

Doc./Rev.: EIR-3021970-000 Project: 00225.03.0050 DOE Atlas Project

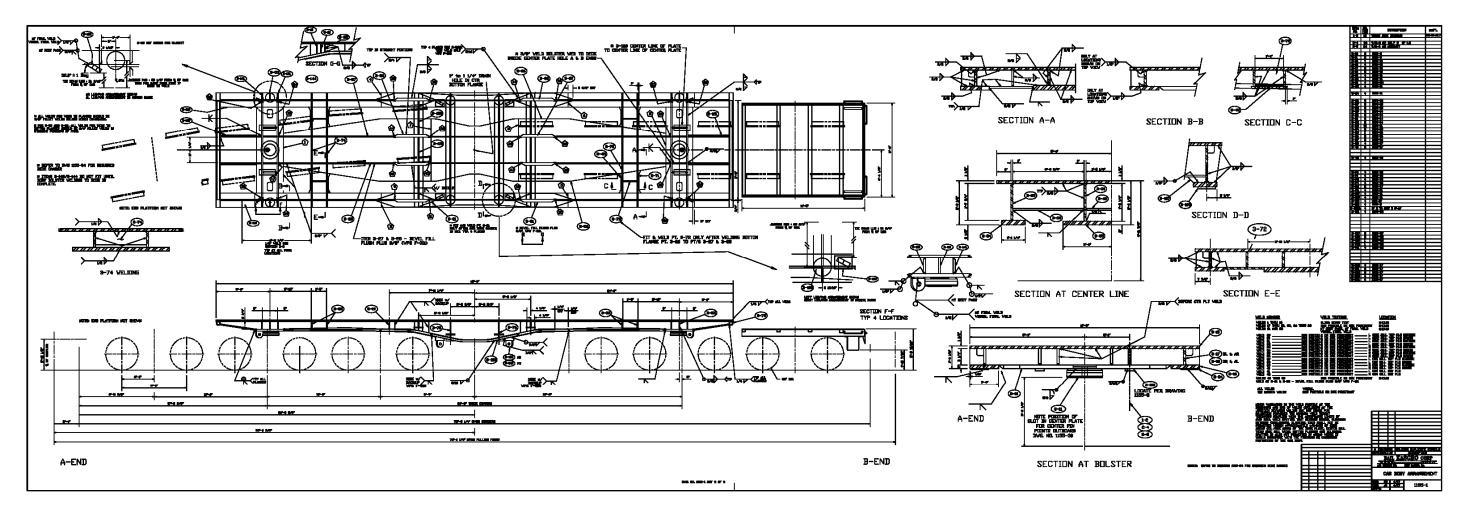
Appendix A Atlas Railcar As-Built Fabrication Drawings



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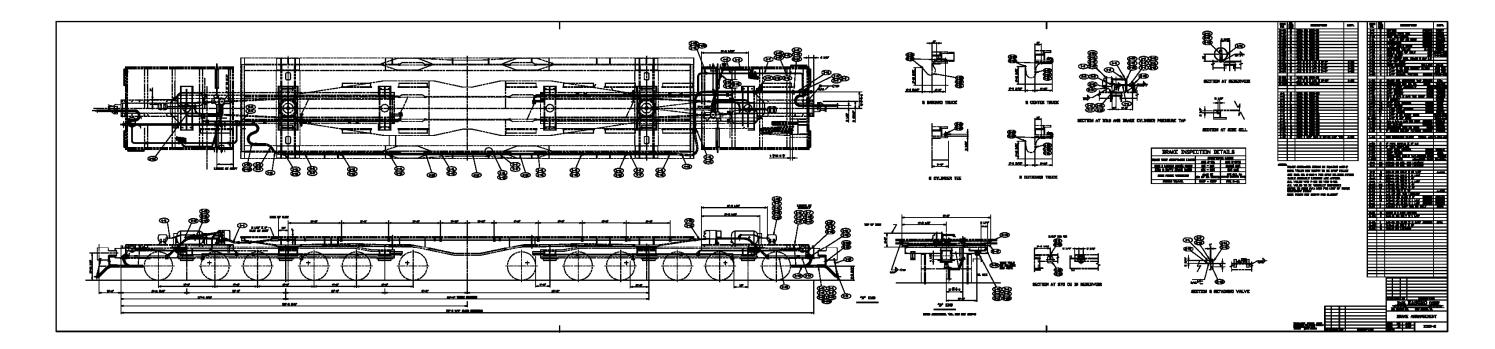
 Project:
 00225.03.0050
 DOE Atlas Project

APPENDIX A.1 GENERAL ARRANGEMENT





APPENDIX A.2 BRAKE ARRANGEMENT

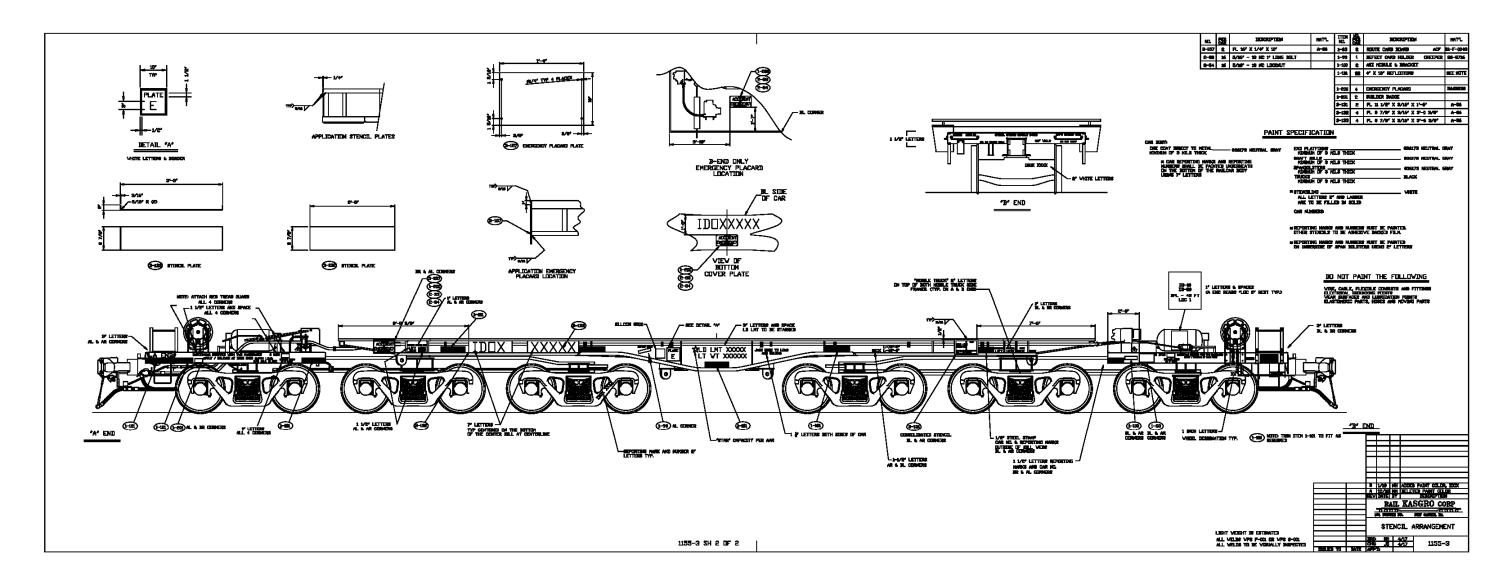




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 Project:
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 DOE Atlas Project

APPENDIX A.3 STENCIL ARRANGEMENT

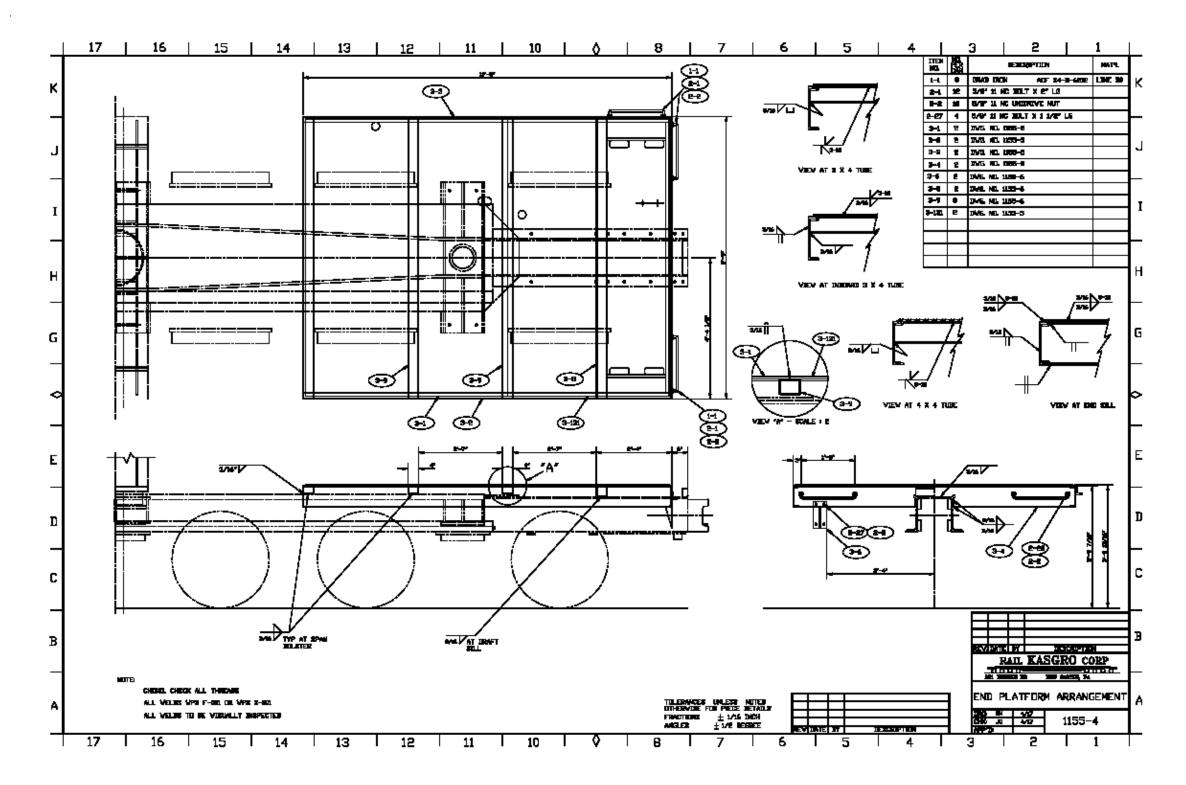




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APPENDIX A.4 END PLATFORM ARRANGEMENT

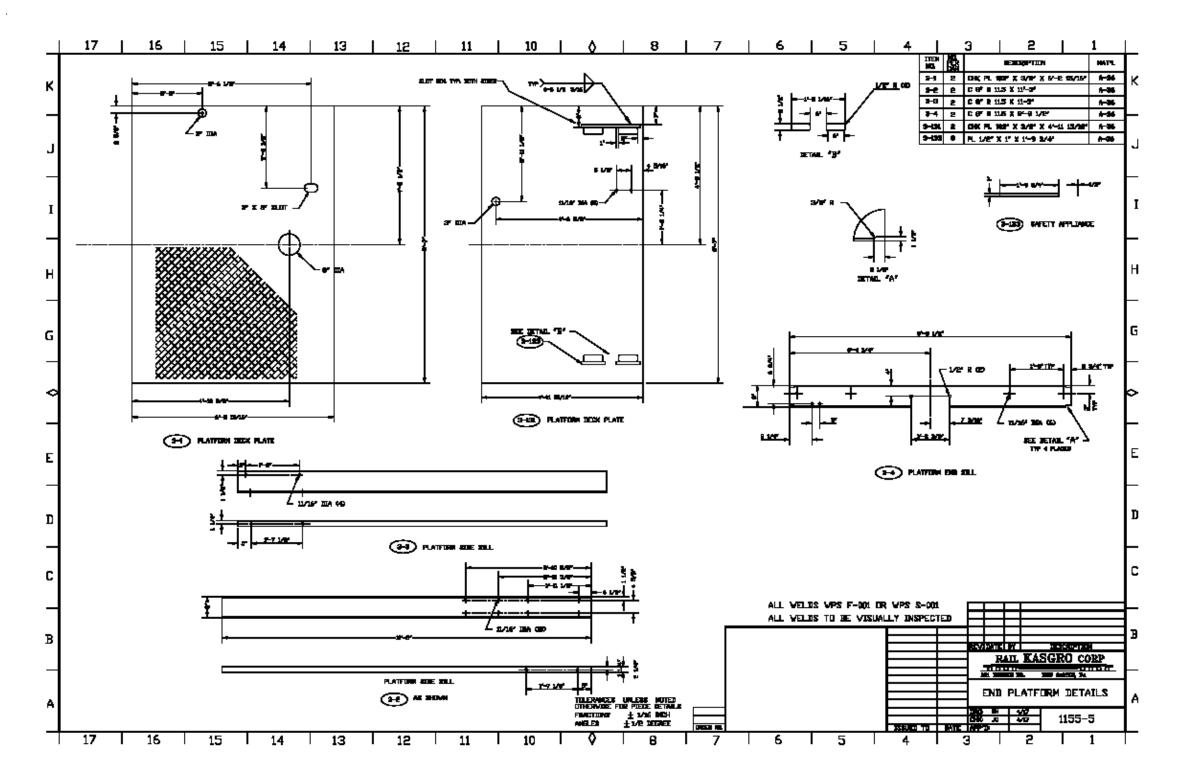




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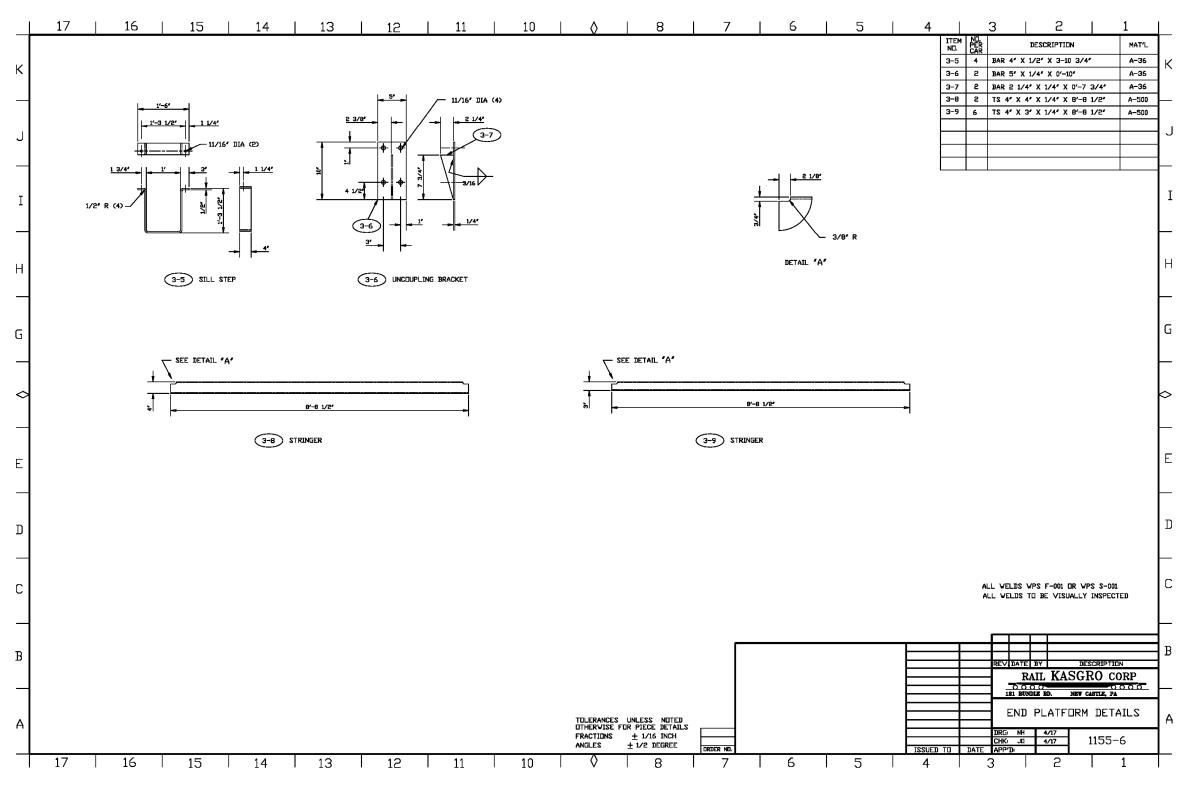
APPENDIX A.5 END PLATFORM DETAILS





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APPENDIX A.6 END PLATFORM DETAILS

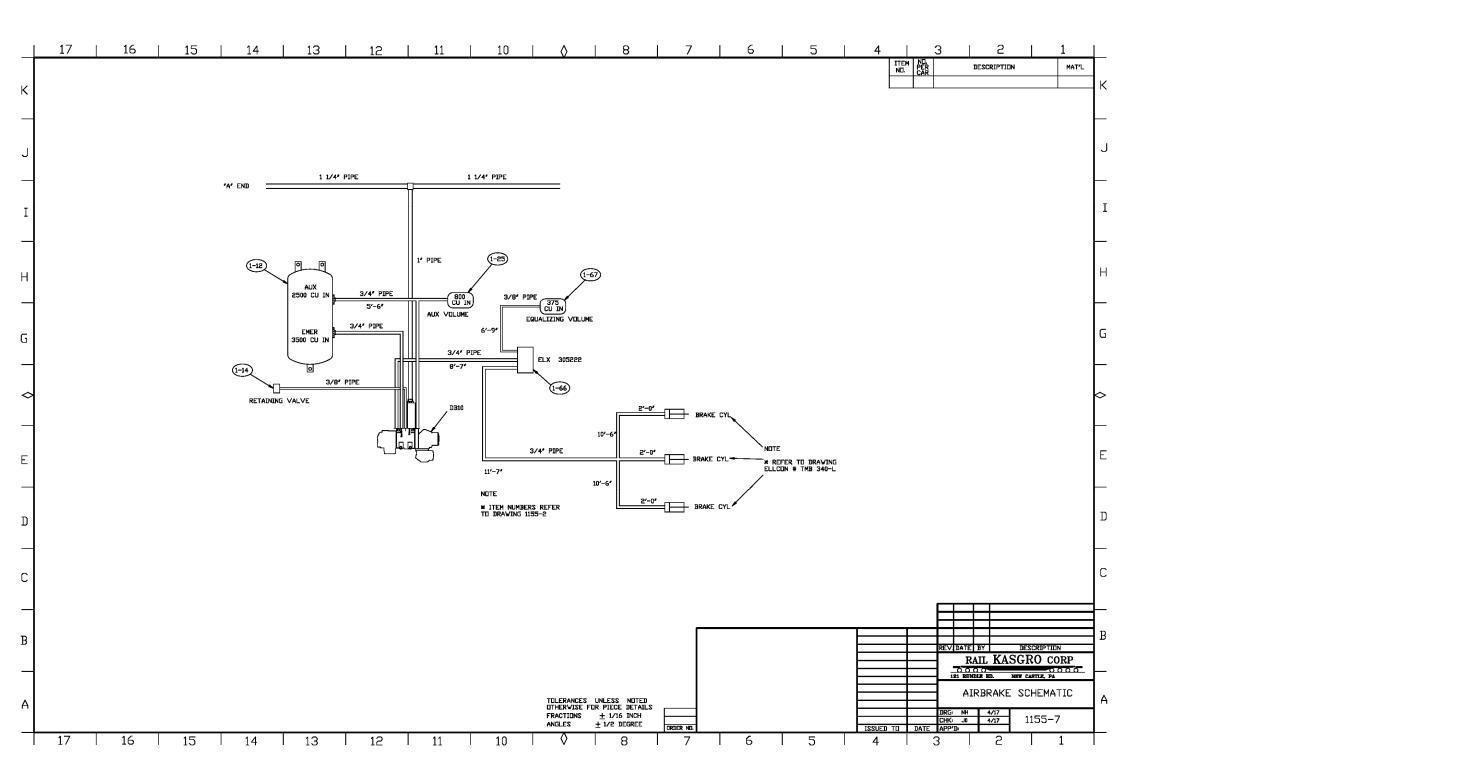




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APPENDIX A.7 AIR BRAKE SCHEMATIC

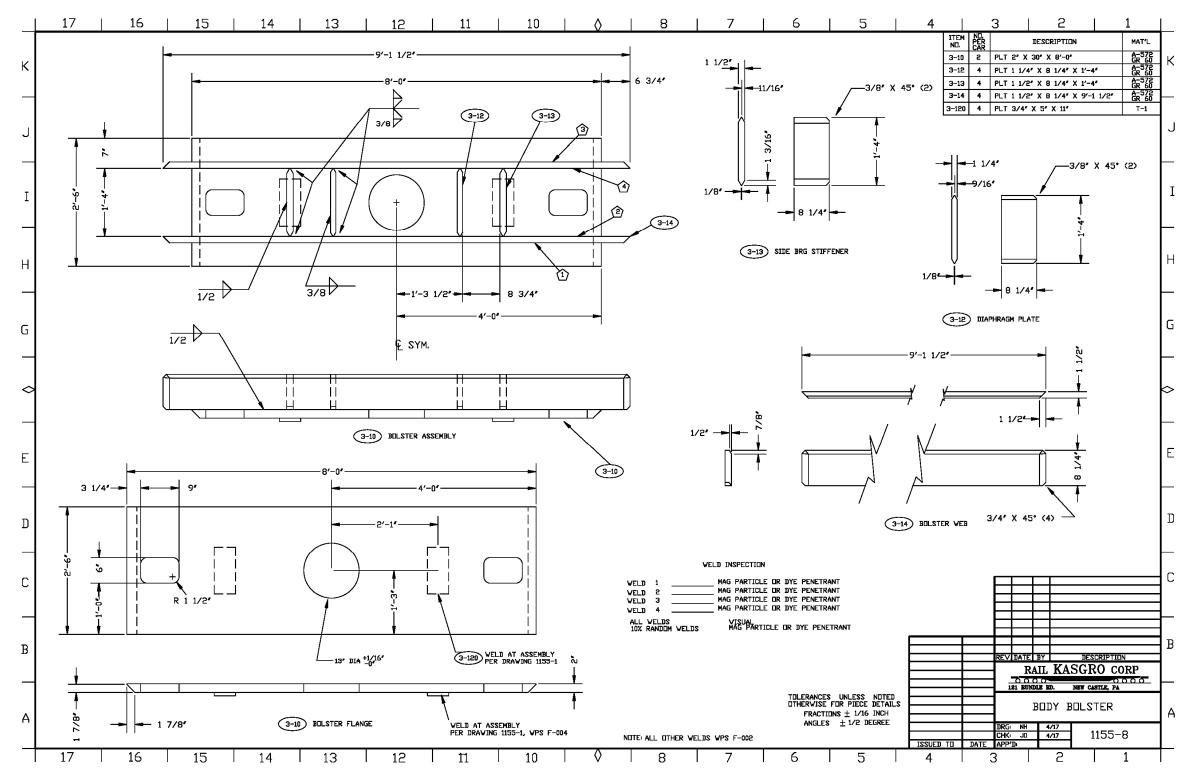




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APPENDIX A.8 BODY BOLSTER

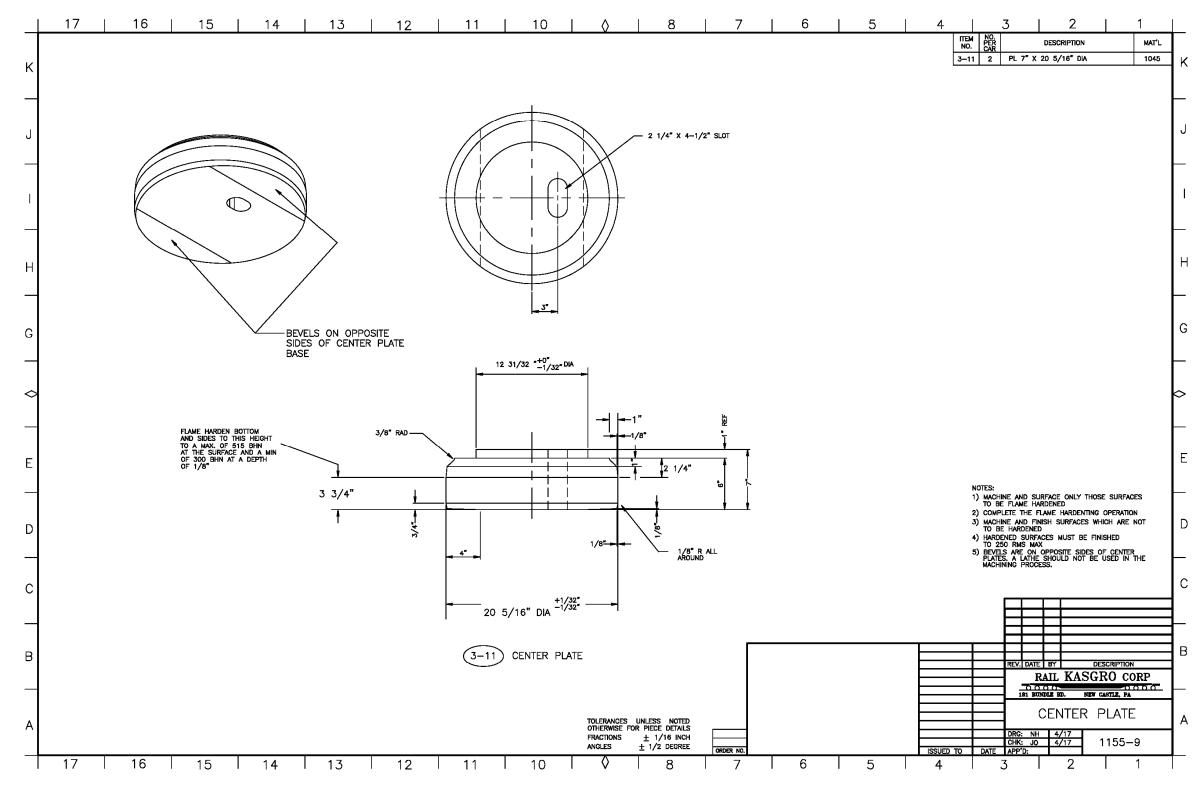




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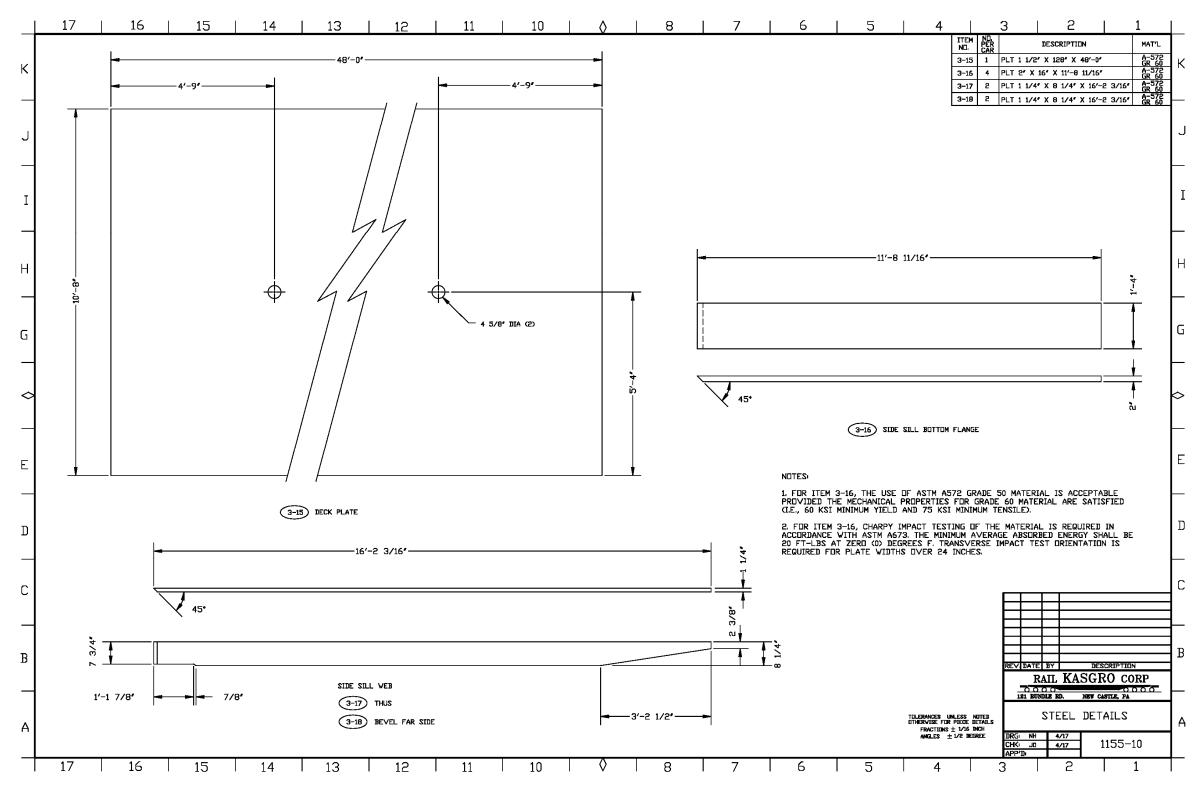
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APPENDIX A.9 CENTER PLATE





APPENDIX A.10 STEEL DETAILS



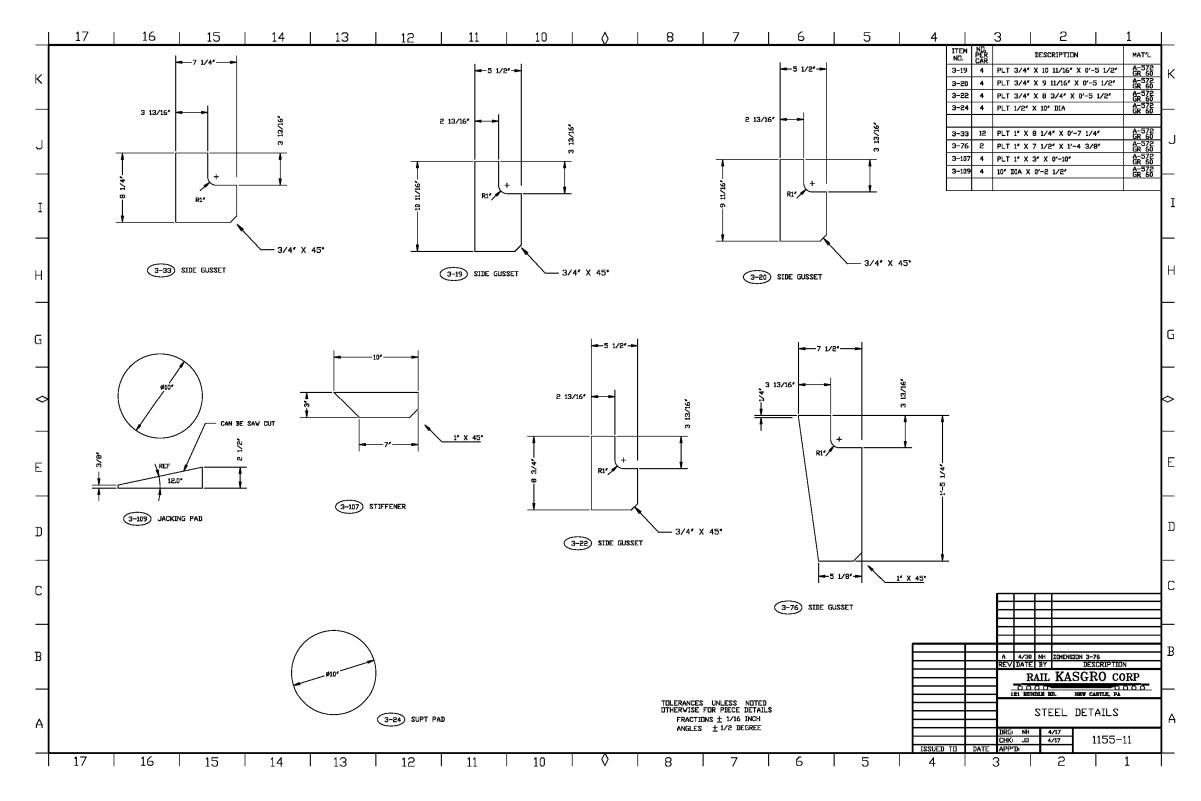


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APPENDIX A.11 STEEL DETAILS





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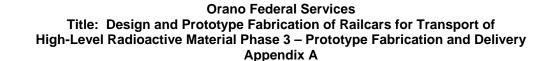
APPENDIX A.12 STEEL DETAILS 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 🚫 | 8 7 | 6 | 5 | -8'-9 15/16' TRUE LENGTH-G \sim 1 1**5/16″ DN** CTR LINE 3.0° 8 1/8″ ON CTR LINE -6'-1 5/16" 11-0 5/16-7/84 7/8" Л 1/2 C R3'-0" 13'-7 9/16" R3'-9 1/2" В 3-26 BOTTOM FLANGE TOLERANCES UNLESS NOTED DTHERWISE FOR PIECE DETAILS -6'-0 3/4* FRACTIONS \pm 1/16 INCH ANGLES \pm 1/2 DEGREE Α 17 16 | 15 | 14 | 13 12 11 10 \diamond 8 7 6 5 4



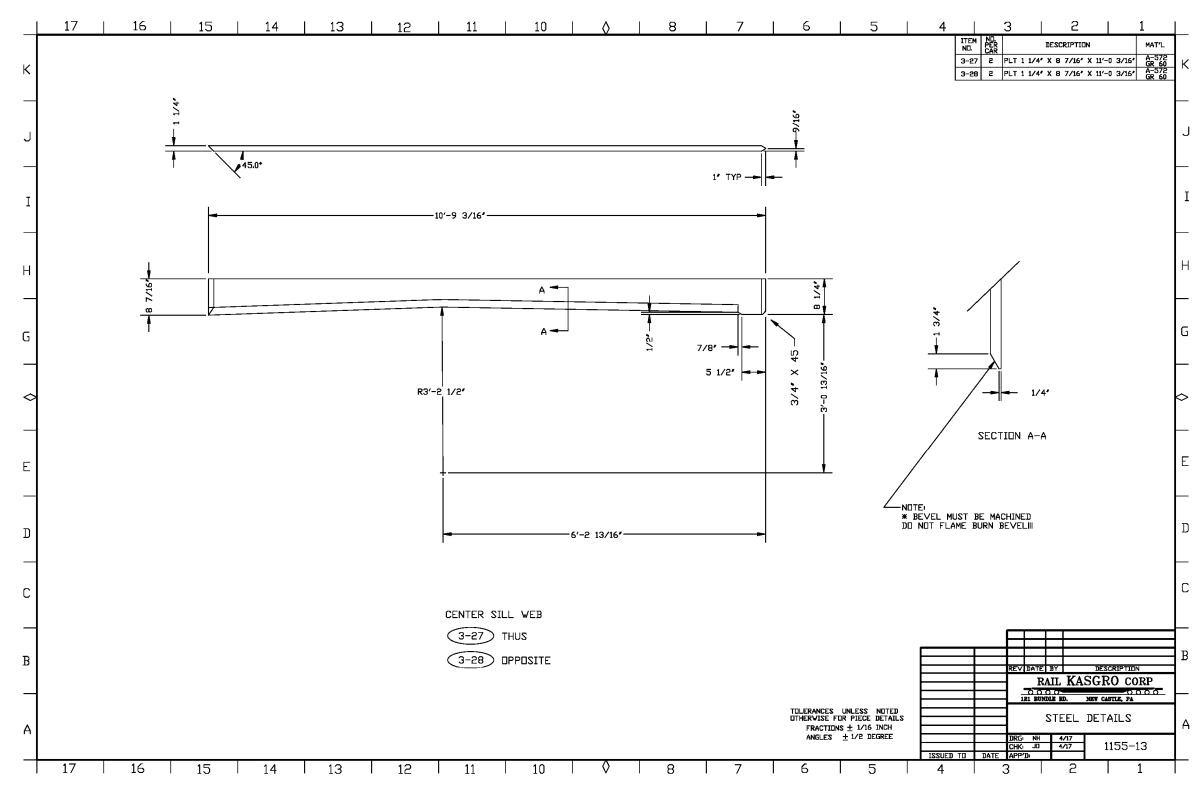


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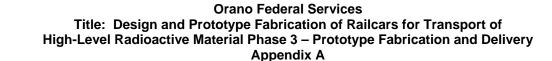
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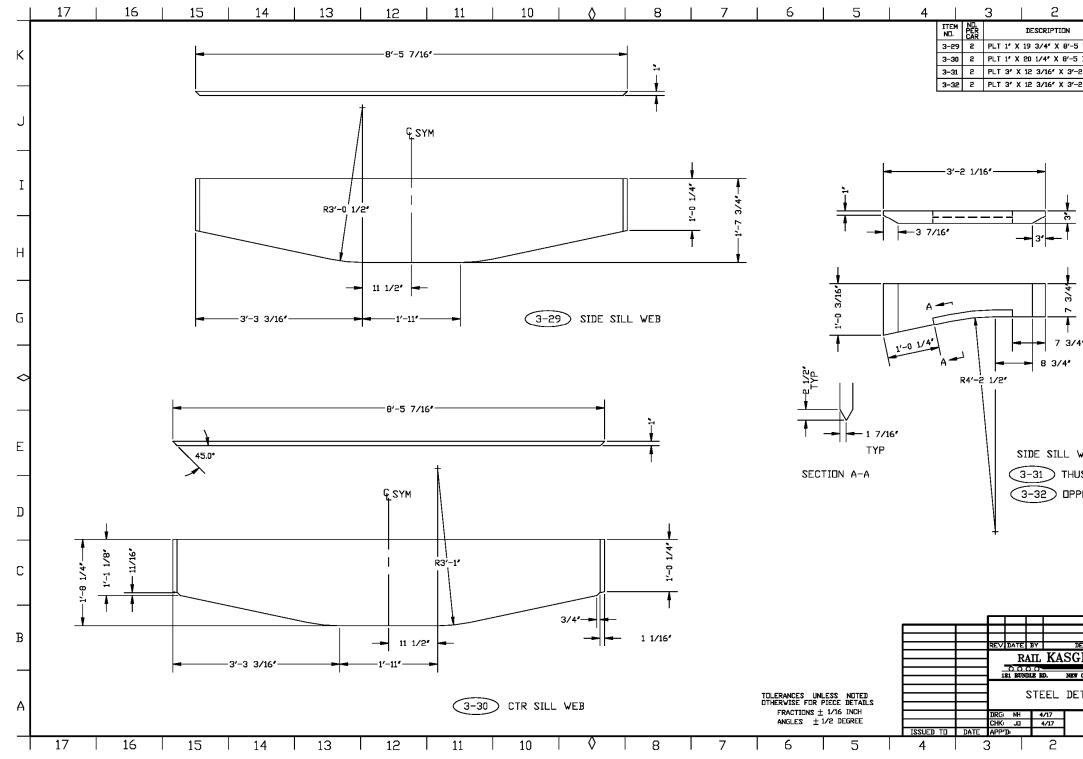
APPENDIX A.13 STEEL DETAILS





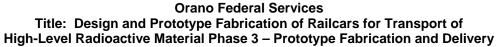


APPENDIX A.14 STEEL DETAILS





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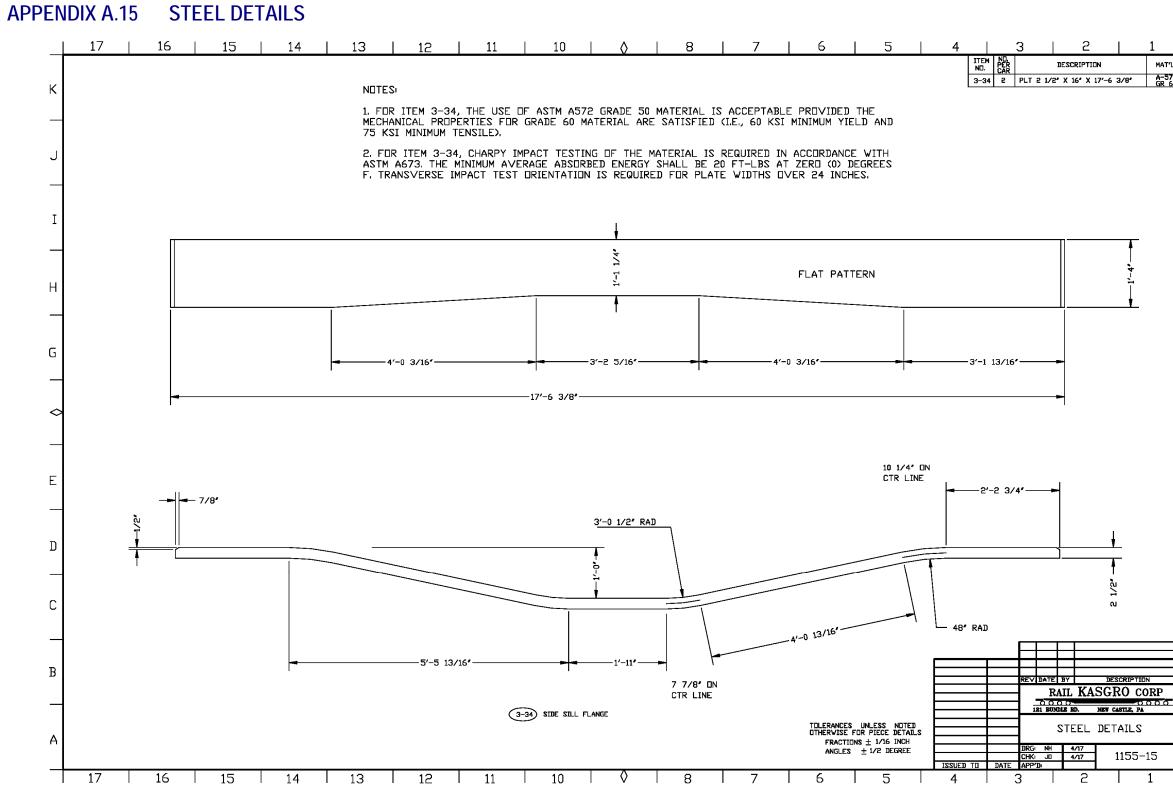


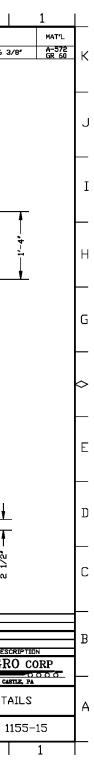
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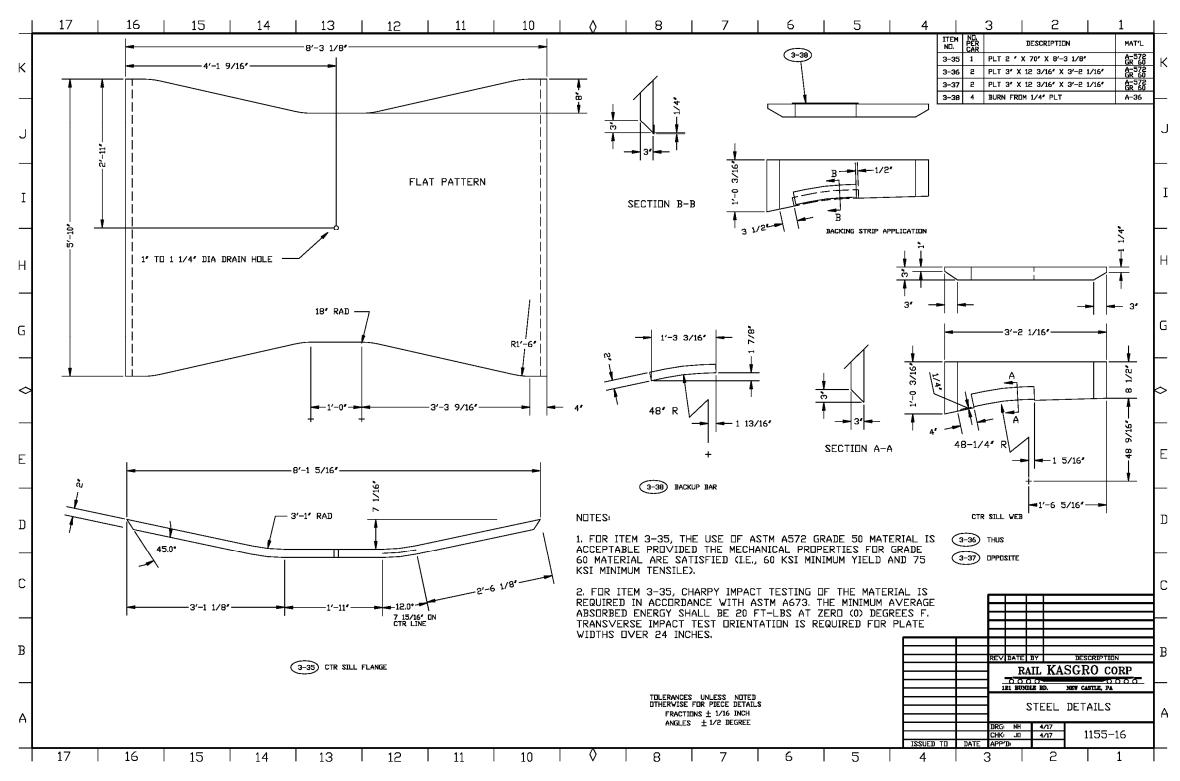




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 DOE Atlas Project

APPENDIX A.16 STEEL DETAILS

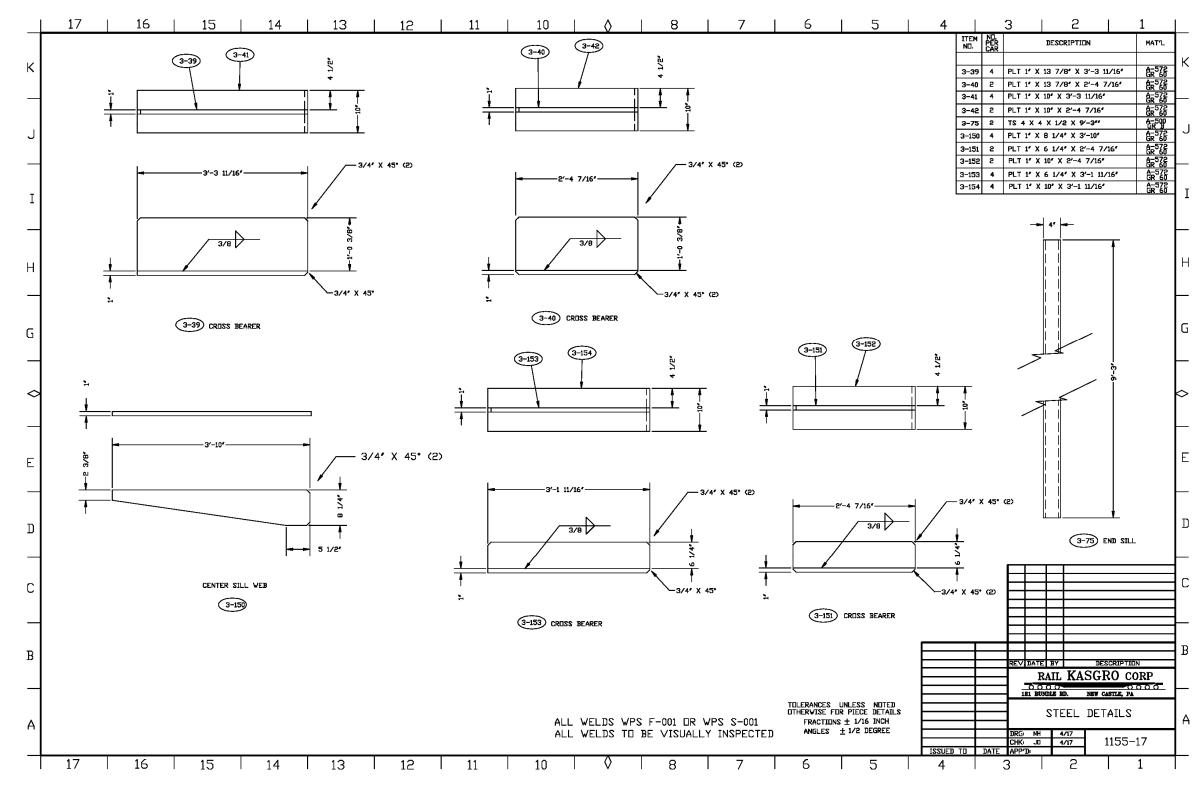




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APPENDIX A.17 STEEL DETAILS

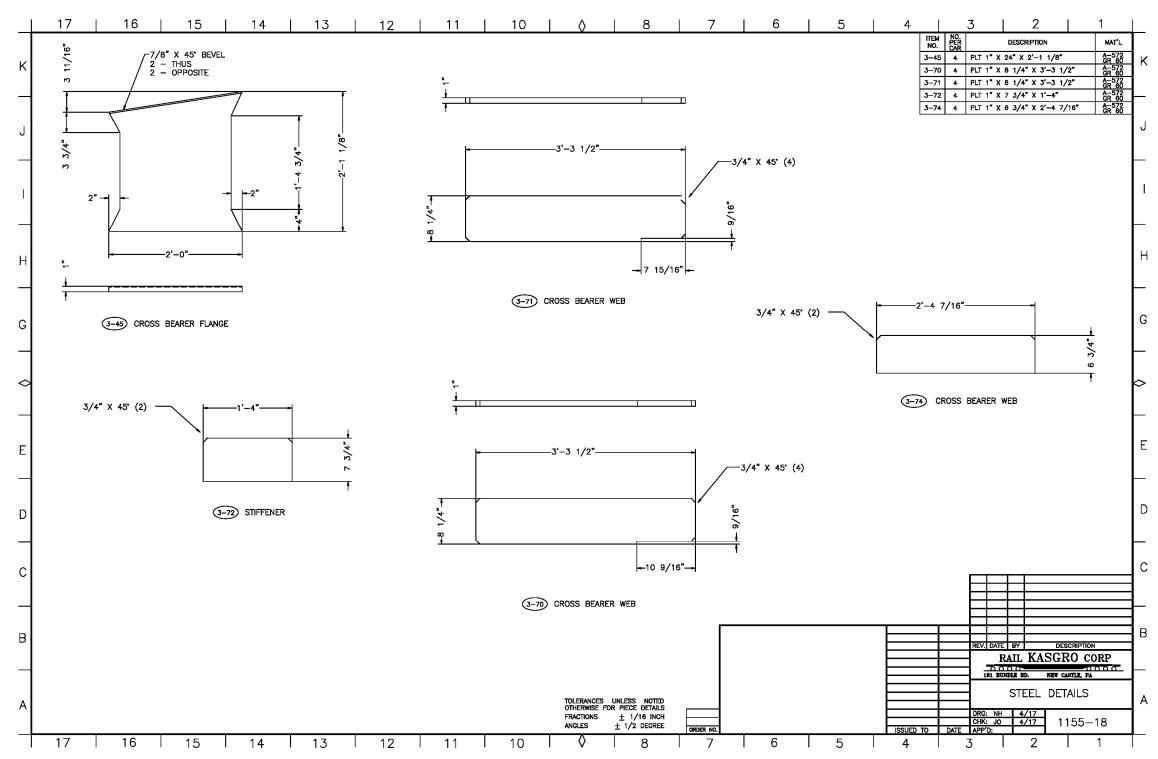




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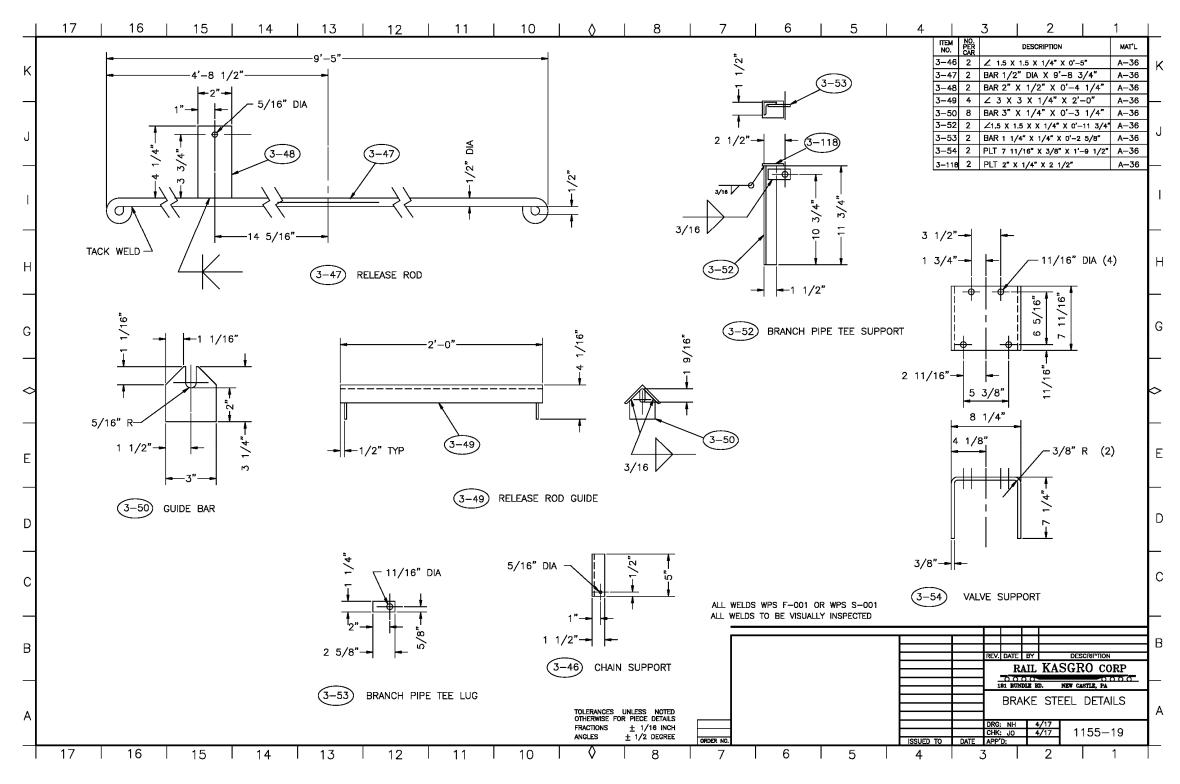
APPENDIX A.18 STEEL DETAILS



Page A.19



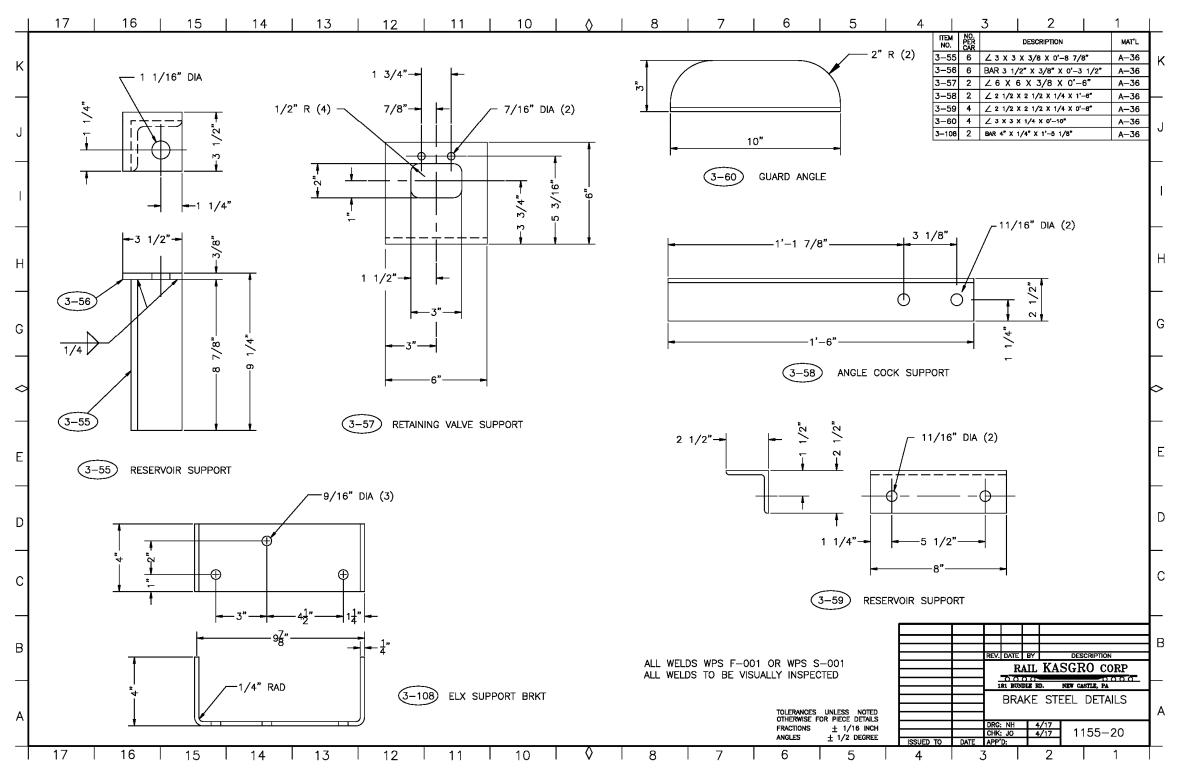
APPENDIX A.19 BRAKE STEEL DETAILS





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APPENDIX A.20 BRAKE STEEL DETAILS

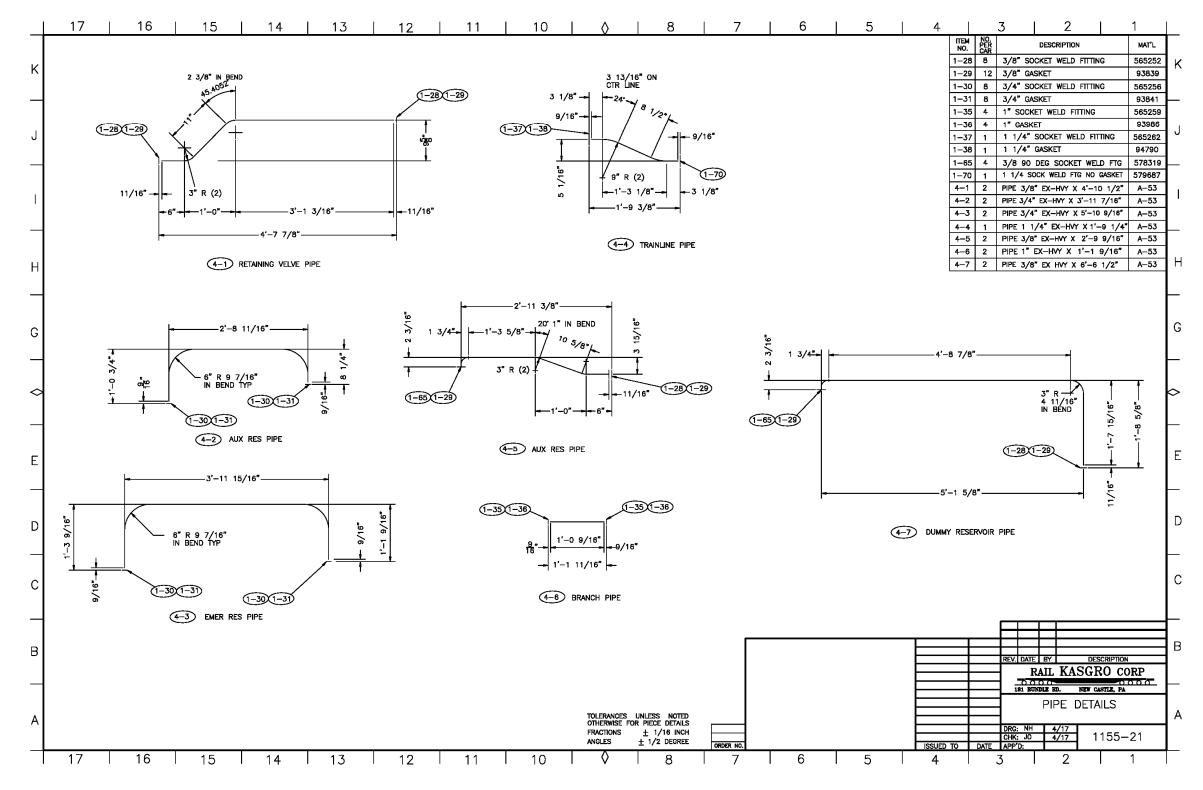


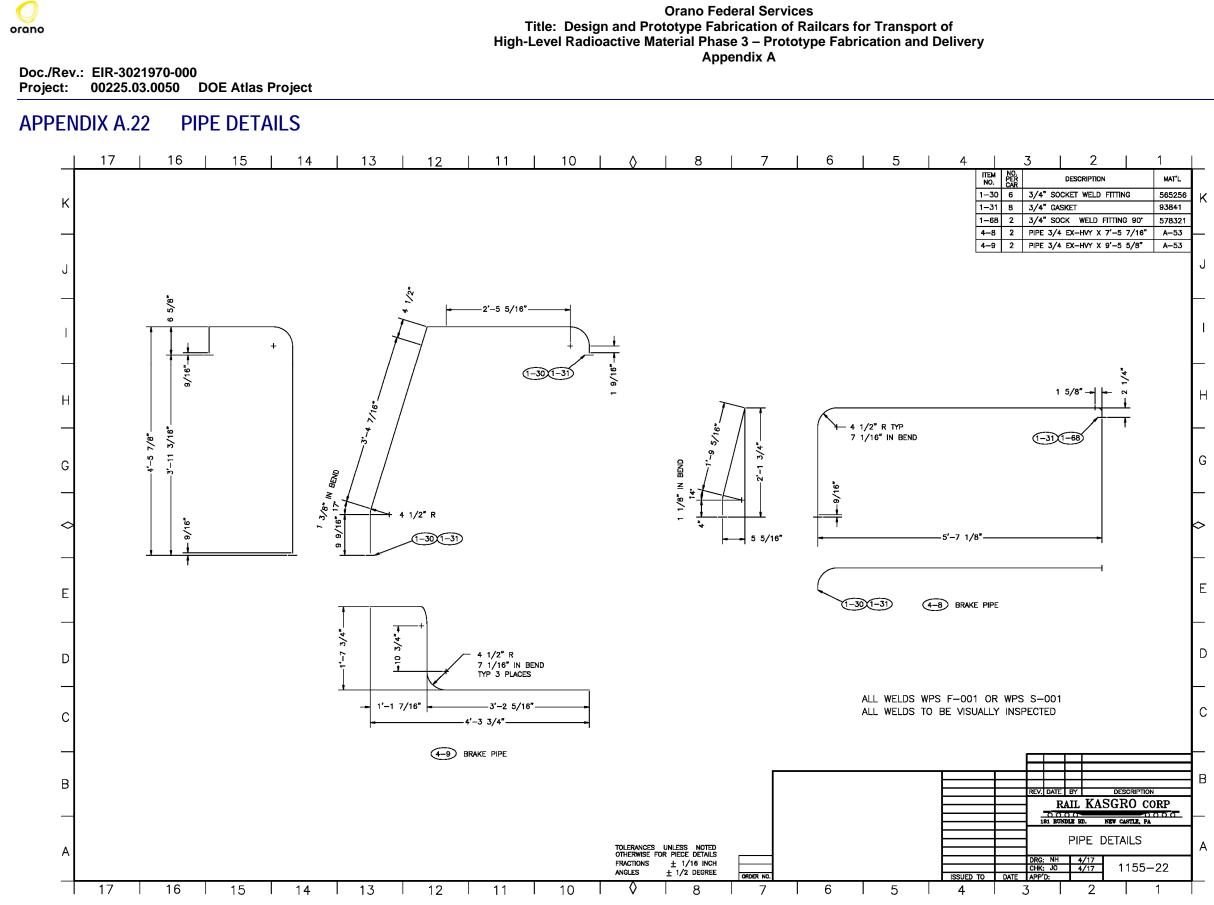


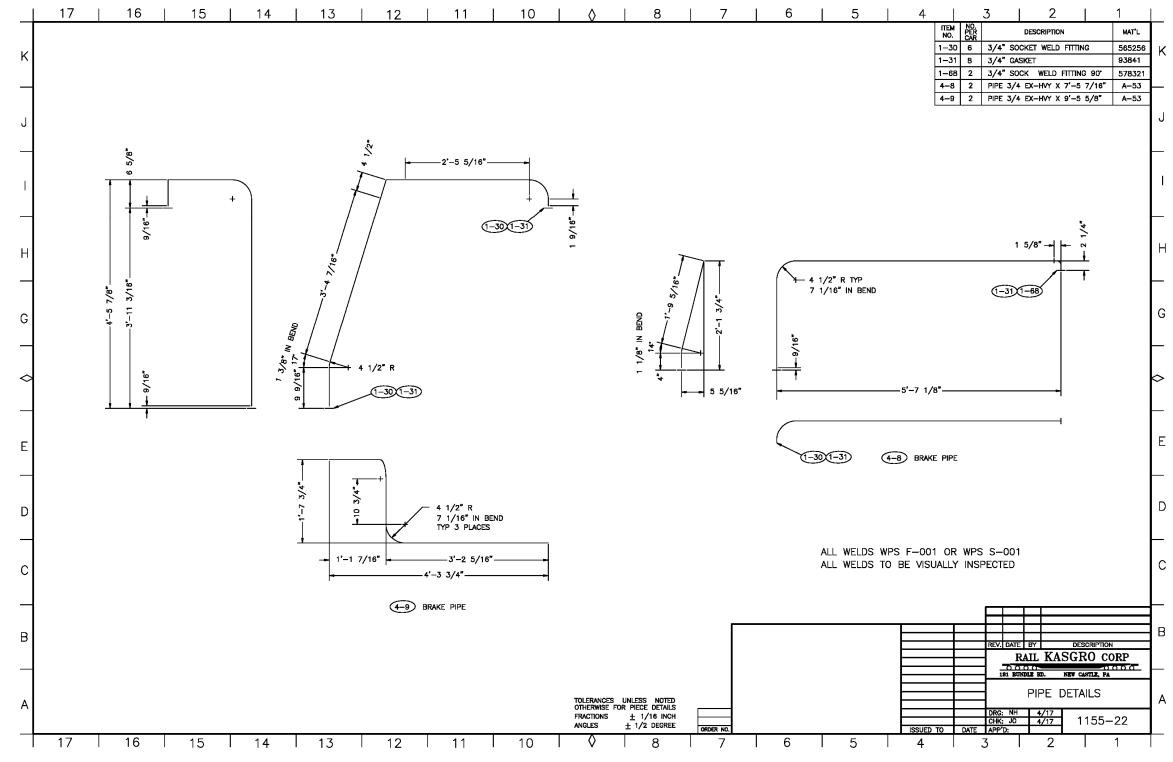
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APPENDIX A.21 PIPE DETAILS





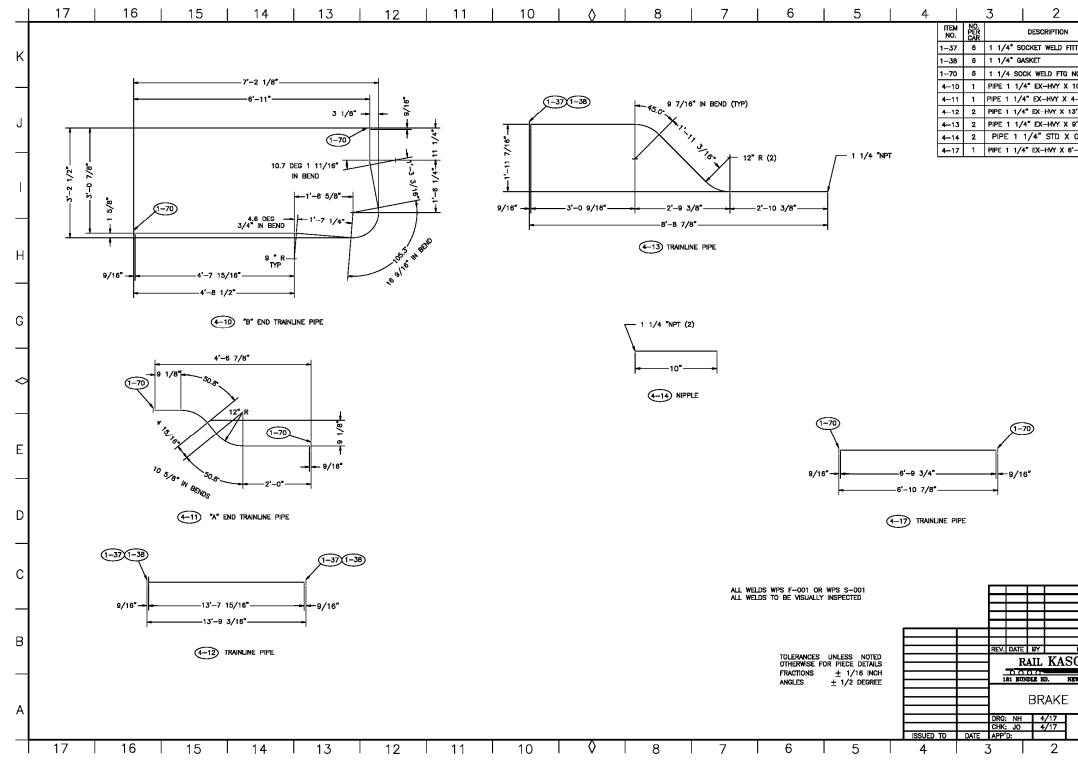




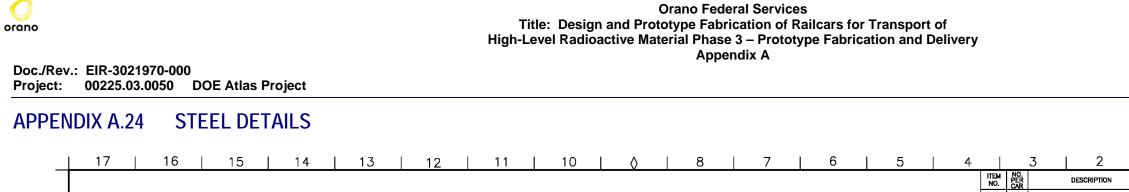
Appendix A

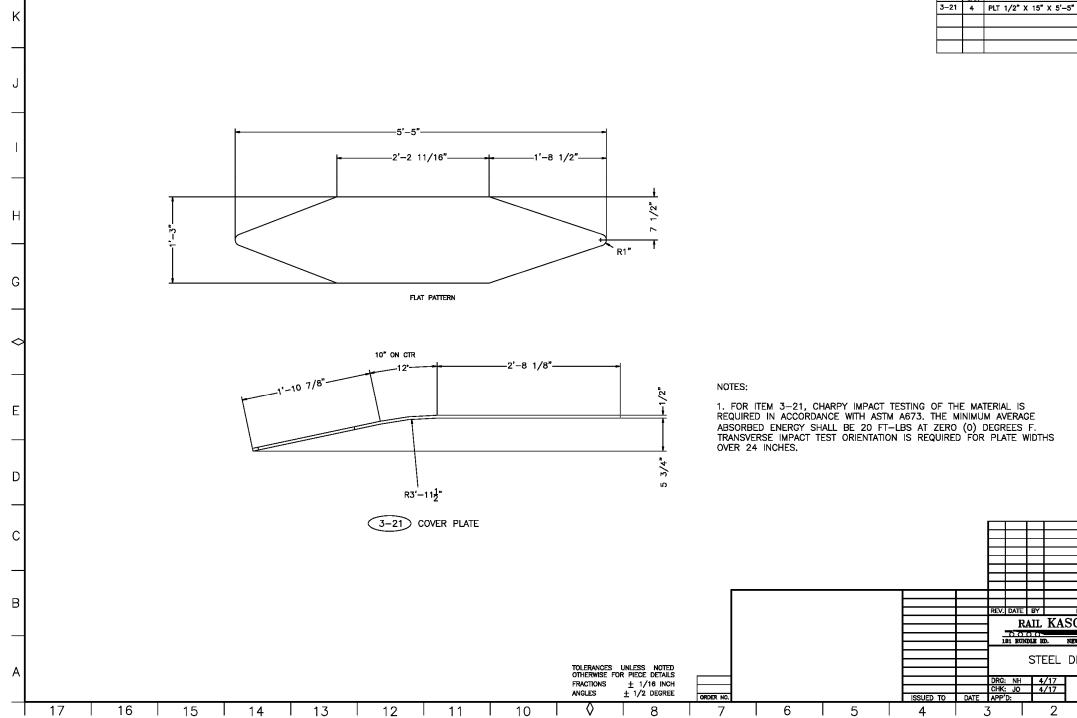
Doc./Rev.: EIR-3021970-000 Project: 00225.03.0050 DOE Atlas Project

APPENDIX A.23 BRAKE PIPES



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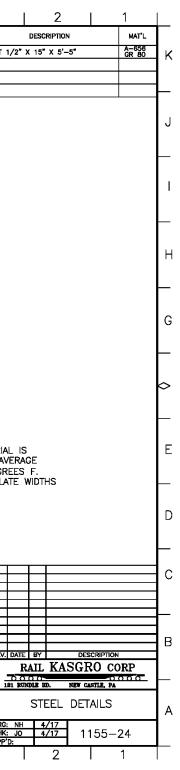




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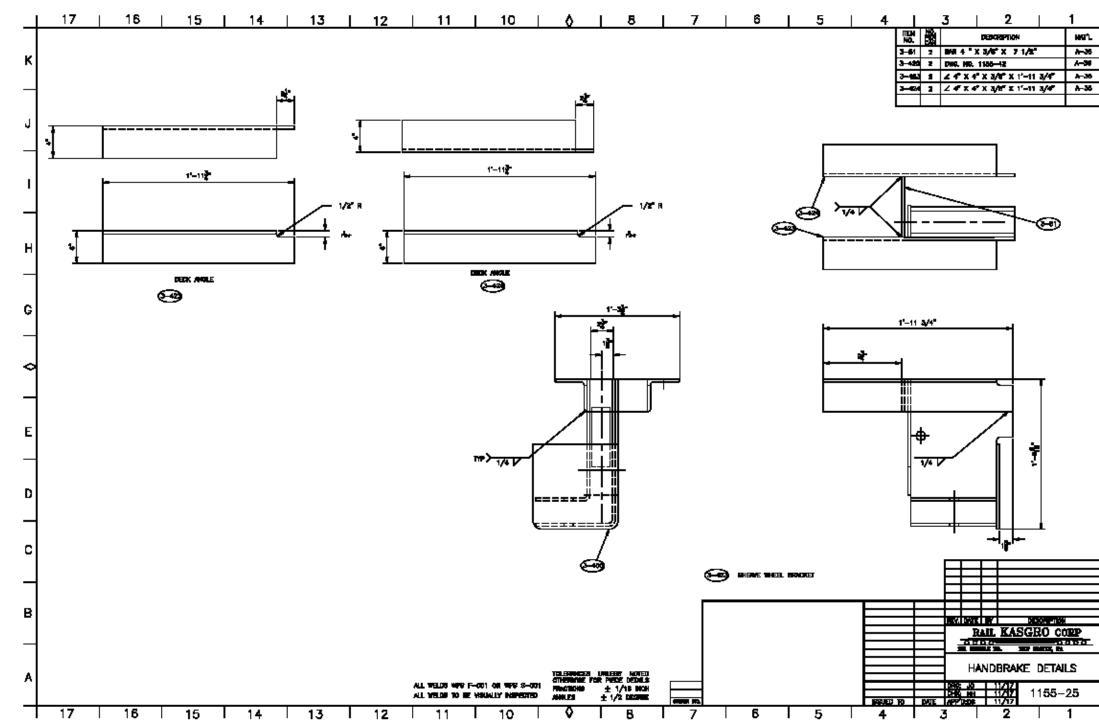
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APPENDIX A.25 HAND BRAKE DETAILS



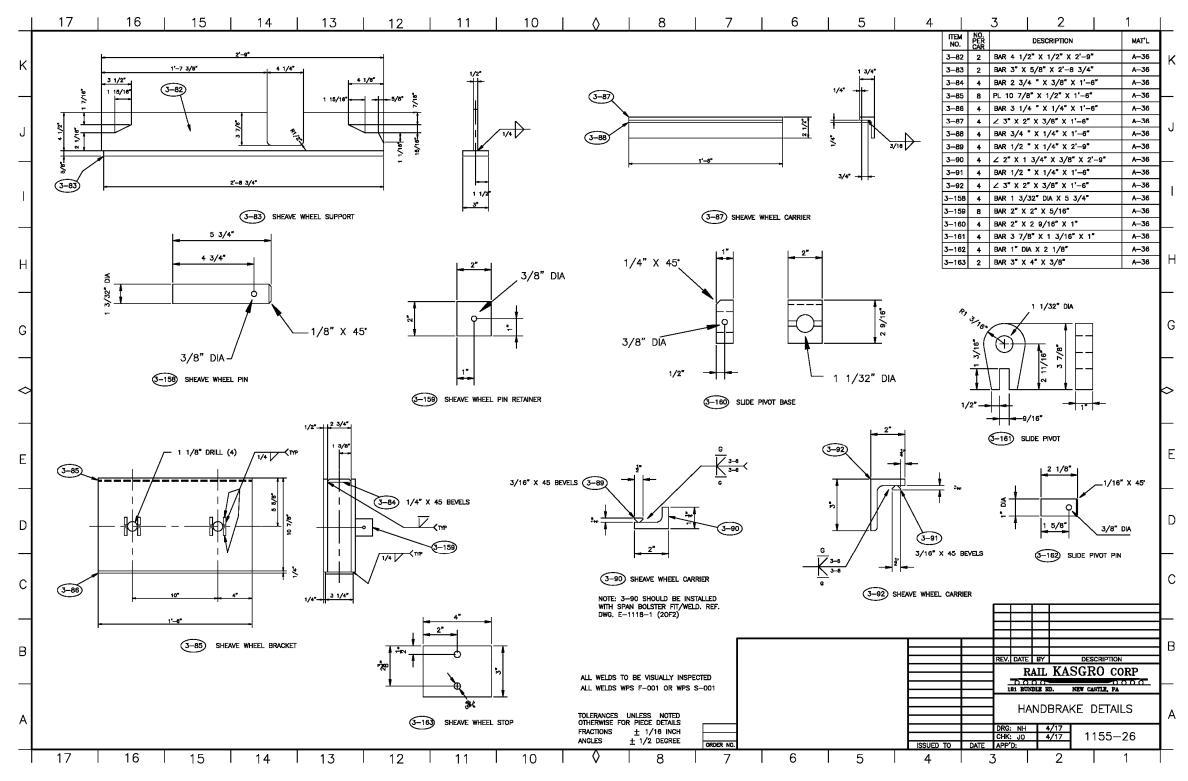




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APPENDIX A.26 HAND BRAKE DETAILS

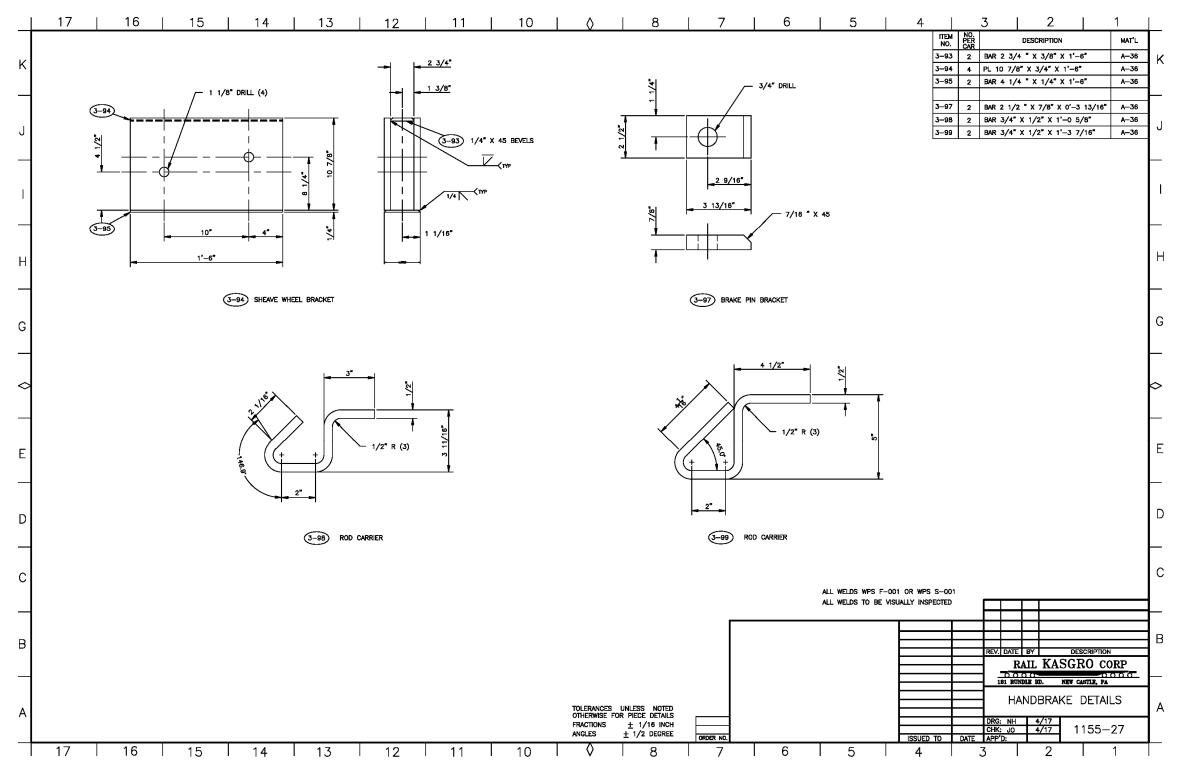




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APPENDIX A.27 HAND BRAKE DETAILS





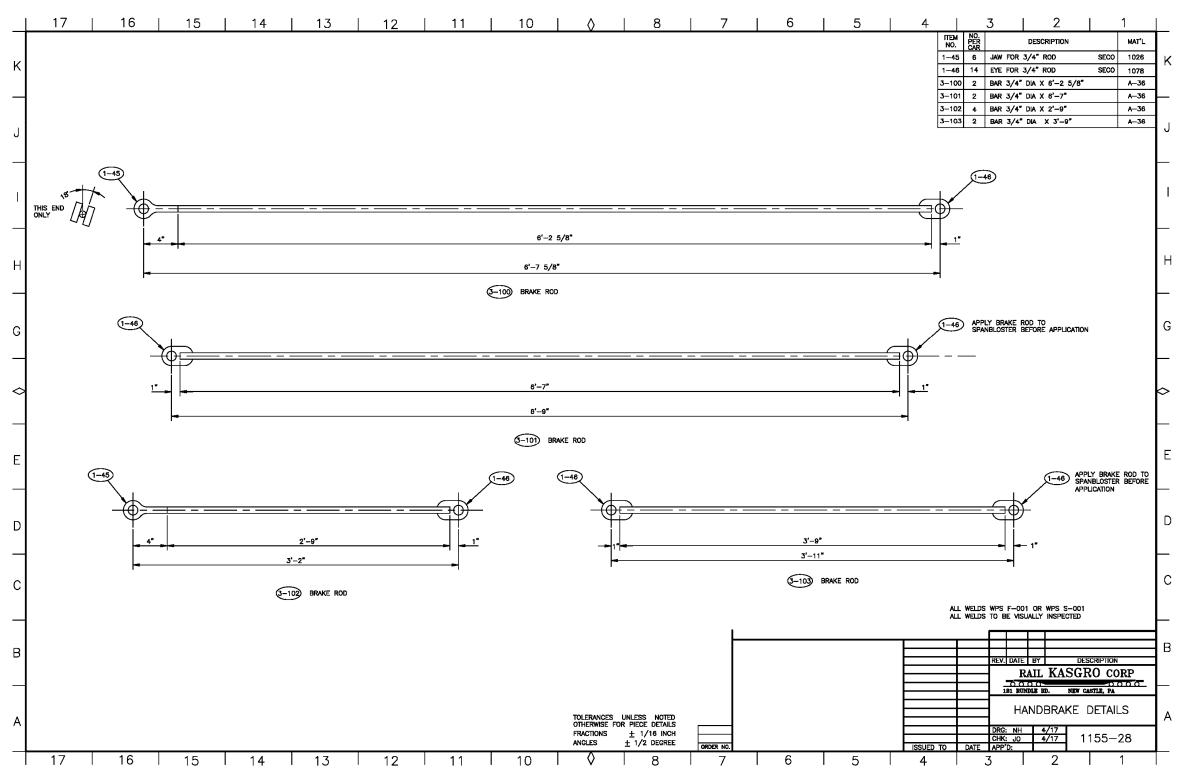
 Doc./Rev.:
 EIR-3021970-000

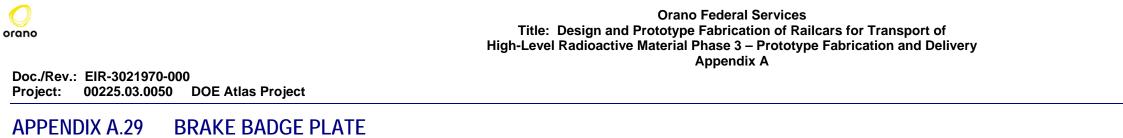
 Project:
 00225.03.0050
 DOE Atlas Project

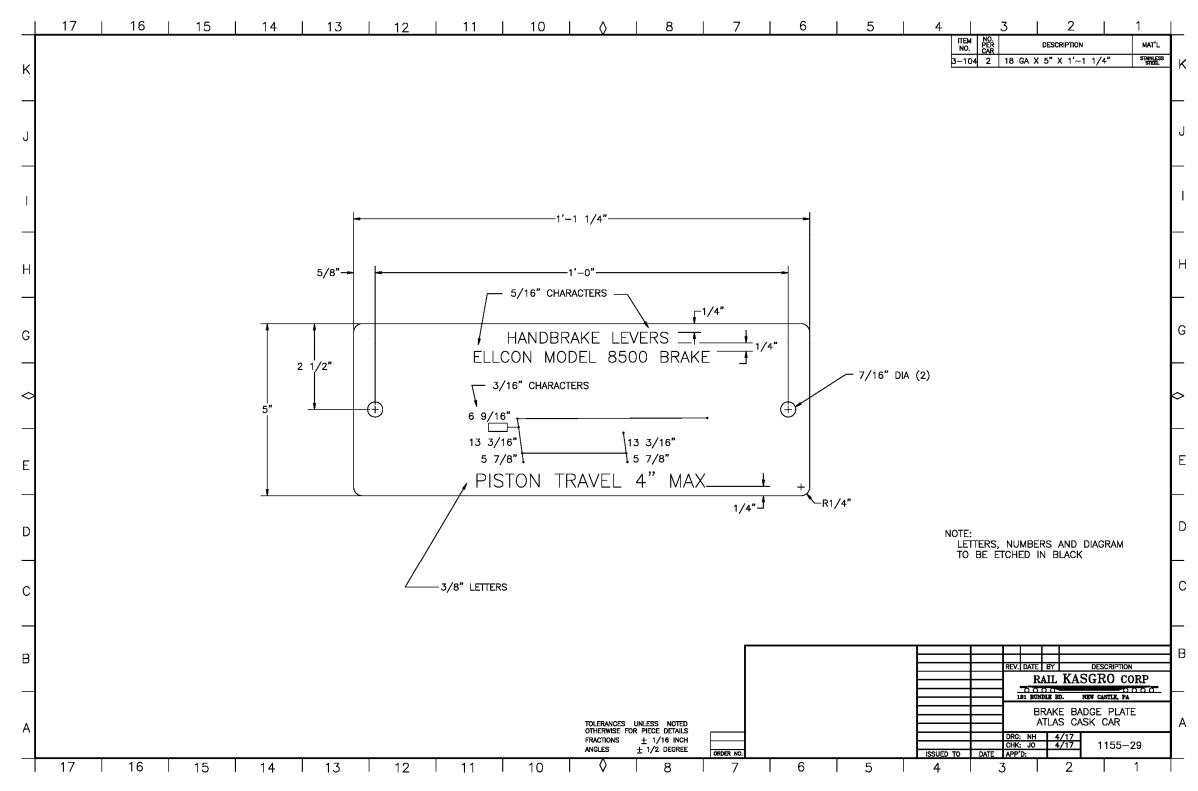
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APPENDIX A.28 HAND BRAKE DETAILS





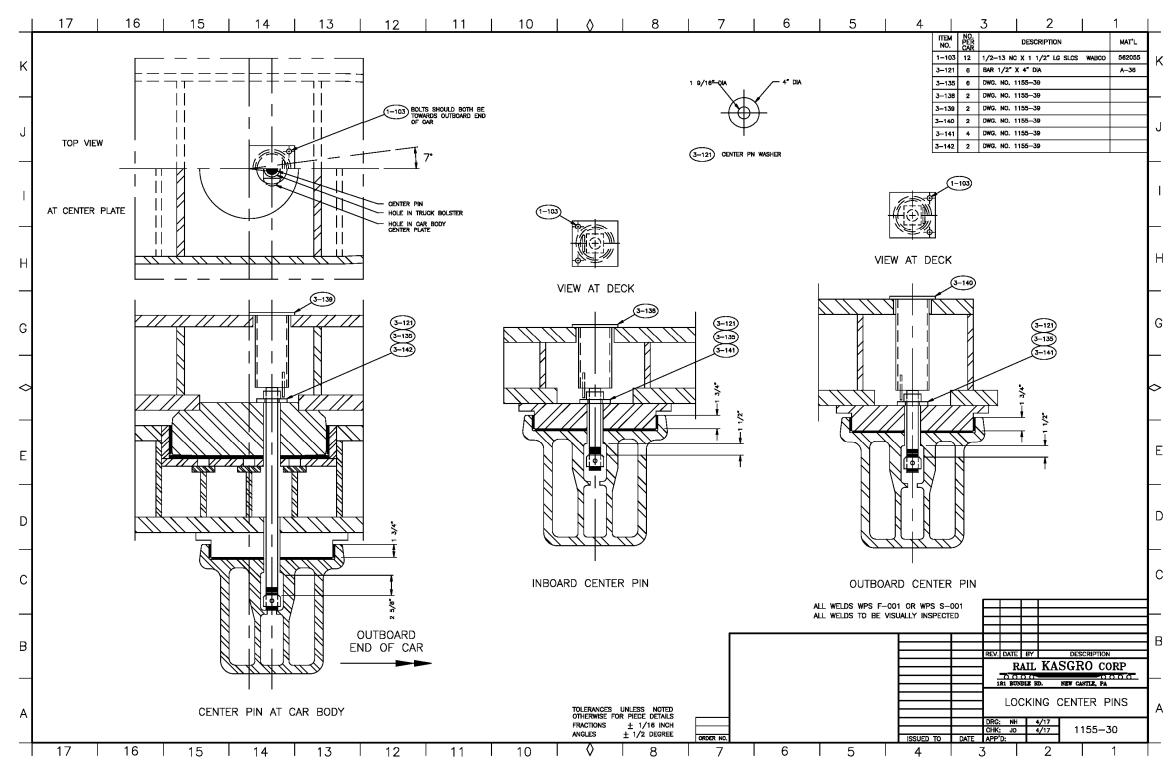




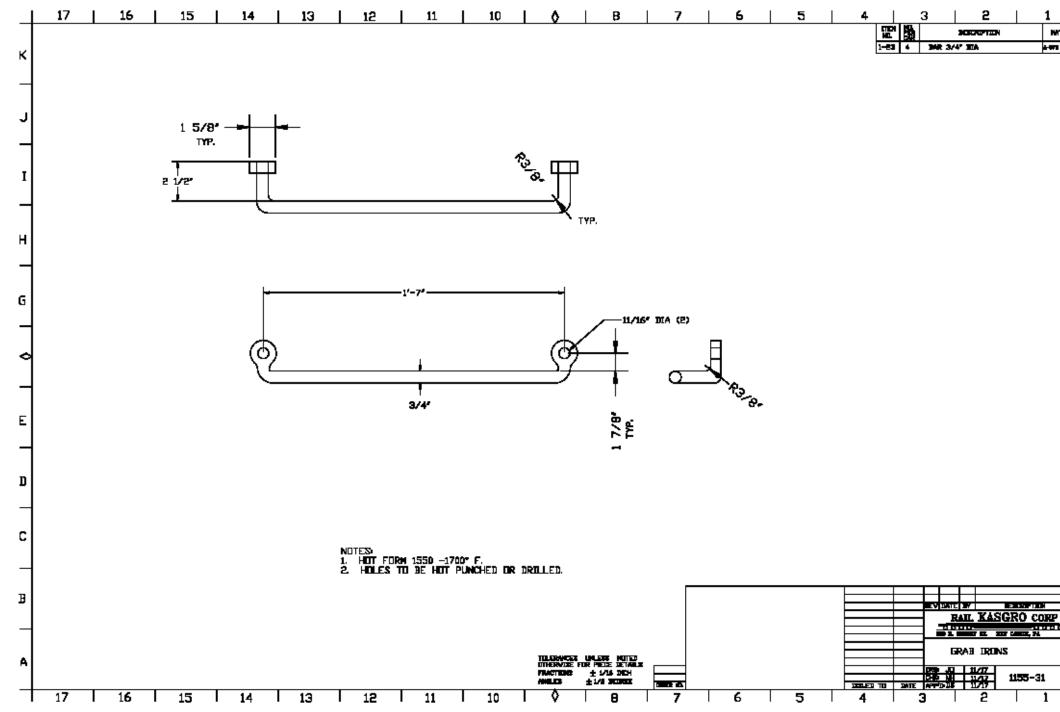
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APPENDIX A.30 LOCKING CENTER PINS











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APPENDIX A.32 SPRING GROUPING

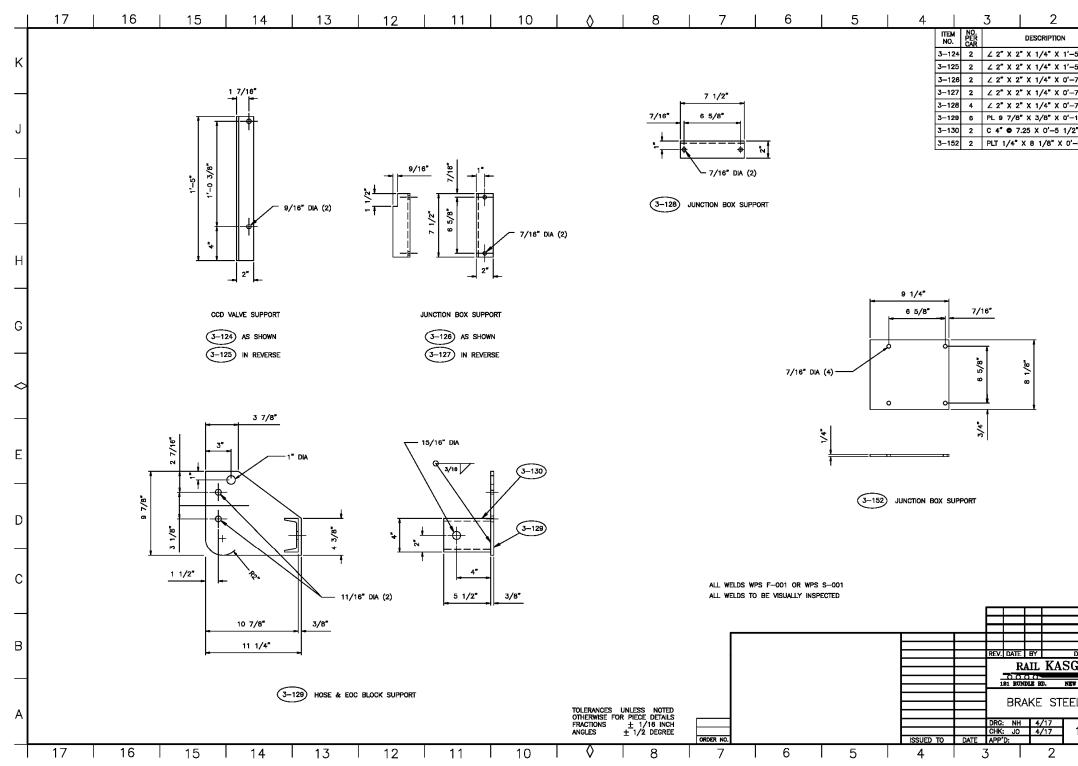
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J	1-90	8		DIL OUTER	0.844	3.81	5,50	13.00	6.69	1074	6781	54,248		1-96	16	EMPTY COIL OU		0.969	3.56	5.50	11.00	6.69	2409	10389	166,224
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А					10. SF	RING T	OLERANC	ALL SURF	DAD TES	TING SH			ED E	BY KASI	GRO PF	ROCEDURE NO.	12. THIS	TESTING	SHALL B	E		=	ATLAS	NG GROU	
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APPENDIX A.33 BRAKE STEEL DETAILS

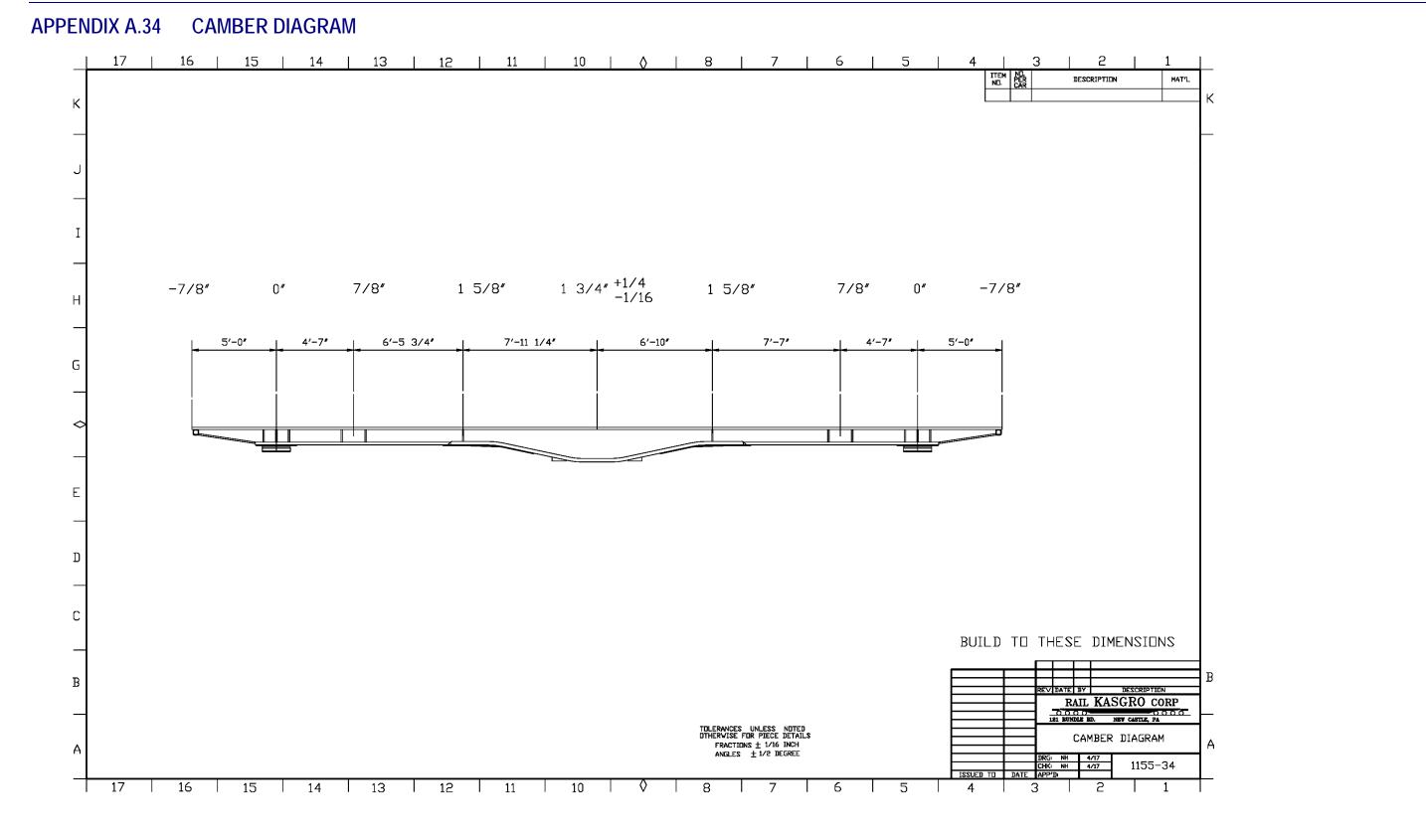


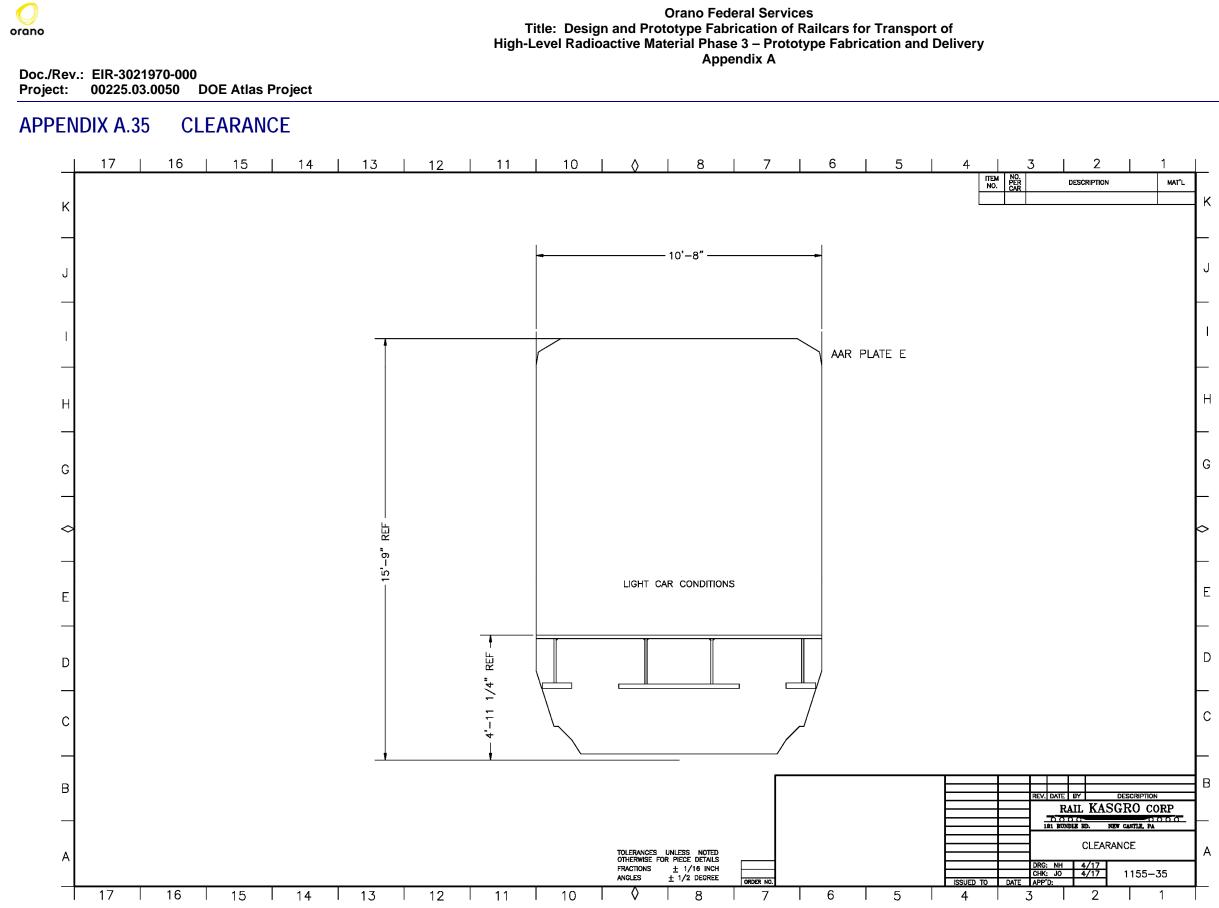
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7 1/2"	A-36	
7 1/2"	A-36	
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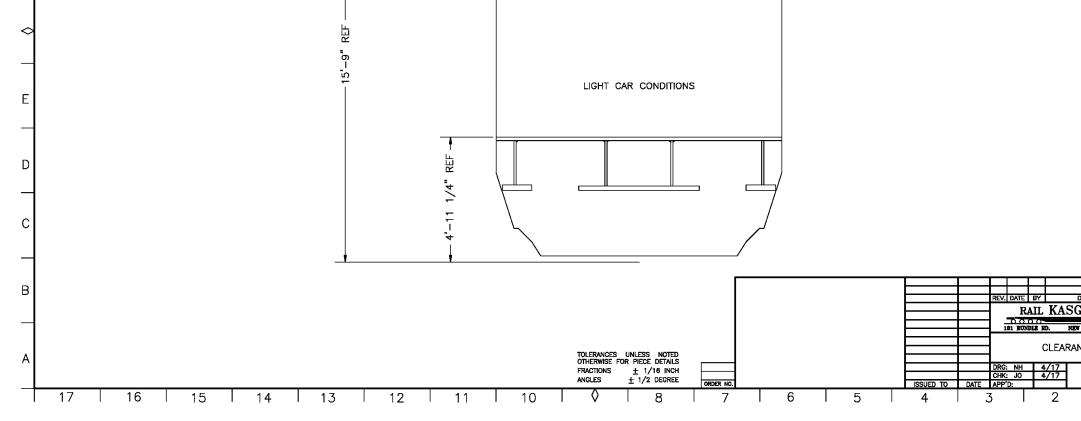


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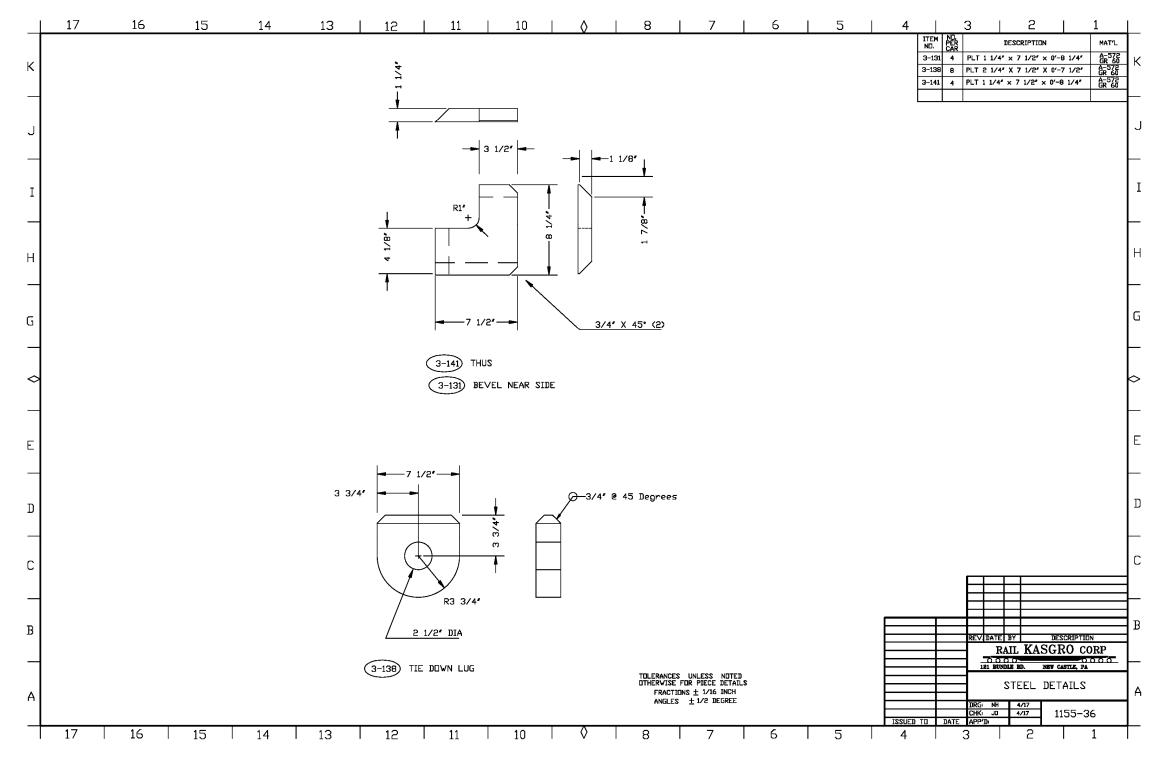


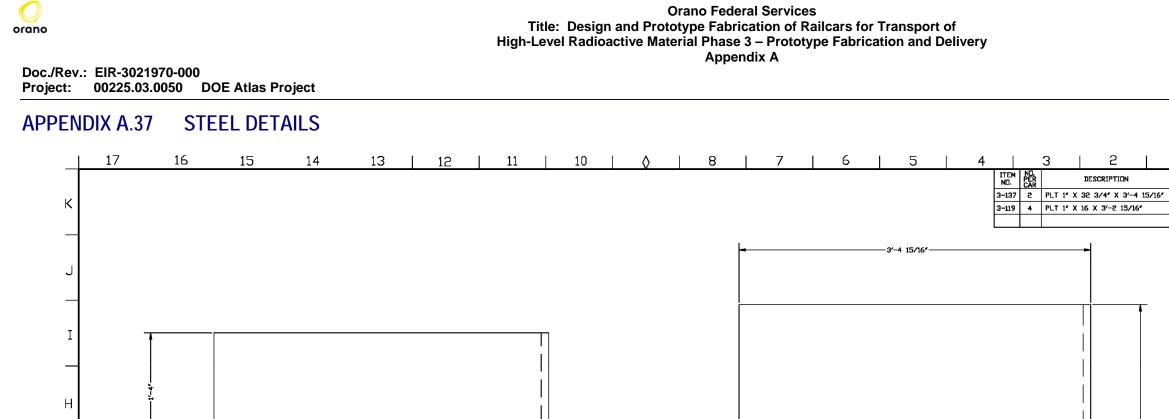


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APPENDIX A.36 STEEL DETAILS





7/8" X 45"

-3'-2 15/16'

(3-119) SIDE SILL FLANGE

1. FOR ITEMS 3-119 & 3-137, CHARPY IMPACT TESTING OF THE MATERIAL IS REQUIRED IN ACCORDANCE WITH ASTM A673, THE MINIMUM AVERAGE ABSORBED ENERGY SHALL BE 20 FT-LBS AT ZERD (0) DEGREES F. TRANSVERSE IMPACT TEST DRIENTATION IS REQUIRED FOR PLATE WIDTHS OVER 24 INCHES.

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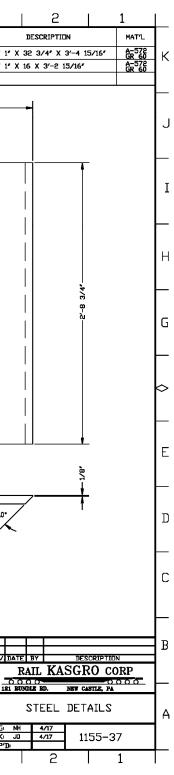
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45.0*

(3-137) CENTER SILL FLANGE

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TOLERANCES UNLESS NOTED DTHERWISE FOR PIECE DETAILS FRACTIONS \pm 1/16 INCH ANGLES \pm 1/2 DEGREE

7

8

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EV DATE BY

DRG: NH 4/17 CHK: JD 4/17

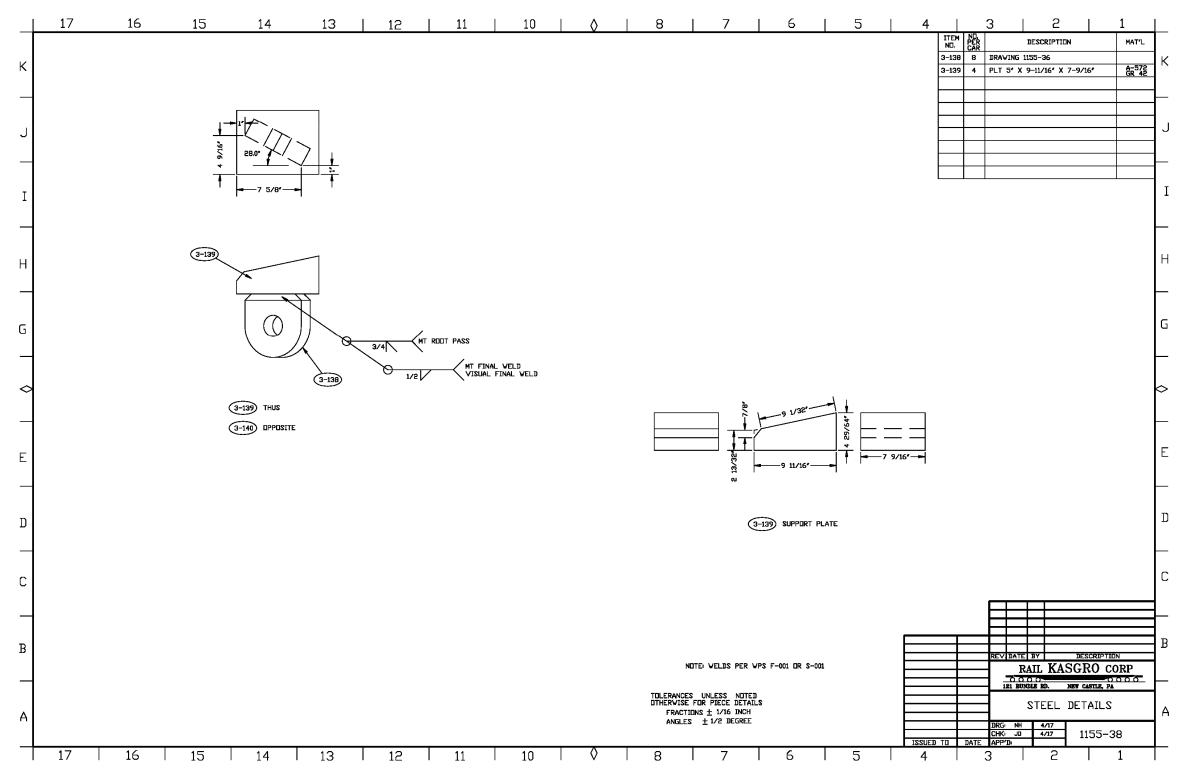
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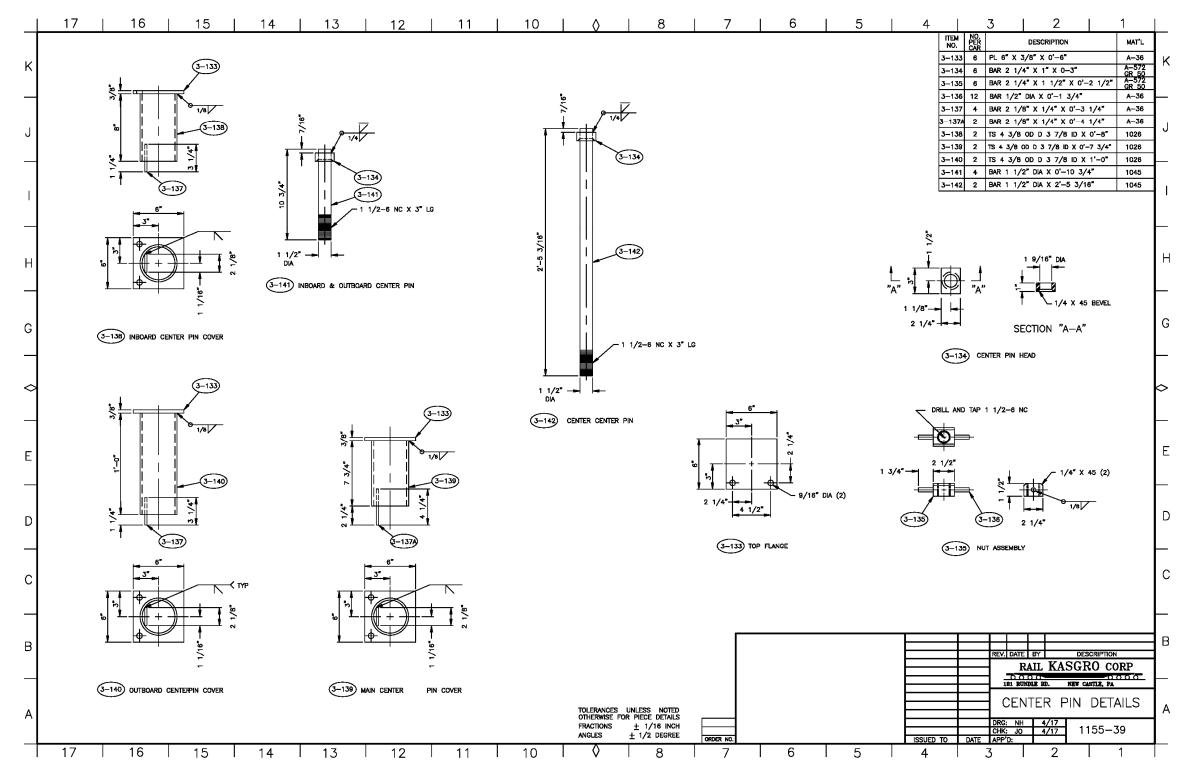
APPENDIX A.38 STEEL DETAILS





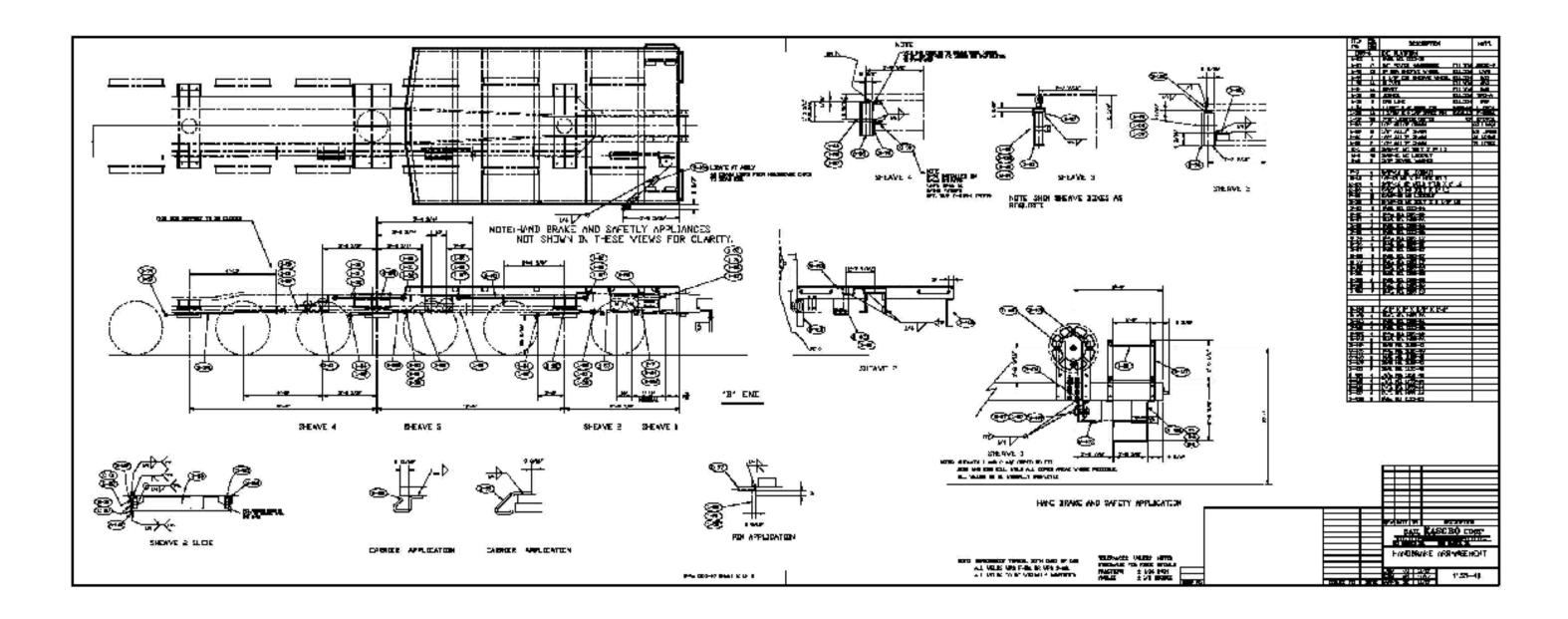
Orano Federal Services Title: Design and Prototype Fabrication of Railcars for Transport of High-Level Radioactive Material Phase 3 – Prototype Fabrication and Delivery Appendix A

APPENDIX A.39 CENTER PIN DETAILS



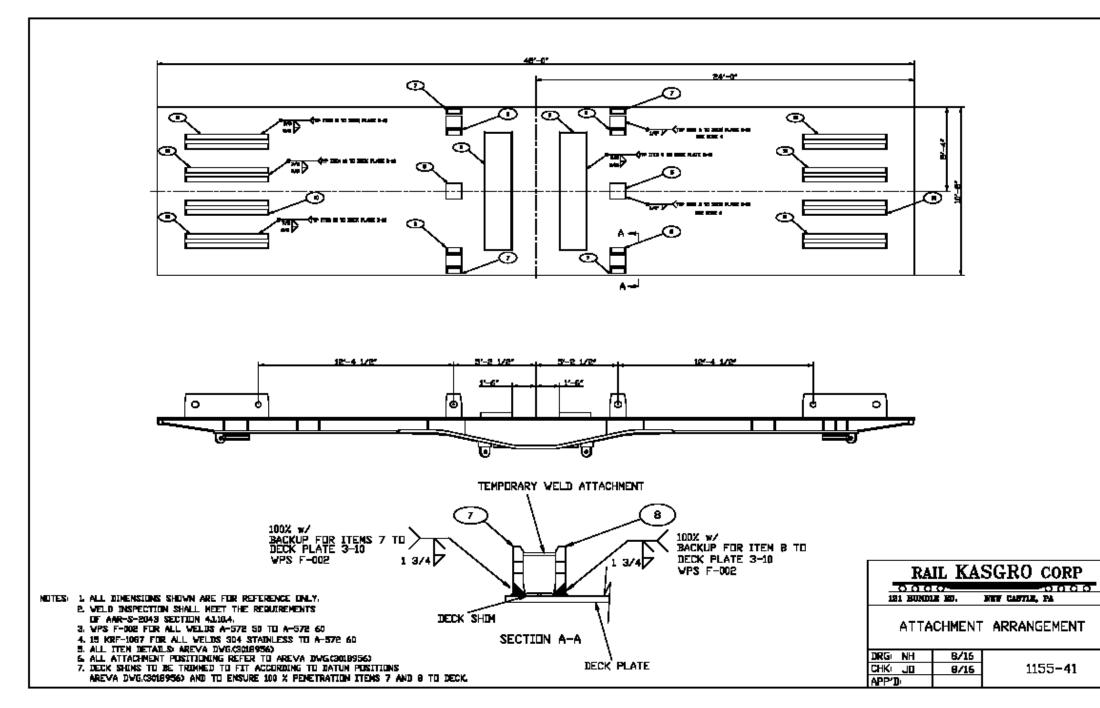


APPENDIX A.40 HANDBRAKE ARRANGEMENT





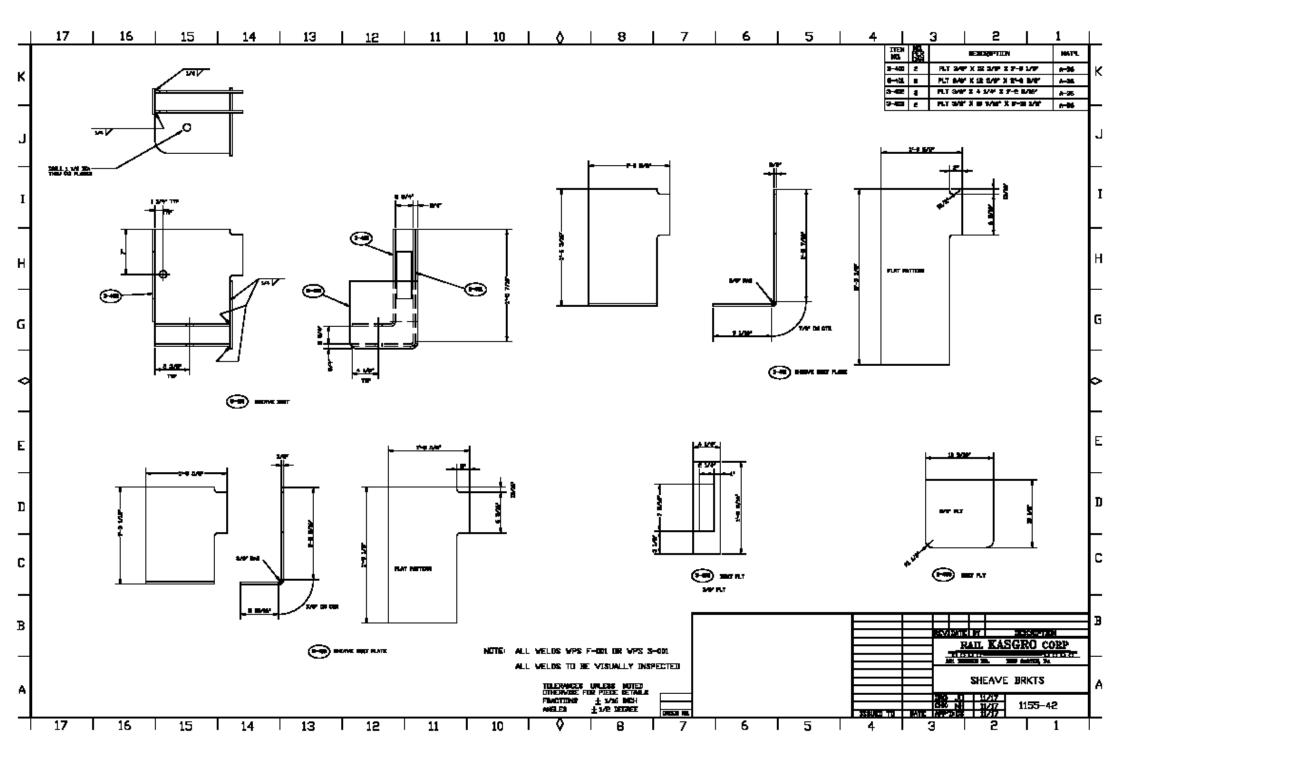
APPENDIX A.41 ATTACHMENT ARRANGEMENT





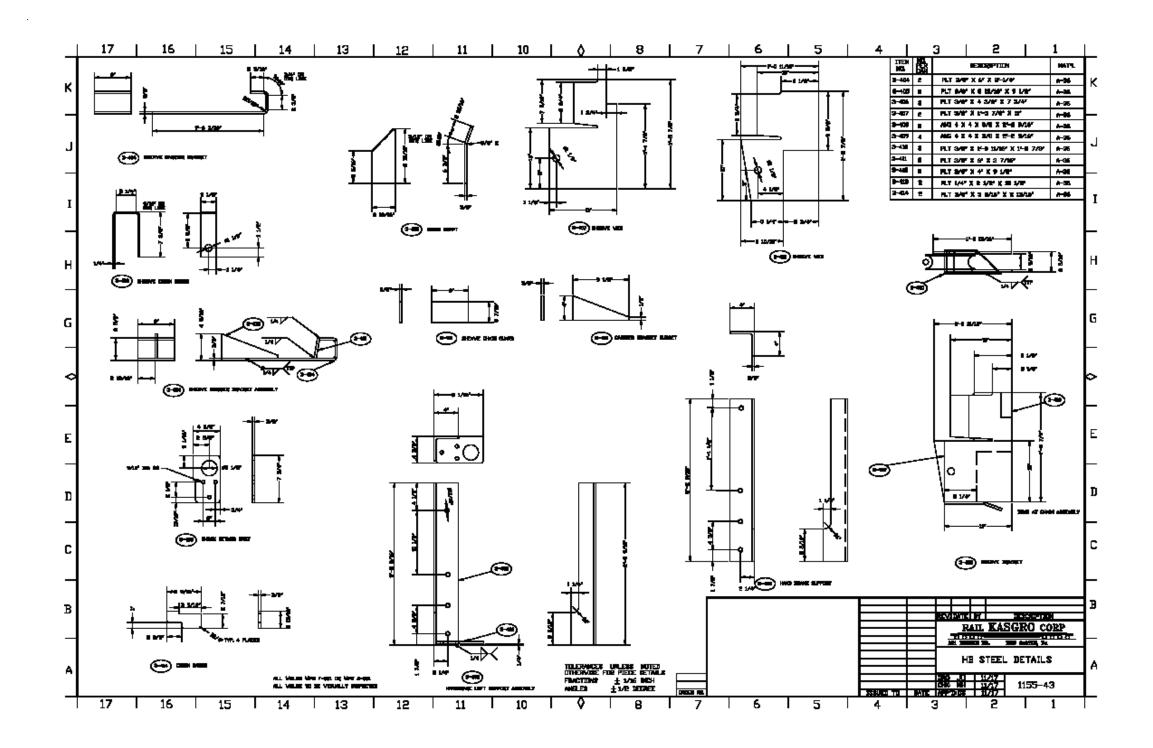


APPENDIX A.42 SHEAVE BRKTS





APPENDIX A.43 HB (HANDBRAKE) STEEL DETAILS

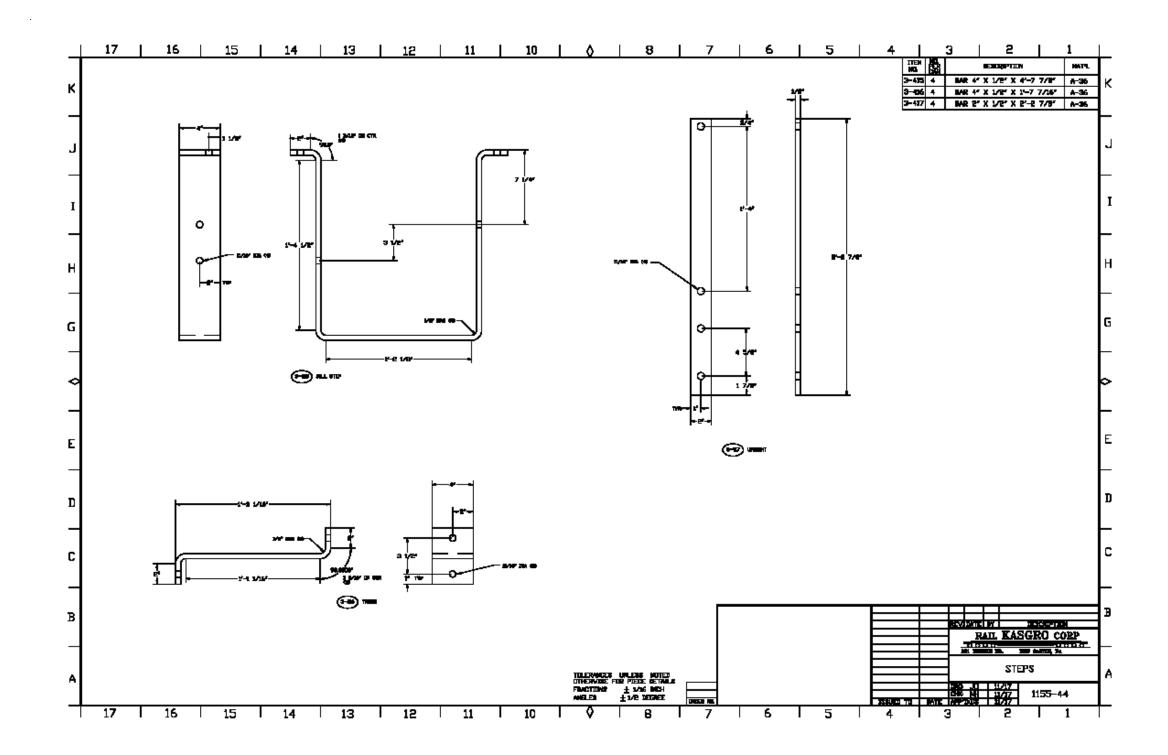


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APPENDIX A.44 STEPS



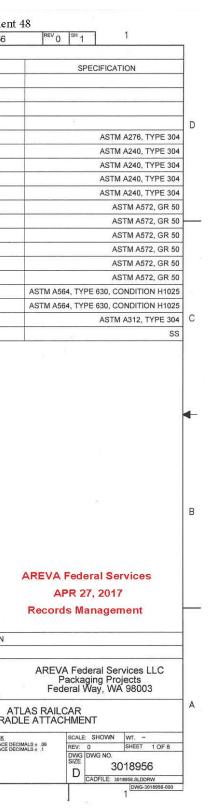
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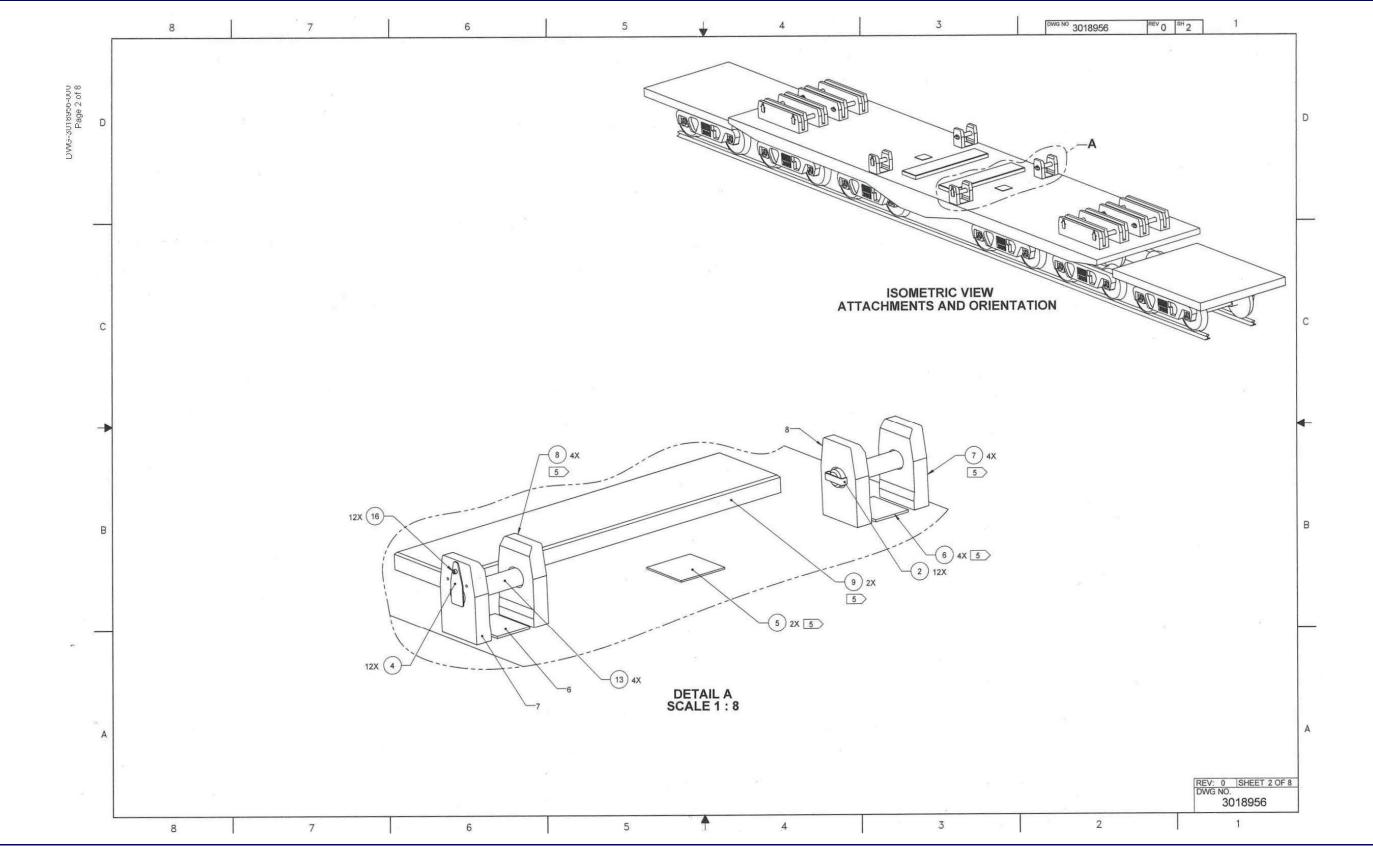
APPENDIX A.45 ATLAS RAILCAR CRADLE ATTACHMENT

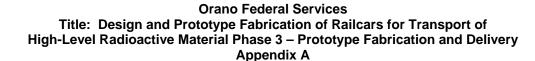
		8	ì	7	ſ	6	ĩ		5	ĩ			4		с. Г	3	1		chment 4
ſ		0		7		0			5	V			4			3		DWG NO 30	18956
	NOTE	S UNLESS	OTHERWISE SPECIF	FIFD.								OTY	OTY				LIST OF M		
000 of 8											S/D	QTY A2	QTY A1	ITEM NO	PART NO		DESCRI	Contract Constitutions for	
	1.	1. WELD PER AWS D15.1 AND AWS D1.6 FOR WELDMENT A2."											$ \ge $	A1			ATTACHMENT C	And the Charles of the	
e 1 c	2.	ALL LUG AN	D SHEAR KEY WELDS AF	RE CRITICAL WELL	DS AS DEFINED B	BY AAR S-2043.				12		\land	AR	A2		PINLOAL	NING WELDWIEN		
DWG-3018956-000 Page 1 of 8 D	3. VISUALLY INSPECT (VT) ALL WELDS EXCEPT WELDMENT A2 PER AWS D15.1, CLAUSE 17.2.												1	1		ATLAS R			
		ALL INSPECTIONS MUST BE PERFORMED BY AN AWS CERTIFIED WELDING' INSPECTOR. VISUALLY INSPECT WELDMENT A2 WELDS PER AWS D1.6 CLAUSE 6.28.1.											12	2			THK X 9 X 1.5		
	4.	4. ATTACH ITEM 2 PIN KEEPER TO ITEM 8 AND 10 USING 1/8 INCH FILLET WELDS.										1	12	3	· · · · · · · · · · · · · · · · · · ·		25 THK X 8 X 19.	2	
													12	4			25 THK X 4 X 10		
	5	THE WELD CONNECTION TO THE RAILCAR DECK TO BE SPECIFIED BY KASGRO RAIL. THE REQUIRED WELD FORCE FOR EACH CONNECTION IS SPECIFIED BELOW:										2	5			8 THK X 12. X 1	2	1 mar 1	
_			WELD		FORCES APPLIED TO WELD			7				4	6	Ъ.	PLATE, .5	PLATE, .50 THK X 9 X 12			
				0.0000000000000	730 KIP (VERTICAL) AT PIN SLOT			-			· · ·	4	7		PLATE, 4.0 THK X 12 X 18				
			CENTER PIN ATTACHMENT BLOCK WELD ITEM 7-8 TO DECK	WELD 6	611 KIP (LATERAL) AT BRACKET AND 312 KIP (VERTICAL) AT			-				4	8		PLATE, 4	0 THK X 12 X 18	l.		
		TILIN FOR	0.52010			PIN SLOT							2	9		PLATE, 4	PLATE, 4.0 THK X 21 X 90		
			OCKS WELD		2,921	I KIPS (LONGITUDINA	AL)			9			4	10		PLATE C	ENTER, 11 THK	X 64 X 18	
		ITEM 9 TO	N ATTACHMENT BLOCK V	WELDS	944 KIP (LONGITU	JDINAL) AND 1,077 KI	P (VERTICAL	UP) AT	-	9			2	11		PLATE, L	EFT 11 THK X 6	64 X 18	
с			TO DECK			1,077 (VERTICAL DOV			т	9			2	12		PLATE, R	IGHT 11 THK X	64 X 18	
		REINFORCE	MENT SHALL NOT EXCE	ED THE HEIGHT O	F THE ITEM 6 PL	ATES, WELD INSPEC	TION SHALL M	MEET					4	13		ROUND,	Ø4.0 X 20.7		
			REMENTS OF AAR-S-2043										8	14		ROUND,	Ø4.0 X 37.2		
	6			DLES AND THREADED HOLES SHALL BE CLEANED AND COATED								1		15		PIPE, 5.0	SCHEDULE 40 >	〈 40.0	
		WITH GREASE.									2	AR	16		SHCS, 5/8	3-11 UNC X 1.25			
->	9	SHALL BE N APPLY A ST WELD OVER THE DIMENS MAY BE FAB PER GENER PER GENER THE HEIGHT OF NOTE 7. MUST PROV AS A DATUM	DF RAIL. WHEN LOADED O MORE THAN 57.125 INC AINLESS STEEL FACING SLAY THAT IS AT LEAST. (SIONS OF OPENINGS AND BRICATED FROM THREE I AL NOTE 3 AND UT OR R " OF THE ITEM 5 AND ITE THE DIMENSION BETWE TOE CLEARANCE OVER T I POINT SHALL BE BELOV APPLIES TO OUTBOARD	CHES FROM TOP (TO THESE SURFA 05 INCHES THICK, D LOCATIONS MUS PIECES USING FU TPER AWS D15.1 M 6 PLATES MAY EEN ITEM 5 AND IT THE RAILCAR CAM W THE PLANE DEF	DF RAIL. CES. THE FACIN AND NO GREATE ST BE MET AFTEF LL PENETRATION CLAUSE17.3 OR BE ADJUSTED AS EM 6 SHALL BE M BER WHEN UNLO INED AS DATUM	G MAY BE CLADDING R THAN .13 INCHES R THE FACING IS APF N WELDS. PERFORM 17.2 RESPECTIVELY. NEEDED TO MEET T MAINTAINED. THE TO DADED. THE ITEM 6 F A.	G OR THICK. PLIED. VT THE REQUIRE OP SURFACE (MENTS DF ITEM 6											
В					EATEST THICKNE	ESS ON THEM 8.													
	12	QUANTITY C	OF PIN LOADING WELDME	ENT OPTIONAL.															2
							*								a A				
A															REV			DESCRI	a constant a second
																1		REVISION HIST	ORY
				\searrow					NAME	SIGNATURE	DATE	ARE	/ A						
									CH CHK S OUTA	Susan	4/26/17	DWG TITLE	ATL CRADLI						
		2			NA NEXT AS	SY FIN	AL ASSY DI	RAWN R. LE	in Stable	4/26/17	TOLERANC FRACTIONS ± 1/8 ANGLES ± 1*	2 PLACE DECIM							
		543				- 									UALESS OTHERWISE SPECIFIED; INTERPRET DRAWING 3 FOLSEANCES PER ASME Y14,5-2009 (REVISION OF ASME Y14,5M-1984) INTERPRET VIELD CALLOUTS PER ANSIAWS A2.4 DIMENSIONS ARE IN INCHES			MOREO I 1	
		8		7		6	l		5	A			4			3			2





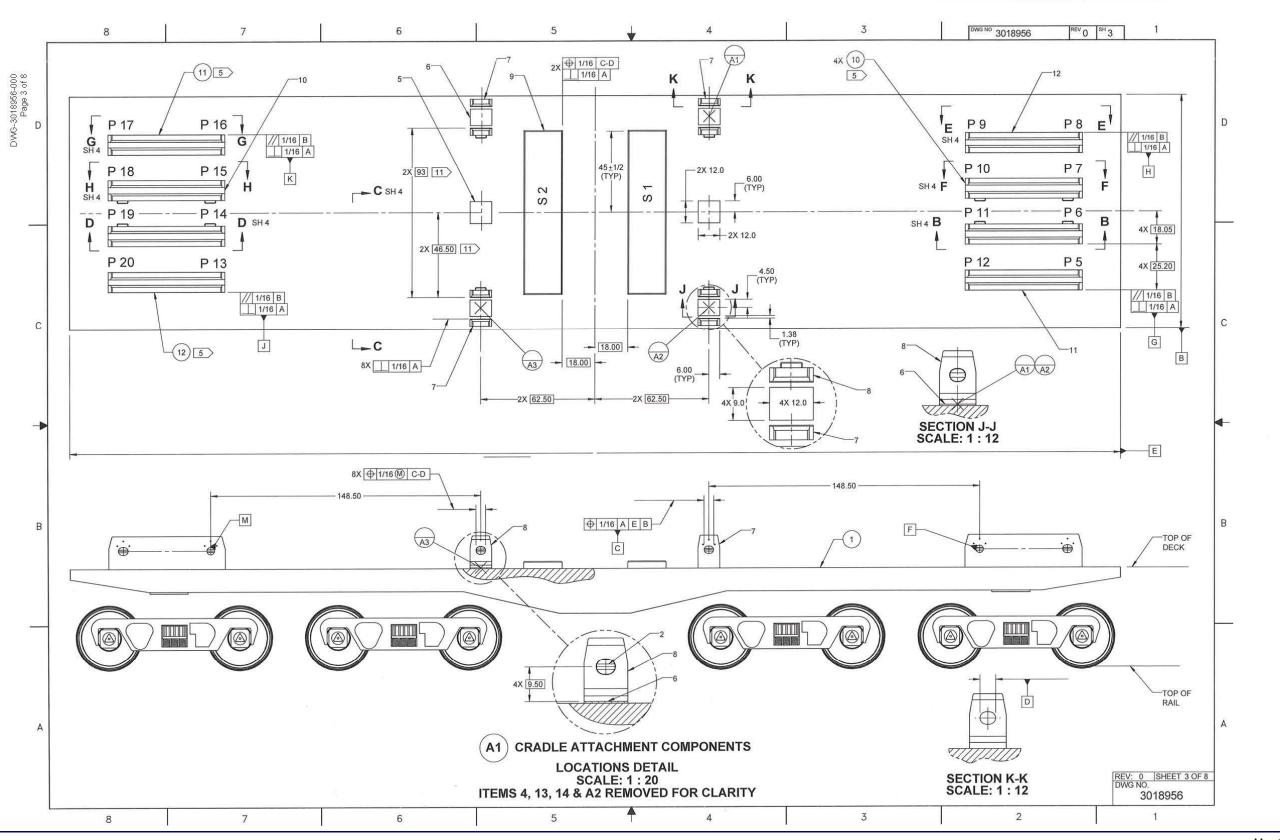
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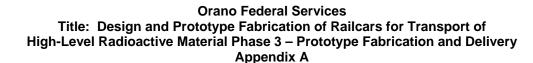


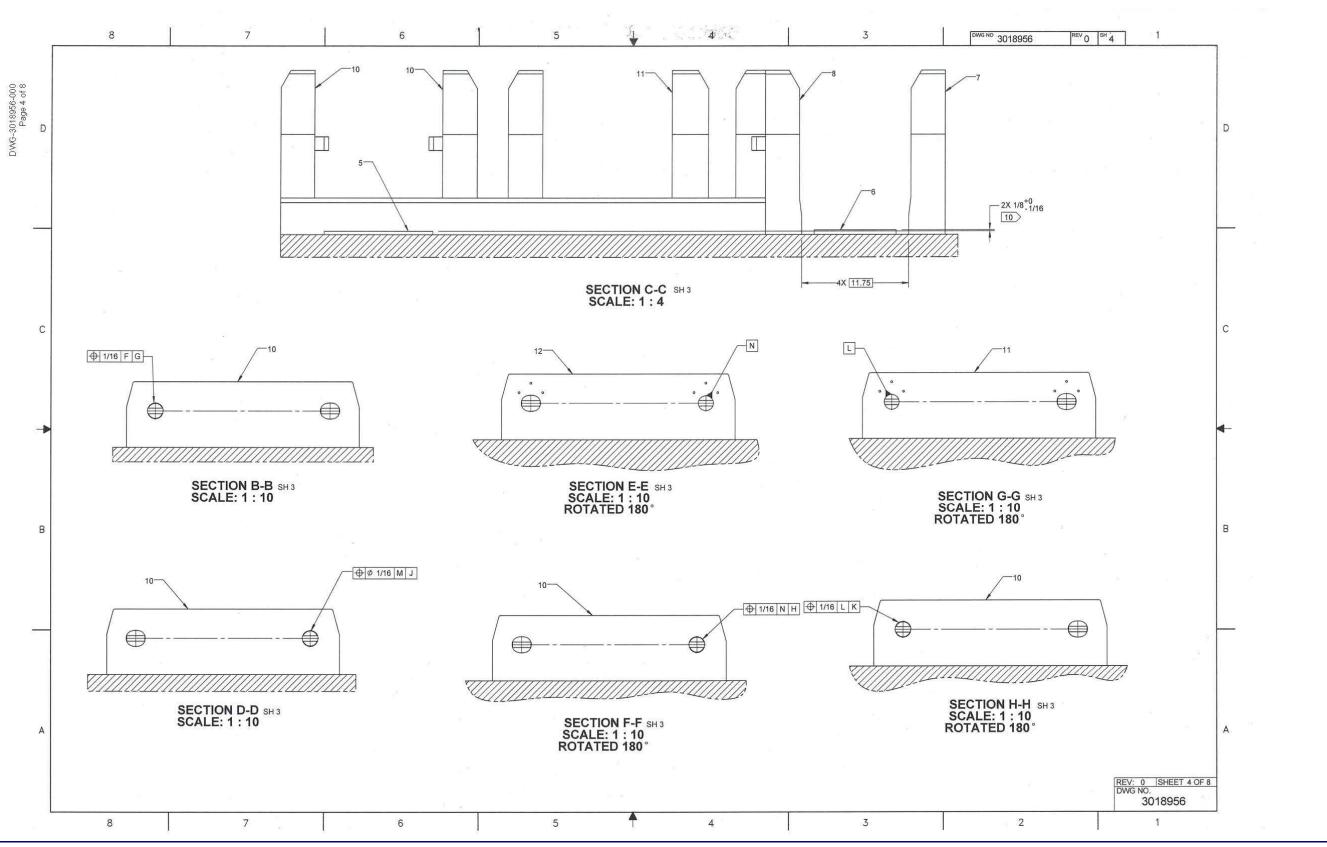
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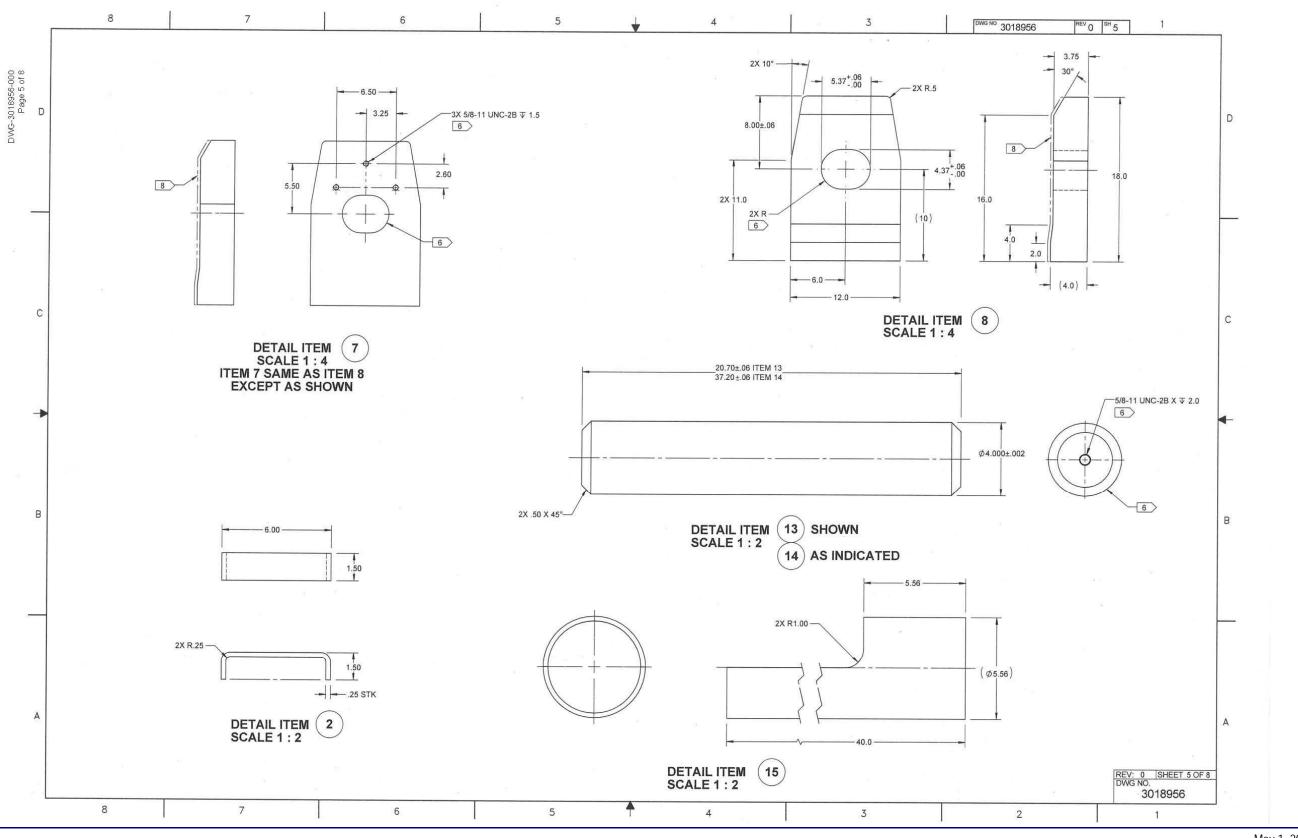


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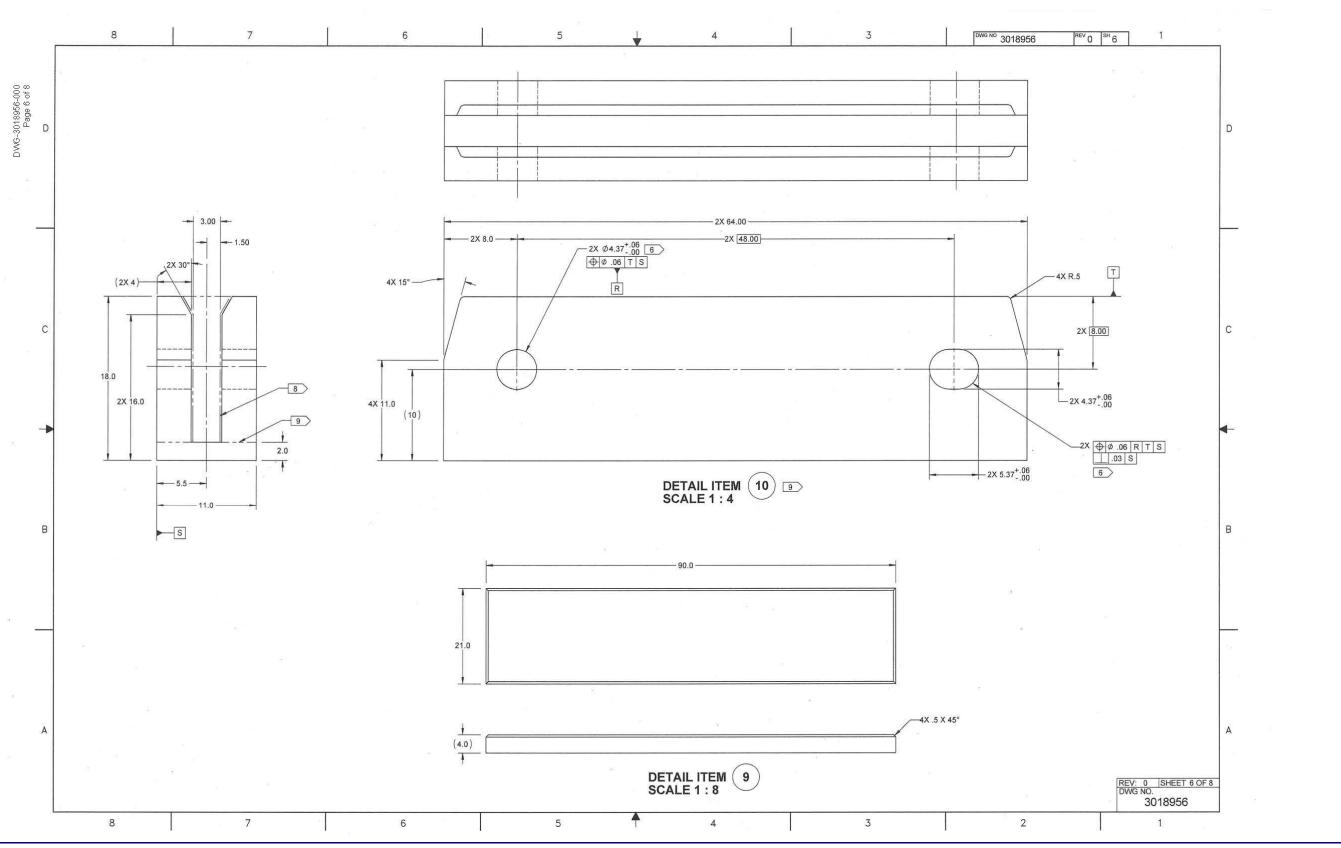
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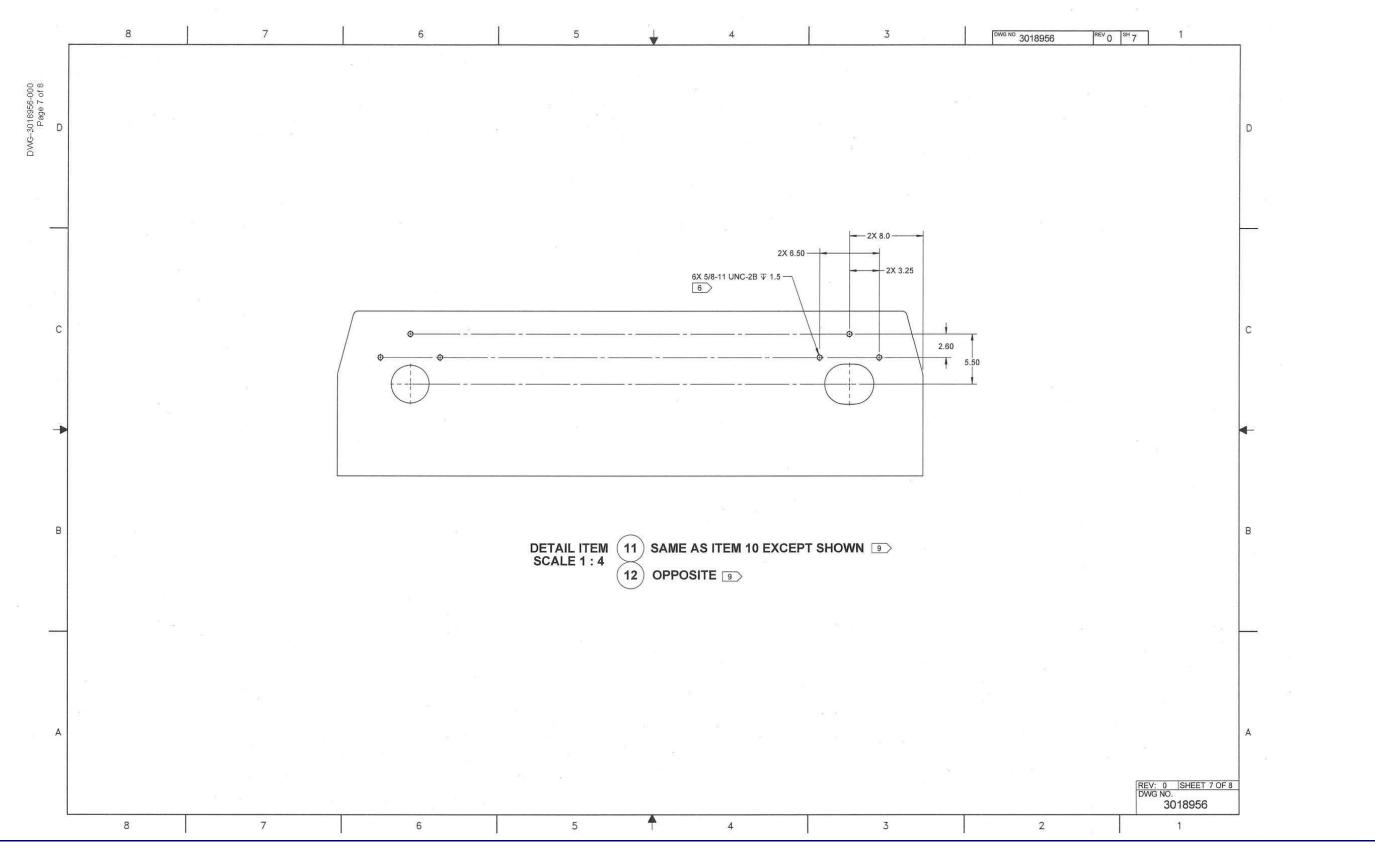


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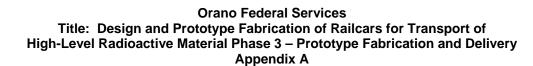
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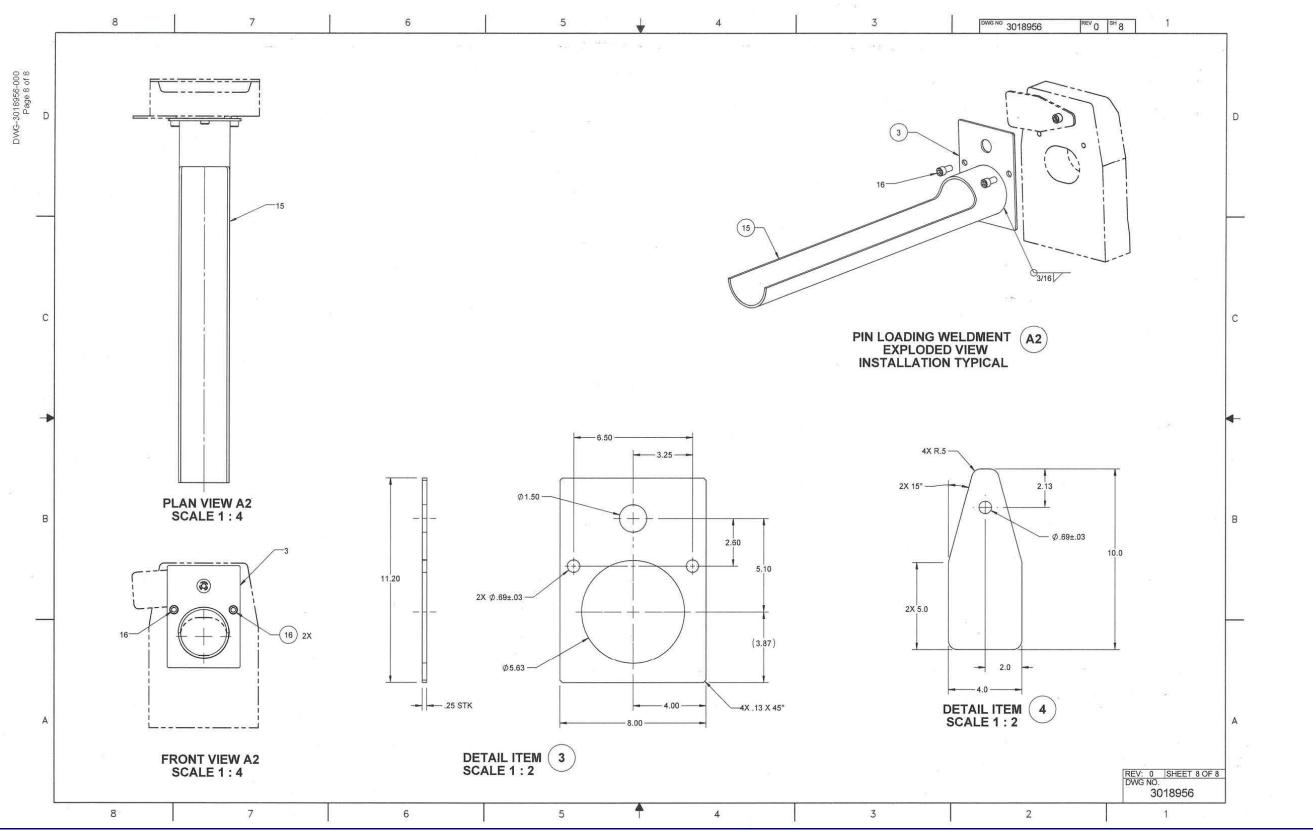


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