



## PART III

# Repair Welding Service Flash Butt Welding Specification

# Repair Welding Services

(revised 4/24/09)

## 1.0 BACKGROUND:

WMATA owns, operates and maintains over 240 miles of metro heavy rail track guideway. This represents over \$500 Million in infrastructure investment and is critical to the viability of the MetroRail System.

The rising cost of new rail replacement programs has increased the demand for repair welding whereby the life and usability of existing rail will be extended to its' optimal duration. METRO is seeking the services of a qualified contractor to provide an electric flash butt low consumption field repair rail welding service contract. The contract will provide a repair welding program is to remove (open) joints in track, to eliminate rail surface and internal (ultrasonic) defects, engine burns, and worn rail.

\_\_\_\_\_ This Statement of Work (SOW) supports the Washington Metropolitan Area Transit Authority (WMATA) mission to provide safe, reliable, and cost-effective transit services. It establishes the requirements for a contractual service for electric flash butt repair welding to reduce the number of mechanical (open) joints in WMATA'S track structure.

## 2.0 SCOPE:

The contractor is to provide resources and equipment for electric flash butt weld of an uninterrupted program of a minimum 180 days per year for two (2) consecutive years beginning late October early November 2009.

### **CONTRACTOR SHALL PROVIDE:**

- A hi-rail crane to transport and provide power to an electric flash butt welder/puller
- The hi-rail crane must comply with WMATA'S clearance envelope
- The welder/puller head must comply with WMATA'S clearance envelope, specifically to operate on running rails of the track without the necessity of removing third rail for the specific purpose of providing clearance for the welding and shearing operation.
- A diesel-powered generator contained on the hi-rail crane to power the welder and shear.
- A welder/puller combination capable of exerting 130 tons of pulling and upset force to hold rail and maintain closure during the welding and shearing process, and capable of shearing the weld to 1/8" around rail profile. The welder/puller must be capable of making welds that consume less than 1" of rail (Low Consumption Weld's LCW).
- Personnel to weld rail, remove the upset around sheared welds, and maintain all contractor's equipment.
- All necessary consumables required in the operation of the contractor's plant, excluding fuel.

- Equipment to polish rail and conduct magnetic particle (MP) inspection.
- ISO 9001:2000 Certification

**METRO TO PROVIDE THE FOLLOWING:**

- Personnel and equipment to handle, position, unfasten, refasten, and crop (if necessary) all rails.
- Personnel to polish rails prior to welding.
- Personnel and equipment to base grind (if necessary), and finish-grind the rail's head, web, and base edge.
- Fuel for the operation of the contractor's equipment.
- Mobilization of contractor's equipment within and around the WMATA system, either by rail or by low boy over the road transport.
- Personnel do conduct MP tests and inspect welds to AREMA specifications.

**3.0 PROJECT SCHEDULE**

Contractor will mobilize within six months of award. Once contractor's equipment and personnel arrive at METRO. Thereafter the contract base year period begins for 180 consecutive days. Contractor's personnel will be available for services 8 hours per day, 5 days a week. METRO will schedule shift times. Days when the contractor equipment is not available for service will not be counted toward the 180 day period of performance. Partial days when equipment malfunction occurs will count toward the 180 days.

**4.0 ADMINISTER PROJECT:**

Project administration will include a kickoff meeting, status meetings, progress reports, progress briefings, and other management reports or briefings as required.

Kickoff meeting. The project will begin the task with a kickoff meeting, within two week of contract award.

Status meetings and reports. Status meetings will be scheduled, as necessary, to discuss current status and resolve outstanding issues. The Contractor will be responsible for preparing the agenda for these meetings and producing the minutes for each meeting for WMATA approval. Monthly progress reports will be prepared by the contractor detailing tasks completed to date, planned tasks for the next period, and an updated project schedule (if applicable).

**5.0 KICKOFF BRIEFING:**

Contractor and Metro will meet Within two weeks of contract award.

**6.0 STATUS MEETING:**

Conduct as needed. Agenda for the meeting is due by noon the day prior to the meeting. Agenda will include discussion of issues, and problems. Minutes are due within 5 working days of the meeting.

**7.0 RAIL BOUND VEHICLE/EQUIPMENT QUALIFICATIONS:**

The contractor's rail equipment (to include hi-rail) must have an excellent historical record of performance and maintenance. The hi-rail equipment shall be inspected by WMATA personnel for approval, prior to use on the WMATA system. The equipment shall meet the minimum requirements are as follows:

- Must be diesel powered
- Must be able to operate quietly for night work in urban areas
- Must clear all WMATA tunnels, platforms, contact rail, assemblies and structures.
- For the purpose of towing in an emergency situation, the equipment shall have one tow eye of 2-1/16" in diameter at each- end of the vehicle.
- The tow eye shall be 14", = or - 1/2" from top of rail to centerline of tow eye as measured with new wheels
- Equipment must be able to operate on standard gauge of track set at 56-1/4" track gauge
- The contractor must be escorted by a qualified employee at all time while on or operating on WMATA right of way

**8.0 ESCORT:**

A WMATA Escort person shall accompany contractor while performing this service at ALL times.

**9.0 TRAINING:**

Prior to working on WMATA property, ALL contractor personnel shall be required to have a completed background check and to attend a four (4) hour right-of-way training class, to be held at a WMATA facility. The contractor's personnel must have their WMATA access pass in their possession at ALL times while on WMATA property.