

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 2 Date 9/13/2010 By KK  
 Authorized by KK Date 9/13/2010  
 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) NA  
 Backgouging: Yes  No  Method \_\_\_\_\_  
 Root Treatment CLEAN TO BRIGHT METAL

POSITION  
 Position of Groove \_\_\_\_\_ Fillet 1F  
 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. A36/709 ; A588/ G50  
 Type or Grade G50  
 Thickness: Groove \_\_\_\_\_ Fillet UNLIMITED  
 Diameter (Pipe) \_\_\_\_\_

TECHNIQUE  
 Stringer or Weave Bead STRINGER  
 Multi-pass or Single Pass (per side) SINGLE  
 Number of Electrodes ONE  
 Electrode Spacing: Longitudinal \_\_\_\_\_  
 Lateral \_\_\_\_\_ Angle \_\_\_\_\_  
 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. 350 F

SHIELDING  
 Flux \_\_\_\_\_ Mfg. Trade Name \_\_\_\_\_  
 Electrode-Flux (Class) \_\_\_\_\_  
 Gas Composition 90 ARGON / 10 CO2  
 Flow Rate 35 CFH Gas Cup Size 3/4

POSTWELD HEAT TREATMENT  
 Temp. \_\_\_\_\_ Hold Time \_\_\_\_\_  
 Heating/Cooling Rate \_\_\_\_\_

HEAT INPUT  
 Calculated Heat Input Value: kJ/in  kJ/mm   
 Max. Heat Input 43.0 Min. Heat Input 24.4

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	GMAW	.045	DCEP	243 - 297	25.1-28.9	12-15	

Form L-2  
 RECEIVED  
 OK'D BY JWC  
 FEB 26 2011  
 APPROVED   
 DATE 3/16/11