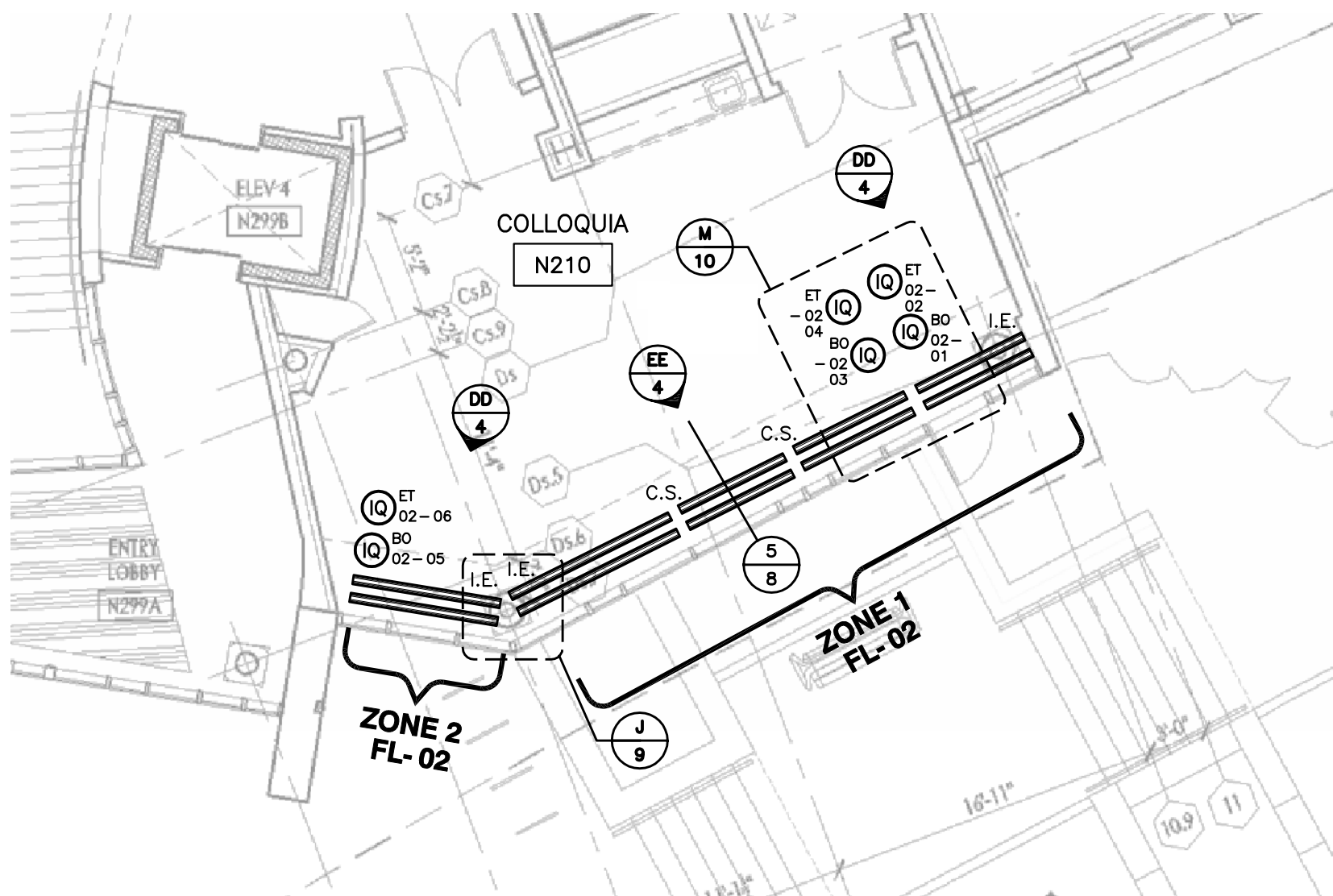
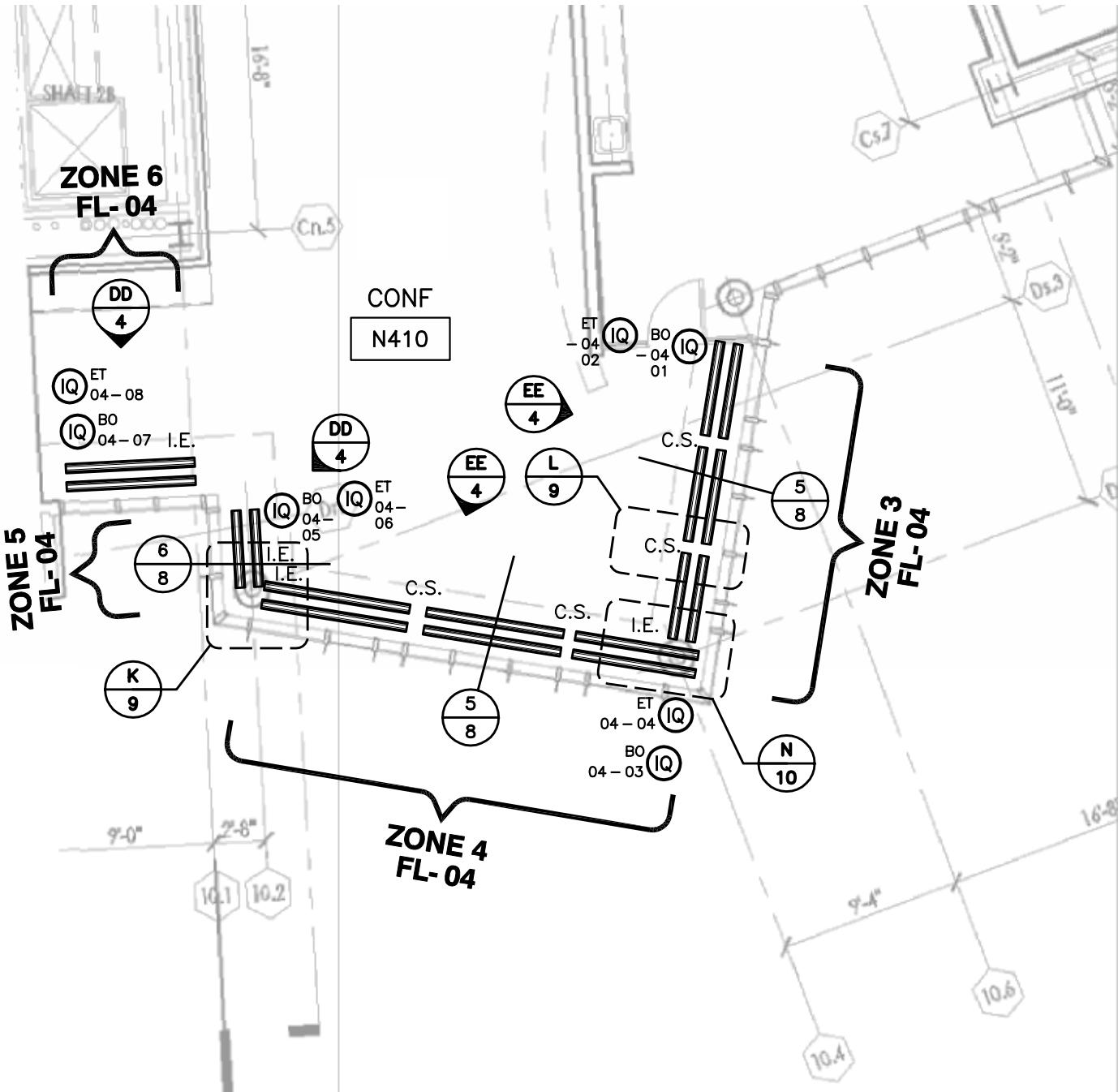


PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



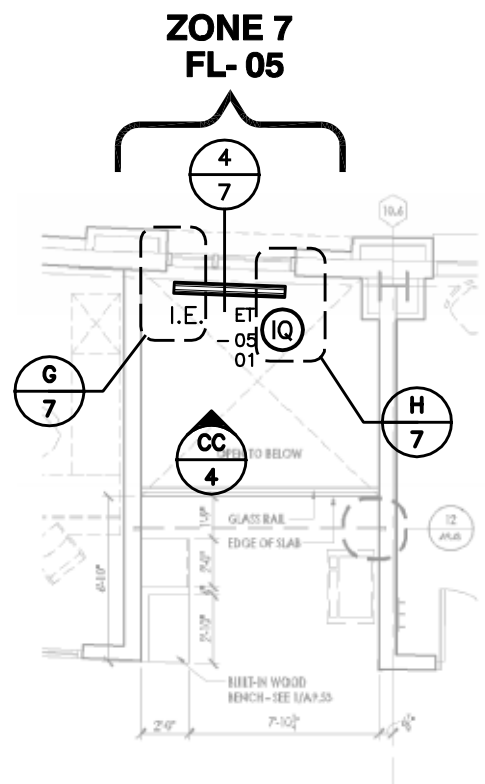
PARTIAL SHADE LOCATION PLAN @ LEVEL TWO

SCALE: 1/8"=1'-0"



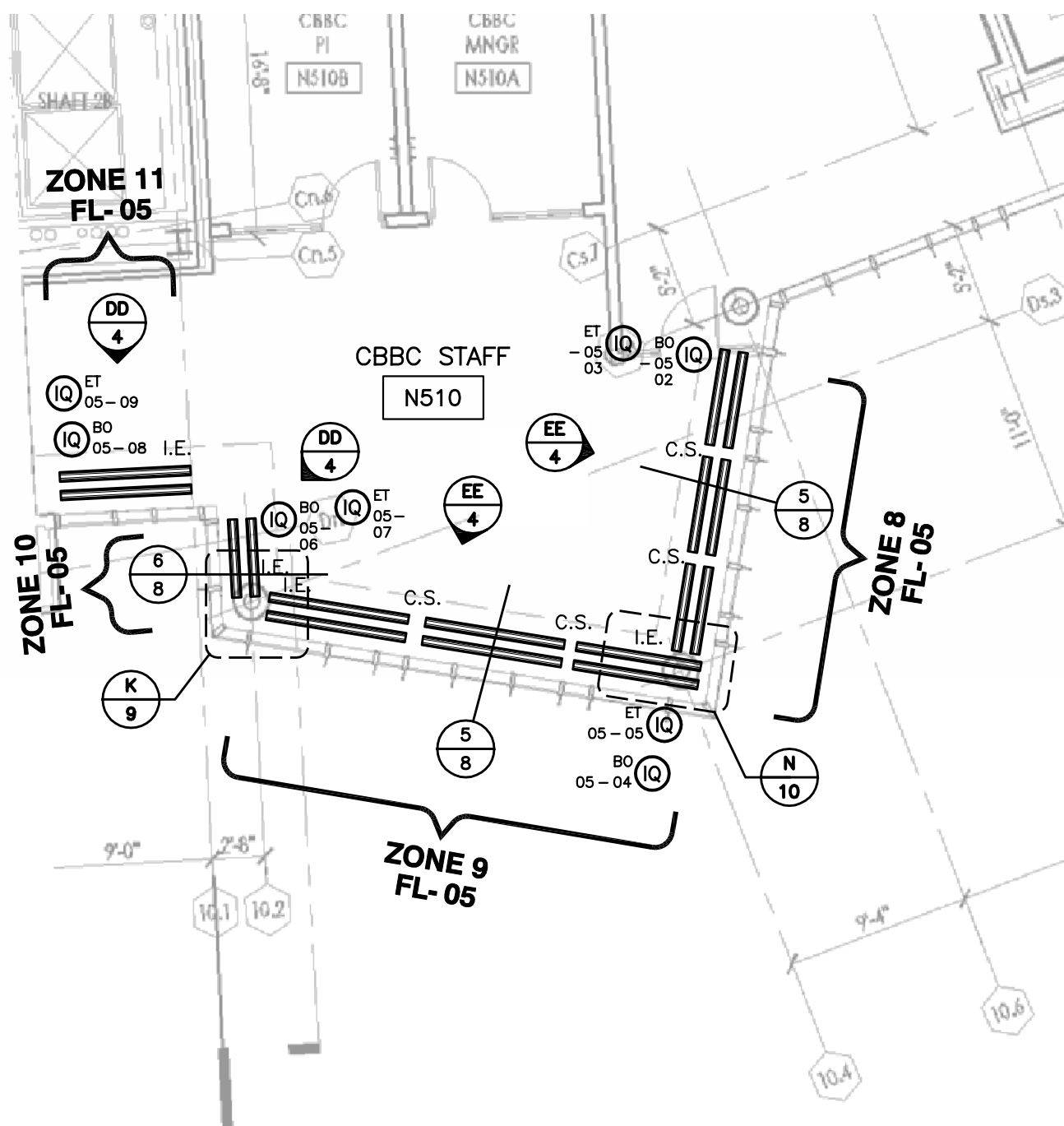
PARTIAL SHADE LOCATION PLAN @ LEVEL FOUR

SCALE: 1/8"=1'-0"



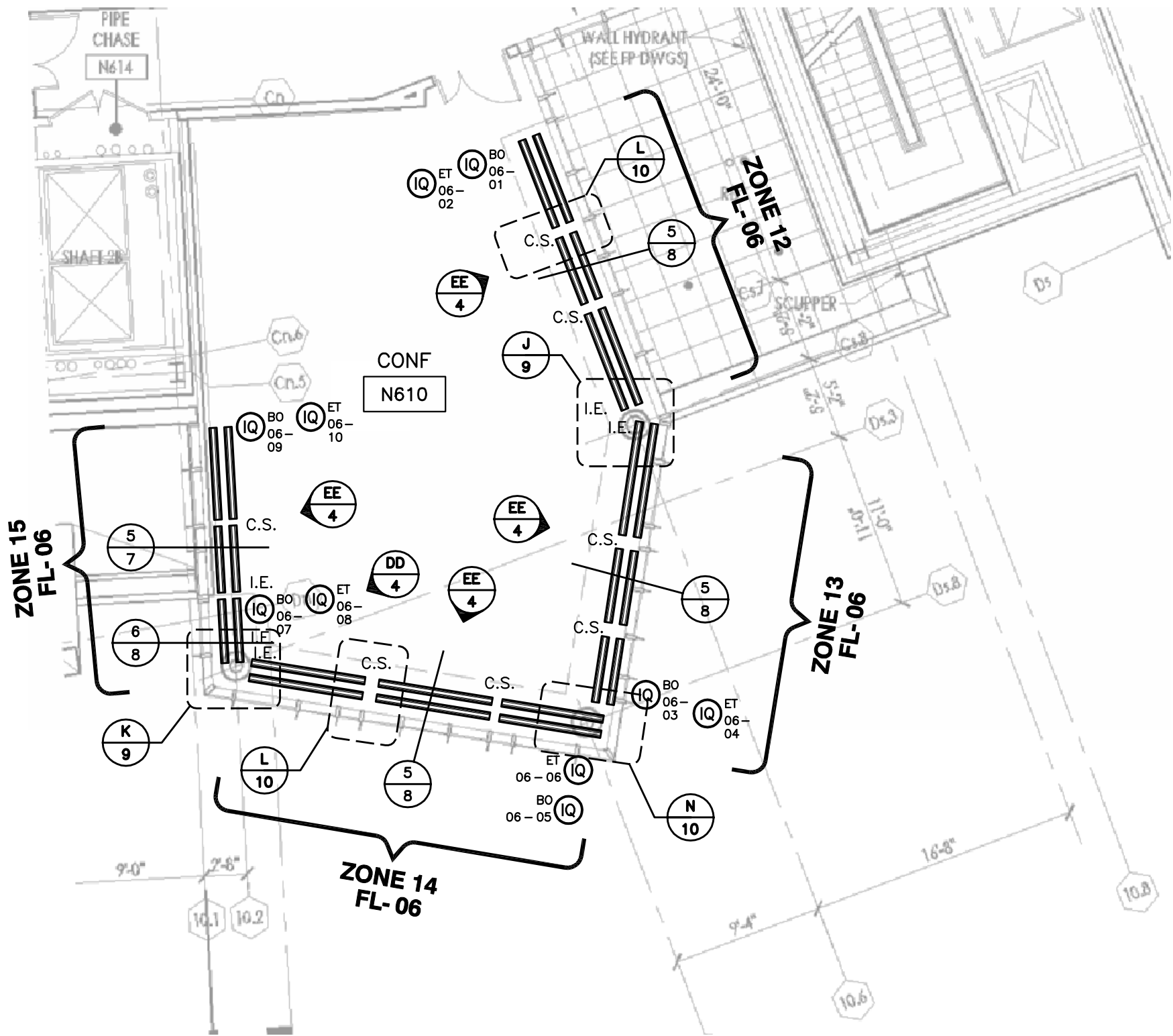
PARTIAL SHADE LOCATION PLAN @ LEVEL FIVE - BREAK

1/8" = 1'-0"



PARTIAL SHADE LOCATION PLAN @ LEVEL FIVE

SCALE: 1/8"=1'-0"

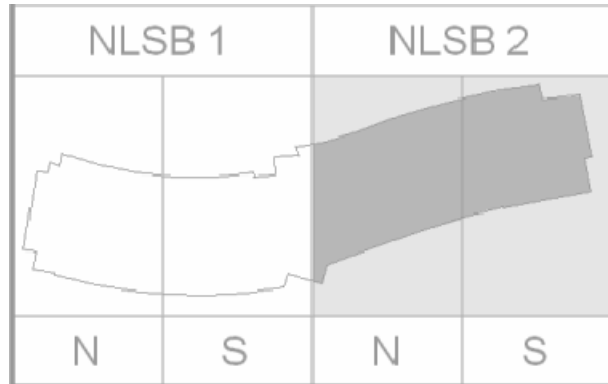


PARTIAL SHADE LOCATION PLAN @ LEVEL SIX

SCALE: 1/8"=1'-0"

KEY	
C.S.	— CENTER SUPPORT
D.E.	— DRIVE END
I.E.	— IDLE END
O.H.	— OPENING HEIGHT
O.O.W.	— OVERALL OPENING WIDTH
O.W.	— OPENING WIDTH
R.U.D.	— ROLL UP DIAMETER
S.C.	— SHADECLOTH
S.O.H.	— SHADE OPENING HEIGHT
S.O.W.	— SHADE OPENING WIDTH
V.I.F.	— VERIFY IN FIELD
N.I.C.	— NOT IN CONTRACT

	ELEVATION NUMBER
	SHEET NUMBER
	SHADECLOTH
	FLOOR NUMBER (OPTIONAL)
	MOTOR NUMBER
	ROOM NUMBER
	MOTORIZED SHADE



KEY PLAN

SCALE:

NOTES:

1 - ALL DIMENSIONS AND JOB CONDITIONS TO BE FIELD VERIFIED BY DEALER BEFORE FABRICATION.

2 - ALL MATERIALS, COLORS, FINISHES, ETC. ARE TO BE MechoShade STANDARDS UNLESS OTHERWISE NOTED.

3 - MechoShade Systems, Inc. RESERVES THE RIGHT TO MAKE DESIGN MODIFICATIONS AND TECHNICAL CHANGES WITHOUT PRIOR NOTICE.

4 - EUROTWILL SHADECLOTH TO BE No. 6000 SERIES - 96" WIDTH - RAILROADED WIDTH FOR HEIGHT WITH SEAM/BATTEN AS SHOWN ON ABOVE ELEVATIONS - STANDARD MechoShade COLOR AS APPROVED BY ARCHITECT.

5 - BLACKOUT SHADECLOTH TO BE No. 0700 SERIES - 72" WIDTH - RAILROADED WIDTH FOR HEIGHT WITH SEAM/BATTEN AS SHOWN ON ABOVE ELEVATION - STANDARD MechoShade COLOR AS APPROVED BY ARCHITECT.

SHOP DRAWING DIMENSIONS

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)

ROLL DIAMETER SIZES ± 1/8" (3.18mm)

EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\Loc-Plan.dwg

NO.	DATE	DESCRIPTION	BY
4			
3			
2			
1	07/14/11	NO CHANGE	K.C.

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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	JOB NO.	525031	PROPOSAL NO.	185318-0-1
ARCHITECT	WILSON ARCHITECTS, INC.	DATE	04/11/11	SCALE	AS NOTED
DEALER	KILCOURSE WINDOW PRODUCTS	DWN. BY	J.S.R.	CHKD. BY	G.B.
		SHEET NO.	1	OF	15



MANUAL SHADE SCHEDULE

ITEM	FLOOR	ROOM	QUANTITY	SIZE (INCHES)		FABRIC	VERT/RR	TUBE DIAM. (INCHES)	RUD	BRACKET	MECHO DETAIL		REMARKS
				S.O.W. (V.I.F.)	S.O.H. (V.I.F.)						ELEV.	HEAD DET.	
1	SECOND FLOOR	N240D LAB	2	117	139	6000	RR	1.875	2.97	M5 PKT	BB	1	1 BATTEN
2		N240C LAB	2	117	139	6000	RR		2.97				
3		N240B LAB	2	117	139	6000	RR		2.97				
4		N240A LAB	2	117	139	6000	RR		2.97				
5		N2452 COMPUTATION	2	117	139	6000	RR		2.97				
6		N260A LAB	2	117	139	6000	RR		2.97				
7		N260B LAB	2	117	139	6000	RR		2.97				
8		N260C LAB	2	117	139	6000	RR		2.97				
9		N260D LAB	2	99	139	6000	RR		2.97				
10		N299X ENTRY LAB	1	36	192	6000	RR		3.03		AA	2	2 BATTENS
11			1	56	192	6000	RR		2.91				
12			1	85	192	6000	RR		2.91				
13			1	87	192	6000	RR		3.12				
14			1	72	128	6000	RR		2.54				
15			1	52	192	6000	RR		3.3				
16			1	99	192	6000	RR		3.37				
17			1	81	192	6000	RR		2.91				
18			1	66	192	6000	RR		2.91				
19			1	46	192	6000	RR		3.03				
20		N285 BUILDING MANAGER	1	75	94	6000	V	1.5	2.32	MECHO 5	AA	2	
21		N275 FAC. OFF	1	95	139	6000	V	1.875	2.84	M5 PKT	AA	1	
22		N273 FAC. OFF	1	95	139	6000	V		2.84				
23		N271 FAC. OFF	1	95	139	6000	V		2.84				
24		N269 POST DOCS	1	95	139	6000	V		2.84				
25	N267 POST DOCS	1	95	139	6000	V	2.84						
26	N265 POST DOCS	1	95	139	6000	V	2.84						
27	N263 FAC. OFF	1	95	139	6000	V	2.84						
28	N261 POST DOCS	1	95	139	6000	V	2.84						
29	N235 POST DOCS	1	95	139	6000	V	2.84						
30	N233 FAC. OFF	1	95	139	6000	V	2.84						
31	N231 FAC. OFF	1	95	139	6000	V	2.84						
32	N229 POST DOCS	1	95	139	6000	V	2.84						
23	N227 FAC. OFF	1	95	139	6000	V	2.84						
24	N225 FAC. OFF	1	67	139	6000	V	2.61						
TOTAL @ 2ND FLOOR			43										

ITEM	FLOOR	ROOM	QUANTITY	SIZE (INCHES)		FABRIC	VERT/RR	TUBE DIAM. (INCHES)	RUD	BRACKET	MECHO DETAIL		REMARKS	
				S.O.W. (V.I.F.)	S.O.H. (V.I.F.)						ELEV.	HEAD DET.		
25	THIRD FLOOR	N340D LAB	2	121	111	6000	RR	1.875	2.81	M5 PKT	BB	1	1 BATTEN	
26		N340C LAB	2	120	111	6000	RR		2.81					
27		N340B LAB	2	120	111	6000	RR		2.81					
28		N340A LAB	2	120	111	6000	RR		2.81					
29		N352 COMPUTATION	2	75	111	6000	V		2.43					
30		N360A LAB	2	120	111	6000	RR		2.81					
31		N360B LAB	2	120	111	6000	RR		2.81					
32		N360C LAB	2	120	111	6000	RR		2.81					
33		N360D LAB	1	96	60	6000	V	1.5	2.07	MECHO 5	AA	2	1 BATTEN	
34		N390 BREAKOUT	1	31	163	6000	RR	1.875	2.87	M5 PKT	AA	1		
35			1	56	192	6000	RR		2.91					
36			1	85	192	6000	RR		2.91					
37			1	87	192	6000	RR		3.12					
38			1	72	192	6000	RR		2.91					
39			1	52	192	6000	RR		2.91					
40			1	99	192	6000	RR		3.37					
41			1	81	192	6000	RR		2.91					
42			1	66	192	6000	RR		2.91					
43			1	46	192	6000	RR		3.03					
44		N375 FAC. OFF	1	95	123	6000	V	1.5	2.75	MECHO 5	AA	2		
45		N373 FAC. OFF	1	95	123	6000	V		2.75					
46		N371 POST DOCS	1	95	123	6000	V		2.75					
47		N369 FAC. OFF	1	95	123	6000	V		2.75					
48		N367 FAC. OFF	1	95	123	6000	V		2.75					
49		N365 POST DOCS	1	95	84	6000	V	1.5	2.25	MECHO 5	AA	2	1 BATTEN	
50		N363 FAC. OFF	1	95	123	6000	V	1.875	2.75	M5 PKT	AA	1		
51		N361 POST DOCS	1	95	123	6000	V		2.75					
52		N335 POST DOCS	1	95	123	6000	V		2.75					
53		N333 FAC. OFF	1	95	84	6000	V	1.5	2.25	MECHO 5	AA	2		1 BATTEN
54		N331 FAC. OFF	1	95	123	6000	V	1.875	2.75	M5 PKT	AA	1		
55		N329 POST DOCS	1	95	84	6000	V	1.5	2.25	MECHO 5	AA	2		
56		N327 POST DOCS	1	95	123	6000	V	1.875	2.75	M5 PKT	AA	1	1 BATTEN	
57		N325 FAC. OFF	1	67	123	6000	V		2.51					
58		S350 SHELL	1	98	139	6000	RR		2.97					
59			6	110	139	6000	RR		2.97					
60			1	63	139	6000	RR		2.61					
61			1	84	139	6000	RR		2.61					
62			2	82	139	6000	RR		2.61					
63			5	107	139	6000	RR		2.97					
64			1	99	139	6000	RR		2.97					
65			1	54	139	6000	RR		2.61					
66			1	99	139	6000	RR		2.97					
67			1	39	139	6000	RR		2.61					
68		N310 SEVERY	1	57	139	6000	RR	1.875	2.61	M5 PKT	AA	1	1 BATTEN	
69			1	69	139	6000	RR		2.61					
70			1	63	139	6000	RR		2.61					
71			1	46	139	6000	RR		2.61					
72			2	65	163	6000	RR		2.75					
TOTAL @ 3RD FLOOR			67											

ITEM	FLOOR	ROOM	QUANTITY	SIZE (INCHES)		FABRIC	VERT/RR	TUBE DIAM. (INCHES)	RUD	BRACKET	MECHO DETAIL		REMARKS		
				S.O.W. (V.I.F.)	S.O.H. (V.I.F.)						ELEV.	HEAD DET.			
73	FOURTH FLOOR	N440D LAB	2	121	111	6000	RR	1.875	2.81	M5 PKT	BB	1	1 BATTEN		
74		N440C LAB	2	120	111	6000	RR		2.81						
75		N440B LAB	2	120	111	6000	RR		2.81						
76		N440A LAB	2	120	111	6000	RR		2.81						
77		N452 COMPUTATION	4	75	111	6000	RR		2.43						
78		N460ASHELL	5	120	111	6000	RR	1.5	2.07	MECHO 5	AA	2	1 BATTEN		
79			1	75	111	6000	RR							2.43	
80		N490 BREAKOUT	1	96	60	6000	RR	1.875	3.03	M5 PKT	BB	1			
81			1	52	192	6000	RR							2.91	
82			1	56	192	6000	RR							2.91	
83			1	72	192	6000	RR							2.91	
84			1	85	192	6000	RR							2.91	
85			1	87	192	6000	RR							3.12	
86			1	99	192	6000	RR							3.37	2 BATTERS
87			1	81	192	6000	RR							2.91	
88		N487 POST DOC	1	66	192	6000	RR	1.875	3.03	M5 PKT	BB	1	2 BATTERS		
89			1	46	192	6000	RR							3.03	
90			1	33	192	6000	RR							3.37	
91			3	99	192	6000	RR							3.37	
92			1	72	192	6000	RR							2.91	
93		N485 POST DOC	1	111	192	6000	RR	1.875	3.37	M5 PKT	AA	1	2 BATTERS		
94			1	82	192	6000	RR							2.91	
95			1	69	192	6000	RR							2.91	
96			1	99	192	6000	RR							3.37	
97			1	33	192	6000	RR							3.03	
98		N483 SHELL	1	109	192	6000	RR	1.5	2.25	MECHO 5	AA	2	2 BATTERS		
99			1	91	192	6000	V							3.12	
100			N475 SHELL	1	95	84	6000							V	2.75
101	N473 SHELL		1	95	123	6000	V							2.75	
102	N471 SHELL		1	95	123	6000	V							2.75	
103	N467 POST DOCS		1	95	123	6000	V							2.75	
104	N465 POST DOCS		1	95	84	6000	V							2.25	
105	N463 POST DOCS		1	95	84	6000	V							2.25	
106	N461 POST DOCS		1	95	123	6000	V							2.75	
107	N435 POST DOCS		1	95	123	6000	V							2.75	
108	N433 FAC. OFF	1	95	84	6000	V	1.5	2.25	MECHO 5	AA	2				
109	N431 FAC. OFF	1	95	84	6000	V							2.25		
110	N429 FAC. OFF	1	95	84	6000	V							2.25		
111	N427 FAC. OFF	1	95	123	6000	V							2.75		
112	N425 FAC. OFF	1	67	123	6000	V							2.51		
113	N415 CONF.	5	99	198	6000	RR	1.875	3.41	M5 PKT	AA	1				
114		5	99	198	BO 0700	RR							3.09		
115	S450 SHELL	2	67 1/2	196	6000	RR	1.875	3.15	M5 PKT	BB	1	1 BATTEN			
116		2	99	196	6000	RR							3.4		
117		1	108	139	6000	RR							3.4		
118		4	87	196	6000	RR							3.15		
119		1	99	139	6000	RR							2.97		
120	N499L BREAKOUT	1	53	163	6000	RR	1.875	2.75	M5 PKT	AA	1	1 BATTEN			
121		1	33	163	6000	RR							2.87		
122		1	69	163	6000	RR							2.75		
123		1	128	163	6000	RR							3.1		
124		1	31	163	6000	RR	2.87								
TOTAL @ 4TH FLOOR			78												



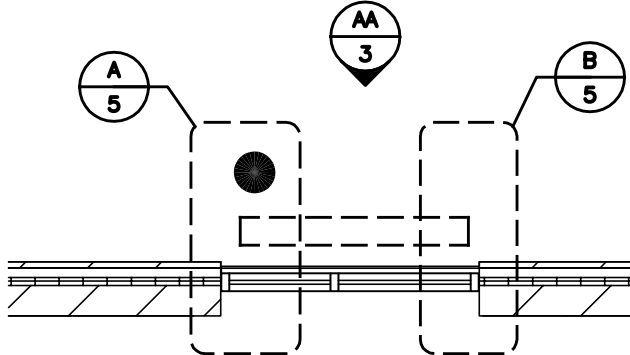
PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14

MANUAL SHADE SCHEDULE (CONT'D)

ITEM	FLOOR	ROOM	QUANTITY	SIZE (INCHES)		FABRIC	VERT/RR	TUBE DIAM. (INCHES)	RUD	BRACKET	MECHO DETAIL		REMARKS	
				S.O.W. (V.I.F.)	S.O.H. (V.I.F.)						ELEV.	HEAD DET.		
168	SIXTH FLOOR	N615 CONF.	5	99	198	6000	RR	1.875	3.41	M5 PKT	GG	3	2 BATTENS	
169			5	99	198	BO 0700	RR		3.09					
170			1	135	139	6000	RR		2.97					
171		S650 SHELL	2	99	196	6000	RR		2.97		AA	1	2 BATTENS	
172			6	119	139	6000	RR		2.97					1 BATTEN
173			4	87	139	6000	V		2.61					
174			5	119	139	6000	RR		2.97				1 BATTEN	
175			1	67	139	6000	V		2.61					
176			N699L CENTRAL LOBBY	1	99	163	6000		RR					3.1
177		1		62	163	6000	V		2.75					
TOTAL @ 6TH FLOOR			31											
GRAND TOTAL			287											

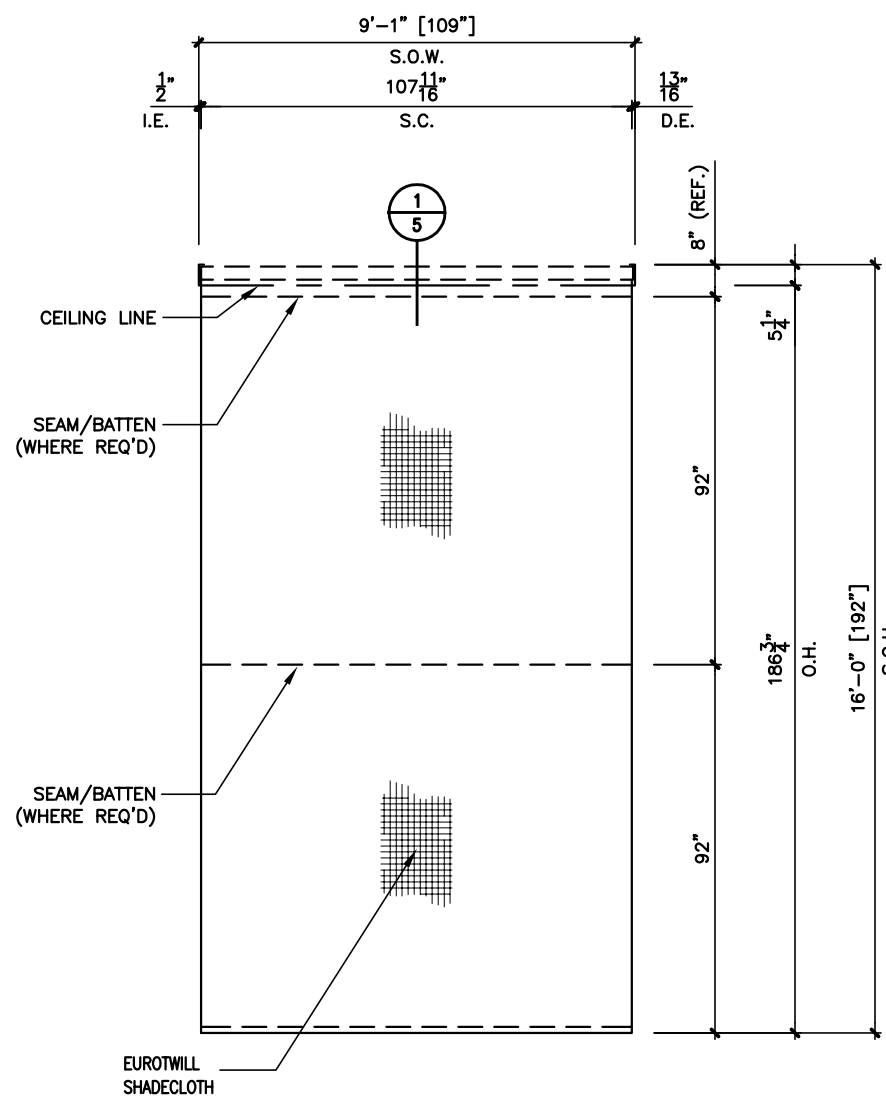
MANUAL SHADES

PLEASE USE THESE PARTIAL PLANS FOR REFERENCE FOR MANUAL SHADES AND REFLECTED DETAILS



PARTIAL SHADE PLAN FOR ONE SHADE PER WINDOW

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

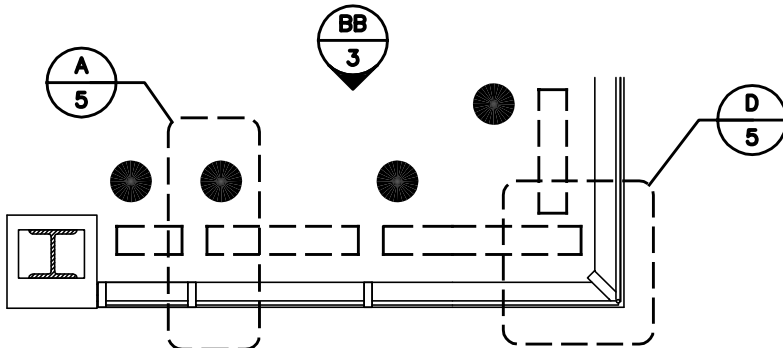


INTERIOR ELEVATION

SCALE: 1/4"=1'-0"  
ONE MANUAL SHADE PER WINDOW

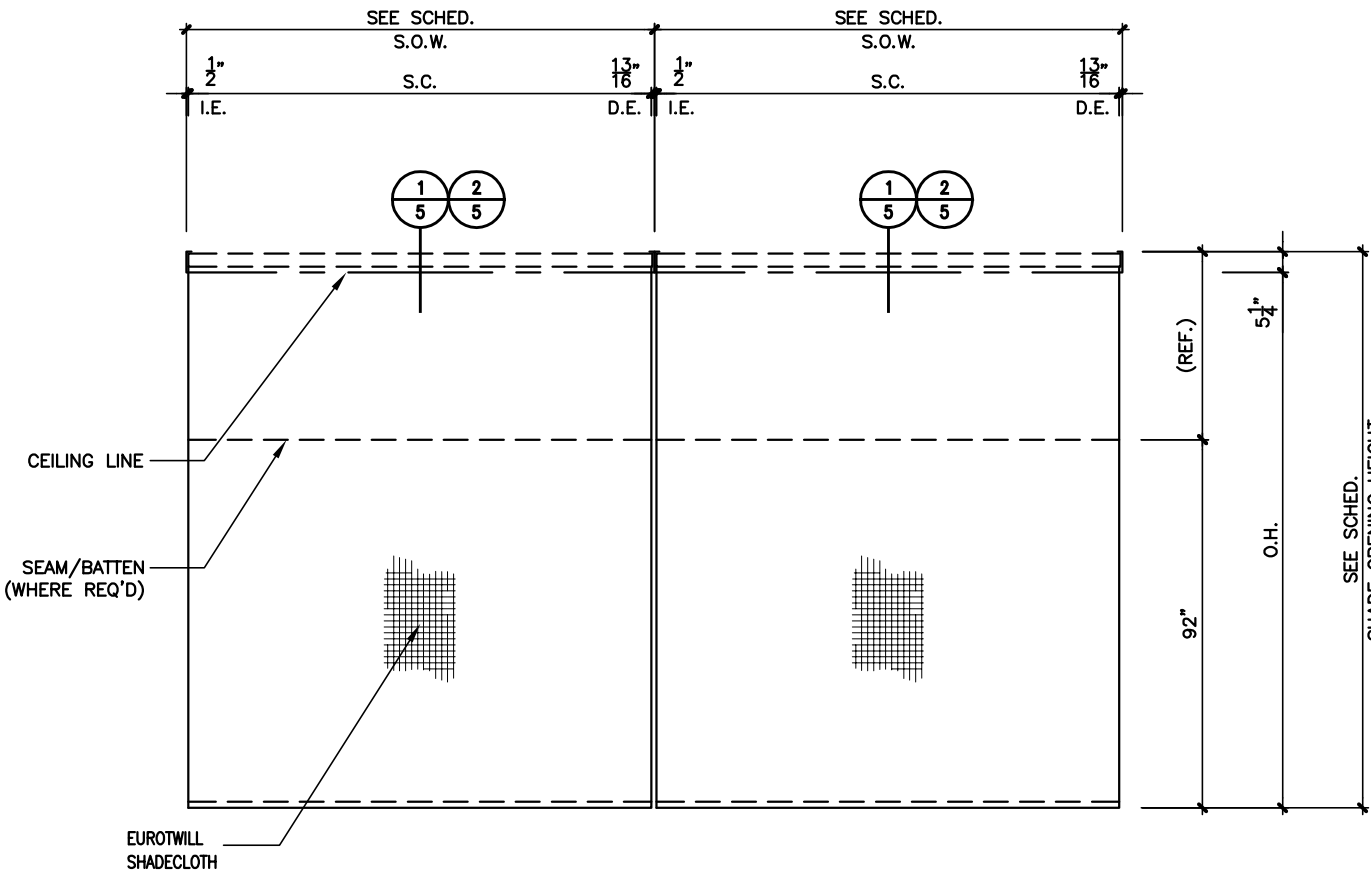
MANUAL SHADES

PLEASE USE THESE PARTIAL PLANS FOR REFERENCE FOR MANUAL SHADES AND REFLECTED DETAILS



PARTIAL SHADE PLAN FOR TWO OR MORE SHADES PER WINDOW

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

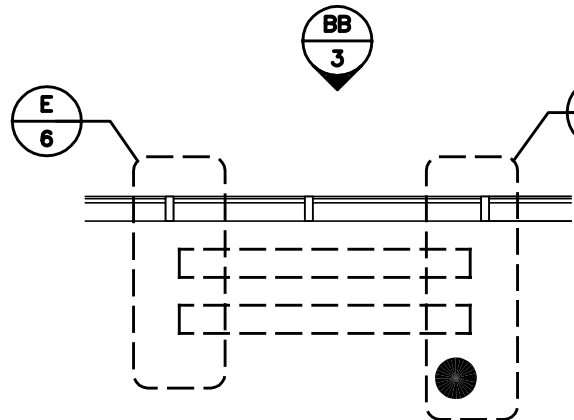


INTERIOR ELEVATION

SCALE: 1/4"=1'-0"  
TWO OR MORE MANUAL SHADES PER WINDOW

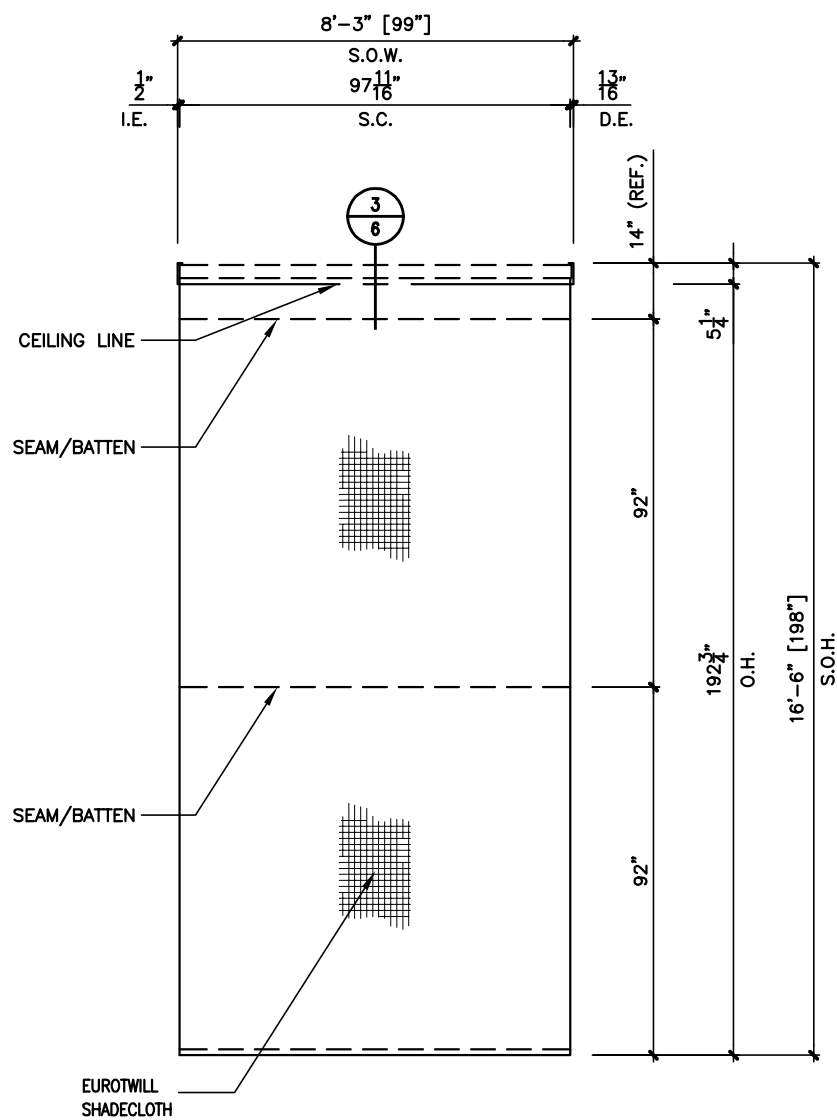
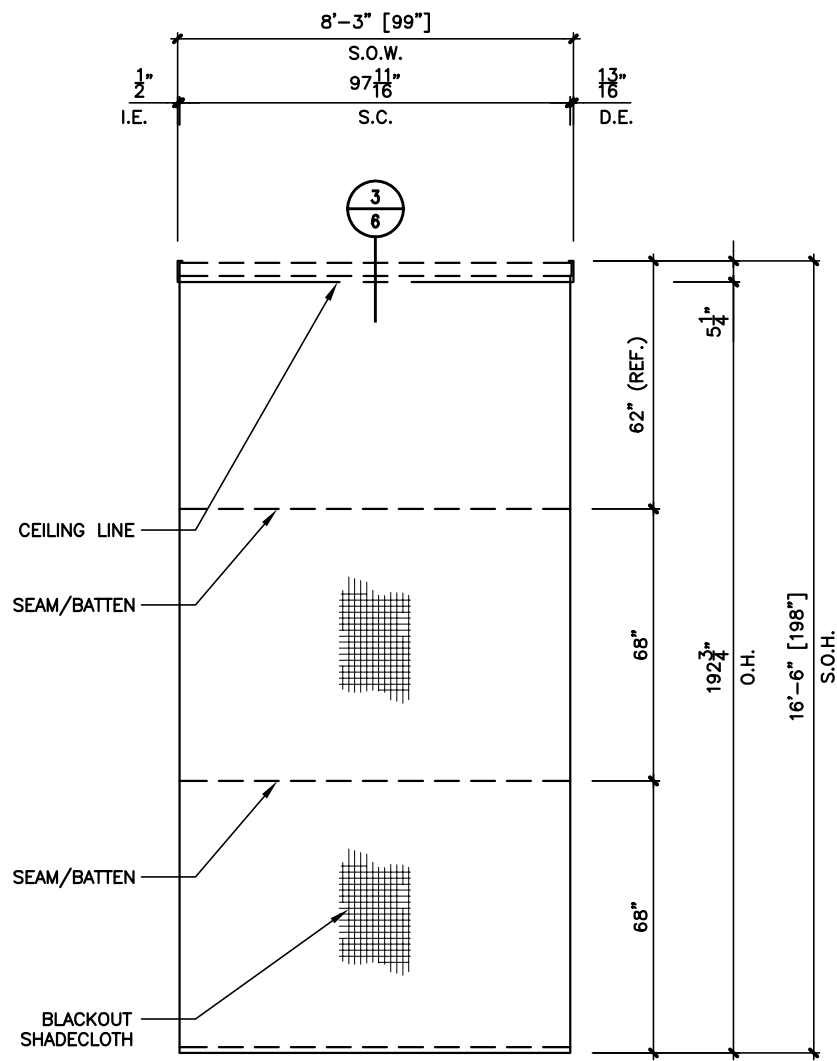
MANUAL DOUBLE SHADES

PLEASE USE THESE PARTIAL PLANS FOR REFERENCE FOR MANUAL SHADES AND REFLECTED DETAILS



PARTIAL SHADE PLAN FOR ONE DOUBLE SHADE PER WINDOW

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



INTERIOR ELEVATION

SCALE: 1/4"=1'-0"  
ONE MANUAL DOUBLE SHADE PER WINDOW

KEY

- C.S. - CENTER SUPPORT
- D.E. - DRIVE END
- I.E. - IDLE END
- O.H. - OPENING HEIGHT
- O.O.W. - OVERALL OPENING WIDTH
- O.W. - OPENING WIDTH
- R.U.D. - ROLL UP DIAMETER
- S.C. - SHADECLOTH
- S.O.H. - SHADE OPENING HEIGHT
- S.O.W. - SHADE OPENING WIDTH
- V.I.F. - VERIFY IN FIELD
- N.I.C. - NOT IN CONTRACT

ELEVATION NUMBER  
SHEET NUMBER

ROOM NUMBER

DRIVE CHAIN LOCATION  
MANUAL SHADE

NOTES:  
SEE SHEET#1

SHOP DRAWING DIMENSIONS

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\Schedule-Elevations.dwg

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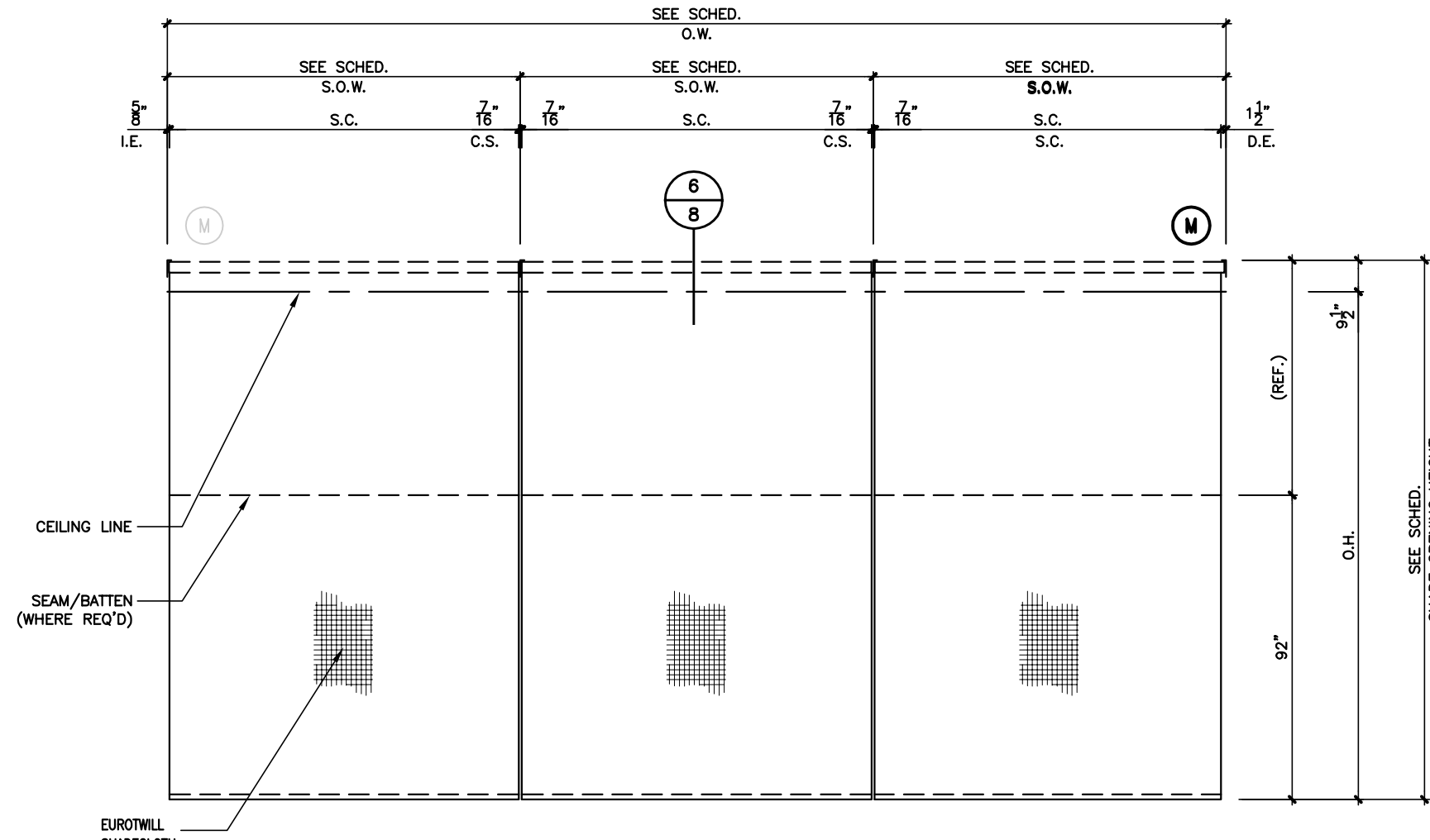
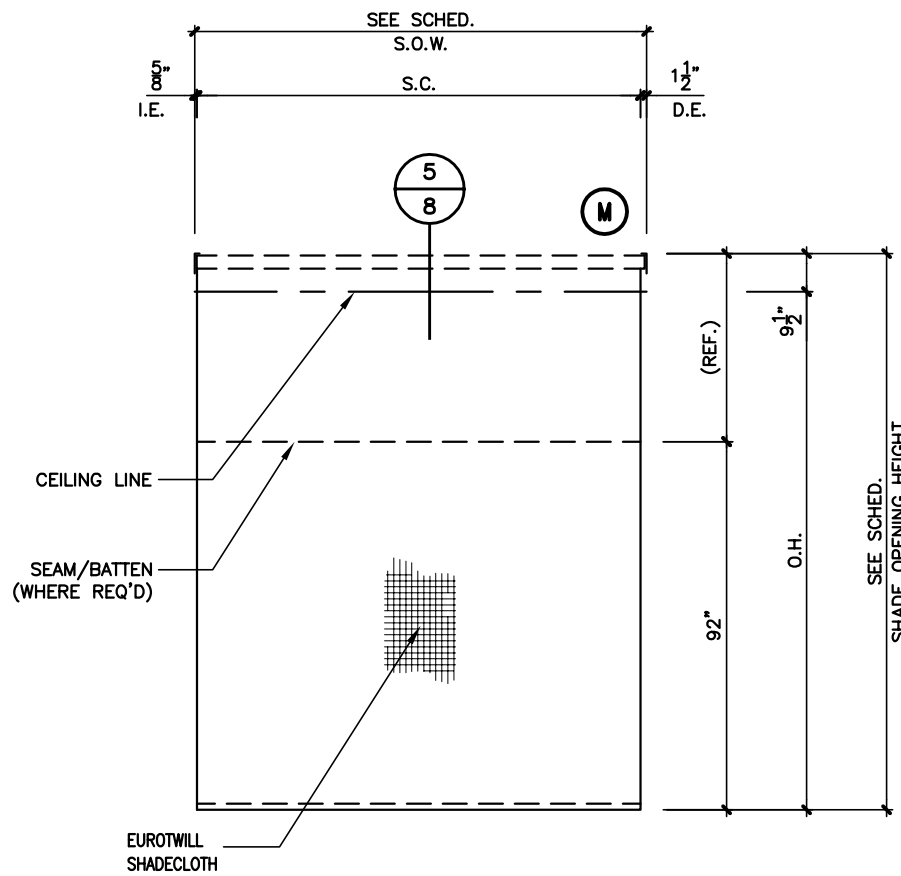
JOB UMass AMHERST  
NEW SCIENCE BUILDING  
AMHERST, MA  
TITLE PROPOSED DETAILS  
"ELECTRO" AND "MECHO" (MANUAL) SHADES  
ARCHITECT WILSON ARCHITECTS, INC.  
DEALER KILCOURSE WINDOW PRODUCTS

DWG NO. M-3314EM  
JOB NO. 525031  
PROPOSAL NO. 185318-0-1  
DATE 04/11/11  
SCALE AS NOTED  
DWN. BY J.S.R. CHK. BY G.B.  
SHEET NO. 3 OF 15

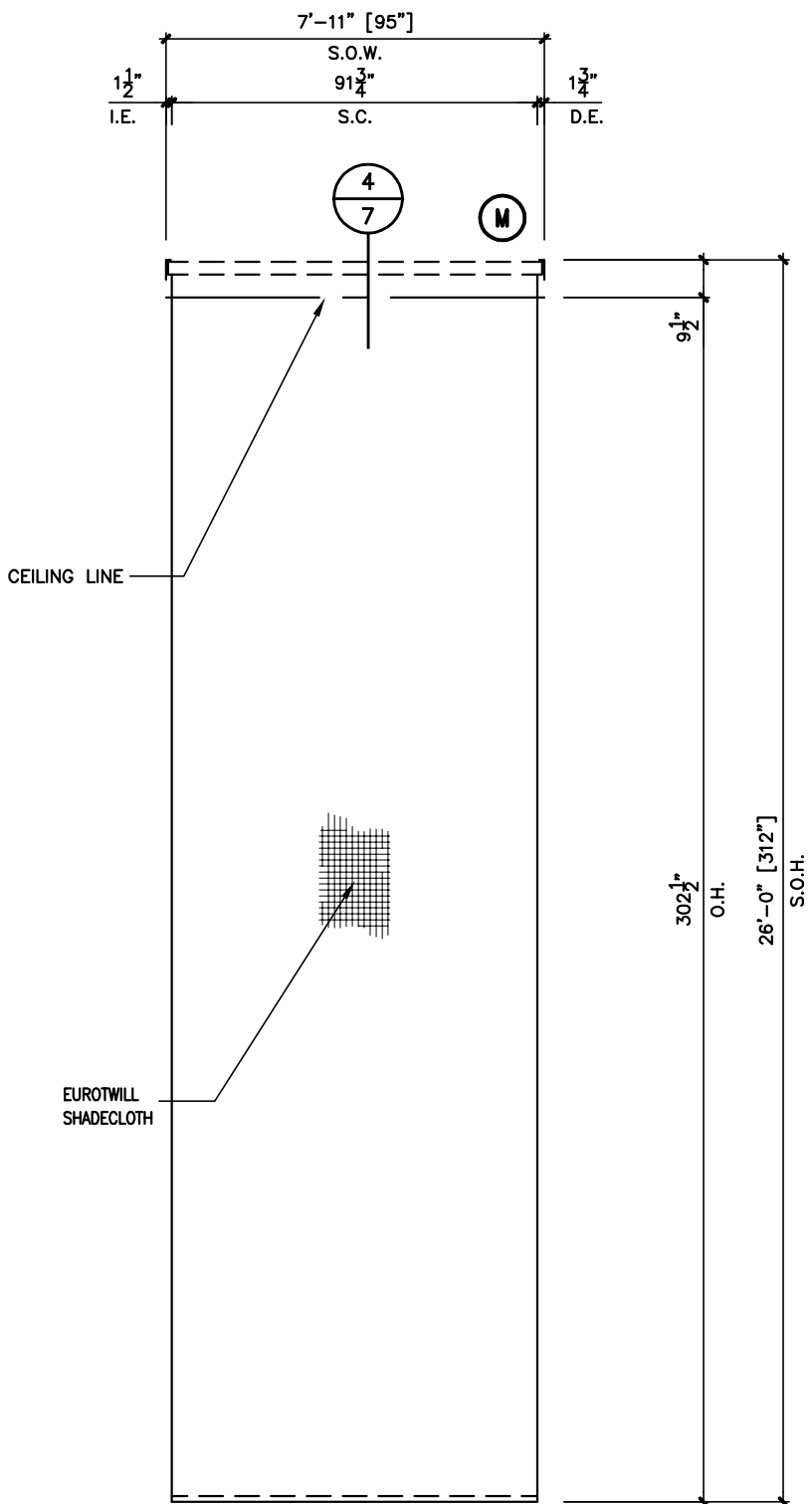
ELECTRO SHADE SCHEDULE

ITEM	LEVEL	ROOM	EXPOSURE	QUANTITY	SIZE (INCHES)		No. OF BANDS	BAND WIDTH			FABRIC	VERT/ RR	TUBE DIA. (INCH)	MOTOR NO.	HEAD DETAIL	Electro Elev.	REMARKS	
					S.O.W. (V.I.F.)	S.O.H. (V.I.F.)		1	2	3								
1	TWO	N210	SOUTH	1	81	139	1	81			0700	RR	2.2	5		DD	2 SEAMS	
2				1	81	139	1	81			6000							
3				1	290	139	3	86	79	125	0700							
4				1	290	139	3	86	79	125	6000							
5			WEST	1	108	139	1				0700							
6				1	108	139	1				8000							
TOTAL SHADES AT 2ND LEVEL				6														
7	FOUR	N410	SOUTH	1	209	163	3	66	66	77	0700	RR	2.2	5		EE		
8				1	209	163	3	66	66	77	6000							
9			WEST	1	292	163	3	84	96	112	0700	RR	2.2	6		DD		
10				1	292	163	3	84	96	112	6000							
11			NORTH	1	66	192	1	66			0700	RR	2.2	5				
12				1	66	192	1	66			6000							
13			WEST	1	88	163	1	88			0700	RR	2.2	5				
14				1	88	163	1	88			6000							
TOTAL SHADES AT 4TH LEVEL				8														
15			FIVE	N510	BREAK	1	95	312	1	95			6000	RR	3.5	4		CC
16	SOUTH	1			209	163	3	66	66	77	0700							
17		1			209	163	3	66	66	77	6000	RR	2.2	5		EE	2 SEAMS	
18	WEST	1			292	163	3	84	96	112	0700							
19		1			292	163	3	84	96	112	6000	RR	2.2	6		DD	2 BATTENS	
20	NORTH	1			66	192	1	66			0700							
21		1			66	192	1	66			6000	RR	2.2	5				
22	WEST	1			88	163	1	88			0700							
23		1			88	163	1	88			6000							
TOTAL SHADES AT 5TH LEVEL					9													
24	SIX	N610	SOUTH	1	234	163	3	78	60	96	0700	RR	2.2	5		EE	2 BATTENS	
25				1	234	163	3	78	60	96	6000							
26				1	238	163	3	94	66	78	0700							
27				1	238	163	3	94	66	78	6000							
28			WEST	1	295	163	3	84	96	115	0700	RR	2.2	6		DD	2 BATTENS	
29				1	295	163	3	84	96	115	6000							
30			NORTH	1	66	192	1	66			0700	RR	2.2	5		EE	1 BATTEN	
30				1	66	192	1	66			6000							
30				1	130	163	2	54	76		0700							
31				1	130	163	2	54	76		6000							
TOTAL SHADES AT 5TH LEVEL				10														
GRAND TOTAL MOTORS				33														

DOUBLE MOTORIZED SHADES



MOTORIZED SHADES



DD INTERIOR ELEVATION  
SCALE: 1/4"=1'-0"

EE INTERIOR ELEVATION  
SCALE: 1/4"=1'-0"

CC INTERIOR ELEVATION  
SCALE: 1/4"=1'-0"

KEY	
C.S.	- CENTER SUPPORT
D.E.	- DRIVE END
I.E.	- IDLE END
O.H.	- OPENING HEIGHT
O.O.W.	- OVERALL OPENING WIDTH
O.W.	- OPENING WIDTH
R.U.D.	- ROLL UP DIAMETER
S.C.	- SHADECLOTH
S.O.H.	- SHADE OPENING HEIGHT
S.O.W.	- SHADE OPENING WIDTH
V.I.F.	- VERIFY IN FIELD
N.I.C.	- NOT IN CONTRACT

NOTES:  
SEE SHEET#1

SHOP DRAWING DIMENSIONS  
DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)  
SHADE BANDS:  
RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included.  
All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing.  
Blocking is Not In Contract.  
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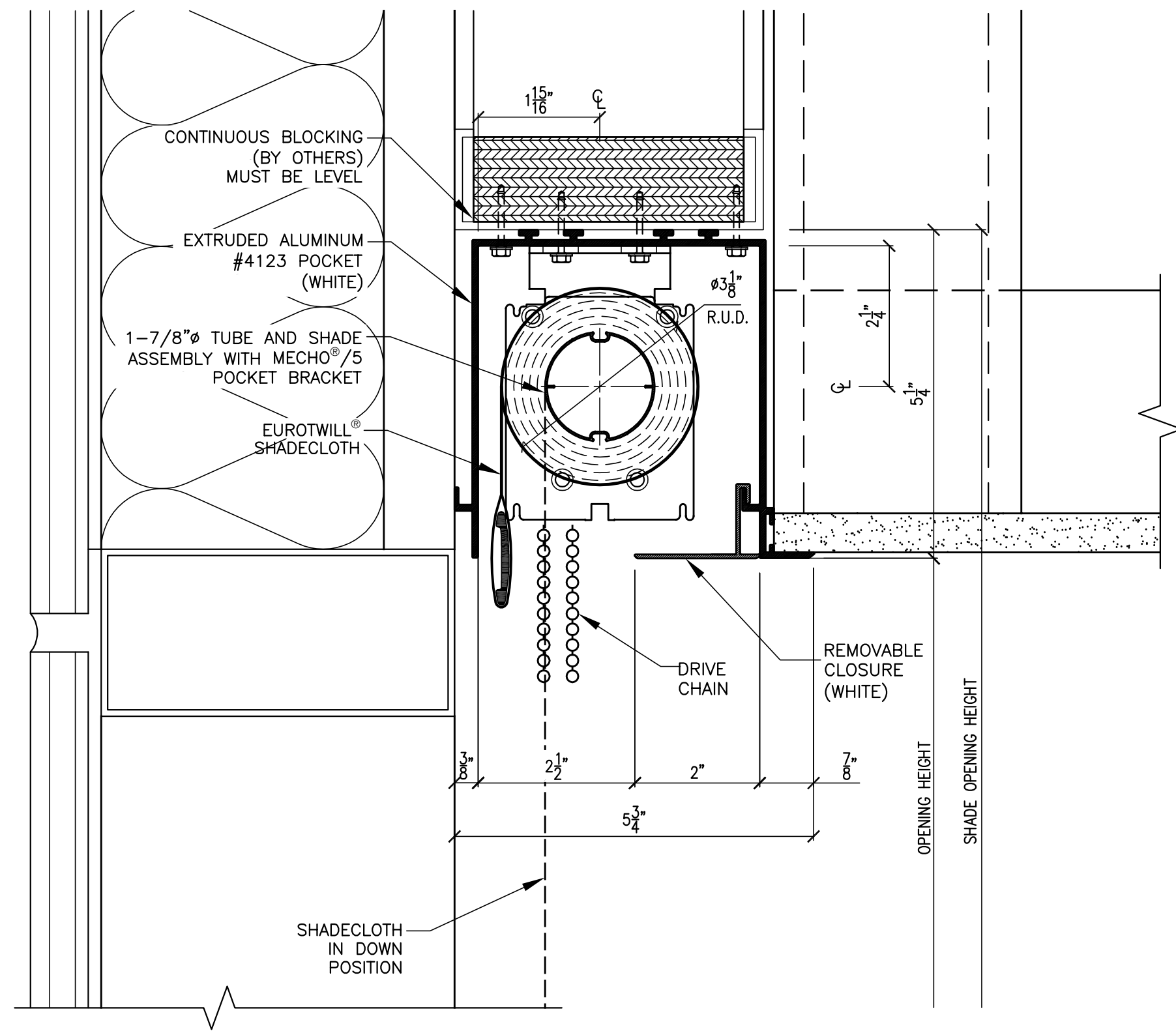
4			
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2			
1	07/14/11	NO CHANGE	K.C.
NO.	DATE	DESCRIPTION	BY

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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
JOB NO.	525031	PROPOSAL NO.	185318-0-1	SCALE	AS NOTED
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	DATE	04/11/11	DWN. BY	J.S.R.
ARCHITECT	WILSON ARCHITECTS, INC.	CHK. BY	G.B.		
DEALER	KILCOURSE WINDOW PRODUCTS	SHEET NO.	4	OF	15

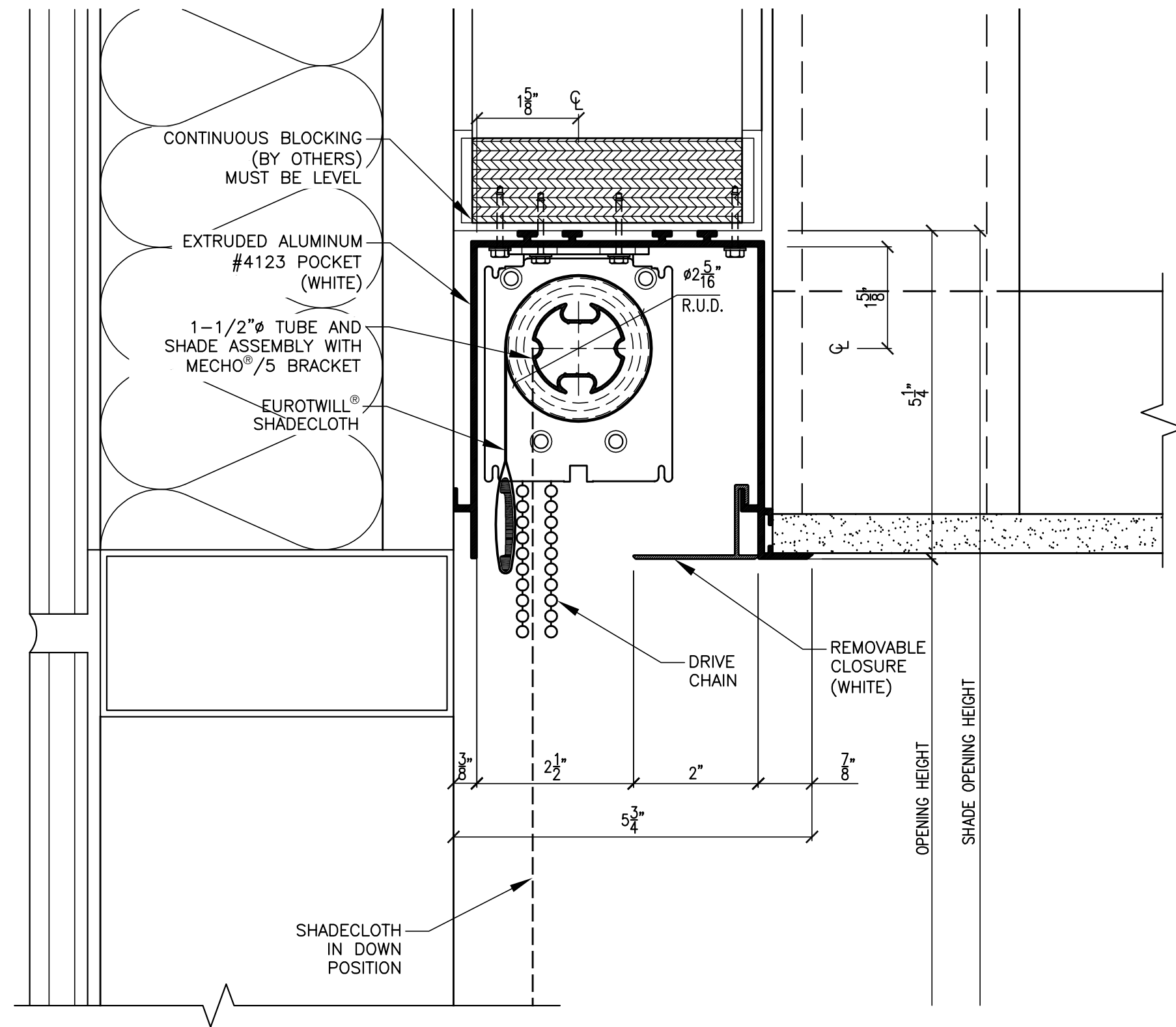


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REV	SEP	FOR	TO	DATE	
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4	1	APPL	DLR	07/14	

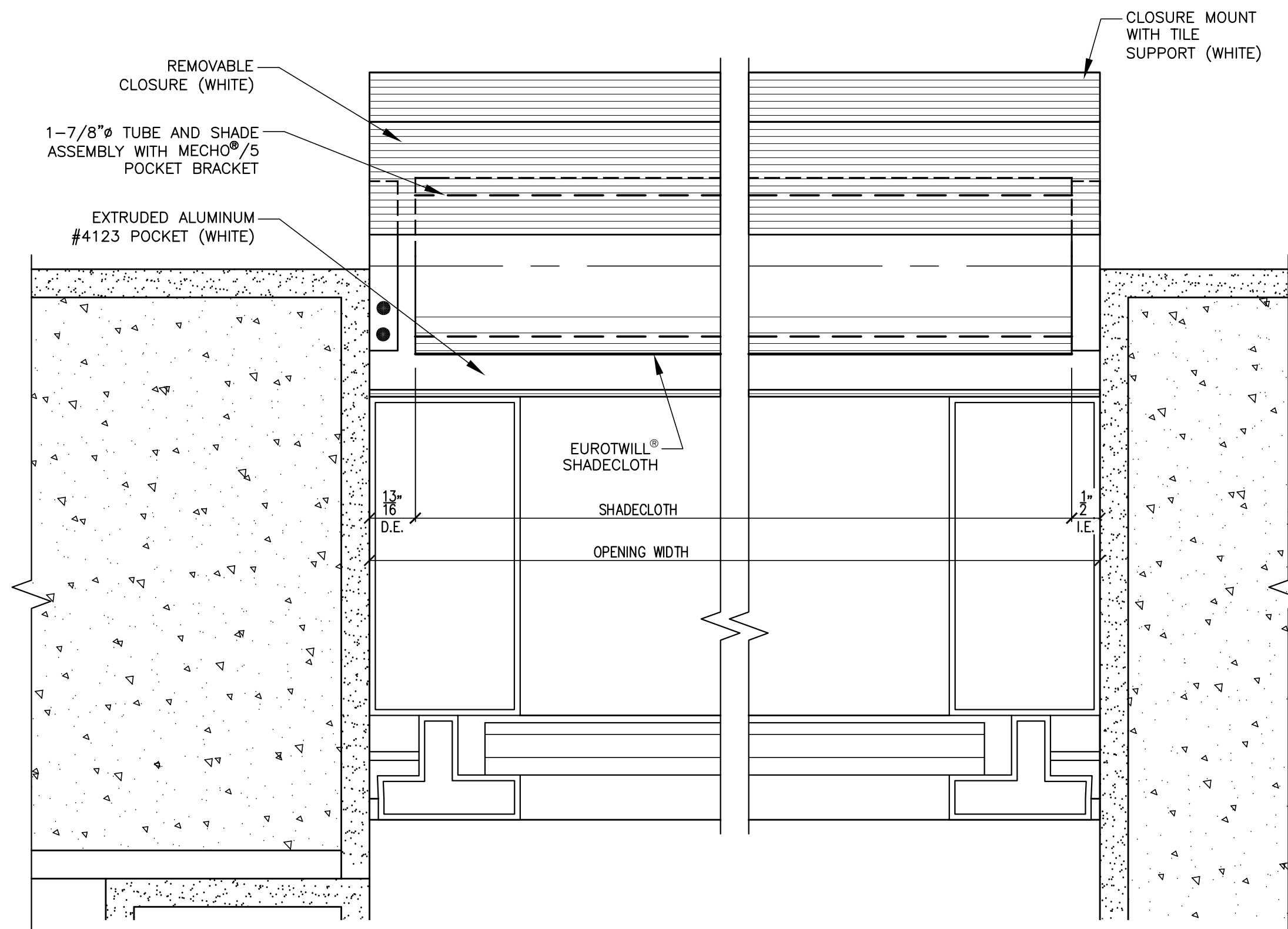


**1** **TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE

**POCKET INSTALLER NOTE**  
1 - POCKET MUST BE INSTALLED LEVEL AND PARALLEL TO WINDOW WALL.  
2 - POCKET FASTENERS MUST NOT INTERFERE WITH BRACKET LOCATIONS.

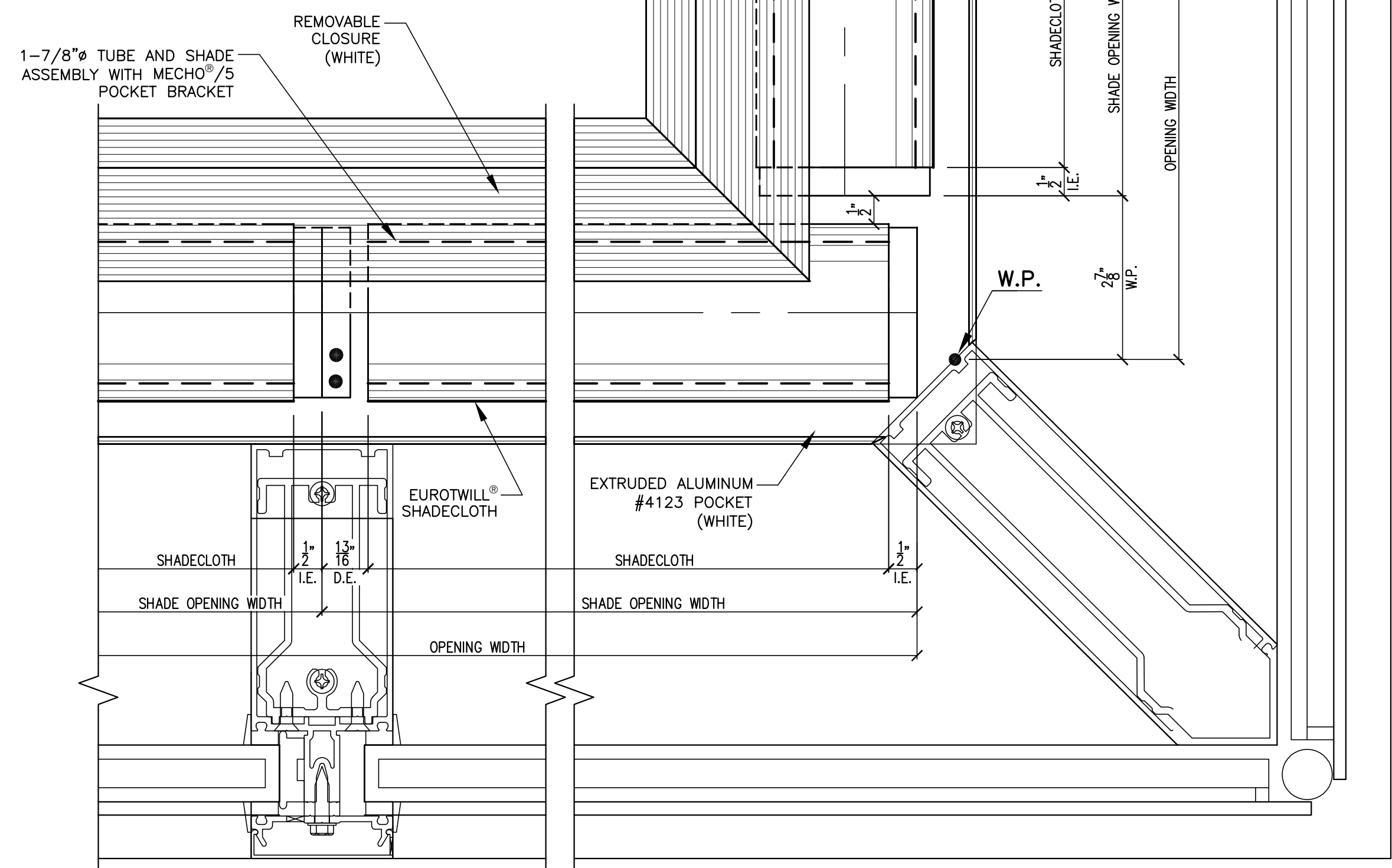


**2** **TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE



**A** **REFLECTED**  
SCALE: 1/2 FULL SIZE

**B** **REFLECTED**  
SCALE: 1/2 FULL SIZE



**C** **REFLECTED**  
SCALE: 1/2 FULL SIZE

**D** **REFLECTED**  
SCALE: 1/2 FULL SIZE

NOTES:  
SEE SHEET #1

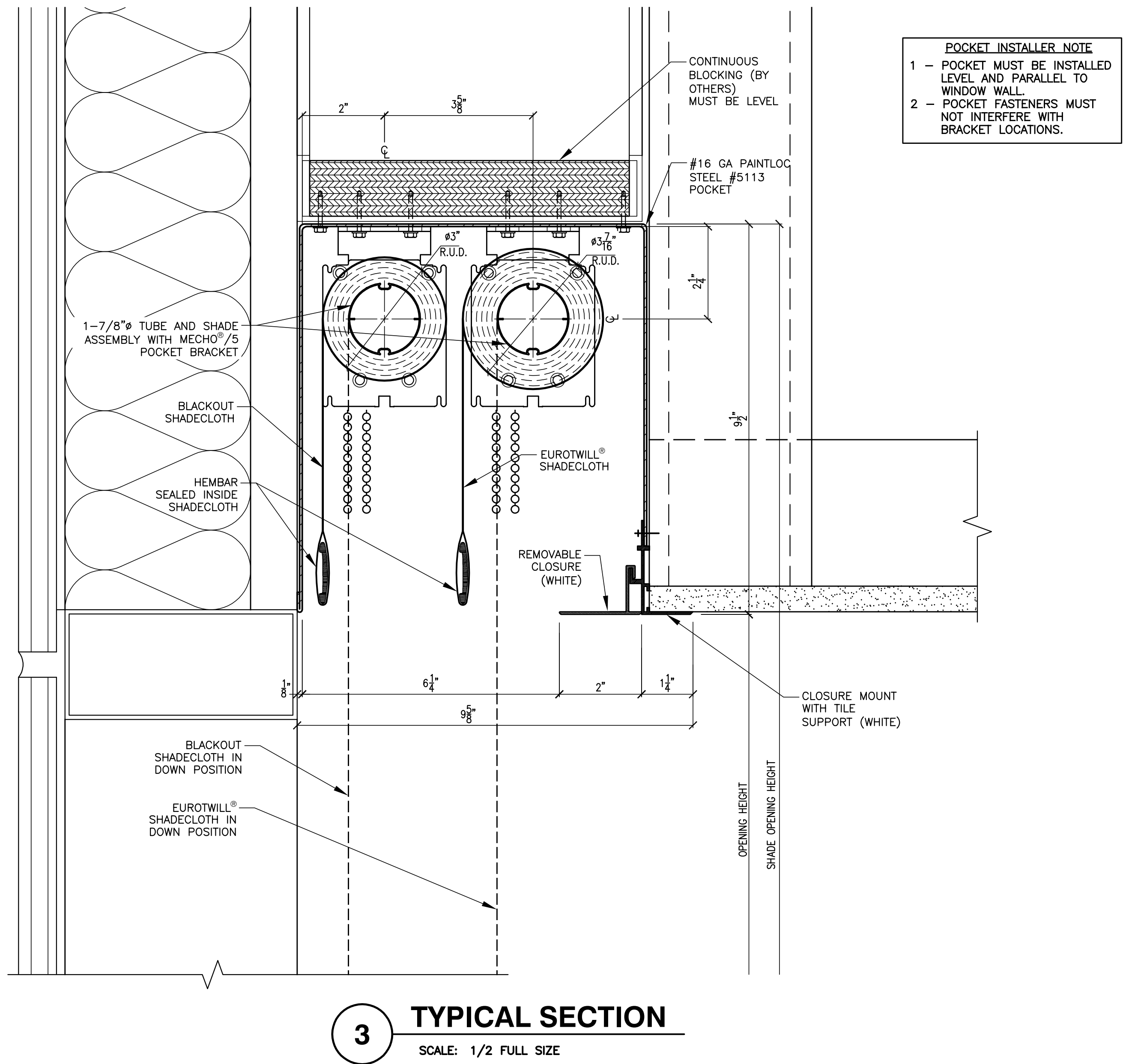
**SHOP DRAWING DIMENSIONS**  
DETAILS: HARDWARE SIZES  $\pm 1/32"$  (0.79mm)  
ROLL DIAMETER SIZES  $\pm 1/8"$  (3.18mm)  
EDGE CLEARANCE  $\pm 3/16"$  (4.76mm)  
SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.  
FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\Details-Mecho.dwg

NO.	DATE	DESCRIPTION	BY
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3			
2			
1	07/14/11	NO CHANGE	K.C.

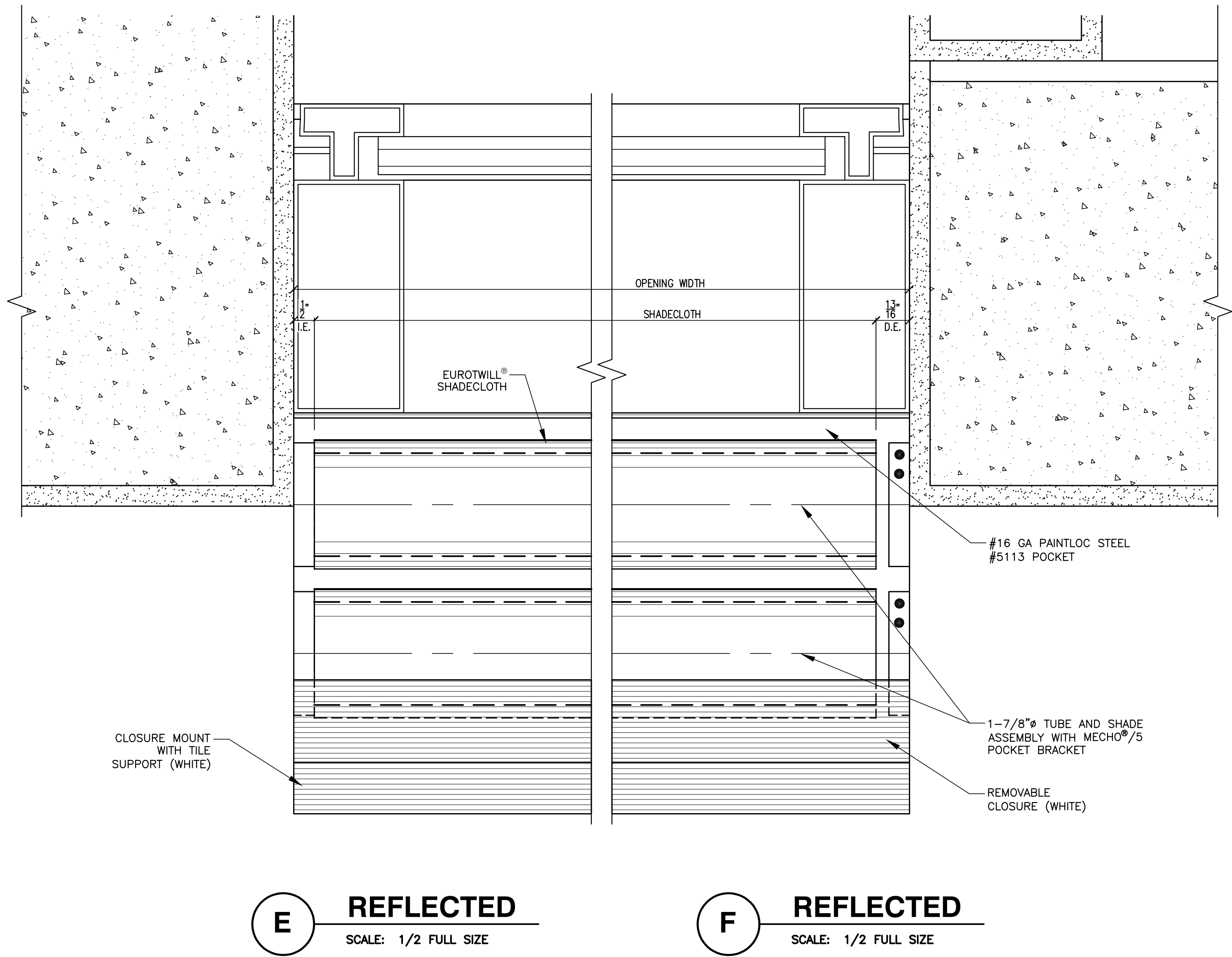
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	JOB NO.	525031		
ARCHITECT	WILSON ARCHITECTS, INC.	PROPOSAL NO.	185318-0-1		
DEALER	KILCOURSE WINDOW PRODUCTS	DATE	04/11/11	SCALE	AS NOTED
		DWN. BY	J.S.R.	CHK. BY	G.B.
		SHEET NO.	5	OF	15

PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



**3** **TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE



**E** **REFLECTED**  
SCALE: 1/2 FULL SIZE

**F** **REFLECTED**  
SCALE: 1/2 FULL SIZE

NOTES:  
SEE SHEET#1

**SHOP DRAWING DIMENSIONS**

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS:  
RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\Details-Mecho.dwg

NO.	DATE	DESCRIPTION	BY
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1	07/14/11	NO CHANGE	K.C.

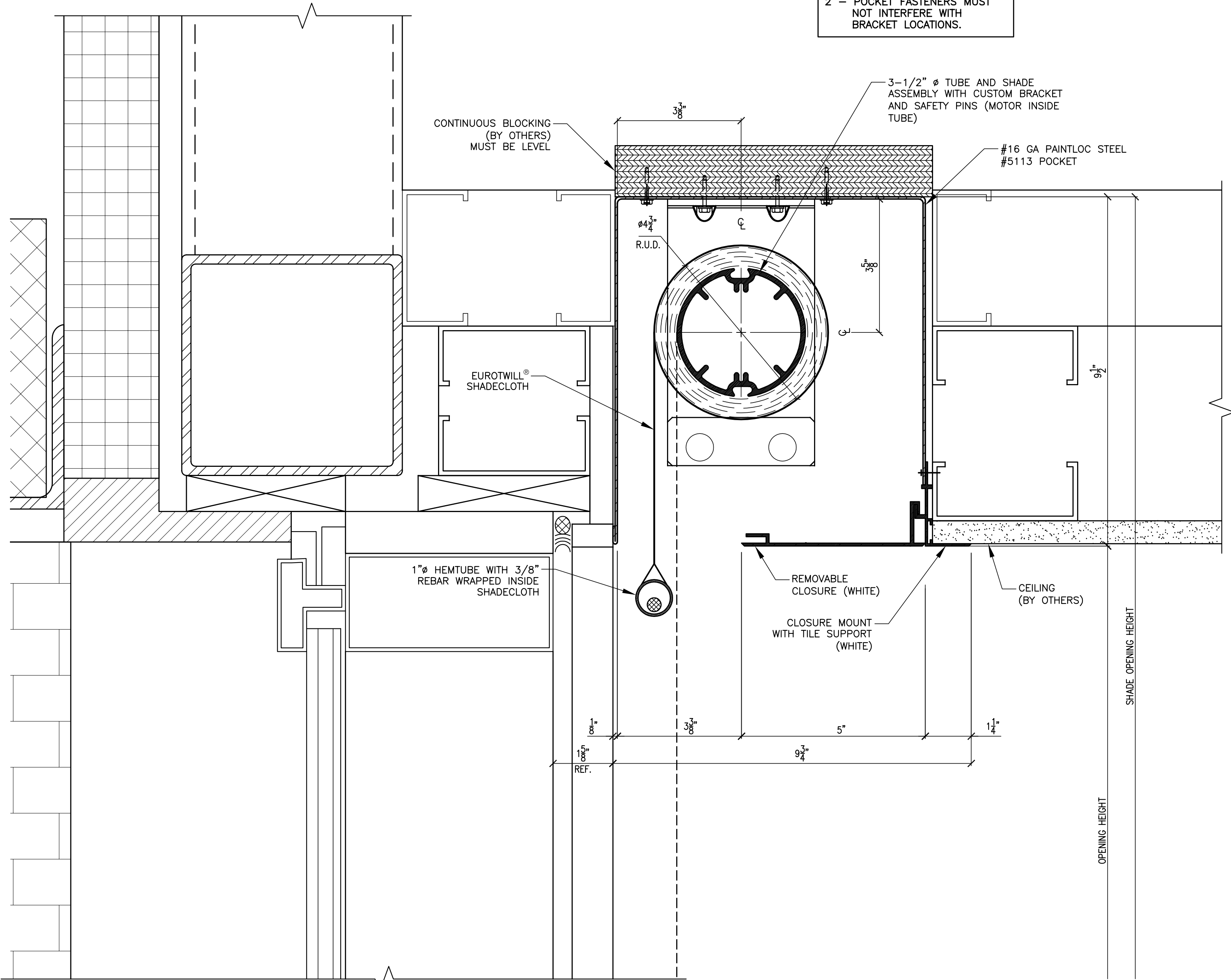
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES
ARCHITECT	WILSON ARCHITECTS, INC.
DEALER	KILCOURSE WINDOW PRODUCTS

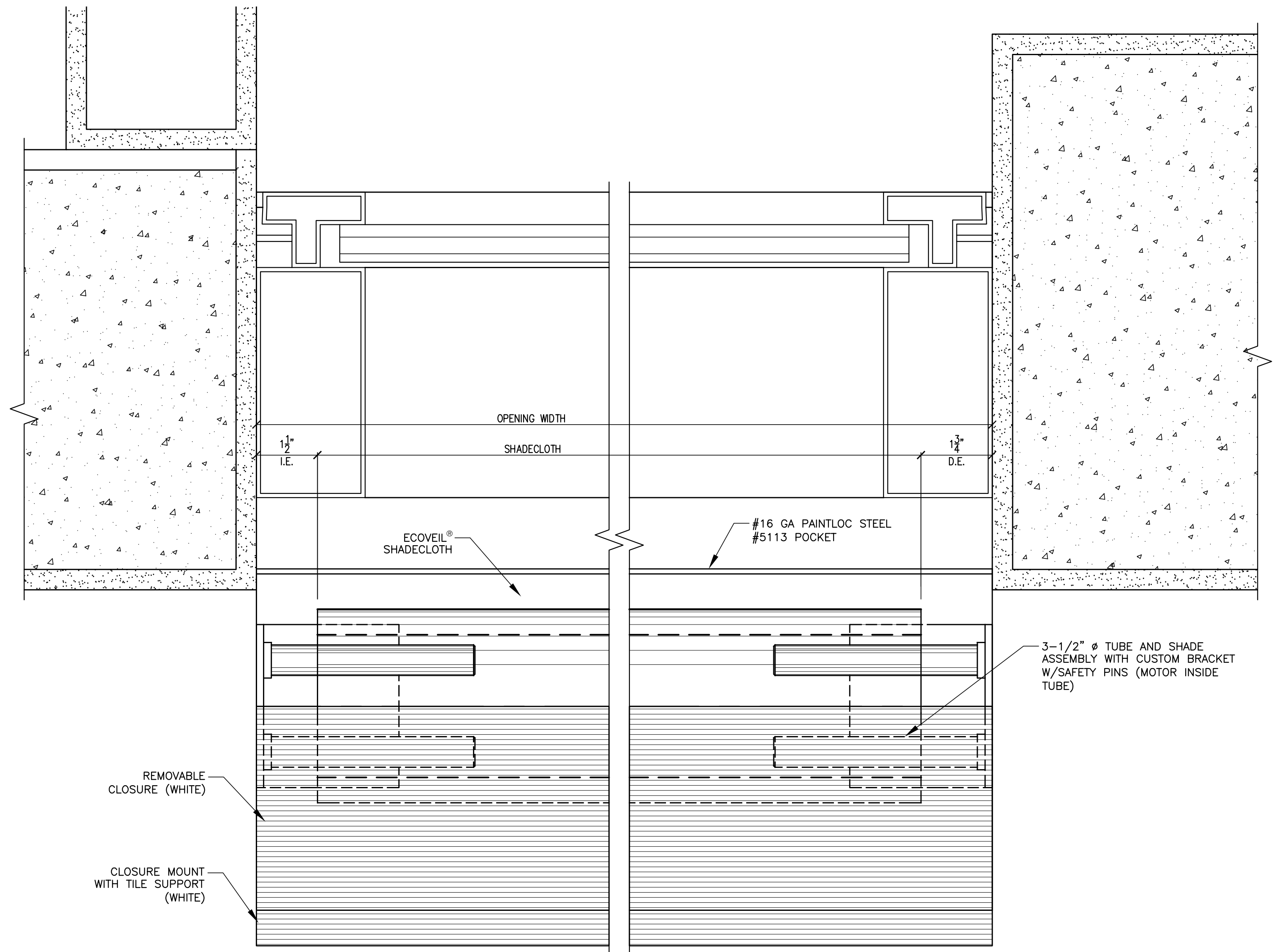
DWG NO.	M-3314EM	REV.	1
JOB NO.	525031	PROPOSAL NO.	185318-0-1
DATE	04/11/11	SCALE	AS NOTED
DWN. BY	J.S.R.	CHK. BY	G.B.
SHEET NO.	6	OF	15

PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14

POCKET INSTALLER NOTE  
1 - POCKET MUST BE INSTALLED  
LEVEL AND PARALLEL TO  
WINDOW WALL.  
2 - POCKET FASTENERS MUST  
NOT INTERFERE WITH  
BRACKET LOCATIONS.



**4** **TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE



**G** **REFLECTED**  
SCALE: 1/2 FULL SIZE

**H** **REFLECTED**  
SCALE: 1/2 FULL SIZE

NOTES:  
SEE SHEET#1

**SHOP DRAWING DIMENSIONS**

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

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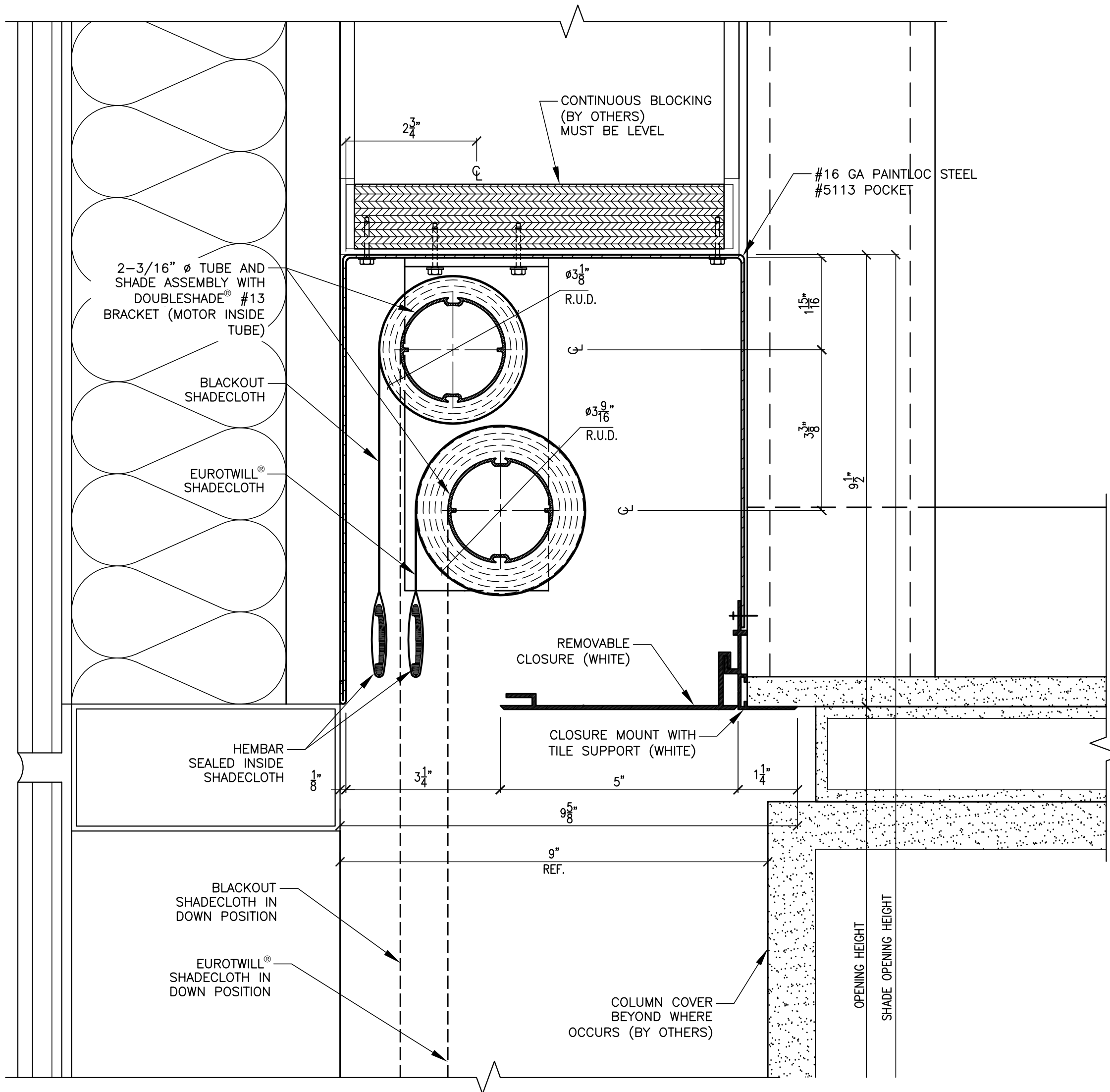
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1	07/14/11	NO CHANGE	K.C.

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TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES
ARCHITECT	WILSON ARCHITECTS, INC.
DEALER	KILCOURSE WINDOW PRODUCTS

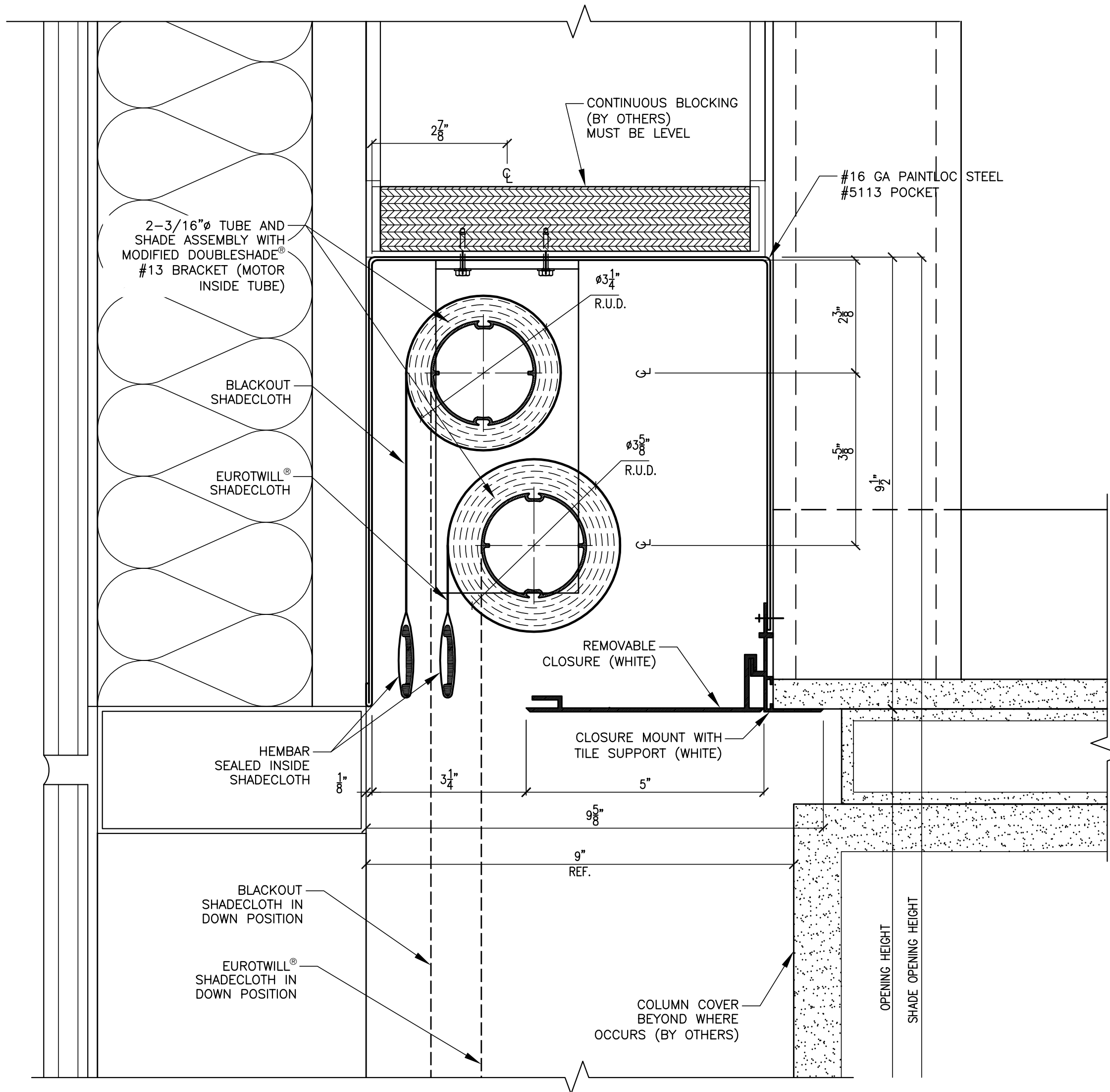
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JOB NO.	525031		
PROPOSAL NO.	185318-0-1		
DATE	04/11/11	SCALE	AS NOTED
DWN. BY	J.S.R.	CHK. BY	G.B.
SHEET NO.	7	OF	15

PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



**5 TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE

**POCKET INSTALLER NOTE**  
1 - POCKET MUST BE INSTALLED LEVEL AND PARALLEL TO WINDOW WALL.  
2 - POCKET FASTENERS MUST NOT INTERFERE WITH BRACKET LOCATIONS.



**6 TYPICAL SECTION**  
SCALE: 1/2 FULL SIZE

NOTES:  
SEE SHEET#1

**SHOP DRAWING DIMENSIONS**

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS:  
RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

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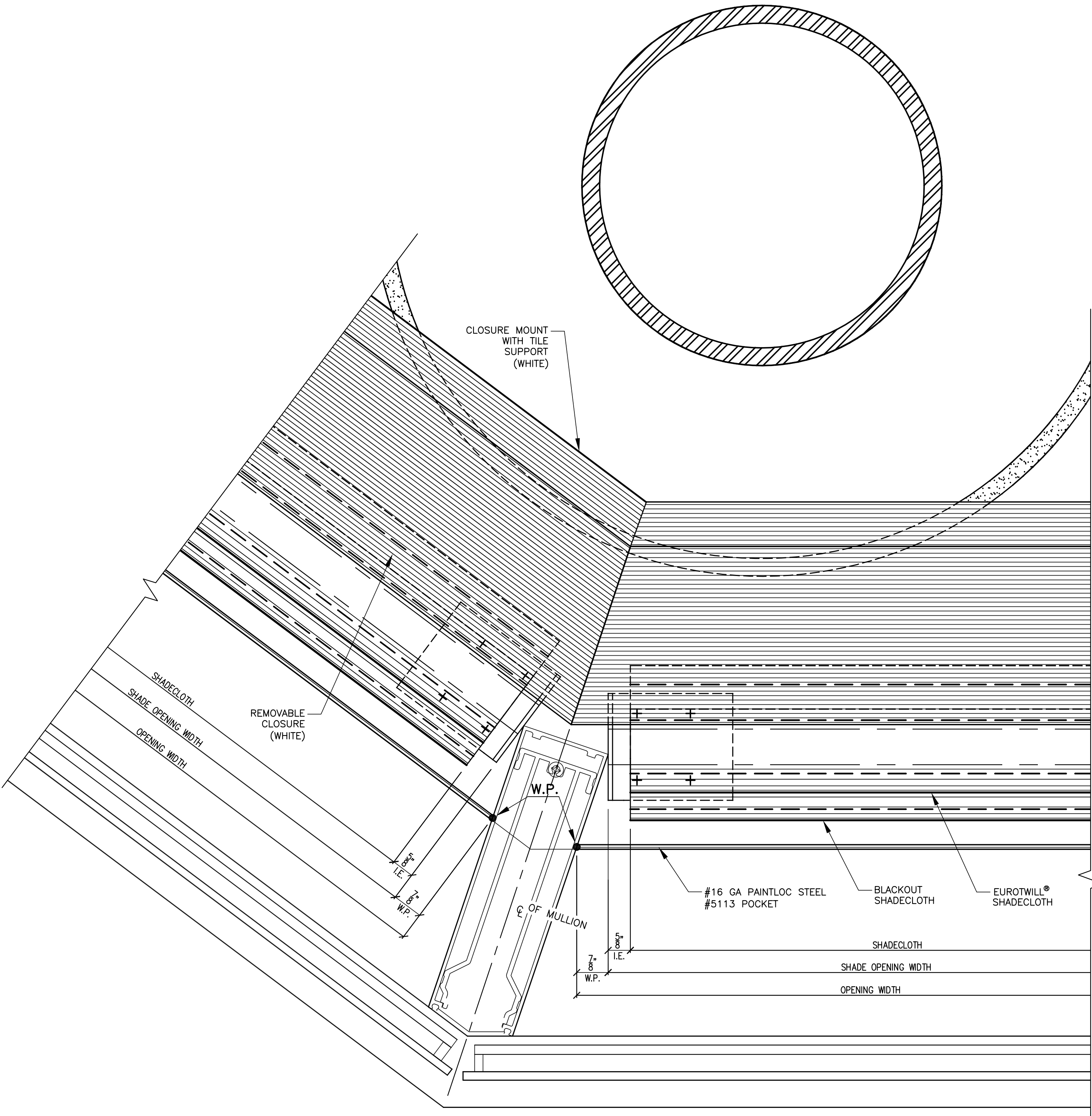
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES
ARCHITECT	WILSON ARCHITECTS, INC.
DEALER	KILCOURSE WINDOW PRODUCTS

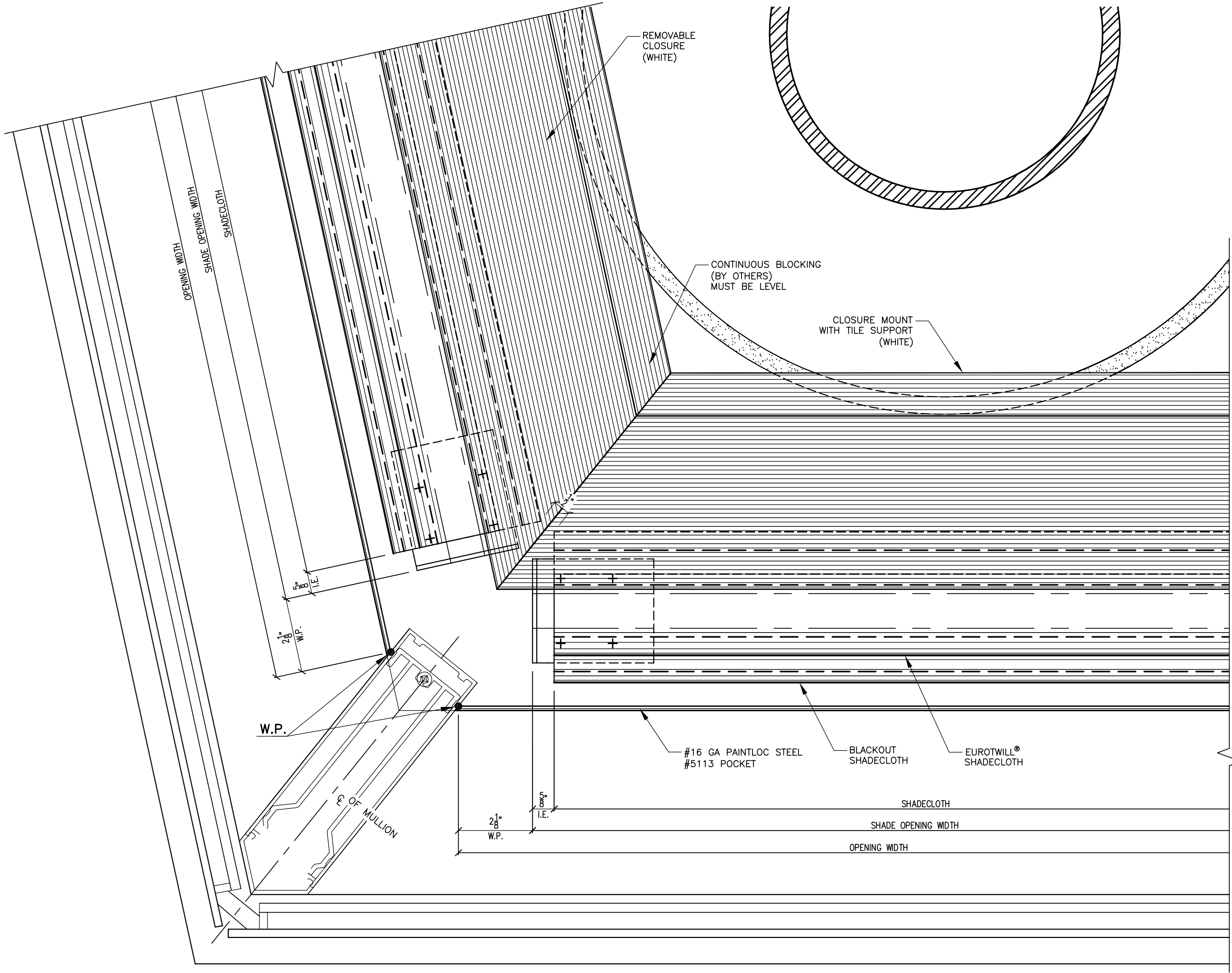
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JOB NO.	525031		
PROPOSAL NO.	185318-0-1		
DATE	04/11/11	SCALE	AS NOTED
DWN. BY	J.S.R.	CHK. BY	G.B.
SHEET NO.	8	OF	15



PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



**J** REFLECTED  
SCALE: 1/2 FULL SIZE  
143 DEGREE OUTSIDE CORNER



**K** REFLECTED  
SCALE: 1/2 FULL SIZE  
102 DEGREE OUTSIDE CORNER

NOTES:  
SEE SHEET#1

**SHOP DRAWING DIMENSIONS**

DETAILS: HARDWARE SIZES  
ROLL DIAMETER SIZES  
EDGE CLEARANCE

± 1/32" (0.79mm)  
± 1/8" (3.18mm)  
± 3/16" (4.76mm)

SHADE BANDS:  
RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

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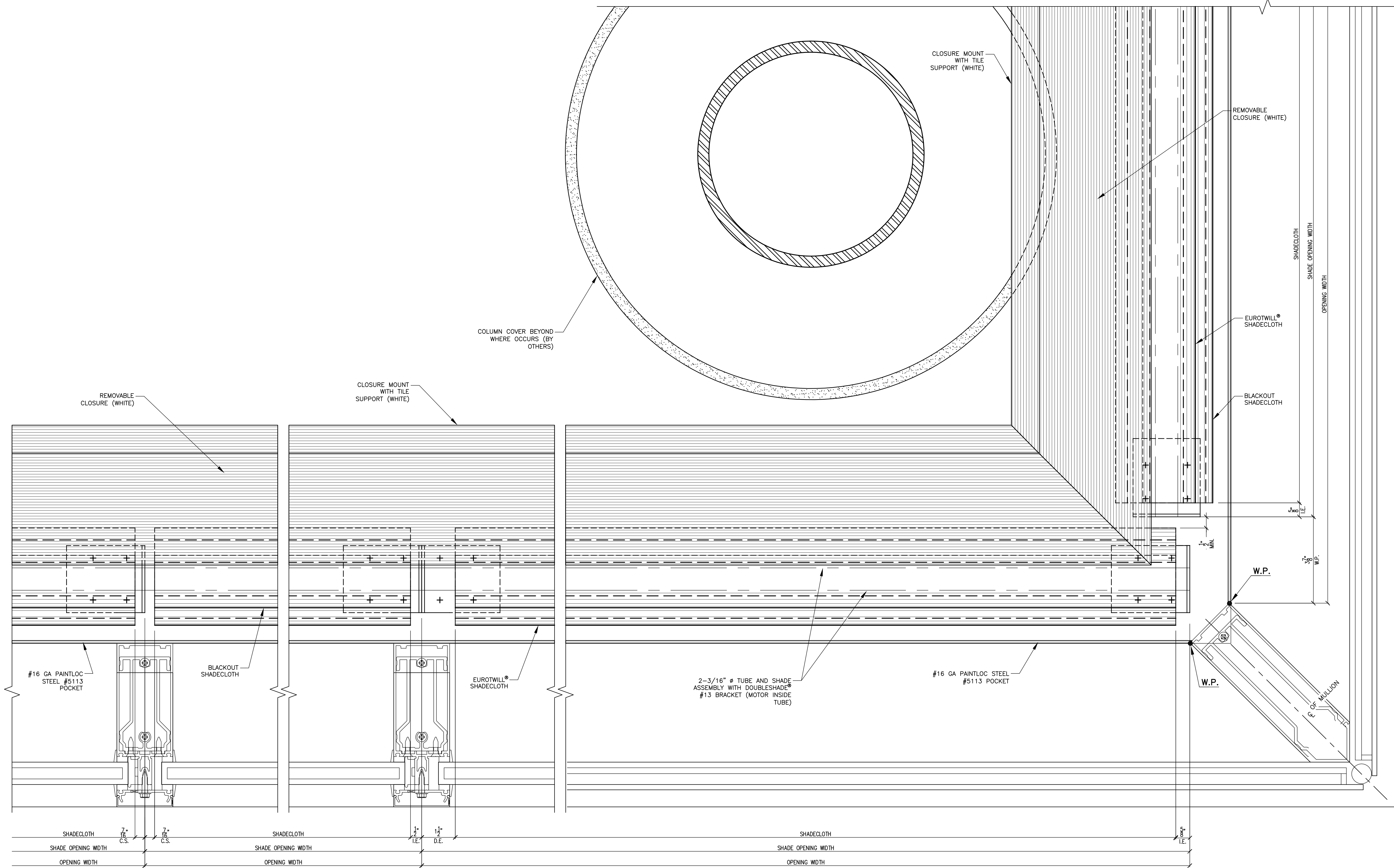
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NO.	DATE	DESCRIPTION	BY

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TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES
ARCHITECT	WILSON ARCHITECTS, INC.
DEALER	KILCOURSE WINDOW PRODUCTS

DWG NO.	M-3314EM	REV.	1
JOB NO.	525031	PROPOSAL NO.	185318-0-1
DATE	04/11/11	SCALE	AS NOTED
DWN. BY	J.S.R.	CHK. BY	G.B.
SHEET NO.	9	OF	15

PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



**L REFLECTED**  
SCALE: 1/2 FULL SIZE

**M REFLECTED**  
SCALE: 1/2 FULL SIZE

**N REFLECTED**  
SCALE: 1/2 FULL SIZE  
90 DEGREE OUTSIDE CORNER

NOTES:  
SEE SHEET#1

**SHOP DRAWING DIMENSIONS**  
DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.19mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)  
SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.  
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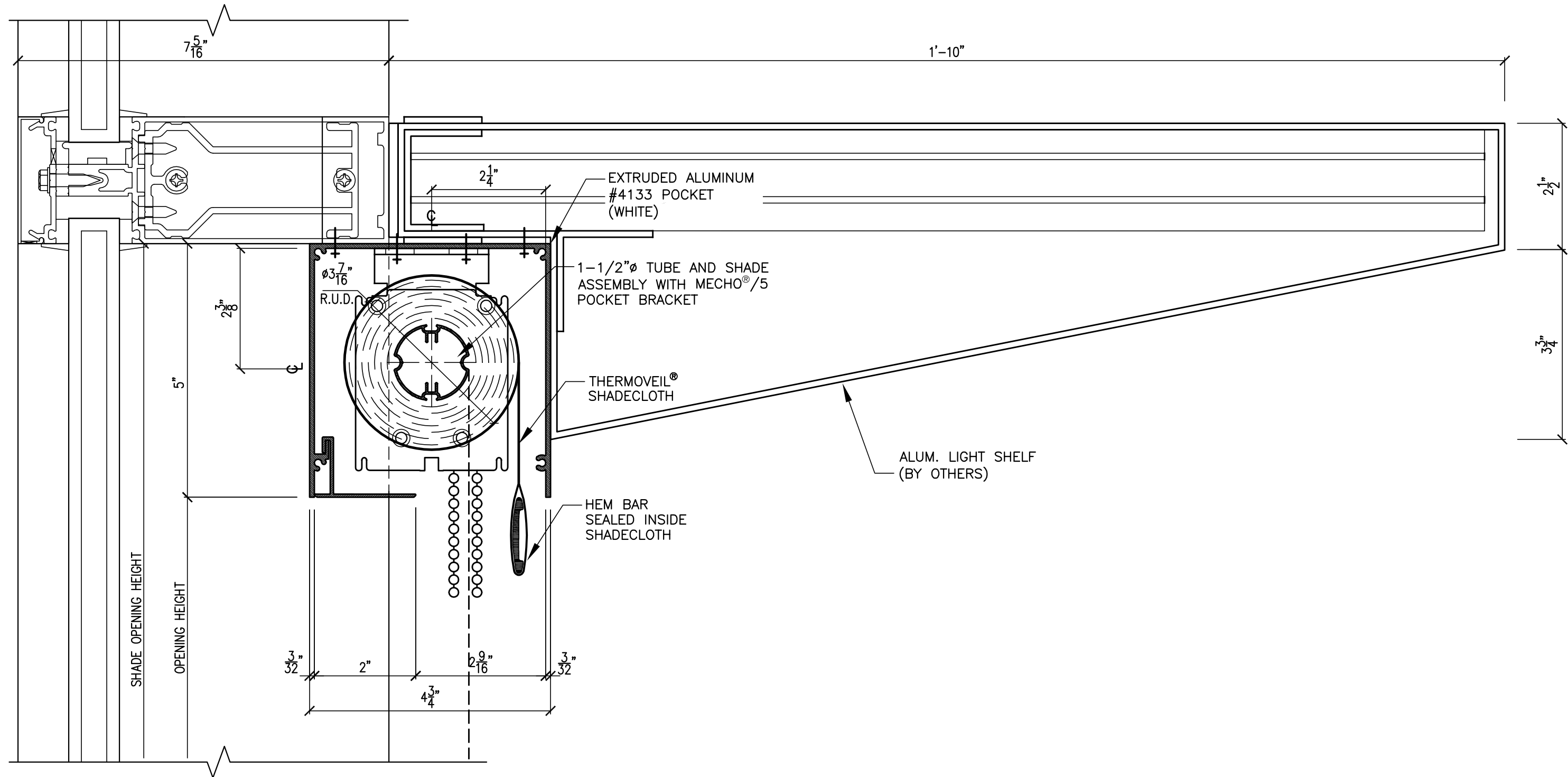
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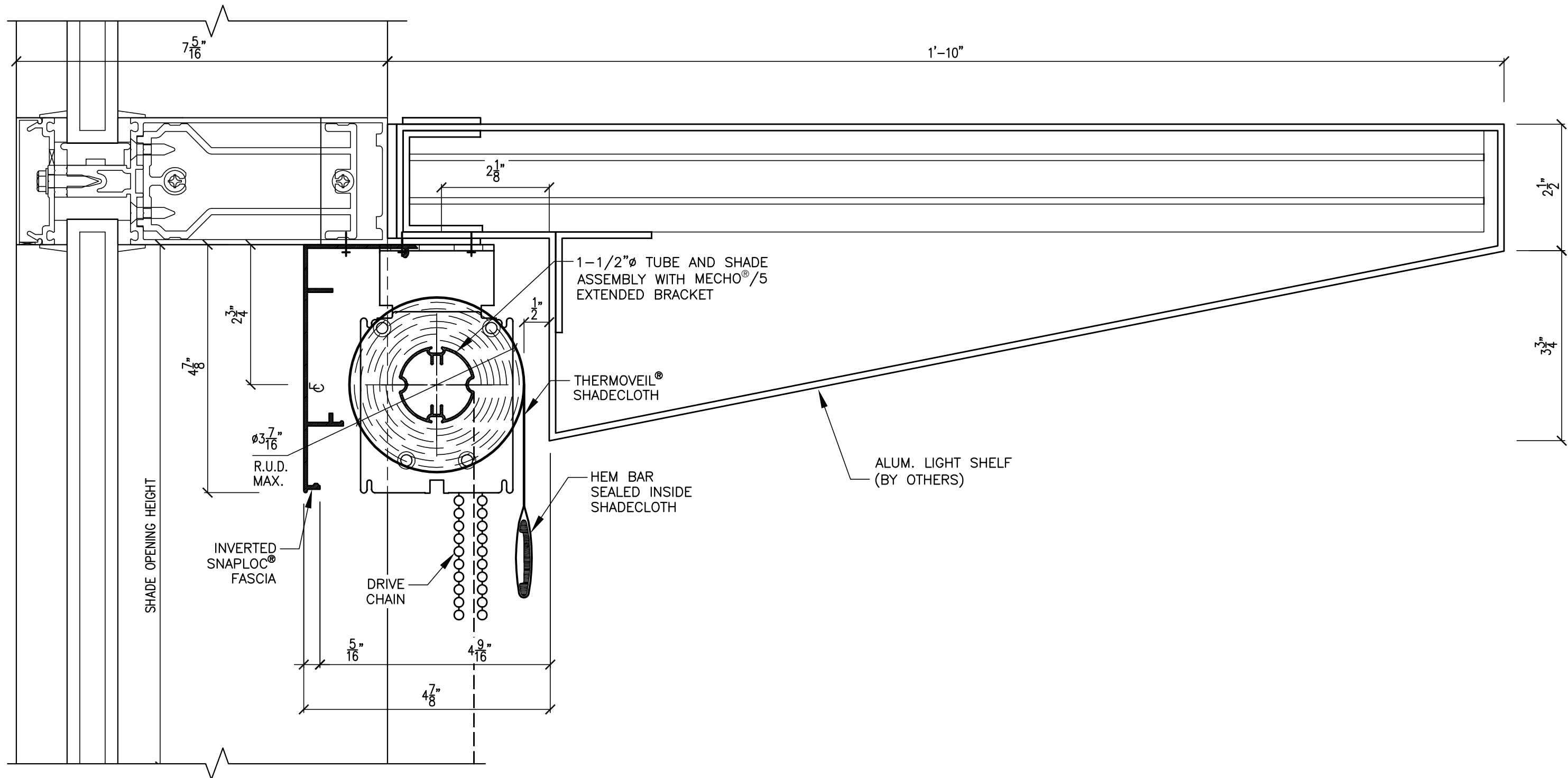
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TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	JOB NO.	525031	PROPOSAL NO.	185318-0-1
ARCHITECT	WILSON ARCHITECTS, INC.	DATE	04/11/11	SCALE	AS NOTED
DEALER	KILCOURSE WINDOW PRODUCTS	DWN. BY	J.S.R.	CHK. BY	G.B.
		SHEET NO.	10	OF	15



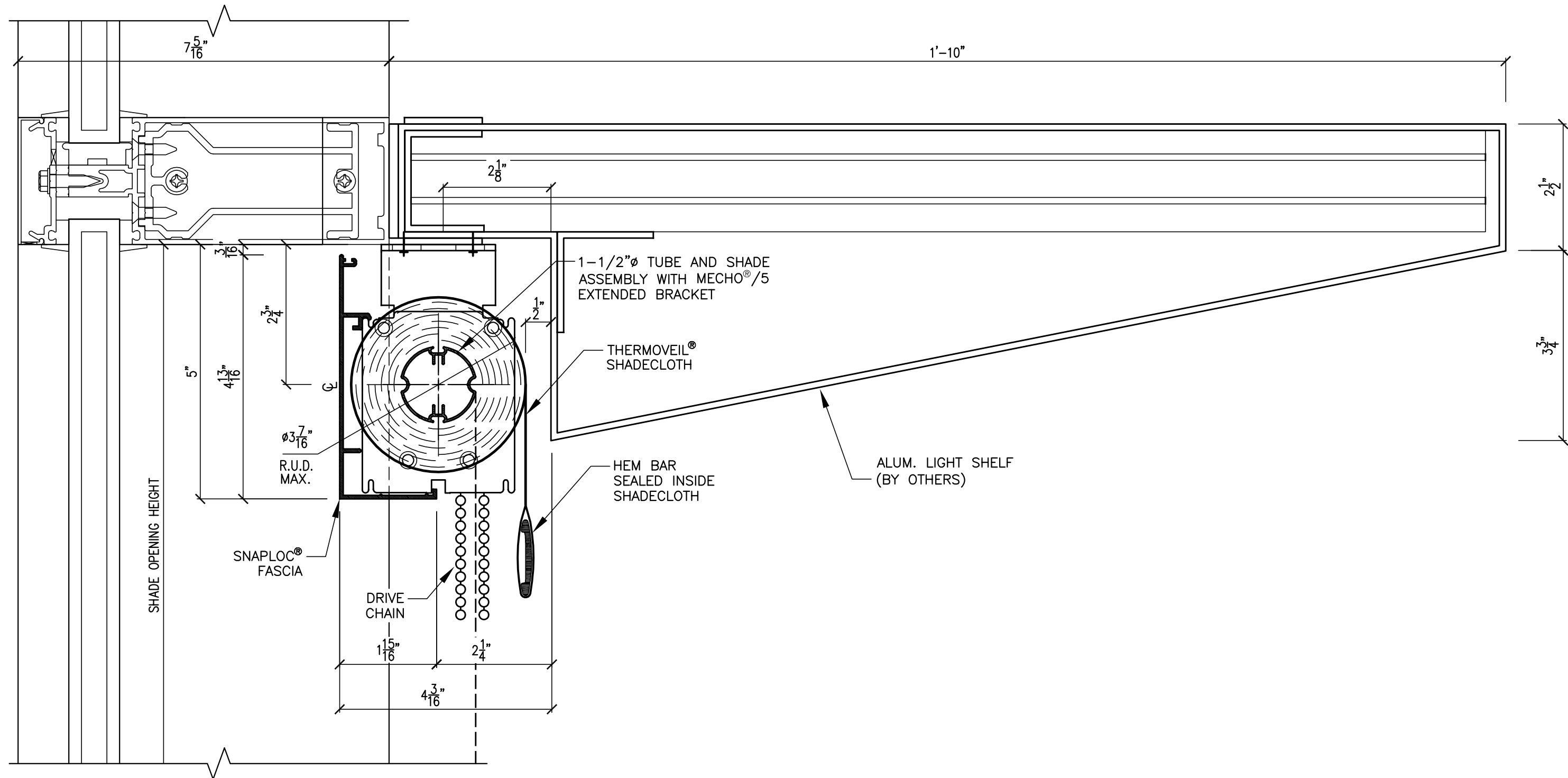
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REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	07/01
4	1	APPL	DLR	07/14



**1** TYPICAL SECTION (OPTION 1)  
SCALE: 6" = 1'-0"



**2** TYPICAL SECTION (OPTION 2)  
SCALE: 6" = 1'-0"



**3** TYPICAL SECTION (OPTION 3)  
SCALE: 6" = 1'-0"

## OPTIONAL SECTIONS AT LIGHT SHELF

NOTES:  
1 - SEE SHEET# 1

**SHOP DRAWING DIMENSIONS**  
DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)  
SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

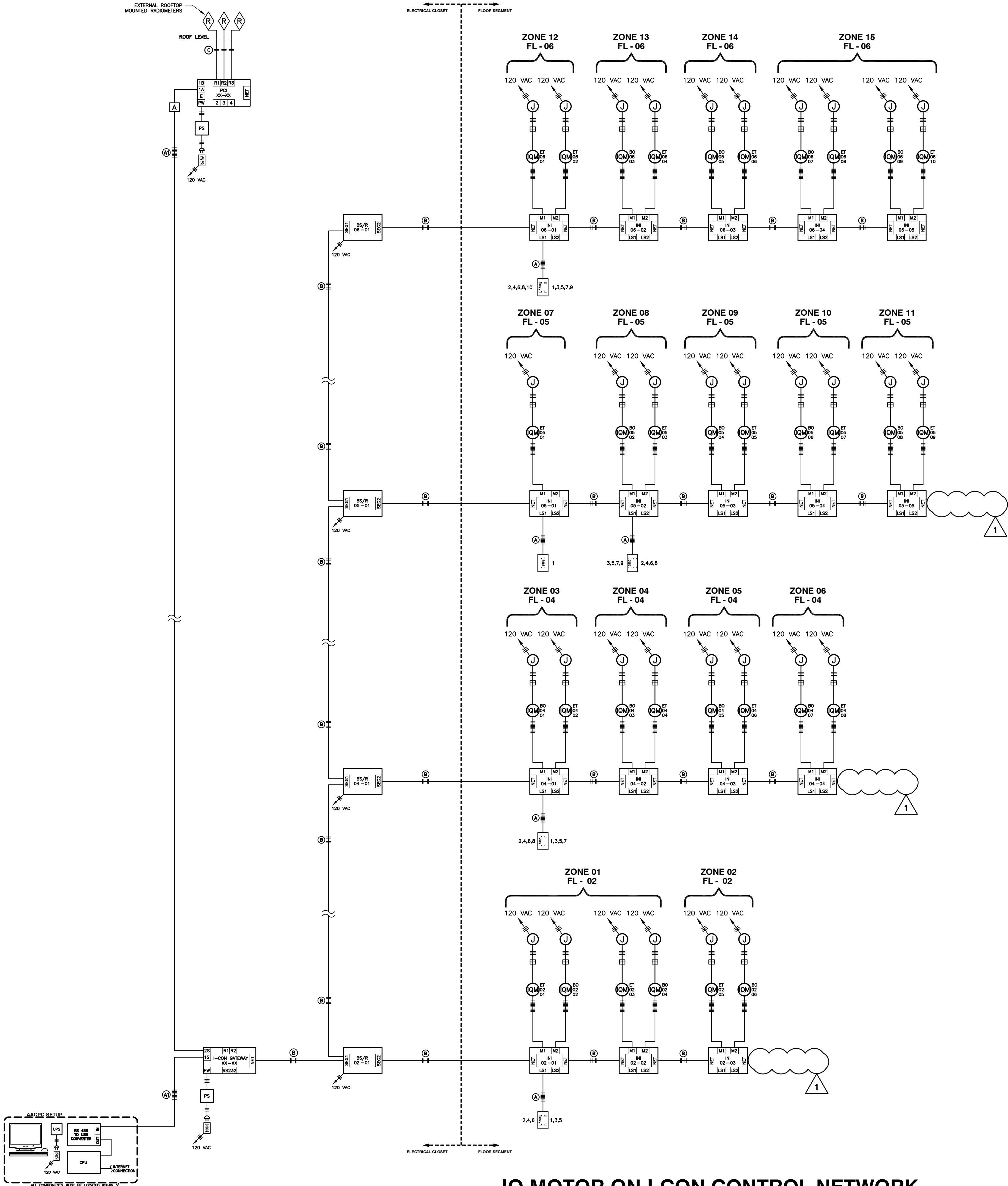
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NO.	DATE	DESCRIPTION	BY
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1	07/14/11	NEW PAGE	K.G.

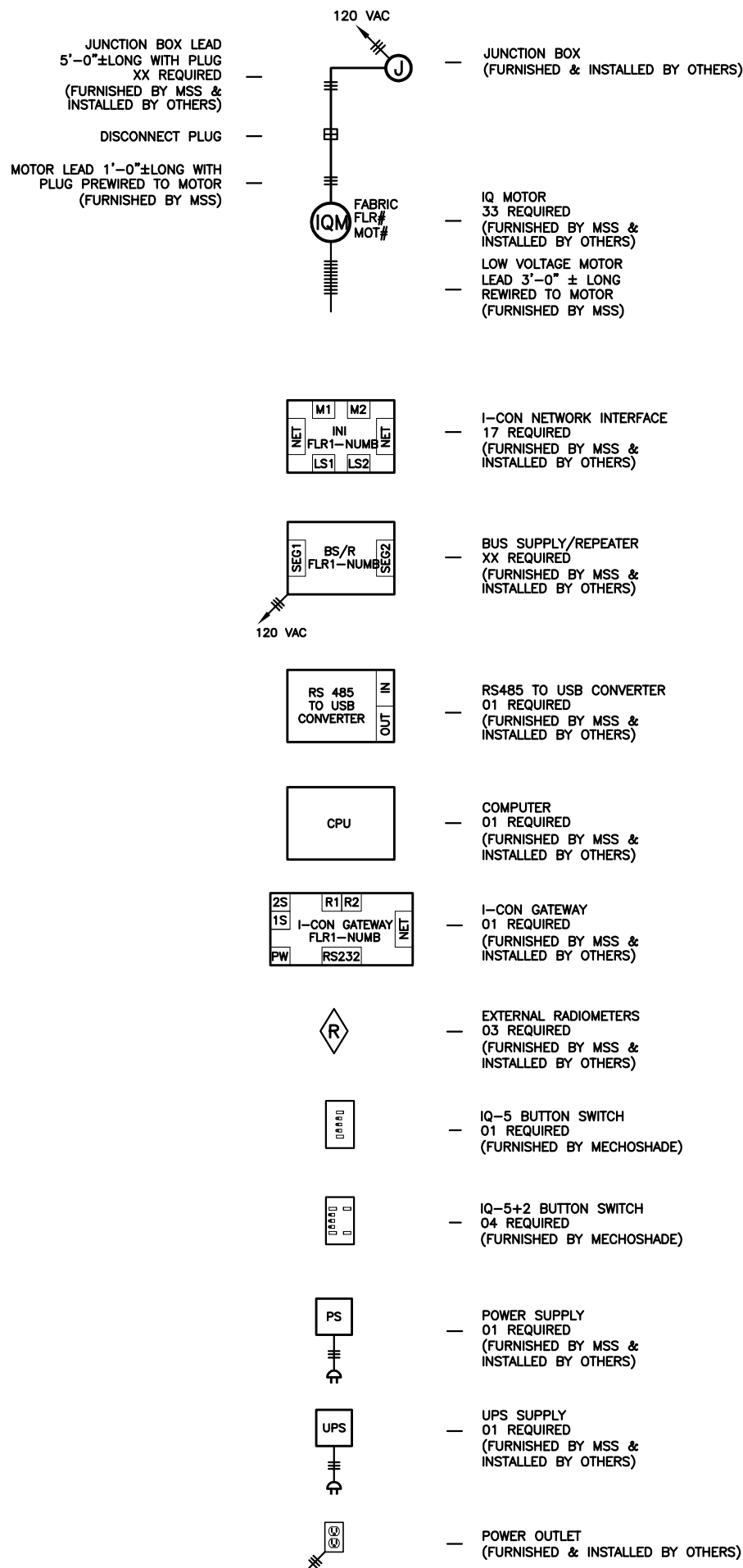
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	JOB NO.	525031		
ARCHITECT	WILSON ARCHITECTS, INC.	PROPOSAL NO.	185318-0-1		
DEALER	KILCOURSE WINDOW PRODUCTS	DATE	04/11/11	SCALE	AS NOTED
		DWN. BY	J.S.R.	CHK. BY	G.B.
		SHEET NO.	11	OF	15

PRINTS					
REV	SEP	FOR	TO	DATE	
4	1	APPL	DLR	NONE	
4	1	APPL	DLR	07/14	



### EQUIPMENT KEY FOR I-CON SYSTEM



### CABLE LEGEND FOR I-CON SYSTEM

<b>A</b>	<p>CATS - FOR LOW VOLTAGE DRY CONTACT CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3078M5FH RJ-45 MODULAR PLUG CRIMPED (USOC) ON BOTH ENDS</p> <p>CATS - FOR LOW VOLTAGE DRY CONTACT CONNECTIONS IN PLENUM AREAS 24AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3604M5S SOLID CONDUCTOR RJ-45 MODULAR PLUGS CRIMPED (USOC) ON BOTH ENDS DISTANCE LIMITATION = 400' CUMULATIVE (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>A1</b>	<p>CATS - CABLE FOR RS-485 CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) RJ-45 MODULAR PLUGS CRIMPED (EM56A) ON BOTH ENDS CONNECTED TO 2'-0" USB CABLE (USB/RJ-45) DISTANCE LIMITATION = 4000' CUMULATIVE (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>A2</b>	<p>CATS - CABLE FOR ETHERNET CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) RJ-45 MODULAR PLUGS CRIMPED (EM56A) ON BOTH ENDS DISTANCE LIMITATION = 325' (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>A3</b>	<p>CATS - EXTENSION CABLE (E CABLE) CATS- FOR LOW VOLTAGE DRY CONTACT CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3078M5FH RJ-45 MODULAR PLUG CRIMPED (USOC) ON BOTH ENDS</p> <p>FOR PLENUM AREAS - 24AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3604M5S SOLID CONDUCTOR RJ-45 MODULAR PLUGS CRIMPED (USOC) ON BOTH ENDS DISTANCE LIMITATION = 1500' INCLUSIVE OF LOWVOLTAGE/CON NETWORK WIRING ("B") DISTANCE LIMITATION = 400' INCLUSIVE OF DRY CONTACT SWITCH WIRING ("A") (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>B</b>	<p>LOWWORKS CABLE - FOR I-CON NETWORK CONNECTIONS 22AWG 4UTP (4 CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) GREAT LAKES WIRE AND CABLE (www.greatlakeswire.com -586-979-0022) PART # 70007-NB-CV LEVEL 4 AUTOMATION CABLE PHOENIX PHOENIX TERMINAL CONNECTORS ON BOTH ENDS "L" = ORANGE "L" = ORANGE/WHITE "B" = BLUE "X" = BLUE/WHITE DISTANCE LIMITATION = 1500' CUMULATIVE (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>C</b>	<p>BELDEN TYPE 82760 18AWG 13TF (2-CONDUCTOR SHIELDED TWISTED PAIR) FOR PC INTERFACE/ANALOG I/O TO SENSOR CONNECTIONS PHOENIX CONNECTOR/CONNECTION "L" = RED "L" = BLACK "L" = BLUE/RED "L" = GREY/BLACK DISTANCE LIMITATION = 500' CUMULATIVE (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<b>D</b>	<p>COAX - USES BNC TERMINATIONS FOR ANALOG I/O TO SENSOR CONNECTIONS TERMINAL BLOCK/WIRE SPLICER CONNECTION DISTANCE LIMITATION = 1000' CUMULATIVE (FURNISHED &amp; INSTALLED BY OTHERS)</p>
<p><b>NOTES</b></p> <p>1. PARALLEL WIRING TO NEXT DEVICE PER BRANCH CIRCUIT CAPACITY. ALL CONNECTION MUST MEET NATIONAL AND LOCAL CODES AND REGULATIONS.</p> <p>2. ADDRESS SCHEDULES REQUIRED.</p> <p>3. MAXIMUM VOLTAGE FOR ALL UNMARKED CABLE IS 43.5 VDC.</p>	

## IQ MOTOR ON I-CON CONTROL NETWORK

SCALE: N.T.S.

### SHOP DRAWING DIMENSIONS

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\12 Wiring Schematics-Icon-NL.dwg

NOTES:  
SEE SHEET#1

4					
3					
2					
1	07/14/11	PER ARCHITECT'S REVISION	K.C.		
NO.	DATE	DESCRIPTION	BY		

<b>MechoShade Systems, Inc.</b> The Architects Choice 42-03 35th Street Long Island City NY 11101 T: +1 (718) 729-2020 F: +1 (718) 729-2941 www.MechoShadeSystems.com Copyright © 2006 MechoShade Systems Inc.	
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
JOB NO.	525031	PROPOSAL NO.	185318-0-1	DATE	04/11/11
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	SCALE	AS NOTED	DWN. BY	J.S.R.
ARCHITECT	WILSON ARCHITECTS, INC.	CHKD. BY	G.B.		
DEALER	KILCOURSE WINDOW PRODUCTS	SHEET NO.	12	OF	15



STANDARD ELECTRICAL NOTES

ALL ELECTRICAL-CONTROL EQUIPMENT (SWITCHES, MLCS, SACS, WACS, PHOTOCELLS, ANEMOMETERS, FTS UNITS, ETC.) AS INDICATED IS FURNISHED ONLY BY MECOSHADE™ SYSTEMS, INC., INSTALLED & WIRED BY THE ELECTRICAL CONTRACTOR.

ALL ELECTRICAL-CONTROL EQUIPMENT MUST BE WIRED IN ACCORDANCE WITH THE WIRING DIAGRAMS PREPARED BY MECOSHADE SYSTEMS & IN ACCORDANCE WITH THE N.E.C. & LOCAL CODES.

EXCEPT FOR I-CON INTELLIGENT MOTOR AND/OR RTS MOTOR, PARALLEL AND/OR SERIES WIRING OF TWO OR MORE MOTORS ON SIMILAR POLES ON A SINGLE SWITCH OR ANY OTHER SIMILAR COMBINATION WILL VOID ANY APPLICABLE WARRANTY & CAUSE PREMATURE MOTOR BURNOUT.

FOR I-CON INTELLIGENT MOTOR &/OR RTS MOTOR, PARALLEL AND/OR SERIES WIRING IS ALLOWED UP TO MAXIMUM CIRCUIT CAPACITY.

ALL WIRING DIAGRAMS HAVE BEEN PREPARED FOR RIGHT-HAND MOTORS, REGULAR ROLL OR LEFT-HAND MOTORS, REVERSE ROLL WHICH ARE WIRED SIMILARLY. RIGHT-HAND MOTORS, REVERSE ROLL AND LEFT-HAND MOTORS, REGULAR ROLL REQUIRE SWITCHING THE RED & BLACK MOTOR WIRES AT THE MLC (MOTOR-LOGIC CONTROLLERS) OR THE SWITCH. THIS WILL PREVENT THE MOTORS FROM RUNNING IN OPPOSITE DIRECTIONS.

ALL CONTROL EQUIPMENT, SUCH AS MLCS (MOTOR-LOGIC CONTROLLERS), SACS/WACS (SUN-ACTIVATED CONTROLLERS/WIND ACTIVATED CONTROLLERS), AACS (ASTRONOMICAL CONTROLLERS), & ALL EQUIPMENT THAT MAY HAVE A TRANSFORMER FOR LOW VOLTAGE MUST BE WIRED IN PHASE. IF NOT IN PHASE, PREMATURE TRANSFORMERS AND/OR MOTOR BURNOUT & INCONSISTENT CONTROL OPERATION MAY OCCUR.

ELECTRICAL-CONTROL EQUIPMENT MAY CONTAIN ELECTROMECHANICAL RELAYS, ADJUSTMENT POINTS, FUSES, INDICATOR LIGHTS, & OTHER DEVICES. THESE MUST BE CONVENIENTLY ACCESSIBLE FOR FUTURE SERVICING & ADJUSTMENTS DURING NORMAL WORKING HOURS & WITHOUT DISRUPTION TO THE EXISTING OPERATIONS. THIS EQUIPMENT SHALL BE CODED BY THE ELECTRICAL CONTRACTOR INDICATING SHADE LOCATIONS & THE SPECIFIC MOTORS WHICH ARE CONTROLLED, & IT SHALL BE CODED AT THE CONTROL EQUIPMENT AND CIRCUIT BREAKER. GREEN MOTOR WIRES ARE TO BE FASTENED TO GROUND JUNCTION BOXES, CONDUITS, OR ANOTHER SUITABLE BUILDING GROUND.

THE STANDARD ELECTROSHADE™-MOTOR LEAD IS A PVC 4 CONDUCTOR #18 STRANDED CABLE APPROXIMATELY ONE-FOOT (305MM) LONG WITH A 4 CONDUCTOR DISCONNECT-PLUG.

THE STANDARD ELECTROSHADE FURNISHED-ONLY JUNCTION-BOX LEAD IS THE SAME TYPE AS THE MOTOR LEAD AND HAS A PLUG COMPATIBLE TO IT. THIS LEAD IS APPROXIMATELY FIVE-FOOT (1525 MM) LONG.

ONE OR TWO MOTORS CAN BE WIRED ON A SINGLE (DOUBLE-POLE, DOUBLE-THROW) SWITCH. PLEASE REFER TO DRAWING NO. \_\_\_\_\_ FOR POINT-TO-POINT CONNECTION. HOWEVER, THREE OR FOUR MOTORS WIRED TO A SINGLE SWITCH REQUIRE THE USE OF AN MLC; FIVE TO EIGHT MOTORS REQUIRE TWO MLCS; NINE TO 12 REQUIRE THREE; AND SO FORTH. SEE DRAWINGS NO. \_\_\_\_\_ & NO. \_\_\_\_\_

THE STANDARD ELECTROSHADE™-MOTOR LEAD IS A PVC 5 CONDUCTOR #18 STRANDED CABLE APPROXIMATELY ONE-FOOT (305MM) LONG WITH A 6 CONDUCTOR DISCONNECT-PLUG.

THE STANDARD ELECTROSHADE FURNISHED-ONLY JUNCTION-BOX LEAD IS THE SAME TYPE AS THE MOTOR LEAD & HAS A PLUG COMPATIBLE TO IT. THIS LEAD IS APPROXIMATELY FIVE-FOOT (1525 MM) LONG.

ONE OR FOUR FTS SYSTEMS CAN BE WIRED ON A SINGLE PUSH-BUTTON SWITCH. PLEASE REFER TO DRAWING NO. \_\_\_\_\_ FOR POINT-TO-POINT CONNECTION. HOWEVER, FOUR OR MORE FTS SYSTEMS WIRED TO A SINGLE SWITCH REQUIRE THE USE OF A SGC; FIVE TO EIGHT MOTORS REQUIRE ONE SGC; NINE TO 12 REQUIRE TWO; AND SO FORTH. SEE DRAWINGS NO. \_\_\_\_\_

SOME POINT-TO-POINT WIRING DIAGRAMS MAY NOT INCLUDE MOTOR DISCONNECT-PLUGS, JUNCTION BOXES, AND CABLE RACEWAYS THAT MAY BE ESSENTIAL FOR A COMPLETE INSTALLATION.

TYPICAL ELECTRICAL RATING FOR STANDARD MOTORS:  
MOTOR 120 VOLTS 60HZ 2.2 AMPS 246 WATTS  
ACTUAL ELECTRICAL RATING IS JOB SPECIFIC AND IS BASED ON REQUIRED MOTOR & SELECTED CONTROL SYSTEM.

I-Con/SunDialer Installation Checklist

(For standard ElectroShades using the I-CON control system)

Prior to final installation and commissioning by Mechoshade's authorized commissioning agent or shade dealer, the following requirements must be met and a copy of this form must be signed and faxed to Mechoshade Systems Inc.

- Electrical contractor must certify all wiring is complete and is in accordance with all applicable codes and per Mechoshade's approved shop drawings, wiring details & instructions.
- Electrical Contractor must certify that all line voltage and low voltage wires are properly terminated and connected. Loose wires, shorts, miswires, etc will result in improper system operation.
- Electrical Contractor must verify that all components are powered and that ample amperage is provided to each one per Mechoshade's specifications.
- Electrical Contractor must perform a continuity test, transmission and ground fault tests on all low voltage cables and must verify proper pair assignment and/or proper cable crimping on all communication networks and local switch cables. We recommend using a Siem on STM8 tester for continuity + transmission tests and Siem on MOD APT for testing ground shorts.
- Electrical Contractor must verify that wire runs do not exceed maximum wire run for all cable types as specified by Mechoshade on the shop drawings.

CAT-5 with RJ-45 crimped on both ends	400 Ft - Maximum Cable Run Total from switch to motor and any other device	USOC Standard
LonWorks Network Cable	1500 Ft - Maximum Cable Run 1200 Ft pt-to-pt - Maximum Cable Run	Orange = '+' Orange/White = '+' Blue = '-' Blue/White = 'A'

- Electrical contractor must certify that all crimped cables have been accomplished reliably with at least 1/8" of jacket material extending further into the crimp past the strain relief.

- Electrical contractor must certify that the two solar meters are installed as per the following:

- At least one of the radiometers should be in an unshaded position throughout the day and year (installed such that they are not shaded by adjacent trees, construction or buildings). If both solar meters are covered by a shadow, the radiometers will communicate wrong readings to the computer which may result in shades moving to undesired positions.
- At the highest point on the roof.
- Minimum 15-25 Ft. apart from each other.
- Facing up with the bubble leveled (centered using leveling screws), and oriented towards north in the northern hemisphere (above equator), and towards south in southern below hemisphere).
- Connections should be made in a waterproof box.
- Within 500 Ft. of the SunDialer.

- The Shade contractor must certify that:
  - All motors have been individually tested at the time of shade installation by utilizing a motor tester.
  - All motors have the proper shade rotation.
  - All upper & lower shade limits have been set and are aligned.
  - All shades are aligned at intermediate stops (default or custom).
- Shade contractor must certify that all I-CON BL(s) and/or Intelligent Motors are programmed with unique location number. (please see I-CON HHC Operating Manual for programming instructions)
- Shade contractor must certify that all I-CON BL(s) and/or Intelligent Motors are programmed with correct addresses tables per address schedule provided in your shop drawings. (please see I-CON HHC Operating Manual for programming instructions)
- Shade contractor must verify that each individual I-CON BL(s) and/or Intelligent Motors can be "PULLED" and using the I-CON Hand Held Configurator (please see I-CON HHC Operating Manual for instructions)
- Shade contractor must verify that all shade control zones can be "WINKED" using the I-CON Hand Held Configurator (please see I-CON HHC Operating Manual for instructions)
- An Internet connection must be provided to the SunDialer IP Interface in order to commission and remotely monitor and support the control system. Access to and from the Internet must be provided using PC Anywhere, remote desktop or similar web application.  
IP ADDRESS = \_\_\_\_\_
- As-built wiring diagrams to be provided to Mechoshade System upon completion of wiring.

The installation shade sub-contractor (dealer) will be required to provide walkie-talkies and adequate personnel to provide shade movement information at the time the software is enabled.

Mechoshade systems can only WARRANTY the control system after all listed items are certified as complete from the electrical contractor and the shade contractor (dealer). Upon completion of this check list, please complete the information below and fax to Mechoshade at 718-729-2941. Please allow a minimum of 4 weeks to schedule an MSS engineer. Mechoshade will require at least 6 to 8 weeks to remotely monitor the system. A period of up to 12 months must be provided for by the owner for additional software settings to fine tune the system to meet the unique requirements of the building's occupants.

Signed: \_\_\_\_\_ Signed: \_\_\_\_\_

Shade Installation Contractor \_\_\_\_\_ Electrical Contractor \_\_\_\_\_

Date Signed: \_\_\_\_\_ Date Signed: \_\_\_\_\_

Project Name: \_\_\_\_\_

Address: \_\_\_\_\_

Mechoshade Systems, Inc.

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JOB UMASS AMHERST  
NEW SCIENCE BUILDING  
AMHERST, MA

TITLE PROPOSED DETAILS  
"ELECTRO" AND "MECHO" (MANUAL) SHADES

ARCHITECT WILSON ARCHITECTS, INC.

DEALER KILCOURSE WINDOW PRODUCTS

DWG NO. M-3314EM REV. A

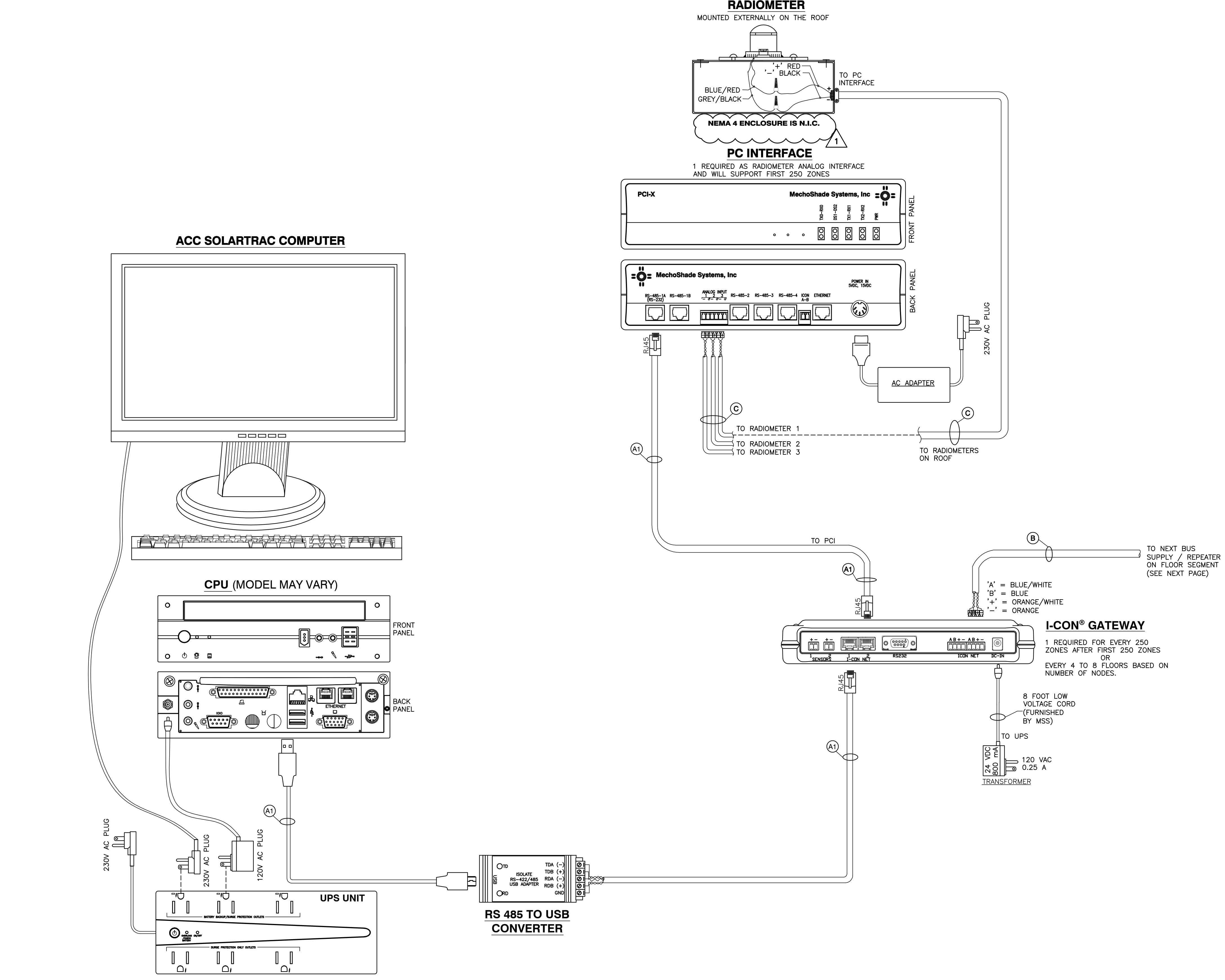
JOB NO. 525031

PROPOSAL NO. 185318-0-1

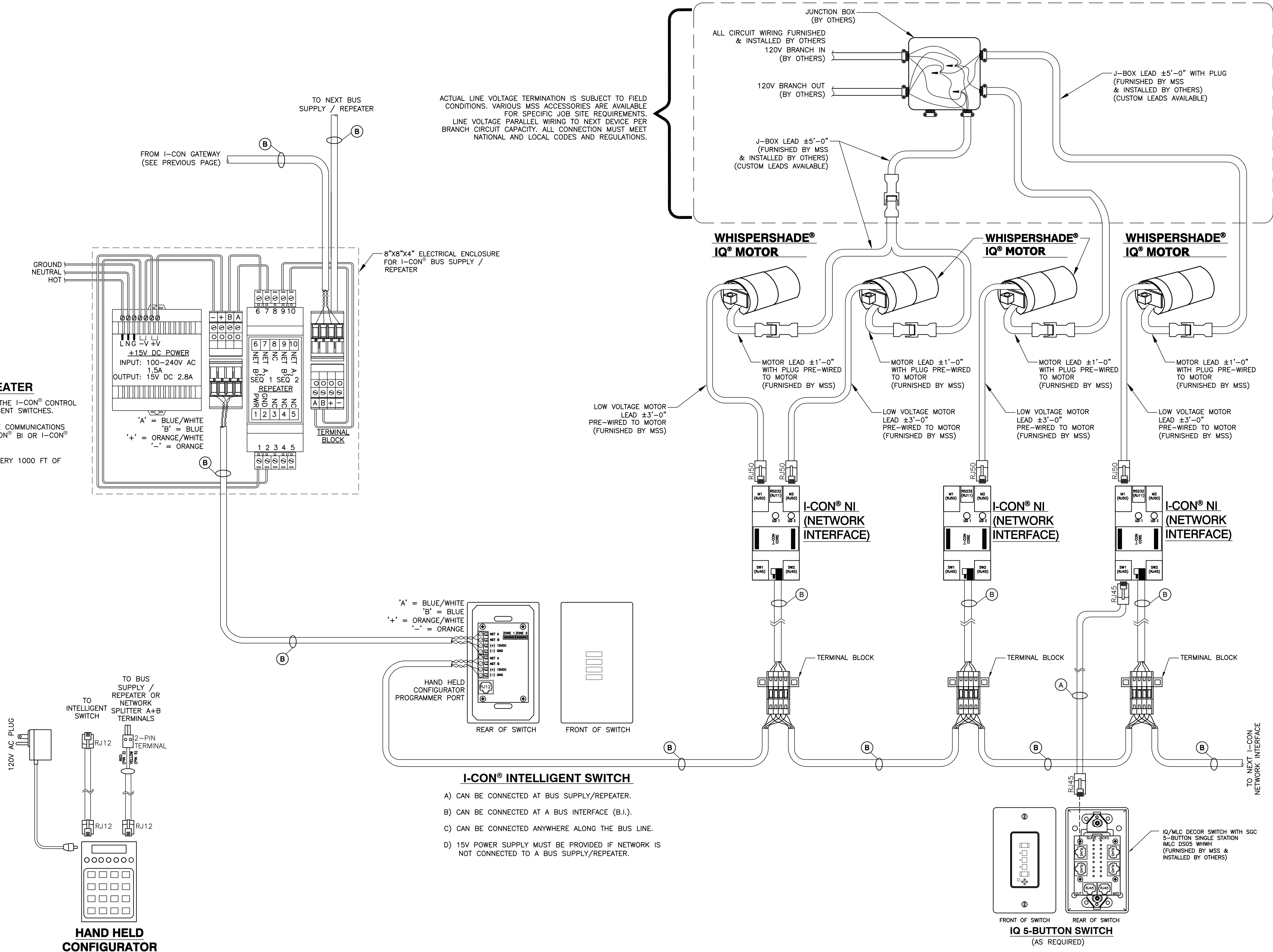
DATE 04/11/11 SCALE AS NOTED

DWN. BY J.S.R. CKD. BY G.B.

SHEET NO. 13 OF 15



PRINTS				
REV	SEP	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



### CABLE LEGEND FOR I-CON SYSTEM

<b>A</b>	CAT5 – FOR LOW VOLTAGE DRY CONTACT CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3078M5FH. RJ-45 MODULAR PLUG CRIMPED (USOC) ON BOTH ENDS  CAT5 – FOR LOW VOLTAGE DRY CONTACT CONNECTIONS IN PLENUM AREAS 24AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3604M55 SOLID CONDUCTOR RJ-45 MODULAR PLUGS CRIMPED (USOC) ON BOTH ENDS DISTANCE LIMITATION = 400' CUMULATIVE (FURNISHED & INSTALLED BY OTHERS)
<b>A1</b>	CAT5 – CABLE FOR RS-485 CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) RJ-45 MODULAR PLUGS CRIMPED (EIA568A) ON BOTH ENDS CONNECTED TO 2'-0" USB CABLE (USB/RJ-45) DISTANCE LIMITATION = 4000' CUMULATIVE (FURNISHED & INSTALLED BY OTHERS)
<b>A2</b>	CAT5 – CABLE FOR ETHERNET CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) RJ-45 MODULAR PLUGS CRIMPED (EIA568A) ON BOTH ENDS DISTANCE LIMITATION = 325' (FURNISHED & INSTALLED BY OTHERS)
<b>A3</b>	CAT5 – EXTENSION CABLE (E CABLE) CAT5– FOR LOW VOLTAGE DRY CONTACT CONNECTIONS 24AWG 4UTP (8-CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3078M5FH RJ-45 MODULAR PLUG CRIMPED (USOC) ON BOTH ENDS  FOR PLENUM AREAS – 24AWG 4UTP (8-CONDUCTOR SOLID UNSHIELDED TWISTED PAIR) OLYMPIC WIRE AND CABLE (www.olympicwire.com 1-800-526-2269) PART No. 3604M55 SOLID CONDUCTOR RJ-45 MODULAR PLUGS CRIMPED (USOC) ON BOTH ENDS DISTANCE LIMITATION = 1500' INCLUSIVE OF LONWORKS/ICON NETWORK WIRING ("B") = 400' INCLUSIVE OF DRY CONTACT SWITCH WIRING ("A") (FURNISHED & INSTALLED BY OTHERS)
<b>B</b>	LONWORKS CABLE – FOR I-CON NETWORK CONNECTIONS 22AWG 2UTP (4 CONDUCTOR STRANDED UNSHIELDED TWISTED PAIR) GREAT LAKES WIRE AND CABLE (www.greatwire.com -586-979-0022) PART # 70007-RIB-CY, LEVEL 4 AUTOMATION CABLE PHOENIX PHOENIX TERMINAL CONNECTORS ON BOTH ENDS "–" = ORANGE "+" = ORANGE/WHITE "B" = BLUE "A" = BLUE/WHITE DISTANCE LIMITATION = 1500' CUMULATIVE = 1200' NODE TO NODE (FURNISHED & INSTALLED BY OTHERS)
<b>C</b>	BELDEN TYPE 82760 18AWG 1STP (2-CONDUCTOR SHIELDED TWISTED PAIR) FOR PC INTERFACE/ANALOG I/O TO SENSOR CONNECTIONS PHOENIX CONNECTOR/CONNECTION "+" = RED "-" = BLACK "+" = BLUE/RED "-" = GREY/BLACK DISTANCE LIMITATION = 500' CUMULATIVE (FURNISHED & INSTALLED BY OTHERS)
<b>D</b>	COAX – USES BNC TERMINATIONS FOR ANALOG I/O TO SENSOR CONNECTIONS TERMINAL BLOCK/WIRE SPLICE CONNECTION DISTANCE LIMITATION = 1000' CUMULATIVE (FURNISHED & INSTALLED BY OTHERS)

#### NOTES

- PARALLEL WIRING TO NEXT DEVICE PER BRANCH CIRCUIT CAPACITY. ALL CONNECTION MUST MEET NATIONAL AND LOCAL CODES AND REGULATIONS.
- ADDRESS SCHEDULES REQUIRED.
- MAXIMUM VOLTAGE FOR ALL UNMARKED CABLE IS 43.5 VDC.

## IQ MOTOR ON I-CON CONTROL NETWORK WITH SOLARTRAC

NOTES:  
1 – SEE SHEET # 1

#### SHOP DRAWING DIMENSIONS

DETAILS: HARDWARE SIZES ± 1/32" (0.79mm)  
ROLL DIAMETER SIZES ± 1/8" (3.18mm)  
EDGE CLEARANCE ± 3/16" (4.76mm)

SHADE BANDS:  
RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included.  
All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing.  
Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\14 Point-to-Point-ICON with Solartrac(RS485 Riser).dwg

#### PLEASE NOTE:

- NUMBER OF MOTORS PER J-BOX CAN VARY FROM 1 TO 4 MAX. BASED ON SITE CONDITIONS AND APPLICABLE LOCAL CODES.
- UP TO 8 MOTORS CAN BE CONNECTED TO ONE J-BOX WHEN USING Y-SPLITTERS TO MINIMIZE NUMBER OF MOTOR LEADS.

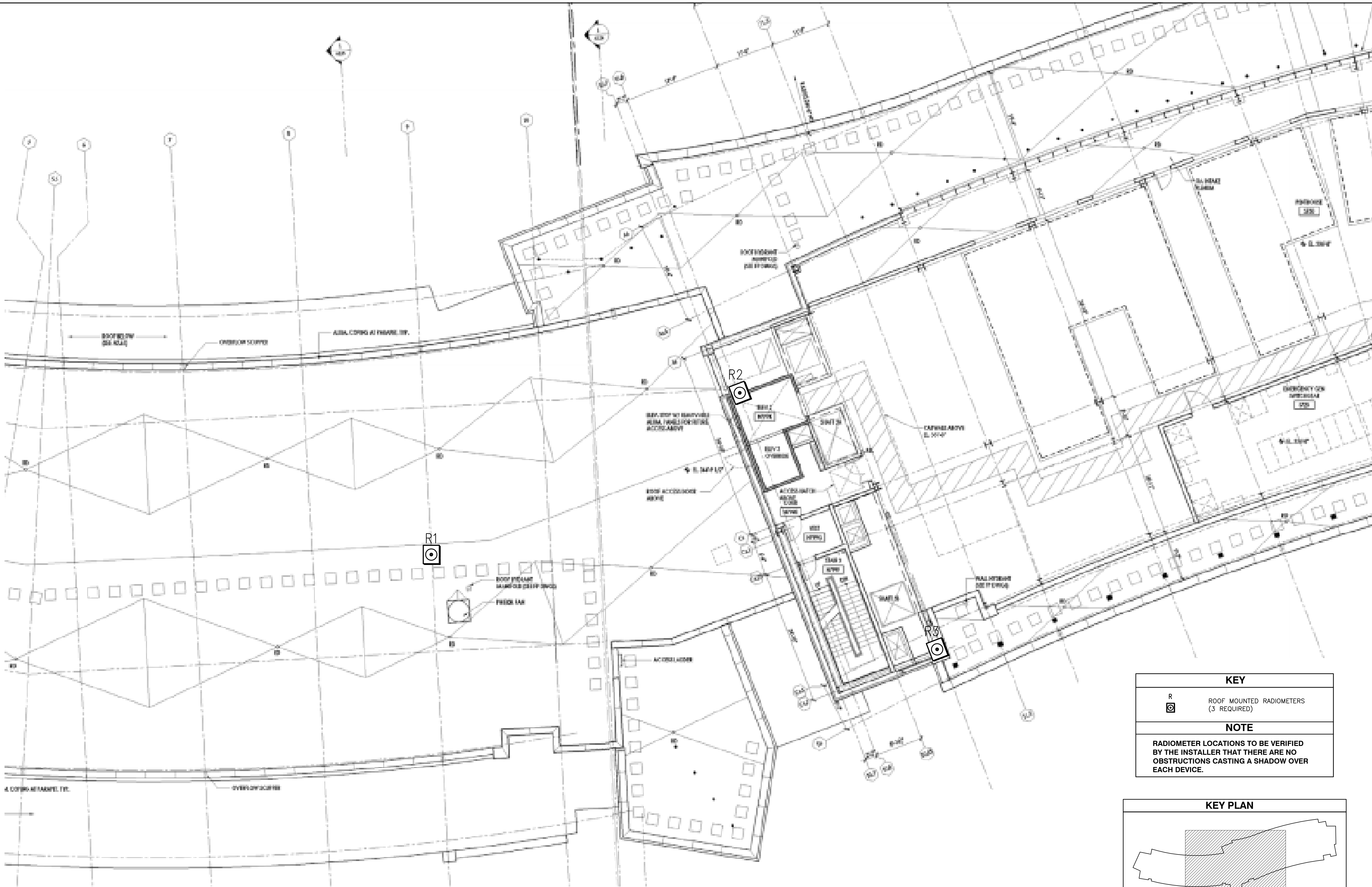
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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA	DWG NO.	M-3314EM	REV.	1
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES	JOB NO.	525031	PROPOSAL NO.	185318-0-1
ARCHITECT	WILSON ARCHITECTS, INC.	DATE	04/11/11	SCALE	AS NOTED
DEALER	KILCOURSE WINDOW PRODUCTS	DWN. BY	J.S.R.	CHKD. BY	G.B.
		SHEET NO.	14	OF	15



PRINTS				
DW	CD	FOR	TO	DATE
4	1	APPL	DLR	04/11
4	1	APPL	DLR	07/14



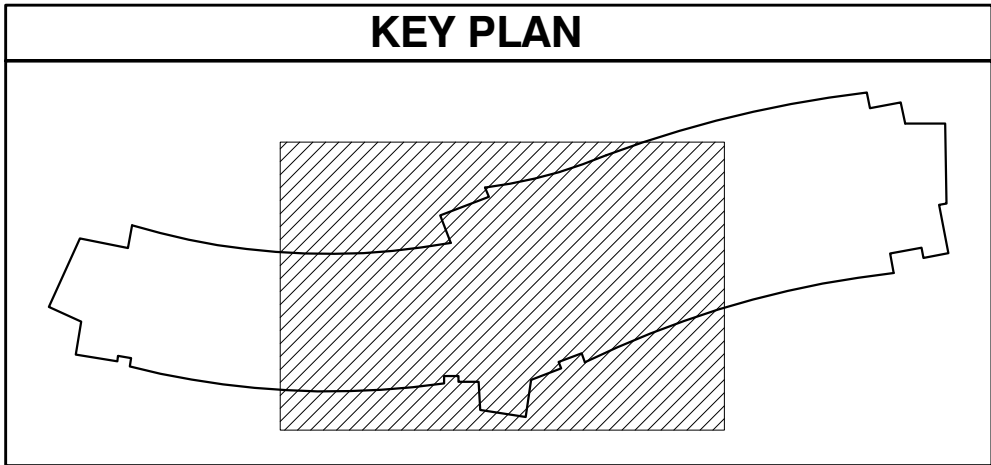
**KEY**

R

ROOF MOUNTED RADIOMETERS  
(3 REQUIRED)

**NOTE**

RADIOMETER LOCATIONS TO BE VERIFIED  
BY THE INSTALLER THAT THERE ARE NO  
OBSTRUCTIONS CASTING A SHADOW OVER  
EACH DEVICE.



**RADIOMETER LOCATION PLAN @ ROOF**  
SCALE: 1/8"=1'-0"

NOTES:  
1 - SEE SHEET # 1

**SHOP DRAWING DIMENSIONS**  
DETAILS:     HARDWARE SIZES     ± 1/32" (0.79mm)  
              ROLL DIAMETER SIZES   ± 1/8" (3.18mm)  
              EDGE CLEARANCE       ± 3/16" (4.76mm)  
SHADE BANDS: RollerShade width and height dimensions (W x HT) are approximate, subject to final field dimensions to be scheduled by the Dealer/Contractor and provided to MechoShade Systems for fabrication in accordance with Contract Documents. Shop drawings are for typical details and shade locations only. Final sizes are not included. All blocking and supports are shown for reference only. Blocking design is not included in this Shop Drawing. Blocking is Not In Contract.

FILE NAME: I:\Shop DWGs Current\M-3314EM - UMass Amherst - New Science Building\Rev. 1\Radiometer Loc.dwg

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1	07/14/11	NEW PAGE	K.C.
NO.	DATE	DESCRIPTION	BY
REVISIONS			

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JOB	UMASS AMHERST NEW SCIENCE BUILDING AMHERST, MA
TITLE	PROPOSED DETAILS "ELECTRO" AND "MECHO" (MANUAL) SHADES
ARCHITECT	WILSON ARCHITECTS, INC.
DEALER	KILCOURSE WINDOW PRODUCTS

DWG NO.	M-3314EM	REV.	
JOB NO.	525031		
PROPOSAL NO.	185318-0-1	SCALE	AS NOTED
DATE	04/11/11	DWN. BY	J.S.R.
		CKD. BY	G.B.
SHEET NO.	15	OF	15