

Is there a PQR?  
It needs to be  
submitted.

**WELDING PROCEDURE SPECIFICATION (WPS)**  
**PREQUALIFIED  QUALIFIED BY TESTING**   
**or PROCEDURE QUALIFICATION RECORDS (PQR) Yes**   
**AASHTO/AWS D1.5 Qualification Type 5.12.1  - 5.12.2  - 5.13**

Contractor/  
 Organization MERRIMACK SHEET METAL  
 Welding Process(es) GMAW  
 Type: Manual  Semiautomatic   
 Machine  Automatic   
 Tandem  Parallel

Identification LA-5  
 Revision 0 Date 6/1/2010 By KK  
 Authorized by KK Date 6/1/2010  
 Supporting PQR No.(s) PQLA1

**JOINT DESIGN USED**  
 Single  Double Weld   
 Backing: Yes  No  Material \_\_\_\_\_  
 Root Opening NA Root Face Dimension NA  
 Groove Angle NA Radius (J-U) \_\_\_\_\_  
 Backgouging: Yes  No  Method \_\_\_\_\_  
 Root Treatment CLEAN TO BRIGHT METAL

**POSITION**  
 Position of Groove NA Fillet 1F or 2F  
 Vertical Progression: Up  Down

**ELECTRICAL CHARACTERISTICS**  
 Transfer Mode (GMAW): Globular  Spray   
 Current: AC  DCEP  DCEN  Pulsed   
 Electrical Stick Out 3/4  
 Other \_\_\_\_\_

**BASE METALS**  
 Material Spec. A36; A588; A709  
 Type or Grade G50  
 Thickness: Groove NA Fillet UNLIMITED  
 Diameter (Pipe) NA

**TECHNIQUE**  
 Stringer or Weave Bead BOTH  
 Multi-pass or Single Pass (per side) BOTH  
 Number of Electrodes 1  
 Electrode Spacing: Longitudinal NA  
 Lateral NA Angle NA  
 Interpass Cleaning CLEAN WITH WIRE BRUSH

**FILLER METALS**  
 AWS Specification A5.28  
 AWS Classification ER80S-N1  
 Manufacturer Trade Name LINCOLN SUPERARC LA-75

**PREHEAT**  
 Preheat Temp., Min. 70 F  
 Interpass Temp., Min. 70 F  
 Interpass Temp., Max. 400 F

**SHIELDING**  
 Flux NA Mfg. Trade Name NA  
 Electrode-Flux (Class) NA  
 Gas Composition 90% ARGON / 10% CO2  
 Flow Rate 45 CFH Gas Cup Size 3/4

**POSTWELD HEAT TREATMENT**  
 Temp. NA Hold Time NA  
 Heating/Cooling Rate NA

**HEAT INPUT**  
 Calculated Heat Input Value: kJ/in  kJ/mm   
 Max. Heat Input 42.7 Min. Heat Input 22.5

**WELDING PROCEDURE**

Pass or Weld Layer(s)	Process	Filler Metals Diam.	Current		Volts	Travel Speed	Joint Details
			Type & Polarity	Amps or Wire Feed Speed			
ROOT 3/16	GMAW	.045	DCEP	220-260	26-29	15-18 IPM	
ROOT 1/4	GMAW	.045	DCEP	220-260	26-29	14-17 IPM	
ROOT 5/16	GMAW	.045	DCEP	220-270	26-29	13-16 IPM	
ROOT 3/8	GMAW	.045	DCEP	220-270	26-29	12-15 IPM	
2ND 3/8	GMAW	.045	DCEP	220-270	26-29	11-14 IPM	
3RD 3/8	GMAW	.045	DCEP	220-270	26-29	11-14 IPM	
ROOT 7/16	GMAW	.045	DCEP	220-270	26-29	12-16 IPM	
2ND 7/16	GMAW	.045	DCEP	220-270	26-29	12-14 IPM	
3RD 7/16	GMAW	.045	DCEP	220-270	26-29	12-15 IPM	

Form L-2

Vermont Agency of Transportation

Form L-2—Sample Welding Proc

**RECEIVED**

CK'D BY David Peterson OK'D BY JWC

Oct 04, 2012

RESUBMIT BY CWC APPROVED AS NOTED DATE 10/05/12