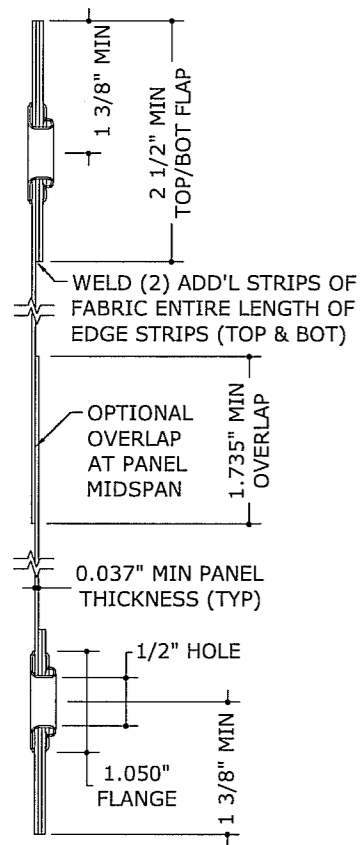
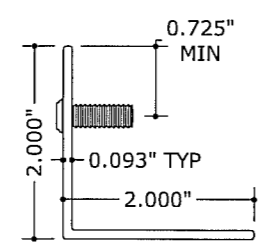


ArmorPanel

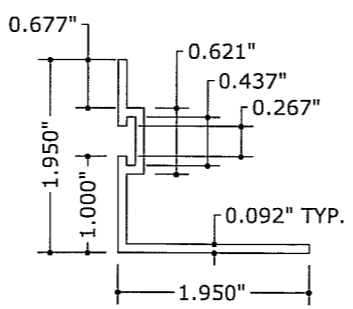
PVC-COATED FABRIC STORM PANEL
WITH KEVLAR REINFORCEMENT



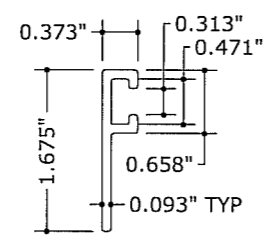
1 PANEL PROFILE
6" = 1'-0"



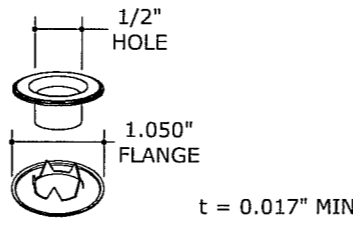
2 STUDDED ANGLE
6" = 1'-0"



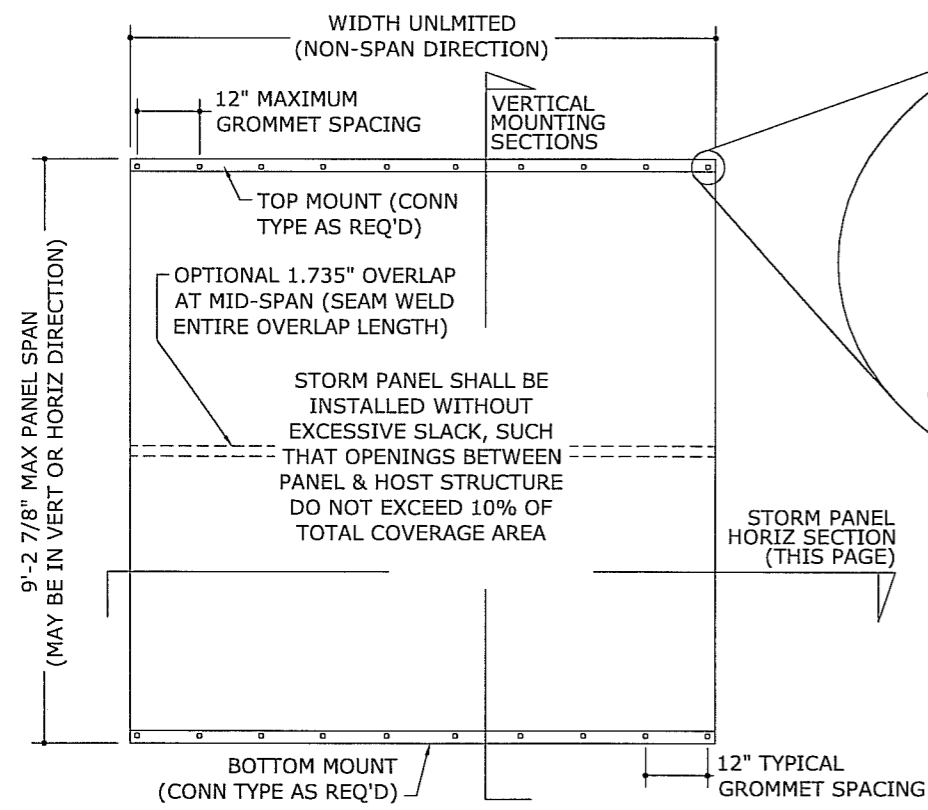
3 "F" ANGLE
6" = 1'-0"



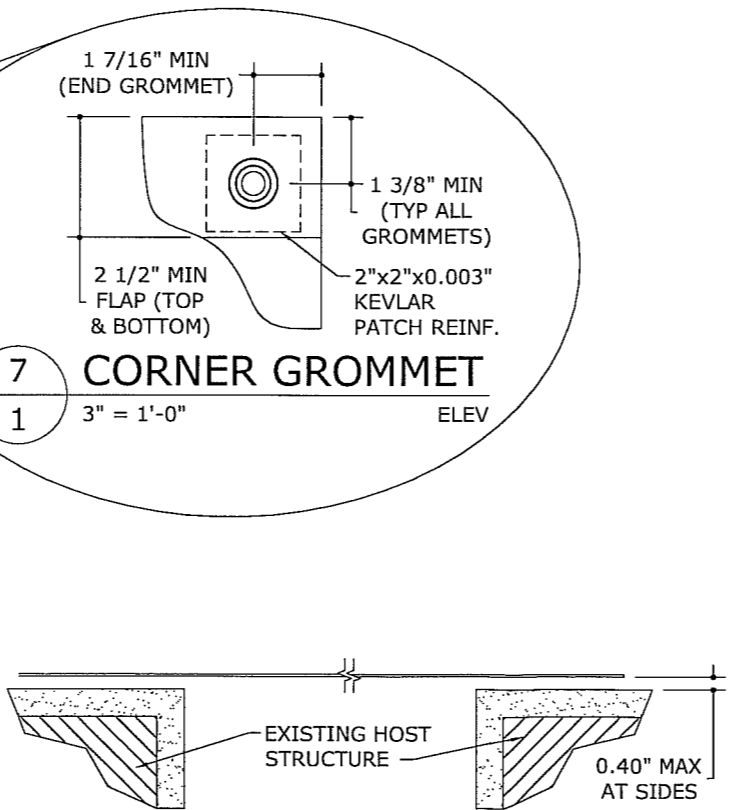
4 "F" TRACK
6" = 1'-0"



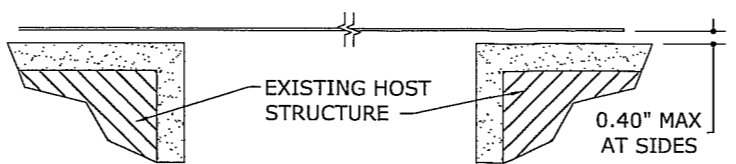
5 #4 GROMMET
6" = 1'-0"



6 TYPICAL VERTICAL MOUNT
1 N.T.S. ELEV



7 CORNER GROMMET
1 3" = 1'-0" ELEV



8 HORIZONTAL SECTION
1 N.T.S. HORIZ SECTION

MAXIMUM ALLOWABLE PRESSURES: -66.0 PSF
+62.0 PSF

MAXIMUM ALLOWABLE SPAN: 9'-2"

(FOR ALL MOUNTING CONDITIONS)

MINIMUM ALLOWABLE WIDTH (NON-SPAN DIMENSION): 12.0"
MINIMUM ALLOWABLE SPAN: 12.0"

SPAN NOTES:

1. MAX ALLOWABLE PRESSURES SHALL NOT BE EXCEEDED.
2. PANEL SPANS LONGER THAN MAXIMUM NOTED ABOVE ARE NOT ACCEPTABLE.
3. PANEL SPANS LESS THAN MINIMUM NOTED ABOVE ARE NOT ACCEPTABLE.
4. NO SEPARATION FROM GLASS IS REQUIRED WHEN PANEL SPAN IS GREATER THAN MINIMUM SPAN NOTED ABOVE.
5. VALID FOR PANELS MOUNTED VERTICALLY OR HORIZONTALLY.

GENERAL NOTES:

1. THIS STORM PANEL SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE 2004 FLORIDA BUILDING CODE, FOR USE OUTSIDE FLORIDA'S HIGH VELOCITY HURRICANE ZONE (NON-HVHZ) ONLY, PER ASTM STANDARDS E330, E1886 AND E 1996.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
3. POSITIVE AND NEGATIVE DESIGN PRESSURES TO BE USED WITH THESE DRAWINGS SHALL BE DETERMINED BY OTHERS FOR SPECIFIC JOBS IN ACCORDANCE WITH THE GOVERNING CODE.
4. THE SHUTTER SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. IF SITE CONDITIONS DEVIATE FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS TO BE USED IN CONJUNCTION WITH THIS DOCUMENT.
5. PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND NEW SUPERIMPOSED LOADS.
6. STORM PANELS SHALL BE PVC COATED WOVEN POLYESTER FABRIC (MINIMUM THICKNESS t=0.037") WITH A MIN. Fu=17.212 KSI. EACH GROMMET IS REINFORCED WITH (1) 2"x2"x0.003" KEVLAR PATCH.
7. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL AS FOLLOWS:
NBI CORPORATION
FLORIDA STATE PRODUCT APPROVAL
8. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE (i.e. WITH LINE OF ANCHORAGE IN VERTICAL DIRECTION).
9. ALL BOLTS & WASHERS SHALL BE ZINC COATED, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
10. TOP AND BOTTOM DETAILS SHOWN ON THIS DRAWING MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE.
11. ALL ACCEPTANCE CRITERIA HAVE BEEN MET FOR THIS SHUTTER AS A NON-POROUS SYSTEM, AS DEFINED IN ASTM E1996. IN KEEPING WITH THIS STANDARD, NO MINIMUM SEPARATION FROM GLAZING IS REQUIRED, AND BREAKING OF THIS GLAZING DOES NOT COMPROMISE THE BUILDING ENVELOPE.

FRANK L. BENNARDO, P.E.
PE0046549

08/04/2006

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SARASOTA, FL 34234
Phn. (941) 358-2000 Fax. (941) 358-0014
ArmorPanel PVC-COATED FABRIC STORM PANEL
WITH KEVLAR REINFORCEMENT (NON-HVHZ)
FLORIDA STATE PRODUCT APPROVAL

REMARKS	DATE	DRWN	CHKD	DATE
INIT ISSUE	8/4/06	JEM	CL	

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SCALE: 01

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REMARKS	DRWN	CHKD	DATE
INIT ISSUE	JEM	CL	8/4/06

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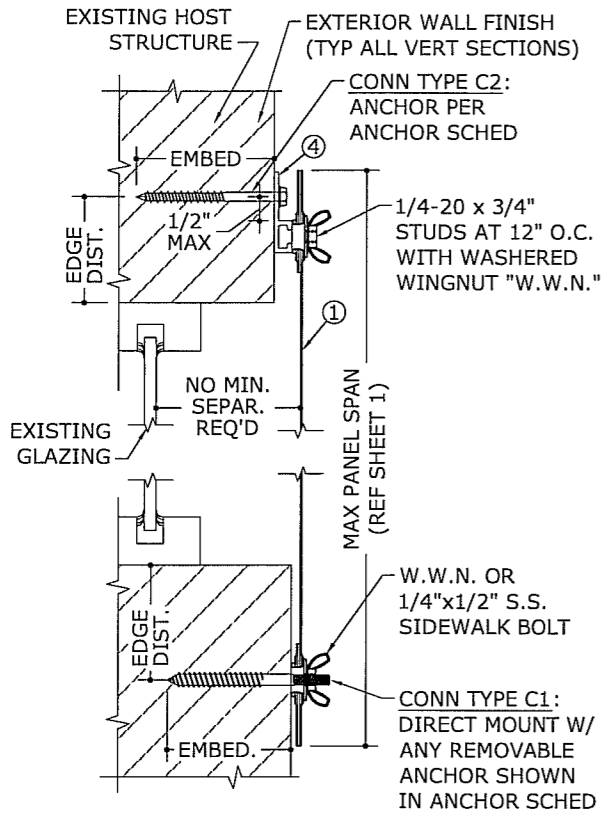
2

ANCHOR SCHEDULE

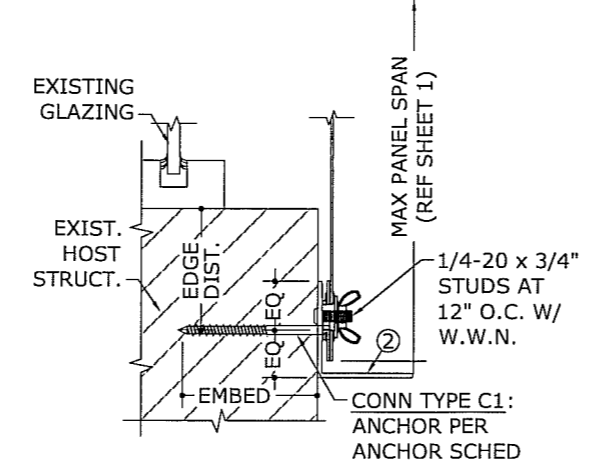
HOST STRUCT.	ANCHOR	LOAD (psf)	2-1/2" MIN EDGE DISTANCE								
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-2"		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
CONCRETE	1/4" TAPCON (ELCO OR ITW) WITH 1-3/4" EMBED (3320psi MIN CONC)	30	12"	12"	12"	12"	12"	12"	12"	12"	10"
		38	12"	12"	12"	12"	12"	12"	12"	12"	8"
		47	12"	12"	12"	12"	12"	10"	12"	12"	6"
		54	12"	12"	12"	12"	12"	8"	11"	11"	5"
		66	12"	12"	10"	12"	12"	6"	9"	8"	4"
	1/4" ELCO PANELMATE (MALE OR FEMALE) WITH 1-3/4" EMBED (3350psi)	30	12"	12"	12"	12"	12"	12"	12"	12"	12"
		38	12"	12"	12"	12"	12"	12"	12"	12"	9"
		47	12"	12"	12"	12"	12"	11"	12"	12"	7"
		54	12"	12"	12"	12"	12"	10"	12"	12"	6"
		66	12"	12"	12"	12"	12"	8"	12"	10"	5"
	1/4-20 POWERS CALK-IN WITH 7/8" EMBEDMENT (MIN 3000psi CONC)	30	12"	12"	12"	12"	12"	12"	12"	12"	9"
		38	12"	12"	12"	12"	12"	11"	11"	11"	7"
47		12"	12"	12"	12"	12"	9"	9"	9"	5"	
54		12"	12"	12"	12"	12"	8"	8"	8"	4"	
66		12"	12"	10"	10"	10"	6"	6"	6"	3"	

HOST STRUCT.	ANCHOR	LOAD (psf)	2-1/2" MIN EDGE DISTANCE								
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-2"		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
HOLLOW BLOCK	1/4" TAPCON (ELCO) WITH 1-1/4" EMBED	30	12"	12"	11"	12"	12"	7"	12"	12"	5"
		38	12"	12"	9"	12"	12"	6"	11"	11"	4"
		47	12"	12"	7"	12"	12"	5"	9"	9"	3"
		54	12"	12"	6"	12"	12"	4"	8"	8"	3"
		66	12"	12"	5"	10"	10"	3"	6"	5"	2"
	1/4" TAPCON (ITW) WITH 1-1/4" EMBED	30	12"	12"	8"	12"	12"	5"	10"	10"	3"
		38	12"	12"	6"	12"	12"	4"	8"	8"	3"
		47	12"	12"	5"	9"	9"	3"	6"	6"	2"
		54	12"	12"	4"	8"	8"	3"	5"	5"	2"
		66	10"	10"	4"	7"	7"	2"	4"	4"	1"
	1/4" ELCO PANELMATE (MALE OR FEMALE) WITH MIN 1-1/4" EMBEDMENT	30	12"	12"	12"	12"	12"	9"	10"	10"	6"
		38	12"	12"	10"	12"	12"	7"	8"	8"	4"
47		12"	12"	8"	10"	10"	6"	7"	7"	3"	
54		12"	12"	7"	9"	9"	5"	6"	6"	3"	
66		11"	11"	6"	7"	7"	4"	5"	4"	2"	
1/4-20 POWERS CALK-IN WITH MIN 7/8" EMBEDMENT	30	12"	12"	10"	12"	12"	7"	10"	10"	4"	
	38	12"	12"	8"	12"	12"	5"	8"	8"	3"	
	47	12"	12"	6"	10"	10"	4"	7"	7"	3"	
	54	12"	12"	6"	9"	9"	4"	6"	6"	2"	
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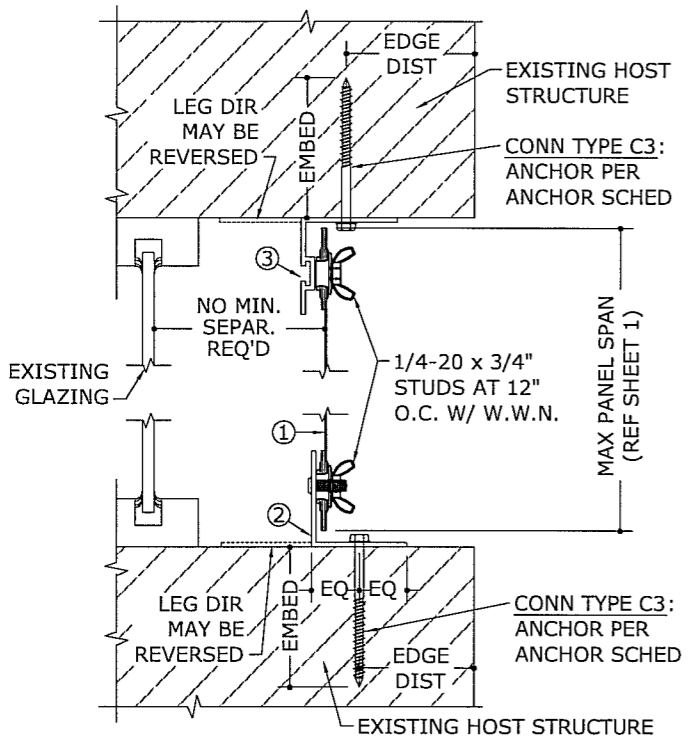
HOST STRUCT.	ANCHOR	LOAD (psf)	3/4" MIN EDGE DISTANCE								
			Spans Up To 4'-0"			Spans Up To 6'-0"			Spans Up To 9'-2"		
			C1	C2	C3	C1	C2	C3	C1	C2	C3
WOOD	1/4" LAG SCREW WITH MIN 1.5" THREAD PENETR.	30	12"	12"	12"	12"	12"	12"	10"	10"	10"
		38	12"	12"	12"	12"	12"	12"	8"	8"	7"
		47	12"	12"	12"	10"	10"	9"	6"	6"	5"
		54	12"	12"	12"	8"	8"	8"	5"	5"	4"
		66	10"	10"	10"	7"	7"	5"	4"	4"	3"
	1/4" TAPCON (ELCO OR ITW) OR #14 WOOD SCREW WITH 1-1/2" MIN EMBED	30	12"	12"	12"	12"	12"	12"	11"	11"	9"
		38	12"	12"	12"	12"	12"	11"	9"	9"	7"
		47	12"	12"	12"	11"	11"	9"	7"	7"	5"
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		66	11"	11"	9"	8"	8"	5"	5"	5"	3"
	1/4" ELCO PANELMATE (MALE OR FEMALE) WITH 1-7/8" MIN EMBED	30	12"	12"	12"	12"	12"	12"	12"	12"	12"
		38	12"	12"	12"	12"	12"	12"	12"	12"	9"
47		12"	12"	12"	12"	12"	12"	10"	10"	6"	
54		12"	12"	12"	12"	12"	10"	9"	9"	5"	
66		12"	12"	12"	11"	11"	7"	7"	7"	4"	



1 MOUNTING SECTION
2 3" = 1'-0" VERT SECTION



2 MOUNTING SECTION
2 3" = 1'-0" VERT SECTION



3 MOUNTING SECTION
2 3" = 1'-0" VERT SECTION

ANCHOR NOTES:

- 1/4" TAPCONS SHALL BE BY ITW OR BY ELCO, AS LISTED IN APPROPRIATE ANCHOR SCHEDULE. "ELCO PANELMATE" ANCHORS MAY BE MALE OR FEMALE ONLY, AS ILLUSTRATED.
- ENSURE MINIMUM EDGE DISTANCE FOR ALL ANCHORS PER RESPECTIVE ANCHOR SCHEDULE. EDGE DISTANCE OF 3/4" IS ACCEPTABLE FOR ANCHORS TO WOOD. REFERENCE ANCHOR SCHEDULE FOR MINIMUM EDGE DISTANCE REQUIREMENTS FOR THESE ANCHORS.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT ANCHORS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
- ANCHORS FASTENED TO NARROW FACE OF STUD FRAMING SHALL BE LOCATED IN CENTER OF NOMINAL 2x4 (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING). WOOD STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
- ANCHOR SCHEDULE APPLIES FOR ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- MACHINE SCREWS SHALL HAVE MINIMUM OF 1/4" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
- DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
- DESIGNATES ANCHORS WHICH ARE REMOVABLE AND MAY BE USED FOR DIRECT MOUNT INSTALLATIONS.

F:\01 Project Files\NBI Corp (NBI)\06-NBI-0002 Fabric Storm Panel, With Kevlar (FSA)\06-NBI-0002_01b ArmorPanel Fabric Storm Panel, With Kevlar (FSA).dwg
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clangley