

ZONE	REV	DESCRIPTION	DATE	APPROVED
-	P00	RELEASE FOR 2007 FBC APPROVAL	12/12/08	RSH
8D	P01	REMOVED NOTE, REVISED WIDTH	2/25/09	RSH

NOTES:

1. CODE COMPLIANCE: THIS PRODUCT HAS BEEN TESTED AND EVALUATED AS AN IMPACT RESISTANT COVERING IN ACCORDANCE WITH THE 2007 FLORIDA BUILDING CODE, IBC/IRC 2006 WITHIN THE DESIGNED PRESSURES AND LIMITATIONS STATED IN THIS DRAWING. PRODUCT APPROVAL IS ONLY VALID WHEN INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURE'S INSTRUCTIONS.

2. TEST REPORTS: THIS PRODUCT MEETS OR EXCEEDS REQUIREMENTS PER ASTM E 1886 AND ASTM E 1996 (MISSILE LEVEL D) AND TAS 202, REFERENCE HETI TEST REPORTS No. 06-T652, 06-4101, 06-4102, 06-4103, 06-4104, 06-4105, 06-4106, 07-T641, 07-2134A/B, 07-2135, 07-2136A/B, 07-2137.

3. DESIGN PRESSURE CALCULATIONS: POSITIVE AND NEGATIVE DESIGN PRESSURES USED TO DETERMINE RECOMMENDED FASTENER SPACING SHALL BE DETERMINED BY OTHERS USING SITE SPECIFIC DESIGN PARAMETERS INCLUDING, BUT NOT LIMITED TO WINDSPEED EVENT, ARCHITECTURE, EXPOSURE CATEGORY, AND IMPORTANCE FACTOR.

4. SITE VERIFICATION: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, ARCHITECT OR ENGINEER OF RECORD TO VERIFY THE FOLLOW:

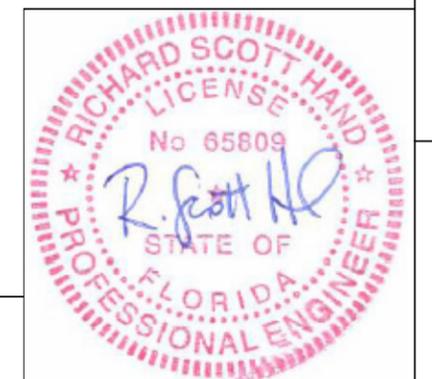
- A.** THE STRUCTURAL MEMBERS THAT THIS PRODUCT IS TO BE ATTACHED ARE STABLE AND OF THE QUALITY CALLED OUT ON THIS DRAWING.
- B.** THE SITE SPECIFIC DESIGN PARAMETERS FOR USE OF THIS PRODUCT ARE ACCURATE FOR THE GIVEN APPLICATION OF THE PRODUCT.
- C.** DEVIATIONS DUE TO LOCAL CODE REQUIREMENTS OR STATE CODE REVISIONS ARE CONSISTENT WITH THIS DRAWING.

5. MATERIAL SPECIFICATIONS: FABRIC, THREAD AND BELTING MATERIAL ARE PROPRIETARY. MATERIAL QUALITY SPECIFICATIONS ARE CERTIFIED AND MONITORED PER FBC REQUIREMENTS. ALL FASTENERS AND HARDWARE USED WITH THIS PRODUCT SHALL BE ZINC COATED, GALVANIZED, OR OF STAINLESS STEEL MATERIAL HAVING A MINIMUM TENSILE STRENGTH OF 60 KSI. ALL ALUMINUM SHAPES SHALL BE MADE OF 6063-T5 OR 6005-T5 GRADE MATERIAL.

6. OPENING PROTECTION: THIS PRODUCT IS CONSIDERED NON-POROUS PER ASTM E1996. AS SUCH, NO SEPARATION FROM GLAZING IS REQUIRED. BREAKAGE OR ABSENCE OF GLAZING IN AN OPENING PROPERLY COVERED WITH THIS PRODUCT DOES NOT COMPROMISE THE BUILDING ENVELOPE. THIS PRODUCT IS APPROVED FOR USE IN ALL AREAS OUTSIDE THE HVHZ INCLUDING ZONES 1,2,3, AND 4.

7. LABELING: THIS PRODUCT SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING INFORMATION:

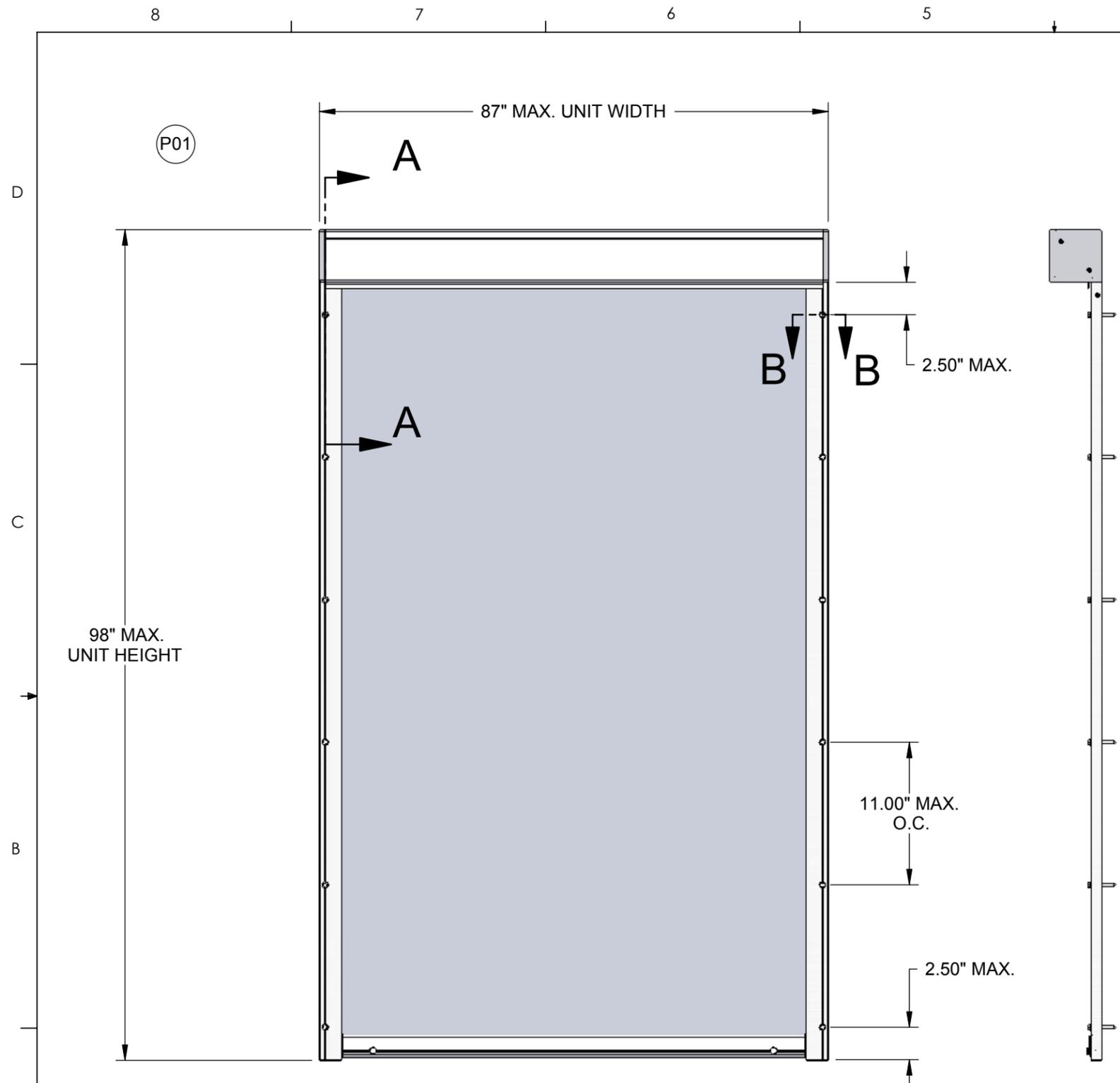
WAYNE-DALTON CORP.
DRAWING NO.
FLORIDA STATEWIDE APPROVAL NO.



Richard Scott Hand
FL LICENSE NO 65809
DATE: 02-25-2009

DWG NO: 341337 REV: P01

SHEET 1 OF 5



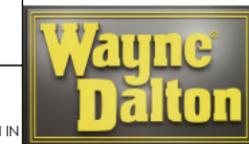
FABRIC-SHIELD PULL DOWN SHUTTER

**DESIGN PRESSURE RATING
SIZE DEPENDENT
SEE SHEET 3**

**LARGE MISSILE IMPACT
RESISTANT**



**FABRIC-SHIELD™
PULL-DOWN SHUTTER**

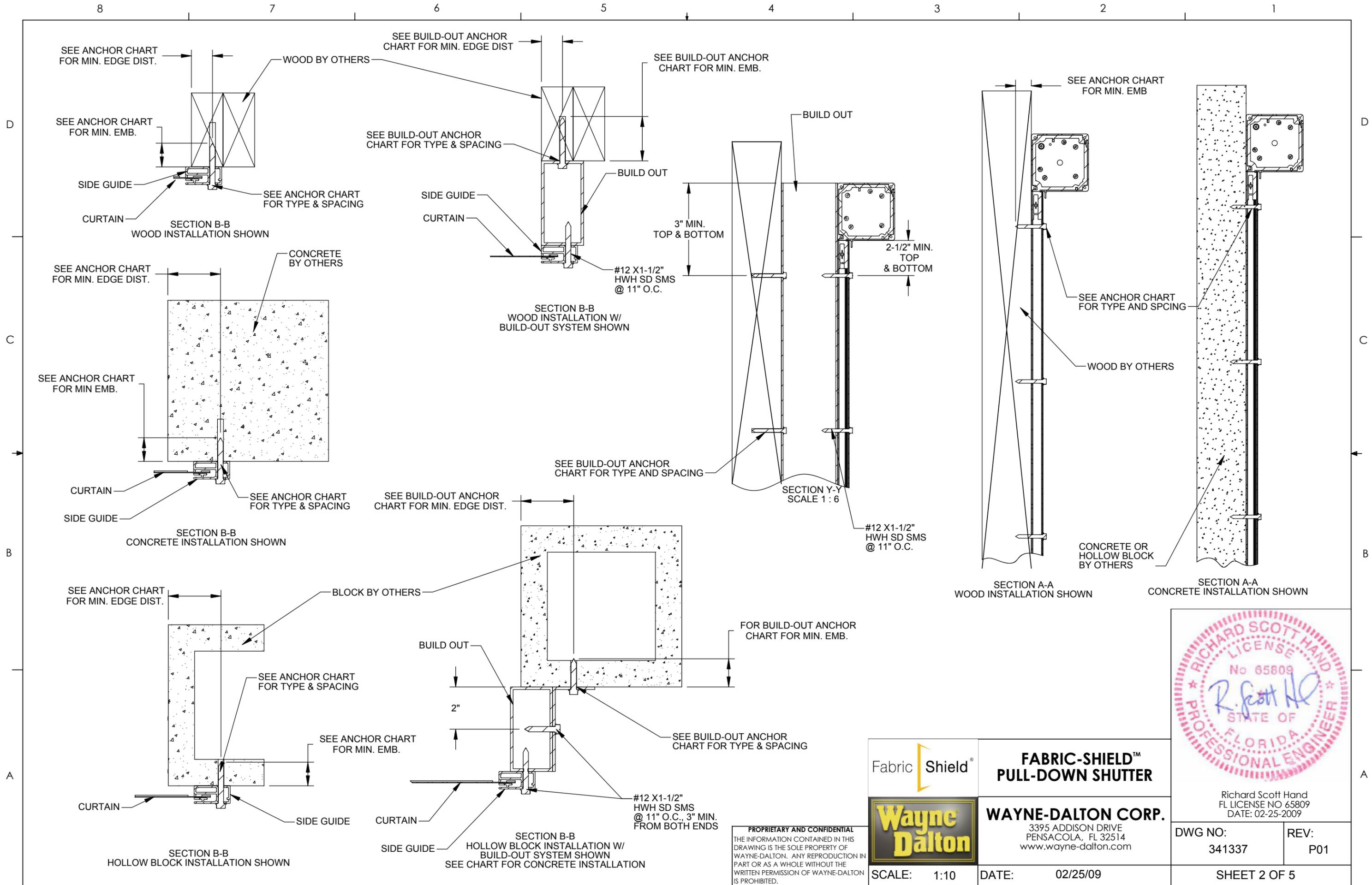


WAYNE-DALTON CORP.
3395 ADDISON DRIVE
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www.wayne-dalton.com

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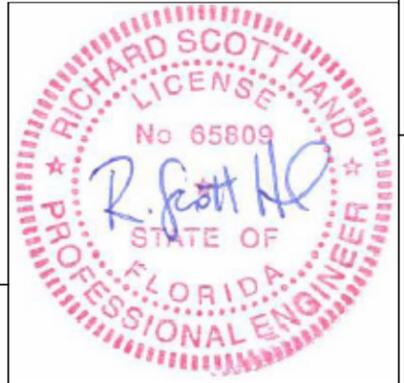
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 FL LICENSE NO 65809
 DATE: 02-25-2009
 DWG NO: 341337
 REV: P01
 SHEET 2 OF 5

SCALE: 1:10

DATE: 02/25/09

ANCHOR SPACING SCHEDULE

		2 1/2" MINIMUM EDGE DISTANCE			
Substrate	Anchor Type	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Concrete	1/4" ITWBuildex TAPCON WITH 1-3/4" EMBEDMENT (3320 psi MIN CONC)	35	11.00	11.00	7.00
		40	11.00	11.00	5.00
		45	11.00	11.00	5.00
		50	11.00	10.00	4.00
		55	11.00	10.00	4.00
		60	11.00	9.00	4.00
		66	11.00	8.00	3.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					
Concrete	5/16" ITWBuildex TAPCON WITH 1-3/4" EMBEDMENT (3513 psi MIN CONC)	35	11.00	11.00	11.00
		40	11.00	11.00	11.00
		45	11.00	11.00	10.00
		50	11.00	11.00	10.00
		55	11.00	11.00	9.00
		60	11.00	11.00	9.00
		66	11.00	11.00	8.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					

		2 1/2" MINIMUM EDGE DISTANCE			
Substrate	Anchor Type	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Hollow Block	1/4" ITWBuildex TAPCON WITH 1-1/4" EMBEDMENT (2000 psi MIN)	35	11.00	10.00	5.00
		40	11.00	9.00	5.00
		45	11.00	8.00	4.00
		50	11.00	7.00	4.00
		55	10.00	7.00	4.00
		60	9.00	6.00	4.00
		66	9.00	6.00	4.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					
Hollow Block	5/16" ITWBuildex TAPCON WITH 1-1/4" EMBEDMENT (2000 psi MIN)	35	11.00	10.00	5.00
		40	11.00	9.00	5.00
		45	11.00	8.00	4.00
		50	11.00	7.00	4.00
		55	10.00	7.00	4.00
		60	9.00	6.00	4.00
		66	9.00	6.00	4.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					

ANCHOR NOTES:

1. ALL ANCHORS USED TO INSTALL THIS PRODUCT SHALL BE IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATION.
2. HOST STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK, OR WOOD AS DESCRIBED IN THESE NOTES AND IN ACCORDANCE WITH THE ANCHOR SPACING SCHEDULES.
3. MINIMUM EMBEDMENT SHALL BE AS NOTED UNDER EACH ANCHOR. MINIMUM EMBEDMENT SHALL BE AS NOTED IN THE ANCHOR SCHEDULE OR PER MANUFACTURERS' RECOMMENDATION. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER NON-STRUCTURAL EXTERIOR WALL FINISHES.
4. FIELD CONDITIONS VARY. CONTRACTOR IS RESPONSIBLE TO SEE THAT ANCHORING STRUCTURE ARE ADEQUATE PER THE ANCHOR SCHEDULE.
5. WOOD STUD MATERIAL SHALL BE OF "DOUGLAS FIR" OR "SOUTHERN PINE" G=0.53 OR GREATER DENSITY.
6. NO 33.3% INCREASE IN ALLOWABLE LOADS HAVE BEEN USED IN THE DESIGN OF THE ANCHORS OF THIS PRODUCT APPROVAL. A WIND LOAD DURATION FACTOR, Cd, OF 1.6 HAS BEEN USED FOR WOOD LAG SCREW DESIGN CALCULATIONS.

		3/4" MINIMUM EDGE DISTANCE			
Substrate	Anchor Type	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Wood	1/4" ITWBuildex TAPCON OR #14 WOOD SCREW WITH 1-3/4" THREAD PENETRATION	35	11.00	9.00	5.00
		40	11.00	8.00	4.00
		45	10.00	7.00	4.00
		50	9.00	7.00	4.00
		55	9.00	6.00	3.00
		60	8.00	6.00	3.00
		66	8.00	5.00	3.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					

		1 1/4" MINIMUM EDGE DISTANCE			
Substrate	Anchor Type	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Wood	5/16" ITWBuildex TAPCON OR LAG SCREW WITH 2-1/2" THREAD PENETRATION	35	11.00	11.00	9.00
		40	11.00	11.00	9.00
		45	11.00	11.00	8.00
		50	11.00	11.00	8.00
		55	11.00	11.00	7.00
		60	11.00	11.00	7.00
		66	11.00	11.00	7.00
		70			
		80			
		90			
		91			
		100			
		110			
		120			
128					

ANCHOR LOADING FOR SITE SPECIFIC APPROVALS

Design Pressure (PSF)	Width Up to 3'-4"		Width Up to 5'-6"		Width Up to 7'-3"	
	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)
35	191	76	337	134	453	180
40	216	86	377	150	503	200
45	241	96	416	165	550	218
50	265	105	453	180	594	236
55	289	115	489	194	636	253
60	313	124	523	208	676	268
66	341	135	563	223	721	286
70						
80						
90						
91						
100						
110						
120						
128						

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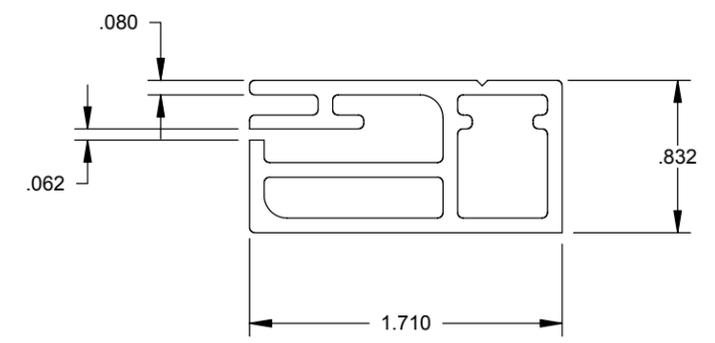
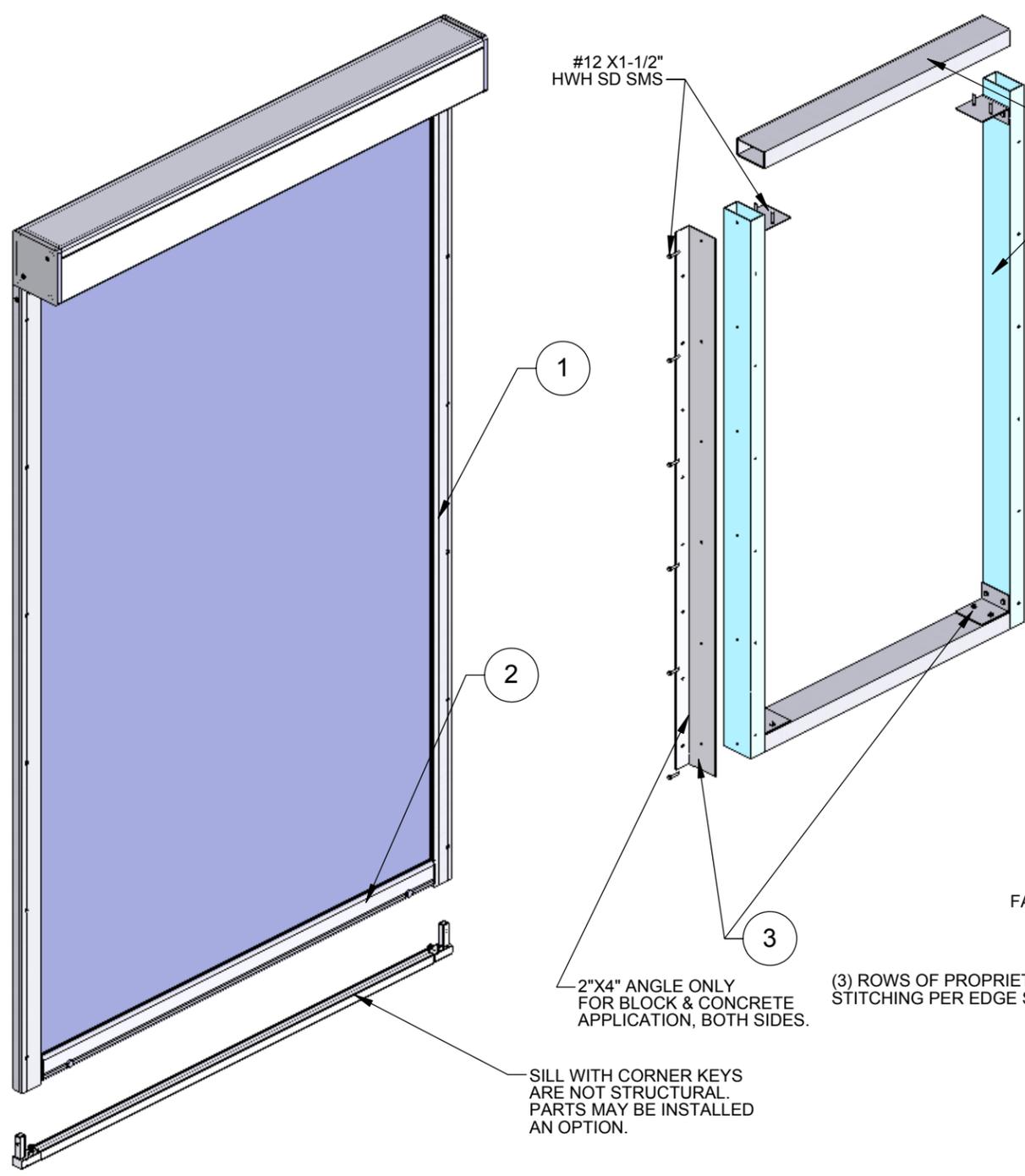
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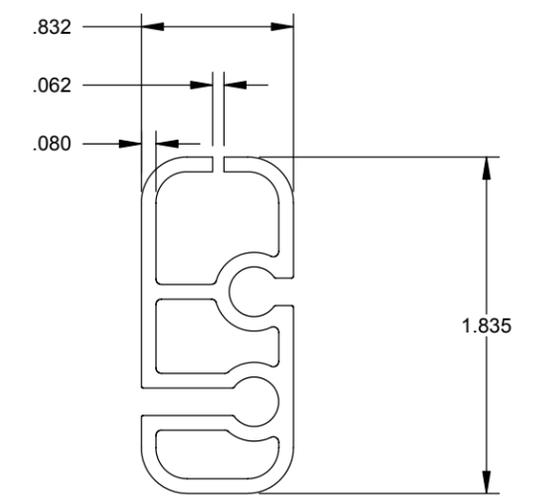
SCALE: 1:10 DATE: 02/25/09 SHEET 3 OF 5

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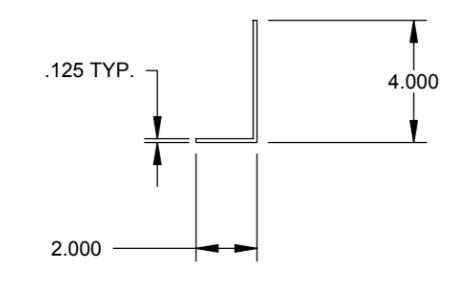
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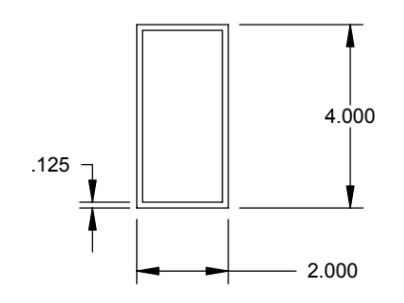
1 SIDE GUIDE ALUMINUM



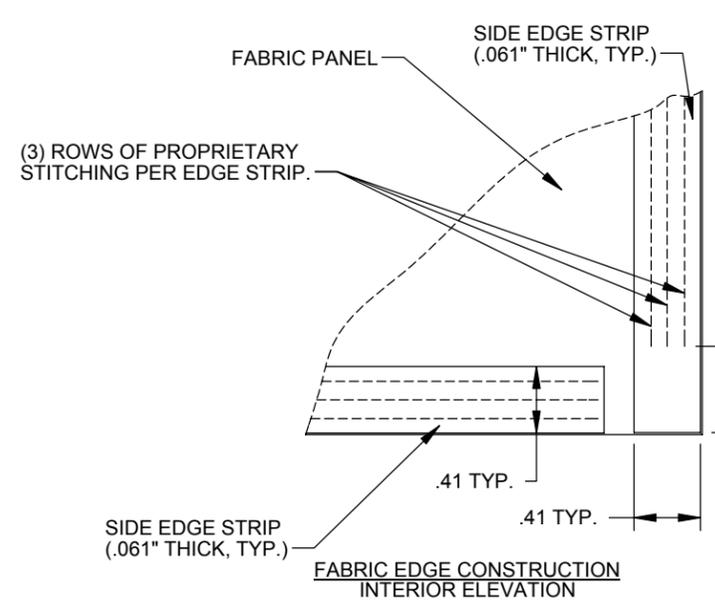
2 CURTAIN BAR ALUMINUM



3 2"X4" ANGLE ALUMINUM



4 2"X4" RECTANGULAR TUBE ALUMINUM



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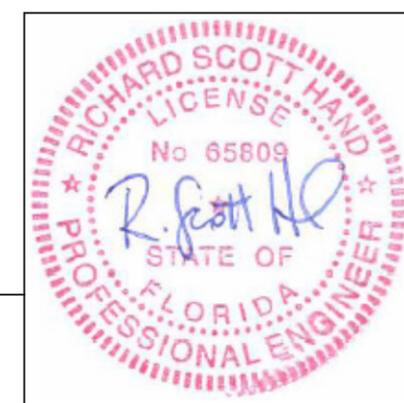


FABRIC-SHIELD™ PULL-DOWN SHUTTER

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SHEET 4 OF 5	

8 7 6 5 4 3 2 1

BUILD-OUT ANCHOR SPACING SCHEDULE

2-1/2" MINIMUM EDGE DISTANCE						
Substrate	Anchor Type	Build-out Height	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Concrete	1/4" ITWBuildex TAPCON WITH 1-3/4" EMBEDMENT (3320 psi MIN CONC)	38	45	11	11	11
			66	11	11	11
			91			
		62	45	11	11	10
			66	11	11	8
			91			
		88	45	11	11	
			66	11	11	
			91			
Concrete	5/16" ITWBuildex TAPCON WITH 1-3/4" EMBEDMENT (3513 psi MIN CONC)	38	45	11	11	11
			66	11	11	11
			91			
		62	45	11	11	11
			66	11	11	11
			91			
		88	45	11	11	
			66	11	11	
			91			

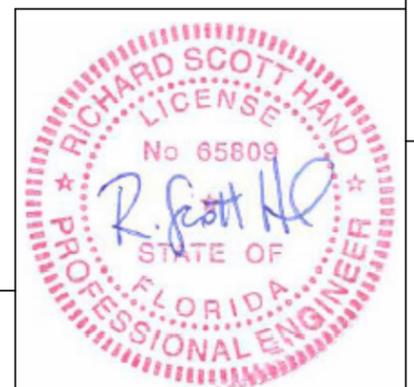
2-1/2" MINIMUM EDGE DISTANCE						
Substrate	Anchor Type	Build-out Height	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Hollow Block	1/4" ITWBuildex TAPCON WITH 1-3/4" EMBEDMENT (2000 psi MIN CONC)	38	45	11	11	9
			66	11	10	8
			91			
		62	45	11	9	6
			66	11	7	5
			91			
		88	45	11	8	
			66	10	6	
			91			
Hollow Block	5/16" ITWBuildex TAPCON WITH 1-1/4" EMBEDMENT (2000 psi MIN CONC)	38	45	11	11	8
			66	11	9	6
			91			
		62	45	11	11	7
			66	11	8	5
			91			
		88	45	11	10	
			66	11	7	
			91			

3/4" MINIMUM EDGE DISTANCE						
Substrate	Anchor Type	Build-out Height	Load PSF	Up to Width 3' 4"	Up to Width 5'-6"	Up to Width 7'-3"
Wood	1/4" ITWBuildex TAPCON OR #14 WOOD SCREW WITH 1-3/4" THREAD PENETRATION	38	45	11	11	11
			66	11	11	9
			91			
		62	45	11	11	8
			66	11	9	6
			91			
		88	45	11	11	
			66	11	8	
			91			
Wood	5/16" ITWBuildex TAPCON OR 5/6" LAG SCREW WITH 2-1/2" THREAD PENETRATION	38	45	11	11	11
			66	11	11	11
			91			
		62	45	11	11	11
			66	11	11	11
			91			
		88	45	11	11	
			66	11	11	
			91			

Design Pressure (PSF)	Width Up to 3'-4"		Width Up to 5'-6"		Width Up to 7'-3"	
	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)	Anchor Tension Design Load (PLF)	Anchor Shear Design Load (PLF)
35	191	76	337	134	453	180
40	216	86	377	150	503	200
45	241	96	416	165	550	218
50	265	105	453	180	594	236
55	289	115	489	194	636	253
60	313	124	523	208	676	268
66	341	135	563	223	721	286
70						
80						
90						
91						
100						
110						
120						
128						

ANCHOR NOTES:

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- HOST STRUCTURE MAY BE CONCRETE, HOLLOW BLOCK, OR WOOD AS DESCRIBED IN THESE NOTES AND IN ACCORDANCE WITH THE ANCHOR SPACING SCHEDULES.
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- FIELD CONDITIONS VARY. CONTRACTOR IS RESPONSIBLE TO SEE THAT ANCHORING STRUCTURE ARE ADEQUATE PER THE ANCHOR SCHEDULE.
- WOOD STUD MATERIAL SHALL BE OF "DOUGLAS FIR" OR "SOUTHERN PINE" G=0.53 OR GREATER DENSITY.
- NO 33.3% INCREASE IN ALLOWABLE LOADS HAVE BEEN USED IN THE DESIGN OF THE ANCHORS OF THIS PRODUCT APPROVAL. A WIND LOAD DURATION FACTOR, Cd, OF 1.6 HAS BEEN USED FOR WOOD LAG SCREW DESIGN CALCULATIONS.



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SHEET 5 OF 5	