

Agenda Item No. 6.C.

To: Board of Directors  
Meeting of April 24, 2009

From: Ewa Z. Bauer, Deputy District Engineer  
Denis J. Mulligan, District Engineer  
Celia G. Kupersmith, General Manager



Subject: **STATUS REPORT ON ENGINEERING PROJECTS**

### **Recommendation**

The following report is provided for informational purposes and no action is required. *Items that have changed since the last report are in this typeface.*

### **Summary**

Golden Gate Bridge Physical Suicide Deterrent System, RFP No. 2006-B-17. By Resolution Nos. 2005-015 and 2005-031, the Board of Directors approved seeking funding to underwrite the development of environmental studies and preliminary design work for a Physical Suicide Deterrent System on the Golden Gate Bridge (Studies). On March 26, 2006, the Board of Directors approved Resolution No. 2006-027, which approved proceeding with environmental studies and preliminary design work. On June 28, 2006, Metropolitan Transportation Commission (MTC) passed a resolution providing \$1.6 Million for this effort. A Request for Proposal (RFP) to engage consultants to perform this work was advertised on June 29, 2006, and the Board at its September 22, 2006, meeting authorized execution of a Professional Services Agreement with DMJM Harris, Inc. The Notice to Proceed was issued effective October 16, 2006.

The first phase, which is wind tunnel testing, was completed in May 2007 and the results of the wind studies were presented at the May 24, 2007, Building and Operating Committee Meeting. The second phase is preliminary engineering and environmental studies.

The Draft Environmental Impact Report/Environmental Assessment (EIR/EA) was released to the public on July 8, 2008. Public meetings were held on July 22 and July 23 in Marin and San Francisco with the public comment period ending August 25, 2008.

The Board of Directors voted on October 10, 2008, to select Alternative 3 – the NET as the Locally Preferred Alternative (LPA).

The selection of the LPA has provided direction for: 1) the preparation of written responses to comments; 2) the negotiation and execution of a Memorandum of Agreement (MOA) to mitigate the adverse effects the LPA has on the historic property; and, 3) the preparation of any additional required studies for the LPA (for example, evaluate the potential for bird collisions). The responses to comments, MOA and additional studies will be incorporated into the Final EIR and Findings of

No Significant Impacts (FONSI). District staff and the consultant are working in coordination with Caltrans to complete these items. On February 24, 2009, staff met with the State Historic Preservation Officer, the Federal Advisory Council on Historic Preservation, Caltrans, and interested parties regarding the MOA. *A follow-up meeting was held on March 27, 2009. The MOA is being prepared for signatures.*

The next steps after the selection of the LPA and the preparation of the Final EIR/FONSI are the release and certification of the Final EIR/FONSI and adoption of the project. Additionally, the Board will certify that the Final EIR complies with the California Environmental Quality Act (CEQA) and will make Findings and adopt a Statement of Overriding Considerations. Caltrans, as assigned by the Federal Highway Administration (FHWA), will issue a FONSI. However, this can only occur if the project is funded as demonstrated by the project's inclusion in MTC's fiscally constrained Transportation Improvement Program (TIP) or Regional Transportation Plan (RTP).

The District has a project website to inform the public regarding the project. The project website is: [www.ggbsuicidebarrier.org](http://www.ggbsuicidebarrier.org). All Project documents, such as the wind report and the draft EIR/EA, are available on the website.

Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon. On March 28, 2008, the Board awarded Contract No. 2006-B-1 in the amount of \$83,320,672 to the low bidder, Shimmick Construction Company, Inc./Obayashi Corporation, a Joint Venture. Notice to Proceed was issued to the Contractor on July 7, 2008. The Contractor has established the field office and is preparing for District's approval of the major initial submittals and work plans. *Currently, lead clean-up activities, installation of access platforms, and exterior wall strengthening activities are underway inside the North Anchorage House.*

On May 23, 2008, the Board authorized the General Manager to award the Professional Services Agreement for the Phase III Construction Management and Inspection Support Services, Contract No. 2006-B-2, to HNTB in the amount not to exceed \$6,110,000 upon receiving FHWA/Caltrans approvals of the Agreement. The General Manager awarded the Agreement to HNTB on June 27, 2008.

On May 23, 2008, the Board authorized the General Manager to award the Professional Services Agreement (PSA) for the Phase IIIA Engineering Support Services, Contract No. 2006-B-3, to HDR Engineering, Inc., in the amount not to exceed \$3,300,000 upon receiving FHWA/Caltrans approvals of the Agreement. The General Manager awarded the Agreement to HDR on June 3, 2008.

On June 27, 2008, the Board authorized execution of a Professional Services Agreement with Environmental Science Associates (ESA) in an amount not to exceed \$300,000.00 with a contingency amount of \$30,000.00. The General Manager awarded the Agreement to ESA on August 15, 2008. ESA is monitoring the work for compliance with the project environmental permits.

Environmental Studies and Preliminary Design for a Moveable Median Barrier on the Golden Gate Bridge, RFP No. 2008-B-5. A Request for Proposal (RFP) to engage consultants to perform preliminary engineering and environmental studies was posted on the District's website on June 6, 2008, and on July 14, 2008, three proposals were received by the District. On September 12, 2008, the Board authorized execution of a Professional Services Agreement (PSA) with AECOM, USA, Inc. (formerly DMJM Harris), subject to the District receiving FHWA and Caltrans approval of the agreement. *The District and Consultant have met to discuss maintenance and operational concerns in preparation of beginning the environmental studies. The Consultant has begun work.*

Phase II: Golden Gate Bridge Seismic Retrofit of South Approach Structures, Contract No. 99-B-5. This contract includes structural retrofit of the South Approach Viaduct (SAV), the South Anchorage Housing, Pylons S1 and S2, and the Fort Point Arch (FPA); relocation of various utilities, and retrofit of utility conduits along the south approach structures.

On May 11, 2001, the Board awarded the Contract to the low bidder, Shimmick Construction Company, Inc./Obayashi Corporation, a Joint Venture, in the amount of \$122,292,503. The Notice to Proceed was issued to the Contractor on June 4, 2001.

All site work under Contract No. 99-B-2 is complete. All outstanding issues have been resolved— with no claims. The final estimate has been processed and staff is completing project closeout documents.

Toll Plaza Pavement and Access Improvements, Contract No. 2009-B-4. Staff is preparing the design plans and bid documents to repave the Toll Plaza employee parking lot, undercrossing access road and northbound on- and off-ramps; provide signage to improve pedestrian and vehicle access; to modify the Administration Building access areas and various sidewalks and install a platform lift to comply with ADA regulations; to construct an observation deck at East Parking lot; and to repair spalling concrete and deteriorated conduit supports at the undercrossing. *This project was advertised on April 14, 2009.*

Golden Gate Bridge South Approach and Pier Physical Security Improvements, Contract No. 2008-B-2. Staff is preparing the design plans and bid documents to improve the physical security at the south tower pier and south approach area. This project is scheduled to be advertised in mid 2009.

Golden Gate Bridge South Tower Maintenance Scaffolding System. Staff is preparing the design plans and bid documents to provide maintenance scaffolding at the South Tower. This project is scheduled to be advertised in late 2009.

Biennial Bridge Inspection Program. In order to ascertain the structural condition of the Bridge and to comply with FHWA (Federal Highway Administration) regulations, the District conducts a Biennial Bridge Inspection. This inspection data is analyzed and organized to facilitate Bridge maintenance operations and to assist the capital budget development process. Staff prepared the work plan for the Biennial Bridge Inspection, including underwater inspection of the North Pier, South Pier, and Fender. On November 21, 2008, the District submitted the 2008 Biennial Bridge Inspection

Report and the Load Ratings for the Golden Gate Bridge, Bridge No. 27-0053, to Caltrans and FHWA. On March 17, 2009, the District submitted the “National Bridge Inventory – Structure Inventory and Appraisal” reports for the Lincoln Boulevard Overcrossing, Toll Plaza Undercrossing, Alexander Avenue – Bunker Road (Overpass), and Alexander Avenue – East Gate Road (Overpass) to Caltrans and FHWA. Staff is preparing an RFP to select a consultant for the underwater inspection of the piers and fender.

Golden Gate Bridge Main Cable Renovation. On April 13, 2001, the Board accepted staff’s recommendation to revise the Contract documents and to readvertise the project for construction bids. The revisions will include adding provisions and design criteria for work access systems to be proposed by contractors, and revising the bid documents. Staff is preparing a Request for Proposals to engage services of an engineering consultant with expertise in suspension bridge surface cable renovation to provide assistance with updating plans and technical specifications for the construction access and staging, cable cleaning and coating, and opening cable’s interior for inspection.

Seismic Instrumentation. The State of California, Division of Mines and Geology – Strong Motion Instrumentation Program (SMIP) has completed installing and testing the Phase I seismic instrumentation system. Seventy-six seismic sensors and two recording stations were installed as part of this phase.

On April 10, 2001, and September 21, 2004, the Seismic Instrumentation Advisory Panel (Panel) approved the Phase II sensor locations for the South Approach Structures. Twenty-five additional sensors were proposed for the South Approach and were included as part of the Phase II Seismic Retrofit project. On September 24, 2002, the Panel approved the design plans of Phase II Seismic Instrumentation, North Approach Structures. Twenty-four additional sensors for the North Approach were added to the Seismic Instrumentation System. Subsequent panel meetings were held on September 30, 2003, September 21, 2004, and October 25, 2006, to review the progress of construction of the Phase II Seismic Instrumentation and the MEMS system developed by the U.C. Berkeley Citris program. The MEMS has been tested with satisfactory results and was removed by U.C. Berkeley in March 2007.

On October 25, 2006, the Panel recommended installing a wind monitoring system on the Golden Gate Bridge. On April 27, 2007, the Board authorized SMIP to install the wind monitoring system, including an anemometer and a seismic recorder connected to selected, existing and new seismic sensors on the Suspension Bridge.

On August 29, 2007, the Panel approved the design of the wind monitoring system, and recommended measuring ambient vibration and analyzing the Bridge computer model with data recorded from the 1999 Bolinas and 2000 Napa earthquakes. The wind monitoring system was completed in October 2008. The next Panel meeting is scheduled for mid 2009.

Earthquake Response Plan. Staff has developed and finalized an Earthquake Response Plan. The Plan recommends establishment of an on-call Bridge emergency repair service and computer analytical capability and a list of on-call contractors for emergency repairs was established. Staff is

developing an in-house computer analytical system with assistance from International Civil Engineering Consultants, Inc., (ICEC) for earthquake input data analyses. To date, ICEC has performed conversion of the Suspension Bridge, the South Approach Structures, and the North Approach Viaduct computer models to the ADINA program. In 2002, SMIP installed an independent seismic sensor with a warning light and buzzer in the Sergeant's control room. On March 1, 2007, the Bridge Earthquake Response Pager System successfully recorded and transmitted the Lafayette Earthquake with a 1%g ground acceleration at the Bridge. On October 30, 2007, the Bridge Earthquake Response Pager System successfully recorded and transmitted the Alum Rock Earthquake with a 1%g grounded acceleration of the Bridge. On March 3, 2009, the Pager System was tested with satisfactory results.

In 2002, the Ironworkers, the Sergeants, the Engineers, and the Inspectors were given training in performing post-earthquake Bridge inspection in accordance with the Earthquake Response Plan. An updated training was provided on April 12, 2006. An earthquake response drill was carried out on April 19, 2006, to ensure that staff will be familiar with the Earthquake Response Plan. Staff has provided good comments to improve the procedures and inspection forms for the earthquake response inspection.

### **BUS TRANSIT FACILITIES**

San Rafael District Administration Building HVAC Improvements, Contract No. 2008-BT-2. Staff, with the assistance of mechanical and electrical design consultants prepared design plans and specifications for the improvements to the existing HVAC system. The contract was advertised for bids on April 18, 2008, and five bids were received and opened on May 6, 2008. On May 23, 2008, the Board authorized awarding the Contract to the low bidder, Best Contracting Services, Inc., in the amount of \$597,500.00. The Notice to Proceed was issued effective June 30, 2008. Contractor is completing punch list items.

San Rafael Bus Facility Perimeter Security Improvements, Contract No. 2009-BT-2. Staff prepared design plans and specifications for improvements to the perimeter security at the San Rafael Bus facility. The contract was advertised for bids on May 20, 2008 and on June 17, 2008, 3 bids were received and opened. On June 27, 2008, the Board authorized award of the contract to Sonoma County Builders, Inc., in the amount of \$590,108.22. The Notice to Proceed was issued effective July 28, 2008. *Contractor completed remaining punch list items on April 3, 2009.*

San Rafael District Data Center Project, Contract No. 2009-BT-3. Staff prepared the design plans and bid documents to construct a District Data Center within the San Rafael Bus Facilities to house computer and radio servers including an uninterrupted power supply system. This project was advertised on January 13, 2009, and bids were opened on February 10, 2009. *On March 27, 2009, the Board authorized award of the Contract to Sonoma County Builders, Inc., in the amount of \$1,352,644.27.*

Santa Rosa Bus Facility – Site Remediation. The District removed leaking underground tanks at the site in 1990. As part of the ensuing site investigation of diesel contamination, a soil vapor extraction system was installed and operated over a three-year period. In response to a 1997 request for site closure, the North Coast Regional Water Quality Control Board (NCRWQCB) requested additional

groundwater monitoring. In October 1999, staff received a letter from NCRWQCB that contained additional requirements for site closure. Based on the presence of Volatile Organic Compounds (VOCs) in the groundwater, in particular the solvents TCE and TCA, the NCRWQCB, in December 2000, requested additional investigation regarding the presence of VOC pollutants on the site. The District responded that the VOC pollutants did not originate from the District property but migrated onto the site from the neighboring Hewlett-Packard (HP) property, which has had known releases of VOCs on their site.

The NCRWQCB responded that the two property owners needed to resolve this issue. The District and HP agreed to conduct joint groundwater sampling for presence of VOCs and provide recommendations for resolving the issue. Two rounds of joint sampling were performed in April and October, 2001.

The District completed the site closure actions requested by the NCRWQCB and submitted a final report in February 2002. The NCRWQCB responded in May 2002 with a request for additional monitoring for diesel hydrocarbons and VOC pollutants. The parties did not reach agreement on recommendations for resolving the VOC issue.

HP issued its own report on the joint monitoring in October 2002. The NCRWQCB requested a written response from the District to the HP report. The District responded with a comprehensive Forensic Evaluation Report that explained the occurrence of VOCs on GGB property and met with the NCRWQCB to reach an agreement on remaining concerns. The final report addressed the Board's comments and was submitted in December 2003.

The NCRWQCB responded in March 2005, requesting that the District develop a plan for further mitigation of VOCs and diesel hydrocarbons. The District has met with the NCRWQCB to clarify its request. The NCRWQCB is reviewing information submitted by the District and will clarify its request regarding additional testing for VOC pollutants on the property. The NCRWQCB is concerned that historic use of the site as a small aviation airport could have contributed to VOCs found in groundwater on the District site. The District's position is that there is no evidence to support that concern. On November 8, 2005, the District advertised an RFP for a new contract to obtain additional test samples required by the water board. On February 24, 2006, the Board authorized execution of a Professional Services Agreement with PES Environmental, Inc., and the Notice to Proceed was issued to the consultant on March 6, 2006. The consultant obtained test samples from the existing wells and submitted a request for closure to the NCRWQCB. The District met with the NCRWQCB to discuss the closure request and the NCRWQCB declined to approve site closure. An annual sampling event was performed in March 2007; however, the test results were inconclusive. Additional quarterly sampling was performed in June, September, and December 2007 at the site. Another annual sampling event was performed in March 2008, and the test results were again inconclusive. *Quarterly sampling was performed throughout 2008 and annual sampling was performed the last week of March 2009.*

Novato Bus Facility – Site Remediation. The final site remedial investigation report regarding previous fuel leaks at the site was submitted to the San Francisco Regional Water Quality Control Board (SFRWQCB) in May of 1997. The SFRWQCB reviewed and approved the recommended corrective actions identified in the report, which included replacing the existing diesel Underground

Storage Tanks (USTs). Two existing 12,000-gallon single-walled underground storage diesel tanks were removed in 1998 and replaced with two new double-walled 15,000 gallon USTs nearby.

In June 1999, the District submitted a report for implementation of the remaining corrective actions, which included quarterly groundwater monitoring, closure of a deep well, installation of additional monitoring wells and a sensitive receptor survey. The groundwater monitoring results indicated that the fuel from the leak was confined to the site; however, it is not diminishing at a rate that would allow site closure.

The fourth quarter 2003 round of monitoring discovered a spike in contaminant levels in the monitoring wells. The District reported the findings to the SFRWQCB in its April 2004 progress report and included recommendations that would lead to site closure. The SFRWQCB approved the recommendations, added a few of its own, and required that the District implement those recommendations. The District implemented two rounds of quarterly groundwater monitoring that were concluded in March 2005. On November 8, 2005, the District advertised an RFP for a new contract to perform additional testing and monitoring as required by the SFRWQCB. On February 24, 2006, the Board authorized execution of a Professional Services Agreement with PES Environmental, Inc. The Notice to Proceed was issued to the consultant on March 6, 2006. The consultant prepared a work plan and submitted the plan to the SFRWQCB for approval. The District received a conditional approval of the work plan from the SFRWQCB and has commenced work at the site. The consultant has performed soil and water sampling throughout the site and is developing remediation plans for the site. *Quarterly groundwater sampling was performed the last week of March 2009.*

### **FERRY FACILITIES**

Larkspur Ferry Terminal Parking and Access Improvements, Contract No. 2008-FT-8. Staff prepared the design plans and bid documents to construct the parking lot improvements to increase the passenger parking spaces, to comply with ADA regulations and to improve pedestrian and vehicular traffic access safety. The contract was advertised for bids on May 13, 2008 and four bids were received and opened on June 10, 2008. On June 27, 2008, the Board authorized award of the contract to Ghilotti Bros., Inc., in the amount of \$1, 298,000.00. The District received a permit from BCDC on July 11, 2008, and issued the Notice to Proceed effective July 23, 2008. The parking and access improvements have been completed and the Contractor is completing punch list items.

Larkspur Ferry Terminal, Consultant to Provide Berth and Channel Maintenance Dredging Design and Permitting Support Services, RFP No. 2008-FT-3. A Request for Proposal (RFP) to engage consultants to perform this work was advertised on July 27, 2007, and the Board at its September 28, 2007, meeting authorized execution of a Professional Services Agreement with Anchor Environmental CA, L.P. The Notice to Proceed was issued for the first phase of the project, Berth Maintenance Dredging, effective October 3, 2007. The consultant performed a bathymetric survey of the existing conditions in the berthing basin in October 2007, and the District determined that the conditions did not warrant dredging the berths in 2008. In September 2008, consultant performed another condition survey of the berthing basin. Staff has determined that maintenance dredging will not be required in 2009.

Corte Madera Ecological Reserve (CMER) Tidal Wetlands Restoration Project. As a condition of a 1988 COE (U.S. Army Corps of Engineers) permit for maintenance dredging of the Larkspur Ferry Terminal, the District was required to perform a study to assess the potential impact of ferry operations on erosion of the shoreline at the CMER. The study also investigated creating replacement habitat for a native bird species, the Clapper Rail, due to erosion of their existing habitat. The study was inconclusive regarding the impact of ferry operations on erosion of the shoreline. In consultation with the COE and USFWS (U.S. Fish & Wildlife Service), the District agreed to create four acres of tidal marsh habitat on the District's 72-acre parcel adjacent to CMER, as mitigation for the erosion impacts. A conceptual design report and a draft environmental IS (Initial Study) for the marsh restoration project, which proposed the restoration of three and a half acres of tidal wetlands, two acres of seasonal wetlands, and the relocation of a public access easement that exists on the levee surrounding the parcel, were prepared in 1999. Preparation of Final Plans and Specifications and acquisition of permits from the Town of Corte Madera, the COE, USFWS and BCDC resumed in September 2003 with the award of a Professional Services Agreement to Philip Williams & Associates. The COE met with District staff in March 2004 and stated they wanted to re-evaluate the proposed mitigation plan as well as perform a new JD (Jurisdictional Determination) of the entire 72-acre parcel. The consultant has performed the new JD. The District and COE will meet to further discuss the project.

<b>Contract Time Expended as of April 3, 2009</b>						
<b>Project</b>	<b>Contract</b>	<b>Contract Working Days</b>	<b>Elapsed Contract Days</b>	<b>Authorized Contract Time Extension Days</b>	<b>Contract Time Expended</b>	
GGB Seismic Retrofit Phase IIIA North Anch. Housing/North Pylon (SOJV) NTP 7/07/08	2006-B-1	1,100	271	0	24.6%	
San Rafael District Admin. Bldg. HVAC (Best Contracting) NTP 6/30/08	2008-BT-2	150	193	0	128.7%	
Larkspur Ferry Terminal Parking & Access (Ghilotti Bros.) NTP 7/23/08	2008-FT-8	160	255	96	99.6%	
San Rafael Bus Facility Security (Sonoma Builders) NOC 4/3/09	2009-BT-2	120	250	5	200.0%	

**Fiscal Impact**

There is no fiscal impact relative to this status report.

EZB/DJM/crh