

**BART Agreement Number: 6M8145**

**Approval Date: 03/31/21**

**Work Plan No. B.14-02– Electrical Engineering Design Support for Oakland Emergency Generator Project**

**2. SCOPE OF SERVICES**

The San Francisco Bay Area Rapid Transit District (BART) is looking for Responsible Electrical Design Engineers who have experience in Medium and Low Voltage Switchgear Replacement. Engineer must be able to, but not limited to read and understand as-built drawings and contract documents, perform complex Electrical Engineering calculations, evaluate and resolve Contractor RFIs and Submittals against the Contract, review and prepare technical planning documents such as Interim Operating Procedures, Site Specific Work Plans, Test Plans, and Commissioning.

Specific duties and responsibilities include but are not limited to:

- 1) Perform field surveys and field inspections.
- 2) Develop Single-Line Diagrams, Switchgear layout, Conduit Routing for multi-level building and demolition plan, grounding and bonding, and complete technical design drawings.
- 3) Coordinate work with utilities (PG&E) and resolve any outstanding issues.
- 4) Provide or assist in creating or coordinating stakeholders to develop responses to RFIs and Submittals.
- 5) Provide/assist in creating/coordinate stakeholders to draft Interim Operating Procedures (IOP).
- 6) Review and approve Site Specific Work Plans (SSWPs).
- 7) Review and approve Commissioning and Testing plans for control systems
- 8) Electrical Engineering design support during construction.
- 9) Meet with BART stakeholders to address design comments or reports.
- 10) Work with Maintenance team and/or other departments to understand the scope of work and provide engineering support (including estimates, conceptual design, constructability issues, planning, real estate, sustainability, and customer access).
- 11) Provide engineering support, design verification, and PE signature as needed.
- 12) Perform other work as assigned by the District.
- 13) Coordinate with BART stakeholders such as:
  - a) Power Electrical design and Systems design teams
  - b) BART internal (Mechanical, Systems, and Integration Engineering, Civil, Structural, and Sustainability, etc.)
  - c) Maintenance and other stakeholders as needed
  - d) Bart Construction Management

**Prime: Jacobs**

| <b>Subconsultant</b> | <b>Amount</b> | <b>DBE (Y/N)</b> | <b>SBE (Y/N)</b> |
|----------------------|---------------|------------------|------------------|
| Colmena Engineering  | \$287,113     | Y                | Y                |
|                      |               |                  |                  |

**Total Work Plan Value: \$329,084**