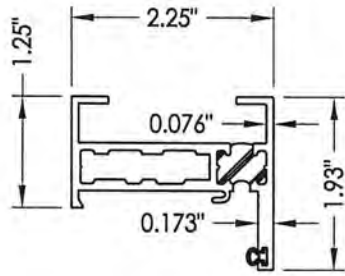
SNUBBER DETAIL



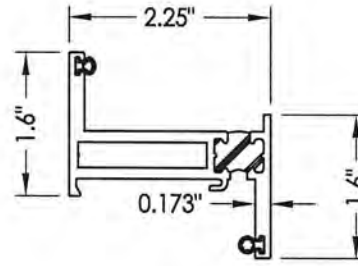
LOCK BAR DETAIL

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

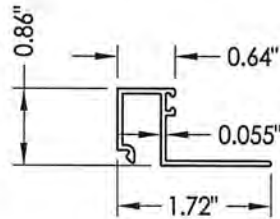
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET 7 OF 9 | | | |



5 **BLOCK FRAME**
5278C1




7 **ZEE BAR (PANEL)**
H006733



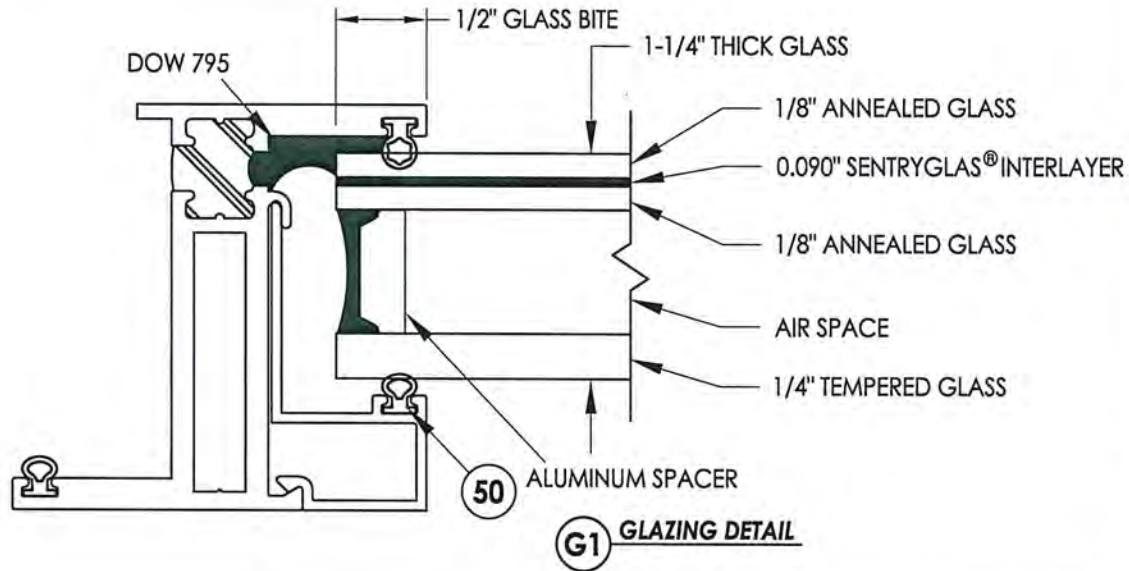
8 **GLASS STOP 1-1/4"**
901487

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

| | | | |
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| PRODUCT: | | FLEETWOOD SPEC. 2, 2a | |
| PART OR ASSEMBLY: | | COMPONENTS | |
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| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: L-9485 | | | |
| SHEET 8 OF 9 | | | |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| G | #10 X 2-1/2" PPH SMS | STEEL |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 8 | GLASS STOP 1-1/4" | 6063-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 20 | SS. BUTT HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 23 | MULTIPOINT LOCK HANDLE | SS |
| 27 | 5 POINTS LOCKING BAR | SS |
| 28 | TIE BAR GUIDE | - |
| 29 | KEEPER | SS |
| 30 | CASEMENT ROTOR GEAR | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 41 | SCREW NO 8, PHP, .750" | STEEL |
| 42 | MACHINE SCREW NO 10-32, FHP .75" | STEEL |
| 43 | SCREW NO 10, UFHP .5" | STEEL |
| 44 | SCREW NO 8, PHP, .50" | STEEL |
| 46 | SCREW NO 8, FHP, .750" | STEEL |
| 48 | BACK UP NUTS | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 57 | PIVOT SHIM | - |



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

G1 GLAZING DETAIL

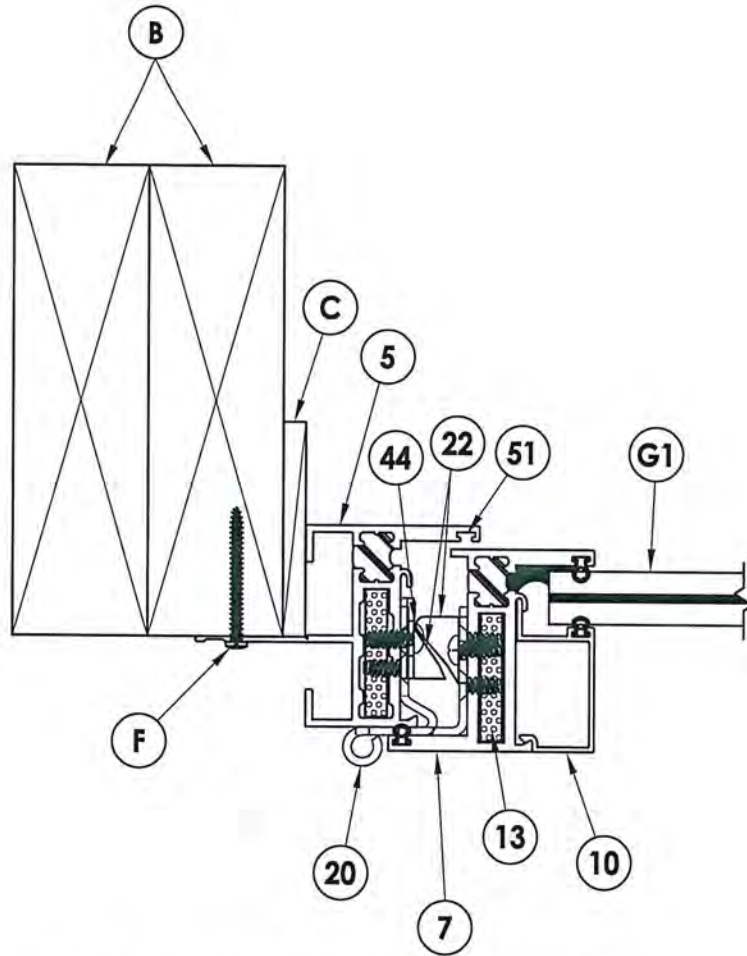
PRODUCT:
 FLEETWOOD
 SPEC. 2, 2a

PART OR ASSEMBLY:
 COMPONENTS &
 GLAZING DETAILS

| NO. | DATE | BY | REVISIONS |
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RW BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.: L-9485
 SHEET 9 OF 9



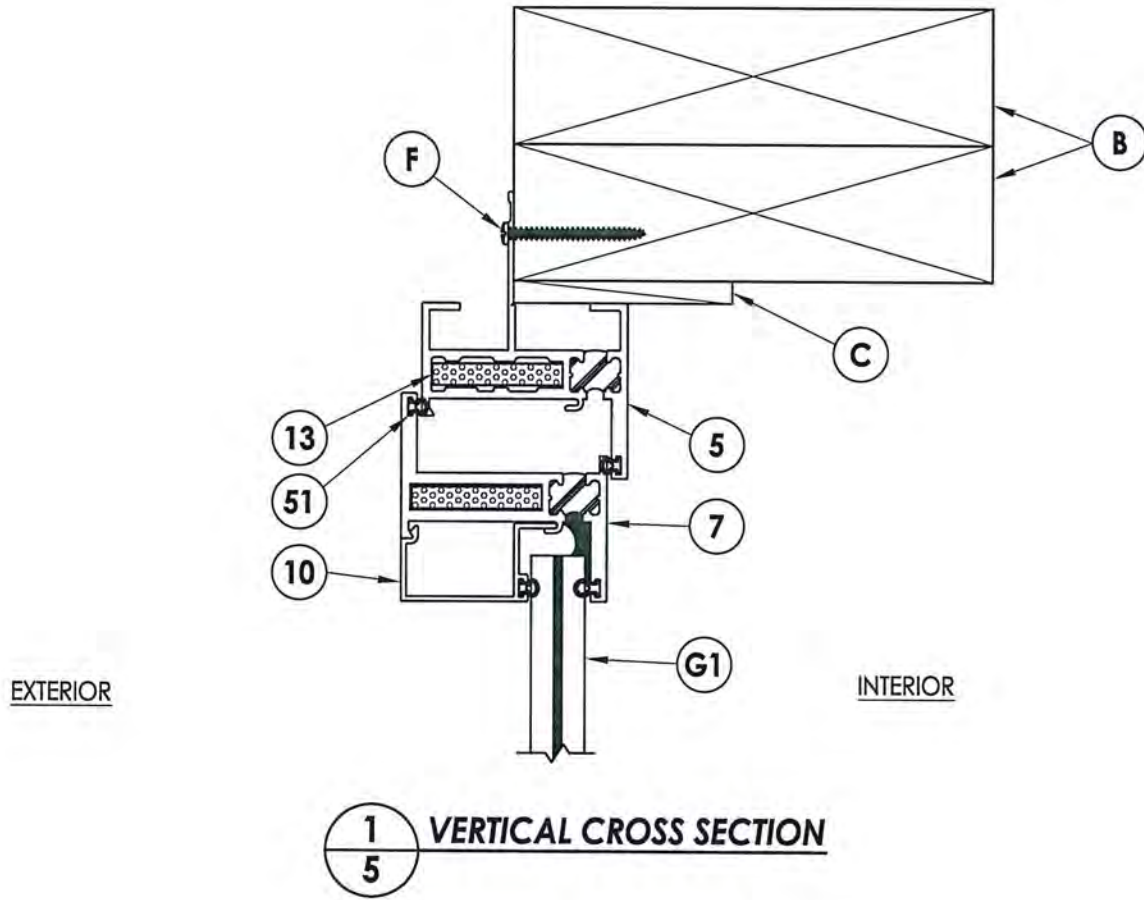
1 HORIZONTAL CROSS SECTION
3

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

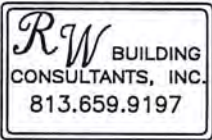
RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

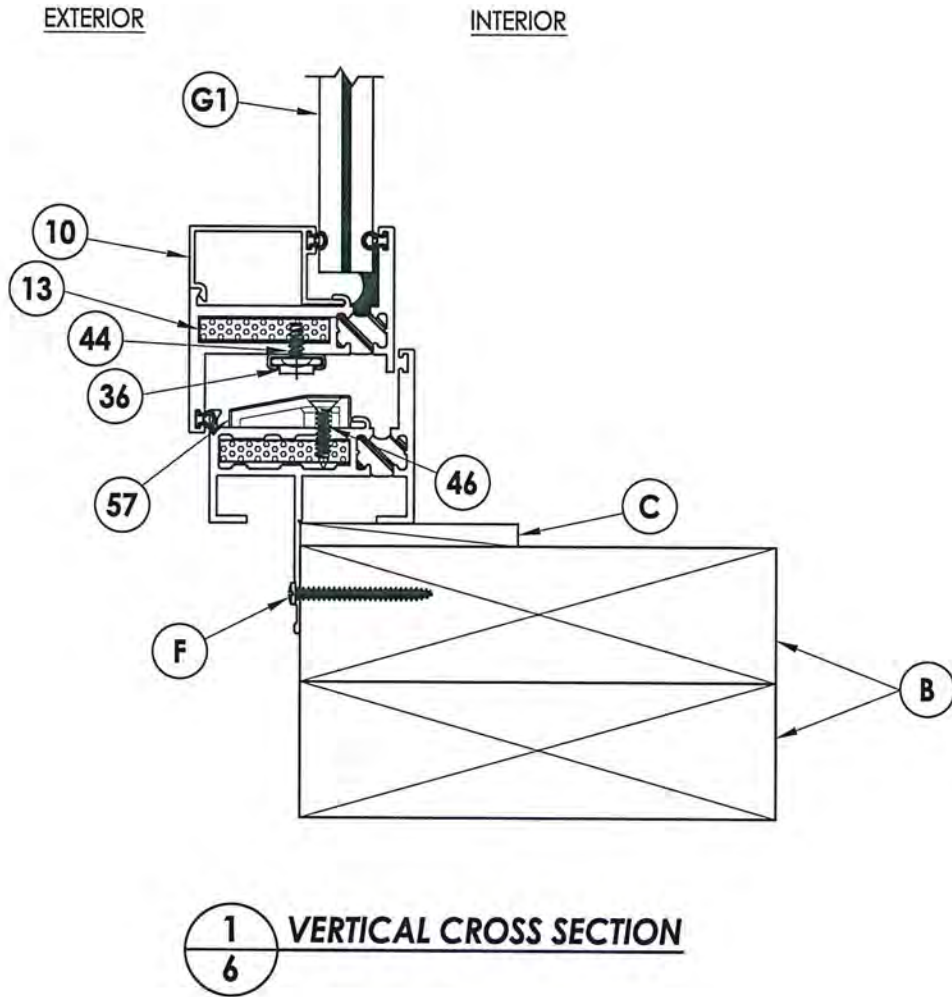
DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.:
L-9486
 SHEET 3 OF 9

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| PRODUCT: | | FLEETWOOD SPEC. 3, 3a | |
| PART OR ASSEMBLY: | | CROSS SECTION | |
| NO. | DATE | REVISIONS | BY |
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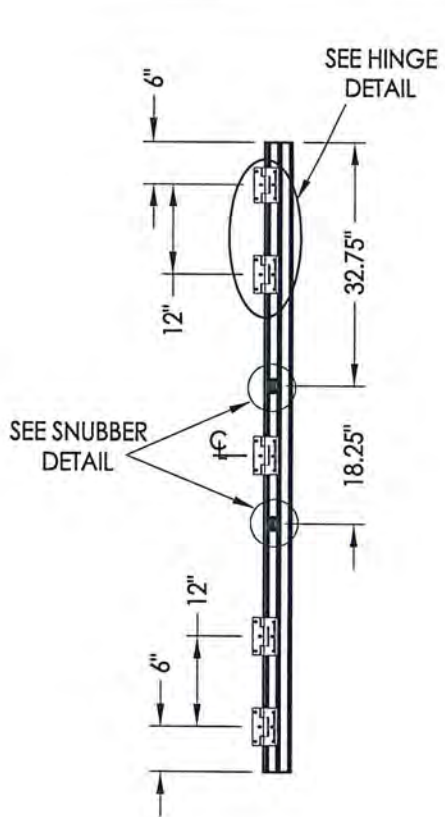
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 3, 3a | | PART OR ASSEMBLY: CROSS SECTION | |
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| | | | REVISIONS |
| | | NO. | DATE |
|  RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9486 | | | |
| SHEET 5 OF 9 | | | |

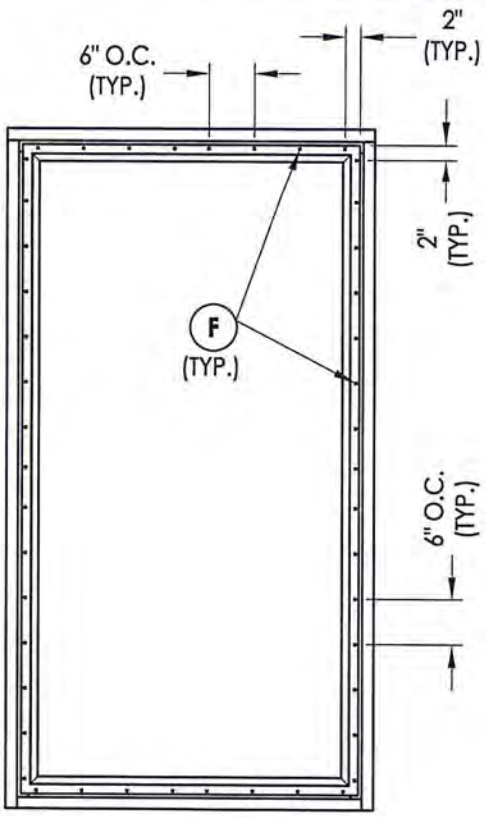


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

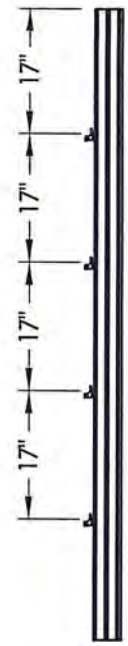
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|---|------|---------------------------------|----|
| PRODUCT: FLEETWOOD SPEC. 3, 3a | | PART OR ASSEMBLY: CROSS SECTION | |
| NO. | DATE | REVISIONS | BY |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9486 | | | |
| SHEET 6 OF 9 | | | |



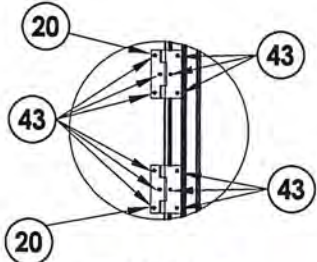
HINGE JAMB



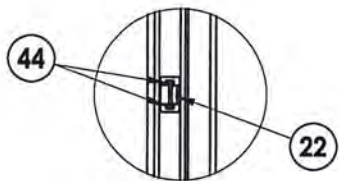
**FRAME ANCHORING
2X TEST BUCK**



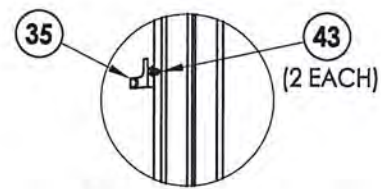
**LOCK JAMB
CAM LOCKING POINTS (4)**



HINGE DETAIL



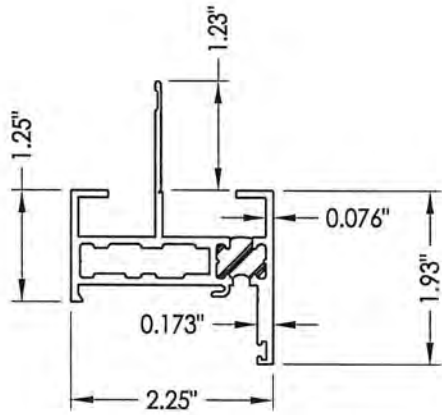
SNUBBER DETAIL



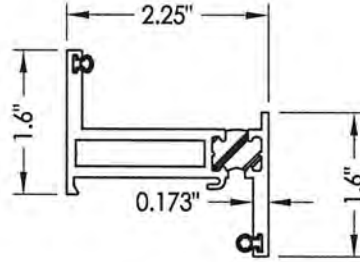
CAM LOCK DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

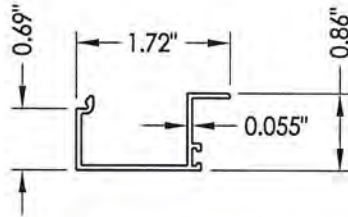
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| PRODUCT: FLEETWOOD SPEC. 3, 3a | | PART OR ASSEMBLY: FRAME ANCHORING | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9486 | | | |
| SHEET 7 OF 9 | | | |



5 **BLOCK FRAME**
5278C1



7 **ZEE BAR (PANEL)**
H006733



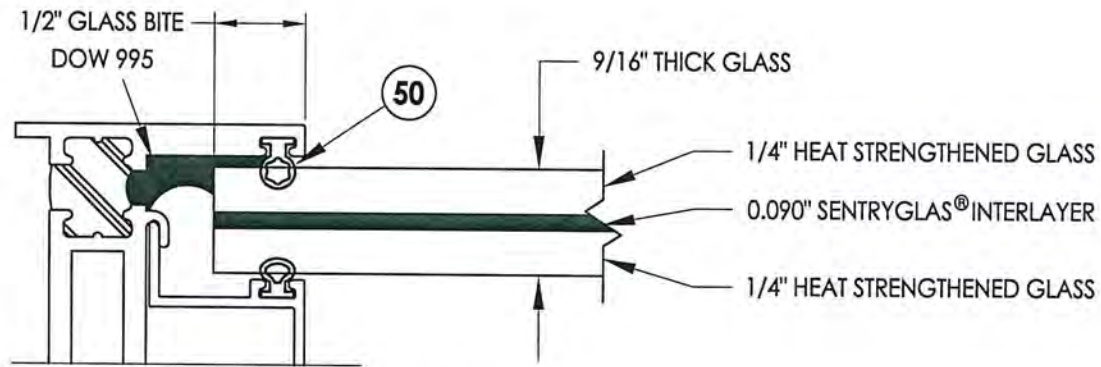
10 **GLASS STOP 9/16"**
007930

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

| | | | |
|-------------------|------|--------------------------|----|
| PRODUCT: | | FLEETWOOD SPEC. 3, 3a | |
| PART OR ASSEMBLY: | | COMPONENTS | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: | | | |
| L-9486 | | | |
| SHEET 8 OF 9 | | | |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| F | #8 X 1-1/2" PPH SMS | STEEL |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 10 | GLASS STOP 9/16" | 6063-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 20 | SS. BUTT HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 35 | CAM HANDLE / STRIKE PLATE | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 43 | SCREW NO 10 , UFHP 0.5" | STEEL |
| 44 | SCREW NO 8, PHP, 0.5" | STEEL |
| 46 | SCREW NO 8, FHP, 0.75" | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 57 | PIVOT SHIM | - |



G1 GLAZING DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

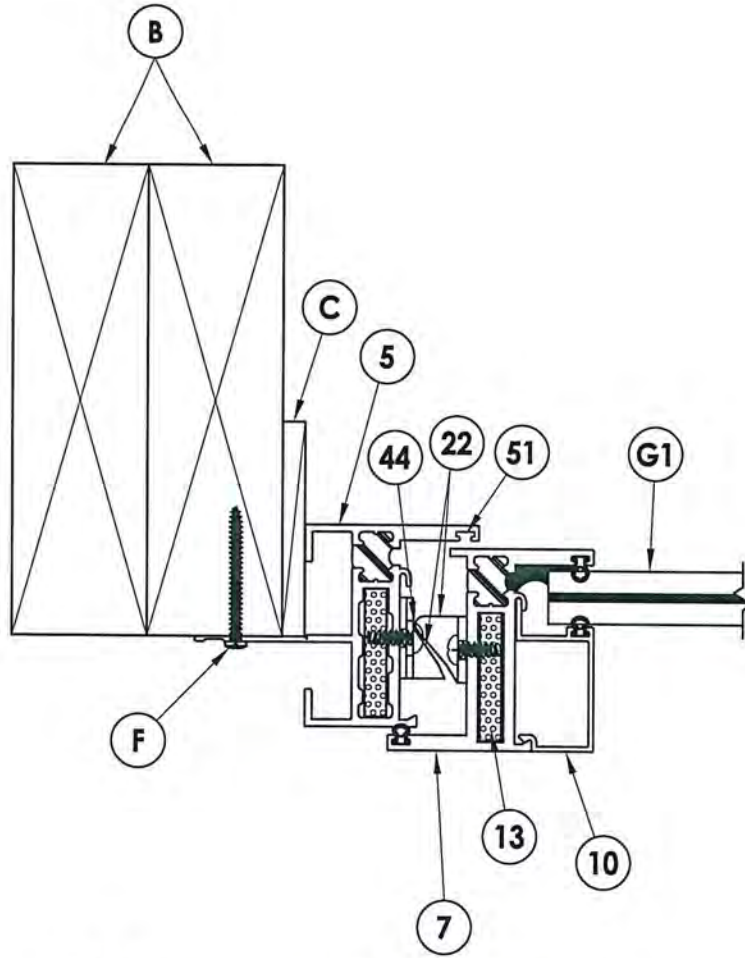
PRODUCT:
 FLEETWOOD
 SPEC. 3, 3a

PART OR ASSEMBLY:
 COMPONENTS &
 GLAZING DETAILS

| NO. | DATE | BY | REVISIONS |
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RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

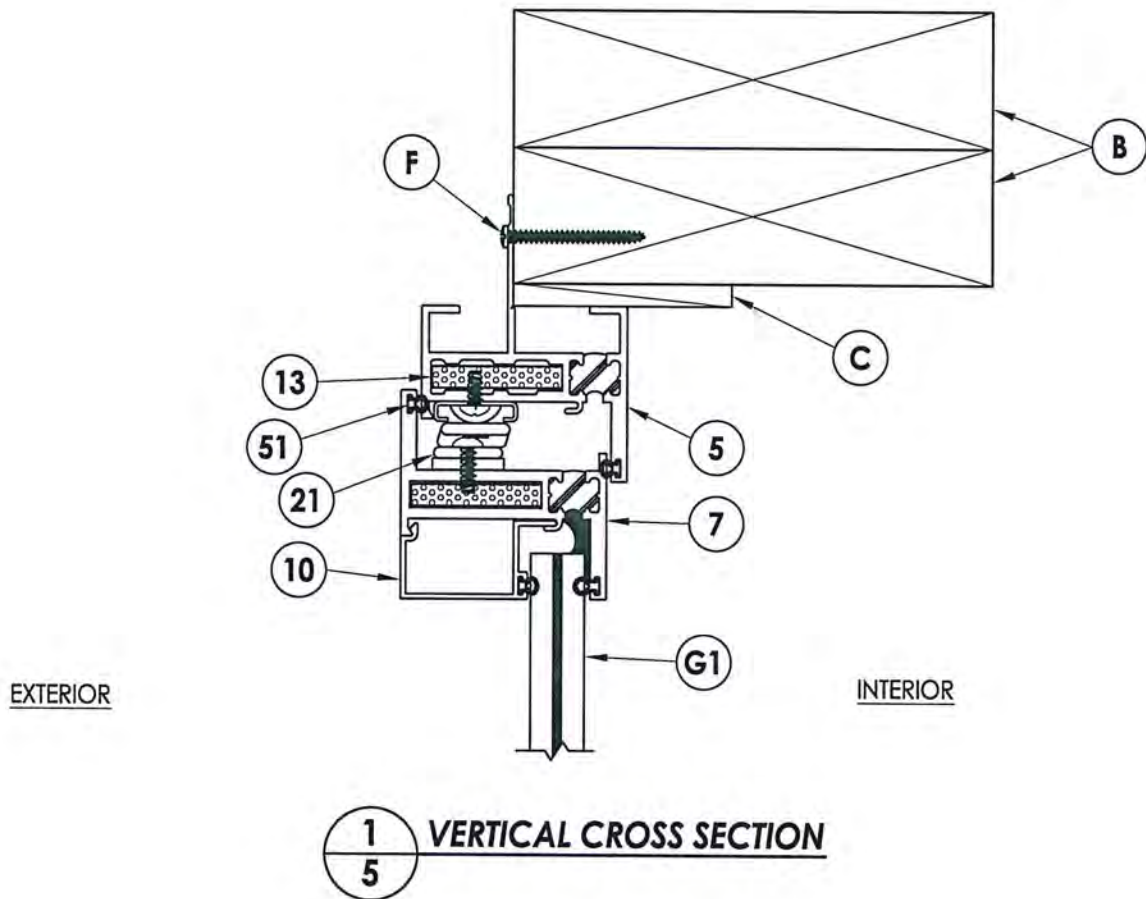
DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.:
 L-9486
 SHEET 9 OF 9



1 HORIZONTAL CROSS SECTION
3

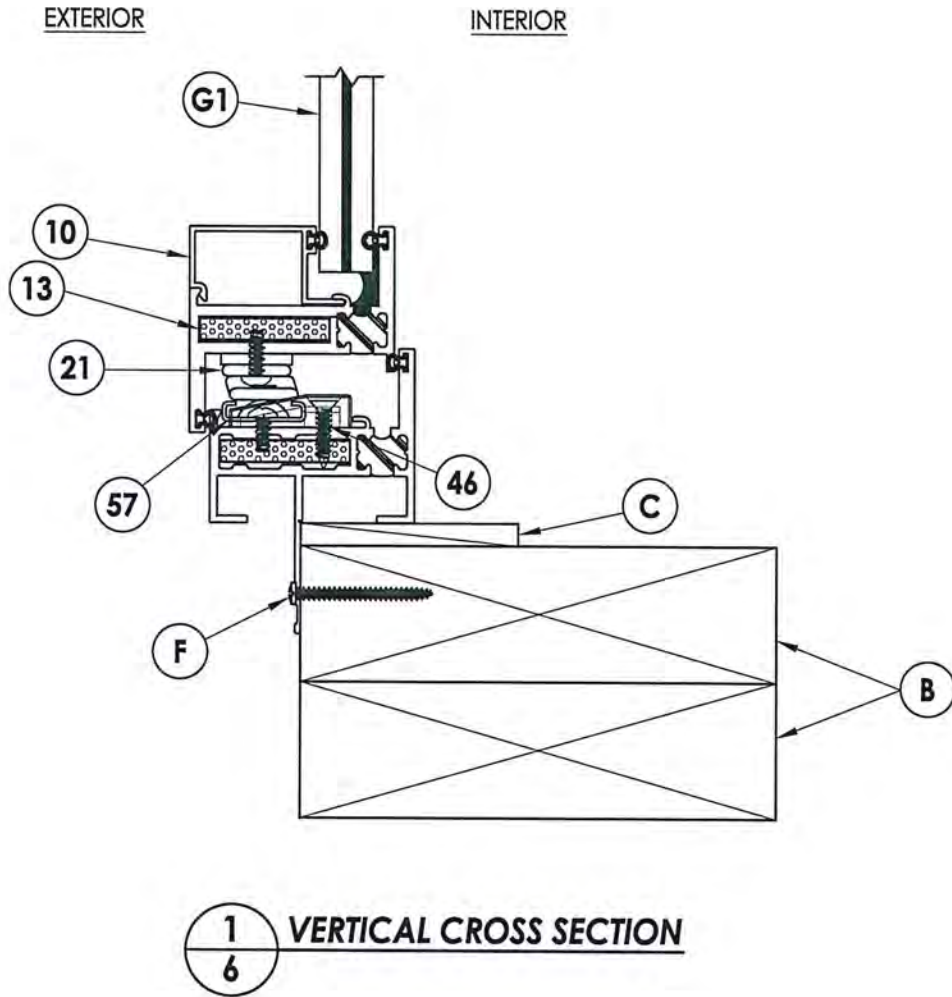
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 3b, 3c | | PART OR ASSEMBLY: CROSS SECTION | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9487 | | | |
| SHEET 3 OF 9 | | | |



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

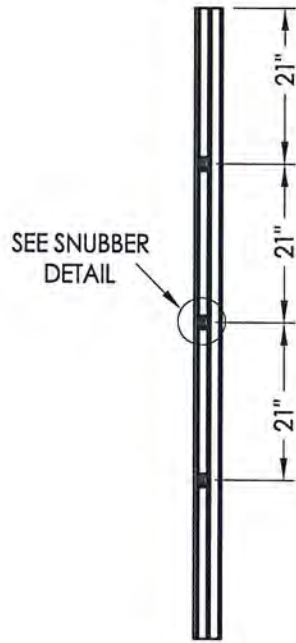
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| PRODUCT: FLEETWOOD SPEC. 3b, 3c | | PART OR ASSEMBLY: CROSS SECTION | |
| NO. | DATE | REVISIONS | BY |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9487 | | | |
| SHEET 5 OF 9 | | | |



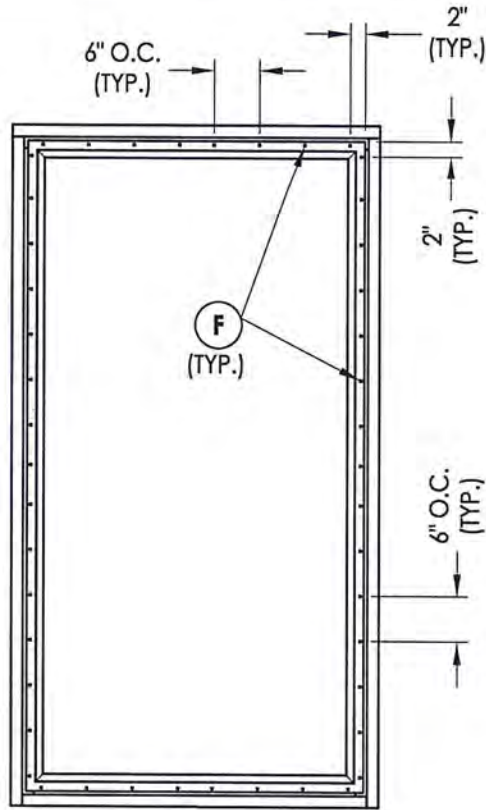
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6 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

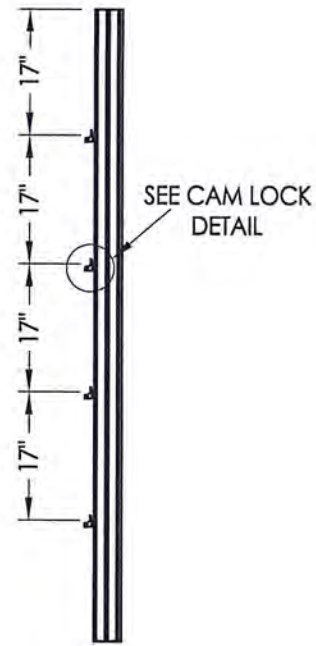
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| PRODUCT: | | FLEETWOOD SPEC. 3b, 3c | |
| PART OR ASSEMBLY: | | CROSS SECTION | |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: | | | |
| L-9487 | | | |
| SHEET 6 OF 9 | | | |



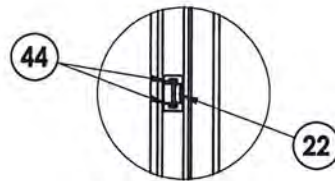
SNUBBERS JAMB



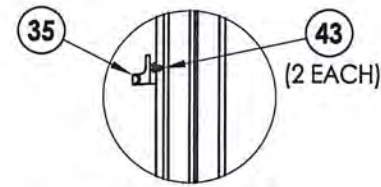
FRAME ANCHORING
2X TEST BUCK



LOCK JAMB
CAM LOCKING POINTS (4)



SNUBBER DETAIL



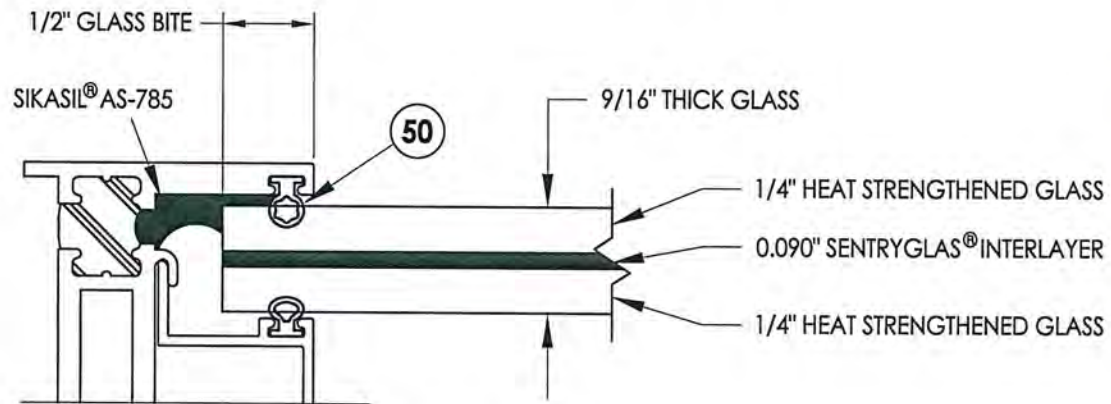
CAM LOCK DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 3b, 3c | | PART OR ASSEMBLY: FRAME ANCHORING | |
| | | NO. | REVISIONS |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9487 | | | |
| SHEET <u>7</u> OF <u>9</u> | | | |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| F | #8 X 1-1/2" PPH SMS | STEEL |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 10 | GLASS STOP 9/16" | 6063-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 21 | 4 BAR HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 35 | CAM HANDLE / STRIKE PLATE | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 43 | SCREW NO 10 , UFHP 0.5" | STEEL |
| 44 | SCREW NO 8, PHP, 0.5" | STEEL |
| 46 | SCREW NO 8, FHP, 0.75" | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 57 | PIVOT SHIM | - |



G1 GLAZING DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

PRODUCT:

FLEETWOOD
 SPEC. 3b, 3c

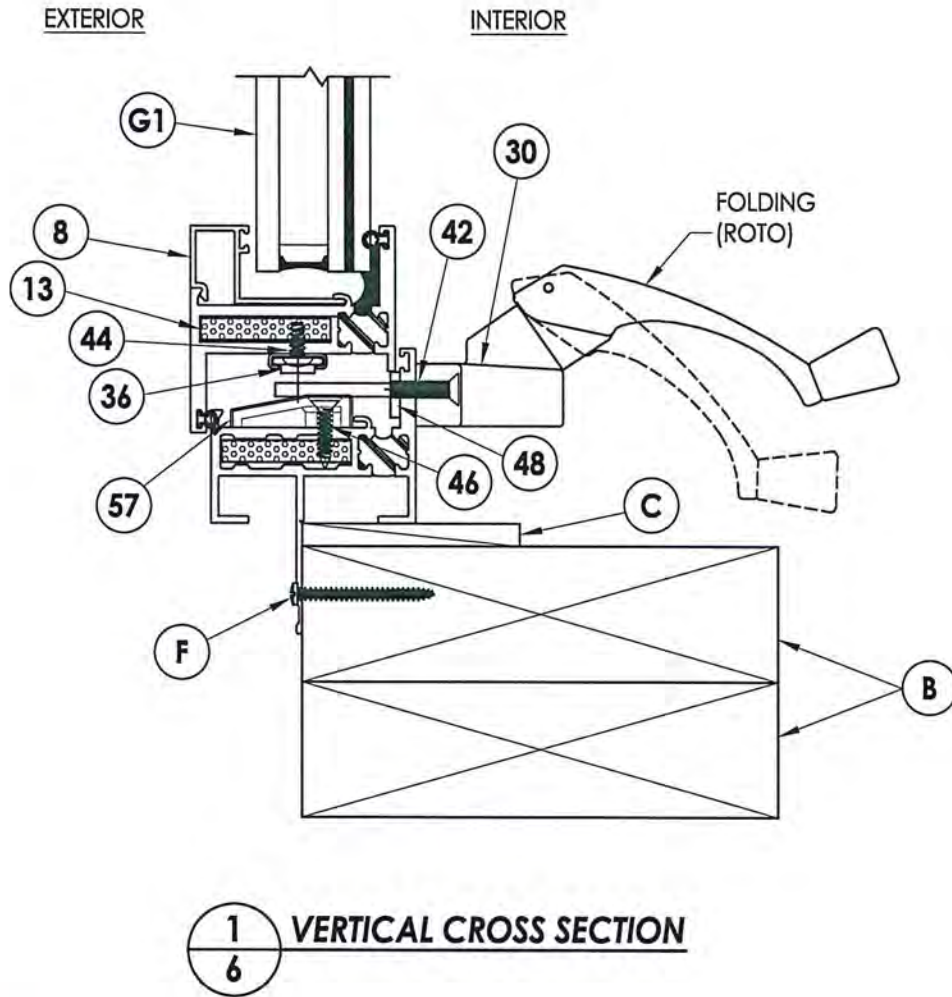
PART OR ASSEMBLY:

COMPONENTS &
 GLAZING DETAILS

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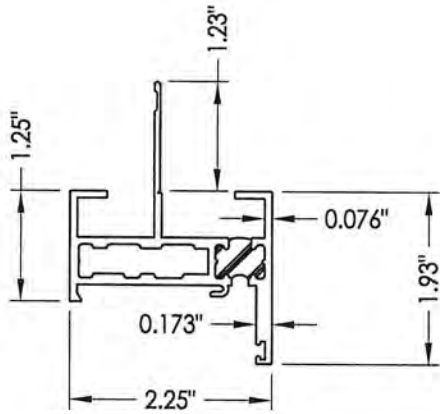
RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

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| DATE: 10/19/21 |
| SCALE: N.T.S. |
| DWG. BY: LFS |
| CHK. BY: RW |
| DRAWING NO.: L-9487 |
| SHEET 9 OF 9 |

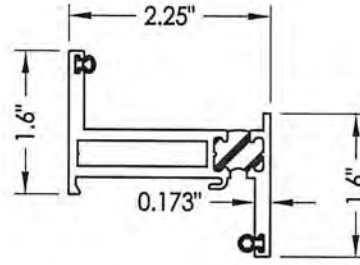


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

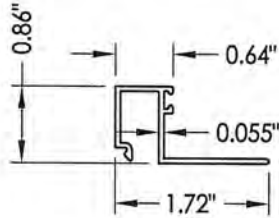
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| PRODUCT: | | FLEETWOOD SPEC. 4, 4a | |
| PART OR ASSEMBLY: | | CROSS SECTION | |
| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9488 | | | |
| SHEET 6 OF 9 | | | |



5 **BLOCK FRAME**
5278C1



7 **ZEE BAR (PANEL)**
H006733



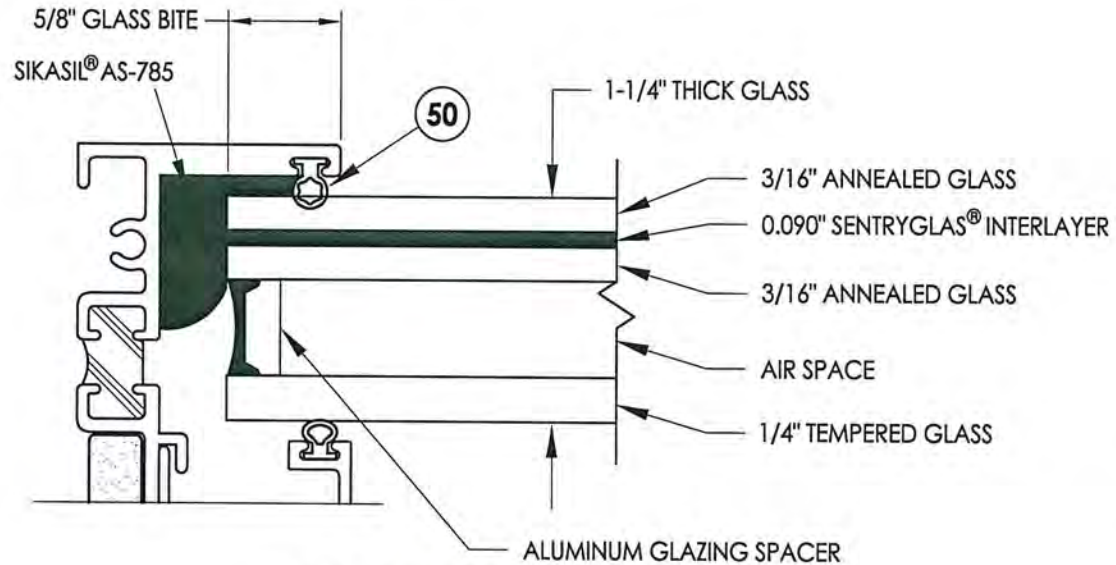
8 **GLASS STOP 1-1/4"**
901487

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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| PRODUCT: | | FLEETWOOD SPEC. 4, 4a | |
| PART OR ASSEMBLY: | | COMPONENTS | |
| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: | | | |
| L-9488 | | | |
| SHEET 8 OF 9 | | | |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| F | #8 X 1-1/2" PPH SMS | STEEL |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 8 | GLASS STOP 1-1/4" | 6063-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 20 | SS. BUTT HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 30 | CASEMENT ROTOR GEAR | SS |
| 35 | CAM HANDLE / STRIKE PLATE | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 42 | MACHINE SCREW NO 10-32, FHP 0.75" | STEEL |
| 43 | SCREW NO 10, UFHP 0.5" | STEEL |
| 44 | SCREW NO 8, PHP, 0.5" | STEEL |
| 46 | SCREW NO 8, FHP, 0.75" | STEEL |
| 48 | BACK UP NUTS | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 57 | PIVOT SHIM | - |



G1 GLAZING DETAIL

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

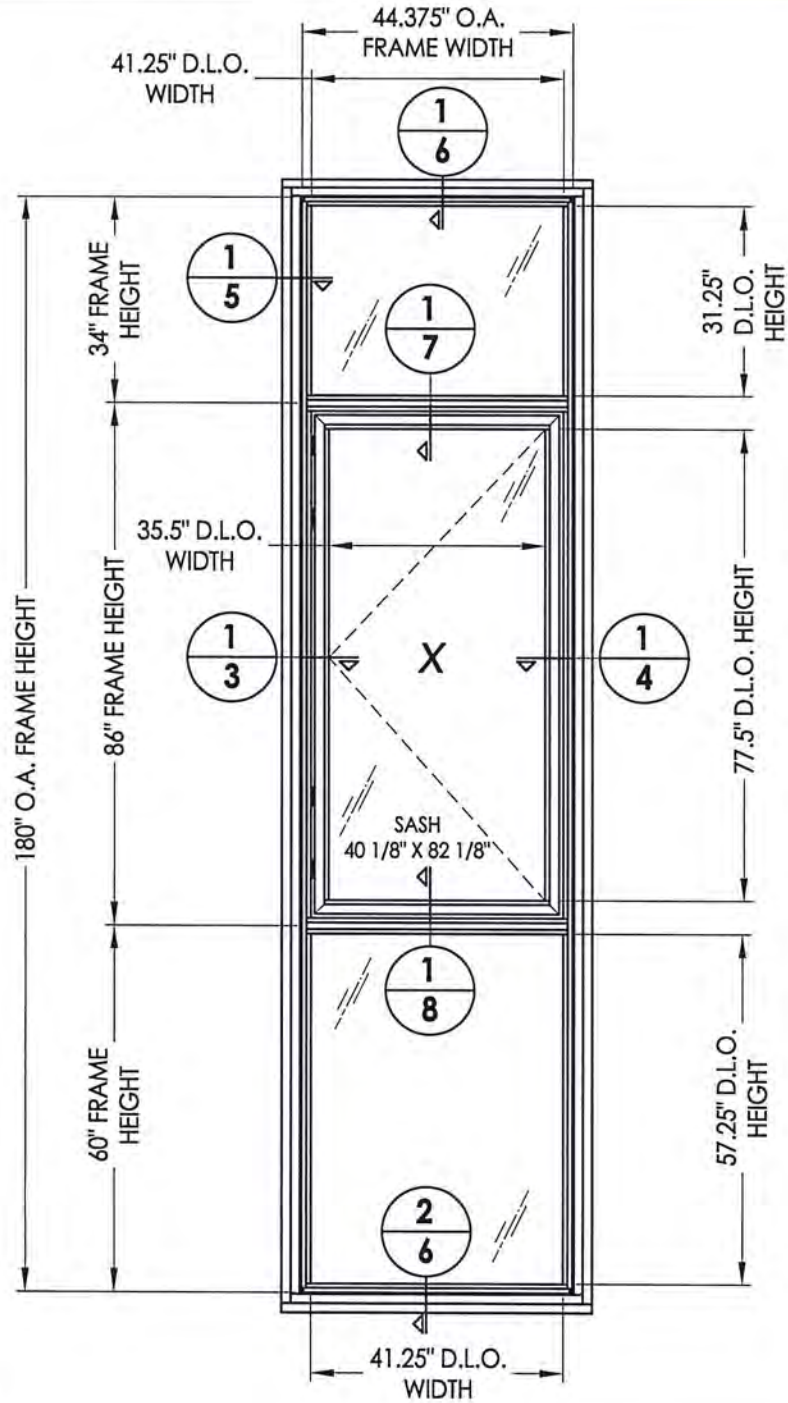
PRODUCT: FLEETWOOD SPEC. 4, 4a

PART OR ASSEMBLY: COMPONENTS & GLAZING DETAILS

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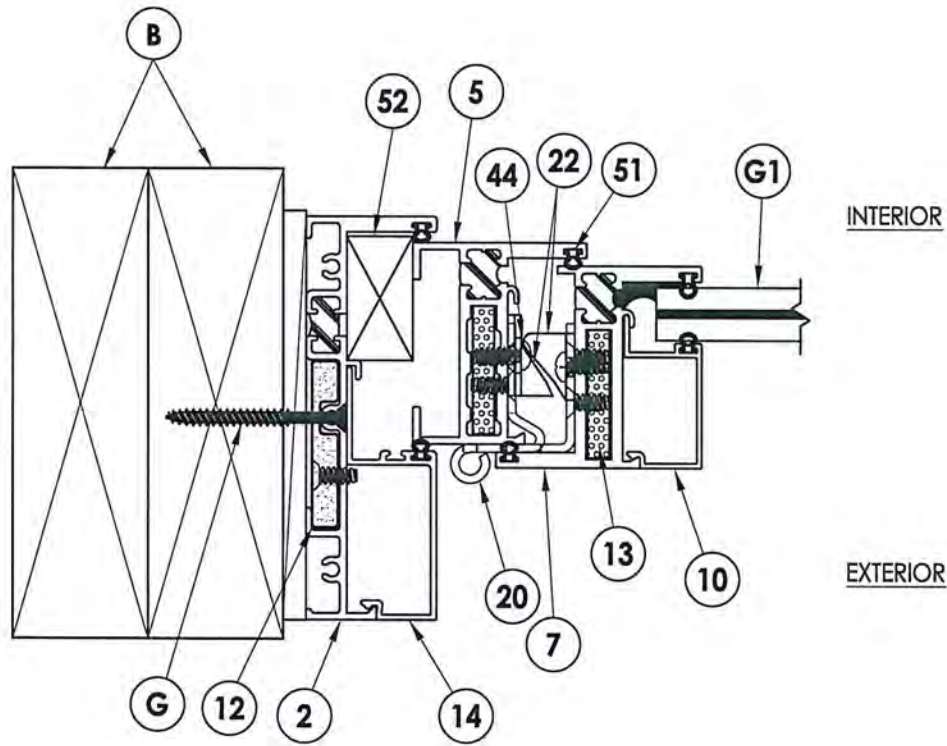
RW BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.: L-9488
 SHEET 9 OF 9



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

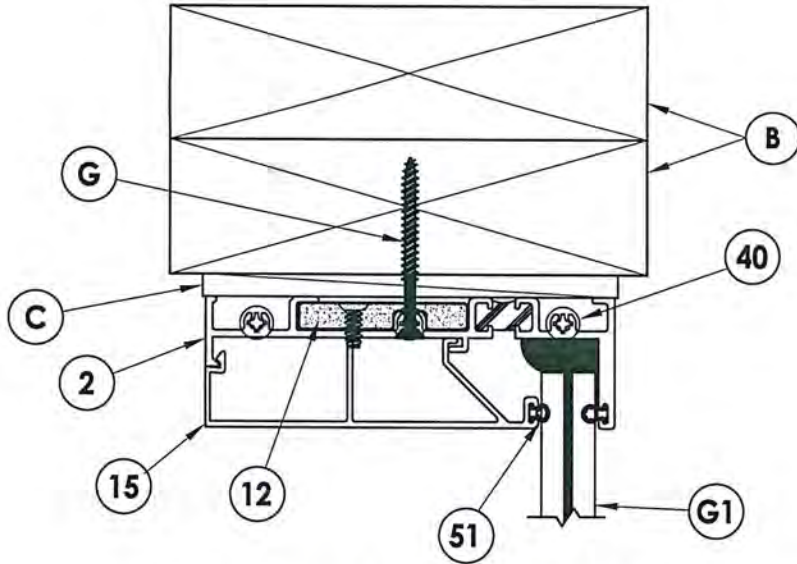
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| PRODUCT: FLEETWOOD SPEC. 5, 5a | | PART OR ASSEMBLY: TEST ELEVATIONS | |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET 2 OF 11 | | | |



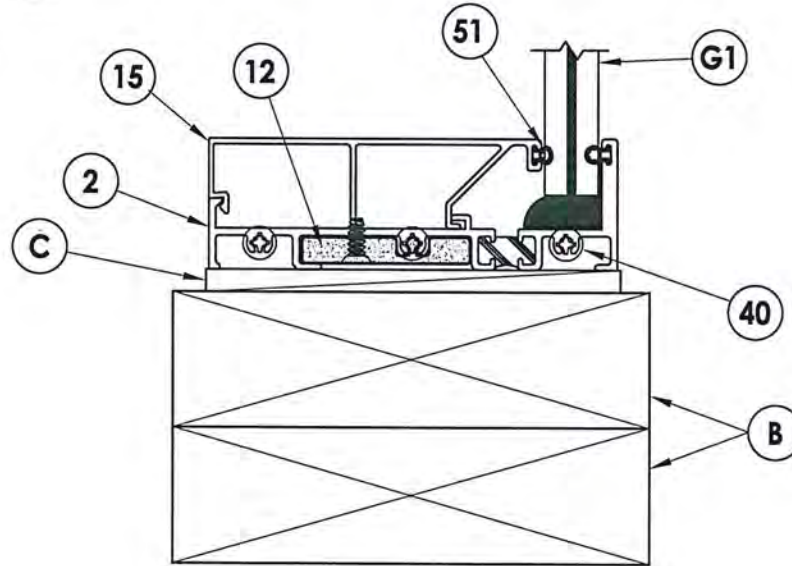
1 HORIZONTAL CROSS SECTION
3

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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|---------------------|------|--------------------------|----|
| PRODUCT: | | FLEETWOOD SPEC. 5, 5a | |
| PART OR ASSEMBLY: | | HORIZONTAL CROSS SECTION | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET 3 OF 11 | | | |



1
6 VERTICAL CROSS SECTION



2
6 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

PRODUCT:
 FLEETWOOD
 SPEC. 5, 5a

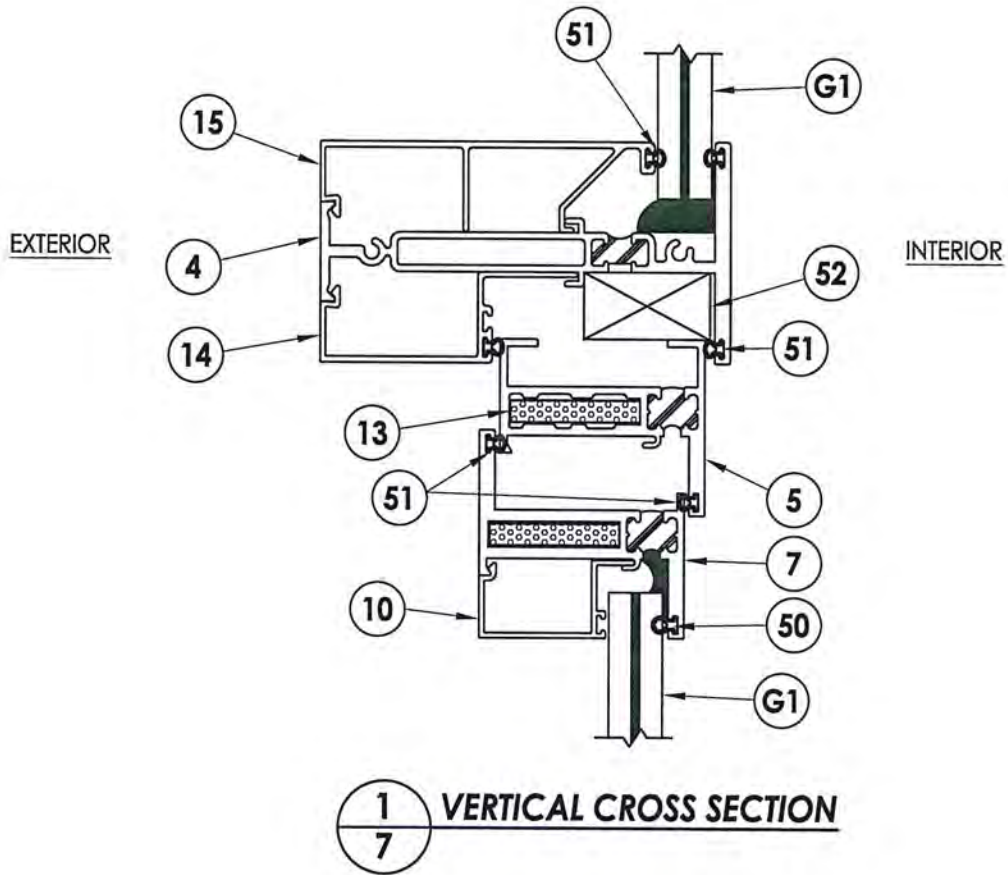
PART OR ASSEMBLY:
 VERTICAL CROSS SECTIONS

| NO. | DATE | BY | REVISIONS |
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RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.:
 L-9489

SHEET 6 OF 11

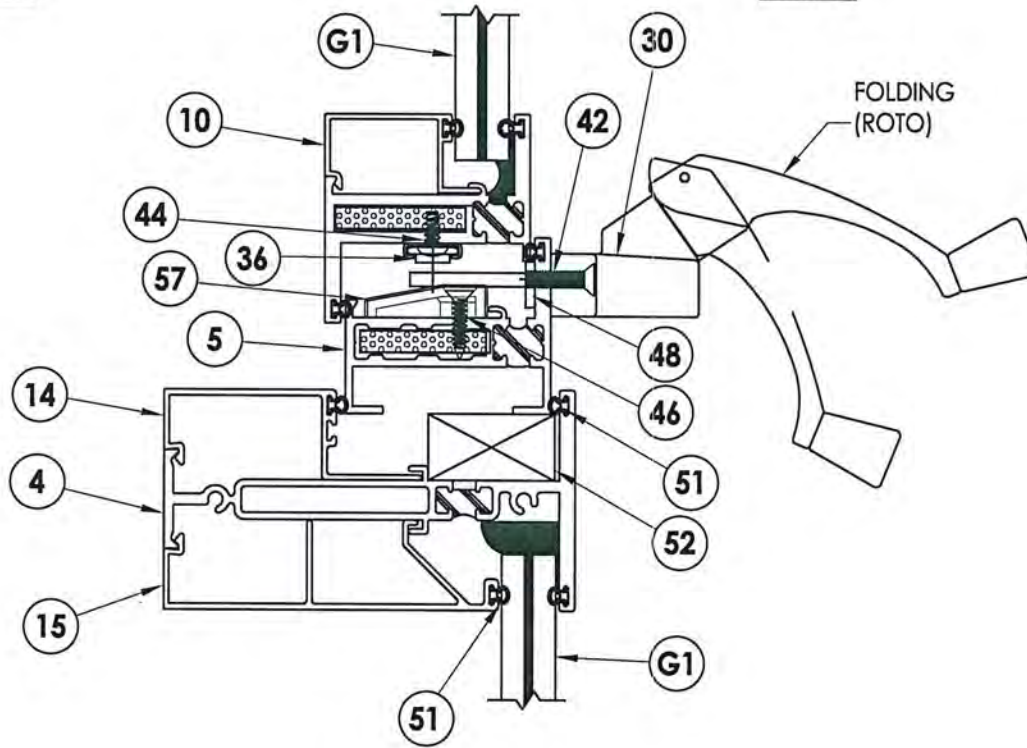


Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 5, 5a | PART OR ASSEMBLY: VERTICAL CROSS SECTION | | |
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| <div style="border: 1px solid black; padding: 5px; display: inline-block;"> BUILDING CONSULTANTS, INC. 813.659.9197 </div> | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET <u>7</u> OF <u>11</u> | | | |

EXTERIOR

INTERIOR



1
8 VERTICAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

PRODUCT: FLEETWOOD SPEC. 5, 5a

PART OR ASSEMBLY: VERTICAL CROSS SECTION

| NO. | DATE | REVISIONS | BY |
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RW BUILDING CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21

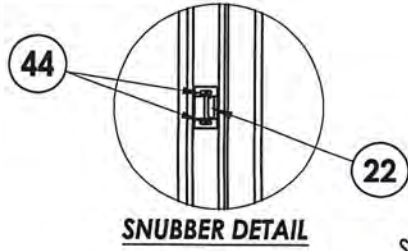
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DWG. BY: LFS

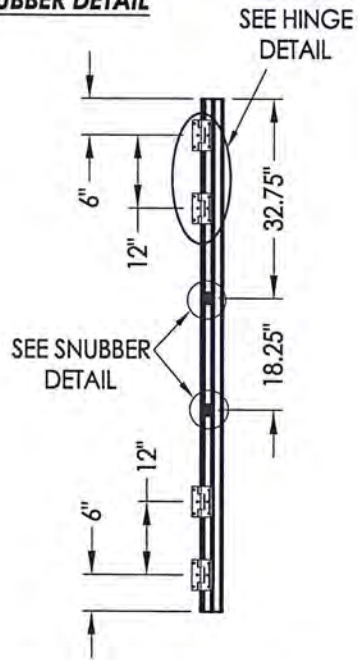
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DRAWING NO.: L-9489

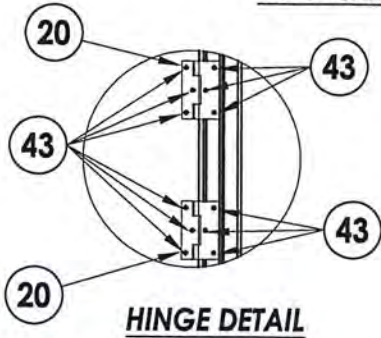
SHEET 8 OF 11



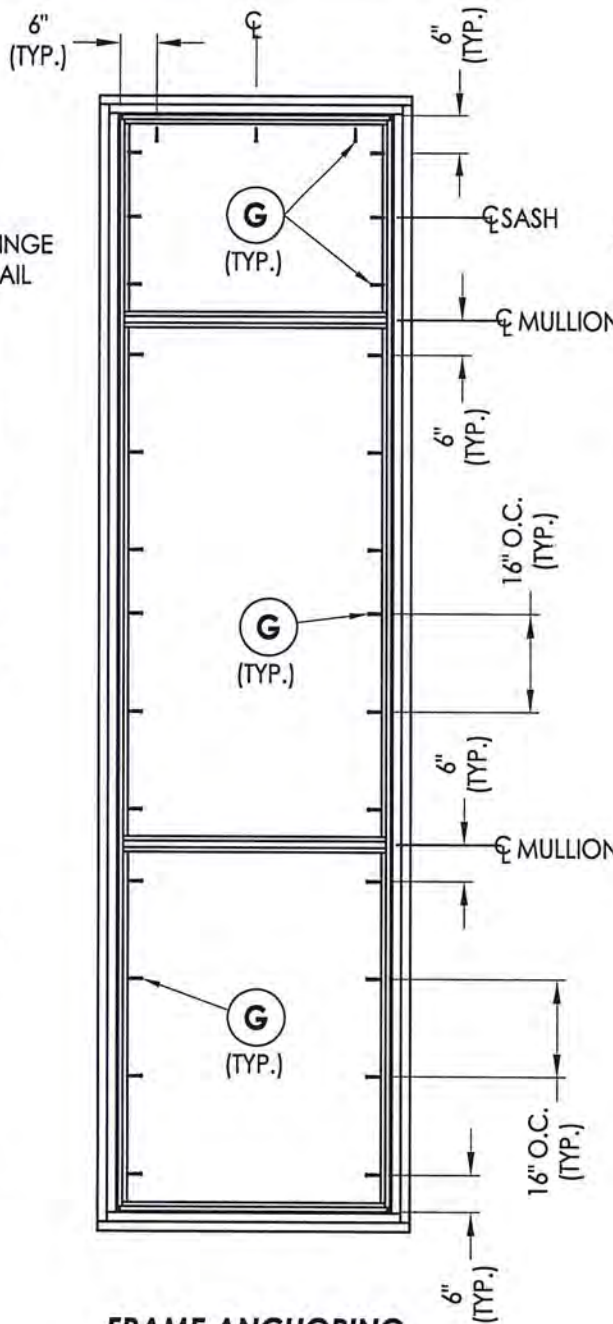
SNUBBER DETAIL



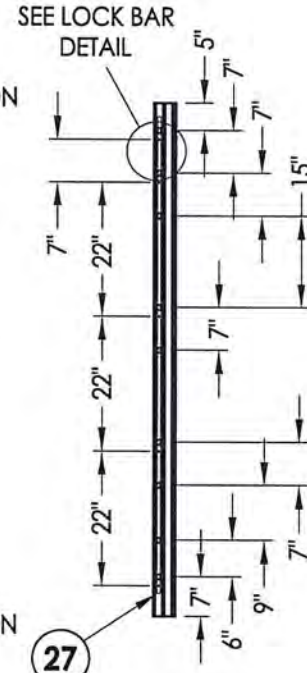
HINGE JAMB



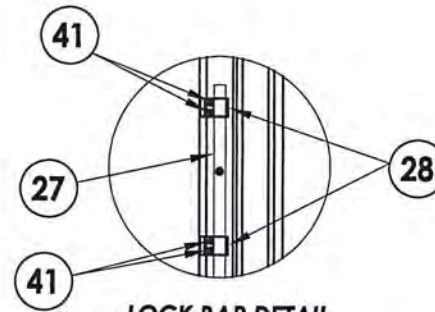
HINGE DETAIL



FRAME ANCHORING
2X TEST BUCK



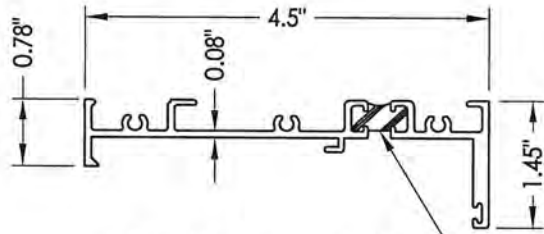
LOCK JAMB
LOCKING POINTS (5)



LOCK BAR DETAIL

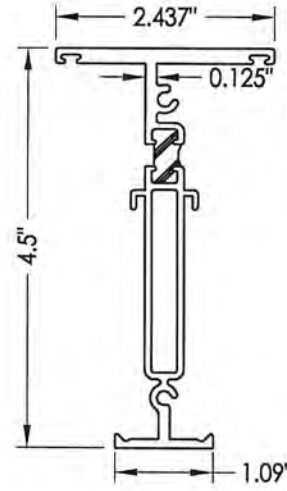
Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 5, 5a | | PART OR ASSEMBLY: TEST ELEVATIONS | |
| NO. | DATE | REVISIONS | BY |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET 9 OF 11 | | | |

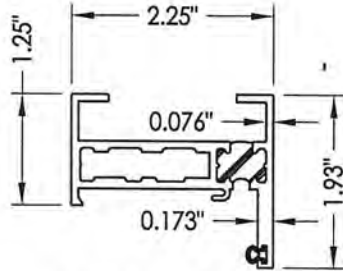


2 KONA BLOCK FRAME
011239

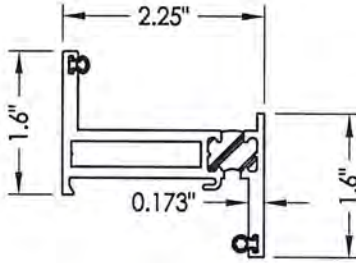
THERMAL BREAK
(LIQUID POLYURETHANE)
BY AZON
(TYP.)



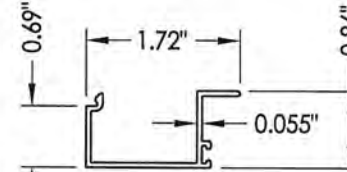
4 MULLION
H011241



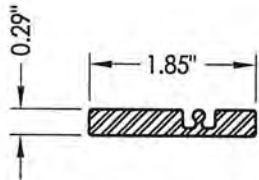
5 BLOCK FRAME
5278C1



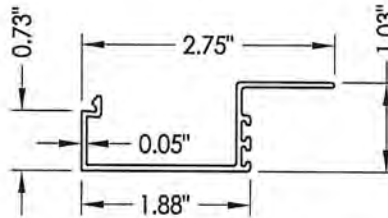
7 ZEE BAR (PANEL)
H006733



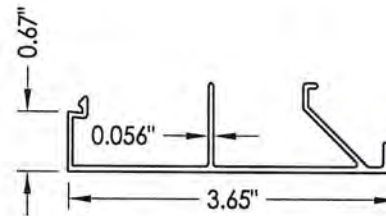
10 GLASS STOP 9/16"
007930



12 SHEAR BLOCK



14 INSERT STOP



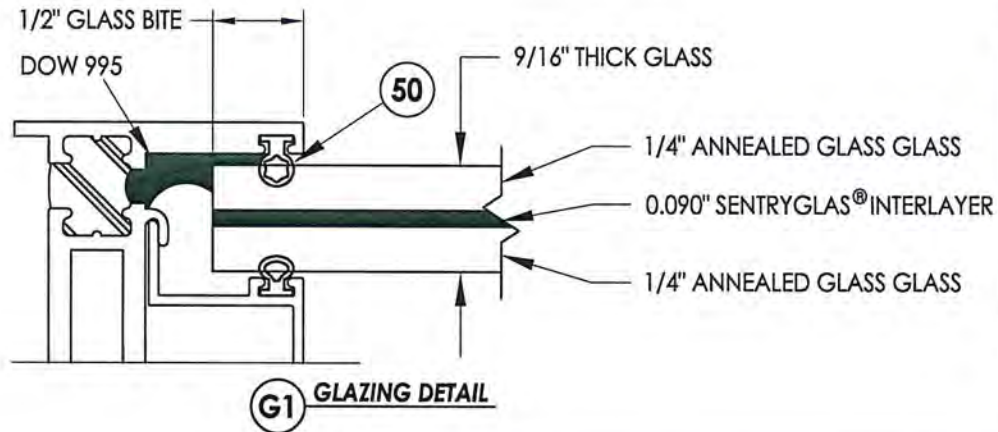
15 GLASS STOP 9/16"

Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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|--------------------------------------|------|---------------------------------|-----------|
| PRODUCT: FLEETWOOD SPEC. 5, 5a | | PART OR ASSEMBLY: COMPONENTS | |
| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET 10 OF 11 | | | |

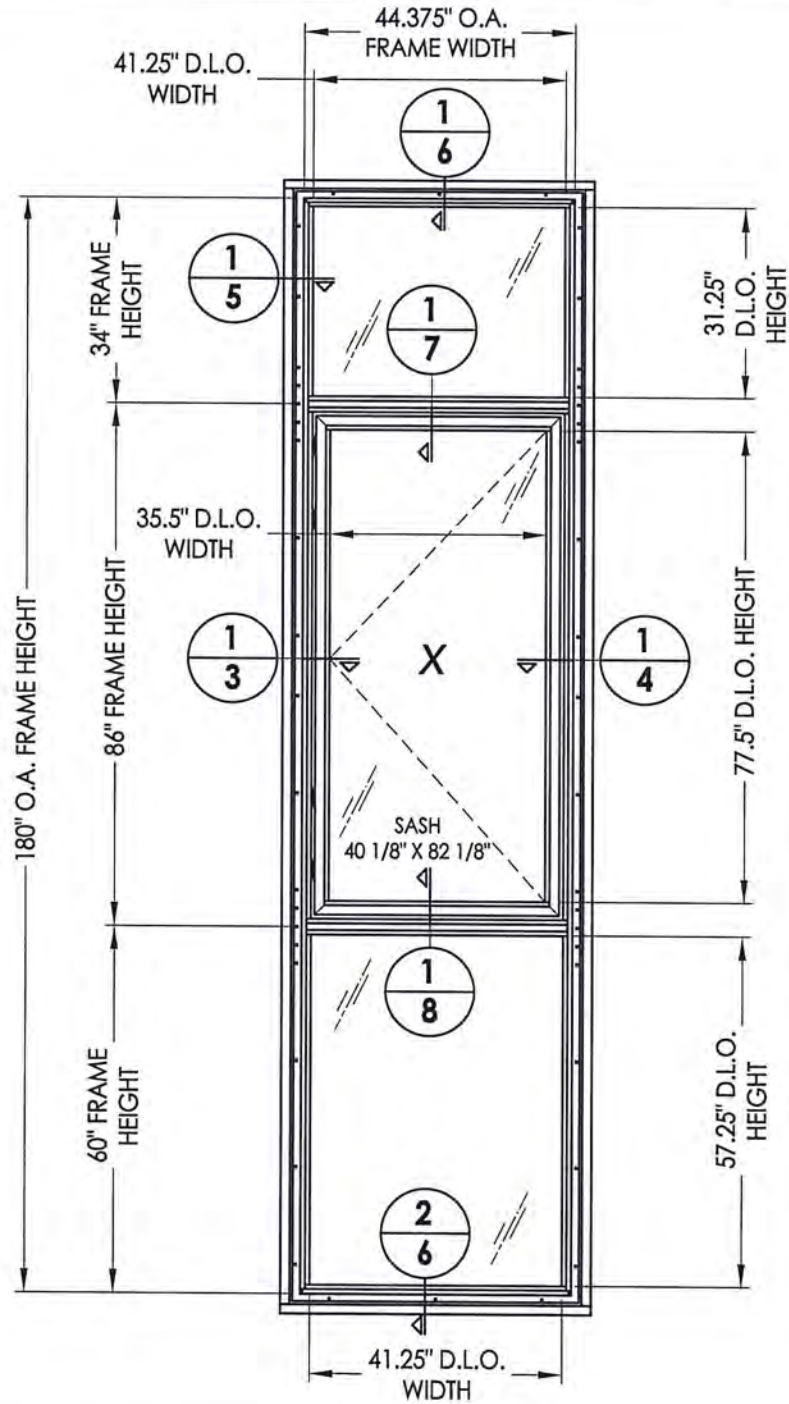
BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| G | #10 X 2" PFH WOOD SCREW | STEEL |
| 2 | KONA BLOCK FRAME | 6063-T6 ALUM |
| 4 | MULLION | 6063-T6 ALUM |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 10 | GLASS STOP 9/16" | 6063-T6 ALUM |
| 12 | SHEAR BLOCK | 6061-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 14 | INSERT STOP | 6063-T6 ALUM |
| 15 | GLASS STOP 9/16" | 6063-T6 ALUM |
| 20 | SS. BUTT HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 23 | MULTIPOINT LOCK HANDLE | SS |
| 27 | 5 POINTS LOCKING BAR | SS |
| 28 | TIE BAR GUIDE | - |
| 29 | KEEPER | SS |
| 30 | CASEMENT ROTOR GEAR | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 41 | SCREW NO 8, PHP, .750" | STEEL |
| 42 | MACHINE SCREW NO 10-32, FHP .75" | STEEL |
| 43 | SCREW NO 10, UFHP .5" | STEEL |
| 44 | SCREW NO 8, PHP, .50" | STEEL |
| 46 | SCREW NO 8, FHP, .750" | STEEL |
| 48 | BACK UP NUTS | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 52 | WOOD BLOCK (3/4" X 1-1/4") | - |
| 57 | PIVOT SHIM | - |



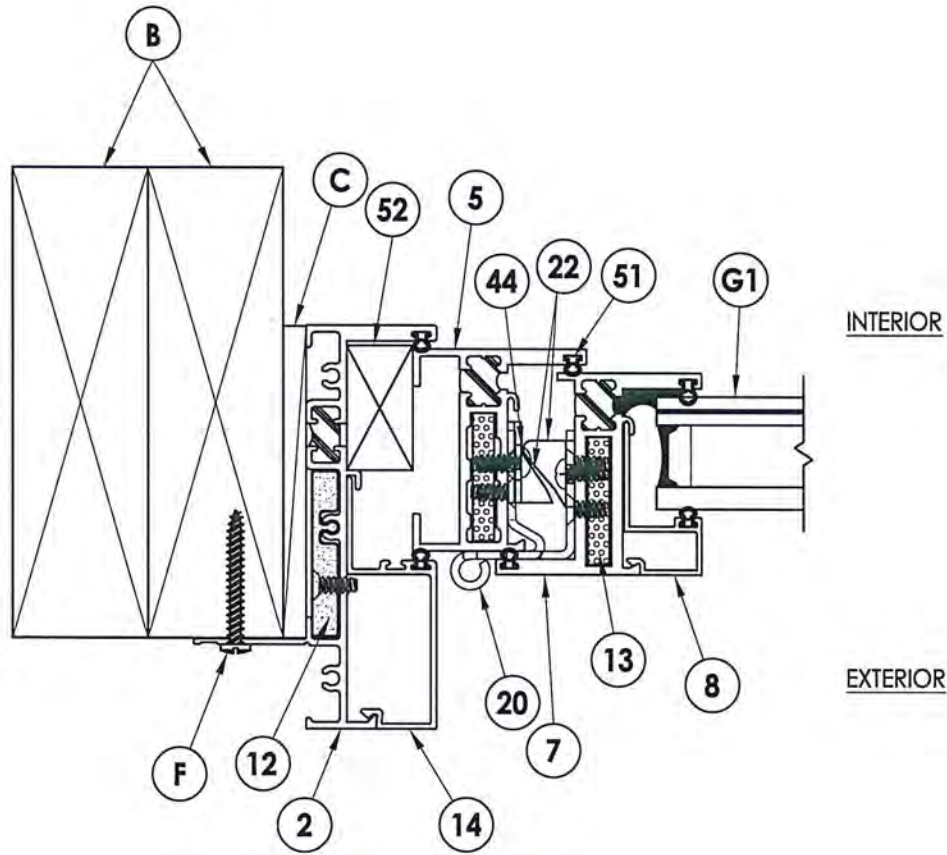
Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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|--------------------------------------|------|--|-----------|
| PRODUCT: FLEETWOOD SPEC. 5, 5a | | PART OR ASSEMBLY: COMPONENTS & GLAZING DETAILS | |
| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9489 | | | |
| SHEET 11 OF 11 | | | |



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

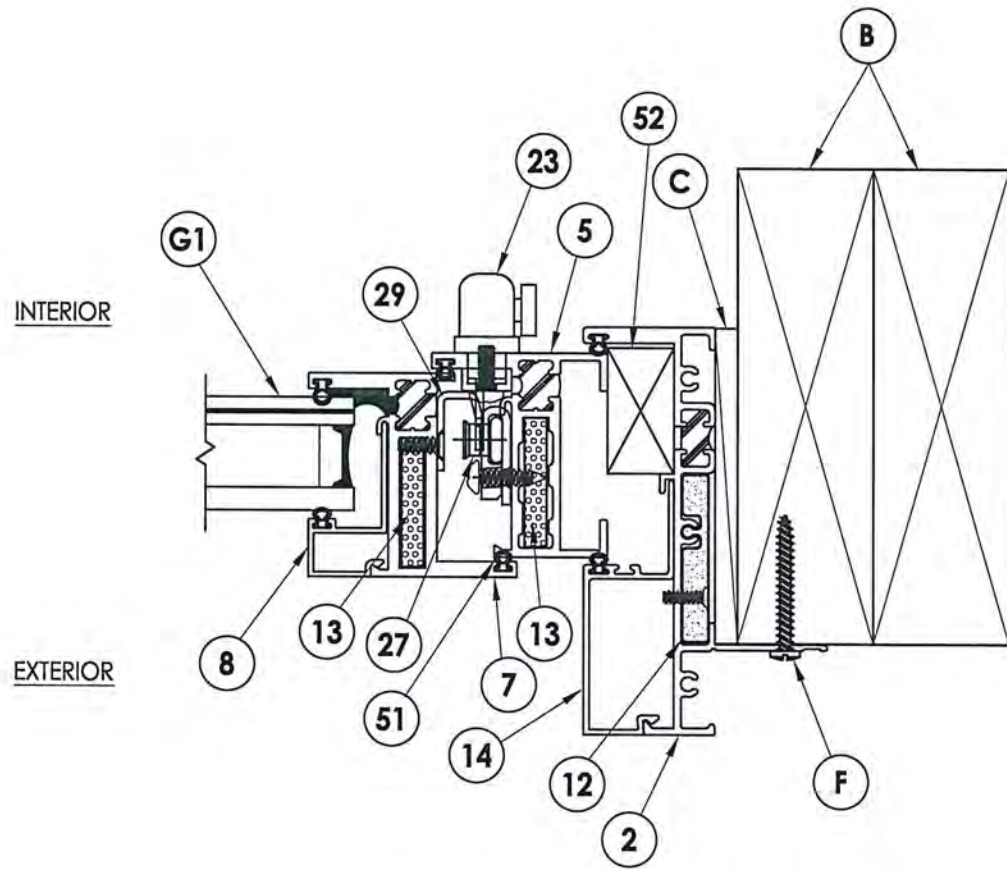
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| PRODUCT: | | FLEETWOOD SPEC. 6, 6a | |
| PART OR ASSEMBLY: | | TEST ELEVATIONS | |
| NO. | DATE | REVISIONS | BY |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 2 of 11 | | | |



1 HORIZONTAL CROSS SECTION
3


Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

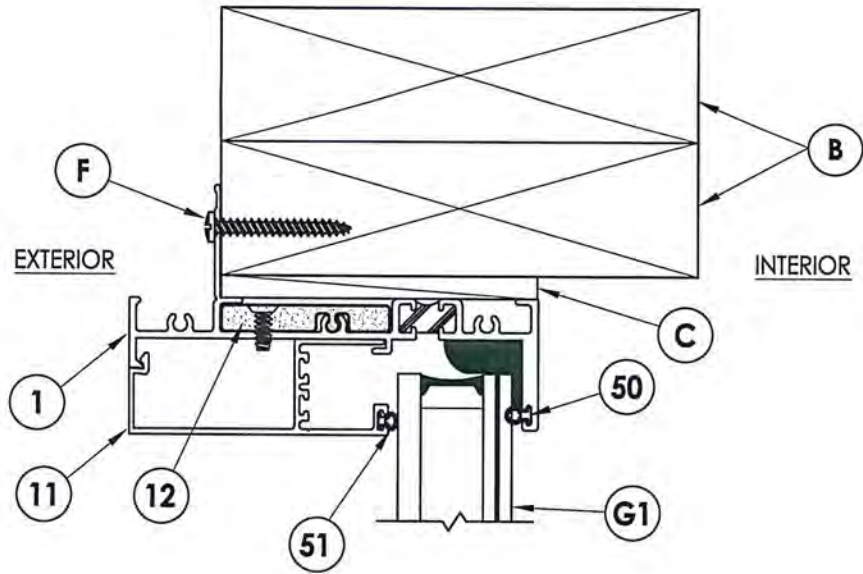
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| PRODUCT: FLEETWOOD SPEC. 6, 6a | | PART OR ASSEMBLY: HORIZONTAL CROSS SECTION | |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 3 OF 11 | | | |



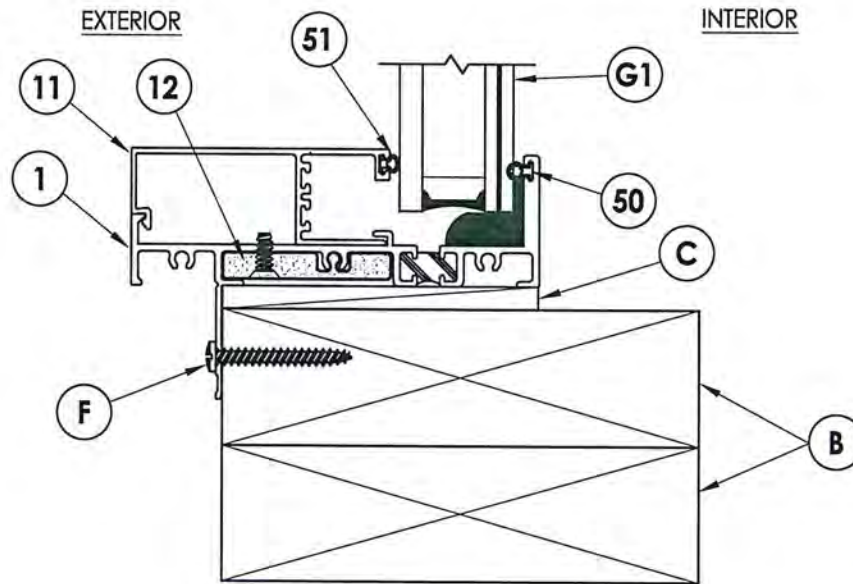
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4 HORIZONTAL CROSS SECTION

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 6, 6a | | PART OR ASSEMBLY: HORIZONTAL CROSS SECTION | |
| NO. | DATE | BY | REVISIONS |
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|  RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 4 OF 11 | | | |



1
6 **VERTICAL CROSS SECTION**



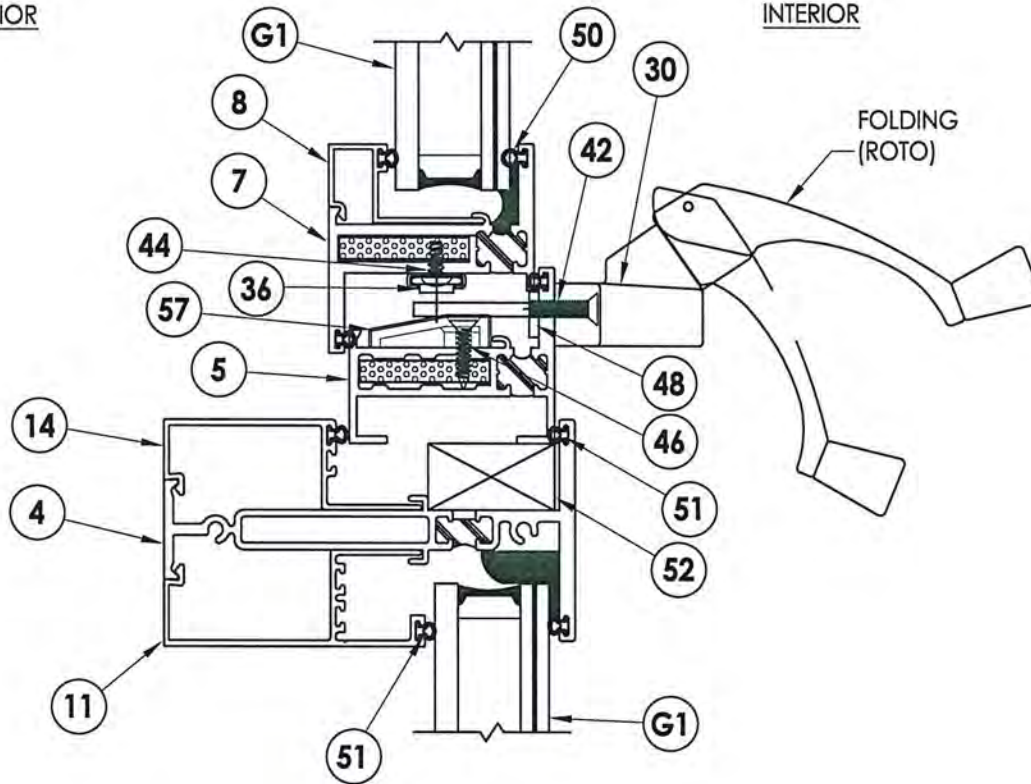
2
6 **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 6, 6a | | PART OR ASSEMBLY: VERTICAL CROSS SECTIONS | |
| NO. | DATE | BY | REVISIONS |
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| RW BUILDING CONSULTANTS, INC. 813.659.9197 | | | |
| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 6 OF 11 | | | |

EXTERIOR

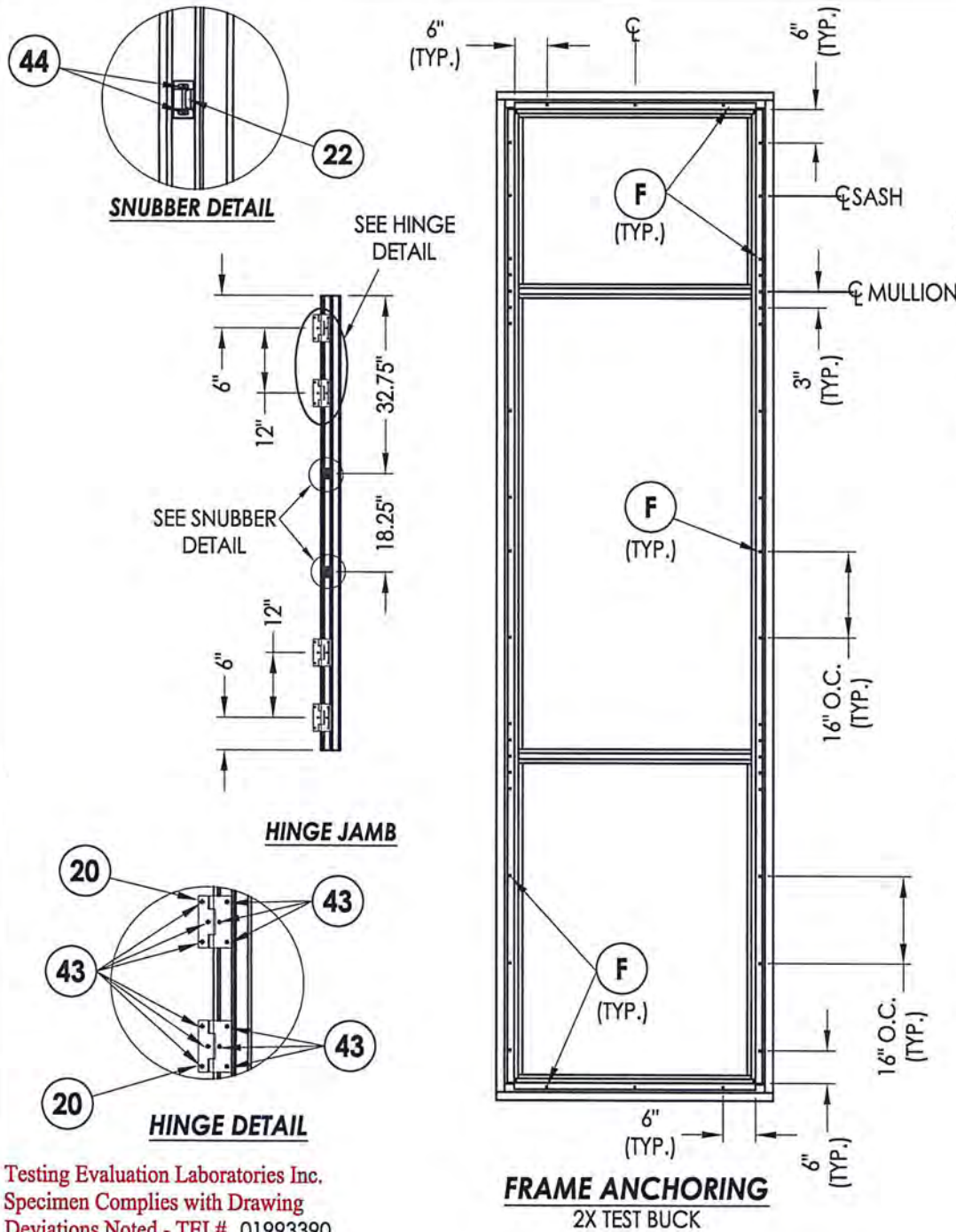
INTERIOR



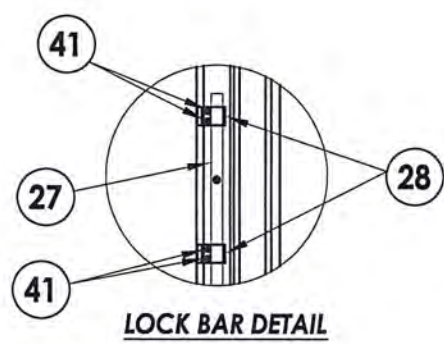
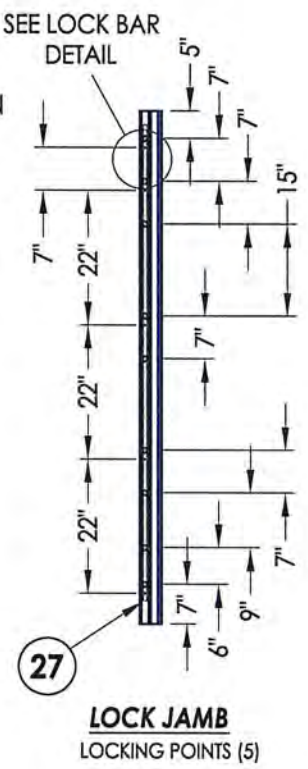
1
8 **VERTICAL CROSS SECTION**

Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

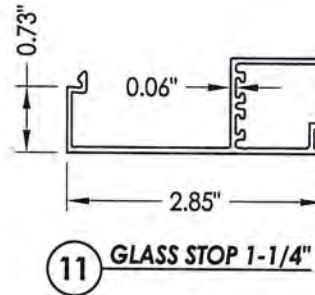
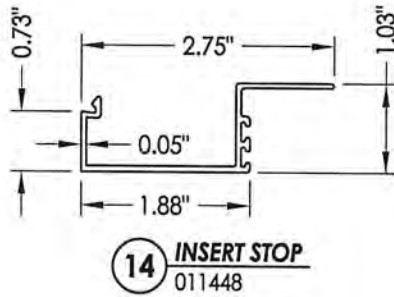
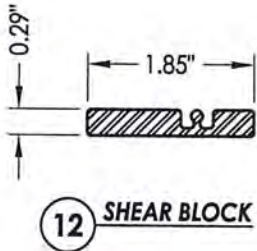
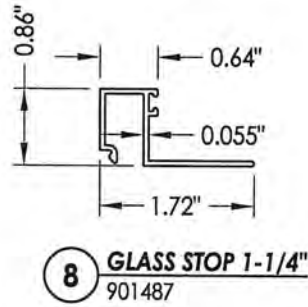
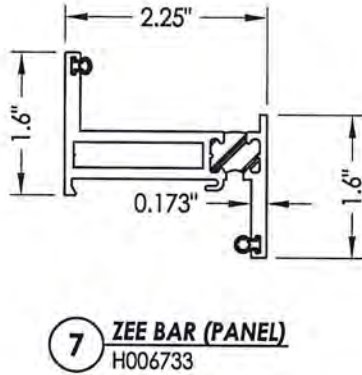
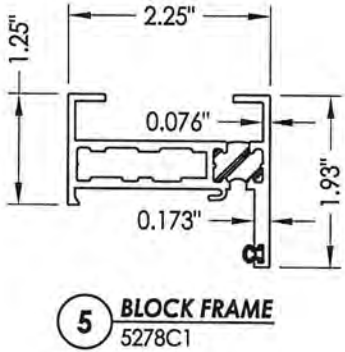
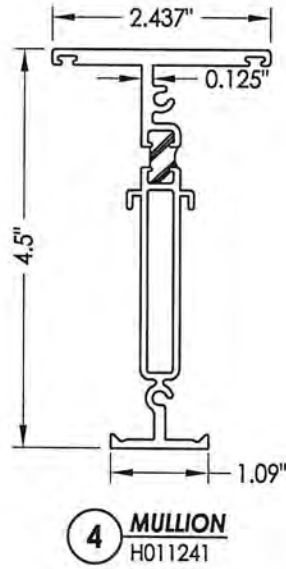
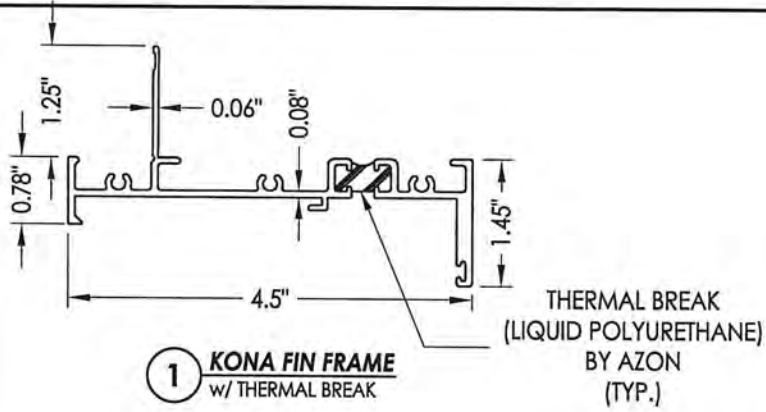
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| PRODUCT: | | FLEETWOOD SPEC. 6, 6a | |
| PART OR ASSEMBLY: | | VERTICAL CROSS SECTION | |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 8 OF 11 | | | |



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW



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| PRODUCT: | | FLEETWOOD SPEC. 6, 6a | |
| PART OR ASSEMBLY: | | TEST ELEVATIONS | |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: LFS | | | |
| CHK. BY: RW | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 9 OF 11 | | | |

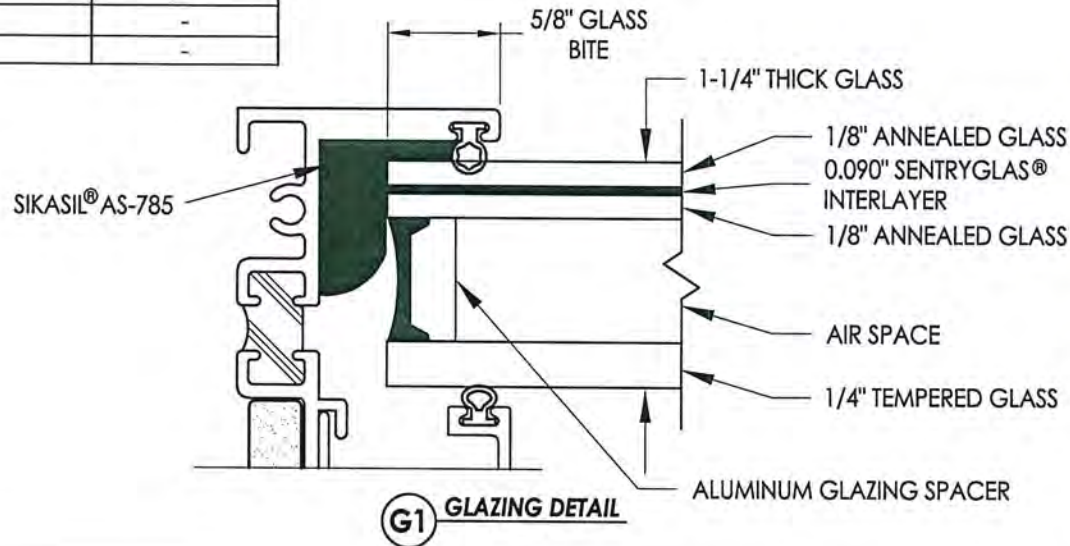


Testing Evaluation Laboratories Inc.
Specimen Complies with Drawing
Deviations Noted - TEL# 01993390
Date 11/01/2021 Verified by VKW

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| PRODUCT: FLEETWOOD SPEC. 6, 6a | | PART OR ASSEMBLY: COMPONENTS | |
| NO. | DATE | BY | REVISIONS |
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| DATE: 10/19/21 | | | |
| SCALE: N.T.S. | | | |
| DWG. BY: JK | | | |
| CHK. BY: LFS | | | |
| DRAWING NO.: L-9490 | | | |
| SHEET 10 OF 11 | | | |

BILL OF MATERIALS

| ITEM # | DESCRIPTION | MATERIAL |
|--------|-------------------------------------|--------------|
| B | 2X BUCK SG >= 0.55 | WOOD |
| C | 1/4" MAX. SHIM SPACE | - |
| F | #8 X 1-1/2" PPH SMS | STEEL |
| 1 | KONA FIN FRAME | 6063-T6 ALUM |
| 5 | WESTWOOD BLOCK FRAME | 6063-T6 ALUM |
| 7 | WESTWOOD ZEE BAR (PANEL) | 6063-T6 ALUM |
| 8 | GLASS STOP (1-1/4") | 6063-T6 ALUM |
| 11 | GLASS STOP (1-1/4") | 6063-T6 ALUM |
| 12 | SHEAR BLOCK | 6061-T6 ALUM |
| 13 | CORNER KEY | 6063-T6 ALUM |
| 14 | INSERT STOP | 6063-T6 ALUM |
| 20 | SS. BUTT HINGE | SS |
| 22 | SNUBBER-COMMERCIAL PULL-IN BLOCK | SS |
| 23 | MULTIPOINT LOCK HANDLE | SS |
| 27 | 5 POINTS LOCKING BAR | SS |
| 28 | TIE BAR GUIDE | - |
| 29 | KEEPER | SS |
| 30 | CASEMENT ROTOR GEAR | SS |
| 36 | CASEMENT SS. TRACK | SS |
| 40 | #10 X 1" PPH SMS | STEEL |
| 41 | SCREW NO 8, PHP, .750" | STEEL |
| 42 | MACHINE SCREW NO 10-32, FHP .75" | STEEL |
| 43 | SCREW NO 10, UFHP .5" | STEEL |
| 44 | SCREW NO 8, PHP, .50" | STEEL |
| 46 | SCREW NO 8, FHP, .750" | STEEL |
| 48 | BACK UP NUTS | STEEL |
| 50 | BULB VINYL (EPDM 70 DUROMETER) | - |
| 51 | MINI BULB VINYL (EPDM 70 DUROMETER) | - |
| 52 | WOOD BLOCK (3/4" X 1-1/4") | - |
| 57 | PIVOT SHIM | - |



Testing Evaluation Laboratories Inc.
 Specimen Complies with Drawing
 Deviations Noted - TEL# 01993390
 Date 11/01/2021 Verified by VKW

PRODUCT:
 FLEETWOOD
 SPEC. 6, 6a

PART OR ASSEMBLY:
 COMPONENTS &
 GLAZING DETAILS

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RW BUILDING
 CONSULTANTS, INC.
 813.659.9197

DATE: 10/19/21
 SCALE: N.T.S.
 DWG. BY: LFS
 CHK. BY: RW
 DRAWING NO.:
 L-9490
 SHEET 11 OF 11