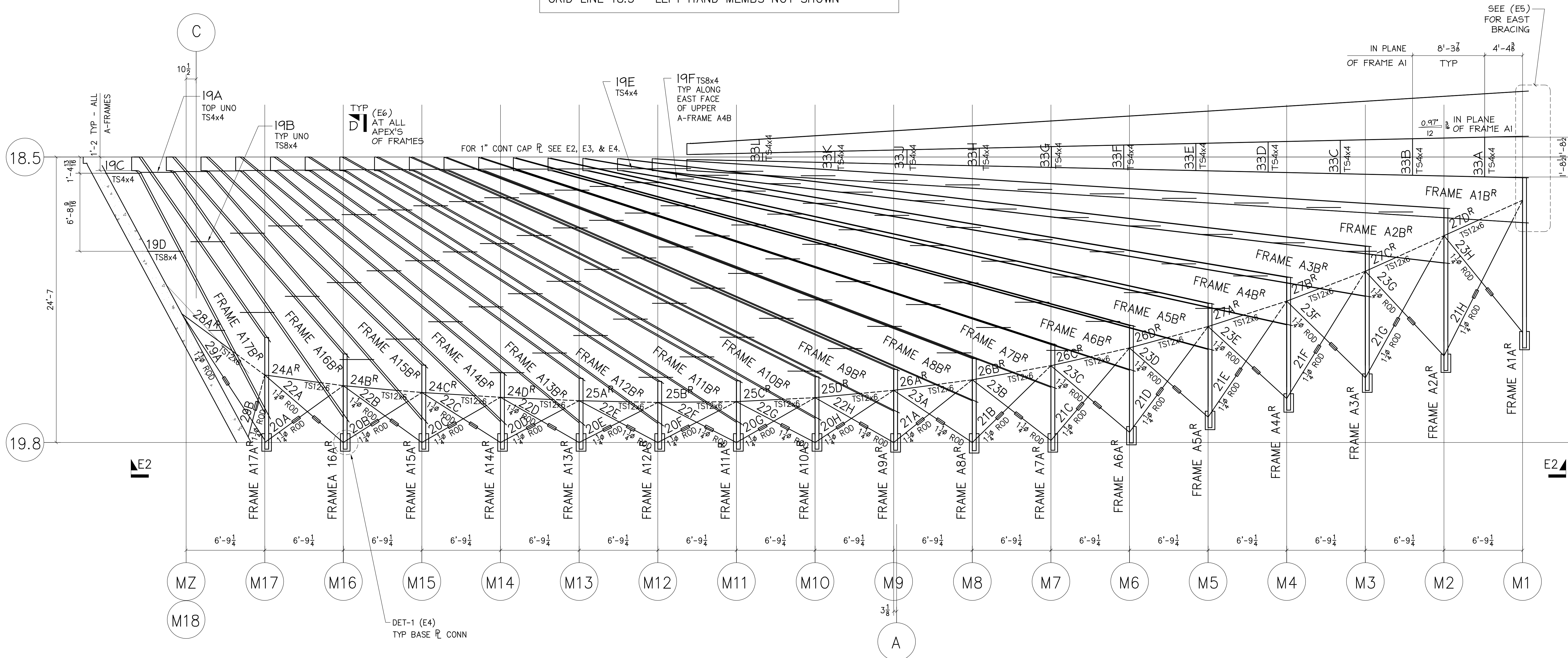


NOTE: A-FRAMES AND BRACING ARE SYMMETRICAL ABOUT GRID-LINE 18.5 - LEFT HAND MEMBS NOT SHOWN



A-FRAMES ~ PLAN

NOTES:

- 1) SEE E4 FOR ALL SECTIONS AND DETAILS, U.N.O. SEE E2 FOR ALL SECT/DET CALL-OUTS.
- 2) 1" CONT CAP  $\bar{r}$  @ TOP A-FRAMES SEE E3.
- 3) TOP  $\bar{r}$ 's ON LOWER A-FRAMES NOT SHOWN FOR CLARITY.
- 4) TS12x6 TOS EL=42'-10 1/2' TYP UNO.
- 5) TOP  $\bar{r}$  ALL A-FRAMES TOS EL=42'-8 TYP. SHIM BASE  $\bar{r}$ 'S AS REQ'D TO KEEP TOS 42'-8.

3D VIEW SEE E3

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
2	2/23/00	DK	IFF	FOR FABRICATION	
1	1/27/00	DK	IFF LOWER A-FRAMES & BRACING.	FOR FABRICATION	
0	9/2/99	DK	FOR APPL	FOR PURCHASING	
				FOR APPROVAL	

**A-FRAMES**  
MILWAUKEE ART MUSEUM ADDITION  
MILWAUKEE, WI

ENG'R: G.A.S. & A.      ADI / ANGLE DETAILING, INC.  
CONTR: C.G. SCHMIDT      ADI JOB# 99517

**Columbia Wire & Iron Works**  
5555 N. Channel Portland Or. 97217  
drew@CW1.com/503-286-6600

DRAWN BY: DK      CHK'D BY: DK      JOB NO: 42-001001      DWG. NO: E1

VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN

email: info@angledetailing.com

F:\CH\PROJECTS\PROJECT\_GREEN-SHOP\42-001-001\_MILWAUKEE\_ARTS\_CENTER\A-FRAMES\A-FRAMES.dwg 3/24/10 1:33pm CYCLES gordons.ryes

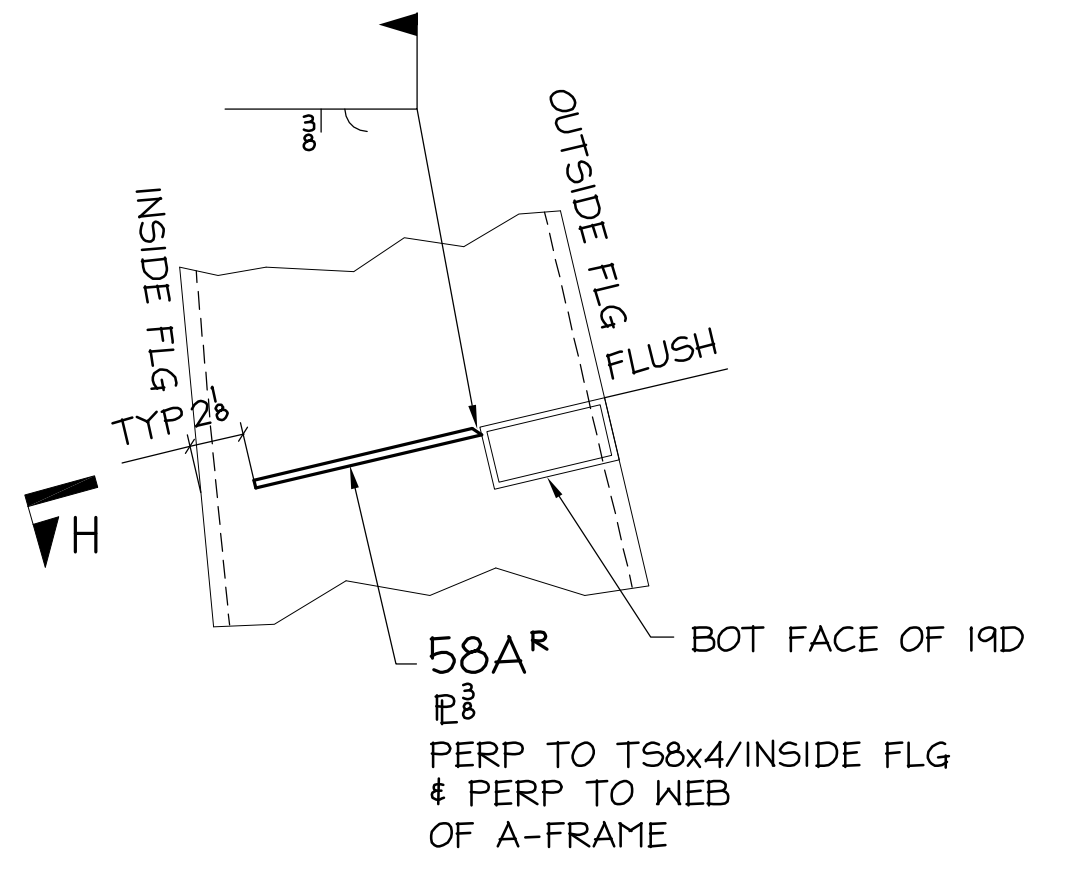
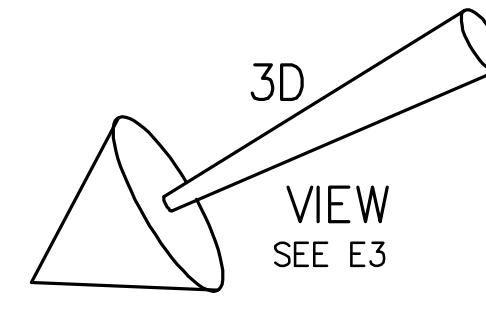
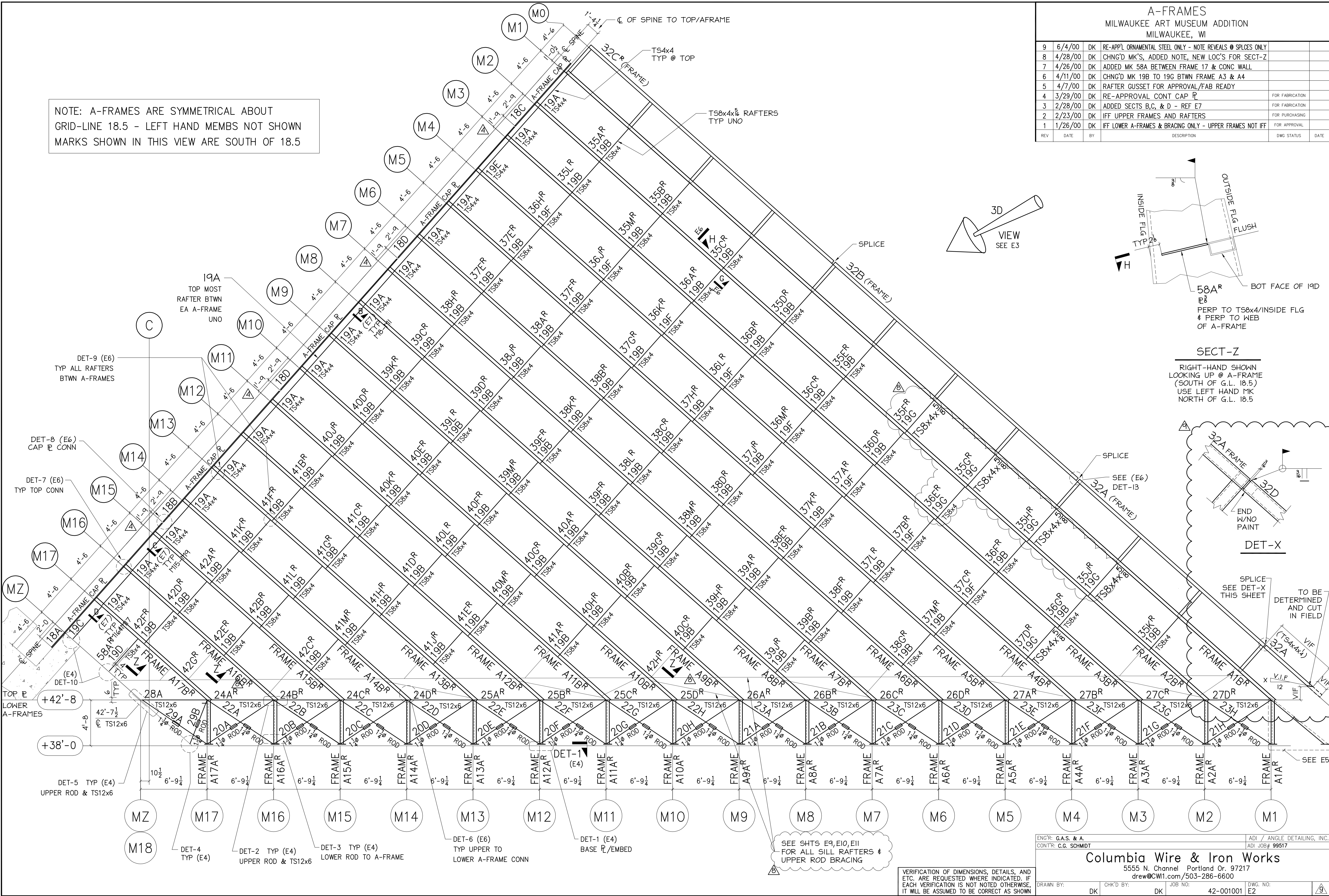
email: info@angledetailing.com

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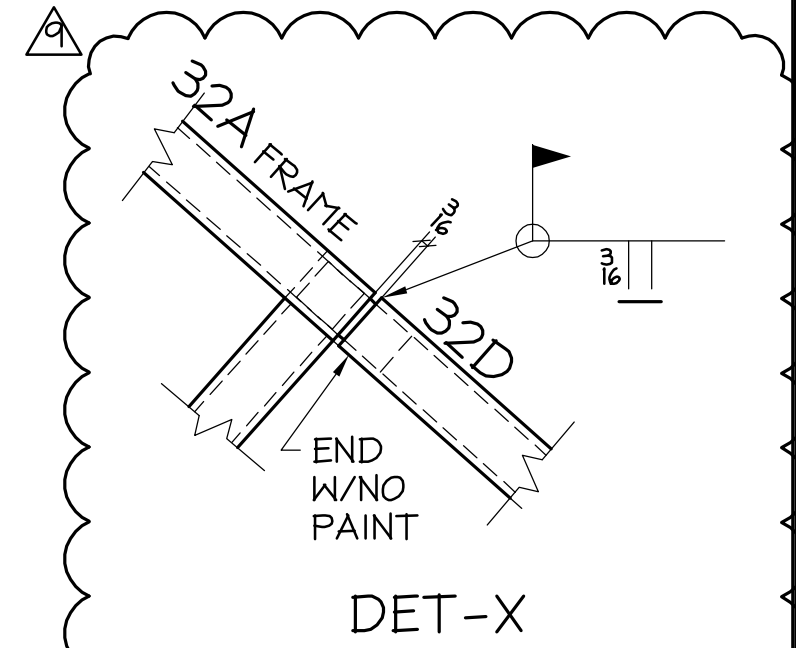
### A-FRAMES MILWAUKEE ART MUSEUM ADDITION MILWAUKEE, WI

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
9	6/4/00	DK	RE-APPL ORNAMENTAL STEEL ONLY - NOTE REVEALS @ SPLCES ONLY		
8	4/28/00	DK	CHNG'D MK'S, ADDED NOTE, NEW LOC'S FOR SECT-Z		
7	4/26/00	DK	ADDED MK 58A BETWEEN FRAME 17 & CONC WALL		
6	4/11/00	DK	CHNG'D MK 19B TO 19G BTWN FRAME A3 & A4		
5	4/7/00	DK	RAFTER GUSSET FOR APPROVAL/FAB READY		
4	3/29/00	DK	RE-APPROVAL CONT CAP P	FOR FABRICATION	
3	2/28/00	DK	ADDED SECTS B,C, & D - REF E7	FOR FABRICATION	
2	2/23/00	DK	IFF UPPER FRAMES AND RAFTERS	FOR PURCHASING	
1	1/26/00	DK	IFF LOWER A-FRAMES & BRACING ONLY - UPPER FRAMES NOT IFF	FOR APPROVAL	

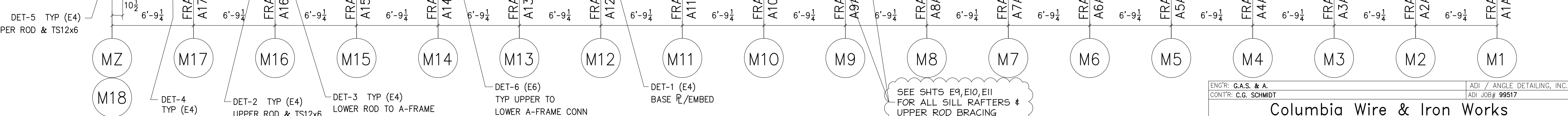
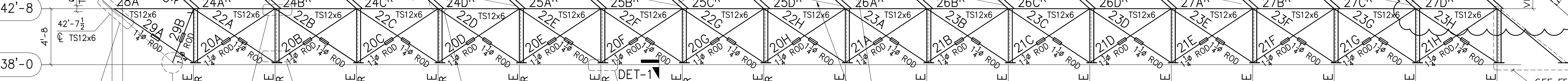
NOTE: A-FRAMES ARE SYMMETRICAL ABOUT GRID-LINE 18.5 - LEFT HAND MEMBS NOT SHOWN MARKS SHOWN IN THIS VIEW ARE SOUTH OF 18.5



**SECT-Z**  
RIGHT-HAND SHOWN  
LOOKING UP @ A-FRAME  
(SOUTH OF G.L. 18.5)  
USE LEFT HAND MK  
NORTH OF G.L. 18.5



SPLICE  
SEE DET-X  
THIS SHEET  
TO BE DETERMINED  
AND CUT  
IN FIELD



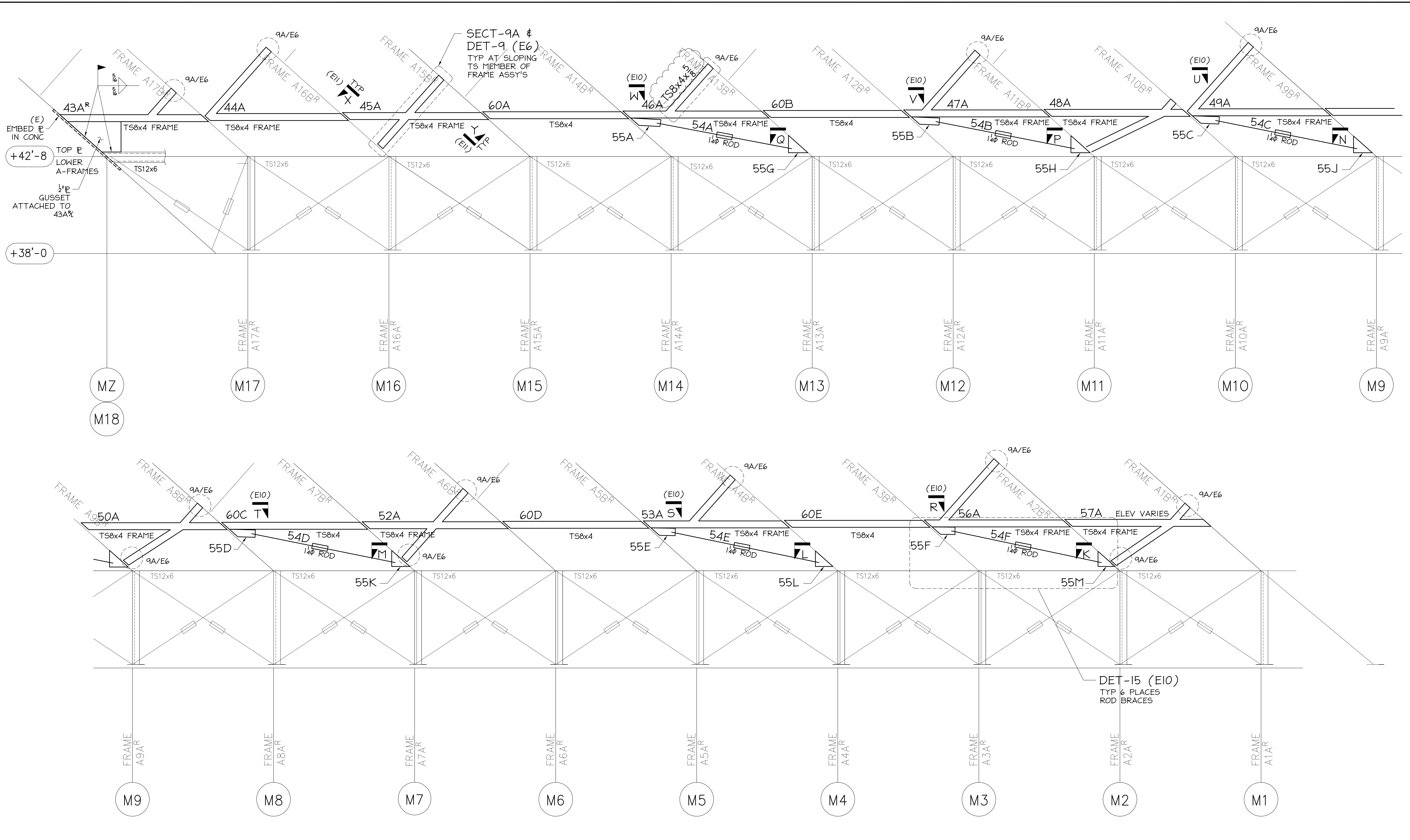
ENGR: G.A.S. & A.      ADI / ANGLE DETAILING, INC.  
CONTR: C.G. SCHMIDT      ADI JOB# 99517

**Columbia Wire & Iron Works**  
5555 N. Channel Portland Or. 97217  
drew@CW1.com/503-286-6600

VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN

DRAWN BY: DK      CHK'D BY: DK      JOB NO: 42-001001      DWG. NO: E2





**UPPER ROD BRACING ELEV**  
LOOKING NORTH

NOTE: A-FRAMES ARE SYMMETRICAL ABOUT GRID-LINE 18.5 - LEFT HAND MEMBS NOT SHOWN MARKS SHOWN IN THIS VIEW ARE SOUTH OF 18.5

NOTE:  
1. SILL RAFTERS TO BE LEVEL W/GND AND ALIGNED ROTATED W/ FLG'S OF A-FRAMES  
2. SEE E10 & E11 FOR SECTS & DET'S U.N.O.

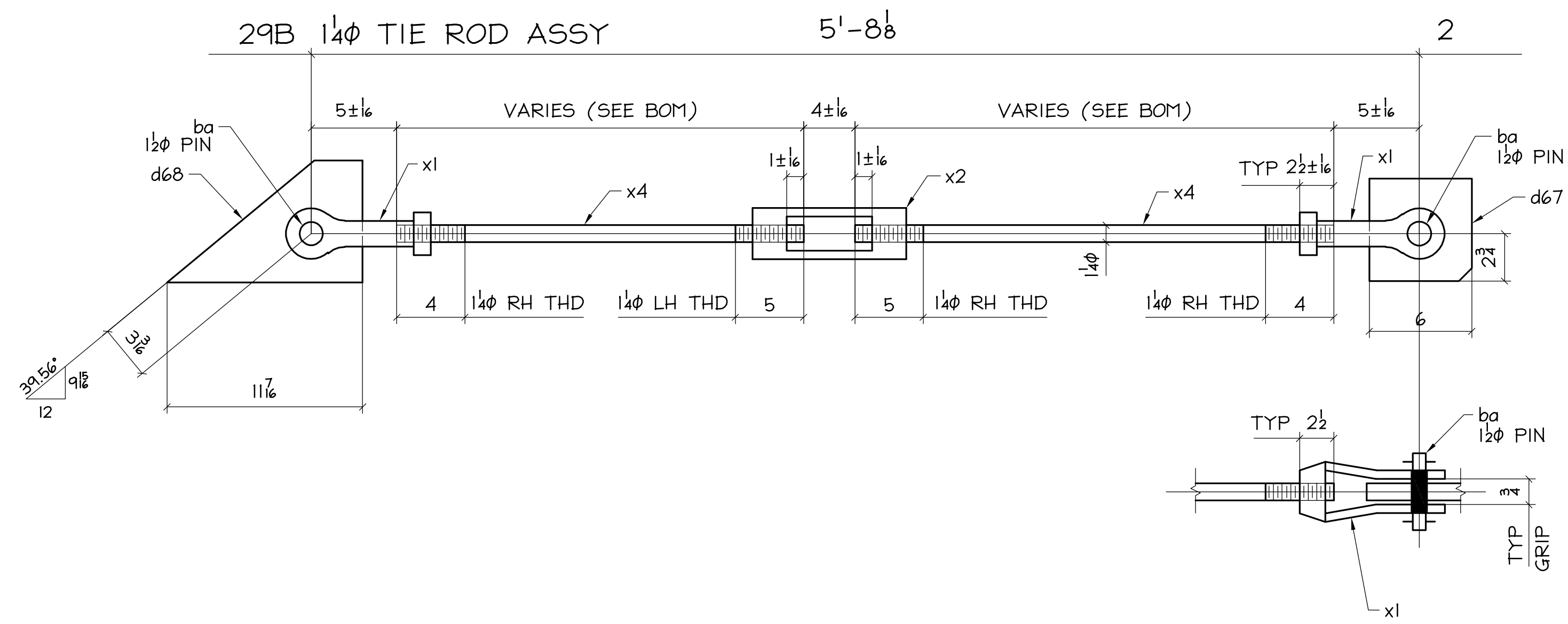
VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
2	5/16/00	DK	IFF		
1	4/26/00	DK	FOR APP'L - SILL RAFTERS		
0	4/18/00	DK	FOR APP'L.		

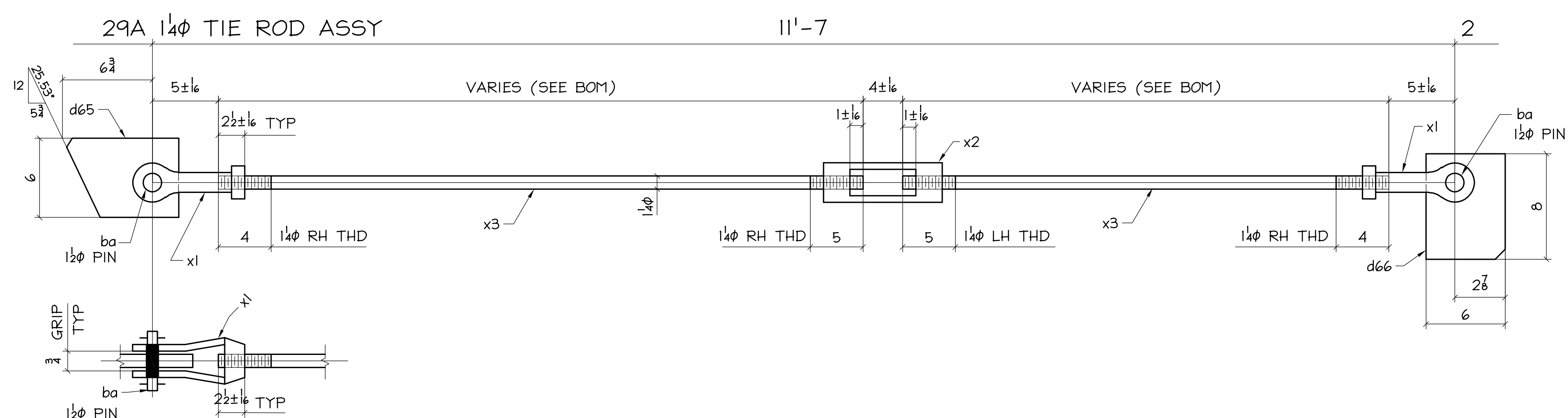
<b>A-FRAMES</b> MILWAUKEE ART MUSEUM ADDITION MILWAUKEE, WI	
ENGR: G.A.S. & A. CONTR: C.G. SCHMIDT	ADI / ANGLE DETAILING, INC. ADI JOB# 99517
<b>Columbia Wire &amp; Iron Works</b> 5555 N. Channel Portland Or. 97217 drew@CW1.com/503-286-6600	
DRAWN BY: CG	CHK'D BY: DK
JOB NO: 42-001001	DWG. NO: E9

email: info@angledetailing.com

F:\CW\PROJECTS\PROJECT\_GREEN-SHOP\42-001-001\_MILW\_ARTS\_CENTRE\SCAX\29.DWG, 3/21/10 11:29am CYCLES: garden.nrys



NOTE: KEEP DIMS FROM PIN TO PIN  
AMOUNT OF ROD THREAD CAN FLOAT +/- 1/16



DO NOT SHEAR P'S.  
P'S TO BE BURNED.  
HOLES TO BE DRILLED.

BILL OF MATERIAL

NO. TO SHIP	SHIP MARK	TOTAL No	PC MARK	DESCRIPTION	LENGTH		REMARKS	WEIGHT	
					FT.	IN.		UNIT	TOTAL
2	29A			1/4 TIE ROD ASSY					
		4	x3	1/4 ROD	5	2 1/2			
		2	d65	E2x6	0	8 1/2			
		2	d66	E2x6	0	8			
2	29B			1/4 TIE ROD ASSY					
		4	x4	1/4 ROD	2	3 1/2			
		2	d67	E2x6	0	6			
		2	d68	E2x7 1/2	0	11 1/8			
		8	x1	#3 1/2 CLEVIS W/ 1/2 PIN WITH 1/4 RH THRD	-	-	PN CL35		
		4	x2	6" TURNBUCKLE W/ 1/4 RH THD & 1/4 LH THD	-	-	PN TB21		
		8	ba	1/2 STD CLEVIS PIN	-	-			

FABRICATION NOTES:  
 HOLES UNO: 1 9/16  
 WELD: E70XX  
 REF DWG: E1, E2  
 MATERIAL UNO: P=A572 GR50  
 ROD=A572 GR50  
 PAINT: NONE  
 NOTES:  
 VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED, WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN.

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
0	1/27/00	DK	FOR APP'L. - FAB READY	FOR APPROVAL	

**A-FRAMES**  
MILWAUKEE ART MUSEUM ADDITION  
MILWAUKEE, WI

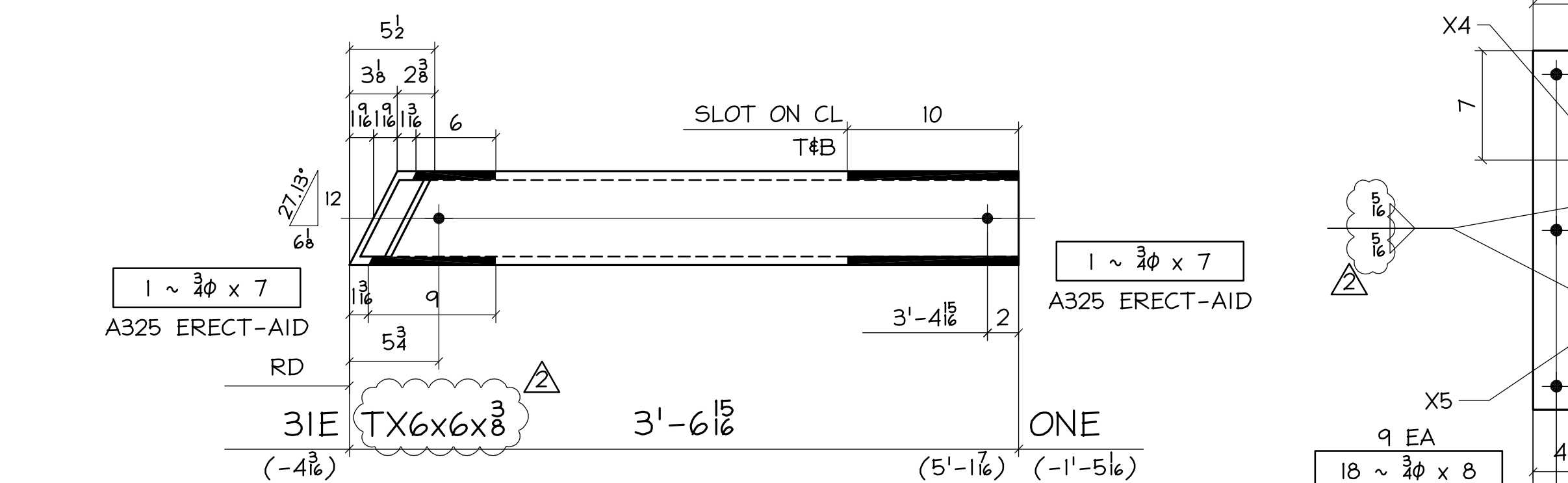
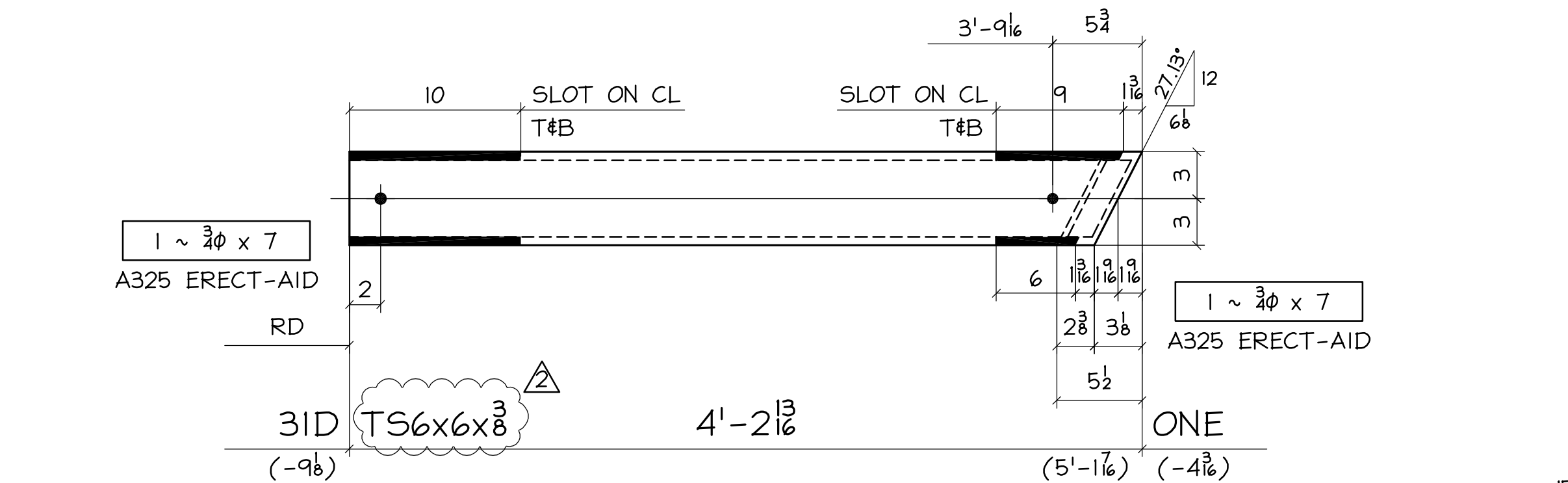
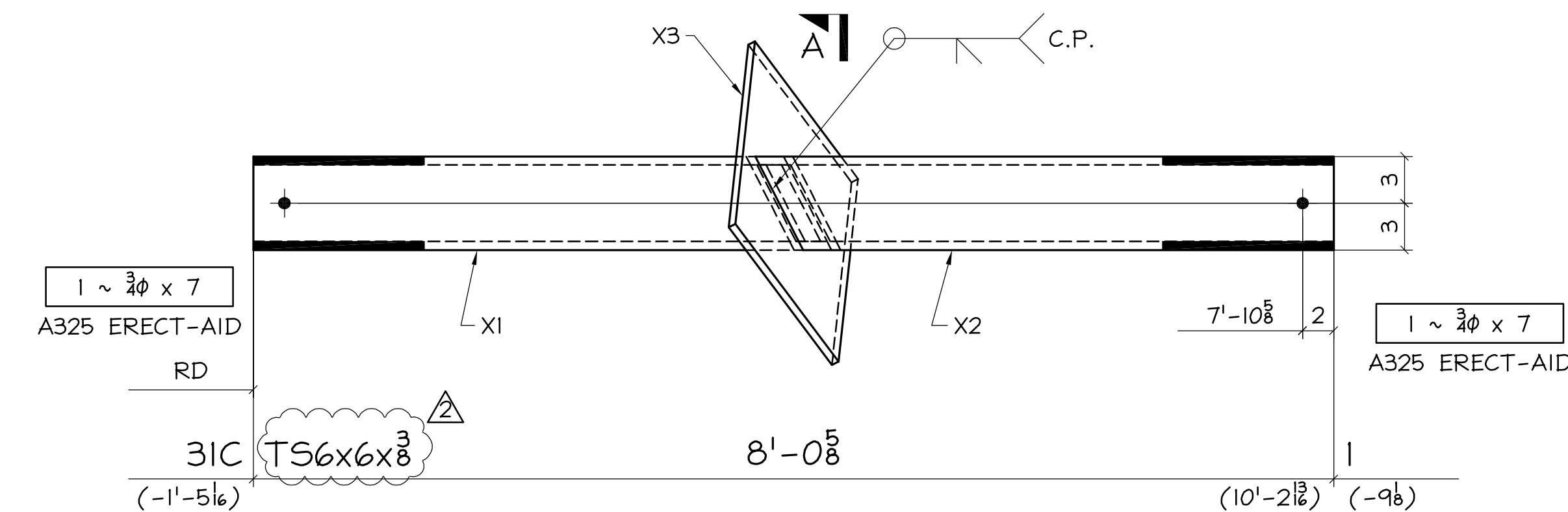
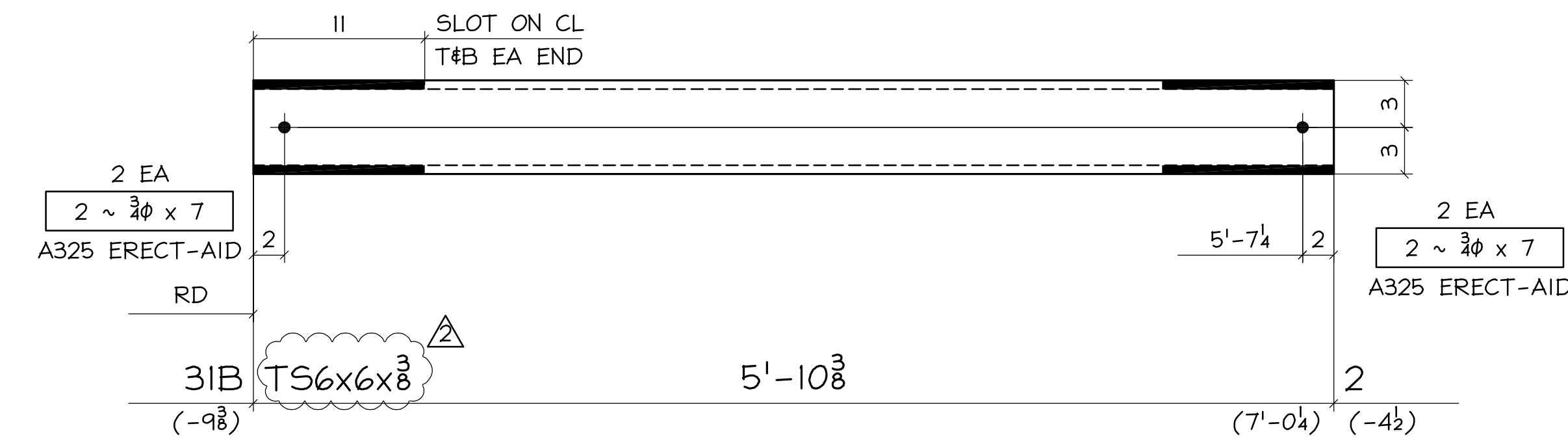
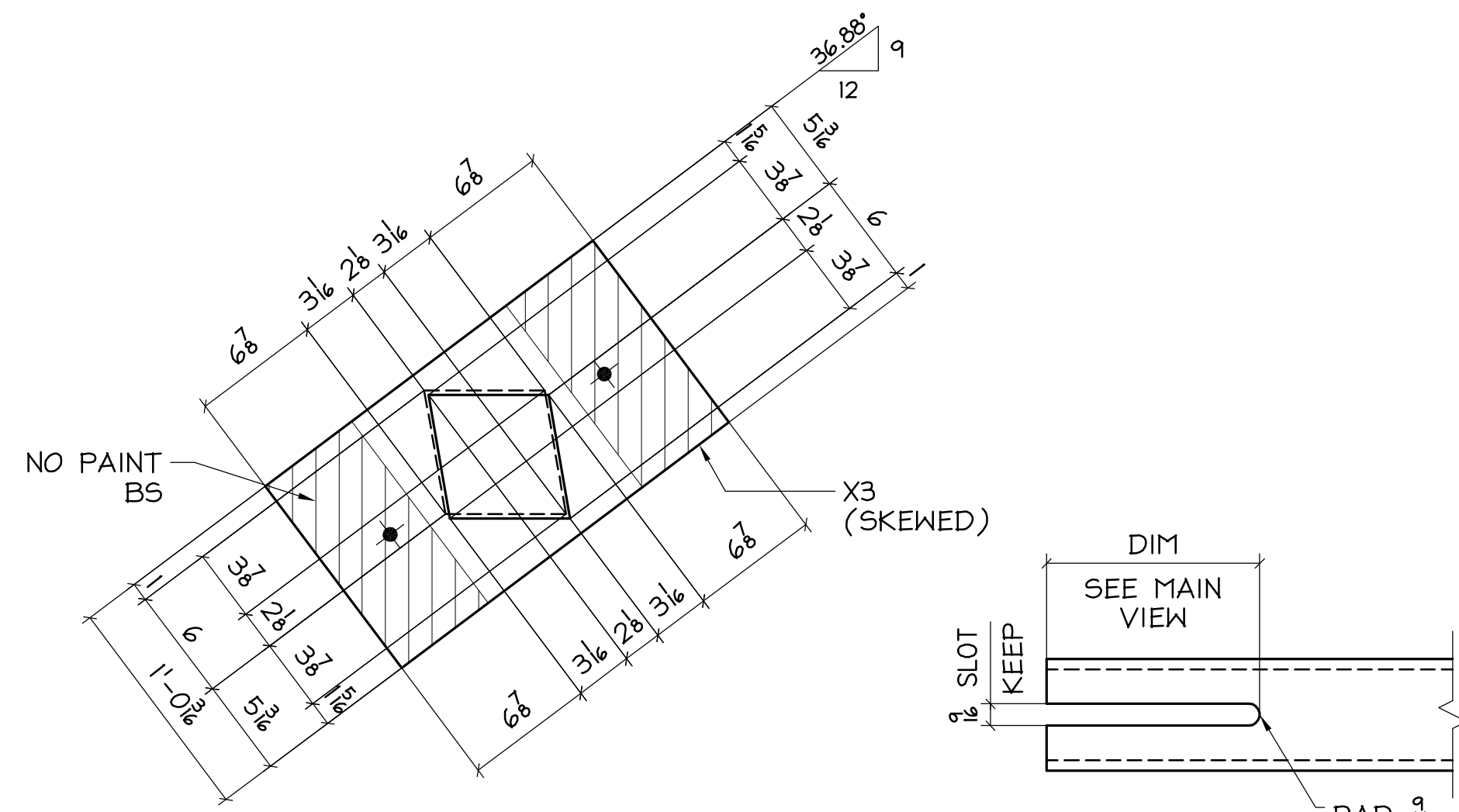
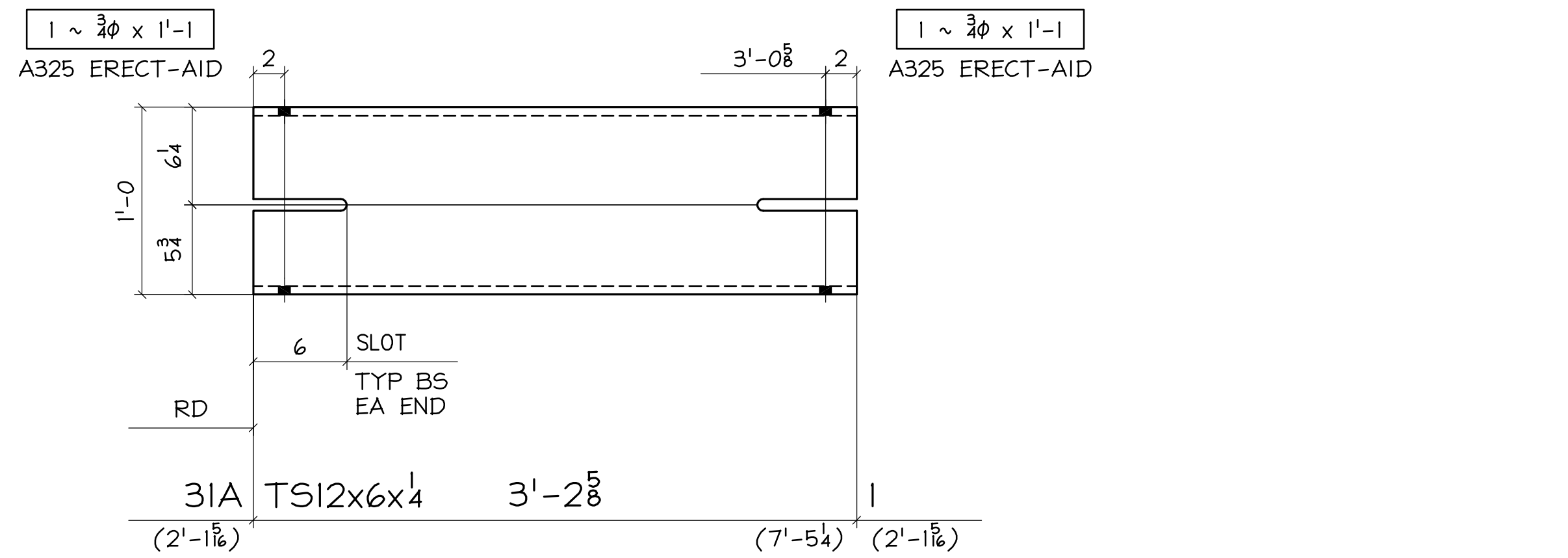
ENGR: G.A.S. & A.      ADI / ANGLE DETAILING, INC.  
 CONTR: C.G. SCHMIDT      ADI\_JOB# 99517-Milw\_Arts\_Centr

**Columbia Wire & Iron Works**  
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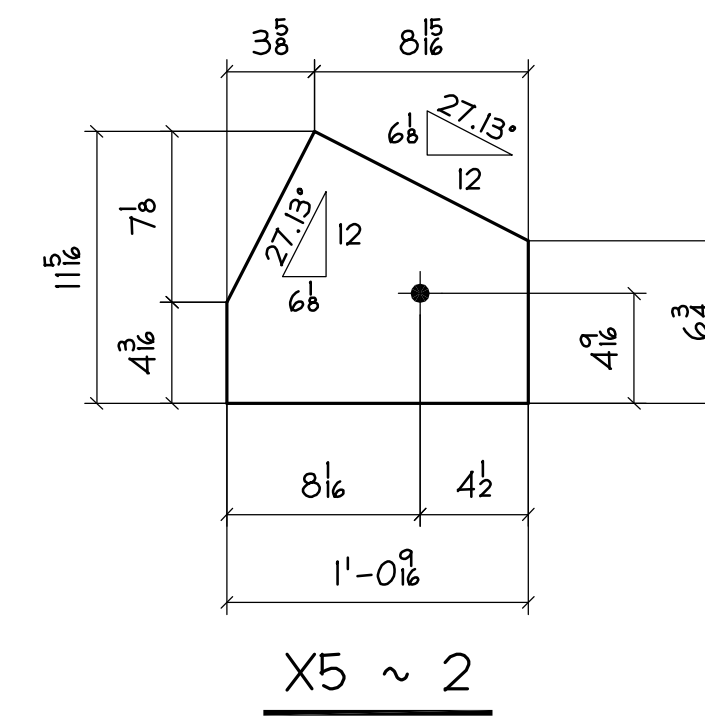
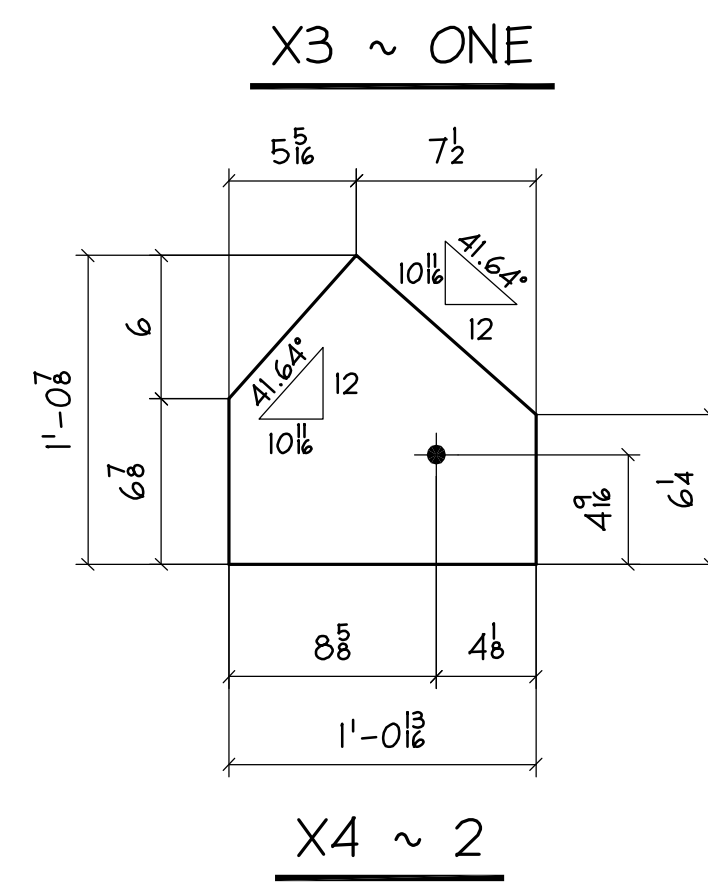
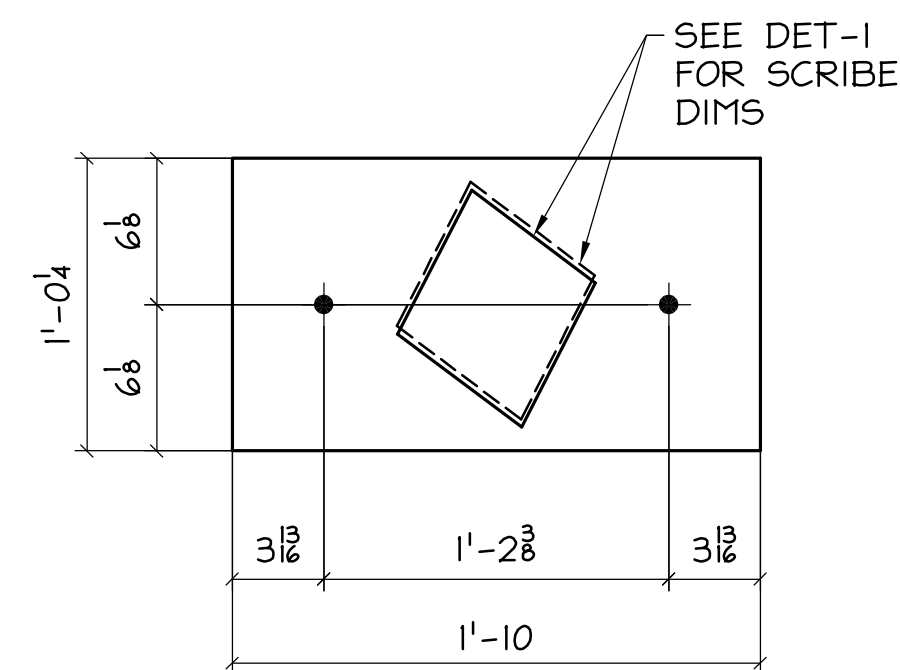
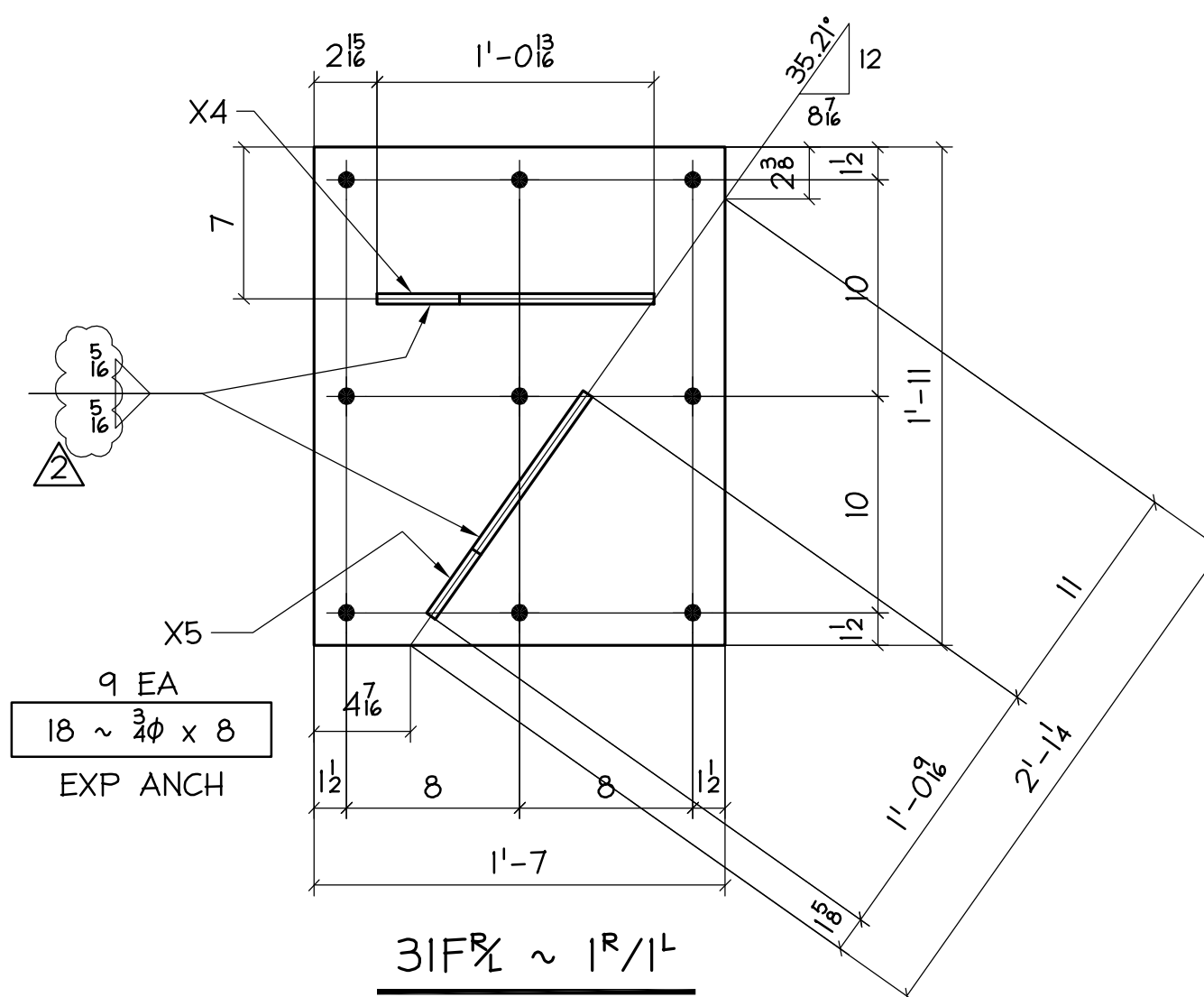
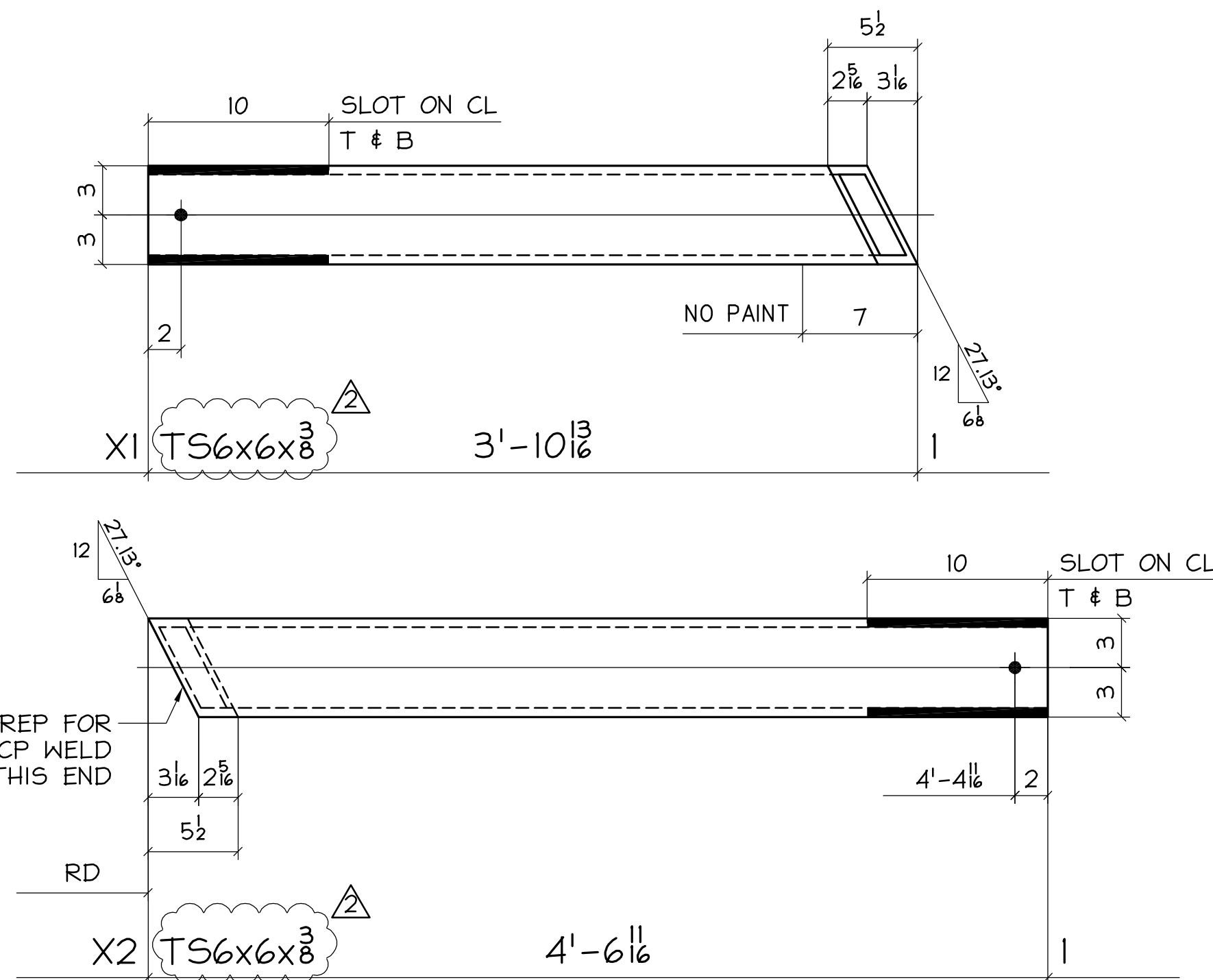
DRAWN BY: CG    CHKD BY: DK    JOB NO. 42-001001    DWG. NO. 29

email: info@angledetailing.com

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SECT-A  
DIMS ARE ALONG FACE OF P



BILL OF MATERIAL

NO. TO SHIP	SHIP MARK	TOTAL No	PC MARK	DESCRIPTION	LENGTH		REMARKS	ADV. BILL	WEIGHT	
					FT.	IN.			UNIT	TOTAL
ONE	31A			TS12x6x4	3	2 5/8				
2	31B			TS6x6x3/8	5	9 1/4				
ONE	31C			BRACE						
		1	X1	TS6x6x3/8	3	10 1/8				
		1	X2	TS6x6x3/8	4	6 1/8				
		1	X3	E2x12 1/2	1	10				
ONE	31D			TS6x6x3/8	4	2 1/8				
ONE	31E			TS6x6x3/8	3	6 1/8				
1 1/2	31F			E2x1 1/2	1	11				
		2	X4	E2x12 1/2	1	0 7/8				
		2	X5	E2x1 1/2	1	0 7/8				

FIELD BOLTS			
10	3/8 A325 W/N 4 W	0	7 ERECT AID
2	3/8 A325 W/N 4 W	1	1 ERECT AID
18	3/8 EXP ANCH	0	8

FABRICATION NOTES:

HOLES UNO: 1 1/8"  
WELD: E70XX  
REF DWG: E5  
MATERIAL UNO: WF & PL=A572 GR50  
TS=A500 GRB  
PAINT: 1 S/C PRIMER UNO  
NO PAINT W/1 2" OF SLOTS

NOTES:  
VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED, WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN.

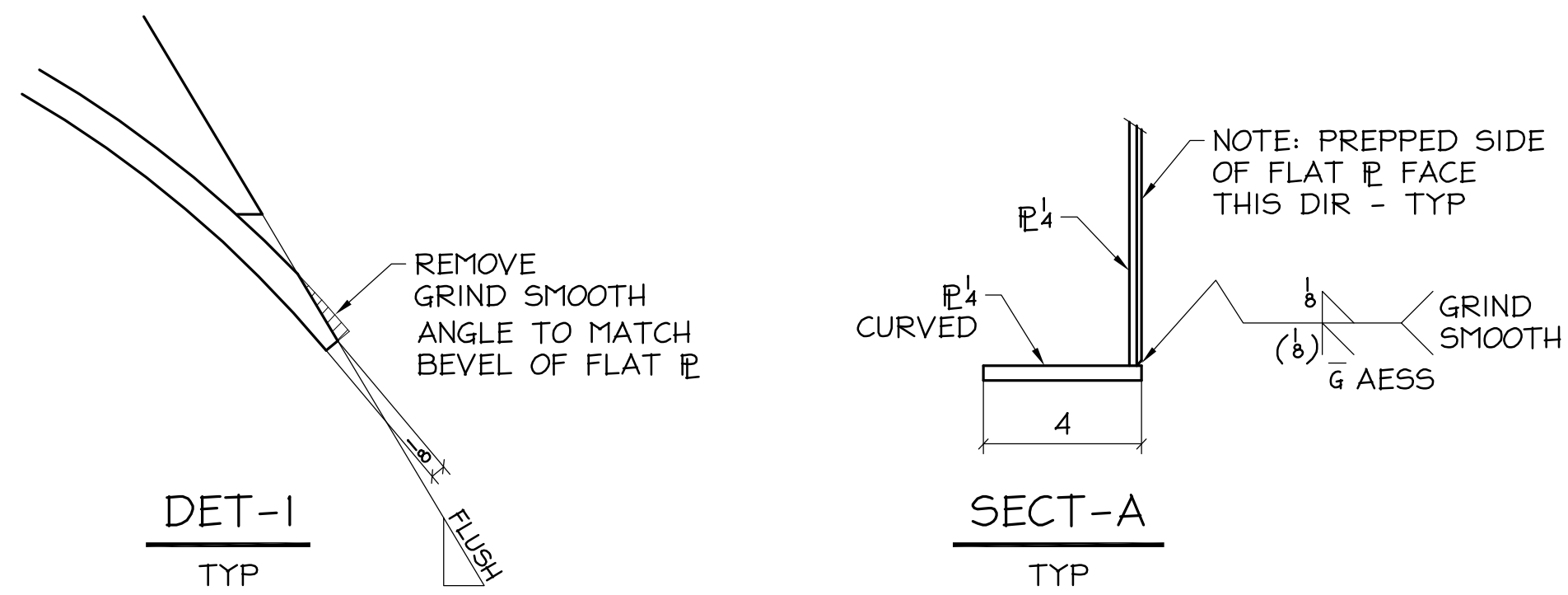
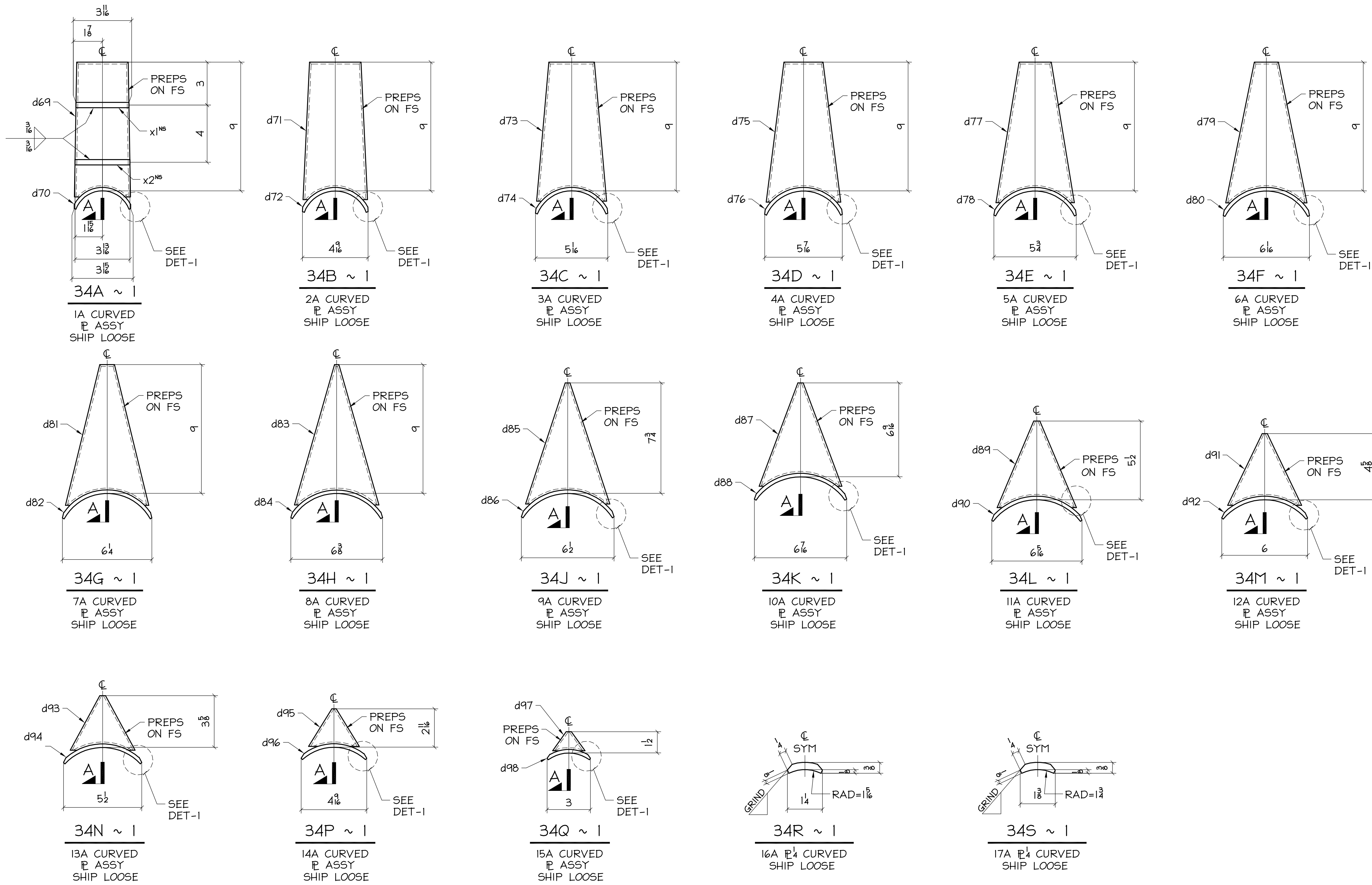
REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
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1	4/6/00	DK	IFF	FOR PURCHASING	
0	2/23/00	DK	FOR APPL.	FOR APPROVAL	

A-FRAMES  
MILWAUKEE ART MUSEUM ADDITION  
MILWAUKEE, WI

ENGR: G.A.S. & A. ADI / ANGLE DETAILING, INC.  
CONTR: C.G. SCHMIDT ADI\_JOB# 99517-Milw\_Arts\_Centr

Columbia Wire & Iron Works  
5555 N. Channel Portland Or. 97217  
drew@CW1.com/503-286-6600

DRAWN BY: CG	CHKD BY:	JOB NO. 42-001001	DWG. NO. 31
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BILL OF MATERIAL

NO. TO SHIP	SHIP MARK	TOTAL NO PC	PC MARK	DESCRIPTION	LENGTH		REMARKS	ADV. BILL	WEIGHT	
					FT.	IN.			UNIT	TOTAL
ONE	34A			CURVED P ASSY			SHIP LOOSE			
		1	d69	P4x3 1/2	0	9 1/2				
		1	d70	P4x4	0	5 1/2	CURVED			
		1	x1	P3x3 1/2	0	3 1/2				
		1	x2	P3x3 1/2	0	3 1/2				
ONE	34B			CURVED P ASSY			SHIP LOOSE			
		1	d71	P4x4 1/2	0	9 1/2				
		1	d72	P4x4	0	6	CURVED			
ONE	34C			CURVED P ASSY			SHIP LOOSE			
		1	d73	P4x4 1/2	0	9 1/2				
		1	d74	P4x4	0	6 1/2	CURVED			
ONE	34D			CURVED P ASSY			SHIP LOOSE			
		1	d75	P4x5 1/2	0	9 1/2				
		1	d76	P4x4	0	6 1/2	CURVED			
ONE	34E			CURVED P ASSY			SHIP LOOSE			
		1	d77	P4x5 1/2	0	9 1/2				
		1	d78	P4x4	0	7 1/2	CURVED			
ONE	34F			CURVED P ASSY			SHIP LOOSE			
		1	d79	P4x5 1/2	0	9 1/2				
		1	d80	P4x4	0	7 1/2	CURVED			
ONE	34G			CURVED P ASSY			SHIP LOOSE			
		1	d81	P4x5 1/2	0	9 1/2				
		1	d82	P4x4	0	7 1/2	CURVED			
ONE	34H			CURVED P ASSY			SHIP LOOSE			
		1	d83	P4x5 1/2	0	9 1/2				
		1	d84	P4x4	0	7 1/2	CURVED			
ONE	34J			CURVED P ASSY			SHIP LOOSE			
		1	d85	P4x5 1/2	0	8 1/2				
		1	d86	P4x4	0	7 1/2	CURVED			
ONE	34K			CURVED P ASSY			SHIP LOOSE			
		1	d87	P4x5 1/2	0	7 1/2				
		1	d88	P4x4	0	7 1/2	CURVED			
ONE	34L			CURVED P ASSY			SHIP LOOSE			
		1	d89	P4x5 1/2	0	6 1/2				
		1	d90	P4x4	0	7 1/2	CURVED			
ONE	34M			CURVED P ASSY			SHIP LOOSE			
		1	d91	P4x5	0	5 1/2				
		1	d92	P4x4	0	6 1/2	CURVED			
ONE	34N			CURVED P ASSY			SHIP LOOSE			
		1	d93	P4x3 1/2	0	4 1/2				
		1	d94	P4x4	0	6 1/2	CURVED			
ONE	34P			CURVED P ASSY			SHIP LOOSE			
		1	d95	P4x2 1/2	0	3 1/2				
		1	d96	P4x4	0	5 1/2	CURVED			
ONE	34Q			CURVED P ASSY			SHIP LOOSE			
		1	d97	P4x1 1/2	0	2 1/2				
		1	d98	P4x4	0	3 1/2	CURVED			

FABRICATION NOTES:  
 HOLES UNO: 1 1/16"  
 WELD: E70XX  
 REF DWG: E1,E7  
 MATERIAL UNO: A36  
 PAINT: NO PAINT  
 NOTES:  
 VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED, WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN.

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
1	4/28/00	DK	IFF	FOR FABRICATION	
0	2/28/00	DK	FOR APP'L.	FOR PURCHASING	

**A-FRAMES**  
 MILWAUKEE ART MUSEUM ADDITION  
 MILWAUKEE, WI

ENC'R: G.A.S. & A.  
 CONT'R: C.G. SCHMIDT

ADI / ANGLE DETAILING, INC.  
 ADI\_JOB# 99517-Milw\_Arts\_Centr

**Columbia Wire & Iron Works**  
 5555 N. Channel Portland Or. 97217  
 drew@CW1.com/503-286-6600

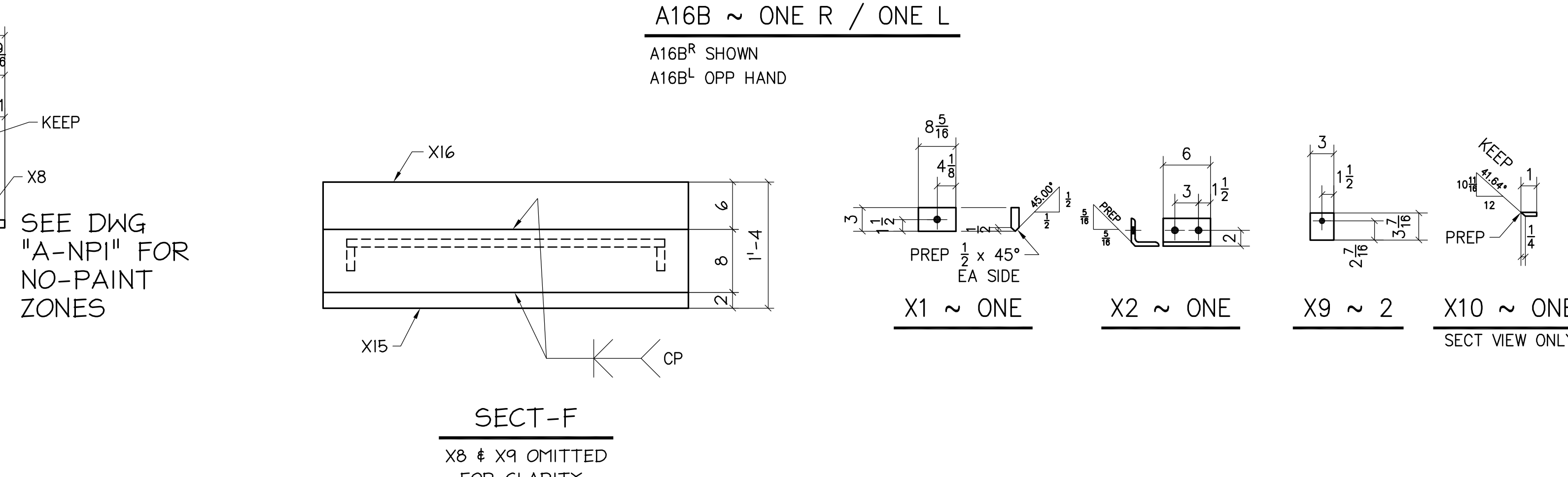
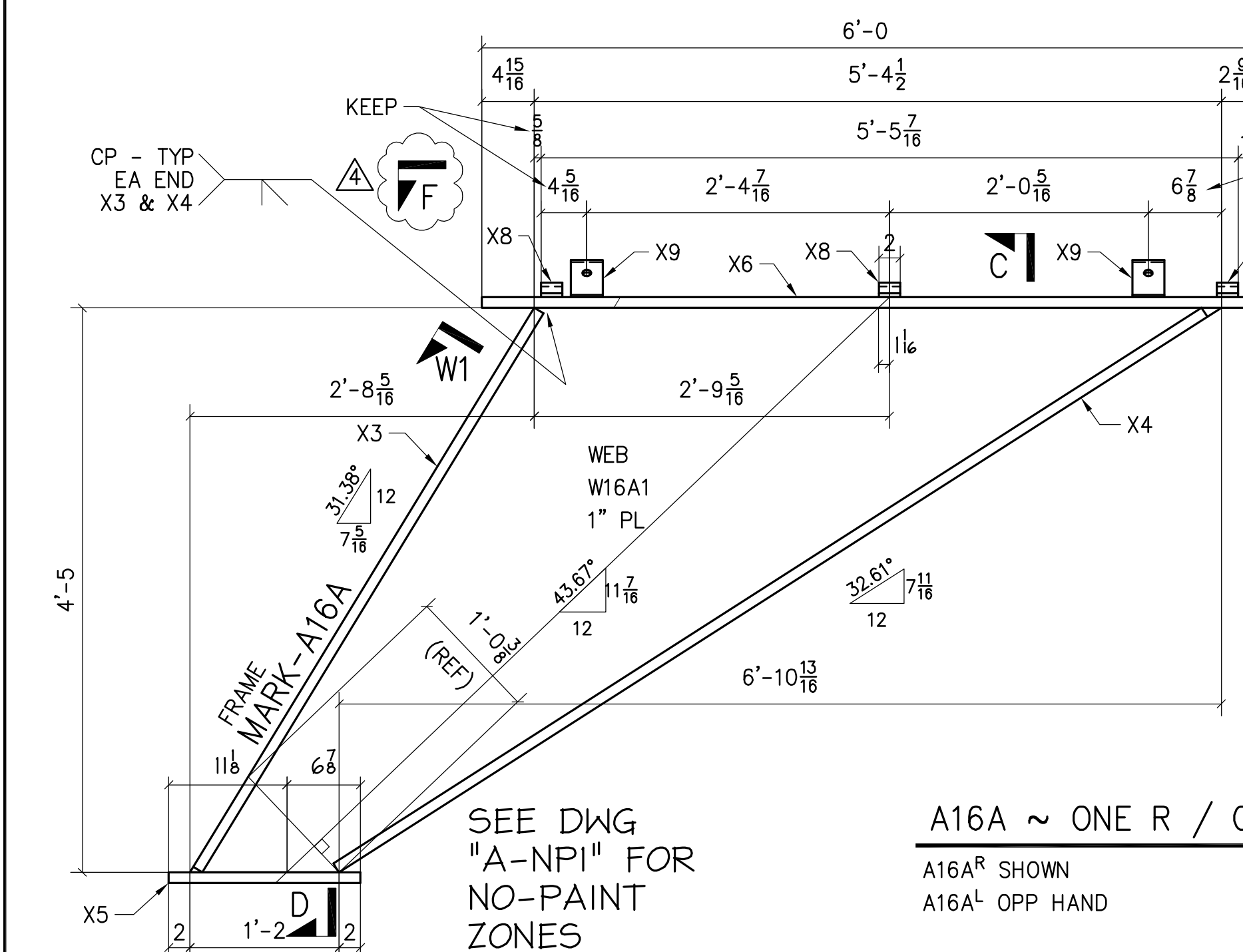
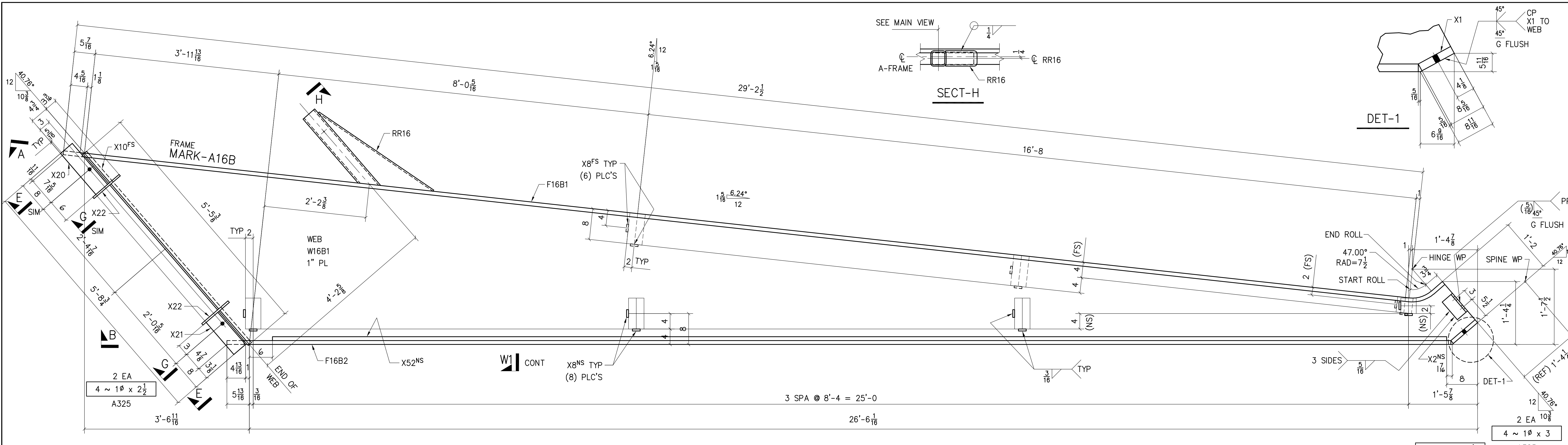
DRAWN BY: CG CHKD BY: \_\_\_\_\_ JOB NO. 42-001001 DWG. NO. 34

**BILL OF MATERIAL**

NO. TO SHIP	SHIP MARK	TOTAL NO PC	PC MARK	DESCRIPTION	LENGTH		REMARKS	ADV. BILL	WEIGHT	
					FT.	IN.			UNIT	TOTAL
ONE	34R			P4x1 1/2	0	4	SHIP LOOSE			
ONE	34S			P4x1 1/2	0	4	SHIP LOOSE			

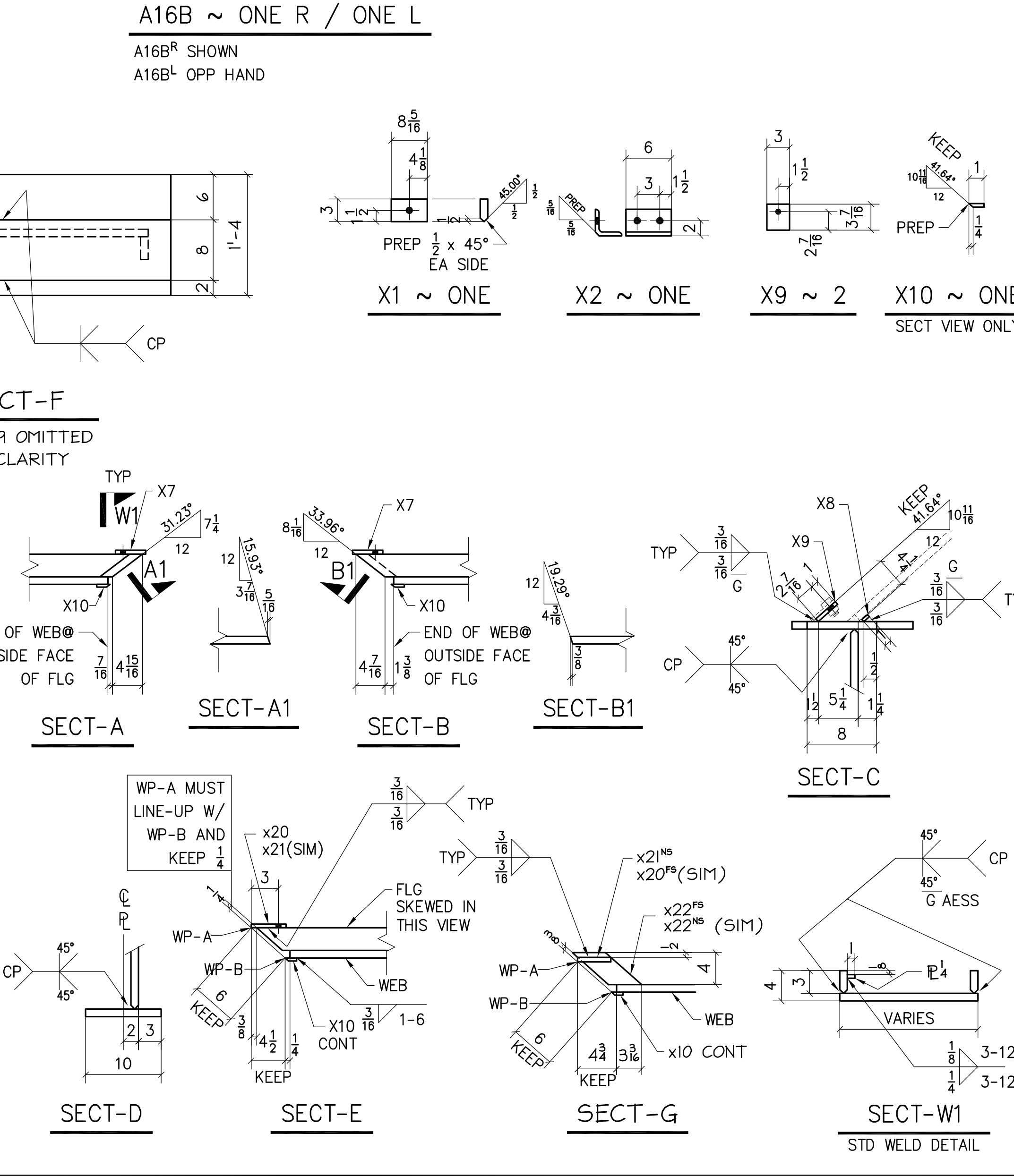
email: info@angledetailing.com

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BILL OF MATERIAL									
NO. TO SHIP	SHIP MARK	TOTAL NO. PC	PC MARK	DESCRIPTION	LENGTH FT. IN.	REMARKS	ADV. BILL	WEIGHT UNIT	TOTAL
1R/1L	A16A			LOWER A-FRAME					
1R/1L	W16A1	1	P1	1 x PLASMA CUT		2080 SQIN			
1R/1L	X3	5	P1	1 x 3	5 1 1/2	PREP 1 EDGE			
1R/1L	X4	8	P1	1 x 3	8 0 3/4	PREP 1 EDGE			
1R/1L	X5	1	P1	1 x 10	1 6	PLAIN MAT'L			
1R/1L	X6	6	P1	1 x 8	6 0	PLAIN MAT'L			
3R/3L	X8	0	P1	1/2 x 1	0 2	PLAIN MAT'L			
2R/2L	X9	0	P1	1/2 x 3	0 3 7/8	PREP 1 EDGE			
1R/1L	X15	6	P1	1 x 2	6 0	PREP 1 EDGE			
1R/1L	X16	6	P1	1 x 6	6 0	PREP 1 EDGE			
1R/1L	A16B			UPPER A-FRAME					
1R/1L	W16B1	1	P1	1 x PLASMA CUT		9702 SQIN			
1R/1L	F16B1	4	P1	1 x 3	30 0 3/4	ROLLED & PREP EDGE			
1R/1L	F16B2	1	P1	1 x 3	26 5	PREP 1 EDGE			

BILL OF MATERIAL									
NO. TO SHIP	SHIP MARK	TOTAL NO. PC	PC MARK	DESCRIPTION	LENGTH FT. IN.	REMARKS	ADV. BILL	WEIGHT UNIT	TOTAL
1R/1L	X1	0	P1	1 x 3	0 8 5/8	PREP 1 EDGE			
1R/1L	X2	0	P1	1 x 3 1/2	0 6	PREP 1 EDGE			
2R/20L	X8	0	P1	1/4 x 1	0 2	PLAIN MAT'L			
1R/1L	X10	4	P1	1/2 x 1	4 2 1/2	PREP 1 EDGE			
1R/1L	X20	1	P1	1/2 x 4	1 2	PLAIN MAT'L			
1R/1L	X21	0	P1	1/2 x 4	0 11	PLAIN MAT'L			
2R/2L	X22	0	P1	1/2 x 2 1/8	0 9	PLAIN MAT'L			
2	X52	25	P1	1/4 x 1	25 4 1/8	PLAIN MAT'L			
2R/2L	RR16			REST RAFTER		SEE DWG RR-3			
1R/1L	A16B			ERECTOR BOLTS					
1R/1L	W16B1	4	P1	1 x 325 W/N & W	0 2 1/2	ERECT AID			
1R/1L	F16B1	4	P1	1 x 325 W/N & W	0 3	ERECT AID			
1R/1L	F16B2	1	P1	1 x 325 W/N & W	0 3 1/2	ERECT AID			



**FABRICATION NOTES:**

HOLES UNO: 1 1/16"

WELD: E70XX

REF DWG: E1

MATERIAL UNO: WF & PL=A572 GR50  
TS=A500 GRB

PAINT: 1 S/C PRIMER - EXCEPT WHERE NOTED  
SEE DWG A-NP1 FOR NO PAINT ZONES

NOTES: ALL BEVELS SHOWN ARE CRITICAL AND NEED TO BE KEPT

VERIFICATION OF DIMENSIONS, DETAILS, AND ETC. ARE REQUESTED, WHERE INDICATED. IF EACH VERIFICATION IS NOT NOTED OTHERWISE, IT WILL BE ASSUMED TO BE CORRECT AS SHOWN.

REV	DATE	BY	DESCRIPTION	DWG STATUS	DATE
6	2/23/00	DK	IFF		
5	1/14/00	DK	ADDED PAINT NOTE		
4	1/5/00	DK	ADDED Pc X15 & X16, A16B ON HOLD		
3	11/12/99	DK	CHGND BOM QTY, ADDED RR16		

**A-FRAMES**  
MILWAUKEE ART MUSEUM ADDITION  
MILWAUKEE, WI

ENC'R: G.A.S. & A.      ADI / ANGLE DETAILING, INC.  
CONTR: C.G. SCHMIDT      ADI JOB# 99517

**Columbia Wire & Iron Works**  
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drew@CW1.com/503-286-6600

DRAWN BY: DK      CHKD BY: DK      JOB NO. 42-001001      DWG. NO. A16-1