

PROCEDURE QUALIFICATION RECORD - SAW-01-2007

Contractor L.B. Foster Company Test Date November 20, 2007
 Process Submerged Arc Welding (SAW) Filler Metal A5.23
 Position Flat (1G)
 Electrode(s) Mfg. Designation Lincoln LA-75 AWS Specification A5.23
 Flux Mfg. Designation not available AWS Classification F7A2-ENiK-Ni1-H8
 Electrode Extension 1.25 inches

| Electrode | Diameter | Current | IPM* | Voltage | Current & Polarity |
|-----------|--------------------|------------|-----------|-----------|--------------------|
| (1) | <u>5/64 inches</u> | <u>340</u> | <u>10</u> | <u>34</u> | <u>DC/EP</u> |
| (2) | | | | | |
| (3) | | | | | |

Calculated Heat Input 69.36 kilojoules / inch (See 5.12)
 Shielding Gas not applicable Flow Rate not applicable
 Dew Point not available Travel Speed 10 IPM

Base Metal Specification & Thickness AASHTO M270, grade 50W, 1 inches thick
 (Attach Certified Copy of Mill Test Report)

Preheat Temp. 200° F Interpass Temp. Min. 200° F Max. 400° F

| SPECIMEN | TEST RESULTS | | | |
|----------|-------------------------------|------------------------|-----------------------|----------------------|
| | All Weld Metal Tension (AWMT) | Tensile Strength (PSI) | 76,334 | Yield Strength (PSI) |
| | Elongation in 2 inches (%) | 30.9 | Reduction in Area (%) | 69.8 |

Side Bend 1. acceptable 2. acceptable 3. acceptable 4. acceptable
 Reduced Section Tension Tensile Strength 1. 82,220 Location of Break 1. base metal
 (PSI) 2. 85,789 2. base metal

Charpy V-notch Impact Toughness (average ft - lbs ** 56 , 44 , 36 , 68 , 24)
 of Weld Metal SMAW, SAW, @ -20 degrees F.
 (NA , NA , NA)
 GMAW (NA , NA , NA)
 5 required average ft - lbs ** @ NA degrees F.
 ESW & EGW - 8 required ** Discard the highest and lowest values and average the remaining values.

Chemistry of Deposited Weld Metal When required by Contract Documents
 C NA Mn NA Si NA P NA S NA
 Ni NA Cr NA Mo NA V NA Cu NA

REMARKS Visual acceptable Radiographic Test acceptable

* Wire feed may be used in lieu of current when a correlation curve is provided for the same electrode diameter and same electrode extension.

Test Witness Derek Crowe Agency Mass Highway Department
 Results Reviewed _____ State Acceptance _____ Date _____