ATTACHMENT A

Scope of Work
SCOPE OF WORK

1. GENERAL REQUIREMENTS

A. The Contractor shall provide all labor, supervision, equipment, material and transportation necessary for the rehabilitation of VRE’s passenger railcar wheelsets and locomotive traction motor assemblies in accordance with the scope of work specified herein.

B. The Contractor shall possess and maintain a current M-1003 Quality Assurance Certification issued by the Association of American Railroads (AAR) and must adhere to all applicable requirements of the current editions of the following:

1. 49 CFR 229, Railroad Locomotive Safety Standards

2. 49 CFR 238, Passenger Equipment Safety Standards

C. The Contractor’s M-1003 Quality Assurance certification issued by the AAR shall be available for VRE inspection during the term of the Contract.

D. The Contractor shall notify VRE immediately of any change in the status of the certification during the term of the Contract.

2. SPECIFIC REQUIREMENTS

A. VRE will be responsible for the removal of the wheelsets and traction motor assemblies. Upon VRE’s request, the Contractor shall pick up wheelsets and traction motor assemblies from the following Maintenance and Storage Facilities (MSF):

1. Broad Run MSF
   10637 Piper Lane
   Bristow, VA 20136

2. Crossroads MSF
   9400 Crossroads Parkway
   Fredericksburg, VA 22408

B. The Contractor shall perform passenger railcar wheelset rehabilitation work to include replacement, repair or overhaul of complete wheelsets. A complete wheelset consists of one (1) axle, two (2) wheels and two (2) journal bearings. The rehabilitated wheelsets shall be “rebuilt in kind” unless otherwise specified by VRE.
C. Rehabilitated wheelsets, when installed on a passenger railcar, shall be suitable for operation at any speed up to ninety (90) miles per hour.

D. The Contractor shall perform rehabilitation work on wheelsets used on VRE’s passenger railcars to include the following:

1. Gallery IV Railcars, manufactured by Nippon Sharyo (NS)

E. The Contractor shall perform traction motor assembly rehabilitation work to include replacement, repair, or overhaul of a complete traction motor assembly. A complete traction motor assembly consists of one (1) D78B traction motor, locomotive wheelset consisting of one (1) axle, one (1) 60-tooth bull gear, two (2) 40-inch wheels, and two (2) 6-7/8” x 12” journal bearings. The traction motor assembly also includes traction motor support bearings, wicks, and a gear case. The rehabilitated traction motor assemblies shall be “rebuilt in kind” unless otherwise specified by VRE.

F. Locomotive traction motor assemblies may require only rehabilitated wheelsets. The Contractor will receive a complete traction motor assembly and shall remove the wheelset to perform locomotive wheelset rehabilitation work to include replacement, repair, or overhaul of complete wheelsets. The rehabilitated wheelsets shall be “rebuilt in kind” unless otherwise specified by VRE.

G. The Contractor shall perform rehabilitation work on traction motor assemblies used on VRE’s locomotives to include the following:

1. MP36PH-3C Locomotives, manufactured by MotivePower, Inc. (MPI)

H. Traction motor assemblies and wheelsets returned to VRE by the Contractor must be interchangeable with the equivalent wheelsets in service on VRE’s passenger railcars and locomotives.

3. APPLICABLE DOCUMENTS

A. In the performance of this Contract, the Contractor shall comply with the latest editions of the following standards and recommended practices:

1. AAR Manual of Standards and Recommended Practices, Section G Wheels and Axles
2. AAR Manual of Standards and Recommended Practices, Section G Part II Wheels and Axle (Shop) Manual


6. American Public Transportation Association (APTA) PR-M-RP-008-98 - Recommended Practice for Passenger Car Axle Design

7. APTA PR-M-S-012-99 – Standard for the Manufacture of Wrought Steel Wheels for Passenger Cars and Locomotives

8. 49 CFR 238.119, Rim-Stamped, Straight-Plate Wheels

B. In the event of conflicting requirements, the most restrictive shall apply. The Contractor shall notify VRE in writing of any conflicting requirements between the specifications and the referenced documents. The Contractor shall specifically identify the impact of the conflicting requirements on the equipment and any possible delays to the delivery of the rehabilitated wheelsets. VRE will resolve with the Contractor any issues and respond in writing to formally document the disposition.

4. SCHEDULE OF SERVICE

A. The Contractor shall deliver all new, overhauled, or repaired equipment within thirty (30) business days of receipt from VRE.

B. Any deviation or delay from the established schedule must be presented to VRE in writing for approval.

5. DOCUMENTATION

The Contractor shall make available to VRE all reports, drawings, studies, specifications, work instructions, estimates, computations, and other data prepared by or for it under the resultant Contract during the term of the Contract and upon termination or completion of the work. VRE shall have the right to use the same, without restriction or limitation and without compensation to the Contractor other than that provided for in the Contract. Documents shall be directed to:

Detrius Williams  
Manager of Operations Administration  
Virginia Railway Express  
1500 King Street, Suite 202  
Alexandria, VA  22314-2730  
dwilliams@vre.org  
(703) 838-5426
6. **DELIVERABLES**

The Contractor shall provide the following submittals to VRE in accordance with ATTACHMENT C – TECHNICAL SPECIFICATIONS for each rehabilitated wheelset or traction motor assembly delivered by the Contractor:

A. Record of all heat numbers, which shall be included with the packing list and bill of lading for each wheelset.

B. Certified copies of chemical and physical test results as specified by the latest version of the AAR Manual of Standards and Recommended Practices (MSRP) Section G for Grade “F” axles.

C. Certification of the ladle analysis of the steel used and of the ultrasonic and magnetic particle testing conducted on each wheel.

D. Certification that each wheel is dynamically balanced.

E. Documentation that details the repairs, remanufacturing, testing and performance of each traction motor. The Contractor’s paperwork shall include clearly defined minimum and maximum allowable tolerances and the actual recorded measurements.

F. Data sheets including serial numbers, measurements, and pressure diagrams of wheel and bearing mounting.

6. **PROCEDURE MANUAL AND WARRANTY**

The Contractor shall provide the following to VRE:

A. Copies of inspection, overhaul, and test procedures for each apparatus serviced under this Contract.

B. Equipment and component manufacturer’s warranty for a period of two (2) years stated.