

**Highway Safety Corporation**  
Glastonbury, CT

**Welding Procedure Specification**

Material specification ASTM A36, A709 Gr 36, A500 gr B, A53 gr B  
 Welding process Gas Metal Arc Welding (GMAW)  
 Manual, semi-automatic, or automatic Semi-Automatic  
 Position of welding Flat (1F) or Horizontal (2F)  
 Filler metal specification AWS A5.18  
 Filler metal classification ER70S-3  
 Electrode and manufacturer Lincoln Electric Lincoln Weld L-60  
 Flux and manufacturer N/A  
 Shielding gas 85% Argon / 15% CO2 Flow rate 19-27 L / min  
 Single or multiple pass Single  
 Single or multiple arc Single  
 Welding current DCEP  
 Polarity Reverse - electrode positive  
 Welding progression Stringers  
 Root treatment clean base metal  
 Preheat and interpass temperature base metal up to 3/4" (50°F) ; over 3/4 thru 1-1/2" ( 150°F ) ; over 1-1/2" thru 2-1/2" (225°F)  
 Postheat treatment None  
 Electrode extension 3/4" ± 1/4"

**WELDING PROCEDURE**

Weld size	Pass no.	Electrode size	Welding parameters			Travel speed	Joint detail
			Amperes	Volts			
1/8"	1	0.045"	300 A ± 30	29 V ± 2	28 ipm ± 2		
3/16"	1	0.045"	300 A ± 30	29 V ± 2	14 ipm ± 2		

D BY: JK OK'D BY: JK  
 DATE: 02/13/09  
 APPROVED: JK

This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in section 5 of latest edition AWS D1.1 / D1.5

WPS no. W-1684-B Fabricator Highway Safety Corporation  
 Revision no. 0 Authorized by Paul Radice  
 Supporting PQR no. Pre-Qualified Date 2/3/09  
 Project Name Canaan, VT Rt 102 Project Number ER ST 0271(10)