

**BART Agreement Number: 6M8143**

**Approval Date: 07/23/2024**

**Work Plan No. B.31-01 ESDC for Emergency Access Doors, Landings & Stairs at  
BART Daly City and Hayward Control Towers**

**Scope:**

These services are as described as follows:

**Project management**

- Project management support from site survey to bid support services.
- Coordinate HDR's project staff with BART's project staff
- Coordinate weekly design meetings with design team and BART project staff.
- Take meeting minutes.
- Arrange kick-off meeting.
- Design Schedule to be developed and approved by BART.
- Design Quality management process
- Safety Certification Process

**Task 1 – Design of Hayward Tower Access**

**Task 1.1 – Initial Layout Phase (~35% Design)**

- Perform surveys to confirm elevations of the Tower third floor and stairway landing areas to support design.
  - a. Daly City Site Survey

- i Prepare a topographic survey of the area around the BART Daily City Tower. Survey will extend approximately 20 feet to the west as bordered by the retaining wall. 50 feet to the north of the structure, 50 feet to the south of the structure and will extend to include the first track to the east of the structure.
  - b. Hayward Tower Survey
    - i Prepare a topographic survey of the area around the BART Daily City Tower. Survey will extend approximately 50 feet to the west to include the access road adjacent to the tower building. 50 feet to the north of the structure, 60 feet to the south of the structure and will extend to include the first track to the east of the structure.
  - c. Topographic survey will include necessary work to produce a topographic map, including features such as, but not limited to; building corners and elevations, curb lines, water meters, sewer cleanouts, valves, manholes (including rim, invert and pipe information), utility markings on the pavement, utility poles, driveway and doorway locations, sidewalks, trees four (4) inches and larger, retaining wall or decorative walls, and other pertinent information that could apply to the project during design.
  - d. Prepare a topographic surveying for engineering purposes with a scale of 1"=10 ft
  - e. Survey work will be performed during the day.
  - f. Work will be prepared on California Coordinate System of 1983, Zone 3
- Review as-builts, existing building features, and available reports (Geotechnical, Surveys, utilities, etc).
  - a. Make sure the existing As-Built info matches with actual building status.
- Engineer and Architect's Site visit of each location to confirm existing conditions.
- Identify physical constraints and limiting dimensions.
- Identify code requirements regarding the width, rise and run of the emergency access stairs.
- Based on the as-built drawings and actual site visits, lay out the proposed third floor door location, landings, and stairs.
- Identify required railing and other features needed to finish the installation.
- Identify likely support points for the stair layout and how the total loading is distributed to the existing structure.
- Establish Basis of Design Memo
- Develop conceptual 35% design layouts.
  - a. Architectural design layouts
  - b. Structural design layouts
  - c. Electrical design layouts (proposed location for exterior lights)

- d. Civil plan layout for safety dispersal area conceptual location
- Conceptual design review meeting
  - a. BART to approve conceptual design layouts to allow HDR to advance design and progress to the following milestone deliverables.

**Task 1.2 – 65% Design Phase**

- Architectural Code review of Exits, Illumination
- Architectural Code compliance/modification letter, if needed
- 65% Performance design of stair (Specifications)
- 65% Architectural Plans
  - a. Code Compliance Letter
  - b. Code Compliance Plan
  - c. Architectural Plans and Notes
  - d. Architectural Elevations
  - e. Architectural Details
  - f. Architectural Schedules
- 65% Structural Plans
  - a. Structural Plans and Notes
  - b. Structural Details
  - c. Structural Sections
- Preparation of preliminary structural calculations
- 65% Electrical Plans
  - a. Location of exterior lights
  - b. Panel schedule showing lighting circuit
  - c. Exterior lighting control diagram
  - d. Lighting fixture schedule
  - e. Photometric calculations.
- 65% Civil Plans
- 65% Design - Opinion of Probable Construction Cost (OPCC)
- Preliminary Constructability and Biddability Report
- 65% Internal QA/QC review

**Task 1.3 – 95% Design Phase**

- Coordination with BART on in house construction vs contracting out package break out.
  - a. Get direction from BART how they will like us to deliver the 95% design package.
- Meet with BART to close out previous comments from 65% submittal.
- Architectural Code review of Exits, Illumination
- Architectural Code compliance/modification letter, if needed

- 95% Performance design of stair (Specifications)
- 95% Architectural Plans
- 95% Structural Plans
- Preparation of structural calculations
- 95% Civil Plans
- 95% Electrical Plans
  - a. Location of exterior lights
  - b. Panel schedule showing lighting circuit.
  - c. Exterior lighting control diagram
  - d. Lighting fixture schedule
  - e. Photometric calculations.
- 95% Design - Opinion of Probable Construction Cost (OPCC)
- 95% Internal QA/QC review

**Task 1.4 – 100%/IFC Design Phase**

- Meet with BART to close out previous comments from 95% submittal.
- Architectural Code review of Exits, Illumination
- Architectural Code compliance/modification letter
- 100% Performance design of stair (Specifications)
- 100% Architectural Plans
- 100% Structural Plans
- Final set of structural calculations
- 100% Electrical Plans
- 100% Civil Plans
- 100% Design - Opinion of Probable Construction Cost (OPCC)
- Final Constructability and Biddability Report
- 100% Internal QA/QC review
- Final BART Safety certification checklist review

**Task 2 – Design of Daly City Tower Access**

**Task 2.1 – Daly City - Initial Layout Phase (~35% Design)**

- Similar as described above under Task 1.1 Initial Layout Design for Hayward Tower

**Task 2.2 – Daly City 65% Design Phase**

- Similar as described above under Task 1.2 65% Design Phase for Hayward Tower

**Task 2.3 – Daly City 95% Design Phase**

- Similar as described above under Task 1.3 95% Design Phase for Hayward Tower

#### **Task 2.4 – Daly City 100%/IFC Design Phase**

- Similar as described above under Task 1.4 100%/IFC Design Phase for Hayward Tower

#### **Assumptions**

- Seismic or Code retrofit of the existing building is not included.
- Structural evaluation of the existing building for Code compliance is not included.
- Concept Review Meeting will be conducted after 35% submittal.
  - Submittals reviews to be done by BART engineering, building operations & maintenance groups to get concurrence design approach as part of the 35% conceptual submittal acceptance.
  - Once the 35% conceptual submittal is approved, other design changes related to realignment or programmatic changes are to be considered scope change and will be subject to an amendment to this scope.
- Construction details will not be included.
- BART to provide any badging or site visit documentation needed for the HDR design team to complete.
- The additional exterior staircase & pathway to be design is not to be used as egress but to used as a convenient secondary access to the staff.
- Emergency exit or egress signs are not to be placed at entrance and exit doorways that lead to this convenient secondary access.
- Review meeting with BART post 65% submittal to confirm construction breakout between BART self-performed work versus released to bidding for outside contractor to perform.
- Coordinate with BART on how to develop the 95% design/construction package to support BARTs preferred approach for construction prior to commencing 95% package.
- Collaborative efforts on timely review periods and comment response time frames between BART and Design Team
- BART review period for each submittal milestone once submitted to last a max of 20 workdays.
- Bi-weekly team meetings between necessary BART and Design team members.
- Combine 100% and IFC submittal into one since we have a 95% submittal prior to this design phase.
  - if design submittal milestone percentage to change it would come from BARTs direction and work plan to be revised appropriately
- Will need to discuss with BART engineering group to submit electronic files to their standards for receiving native CADD files with each submittal.
- 2 site visits to be done by HDR engineering and architecture team with BART present (one for each location).
- Design Scope for the convenient secondary access staircase consists of Civil, Structural, Architectural and Electrical components. All other disciplines are not part of this design scope.
- This scope of work does not include Bid Support (if needed) and Design During Construction Services.
  - This will be a separate future work plan as directed by BART.

**Prime: HDR**

<b>Subconsultant</b>	<b>Amount</b>	<b>DBE (Y/N)</b>	<b>SBE (Y/N)</b>
<b>Cinquini &amp; Passarino</b>	<b>\$ 20,390</b>	<b>N</b>	<b>N</b>

**Total Work Plan Value: \$ 859,077**