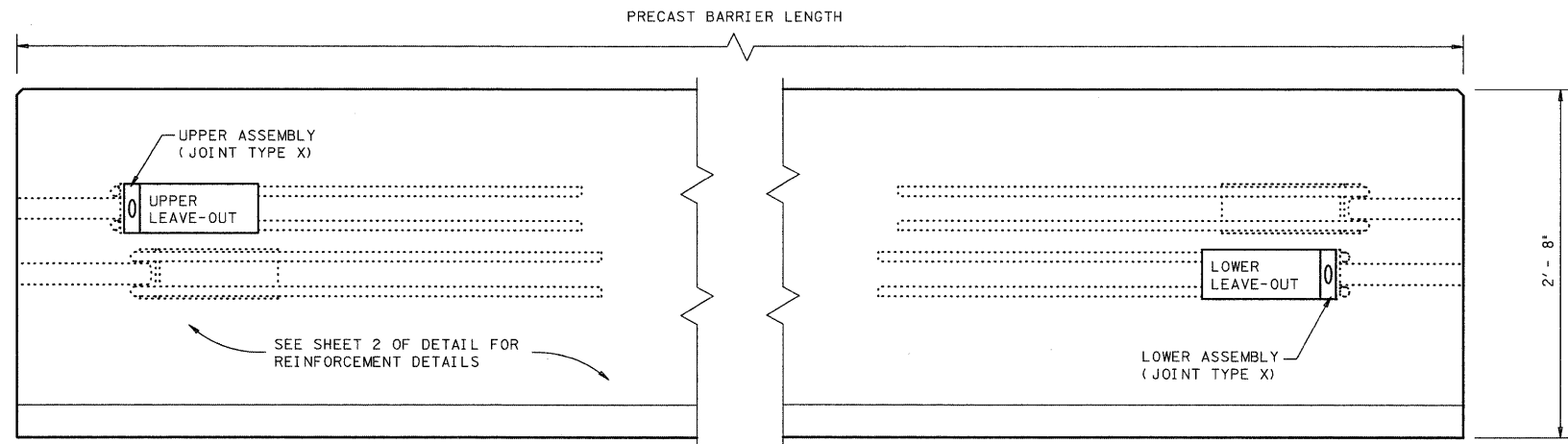


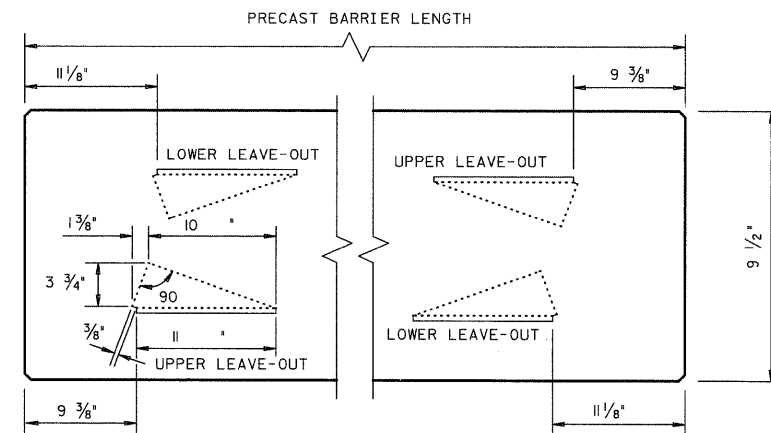
**PRECAST BARRIER END VIEW**

NOTE:  
THE PIPE ASSEMBLY LOCATIONS ARE VERY IMPORTANT TO PROPERLY CONNECTING THE BARRIER SEGMENTS.



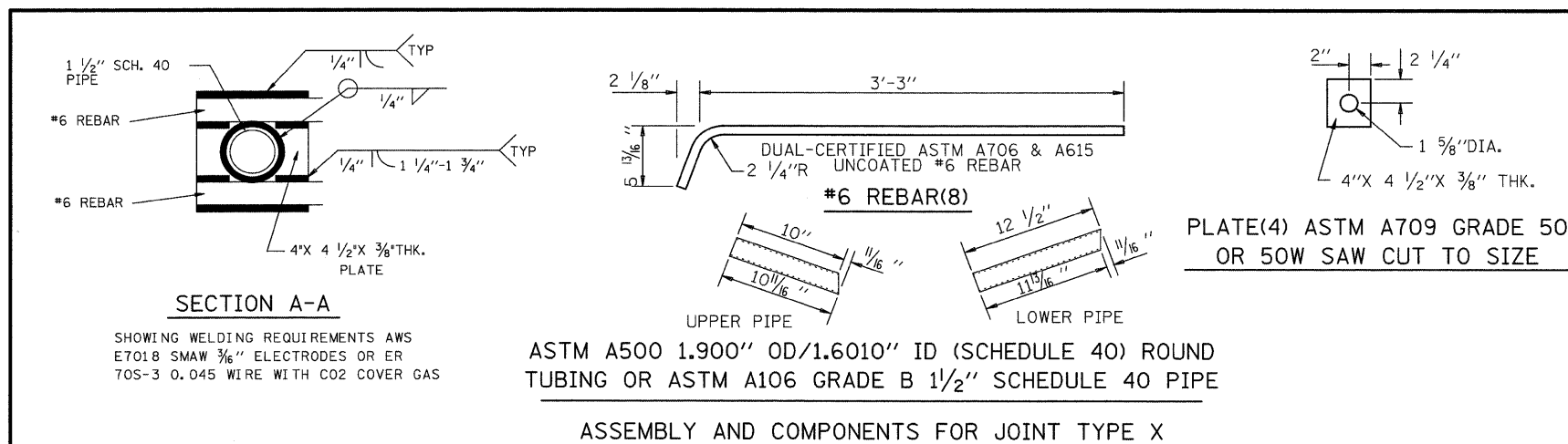
**PRECAST BARRIER ELEVATION VIEW**  
SEE SHEET 2 OF DETAIL FOR REINFORCEMENT DETAILS

NOTE:  
THE TYPE X CONNECTION IS A NON-PROPRIETARY BARRIER CONNECTION SYSTEM.



**TOP VIEW OF SIDE LEAVE OUTS**

CONCRETE SURFACE OF LEAVE OUTS SHALL BE SAND-BLASTED TO PROVIDE AN APPROPRIATE BONDING SURFACE FOR THE GROUT. PROTECT GALVANIZED SURFACES DURING SAND-BLASTING.

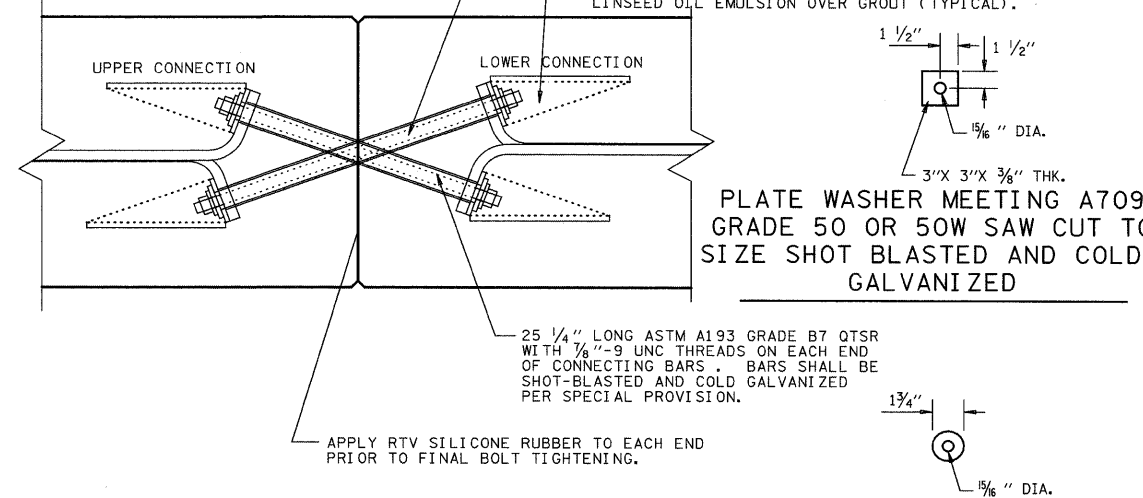


ASTM A500 1.900" OD/1.6010" ID (SCHEDULE 40) ROUND TUBING OR ASTM A106 GRADE B 1 1/2" SCHEDULE 40 PIPE

**ASSEMBLY AND COMPONENTS FOR JOINT TYPE X**

29" LONG ASTM A193 GRADE B7 QTSR WITH 7/8" - 9 UNC THREADS ON EACH END OF CONNECTING BARS. BARS SHALL BE SHOT-BLASTED AND COLD GALVANIZED PER SPECIAL PROVISION.

TORQUE THE HARDENED ASTM A563 GRADE D OR DH HEAVY HEX NUTS, GALVANIZED TO ASTM B695 CLASS 55, TO 50-70 FT-LBS. ROUND HARDENED STEEL WASHERS MEETING ASTM F436 GALVANIZED TO ASTM B695 CLASS 55, SHALL BE PLACED BETWEEN THE COLD GALVANIZED 3" X 3" X 3/8" PLATE WASHER AND THE NUT. FIELD CLEAN THREADS BY STIFF BRUSH. FIELD APPLY TWO COATS BY SWAB OF COLD GALVANIZING COMPOUND MEETING MIL-P-46105 OR DOD-P-21035 TO THE EXPOSED THREADS AFTER NUTS ARE TORQUED. ALLOW GALVANIZING TO CURE. FIELD APPLY AN IDOT APPROVED NON-SHRINK GROUT AND CURE. FIELD APPLY LINSEED OIL EMULSION OVER GROUT (TYPICAL).

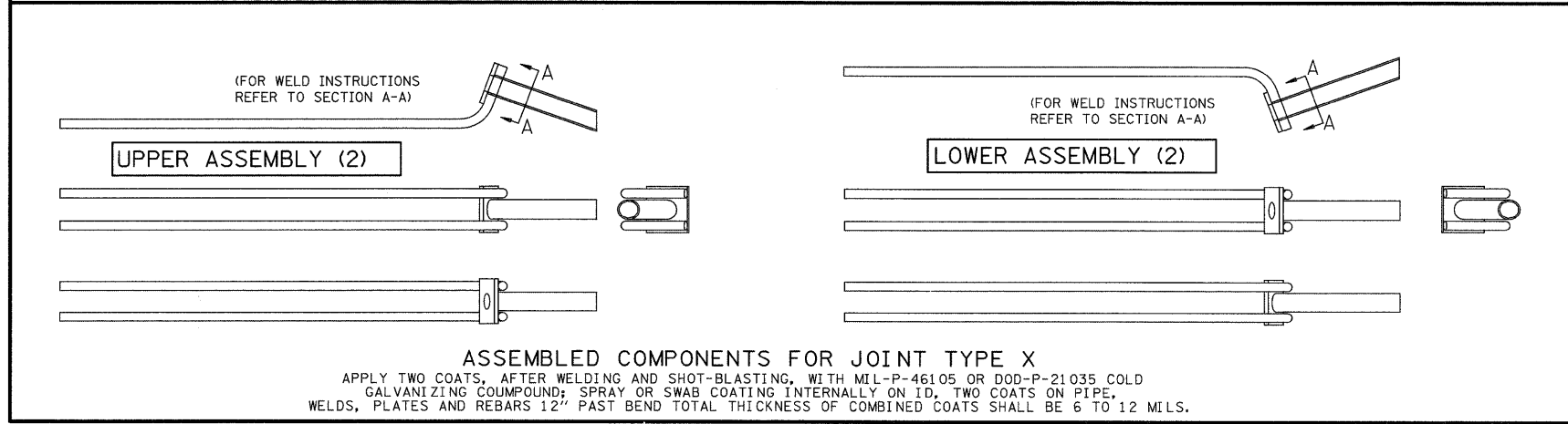


**TOP VIEW SHOWING JOINT CONNECTION TYPE X**

ROUND STEEL WASHER HARDENED ASTM F436 GALVANIZED TO ASTM B695 CLASS 55

**GENERAL NOTES**

1. CONCRETE SHALL BE A MODIFIED CLASS PC PER THE SPECIAL PROVISIONS ENTITLED "CONCRETE SAFETY BARRIER, SPECIAL".
2. WHERE USED, REBAR REINFORCEMENT SHALL BE GRADE 60 AND CONFORM TO DUAL CERTIFICATION TO ASTM A615 AND A706.
3. PRECAST BARRIER LENGTH SHALL BE 30 FT. UNLESS OTHERWISE SPECIFIED ON THE PLANS.
4. ALL CONCRETE, REINFORCEMENT, JOINT CONNECTION SYSTEMS, GROUT, AND ETC. AS SHOWN ARE CONSIDERED AS PART OF THE BARRIER FOR PAYMENT.
5. BOTTOM TROUGH AND DRAINAGE SLOTS SHALL BE AS DETAILED.
6. REGARDLESS OF THE METHOD OF HANDLING, BARRIER SECTION LIFTING POINTS SHALL BE 6 ± 1/4 FEET FROM THE ENDS OF THE BARRIER. LIFTING DEVICES AND ATTACHMENTS TO BARRIER SECTIONS SHALL BE AS APPROVED BY THE ENGINEER.
7. SURFACE FINISHING SHALL BE TWO PARTS SAND ONE PART CEMENT WITH ENOUGH WATER TO MAKE THE MIXTURE PLASTIC. GROUTING SHALL BE DONE IN A MANNER THAT WILL ASSURE A SMOOTH SURFACE. SURFACE FINISHING SHALL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS INVOLVED.
8. ALL STEEL FITTINGS AND HARDWARE FOR JOINT TYPE X BARRIER SHALL BE GALVANIZED AS DETAILED IN THE CONTRACT SPECIAL PROVISIONS.



**ASSEMBLED COMPONENTS FOR JOINT TYPE X**

APPLY TWO COATS, AFTER WELDING AND SHOT-BLASTING, WITH MIL-P-46105 OR DOD-P-21035 COLD GALVANIZING COMPOUND; SPRAY OR SWAB COATING INTERNALLY ON ID, TWO COATS ON PIPE, WELDS, PLATES AND REBARS 12" PAST BEND TOTAL THICKNESS OF COMBINED COATS SHALL BE 6 TO 12 MILS.

**JOINT CONNECTION (TYPE X)**

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CONCRETE SAFETY BARRIER SPECIAL</b>	F.A.P. RTEL	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -			799	1-I	ST CLAIR	15	10	
	PLOT DATE = #DATE#	CHECKED -	REVISED -			CONTRACT NO. 76D14					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					