

**GENERAL NOTES:**

1. THE PRODUCT SHOWN HEREIN IS APPROVED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE FOR USE INSIDE & OUTSIDE THE HIGH VELOCITY HURRICANE ZONE (HVHZ). TESTING PROTOCOLS WERE IN ACCORDANCE WITH TAS 201-94, TAS 202-94, TAS 203-94, ASTM E330-05, ASTM E1886-02, AND ASTM E1996-02.
2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS PRODUCT. WINDLOAD 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 HERE IN 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. STORM/PANELS SHALL BE STORM-A-REST (SINGLE LAYER) FABRIC. EACH GROMMET ROW IS REINFORCED WITH ONE (1) 6061 T6511 ALUMINUM FLAT 1/8" X 1" X AS REQUIRED FOR THE ENTIRE WIDTH OF THE PANEL.
6. PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER PANEL AS FOLLOWS:  
JHRG, LLC  
FLORIDA STATE PRODUCT APPROVAL
7. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE (i.e. WITH LINE OF ANCHORAGE IN VERTICAL DIRECTION).
8. ALL BOLTS & WASHERS SHALL BE ZINC COATED, GALVANIZED OR STAINLESS STEEL WITH A MINIMUM TENSILE STRENGTH OF 60 KSI.
9. TOP AND BOTTOM DETAILS SHOWN ON THIS DRAWING MAYBE INTERCHANGED AS FIELD CONDITIONS DICTATE.
10. 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.
11. ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY AND 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
12. SEE THE DESIGN PRESSURE RATING ON THIS SHEET.

DESIGN PRESSURE RATING	
DESIGN PRESSURE	MISSILE IMPACT RATING
<b>+/-78.0 PSF</b>	SMALL AND LARGE MISSILE IMPACT RATED

**INSTALLATION NOTES:**

1. ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN.
  2. THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION.
  3. ALTERNATE CONCRETE/MASONRY INSTALLATION ANCHORS OF EQUIVALENT PERFORMANCE CHARACTERISTICS CAN BE USED UPON APPROVAL OF THE ARCHITECT OR ENGINEER OF RECORD FOR THE PROJECT OF INSTALLATION.
  4. MINIMUM EDGE DISTANCE AND EMBEDMENT EXCLUDE WALL FINISHES (INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING).
  5. INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
  6. FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
  7. INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.
- SPAN NOTES:**
1. ALLOWABLE DESIGN PRESSURES SHALL NOT BE EXCEEDED.
  2. PANEL SPANS LONGER THAN MAXIMUM NOTED ARE NOT ALLOWED.
  3. PANEL SPANS LESS THAN MINIMUM NOTED ARE NOT ALLOWED.
  4. NO SEPARATION FROM GLASS IS REQUIRED WHEN PANEL SPAN IS GREATER THAN MINIMUM SPAN NOTED ABOVE.
  5. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY.

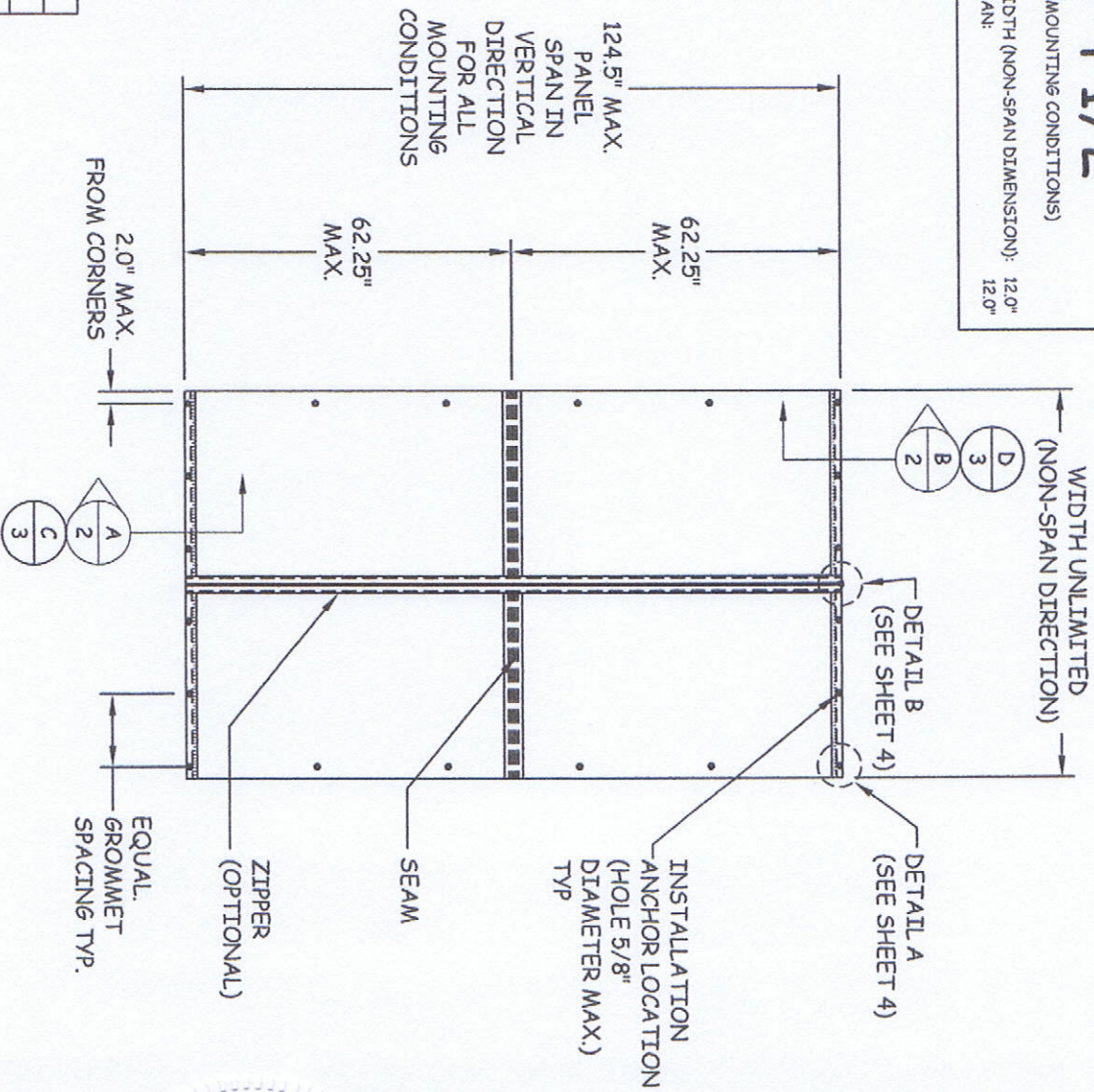
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MAXIMUM ALLOWABLE SPAN
<b>10'4 1/2"</b>
(FOR ALL MOUNTING CONDITIONS)
MIN. ALLOWABLE WIDTH (NON-SPAN DIMENSION): 12.0'
MIN. ALLOWABLE SPAN: 12.0'

# JHRG, LLC.

## STORM-A-REST

### HURRICANE SHUTTER



**ELEVATION EXTERIOR VIEW**

**REVISIONS**

No.	DESCRIPTION	BY	DATE

**TITLE:** STORM-A-REST ELEVATION, ANCHOR LAYOUT & GENERAL NOTES

**PREPARED FOR:** JHRG, LLC  
303 S. PINE STREET  
SPRING HOPE, N.C. 27882  
PH: 800.849.4997 FX: 252.478-4998



DATE: 09.05.08  
DWN BY: JLR  
CHK BY: HN  
SCALE: NTS

*80/02/01*

RYRKI & PULKKINEN  
FLORIDA P.E. NO. 52814  
2827 LINDALE PALM WAY  
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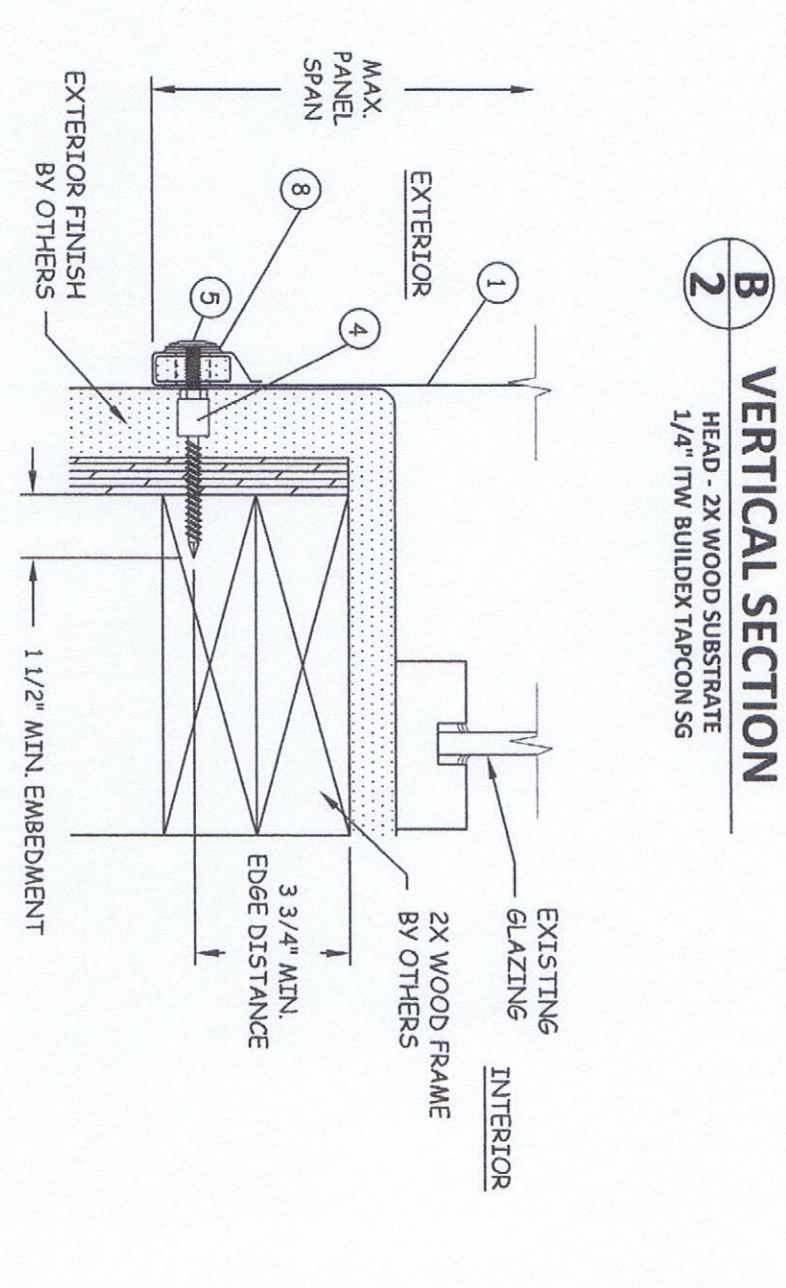
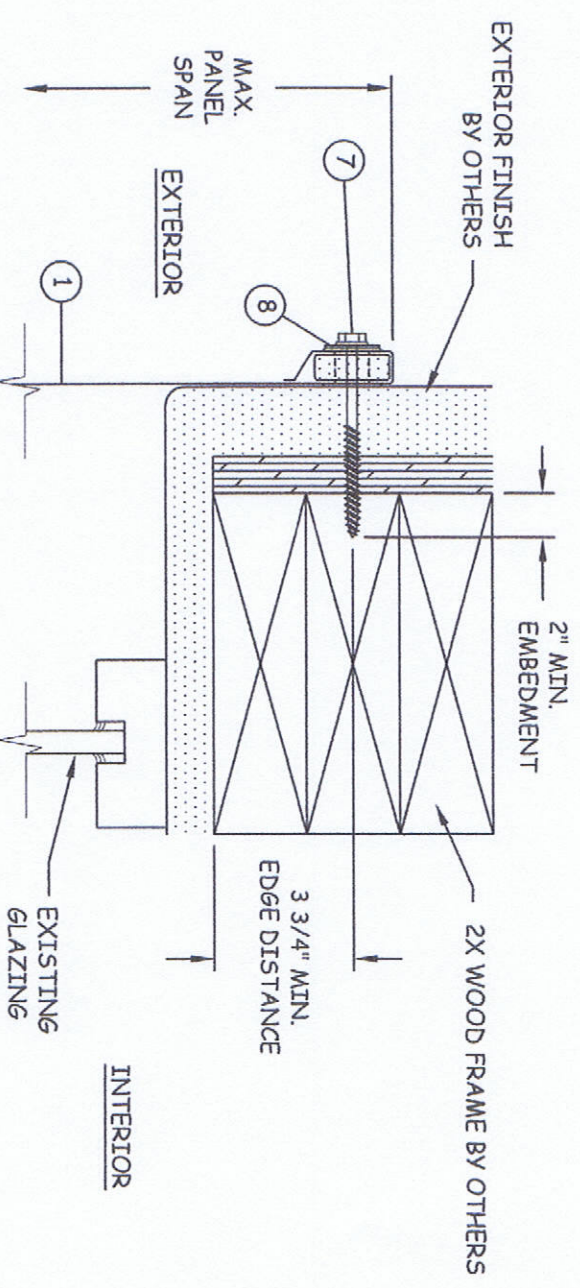
DWG #: **JHRG03**  
SHEET: **1 OF 4**

### Offset Requirements based on Positive Load

Design Pressure (psf)	Deflection (in.)		
	Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"
20	4	8	10
25	4	8	10
30	4	9	10
35	4	9	12
40	4	10	12
45	4	10	13
50	4	10	13
55	4	10	14
60	4	10	14
65	4	10	14
70	4	10	14
78	4	10	14

### Anchor Schedule

Anchor	Design Pressure (psf)	Anchor Spacing SYP Timber (S.G.=0.53)			Anchor Spacing 3000 PSI Concrete		
		Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"	Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	20	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	25	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	30	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	35	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	40	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	45	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	50	12	12	12	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	55	12	12	11	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	60	12	12	10	12	12	12
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	65	12	12	9	12	12	11
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	70	12	12	8	12	12	10
ITW Buildex Sammy Hurricane Shutter Screw SSW w/ 1 3/4" Tapcon	78	12	12	7	12	12	9
		2 1/4" Edge Distance			2 1/2" Edge Distance		
		Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"	Spans up to 4'-0"	Spans up to 6'-0"	Spans up to 10'-0"
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	20	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	25	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	30	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	35	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	40	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	45	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	50	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	55	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	60	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	65	12	12	12	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	70	12	12	11	12	12	12
ITW Buildex 1/4" x 2 1/4" Tapcon SG w/ Ultrashield	78	12	12	10	12	12	12



**TITLE:**  
STORM-A-REST  
VERTICAL SECTIONS

**PREPARED FOR:**  
JHRG, LLC  
303 S. PINE STREET  
SPRING HOPE, N.C. 27882  
PH: 800.849.4997 FX: 252.478.4998

### REVISIONS

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**CHK BY:** HN

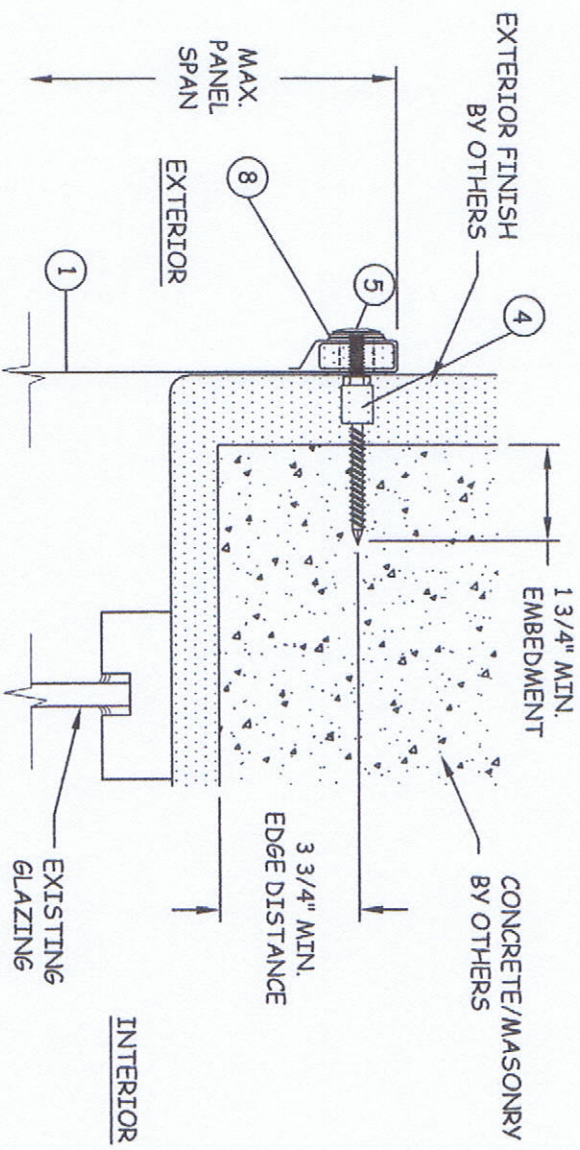
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**DWG #:** JHRG03

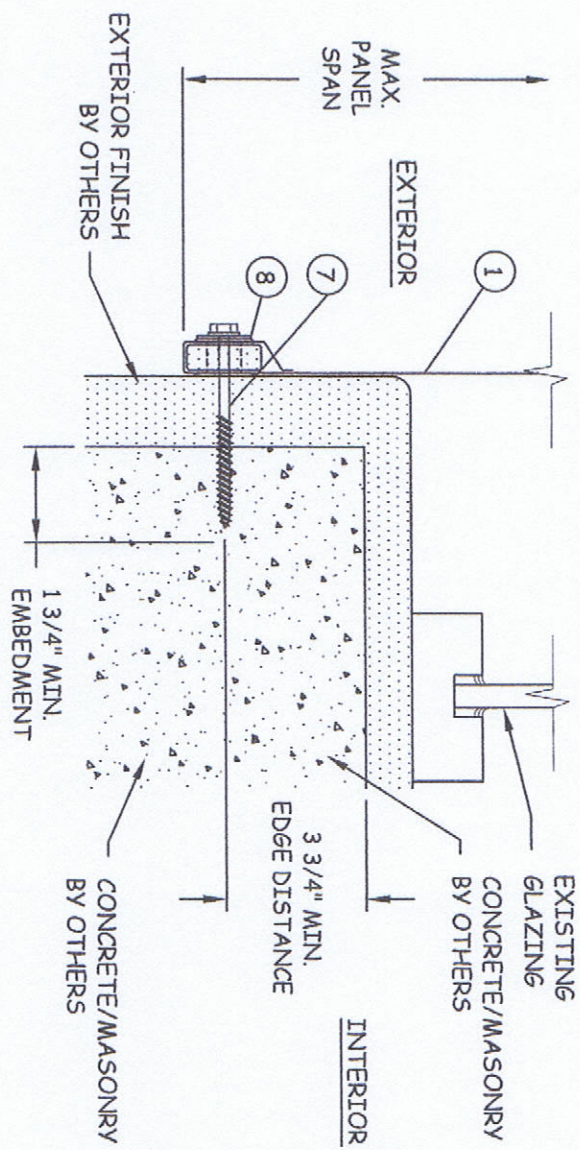
**SHEET:** 2 OF 4

80/05/01

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**D**  
**VERTICAL SECTION**  
 HEAD - MASONRY/CONCRETE SUBSTRATE  
 1/4" ITW BUILDDEX SAMMYS SSC



**C**  
**VERTICAL SECTION**  
 SILL - MASONRY/CONCRETE SUBSTRATE  
 1/4" ITW BUILDDEX TAPCON SG

**TITLE:**  
 STORM-A-REST  
 VERTICAL SECTIONS

**PREPARED FOR:**  
 JHRG, LLC  
 303 S. PINE STREET  
 SPRING HOPE, N.C. 27882  
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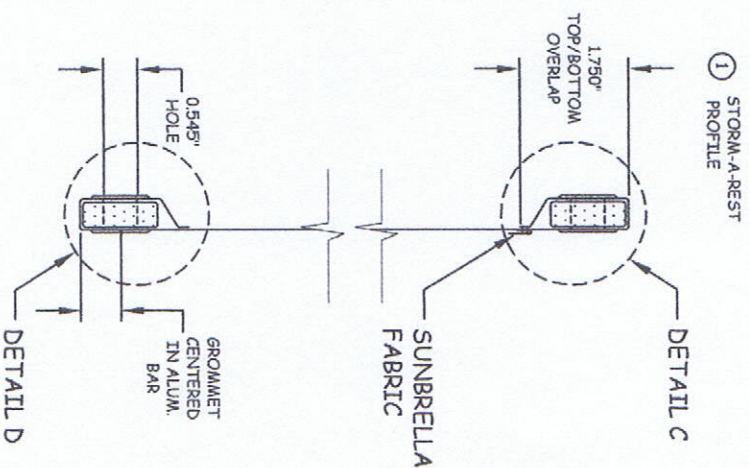
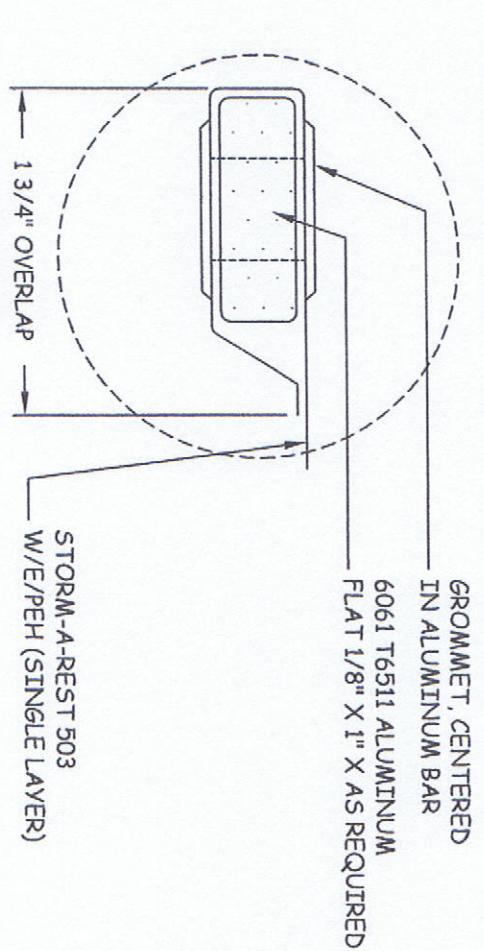
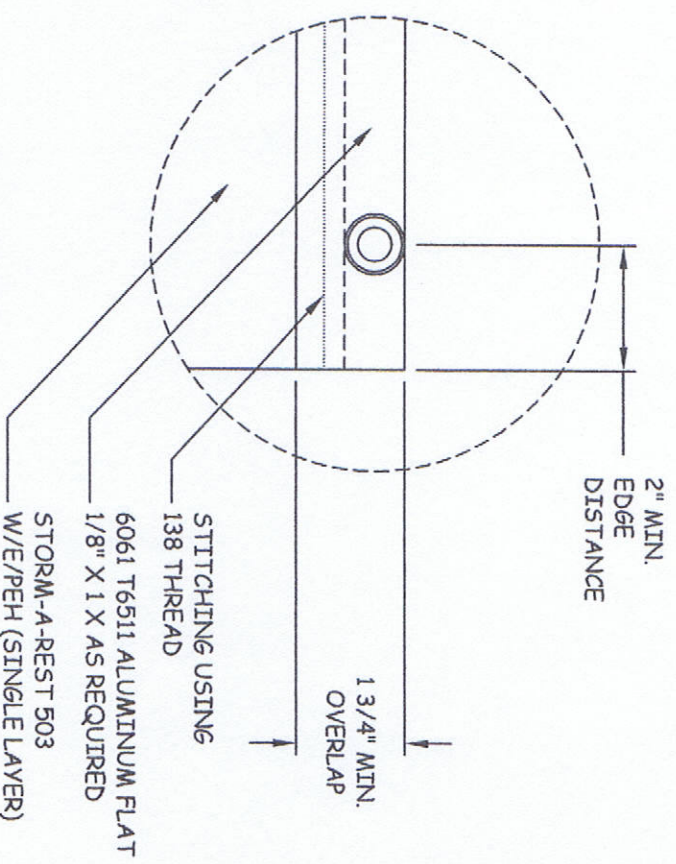
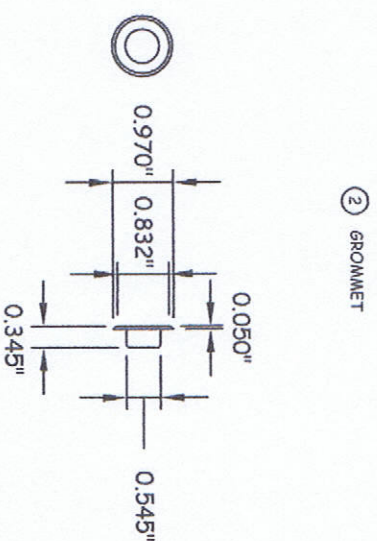
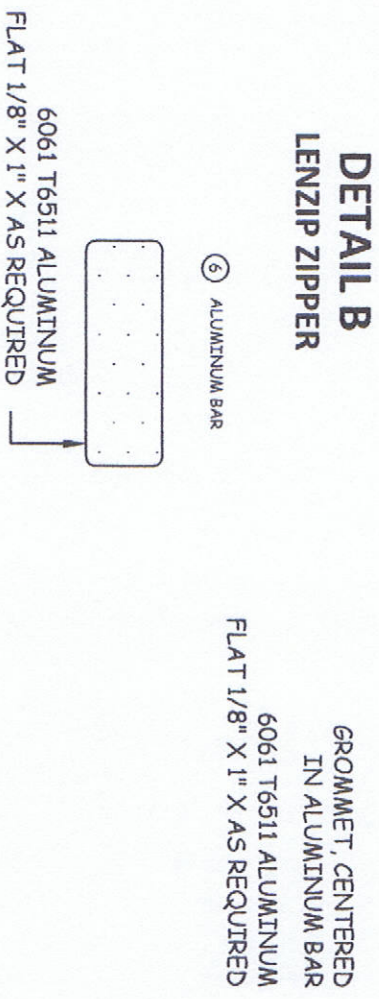
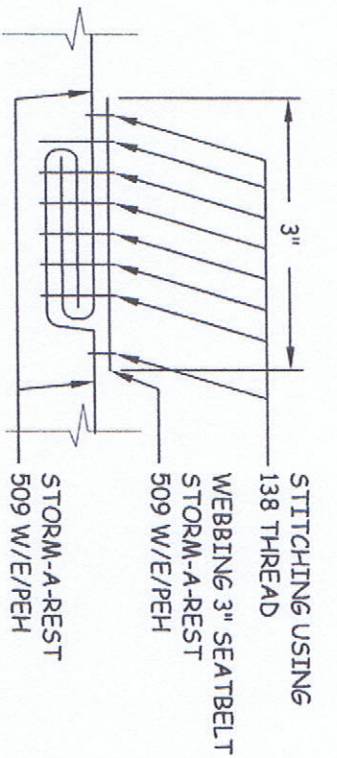
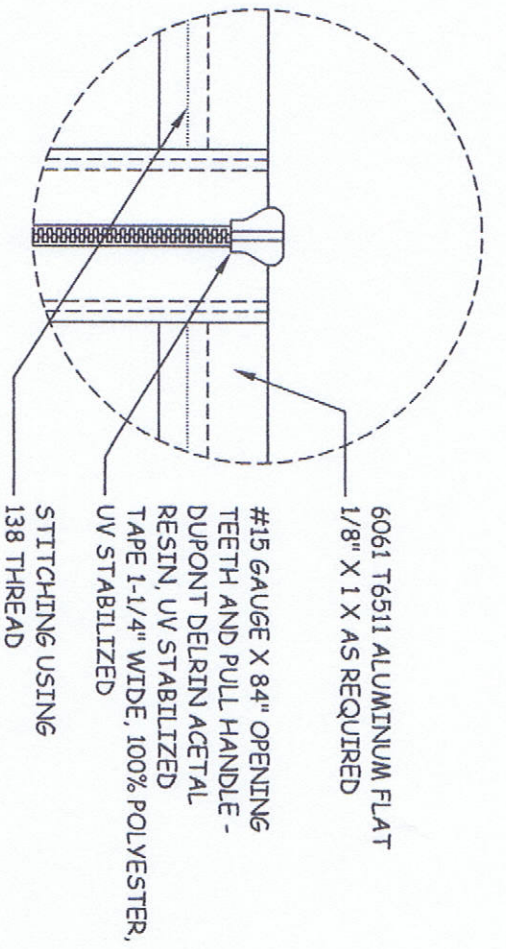
*(Handwritten signature and date: JLR 09/05/08)*

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DWG #: **JHRG03**  
 SHEET: **3 OF 4**



ITEM #	DESCRIPTION	MATERIAL	MANUFACTURER
1	STORM-A-REST 503 W/E/PEH	POLYPROPYLENE	JHRG, LLC
2	GROMMET	305 S. STEEL	
3	ZIPPER AND SLIDER	RESIN	LENZIP
4	1/4" ITW BUILDEX SAMMYS SSC	STEEL	
5	1/4-20 X 3/4" SIDEWALK BOLT	S. STEEL	
6	6061 T6511 ALUMINUM FLAT 1/8" X 1"	ALUMINIUM	
7	1/4" ITW BUILDEX TAPCON S6	STEEL	
8	1/4" FLAT WASHER	S. STEEL	



**REVISIONS**

NO.	DESCRIPTION	BY	DATE

**TITLE:**  
STORM-A-REST COMPONENTS AND BILL OF MATERIALS

**PREPARED FOR:**  
JHRG, LLC  
303 S. PINE STREET  
SPRING HOPE, N.C. 27882  
PH: 800.849.4997 FX: 252.478.4998



DATE: 09.05.08  
DWN BY: JLR  
CHK BY: HN  
SCALE: NTS

*Handwritten signature and date: JLR 09/05/08*

DWG #: **JHRG03**  
SHEET: 4 OF 4

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