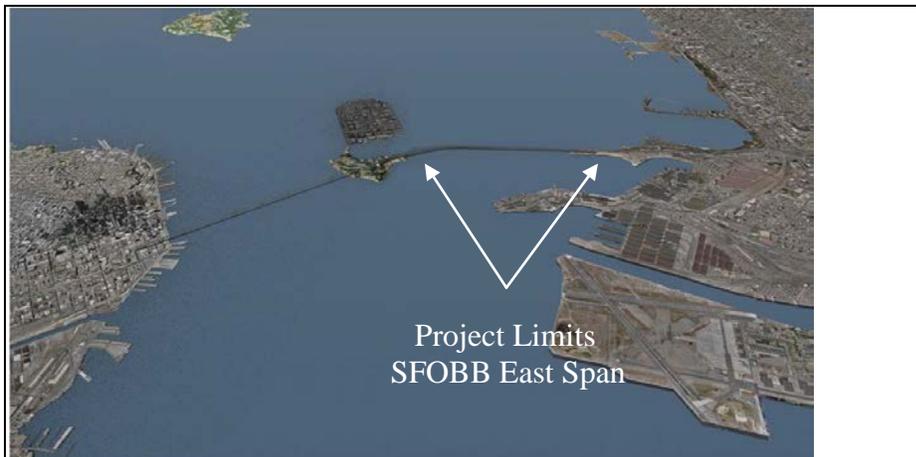


CMGC
NOMINATION FACT SHEET
San Francisco - Oakland Bay Bridge Marine Foundation Removal
04-SF/Ala-80-0.5 (PM)
Project EA: 04-013531

Project Description

This Toll Bridge Seismic Retrofit (TBSR) project will remove the marine piers of the existing San Francisco - Oakland Bay Bridge (SFOBB) - East Span. The project is located in the City and County of San Francisco and Alameda County, from 0.5 miles east of Yerba Buena Tunnel to 0.8 mile west of the Toll Plaza. The superstructure will be dismantled under other TBSR contracts.

This project is needed because various permits require the removal of the entire existing SFOBB-East Span Bridge to fulfill environmental commitments and for the safety of marine traffic once the new bridge is constructed and operational.



Project Proposal

The New East Span of the SFOBB is scheduled to open to traffic in the fall of 2013. Dismantling of the old bridge will start immediately after the traffic has been moved onto the new structure. Once the steel superstructure dismantling work is complete the Marine Foundation removal work can begin. The current schedule has work beginning on the Marine Foundations removal in the spring of 2015.

Getting the environmental permit for the removal of the Marine Foundations will be one of the most challenging portions of the whole SFOBB replacement project as it involves major underwater work in San Francisco Bay. There are significant hydro acoustical and water quality issues that need to be addressed before the regulatory agencies will issue the project permit. Failure to address these issues could delay the start of this work. In addition, failure to identify all the impacts of the work or failure to mitigate identified impacts as provided in the permit could lead to significant delay and associated extra costs in construction.

Schedule

The construction contract is expected to start December 2014, with actual removal of the foundations starting in the spring of 2015. Contract completion is scheduled for mid-

2017. Design is approximately 20% complete. The Construction Manager could provide services from now through the spring of 2015. The Construction Manager would need to be procured by the end of 2013 to help maximize the benefit of the CMGC procurement process.

Cost/Funding

The construction cost for the project is estimated at \$86 million. Funds are to be provided by the Toll Bridge Seismic Retrofit Program, funding per AB144 (2005), reimbursable by Bay Area Toll Authority (BATA). There are no federal funds allocated for this project.

Permits/Agreements

The Final Environmental Impact Statement for this project was approved on 4/17/01. PAED was completed on 7/11/01. A NEPA/CEQA revalidation for the demolition, dismantling and complete removal of the original East Span of the SFOBB was completed February, 27, 2012. Consultations with the environmental agencies on the project permits have begun and will need to be concluded prior to the commencement of work in 2015.

Right of Way and Utilities

The project lies entirely within the State right-of-way, so there are no outstanding right-of-way issues. All utilities are either relocated or will be relocated to the new bridge prior to January 2014.

Public/Political Support of Project

This project is developed through a partnership between the Bay Area Toll Authority, California Transportation Commission and the California Department of Transportation (Caltrans). The public has consistently shown their support for this project by approving ballot measures that were introduced to pay for the project.

Why is this project a good CMGC candidate?

The project team believes the Marine Foundation Removal contract can greatly benefit from the CM/GC procurement by having the contractor on-board as we go through the permitting process with the regulatory agencies. In a low bid procurement process, in order to accommodate the different “means and methods” of various contractors, our environmental team need to conservatively guess impacts for each of the various construction methods. This can lead to long review times as the agencies are usually asked to permit several different construction options. In the CM/GC procurement process, our environmental team will only have to permit the contractor’s planned means and methods. The contractor can attend all meetings with the environmental agencies and will be able to address any questions or concerns on the spot. This is likely to expedite the environmental review process and mitigate delay risks.

The removal of the deep water foundation is a technically challenging and unique project. The most qualified contractor will likely bring innovative techniques to the table and will likely have access to additional resources should they be required. Also, the selection of the most qualified contractor will be crucial as the team looks to remove the foundation with the use of micro-blasting. The environmental agencies are unlikely to approve the use of micro-blasting unless they can be satisfied that we have the most experienced contractor in this line of work on our team. Overall, the project team expects faster

project delivery through the concurrence of activities during the CM/GC procurement process. The team would expect the final project cost to come in at or below the final cost using the CMGC process than if the contract was procured in the standard design bid build procurement process.

The Construction Manager's tasks should be evaluated by the project team with input from the appropriate functional units. Select the tasks for which the Construction Manager's assistance will be needed and discuss its benefits to delivering the project. (Note: This initial selection will be used to assist in understanding how the district intends to the construction manager and can be modified prior to release of the RFQ).

DESIGN RELATED

- Validate Department/Consultant design
- Assist/input to Department/Consultant design
- Design reviews
- Design charrettes
- Constructability reviews
- Operability reviews
- Regulatory reviews
- Market surveys for design decisions
- Verify/take-off quantities
- Assistance shaping scope of work
- Feasibility studies
- Encourage innovation

COST RELATED

- Validate agency/consultant estimates
- Prepare project estimates
- Cost engineering reviews
- Early award of critical bid packages
- Life cycle cost analysis
- Value analysis/engineering
- Material cost forecasting
- Cost risk analysis
- Cash flow projections/Cost control
- Shape the project scope to meet the budget

PRECONSTRUCTION WORK RELATED

- Utility Relocation
- Potholing

- Preliminary soil and geotech studies
- Right of Way Demolition
- Preliminary Surveying

SCHEDULE RELATED

- Validate agency/consultant schedules
- Prepare and manage project schedules
- Develop sequence of design work
- Construction phasing
- Schedule risk analysis/control

ADMINISTRATION RELATED

- Prepare Document Control
- Coordinate contract documents
- Coordinate with 3rd party stakeholders
- Subcontractor bid packaging
- Attend public meetings
- Bidability reviews
- Subcontractor bid packaging
- Prequalifying Subcontractors
- Assist in right-of-way acquisition
- Assist in permitting actions
- Study labor availability/conditions
- Prepare sustainability certification application
- Follow environmental commitments
- Follow terms of Federal Grant
- Coordinate site visits for subcontractors
- Teamwork/Partnering meetings/sessions
- Develop Quality and Safety plans

Glossary of Preconstruction Services Terms

Design-Related Preconstruction Services

- **Validate agency/consultant design**—Construction Manager evaluates the design as it is originally intended and compares it to the scope of work with both the required budget and schedule to determine if the scope can be executed within those constraints. A validated design is one that can be constructed within the budget and schedule constraints of the project.
- **Assist/input to agency/consultant design**— Construction Manager will offer ideas/cost information to the designer to be evaluated during the design phase. Ultimately, the designer is still responsible for the design.
- **Design reviews**—done to identify errors, omissions, ambiguities, and with an eye to improving the constructability and economy of the design submittal.
- **Design charrettes**—Construction Manager would participate in structured brainstorming sessions with the designer and owner to generate ideas to solve design problems associated with the project.
- **Constructability reviews**—review of the capability of the industry to determine if the required level of tools, methods, techniques, and technology are available to permit a competent and qualified construction contractor to build the project feature in question to the level of quality required by the contract.
- **Operability reviews**—bringing in the agency’s operations and maintenance personnel and providing them with an opportunity to make suggestions that will improve the operations and maintenance of the completed projects.
- **Regulatory reviews**—a check to verify that the design complies with current codes and will not have difficulty obtaining the necessary permits.
- **Market surveys for design decisions**—furnish designers with alternative materials or equipment along with current pricing data and availability to assist them in making informed design decisions early in the process to reduce the need to change the design late in the process resulting from budget or schedule considerations.
- **Verify/take-off quantities**—Construction Manager verifies the quantities generated by the designer for the engineer’s estimate.
- **Assistance shaping scope of work**— Construction Manager generates priced alternatives from the designer and owner to ensure that the scope of work collates to the constraints dictated by the budget and/or schedule.
- **Feasibility studies**— Construction Manager investigates the feasibility of possible solutions to resolve design issue on the project.

Cost-Related Preconstruction Services

- **Validate agency/consultant estimates**—Construction Manager evaluates the estimate as it is originally intended and determines if the scope can be executed within the constraints of the budget.
- **Prepare project estimates**—Construction Manager provides real-time cost information on the project at different points in the design process to ensure that the project is staying within budget.
- **Cost engineering reviews**—review that includes not only the aspects of pricing but also focuses on the aspect that “time equals money” in construction projects.

- **Early award of critical bid packages**— Construction Manager determines which design packages should be completed first to ensure that pricing can be locked in on the packages.
- **Life-cycle cost analysis**— Construction Manager provides input to design decision that impact the performance of the project over its lifespan.
- **Value analysis**—process that takes place during preconstruction where the CMGC contractor identifies aspects of the design that either do not add value or whose value may be enhanced by changing them in some form or fashion. The change does not necessarily reduce the cost; it may actually decrease the life-cycle costs.
- **Value Engineering**—systematic review by a qualified agency and/or contractor personnel of a project, product, or process so as to improve performance, quality, safety, and life-cycle costs.
- **Material cost forecasting** – Construction Manager utilizes its contacts within the industry to develop estimates of construction material escalation to assist the owner and designer make decisions regarding material selection and early construction packages.
- **Cost risk analysis**—furnishing the agency with information regarding those cost items that have the greatest probability of being exceeded.
- **Cash flow projections/Cost control** – Construction Manager conducts earned value analysis to provide the owner with information on how project financing must be made available to avoid delaying project progress. This also may include an estimate of construction carrying costs to aid the owner in determining projected cash flow decisions.

Schedule-Related Preconstruction Services

- **Validate agency/consultant schedules**— Construction Manager evaluates if the current scope of work can be executed within the constraints of the schedule.
- **Prepare project schedules**— Construction Manager prepares schedules throughout the design phase to ensure that dates will be met, and notify the owner when issues arise.
- **Develop sequence of design work**— Construction Manager sequences the design work to mirror the construction work, so that early work packages can be developed.
- **Construction phasing** – Construction Manager develops a construction phasing plan to facilitate construction progress and ensure maintenance of traffic.
- **Schedule risk analysis/control**— Construction Manager evaluates the risks inherent to design decisions with regard to the schedule and offers alternative materials, means and/or methods to mitigate those risks.

Administrative-Related Preconstruction Services

- **Coordinate contract documents** – Construction Manager evaluates each component to the construction contract against all other components and identifies conflicts that can be resolved before award of the construction phase contract.
- **Coordinate with third-party stakeholders**— Construction Manager communicates with third parties involved in the project including but not limited to utilities, railroads, and the general public.
- **Public information-public relations** – Construction Manager implements a program to identify public relations issues and solve them to ensure the project is not delayed by public protest.
- **Attend public meetings** — Construction Manager can organize and attend public meetings to answer questions from the public about the construction of the project.

- **Biddability reviews** — Construction Manager reviews the design documents to ensure that subcontractor work packages can be bid out and receive competitive pricing. This action reduces the risk to the subcontractors because they are given the specific design product they need for their bids; not just told to find their work inside the full set of construction documents.
- **Subcontractor bid packaging** — Construction Manager coordinates the design work packaging to directly correlate with subcontractor work packages so that early packages can be easily bid out and awarded.
- **Prequalifying subcontractors** – Construction Manager develops a list of qualified subcontractors that are allowed to bid on packages as they are advertised.
- **Assist in right-of-way acquisition** – Construction Manager assists the designer in identifying options for right-of-way acquisitions by providing means and methods input. The primary purpose is to minimize the amount of right-of-way actions that must be undertaken.
- **Assist in permitting actions** – Construction Manager is empowered to meet with resource agencies and develop permit applications with assistance from the designer.
- **Study labor availability/conditions** – Construction Manager furnishes advice during design with regard to the availability of specialty trade subcontractors and the impact of that availability on project budget and schedule constraints.
- **Prepare sustainability certification application**– When certification for sustainability is desired, the Construction Manager is empowered to prepare the necessary paperwork to submit for certification