

REVISION	BY	DATE	SYM
ADD ANCHOR SPACING	CWC	10/19/2006	1

DRAWN BY: BRINKMAN  
 DATE: 6/16/2006  
 SCALE: 1/16  
 SHEET NO.: 1 OF 12  
 CAD DRAWING NO.: MD-101

**AIRROLITE**  
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 SCHOFIELD, WISCONSIN 54476  
 715-359-6171

TITLE: SCV602MD LOUVER W/ VCD40 DAMPER AND SCV602MD LOUVER ELEVATIONS

STATE OF TEXAS  
 DAVID RICE  
 81248  
 REGISTERED PROFESSIONAL ENGINEER  
 MAY 09 2013

**RICE ENGINEERING**  
 105 School Creek Trail  
 Luxemburg, WI 54217  
 Phone: 920.845.1042  
 Fax: 920.845.1048  
 www.rice-inc.com

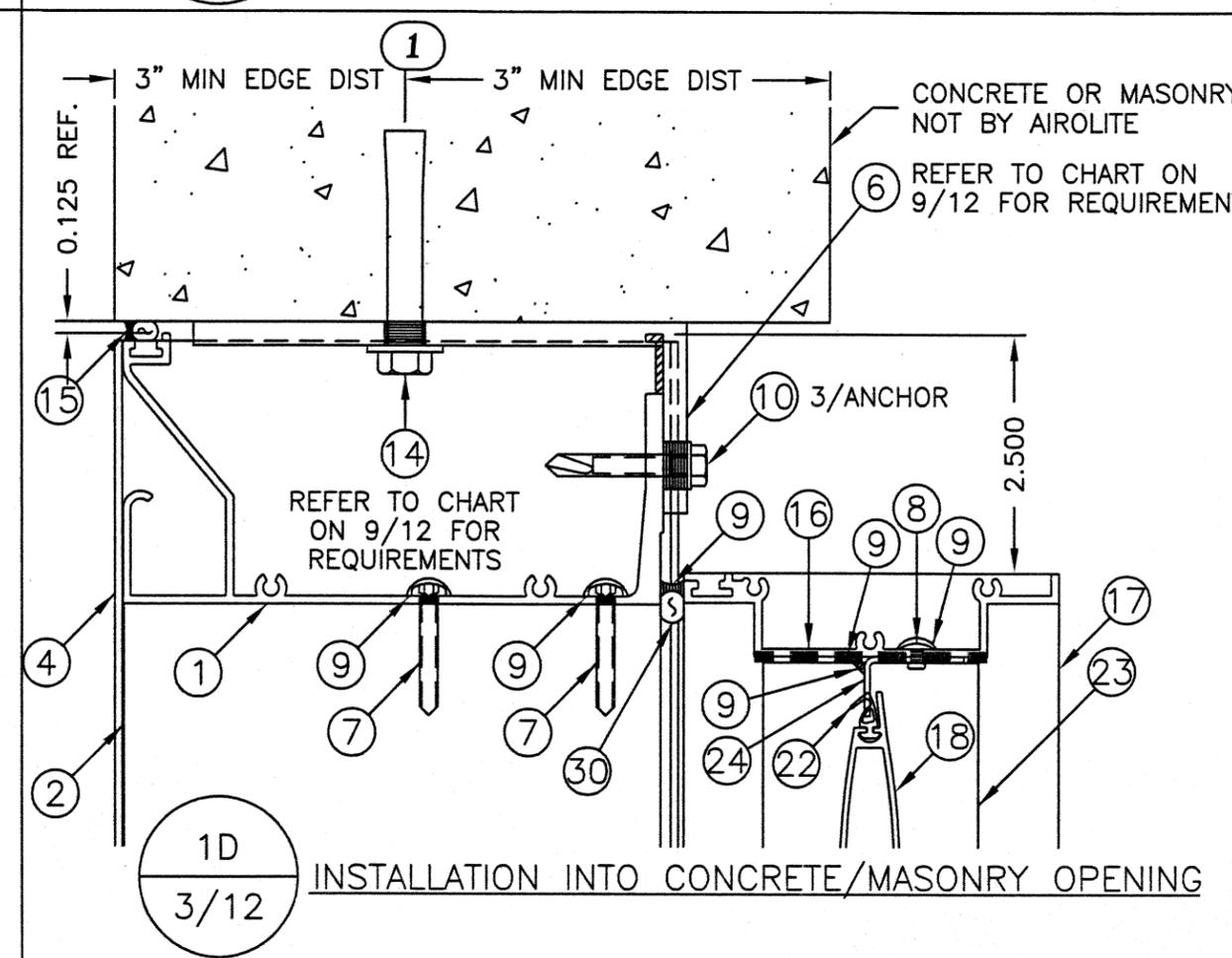
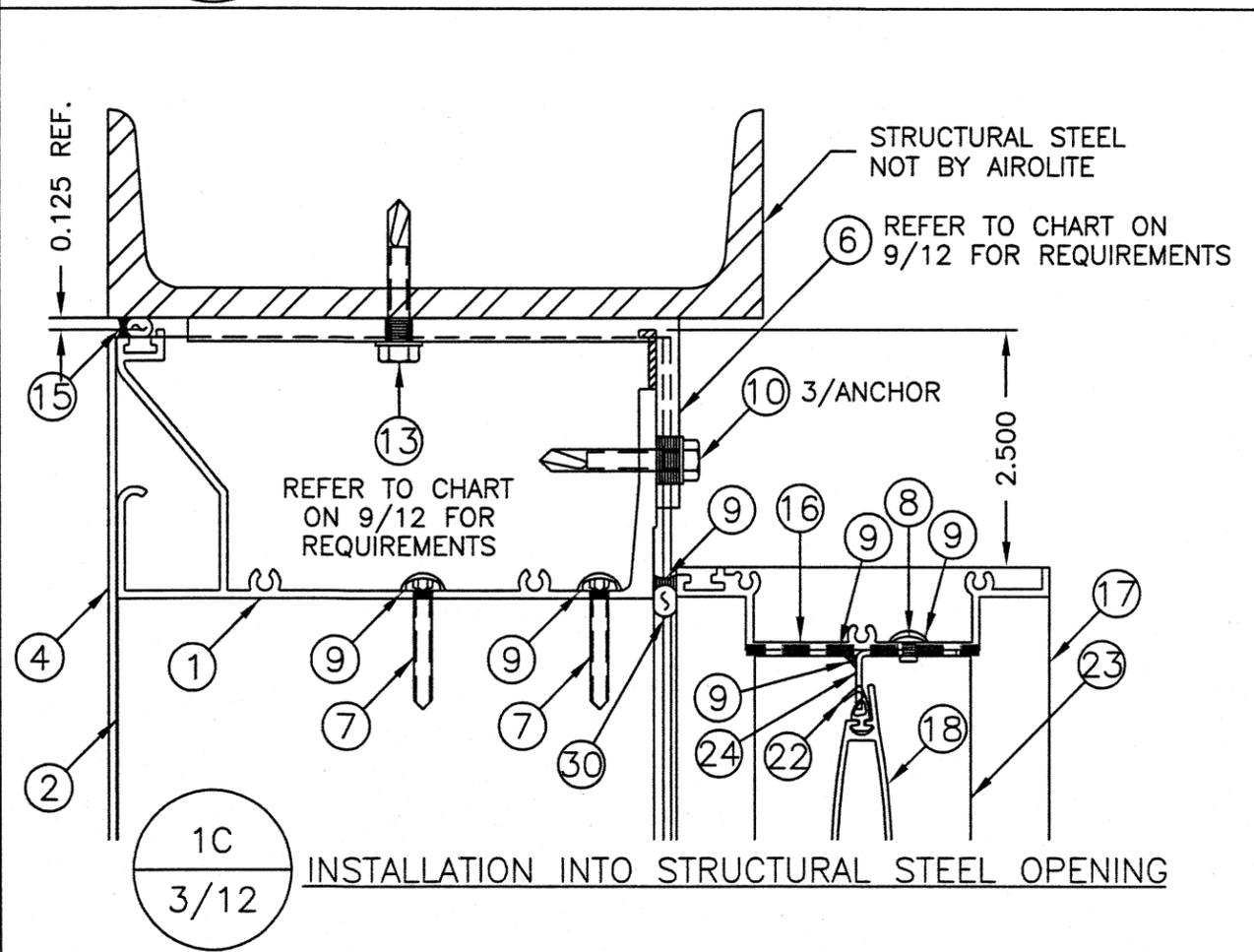
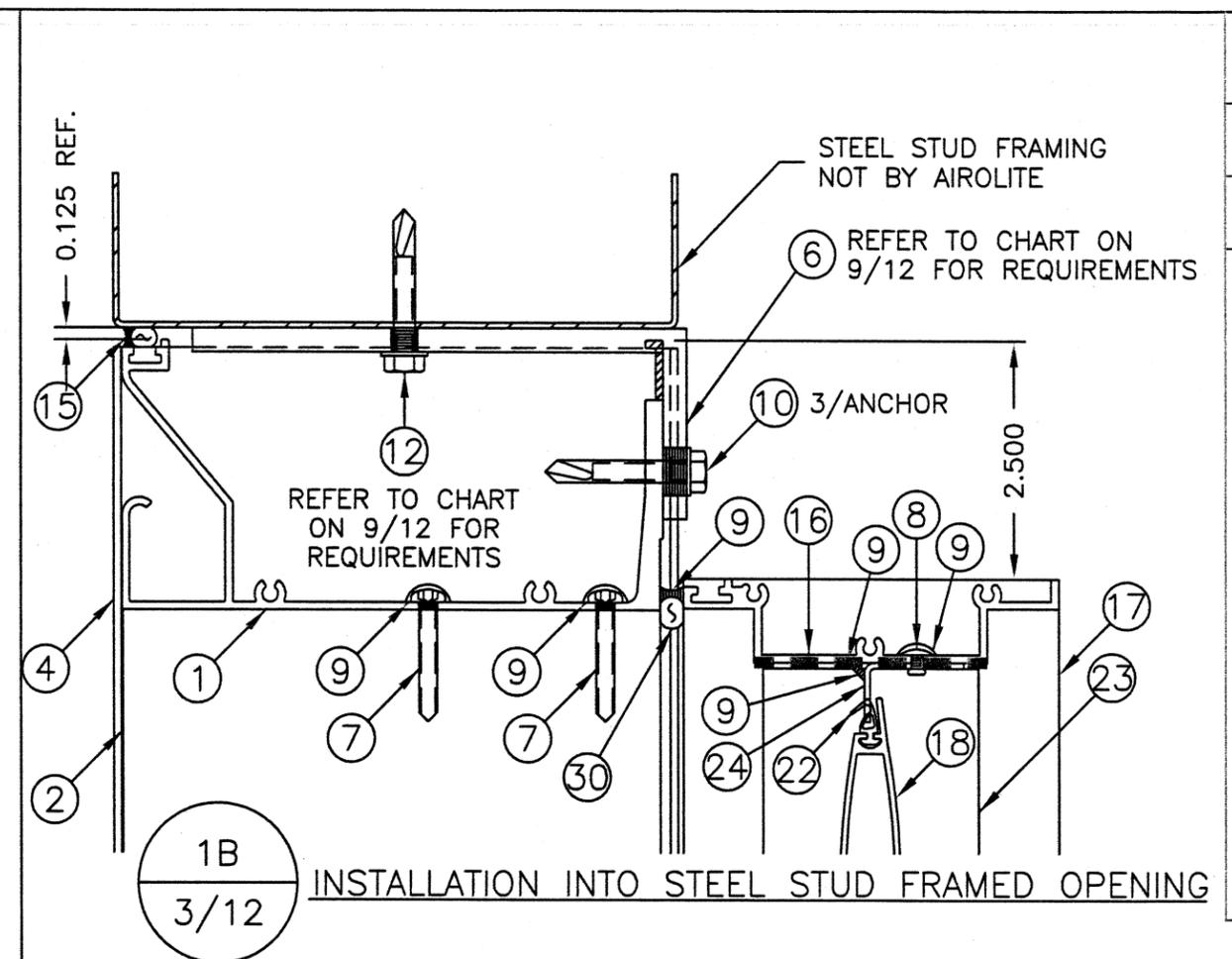
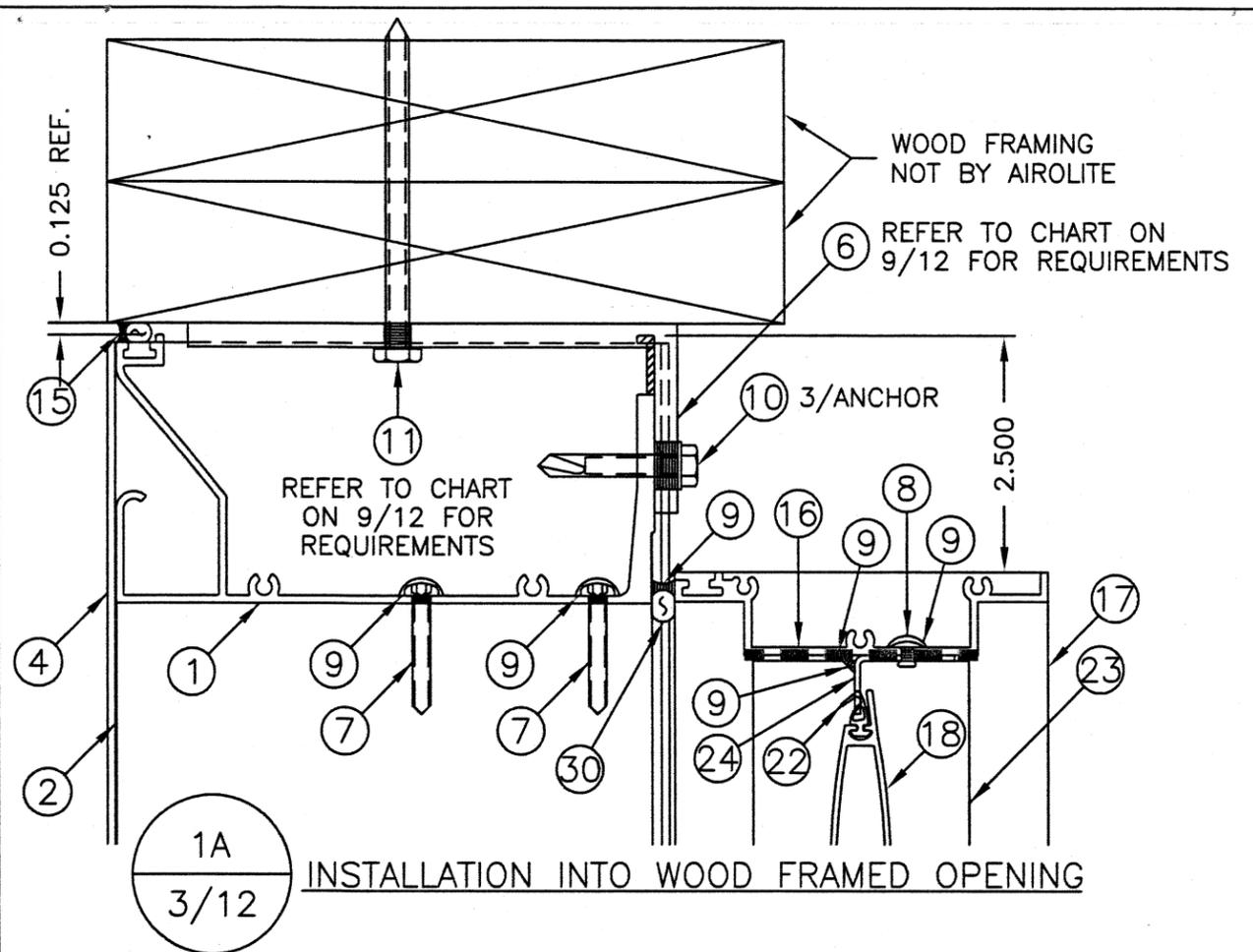
Texas Firm No: F-2183  
 L. David Rice  
 Registration No: 81248

**GENERAL NOTES:**

- IT SHALL BE THE RESPONSIBILITY OF THE PERMIT HOLDER TO VERIFY THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO SUPPORT THE LOADS IMPOSED BY THE LOUVERS.
- THE SCV602MD AND SCV602MD/VCD40 HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC) AND TEST PROTOCOLS TAS-201 (IMPACT), TAS-202 (UNIFORM STATIC PRESSURE), AND TAS-203 (CYCLIC FATIGUE). THE SCV602MD/VCD40 HAS BEEN TESTED IN ACCORDANCE WITH TAS100(A)-95 (WIND DRIVEN RAIN).
- MAXIMUM SINGLE SECTION SIZE IS 48" WIDE X 96" HIGH.
- MAXIMUM ASSEMBLED LOUVER SIZE IS UNLIMITED WIDE X 96" HIGH.
- SECTIONS OR ASSEMBLIES MAY BE STACKED VERTICALLY PROVIDING A SUITABLE STRUCTURAL SUPPORT IS DESIGNED AND INSTALLED BY OTHERS TO SUPPORT ALL LOADS TRANSFERRED FROM THE LOUVER.
- ALL WOOD SUBSTRATE SHALL BE G = 0.55 DENSITY OR BETTER. (1)
- ALL METAL STUD SUBSTRATE SHOULD BE MIN. 16 GA. FY = 50 KSI.
- ALL STRUCTURAL STEEL SUBSTRATE SHALL BE MIN. 1/4" THICK FY = 36 KSI.
- ALL CONCRETE SUBSTRATE SHALL BE MIN. 3000 PSI.
- CONCRETE MASONRY SHALL BE ASTM C90, TYPE II, 2000 PSI GROUT-FILLED.
- LOUVER ASSEMBLY IS TO BE ANCHORED AT HEAD AND SILL ONLY. NO ANCHORAGE IS REQUIRED AT THE JAMBS.
- LOUVER ASSEMBLY IS QUALIFIED FOR A MAXIMUM DESIGN LOAD OF +/- 150 PSF.
- LOUVER ASSEMBLY IS QUALIFIED FOR LARGE AND SMALL MISSILE IMPACT RESISTANCE.
- LOUVER ASSEMBLY WITHOUT VCD40 DAMPER SHALL ONLY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM AND THE ROOM WILL HOUSE WATER RESISTANT/WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES.
- LOUVER ASSEMBLY WITH VCD40 DAMPER MAY BE INSTALLED IN A LOCATION WHERE THE ROOM BEHIND THE LOUVER IS NOT DESIGNED TO DRAIN WATER PENETRATING INTO THE ROOM OR THE ROOM WILL HOUSE NON-WATER RESISTANT/ WATER PROOF EQUIPMENT, COMPONENTS, OR SUPPLIES. (1)(2)(3)
- INSTALLER TO PROVIDE SEPARATION OF DISSIMILAR MATERIALS AS REQUIRED.
- THE VCD40 MAY BE OPERATED BY THE MANUAL QUADRANT SHOWN ON 12/12 OR BY AN ELECTRIC OR PNEUMATIC ACTUATOR. THE DAMPER'S ACTUATOR IS NOT PART OF THIS APPROVAL, BUT SHALL BE CERTIFIED BY AN INDEPENDENT TESTING AGENCY.
- FRAME CONSTRUCTION. HEADS AND SILLS ARE SQUARE CUT. JAMBS SQUARE CUT @HEAD AND MITERED @SILL. CORNERS ARE SECURED WITH (2) #10x1-1/4 SMS AND SILICONE SEALED. BLADES ARE SECURED TO HEAD AND SILL WITH (2) #10x1-1/4 SMS AND WELDED @EACH END. (1)(2)

ITEM #	DESCRIPTION	MATERIAL	NOTES
1	LOUVER HEAD	6063-T5 ALUMINUM	
2	LOUVER BLADE	6063-T5 ALUMINUM	1.88 MAX. SPACING
3	LOUVER SILL	6063-T5 ALUMINUM	
4	LOUVER JAMB	6063-T5 ALUMINUM	
5	LOUVER BLANK-OFF (AS REQ'D)	6063-T5 ALUMINUM	NOT REQUIRED W/ VCD40 DAMPER
6A	ANCHOR (6.75 LONG)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
6B	ANCHOR (9.00 LONG)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
6C	ANCHOR (12.00 LONG)	6063-T5 ALUMINUM	REFER TO CHART ON 9/12
7	#10 X 1.25 TPH TYPE AB SMS	316 SS	7.75' MAX D.C. SPACING (DAMPER ATTACHMENT)
8	1/8 DIA. BLIND RIVET	ALUMINUM	3' FROM END & 14' D. C. MAX. SPACING
9	SILICONE SEALANT (3)	SILICONE SEALANT	
10	INSTALLATION FASTENER	1/4-20 X 1.50 SELF DRILLING (3)	GRADE 5 MIN EQUIVALENT
11	ANCHOR FASTENER (BY OTHERS)	1/4 DIA. WOOD SCREW	REFER TO CHART ON 9/12
12	ANCHOR FASTENER (BY OTHERS)	1/4-14 AISI 1022 SELF-DRILLING SCREW	REFER TO CHART ON 9/12
13	ANCHOR FASTENER (BY OTHERS)	1/4-20 HILTI DRIL-FLEX	REFER TO CHART ON 9/12
14	ANCHOR FASTENER (BY OTHERS)	3/8 DIA. POWERS SS POWER BOLT	REFER TO CHART ON 9/12
15	PERIMETER SEAL (BY OTHERS)		
16	DAMPER HEAD/SILL	6063-T5 ALUMINUM	
17	DAMPER JAMB	6063-T5 ALUMINUM	
18	DAMPER BLADE	6063-T5 ALUMINUM	3.75 MAX. SPACING
19A	NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ DELRIN BUSHING	
19B	NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ BRONZE BUSHING	
19C	NON-DRIVE DAMPER AXLE ASSY.	ZC STEEL PIN W/ SS BUSHING	
19D	NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ DELRIN BUSHING	
19E	NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ BRONZE BUSHING	
19F	NON-DRIVE DAMPER AXLE ASSY.	SS PIN W/ SS BUSHING	
20A	DRIVE-SIDE DAMPER AXLE ASSY.	ZC/GALV. STEEL	UNIQUE SHAPE AT DRIVER BLADE
20B	DRIVE-SIDE DAMPER AXLE ASSY.	SS	UNIQUE SHAPE AT DRIVER BLADE
21A	DAMPER AXLE BUSHING	DELRIN	
21B	DAMPER AXLE BUSHING	BRONZE	
21C	DAMPER AXLE BUSHING	SS	
22A	DAMPER BLADE SEAL	EPDM	
22B	DAMPER BLADE SEAL	SILICONE	
23	DAMPER JAMB SEAL	SS	
24	DAMPER TOP/BOTTOM CLOSURE	ALUMINUM	HEIGHT VARIES
25A	DAMPER LINKAGE BAR	GALV. STEEL	
25B	DAMPER LINKAGE BAR	SS	
26	FORMED 'Z' CLIP	ALUMINUM	12.00 MAX. SPACING
27	#10 X .50 TEK	ZP	
28	SHIM AT LOUVER/DAMPER	ALUMINUM	
29	BLANK-OFF AT LOUVER/DAMPER	ALUMINUM	WIDTH VARIES
30	FOAM TAPE BACKER		USED AT HEAD
31	#8 X .75 TPH TYPE AB SMS	18-8 SS	
32A	1/4 DIA. E-CLIP	ZP	
32B	1/4 DIA. E-CLIP	SS	
33A	DAMPER BLADE DRIVE LEVER	GALV. STEEL	
33B	DAMPER BLADE DRIVE LEVER	SS	
34	REINFORCING STRAP	ALUMINUM	
35A	1/4-20 X 1.25 HH CS	ZP	
35B	1/4-20 X 1.5 HH CS	SS	
36A	1/4-20 SF NUT	ZP	
36B	1/4-20 SF NUT	SS	
37	DAMPER MANUAL QUAD ASSY.		
38	#14 X .75 TEK	ZP	
39	1/4-20 X .562 BALL SWIVEL	ZP	
40	5/16 DIA. LINKAGE ROD	ZP	
41	DEADLOAD SHIM (BY OTHERS)		
42	OPTIONAL FLANGE	6063-T5 ALUMINUM	

REVISION	SYMBOL	DATE	BY	DATE	BY
	(1)	10/19/2006	CWC	11/07/2006	CWC
REVISION	SYMBOL	DATE	BY	DATE	BY
	(3)	7/14/2011	MES		
DRAWN BY: BRINKMAN SCALE: 1/8" = 1'-0" DATE: 6/16/2006 SHEET NO.: 2 OF 12 CAD DRAWING NO.: MD-101					
<b>AIRROLITE</b> The look that works™ SCHOFIELD, WISCONSIN 54476 715-359-6171					
TITLE: SCV602MD LOUVER W/ VCD40 DAMPER AND SCV602MD LOUVER NOTES/BILL OF MATERIAL					
<b>RICE ENGINEERING</b> 105 School Creek Trail Luxemburg, WI 54217 Phone: 920.845.1042 Fax: 920.845.1048 www.rice-inc.com					
Texas Firm No: F-2183 L. David Rice Registration No: 81248					

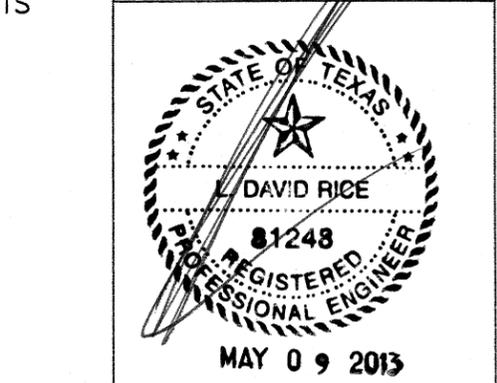


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DATE	10/19/2006
BY	CWC
DATE	6/19/2006
DRAWN BY	BRINKMAN
SCALE	1/2
SHEET NO.	3 OF 12
CAD DRAWING NO.	MD-101

ADD DIMENSION

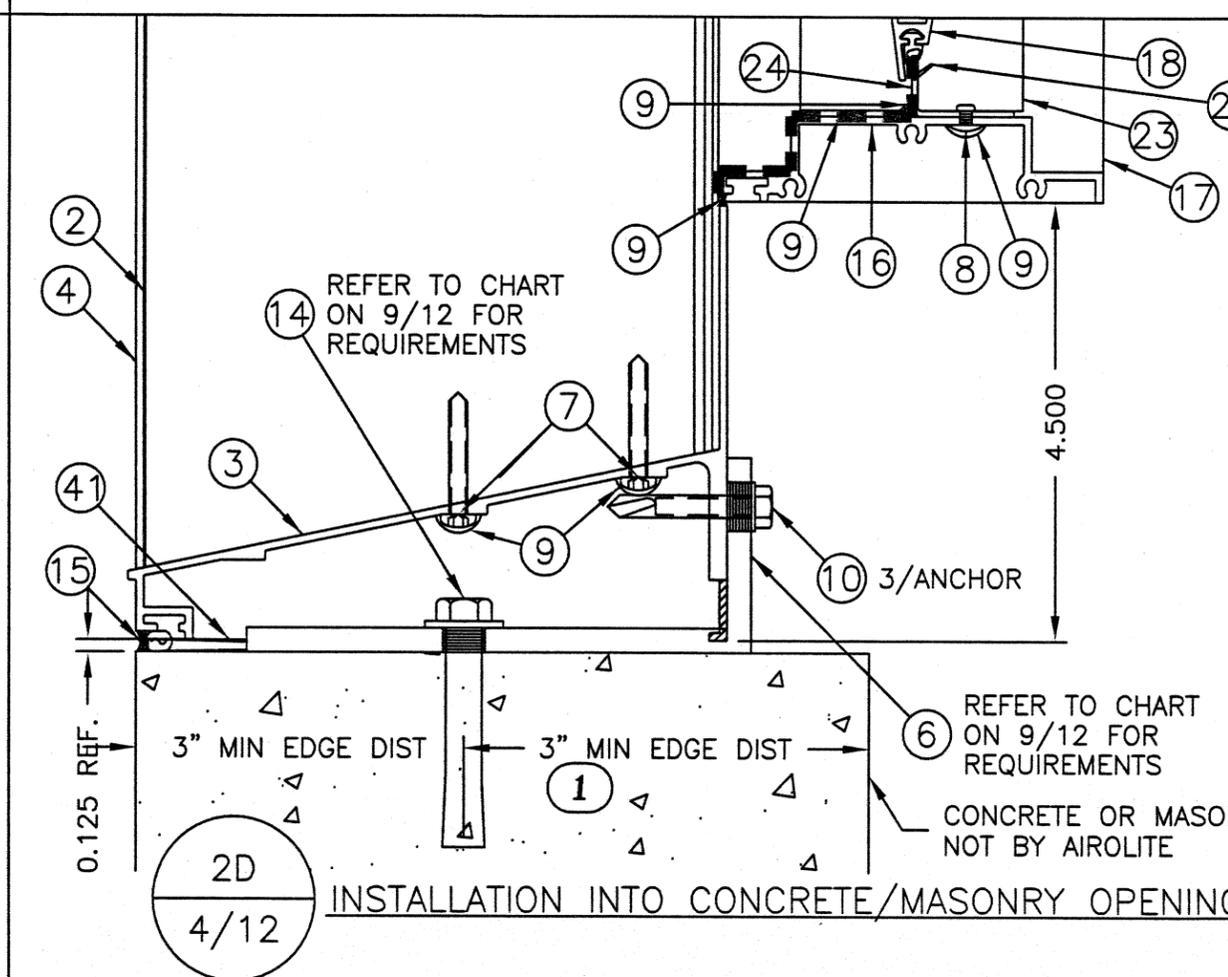
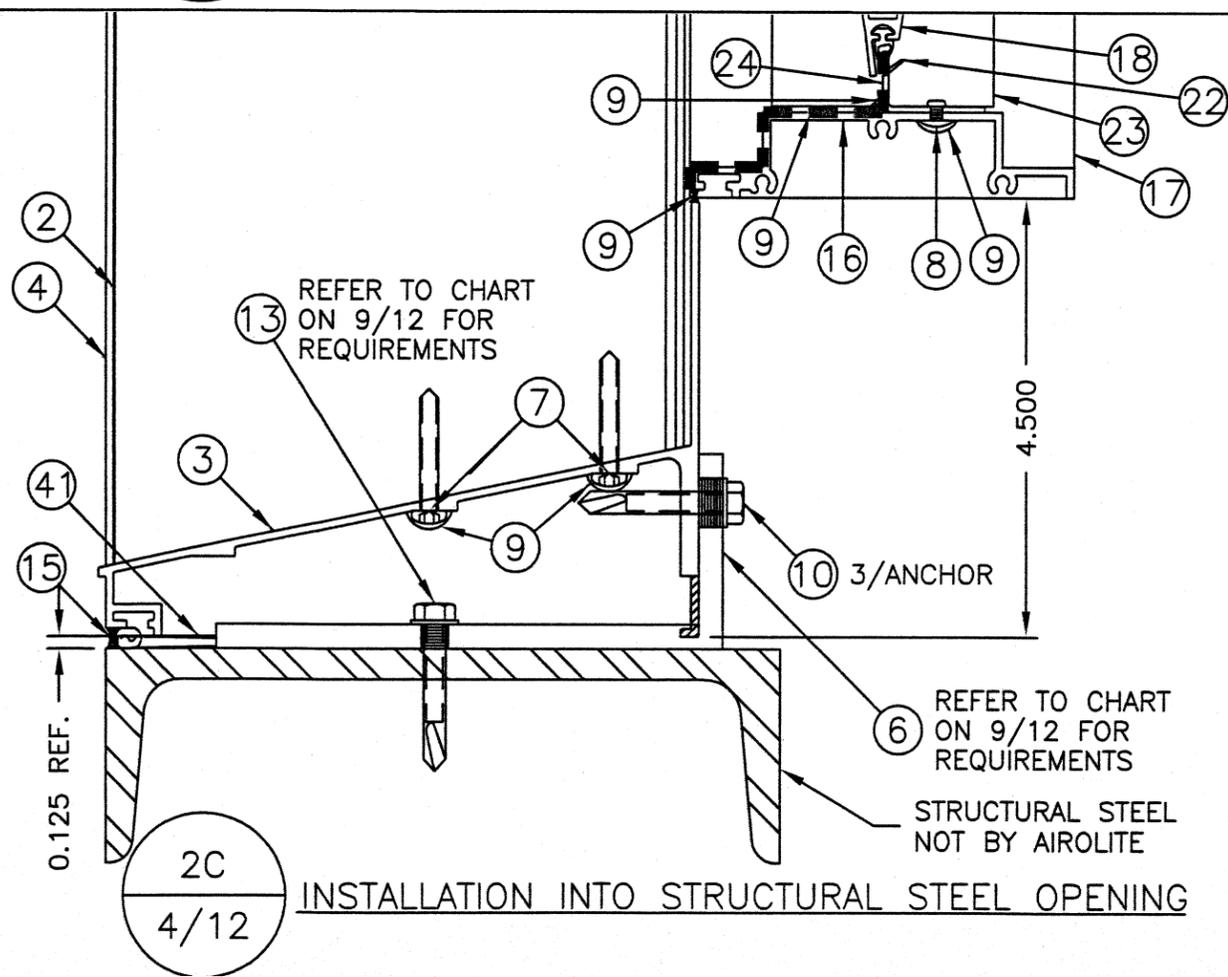
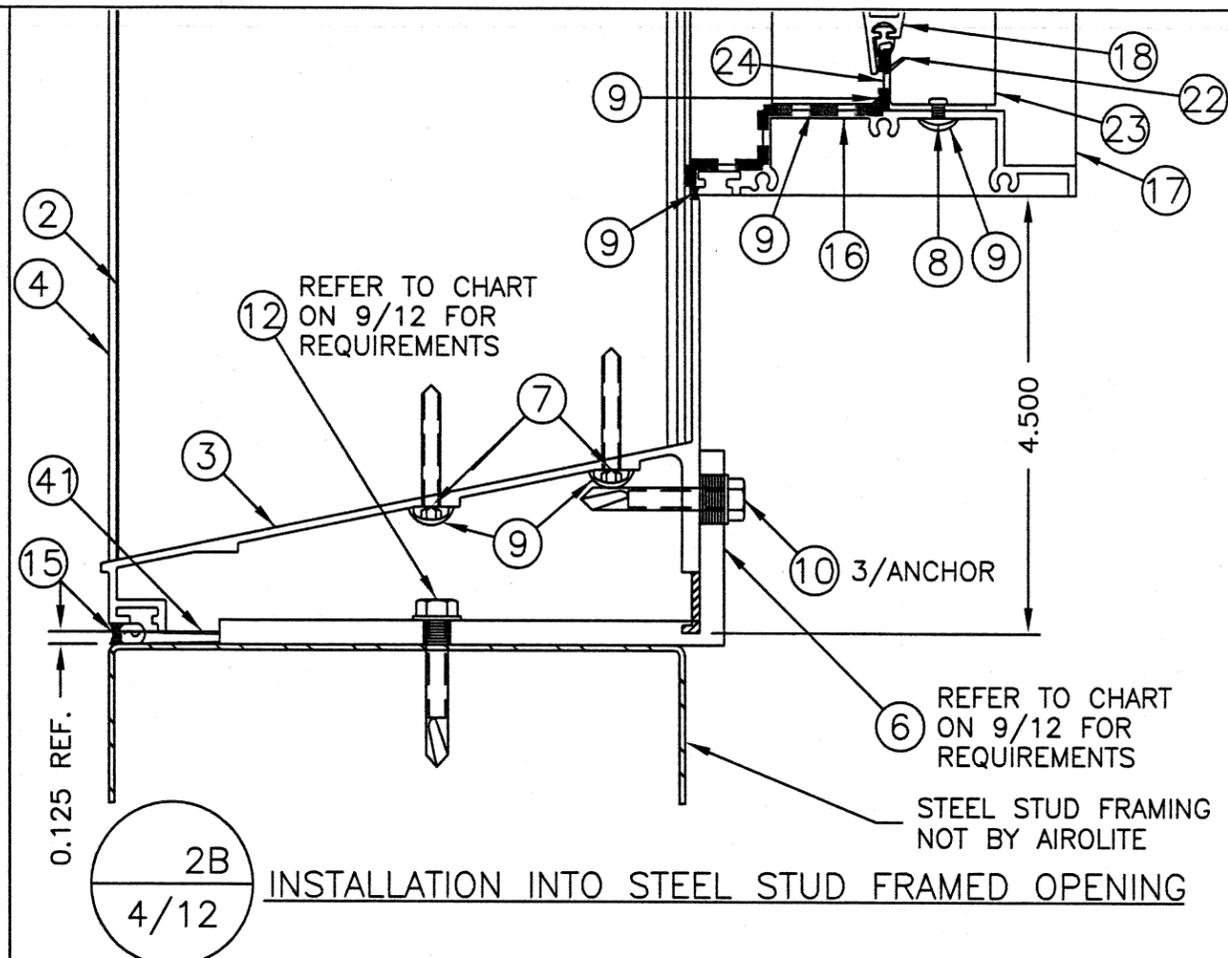
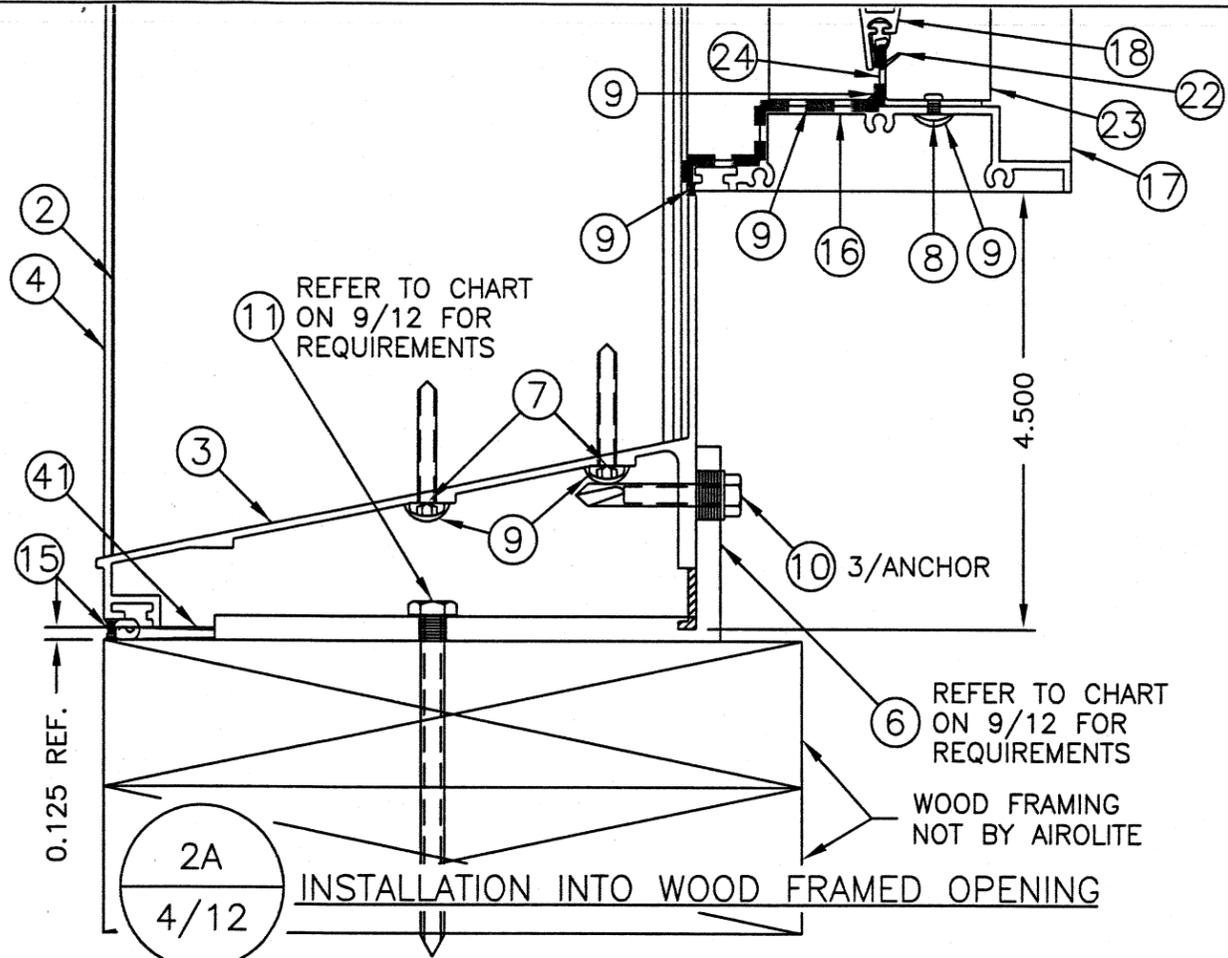
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TITLE  
SCV602MD LOUVER W/  
VCD40 DAMPER  
HEAD DETAILS

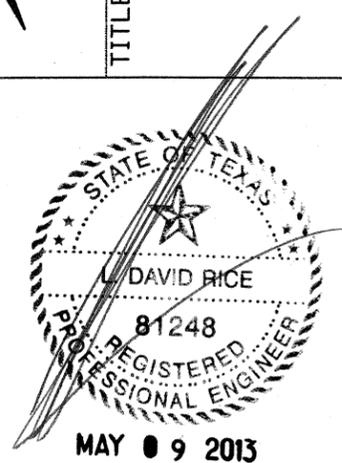


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**ENGINEERING**  
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Fax: 920.845.1048  
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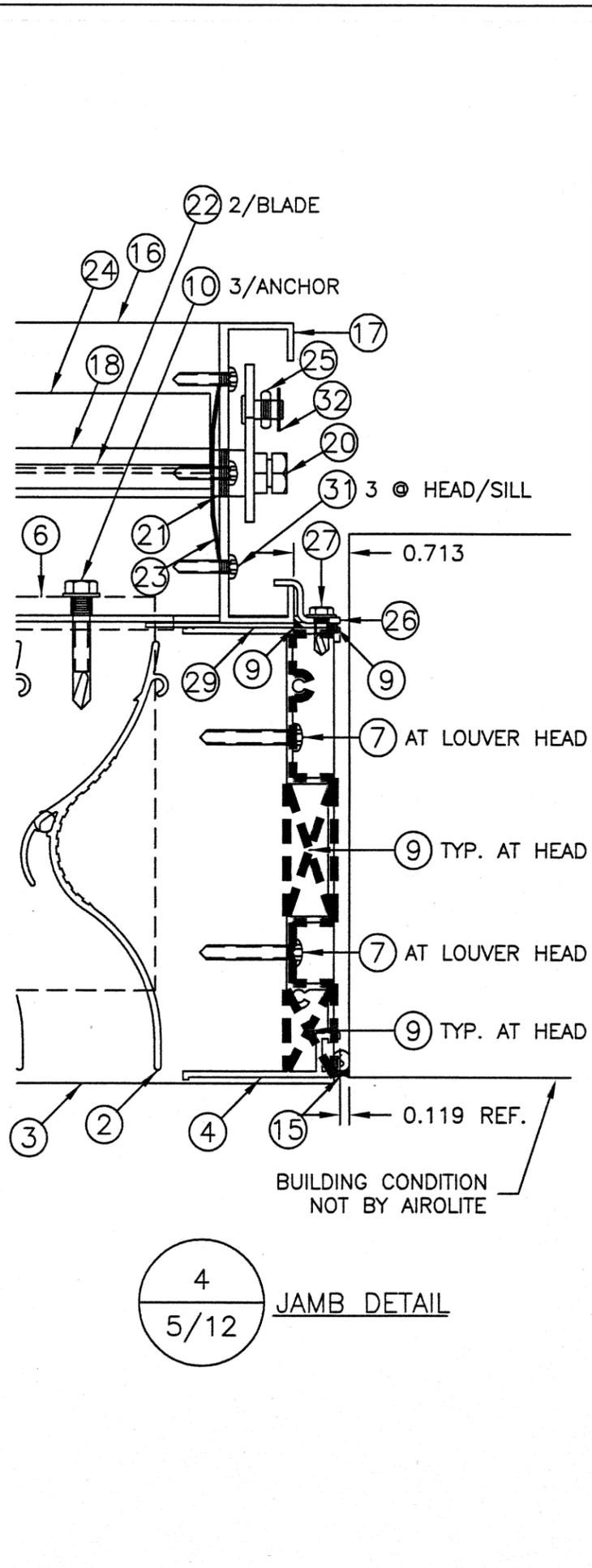
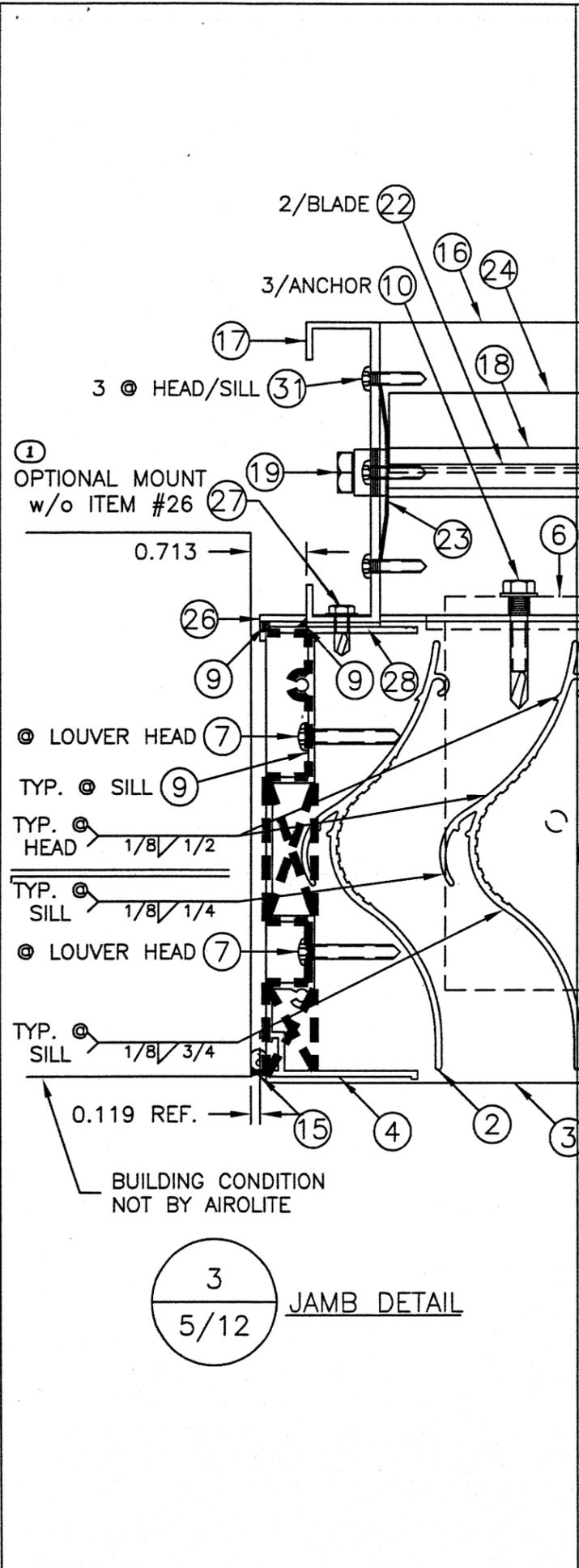


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DATE	10/19/2006
BY	CWC
DATE	6/19/2006
DRAWN BY	BRINKMAN
SCALE	1/2
SHEET NO.	4 OF 12
CAD DRAWING NO.	MD-101
ADD DIMENSION	
REVISION	
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<b>TITLE</b> SCV602MD LOUVER W/ VCD40 DAMPER SILL DETAILS	

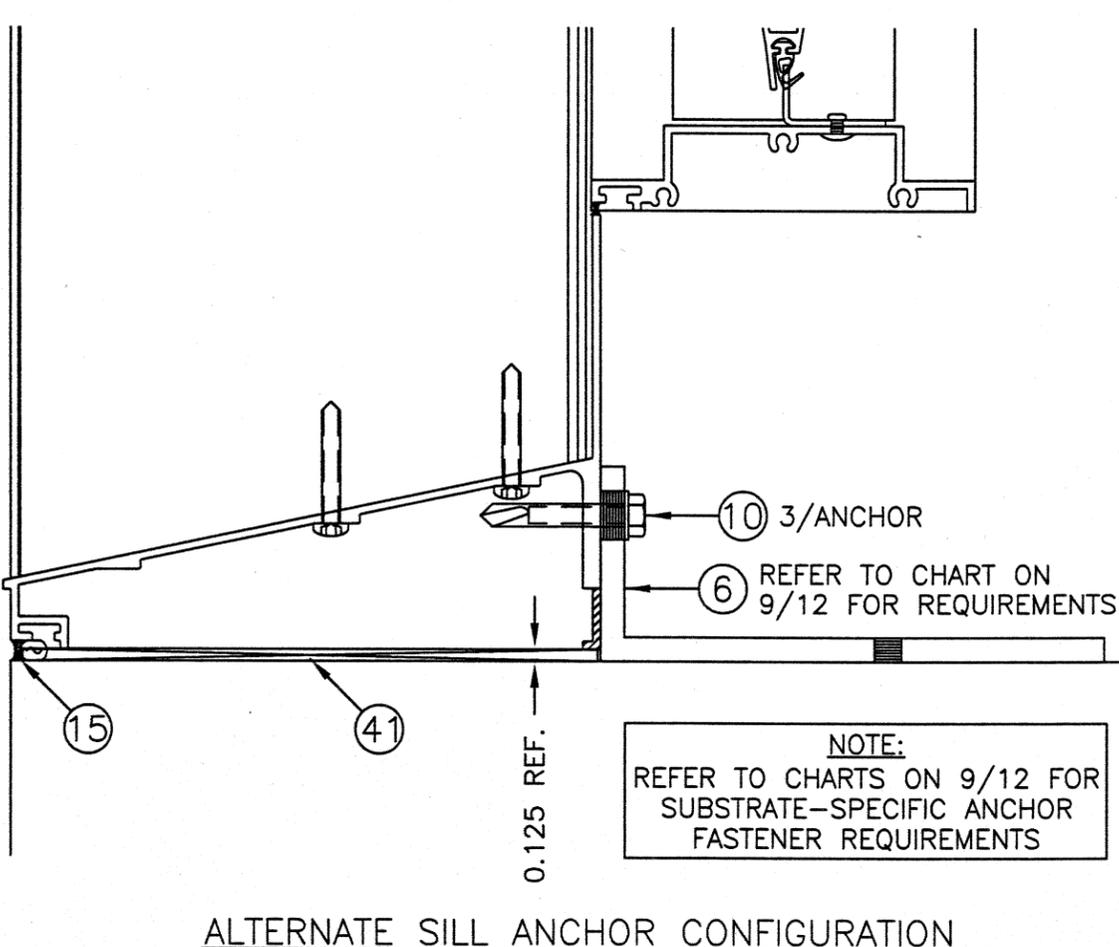
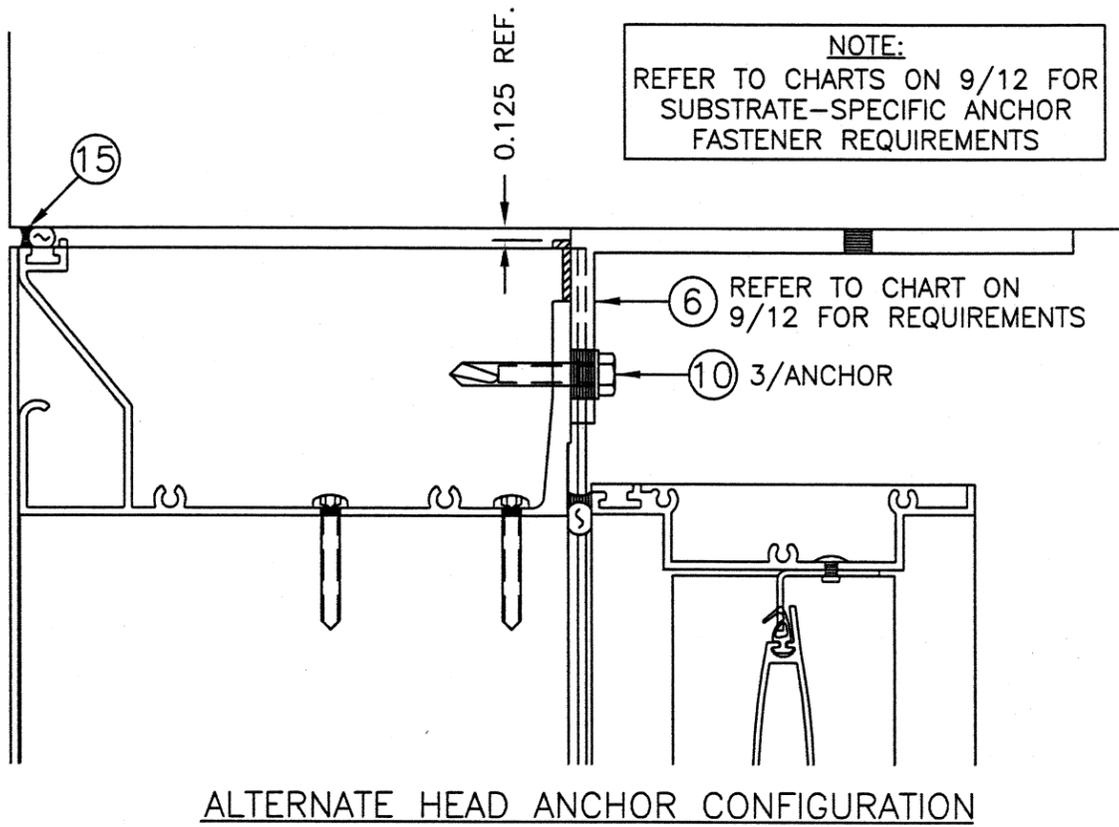


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REVISION	DCR	BY	DATE	SYM
DAMPER MOUNT OPTION		MES	07/14 2011	①



DATE	6/19/2006
DRAWN BY	BRINKMAN
SCALE	1/2
SHEET NO.	5 OF 12
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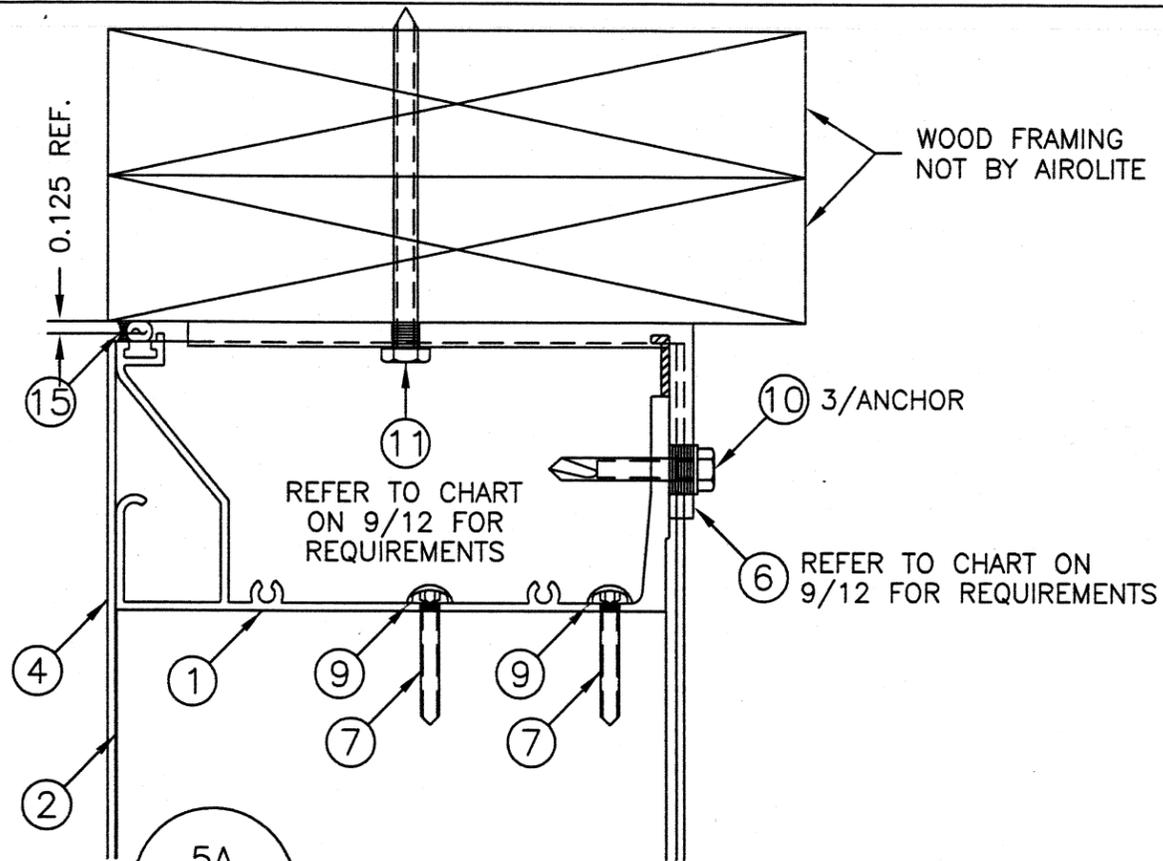
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SCV602MD LOUVER W/  
VCD40 DAMPER  
JAMB AND ALTERNATE  
ANCHORAGE DETAILS

DAVID RICE  
81248  
REGISTERED PROFESSIONAL ENGINEER

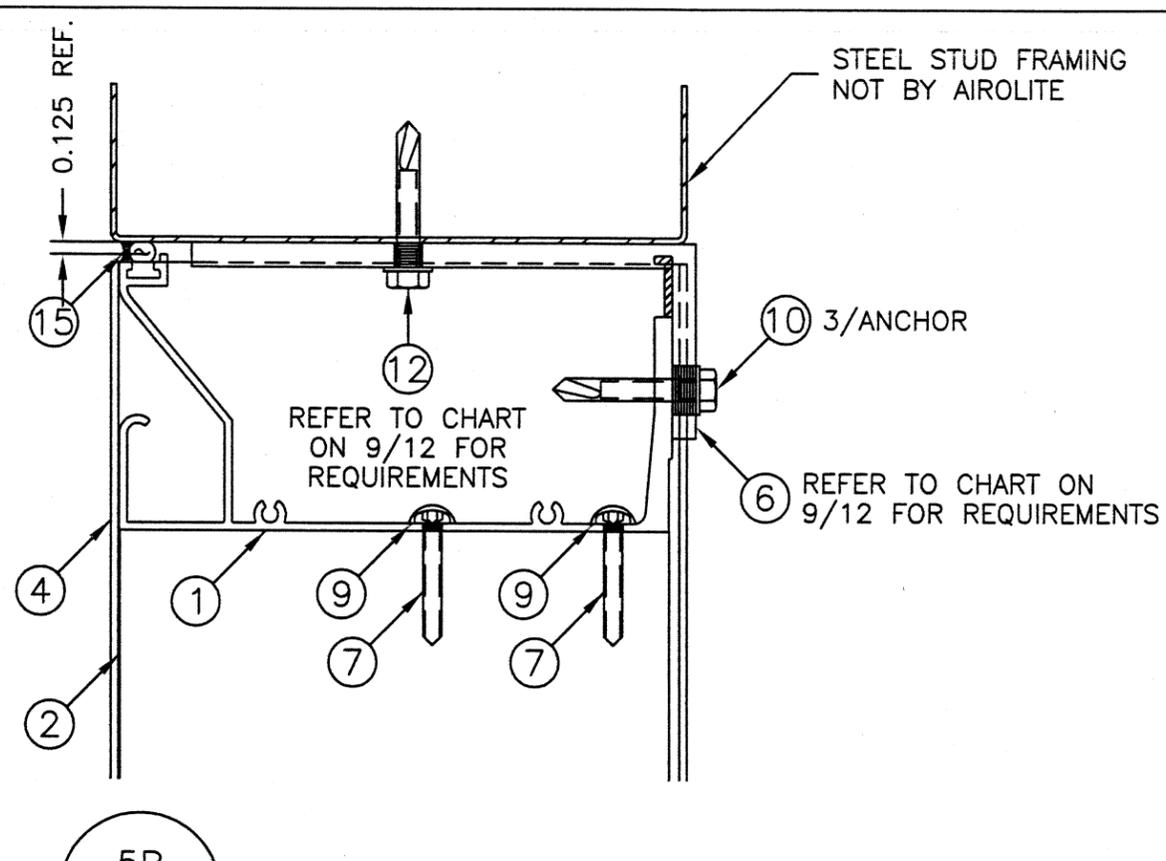
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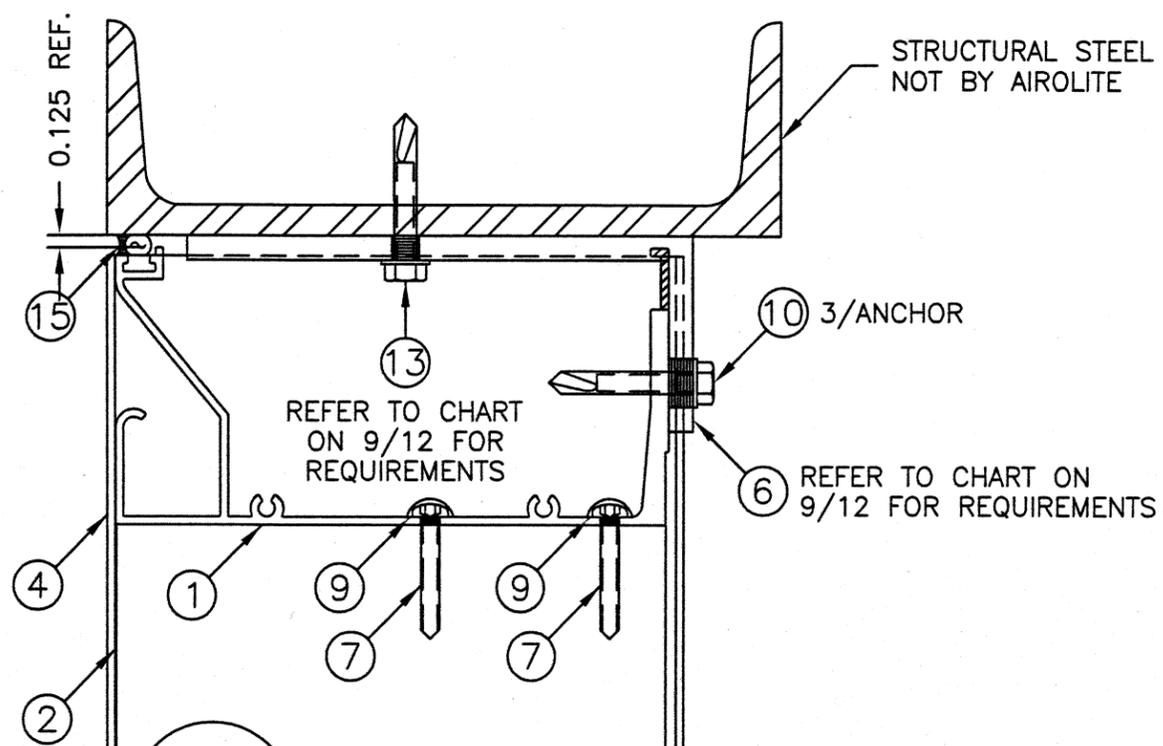
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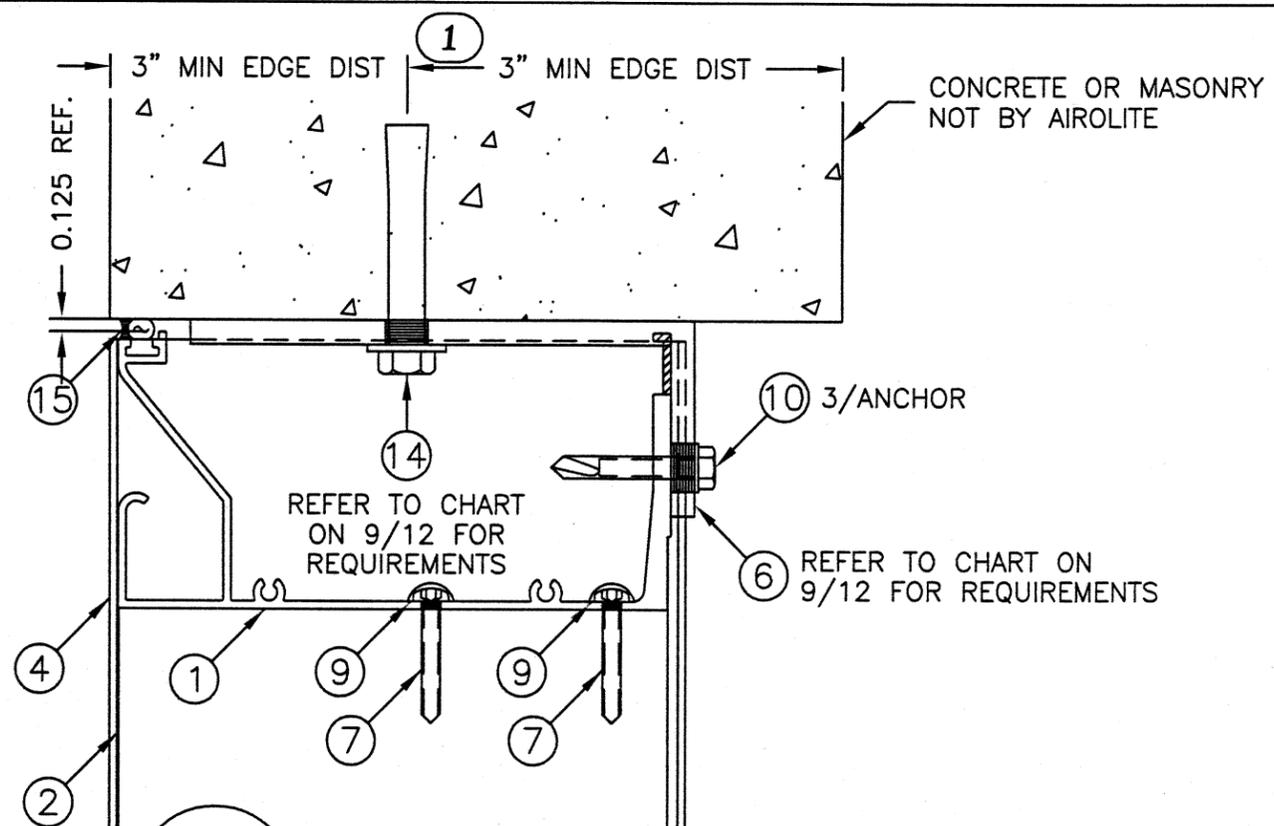
INSTALLATION INTO WOOD FRAMED OPENING



INSTALLATION INTO STEEL STUD FRAMED OPENING



INSTALLATION INTO STRUCTURAL STEEL OPENING

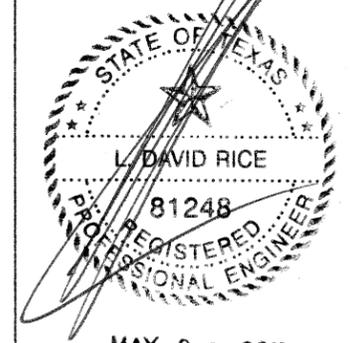


INSTALLATION INTO CONCRETE/MASONRY OPENING

REVISION	BY	DATE	SYM
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	BRINKMAN	6/19/2006	
	SCALE		
	1/2		
	SHEET NO.		
	6 OF 12		
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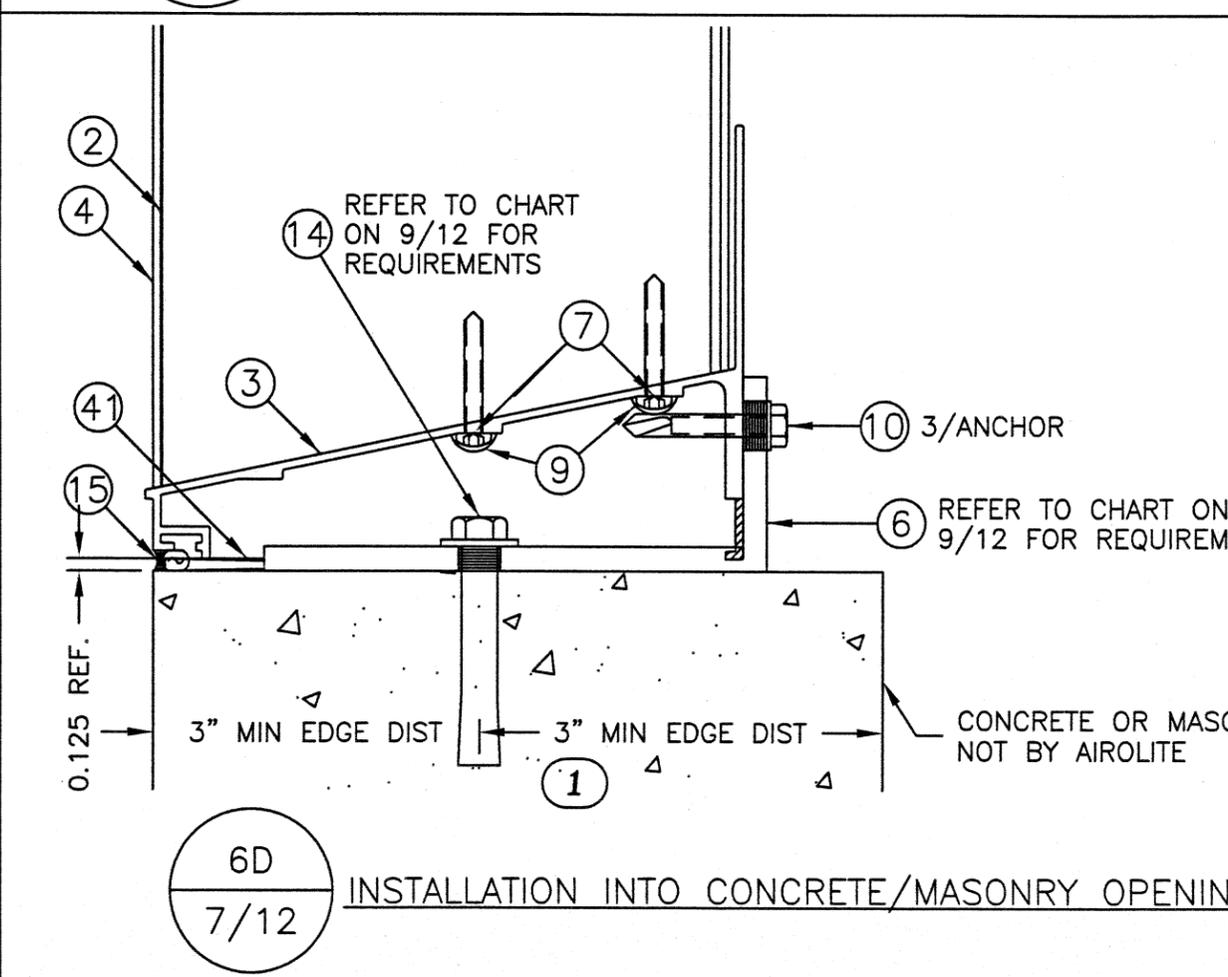
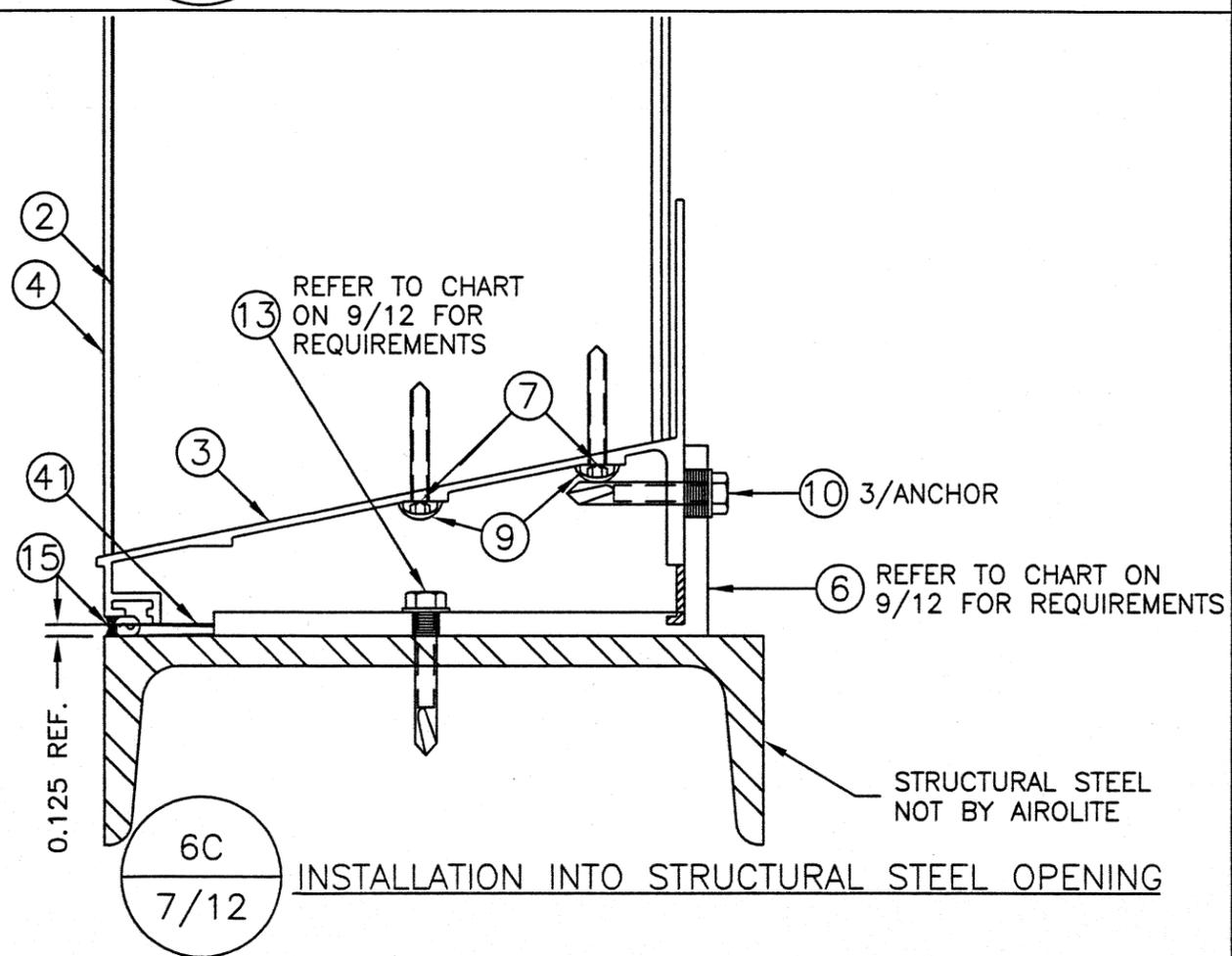
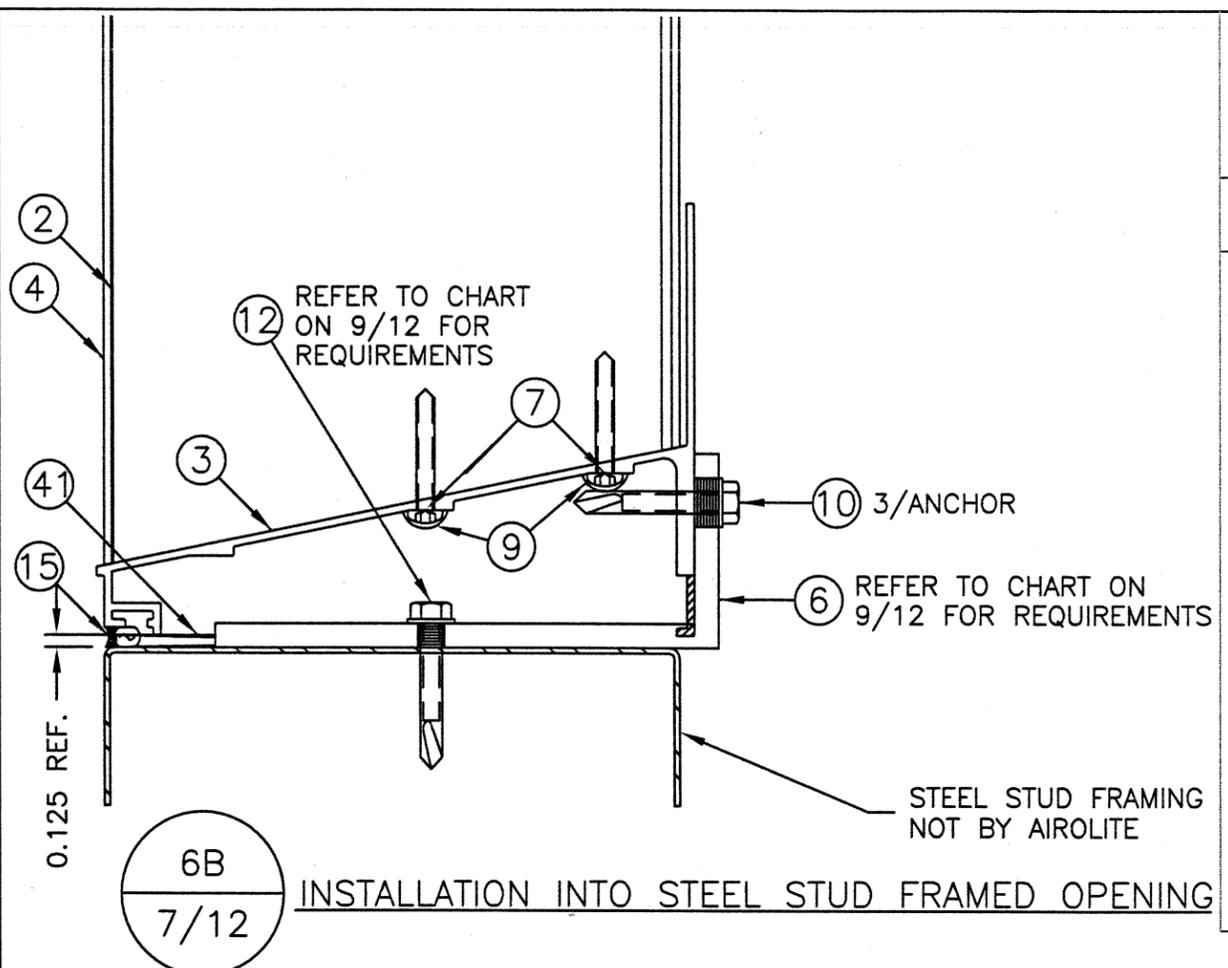
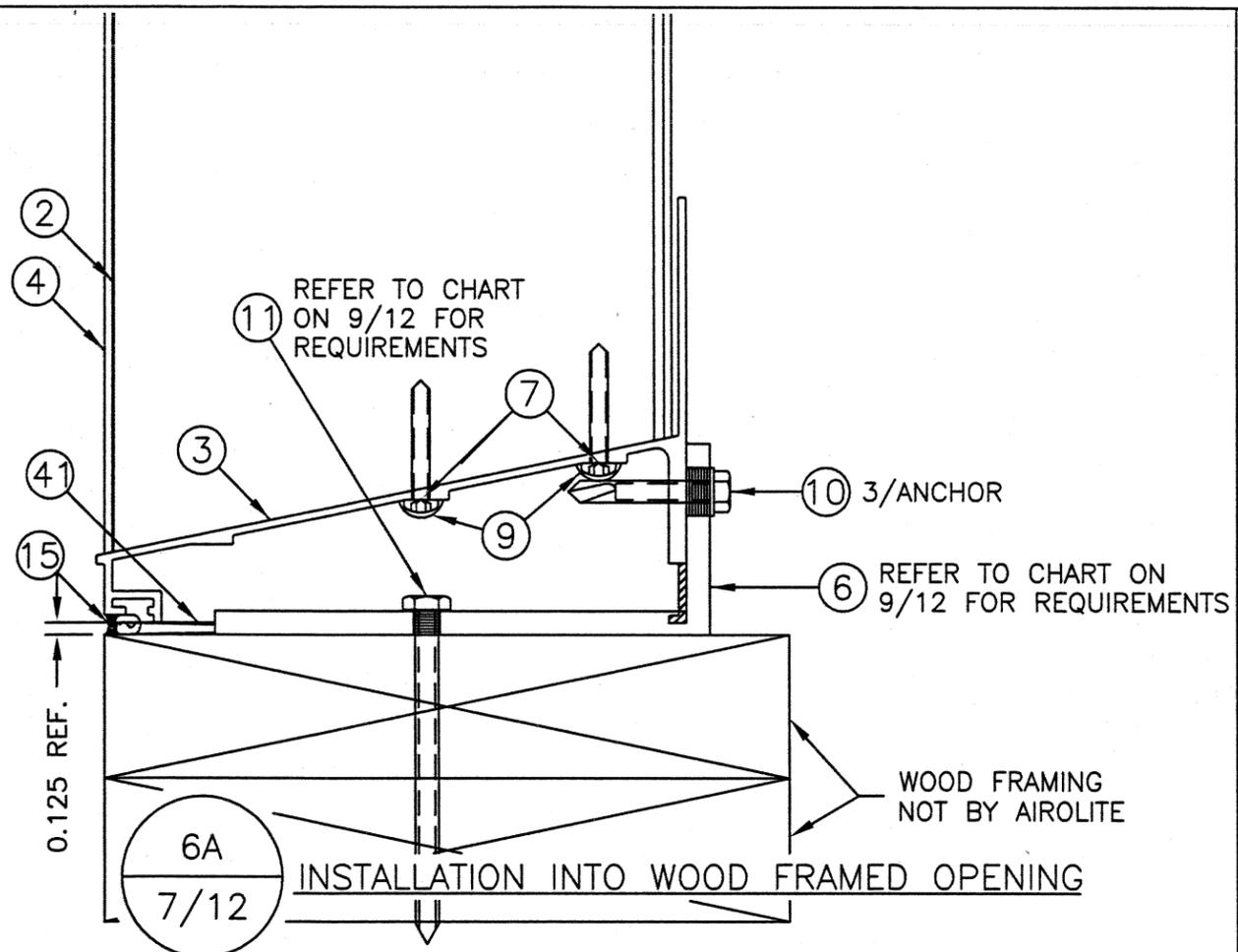
SCV602MD LOUVER  
HEAD DETAILS



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Luxemburg, WI 54217  
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	CWC	10/19/2006	1
ADD DIMENSION	DRAWN BY	DATE	
	BRINKMAN	6/19/2006	
	SCALE	1/2	
	SHEET NO.	7 OF 12	
	CAD DRAWING NO.	MD-101	

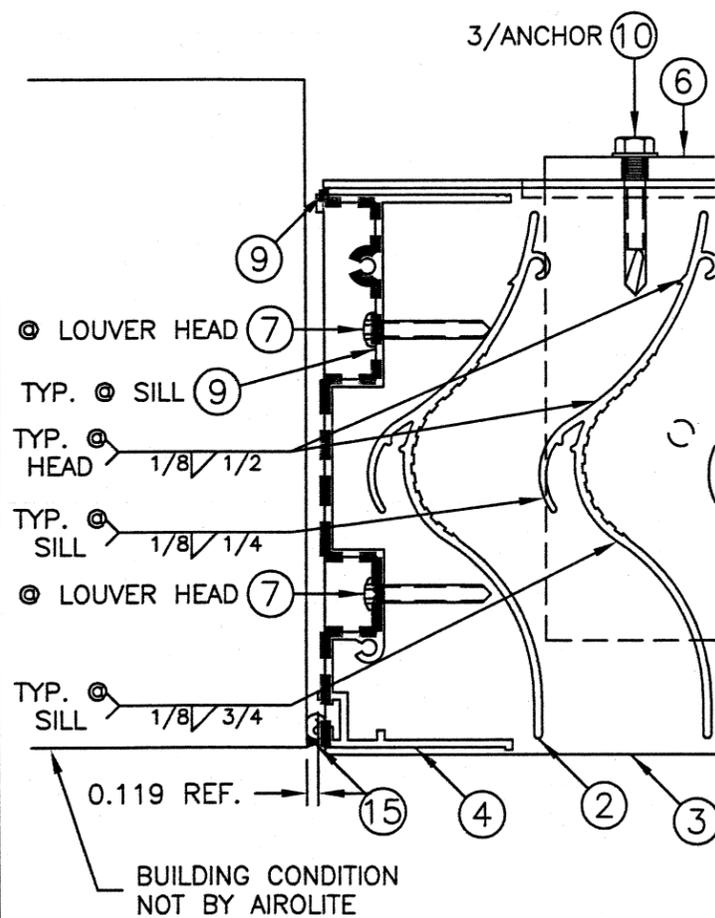
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TITLE  
 SCV602MD LOUVER  
 SILL DETAILS

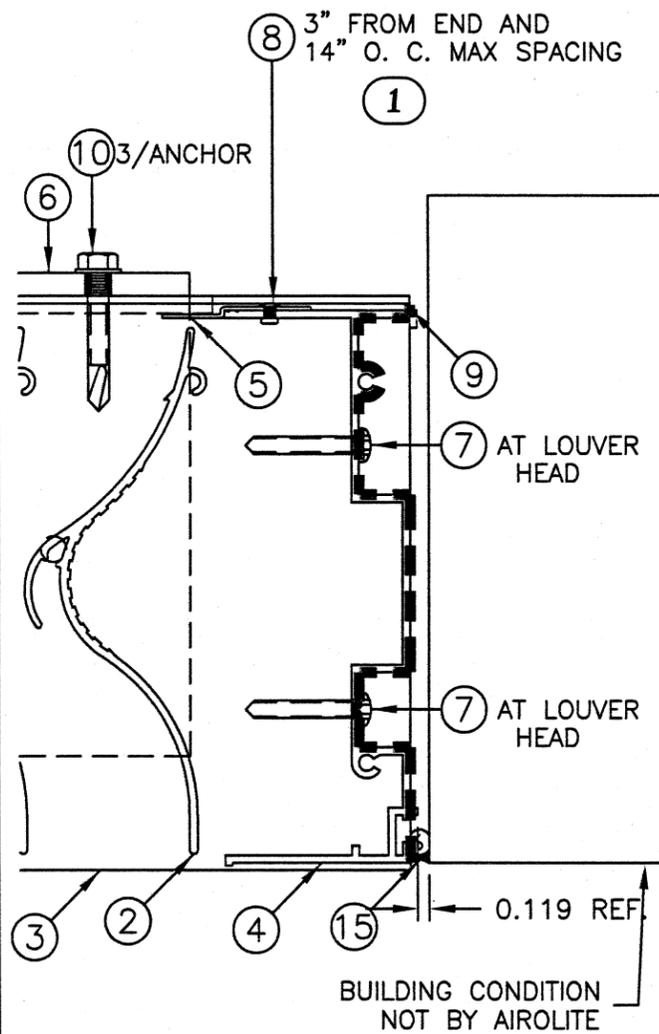


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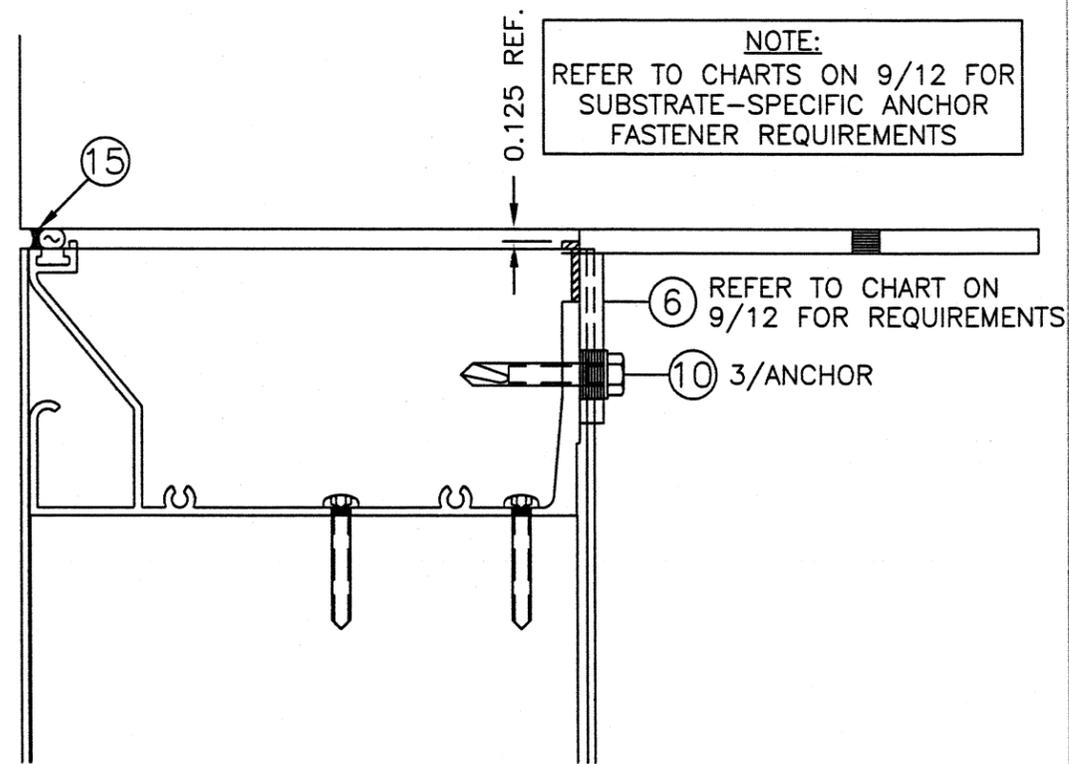
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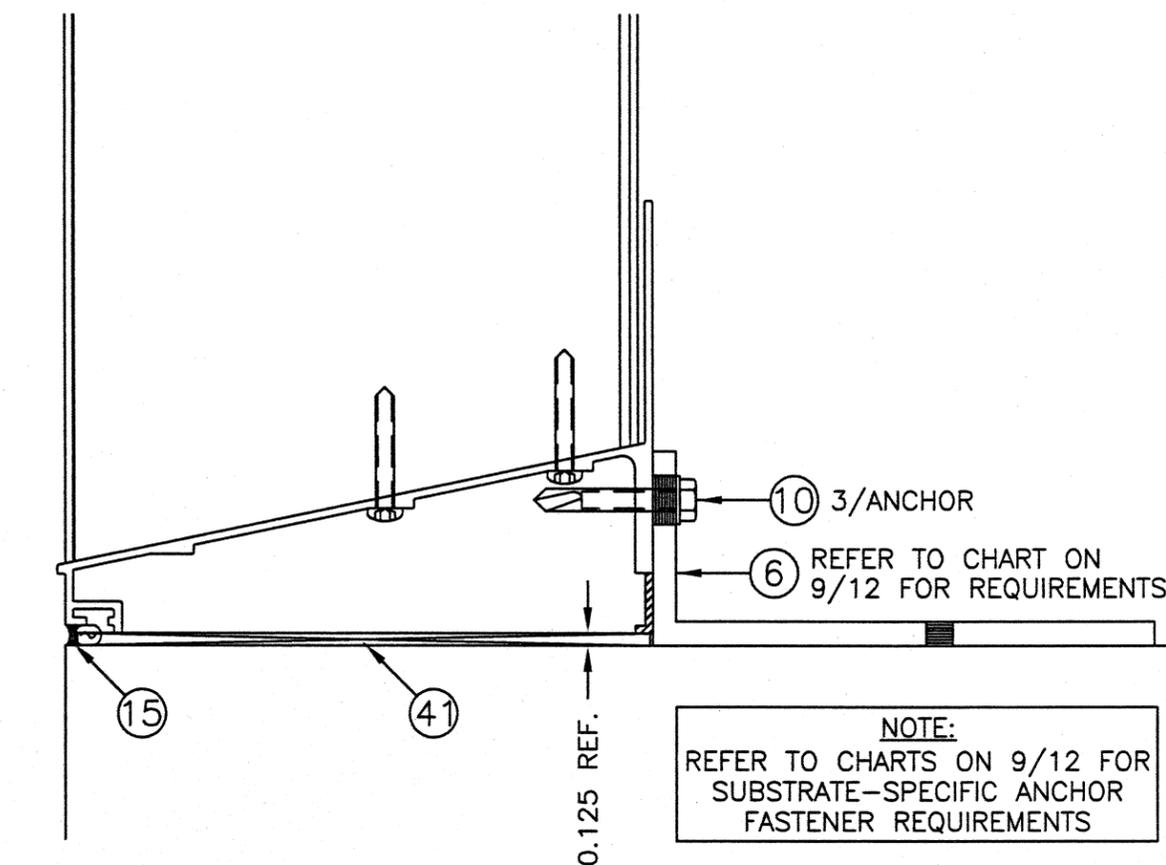
7  
8/12 JAMB DETAIL



8  
8/12 JAMB DETAIL



ALTERNATE HEAD ANCHOR CONFIGURATION

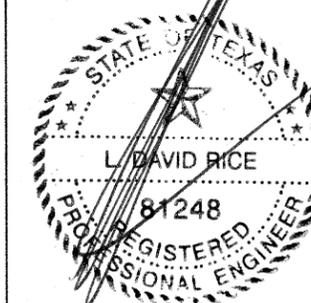


ALTERNATE SILL ANCHOR CONFIGURATION

REVISION	BY	DATE	SYN
ADD NOTE	CWC	10/19/2006	1
DRAWN BY		DATE	
BRINKMAN		6/19/2006	
SCALE			
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SHEET NO.			
8 OF 12			
CAD DRAWING NO.			
MD-101			

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 JAMB AND ALTERNATE  
 ANCHORAGE DETAILS



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ANCHOR FASTENER REQUIREMENTS (BY OTHERS)					
NOM. LOUVER WIDTH	ANCHOR QTY.	ANCHOR LENGTH	SUBSTRATE	ITEM #	QTY./ANCHOR
12" THRU 14"	1	6.75"	WOOD	11	3
			STEEL STUD	12	3
			STRUCTURAL STEEL	13	2
			CONCRETE/MASONRY	14	3
>14" THRU 18"	1	9.00"	WOOD	11	4
			STEEL STUD	12	4
			STRUCTURAL STEEL	13	2
			CONCRETE/MASONRY	14	4
>18" THRU 24"	1	12"	WOOD	11	5
			STEEL STUD	12	5
			STRUCTURAL STEEL	13	3
			CONCRETE/MASONRY	14	5
>24" THRU 28"	2	6.75"	WOOD	11	3
			STEEL STUD	12	3
			STRUCTURAL STEEL	13	2
			CONCRETE/MASONRY	14	3
>28" THRU 36"	2	9.00"	WOOD	11	4
			STEEL STUD	12	4
			STRUCTURAL STEEL	13	2
			CONCRETE/MASONRY	14	4
>36" THRU 48.25"	2	12"	WOOD	11	5
			STEEL STUD	12	5
			STRUCTURAL STEEL	13	3
			CONCRETE/MASONRY	14	5

ANCHOR FASTENER REQUIREMENTS (BY OTHERS)				
ITEM #	MATERIAL	MIN. EMBED	MIN. EDGE DIST.	MIN. SPACING
11	1/4 DIA. WOOD SCREW	3"	1"	1"
12	1/4-14 ASTM A325 SELF-DRILLING SCREW		3/8"	3/4"
13	1/4-20 HILTI DRIL-FLEX		3/8"	3/4"
14	3/8 DIA. POWERS SS POWER BOLT	2"	3"	2 1/2"

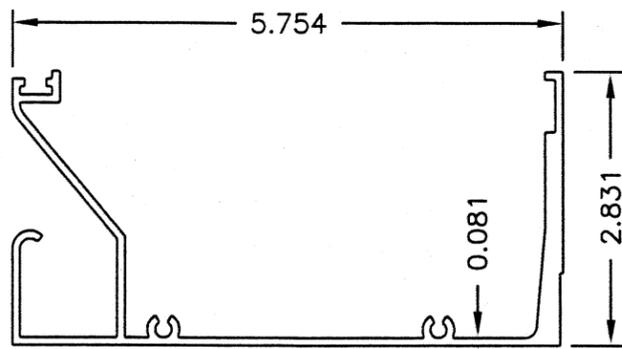
REVISION	BY	DATE	SYM
	CWC	10/19/2006	1
REVISE QUANTITY AND DIMENSION		DRAWN BY	DATE
		BRINKMAN	6/19/2006
		SCALE	
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		9 OF 12	
		CAD DRAWING NO.	
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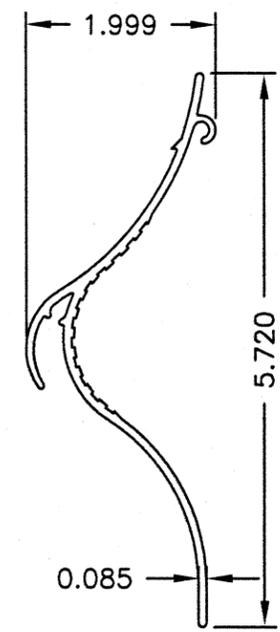
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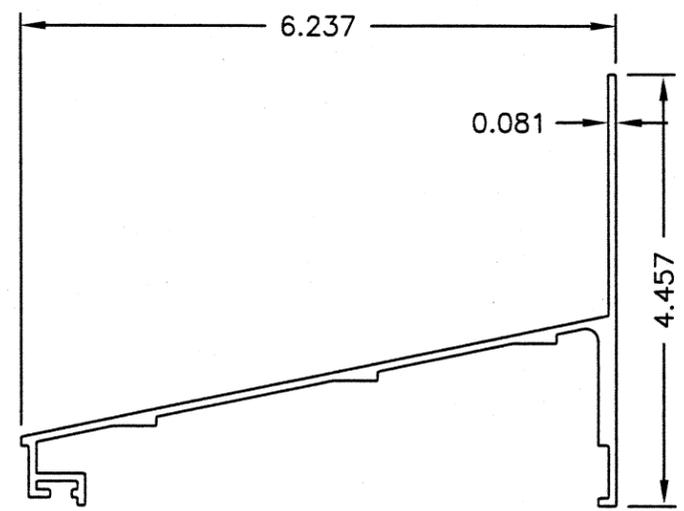
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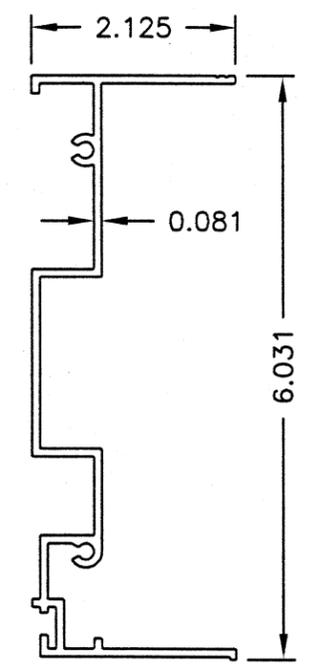
① LOUVER HEAD  
6063-T5 ALUMINUM



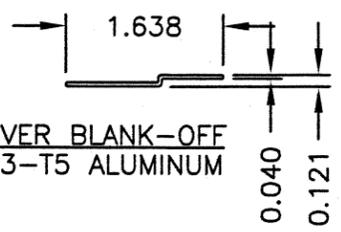
② LOUVER BLADE  
6063-T5 ALUMINUM



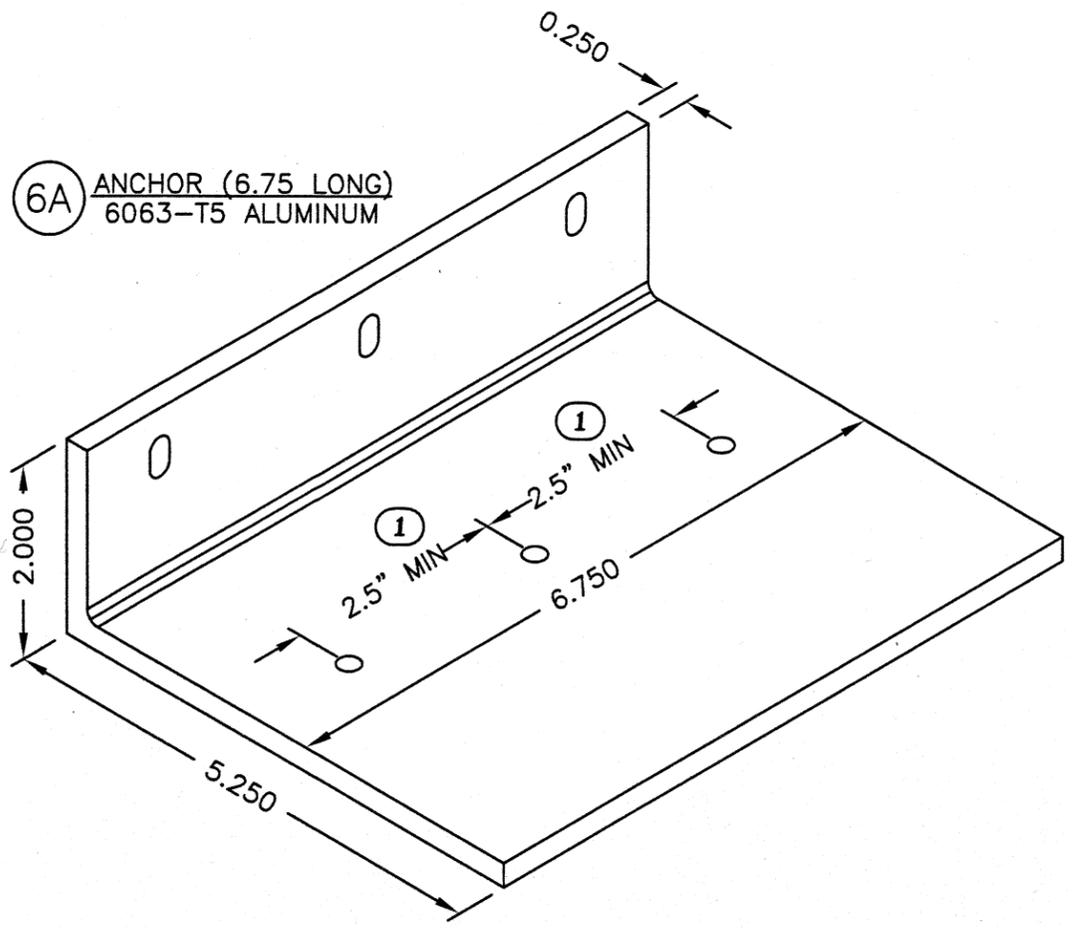
③ LOUVER SILL  
6063-T5 ALUMINUM



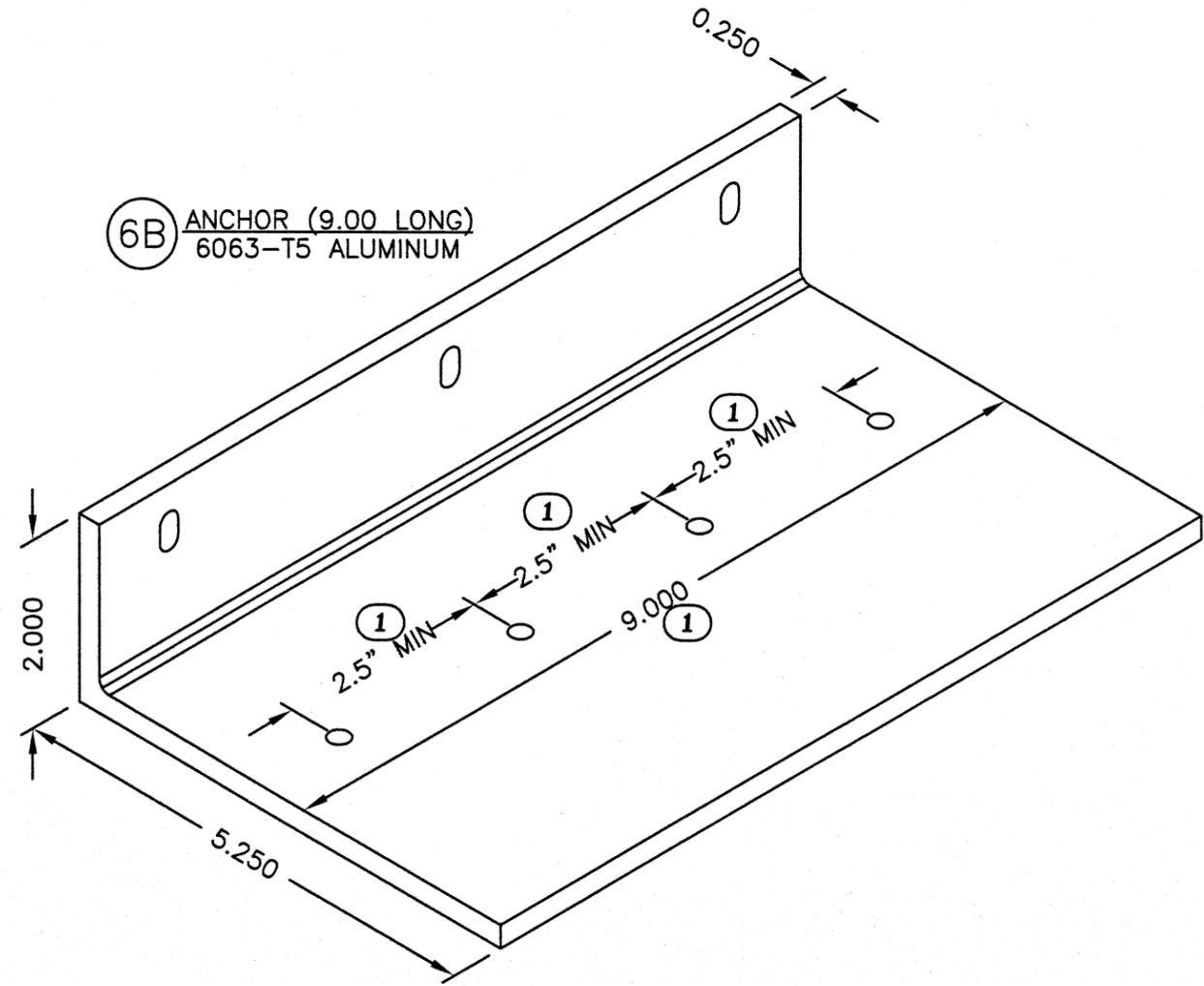
④ LOUVER JAMB  
6063-T5 ALUMINUM



⑤ LOUVER BLANK-OFF  
6063-T5 ALUMINUM



⑥A ANCHOR (6.75 LONG)  
6063-T5 ALUMINUM



⑥B ANCHOR (9.00 LONG)  
6063-T5 ALUMINUM

REVISION	BY	DATE	SYH
	CWC	10/19/2006	①
ADD MIN DIM AND REVISE LENGTH	DRAWN BY	DATE	
	BRINKMAN	6/19/2006	
	SCALE	1/2	
	SHEET NO.		
		10 OF 12	
	CAD DRAWING NO.		MD-101

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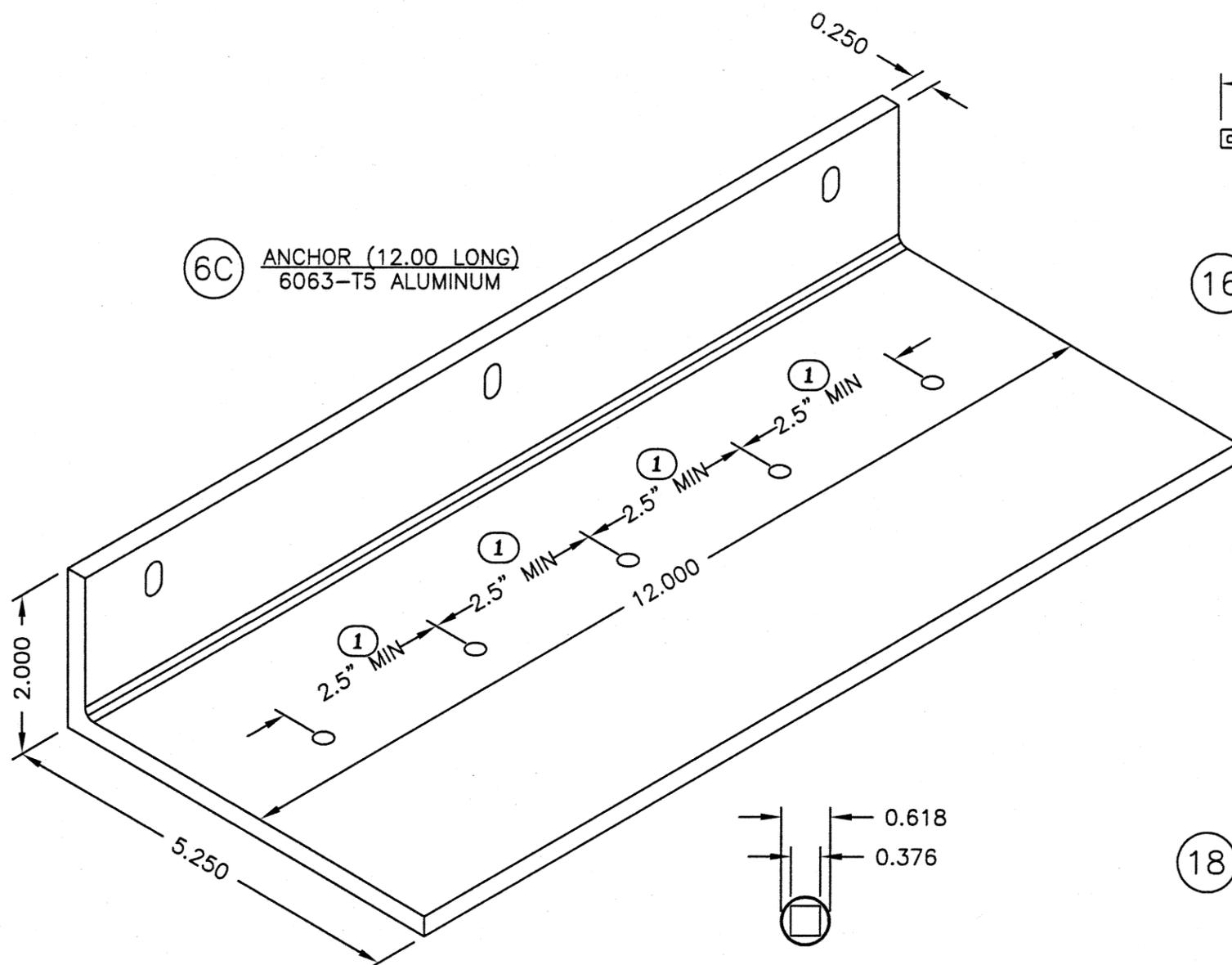
TITLE  
SCV602MD LOUVER W/  
VCD40 DAMPER  
AND SCV602MD LOUVER  
PART PROFILES



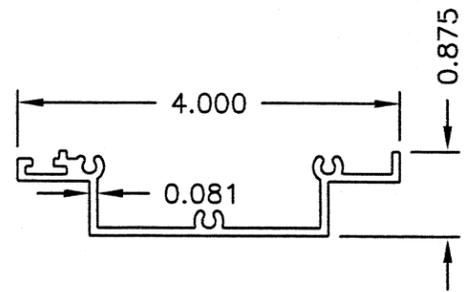
MAY 09 2013

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Fax: 920.845.1048  
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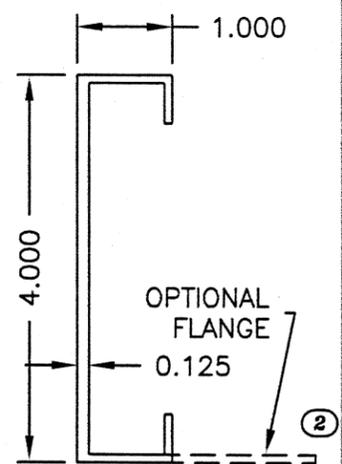
Texas Firm No: F-2183  
L. David Rice  
Registration No: 81248



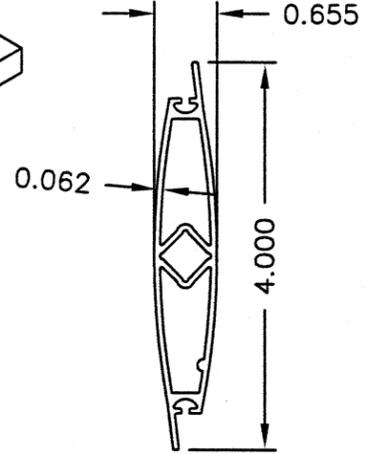
6C ANCHOR (12.00 LONG)  
6063-T5 ALUMINUM



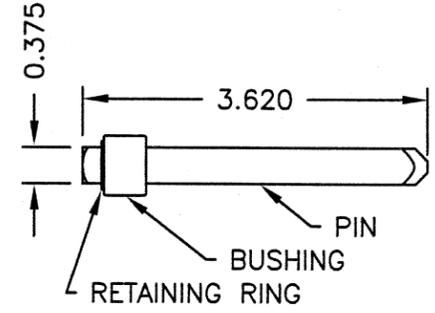
16 DAMPER HEAD/SILL  
6063-T5 ALUMINUM



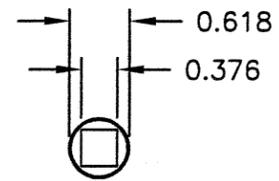
17 DAMPER JAMB  
6063-T5 ALUMINUM



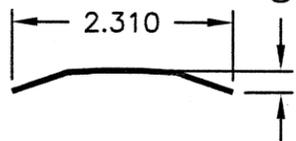
18 DAMPER BLADE  
6063-T5 ALUMINUM



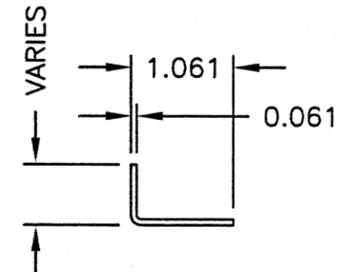
19 NON-DRIVE DAMPER AXLE ASSY.  
MATERIAL VARIES



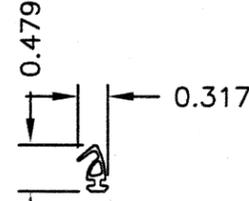
21 DAMPER AXLE BUSHING (.445\"/>



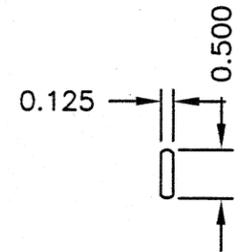
23 DAMPER JAMB SEAL  
.007\"/>



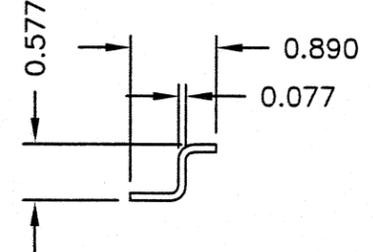
24 DAMPER TOP/BOTTOM CLOSURE  
ALUMINUM



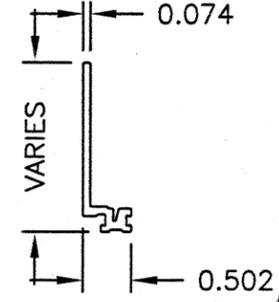
22 DAMPER BLADE SEAL  
MATERIAL VARIES



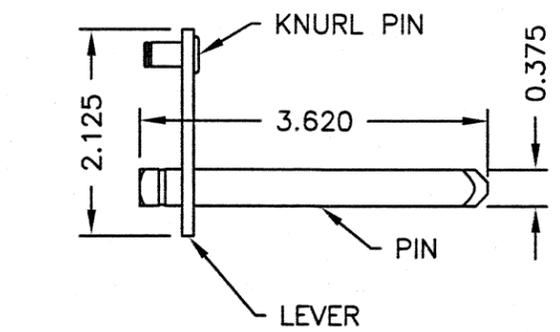
25 DAMPER LINKAGE BAR  
MATERIAL VARIES



26 FORMED "Z" CLIP  
ALUMINUM



42 OPTIONAL FLANGE  
6063-T5 ALUMINUM



20 DRIVE-SIDE DAMPER AXLE ASSY.  
MATERIAL VARIES

REVISION	BY	DATE	SYN
ADD MIN DIM	CWC	10/19/2006	1
ADD FLANGE OPTION	CWC	7/14/2011	2

DRAWN BY BRINKMAN	DATE 6/19/2006
SCALE 1/2	REVISION DATE
SHEET NO. 11 OF 12	
CAD DRAWING NO. MD-101	

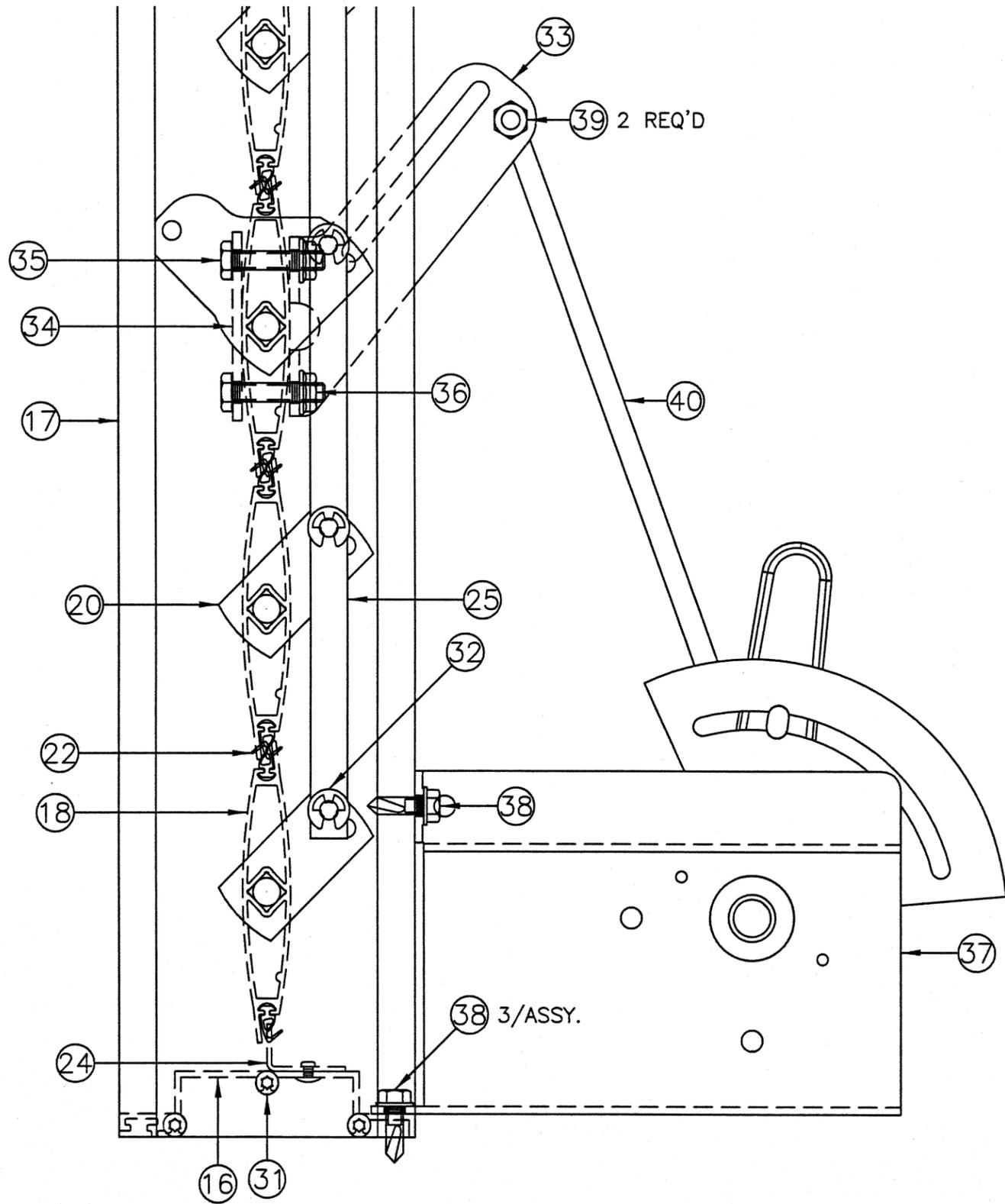
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6/19/2006

SCALE  
 1/2

SHEET NO.

12 OF 12

CAD DRAWING NO.

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TITLE  
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