



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

**CONTRACTOR LICENSING SECTION**  
(305) 375-2527 FAX (305) 375-2558

**CONTRACTOR ENFORCEMENT DIVISION**  
(305) 375-2966 FAX (305) 375-2908

**PRODUCT CONTROL DIVISION**  
(305) 375-2902 FAX (305) 372-6339

**PRODUCT CONTROL NOTICE OF ACCEPTANCE**

**Mitsubishi Chemical America, Inc.**  
**401 Volvo Parkway**  
**Chesapeake, VA 23320**

Your application for Notice of Acceptance (NOA) of:

**"Alpolic and Alpolic/FR" Composite Wall Panel Systems**

under Chapter 8 of the Code of Miami-Dade County governing the use of Alternate Materials and Types of Construction, and completely described herein, has been recommended for acceptance by the Miami-Dade County Building Code Compliance Office (BCCO) under the conditions specified herein.

This NOA shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at any time from a jobsite or manufacturer's plant for quality control testing. If this product or material fails to perform in the approved manner, BCCO may revoke, modify, or suspend the use of such product or material immediately. BCCO reserves the right to revoke this approval, if it is determined by BCCO that this product or material fails to meet the requirements of the South Florida Building Code.

The expense of such testing will be incurred by the manufacturer.

Raul Rodriguez  
Chief Product Control Division

**ACCEPTANCE NO.: 00-0315.07**  
**EXPIRES: 08/09/2006**

**THIS IS THE COVERSHEET, SEE ADDITIONAL PAGES FOR SPECIFIC AND GENERAL  
CONDITIONS  
BUILDING CODE & PRODUCT REVIEW COMMITTEE**

This application for Product Approval has been reviewed by the BCCO and approved by the Building Code and Product Review Committee to be used in Miami-Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.  
Director  
Miami-Dade County  
Building Code Compliance Office

**APPROVED: 08/09/2001**

**Mitsubishi Chemical America, Inc.**

**ACCEPTANCE No. : 00-0315.07**

**APPROVED : 08/09/2001**

**EXPIRES : 08/09/2006**

**NOTICE OF ACCEPTANCE: SPECIFIC CONDITIONS**

**1. SCOPE**

This approves an Alpolic and Alpolic/FR (Fire Rated) Composite Wall Panel Systems, as described in Section 2 of this Notice of Acceptance, designed to comply with the South Florida Building Code, 1994 Edition for Miami-Dade County, for the locations where the load requirements, as determined by SFBC Chapter 23, do not exceed the design load values indicated in the approved drawings.

**2. PRODUCT DESCRIPTION**

These Alpolic and Alpolic/FR (Fire Rated) Composite Wall Panel Systems and its components shall be constructed in strict compliance with the following documents: Drawing No. 2, titled "Alpolic and Alpolic/FR Composite Wall Panel Systems", prepared by C. W. Stater, P.E., dated April 16, 1999, last revision #1 dated February 13, 2001, sheets 1 through 5 of 5, 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. These documents shall hereinafter be referred to as the approved drawings.

**3. LIMITATIONS**

All permanent set components must be protected against corrosion, contamination and damage at all times.

**4. INSTALLATION**

These Alpolic and Alpolic/FR (Fire Rated) Composite Wall Panel Systems and its components shall be installed in strict compliance with the approved drawings.

**5. LABELING**

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

**6. BUILDING PERMIT REQUIREMENTS**

**6.1** Application for building permit shall be accompanied by copies of the following:

**6.1.1** This Notice of Acceptance.

**6.1.2** Duplicate copies of the approved drawings, as identified in Section 2 of this Notice of Acceptance, clearly marked to show the components selected for the proposed installation.

**6.1.3** Any other documents required by the Building Official or the South Florida Building Code (SFBC) in order to properly evaluate the installation of this system.



Helmy A. Makar, P.E.- Product Control Examiner  
Product Control Division

**Mitsubishi Chemical America, Inc.**

**ACCEPTANCE No. : 00-0315.07**

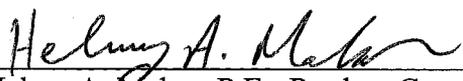
**APPROVED : 08/09/2001**

**EXPIRES : 08/09/2006**

**NOTICE OF ACCEPTANCE: STANDARD CONDITIONS**

1. Renewal of this Acceptance (approval) shall be considered after a renewal application has been filed and the original submitted documents, including test-supporting data, engineering documents, are no older than eight (8) years.
2. Any and all approved products shall be permanently labeled with the manufacturer's name, city, state, and the following statement: "Miami-Dade County Product Control Approved", or as specifically stated in the specific conditions of this Acceptance.
3. Renewals of Acceptance will not be considered if:
  - a. There has been a change in the South Florida Building Code affecting the evaluation of this product and the product is not in compliance with the code changes.
  - b. The product is no longer the same product (identical) as the one originally approved.
  - c. If the Acceptance holder has not complied with all the requirements of this acceptance, including the correct installation of the product.
  - d. The engineer, who originally prepared, signed and sealed the required documentation initially submitted, is no longer practicing the engineering profession.
4. Any revision or change in the materials, use, and/or manufacture of the product or process shall automatically be cause for termination of this Acceptance, unless prior written approval has been requested (through the filing of a revision application with appropriate fee) and granted by this office.
5. Any of the following shall also be grounds for removal of this Acceptance:
  - a. Unsatisfactory performance of this product or process.
  - b. Misuse of this Acceptance as an endorsement of any product, for sales, advertising or any other purposes.
6. The Notice of Acceptance 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 Notice of Acceptance is displayed, then it shall be done in its entirety.
7. A copy of this Acceptance as well as approved drawings and other documents, where it applies, shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at all time. The engineer needs not reseal the copies.
8. Failure to comply with any section of this Acceptance shall be cause for termination and removal of Acceptance.
9. This Notice of Acceptance consists of pages 1, 2 and this last page 3.

**END OF THIS ACCEPTANCE**

  
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Helmy A. Makar, P.E.- Product Control Examiner  
Product Control Division

# TESTING OF ALPOLIC and ALPOLIC/FR (FIRE RATED) COMPOSITE WALL PANEL SYSTEMS FOR SOUTH FLORIDA BUILDING CODE MIAMI - DADE COUNTY, FLORIDA

## GENERAL NOTES

1. THESE ALPOLIC and ALPOLIC/fr COMPOSITE PANELS SHALL BE USED FOR WALL CONSTRUCTION ONLY. EACH ACTUAL WALL PROJECT SHALL BE CONSTRUCTED USING THE DETAILS SHOWN ON THESE DRAWINGS AS MINIMUM REQUIRED SPECIFICATIONS.
2. THE MAXIMUM DESIGN ALLOWABLE PRESSURES FOR THESE WALL PANEL SYSTEMS ARE +70.0 PSF / -90.0 PSF
3. THESE ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS ARE TESTED IN ACCORDANCE WITH THE FOLLOWING PROTOCOLS:  
PA-201-94, IMPACT TEST, SMALL MISSILE  
PA-202-94, UNIFORM STATIC AIR PRESSURE TEST  
PA-203-94, CYCLIC WIND PRESSURE TEST  
AND THEY SHALL BE INSTALLED AS SHOWN IN THESE APPROVED DRAWINGS.

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 08/09/2001  
BY Helmut H. Mader  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0318-07

## MATERIAL SPECIFICATIONS:

### ALUMINUM EXTRUSIONS

1. MATERIAL: CAY-1009 TEE, CAY-1010 FEMALE, CAY-1011 MALE, CAY-1012 STIFFENER AND CAY-1013 RETAINER ARE EXTRUDED ALUMINUM ALLOY 6063 WITH A T6 TEMPER.
2. FINISH: MILL FINISH.

### COMPOSITE PANEL

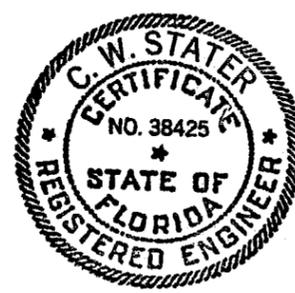
1. ALPOLIC ALUMINUM COMPOSITE METAL PANEL 4MM THICK (0.157") AND 6MM THICK (0.236") AS MANUFACTURED BY MITSUBISHI CHEMICAL AMERICA, INC., CHESAPEAKE, VA
2. ALPOLIC/fr (FIRE RATED) ALUMINUM COMPOSITE METAL PANEL 4MM THICK (0.157") AS MANUFACTURED BY MITSUBISHI CHEMICAL FUNCTIONAL PRODUCTS, INC., UEDA, JAPAN
3. CORE: THERMOPLASTIC MATERIAL WHICH IN COMPOSITE ASSEMBLY MEETS PERFORMANCE CHARACTERISTICS SPECIFIED.
4. FACE SHEETS: 0.020" ALUMINUM 3105-H14 ALLOY
5. FINISH: LUMIFLON-BASED FLUOROPOLYMER RESIN COATING.
6. MAXIMUM DIMENSIONS: 62" WIDE X 288" LONG
7. TECHNICAL DATA:

DESCRIPTION	TEST	4MM ALPOLIC	4MM ALPOLIC/fr	6MM ALPOLIC
SPECIFIC GRAVITY		1.38	1.90	1.23
WEIGHT		1.12 LB/SQ.FT	1.56 LB/SQ.FT	1.50 LB/SQ.FT
TENSILE STRENGTH	ASTM E-8	7452 PSI	5693 PSI	5399 PSI
YIELD STRENGTH	ASTM E-8	NDY	NDY	NDY
ELONGATION	ASTM E-8	16%	8%	13%
PUNCHING SHEAR RESISTANCE(1"DIA.)	ASTM D-732	4025 PSI	4637 PSI	2816 PSI
PUNCHING SHEAR MAX LOAD	ASTM D-732	1920 LBS	2259 LBS	2121 LBS
BOND INTEGRITY VERTICAL PULL	ASTM C-297	1806 PSI	427 PSI	1664 PSI
DRUM PEEL	ASTM D-1781-76	33.6 IN-LB/IN	27.6 IN-LB/IN	33.6 IN-LB/IN
FLATWISE SHEAR	ASTM C-273	1225 PSI	949 PSI	1195 PSI
RATE OF BURNING	ASTM D-635	CC1	---	---
FLAME SPREAD INDEX	ASTM E-84	00	00	00
SMOKE DEVELOPED INDEX	ASTM E-84	00	10	10
SELF IGNITION TEMPERATURE	ASTM D-1929	752°F	837°F	752°F
FLASH IGNITION TEMPERATURE	ASTM D-1929	716°F	811°F	716°F
SURFACE FLAMMABILITY	ASTM E-108-88	PASSED	PASSED	PASSED
SOUND TRANSMISSION	ASTM E-413	STC-26	---	STC-26

### FRAMING & ACCESSORIES

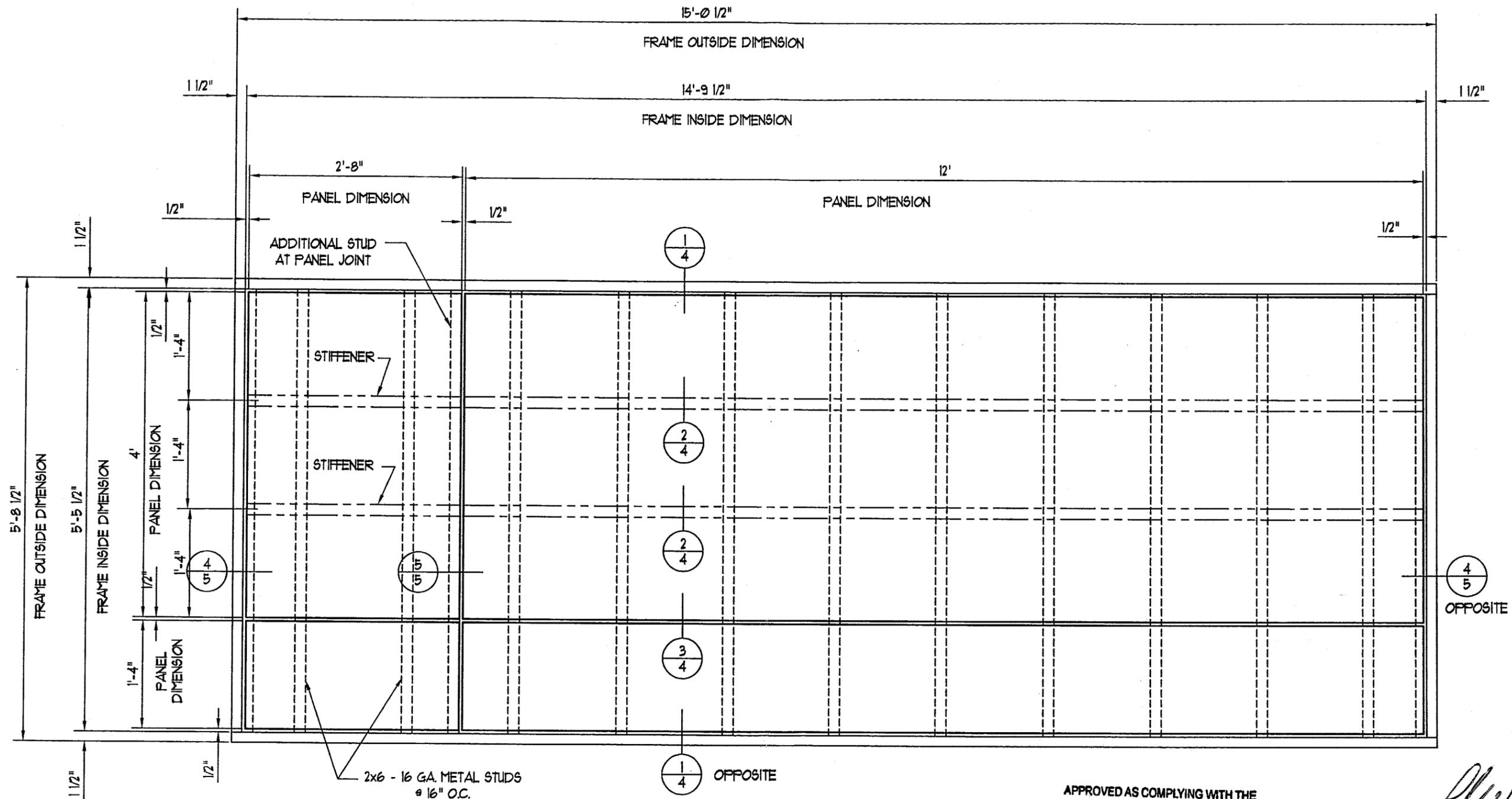
1. STEEL STUDS AND TRACKS: 16 GA. MIN. GALVANIZED STEEL WITH MIN. PROPERTIES OF 50 KSI YIELD, 65 KSI ULTIMATE.
2. STUD & TRACK FASTENERS: #12 x 1 1/2" HEX WASHER HEAD TRAXX 3 BUILDEX SCREW.
3. PANEL FASTENERS: #10 x 1" HEX WASHER HEAD TEK SCREWS SPACED AT 16" O.C.
4. STIFFENER FASTENERS: #10 x 1" HEX WASHER HEAD TEK SCREWS.
5. JOINT SILICONE: DOW CORNING #795 SILICONE SEALANT.
6. STRUCTURAL SILICONE: DOW CORNING #1199 SILICONE SEALANT.
7. BACKER ROD: 3/4" DIA. DENVER FOAM OPEN CELL BACKER ROD.
8. THE STRUCTURAL ADEQUACY OF THE 16 GA. GALVANIZED STEEL STUDS AND THE REST OF THE STRUCTURAL FRAMING SUPPORTING THE METAL PANELS IS NOT PART OF THIS PRODUCT CONTROL APPROVAL AND IT SHALL BE REVIEWED BY THE STRUCTURAL PLANS EXAMINER OF THE CORRESPONDING BUILDING DEPARTMENT.

*Helmut H. Mader*  
3-21-01



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.		CAY ARCHITECTURAL PRODUCTS	
FRACTIONS ± 1/32	DECIMALS .001 ± .01	ANGLES ± 1/2"	APPROVALS	DATE	MITSUBISHI CHEMICAL AMERICA, INC.
MATERIAL 4MM & 6MM ALPOLIC & 4MM ALPOLIC/fr	FINISH	PROJ MGMT	ENGINEERING ZB	4/16/99	ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS
DO NOT SCALE DRAWING	PRODUCTION	2/13/01	DATE	6/9/99	
SIZE D	CAGE CODE	DWG NO. 2	SCALE	REV 1	SHEET 1 OF 5

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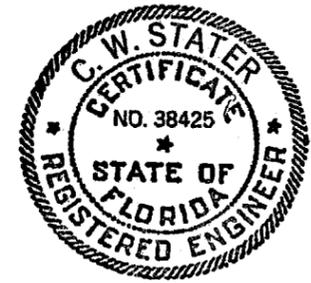


2x6 - 16 GA. METAL STUDS  
@ 16" O.C.

**PANEL ELEVATION**  
1 1/2" = 1'-0"

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 08/09/2001  
BY *Heung A. Mak*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0318-07

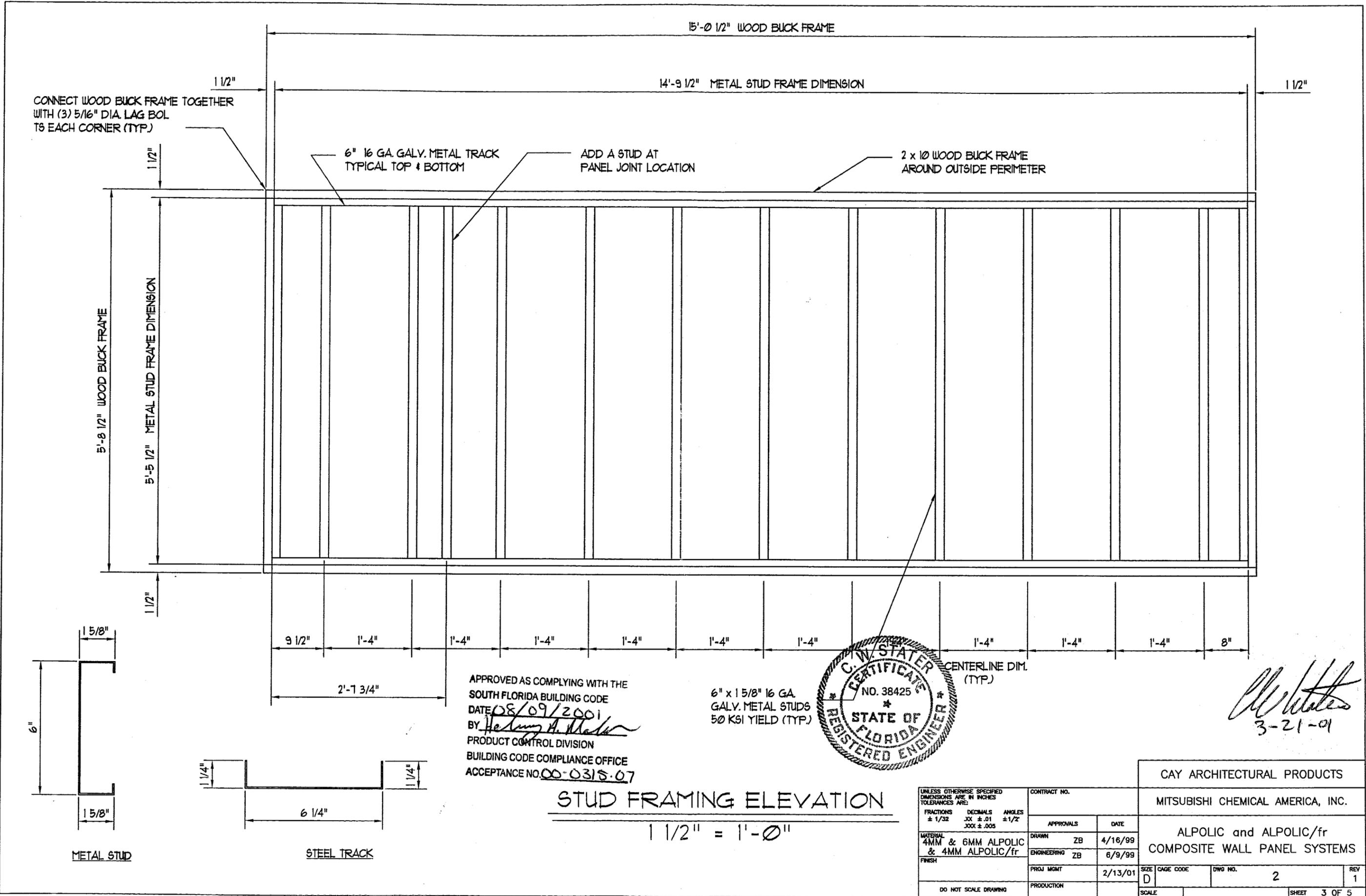
*Allen H*  
3-21-01



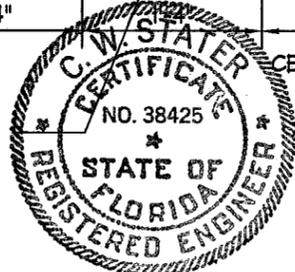
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FRACTIONS ± 1/32	DECIMALS .XX ± .01 .XXX ± .005	APPROVALS	DATE
MATERIAL 4MM & 6MM ALPOLIC & 4MM ALPOLIC/fr	FINISH	DRAWN ZB	4/16/99
		ENGINEERING ZB	6/9/99
		PROJ MGMT	2/13/01
		PRODUCTION	
DO NOT SCALE DRAWING			

CAY ARCHITECTURAL PRODUCTS			
MITSUBISHI CHEMICAL AMERICA, INC.			
ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS			
SIZE D	CAGE CODE	DWG NO. 2	REV 1
SCALE		SHEET 2 OF 5	

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APPROVED AS COMPLYING WITH THE SOUTH FLORIDA BUILDING CODE  
 DATE 08/09/2001  
 BY *Heather H. Maden*  
 PRODUCT CONTROL DIVISION  
 BUILDING CODE COMPLIANCE OFFICE  
 ACCEPTANCE NO. 00-0315-07



*C. W. Stater*  
 3-21-01

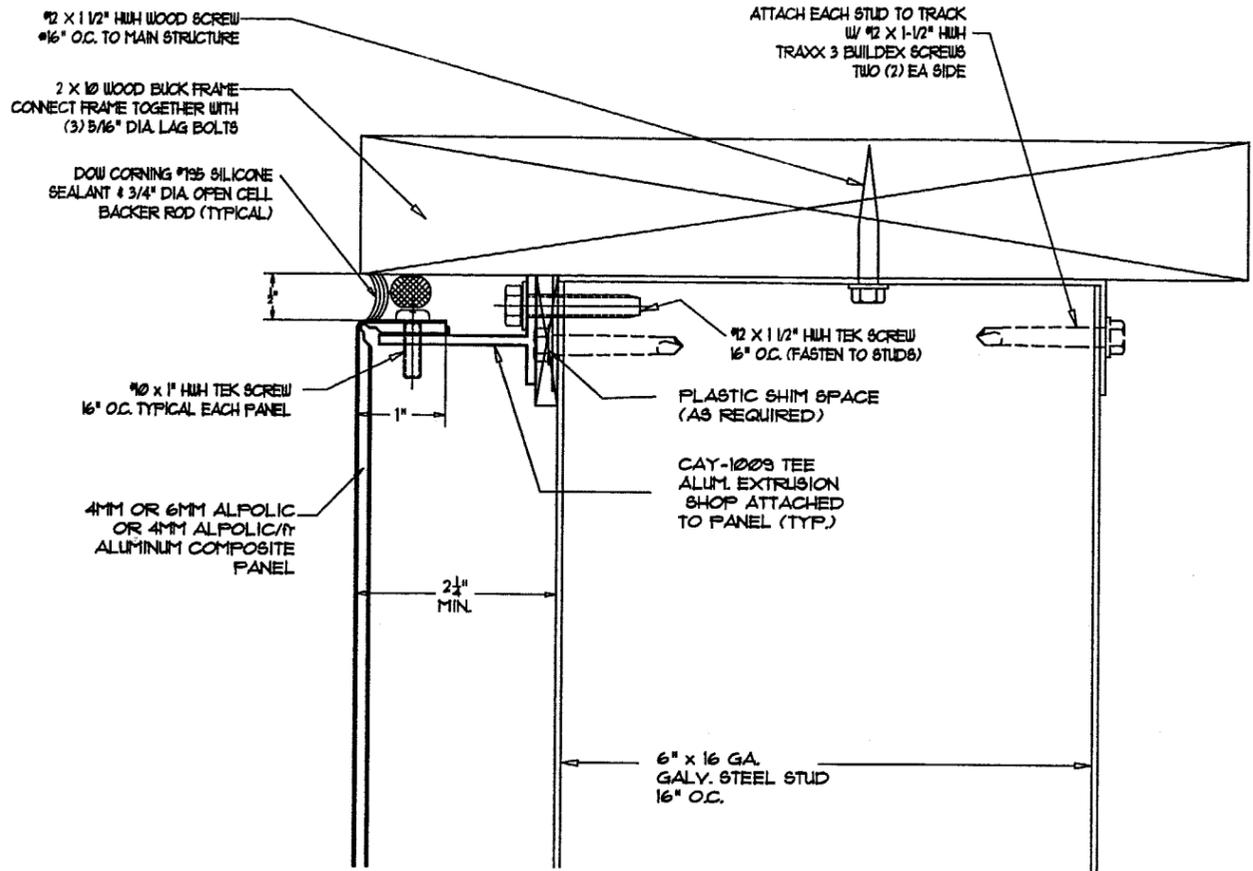
**STUD FRAMING ELEVATION**

1 1/2" = 1'-0"

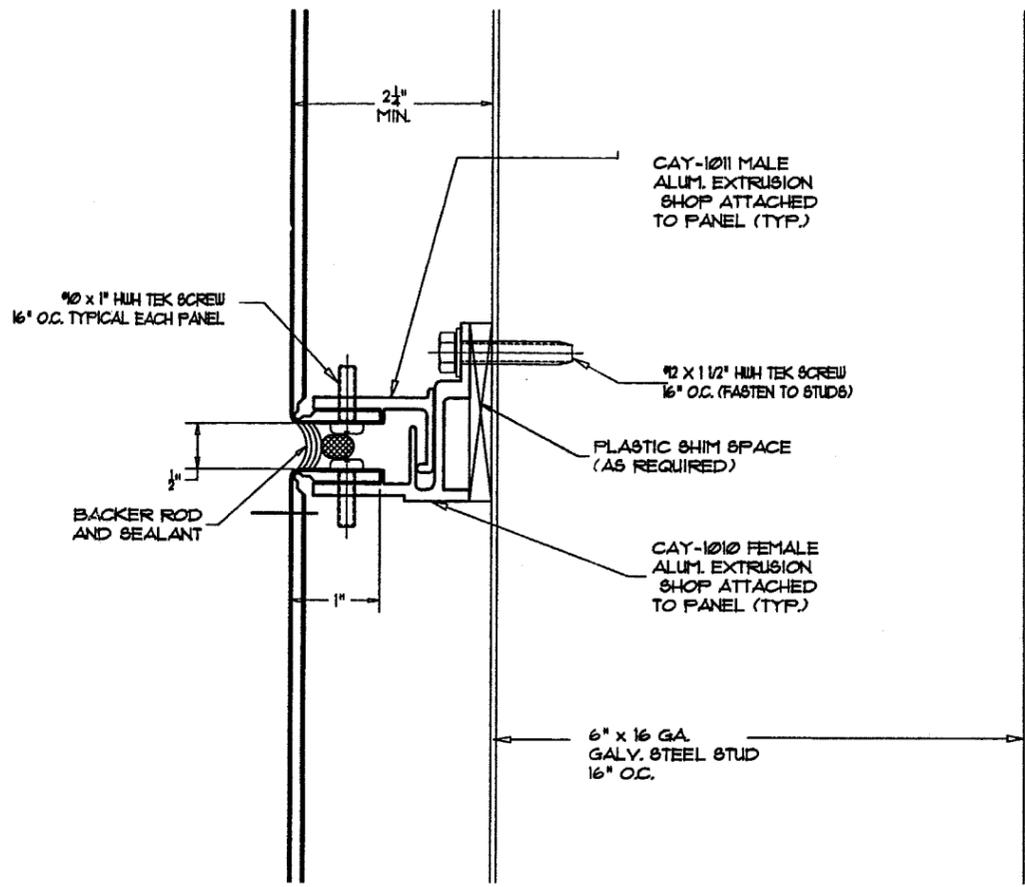
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FRACTIONS ± 1/32	DECIMALS .XX ± .01	ANGLES ± 1/2°	APPROVALS	DATE
MATERIAL 4MM & 6MM ALPOLIC & 4MM ALPOLIC/fr			DRAWN ZB	4/16/99
FINISH			ENGINEERING ZB	6/9/99
DO NOT SCALE DRAWING			PROJ MGMT	2/13/01
			PRODUCTION	

CAY ARCHITECTURAL PRODUCTS			
MITSUBISHI CHEMICAL AMERICA, INC.			
ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS			
SIZE D	CAGE CODE	DWG NO. 2	REV 1
SCALE		SHEET 3 OF 5	

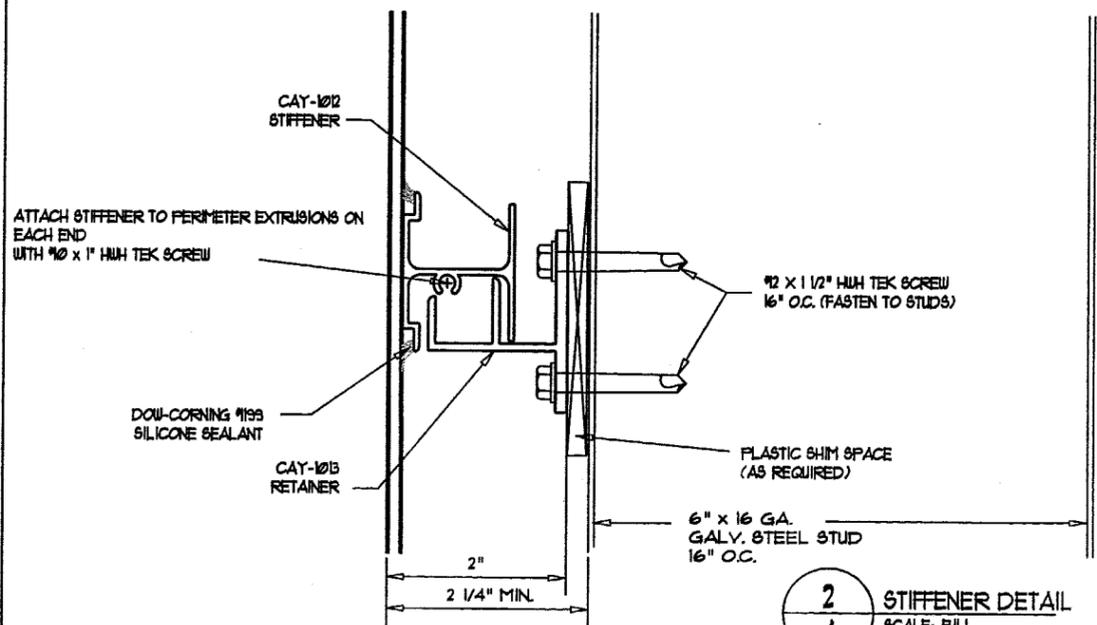
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1  
4  
DETAIL  
SCALE: FULL



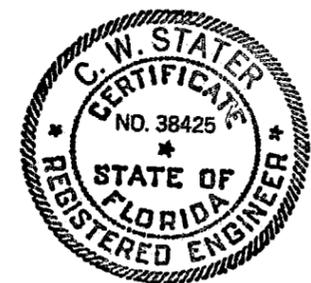
3  
4  
JOINT DETAIL  
SCALE: FULL



2  
4  
STIFFENER DETAIL  
SCALE: FULL

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 08/09/2001  
BY *Hector A. W. [Signature]*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0315-07

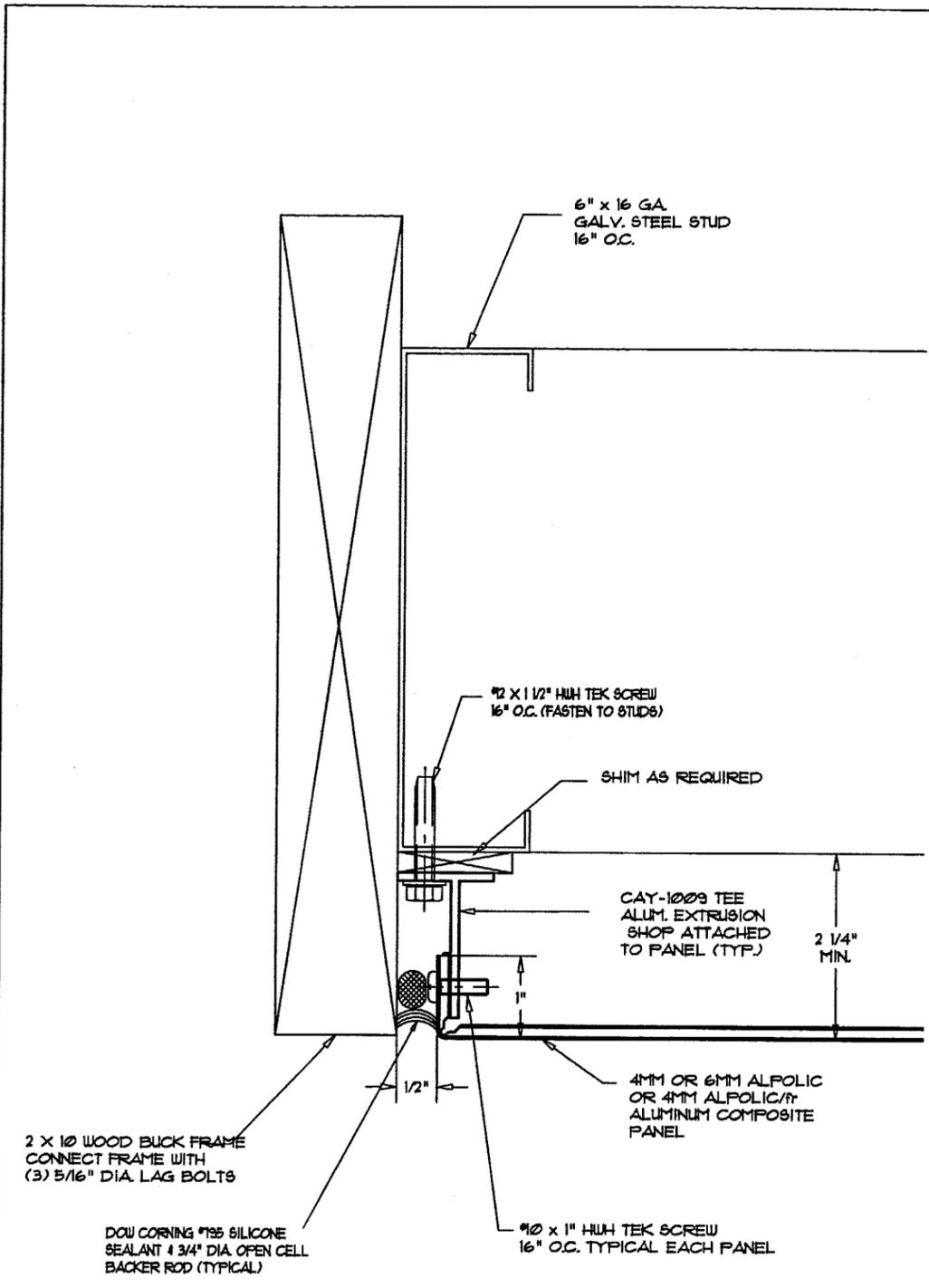
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3-21-01



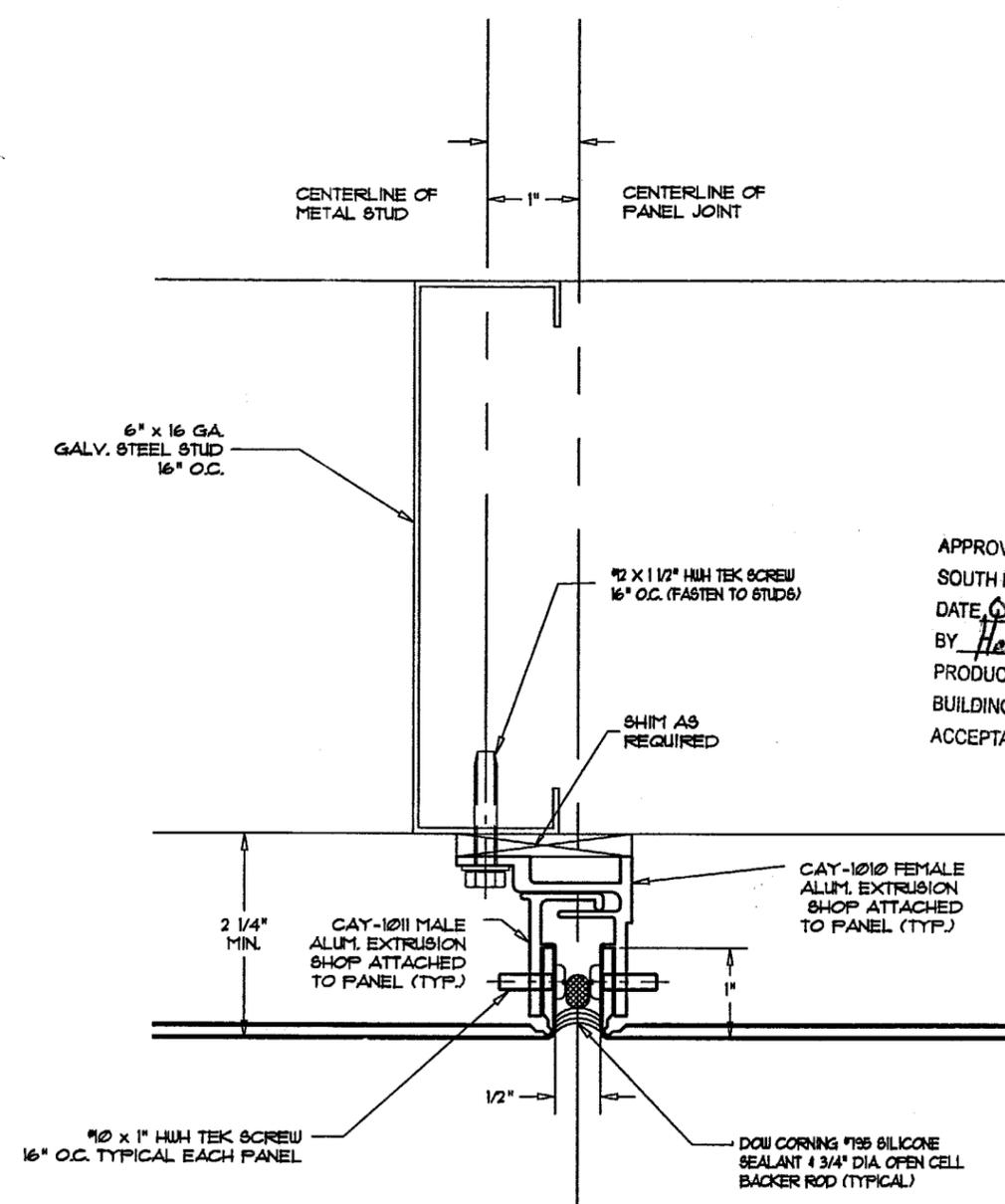
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FRACTIONS ± 1/32	DECIMALS XXX ± .01	ANGLES ± 1/2°	APPROVALS	DATE
MATERIAL 4MM & 6MM ALPOLIC & 4MM ALPOLIC/fr	FINISH	PROJ MGMT	DATE	DATE
		PRODUCTION	2/13/01	4/16/99
DO NOT SCALE DRAWING				6/9/99

CAY ARCHITECTURAL PRODUCTS				
MITSUBISHI CHEMICAL AMERICA, INC.				
ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS				
SIZE D	CAGE CODE	DWG NO. 2	REV 1	
SCALE			SHEET 4 OF 5	

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**4**  
**5** DETAIL  
SCALE: FULL



**5**  
**5** DETAIL  
SCALE: FULL

APPROVED AS COMPLYING WITH THE  
SOUTH FLORIDA BUILDING CODE  
DATE 08/09/2001  
BY *Heating H. Hester*  
PRODUCT CONTROL DIVISION  
BUILDING CODE COMPLIANCE OFFICE  
ACCEPTANCE NO. 00-0315.07

*White*  
3-21-01



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:		CONTRACT NO.	
FRACTIONS ± 1/32	DECIMALS .XX ± .01	APPROVALS	DATE
ANGLES ± 1/2°	.XXX ± .003	DRAWN ZB	4/18/99
MATERIAL 4MM & 6MM ALPOLIC & 4MM ALPOLIC/fr		ENGINEERING ZB	6/9/99
FINISH		PROJ MGMT	2/13/01
DO NOT SCALE DRAWING		PRODUCTION	

CAY ARCHITECTURAL PRODUCTS			
MITSUBISHI CHEMICAL AMERICA, INC.			
ALPOLIC and ALPOLIC/fr COMPOSITE WALL PANEL SYSTEMS			
SIZE D	CAGE CODE	DWG NO. 2	REV 1
SCALE			SHEET 5 OF 5