

**AAMA/WDMA/CSA 101/LS.2/A440-05
TEST REPORT**

Rendered to:

NAN YA PLASTICS CORPORATION

**PRODUCT TYPE: Glazed Transom Fixed Window
SERIES/MODEL: GTO 12020**

| Title | Summary of Results |
|---|---|
| Primary Product Designator | TR-R75 3692 x 610 (145-3/8 x 24) |
| Design Pressure* | 3840 Pa (80.20 psf) |
| Negative Design Pressure* | 3840 Pa (80.20 psf) |
| Air Infiltration | <0.05 L/s/m ² (<0.01 cfm/ft ²) |
| Water Penetration Resistance Test Pressure* | 540 Pa (11.28 psf) |
| Uniform Load Structural Test Pressure | ± 5760 Pa (120.30 psf) |

*-Optional Secondary Designators

Test Completion Date: 02/08/06

Reference must be made to Report No. 62724.01-801-44, dated 03/21/06 for complete test specimen description and data.

AAMA/WDMA/CSA 101/I.S.2/A440-05 TEST REPORT

Rendered to:

**NAN YA PLASTICS CORP.
8909 North Loop East
Suite 800
Houston, TX 77029**

Report No.: 62724.01-801-44
Test Dates: 02/07/06
Through: 02/08/06
Report Date: 03/14/06
Expiration Date: 02/07/10

Project Summary: Architectural Testing, Inc. (ATI) was contracted by Nan Ya Plastics Corp. to perform testing on a Glazed transom fixed window. The sample tested successfully met the performance requirements for a TR-R75 3692 x 610 (145-3/8 x 24) rating. Test specimen description and results are reported herein.

Test Specification: The test specimen was evaluated in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights*.

Test Specimen Description:

Series/Model: GTO 12020

Product Type: Glazed transom fixed window

Overall Size: 3692 mm (145-3/8") wide by 610 mm (24") high

Glass Opening Size: 3615 mm (142-5/16") wide by 536 mm (21-1/8") high

Overall Area: 2.25 m² (24.22 ft²)

Finish: PVC parts were white.

Frame Construction: The frame head, jambs, and sill were formed from co-extruded PVC/foam. The corners were mitered and secured using sealant, four #10 x 2-1/2" screws, and a die cast corner key attached with one #9 x 1-1/2" screw. The foam PVC glazing bead was secured to the frame using sealant and one 16 gauge x 1-13/16" brad nail 5" from each corner and on 5" centers. A cap bead of sealant was applied at the glazing beads. The foam PVC astragals were attached at the head and sill with sealant and three #10 x 2-1/2" screws.

Test Specimen Description: (Continued)

Frame Component Parts List:

| <u>Description</u> | <u>Quantity</u> | <u>Part#</u> | <u>Manufacturer</u> |
|-----------------------------|-----------------|--------------|-----------------------|
| Top, Bottom, and Side jambs | 4 | 2 | Nan-Ya Plastics Corp. |
| Glazing bead | 12 | 4 | Nan-Ya Plastics Corp. |
| Astragal | 2 | 16 | Nan-Ya Plastics Corp. |
| Corner key | 4 | 15 | Micota Locks Co. |

Glazing Type: The unit utilized a nominal 16 mm (5/8") thick sealed insulating glass unit fabricated from two pieces of nominal 3 mm (1/8") tempered glass and an aluminum spacer system.

Glazing Details: The unit was exterior glazed using backbedding compound and a foam PVC glazing bead.

Drainage: None

Reinforcement: None.

Installation: The unit was sealed into a 2" x 10" pine test buck and secured through the frame using #10 x 3" screws 5" from each corner and on 15-3/4" centers thereafter.

Test Results: The results are tabulated as follows:

| <u>Paragraph</u> | <u>Title of Test - Test Method</u> | <u>Results</u> | <u>Allowed</u> |
|------------------|---|--|--|
| 5.3.2.1 | Air Leakage Resistance per ASTM E 283 80 Pa (1.67 psf) | <0.05 L/s/m ² (<0.01 cfm/ft ²) | 1.5 L/s/m ² (0.3 cfm/ft ² max.) |

Note #1: *The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440-05 for air leakage resistance.*

5.3.3.2 Water Penetration Resistance per ASTM E 547 (See Note #2)

5.3.4.2 Uniform Load Deflection per ASTM E 330 (See Note #2)

5.3.4.3 Uniform Load Structural per ASTM E 330 (See Note #2)

Test Results: (Continued)

| <u>Paragraph</u> | <u>Title of Test - Test Method</u> | <u>Results</u> | <u>Allowed</u> |
|------------------|------------------------------------|----------------|----------------|
|------------------|------------------------------------|----------------|----------------|

Note #2: The client opted to start at a pressure higher than the minimum required. Those results are listed under "Optional Performance".

| | | | |
|-------|--|----------|----------|
| 2.1.8 | Forced Entry Resistance per ASTM F588 | | |
| 5.3.5 | Type: D Grade: 10 Tool Manipulation Test | No entry | No entry |

Optional Performance

| | | | |
|---------|--|------------------|-------------|
| 4.4.2.6 | Water Penetration Resistance per ASTM E 547 540 Pa (11.28 psf) | No leakage | No leakage |
| 4.4.2.6 | Uniform Load Deflection per ASTM E 330 (Deflections were taken on the jamb) (Loads were held for 10 seconds) | | |
| | 3840 Pa (80.20 psf) (positive) | <0.3 mm (<0.01") | See Note #3 |
| | 3840 Pa (80.20 psf) (negative) | 1.0 mm (0.04") | See Note #3 |

Note #3: The deflections reported are not limited by AAMA/WDMA/CSA 101/I.S.2/A440-05 for this product designation. The deflection data is recorded in this report for special code compliance and information only.

| | | | |
|---------|---|----------------|---------------------|
| 4.4.2.6 | Uniform Load Structural per ASTM E 330 (Permanent sets were taken on the jamb) (Loads were held for 10 seconds) | | |
| | 5760 Pa (120.30 psf) (positive) | 0.3 mm (0.01") | 2.3 mm (0.09") max. |
| | 5760 Pa (120.30 psf) (negative) | 0.3 mm (0.01") | 2.3 mm (0.09") max. |

Drawing Reference: The test specimen drawings have been reviewed by ATI and match the test specimen reported herein.

Detailed drawings, representative samples of the test specimen, and a copy of this report will be retained by ATI for a period of four years from the original test date. The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the above referenced specification. This report does not constitute certification of this product, which may only be granted by the certification program administrator. This report may not be reproduced, except in full, without the approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.

Andy Cost
Laboratory Manager

John Waskow
Director of Regional Operations

JHW: ajl
62724.01-801-44-r0
Attachments (pages):
 Appendix-A: (1)
 Appendix-B: Drawings (7)

Revision Log

| <u>Rev. #</u> | <u>Date</u> | <u>Page(s)</u> | <u>Revision(s)</u> |
|---------------|-------------|----------------|-----------------------|
| 0 | 03/31/06 | N/A | Original report issue |



Appendix A:

Alteration Addendum

Note: No alterations were required.

Appendix B:
Drawings

| BILL OF MATERIALS FOR GLAZE/TRANSOM OF 2' HEIGHT-INSWING G11 6020 | | | | | |
|---|-----|-----|---------------------------------|-----------------|----------------------|
| ITEM | NO. | QTY | PART DESCRIPTION | MATERIALS | MANUFACTURER |
| FRAME | 1 | 4 | TOP & BOTTOM & SIDE JAMB | FOAMPVC CO-EX | NAN-YA PLASTIC CORP. |
| | 4 | 4 | GLAZE BEAD | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 8 | 4 | NAILING FIN | PVC CO-EX | NAN-YA PLASTIC CORP. |
| | 15 | 4 | CORNER KEY | DECAST | MICOTA LOCKS CO. |
| | 17 | 16 | #10 X 2 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 18 | 4 | #9 X 1 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 19 | 34 | 1-3/16" NAIL | STEEL | STANLEY CO. |

| BILL OF MATERIALS FOR GLAZE/TRANSOM OF 2' HEIGHT-OUTSWING G10 6020 | | | | | |
|--|-----|-----|---------------------------------|-----------------|----------------------|
| ITEM | NO. | QTY | PART DESCRIPTION | MATERIALS | MANUFACTURER |
| FRAME | 2 | 4 | TOP & BOTTOM & SIDE JAMB | FOAMPVC CO-EX | NAN-YA PLASTIC CORP. |
| | 4 | 4 | GLAZE BEAD | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 9 | 4 | NAILING FIN | PVC CO-EX | NAN-YA PLASTIC CORP. |
| | 15 | 4 | CORNER KEY | DECAST | MICOTA LOCKS CO. |
| | 17 | 16 | #10 X 2 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 18 | 4 | #9 X 1 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 19 | 34 | 1-3/16" NAIL | STEEL | STANLEY CO. |

| BILL OF MATERIALS FOR GLAZE/TRANSOM OF 2' HEIGHT-INSWING G11 12020 | | | | | |
|--|-----|-----|---------------------------------|-----------------|----------------------|
| ITEM | NO. | QTY | PART DESCRIPTION | MATERIALS | MANUFACTURER |
| FRAME | 1 | 4 | TOP & BOTTOM & SIDE JAMB | FOAMPVC CO-EX | NAN-YA PLASTIC CORP. |
| | 4 | 12 | GLAZE BEAD | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 16 | 2 | ASTRAGAL | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 8 | 4 | NAILING FIN | PVC CO-EX | NAN-YA PLASTIC CORP. |
| | 15 | 4 | CORNER KEY | DECAST | MICOTA LOCKS CO. |
| | 17 | 28 | #10 X 2 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 18 | 4 | #9 X 1 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 19 | 78 | 1-3/16" NAIL | STEEL | STANLEY CO. |

| BILL OF MATERIALS FOR GLAZE/TRANSOM OF 2' HEIGHT-OUTSWING G10 12020 | | | | | |
|---|-----|-----|---------------------------------|-----------------|----------------------|
| ITEM | NO. | QTY | PART DESCRIPTION | MATERIALS | MANUFACTURER |
| FRAME | 2 | 4 | TOP & BOTTOM & SIDE JAMB | FOAMPVC CO-EX | NAN-YA PLASTIC CORP. |
| | 4 | 12 | GLAZE BEAD | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 16 | 2 | ASTRAGAL | FOAMPVC | NAN-YA PLASTIC CORP. |
| | 8 | 4 | NAILING FIN | PVC CO-EX | NAN-YA PLASTIC CORP. |
| | 15 | 4 | CORNER KEY | DECAST | MICOTA LOCKS CO. |
| | 17 | 28 | #10 X 2 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 18 | 4 | #9 X 1 1/2" PHILLIPS FLAT HEAD | STAINLESS STEEL | ZHONG-QUN SCREWS CO. |
| | 19 | 78 | 1-3/16" NAIL | STEEL | STANLEY CO. |

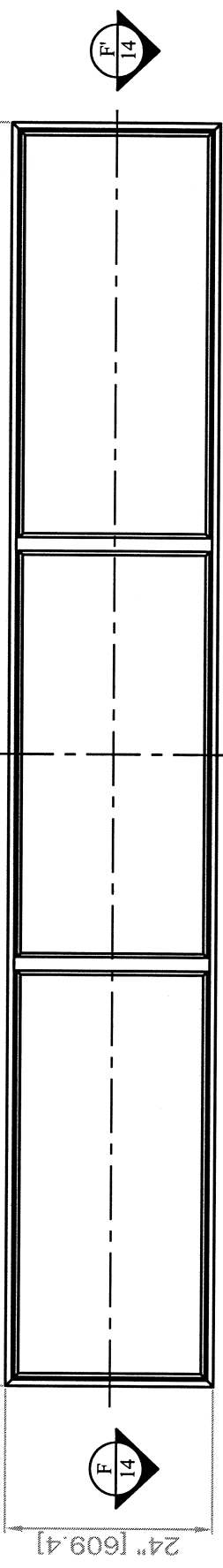
Architectural Testing
 Test sample complies with these details.
 Deviations are noted.

Report# 62724101
 Date 3/16/06 Tech JW

| | |
|----------|--------------|
| DATE | MAR/05/06 |
| DRAWN BY | Morris Huang |
| DWG NO. | |

| | |
|--------------|-------------------------------------|
| SHEET | 26 OF 32 |
| SHEET TITLE: | Bill of Materials for Glaze Transom |

145 3/8" [3691.7]



24" [609.4]



Test sample complies with these details.
Deviations are noted.

Report# 62724.01

Date 3/19/06 Tech JW

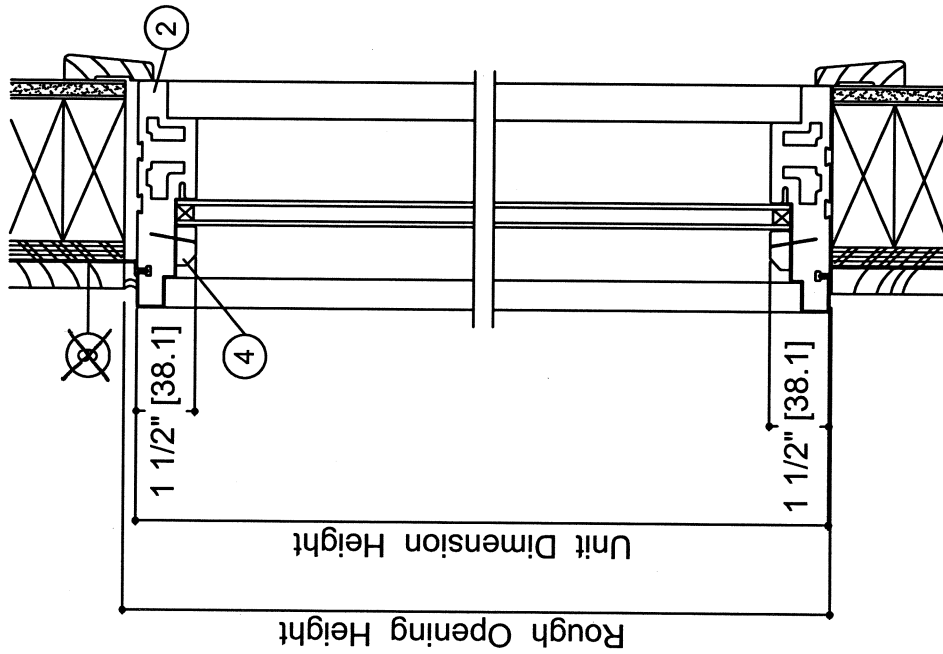
① Glaze Transom (12'-1 3/8" X 24") For Outswing Door
AAMA 101-05

* Exterior view shown

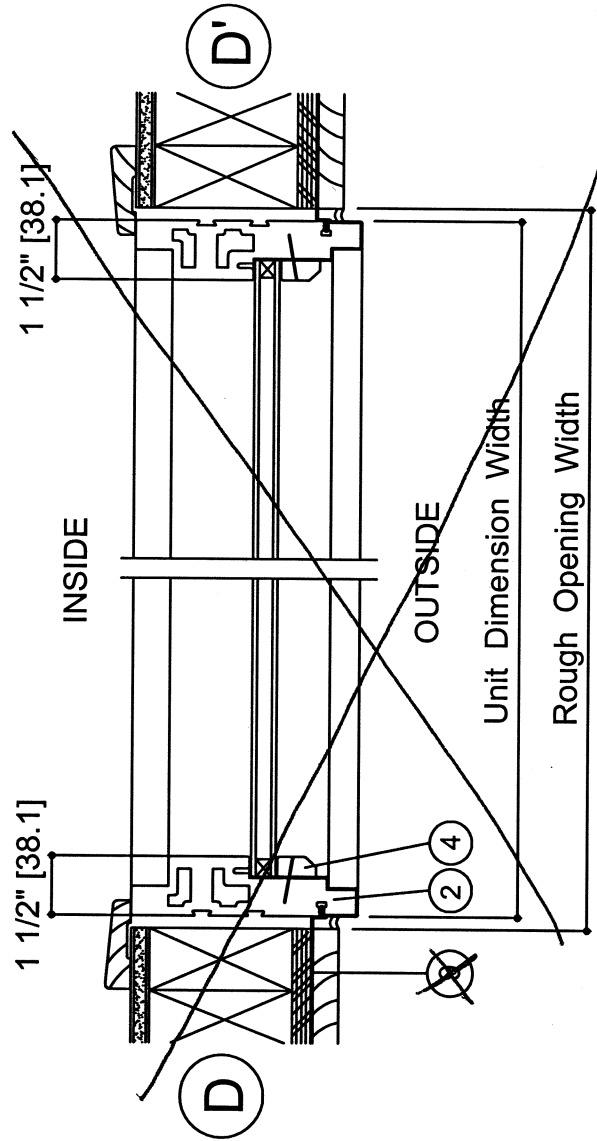
| | | | | |
|-----------|--------------|---------|----------------------------------|--|
| DATE | Feb/23/06 | SHEET | SHEET TITLE: | |
| DRAWN BY | Morris Huang | 4 OF 32 | Glaze Transom (12'-1 3/8" X 24") | |
| DWG NO. | - | | Series : GTO 12020 | |
| REVISIONS | | | | |

NAN YA PLASTICS CORPORATION
6F, 201, Tung Hwa N. Road Taipei, Taiwan
Tel: (886)2-2712-2211; Fax: (886)2-2717-8512

(C)



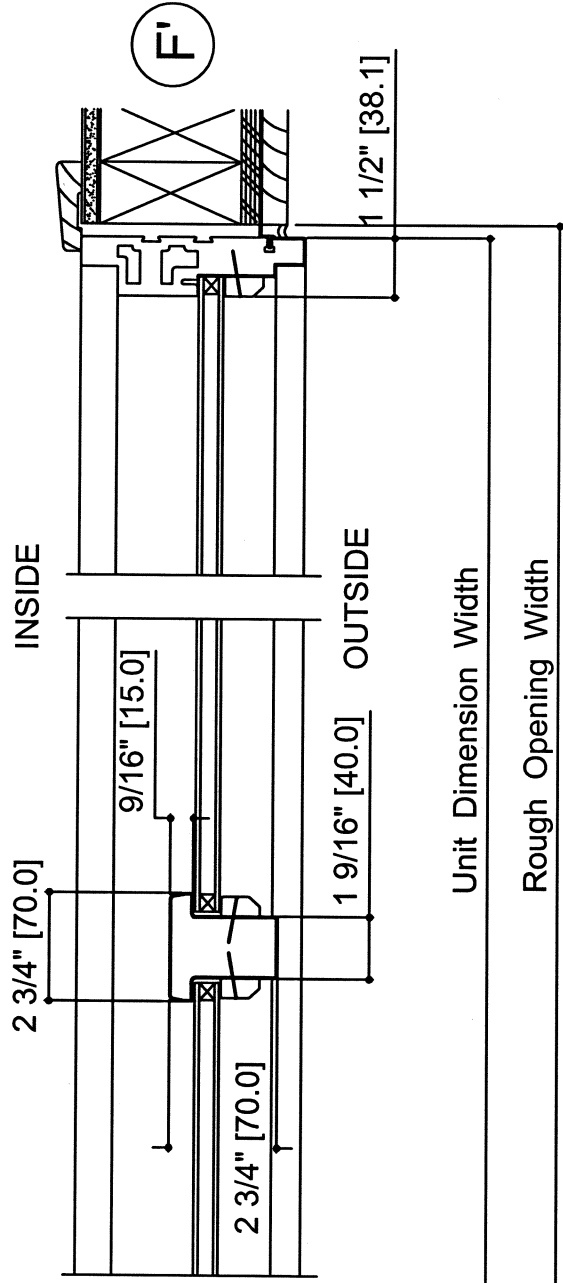
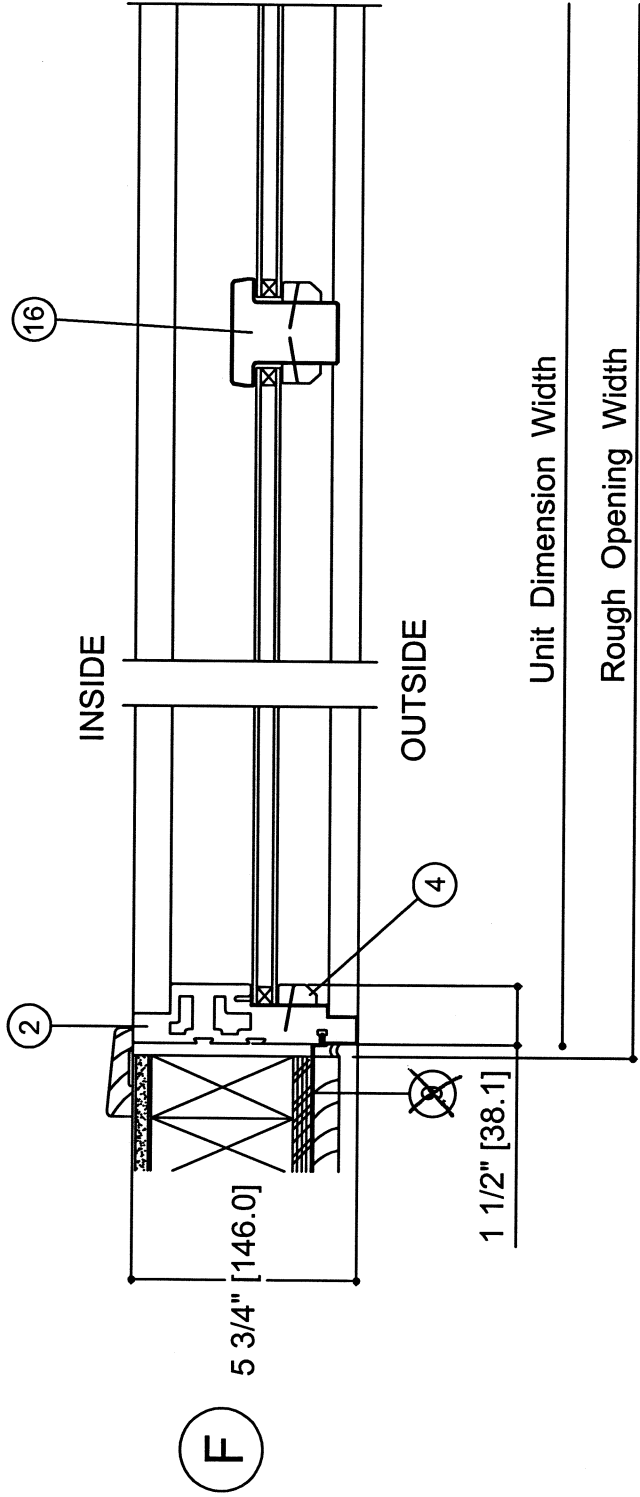
(C')



Test sample complies with these details.
 Deviations are noted.

Report# 62724-01
 Date 3/9/06 Tech AA

| | | | | | |
|-----------|----------|--------------|-------|--------------|---|
| REVISIONS | DATE | FEB/23/06 | SHEET | SHEET TITLE: | NAN YA PLASTICS CORPORATION 8FL,201, Tung Hwa N. Road Taipei,Taiwan Tel:(886)2-2712-2211 ; Fax:(886)2-2717-8512 |
| | DRAWN BY | Morris Huang | | | |
| Δ | DWG NO. | | | | |



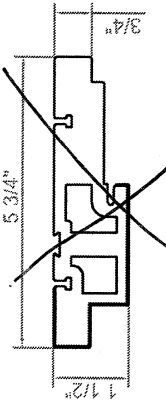
Architectural Testing

Test sample complies with these details.
Deviations are noted.

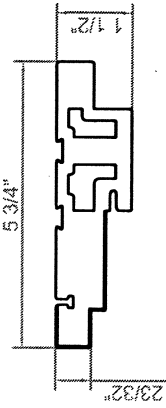
Report# 02724-01
Date 3/9/06 Tech AW

| | | | | |
|-----------|----------|--------------|--------------|---|
| REVISIONS | DATE | FEB/23/06 | SHEET TITLE: | Glaze Transom for Outswing door F-F' Section |
| | DRAWN BY | Morris Huang | SHEET | |
| Δ | DWG NO. | | | |

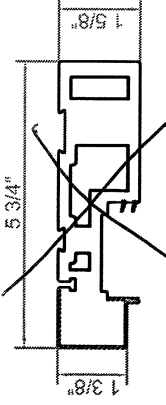
NAN YA PLASTICS CORPORATION
BFL201, Tung Hwa N. Road Taipei, Taiwan
Tel: (886)2-2712-2211; Fax: (886)2-2717-6512



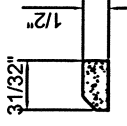
① 5 3/4" INSWING FRAME
FOAM PVC CO-EX.



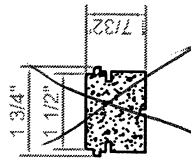
② 5 3/4" OUTSWING FRAME
FOAM PVC CO-EX.



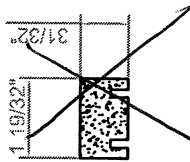
③ 5 3/4" GLIDING FRAME
FOAM PVC CO-EX.



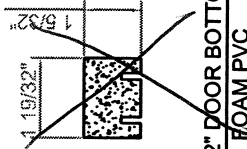
④ GLAZING BEAD
FOAM PVC



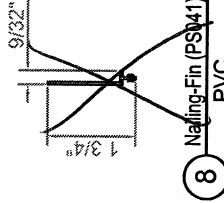
⑤ 1 7/32" STILE
FOAM PVC



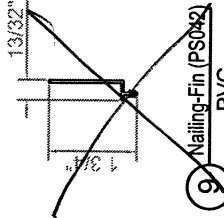
⑥ 31/32" STILE
FOAM PVC



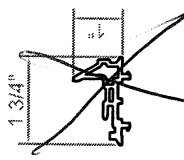
⑦ 1 5/32" DOOR BOTTOM
FOAM PVC



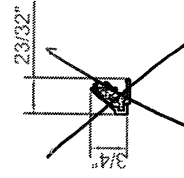
⑧ Nailing-Fin (PSM41)
PVC



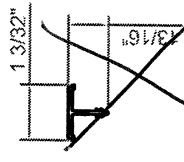
⑨ Nailing-Fin (PSM42)
PVC



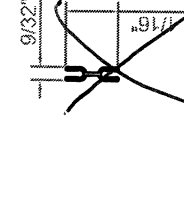
⑩ Glazing Bead A
PVC



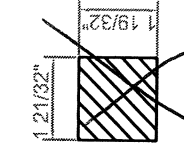
⑪ Glazing Bead B
FOAM PVC CO-EX.



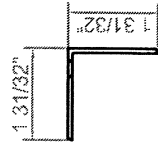
⑫ Gap Cover
PVC



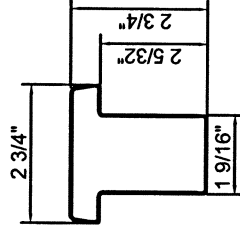
⑬ Combinative Aluminum
Aluminum



⑭ 1 21/32" REIN. WOOD
WHITE PINE



⑮ CORNER KEY
DIE CAST



⑯ Mullion
FOAM PVC



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# 02724.01

Date 3/9/06 Tech *AW*

| | |
|-----------|--|
| REVISIONS | |
|-----------|--|

| | |
|----------|--------------|
| DATE | FEB/27/06 |
| DRAWN BY | Morris Huang |
| DWG NO. | |

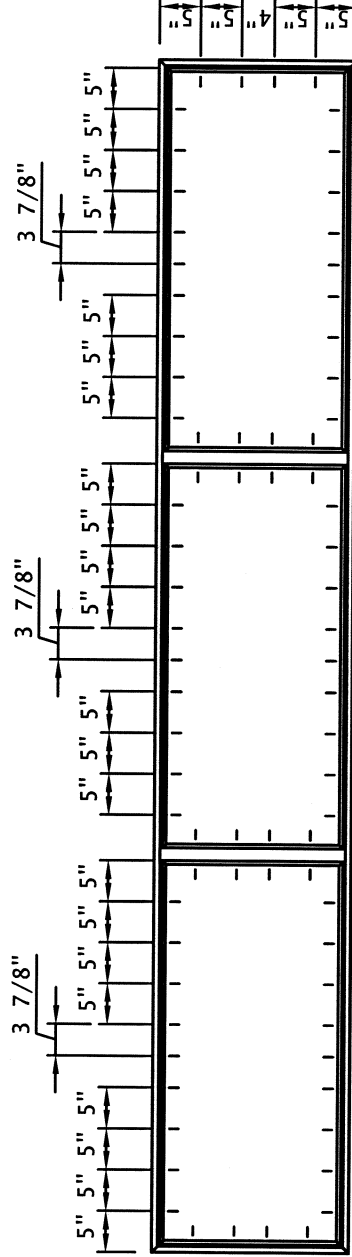
| | |
|-------|----------|
| SHEET | 25 of 32 |
|-------|----------|

SHEET TITLE:
Glazed Transom & French Transom
Door Hardware & Accessories



NAN YA PLASTICS CORPORATION
6FL,201, Tung Hua N. Road Taipei, Taiwan
Tel:(886)2-2712-2211 ; Fax:(886)2-2717-8512

ANCHORING OF GLAZE BEAD IN GLAZE TRANSOM



| NAIL SCHEDULE | |
|---------------|-----|
| ITEM | QTY |
| 1-3/16" NAIL | 78 |



Test sample complies with these details.
Deviations are noted.

Report# G2721.01

Date 3/9/06 Tech AW

NAN YA PLASTICS CORPORATION
6F.L.201, Tung Hwa N. Road Taipei, Taiwan
Tel: (886)2-2712-2211; Fax: (886)2-2717-8512

SHEET TITLE:
GLAZE TRANSOM
GLAZE BEAD NAIL SCHEDULE
TYPE: GTI 12020 \ GTO 12020

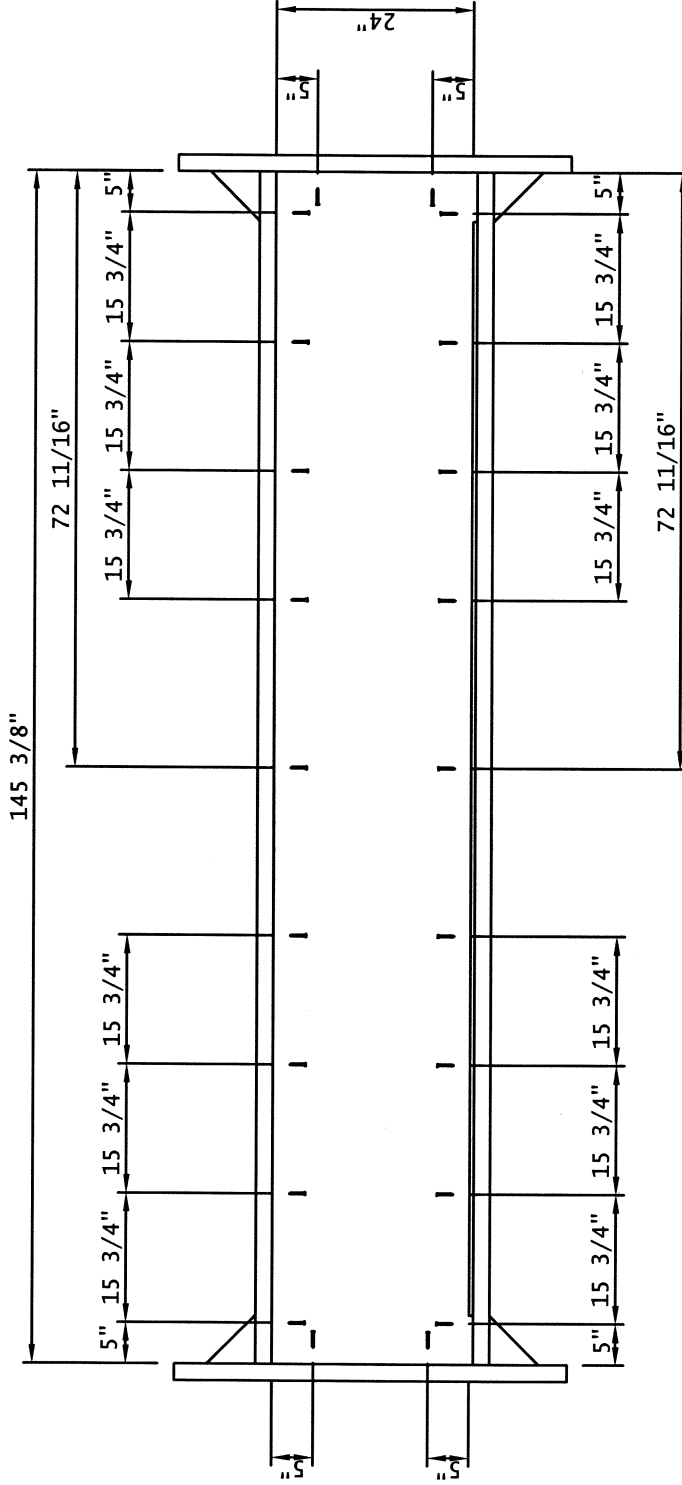
SHEET
30 OF 32

DATE FEB/25/06
DRAWN BY Morris Huang

REVISIONS

△

ANCHORING FOR GLAZE TRANSOM TO THE WOOD BUCK



Test sample complies with these details.
Deviations are noted.

Report# 62224.01

Date 3/9/06 Tech fw

| SCREW SCHEDULE | QTY |
|---------------------------------------|-----|
| #10 X 3" PHILLIPS SQUARE DRIVE SCREWS | 22 |

| DATE | REVISIONS | DATE | SHEET | SHEET TITLE: |
|-----------|-----------|------|----------|---|
| FEB/25/06 | | | 22 OF 32 | GLAZE TRANSOM FOR INSURING DOOR TO WOOD BUCK SCREW SCHEDULE |
| | | | | Series: GTI 12020 \ GTO 12020 |
| | | | | NAN YA PLASTICS CORPORATION |
| | | | | 8FL-201, Tung Hwa N. Road Taipei, Taiwan |
| | | | | Tel:(886)2-2712-2211 ; Fax:(886)2-2717-8512 |