

PMOC MONTHLY REPORT

Honolulu High-Capacity Transit Corridor Project

City and County of Honolulu

Honolulu, HI

December 2011 (FINAL)

PMOC Contract Number: DTFT60-09-D-00012

Task Order No. 2: Honolulu High-Capacity Corridor Project

Project No: DC-27-5140

Work Order No. 1

OPs Referenced: OP 1 and 25

Jacobs Engineering Group, Inc., 501 North Broadway, St. Louis, MO 63102

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Length of Time Assigned: Five Years (November 18, 2009 through November 17, 2014)

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1.0 EXECUTIVE SUMMARY

1.1 Project Description

- **General Description:** The Project is an approximately-20-mile-long elevated fixed guideway rail system along Oahu's south shore between East Kapolei and Ala Moana Center. This Project is based on the Airport Alignment, which includes 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College station. The Project is planned to be delivered in four guideway segments.
 - Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (6 miles/7 stations)
 - Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
 - Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
 - Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)
- **Length:** 20 miles
- **No. of Stations:** 21
- **Additional Facilities:** Maintenance and Storage Facility and parking facilities
- **Vehicles:** 80 vehicles
- **Ridership Forecast:** Weekday boardings – 97,500 (2019); 116,300 (2030).

1.2 Project Status

(Note: Status of all contracts is provided in Appendix B.)

- Preliminary Engineering (PE) – Through PE plans and performance specifications, the grantee has provided enough project information to fully illustrate the scope, capacity, level of service, functionality, and expected reliability of the completed project. The plans and specifications sufficiently characterize elements of the PE design, as identified in Appendix C (PE Status by Contract).
- General Engineering Consultant II (GEC) – The grantee executed the GEC II contract with Parsons Brinkerhoff on June 30, 2011. The contract amount is \$300 million (\$150 million base amount plus \$150 million allowance amount). It is anticipated that the \$150 million allowance for additional work will be used after the initial three-year term of the contract. However, it is possible with a contract amendment to expend a portion of the allowance amount any time during the term of the contract. Notice to Proceed (NTP) #1 was issued on August 2, 2011. It should be noted that the cost for the first year of the contract is still being negotiated. The results of these negotiations should not increase the value of the \$300 million total contract amount.
- West Oahu /Farrington Highway (WOFH) Design-Build (DB) Contract – The grantee has issued NTPs to Kiewit authorizing PE, advanced PE, test and demonstration drilled shafts, and administrative support activities. The grantee received Letter of No Prejudice (LONP) #1 approval from the FTA on May 24, 2011 in the amount of \$4.72 million that

allows Kiewit to proceed with Final Design activities. In addition, the contractor has begun utility relocations.

- Maintenance and Storage (MSF) DB Contract – NTP #1 was issued to Kiewit/Kobayashi Joint Venture on July 25, 2011 for approximately \$16.8 million to perform PE and associated site investigations and coordinating with other contracts. The grantee anticipates issuing multiple Notices to Proceed (NTP) for Final Design and construction activities once it receives the appropriate authorizations from the Federal Transit Administration (FTA).
- Kamehameha Highway (KH) Guideway DB Contract – NTP #1 was issued to Kiewit on July 12, 2011 for approximately \$102 million to perform PE including interim/definitive design submittals and coordinating with other contracts. The grantee anticipates issuing multiple NTPs for Final Design and construction activities once it receives the appropriate authorizations from FTA.
- Vehicles/Core Systems Design-Build-Operate-Maintain (DBOM) Contract (CSC) – Ansaldo Honolulu Joint Venture was selected by the grantee on March 21, 2011. HART executed the contract on November 28, 2011 and anticipates issuing NTP #1 in January 2012.
- Station Design –
 - Farrington Station Group Design Contract – The grantee selected HDR/HPE, Inc. for the design contract. Advanced PE began in February 2011. To date, 11 Requests for Contractor Changes and 8 Request for Change Request by HART have been identified for various design issues, but no formal change orders have been executed.
 - Kamehameha Station Group Design Contract – The Request for Qualifications (RFQ) to begin advanced PE was issued in June 2011. NTP is anticipated to be issued in February 2012.
 - West Oahu Station Group – The grantee selected URS Corporation on March 21, 2011 and negotiations are currently underway. NTP #1 is anticipated to be issued in January 2012 to allow for development of management plans and Advanced PE to begin. The grantee is still negotiating the full scope, schedule, and cost associated with NTP #1.
- Airport Guideway Segment Design Contract – The grantee has begun negotiations with the selected firm. The grantee anticipates issuing an NTP in January 2012.
- Professional Real Estate Services Consultant – RFP Part 1 was issued on April 1, 2011, and RFP Part 2 was issued on September 8, 2011. The grantee anticipates issuing an NTP in January 2012.
- Owner Controlled Insurance Program (OCIP) Consultant – The grantee has decided not to use OCIP for WOFH, MSF and KH DB Contracts. However, OCIP will be included on the remaining contracts, and RFP Part 1 will be released on December 16, 2011. The grantee anticipates issuing an NTP in February 2012.
- Programmatic Agreement (PA) Project Manager – The grantee issued RFP Part I on June 30, 2011 for a PA Project Manager Consultant, or Kako’o. The grantee anticipates issuing an NTP in January 2012. The consultant will report to State Historic Preservation Division and the consulting parties listed in the PA.
- Executive Search Consultant – RFQ responses were received in September 2011 for a consultant to assist HART with identifying candidates for the Executive Director

position. HART awarded a contract to Krauthamer & Associates on October 17, 2011. The grantee issued an NTP on November 28, 2011, and the projected contract completion date is February 21, 2012 to recommend a permanent HART Executive Director/CEO to the HART Board.

- Human Resources Consultant – HART issued an RFQ for a consultant to assist them with providing a class and compensation study. The RFP was issued by HART in September 2011. Proposals were received in October 2011. HART decided to cancel the RFQ in December 2011 since price proposals submitted by the consultants were too high. HART will perform the class and compensation study themselves.
- Government Liaison Consultant. – HART is going through the local approval process to solicit a consultant to assist with Government Relations. A Government Liaison Consultant was originally included in the PMC contract. However, HART removed the Government Liaison Consultant scope from the current PMC re-procurement.
- On-call Hazardous Material. – HART is going through the local approval process to solicit a consultant to assist with testing and removal of material found during the Archaeological Inventory Survey work required in the Programmatic Agreement. An On-call Consultant was originally included in the GEC II scope of work. However, HART removed the On-call Consultant scope from the GEC II contract. HART will be selecting a consultant from a qualified list.
- HDOT State Safety and Security Oversight Consultant – HART is assisting HDOT to solicit a consultant to develop System Safety and Security Program Standards (SSSPS). The PMOC provided the FTA with a copy of the solicitation in November 2011. The FTA Office of Safety and Security provided comments on the solicitation via a letter to HDOT on November 30, 2011. HDOT will address the comments and will contact the FTA if it has any further questions or clarifications. The RFP is anticipated to be issued in January 2012.

1.3 Technical Capacity and Capability

The table in Section 2.3 presents the status of key required management deliverables.

1.4 Schedule

- **Preliminary Engineering (PE):** FTA approved entrance into PE on October 16, 2009
- **Record of Decision (ROD):** Publication of the Final Environmental Impact Statement (FEIS) occurred on June 25, 2010. The comment period closed August 26, 2010. The grantee submitted its disposition of all comments to the FTA on October 4, 2010. ROD was issued on January 18, 2011.
- **Final Design (FD):** HART requested FTA approval to enter FD on November 2, 2011.
- **Grantee Target Start of Revenue Operations for Full Alignment:** June 2019 (per MPS with Data Date of September 30, 2011)
- **FFGA Revenue Service Date (RSD):** January 2020 (PMOC recommendation per OP 40)

1.5 Cost Data

The grantee's submitted an initial Base Cost Estimate (BCE) dated March 25, 2011. The initial estimate was \$5.213 billion in Year-of-Expenditure (YOE) dollars, including \$865.58 million in allocated and unallocated contingency and \$230 million in financing costs. However, in September 2011, the grantee proposed eight (8) Cost Reduction Measures that resulted in the current Base Cost Estimate of \$5.126 billion in Year-of-Expenditure (YOE) dollars, including \$797.69 in total contingency (or 19.5% of the BCE) and \$246.98 million in financing costs.

The current Project Budget is as follows:

| | |
|---------------------------|---|
| Base Cost Estimate | \$4,066 billion |
| Total Contingency | \$0.798 billion (19.5% of Base Cost Estimate) |
| Finance Charges | \$0.247 billion |
| Total Project Cost | \$5.126 billion |

Total Expenditures to Date \$0.288 billion (October 2011) (excludes pre-PE costs)

1.6 Issues or Concerns

The following key issues or concerns have been identified:

- As a result of the scope, schedule, cost and risk assessments, the PMOC recommends:
 - The grantee should hold its current budget of \$5.126 billion in Year-of-Expenditure (YOE) dollars, including \$797.69 in total contingency (or 19.5% of the BCE) and \$246.98 million in financing costs.
 - Revenue Service Date should be no earlier than January 2020.
- The grantee must remain cognizant of the limits of the pre-award authority granted with the receipt of ROD. The grantee intends to issue multiple NTPs for its DB contracts. However, as noted in a December 1, 2009 letter to the grantee, the FTA will consider LONPs for activities not covered by automatic pre-award authority on a case-by-case basis following issuance of the ROD.
- The grantee must execute a license agreement with the Department of Hawaiian Homelands (DHHL) to construct the MSF on the Navy Drum Site. The PMOC has recommended that the License Agreement be provided to the FTA and PMOC for review prior to execution. A Request for Right of Entry (ROE) for construction was approved by the DHHL Board. The ROE allows access to Navy Drum Site for construction until the property acquisition occurs or the License Agreement is finalized.
- A new Director of Transportation for HDOT has been appointed and HDOT has identified an interim State Oversight Agency (SOA) lead and anticipates hiring a full-time SOA Project Manager in early 2012. A revised program schedule and a safety and security roadmap was provided to the PMOC on October 11, 2011. The PMOC provided review comments to the FTA and requested HDOT to identify a funding source to fund

the SOA once the Project is in operations. A draft Memorandum of Agreement (MOA) was submitted to the PMOC in April 2011, covering funding of the SOA by the grantee until operations begin. The grantee and HDOT anticipate executing the MOA in December 2011.

- The FTA has determined that the Project Management Support Consultant (PMC) contract was not solicited with the required Federal clauses based on the Fiscal Year 2010 Procurement System Review Final Report prepared for the FTA. The FTA has notified the grantee that it must proceed with timely re-procurement of the PMC contract, which includes Federal clauses. The grantee issued an RFP on August 2, 2011 and anticipates issuing NTP to the selected PMC by January 2012. The terms of the NTP will be determined during negotiations with the selected firm.
- The WOFH DB Contractor intends to utilize an existing facility (GPRM Prestress) for pre-casting and prestressing of the concrete guideway segments. This facility was identified in the ROD. The contractor is negotiating with the owner and the current lease-holder to obtain use of the property. However, if the GPRM facility is not secured, another facility will be required. Any impacts to the budget and/or schedule cannot be assessed until a decision is made on the site to be used for pre-casting activities. If another site is selected, the grantee is aware that it must coordinate with FTA to determine the extent of any environmental documentation that may be required. The WOFH DB Contractor must resolve the pre-cast yard issue by the first quarter of 2012, so that its June 2012 pre-casting and prestressing of concrete guideway segments will not be impacted.
- Real Estate Acquisition and Relocation activities are becoming critical to the Project. The grantee does not have sufficient Technical Capacity and Capability to ensure that such activities are completed in a timely manner and in full compliance with the Uniform Act. The grantee must complete procurement of a qualified Real Estate Consultant as soon as possible. This procurement should not extend past the first quarter of 2012.
- HART's Safety and Security Manager (SSM) submitted his resignation and will leave the project in January 2012. HART is currently interviewing potential candidates and the goal is to have someone in place by January 2012. The PMOC requested that the resume for the proposed candidate be provided to the FTA and PMOC as soon as possible. HART anticipates a one-month overlap between the outgoing and incoming manager. In addition, the likely candidate for the position has been involved previously with the startup of a State Oversight Agency for a New Starts Project.

2.0 BODY OF REPORT

2.1 Grantee's Capabilities and Approach

2.1.1 Technical Capacity and Capability (TCC)

The PMOC has assessed the grantee's Technical Capacity and Capability to successfully implement, manage, and complete a major Federal-assisted capital project as well as its ability to recognize and manage project risk factors and implement mitigation measures. In doing so, the PMOC has identified a significant number of issues that the grantee should address during Final Design, such as filling staffing needs, clarifying the QA/QC process and document control procedures, addressing real estate and relocation needs, modifying management deliverables, and implementing necessary changes to reflect the institution of HART as a Project-controlling agency.

The PMOC has some concern that the grantee may continue experiencing difficulty attracting and retaining the experienced staff needed for long-term Project assignment and permanent grantee employment (post-Project), given Hawaii's geographic isolation, salary limits, and high cost of living relative to the mainland. The grantee should adhere to the staffing plan to address the transition of staff during the Final Design and construction phases for positions currently occupied by PMC staff to grantee staff.

The grantee must strive to transition the key management positions currently occupied by the PMC as early as possible. The grantee should focus on transitioning the key positions of Chief Project Officer, Project Controls Manager, and Contracts Administrator, in order for the grantee to have more ownership and maintain stronger continuing control of the project without having to rely too heavily on the PMC.

The PMOC will continue monitoring the grantee's project management process to ensure that it is effectively managing the Project and continuing fiscal responsibility and accountability for all decisions affecting project design, cost, and schedule, until all key management positions transition to full-time grantee staff. The transition from PMC staff to full-time grantee staff will be closely monitored by the PMOC throughout the Final Design phase of the project.

With the exception of real estate activities, it is the PMOC's professional opinion that the grantee has demonstrated its TCC to execute the project during the PE phase and its readiness to enter the Final Design phase. Nevertheless, the PMOC meets monthly with the grantee's Administrator of Controls and Administration to discuss any immediate TCC issues and provide recommendations.

2.1.2 Transit Authority

During the November 2010 election, an amendment to the Revised Charter of the City and County of Honolulu 1972 (as amended) was approved by voters to allow for the creation of a public transit authority. The new authority is responsible for the planning, construction, operation, maintenance, and expansion of the grantee's fixed guideway mass transit system. This authority, which is named the Honolulu Authority for Rapid Transportation (HART),

became effective on July 1, 2011. The grantee has begun filling the positions necessary to not only implement this Project but also to establish a new transit authority.

Revision 4 of the Project Management Plan (PMP), which was submitted for review in April 2011, supports the grantee's request to enter Final Design but only addresses the new transit authority in general terms. The grantee will require additional time to fully vet the impacts of a new authority on its staff and management approach. The grantee plans to issue a PMP revision to address the impacts of HART after receiving authority to enter into the Final Design Phase by the FTA.

2.1.3 Project Controls for Scope, Quality, Schedule, Cost, Risk and Safety

System Safety and Security

- HART's Safety and Security Manager (SSM) submitted his resignation and will leave the project in January 2012. HART is currently interviewing potential candidates and the goal is to have someone in place by January 2012. The PMOC requested that the resume for the proposed candidate be provided to the FTA and PMOC as soon as possible.
- The State of Hawaii has established Executive Order No. 10-05, effective April 6, 2010, designating HDOT as the State Oversight Agency.
- Revision 2.0 of the Safety and Security Management Plan (SSMP) was submitted to the PMOC for review on June 1, 2011. The PMOC review found that SSMP Revision 2.0, dated June 1, 2011 contains all sections specified in FTA Circular 5800.1, with the minimum content required for Final Design entry either included or implied. The PMOC review also found, however, a need for revision in some plan sections and appendices for both minor (correction of typographical errors and omissions) and major reasons. One such major concern is whether the staffing plan provides sufficient safety and security technical capacity to cover all activities likely during Final Design, during which phase the Design-Build contractors are likely to begin construction, albeit limited, under Letters of No Prejudice. As a result of its findings, the PMOC has reached the following conclusions:
 - The content of all plan sections and support appendices of the SSMP is at least marginally compliant with requirements for the Final Design entry stage of the Project.
 - The content of certain sections of the SSMP need revision to better clarify intent, correct typographical errors or omissions, and to address specific issues identified in the PMOC OP 22 deliverable comments.
 - Revision must be made to SSMP Section 2.4 and Appendix A prior to submission of an FFGA application.
- The PMOC intends to hold a safety and security workshop that would include representatives from FTA Region IX, FTA Headquarters, and HDOT. The tentative timeframe for the workshop is 2012.

- The System Safety and Security Program Standards (SSSPS) are an important part of HDOT's comprehensive safety and security assessment. Each of the rail fixed guideway systems covered under this program (currently the Honolulu High Capacity Transit Corridor Project) is required to develop a System Safety Program Plan and System Security Program Plan that formalizes the safety and security duties and responsibilities of the transit organization and ensures a process for identifying and correcting safety and security hazards. The grantee will be assisting the SOA with procuring a consultant to develop the SSSPS.

A new Director of Transportation for HDOT has been appointed and HDOT has identified an interim SOA lead and anticipates hiring a full-time SOA Project Manager in early 2012. A revised program schedule and a safety and security roadmap was provided to the PMOC on October 11, 2011. The PMOC provided review comments to the FTA and requested HDOT to identify a funding source to fund the SOA once the Project is in operations. A draft Memorandum of Agreement was submitted to the PMOC in April 2011, covering funding of the SOA by the grantee until operations begin. The grantee and HDOT anticipate executing the MOA in December 2011.

Quality

- GEC II Contract – HART approved the GEC Quality Assurance Plan (QAP) on October 28, 2011. HART performed a QA Audit of GEC from November 30, 2011 to December 2, 2011. The QA audit resulted in one positive finding, no NCR's, four observations, and three suggestions.
- West Oahu/Farrington Highway DB Contract – To date, Kiewit has issued 28 Non-Compliance Reports (NCR) and one NCR is open. HART performed a QA audit of Kiewit from October 5-6, 2011 and HNTB/FIGG from October 10-13, 2011. The QA audit resulted in four positive findings, no NCR's, four observations, and six suggestions.
- Kamehameha Highway DB Contract – HART/GEC reviewed and approved Kiewit's QAP, Design QAP, and Construction QAP. HART performed a QA surveillance of Lyons Associates on November 4, 2011 that resulted in no findings.
- Maintenance and Storage Facility DB Contract – HART approved Kiewit/Kobayashi Joint Venture (KKJV) QAP and DQAP on September 27, 2011.
- Farrington Station Group Design Contract – A HART QA Audit of HDR was performed in New York on November 9, 2011. The QA audit resulted in one positive finding, three NCR's, five observations, and seven suggestions.
- The PMOC performed a compliance review of the project's PMP and QMP process from October 11-13, 2011. HART is in compliance with the project's PMP and QMP.

2.1.4 Compliance with Applicable Statutes, Regulations, Guidance and FTA Agreements

National Environmental Policy Act (NEPA)

- The ROD was issued on January 18, 2011.
- A lawsuit was filed in federal court against the Project in May 2011. The lawsuit is asking for a declaratory judgment saying that the rail approvals have been "legally

inadequate," an injunction to withdraw approvals for the project, and a requirement for a new public review process including and a Draft Environmental Impact Statement.

Letters of No Prejudice (LONP)

- In a December 1, 2009 letter to the grantee, the FTA clarified its policies and procedures related to LONPs. The letter states, "After completion of NEPA, FTA will consider LONPs for activities not covered by automatic pre-award authority on a case by case basis. Absent of pre-award authority or an LONP, no project cost can be incurred and be eligible for reimbursement or as local matching for any portion of the entire 20 mile alignment."
- The FTA issued an LONP on May 24, 2011 to allow for final design activities to proceed for the WOFH DB Contract. The amount authorized by the LONP was \$4.7 million. This LONP will allow for Kiewit to submit Final Design drawings to the City's Department of Permit and Planning for permit approval.
- The grantee intends to request a second LONP for approximately \$204 million that would allow for construction activities to begin on the WOFH DB Contract, MSF DB Contract, KH DB Contract, and Farrington Station Group construction contract immediately following receipt of approval to enter Final Design.

2.2 Project Scope

The Project is a 20-mile fixed guideway rail system along Oahu's south shore between East Kapolei and Ala Moana Center. This Project is based on the Airport Alignment, which currently includes 21 stations. The alignment is elevated, except for a 0.6-mile at-grade portion at the Leeward Community College Station. The Project is planned to be delivered in four guideway segments.

- Segment I (West Oahu/Farrington Highway) – East Kapolei to Pearl Highlands (6 miles/7 stations)
- Segment II (Kamehameha Highway) – Pearl Highlands to Aloha Stadium (4 miles/2 stations)
- Segment III (Airport) – Aloha Stadium to Middle Street (5 miles/4 stations)
- Segment IV (City Center) – Middle Street to Ala Moana Center (4 miles/8 stations)

The alignment will average a total of 97,500 weekday boardings at the Revenue Service Date in the year 2019 and 116,300 weekday boardings in the year 2030. It will provide two significant areas with potential for Transit Oriented Development, one near the Airport and one in the surrounding industrial areas. The initial fleet will include 80 "light metro" rail vehicles based on the Ansaldo Honolulu Joint Venture CSC proposal.

2.2.1 Status of Design/Construction Documents

The scope as contained in the Project's FEIS and ROD is reflected in the PE plans, specifications, estimates, and the PMP.

Through PE plans and performance specifications, the grantee has provided enough project information to fully illustrate the scope, capacity, level of service, functionality, and expected reliability of the completed project. The plans and specifications sufficiently characterize elements of the design and exceed the requirements of a PE design.

The project scope review has noted numerous challenges to the Project, including implementing the CSC as soon as possible, managing coordination issues between the grantee and its many contractors, controlling costs, making key decisions (Ala Moana Station layout, platform edge screens, implementing accepted VE alternatives), implementing third-party agreements, and resolving the precast facility location issue. However, all of these issues can be resolved during Final Design.

The grantee has undertaken the following activities related to Value Engineering (VE):

- VE Workshop for Stations – Workshop was held the week of April 19-23, 2010. The PMOC staff attended as observers. The objective of the VE workshop was to provide VE for six stations along the alignment – West Loch, Pearl Highlands, Aloha Stadium, Kalihi, Downtown, and Ala Moana Stations, representing elevated stations with and without concourses, direct access stations, and unique stations. As part of VE, the team was expected to consider not just ways of cutting costs, but also ways to reduce project risks, enhance operations, and bring to light any improvement opportunities that may exist.
- VE Workshop for Airport and City Center Guideway and Utility Relocation packages – Workshop was held April 11-15, 2011. The PMOC staff attended as observers. Approximately \$200 million in potential VE savings were identified. The PMOC has reviewed the final VE report to ensure that the purpose and objectives were met, the findings were adequately summarized, and an action plan was developed.
- The final VE Report for Stations and the Alternative Technical Concepts (ATC) Report from the DB proposals were provided to the PMOC in October 2010. This included a list of the VE recommendations that the grantee intends to implement. The PMOC has reviewed the final VE report to ensure that the purpose and objectives were met, the findings were adequately summarized, and an action plan was developed.
- The table below presents the summary of VE results provided by the grantee.

| Source | No. of Proposals Received | Estimated Value (M) | No. of Proposals Accepted | Estimated Value (M) |
|-------------------------------------|---------------------------|---------------------|---------------------------|---------------------|
| VE Workshop for Stations | 30 | \$318.5 | 26 | \$104.1 |
| ATC Proposals – WOFH DB Contract | 29 | \$85.4 | 13 | \$60.5 |
| ATC Proposals – KH DB Contract | 16 | \$29.0 | 7 | \$18.3 |
| ATC Proposals – MSF DB Contract | 11 | \$16.1 | 5 | \$2.7 |
| ATC Proposals – CSC | 41 | \$35.6 | 15 | \$15.5 |
| VE Workshop for Airport & City Ctr. | 27 | \$225.6 | 13 | \$109.2 |
| TOTAL | 154 | \$710.2 | 79 | \$310.3 |

*Total includes “conditionally accepted” proposals

To date, the only VE proposals that have been implemented are associated with the Alternative Technical Concepts associated with the DB contracts. The PMOC will monitor that all VE

recommendations are reviewed by the grantee and that those that are accepted are implemented accordingly.

2.2.2 Status of Third-Party Agreements

The following table provides the status of Third Party Agreements for the project:

| Agreement | Completion Date | Segment/ Contract | Status |
|---|-----------------|-------------------|---|
| University of Hawaii Master Agreement | Pending | I, II, IV | UH Reviewing |
| Leeward Community College Sub-agreement | Pending | I | UH Reviewing, will finalize after master agreement is executed |
| Department of Education Master Agreement and Consent to Construct | 08-Feb-11 | I | Executed |
| DR Horton Agreement | Pending | I | Consent to Construct is under final review by DR Horton |
| Department of Hawaiian Home Lands (DHHL) Master Agreement | 10-Mar-10 | I and MSF | Executed |
| DHHL Consent to Construct | 01-Dec-11 | I and MSF | Consent is in place until license agreement is executed. |
| DHHL License Agreement | Pending | I and MSF | DHHL reviewing |
| Department of Land and Natural Resources (DLNR) Executive Order | Pending | I | DLNR review and awaiting legal description |
| Easement in Navy Property | Pending | I and MSF | Navy is processing easement request |
| HDOT Master Agreement for WOFH | 31-Oct-10 | I | Executed |
| HDOT Use and Occupancy/WOFH | Pending | I | Responding to comments from FHWA. It is anticipated that agreement will be finalized in January 2012. |
| HDOT Master Agreement for KHG | Pending | II | Under review by HDOT. Anticipate agreement to be in place in March/April 2012. |
| HDOT Use and Occupancy KHG | Pending | II | Will be completed after Master Agreement |
| Department of Accounting and General Services(DAGS)/Aloha Stadium | Pending | II | Under review by DAGS |
| Navy/General Services Administration(GSA) | Pending | III | Provided Navy with metes and bounds for Pearl Harbor Station and will be forwarding property requirements for Airport Guideway. |
| Post Office/GSA Administration | Pending | III | Pending Design |
| HDOT Master Agreement Airport | Pending | III | Discussions will be initiated after completion of KHG agreement. |
| Federal Court House/GSA | Pending | IV | Pending Design |
| Honolulu Community College Use & Occupancy | Pending | IV | Pending |
| Hawaii Community Development Agreement (HCDA) | Pending | IV | Pending Design |
| DAGS | Pending | IV | Pending Design |
| HDOT Master Agreement City Center | Pending | IV | Pending |

2.2.3 Delivery Method

In accordance with the Contract Packaging Plan developed by the grantee, construction of the project guideway is to be implemented in four segments. The method of delivery for the four guideway segments is as follows:

- Segment I – East Kapolei to Pearl Highlands – DB
- Segment II – Pearl Highlands to Aloha Stadium – DB
- Segment III – Aloha Stadium to Middle Street Station – DBB
- Segment IV – Middle Street Station to Ala Moana Center – DBB

The DB approach is being planned to advance the project schedule in order to minimize escalation costs and start construction of the initial portion of the project while the remainder of the project proceeds through the DBB process. Work on these early contracts (Segments I & II, MSF and CSC) is planned to be initiated ahead of the FFGA utilizing excise tax funding. However, as noted above, any design activities beyond PE or construction activities not covered by automatic pre-award authority would require an LONP, which would be considered on a case-by-case basis.

The PMOC has reviewed the grantee's contracting plan for project delivery and procurement and evaluated the soundness and adequacy of its approach to bidding and awarding of contracts, procurement of materials, equipment and vehicles, and the construction administration and construction management of the Project. The selected project delivery methods and contract packaging strategies are reasonable and are reflected in project schedules and cost estimates.

2.2.4 Vehicle Status

Ansaldo Honolulu Joint Venture proposes an automated light metro car, similar to railcars currently in operation in Copenhagen, but not in the United States. Vehicles are anticipated to be run in two-railcar (consists) trains. Following is a summary of the anticipated vehicle characteristics:

- “Light Metro” (identified as Heavy Rail in SCC estimate)
- Approximate number of vehicles: 80
- Standard gauge, steel wheel on steel rail
- Fully automated, manual operation possible (hostler panel)
- Nominal vehicle dimensions:
 - Length: 64 feet
 - Width: 10 feet
 - Height: Up to 13.3 feet
 - Floor Height: 3.77 feet above top of rail (at entry)
- Nominal Passenger Capacity: 190 per vehicle (AW2 load)
- Electric traction via third rail, nominal 750V direct current (DC) supply, all axles powered
- Semi-permanently coupled, bi-directional trainsets
- Wide gangways between cars
- 2 to 3 double passenger plug doors per side (per car)
- Manual crew doors with steps

- Dynamic / regenerative braking
- Alternating current (AC) propulsion
- 30+ year design life

Vehicle procurement is included in the CSC, the status of which is discussed in Appendix B.

2.3 Project Management Plan and Sub-Plans

The following table presents the status of each of the grantee’s management deliverables.

| Sub-Plan | Revision No. | Date | Notes |
|--|--------------|-----------|------------------------------|
| Project Management Plan (PMP) | 4 | Mar-11 | Acceptable for Final Design |
| Quality Management Plan (QMP) | 0 | 01-Jan-11 | Acceptable for Final Design |
| Real Estate Acquisition and Management Plan (RAMP) | 4 | 21-Dec-10 | Accepted by FTA on 08-Feb-11 |
| Bus Fleet Management Plan (BFMP) | 2 | Jun-10 | Acceptable for Final Design |
| Rail Fleet Management Plan (RFMP) | 0 | 06-Apr-11 | Acceptable for Final Design |
| Safety and Security Management Plan (SSMP) | 2 | 01-Jun-11 | Acceptable for Final Design |
| Safety and Security Certification Plan (SSCP) | 1 | 01-Jun-11 | Acceptable for Final Design |
| Configuration Management Plan (CMP) | 0 | 23-Dec-10 | Acceptable for Final Design |
| Staffing Plan | 3 | 11-Mar-11 | Acceptable for Final Design |
| Risk and Contingency Management Plan | | 27-Sep-11 | Acceptable for Final Design |
| Operating Plan | | 06-Apr-11 | Acceptable for Final Design |
| Force Account Plan | 0 | 21-Jan-11 | Acceptable for Final Design |
| Mitigation Monitoring Program | 0 | 18-Feb-11 | Acceptable for Final Design |
| Interface Management Plan | 0 | 29-Mar-11 | Acceptable for Final Design |
| Contract Packaging Plan | 2 | 09-Mar-11 | Acceptable for Final Design |
| Claims Avoidance Plan | 0 | 06-Apr-11 | Acceptable for Final Design |
| Construction Management Plan | 0 | 12-Apr-11 | Acceptable for Final Design |
| Contract Resident Engineer Manuals (DB & DBOM) | | 28-Sep-11 | Acceptable for Final Design |
| Contract Resident Engineer Manuals (DBB) | | Pending | Grantee submittal pending |
| Project Procedures | | 04-Apr-11 | Acceptable for Final Design |

2.4 Project Schedule Status

The PMOC has completed a review to characterize each element in the project/program schedule, from schedule development and performance measurement, through post project archive record documentation. The Schedule Review evaluated the efficiency and effectiveness of the project sponsor’s project implementation during any phase of the project life cycle. The Schedule Review also validated the inclusivity of the Project scope and characterizes individual project elements within the current Project phase. It also validated the program management’s readiness to enter and implement the next major program phase, the Final Design phase.

The PMOC has identified a significant number of recommendations and opportunities to strengthen the integrity of the grantee’s Project Controls organization, procedures, plans, technical schedule input, and technical capacity and capability. The PMOC expects the grantee to incorporate these recommendations during the Final Design phase and prior to submission of

refreshed cost estimate and schedule documents in support of a Full Funding Grant Agreement (FFGA) Application.

It is the PMOC’s professional opinion that the current MPS is mechanically correct and fundamentally sound, and that it meets the FTA guidance and requirements necessary to advance the Project into the Final Design phase.

The grantee’s Master Project Schedule (MPS) (Data Date of September 30, 2011) identifies a Full Funding Grant Agreement (FFGA) Revenue Service Date of June 2019. This date is reasonable given the current status of the Project. However, the PMOC recommends that the FFGA RSD be no earlier than January 2020, per the OP 40 review. The table below provides a comparison of key milestone dates at the start of PE and in the current MPS.

| Milestone Description | Finish Date | | Variance (Days) |
|--|-------------------|---------------------------|-----------------|
| | PE Entry Baseline | MPS (Data Date 30-Sep-11) | |
| FTA Approve Entry into Final Design | 10-Aug-10 | 14-Nov-11 | -461 |
| FTA Award Full Funding Grant Agreement | 11-Sep-10 | 01-Aug-12 | -690 |
| WOFH/KH Revenue Service | 14-Sep-16 | 27-Dec-15 | 262 |
| Airport Segment Revenue Service | 31-Oct-17 | 29-Oct-17 | 2 |
| City Center Revenue Service | 31-Mar-19 | 20-Sep-18 | 192 |

The following is a 90-day look ahead for important activities associated with the Project:

| Period: January 2012 – March 2012 | | |
|-----------------------------------|-------------------------------|------------------|
| Activity | Responsibility | Date |
| Monthly Progress Meeting | HART, PMC, GEC and PMOC | January 11, 2012 |
| Monthly Progress Meeting | HART, PMC, GEC and PMOC | February 7, 2012 |
| Core Systems Design Workshop | HART, PMC, GEC and PMOC | February 8, 2012 |
| Monthly Progress Meeting | HART, PMC, GEC and PMOC | March 7, 2012 |
| Safety and Security Workshop | HDOT, HART, PMC, GEC and PMOC | TBD |

2.5 Project Cost Status

The grantee’s submitted an initial Base Cost Estimate (BCE) dated March 25, 2011. The initial estimate was \$5.213 billion in Year-of-Expenditure (YOE) dollars, including \$865.58 million in allocated and unallocated contingency and \$230 million in financing costs. However, in September 2011, the grantee proposed eight (8) Cost Reduction Measures that resulted in the current Base Cost Estimate of \$5.126 billion in Year-of-Expenditure (YOE) dollars, including \$797.69 in total contingency (or 19.5% of the BCE) and \$246.98 million in financing costs.

The current Project Budget is as follows:

| Source | Amount |
|---------------------------|------------------------|
| Base Cost Estimate | \$4,066 billion |
| Total Contingency | \$0.798 billion |
| Finance Charges | \$0.247 billion |
| Total Project Cost | \$5.126 billion |

Total Expenditures to Date \$0.288 billion (October 2011) (excludes pre-PE costs)

2.5.1 Standard Cost Category (SCC)

The most recent SCC Workbook is submitted as a separate electronic file. The values identified in the SCC workbook incorporate the grantee’s proposed Cost Reduction Measures as well as the PMOC’s Recommended Adjustments that were identified during the OP 33 review.

2.5.2 Funding Sources

The following are the project capital revenue (funding) sources:

| Source | Amount |
|--------------------------|------------------------|
| General Excise Tax (GET) | \$3.328 billion |
| Section 5309 | \$1.550 billion |
| Section 5307 | \$0.244 billion |
| ARRA | \$0.004 billion |
| Total | \$5.126 billion |

The GET surcharge receipts received to date are approximately \$746 million.

2.6 Project Risk

The PMOC performed “*an evaluation of the reliability of the grantee’s project scope, cost estimate, and schedule, with special focus on the elements of uncertainty associated with the effectiveness and efficiency of the grantee’s project implementation and within the context of the surrounding project conditions.*” Through the process of risk and contingency review, the PMOC attempts to aid the grantee in its efforts to better define the project’s risks and to provide avenues for recovery should those risks become reality.

The PMOC has provided recommendations for adjustments to scope, cost, and project delivery options and risk mitigation options and alternatives, particularly in regard to contingencies, in order to respond to established project risks.

Three Risk Assessment workshops have been held:

- Risk Workshop 1, held April 5-8, 2011 in Honolulu, addressed the following: Preliminary PMOC findings from a scope, schedule and cost review; Risk Register and Action Items; and Path Forward.
- Risk Workshop 2, held April 27, 2011 in San Francisco, addressed the following:

Quantitative risk assessment process; Summary of key PMOC findings for the cost and schedule risk analyses; Risk Mitigation; and Path Forward. To condition the cost estimate for the cost risk analysis, the PMOC identified approximately \$52 million (Year of Expenditure) in net adjustments to the Base Cost Estimate (BCE). To condition the Master Project Schedule (MPS) for the schedule risk analysis, the PMOC identified numerous adjustments that were incorporated into an Adjusted Project Schedule (APS).

- Risk Workshop 3, held August 2, 2011, addressed the Draft Risk and Contingency Management Plan (RCMP).
- A meeting was held December 8, 2011 to address the reevaluation of the grantee's Secondary Mitigation Measures to ensure that Secondary Mitigation Capacity is not reduced with the adoption of the proposed Cost Reduction Measures.

2.7 Action Items

| Item No. | Item | Responsible Party | Date Identified | Date Due | Date Completed | Status |
|----------|---|-------------------|-----------------|----------|----------------|--------|
| 1 | Provide DHHL Agreement/ November ROE Agreement | HART | Aug-11 | Dec-11 | | Open |
| 2 | Include GEC II staffing levels in monthly presentation and monthly report | HART | Sep-11 | Dec-11 | 07-12-11 | Closed |
| 3 | Include Real Estate budget in monthly presentation and monthly report | HART | Sep-11 | Dec-11 | 10-12-11 | Closed |
| 4 | Include breakdown of risk by category | HART | Sep-11 | Dec-11 | 10-12-11 | Closed |
| 5 | Provide HDOT letter for SOA source of funds | HART/SOA | Sep-11 | Dec-11 | | Open |
| 6 | Include DBE goal in monthly presentation | HART | Oct-11 | Dec-11 | | Open |
| 7 | Provide change order costs to active contracts | HART | Nov-11 | Dec-11 | 11-29-11 | Closed |
| 8 | Inform FTA Region 9 counsel of proposed construction start date when available | HART | Nov-11 | Dec-11 | | Open |
| 9 | Provide scope of work for Real Estate services | HART | Nov-11 | Dec-11 | 11-29-11 | Closed |
| 10 | Provide Buy America Audit detailed information | HART | Dec-11 | Dec-11 | | Open |
| 11 | Provide CMS access to PMOC subconsultant for State Oversight Agency information | HART | Dec-11 | Dec-11 | | Open |
| 12 | Provide copy of Contractor Risk Meeting Agenda | HART | Dec-11 | Dec-11 | | Open |
| 13 | Provide resume for new HART Safety and Security Manager | HART | Dec-11 | Dec-11 | | Open |
| 14 | Develop graph for FD to FFGA percent complete | HART | Dec-11 | Jan-12 | | Open |

APPENDICES

Appendix A: Acronym List

| | |
|------|--|
| ATC | ▪ Alternative Technical Concept |
| BAFO | ▪ Best and Final Offers |
| BFMP | ▪ Bus Fleet Management Plan |
| CMP | ▪ Construction Management Plan |
| CSC | ▪ Core Systems Contract |
| DB | ▪ Design-Build |
| DBB | ▪ Design-Bid-Build |
| DBOM | ▪ Design-Build-Operate-Maintain |
| DCCA | ▪ Department of Commerce and Consumer Affairs |
| DHHL | ▪ Department of Hawaiian Homelands |
| DOE | ▪ Department of Education |
| FD | ▪ Final Design |
| FEIS | ▪ Final Environmental Impact Statement |
| FFGA | ▪ Full Funding Grant Agreement |
| FHWA | ▪ Federal Highway Administration |
| FTA | ▪ Federal Transit Administration |
| FY | ▪ Fiscal Year |
| GEC | ▪ General Engineering Consultant |
| GET | ▪ General Excise Tax |
| GSA | ▪ General Services Administration |
| HART | ▪ Honolulu Authority for Rapid Transportation |
| HDOT | ▪ Hawaii Department of Transportation |
| KH | ▪ Kamehameha Highway |
| LCC | ▪ Leeward Community College |
| LEED | ▪ Leadership in Energy and Environmental Design (LEED) |
| LONP | ▪ Letter of No Prejudice |
| MOA | ▪ Memorandum of Agreement |
| MOT | ▪ Maintenance of Traffic |
| MPS | ▪ Master Project Schedule |
| MSF | ▪ Maintenance and Storage Facility |
| NCR | ▪ Non-Compliance Report |
| NEPA | ▪ National Environmental Policy Act |
| NTP | ▪ Notice to Proceed |
| OCIP | ▪ Owner Controlled Insurance Program |
| PA | ▪ Programmatic Agreement |
| PE | ▪ Preliminary Engineering |
| PMC | ▪ Project Management Consultant |
| PMOC | ▪ Project Management Oversight Contractor |
| PMP | ▪ Project Management Plan |
| QAM | ▪ Quality Assurance Manager |
| QAP | ▪ Quality Assurance Plan |
| QMP | ▪ Quality Management Plan |
| RAMP | ▪ Real Estate Acquisition and Management Plan |
| RCMP | ▪ Risk and Contingency Management Plan |
| RFMP | ▪ Rail Fleet Management Plan |
| RFP | ▪ Request for Proposals |
| RFQ | ▪ Request for Qualifications |
| ROD | ▪ Record of Decision |
| ROE | ▪ Right of Entry |
| RSD | ▪ Revenue Service Date |
| SCC | ▪ Standard Cost Category |

- SOA ▪ State Oversight Agency
- SSCP ▪ Safety and Security Certification Plan
- SSMP ▪ Safety and Security Management Plan
- SSPP ▪ System Safety Program Plan
- SSSPS ▪ System Safety and Security Program Standards
- TCC ▪ Technical Capacity and Capability
- VE ▪ Value Engineering
- WOFH ▪ West Oahu/Farrington Highway
- YOE ▪ Year of Expenditure

Appendix B: Contract Status

The following sections provide the scope and status of the various contracts identified for this Project.

Project Management Consultant (PMC) Contract.

- Scope – The consultant will serve as a program manager in providing oversight of the PE, Final Design, and construction activities for all DB and DBB contracts.
- Status – The grantee awarded a contract to InfraConsult LLC in November 2009 to provide Project Management Support Services. The PMC Agreement is for five years with a Not-to-Exceed amount of \$36.7 million.
- It must be noted that the PMC contract was not solicited with the required Federal clauses based on the Fiscal Year 2010 Procurement System Review Final Report prepared for the FTA. The FTA has notified the grantee that it must proceed with timely re-procurement of the PMC contract, which includes Federal clauses. The grantee issued an RFP on August 2, 2011 and anticipates issuing NTP to the selected PMC by January 2012. The terms of the NTP will be determined during negotiations with the selected firm.

General Engineering Consultant (GEC II) Contract

- Scope – The consultant will provide services related to elevated guideway engineering, systems engineering, rail station design, construction management oversight, procurement, contract administration, configuration control, claims support, scheduling, project financing and environmental planning.
- Status – The grantee executed the GEC II contract with Parsons Brinkerhoff on June 30, 2011. The contract amount is \$300 million (\$150 million base amount plus \$150 million allowance amount). It is anticipated that the \$150 million allowance for additional work will be used after the initial three-year term of the contract. However, it is possible with a contract amendment to expend a portion of the allowance amount any time during the term of the contract. Notice to Proceed (NTP) #1 was issued on August 2, 2011. It should be noted that the cost for the first year of the contract is still being negotiated. The results of these negotiations should not increase the value of the \$300 million total contract amount.
- Cost
 - Original Contract Value – \$300,000,000
 - Current Contract Value – \$150,000,000
 - Expended to Date – \$0
 - % Expended – 0%
 - Approved Change Orders – \$0
- Schedule – The contract duration is approximately 36 months from NTP with an option for an additional 36 months.
- Issues or Concerns
 - None identified at this time.

West Oahu/Farrington Highway (WOFH) DB Contract

- Scope – This contract includes the design and construction of a portion of the guideway alignment from the initial station at East Kapolei and continuing approximately 6.8 miles to a point just east of the planned Pearl Highlands station. Part of the alignment runs along the east side of North South Road. This portion of the guideway, which also includes alignment in the median of Farrington Highway, is being identified as the West Oahu/Farrington Highway Design-Build Contract. The guideway is comprised mostly of a two-track aerial structure with a 0.3-mile portion of twin single-track guideways and a 0.3-mile section of guideway at grade.

As the alignment approaches Leeward Community College (LCC), the guideway alignment traverses from the median of Farrington Highway to the makai side of the highway where it transitions to an at-grade section. Once at grade, the entrances to the Maintenance and Storage Facility (MSF) are encountered. The Guideway crosses Ala Ike Road at two locations, with the roadway passing under the guideway alignment in box-culverts. At the LCC Station, a below-grade station plaza area is planned, allowing passengers to walk under the eastbound guideway to access the center platform.

- Status – Kiewit was awarded a contract on November 18, 2009. The following NTPs have been issued:
 - NTP #1 – Issued December 1, 2009, authorizing \$27 million to complete elements of PE whose principal purpose is refinement and validation of information supporting the NEPA process.
 - NTP #1A – Issued March 11, 2010, authorizing \$25.8 million for PE activities to be completed.
 - NTP #1B - Issued March 23, 2010, authorizing \$21.2 million for interim design activities.
 - NTP #1C – Issued June 7, 2010, authorizing \$3.5 million for test and demonstration drilled shafts to complete the deep foundations interim design.
 - NTP #1D – Issued January 6, 2011, authorizing \$8.7 for continued administrative costs through June 2011 including project management, quality management, safety plan administration, coordination with local agencies, design management, and public information.
 - NTP #2 – Issued March 3, 2011, authorizing \$62 million for work activities related to the relocation of utilities, in accordance with the grantee’s pre-award authority associated with the FTA’s issuance of a ROD.
 - NTP #3 – Issued June 2011, authorizing \$4.7 million for Final Design activities to allow contractor to submit drawings to the City’s Department of Permit and Planning for permit approval.
- Schedule – The original contract duration was approximately 43 months from NTP. The grantee has approved the baseline schedule submittal. The contractor is preparing a schedule analysis for NTP delays.
- Cost

- Original Contract Value – \$482,924,000
 - Current Contract Value – \$501,969,230
 - Expended to Date – \$119,400,000
 - % Expended – 24.0%
 - Approved Change Orders – \$19,045,230
- Issues or Concerns
 - The executed agreement called for issuance of all four NTPs within 120 calendar days of December 1, 2009. Since that requirement was not met, the grantee has been coordinating with Kiewit to determine the extent of any impact to the approved baseline schedule.
 - The WOFH DB Contractor intends to utilize an existing facility (GPRM Prestress) for pre-casting and prestressing of the concrete guideway segments. This facility was identified in the ROD. The contractor is negotiating with the owner and the current lease-holder to obtain use of the property. However, if the GPRM facility is not secured, another facility will be required. Any impacts to the budget and/or schedule cannot be assessed until a decision is made on the site to be used for pre-casting activities. If another site is selected, the grantee is aware that it must coordinate with FTA to determine the extent of any environmental documentation that may be required. The WOFH DB Contractor needs to resolve the pre-cast yard issue by the first quarter of 2012 so that its June 2012 pre-casting and prestressing of concrete guideway segments will not be impacted.

Kamehameha Highway Guideway DB Contract

- Scope – The contractor will design and construct a portion of the guideway alignment from the initial station at East Pearl Highlands to a point just east of the planned Aloha Stadium Station, a distance of approximately 3.9 miles. This portion of the guideway is being identified as the Kamehameha Highway Design-Build Contract. The guideway is comprised of a two-track aerial structure.
- Status – Kiewit was awarded a contract on June 30, 2011. Following NTPs have been issued:
 - NTP #1 – Issued July 12, 2011, authorizing \$102 million to perform PE including interim/definitive design submittals and coordinating with other contracts.
- Cost
 - Original Contract Value – \$372,150,000
 - Current Contract Value – \$372,150,000
 - Expended to Date – \$37,000,000
 - % Expended – 10%
 - Approved Change Orders – \$0
- Schedule – The contract duration is approximately 48 months from NTP.
- Issues or Concerns
 - None identified at this time.

Maintenance and Storage Facility DB Contract

- Scope – The contractor will design and construct the MSF to accommodate 80 revenue vehicles. The maximum capacity of the site is 100 revenue vehicles. The Shop Facility will include administrative and operational offices for the agency and an Operations Control Center. The MSF will be designed and commissioned to achieve Leadership in Energy and Environmental Design (LEED) Green Building Rating System Silver Certification, and will operate in accordance with FTA Sustainable Maintenance and Operational Standards. The scope of the contract includes the procurement of all rail materials.

- Status – Kiewit/Kobayashi Joint Venture was awarded a contract on June 30, 2011. Following NTPs have been issued:
 - NTP #1 – Issued on July 25, 2011, authorizing \$16.8 million to perform PE, associated site investigations and coordinating with other contractors.

- Cost
 - Original Contract Value – \$195,258,000
 - Current Contract Value – \$195,258,000
 - Expended to Date – \$0
 - % Expended – 0%
 - Approved Change Orders – \$0

- Schedule – The contract duration is approximately 36 months from NTP.

- Issues or Concerns
 - The Memorandum of Agreement (MOA) has been executed with the DHHL for the Navy Drum Site. However, the grantee must sign a License Agreement with the DHHL prior to any construction beginning. A Right of Entry (ROE) for construction was approved by the DHHL Board. The ROE allows access to Navy Drum Site for construction until the property acquisition occurs or the License Agreement is finalized.
 - The grantee anticipates that Kiewit/Kobayashi will submit a change order for material cost escalation since there has been a delay in execution of the contract.

Vehicle/Core Systems DBOM Contract (CSC)

- Scope – Design-Build-Operate-Maintain (DBOM) contract will include:
 - Design and manufacture of vehicles
 - Design, manufacture, and installation of systems components including train control communications, traction power, Central Control and fare collection equipment
 - Operations and Maintenance.

The Operations and Maintenance contract will extend 5 years beyond the full build revenue date (2019), with an additional 5-year option. The Operations and Maintenance contractor will be responsible for Intermediate Operating Section Openings.

- Status – Ansaldo Honolulu Joint Venture was selected by the grantee on March 21, 2011. HART executed the contract on November 28, 2011 and anticipates issuing NTP #1 in January 2012.
- Cost – The contract amount is \$574 million, including equipment and installation.
- Issues or Concerns
 - The PMOC has identified numerous issues and questions related to the systems design that require grantee clarification. These items were identified during a review of the selected CSC proposal and will need to be resolved during Final Design. A future workshop will be held to discuss these issues. However, a follow-up workshop cannot be held until all protests associated with the CSC DBOM are resolved.

Airport Guideway & Utility Relocation

- Scope – The project delivery method for the guideway and utility relocations will be DBB. The grantee anticipates awarding separate construction contracts for the utility relocation and guideway. This segment extends from Aloha Stadium Station to Middle Street Station.
- Status – The grantee has completed PE of this segment. The RFQ for design services for Final Design was issued in January 2011 with responses due in March 2011. The grantee anticipates issuing an NTP in January 2012.
- Issues or Concerns
 - The design contract value has exceeded the budget for this contract. The PMOC assessed the cause of the cost increases with HART in a separate break out session on December 7, 2011. HART is proposing additional value engineering design changes to reduce airport guideway costs to previous FD estimate. HART will also incorporate these value engineering design changes to the City Center Guideway design contract.

City Center Guideway & Utility Relocation

- Scope – The project delivery method for the guideway and utility relocations will be DBB. The grantee anticipates awarding separate construction contracts for the utility relocation and guideway. This segment extends from Middle Street Station to Ala Moana Center Station. The guideway contract will likely now include the Ala Moana Center Station.
- Status – The grantee has completed PE of this segment. The grantee will not proceed with procurement of design services until after the procurement of design services for the Airport Guideway is complete.
- Issues or Concerns
 - None identified at this time.

Station Packages

- Scope – All stations will be implemented using DBB. The grantee has developed station group packages for design, and it intends to issue construction contracts based on those station packages. Following are the packages that the grantee is currently considering:
 - West Oahu Station Group (3 stations): East Kapolei, UH-West Oahu, and Hoopili.
 - Farrington Station Group (3 stations): West Loch, Waipahu Transit Center, and Leeward Community College.
 - Kamehameha Station Group (3 stations): Pearl Highlands, Pearlridge, and Aloha Stadium.
 - Airport Station Group (4 stations): Pearl Harbor Navy Base, Honolulu International Airport, Lagoon Drive, and Middle Street Transit Center.
 - Dillingham Station Group (2 stations): Kalihi and Kapalama.
 - City Center Group (3 stations): Iwilei, Chinatown and Downtown.
 - Kaka’ako Station Group (2 stations): Civic Center and Kaka’ako, plus station finishes on the Ala Moana Station
 - Pearl Highlands Station Parking Garage and H2 Ramps

- Status
 - Farrington Station Group Design Contract – The grantee selected HDR/HPE, Inc. for the design contract. Advanced PE began in February 2011. To date, 13 Requests for Contract Changes have been identified for various design issues, but no formal change orders have been executed.
 - Kamehameha Station Group Design Contract – The Request for Qualifications (RFQ) to begin advanced PE was issued in June 2011. NTP is anticipated to be issued in February 2012.
 - West Oahu Station Group – The grantee selected URS Corporation on March 21, 2011 and negotiations are currently underway. NTP #1 is anticipated to be issued in January 2012 to allow for development of management plans and beginning of Advanced PE. The grantee is still negotiating the full scope, schedule, and cost associated with NTP #1.

- Farrington Station Group Design Cost
 - Original Contract Value – \$5,500,000
 - Current Contract Value – \$5,500,000
 - Expended to Date – \$2,100,000
 - % Expended – 38%
 - Approved Change Orders – \$0

- Issues or Concerns
 - The cost estimate for the Farrington Station Group has increased compared to the previous estimate. The PMOC assessed the cost increase with HART in a separate break out session on December 7, 2011. HART is proposing additional value engineering design changes to reduce the station footprint, simplify pedestrian bridge trusses, delete glass enclosures and glass canopies, reduce platform canopy, and simplify platform canopy structural supports to reduce station costs to previous FD

estimate. HART will also incorporate these value engineering design changes to the other station packages.

Elevators and Escalators

- Scope – The grantee originally intended to issue a contract to furnish, install, test, and commission all elevator and escalator equipment. However, the grantee now anticipates using a DB approach and may include Platform Edge Screens with this procurement.
- Status – The grantee anticipates beginning procurement for this contract in late 2011.
- Issues or Concerns
 - None identified at this time.

Appendix C: PE Status by Contract

Note: Within the context of this matrix, Advanced PE is subjectively defined as greater than 30% and less than 65%. Design development greater than 65% typically occurs during Final Design. Within the confines of the DB contracts, the Special Provisions define the following design stages:

- (1) *Definitive Design*
- (2) *Interim Design*
- (3) *Final Design*
- (4) *Working Plans*
- (5) *As-Constructed Plans and Specifications*

The Special Provisions of each contract provide specific criteria for each design phase.

| Contract | Segment | PE Status |
|---|---|---|
| West Oahu Farrington Highway Guideway DB Contract | Segment I – East Kapolei to Pearl Highlands Length: 6 miles | GEC I prepared contract documents for DB procurement, including 30% plans. Advanced PE was continued by Kiewit under NTP #1, 1A, 1B, 1C, and 1D. NTP #2 issued on March 3, 2011 for work activities related to the relocation of utilities. NTP #3 issued in June 2011 for Final Design under LONP. Final design is progressing. |
| Kamehameha Highway Guideway DB Contract | Segment II – Pearl Highlands to Aloha Stadium Length: 4 miles | GEC I prepared contract documents for DB procurement, including 30% plans. NTP #1 issued to Kiewit on July 12, 2011 allowing mobilization, insurance, development of management plans and procedures, and Definitive Design and Interim. Definitive design is progressing. Kiewit is continuing with potholing for existing utilities and geotechnical investigations have commenced. |
| Airport Guideway Contract and Utilities Relocation DBB Contract | Segment III – Aloha Stadium to Middle Street Length: 5 miles | GEC I prepared 30% plans for segment. Advanced PE will be performed by grantee's selected consultant starting with issuance of NTP in January 2012. |
| City Center Guideway & Utilities DBB Contracts | Segment IV – Middle Street to Ala Moana Center Length: 5 miles | GEC I prepared 30% plans for segment. Advanced PE will be performed with grantee's selection of design consultant after completion of procurement for Airport Guideway design services. |
| Maintenance & Storage Facility DB Contract | Segment I | GEC I prepared contract documents for DB procurement, including 30% plans. NTP #1 issued to Kiewit/Kobayashi on July 25, 2011 allowing mobilization, insurance, development of management plans and procedures, and Definitive Design and Interim. Definitive design is progressing. Kiewit is evaluating yard reconfiguration and geotechnical investigations have commenced. |

| Contract | Segment | PE Status |
|--|----------------|---|
| WOFH Station Group (3) DBB Contract | Segment I | GEC I prepared 20% plans for segment. It is anticipated that NTP will be issued to URS Corporation in November 2011 to begin Advanced PE. |
| Farrington Station Group (3) DBB Contract | Segment I | GEC I prepared 20% plans for segment. NTP was issued to HDR/HPE, Inc was issued on March 15, 2011 to begin advanced PE. Advanced PE is ongoing. |
| Kamehameha Station Group (3) | Segment II | GEC I prepared 20% plans for segment. RFQ to begin advanced PE is expected to be released in August 2011. |
| Airport Station Group (4) | Segment III | GEC I prepared 20% plans for segment. |
| Dillingham Station Group (2) | Segment IV | GEC I prepared 20% plans for segment. |
| City Center Station Group (3) | Segment IV | GEC I prepared 20% plans for segment. |
| Kaka'ako Station Group (3) | Segment IV | GEC I prepared 20% plans for segment. |
| Pearl Highland H2 Ramps and Multiple Parking Structure | Segment I | GEC I prepared 20% plans for segment. Grantee is repackaging to include the Pearl Highland Station in the KH Station Group and to separate the H2 Ramps and Multiple Parking Structure into a separate contract. |
| Core Systems Contract DBOM Contract | Segment 1-IV | GEC I prepared contract documents for DBOM procurement, including 15-20% plans. Contractor will advance the conceptual drawings and performance specifications in the RFP Part 2 contract documents to the Definitive and Interim Design levels during the early portion of contract. Ansaldo Honolulu Joint Venture was selected on March 21, 2011. HART executed the contract on November 28, 2011 and anticipates issuing NTP #1 in January 2012. |

Appendix D: Procurement Schedule

DB/DBOM Procurement

| Contract # | Contract Name | Schedule Reference | Part 2 Execute Contract | Issue NTP 1 | Issue NTP 2 | Issue NTP 3 | Issue NTP 4 | Contract Completion |
|------------|--|--------------------|-------------------------|-------------|-------------|-------------|-------------|---------------------|
| DB-120 | West Oahu/Farrington Highway Guideway (WOFH) <i>[Kiewit Infrastructure West Company (KIWC)]</i> | Forecast | Nov 01 '09 | Dec 01 '09 | Dec 08 '10 | Mar 15 '11 | Dec 01 '11 | Oct 03 '14 |
| | | Actual | Nov 01 '09 | Dec 01 '09 | Dec 08 '10 | Mar 15 '11 | | |
| DB-200 | Maintenance & Storage Facility (MSF) <i>[Kiewit/Kobayashi Joint Venture (KKJV)]</i> | Forecast | Jun 30 '11 | Jul 25 '11 | Nov 15 '11 | Dec 01 '11 | ----- | Feb 17 '15 |
| | | Actual | Jun 30 '11 | Jul 25 '11 | | | ----- | |
| DB-320 | Kamehameha Guideway (KHG) <i>[Kiewit Infrastructure West Company (KIWC)]</i> | Forecast | Jun 30 '11 | Jul 12 '11 | Nov 15 '11 | Dec 01 '11 | ----- | Feb 21 '15 |
| | | Actual | Jun 30 '11 | Jul 12 '11 | | | ----- | |
| DBOM-920 | Core Systems Contract <i>[Ansaldo Honolulu JV]</i> | Forecast | Nov 23 '11 | Dec 14 '11 | Jan 30 '12 | Jul 18 '12 | ----- | Feb 27 '19 |
| | | Actual | Nov 28 '11 | | | | ----- | |

DBB FD Procurement

| Contract # | Contract Name | Schedule Reference | Issue RFQ | Finalize Contract | Issue NTP | Contract Completion |
|------------|---|--------------------|------------|-------------------|-------------|---------------------|
| FD-140 | West Oahu Stations Group FD | Forecast | Jan 14 '10 | Jan 20 '12 | Jan 20 '12 | Apr 23 '13 |
| | | Actual | Jan 14 '10 | | | |
| FD-240 | Farrington Highway Stations FD <i>[HDR, Inc.]</i> | Forecast | Sep 02 '10 | Apr 15 '10 | Jan 14 '11 | Sept 08 '12 |
| | | Actual | Sep 02 '10 | Apr 15 '10 | Jan 14 '11 | |
| FD-340 | Kamehameha Highway Stations Group FD | Forecast | Jun 28 '11 | Feb 03 '12 | Feb 17 '12 | July 08 '13 |
| | | Actual | Jun 28 '11 | | | |
| FD-430 | Airport Segment Utilities Relocation & Guideway FD | Forecast | Jan 26 '11 | Dec 15 '11 | Jan 15 '12 | Dec 02 '13 |
| | | Actual | Jan 26 '11 | | | |
| FD-530 | City Center Utilities Relocation, Guideway & Ala Moana Station FD | Forecast | Dec 09 '11 | June 26 '12 | July 30 '12 | Mar 23 '14 |
| | | Actual | | | | |

Consultant Agreements

| Contract # | Contract Name | Schedule Reference | Advertise RFQ | Finalize Contract | Issue NTP | Contract Completion |
|------------------------|---|---------------------------|----------------------|--------------------------|------------------|----------------------------|
| MM-900 | Program Management Support Consultant <i>[InfraConsult LLC]</i> | Forecast | Jul 15 '09 | | Nov 19 '09 | Dec 31 '11 |
| | | Actual | Jul 15 '09 | | Nov 19 '09 | |
| New Contract # Pending | Program Management Support Consultant | Forecast | Aug 03 '11 | Dec 12 '11 | Jan 02 '12 | Dec 11 '14 |
| MM-905 | General Engineering Consultant - I (EIS/Preliminary Engrg) <i>[PB Americas]</i> | Forecast | Aug 03 '11 | | | |
| | | Actual | Jun 01 '07 | | Oct 25 '09 | Dec 31 '11 |
| MM-910 | General Engineering Consultant - II (Final Design & Construction) <i>[PB Americas]</i> | Forecast | Jun 01 '07 | | Oct 25 '09 | |
| | | Actual | Sep 03 '09 | Jun 30 '11 | Aug 02 '11 | Mar 03 '19 |
| | | Actual | Sep 03 '09 | Jun 30 '11 | Aug 02 '11 | |

Consultant Agreements

| Contract # | Contract Name | Schedule Reference | Finalize Contract | Issue NTP | Contract Completion |
|-------------------|---|---------------------------|--------------------------|-------------------|----------------------------|
| MM-915 | HDOT Traffic Management Coordination Consultant | Forecast | <i>Feb 03 '12</i> | <i>Feb 08 '12</i> | <i>Jan 08'16</i> |
| | | Actual | | | |
| MM-930 | HDOT State Oversight Agency (SOA) Consultant | Forecast | <i>Feb 29 '12</i> | <i>Feb 29 '12</i> | <i>Mar 03 '15</i> |
| MM-935 | Real Estate Consultant | Forecast | | | |
| | | Actual | <i>Jan 13 '12</i> | <i>Jan 13 '12</i> | <i>Jan 17 '16</i> |
| MM-940 | Kako'o Consultant | Forecast | | | |
| | | Actual | <i>Jan 20 '12</i> | <i>Jan 20 '12</i> | <i>Mar 03 '19</i> |
| | | Actual | | | |

Appendix E: PE Approval Letter Requirements

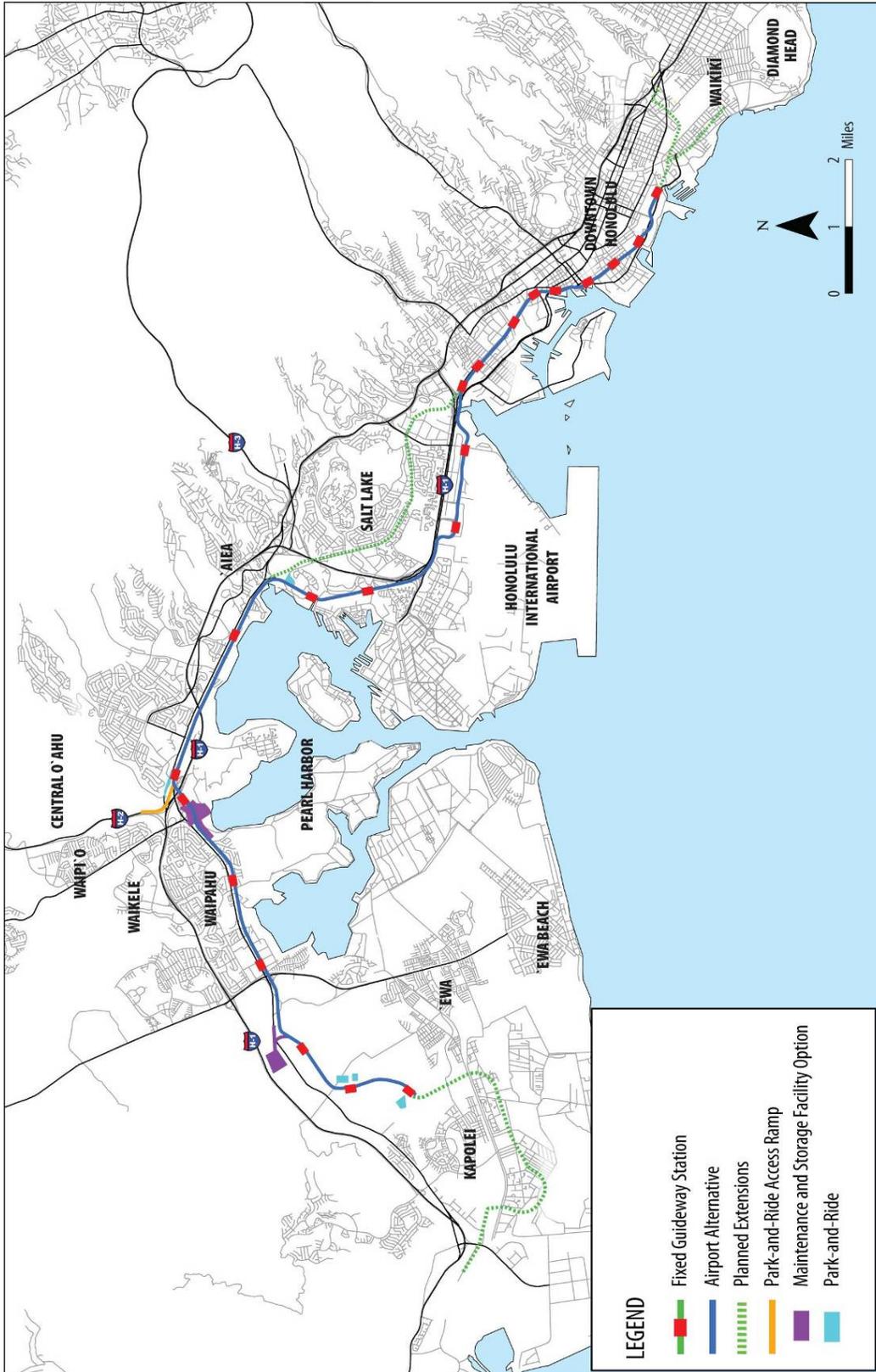
| No. | Item | Completion Date | Comments |
|--|---|-----------------|--|
| Project Scope, Design and Development | | | |
| 1 | Identify any third party agreements necessary for project completion, including utility agreements with private and public owners and military | Jan-10 | Complete |
| 2 | Resolve the specific regarding proximity of the guideway to runways 22R/4L and 22L/4R at the Honolulu International Airport with HDOT and FAA | May-10 | Complete |
| 3 | Fully develop vehicle basis of design and functional sizing | Jun-11 | Complete |
| 4 | Determine rail fleet size requirement | Jun-11 | Complete |
| 5 | Fully develop scope for the administration building and operations control center | Jun-11 | Complete – will be refined by MSF contractor |
| 6 | Determine the final location of the maintenance and storage facility | | Execution of the License Agreement with DHHL is pending; Right of Entry is pending |
| 7 | Finalize a contracting packaging plan which includes a source selection plan(s) and contract specific work plans | Mar-11 | Complete |
| 8 | Develop strategies to streamline the City's process to award contracts and to enter into grant agreements, especially as applicable to FTA grants | Jul-11 | Complete – will be addressed further by HART Board |
| 9 | Develop a preliminary operation plan | 08-Feb-10 | Complete |
| 10 | Ensure the service velocity does not erode over the next course of design changes | Jun-11 | Complete |
| Project Schedule | | | |
| 11 | Provide a baseline of the master Project Schedule (MPS) early in PE which will be used for monthly progress updates and tracking schedule variances | 9-Jul-11 | Complete |
| 12 | Address the utilization manpower and equipment resource loading and budget and cost loading | 9-Jul-11 | Complete |
| 13 | Include critical activities in the MPS: utility activities, real estate acquisitions, system integration, starting and testing, operational commissioning and training, vehicle procurement, major construction material procurement, FTA review and comment, detail activities for early construction packages | 9-Jul-11 | Complete |
| 14 | Develop a right-of-way schedule | 9-Jul-11 | Complete |
| 15 | Modify the Work Breakdown Structure to cross over with the project budget and cost breakdown structure | 21-Dec-09 | Complete |

| No. | Item | Completion Date | Comments |
|---------------------------|--|-----------------|--|
| Project Cost | | | |
| 16 | Develop a detailed bottoms-up-style project cost estimate to Standard Cost Category format. The estimate should be detailed sufficiently to determine distributions of materials, labor, equipment and general conditions elements at a minimum. The soft cost estimates should be based on staffing plans, force account plans, contracts and so forth rather than solely on percentages. The estimate should eliminate parametric-style values, cost estimating relationships, and lump sums as much as possible during PE | 15-Apr-11 | Complete |
| 17 | Escalate the cost estimate in accordance with the MPS | 15-Apr-11 | Complete |
| 18 | Provide justification and backup documents to support the quantification and assumptions for the "soft costs" and related general conditions of the project | 15-Apr-11 | Complete |
| Technical Capacity | | | |
| 19 | Configuration management and change control mechanism | Jan-11 | Complete |
| 20 | Develop detailed staffing plans for all remaining phases of the project to ensure adequate technical capacity. The plans should include the dates by which the City will fill each key position. All key City management positions should be filled during PE. | May-11 | Complete – Grantee to develop Succession Plan (not required for FD approval) |
| 21 | Work with the State of Hawaii to establish a State Safety Oversight Agency office to oversee the project | 6-Apr-10 | Complete |
| 22 | Submit a fully developed Rail Fleet Management Plan | 8-Jul-11 | Complete |
| 23 | Have a quantifiable metrics for measuring the real status of work, both cost and schedule of all professional service contracts, and any inter-local agreements for participatory services | Jun-11 | Complete |
| 24 | Develop a Contingency Management Plan which will identify the specific risks and implement the anticipated mitigation measures | | Complete |
| 25 | Develop an Environmental Mitigation Program that identifies required environmental mitigation actions and the party responsible for the mitigation and that will eventually become the basis for quarterly mitigation monitoring and quarterly mitigation reports | Jan-11 | Complete |
| 26 | Update and implement the: | | |
| | Real Estate Acquisition and Management Plan | Jan-11 | Complete |
| | Bus Fleet Management Plan | Jun-11 | Complete |
| | Safety and Security Management Plan | Jun-11 | Complete |
| | Quality Management Plan | 12-Jan-11 | Complete |

Appendix F: Project Overview and Map (Transmitted as a separate file)

Appendix G: Safety and Security Checklist (Transmitted as a separate file)

Honolulu High-Capacity Transit Corridor Project Map



Appendix G: Safety and Security Checklist

| Project Overview | | | |
|---|---|----------------------|---|
| Project Name | Honolulu High-Capacity Transit Corridor | | |
| Project mode (Rail, Bus, BRT, Multimode) | Rail | | |
| Project phase (Preliminary Engineering, Design, Construction, or Start-up) | PE | | |
| Project Delivery Method (Design/Build, Design/Build/Operate Maintain, CMGC, etc) | DB, DBB and DBOM | | |
| Project Plans | Version | Review by FTA | Status |
| Safety and Security Management Plan | 2.0 | Jun-11 | PMOC has recommended acceptance |
| Safety and Security Certification Plan | 1.0 | Jun-11 | PMOC has recommended acceptance |
| System Safety Program Plan | | | Submittal date TBD |
| System Security Plan or Security and Emergency Preparedness Plan (SSEPP) | | | Submittal date TBD |
| Construction Safety and Security Plan | 1.0 | Jun-11 | Submitted in Mar-11 |
| Safety and Security Authority | Y/N | | Status |
| Is the grantee subject to 49 CFR Part 659 state safety oversight requirements? | Y | | |
| Has the state designated an oversight agency as per Part 659.9 | Y | | Executive Order 10-04 effective April 6, 2010 |
| Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17? | N | | Submission/Approval in 2014 |
| Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21? | N | | Submission/Approval in 2014 |
| Did the oversight agency participate in the last Quarterly Program Review Meeting? | N | | SOA in formation |
| Has the grantee submitted its safety certification plan to the oversight agency? | N | | SOA in formation |
| Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration? | N | | None issued to date |
| SSMP Monitoring | | | |
| Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project? | Y | | |
| Grantee reviews the SSMP and related project plans to determine if updates are necessary? | Y | | |
| Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify. | Y | | |
| Does the grantee maintain a regularly scheduled report on the status of safety and security activities? | Y | | Reported Monthly |
| Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases? | Y | | |
| Does the grantee update the safety and security responsibility matrix/organization chart as necessary? | Y | | |

| | | |
|--|-----|--|
| Has the grantee allocated sufficient resources to oversee or carry out safety and security activities? | TBD | |
| Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases? | Y | |
| Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities? | Y | |
| Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly. | Y | |
| Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted. | Y | |
| Has the grantee ensured the development of safety design criteria? | Y | |
| Has the grantee ensured the development of security design criteria? | Y | |
| Has the grantee verified conformance with the safety and security requirements in the design? | N | Will be done during FD/Construction |
| Has the grantee identified conformance with safety and security requirements in equipment and materials procurement? | N | Will be done during FD/Construction |
| Has the grantee verified construction specification conformance? | N | Will be done during construction |
| Has the grantee identified safety and security critical tests to be performed prior to passenger operations? | N | Will be done during Rail Activation phase |
| Has the grantee verified conformance with safety and security requirements during testing, inspection and start up phases? | N | Will be done during Rail Activation phase |
| Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and/or vulnerabilities? | N | Will be done during FD/Construction |
| Has the grantee ensured the performance of safety and security analyses for proposed work-arounds? | N | Will be done during Rail Activation phase |
| Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none"> • Activation Plan and Procedures • Integrated Test Plan and Procedures • Operations and Maintenance Plan • Emergency Operations Plan | N | Will be done during Rail Activation phase |
| Has the grantee issued final safety and security certification? | N | Will be done after completion of Rail Activation phase |
| Has the grantee issued the final safety and security verification report? | N | Will be done during Rail Activation phase |
| Construction Safety | | |
| Does the grantee have a documented/implementation Contractor Safety Program with which it expects contractors to comply? | Y | CSP development is included in construction contracts |
| Does the grantee's contractor(s) have a documented company-wide safety and security program plan? | TBD | Is a requirement of CSSP |
| Does the grantee's contractor(s) have a site-specific safety and security program plan? | TBD | Is a requirement of CSSP |

| | | |
|--|-----|------------------------|
| Provide the grantee's OSHA statistics compared to the national average for the same type of work? | TBD | None developed yet |
| If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record? | TBD | None developed yet |
| Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures? | Y | Audit required in CSSP |
| Federal Railroad Administration | | |
| If the shared track: has the grantee submitted its waiver request application to FRA? (Please identify any specific regulations for which waivers are being requested) | NA | |
| If the shared corridor: has grantee specified specific measures to address shared corridor safety concerns? | NA | |
| Is the Collision Hazard Analysis underway? | NA | |
| Other FRA required Hazard Analysis – fencing, etc? | NA | |
| Does the project have Quiet Zones? | NA | |
| Does FRA attend Quarterly Review Meetings? | NA | |

