

## Work Plan B.54-01 BART UAS Pilot Program

### Scope:

The Consultant will perform the following duties and responsibilities:

- Drone collection
  - 1 mm GSD detailed inspection of certain structures
  - 1 cm GSD general inspection photos
  - 2.5 cm GSD Orthomosaic Imagery
  - 5 cm GSD 3D model
  - Thermal Inspection Imagery
  - Thermal Orthomosaic Imagery
  - Corresponding daytime RGB photos for Thermal Imagery
  - LIDAR scan of key structures for certain facilities
- Laser Scanning (2 Options)
  - Option 1: Simultaneous Localization and Mapping of areas with complex structures (for dimly lit areas, challenging areas for photogrammetry)
    - +/- 10 mm accuracy
  - Option 2: Terrestrial Laser Scanning of areas with complex structures (for dimly lit areas, challenging areas for photogrammetry)
    - +/- 2 mm accuracy
- Data Processing
  - Orthophoto generation
  - 3D Model generation
  - Inspection photos
- Deliverables
  - Software Platform(s) for inspection and analysis

**Prime: Parsons Transportation Group**

**Subconsultants: None**

**Total Work Plan Value: \$ 274,637**