

**BART Agreement Number: 6M8134**

**Approval Date: 09/01/21**

**Work Plan No. B.18-01- Measure RR Traction Power Engineering Support**

**2. SCOPE OF SERVICES**

**A. Blocking System (15ELRR2)**

1. Support design, installation and testing of H31 and H32 breaker blocking system equipment at KTE/MTW/KFS/CRO/RAS Sectionalizing Stations.
2. Support in identifying parts needed for blocking to facilitate acquiring quotes.
3. Support field installation and testing of the blocking system with emphasis on uninterrupted service.
4. Document testing and results including all associated alarms reporting to the Operational Control Center (OCC).
5. Develop training materials and assist training OCC staff in how to restore the system to normal after a faults or other abnormal incident that initiates the circuit blocking system.
6. Review blocking and equipment monitoring design drawings before field installation, for example: 34.5kv breaker schematic diagrams, 34.5 breaker cubicle wiring diagrams, SEL 3530 / SEL 2440 wiring diagrams, C02 cabinet wiring diagrams, annunciator wiring diagrams, conduit and wiring schedules.
7. Survey switching and sectionalizing stations to determine blocking panel installation and conduit routing
8. Develop blocking system test procedure documents.
9. Support testing and commissioning

**Prime: HDR**

<b>Subconsultant</b>	<b>Amount</b>	<b>DBE (Y/N)</b>	<b>SBE (Y/N)</b>
SEM Inc	\$283,383	N	Y

**Total Work Plan Value: \$ 303,743**