



MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING

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

PRODUCT CONTROL NOTICE OF ACCEPTANCE

Howard Shutter Company
10816 S.W. 188 St
Miami FL 33157-6780

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

CONTRACTOR ENFORCEMENT SECTION
(305) 375-2966 FAX (305) 375-2908

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

Your application for Product Approval of:

18 Ga. Galvanized Steel Storm Panels Shutter

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 approval shall not be valid after the expiration date stated below. BCCO reserves the right to secure this product or material at anytime 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 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.

Acceptance No.: 00-0320.02

Expires: 05/08/2003

Raul Rodriguez
Chief Product Control Division

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 Dade County, Florida under the conditions set forth above.

Francisco J. Quintana, R.A.
Director

Miami-Dade County
Building Code Compliance Office

Approved: 05/26/2000



Howard Shutter Company

ACCEPTANCE No. : 00-0320.02

APPROVED : MAY 26 2000

EXPIRES : 05/08/2003

NOTICE OF ACCEPTANCE: STANDARD CONDITIONS

1. SCOPE

This renews the Notice of Acceptance, No. 97-0410.06, which was issued on May 8, 1997. It approves an 18 gauge galvanized steel storm panels shutter, 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 pressure requirements, as determined by SFBC Chapter 23, do not exceed the Design Pressure Rating values indicated in the approved drawings.

2. PRODUCT DESCRIPTION

This 18 gauge galvanized steel storm panels shutter and its components shall be constructed in strict compliance with the following documents: Drawing No. 97-153, titled "18 gauge Steel Storm Panel", prepared by Knezevich & Associates, Inc., dated April 4, 1997, last revision # 1 dated April 4, 1997, sheets 1 and 2 of 2, bearing the Miami-Dade County Product Control Approval and Renewal stamps with the Notice of Acceptance numbers and approval dates 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, included but not limited to embedded anchor bolts, threaded cones, metal shields, headers and sills, must be protected against corrosion, contamination and damage at all times.

4. INSTALLATION

This 18 gauge galvanized steel storm panels shutter 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

Howard Shutter Company

ACCEPTANCE No. : 00-0320.02

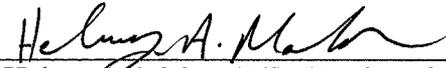
APPROVED : MAY 26 2000

EXPIRES : 05/08/2003

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 times. 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



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



KNEZEVICH & ASSOCIATES, INC.
 CONSULTING ENGINEERS & PRODUCT TESTING
 641 HOKENA DRIVE 2701 W. OAKLAND PK. BLVD.
 MIAMI SPRINGS, FL 33166 SUITE 240 FT. LAUDERDALE, FL 33311
 PHONE: (305) 883-9571 PHONE: (954) 677-9500
 FAX: (305) 883-9572 PHONE: (954) 677-9500
 COPY RIGHT 1997 KNEZEVICH & ASSOCIATES, INC.

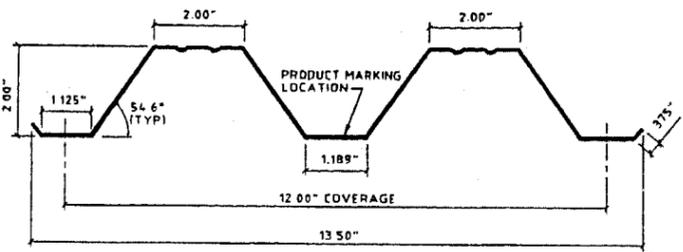
18 GAUGE STEEL STORM PANEL
HOWARD
 SHUTTER COMPANY
 10016 S.W. 188th STREET
 MIAMI, FL 33157
 (305) 235-0182

revisions	no.	date	by	description
1	4/4/97	NO		REV. FROM 94-123

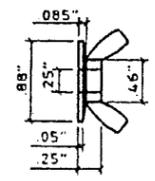
V.J. KNEZEVICH
 PROFESSIONAL ENGINEER
 FL License No:
 PE 0019983
 APR 4 1997
 date 4/4/97
 scale AS NOTED drawn by GG
 design by VJK checked by VJK
 drawing no.
 97-153
 sheet 1 of 2

NOTES

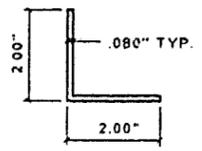
- THIS SHUTTER SYSTEM IS DESIGNED IN ACCORDANCE WITH THE SOUTH FLORIDA BUILDING CODE, 1994 EDITION.
- POSITIVE AND NEGATIVE DESIGN PRESSURE CALCULATIONS SHALL BE PERFORMED IN ACCORDANCE WITH ASCE 7-88 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".
- STORM PANELS SHALL BE 18 GAUGE STEEL, (t = .045"), CONFORMING TO ASTM A446, STRUCTURAL QUALITY, GRADE C, WITH A MIN. Fy = 40 KSI BEFORE ROLLING, GALVANIZED IN ACCORDANCE WITH ASTM G90. ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, U.O.N
- PRODUCT MARKINGS SHALL BE WITHIN 12" OF ONE END OF THE PANEL. WITH A MIN. OF ONE MARKING PER PANEL (SEE STORM PANEL DETAIL 1 FOR LOCATION), AND SHALL BE LABELED AS FOLLOWS.
HOWARD SHUTTER COMPANY
MIAMI, FL.
DADE COUNTY PROD. APPRD.
- ALL BOLTS AND WASHERS SHALL BE STAINLESS STEEL WITH A MINIMUM Fy = 33 KSI.
- ALL PANELS SHALL BE FASTENED AT OVERLAPS AT 1/3 POINTS; HOWEVER, PANEL SPANS SMALLER THAN 48" MAY BE FASTENED AT MIDSPAN. FASTENERS SHALL BE 1/4"-20 x 1" SIDEWALK BOLTS W/ DIE CAST ALUMINUM WASHERED WINGNUTS.
- MATERIAL SPECIFICATIONS NOTED HEREIN ARE THE MANUFACTURER'S REPRESENTATION OF MATERIALS TO BE USED IN PRODUCT TESTING
- THE DETAILS AND SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS PROPOSED FOR IMPACT, CYCLIC AND UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH DADE COUNTY PROTCODLS PA 201, 203, AND 202, WITH DESIGN LOADS AS FOLLOWS:
 - POSITIVE DESIGN LOAD 72 PSF
 - NEGATIVE DESIGN LOAD 72 PSF
 THE DADE COUNTY CERTIFIED TESTING LABORATORY PERFORMING THESE TESTS SHALL ACKNOWLEDGE THE SATISFACTORY COMPLETION OF SUCH TESTS AND VERIFY THE PRODUCTS TESTED ARE AS NOTED HEREIN.
- A WARNING NOTE SHALL BE PERMANENTLY PLACED ON EACH PANEL OR SILL OF THE SHUTTERS ADVISING THE HOME OWNER OR TENANT THAT THE STORM PANELS WILL NOT OFFER HURRICANE PROTECTION UNLESS ALL REINFORCING BOLTS ARE PROPERLY INSTALLED.



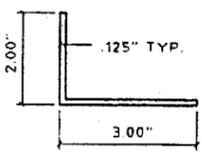
1 STORM PANEL
 SCALE: 3" = 1'-0"



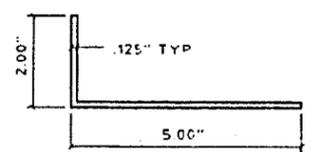
2 WINGNUT
 SCALE: HALF SIZE



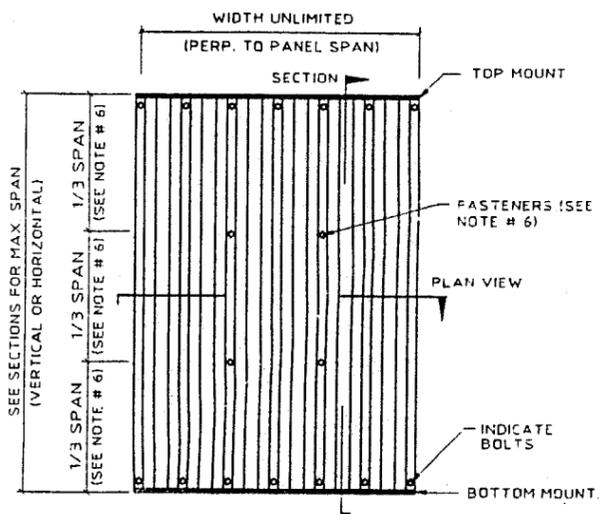
3 ANGLE
 SCALE: 3" = 1'-0"



4 ANGLE
 SCALE: 3" = 1'-0"



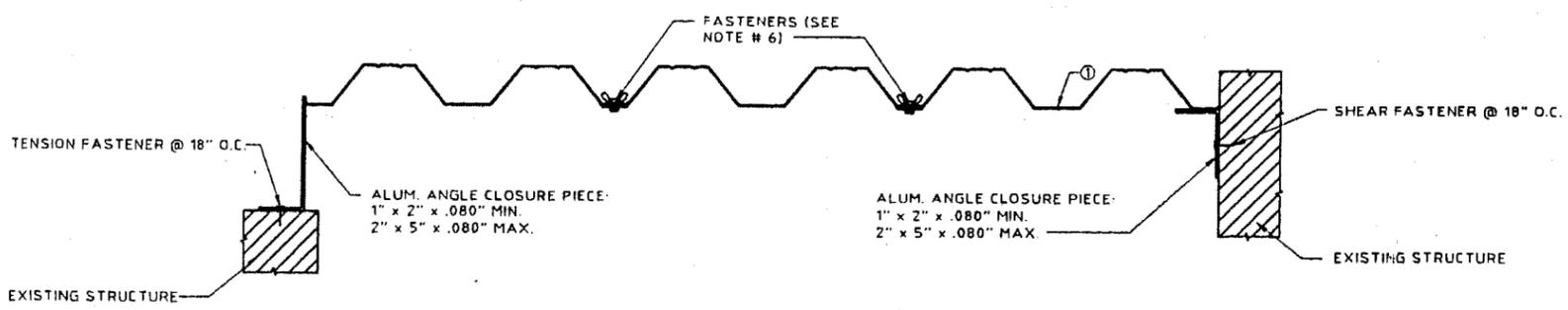
5 ANGLE
 SCALE: 3" = 1'-0"



TYPICAL ELEVATION
 N.T.S.

ANCHOR SCHEDULE			
LOADING CONDITION	TENSION FASTENERS		SHEAR FASTENER
EXISTING STRUCTURE	CONCRETE OR HOLLOW BLOCK	WOOD FRAMING	CONCRETE OR HOLLOW BLOCK
ANCHOR TYPE	RAWL DROP-IN	WOOD LAG SCREW	RAWL CALK-IN
DIAMETER	1/4"	1/4"	1/4"
MIN EMBEDMENT *	1-1/4"	1-1/2"	1-1/4"

* MIN. EMBEDMENT EXCLUDES WALL FINISH OR STUCCO.

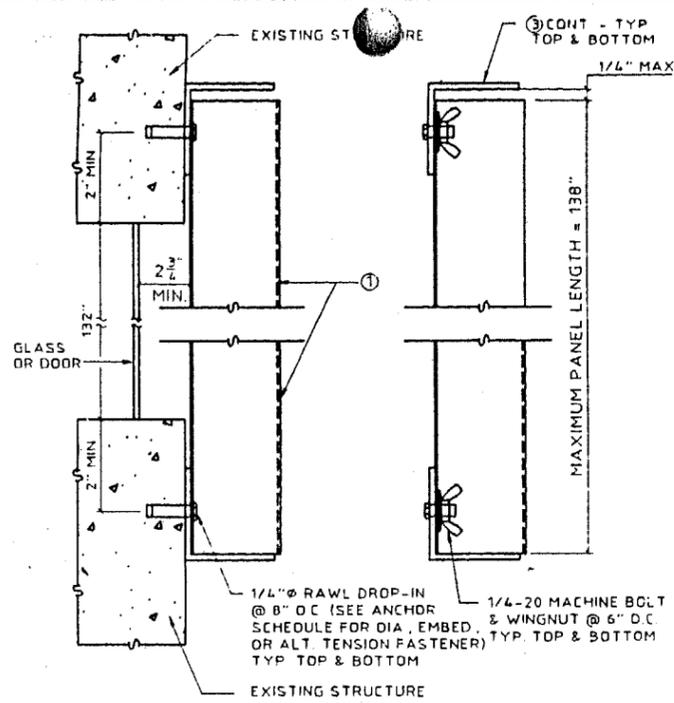


PLAN VIEW
 SCALE: 1-1/2" = 1'-0"

PRODUCT RENEWED

ACCEPTANCE No. 00-0320.02
 EXPIRATION DATE May 08, 2003
 By Helmut A. Miller
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE

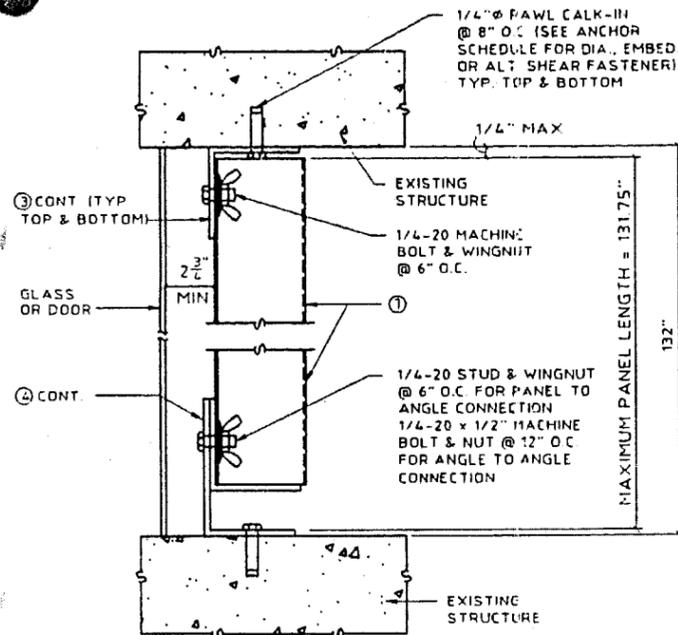
APPROVED AS COMPLYING WITH THE
 SOUTH FLORIDA BUILDING CODE
 DATE MAY 8 1997
 BY Mammie Pines
 PRODUCT CONTROL DIVISION
 BUILDING CODE COMPLIANCE OFFICE
 ACCEPTANCE NO. 97-0410.06



ANGLE TO WALL DETAIL PANEL TO ANGLE DETAIL

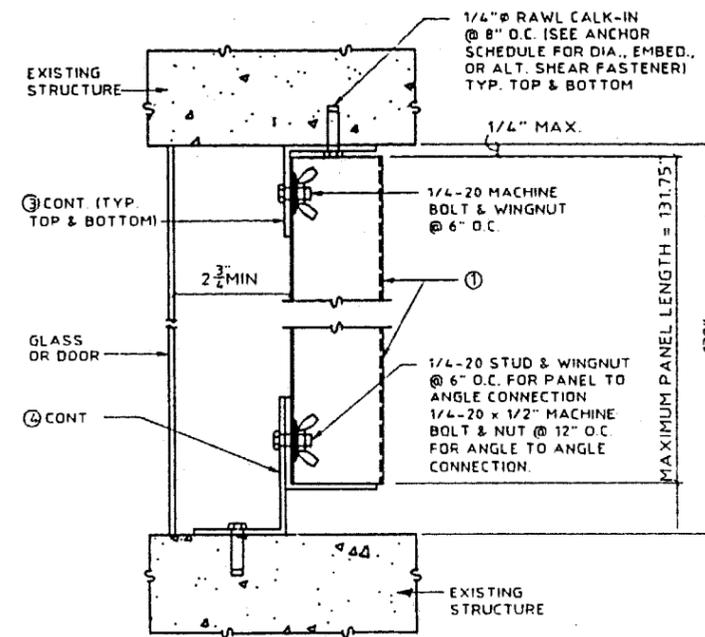
WALL MOUNT SECTION

SCALE: 1/4" = 0'-1"



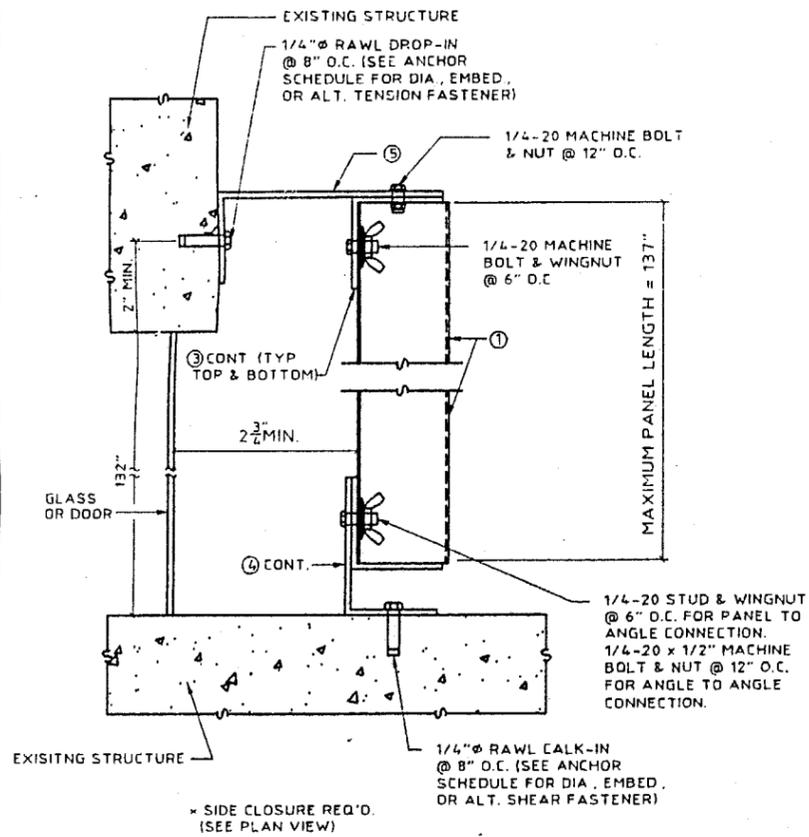
CEILING/INSIDE MOUNT SECTION

SCALE: 1/4" = 0'-1"



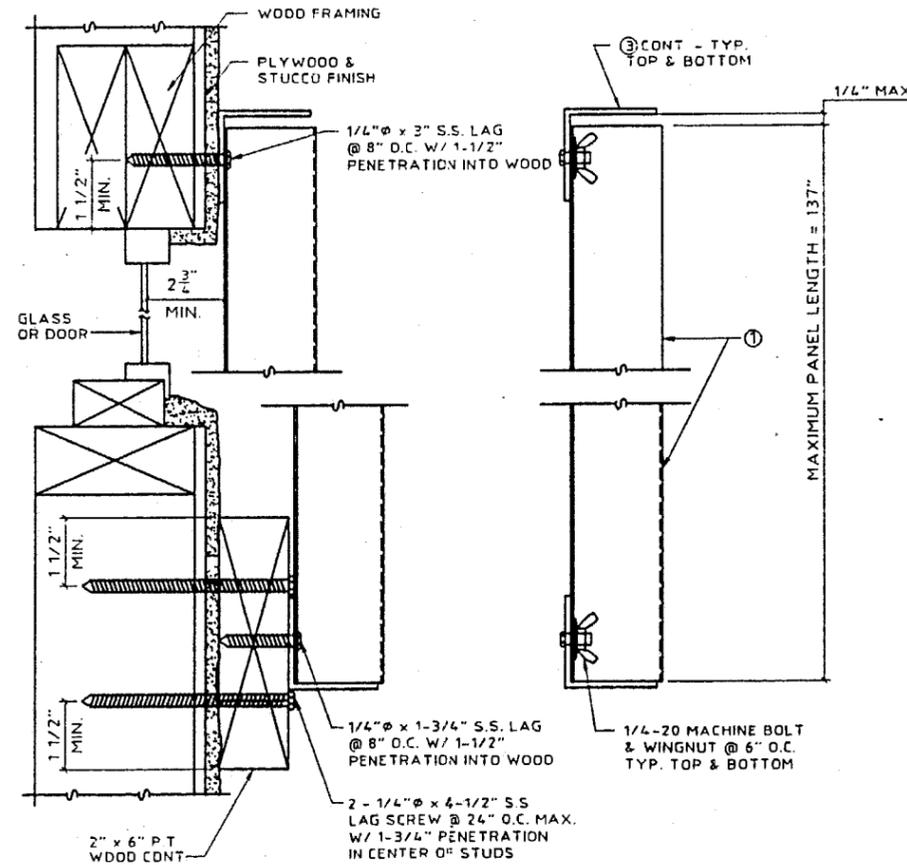
ALT. CEILING/INSIDE MOUNT SECTION

SCALE: 1/4" = 0'-1"



BUILD-OUT MOUNT SECTION

SCALE: 1/4" = 0'-1"



ANGLE TO WALL DETAIL

PANEL TO ANGLE DETAIL

WALL MOUNT SECTION

SCALE: 1/4" = 0'-1"

PRODUCT RENEWED

ACCEPTANCE No. 00-0320.02

EXPIRATION DATE May 08, 2003

By William H. Weber

PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

APPROVED AS COMPLYING WITH THE
SOUTH FLORIDA BUILDING CODE

DATE MAY 8 1997

BY William H. Weber

PRODUCT CONTROL DIVISION
BUILDING CODE COMPLIANCE OFFICE

ACCEPTANCE NO. 97-0410.06



KNEZEVICH & ASSOCIATES, INC.
CONSULTING ENGINEERS & PRODUCT TESTING
641 HOKENA DRIVE
MIAMI SPRINGS, FL 33166
PHONE: (305) 883-9571
FAX: (305) 883-9572
2701 W. DAKLAND PK. BLVD.
SUITE 240
FT. LAUDERDALE, FL 33311
PHONE: (954) 677-9500
COPYRIGHT 1997 KNEZEVICH & ASSOCIATES, INC.

18 GAUGE STEEL STORM PANEL
HOWARD
BRITNER COMPANY
10816 S.W. 188th STREET
MIAMI, FL 33157
(305) 235-0182

revisions	no.	date	description
1	4/2/97	MD	REV. FROM 94-123

V.J. KNEZEVICH
PROFESSIONAL ENGINEER
FL License No:
PE 001983
William H. Weber
APR 4 1997
date 4/4/97
scale AS NOTED
design by VJK
checked by VJK
drawing no. 97-153
sheet 2 of 2