

GENERAL NOTES:

1. BERTHA H.V. BAHAMA SHUTTER SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2007 EDITION OF THE FLORIDA BUILDING CODE. THIS BAHAMA SHUTTER SHALL NOT BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES. (MIAMI DADE/ BROWARD COUNTY) DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE MENTIONED CODE. FOR A BASIC WIND SPEED NOT TO EXCEED 140 m.p.h., AND AS REQUIRED BY THE JURISDICTION WHERE SHUTTER WILL BE INSTALLED IN ACCORDANCE WITH ASCE 7-05 STANDARD. IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. HOWEVER, FOR CONNECTIONS INTO WOOD, A 1.60 WIND LOAD DURATION FACTOR WAS USED TO CALCULATE SCREWS SPACINGS.
 2. SEE MAXIMUM PRESSURE RATINGS & MAXIMUM SHUTTER DIMENSIONS ON SCHEDULE ON SHEET 7.
 3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER, WITH $F_y = 25.0$ ksi MINIMUM (UNLESS OTHERWISE NOTED).
 4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH.
 5. BOLTS TO BE AISI 304 SERIES STAINLESS STEEL WITH 35 ksi MINIMUM YIELD STRENGTH.
 6. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.
 7. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)
 - (A) TO EXISTING WOOD UNITS: SOUTHERN PINE No.2, G=0.55.
 - $1/4"$ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDX, INC.
 - $1/4" \times 1\ 7/16"$ PANELMATE INSERTS AS MANUFACTURED BY ELCO FASTENING SYSTEMS, LLC.
- NOTES:
- A.1) MINIMUM THREADED PENETRATION OF TAPCON ANCHORS INTO WOOD SHALL BE $1\ 1/2"$.
 - A.2) MINIMUM THREADED PENETRATION OF PANELMATE INSERT INTO WOOD SHALL BE $1\ 5/8"$.
 - A.3) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1 AND A.2).
 - (B) TO EXISTING POURED MIN. $f_c=3192$ psi. CONCRETE OR CONCRETE ASTM C-90 BLOCK UNITS:
 - $1/4"$ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDX, INC.
 - $1/4" \times 3/4"$ ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
 - $1/4" \times 1\ 7/16"$ PANELMATE INSERTS AS MANUFACTURED BY ELCO FASTENING SYSTEMS, LLC.
 - B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO POURED CONCRETE SHALL BE $1\ 3/4"$ OR CONCRETE HOLLOW BLOCK SHALL BE $1\ 1/4"$.
 - B.2) MINIMUM EMBEDMENT OF $1/4" \times 3/4"$ ALL POINTS SOLID-SET ANCHORS INTO POURED CONCRETE SHALL BE $7/8"$ OR INTO CONCRETE HOLLOW BLOCK SHALL BE ENTIRELY EMBEDDED. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. $1/4" \times 20$ S.S. MACHINE SCREW USED SHALL BE $1\ 1/2"$ LONG MINIMUM SHOULD STUCCO EXIST, AND $1"$ MINIMUM FOR WALLS WITH NO STUCCO.

B.3) MINIMUM EMBEDMENT OF PANELMATE INSERTS INTO CONCRETE OR CONCRETE BLOCK SHALL BE $1\ 5/8"$ FOR CONCRETE AND $1\ 1/4"$ FOR BLOCK, RESPECTIVELY. $1/4" \times 20$ S.S. TRUSS HEAD MACHINE SCREW USED SHALL BE $1\ 1/4"$ LONG SHOULD STUCCO EXIST, AND $1"$ MINIMUM FOR WALLS WITH NO STUCCO.

B.4) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES B.1, B.2 AND B.3).

(C) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

8. EACH SHUTTER SHALL HAVE A LEGIBLE AND READILY VISIBLE MARKING INSTRUCTING OWNER OR TENANT TO SECURE SHUTTER WITH SILL BRACKETS DURING PERIODS OF HURRICANE WARNINGS.

9. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. CONTRACTOR TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.

10. BERTHA H.V. BAHAMA SHUTTER'S INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

11. SHUTTER'S MANUFACTURER LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT EXPOSED SURFACE OF THE BAHAMA FRAME (A), (B) OR (C) IN ACCORDANCE WITH SECTION 1714.8.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1714.8.2 OF THE FLORIDA BUILDING CODE.

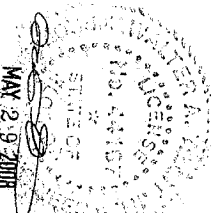
12. (G) THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I. e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS PRODUCT EVALUATION DOCUMENT PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

(c) THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

(e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



F.B.C. McN on High Velocity Hurricane Zone

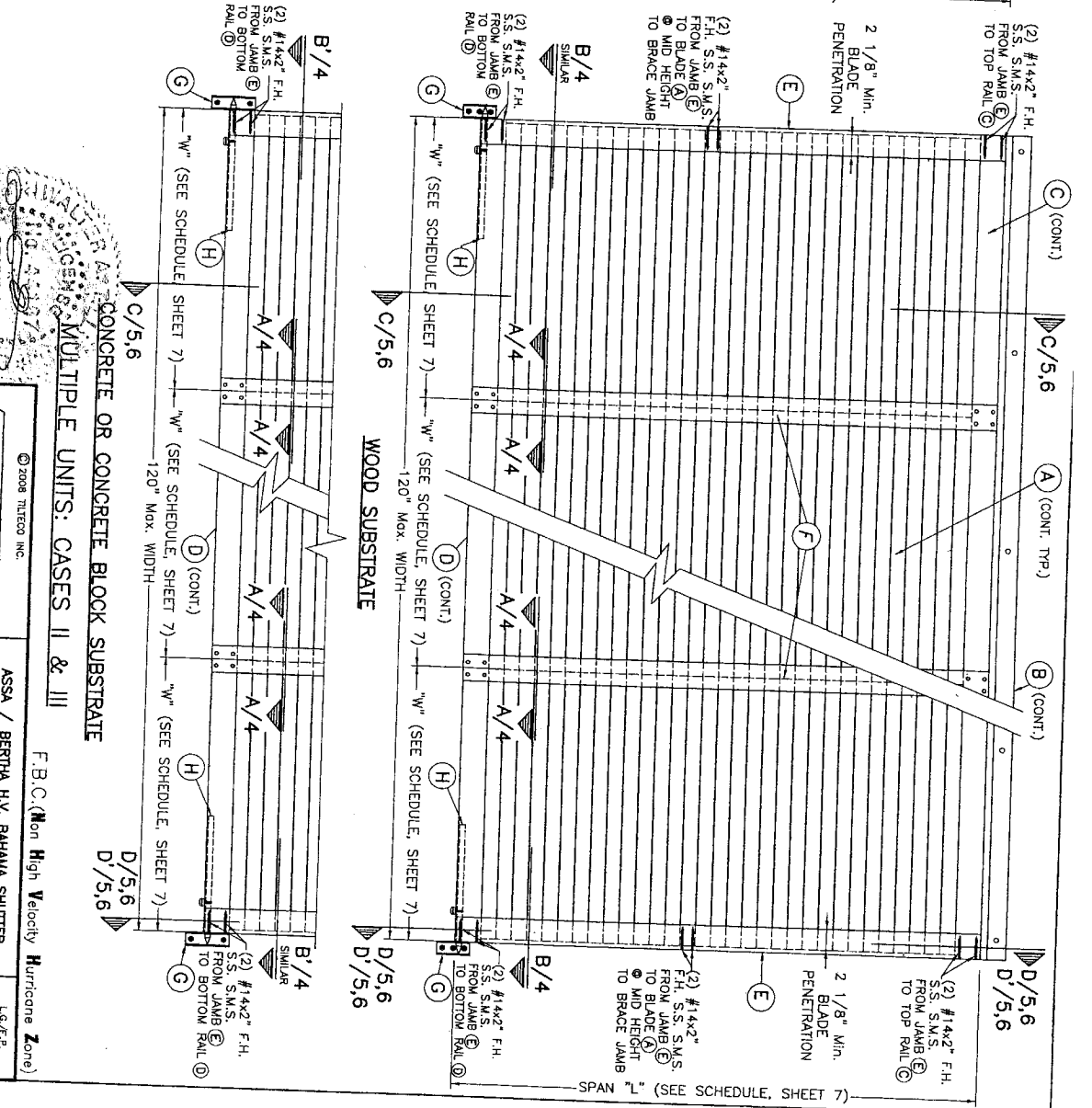
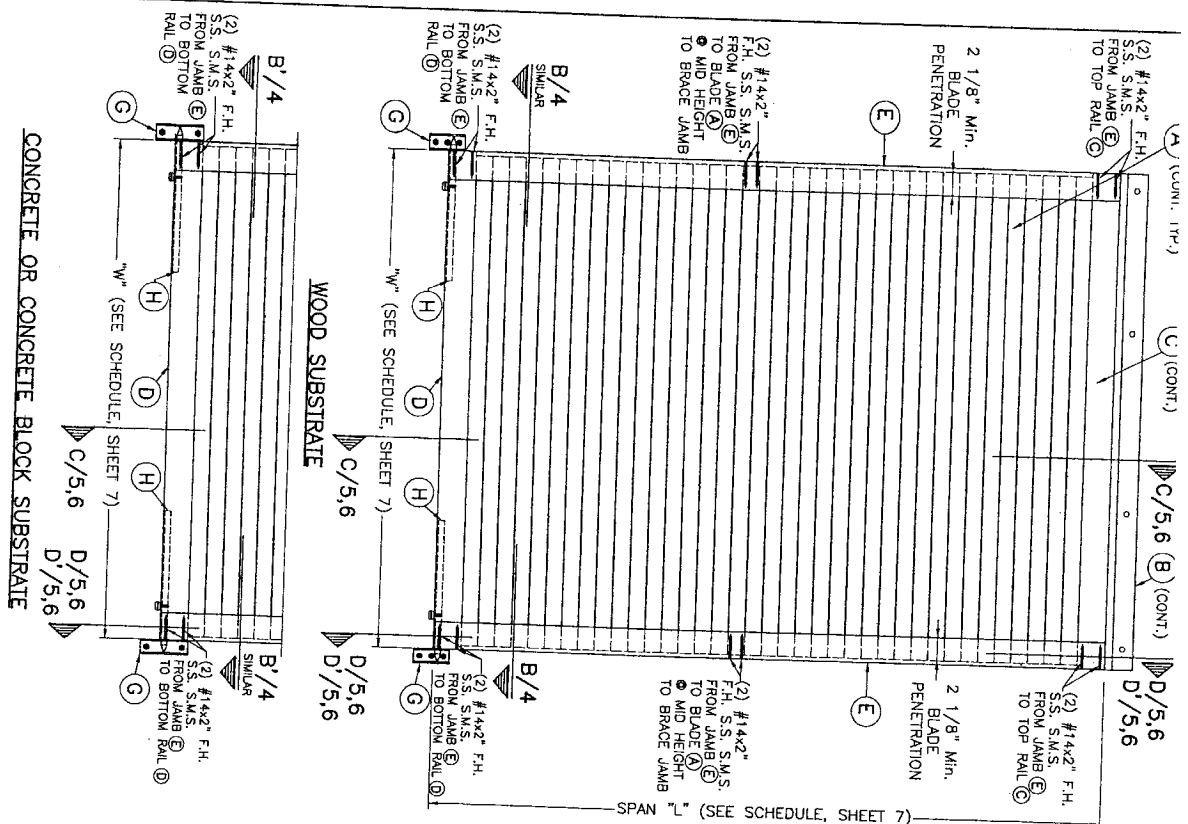
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NO. 1	DESCRIPTION	DATE	BY

L.E.P.P.
DRAWN BY
DATE
08-1-15
DRAWING No

SHEET 1 OF 7



SINGLE UNITS: CASE I

ELEVATIONS FOR INSTALLATIONS WITH EXTERIOR LOCKING ROD (H) FIXATION

MAR 29 2008

TILETECO INC.

ASSA / BERTHA HV. BAHAMA SHUTTER

L.G./F.F. DRAWN BY DATE 5/18/08

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 e-mail: tiletest@tiletest.com
 WALTER ED. COOK III P. E.
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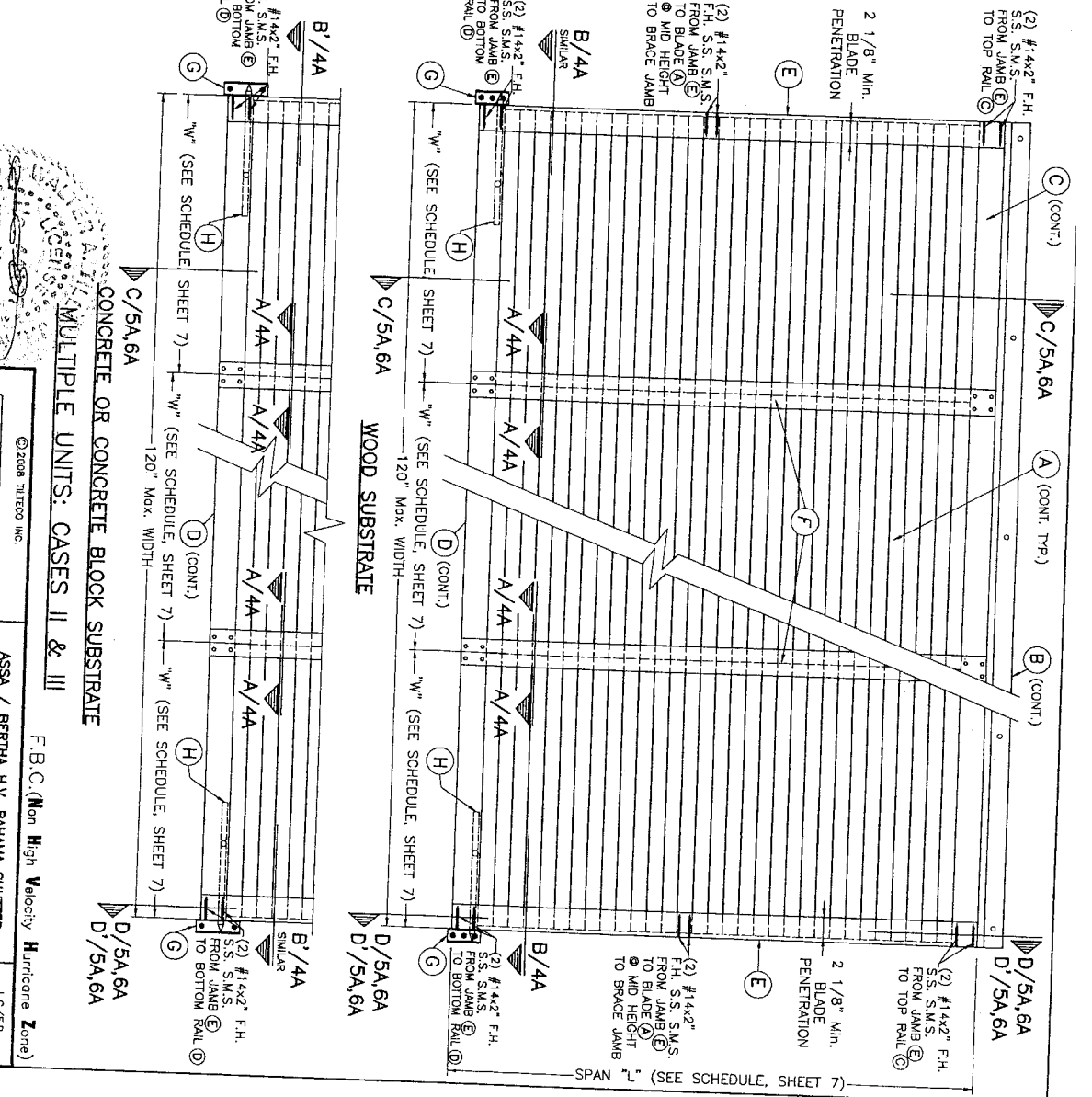
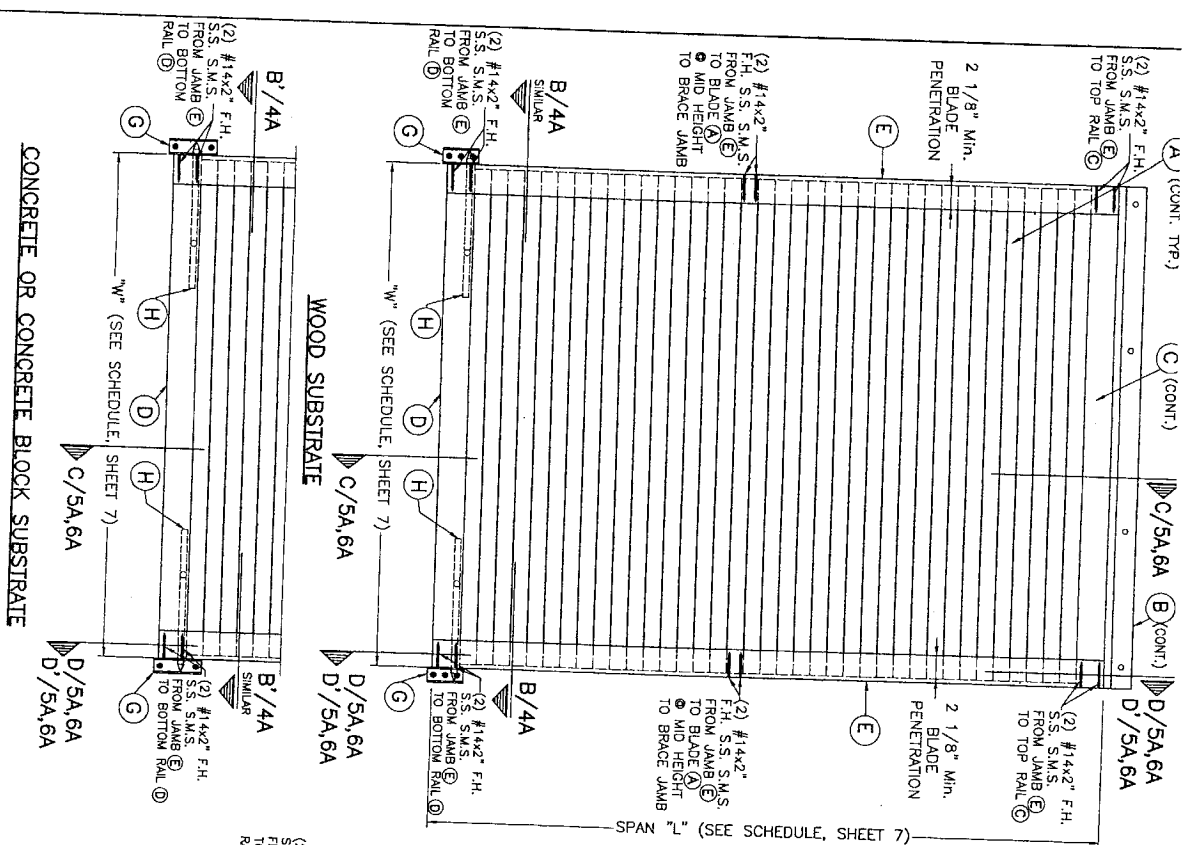
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REV.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR PERMIT	5/18/08	W.E.C.	W.E.C.
2	REVISION			

F.B.C. (Non High Velocity Hurricane Zone)

08-1155 DRAWING NO

SHEET 3 OF 7



SINGLE OR CONCRETE BLOCK SUBSTRATE

MULTIPLE UNITS: CASES II & III

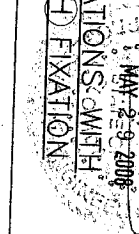
CONCRETE OR CONCRETE BLOCK SUBSTRATE

CONCRETE OR CONCRETE BLOCK SUBSTRATE

CONCRETE OR CONCRETE BLOCK SUBSTRATE

ELEVATIONS FOR INSTALLATIONS WITH INTERIOR LOCKING ROD (H) FIXATION

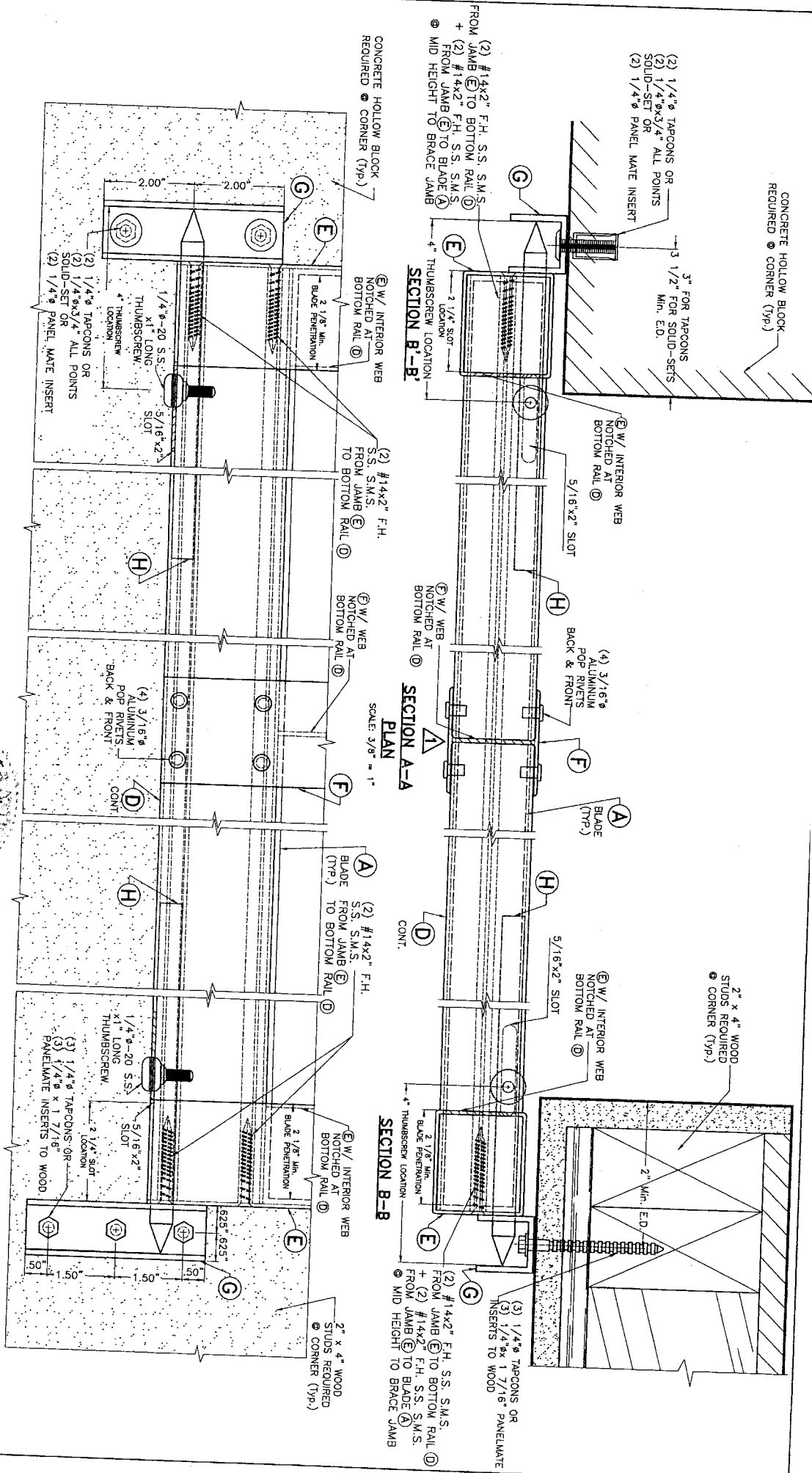
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REV.	NO.	DESCRIPTION	DATE	BY
1	1	ISSUED FOR PERMIT	05/19/08	3
2	2	REVISED		4

DATE: 5/19/08
 DRAWN BY: L.C.F.P.
 CHECKED BY: [Signature]
 SHEET 3A OF 7



ELEVATION A-A
 SCALE 3/8" = 1'-0"

SECTION A-A
 SCALE 3/8" = 1'-0"

SECTION B-B
 SCALE 3/8" = 1'-0"

PLAN
 SCALE 3/8" = 1'-0"

E.B.C. (Non High Velocity Hurricane Zone)

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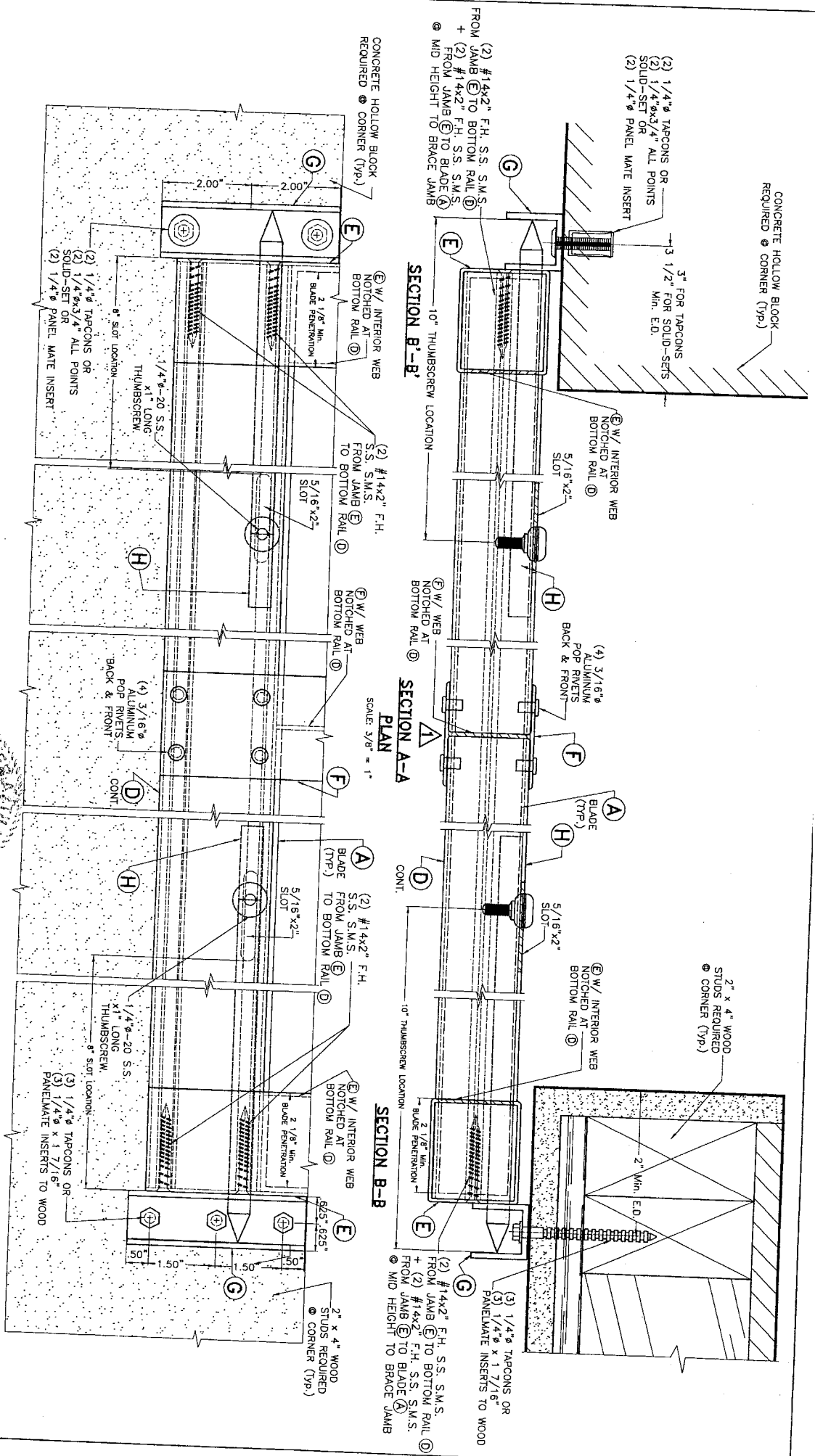
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REV.	DATE	DESCRIPTION	BY	CHECKED
1				
2				
3				

DATE: 5/15/08
 DRAWING NO: 08-155
 SHEET 4 OF 7

MAY 29 2008



ELEVATION A
SCALE: 3/8" = 1"

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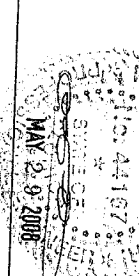
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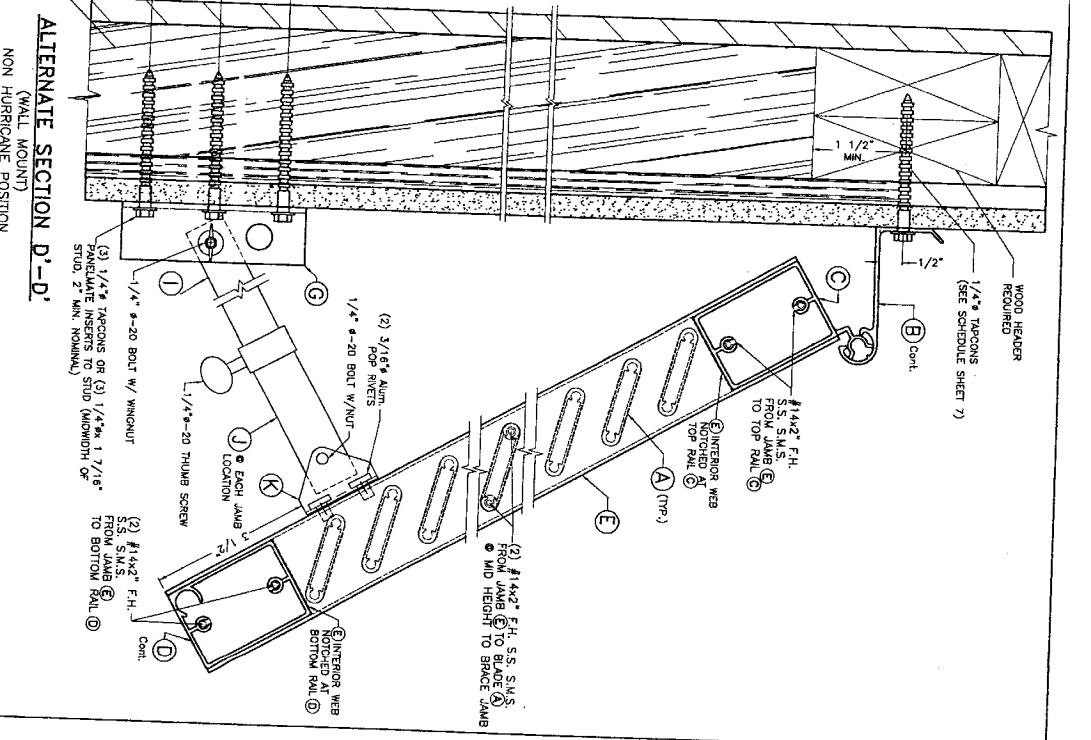
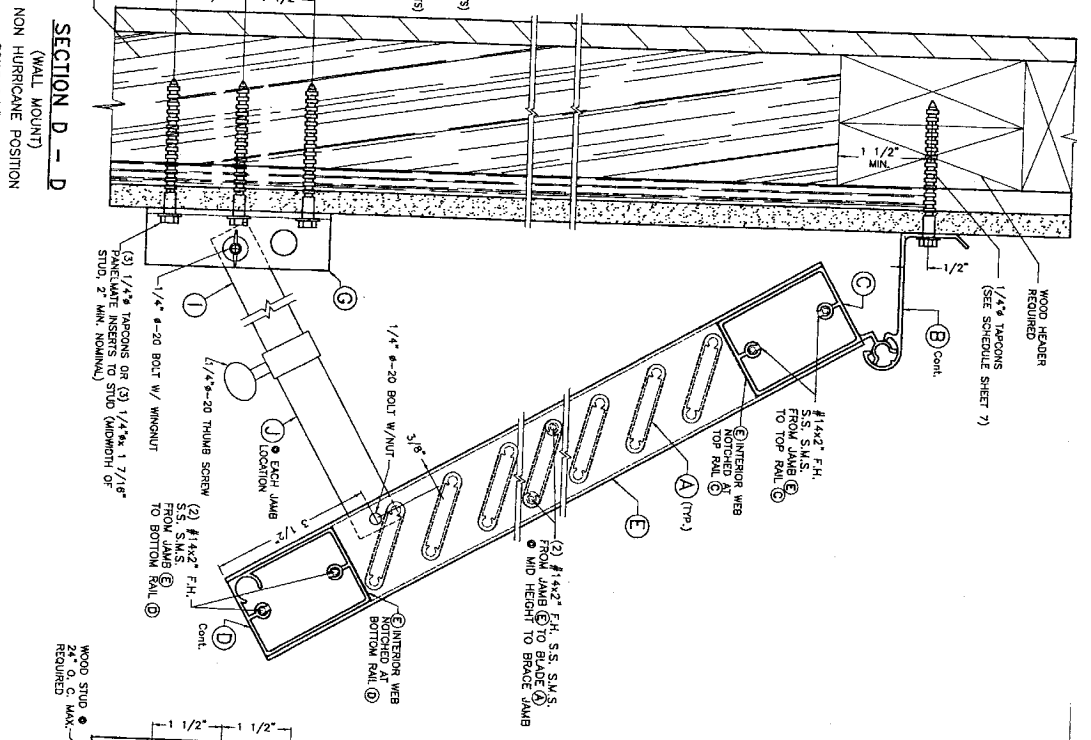
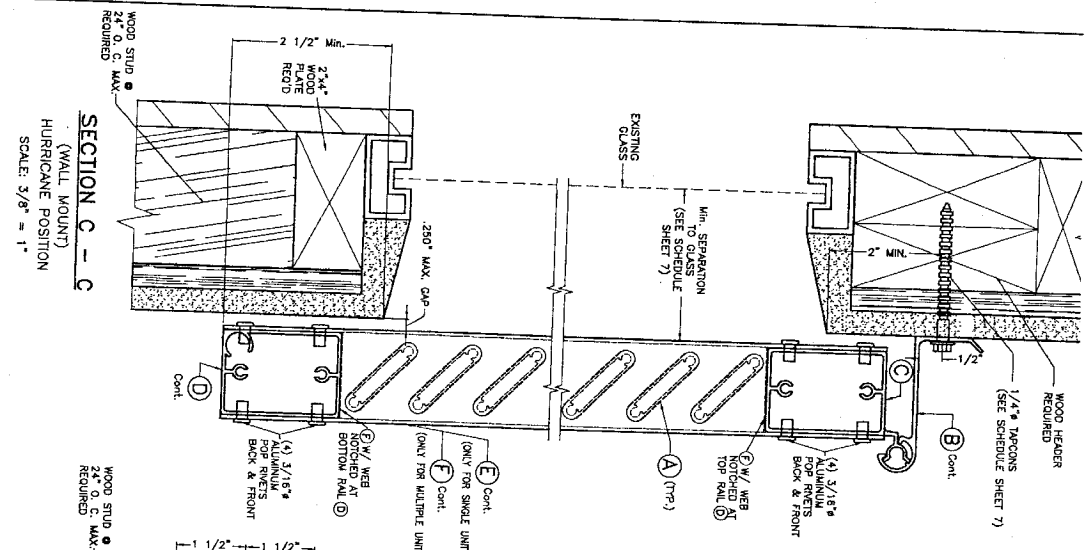
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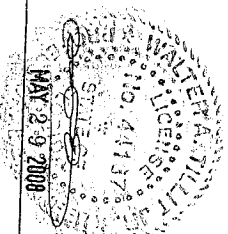
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DATE: 5/19/08
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 SHEET 44 OF 7





CONNECTION TO WOOD W/ EXTERIOR
LOCKING ROD (H) FIXATION

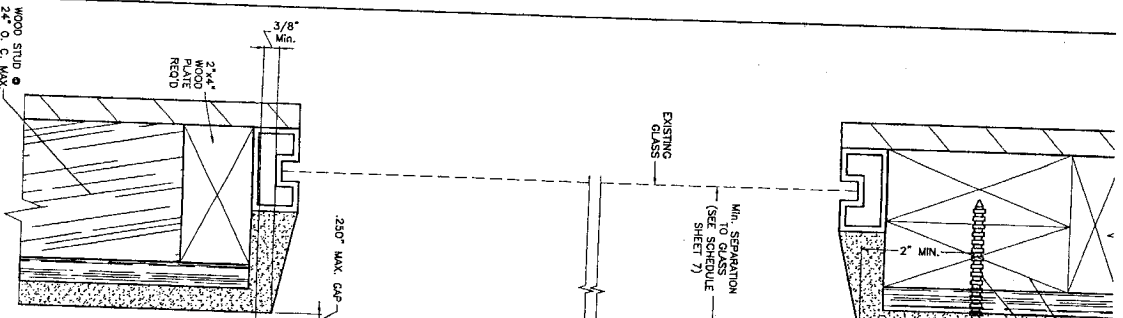


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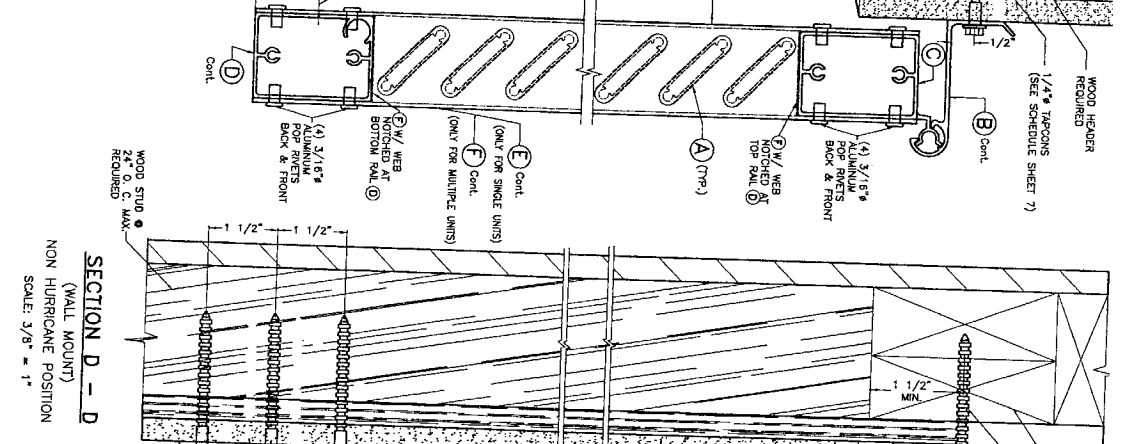
F.B.C. Non High Velocity Hurricane Zone)
ASSA / BERTHA H.V. BAHAMA SHUTTER
L.C.F.P.
DRAWN BY
5/15/08
DATE
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REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
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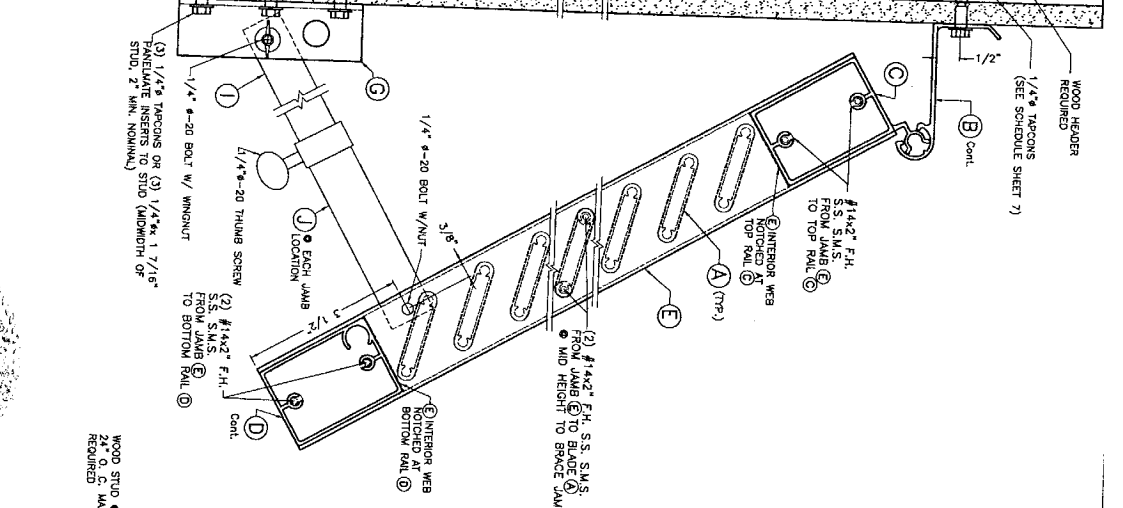
08-155
DRAWING NO
SHEET 5 OF 7



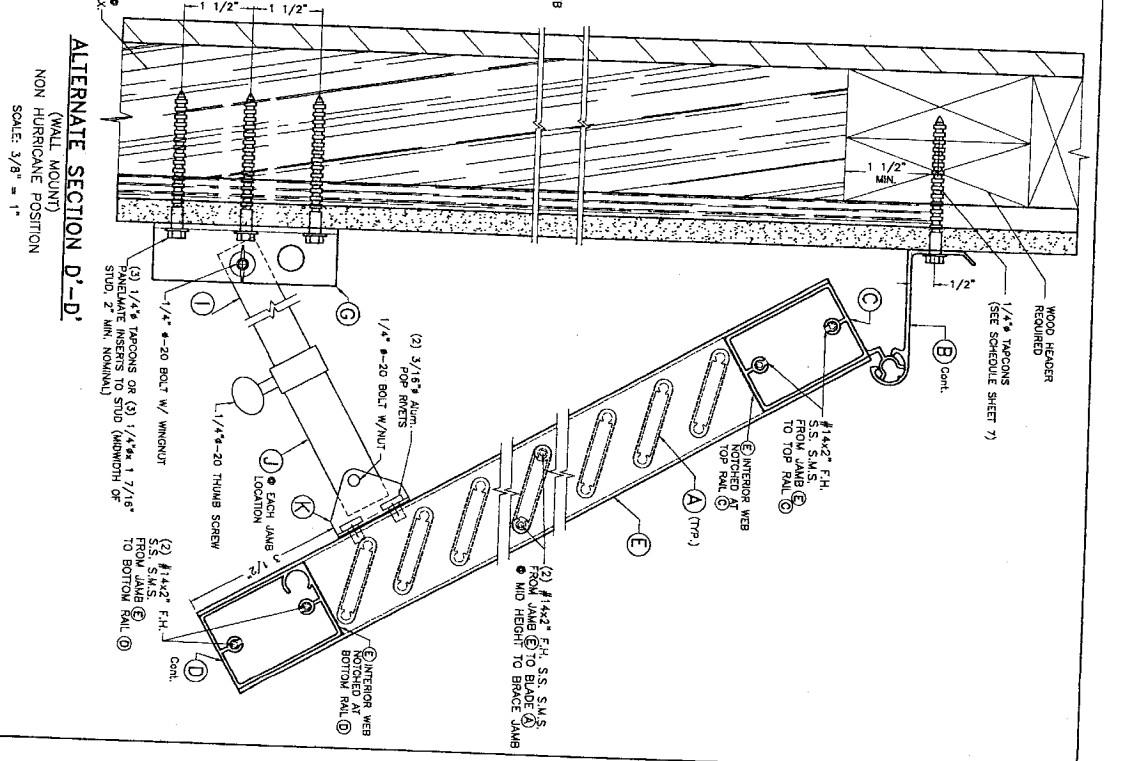
SECTION C - C
(WALL MOUNT)
HURRICANE POSITION
SCALE 3/8" = 1"



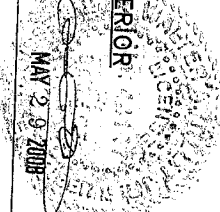
SECTION D - D
(WALL MOUNT)
NON HURRICANE POSITION
SCALE 3/8" = 1"



ALTERNATE SECTION D'-D'
(WALL MOUNT)
NON HURRICANE POSITION
SCALE 3/8" = 1"



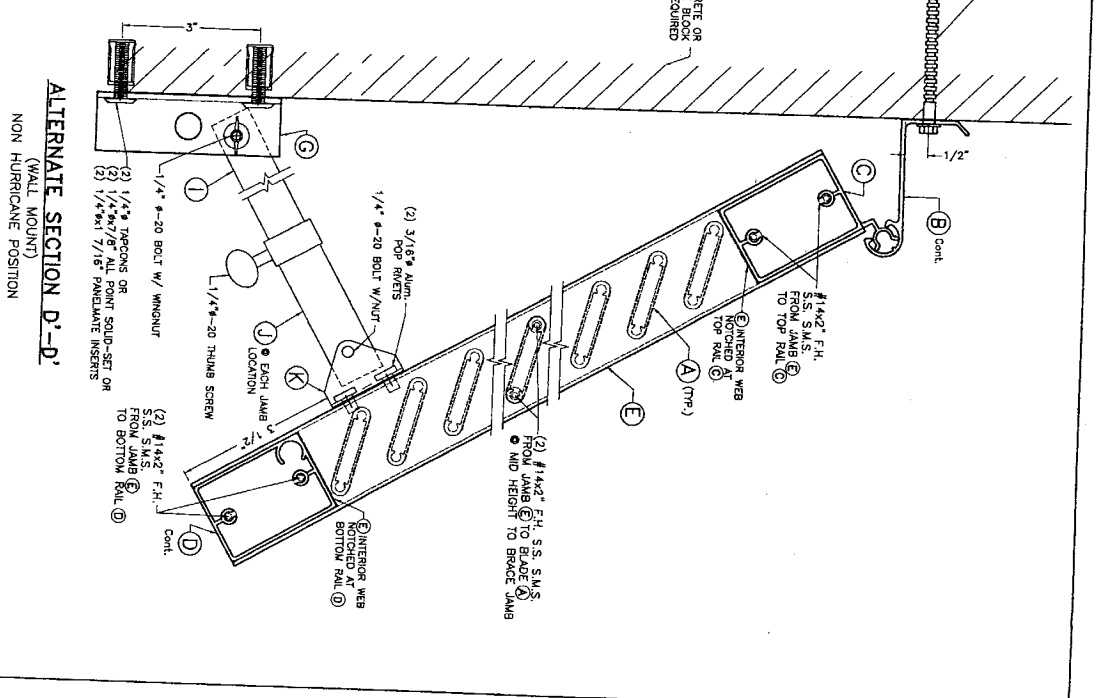
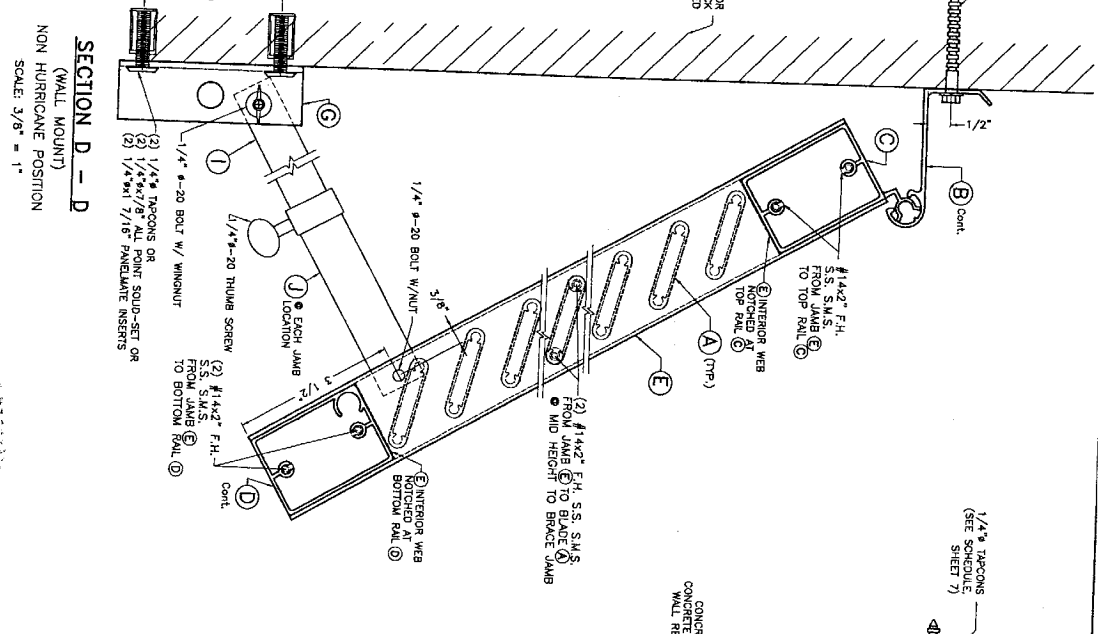
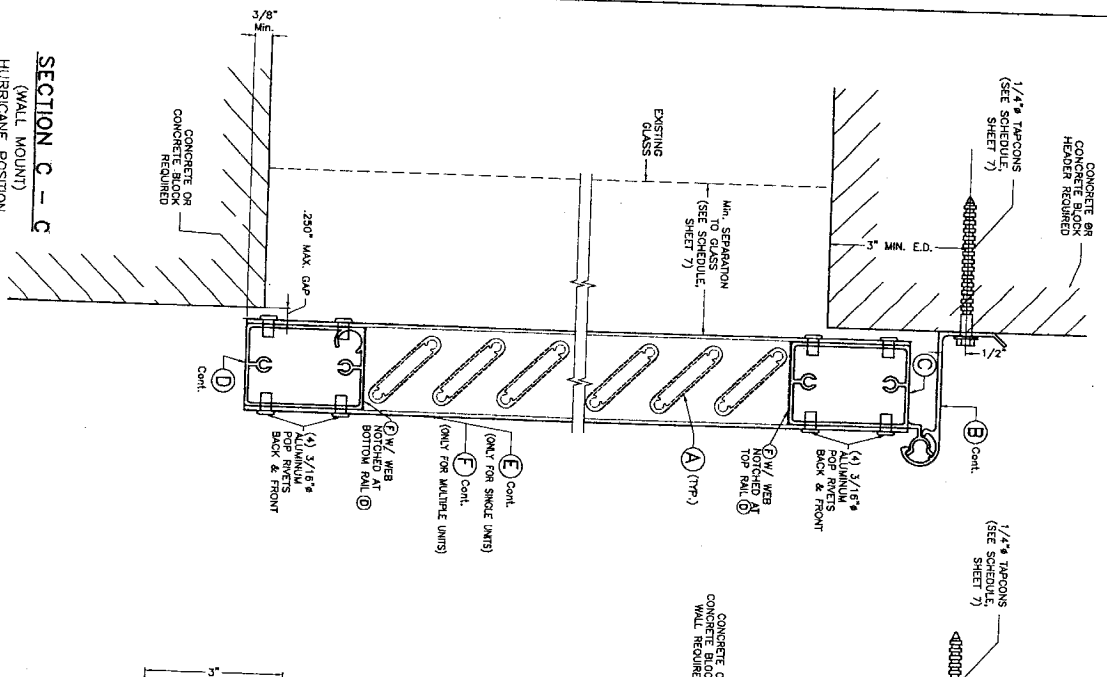
CONNECTION TO WOOD W/ ALTERNATE INTERIOR
LOCKING ROD (H) FIXATION



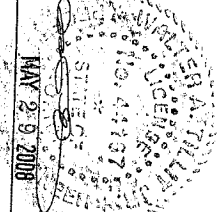
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 SHEET 54 OF 77

F.B.C. (Non High Velocity Hurricane Zone)



CONNECTION TO CONCRETE OR CONCRETE BLOCK W/ INTERIOR LOCKING ROD (H) FIXATION



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REV. NO.	DATE	BY	CHKD. BY	DESCRIPTION
1	02/17/08	3	4	

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 5/19/08 DATE
 08-155 DRAWING NO
 SHEET 5A OF 7

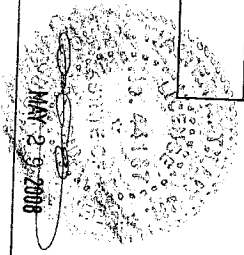
F.B.C. (Non High Velocity Hurricane Zone)

SCHEDULE # 1
MAXIMUM SHUTTER SPAN "L" (in), MAXIMUM SHUTTER WIDTH "W" (in) FOR SINGLE (CASE I) & MULTIPLE (CASES II & III) UNITS FOR A CORRESPONDING DESIGN PRESSURE FOR INSTALLATIONS INTO POURED CONCRETE, CONCRETE BLOCK OR WOOD SUBSTRATES

CASE	DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM UNIT WIDTH "W" (IN)	MAXIMUM SPAN "L" (IN)	INTERIOR MULLION TYPE REQUIRED	MINIMUM SEPARATION TO GLASS (IN)	BAHAMA SHUTTER ELEVATIONS		
						SINGLE UNITS ELEVATION	MULTIPLE UNITS ELEVATIONS	
I	+45.0, -55.0	42"	96"	N/A	4 5/8"			
II & III	+45.0, -50.0	40"	70"	(F)	3 5/8"			

SCHEDULE # 2
MAXIMUM ANCHOR SPACING AT TOP FEMALE HINGES, (B) FOR SINGLE (CASE I) & MULTIPLE (CASES II & III) UNITS FOR A CORRESPONDING DESIGN PRESSURE & SUBSTRATE TYPE

CASE	DESIGN PRESSURE RATING (p.s.f.)	SUBSTRATE	
		WOOD	POURED CONCRETE OR CONCRETE BLOCK
I	+45.0, -55.0	SOUTHERN PINE No.2 12"	7 1/2"
II & III	+45.0, -50.0	7 1/2"	7 1/2"



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REV. No.	1	DATE	5/19/08
DESCRIPTION			
REV. No.	2	DATE	08-155
DESCRIPTION			

LG-F.P.
 DRAWN BY
 DATE
 DRAWING No
 SHEET 7 OF 7