

**BART Agreement Number: 6M8148**

**Approval Date: 9/04/19**

**Work Plan No. B.01-01 Analog to Digital Camera Conversion - Powell (M30), Civic Center (M40), and 16th Street (M50)**

**Scope:**

**A. As-built, Mapping, and Survey**

- Conduct initial site surveys to determine preliminary locations for cameras.
- Develop conceptual layout showing preliminary camera locations and submit to BART for their review.
- Coordinate with BART any required adjustments to finalize camera locations.
- Provide Pre-renovation hazardous materials consulting services. Work will be performed by TSE's subconsultant, SCA Environmental, Inc. (SCA). SCA will make up to 3 site visits and collect up to 150 samples of suspect asbestos-containing materials. Repair of sample wounds to be performed by BART.

**B. Final Design Drawings**

- Conduct as required site surveys and field investigations to determine appropriate camera mountings, communication equipment locations and raceway routings.
- Coordinate with the appropriate BART departments to address interfaces of existing equipment with the security system.
- Conduct meetings and coordinate with appropriate BART departments and other project stakeholders.
- Prepare 35%, 60%, 100%, and Issued for Bid (IFB) drawing packages, covering the installation details and other requirements for the video surveillance security system equipment and components.
- Meet with BART stakeholders to address review comments on design submittals.

**C. Contract Document Development**

- Prepare Final design & Contract package completion & IFB design support for Contract Drawings and Contract Specifications based on existing and new cable routing.
- Meet with BART stakeholders to address review comments on design submittals.
- Prepare construction cost estimates and construction schedule.
- Assemble Contract Bid Documents to include work products prepared by other Consultants.
- Provide support during IFB Cycle – respond to bidder questions, prepare addendums, participate in pre-bid meetings and assist on bid evaluation.
- Prepare and submit conformed design drawings.
- Scope of Service is complete when project receives NTP (Notice to Proceed).

**D. Project Management**

- Manage and coordinate work assignments of other Consultants.

E. Assumptions

Following are the assumptions used in the development of the design scope:

1. Cameras and access control devices will be procured separately by BART and will be defined as District-Furnished Equipment within the Contract.
2. Contract Specifications will be prepared following CSI Master Format 04, and will invoke, Where applicable, the Standard Specifications in the BART Facilities Standards Rev. 2.1.1.
3. BART will provide timely support upon request for field surveys to avoid any delays to design schedule.
4. Power to the cameras and field concentrator panels will be from the existing UPS in the nearest train control room.
5. Topographic backgrounds are available from previous BART projects.

**Prime: TY LIN – TSE, JV**

<b>Subconsultant</b>	<b>Amount</b>	<b>DBE (Y/N)</b>	<b>SBE (Y/N)</b>
<b>OPAC</b>	<b>\$207,277</b>	<b>Y</b>	<b>Y</b>
<b>SCA Environmental, Inc.</b>	<b>\$18,317</b>	<b>N</b>	<b>N</b>
<b>YEI Engineers</b>	<b>\$67,705</b>	<b>Y</b>	<b>Y</b>
<b>ELLE Consultants</b>	<b>\$44,194.57</b>	<b>Y</b>	<b>Y</b>
<b>Charistech</b>	<b>\$36,333</b>	<b>Y</b>	<b>Y</b>

**Total Work Plan Value: \$990,288**