



**BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION**

**MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
140 WEST FLAGLER STREET, SUITE 1603
MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908**

NOTICE OF ACCEPTANCE (NOA)

**StormProof
8500 NW 64 Street
Miami, FL 33166**

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series-400 Aluminum Double & Single” Casement Window.

APPROVAL DOCUMENT: Drawing No.03-245, titled “Series 400 Double & Single Casement Large Missile Impact Window”, sheets 1 through 4 of 4, prepared by Tilteco Inc., dated 12/04/03, signed and sealed by Walter A. Tillit Jr., P.E., bearing the Miami-Dade County Product Control Approval stamp with the Notice of Acceptance number and Approval date by the Miami-Dade County Product Control Division.

MISSILE IMPACT RATING: Large and Small Missile Impact

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of this page 1 and evidence page E-1 and E2, as well as approval document mentioned above. The submitted documentation was reviewed by **Theodore Berman, P.E.**

Handwritten signature
2/20/2004


**NOA No 04-0116.03
Expiration Date: March 11, 2009
Approval Date: March 11, 2004
Page 1**

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
2. Drawing No.03-245, titled "Series 400 Double & Single Casement Large Missile Impact Window", sheets 1 through 4 of 4, prepared by Tilteco Inc., dated 12/04/03, signed and sealed by Walter A. Tillit Jr., P.E.

B. TESTS

1. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a casement window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-03-1791**, dated 09/26/03, signed and sealed by Rafael E. Droz-Seda, P.E.
2. Test reports on 1) Large Missile Impact Test per FBC, TAS 201-94
2) Cyclic Wind Pressure Loading per FBC, TAS 203-94
along with marked-up drawings and installation diagram of a casement window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-03-1788**, dated 04/16/03, signed and sealed by Rafael E. Droz-Seda, P.E.
3. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
2) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
3) Water Resistance Test, per FBC, TAS 202-94
4) Cyclic Wind Pressure Loading per FBC, TAS 203-94
5) Forced Entry Test, per FBC 2411 3.2.1 and TAS 202-94
along with marked-up drawings and installation diagram of a casement window, prepared by Hurricane Engineering & Testing, Inc., Test Report No. **HETI-96-1075**, dated 04/14/03, signed and sealed by Rafael E. Droz-Seda, P.E.
4. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202-94
along with marked-up drawings and installation diagram of a casement window, prepared by American Test Lab of South Florida., Test Report No. **ATL-0708.04-03**, dated 12/18/03, signed and sealed by William R. Mehner, P.E.

C. CALCULATIONS

1. Anchor Calculations, ASTM-E1300-98, and structural analysis, dated 01/28/04 prepared by Tilteco Inc., signed and sealed by Walter A. Tillit Jr., P.E.

D. QUALITY ASSURANCE

1. Miami Dade Building Code Compliance Office (BCCO).



Theodore Berman, P.E.
Deputy Director, Product Control Division
NOA No 04-0116.03
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E. MATERIAL CERTIFICATIONS

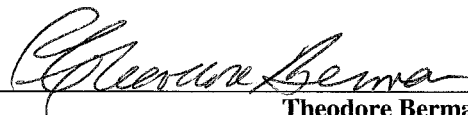
1. Notice of Acceptance No. **01-1204.01**, issued to "E.I. DuPont DeNemours" for "Sentry Glass ® Plus" dated 01/17/02, expiring on 01/14/07.
2. Notice of Acceptance No. **03-0421.01**, issued to "Solutia Inc." for "Saflex HP" dated 05/22/03, expiring on 04/14/08.

F. STATEMENTS

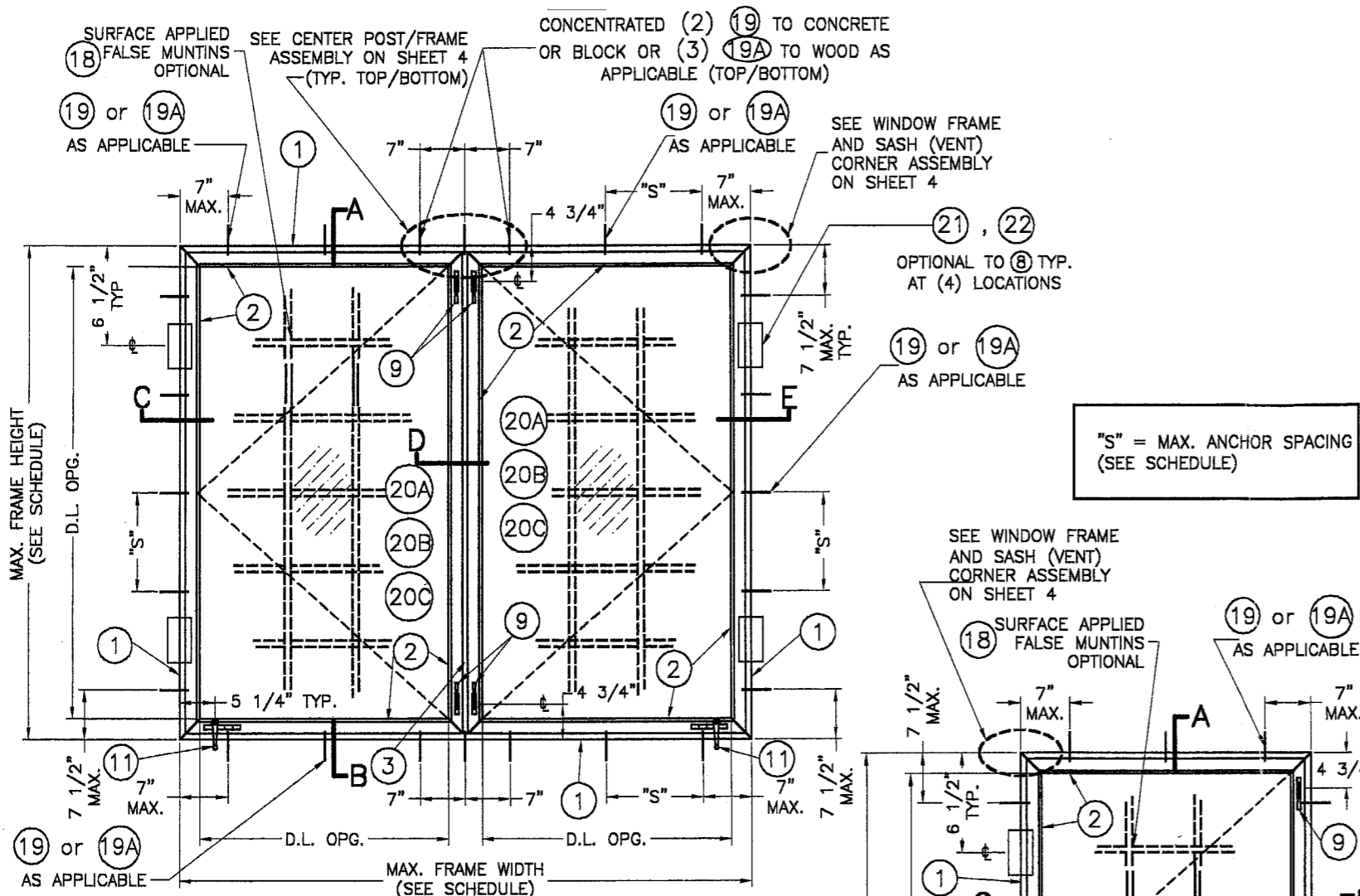
1. Statement letter of conformance, dated December 11, 2003, signed and sealed by Walter A. Tillit Jr., P.E.
2. Statement letter of no financial interest, dated December 11, 2003, signed and sealed by Walter A. Tillit Jr., P.E.

G. OTHER

1. Letter from the consultant stating that the product is in compliance with the Florida Building Code (FBC)



Theodore Berman, P.E.
Deputy Director, Product Control Division
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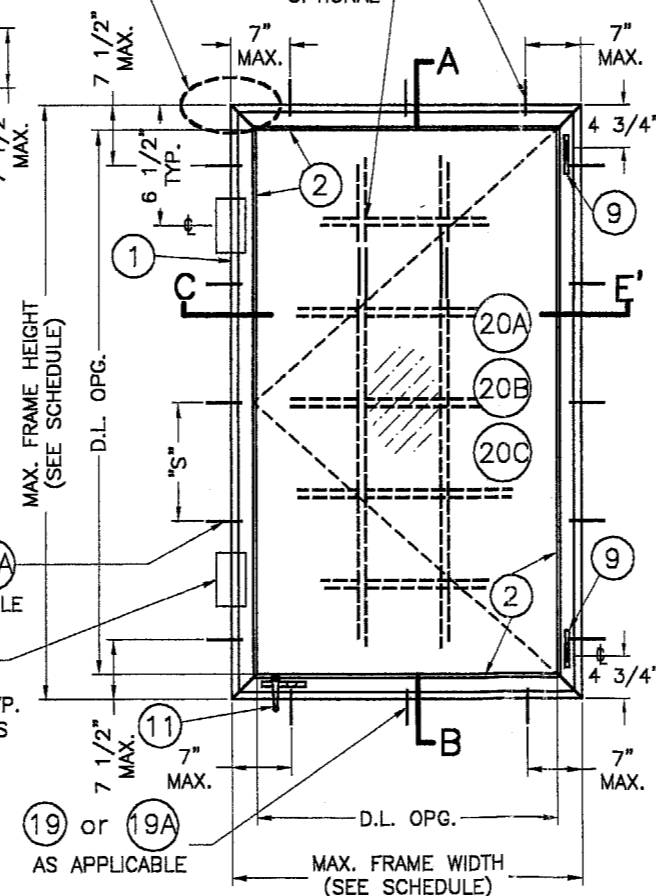
SERIES 400 DOUBLE CASEMENT WINDOW-LARGE MISSILE IMPACT RESISTANT (INTERIOR ELEVATION)
NTS.

MAXIMUM DESIGN PRESSURE RATING VERSUS WINDOW SIZE VERSUS GLASS TYPE SCHEDULE

DESIGN PRESSURE RATING	MAX. FRAME WIDTH		MAX. FRAME HEIGHT		GLASS TYPE
	SINGLE CASEMENT	DOUBLE CASEMENT	SINGLE CASEMENT	DOUBLE CASEMENT	
+65, -75	37 1/2"	74"	63"	63"	(20A)
+65, -75	37 1/2"	74"	63"	63"	(20B)
+63, -63	27"	54"	39"	39"	(20C)

MAX. ANCHOR SPACING SCHEDULE				
LOCATION	ANCHOR TYPE	"S"		
		CONCRETE	BLOCK	WOOD
SILL & HEAD	(19)	11 1/2"	11 1/2"	-
	(19A)	-	-	11 1/2"
JAMBS	(19)	8"	8"	-
	(19A)	-	-	8"

SERIES 400 SINGLE CASEMENT WINDOW-LARGE MISSILE IMPACT RESISTANT (INTERIOR ELEVATION)
NTS.



GENERAL NOTES AND SPECIFICATIONS:

- SERIES 400 DOUBLE & SINGLE CASEMENT WINDOW-LARGE MISSILE IMPACT RESISTANT, SHOWN ON THIS PRODUCT APPROVAL DOCUMENT (P. A. D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2001 EDITION OF THE FLORIDA BUILDING CODE. WINDOW MAY BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1619 OF THE ABOVE MENTIONED CODE. IN ORDER TO VERIFY THAT ANCHORS ON THIS P.A.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS **NOT** USED IN THEIR ANALYSIS. THIS WINDOW'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1606.1.4 OF THE ABOVE MENTIONED CODE AS PER TAS-201, TAS-202, TAS-203 AS PER LAB REPORTS # HETI 03-1791, HETI 96-1075 & ATL 0708.04-03 AND AS PER SUBMITTED STRUCTURAL CALCULATIONS, PERFORMED AS PER SECTION 1611 OF THE FLORIDA BUILDING CODE.
- ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER (UNLESS OTHERWISE NOTED), WITH Fy = 25.0 ksi MINIMUM. THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON THIS DRAWING.
- ALL SCREWS USED FOR ASSEMBLY CONNECTIONS (METAL TO METAL) TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH.
- WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE BUILDING STRUCTURE. WOOD BUCKS MUST BE SOUTHERN PINE, G = 0.55. WOOD BUCKS NOT BY STORMPROOF, MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.
- ANCHORS NOTES: ANCHORS TO WALL SHALL BE AS FOLLOWS:
(A) TO EXISTING POURED CONCRETE: (Min. f'c = 3 ksi)
- 1/4"Ø TAPCON ANCHORS W/ 1 1/4" MIN. EMBEDMENT, AS MANUFACTURED BY I.T.W. BUILDDEX OR ELCO TEXTRON (COMPONENT (19)), THRU 1" P.T. WOOD BUCK.
(B) TO EXISTING CONCRETE BLOCK WALL:
- 1/4"Ø TAPCON ANCHORS W/ 1 1/4" MIN. EMBEDMENT, AS MANUFACTURED BY I.T.W. BUILDDEX OR ELCO TEXTRON (COMPONENT (19)), THRU 1" P.T. WOOD BUCK.
(C) TO EXISTING 2" P.T. WOOD BUCK:
- #14 FH WOOD SCREWS (NON CORROSIVE) W/ 1 1/2" MIN. EMBEDMENT (COMPONENT (19A))
- PROVIDE 1/4" MAX. SHIM SPACE (TYP.).
- THIS WINDOW WILL NOT REQUIRE A HURRICANE PROTECTION DEVICE.**
- PROVIDE SCHNEE MOREHEAD SEAM SEALER SM5504 SEALANT (TYP.) AT ALL FRAME AND SASH (VENT) JOINTS.
- REMAINING COMPONENTS FOR THIS WINDOW'S SYSTEM SHALL BE AS INDICATED ON BILL OF MATERIALS, SHEET 3 OF THIS DRAWING.
- WINDOW'S MANUFACTURER STAMP SHALL BE PLACED ON THE EXPOSED SURFACE OF PROFILES (1) OR (2). ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABEL SHALL READ AS FOLLOWS:
STORMPROOF
MIAMI, FLORIDA.
MIAMI-DADE COUNTY PRODUCT CONTROL APPROVED.
- (a) THIS P.A.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.A.D.
(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.A.D., PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.
(c) THIS P.A.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
(d) THIS P.A.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

TILECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6555 N.W. 36th St., Ste. 217, VIRGINIA GARDENS, FL 33166
Phone: (305)871-1500, Fax: (305)871-1531
WALTER A. TILLIT Jr. P. E.
FLORIDA Lic. # 44167

SERIES 400 DOUBLE & SINGLE CASEMENT LARGE MISSILE IMPACT WINDOW

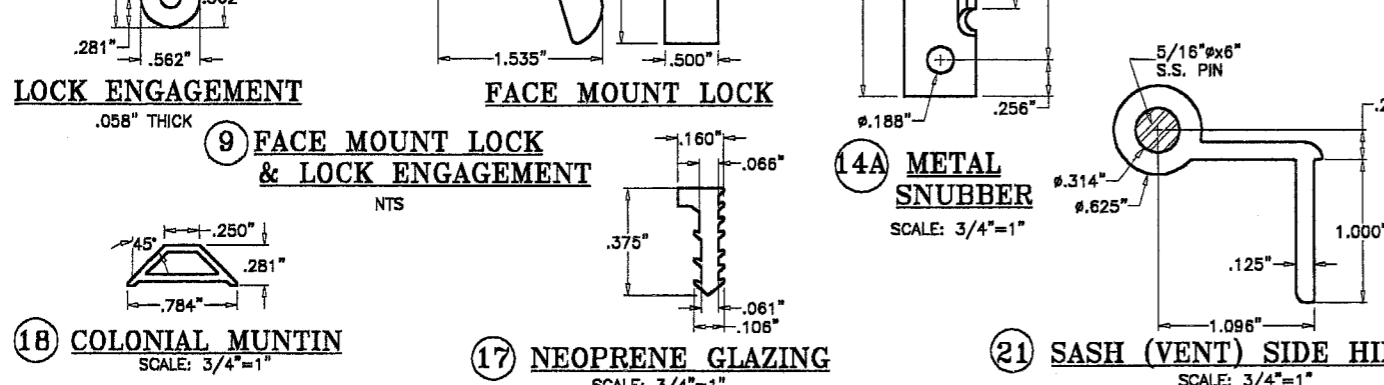
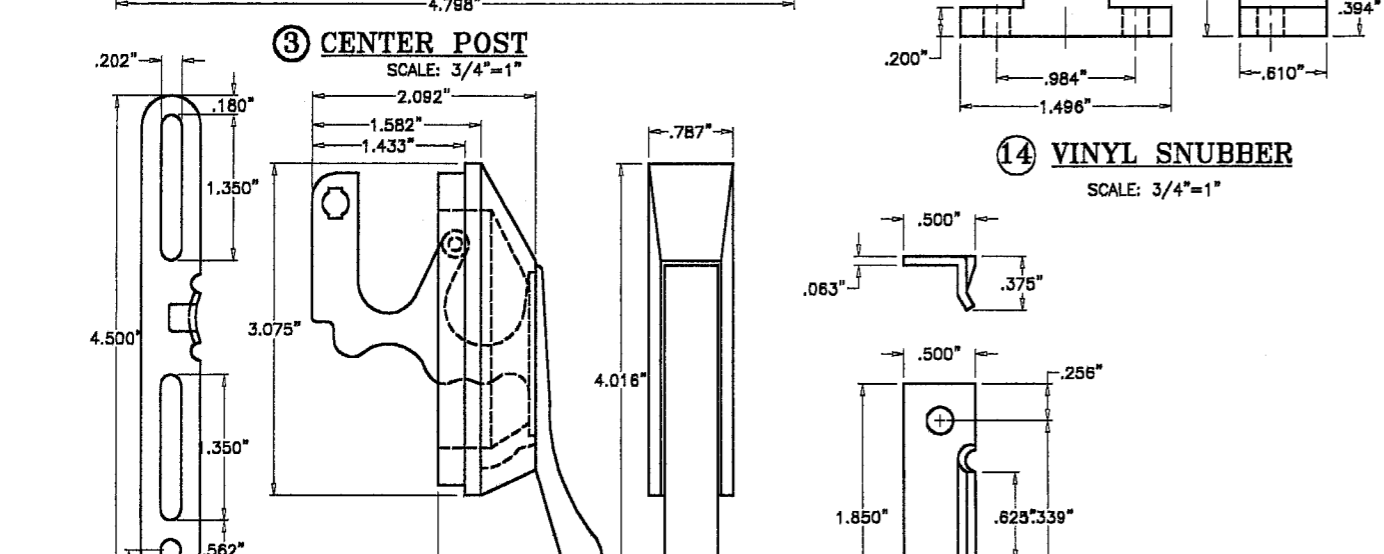
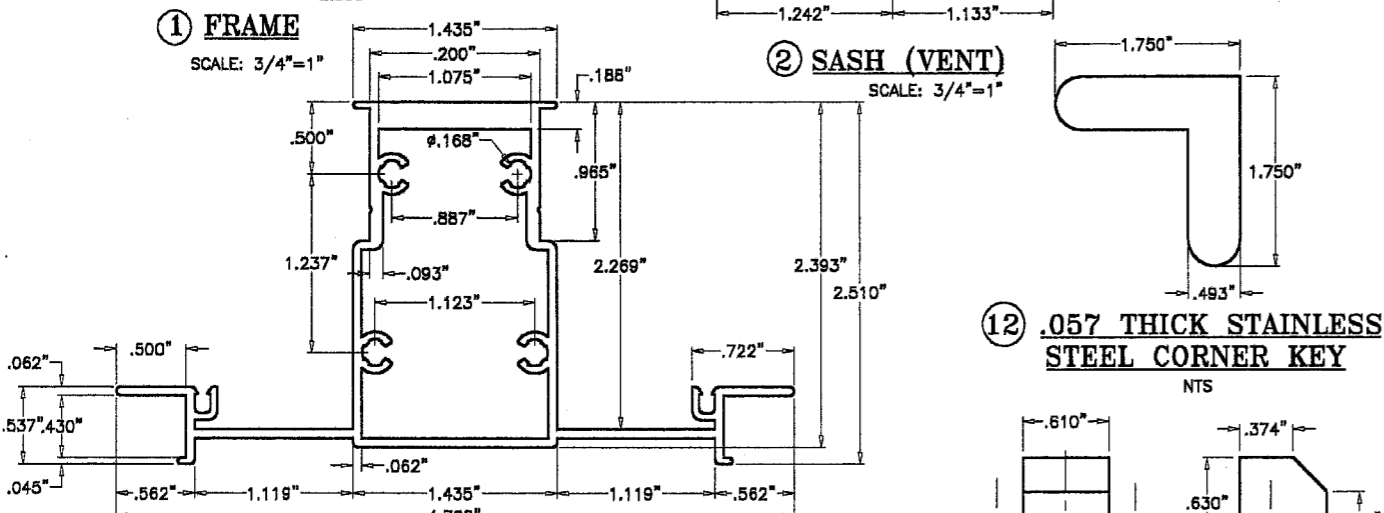
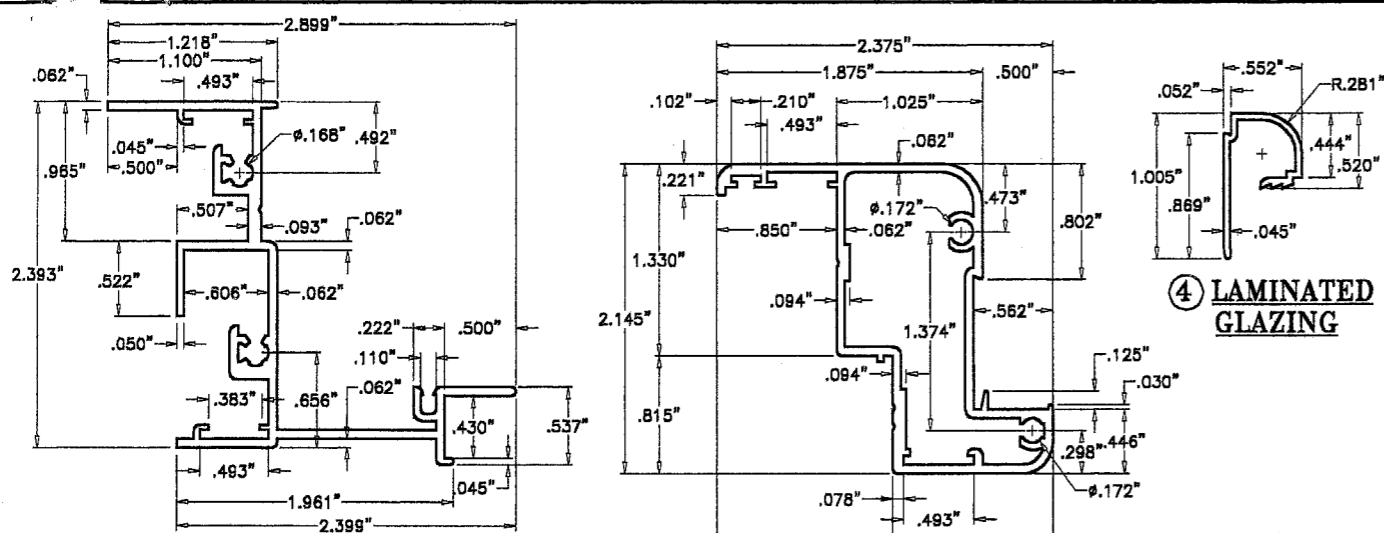
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NO.	DATE	REVISION
1	1/28/04	GENERAL

DATE: 12-04-03
SCALE: AS SHOWN
DWG. BY:
CHK. BY:
DWG. No.: 03-245
SHEET 1 OF 4

David...
1/28/04

Approved as complying with the Florida Building Code
Date: 03/11/04
NOA# 04-0116.03
Miami Dade Product Control
Division
By: *[Signature]*



BILL OF MATERIALS					
ITEM	PART #	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
①	SP-401	4	FRAME	6063-T5	-
②	SP-402	4	SASH (VENT)	6063-T5	-
③	SP-403	1	CENTER POST	6063-T6	-
④	-	AS REQD.	LAMINATED GLAZING	6063-T5	-
⑤	-	AS REQD.	FRAME ASSEMBLY SCREWS	-	#10 x 1" F.H. S.S. S.M.S.
⑤A	-	AS REQD.	SASH VENT ASSEMBLY SCREWS	-	#10 x 2 1/2" F.H. S.S. S.M.S.
⑥	-	AS REQD.	FRAME WEATHERSTRIPPING	VINYL	-
⑦	-	AS REQD.	VENT WEATHERSTRIPPING	VINYL	-
⑧	-	2/ VENT	4 BAR HINGE, AT HEAD AND SILL EACH SASH	STEEL	TRUTH 3425 (4) BAR HINGE (4)#10x1/2" P.H. S.M.S. TO HEAD AND SILL & (3)#10x1/2" P.H. S.M.S. TO TOP & BOTTOM RAILS OF SASH (VENT).
⑨	SP - 400	2/ S. VENT	FACE MOUNT LOCK & LOCK ENGAGEMENT	STEEL	SP 400 W/ (2)#10x1/2" P.H. S.M.S. TO ③ W/ LOCK ENGAGEMENT W/ (4)#10x1/2" P.H. S.M.S. TO STILE
⑩	-	1	DYAD CRANK OPERATOR	STEEL	TRUTH, 5050 ATTACHED W/ (2)#BX3/8 S.S. S.M.S.
⑪	SP-419	2/CORNER	.057 THICK CORNER KEY	S.S.	AISI 304 SERIES, CUSTOM BY STORMPROOF
⑫	-	3	VINYL SNUBBER @ 2 PER HINGE STILE & @ 2 PER JAMB MATCHING HINGE STILE	POLY VINYL	BY MM PLASTIC. INSTALLED 5" FROM TOP & BOTTOM OF FRAME W/(2)#12x1/2" P.H. S.M.S.
⑬A	-	3	METAL SNUBBER @ 2 PER HINGE STILE & @ 2 PER JAMB MATCHING HINGE STILE	STEEL	INSTALLED 5" FROM TOP & BOTTOM OF FRAME W/(2)#12x1/2" P.H. S.M.S.
⑭	-	AS REQD.	DOW CORNING	SILICONE	# 899 OR 1199
⑮	-	AS REQD.	SCREEN	-	-
⑯	-	AS REQD.	NEOPRENE GLAZING	VINYL	-
⑰	-	AS REQD.	COLONIAL MUNTIN	6063-T6	-
⑱	-	AS REQD.	1/4" # TAPCON ANCHORS (SEE NOTES 5A/1 & 5B/1)	STEEL	USE TO CONCRETE, OR CONCRETE BLOCK WALL, THRU 1/4" MAX. SHIM + 1 x PT. WOOD BUCK W/ 1 1/4" MIN. EMBEDMENT.
⑲A	-	AS REQD.	#14 FH WOOD SCREWS(NON CORROSIVE)(SEE NOTE 5C/1)	STEEL	USE TO 2 x PT. WOOD BUCK (BY OTHERS), THRU 1/4" MAX. SHIM W/ 1 1/2" MIN. EMBEDMENT.
⑳A	MIAMI-DADE COUNTY APPROVED GLASS	AS REQD.	3/16" NOMINAL(0.186") ANNEALED GLASS 0.090" SAFLEX® HP (DM) INTERLAYER EXTRUDED SHEET 3/16" NOMINAL(0.186") ANNEALED GLASS =7/16" (0.462") TOTAL THICKNESS.	7/16" NOMINAL LAMINATED GLASS	SOLUTIA, INC. (SEE GLAZING DETAIL ON SHEET 2)
⑳B	MIAMI-DADE COUNTY APPROVED GLASS	AS REQD.	3/16" NOMINAL(0.186") ANNEALED GLASS 0.090" DU PONT SENTRYGLAS® PLUS INTERLAYER 3/16" NOMINAL(0.186") ANNEALED GLASS =7/16" (0.462") TOTAL THICKNESS.	7/16" NOMINAL LAMINATED GLASS	E.I. DUPONT DENEMOURS & CO., INC. (SEE GLAZING DETAIL ON SHEET 2)
⑳C	MIAMI-DADE COUNTY APPROVED GLASS	AS REQD.	1/8" NOMINAL(0.118") ANNEALED GLASS 0.090" DU PONT SENTRYGLAS® PLUS INTERLAYER 1/8" NOMINAL(0.118") ANNEALED GLASS =3/8" (0.330") TOTAL THICKNESS.	3/8" NOMINAL LAMINATED GLASS	SOLUTIA, INC. (SEE GLAZING DETAIL ON SHEET 2)
㉑	408	1/HINGE	SASH (VENT) SIDE HINGE W/ 5/16"x6" AISI 309 SERIES S.S. PIN	ALUMINUM	6063-T5 (Fy = 16.0 ksi) W/ (2)#10x1" S.S. S.M.S. TO STILE ②, LOCATED 6 1/2" FROM TOP/BOTTOM
㉒	409	2/HINGE	FRAME SIDE HINGE W/ 5/16"x6" AISI 309 SERIES S.S. PIN	ALUMINUM	6063-T5 (Fy = 16.0 ksi) W/ (2)#10x1" S.S. S.M.S. TO JAMB ①, LOCATED 6 1/2" FROM TOP/BOTTOM

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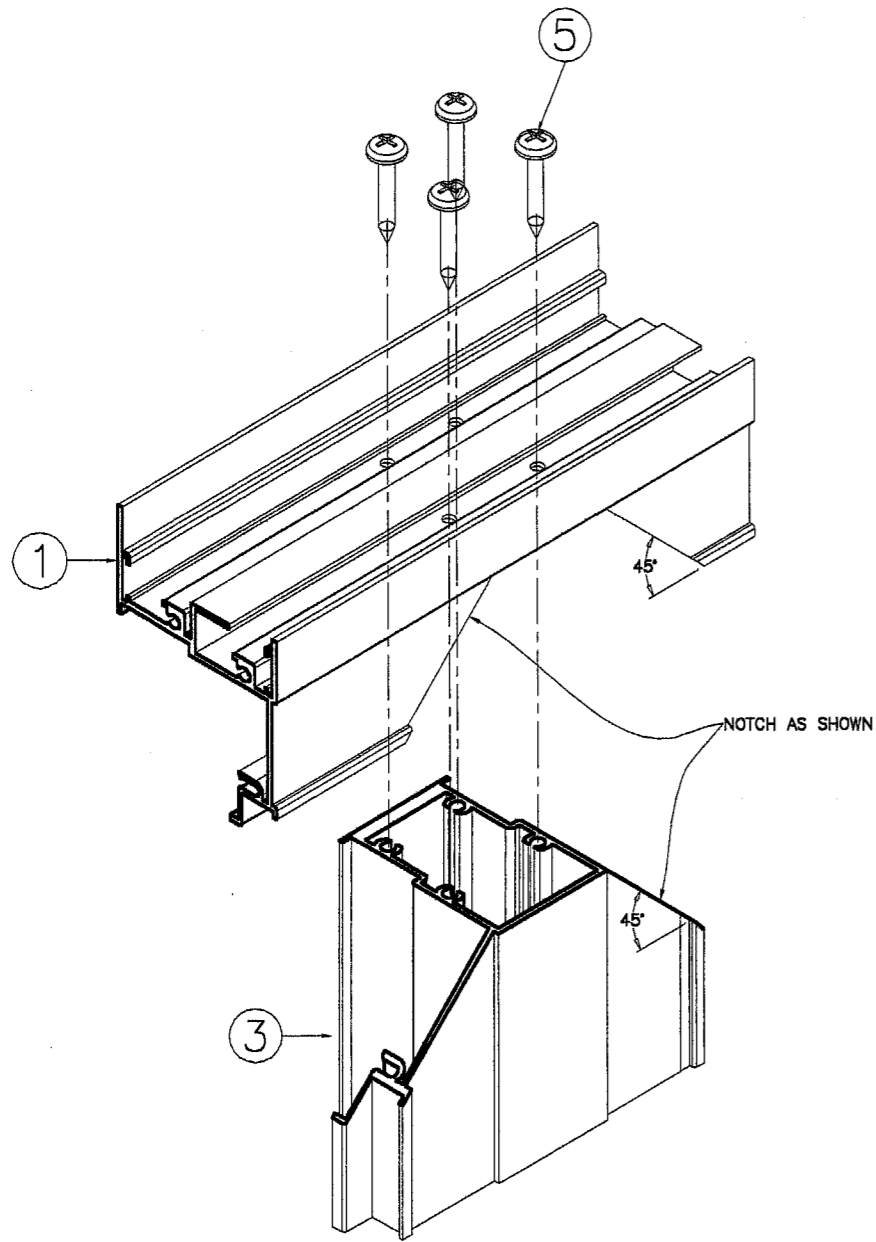
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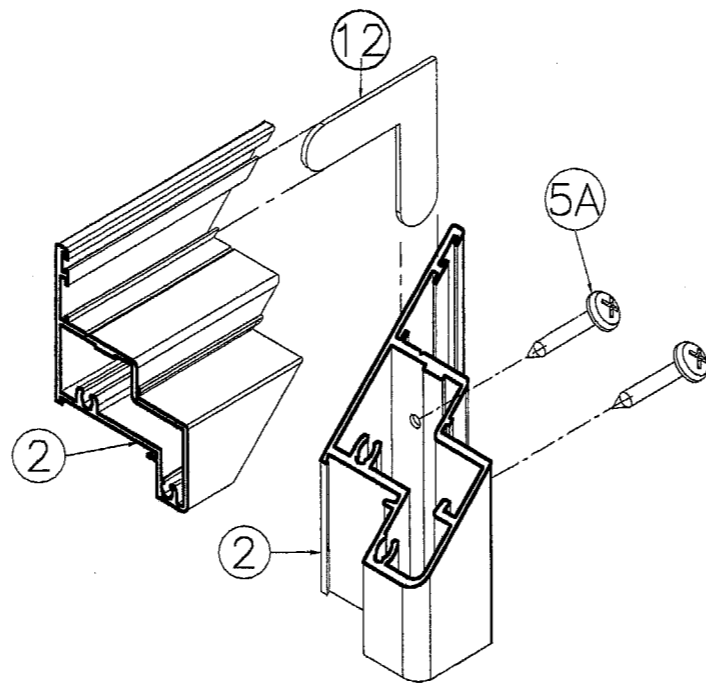
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 DWG. BY:
 CHK. BY:
 DWG. No.: 03-245
 SHEET 3 OF 4

Approved as complying with the Florida Building Code
 Date 03/11/04
 NOA# 04-0110-03
 Miami Dade Product Control
 Division
 By *[Signature]*

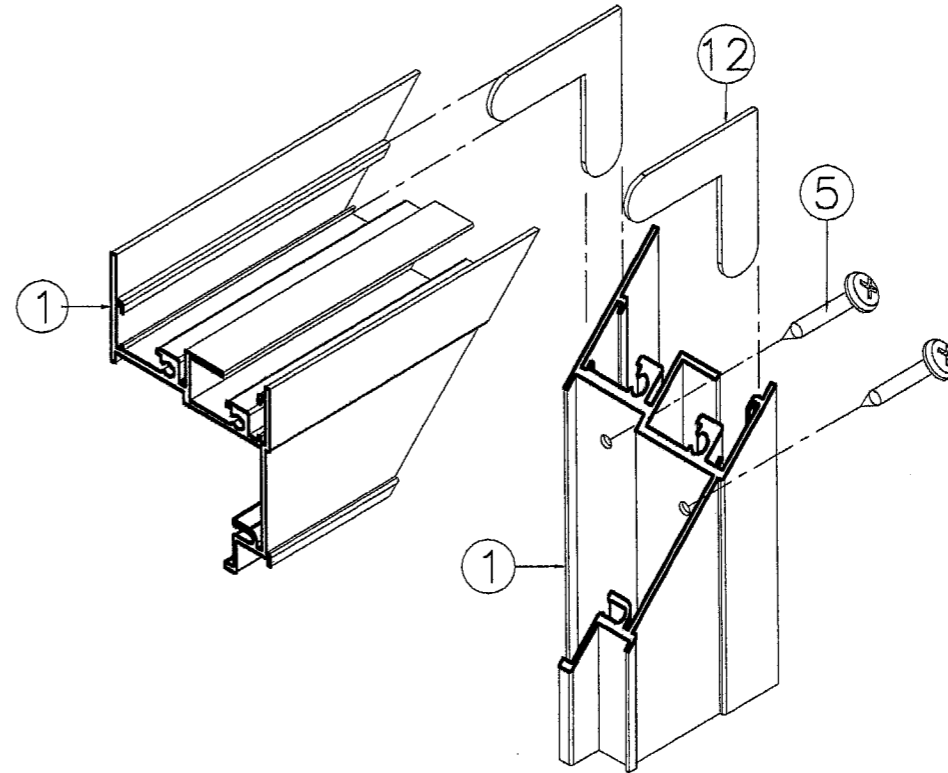
[Signature]
 1/28/04



FRAME/CENTER POST



SASH (VENT) CORNER



WINDOW FRAME CORNER

ASSEMBLY DETAILS

(SEE NOTE 8/1)

David [Signature]
1/28/04

Approved as complying with the
Florida Building Code
Date 03/11/04
NOAR 04-0116.03
Miami Code Product Control
Division
By: *[Signature]*

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
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SHEET 4 OF 4		