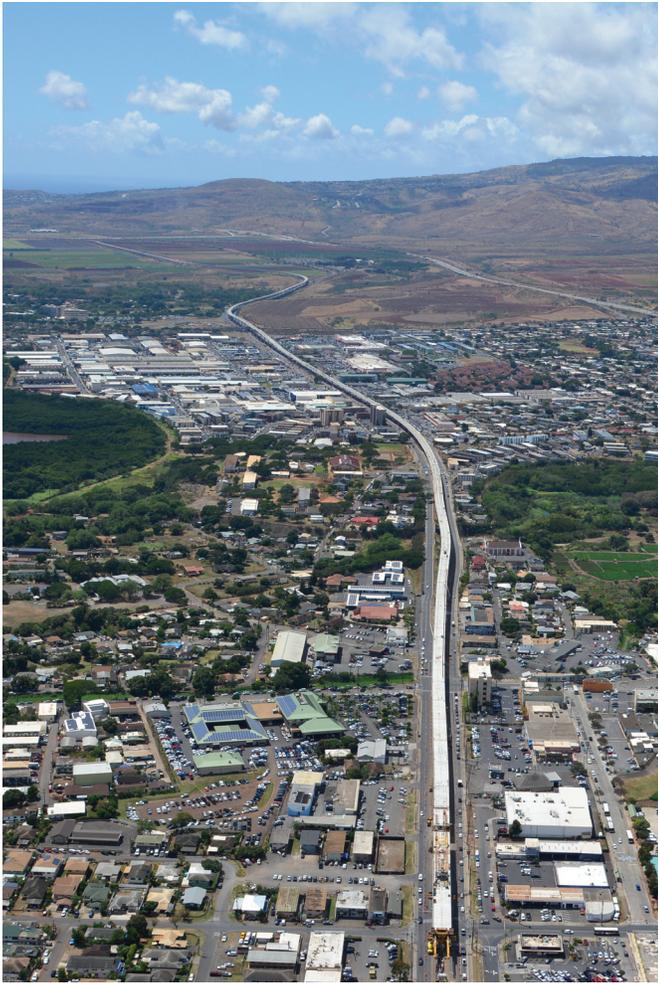


# HONOLULU RAIL TRANSIT PROJECT



## March 2016 MONTHLY PROGRESS REPORT

# HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

[www.HonoluluTransit.org](http://www.HonoluluTransit.org)

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This report and all subsidiary reports are prepared for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except the FTA or HART, in accordance with the purposes as described below.

For projects funded through the FTA Full Funding Grant Agreements (FFGAs) program, the FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's budget and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution. Therefore, the information in the monthly reports will change from month to month, based on relevant factors for the month and/or previous months.

**REPORT FORMAT AND FOCUS**

This report is submitted in compliance with the terms of FTA Contract No. DTFT60-09-D-00012, Task Order No. 2. Its purpose is to provide information and data to assist the FTA as it continually monitors the grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the grantee continues to be ready to receive federal funds for further project development.

This report covers the project and quality management activities on the Honolulu Rail Transit Project managed by the Honolulu Authority for Rapid Transportation (HART) with HART as the grantee and partially financed by the FTA FFGA.

**ON THE COVER:**

Left: West O'ahu Farrington Highway Guideway along Farrington Highway looking Waianae.

Upper right: West O'ahu Farrington Highway Guideway along Farrington Highway near Waipahu High School.

Lower right: Rail Operations Center (aka Maintenance and Storage Facility) site.

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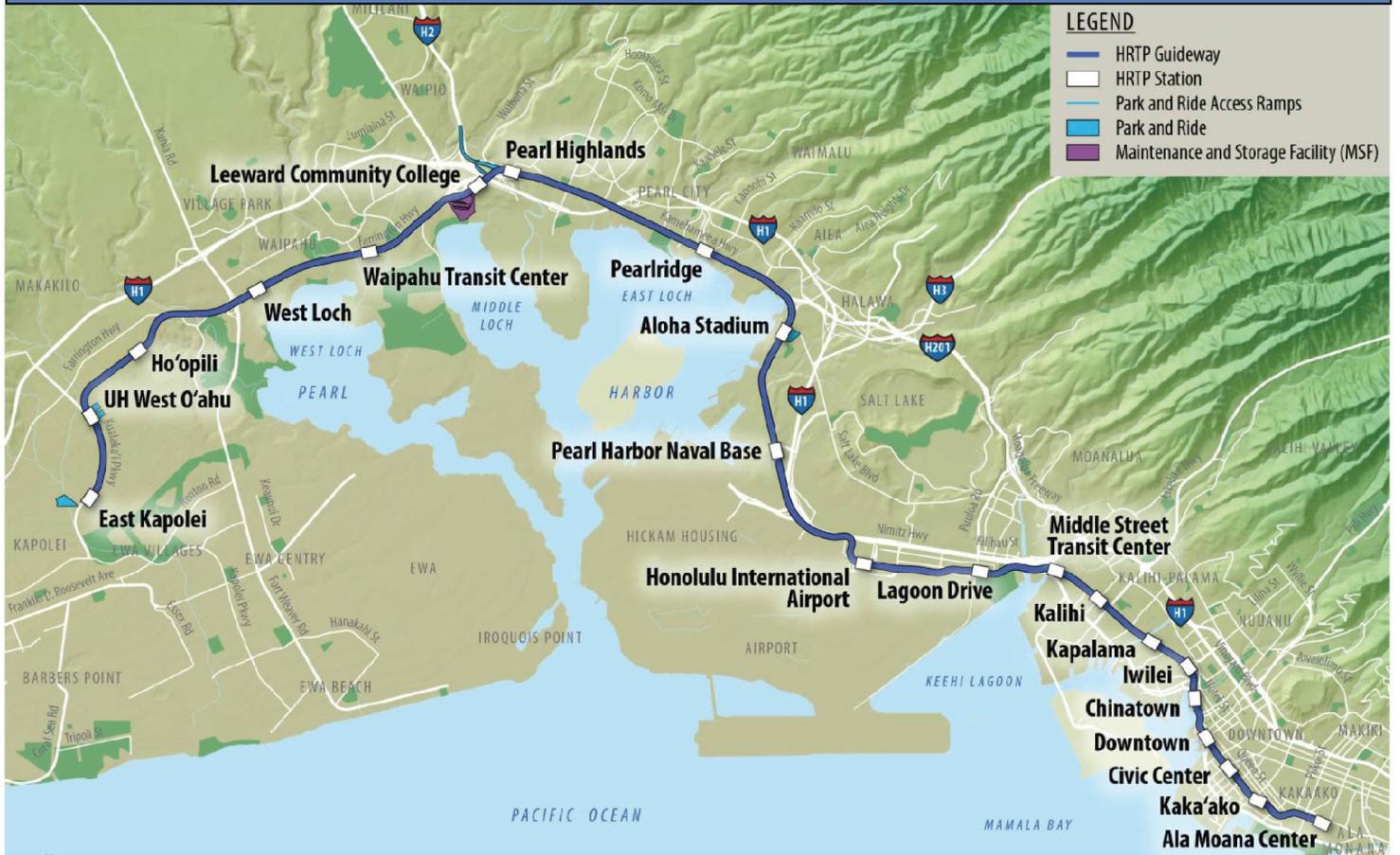
LIST OF ACRONYMS

AB	AnsaldoBreda	DHHL	Department of Hawaiian Homelands
ACHP	Advisory Council on Historic Preservation	DHR	Department of Human Resources
ACS	Access Control System	DIT	Department of Information Technology
AFE	Authorized for Expenditure	DKSG	Dillingham and Kaka'ako Station Group
AGS	Airport Guideway and Stations	DLIR	Hawai'i Department of Labor and Industrial Relations
AHJV	Ansaldo Honolulu Joint Venture	DLNR	Department of Land and Natural Resources
AIS	Archaeological Inventory Survey	DOE	Department of Education
APTA	American Public Transportation Association	DOH	Department of Health
ARRA	American Recovery and Reinvestment Act	DOL	Department of Labor
ASG	Airport Station Group	DPM	Deputy Project Managers
ASU	Airport Section Utilities	DPP	Department of Planning and Permitting
ATC	Automated Train Control	DPR	Department of Parks and Recreation
ATO	Automated Train Operation	DPS	Department of Public Safety
AVA	Anil Verma Associates, Inc.	DS	Downstream
BA	Buy America	DTS	Department of Transportation Services
BAC	Buy America Compliance	DVT	Design Verification Test
BACM	Buy America Compliance Matrix	ECP	Environmental Compliance Plan
BAFO	Best and Final Offer	E/E	Elevator/Escalator
BCS	Balanced Cantilever System	EK	East Kapolei
BFS	Budget and Fiscal Services	EMC	Electromagnetic Compatibility
BLS	Bureau of Labor Statistics	EMF	Electromagnetic Forces
BMP	Best Management Practice	EMI	Electromagnetic Interference
BOD	Board of Directors	EMP	Environmental Management Plan
BPS	Baseline Project Schedule	EOR	Engineer of Record
BUE	Bottom-Up Estimate	EOS	Electrically Operated Switch
BUEG	Back-up Emergency Generator	ESA	Engineering Services Agreement
CAM	Construction Access Milestone	FAA	Federal Aviation Administration
CAR	Corrective Actions	FAI	First Article Inspections
CCGS	City Center Guideway and Stations	FAT	Factory Acceptance Tests
CCO	Contract Change Order	FD	Final Design
CCTV	Closed Circuit Television	FDAS	Fire Detection Alarm System
CDC	Compendium of Design Criteria	FDC	Field Design Change
CE&I	Construction Engineering and Inspection	FEIS	Final Environmental Impact Statement
CEL	Certifiable Elements List	FFC	Fixed Facility Contractors
CIC	Communication Interface Cabinet	FFGA	Full Funding Grant Agreement
CIL	Certifiable Items List	FHSG	Farrington Highway Station Group
CM	Construction Manager	FLSWG	Fire Life Safety Working Group
CMP	Corrugated Metal Pipe	FOCN	Fiber Optic Communication Network
CMS	Contract Management System	FPO	Federal Preservation Officer
CMU	Concrete Masonry Unit	FTA	Federal Transit Administration
CNMMP	Construction Noise Mitigation and Monitoring Plan	FTE	Full-Time Equivalent
COI	Conflict of Interest	FWS	Fish and Wildlife Service
COMMs	Communications	GAT	Great Aleutian Tsunami
CONRAC	Consolidated Rental Car Facility	GBS	Gap Breaker Station
COR	Corporation Counsel	GDR	Geotechnical Data Report
CP	Consulting Party	GEC	General Engineering Consultant
CPM	Critical Path Method	GET	General Excise Tax
CPO	Chief Procurement Officer	GIS	Geographic Information System
CPP	Contract Packaging Plan	GSA	General Services Administration
CROE	Construction Right-of-Entry	GT	General Terms
CSC	Core Systems Contract	HA	Hazard Analysis
CSSC	Construction Specification Conformance Checklists	HABS	Historic American Buildings Survey
CSL	Cross Hole Sonic Logging	HAER	Historic American Engineering Record
CSOC	Core Systems Oversight Consultant	HALS	Historic American Landscape Survey
CSSP	Construction Safety & Security Plan	HART	Honolulu Authority for Rapid Transportation
CTS	Communications Transmission System	HCC	Honolulu Community College
CWRM	Commission on Water Resource Management	HCDA	Hawaii Community Development Authority
CZM	Coastal Zone Management	HCSO	Hawai'i Capital Special District
DAGS	Department of Accounting & General Services	HDCC	Hawaiian Dredging Construction Company
DB	Design-Build	HDOE	Hawai'i Department of Education
DBB	Design-Bid-Build	HDOH	Hawai'i Department of Health
DBE	Disadvantaged Business Enterprise	HDOT	Hawai'i Department of Transportation
DBEDT	Department of Business, Economic Development and Tourism	HDPE	High-density polyethylene
DBOM	Design-Build-Operate-Maintain	HECO	Hawaiian Electric Company
DCAB	Disability and Communication Access Board	HFD	Honolulu Fire Department
DCCC	Design Criteria Conformance Checklists	HHF	Historic Hawai'i Foundation
DCN	Design Change Notice	HHPRB	Hawai'i Historic Places Review Board
DDC	Department of Design and Construction	HIE	Hawaii Independent Energy
DES	Department of Environmental Services	HP	Historic Preservation
DFIM	Design Furnish Install Maintain	HPC	Historic Preservation Committee
DFM	Department of Facility Maintenance	HPCA	Historic Preservation Certification Application

HPD	Honolulu Police Department	P3	Public-private partnership
HPF	Historic Preservation Fund	PA	Programmatic Agreement
HRHP	Hawai'i Register of Historic Places	PAIS	Programmatic Agreement Implementation Schedule
HRI	Hitachi Rail Italy	PARs	Preventative Actions
HRTTP	Honolulu Rail Transit Project	PB	Parsons Brinckerhoff, Inc.
HTI	Hawaiian Telcom	PE	Preliminary Engineering
HTL	Hazard Tracking Log	PGC	Pacific Guardian Center
HVAC	Heating, Ventilation and Air Conditioning	PHA	Preliminary Hazard Analysis
I&T	Inspection & Testing	PICM	Project Interface Control Manual
IAMR	Interstate Access Modification Report	PIG	Permitted Interaction Group
ICCS	Integrated Communications Control System	PIM	Project Interface Manager
ICD	Interface Control Documents	PLA	Project Labor Agreement
ICE	Independent Cost Estimate	PLO	Priority-Listed Offerors
ICM	Interface Control Manual	PM	Project Managers
ICWG	Interim Certification Working Group	PMC	Project Management Consultant
IDS	Intrusion Detection System	PMIM	Project Management and Interface Management
IFB	Issued for Bid	PMOC	Project Management Oversight Contractor
IFC	Issued for Construction	PMSC	Program Management Support Consultant
IJ	Insolation Joint	PPE	Personal Protective Equipment
INMS	Integrated Network Management System	PRTCC	Pre-revenue Testing Conform Checklist
IP	Implementing Procedures	PSG	Platform Screen Gate
ITP	Inspection and Test Plan	PSGS	Platform Screen Gate System
ITS	Intelligent Transportation Systems	PUP	Property Utilization Plan
JTMS	Joint Traffic Management System	PV	Passenger Vehicle
JU&O	Joint Use & Occupancy	QA	Quality Assurance
JUOA	Joint Use and Occupancy Agreement	QAM	Quality Assurance Manager
KCDD	Kaka'ako Community Development District	QAP	Quality Assurance Plan
KCH	Kanehili Cultural Hui	QC	Quality Control
KHG	Kamehameha Highway Guideway	QMP	Quality Management Plan
KHSG	Kamehameha Highway Station Group	QMS	Quality Management System
KIWC	Kiewit Infrastructure West Company	QTF	Quality Task Force
KKJV	Kiewit/Kobayashi Joint Venture	R&R	Revise & Re-submit
LCC	Leeward Community College	RAC	Rail Activation Committee
LEED	Leadership in Energy and Environmental Design	RAMP	Real Estate Acquisition and Relocation Management Plan
LPR	License Plate Reader	RCMP	Risk and Contingency Management Plan
LRV	Light Rail Vehicle	RCP	Reinforced Concrete Pipe
MIM	Manufacture-Install-Maintain	RE	Resident Engineer
MMIS	Maintenance Management Information System	READ	Real Estate Acquisition Database
MMP	Mitigation Monitoring Program	RFC	Request for Change
MOT	Maintenance of Traffic	RFI	Request for Information
MOU	Memorandum of Understanding	RFID	Requests for Interface Data
MOW	Maintenance of Way	RFMP	Rail Fleet Management Plan
MPS	Master Project Schedule	RFP	Request for Proposals
MPSS	Master Project Schedule Summary	RFQ	Request for Qualifications
MPV	Multiple Purpose Vehicle	ROC	Rail Operations Center
MS4	Municipal Separate Storm Sewer System	ROD	Record of Decision
MSE	Mechanically Stabilized Earth	ROE	Right of Entry
MSF	Maintenance and Storage Facility	ROW	Right-of-Way
MTM	Modern Track Machineries	RR	Risk Register
NCE	Non-Conformance Evaluation	RSD	Revenue Service Date
NCR	Non-Conformance Report	RTM	Requirements Traceability Matrix
NDC	Notice of Design Change	RTSA	Regional Transit Stabilization Agreement
NEPA	National Environmental Policy Act	S1	Segment 1
NHL	National Historic Landmark	SAIS	Supplemental Archaeological Inventory Survey
NOI	Notice of Intent	SCADA	Supervisory Control and Data Acquisition
NPDES	National Pollutant Discharge Elimination System	SCAP	Stream Channel Alteration Permit
NPS	National Park Service	SCC	Standard Cost Category
NR	National Register	SHPD	State Historic Preservation Division
NRHP	National Register of Historic Places	SIC	Sandwich Isle Communications
NSM	Negotiation Strategy Memo	SIT	System Integration Testing
NTP	Notice to Proceed	SLAN	Station Local Area Network
NTS	Network Time Server	SOG	Slab on Grade
O&M	Operations and Maintenance	SOI	Secretary of the Interior
OCC	Operations Control Center	SOW	Scope of Work
OCIP	Owner-Controlled Insurance Program	SP	Special Provisions
OIBC	O'ahu Island Burial Council	SQP	Supplemental Quality Plan
OIL	Open Items List	SSC	Safety Security Certification
OMPO	Oahu Metropolitan Planning Organization	SSCP	Safety and Security Certification Plan
ORCC	Operational Readiness Conformance Checklists	SSCWG	Safety and Security Certification Working Group
OSB	Operations and Servicing Building	SSI	Sensitive Security Information
OSHA	Occupational Safety and Health Administration	SSMP	Safety and Security Management Plan
OTS	O'ahu Transit Services	SSRC	Safety and Security Review Committee
OTW	Oceanic Time Warner	SSSP	Site Safety Security Plan
OTWC	Oceanic Time Warner Cable	STCC	Specification/Testing Conform Checklists

SWPPP	Storm Water Pollution Prevention Plan	USACE	U.S. Army Corps of Engineers
T&M	Time and Material	USDOT	U.S. Department of Transportation
TCCR	Train Control and Communications Room	VE	Value Engineering
TCP	Traffic Control Plan	VRCS	Voice Radio Communication System
TCS	Train Control System	VRF	Variable Refrigerant Flow
TES	Traction Electrification System	WA	Work Area
TIGER	Transportation Investment Generating Economic Recovery	WHS	Waipahu High School
TIP	Transportation Improvement Program	WL	West Loch
TOC	The Outdoor Circle	WLO	West Loch
TOD	Transit-Oriented Development	WOEDA	West Oahu Economic Development Association
TPO	Thermoplastic Olefin	WOFH	West O'ahu/Farrington Highway
TPSS	Traction Power Sub-Station	WOSG	West O'ahu Station Group
TSA	Transportation Security Administration	WSS	West Side Stations
TSI	Transportation Safety Institute	WSSG	West Side Station Group
TVA	Threat & Vulnerability Assessments	WTB	Wheel Truing Building
TVM	Ticket Vending Machine	WTC	Waipahu Transit Center
TWF	Train Wash Facility	WYL	West Yard Lead
UCA	Utility Construction Agreement	YCB	Yard Control Bungalow
UFCRA	Utility Facilities Relocation and Cost Reimbursement Agreement	YOE	Year of Expenditure
UH	University of Hawai'i		
UHWO	University of Hawai'i West O'ahu		
UL	Underwriters Laboratories		
UPS	Uninterrupted Power Supply		

### PROJECT MAP



## PROGRESS REPORT SUMMARY OF CHANGES

The following is a brief summary of changes that have occurred from the previous month's report. For more information and detail, please refer to the respective pages in the report.

### Executive Summary

- The Board Meeting Q&A section has been removed for this month, as there were no public questions posed at the March meeting.

### Project Progress

- The progress charts have been updated to reflect current program expectations. Please see pages 11 and 13-14.

### Project Contingency

- The current contingency balance has decreased. Please see pages 15-16.

### Project Funding

- The Section 5309 New Starts Revenue amount received has increased. Please see pages 17-18.
- The total amount of cash received has increased. Please see pages 17-18.

### Schedule

- Based on the uncertainty related to the GET extension and availability of funds, the City Center Guideway and Stations project's request for proposal was postponed until early February 2016. Due to this action, along with the transfer of scope from the Dillingham Blvd. Utilities Contract (due to cancellation) and new scope mandated by the 138 kV circuits undergrounding going into the CCGS contract, a direct effect on the RSD forecast is expected with a new forecast in mid-to-late 2022. HART will attempt to mitigate this delay through future mitigation measures taken with the CCGS contractor and/or the Core Systems Contractor. Please see page 20.
- Contractor's forecasts have been added to the Master Project Schedule Summary (MPSS). Please see pages 20-22.
- Ramp H2R2 (DBB-385), WOSG (DBB-171) and FHSG (DBB-271) contractor schedules have been added to the MPSS. Please see pages 20-22.

### Contract Status

- The Overview and Key Issues highlights for chapter 4's contract pages have been removed, as these details are within the respective contract pages.
- Contracts in Procurement
  - HART awarded the Fare Systems Design-Build-Operate-Maintain Contract. Please see page 23.
  - The deadline has been extended for the priority listed offerors to submit their proposals for the Airport Guideway and Stations Design-Build RFP. Please see page 23.
  - The Remaining Contracts table, which had previously been in the appendix, has been included with the Contracts in Procurement information. Please see page 23.
  - The Real Estate Contractor Contract "II," Outside Counsel for Land Court Petition Services, and On Call Appraisers contracts have been added to the Remaining Contracts table. Please see page 23.
- Core Systems Contract
  - The current contract value has increased. Please see page 24.
  - The incurred-to-date amount has decreased. Please see page 24.
  - The percentage complete has been adjusted. Please see page 24.
- Elevators and Escalators Manufacture-Install-Maintain (MIM)
  - The Elevators and Escalators schedule has been removed, as the Elevators' schedule for the first 9 stations will be published once FHSG, WOSG and KHSG baseline schedules are accepted. Elevators' schedule for the remaining 12 stations will be published when their contracts are awarded. Please see page 29.

- West O'ahu Farrington Highway Guideway (WOFH)
  - The current contract value has increased. Please see page 31.
  - Additional structure elements have been added to the Construction Status table. Please see page 32.
- Maintenance and Storage Facility (MSF)
  - The current contract value has been corrected. Please see page 39.
  - Additional elements have been added to the Construction Status table. Please see page 40.
- Kamehameha Highway Guideway (KHG)
  - The current contract value has increased. Please see page 43.
  - Additional utility and structure elements have been added to the Construction Status table. Please see page 44.
- Ramp H2R2
  - The projected substantial completion date has shifted to a later date. Please see page 47.
  - The incurred-to-date amount has decreased. Please see page 47.
  - The percentage complete has been adjusted. Please see page 47.
- Airport Section Utilities
  - The contract substantial completion date has shifted to a later date. Please see page 53.
  - The projected substantial completion date has been updated. Please see page 53.
  - The current contract value has increased. Please see page 53.
- Program Management Support Consultant-2 (PMSC-2)
  - The contract completion date has shifted to a later date. Please see page 63.

#### **Overall Project-Wide Activities**

- The Overview and Key Issues highlights for chapter 5 have been removed, as these details are within the respective sections in the chapter.

#### **Management and Administrative Updates**

- The Overview and Key Issues highlights for chapter 6 have been removed, as these details are within the respective sections in the chapter.

#### **Safety & Security**

- The Safety and Security section has been updated. Please see pages 78-85.

#### **Appendices**

- Appendix B. Project Contingency Management General Background and Clarifications
  - Background information on Known Changes Contingency has been removed, as there is no known changes contingency.
- Appendix C. Project Cost Reports
  - The Project Cost reports by SCC are being updated to be consistent with current program expectations and have been removed until the revised Project budget is approved by the HART Board of Directors and FTA. For current financial information, please refer to section 2, section 4, and appendix B of the report.
- Appendix D. Procurement and Contract Status
  - The contract substantial completion date for Program Management Support Consultant – 2 (PMSC-2) and Airport Section Utilities Construction has shifted to a later date. Please see page 109.
  - The Remaining Contracts table has been removed and is now included with the Contracts in Procurement information. Please see page 23.

# 1 EXECUTIVE SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The first 4-car passenger train arrived in Hawai'i in March, and has been delivered to the Maintenance and Storage Facility site. Meanwhile, final assembly activities are ongoing for the second 4-car passenger train in California. Each four-car train can carry more than 800 passengers, the equivalent of more than ten buses.

In March, the Honolulu Authority for Rapid Transportation (HART) held a ground breaking for the East Kapolei, UH West O'ahu and Ho'opili stations. These stations will be built by Nan, Inc.

HART also announced it has awarded Virginia-based INIT Innovations in Transportation, Inc. a \$31 million contract to design, build, operate and maintain a new smart card fare for Honolulu's rail transit system. The smart card readers will be used for ticket vending machines and fare gates at the rail stations.



### Ala Moana Neighborhood TOD Plan

The Draft Final Ala Moana Neighborhood Transit-Oriented Development (TOD) Plan was presented at a community meeting in March. The plan is being finalized for review and adoption by the City Council, and addresses future land use and development, circulation, parking, pedestrian and bicycle facilities, historic and cultural resources, and public infrastructure within walking distance of the Ala Moana Center rail station.

### Cost:

Project Costs Summary Through Feb. 26, 2016		
	Current Budget (\$M)	Incurred To Date (\$M)
Project Budget	\$4,473.5	\$1,955.4
Project Contingency	\$475.1	\$0.6
Finance Charges*	\$173.1	\$0.0
<b>TOTAL</b>	<b>\$5,121.7</b>	<b>\$1,956</b>

\* \$173.1 million represents the project debt financing costs that are federally eligible. The total estimated debt financing costs of the project is \$215 million, per the FFGA Financial Plan.

### Schedule:

Project Progress* Through Feb. 26, 2016				
	Actual		Early Plan	Late Plan
Overall Project Progress	44.9%		45.3%	44.4%
Overall Construction Progress	36.6%		37.2%	36.2%
Overall Design Progress	88.4%		99.8%	99.3%
Overall Utilities Progress	37.0%		38.4%	35.5%

\* With the City Council decision to approve Bill 23 on Jan. 27, 2016 and the Mayor's signature on Feb. 1, 2016, progress charts have been updated to reflect current program expectations. HART will revise these charts pending the outcome of upcoming cost and schedule updates as a result of the FTA Risk Refresh.

**Overview:**Core Systems Contract (CSC)

The CSC contractor (AHJV) is continuing to progress through Final Design. Qualification and design verification tests are ongoing. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV continues to install and test equipment in the Yard Control Bungalow (YCB). AHJV continues to install fire detection equipment at the MSF Operations and Servicing Building (OSB) and the Maintenance of Way (MOW) building. AHJV continues to pull Communications cables in the MSF OSB and MOW buildings. Site Acceptance Tests are being conducted at the MSF. The first 4-car passenger train has arrived in Honolulu. Final Assembly activities are ongoing for the second 4-car passenger train. (See Section 4.1.A for details)

Elevators and Escalators Manufacture-Install-Maintain Contract

The Elevator/Escalator contractor has completed final design for the WOSG, FHSG and KHSG stations. The contractors for FHSG, WOSG and KHSG must provide an acceptable schedule in order for the manufacturing of the equipment to be released. (See Section 4.1.B for details)

West O'ahu Farrington Highway (WOFH) Contract

The most recent progress schedule, through February 2016, reflects more than six month delay to the contractual substantial completion date for the LCC portables, parking lot, and access structure construction work activities. This schedule has not yet been accepted by HART and is under review. HART continues to monitor KIWC lower than planned production rates as it relates to potential schedule impacts, and both parties continue to work together to mitigate the impacts to the critical path activities associated with the LCC construction work. A revised baseline schedule was submitted via a contract Request for Change (RFC) by KIWC in August 2015 and is under review. (See Section 4.2.A for details)

Maintenance and Storage Facility (MSF) Contract

The first rail passenger vehicle was offloaded onto MSF tracks this month. The contractor completed paving of site driveways and parking areas. Installation of the three bridge cranes is complete in the OSB. Installation of roofing and Train Wash Equipment is complete in the Train Wash Facility (TWF). Coordination continues with WOFH, the abutting mainline contractor, for completion of site access in the east and west yards, including rail, vehicular access, and utility connections. Building finishes and mechanical, electrical and plumbing installations continue for all the buildings. Installation of rail continues for Phases 1 and 5. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

KIWC's February 2016 schedule reflects more than 12 months of delay to the contractual substantial completion date, with the guideway structure completion in April 2017 and the remaining roadway civil work being completed by September 2017. This schedule has not yet been accepted by HART and is under review. HART continues to monitor lower than planned KIWC production rates as it relates to potential schedule impacts and both parties continue to work together to mitigate the impacts to the critical path activities. (See Section 4.3.A for details)

Airport Section Utilities (ASU) Construction Contract

The Airport Section Utilities contract work is proceeding along Kamehameha Highway, the Airport area and the Nimitz Off-Ramp area. Probing along the proposed shaft locations has been conducted incidental to removing abandoned utilities which has resulted in the discovery of additional conflicts. Those unforeseen wet and dry utilities that have been encountered along Kamehameha Highway are being mitigated; RFI's have been prepared and answered and Requests for Proposals have been generated, necessary change orders and/or directives are being prepared or issued which will mitigate these conflicts. Nan continues to progress on utility relocation along Kamehameha Highway. (See Section 4.4.B for details)

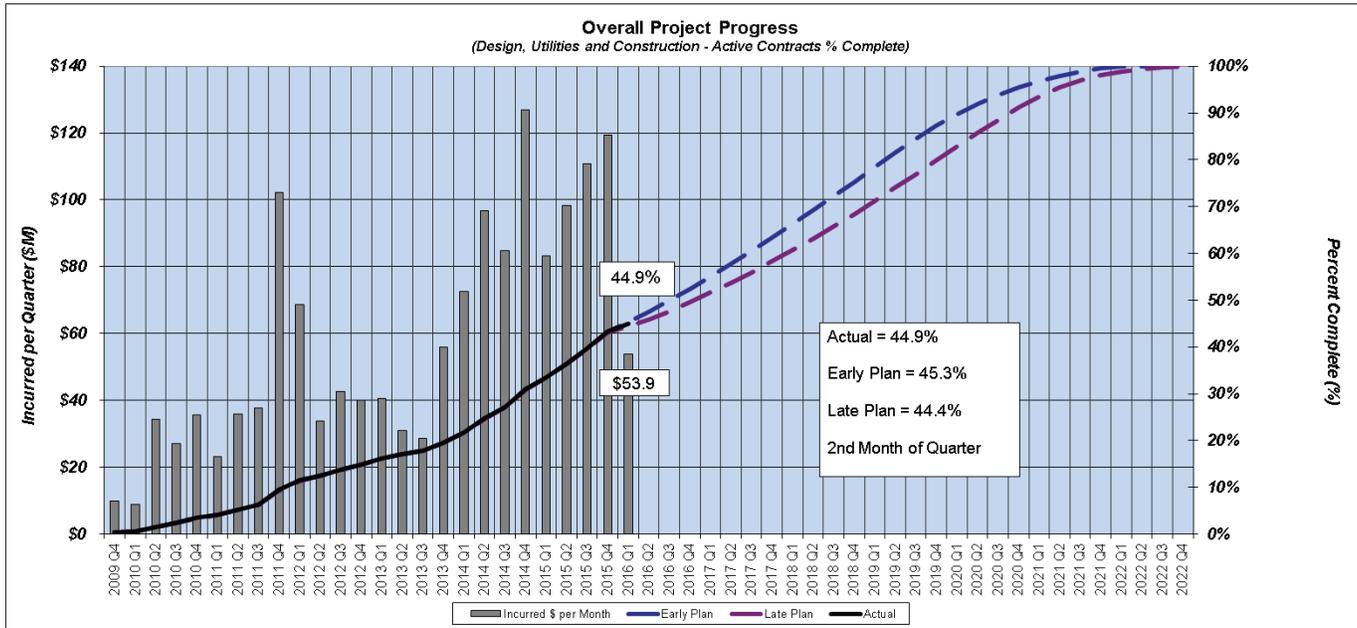
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of Feb. 26, 2016)

With the City Council decision to approve Bill 23 on Jan. 27, 2016 and the Mayor’s signature on Feb. 1, 2016, progress charts have been updated to reflect current program expectations. HART will revise these charts pending the outcome of upcoming cost and schedule updates as a result of the FTA Risk Refresh.

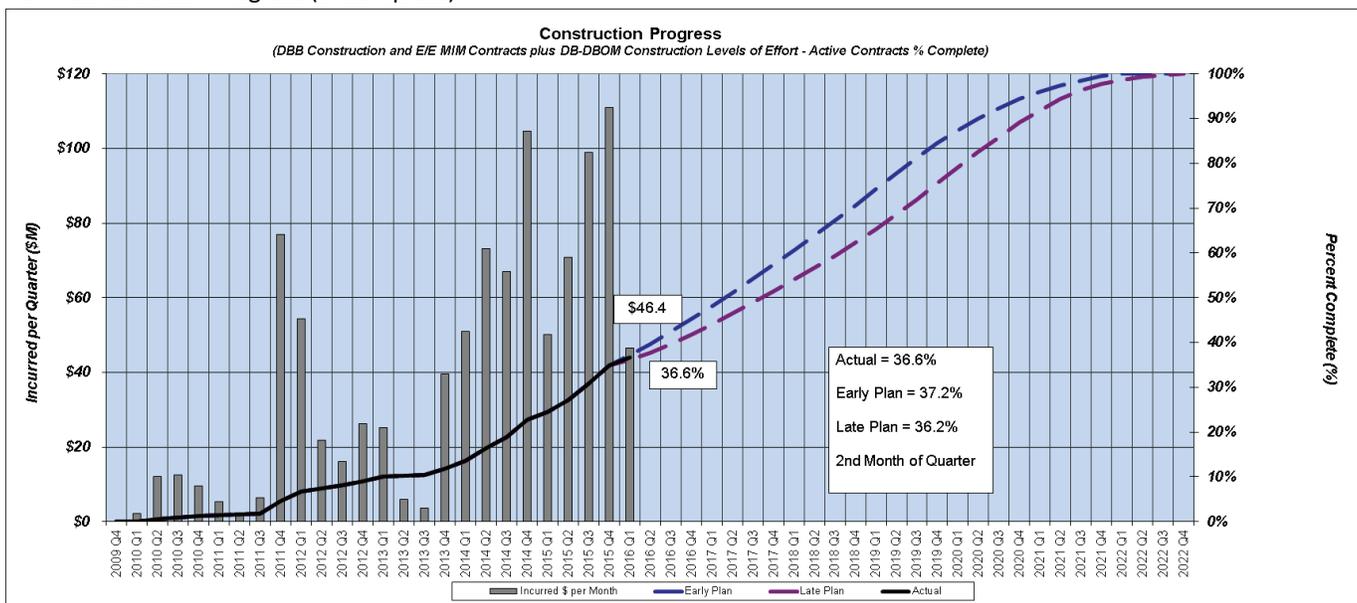
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date, based on logic and durations used in the schedule.

Figure 1. Overall Project Progress (% Complete)



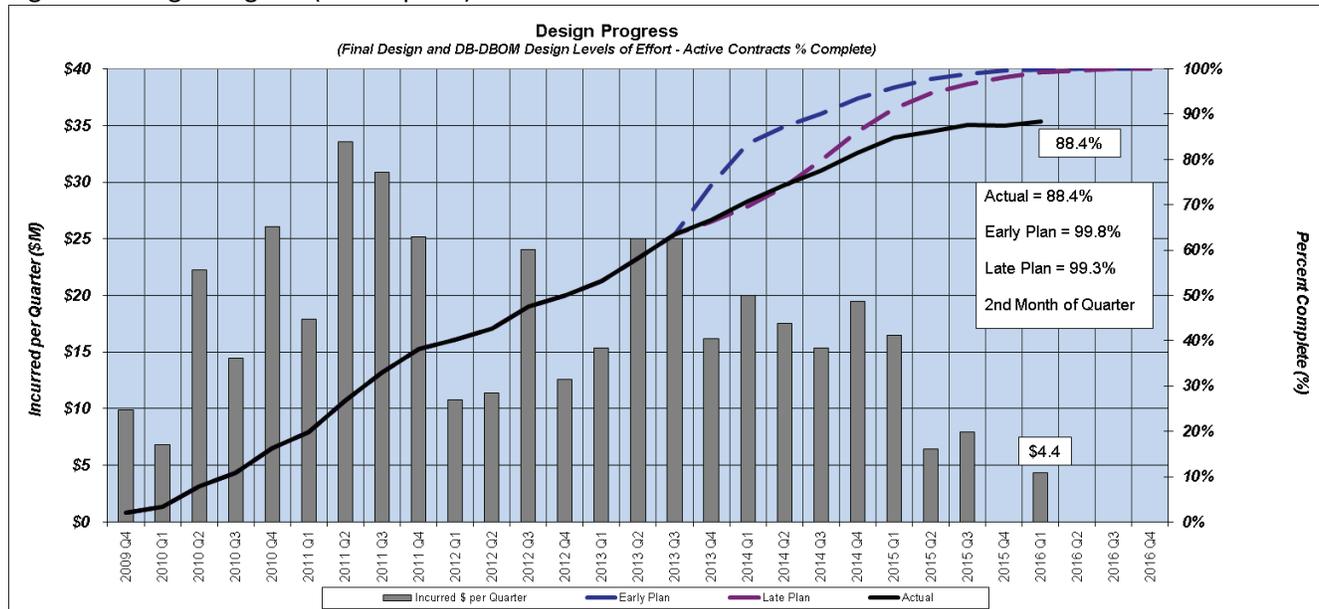
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM design levels of effort), not including City or non-design consultant labor. Overall Project Progress reflects all project elements as budgeted.

Figure 2. Construction Progress (% Complete)



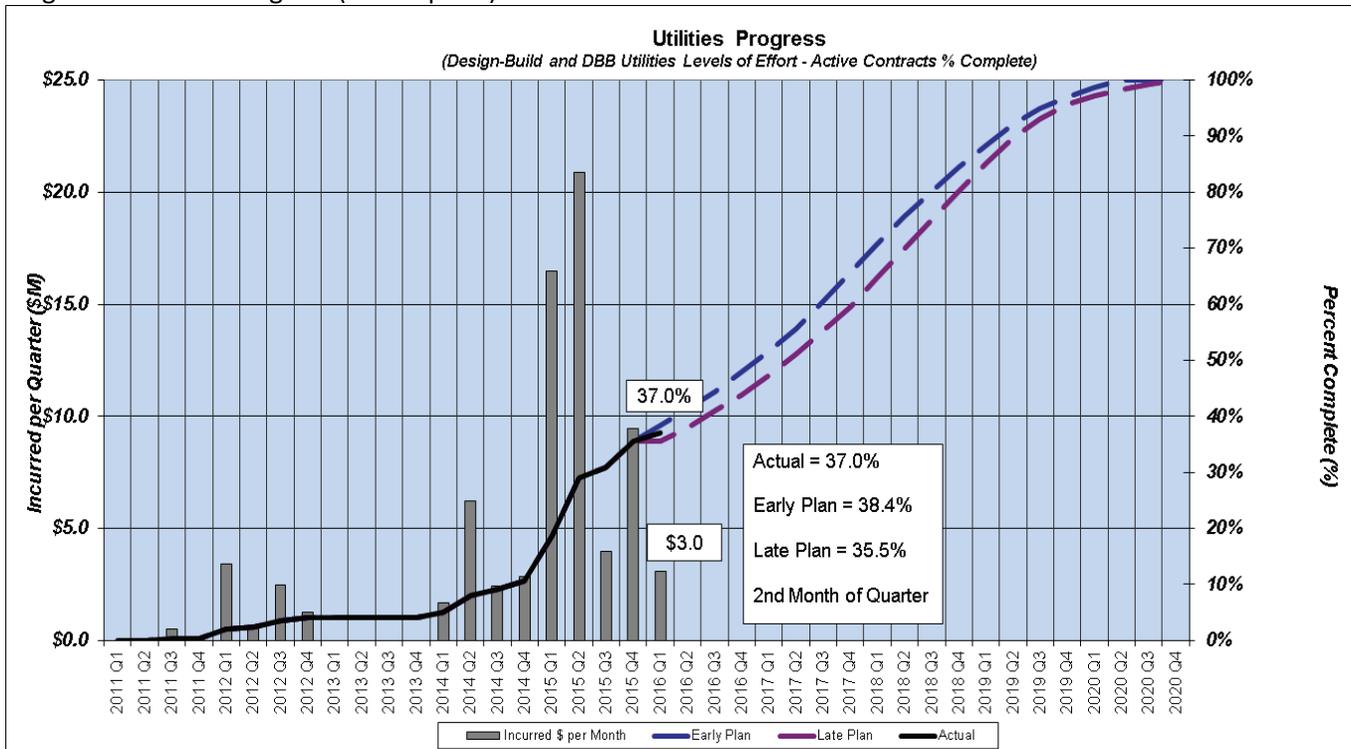
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

Figure 3. Design Progress (% Complete)



Overall design progress is based on the weighted average progress of the individual FD contracts and the design levels of effort of the DB and DBOM construction contracts, not including City or non-design consultant labor.  
 Note: Design responsibility will be transferred to DB, once DB packages are awarded.

Figure 4. Utilities Progress (% Complete)



Overall utilities progress is based on the weighted average progress of the DB and DBB utilities levels of effort.

**2.2 Project Budget (data as of Feb. 26, 2016)**

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,473.5M
  - Current Project Contingency - \$475.1M
  - Project Finance Charges - \$173.1M
  
- Total Incurred Cost = **\$1,956M** (43.7% of current project budget)
  - February 2016 Incurred Cost = \$35.3M

*Total Incurred Cost = \$1,956M  
(previous report = \$1,920.8M)*

**2.3 Project Contingency (data as of Feb. 26, 2016)**

*Note: Contingency management and cost contingency details, including a breakdown of Project contingency drawdowns, are discussed in further detail in Appendix B.*

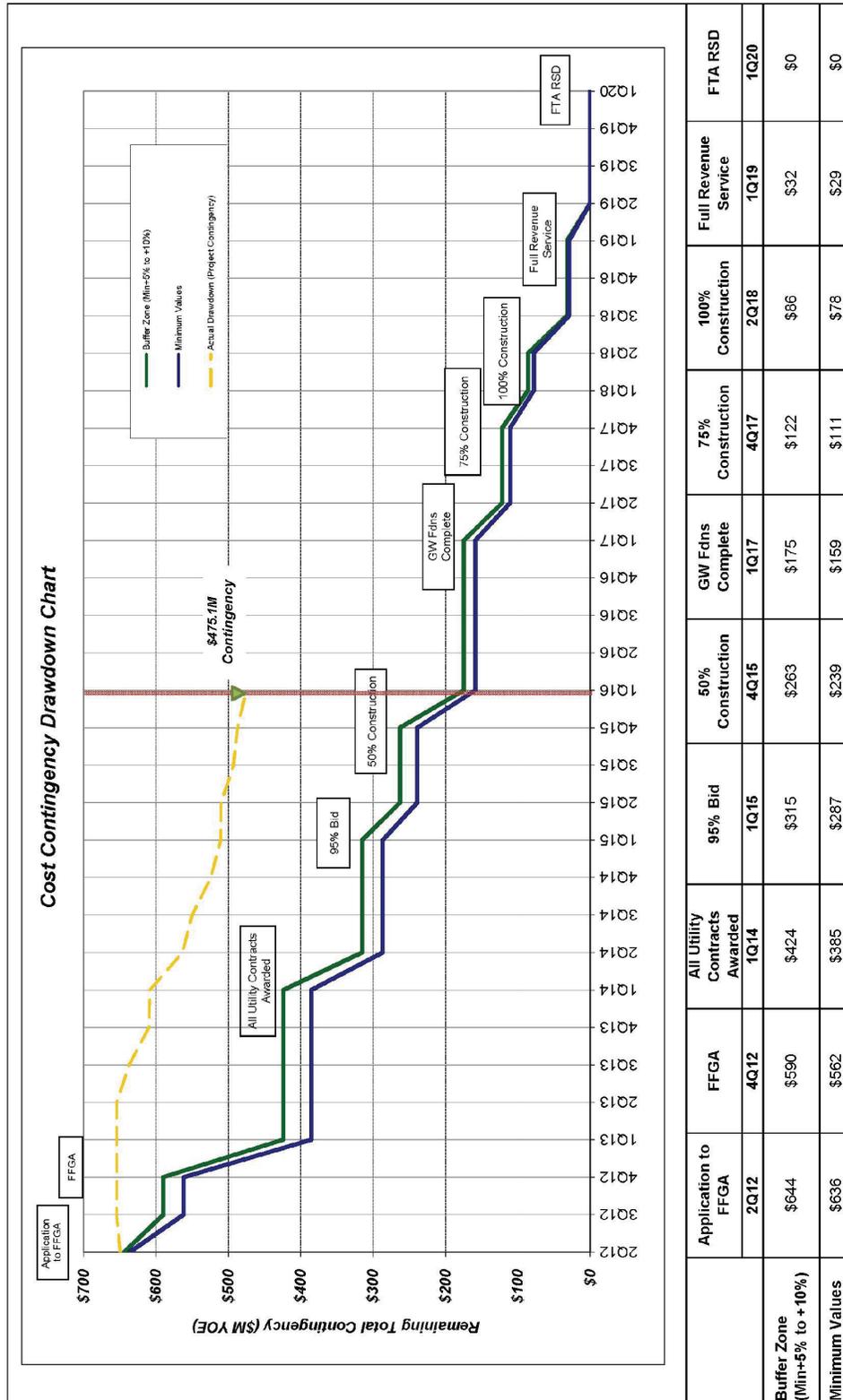
- Current Project Contingency Balance = **\$475.1M**
  - Contingency drawdown to date – \$168.5M (26.2% of baseline project contingency budget)
  - \$12.3M contingency drawdown during February 2016. Please see Appendix B for more details.

*Current Contingency Balance = \$475.1M  
(previous report = \$487.4M)*

Figure 5. Project Contingency Budget

Project Contingency Budget		
Contingency	SCC Code	Budget (\$M)
Unallocated Contingency	90.01	\$101.9
Allocated Contingency	90.02	\$540.1
Allowances	90.03	\$1.6
<b>Baseline FFGA Project Contingency Budget</b>	<b>90.01 - 90.03</b>	<b>\$643.6</b>
Contingency drawdown through December 2015 Report	90.01 - 90.03	(\$155.4)
Contingency drawdown January 2016 Report	90.01 - 90.03	(\$0.9)
Contingency drawdown February 2016 Report	90.01 - 90.03	\$0.1
Contingency drawdown March 2016 Report	90.01 - 90.03	(\$12.3)
Contingency drawdown to date	90.01 - 90.03	(\$168.5)
<b>Current FFGA Project Contingency</b>	<b>90.01 - 90.03</b>	<b>\$475.1</b>

Figure 6. Draft Cost Contingency Drawdown Chart



Data as of 2/26/16 - Feb '16 Reporting Period

Note: Contingency management and cost contingency details, including a breakdown of Project contingency drawdowns, are discussed in further detail in Appendix B.

2.4 Project Funding (data as of Feb. 26, 2016)

Figure 7. Planned vs. Received Project Funding

Planned vs. Received Project Funding				
Funding Source	Pre-FFGA Project <sup>1</sup>	FFGA Project Period		Total Project
	2007 - 2009 Actuals Received	Planned <sup>2</sup> (\$YOE M)	2009 - Present Actuals Received	2007 - Present Actuals Received
	[A]		[B]	[C] = A + B
Beginning Project Cash Balance <sup>3</sup>	0	298	298	n/a
Interest Income on Cash Balance	7	3	2	9
FTA Section 5309 New Starts Revenue <sup>4</sup>	0	1,550	515	515
FTA Section 5307 Formula Funds <sup>5</sup>	0	210	0	0
ARRA Funds	0	4	4	4
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2022 <sup>5</sup>	378	3,291	1259	1,637
<b>Total</b>	<b>385</b>	<b>5,356</b>	<b>2,078</b>	<b>2,165</b>

<sup>1</sup> GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

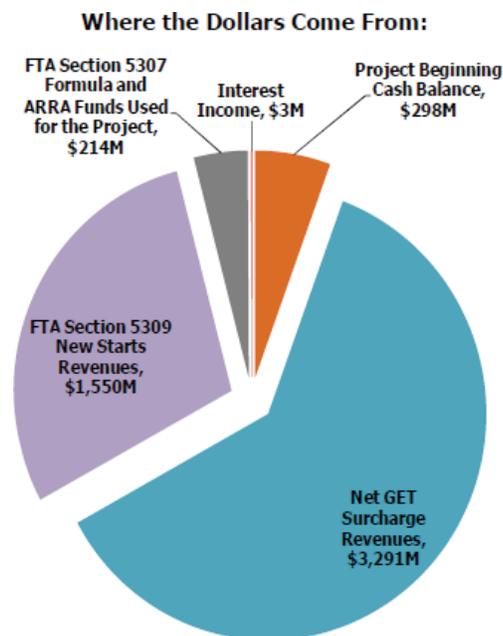
<sup>2</sup> FFGA Financial Plan, Table A-1 *Capital Plan Cash Flows*.

<sup>3</sup> Beginning Project Cash Balance at Entry into Preliminary Engineering (PE) on October 16, 2009 (the FFGA Project start date) = Pre-PE GET, investment and miscellaneous income minus pre-PE expenditures. The \$298 million is included in the Pre-FFGA actual amounts received between 2007-2009 of \$378 million.

<sup>4</sup> New Starts Funds Obligated Through Federal Fiscal Year 2014 Totals \$806.3 Million

<sup>5</sup> On January 27, 2016 the City Council of Honolulu passed Bill 23 which extended the GET surcharge to December 31, 2027. The planned amounts for funding will be adjusted in a future Monthly Progress Report to reflect the extension of the GET surcharge.

Figure 8. Project Funding Sources (YOE \$M)



Source: FFGA Financial Plan, p. 2-1

- General Excise Tax (GET) Surcharge (data as of Feb. 26, 2016)
  - \$1,259M = amount received since the Project’s entry into FTA’s Preliminary Engineering phase of project development.
    - \$1,299M = Projected Net GET Surcharge Revenue for FYs 2010-3Q 2016, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 3% short of Projections to date, or \$40M behind.
  - \$0 = GET surcharge received in February 2016.

*Total Cash Received Since PE = \$2,078M*  
 (previous report = \$2,066M)

*GET Received Since PE = \$1,259M*  
 (previous report = \$1,259M)

*GET Received Since 2007 = \$1,637M*  
 (previous report = \$1,637M)

- Full Funding Grant Agreement (FFGA)
  - \$12.2M = New Starts drawdown processed and received in February 2016.
- The §5307 funds for the Project, per the Financial Plan, are \$210M.
- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. The financial plan is currently being updated.

Figure 9. New Starts Drawdown by Federal Fiscal Year (data date as of Feb. 29 2016)

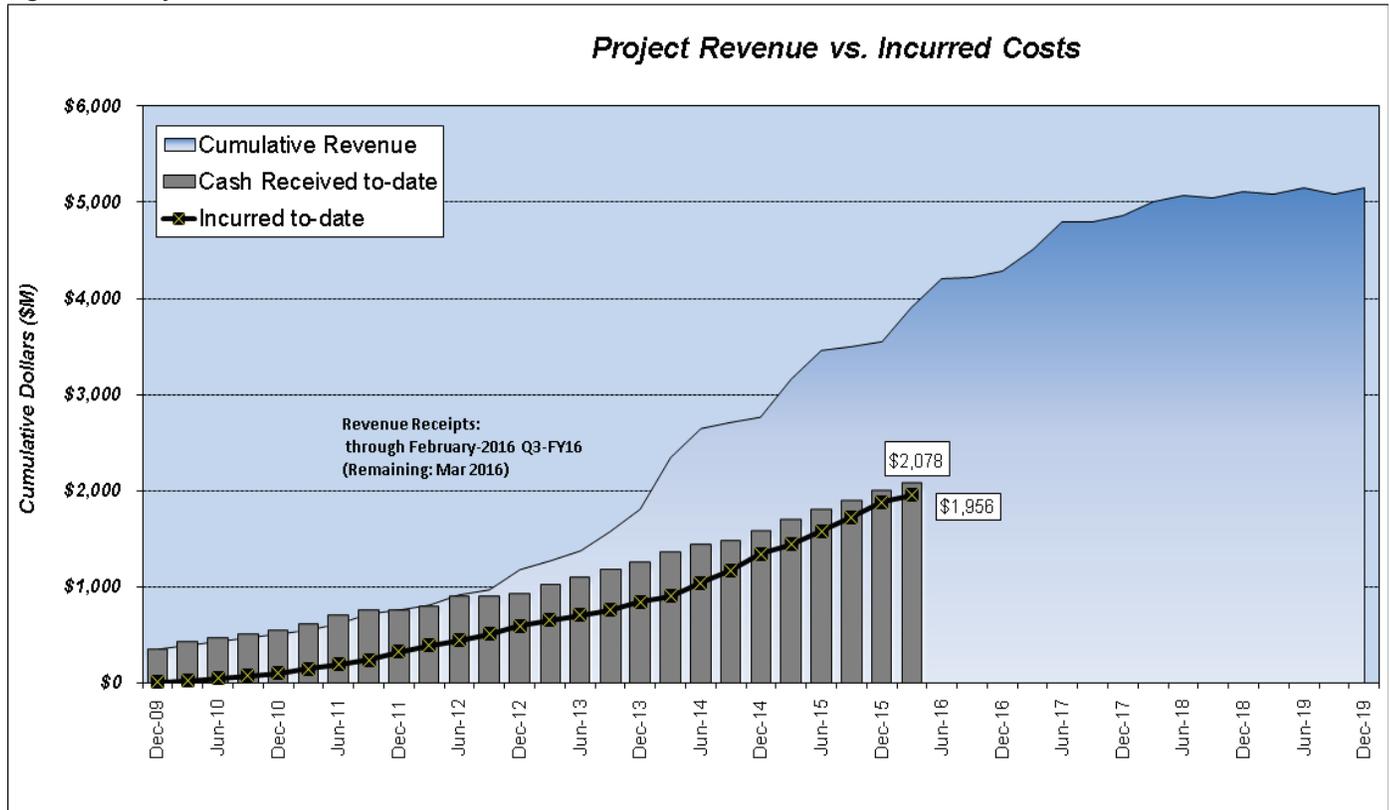
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$30,000,000	\$0	
2011	\$55,000,000	\$55,000,000	\$0	\$20,607,242
2012	\$200,000,000	\$200,000,000	\$0	\$99,382,758
2013	\$236,277,358	\$195,024,291	\$41,253,067	\$258,280,277
2014	\$250,000,000	\$0	\$250,000,000	\$441,719,724
<i>2015 (pending award of grant)</i>	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
<i>2016 (pending appropriation and award of grant)</i>	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
<i>2017 (pending appropriation and award of grant)</i>	<i>\$243,732,642</i>	\$0	<i>\$243,732,642</i>	\$230,010,000
<b>Total</b>	<b>\$1,550,000,000</b>	<b>\$515,014,291</b>	<b>\$1,034,985,709</b>	<b>\$1,550,000,000</b>

2.5 Project Revenue and Costs

(data as of Feb. 26, 2016)

*Ending Cash Balance 2/29/16 = \$192.3M*  
*(previous report = \$215.0M)*

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan  
Data date for Revenue & Incurred Cost = Feb. 26, 2016

Figure 11. Cash Balance Summary

FEBRUARY 2016 CASH BALANCE SUMMARY		
	FEBRUARY	FY16 YTD Cumulative
<b>Beginning Cash Balance 02/01/16</b>	215,029,818	293,010,823
Expenditures:		
Operating Expenditures	(1,065,334)	(10,260,458)
Capital Expenditures	(33,855,890)	(362,758,562)
<b>Expenditures Total:</b>	<b>(34,921,225)</b>	<b>(373,019,020)</b>
Receipts:		
GET Surcharge	0	168,374,947
FTA Drawdown	12,169,480	103,507,660
Interest	21,903	150,636
Other (rental, refunds, copy fees, etc.)	35,314	310,245
<b>Receipts Total:</b>	<b>12,226,697</b>	<b>272,343,487</b>
<b>Ending Cash Balance 02/29/16</b>	<b>192,335,290</b>	<b>192,335,290</b>

Note: Project Cost Reports can be found in Appendix C.

### 3 SCHEDULE

(data as of Feb. 26, 2016)

#### OVERVIEW

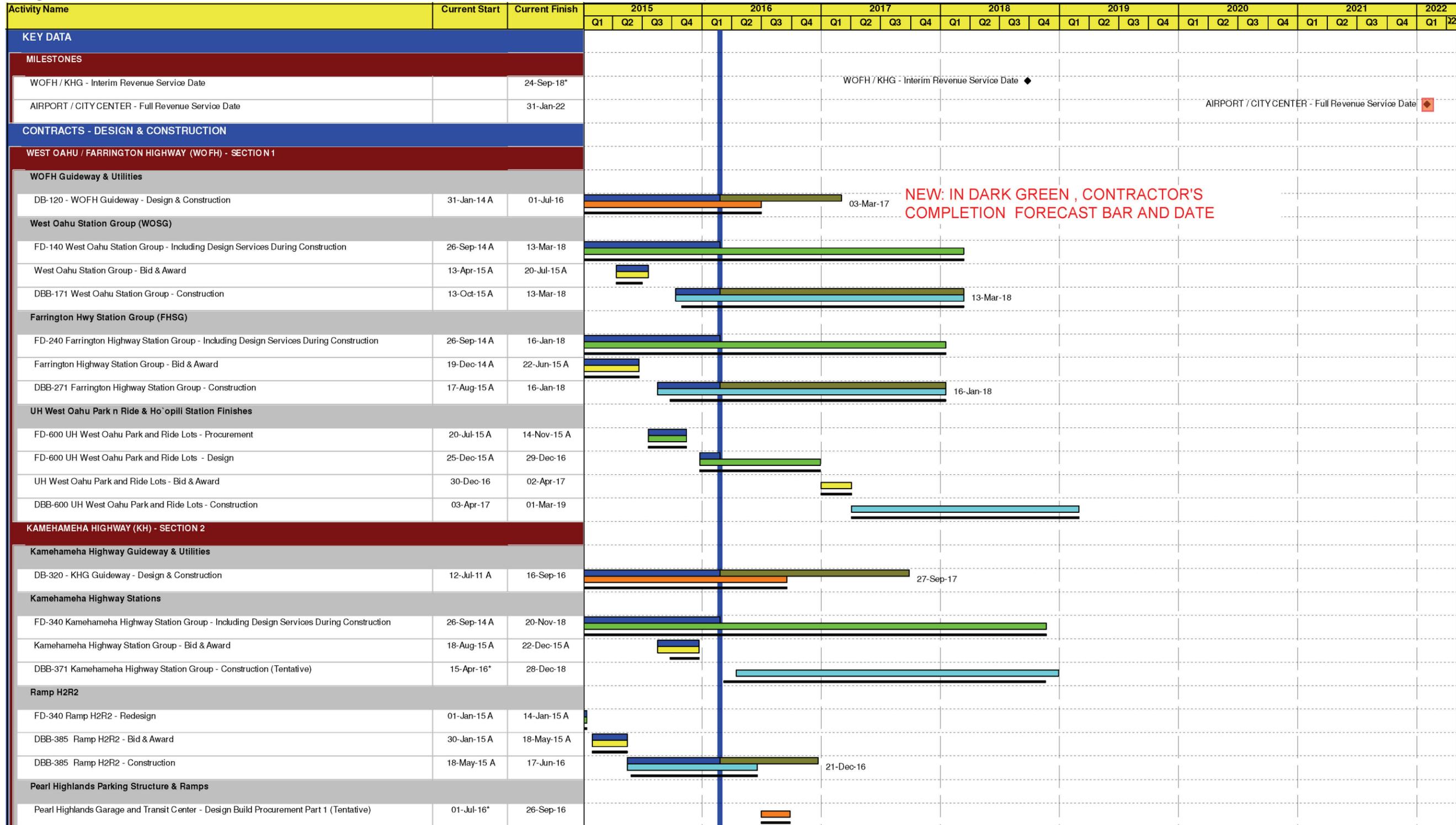
- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021. However, based on the uncertainty related to the GET extension and availability of funds, the City Center Guideway and Stations project's request for proposal was postponed until early February 2016. Due to this action, along with the transfer of scope from the Dillingham Blvd. Utilities Contract (due to cancellation) and new scope mandated by the 138 kV circuits undergrounding going into the CCGS contract, a direct effect on the RSD forecast is expected with a new forecast in mid-to-late 2022. HART will attempt to mitigate this delay through future mitigation measures taken with the CCGS contractor and/or the Core Systems Contractor.
- The City Council and the Mayor of Honolulu have agreed to extend the GET for five more years. The Master Project Schedule Summary reflects the new contract packaging plan forecasts.
- The Master Program Summary Schedule reflects currently approved schedule end dates for contracts that have been awarded, and planned dates for future contracts. Contractor's forecasts were added to the chart this month. The schedules in the Contract Status section (Section 4) will continue reflecting current contractor forecast end dates for contracts that have been awarded as well. Ramp H2R2 (DBB-385), WOSG (DBB-171) and FHSG (DBB-271) contractor schedules have been added to the MPSS.
- HART continues to closely monitor, review and manage all active construction packages. Previously reported delays continue to be addressed by the project teams. See contract pages for further details.

#### KEY ISSUES

- WOFH construction progress is behind the approved schedule for the LCC station area civil and structural work by approximately 6 months.
- KHG guideway construction progress is behind the approved schedule by approximately twelve months.
- Right-of-way acquisition, third-party interface and utility relocations continue to be areas of concern for program completion.
- WOSG and FHSG stations' construction has not yet begun due to various delays. HART is assessing the causes of said delays to allow construction to commence.

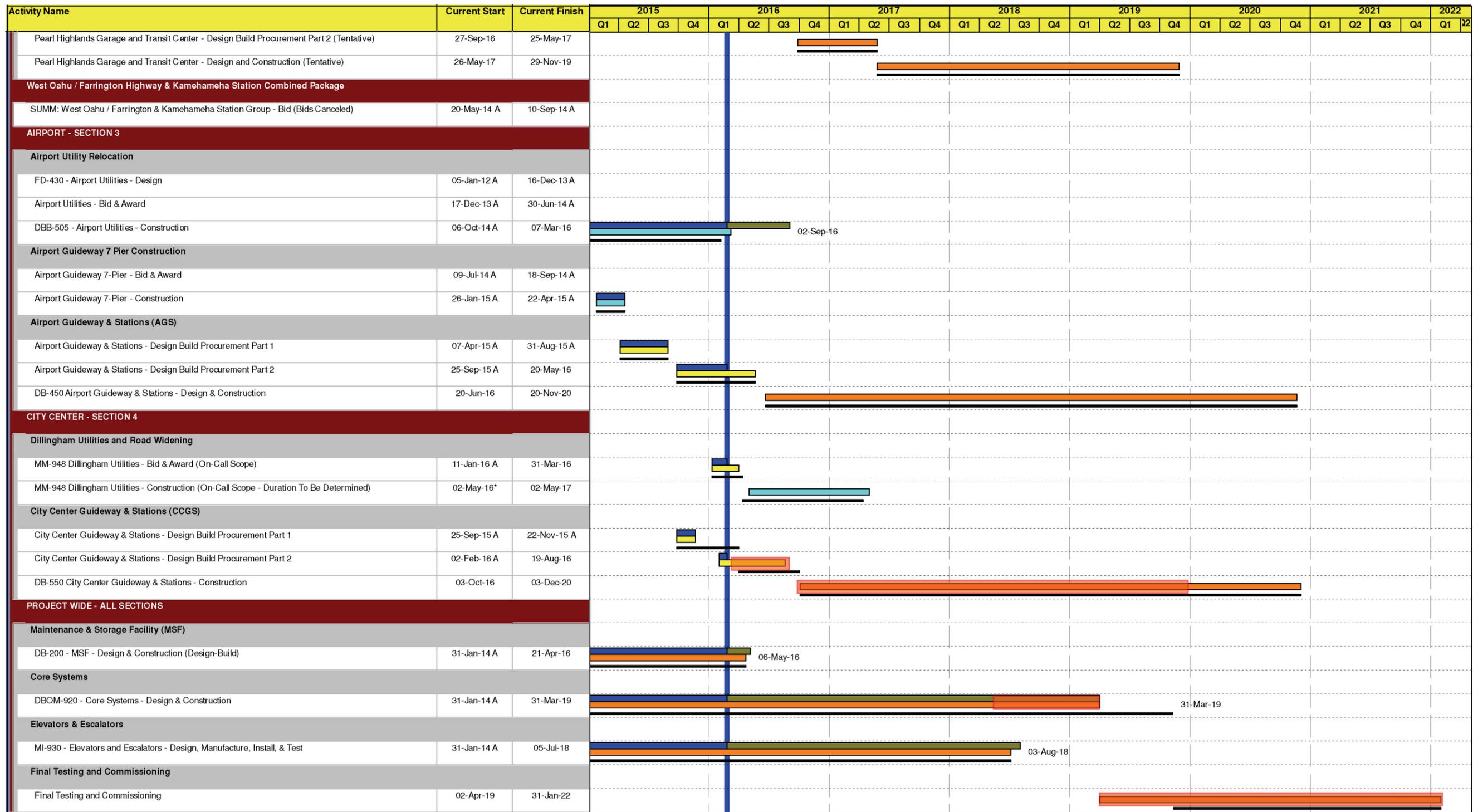
Figure 12. H RTP Master Project Schedule Summary (MPSS)

The Master Program Summary Schedule reflects currently approved schedule end dates for contracts that have been awarded, and planned dates for future contracts. It is statused against the FFGA Baseline MPS. Active contracts' end dates will not change, unless a change order is issued. For the contractors' forecasts of active contracts end dates, see Contract Status section (Section 4).



NEW: IN DARK GREEN, CONTRACTOR'S COMPLETION FORECAST BAR AND DATE

	Design Build	Milestone	January 2016 Update Contractor Forecast Actual Work	Design Duration = NTP to Bid Ready Construction Durations (DBB) = NTP to Substantial Completion	Printed: 29-Mar-16 14:30 <b>Honolulu Rail Transit Project</b> <b>February 2016 Update</b> As of: 26-Feb-16	<b>MPS Summary</b> <b>Design &amp; Construction Contracts</b>	Pg 1 of 2
	Construction Design Bid/Award Baseline Milestone	January 2016 Update Contractor Forecast Actual Work					



PROGRAM CRITICAL PATH



- Design Build
- Construction
- Design
- Bid/Award
- Baseline Milestone
- ◆ Milestone
- January 2016 Update
- Contractor Forecast
- Actual Work

- Design Duration = NTP to Bid Ready
- Construction Durations (DBB) = NTP to Substantial Completion

Printed: 29-Mar-16 14:30  
**Honolulu Rail Transit Project**  
**February 2016 Update**  
 As of: 26-Feb-16

Pg 2 of 2  
**MPS Summary**  
**Design & Construction Contracts**

## 4 CONTRACT STATUS

### Contracts in Procurement (For a list of awarded contracts, please see Appendix D)

#### OVERVIEW

- **Awarded Contracts:**
  - On March 18, 2016, HART awarded the Fare Systems Design-Build-Operate-Maintain Contract to INIT Innovations in Transportation, Inc.
  
- **Active Procurements:**
  - Art-in-Transit: HART is in negotiations or will commence negotiations with the highest-ranked artists for each of the stations. HART has begun award of the Art-in-Transit contracts.
  - Airport Guideway and Stations Design-Build RFP: HART extended the deadline for the priority listed offerors to submit their proposals from March 22, 2016 to April 5, 2016.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 was issued on Feb. 2, 2016.
  - On-Call Construction Contractor Contract "III" RFP: The RFP was issued on Feb. 23, 2016. Proposals were received on March 31, 2016.
  - Complex Real Property Negotiations and Litigation Support RFP: The RFP was issued on Feb. 23, 2016. Proposals are due on April 4, 2016.
  - Outside Counsel for Land Court Petition Services RFP: The RFP was issued on March 4, 2016. Proposals are due on April 15, 2016.
  - Real Estate Contractor Contract "II" RFP: The RFP was issued on March 4, 2016. Proposals are due on April 15, 2016.
  - On Call Appraisers Contract RFP: The RFP was issued on March 18, 2016. Proposals are due on April 29, 2016.
  
- **Upcoming Procurements:**
  - Procurements for UH West O’ahu Temporary Park and Ride and UH West O’ahu Campus Road “B” Design-Bid-Build Contract, and Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract, are under evaluation.
  
- **Current plans for the remaining contracts are as follows:**

Remaining Contracts						
Contract Code	Contract Name	Advertise Date	Bids Due/Part 1 Proposals Due	RFP Part 2 Proposals Due	Issue NTP	Projected Contract Substantial Completion Date
AP00	Art-in-Transit	May 9 '13	-	-	TBD	TBD
DB-450	Airport Guideway and Stations	Apr 07 '15	Aug 11 '15	Apr 06 '16	TBD	NTP + 53 months
DB-550	City Center Guideway and Stations	Aug 04 '15	Nov 18 '15	Jul 14 '16	TBD	NTP + 50 months
MM-947	On-Call Construction Contract "III"	Feb 23 '16	Mar 31 '16	-	TBD	NTP + 84 months
MM-981	Complex Real Property Negotiations and Litigation Support Contract	Feb 23 '16	Apr 04 '16	-	TBD	NTP + 24 months + 2 year option
MM-936	Real Estate Contractor Contract "II"	Mar 04 '16	Apr 15 '16	-	TBD	NTP + 48 months
MM-983	Outside Counsel for Land Court Petition Services	Mar 04 '16	Apr 15 '16	-	TBD	NTP + 36 months
MM-982	On Call Appraisers	Mar 18 '16	Apr 29 '16	-	TBD	NTP + 48 months
DBB-600	East Kapolei and UH/West O'ahu Park and Ride Lots	Nov 14 '16	Feb 15 '17	-	Apr 03 '17	Mar 01 '19

4.1 System-wide

A. Core Systems Contract (CSC)

**Contract No.:** DBOM-920  
**DBOM Contractor:** Ansaldo Honolulu Joint Venture (AHJV)  
**Contract Start Date:** January 2012  
**Contract Substantial Completion:** March 2019  
**Projected Substantial Completion:** December 2019



**Project Description:** Providing rail passenger vehicles, automated train control system, traction electrification system (TES), communication systems, passenger platform screen gates (PSGs), and operation and maintenance of the Project.

**Project Overview:** The CSC contractor (AHJV) is continuing to progress through Final Design. Qualification and design verification tests are ongoing. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV continues to install and test equipment in the Yard Control Bungalow (YCB). AHJV continues to install fire detection equipment at the MSF Operations and Servicing Building (OSB) and the Maintenance of Way (MOW) building. AHJV continues to pull Communications cables in the MSF OSB and MOW buildings. Site Acceptance Tests are being conducted at the MSF. The first 4-car passenger train has arrived in Honolulu. Installation of cables/wires, exterior door thresholds, interior fixtures, roof-top equipment and other activities are ongoing for the second 4-car passenger train at the Final Assembly facility.

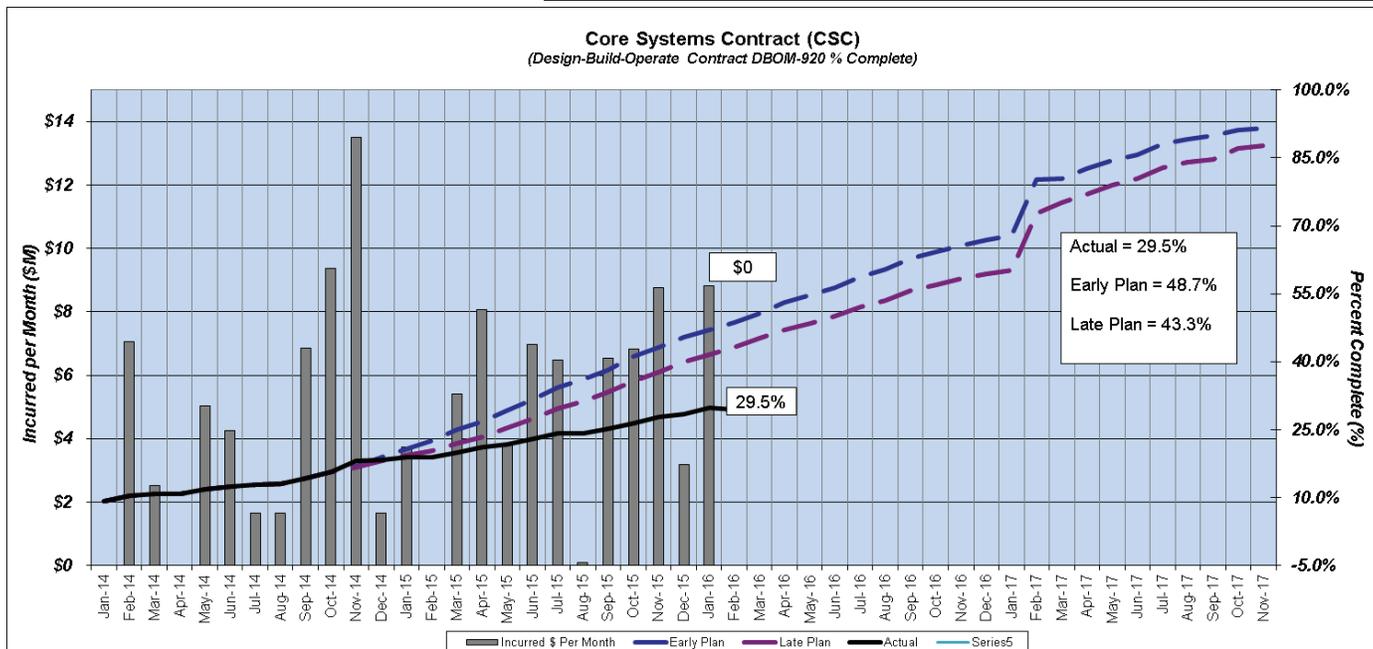
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$573,782,793</u>	<u>Incurred-to-Date:</u>	<u>\$176,833,628</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$599,843,687</u>	<u>Incurred in February:</u>	<u>(\$939,154)</u>

<sup>1</sup> Current Contract Value = Original contract value (excluding \$823.6M O&M budget) + executed Change Orders

Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	\$129,165
DBE % Attained:	0.029%

February Change Orders		
Change No.	Description	Amount (\$)
0022	Obstruction Detection	\$330,000
0023	Removal of Station Fire Sprinklers	\$72,500
0024	TC Design for Future Platform TWF	\$355,000
0025	UPS Transformer Winding Temperature	(\$15,000)
<b>Cumulative to Date</b>		<b>\$26,060,894</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined and Construction Access Milestone dates are revised, the cost curve will be revised.

**SCHEDULE:**



	Final Design Submitted Documents	Final Design Approved Documents	Target Completion Date
Passenger Vehicles	89.8%	67%	2 <sup>nd</sup> Q 2016
Communications	45%	37.3%	4 <sup>th</sup> Q 2016
ATC/SCADA	99%	86%	2 <sup>nd</sup> Q 2016
TES	100%	100%	Completed
Fire Detection	58.3%	55.6%	2 <sup>nd</sup> Q 2016
PSG, UPS, MOW, YCB	62.7%	50.7%	2 <sup>nd</sup> Q 2016

**CRITICAL PATH SUMMARY:**

- Continue to oversee construction activities with the MSF contractor, the CSC installation subcontractor and the On-Call contractor.
- Passenger Vehicle final assembly continues on the second train.

**WORK PROGRESS:**

Activities this Month:

**Earned Value:** 29.5% [(Total Achieved thru February 2016 (\$173.36 million) + Projected March 2016 Period (\$3.52 million))/Total Contract Including Executed Change Orders (\$599.1 million)].

**Design:**

- ATC/SCADA – Documents Received: 9, Documents Returned: 9.
- Communications – Documents Received: 2, Documents Returned: 19.
- Traction Power – Documents Received: 6, Documents Returned: 5.
- Fire Detection – Documents Received: 0, Documents Returned: 3.
- Platform Screen Gates – Documents Received: 3, Returned: 1.
- Passenger Vehicles – Documents Received: 19, Documents Returned: 27.

**Manufacturing:**

- Performed manufacturing oversight work at Hitachi Rail factories. (For additional details, please see the Vehicle Car Shell Progress Tracker in Appendix E.)
- Performed final assembly oversight work at Pittsburg, CA including oversight of the shipment of the first train to Honolulu. Equipment installation work on the second train is ongoing.

Look Ahead:

**Design:**

- Continue Final Design of all subsystems.

**Manufacturing:**

- Passenger Vehicle Manufacturing – Continue car shell fabrication in Italy.
- Continue final assembly activities on Train 2.
- Conduct Car Shell 9 structural tests.
- Continue manufacturing of automated train control, traction power, and other systems equipment.

**MSF:**

- Train 1 assembly and coupling on-site.
- Continue installation of Train Control and COMMs cables in the track areas.
- Test Fire Detection Alarm System (FDAS) devices in the MSF OSB and MOW.
- Completion of OSB PA system conduit installation.
- Energization of the MSF Yard TPSS.
- Installation of the Fiber Optic Backbone in the MSF Yard.

Activities this Month (continued):

- Performed Truck Frame and Bolster Production oversight at Hitachi Rail Italy (HRI) supplier, DRS, in West Plains, Missouri.

**MSF:**

- Train 1 delivery to MSF Track M7.
- MOW vehicles (MPV, MPV trailer and Car Mover) dynamic site acceptance test are in-progress.
- Yard Control Bungalow – Installation of Train Control Racks.
- Construction of foundations for the Closed Circuit Television Cameras poles at the MSF perimeter is 75% complete.
- Foundation work for 16 Communication Interface Cabinets (CIC) in the yard is ongoing. 15 are complete and 1 is ongoing.
- Continue installation of Train Control devices in Phase 2.
- Communications Cable installation in the MOW 2<sup>nd</sup> floor is 35% complete.
- Installation of fire detection devices in the MOW and OSB are at 70% complete.
- Completed energization of the YCB.
- Completed testing of YCB UPS.

Look Ahead (continued):

- Conduct Type and Routine test on first train.
- Installation of Telecom cabling in the MOW.
- Installation of Train Control devices for phase 3 and phase 4.

**KEY ISSUES:**

- Revisions to the station and guideway Construction Access Milestone (CAM) dates require evaluation of interfacing work schedules.
- Vehicle Production and Testing is an ongoing monitored risk. HART continues to work closely with AHJV and Hitachi Rail to ensure good progress at Carshell Assembly and Final Assembly. Vehicle Testing has still not started and will require close monitoring and oversight.
- Communications System design completion is delayed. HART continues to work closely with AHJV to identify key issues and to implement the corrective action plan to bring design and qualification testing to closure.

**QUALITY MANAGEMENT:**

- HART QA completed review and approved the revised Quality Assurance Plans (QAP) including Implementing Procedures (IP) of AHJV, ASTS (Hitachi), Hitachi Rail Italy and Hitachi Rail USA.

Testing		
Subsystem	Test Completed	Date Completed
Vehicles	MOW vehicle Site Acceptance test	Feb. 25, 2016
UPS	YCB UPS Testing	March 18, 2016

Passenger Vehicle – Oversight		
Facility	Activity	Date Completed
Pittsburg, CA	On-site inspector in place to oversee and report on Hitachi Rail Final Assembly activities.	Ongoing

CSC NCR Log			
	TOTAL	CLOSED	OPEN
AHJV & Subs	27	23	4
Hitachi Rail	364	339	25
<b>TOTAL</b>	<b>391</b>	<b>362</b>	<b>29</b>

**PROJECT PICTURES:**



Bolting contact rail connection plates at the MSF Yard.



E-001 shrink-wrapped and loaded onto shipping trailer.



First two cars in transit from Hitachi Rail USA – Final Assembly Facility in Pittsburg, CA.

**B. Elevators and Escalators Manufacture-Install-Maintain (MIM)**

**Contract No.:** MI-930

**Contractor:** Schindler Elevator Corporation

**Contract Start Date:** August 2013

**Contract Substantial Completion:** May 2018

**Projected Substantial Completion:** The May 2018 completion date will change to a later date predicated on the award of the DB contracts for the east portion of the guideway.

**Project Description:** Furnish / install / test / maintain all elevator and escalator equipment located at the 21 stations.

**Project Overview:** The release to begin manufacturing of the FHSG, WOSG, and KHSG equipment will be scheduled once an approved construction schedule with the respective contractors has been completed.



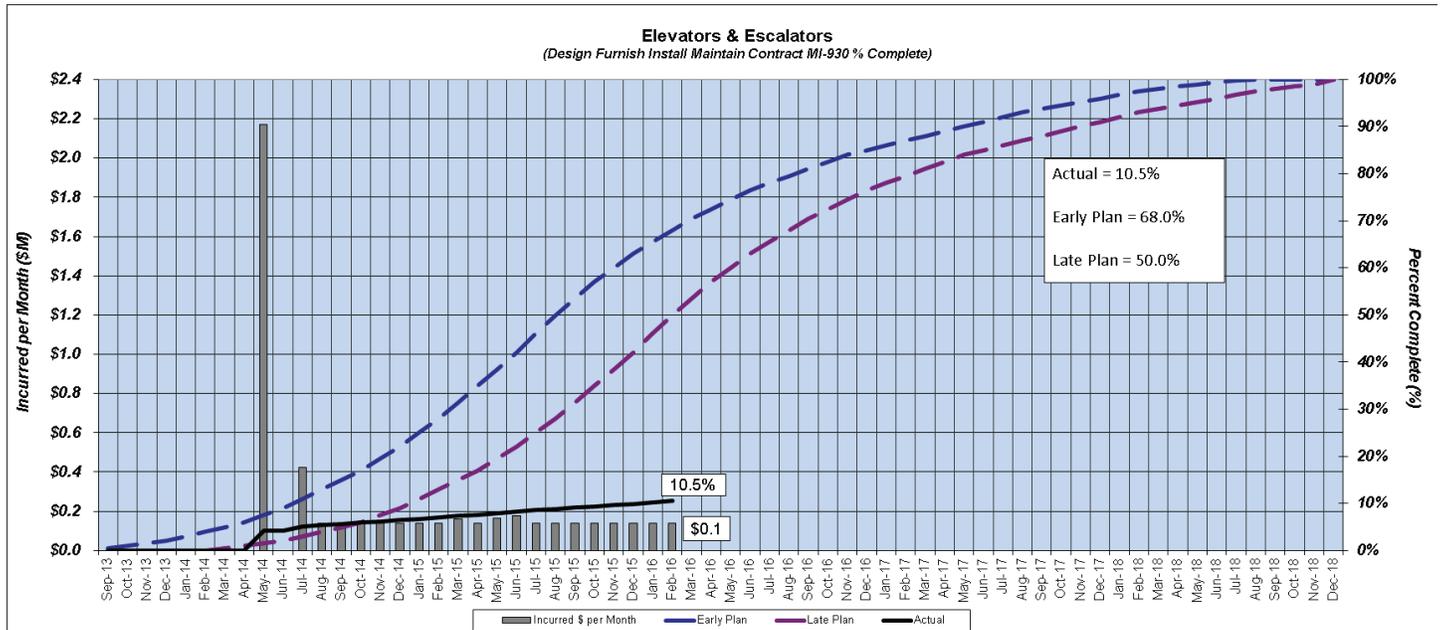
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$50,982,714</u>	<u>Incurred-to-Date:</u>	<u>\$5,348,105</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$50,982,714</u>	<u>Incurred in February:</u>	<u>\$140,824</u>

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined and Construction Access Milestone dates are revised, the cost curve will be revised.

**SCHEDULE:**

- Elevators' schedule for the first 9 stations will be published once FHSG, WOSG and KHSG baseline schedules are accepted. Elevators' schedule for the remaining 12 stations will be published when their contracts are awarded.
- 

**CRITICAL PATH ISSUES:**

- Coordination with station contractors on construction interface milestones.
  - Re-bidding of the Airport and City Center sections of guideway with stations as Design-Build contracts will impact the completion of the Elevator Escalator contract.
- 

**WORK PROGRESS:**Activities this Month:

**Earned Value: 10.5%**; Planned Value: 50%

- Final Design is approximately 40% complete, as 9 of the 21 stations are ready to be released for manufacturing once the contractor's schedules are approved.
- All draft equipment drawings for the 21 stations have been submitted for review and have been accepted.
- Design is complete on the three FHSG stations, three WOSG stations, and the three KHSG stations.

Look Ahead:

- Release for manufacturing for the Farrington Highway Station Group and the West O'ahu Station Group elevators and escalators is expected to occur in May 2016.
- 

**KEY ISSUES:**

- The release to allow manufacturing for FHSG and WOSG is expected to occur in May 2016. The release of the equipment required for KHSG will be dependent on the NTP of the KHSG contract. Final completion of the equipment requirements for the four stations included in the DB contract for Airport Guideway and Stations is on hold pending contract award. The eight stations included in the City Center Guideway and Stations contract is also on hold pending contract award of the DB contract for this work. Both of the DB solicitation packages contain the size and configuration of the elevators and escalators purchased for these twelve remaining stations.

### C. Fare Collection System

**Contract No.:** TBD

**Contractor:** TBD

**Contract Start Date:** TBD

**Contract Substantial Completion:** TBD

**Projected Substantial Completion:** TBD

**Project Description:** The fare system is a joint HART and City and County of Honolulu (DTS, DIT, BFS) project that will consist of a multi-model, closed loop, account based smart card system. The Fare System Vendor will be responsible for design, manufacture, testing, installation and operation of the entire system inclusive of hardware and software.

The rail portion of the project will consist of Ticket Vending Machines (TVMs) and fare gates at stations that accept smart cards which can also be used for payment on board TheBus and facilitate a seamless transfer between modes. Equipment and software to be used by both HART and the City and County will include the transaction processing, fare equipment monitoring, customer service systems, as well as a Data Warehouse. TheBus equipment will consist of stand-alone smart card readers on board.

**Project Overview:** The Fare Systems RFP was released on Aug. 11, 2015 and an award was made on March 18, 2016 to INIT. NTP is anticipated in April 2016, provided there is not a protest. An MOU for capital cost sharing with the City was executed on July 11, 2015, and an MOU for Operations and Maintenance was executed on March 10, 2016. A Fare Systems technical consultant contract was awarded on Sept. 24, 2015, to CH2M Hill to support design review, testing and installation. The selected DBOM contractor is anticipated to start conceptual design 45 days after NTP.

**COST INFORMATION:** TBD

#### SCHEDULE:

- RFP released Aug. 11, 2015. Award made to INIT on March 18, 2016.
- System design anticipated to start in spring 2016.
- Manufacture in third quarter 2017.
- System testing for the back office functions and TheBus anticipated in fourth quarter 2017.
- Anticipated system pilot launch on TheBus in first quarter 2018, with full roll out on TheBus (including all central systems) in second quarter 2018.
- Interim roll out for rail in late 2018.
- Full roll out on rail in 2021.

#### CRITICAL PATH ISSUES:

- None at this time, provided there is no procurement protest.

#### WORK PROGRESS:

##### Activities this Month:

- Evaluated BAFO from three PLOs and awarded contract to INIT.
- Executed MOU for Operations and Maintenance cost sharing.

##### Look Ahead:

- Kick off fare modeling work in cooperation with OahuMPO, including completing grant sub-agreement.
- Issue NTP to INIT to start Fare System Design.
- Review INIT draft PMP, due 30 days from NTP.

#### KEY ISSUES:

- Confirming all contract terms and issuing NTP without protest.

4.2 Section I – West O’ahu/Farrington Highway: East Kapolei to Pearl Highlands

A. West O’ahu/Farrington Highway Guideway (WOFH)

Contract No.: DB-120

DB Contractor: Kiewit Infrastructure West Company (KIWC)

Contract Start Date: December 2009

Contract Substantial Completion: July 2016

Projected Substantial Completion: January 2017



**Project Description:** Design and construction of 6.8 miles of rail alignment, starting at the East Kapolei Station and ending at the Pearl Highlands Station.

**Project Overview:** In March, progress continues for span stressing, track installation and road restoration work. Segment erection from Waipahu Transit Center Station through East Kapolei Station has been completed. Heading #1 is erecting segments from Waipahu Transit Center Station, heading east. Heading #2 was demobilized and is moving to the KHG project. The project’s key quality issues continue to focus on segment repairs, span shear keys and column pedestal repairs.

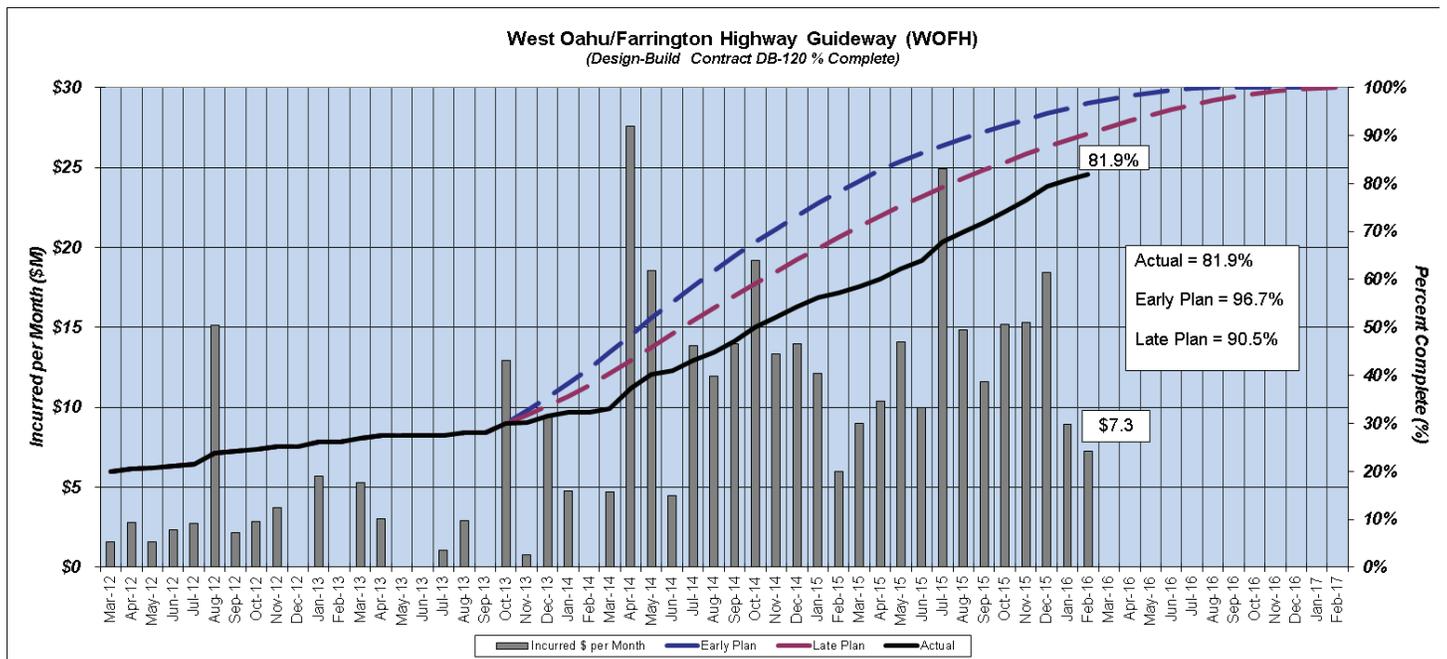
**COST INFORMATION:**

Original Contract:	\$482,924,000	Incurred-to-Date:	\$528,233,522
Current Contract Value <sup>1</sup> :	\$644,688,593	Incurred in February:	\$7,282,685

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$6,812,966
DBE % Attained:	1.41%

February Change Orders		
Change No.	Description	Amount (\$)
CCO0076	Add Demo of Existing Structures	\$245,000
CCO0077	Pre-Cast Yard Extended Lease	\$518,835
<b>Cumulative to Date</b>		<b>\$161,764,593</b>



In March, HART processed Pay Application #76 for the December 2015 billing, Pay Application #77 for the January 2016 billing, and Pay Application #78 for the February 2016 billing. KIWC submitted Pay Application Escalation Invoices #79, 80, and 81 to HART for review. All three Escalation Invoices are currently being processed.

**SCHEDULE:**

KIWC has notified HART that a 6 month time extension beyond substantial completion is needed due to the changes within the LCC work area. HART is reviewing the request and will relay its findings back to KIWC. KIWC submitted a revised baseline schedule via contract Request for Change (RFC) in August 2015. HART is currently reviewing the contract Time Related Overhead request for merit while working with KIWC to mitigate any further delays to the contract surrounding the LCC construction work activities.

February 2016 Update		Data Date: 26-Feb-16, Printed On: 29-Mar-16 16:19											
Activity Name	Start	Finish	2015			2016				2017			
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
<b>Total</b>	23-Apr-12 A	03-Mar-17											
<b>Drilled Shafts</b>	23-Apr-12 A	17-Dec-15 A											
<b>Direct Fixation Trackwork</b>	20-Oct-14 A	22-Jul-16											
<b>Precast Segment Erection</b>	02-May-14 A	29-Mar-16											
<b>Columns</b>	21-May-12 A	04-Apr-16											
<b>Balanced Cantilever Segments</b>	10-Sep-14 A	07-Apr-16											
<b>WOFH Area 6 (Balanced Cantilever)</b>	10-Sep-14 A	07-Apr-16											
<b>At Grade</b>	01-Oct-14 A	25-Oct-16											
<b>Third Rail</b>	14-Dec-15 A	13-Dec-16											
<b>WOFH Project Finish Work, Demob, Punchlist</b>	26-Feb-16	03-Mar-17											
WOFH Project Finish Work, Demob, PunchList	26-Feb-16	03-Mar-17											
WOFH Substantial Completion		03-Mar-17*											

**CRITICAL PATH ISSUES:**

- On Dec. 10, 2015, KIWC formally notified HART of a unilateral work stoppage of all LCC construction work activities currently being performed by KIWC until the LCC Parking Lot, Portables and Access Structure Construction Change Orders are finalized. In March 2016, KIWC resumed LCC construction work activities and their most recent progress schedule shows the project to be completed six months beyond contractual substantial completion.
- Work at the Balanced Cantilever System (BCS) area has slipped from the October 2014 schedule and is near critical path with minimal total float days available. HART continues to monitor the BCS work closely.

**WORK PROGRESS:**

WOFH Construction Status as of 3/9/16										
Utility Status	Qty to Date	Final Qty	% Complete	Structure Element	*** Total to Date	Planned to Date		Total Qty	% Complete	
						Accepted Schedule*	Revised Schedule**			
Water Line	9,028	9,348	97%	Shafts	309	309	309	309	100%	
Sewer Line	550	570	96%	Columns	283	283	283	283	100%	
Fuel Line	340	340	100%	Segment Casting	3,209	3,209	3,209	3,209	100%	
Gas line	1,591	1,591	100%	Spans Stressed	268	265	257	274	98%	
Drainage Line	4,191	5,166	81%	Trackwork	134	170	120	278	48%	
Elec/Telecom	16,889	21,374	79%	Third Rail	0	95	100	274	0%	
Street Lights	6,335	8,357	76%	Mill & Overlay	3,210	N/A	N/A	32,903	10%	
Traffic Sig/ITS Duct bank	8,552	10,802	79%	* Accepted Schedule was submitted in 2013.						
System Sites	1,683	7,046	24%	** The planned values are based on KIWC's pending July schedule revision dated August 24, 2015. Revised schedule reflects a 6-month delay in completion.						
ITS Systems Devices	821	4,121	20%	*** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans.						

Activities this Month:

**Earned Value: 83.6%** [(Total Achieved to February 2016 (\$516.3million) + Projected March 2016 Period (\$22.1 million))/Total Contract Including Executed Change Orders (\$644 million)]. Planned Value: 91.9%

Look Ahead:

**Design Progress**

- KIWC continues to work toward completing final design. Additional submittals are expected to be issued for construction, pending coordination with other parties and contracts.

Activities this Month (continued):**Shaft/Column**

- Completed.

**Guideway Segment Erection**

- Eastbound Heading #1 segments were erected from Span 208 through Span 218. Westbound Heading #2 segments were erected from Span 220 through 219, and was demobilized at Span 219.

**Utility Relocation**

- KIWC continues to relocate third party utilities. All shaft conflict relocation and guideway conflicts have been completed; only station conflicts and traffic signals are outstanding.

**Balanced Cantilever Structure**

- Cast one segment upstream at Pier 256.

**Track Construction**

- KIWC is installing track plates as well as continuing to lay track between Ho'opili and West Loch Station, and constructing concrete plinths for double crossovers at station locations. Anchors and expansion joints for contact rail are being completed by Ho'opili Station.

**KIWC/Third-Party Coordination**

- HECO and KIWC continued to resolve station utility conflicts relocations.

**Civil Structures**

- KIWC continued the installation of reinforcing for walkways and retaining wall footings. Mill and overlay operations commenced on Farrington Highway heading towards Leoku intersection.

Look Ahead (continued):**Shaft/Column**

- KIWC will pour and strip the remaining hammerheads at the station columns.

**Guideway Segment Erection**

- Segment span erection on Heading #1 is complete and the truss will be demobilized and moved to KHG.

**Utility Relocation**

- Work to relocate the remaining traffic signals along Farrington Highway.

**Balanced Cantilever Structure**

- Segments will be cast upstream from Pier 256. The Pier 255 and 256 closure pour segment will complete the BCS segments on the project.

**Track Construction**

- Align and final set of the rail will be performed by Ho'opili Station. Welding operations will continue at the BCS area. Concrete plinth construction to be installed east of East Kapolei Station. Contact rail operations will continue by Ho'opili Station.

**KIWC/Third-Party Coordination**

- Continue to resolve conflict construction and traffic issues with third-parties.

**Civil Structures**

- Retaining walls will be poured by System Site #1 (East Kapolei) and System Site #8 (Waipahu High School). KIWC will continue with road restoration and mill and overlay work along Farrington Highway.

**KEY ISSUES:**

- **Leeward Community College (LCC) Portables and Parking Lot Change Order** – KIWC has resumed construction work activities at the LCC Station area. The LCC Change Order was presented to the HART Board in February and is being processed.
- **Construction Production/Baseline Schedule** – A re-sequenced October 2014 baseline schedule was submitted to HART in December 2014, reflecting extended construction durations. KIWC submitted an updated schedule in August 2015 via an RFC containing significant changes in durations, logic, as well as activity modifications, which is in review with HART. Neither the 2014 nor the 2015 schedules are consistent with the originally submitted and accepted 2013 schedule, and contain unilateral and unacceptable logic and duration changes. No schedule updates have been accepted to date.
- **Night Noise Variance** – HART was notified by the Department of Health (DOH) that backhoes and excavators will no longer be allowed for nighttime work due to the contractor's improper use of equipment and receipt of complaints. HART has requested reconsideration on behalf of the contractor and the DOH response is forthcoming.
- **Intersection Closure for Span by Span** – KIWC has successfully completed span erection and post tensioning at multiple intersections. Temporary intersection closures were implemented at the Mokuola intersection through March, to support span operations. In addition, as a requirement for lane closure permits issuance, HART has requested that KIWC perform traffic analysis at intersections to determine the impact of full lane closures on the driving public and nearby businesses.
- **Design Completion Schedule** – As of mid-March, 132 of 134 design submittals have been accepted. The remaining design packages are not impacting construction.
- **Closeout and Coordination** – As the project approaches substantial completion, KIWC has continued coordination with station contractors and HART on project closeout documentation requirements including QA-QC final acceptance checklists. As-built and record drawings are currently being reviewed. KIWC and HART are also in discussions about partially accepting procedures to allow early access to follow-on contractors.
- **HDOT Roadway Restoration** – As the project nears completion, KIWC has begun road restoration work on the project including curb and gutter work, roadway subbase installation, and mill and overlay. KIWC, HART and HDOT bi-weekly construction coordination meetings continue to occur to resolve ongoing issues and ensure that the final product for the roadway restoration is acceptable to HDOT. Paving of Farrington Highway to Leoku Street continues.

- **HDOT Traffic Signal Improvements** – During the design coordination with KIWC for the traffic signal design packages, HDOT requested traffic signal upgrades, which are being processed through a change order. Delay in the completion of this change order and subsequent construction of the work may have an impact on the overall schedule of the project. The change order is being processed by HART.

**QUALITY MANAGEMENT:**

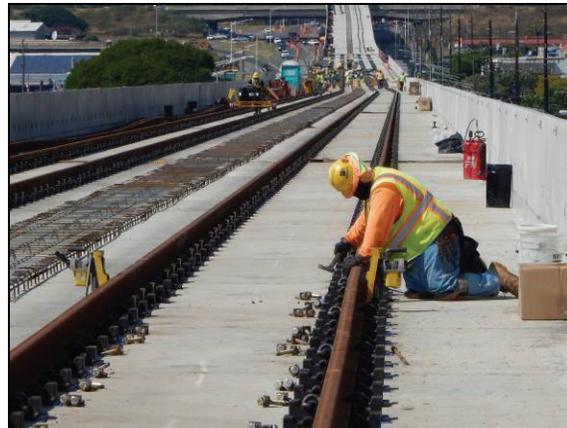
- KIWC continues to follow their established quality processes through quality monitoring and audits.
- **Pre-Cast Segment and Span Erection Progress/Quality** – 149 of the total 521 NCRs (28.6%) have been related to segmental casting issues like damaged shear keys, concrete voids, and spalls. Proper correction procedures have already been developed and are being implemented, and these issues are currently being resolved.
- **Closing Out NCRs** – Both KIWC and HART have been working together to promptly correct, validate, and close out NCR’s during this period. A total of 7 NCRs have been closed since last month.
- **Track Construction Operations** – HART and KIWC continue to have discussions on Direct Fixation Shim Tolerances. KIWC is working to resolve outstanding technical issues on the shim tolerances.
- **Finishing Work on Construction Items** – KIWC finishing crews have been working together with their quality team at progressing the finishing work on erected segment spans, resolving all outstanding issues, and preparing the final set spans for close out.
- **Span 258 – NCR 509** – A few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC is preparing a Remediation Plan to replace the failed Tendon T1L. HART and KIWC will perform a postmortem of the Tendon T1L after its removal to determine the root cause of the failure and the corrective action to prevent recurrence.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
521	487	34

**PROJECT PICTURES:**



Pearl Highlands Station platform false work being installed, WA 7.



Placing fasteners for plinthless rail, WA 2.



Mill and overlay by Column 114, WA 2.



Span by span eastbound and westbound approaching each other, WA 3.

**B. West O’ahu Station Group (WOSG)**

**Contract No.:** DBB-171

**Contractor:** Nan, Inc.

**Contract Start Date:** October 2015

**Contract Substantial Completion:** March 2018

**Projected Substantial Completion:** TBD

**Project Description:** The West O’ahu Station Group Construction contract includes services to build three (3) transit stations along Kualaka’i Parkway and Farrington Highway. The stations are East Kapolei (EK), UH West O’ahu (UHWO) and Ho’opili Stations. In addition to the transit stations, operational ancillary buildings, traction power substation and adjacent areas are included in this project.



**Project Overview:** The contractor was issued Notice-to-Proceed (NTP) on Oct. 13, 2015.

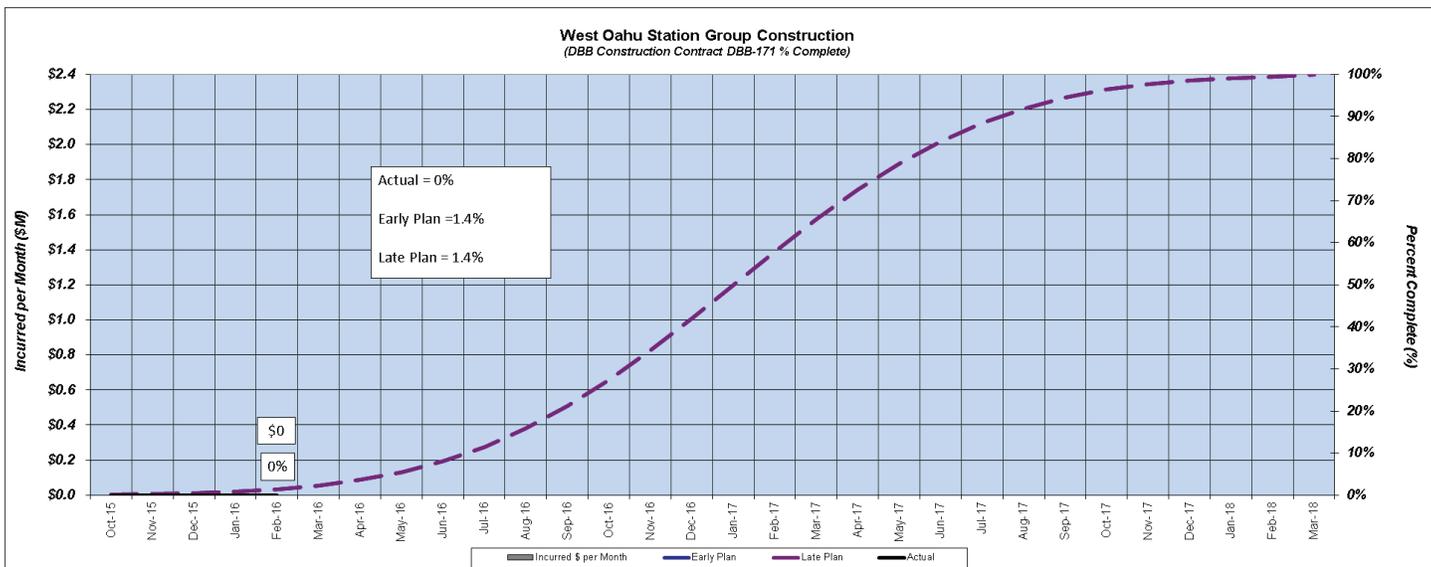
**COST INFORMATION:**

Original Contract:	\$56,088,470	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$56,088,470	Incurred in February:	\$0

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- Baseline Schedule approval.
- Review and approval of the contractor’s Public Involvement Manager.
- Construction access from Kiewit to the Ho’opili site.
- Construction access to the platform.
- Contractor needs to comply with contractual “shared site access” provisions.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 0%; Planned Value: 0%**

- Draft Baseline Schedule revision. Review comments were provided; contractor to respond to comments and resubmit.
- The contractor has mobilized onto the UH West O’ahu Station site. They have cleared, installed fence and trailers, and prepared their lay down in the area adjacent to the station site.
- Ho’opili Right of Entry—Received Right of Entry from D.R. Horton.
- The contractor is coordinating with D.R. Horton to locate stockpile for the Ho’opili site.
- The contractor has proposed approval for a temporary waterline and construction signage for the Ho’opili site.
- The contractor has received the Issue for Construction (IFC) set of plans. The contractor has provided priority work tasks affected by the IFC set. The contract team is working on issuing a change to keep the contractor moving forward with their construction. The balance of work identified from the IFC set will be issued in a secondary change order.
- Access coordination is being pursued with the guideway contractor.
- The contractor is being directed to participate in shared access, per their contract.
- The contractor has submitted a resume for a Public Involvement Manager; Public Involvement is the lead reviewer.

Look Ahead:

- Baseline Schedule approval.
- Access coordination for the Ho’opili site.
- Mobilization at the Ho’opili site. Clearing and grubbing, fencing and installation of Best Management Practices (BMPs).

**KEY ISSUES:**

- Baseline Schedule.
- Construction access to Ho’opili.
- Evaluation of change work included in IFC versus Issued for Bid (IFB) plus addendum is being conducted. The most expeditious means to effectively incorporate the IFC set into the contract is being reviewed. Administrative processing time required to identify, quantify, negotiate and incorporate change formally into the contract is the greatest concern.

**QUALITY MANAGEMENT:**

WOSG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

**C. Farrington Highway Station Group (FHSG)**

**Contract No.:** DBB-271

**Contractor:** Hawaiian Dredging Construction Company, Inc.

**Contract Start Date:** August 2015

**Contract Substantial Completion:** January 2018

**Projected Substantial Completion:** TBD



**Project Description:** The Farrington Highway Station Group construction contract includes services to build three (3) transit stations along Farrington Highway. The stations are West Loch (WLO), Waipahu Transit Center (WTC) and Leeward Community College (LCC) Station. In addition to the transit stations, operational ancillary buildings, kiss and ride lots, and parking lots servicing the West Loch and LCC stations and adjacent areas are included in this project.

**Project Overview:** The contractor was issued Notice-to-Proceed (NTP) on Aug. 17, 2015. Hawaiian Dredging Construction Company (HDCC) introduced one (1) Value Engineering (VE) concept– Augercast piles at the Waipahu Transit Station. HDCC has received HART’s feedback regarding the concepts and intends to submit a revised VE proposal to HART. HDCC is currently 80% complete with preconstruction activities at WLO and 60% complete at WTC. Acceptance of the Environmental Compliance Report is the only remaining submittal required prior to commencement of construction.

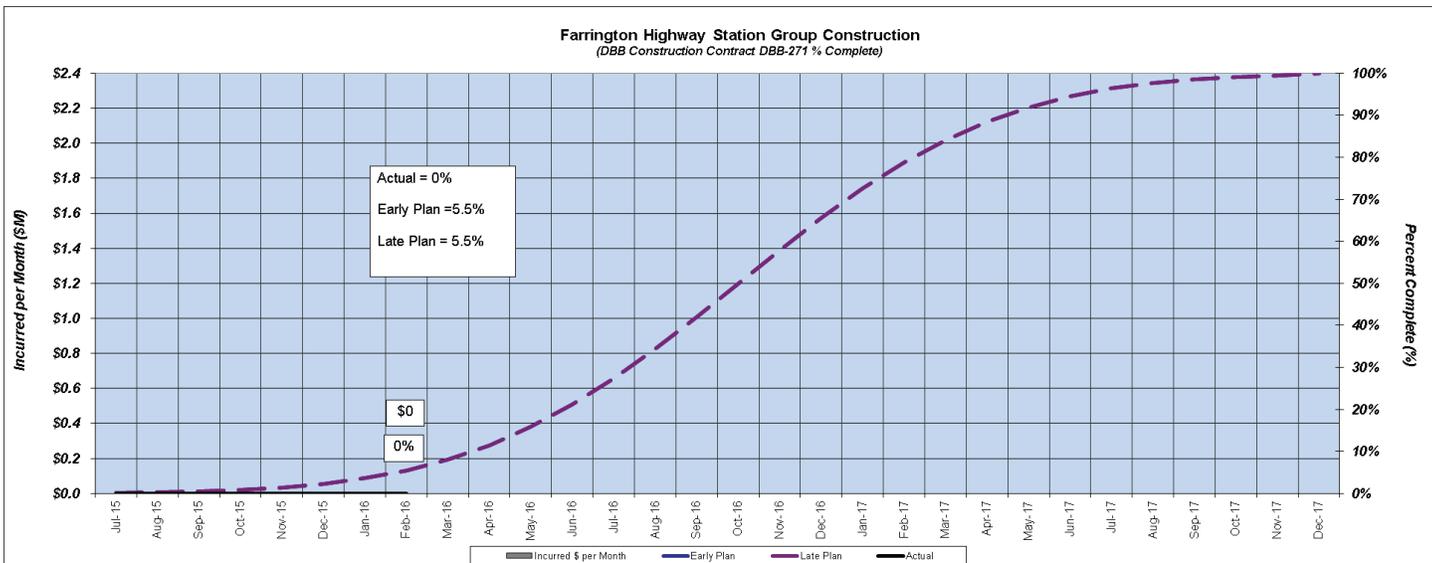
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$78,999,000</u>	<u>Incurred-to-Date:</u>	<u>\$0</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$78,999,000</u>	<u>Incurred in February:</u>	<u>\$0</u>

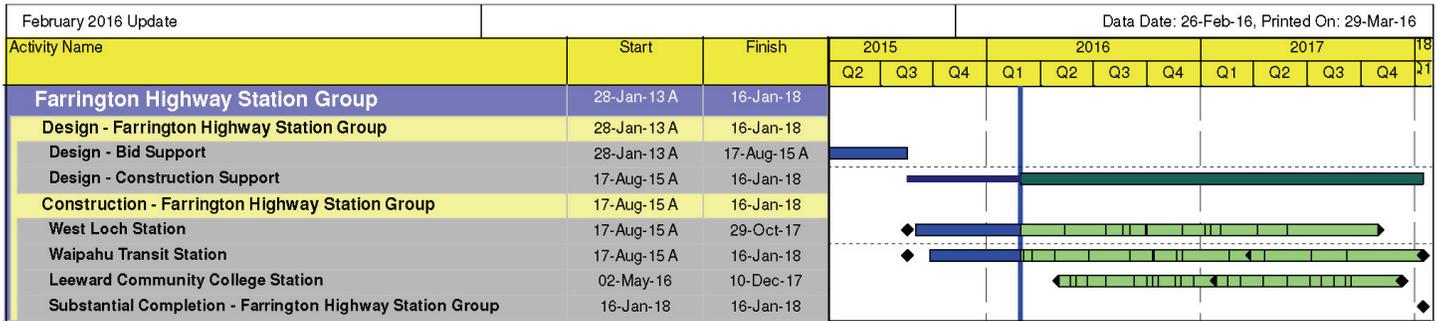
<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- The Baseline Project Schedule (BPS) has not yet been accepted by HART. Awaiting HDCC’s resubmittal of the schedule (review cycle D) for review and approval.
- Environmental Compliance Plan (ECP) approval is pending. Approval of the ECP is required prior to start of construction activities.
- Revisions to the contract construction plans have been provided to the contractor.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 0%; Planned Value: 0%

- Revised draft Baseline Schedule is in HDCC’s court to resubmit as review cycle D. ECP is under review by HART. Approval is contractually required prior to commencement of construction.
- HART is working with CE&I staff to quantify additional scope of work added in the IFC set of plans. The contractor has mobilized on the West Loch Makai site, in preparation for earthmoving activities.

Look Ahead:

- HART is still awaiting the Value Engineering proposals from HDCC.
- Baseline Schedule approval is pending HDCC response and resubmittal.
- Quantification of changes from the IFB set and addendum compared to the IFC set is ongoing.

**KEY ISSUES:**

- Quantification of change work included in IFC versus Issued for Bid (IFB) plus addendum and how those changes are incorporated into HDCC’s contract. Administrative processing time required to identify, quantify, negotiate and incorporate the changes formally into HDCC’s contract is the largest concern.
- Approval of Baseline Schedule and ECP.
- Access to the guideway will not occur as planned for West Loch Station. Access to the guideway and site for Leeward Community College Stations will also not occur as planned. HART is working to mitigate any potential delays that may result.

**QUALITY MANAGEMENT:**

FHSG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

**D. Maintenance and Storage Facility (MSF)**

**Contract No.:** DB-200

**Contractor:** Kiewit/Kobayashi Joint Venture (KKJV)

**Contract Start Date:** July 2011

**Contract Substantial Completion:** May 2016

**Projected Substantial Completion:** May 2016

**Project Description:** The MSF contract consists of the Operations and Servicing Building (OSB), Maintenance of Way (MOW), Train Wash Facility (TWF) and Wheel Truing Building (WTB). In addition to the four (4) facility buildings, MSF includes rail procurement, special trackwork, ties, third rail and other track material for the four guideway segments on the project.



**Project Overview:** MSF substantial completion is May 2, 2016.

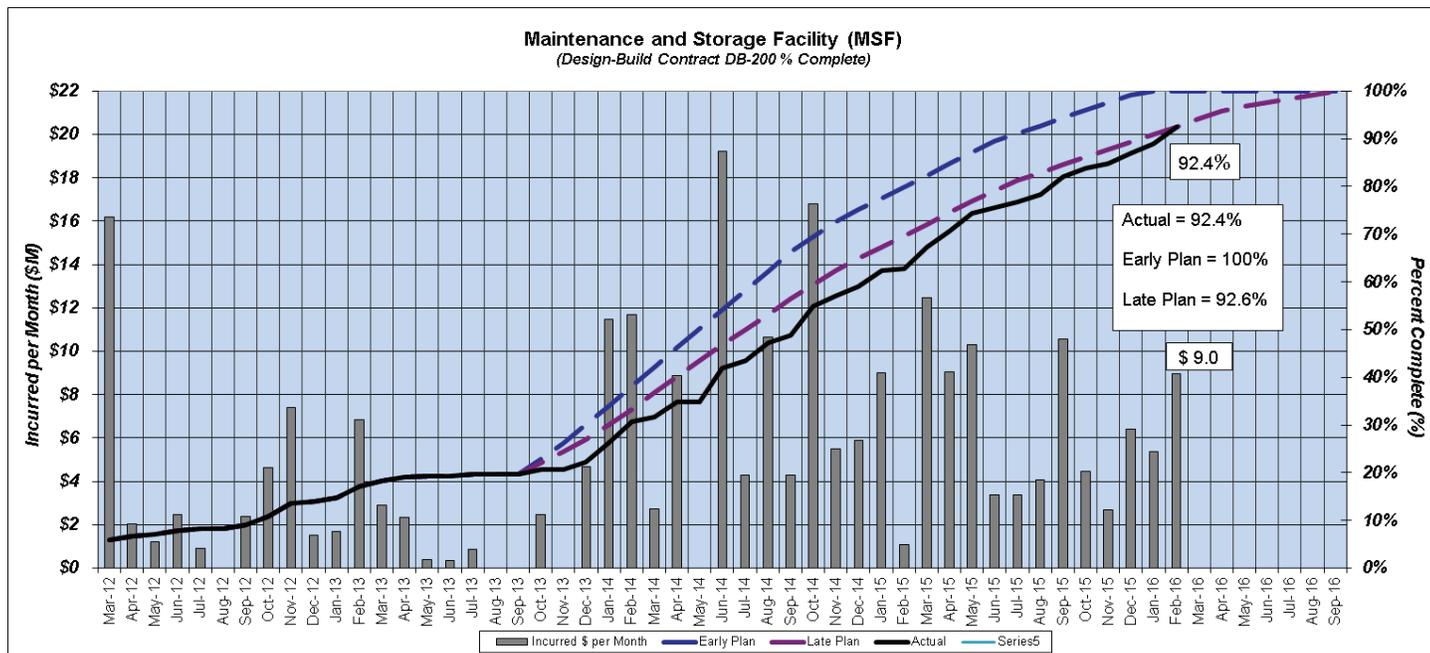
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$195,258,000</u>	<u>Incurred-to-Date:</u>	<u>\$253,763,288</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$274,685,819</u>	<u>Incurred in February:</u>	<u>\$8,967,227</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$542,177
DBE % Attained:	0.28%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$79,427,819</b>



**SCHEDULE:**

February 2016 Update			Data Date: 26-Feb-16, Printed On: 21-Mar-16							
Activity Name	Start	Finish	2015				2016			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Total</b>	29-Aug-11 A	20-Jul-16								
<b>Design</b>	29-Aug-11 A	27-Jan-15 A								
Design & Engineering	29-Aug-11 A	27-Jan-15 A								
<b>Construction</b>	26-Jul-12 A	20-Jul-16								
Site Civil/Utilities	26-Jul-12 A	15-Jul-16								15-Jul-16
Operations & Servicing Building	27-Nov-13 A	23-May-16								23-May-16
Maintenance of Way Building	12-May-14 A	23-May-16								23-May-16
Wheel Truing Building	18-Jul-14 A	16-May-16								16-May-16
Yard Trackwork	17-Feb-15 A	13-Jun-16								13-Jun-16
Train Wash Facility	23-Mar-15 A	22-Jun-16								22-Jun-16
Third Rail	25-Sep-15 A	27-Jun-16								27-Jun-16
Project Facility Commissioning, Closeout & Turnover	14-Mar-16	20-Jul-16								20-Jul-16

**CRITICAL PATH ISSUES:**

- Scheduling work related to yard track and OSB to support program MSF completion date.
- Coordination with abutting WOFH main line contract for completion of track work in west yard, and utilities and site access in the east yard.

MSF Construction Status	
91% Complete Overall as of 3/31/16	
Element	% Complete*
OSB	93%
MOW Building	96%
WTB	97%
TWF	70%
Rail	85%
Paving	100%

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 96%** [(Total Achieved to February (\$253 million) + Projected March 2016 Period (\$11.8 million))/Total Contract Including Executed Change Orders (\$275 million)]. Planned Value: 96%

**Yard/Utilities**

- Installation of traction power conduits is complete.
- Completed load testing of diesel generators.
- Installation of the conduit for systems, communications, train control, site electrical and exterior lighting is ongoing.
- Completed painting and stripping Driveways 'A', 'B', 'C', and 'D', and all parking areas and Basin Access driveway.
- Complete installation of sand silo.
- Complete railings and stairs for Hostler pads.

**Operations and Servicing Building (OSB)**

- Installation of the 2, 5 and 15-ton overhead bridge cranes is complete.
- Installation of utility stands on shop floor is complete.
- Installation of mechanical/electrical/plumbing is ongoing.
- Elevator installation continues.
- Installation of service and emergency lighting is complete.
- Installing interior and exterior building finishes is ongoing.
- Signage installation is complete.
- Completed installation of interior door hardware and glazing.
- Installing power distribution cabinets is complete.
- Continued installation of flooring.
- Continued installation of bathroom cabinets and fixtures.

Look Ahead:

**Yard/Utilities**

- Complete track installation.
- Complete contact rail installation and testing.
- Complete testing of running rail.
- Complete installation of exterior yard and perimeter lighting.
- Complete Signal and Control Raceway.
- Complete turnover of Phases 1 and 5 storage tracks to CSC.

**OSB**

- Installation of turntables and hydraulic lifts.
- Testing and commissioning of overhead bridge cranes.
- Completion of interior finishes.
- Complete bathroom cabinets and fixtures.
- Completion of main entry doorway.
- Installation of Shop Traction Power Substation.

**MOW**

- Completion of interior and exterior finishes, including office furniture.
- Completion of electrical, mechanical and plumbing.

Activities this Month (continued):

**Maintenance of Way (MOW)**

- Installation of mechanical/electrical/plumbing systems is ongoing.
- Installation of signage for the office and shop spaces is complete.
- Canopy installation is complete.
- Installation of shop equipment is complete.
- Completed installation of bathroom cabinets, partitions and fixtures.
- Completed lightning protection installation.
- Completed installation of lockers.

**Wheel Truing Building (WTB)**

- Completed plumbing and electrical trim out.
- Completed installation of ductwork.
- Extended power to building.
- Completed trim out of wheel truing machine.
- Completed touch up painting.

**Train Wash Facility (TWF)**

- Ongoing installation of Direct Fixation Track.
- Installation of recycle water/wash equipment is complete.
- Electrical installation is ongoing.
- Continued installing HVAC duct work.

**Rail Procurement and Installation**

- Track drain, sub-ballast, and ballast installation for East and West Yard Lead track as well as track east and west of the TWF is ongoing. Preparing for turnover of Phases 1 and 5 storage tracks to CSC.
- Continued testing of running rail.

**Administration**

- Continued working with the CSC to resolve design interface issues and turned over raceways and areas of the rail yard.
- Work with CSC to support assembly and movement of CSC Passenger Vehicles.

Look Ahead (continued):

- Installation and testing of telephones.
- Elevator Testing for Certification by State.
- Building Occupancy Certification.

**WTB**

- Testing of wheel lathe and wheel press.
- Training of personnel on use of wheel lathe and wheel press.
- Release Building Systems raceway to CSC.

**Train Wash Facility**

- Continue installation of Direct Fixation Track.
- Exterior canopies.
- Roll up doors.
- Complete HVAC.

**KEY ISSUES:**

- **Joint Occupancy with Core Systems Contractor** – weekly meetings are held and details are being worked out for systematic release of areas and infrastructure whereby the Core Systems Contractor can commence work.
- **Coordination with the abutting main line contract** – for completion of site access in the east and west yards, including rail, vehicular access and utility interconnection.
- **Train Car Delivery and Assembly** – Rail, access and building completion in support of train car delivery and assembly, including site access and internal movement of assembled rail cars.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

MSF NCR Log		
Total NCRs Issued to Date	CLOSED	OPEN
32	32	0

**PROJECT PICTURES:**



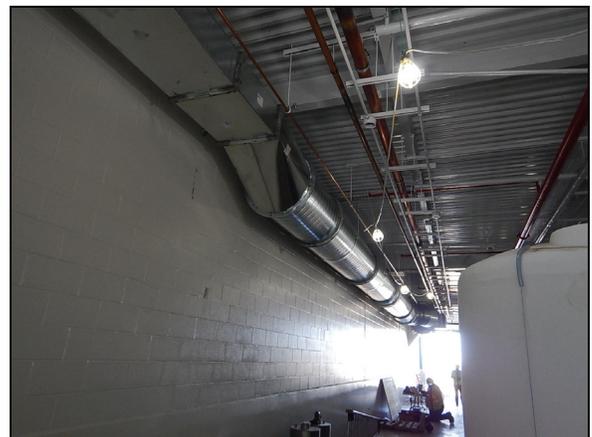
OSB parking lot – car charger footing placement.



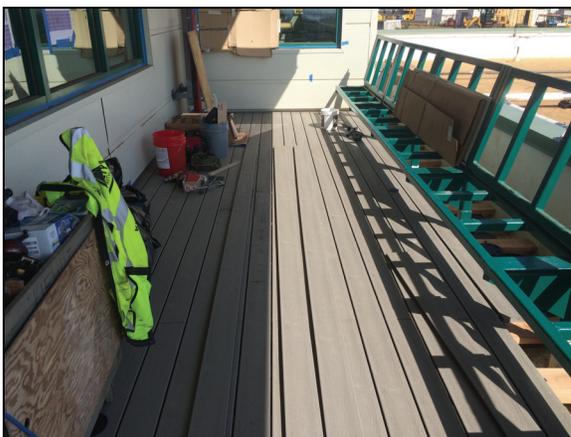
OSB TPSS room – epoxy flooring placement.



OSB electrical – Trans. & Distr. panel installation.



Truing Wheel Facility – HVAC dust work installation.



MOW – break area Trex installation.



Electrical testing – ground testing of Yard MHs.

### 4.3 Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium

#### A. Kamehameha Highway Guideway (KHG)

**Contract No.:** DB-320

**Contractor:** Kiewit Infrastructure West Company (KIWC)

**Contract Start Date:** June 2011

**Contract Substantial Completion:** September 2016

**Projected Substantial Completion:** September 2017

**Project Description:** Kamehameha Highway Guideway DB Contract (KHG) consists of 3.9 miles and starts 400 feet east of the Pearl Highlands Station and terminates 1,400 feet beyond the Aloha Stadium Station. KHG work scope is made up of utility relocations, highway widening, drilled shaft foundations, columns and aerial structure.



**Project Overview:** Construction of the drilled shafts continues east of the H-1 overpass. Column construction was completed from the WOFH project limits to Puu Poni Street, including the “C” piers at Acacia Road. Construction of columns in the Aloha Stadium Station area on the left side single track have been completed, along with two Aloha Stadium Station columns. Heading 2 truss is being erected around columns 420L to 422L and will begin heading west.

HART and KIWC continue to work at senior management levels to ensure current utility relocation schedules are being maintained.

Per KIWC’s progress schedule, the contract is twelve months behind schedule which includes the guideway structure completion in April 2017 and the remaining roadway/civil work being completed by September 2017.

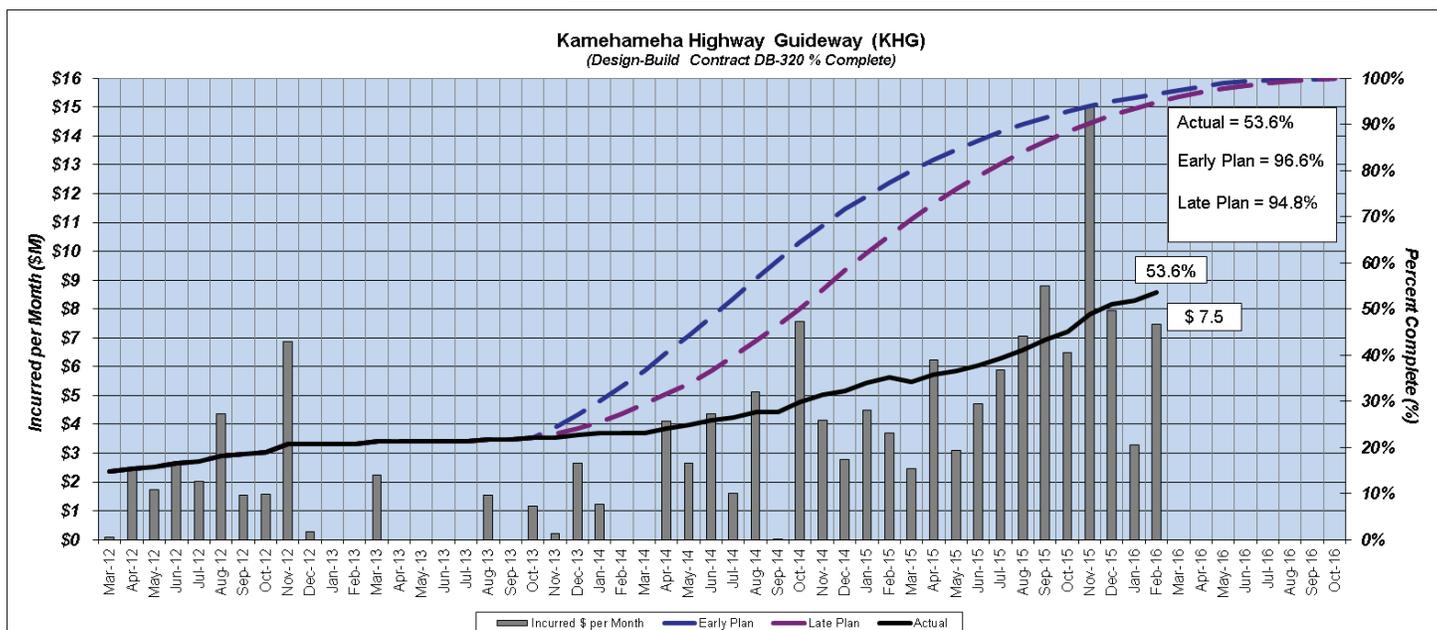
#### COST INFORMATION:

Original Contract:	\$372,150,000	Incurred-to-Date:	\$208,884,997
Current Contract Value <sup>1</sup> :	\$389,456,410	Incurred in February:	\$7,480,037

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$308,469
DBE % Attained:	0.08%

February Change Orders		
Change No.	Description	Amount (\$)
00021	HDOT Fence in Roadway Median	\$75,215
00022	HECO Single Line Diagrams	\$413,319
<b>Cumulative to Date</b>		<b>\$17,306,410</b>

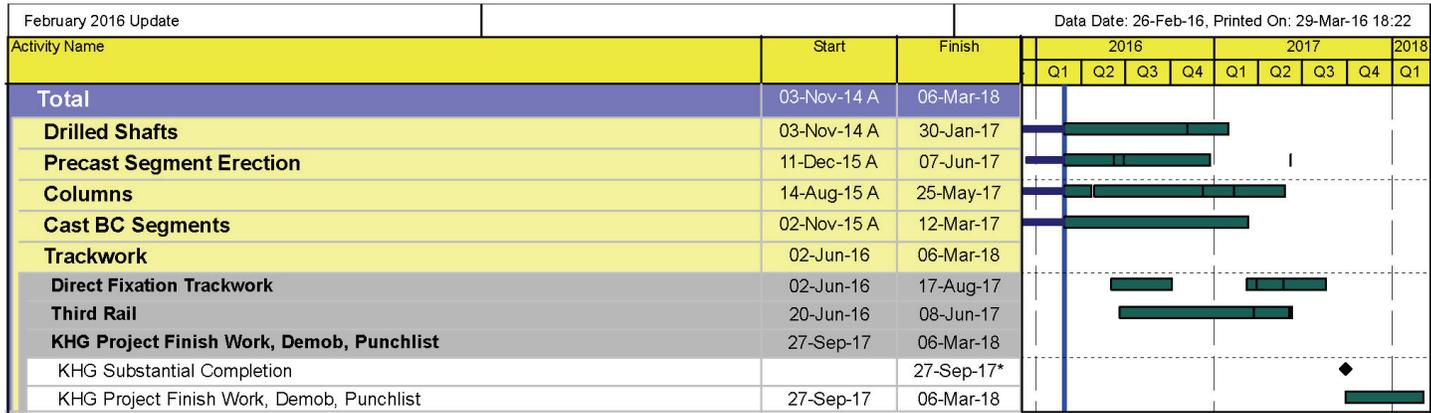


KIWC Pay Application #56 for the February 2016 billing was approved by HART.

**SCHEDULE:**

KIWC submitted a schedule revision in December 2014 with a data date of October 2014, which showed a revised Substantial Completion date of April 4, 2017. HART provided review comments to the schedule and has requested re-submittal via Request for Change (RFC) due to the change to the contractual substantial completion date. Until then, the schedule is deemed unaccepted. Subsequently, KIWC submitted a revised schedule in September 2015 via an RFC for contract time extension. The re-sequencing of the guideway and road work contains significant changes in durations, logic, as well as activity modifications, and is currently being reviewed by HART. The revised schedule shows the guideway structure forecasted to be complete in April 2017 with completion of the roadway civil construction and the overall project in September 2017; this reflects a potential 12 month delay to the contractual substantial completion date.

KIWC continues to have challenges meeting schedule due to various factors including lower productivity and resource sharing between the KHG and WOFH projects.



**CRITICAL PATH ISSUES:**

- HECO schedule forecasts at utility conflicts 11-920-M1 and 8-860-M1 are affecting utility relocations work. HART is tracking this issue and notes that its criticality needs to be established.
- Production rate for truss 3, going from Segments 277 through 322, are on the longest critical path and will impact the overall schedule.

**WORK PROGRESS:**

KHG Construction Status as of 3/9/16									
Utility Status	Qty to Date	Final Qty	% Complete	Structure Element	Total to Date	Planned to Date		Total Qty	% Complete
						Accepted Schedule*	Revised Schedule**		
Water Line	4,362	4,362	100%	Shafts	130	165	141	186	70%
Gas Line	12,641	12,641	100%	Columns	54	126	67	169	32%
Sewer Line	492	492	100%	Segment Casting	1,221	1,528	1,395	2,075	59%
Drainage Line	710	1,469	48%	Spans Stressed	15	111	20	166	9%
Elec/Telecom	15,961	19,455	82%	Trackwork	0	0	0	166	0%
System Sites	0%	N/A	0%	Third Rail	0	0	0	166	0%
Signals/ITS/Lights	13,587	18,486	74%	Mill & Overlay Roadway	0	0	0	N/A	0%

\* Accepted Schedule was submitted in 2013.  
 \*\* These quantities are based on KIWC's pending August 2015 schedule revision dated Sept. 23, 2015. Revised schedule reflects a 12 month delay in completion.

Activities this Month:

**Earned Value: 57.1%** [(Total achieved to February 2016 (\$208.9 million) + March 2016 projection (\$13.2 million))/Total contract including executed Change Orders (\$389 million)]. Planned Value: 95.9%

**Shaft/Column/Segments**

- 130 of 186 shafts have been installed; 70% of all shafts have been completed on KHG.

Look Ahead:

**Design Progress**

- KIWC is working to complete final design. To date 42 of 49 drawing packages have been issued for construction.

**Shaft/Column/Segments**

- Construction of shafts will continue east of the H-1 overcrossing.

Activities this Month (continued):

- 54 of 169 columns have been constructed.
- 1,221 of 2,075 segments have been cast.
- Balanced Cantilever superstructure east of the H-1 overpass continues. Column 308 has been completed. Top deck on Column 307 is progressing.
- Structures access in front of Waimalu Shopping Center has been installed.
- Construction of Balanced Cantilever falsework is being removed at pier 306.
- “C” pier columns at Shafts 277, 278 and 279 have been completed.
- Shaft construction in front of Pearl Kai is in progress.

**Utility Relocation Progress**

- The relocation of HECO electrical lines and Hawaiian Telcom, Oceanic Time Warner and Intelligent Transportation Systems (ITS) duct banks is occurring in various phases along the alignment.
- Pile driving for traffic signal foundation has ceased pending contract change order (CCO) approval from the board.
- System site 10 work is continuing.

**Roadway Widening**

- Roadway widening continues to be placed on hold due to crews working on WOFH.
- Shaft construction west of Salt Lake Blvd should begin early April, moving westbound.

Look Ahead (continued):

**Utility Relocation**

- Acquisition of ROE for utility relocations is being pursued by HART and KIWC jointly, and meetings with property owners will continue.

**Balanced Cantilever Structure**

- Superstructure construction will continue at the BCS area.
- Area being prepared for traveler installation at Column 306.

**Precast Yard**

- KIWC will continue casting segments. Based on the current rate, the forecasted completion is June 2016.

**Roadway Widening**

- HART has issued RFCRs to the contractor for identified HDOT additional work. Work is anticipated to begin after issuance of a memorandum of understanding and change orders.

**KEY ISSUES:**

- **Night Noise Variance** –Department of Health will no longer allow the use of backhoes and excavators for nighttime work due to improper use of the equipment at night and public complaints received. HART has requested reconsideration on behalf of the contractor and is awaiting a state DOH response. Additionally, permanent ITS work continues to be installed along the alignment, and traffic signal crews ceased construction due to nighttime noise restrictions.
- **HDOT Additional Work** –The traffic signals CCO received approval from the HART Board and will be issued unilaterally. HART and HDOT have finalized the Memorandum of Understanding. The remainder of the additional work RFCR are still pending negotiations with KIWC and coordination with HDOT.  
  
KIWC notified HART on Dec. 10, 2015, that they have halted all construction work activities related to HDOT Additional work until HART issues an executed change order for the out of scope work.
- **Third Party Utility Impacts** – HART and KIWC continue to work at senior and executive management levels to ensure current utility relocation schedules are being maintained.

**QUALITY MANAGEMENT:**

- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant new findings through quality audits.
- **Latest Construction Plans** – Current shaft, column, and footing construction is proceeding with only minor quality issues.
- **Drilled Shaft Quality** – KIWC currently has 9 open NCRs due to velocity reduction exceeding 20%. KIWC has been reviewing their means and methods for placing concrete to reduce the issue with velocity reduction.
- Segment 276 suffered a damaged end flange as it was being set; a repair program is being reviewed for this condition.

KHG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
134	110	24

PROJECT PICTURES:



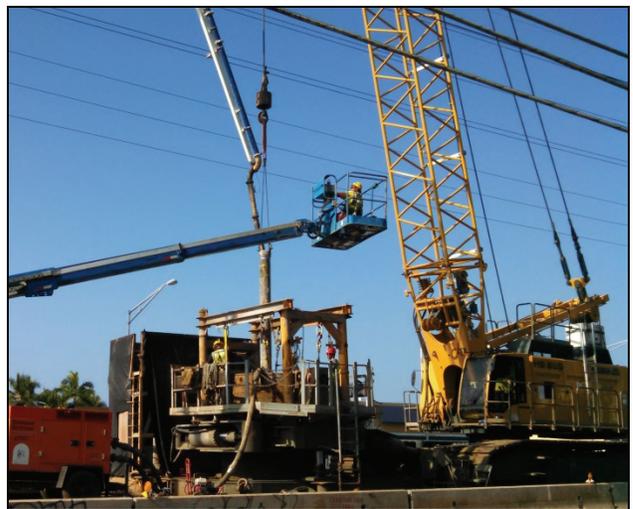
Launching truss to Span 278, Phase 1.



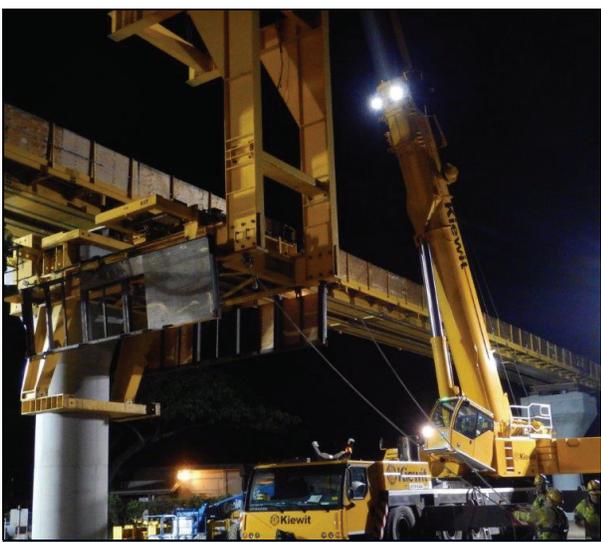
Pier Table 306, setting falsework beam removal system, Phase 4.



Preparing to drill Shaft 347, Phase 8.



Shaft 367, concrete placement, Phase 10.



Setting heading 1 Pier bracket, Phase 12.



Stripping decorative forms, Column 411, Phase 13.

**B. Ramp H2R2**

**Contract No.:** DBB-385  
**Contractor:** Royal Contracting Co. Ltd.  
**Contract Start Date:** May 2015  
**Contract Substantial Completion:** June 2016  
**Projected Substantial Completion:** January 2017



**Project Description:** Ramp H2R2 is a loop ramp which connects in-bound Farrington Highway to in-bound Kamehameha Highway. The loop terminates just west of the intersection of Kamehameha Highway and Waihona Street.

**Project Overview:** Royal Contracting was awarded this project on May 4, 2015, and issued NTP on May 18, 2015. Construction duration is anticipated to be 13 months. Royal was delayed in the start of construction due to additional HDOT required soil remediation and submittal of required documentation. The contractor has projected a substantial completion of January 2017. The contractor was formally notified to commence construction on March 21, 2016, however, they commenced construction on March 28, 2016.

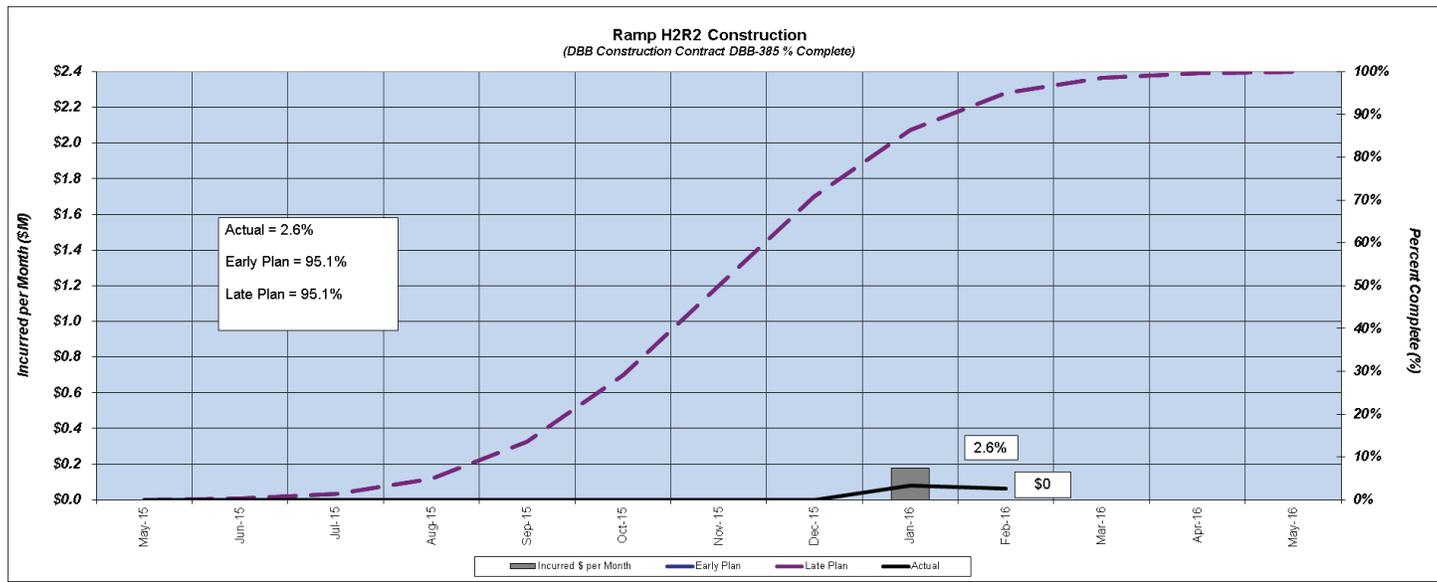
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$5,203,646</u>	<u>Incurred-to-Date:</u>	<u>\$136,850</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$5,203,646</u>	<u>Incurred in February:</u>	<u>(\$40,495)</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**SCHEDULE:**

February 2016 Update											Data Date: 26-Feb-16, Printed On: 22-Mar-16 17:29	
Activity Name	Start	Finish	2015			2016				2017		
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>Total</b>	18-May-15 A	23-Jan-17										
<b>West Guideways &amp; Structures</b>	18-May-15 A	23-Jan-17										
<b>Construction - H2R2 Ramp</b>	18-May-15 A	23-Jan-17										
Construction - H2R2 Ramp	18-May-15 A	23-Jan-17									23-Jan-17	
Substantial Completion - H2R2 Ramp		23-Jan-17									◆	

**CRITICAL PATH ISSUES:**

- Approval of Royal’s Environmental Compliance Plan (ECP) was provided in March.
- HART and HDOT have worked through their concerns of the contaminated soils discovered on site. On March 24, HART received formal written notification from HDOT that these issues have been resolved.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 0%; Planned Value: 0%**

- Royal continues to provide required submittals for review and acceptance.
- Royal continues to provide project baseline schedule updates as the project progresses.

Look Ahead:

- Mobilization, BMP installation, survey.
- Clear and grub, earth moving.
- Place surcharge, begin settlement monitoring.

**KEY ISSUES:**

- No critical issues.

**QUALITY MANAGEMENT:**

Ramp H2R2 NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
0	0	0

**C. Kamehameha Highway Station Group (KHSG)**

**Contract No.:** FD-340

**Contractor:** Anil Verma Associates, Inc. (AVA), Final Design Consultant (Engineer of Record)

**Contract Start Date:** November 2012

**Construction Docs Bid-Ready:**

Ramp H2R2: January 2015 (in construction)

Kamehameha Highway Stations: August 2015 (bids received)

**Project Description:** The Kamehameha Highway Stations Group FD Contract (KHSG) consists of architectural and engineering services for the design of three (3) transit stations serving the Kamehameha Highway Guideway. The three (3) stations comprising the KHSG contract are the Pearl Highlands Station, the Pearlridge Station, and the Aloha Stadium Station. The Pearl Highlands Station also includes two highway ramps.

**Project Overview:** The KHSG construction contract was awarded to Nan, Inc. on Jan. 27, 2016.

**COST INFORMATION:**

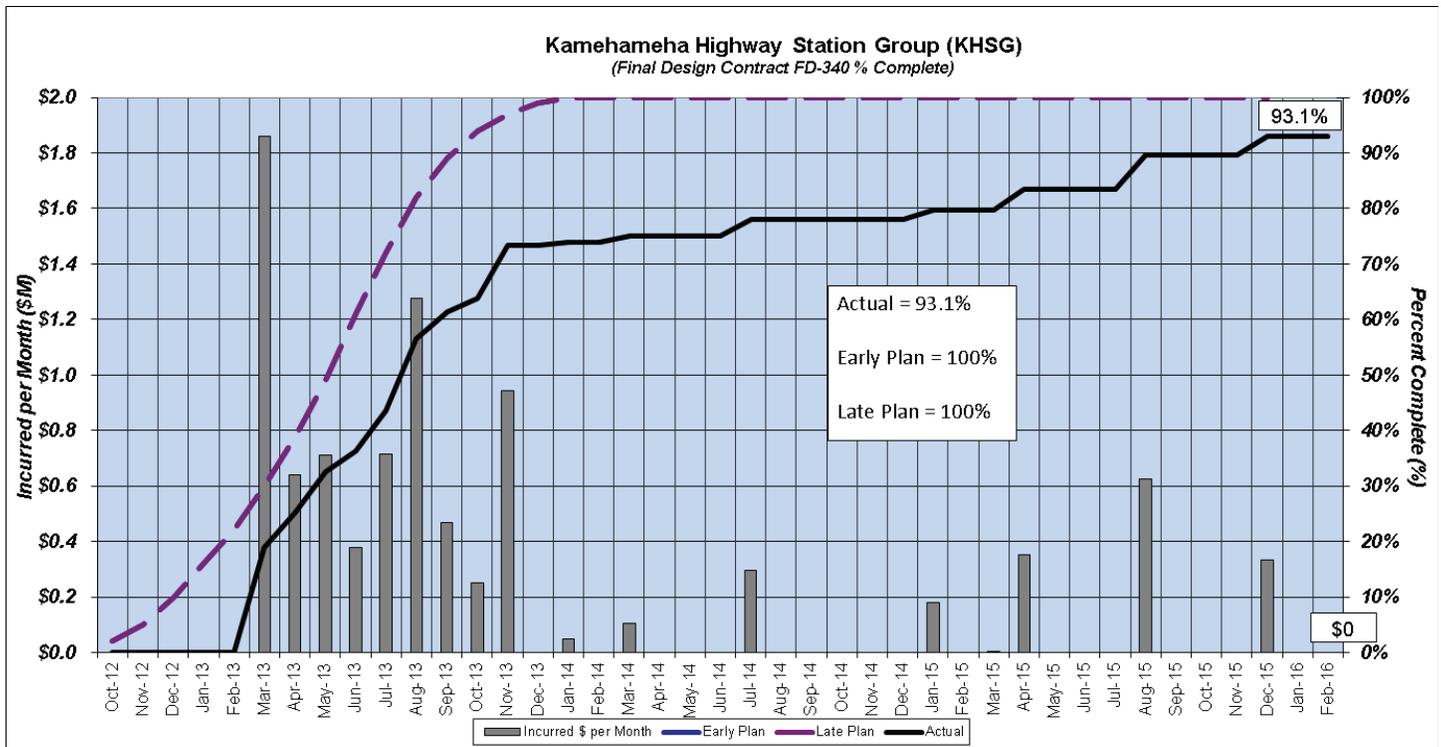
Original Contract:	\$8,702,592	Incurred-to-Date:	\$9,177,277
Current Contract Value <sup>1</sup> :	\$9,859,290	Incurred in February:	\$0

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders



DBE Participation	
Actual DBE Participation:	\$3,820,005
DBE % Attained:	43.9%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,199,698</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

The design phase of this contract is substantially complete.

**SCHEDULE:**

February 2016 Update			Data Date: 26-Feb-16, Printed On: 29-Mar-16																
Activity Name	Start	Finish	2015			2016				2017				2018					
			Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Kamehameha Highway Station Group</b>	16-May-14 A	30-Nov-18																	
Design - Kamehameha Highway Station Group	16-May-14 A	30-Nov-18																	
Design - Bid Support	16-May-14 A	21-Mar-16																	
Design - Construction Support	22-Mar-16	30-Nov-18																	
<b>Construction - Kamehameha Highway Station Group</b>	29-Mar-16	30-Nov-18																	
Pearl Highlands - Station	29-Mar-16	31-Oct-18																	
Pearl Ridge Station	29-Jun-16	01-Nov-18																	
Aloha Stadium Station	31-Oct-16	30-Nov-18																	

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 99%.
- Finalized construction documents.

Look Ahead:

- N/A.

**KEY ISSUES:**

- N/A.

### 4.4 Section III – Airport: Aloha Stadium to Middle Street Transit Center Station

#### A. Airport Section Guideway and Utilities

**Contract No.:** FD-430

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)

**Contract Start Date:** January 2012

**Currently in Construction:**

- Airport Section Utilities (DBB-505 - Nan Inc.):
  - Construction NTP issued July 2014

**Construction Completed:**

- Airport 7-Piers (DBB-525 – Hawaiian Dredging):
  - Project acceptance on May 2, 2015; currently in project closeout

**Project Description:** The Airport Segment Guideway and Utilities contract consists of 5.2 miles of elevated transit guideway serving four (4) passenger stations, in addition to roadway widening, utility relocation, and other improvements to create space for these transit facilities. Two construction contracts have been split out and expedited from the larger Airport Section package. These two contracts are the expedited Airport Section Utilities (ASU) and expedited Airport 7-Piers (A7). For both of these expedited contracts, the design has been completed and construction is in progress (ASU) or completed (A7). The remaining scope of design has been terminated and will be completed under a design-build procurement.

**Project Overview:** The services under this contract are now limited to engineering support during construction, and support to HART during the design-build procurement.

**COST INFORMATION:**

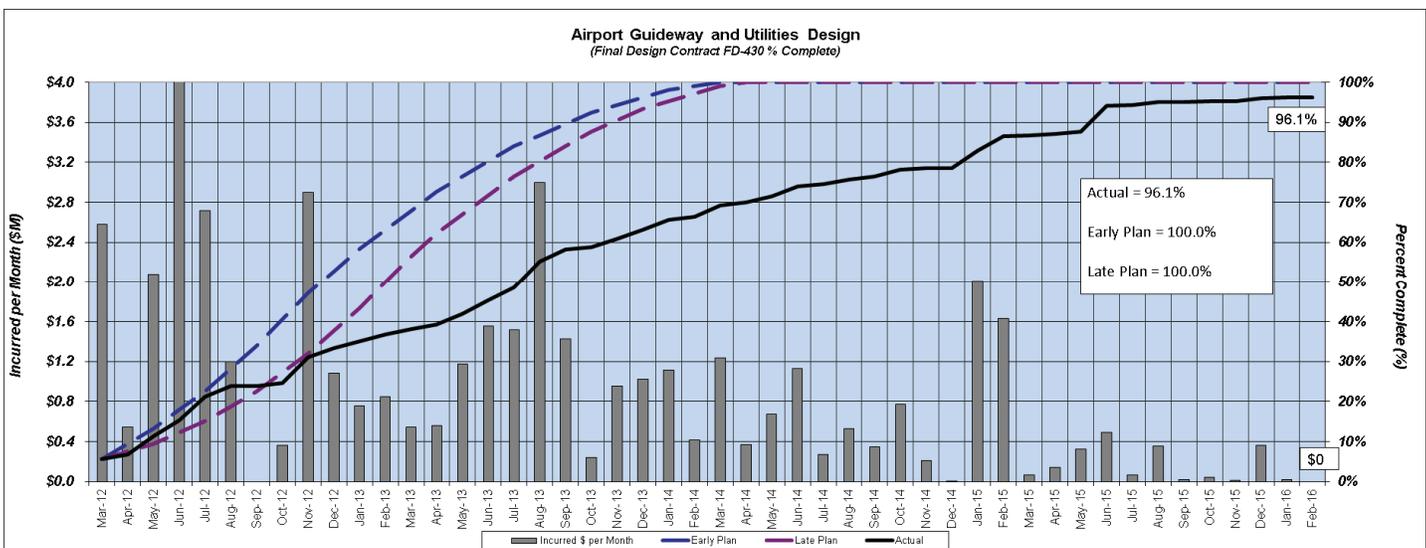
<u>Original Contract:</u> \$38,840,960	<u>Incurred-to-Date:</u> \$41,471,470
<u>Current Contract Value<sup>1</sup>:</u> \$43,134,472	<u>Incurred in February:</u> \$0

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders



DBE Participation	
Actual DBE Participation:	\$162,813
DBE % Attained:	0.42%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$4,293,512</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

Due to the change in delivery method from DBB to DB, the final design will not be completed under this contract.

**SCHEDULE:**

			Data Date: 26-Feb-16, Printed On: 23-Mar-16																	
Activity Name	Start	Finish	2014		2015		2016		2017		2018		2019		2020		2021		2022	
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Airport Guideway &amp; Stations (AGS)</b>	07-Apr-15 A	20-Nov-20																		
Airport Guideway & Stations - Design Build Procurement Part 1	07-Apr-15 A	31-Aug-15 A																		
Airport Guideway & Stations - Design Build Procurement Part 2	25-Sep-15 A	20-May-16																		
DB-450 Airport Guideway & Stations - Design & Construction	20-Jun-16	20-Nov-20																		

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 97%.
- Supporting current construction contracts.
- Supporting AGS DB procurement.

Look Ahead:

- N/A.

**KEY ISSUES:**

- N/A.

**B. Airport Section Utilities Construction**

**Contract No.:** DBB-505

**Contractor:** Nan, Inc.

**Contract Start Date:** July 2014

**Contract Substantial Completion:** July 2016

**Projected Substantial Completion:** September 2016

**Project Description:** The Airport Utilities contract consists of relocation of a portion of utilities and some utility facilities that will be impacted by the construction of the HART aerial guideway and associated facilities between Aloha Stadium and Middle Street Transit Center. Specifically, the work involves construction of utility relocations affecting underground and overhead communications lines, Navy-owned electrical lines, fuel lines, gas lines, water lines, storm sewer lines, sanitary sewer lines and street light lines and poles/fixtures; HECO work is excluded from this contract. The work also includes installation of ITS (Intelligent Transportation Systems) facilities, to maintain traffic during construction, and other site improvements. Erosion control measures, temporary planting, permanent irrigation facilities and restoration of existing facilities are also incorporated into the contractor’s scope of work.



**Project Overview:** Nan, Inc. continues with utility relocation work along Kamehameha Highway. A contract change order has been executed to extend the substantial completion date to July 13, 2016. Approval of a modified Traffic Control Plan allows the contractor to have additional time to perform work during the day. Nan is also working closely with the Navy in resolving various duct bank and utility issues discovered in the field, including unclaimed / unidentified power lines along Kamehameha Highway. Meanwhile, Nan, Inc. continues to develop and submit outstanding submittals.

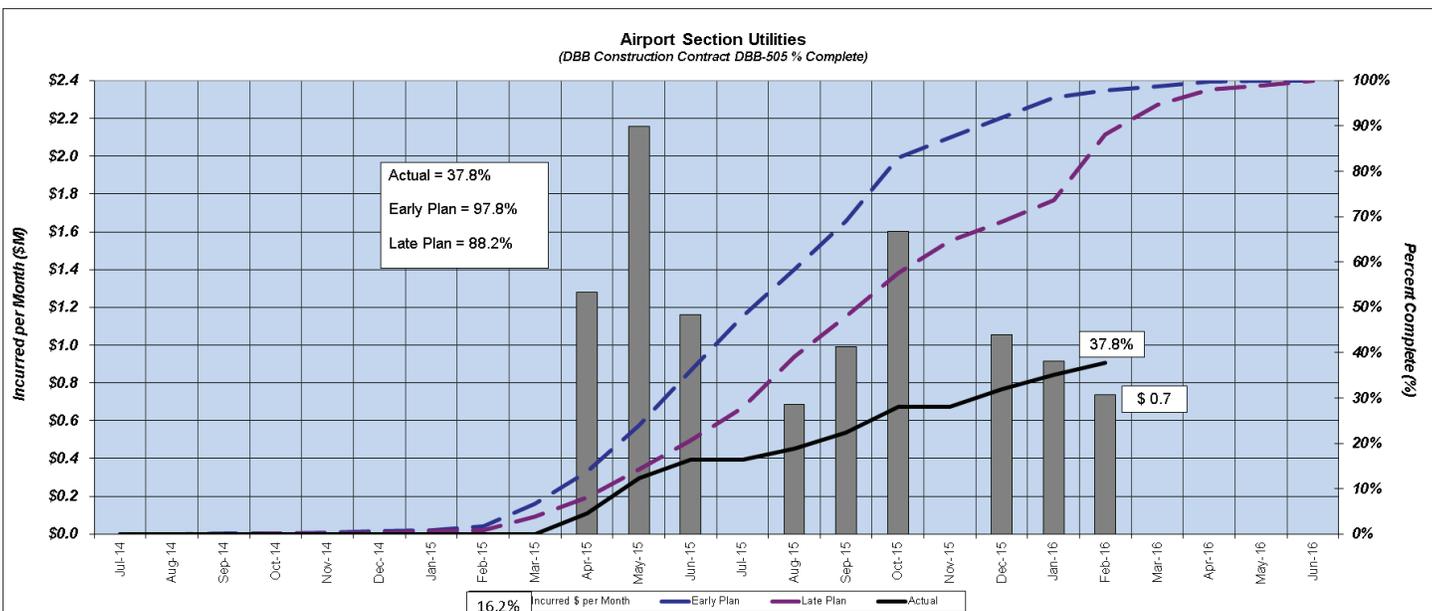
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$27,993,290</u>	<u>Incurred-to-Date:</u>	<u>\$10,580,738</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$28,022,953</u>	<u>Incurred in February:</u>	<u>\$735,785</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$34,988
DBE % Attained:	0.12%

February Change Orders		
Change No.	Description	Amount (\$)
0001	Add Stub out for future Downspout.	\$4,600
0002	Potholing at Water Line JW1012 Conflict	\$25,063
<b>Cumulative to Date</b>		<b>\$29,663</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.



**C. Airport Section Guideway Seven Pier Construction**

**Contract No.:** DBB-525

**Contractor:** HDCC/CJA JV

**Contract Start Date:** September 2014

**Contract Substantial Completion:** April 24, 2015

**Declared Substantial Completion:** April 22, 2015

**Project Description:** The Airport 7-piers contract consists of seven drilled shaft foundations installed within the Honolulu International Airport Parking lot "J", where the new Interim Car Rental Facility (CONRAC) is also being constructed. The contractor has installed seven foundations for piers 546, 547, 548, 549, 550, 551R and 552R. This work involved close coordination with the HDOT Airport and Kiewit, who is the contractor for CONRAC. In addition to the pier work, existing utility relocations have been included at Piers 546, 548, 549 and 550, under Change Amendment 1.



**Project Overview:** HDCC/CJA JV substantially completed the project on April 22, 2015. The site, along with maintenance of existing BMPs and traffic control measures were turned over to the HDOT-A. Generated punch list items were completed and accepted as of May 2, 2015, by HDOT-A/HART. The project is currently in a close out phase; final change orders have all been executed.

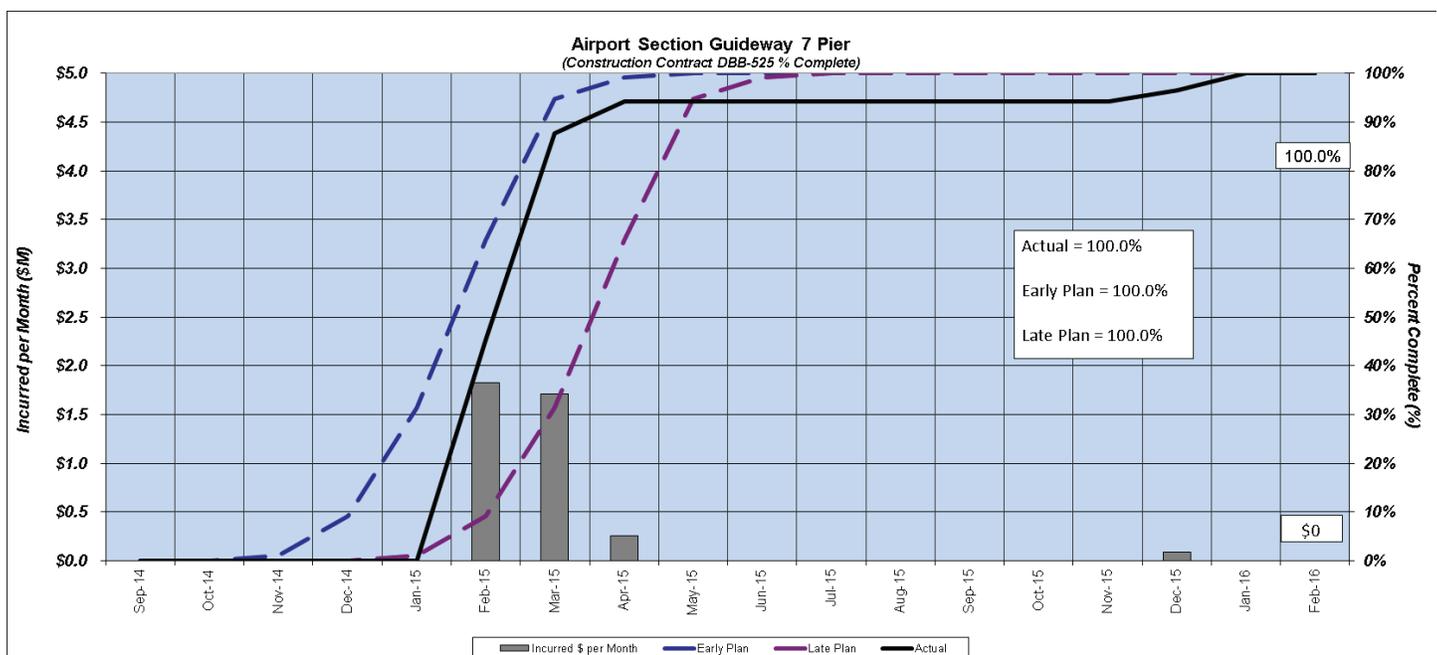
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$3,973,000</u>	<u>Incurred-to-Date:</u>	<u>\$4,027,843</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$4,027,843</u>	<u>Incurred in February:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$54,843</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

**CRITICAL PATH ISSUES:**

- None - All construction work has been completed and Change Orders have recently been executed. Project close out and final invoicing (retention) has been submitted for processing.
- 

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 100%**; Planned Value: 100%

Look Ahead:

- HDCC/CJA JV has submitted their final invoice for Contract Closeout.
- 

**KEY ISSUES:**

- None.

**D. Airport Station Group (ASG)**

**Contract No.:** FD-440

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)

**Contract Start Date:** November 2012

**Construction Docs Bid-Ready:** N/A

**Project Description:** Architectural and engineering services for the design of four (4) transit stations serving the Airport Guideway. The four (4) stations comprising the ASG contract are the Pearl Harbor Naval Base Station, the Honolulu International Airport Station, the Lagoon Drive Station, and the Middle Street Station.



**Project Overview:** These four stations have been combined with the guideway into a single Airport Guideway and Stations Design-Build (DB) package.

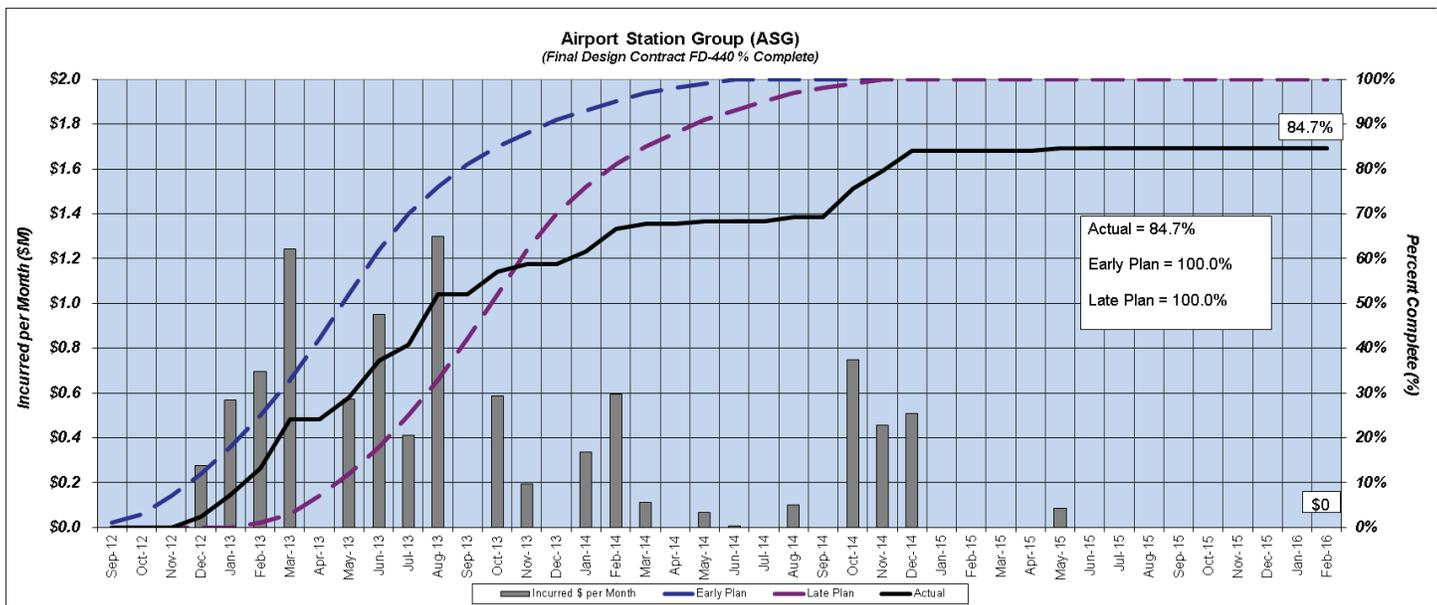
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$10,177,365</u>	<u>Incurred-to-Date:</u>	<u>\$9,801,978</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$11,573,852</u>	<u>Incurred in February:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$234,761
DBE % Attained:	2.31%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,416,487</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

Due to the change in procurement strategy from DBB to DB, the design of the Airport Stations Group will not be advanced to completion under this contract.

**CRITICAL PATH ISSUES:**

- N/A.
- 

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 88% and is not anticipated to increase significantly due to the suspension of design activities.

Look Ahead:

- N/A.
- 

**KEY ISSUES:**

- N/A.

### 4.5 Section IV – City Center: Middle Street Transit Center Station to Ala Moana Center

#### A. City Center Section Guideway and Utilities

**Contract No.:** FD-530

**Contractor:** AECOM Technical Services, Inc., Final Design Consultant  
(Engineer of Record)

**Contract Start Date:** July 2012

**Project Description:** The City Center Guideway and Utilities final design contract consists of 4.2 miles of elevated transit guideway serving eight (8) passenger stations, in addition to roadway widening, utility relocation, and other improvements to facilitate construction of the guideway.



**Project Overview:** This section of the guideway has been combined with eight (8) stations into a single City Center Guideway and Stations (CCGS) Design-Build package. The services remaining under this contract include preparation of early utilities designs, and support to HART during design-build procurement.

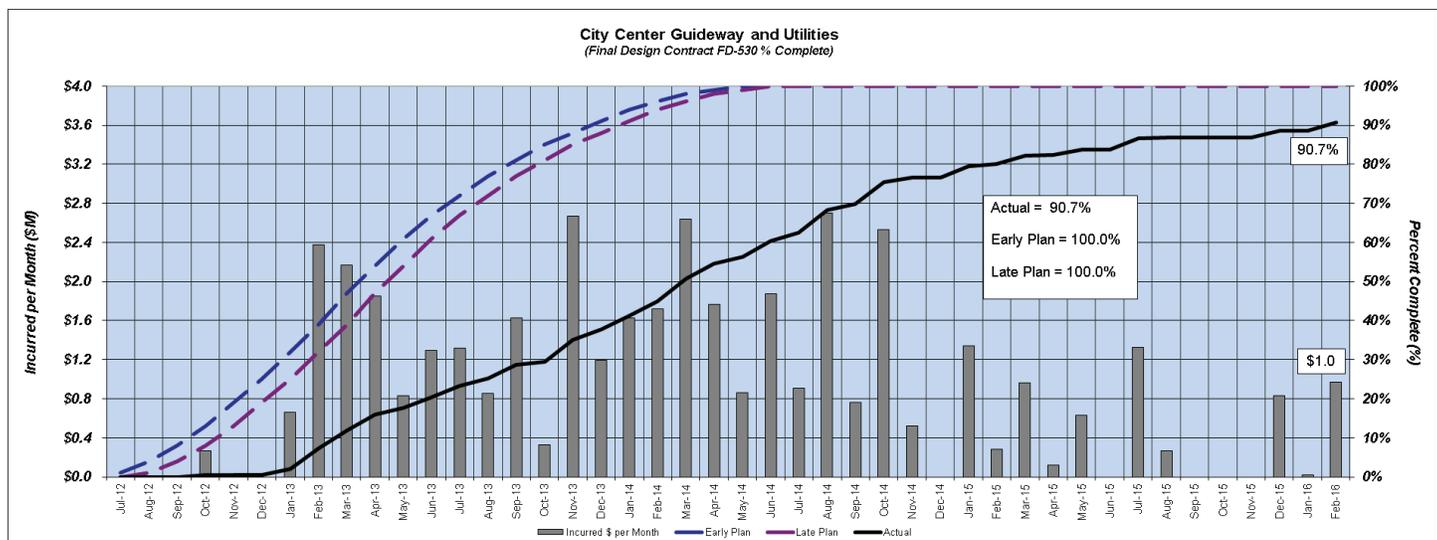
#### COST INFORMATION:

Original Contract:	\$43,948,220	Incurred-to-Date:	\$41,899,799
Current Contract Value <sup>1</sup> :	\$46,197,562	Incurred in February:	\$969,296

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$191,227
DBE % Attained:	0.44%

February Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,296,842</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

Due to the change in delivery method from DBB to DB, the final design will not be completed under this contract.



**B. Dillingham and Kaka’ako Station Group (DKSG)**

**Contract No.:** FD-550

**Contractor:** Perkins+Will (P+W), Final Design Consultant (Engineer of Record)

**Contract Start Date:** August 2013

**Construction Docs Bid-Ready:** N/A

**Project Description:** Design of eight (8) stations for the fourth and final phase of the current project that will connect Dillingham Boulevard to Ala Moana Center.



**Project Overview:** The DKSG stations have been combined with the City Center Guideway into a single City Center Guideway and Stations Design-Build package.

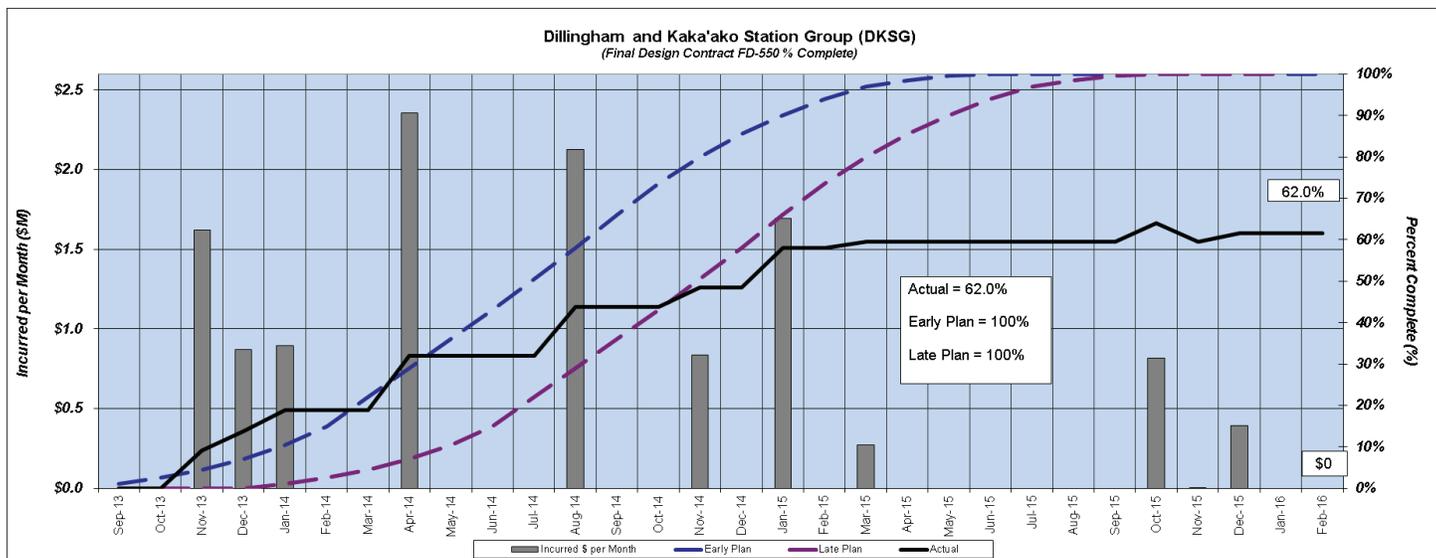
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$18,321,918</u>	<u>Incurred-to-Date:</u>	<u>\$11,875,668</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$19,308,042</u>	<u>Incurred in February:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value with Design Allowance + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,046,743</b>



The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

Due to the change from a DBB to a DB delivery method, the design for these stations has been suspended and will not be completed under this contract.

**CRITICAL PATH ISSUES:**

- N/A.
- 

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 68% and is not expected to increase significantly due to the suspension of design activities on this contract.

Look Ahead:

- N/A.
- 

**KEY ISSUES:**

- N/A.

### 4.6 Project-Wide

#### A. Program Management Support Consultant-2 (PMSC-2)

Contract No.: MM-901

Contractor: InfraConsult LLC

Contract Start Date: March 8, 2012

Contract Completion: March 7, 2017

**Project Description:** Provide program management support services in the areas of elevated guideway engineering, rail station design, construction management, project management, environmental planning, federal programmatic requirements, and other services for the Honolulu Rail Transit Project.

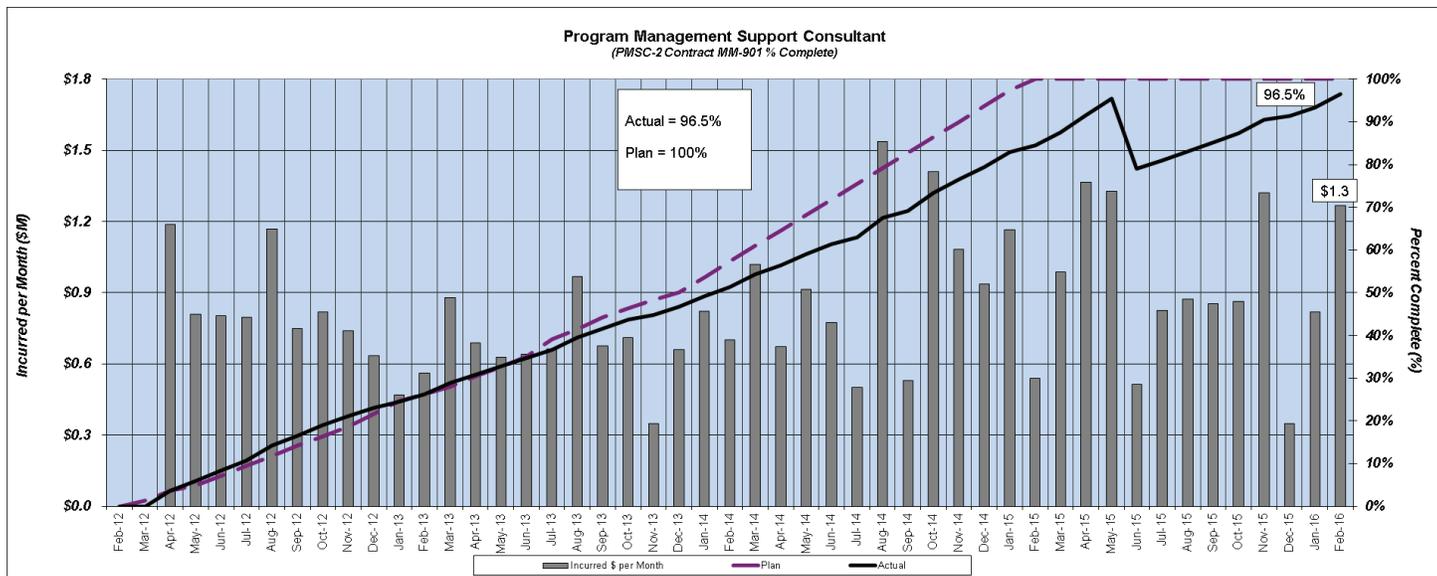
#### COST INFORMATION:

Original Contract:	\$33,376,897	Incurred-to-Date:	\$39,563,917
Current Contract Value <sup>1</sup> :	\$40,993,274	Incurred in February:	\$1,267,356

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$7,616,377</b>



#### KEY ISSUES:

- HART exercised its option to extend the PMSC contract for the remaining option year, effective March 8, 2016. The current contract will terminate upon award of contract to the successful offeror of the new Request for Qualifications that will be advertised or one year from March 8, 2016, whichever is earlier.

**B. General Engineering Consultant III (GEC-3)**

**Contract No.:** MM-913

**Contractor:** CH2M HILL

**Contract Start Date:** December 2013

**Contract Completion:** April 2019, with option to extend for up to three (3) additional years

**Project Description:** HART GEC III support services include: schedule and estimating, interface coordination, environmental and planning, design management support services, and program management (aka GEC III contract project management).

**Project Overview:** The GEC III is supporting HART with procurement packages, review of independent cost estimates, evaluation of east segment schedules, and developing Hawaiian Electric Facility avoidance and minimization impact alternatives.

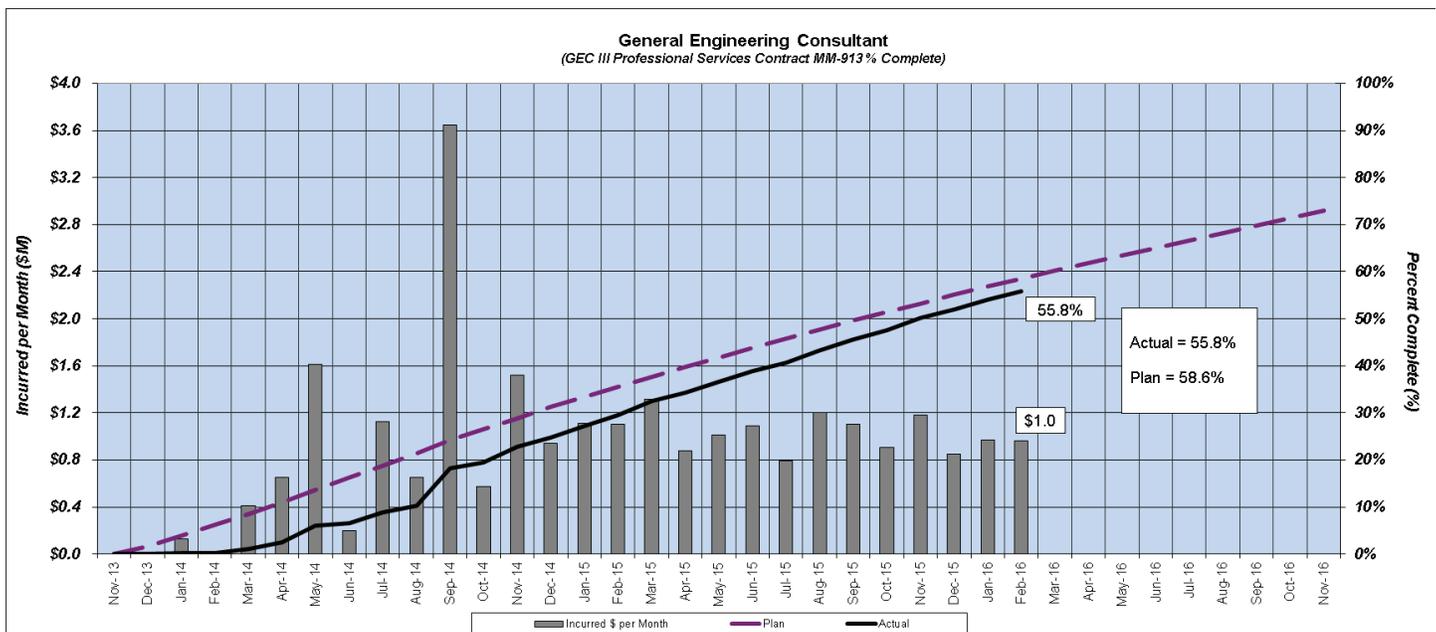
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$46,143,277</u>	<u>Incurred-to-Date:</u>	<u>\$25,915,917</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$46,411,728</u>	<u>Incurred in February:</u>	<u>\$963,187</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$1,970,775
DBE % Attained:	4.27%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$268,451</b>



**KEY ISSUES:**

- Integrating schedule estimates for interim opening and revenue service opening with financial forecast and estimate to complete of contracted work.
- Participate in task force to develop alternatives to meet clearance requirements for Hawaiian Electric facilities.
- Continue progress on Historic Context Studies and permits.
- Provide support to procurement for KHSG, Airport Guideway and Stations (AGS), and City Center Guideway and Stations (CCGS).

**C. Construction Engineering & Inspection West Side Sections**

**Contract No.:** MM-290  
**Contractor:** PGH Wong Engineering, Inc.  
**Contract Start Date:** January 2014  
**Contract Completion:** January 2020  
**Projected Substantial Completion:** December 2018

**Project Description:** The West Side Section CE&I (West CE&I) team is providing Construction Engineering and Inspection Services (CE&I) for the West Section, which includes aerial guideway, stations, maintenance & storage facility, and garage & transit center from East Kapolei in West O’ahu to Aloha Stadium, of the 20-mile Honolulu Rail Transit Project (HRT) for the Honolulu Authority for Rapid Transportation (HART).

The West CE&I team provides HART staff augmentation for construction management and administration services to monitor and observe the design-build and design-bid-build construction work such that the projects are constructed in general conformity with the plans, specifications, and special provisions for the WOFH, KHG, MSF, west section station group’s and PHGT contracts. These CE&I services also include: constructability review, resident engineering, on-site field oversight, project controls, scheduling review, change management, cost control, document controls, contract administration, construction cost estimating, environmental monitoring, surveying, material testing, interface coordination and claims analysis.

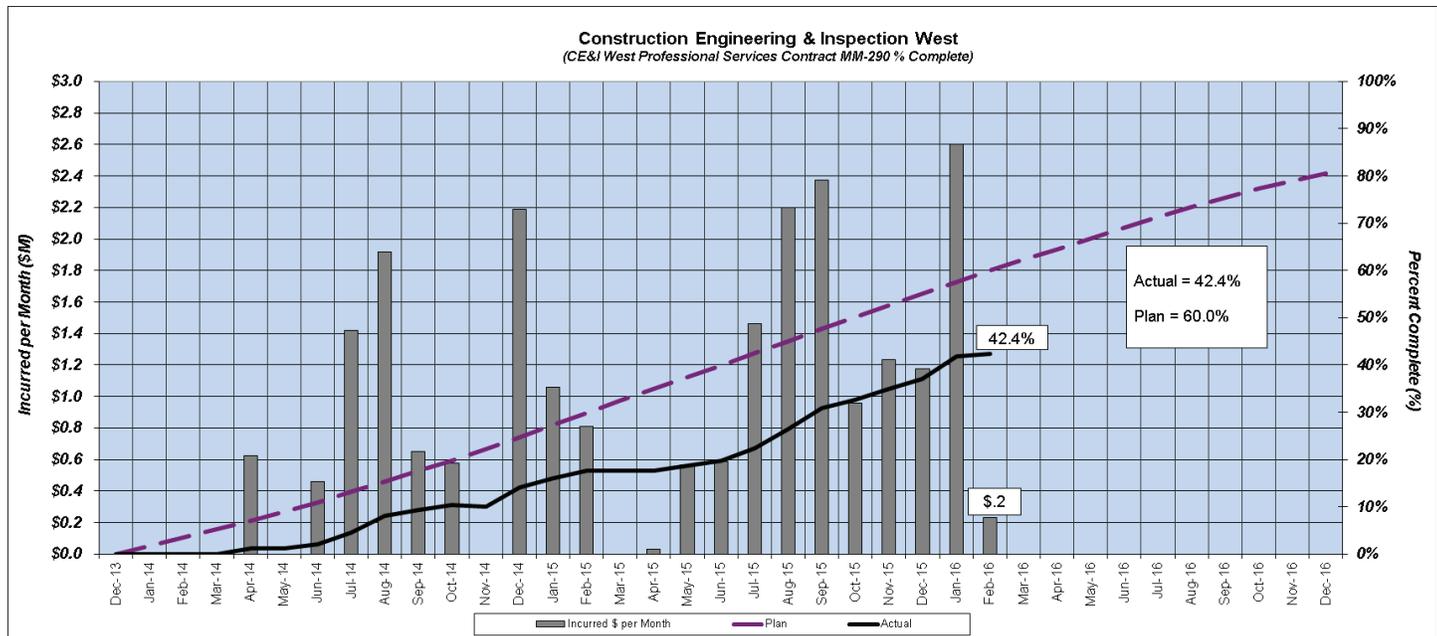
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$54,232,480</u>	<u>Incurred-to-Date:</u>	<u>\$22,969,732</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$54,232,480</u>	<u>Incurred in February:</u>	<u>\$230,245</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$2,487,401
DBE % Attained:	4.59%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



**KEY ISSUES:**

- In the process of establishing a combined field office space in the MOW building at MSF to support the staffing requirements for the west section station group’s multiple procurement contracts.
- Schedule durations for the guideway and stations contracts need to be aligned with anticipated West CE&I staffing durations.
- Continued to support staffing needs for West CE&I efforts.
- Continued to support process improvements for standardization and consistency.

**D. Construction Engineering & Inspection East Side Sections**

**Contract No.:** MM-595

**Contractor:** URS Corporation

**Contract Start Date:** January 2014

**Contract Completion:** December 2015 (MOD no. 1)

**Substantial Completion:** October 2015

**Project Description:** The URS team provided Construction Engineering and Inspection Services (CE&I) for the east section of the Honolulu Rail Transit Project (H RTP) for the Honolulu Authority for Rapid Transportation (HART).

CE&I services included: constructability review, resident engineering, construction observation, project controls, scheduling, change management, cost control, document controls, contract administration, estimating, environmental monitoring, surveying, material testing, interface coordination, geographic information system (GIS) support and claims analysis. The primary role of the URS team was to inform the HART project manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

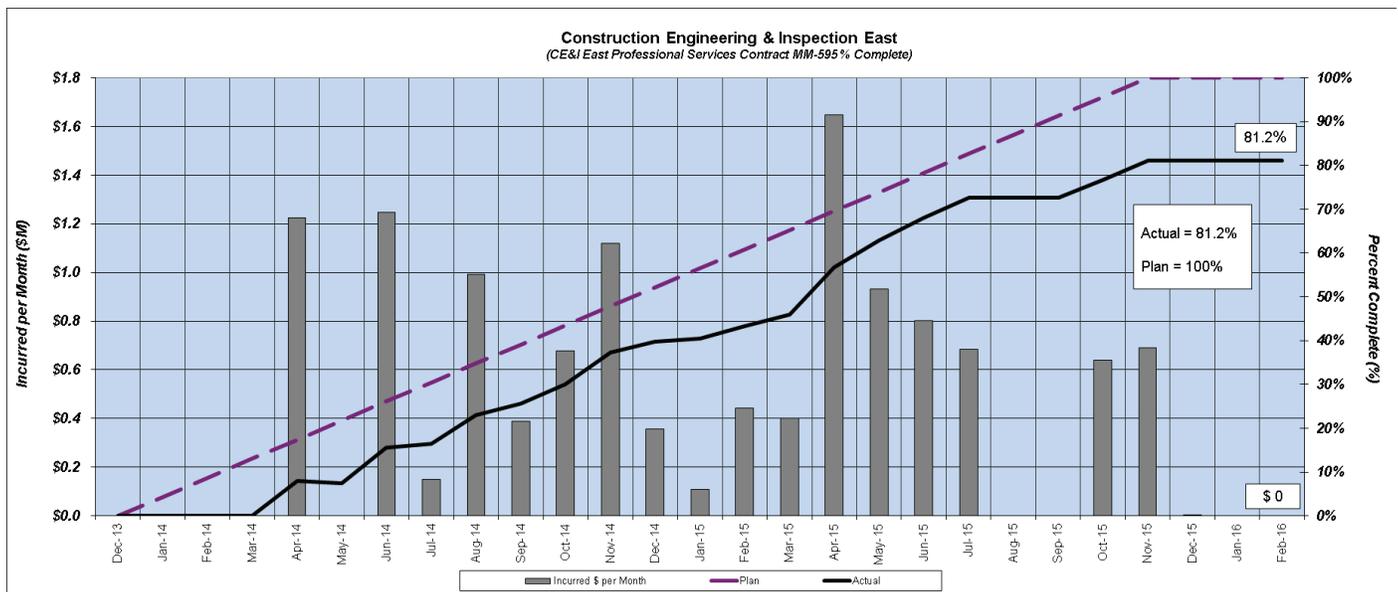
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$63,083,417</u>	<u>Incurred-to-Date:</u>	<u>\$12,382,150</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$15,257,000</u>	<u>Incurred in February:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$1,580,725
DBE % Attained:	10.36%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>-\$47,826,417</b>



**KEY ISSUES:**

- The new CE&I consultant for the East Section was issued NTP in September 2015. All URS field staff was successfully transitioned off of the project in October 2015, and the final closeout of the URS contract is ongoing. HART is awaiting final verification from URS regarding subcontractor invoices, claims and other dispositions. Once the contract is closed, this contract page will be removed from the Progress Report.

**E. Construction Engineering & Inspection (CE&I) II Contract**

**Contract No.:** MM-596

**Contractor:** Stantec Consulting Services Inc.

**Contract Start Date:** September 2015

**Contract Completion:** December 2019

**Projected Substantial Completion:** December 2019

**Project Description:** The Stantec team is responsible for the Construction, Engineering and Inspection (CE&I) services for the East Section of the Honolulu Rail Transit Project (H RTP) for the Honolulu Authority for Rapid Transportation (HART). The Stantec team is providing services from the preconstruction phase through construction closeout. CE&I II services include: constructability review, resident engineering, construction observation, project controls, scheduling, change management, cost control, document controls, contract administration, estimating, environmental monitoring, surveying, material testing, interface coordination, geographic information system (GIS) support, and claims analysis for the Airport Guideway and Stations design-build contract, City Center Guideway and Stations design-build contract, Airport Section Utilities Construction contract, Dillingham utilities, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only) and Construction On-Call II and III work. The primary role of the Stantec team is to inform the HART Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

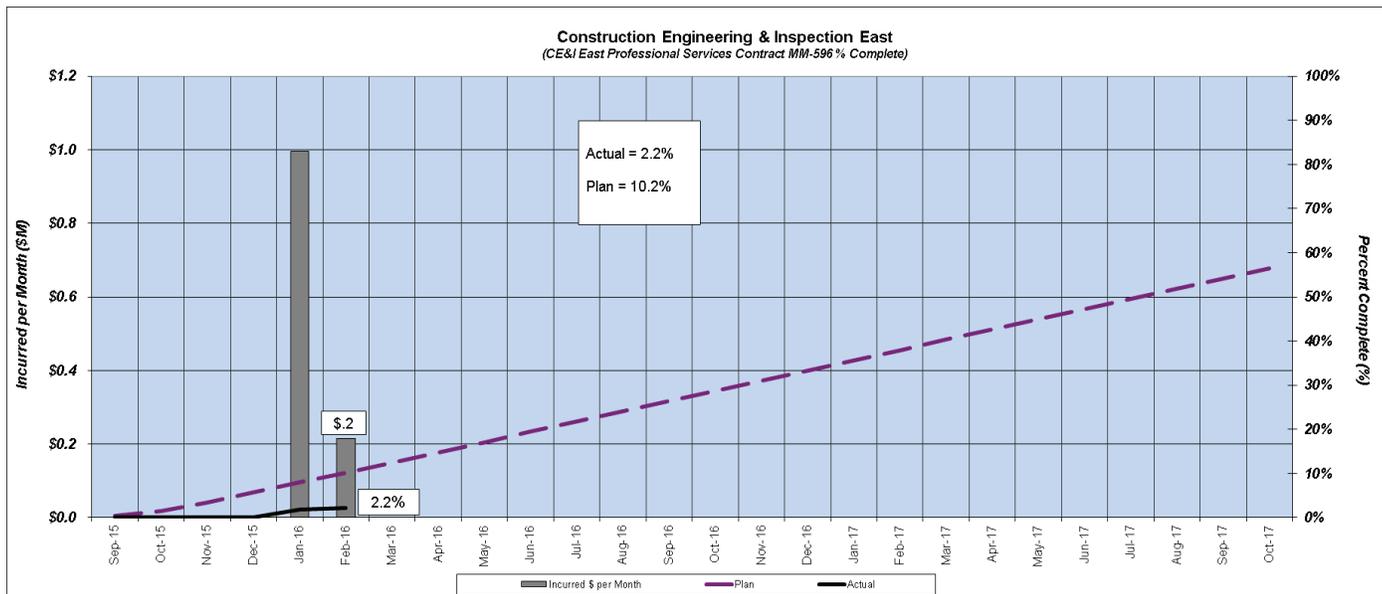
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$55,036,130</u>	<u>Incurred-to-Date:</u>	<u>\$1,210,034</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$55,036,130</u>	<u>Incurred in February:</u>	<u>\$215,225</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



**KEY ISSUES:**

- HART has requested an Independent Cost Estimate (ICE) and schedule analysis be performed on the Airport Guideway and Stations DB contract and the City Center Guideway and Stations DB contract. The Airport Guideway and Stations DB contract ICE and schedule analysis were delivered Feb. 15, 2016, and the City Center Guideway and Stations DB contract ICE and schedule analysis are scheduled to be delivered by June 30, 2016.
- HART has requested a summary schedule analysis of the HECO 138KV impact and overall utility trenching production levels in an effort to identify efficiencies and improvements that can be recognized on the East Section.

**F. Core Systems Contract Oversight Consultant**

**Contract No.:** MM-962

**Contractor:** Lea+Elliott, Inc.

**Contract Start Date:** February 2014

**Contract Completion:** August 2019

**Projected Substantial Completion:** N/A

**Project Description:** Provide professional services for design and construction management and testing/commissioning oversight of the Core Systems Design-Build-Operate-Maintain (DBOM) contract. The major systems of the Core Systems DBOM contract are the vehicles, automated train control (ATC) system, traction electrification system, communications system, and platform screen gate system (PSGS). Services include review and approval of design submittals, manufacturing oversight, installation oversight, operation/maintenance design oversight and support, system testing/acceptance, and contract close-out.

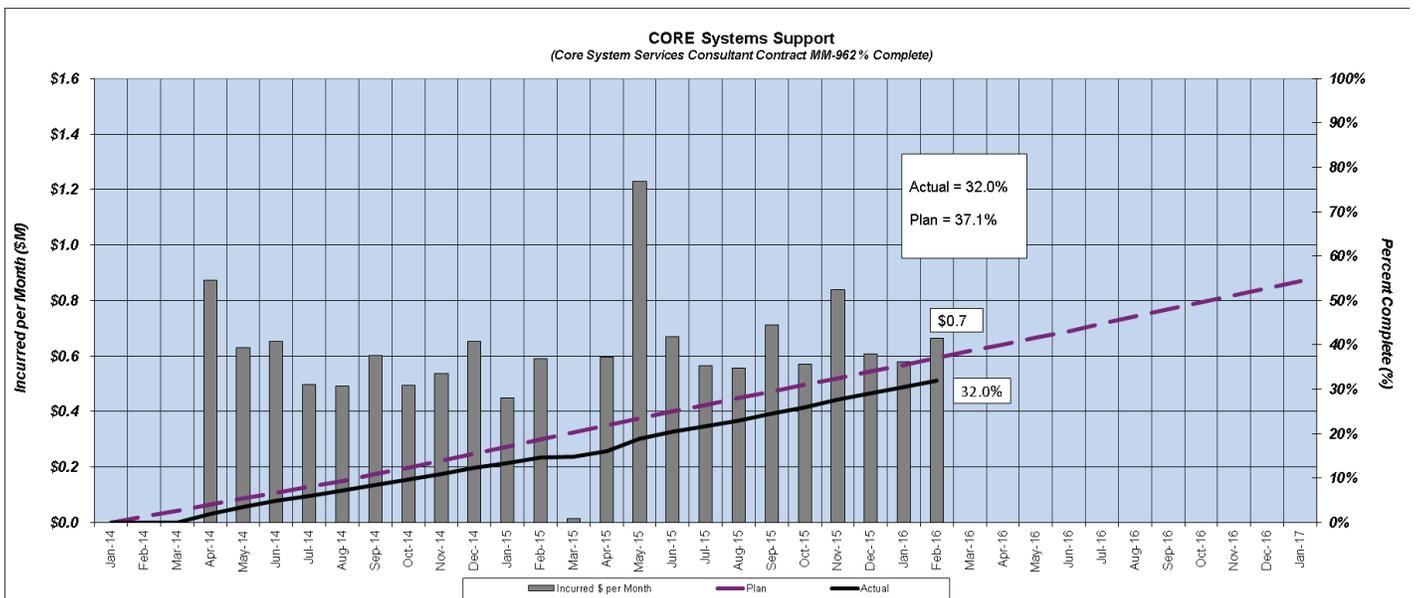
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$43,988,989</u>	<u>Incurred-to-Date:</u>	<u>\$14,071,868</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,988,989</u>	<u>Incurred in February:</u>	<u>\$662,648</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$332,060
DBE % Attained:	0.76%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$0</b>



**KEY ISSUES:**

- Coordination with other contractors on construction access milestones.
- Review and acceptance of procedures for factory acceptance tests.
- Design review completion with respect to manufacturing, fabrication and test schedule.

**G. On-Call Construction Contractor**

**Contract No.:** MM-945

**Contractor:** Royal Contracting Co. Ltd.

**Contract Start Date:** August 2014

**Contract Completion:** July 2019

**Projected Substantial Completion:** The On-Call Contract is Task Order based with each Task Order having a specific Substantial Completion date.

**Project Description:** The On-Call Contract performs tasks not generally covered in the general construction contracts. These activities include demolition of structures; repairs to existing HART facilities; relocation of trees and other minor facilities such as bus stops, street lighting, etc.; minor civil/utility work, and repair of third-party facilities such as road repair/patching as requested by HDOT in the HART right-of-way and as allowed by third-party agreements. The intent of the On-Call Contract is to provide HART a contractual tool to address those required work items not easily addressed by the general contractors working to specific scopes.

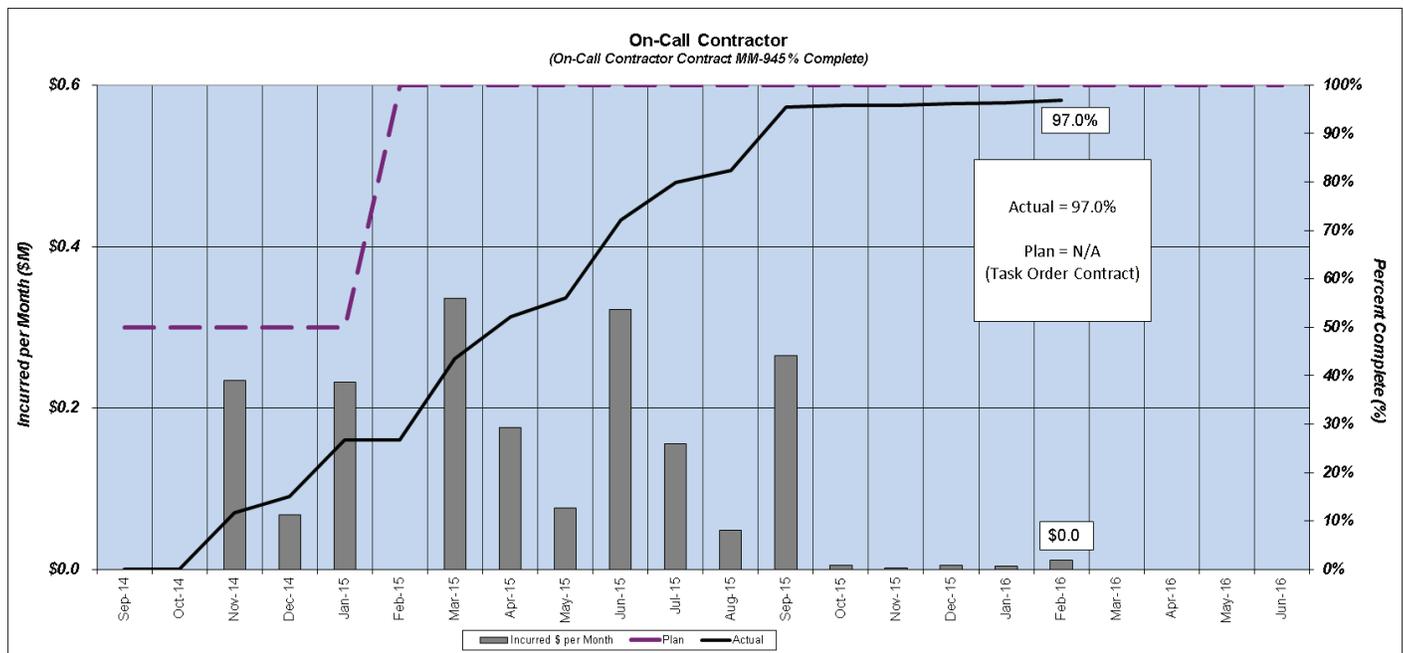
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$1,000,000</u>	<u>Incurred-to-Date:</u>	<u>\$1,939,108</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$2,000,000</u>	<u>Incurred in February:</u>	<u>\$11,800</u>

<sup>1</sup>Current Contract Value = Original contract value + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$460,024
DBE % Attained:	23%

February Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,000,000</b>



**KEY ISSUES:**

- To date, the On-Call Contractor has successfully:
  - Continued to relocate/remove trees along the Airport and City Center guideway.
  - Repaired/protected multiple facilities owned by HART.
- The On-Call Contractor is in the process of working with HART’s right-of-way group and owners in providing cost to cure solutions to properties which will need modification in achieving cleared right-of-way in the Airport and City Center sections of the guideway. Plans for some of these modifications are receiving permits, and initial work is expected to begin in June 2016.
- New buildings and structures are being identified that require demolition. All demolition work includes the abatement of any hazardous materials identified prior to demolition. Demolition is expected to resume in July 2016, once the current tenants have been relocated from the various buildings.
- Maintenance of landscaping along Kamehameha Highway continued during the month of March.
- Continued to support the Core Systems contractor for work at MSF.
- Continued to support the Airport Utility contractors work by performing asbestos abatement.

## 5 OVERALL PROJECT-WIDE ACTIVITIES

### 5.1 Permits

- **Permits Submitted and In-Progress**

- HART submitted the Stream Channel Alteration Permit extension for Waiawa Stream to the Department of Land and Natural Resources.
- HART is in the process of submitting the City Center Construction Noise Variance to construct the guideway at night.
- HART is in the process of submitting the Kamehameha Highway Construction Noise Variance to continue to construct the guideway at night.
- HART is in the process of submitting the Coast Guard Bridge Permit Advance Approval extension, which allows work in or around streams.

- **Look Ahead**

- Upcoming significant permit activity:
  - HART will begin preparing the Community Noise Permit continuance application for the West O'ahu Farrington Highway (WOFH) construction activities.
  - HART will begin preparing the Community Noise Permit continuance application for the Rail Operation Center (ROC) construction activities.

### 5.2 Hawai'i Department of Transportation (HDOT) Agreements

- **Activities this Month**

- An MOU with HDOT for highway improvements has been executed. Transfer of funds for a portion of the MOU has been included in the draft Transportation Improvement Program (TIP) Amendment #9 for FY16.
- Balanced cantilever construction will require height clearance considerations and waivers from DOT for the right shoulder lane in the eastbound direction.
- An amendment to the WOFH Master Agreement is being developed addressing maintenance responsibilities and reimbursements.

- **Look Ahead**

- Execution of the Airport and City Center Joint Use and Occupancy Agreements.
- Execution of the West O'ahu Farrington Highway Master Agreement Amendment 1.

5.3 Utility Agreements

Utility Agreements Status Matrix

Utility Owner	Status	WOFH		KHG		Airport		City Center		
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA	UCA		
AT&T (Corporation)	Executed	5/11/11	12/20/11	5/18/12	Including with Airport	KHG, AP & City Center – Temp OH Draft sent to AT&T	12/26/13	Including with Airport		
	NTP	5/12/11	12/21/11							
	Amd 01	7/1/11	HRS Ch 104							
AT&T (Government Solutions)	Executed			12/26/13	Clarified to N/A	Combined with AT&T Corp	12/26/13	Combined with AT&T Corp		
	NTP									
Chevron	Executed	12/4/09		11/4/11						
	NTP	12/22/09		11/15/11						
	Amd 01	7/1/11								
Hawaiian Telcom	Executed	5/20/10	11/17/14	5/10/12	12/31/14	5/28/15	9/27/13	Draft sent to HTI for review		
	NTP	6/14/10	11/18/14							
	Amd 01	7/1/11		4/13/15		Drafted for add'l scope and HRS Ch 104 under review				
	Amd 02	5/10/12								
	Executed							Temp OH sent to HTI for signature		
	NTP									
HECO		Design Services	Construction Services	Design Services	Construction Services	Design Services	Construction Services	Design Services	Construction Services	
	Executed	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13	HECO draft sent to HECO for review	11/25/13	HECO revision to include Temp Poles	
	NTP	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13		11/25/13		
	Amd 01									
	Memorandums of Understanding	8/7/14 – Construction Drawings								
		5/1/15 - Access								
		5/15/15 - Derrick Truck								
		6/23/15 - Master Agreement								
		6/9/15 - MSF Advanced Construction								
		9/16/15 - Right of Entry								
10/12/15 – Clearance (West)				11/10/15 - Dillingham Blvd Materials						
Power Quality Pending										
Oceanic Time Warner Cable	Executed	12/8/09	12/21/11	1/9/12	6/2/14	12/19/14	4/3/13	Draft sent to OTWC for review		
	NTP	12/22/09								
	Amd 01	7/1/11	2/27/14		HRS Ch 104	HRS Ch 104				
	Amd 02	10/7/13	HRS Ch 104							
	Executed							Temp OH sent to OTWC for signature		
Pacific Lightnet/Wavecom	Executed	4/28/10	3/12/12	2/15/12						
	NTP	4/29/10	3/13/12	2/16/12						
	Amd 01	7/1/11	HRS Ch 104							
Sandwich Isle Communications	Executed	5/20/10		4/20/12						
	NTP	6/8/10								
	Amd 01	7/1/11								
Hawai'i GAS	Executed	12/18/09	6/30/11	6/1/12	4/14/14	8/19/14	9/27/13	5/8/15		
	NTP	12/22/09	7/12/11			8/20/14		5/11/15		
	Amd 01	7/1/11	10/17/14		8/28/14	HRS Ch 104		HRS Ch 104		

Utility Agreements Status Matrix

Utility Owner	Status	WOFH		KHG		Airport		City Center	
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA	UCA	
	Amd 02		Draft for add'l 4" line relocation in median and HRS Ch 104 sent to HG for review		10/23/15				
	Amd 03				HRS Ch 104				
Level 3/TW telecom	Executed	12/2/09		2/14/12	Oceanic to relocate for TW telecom		10/11/12	Draft sent to TW telecom - includes Temp OH	
	NTP	12/22/09		2/16/12					
	Amd 01	7/1/11							
	Amd 02								
Tesoro	Executed			2/15/12	9/12/13		8/27/13		
	NTP			2/16/12			9/3/13		
	Amd 01				9/12/14				
	Amd 02				5/13/15				
	Amd 03				HRS Ch 104				

**Legend:**  = Action this month      COR = Corporation Counsel      UCA = Utility Construction Agreement  
 = Not applicable      ESA = Engineering Services Agreement      UFR CRA = Combined Engineering and Construction Utility Agreement

WOFH

- All WOFH agreements have been executed.

KHG

- All KHG agreements have been executed.

AIRPORT

- All engineering utility agreements for the Airport section have been executed.
- HART is reviewing AT&T comments to the draft Construction Agreement. It is not necessary for this agreement to be in place for the Airport Segment utility construction.

CITY CENTER

- All engineering utility agreements for the City Center section have been executed.
- HART reviewed AT&T comments and the revised draft Construction Agreement was sent back to AT&T for review.
- HART has submitted the Utility Construction Agreement for City Center to OTWC for review/comments.
- HART has submitted a draft of the Utility Construction Agreement to TW telecom for review/comments.
- Looking Ahead:
  - Execute Oceanic City Center UCA.
  - Execute Hawaiian Telcom City Center UCA.
  - Execute AT&T City Center UCA.

HECO

- **Davis-Bacon requirements** – HECO has an established collective bargaining agreement – which does not align with Davis-Bacon requirements – for which HART on behalf of HECO has submitted a conformance request to the U.S. Department of Labor; awaiting DOL decision.
- **HECO 46kV Substation near MSF area** – HECO indicates a need in the 2018-2019 timeframe for a new 46kV substation to feed the MSF area due to requirements in HECO Rule 13. Initial planning indicates that a currently un-used location near the MSF area may be suitable for this facility. HECO is investigating a ‘system’ substation, which would also feed other customers in the area surrounding the MSF.
- **Additional Clearances** – HECO requires the need for additional horizontal working clearances from overhead line conductors to the guideway for their 138kV and 46kV overhead lines along portions of all guideway segments.
  - **Horizontal Working Clearances Analysis** – For Airport and City Center, HART and HECO have agreed to relocate the overhead 138kV lines to underground, and together are progressing to a preliminary engineering design. For WOFH and KHG, HECO has completed a pole-by pole review of the current overhead 138kV and 46kV pole and line locations and have identified areas where alternative access may be used for future pole and line maintenance. HART’s Task Force continues to meet bi-weekly with HECO staff to identify and analyze all potential solutions to the working clearance issue including relocating to new overhead alignments, underground alignments, or attach to the guideway, and alternative equipment.

- **Alternative Equipment** –HECO has stated that the telescoping Bronto manlift will not completely resolve the horizontal working clearance issue. HECO and HART are now researching with other equipment manufacturers to see if there is equipment (bucket trucks and cranes) that can work with less than the desired working clearance requirements.
- **New Service Connections** – HECO service requests are required for new electrical services for the MSF, Passenger Stations and Systems Sites (traction power facilities). The Passenger Station designers are providing the service request for the stations, and the Core Systems Contractor is providing the service request for the systems sites.
  - **MSF** – Service request approved via receipt of HECO Final Cost Letter and HECO design drawings. Installation of the MSF service is complete; buildings are energized.
  - **Passenger Stations and Systems Sites** – HECO service request reviews are in progress and approvals are anticipated for the west side stations and systems sites. HECO is working to finalize its designs and cost estimates.

**5.4 Right-of-Way (data as of March 14, 2016)**

**BUDGET**

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	\$ 201.70	\$ 86.80	\$ 114.90	\$ 101.80	\$ 13.10
Relocation	\$ 20.50	\$ 10.60	\$ 9.90	\$ 15.90	\$ (6.00)
<b>Total (Million)</b>	<b>\$ 222.20</b>	<b>\$ 97.40</b>	<b>\$ 124.80</b>	<b>\$ 117.70</b>	<b>\$ 7.10</b>

Note

\* Administrative overhead costs aggregated with the Acquisition and Relocation numbers

\* Estimate to complete based on offers, appraisals or assessed values

**ACQUISITIONS**

Figure 13. Right-of-Way Status for the Parcels [data provided by Real Estate Acquisition database (READ)]

	(a) Current No. of Parcels Needed	Appraisals In Process	(b) Appraisals Completed	(c) Letters of Offer Sent	(c) Offers Accepted	Possession Granted For Condemnation	Agreements Completed	Site Control Obtained	Relocations Completed	Properties Available for Contractor	(d) Acquisitions Completed
<b>Full Acquisition</b>											
W.Oahu\Farrington	16		14	14	13	1	2	16	13	16	15
Kamehameha	3		3	3	3			3	1	3	3
Airport	6		5	6	5	1		6	3	4	5
City Center	19		17	17	16			16	14	16	16
<b>TOTAL</b>	<b>44</b>		<b>39</b>	<b>40</b>	<b>37</b>	<b>2</b>	<b>2</b>	<b>41</b>	<b>31</b>	<b>39</b>	<b>39</b>
<b>Partial Acquisition</b>											
W.Oahu\Farrington	3		2	2	2			3		3	2
Kamehameha	4		3	3	2	1		3		3	1
Airport	10		4	4	2		2	6		4	2
City Center	77		65	66	35	2		13		4	8
<b>TOTAL</b>	<b>94</b>		<b>74</b>	<b>75</b>	<b>41</b>	<b>3</b>	<b>2</b>	<b>25</b>		<b>14</b>	<b>13</b>
<b>Easement</b>											
W.Oahu\Farrington	16		1	1	1		6	16		16	7
Kamehameha	6						1	6		6	1
Airport	34		8	7	1		4	28		27	4
City Center	29		22	21	3		1	1		1	1
<b>TOTAL</b>	<b>85</b>		<b>31</b>	<b>29</b>	<b>5</b>		<b>12</b>	<b>51</b>		<b>50</b>	<b>13</b>
<b>GRAND TOTAL</b>	<b>223</b>		<b>144</b>	<b>144</b>	<b>83</b>	<b>5</b>	<b>16</b>	<b>117</b>	<b>31</b>	<b>103</b>	<b>65</b>

During design development, the real estate requirements have been adjusted to accommodate the design refinements. Parcel requirements are adjusted as design is finalized.

Footnotes: (a) 'Current No. of Parcels Needed' includes 146 privately-owned parcels and 77 government-owned parcels.

(b) 'Appraisals Completed' primarily includes appraisals for privately-owned parcels.

(c) Offers primarily include privately-owned parcels.

(d) 'Acquisitions Completed' includes 49 privately-owned parcels, and 16 'Agreements Completed' for the transfer or joint use of government-owned parcels.

**KAMEHAMEHA**

- Priorities:
  - Supporting negotiations with Aloha Stadium Authority to obtain right of entry for the construction of the station park-and-ride. HART has obtained the right of entry to construct the guideway.
  - Working towards executing a document with the City to acquire TMK 9-8-009-005.
- Look Ahead:
  - In order to support the relocation of utility easements in the Kamehameha section, a settlement was reached for TMK 9-8-008-029. A right of entry is being approved and escrow is expected to open soon.

**AIRPORT**

- Priorities:
  - On-going negotiations with TMKs 1-1-002-001, 1-1-004-035 and 1-1-004-039.
  - Working with the Federal government to complete documentation for easements.
  - Closely monitoring the mapping process for Airport Station and for utility easements.
  - Design change pending for TMKs 1-5-015-010, 1-2-013-020 and 1-2-013-021.
  - In order to support the upcoming procurement for the Airport Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement.
- Look Ahead:
  - Working towards completing Airport agreements and acquisition of TMK 1-1-002-001.
  - A settlement was reached for an eminent domain case, TMK 1-1-016-012, and escrow is expected to open soon.
  - Evaluate and address the need to advance additional recommendations for eminent domain to achieve the project’s schedule.

**CITY CENTER**

- Priorities:
  - Continuing to place priority on obtaining site control and acquiring parcels in the Dillingham section.
  - Supporting negotiations with UH Honolulu Community College to secure construction right of entry.
  - Working to resolve issues with TMKs 2-3-039-017, 1-5-007-016, 2-3-003-000, 1-2-009-011, 1-2-009-098, 1-5-027-028, 1-1-016-020 and 1-2-019-069.
  - Negotiating with the owner of fifteen parcels which have complex issues, as well as TMK 2-1-031-030.
  - In order to support the upcoming procurement for the City Center Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are continuing with all private property owners in the City Center section in an attempt to reach mutual agreement.
- Look Ahead:
  - Evaluate and address the need to advance additional recommendations for eminent domain to achieve the project’s schedule.
  - Closely monitor the acquisitions in relation to construction schedules for City Center.
  - Offers will be rescinded since parcels are no longer needed due to design changes for TMKs 2-3-039-011, 2-3-039-004, 2-3-039-005 and 2-3-039-006.

**RELOCATIONS**

Figure 14. Relocation Status for the Occupants (data provided by READ)

Section	Residential Relocations (a)	Business Relocations (b)	Not-For-Profit Relocations (c)	Total Relocations (a+b+c)	Relocation Assessment Completed	90-Day Notice Sent	30-Day Notice Sent	Relocations Completed for Occupants
W.Oahu\Farrington	18	6	1	25	12	12	8	25
Kamehameha		4		4	4	3	3	4
Airport		13		13	5	10		7
City Center	18	66		84	31	55	23	53
<b>Grand Total:</b>	<b>36</b>	<b>89</b>	<b>1</b>	<b>126</b>	<b>52</b>	<b>80</b>	<b>34</b>	<b>89</b>

WEST O’AHU/FARRINGTON

- Look Ahead:
  - The Phase II Environmental Site Assessment report has been received for TMK 9-6-004-006. A tentative settlement has been reached and is subject to FTA concurrence.

AIRPORT

- Priority:
  - Ongoing relocation for TMKs 1-1-016-006 and 1-1-016-016.

CITY CENTER

- Priorities:
  - Continuing negotiations with TMK 2-3-002-059.
  - Seeking judicial means to vacate TMK 2-3-007-045.

**THIRD-PARTY AGREEMENTS**

Figure 15. Third-Party Agreement Status – Third Party Agreements include agreements between HART and other government entities, with the exception of D.R. Horton. Completed agreements are in grey, agreements to be executed are in white.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
<b>City Agreements</b>				
City Joint Use Memorandum of Understanding	Pending	August 2016	WOFH, KHG, Airport, City Center	Being reviewed by Corporation Counsel.
DFM – Dept. of Facility & Maintenance (Kamehameha Hwy/Makalapa Manor)	Executed		Airport	Jurisdictional transfer from DFM to HART in place.
DPR - Dept. of Parks & Recreation (MSF drainage)	Executed		WOFH	Consent to construct in place.
<b>State Agreements</b>				
UH - University of Hawai'i Master Agreement	Pending	September 2016	WOFH, KHG, City Center	Final negotiations are ongoing. Will secure Right of Construction as not to delay the project.
UH - West O’ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - West O’ahu (UHWO) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - Leeward Community College (LCC) Construction Right of Entry for Guideway	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Pre-Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Urban Gardens Construction Right of Entry	Executed		KHG	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Kiewit Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed		City Center	Consent to construct in place.
UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station	Pending	September 2016	City Center	In negotiations. Concerted effort is being made to finalize.
DLNR – Dept. of Land and Natural Resources Kapolei Right of Entry	Executed		WOFH	Consent to construct in place to be followed by execution of the easement agreement.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
DLNR – Kapolei Easement Agreement	Pending	January 2017	WOFH	Easement agreement in process.
DLNR – Keehi Lagoon Right of Entry	Executed		Airport	Consent to construct in place to be followed by execution of the easement agreement.
DLNR – Keehi Lagoon Easement Agreement	Pending	January 2017	Airport	Easement Agreement in process.
DOE – Dept. of Education Master Agreement and Consent to Construct (Waipahu H.S.)	Executed		WOFH	Consent to construct in place. Jurisdictional Transfer in process.
Aloha Stadium / Department of Accounting & General Services (DAGS) MOU for guideway & station	Executed		KHG	MOU in place.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for guideway (for Kiewit)	Executed		KHG	Limited ROE granted for staging for Kiewit for KHG contract.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for guideway	Executed		KHG	Consent to construct in place to be followed by execution of the easement agreement.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement Agreement for guideway	Pending	January 2017	KHG	Easement Agreement in process.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for station park and ride	Pending	June 2016	KHG	In negotiations.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement Agreement for station park and ride	Pending	January 2017	KHG	Process Easement Agreement.
HDOT(H) – Dept. of Transportation Highways Master Agreement	Executed		WOFH	Master Agreement in place.
HDOT(H) – Dept. of Transportation Highways Master Agreement - Amendment	Pending	May 2016	WOFH	In process.
HDOT(H) - Master Agreement for KHG, Airport and City Center	Executed		KHG, Airport, City Center	Master Agreement in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Executed		WOFH	Consent to construct in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Executed		KHG	Consent to construct in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Pending	April 2016	Airport	In process.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Pending	September 2016	City Center	In process.
HDOT(A) – Dept. of Transportation Airports Joint Use & Occupancy (JU&O) Sub-agreement for Airport Division parcels	Executed		Airport	Consent to construct in place.
HDOT(A) – Dept. of Transportation Airports Joint Use & Occupancy (JU&O) Sub-agreement for Airport leased/revenue parcels	Pending	August 2016	Airport	Sub-agreement in process for leased/revenue parcels.
HDOT(A) - Joint Use & Occupancy (JU&O) Sub-agreement	Pending	August 2016	City Center	Sub-agreement in process for leased/revenue parcels.
HDOT(A) - Easement Agreement for Airport Division parcel	Pending	January 2017	Airport	Process Easement Agreement.
HDOT(Har) – Dept. of Transportation Harbors Easement Agreement	Pending	January 2017	City Center	In process.
HDOT(Har) – Dept. of Transportation Harbors Right of Entry	Pending	August 2016	City Center	In process.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
DHHL - Dept. of Hawaiian Home Lands Master Agreement	Executed		WOFH, MSF	Master Agreement in place.
DHHL – Dept. of Hawaiian Home Lands License	Executed		WOFH, MSF	Consent to construct in place.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Dillingham Blvd., Easement Agreement	Pending	January 2017	City Center	Process Easement Agreement.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Dillingham Blvd., Right of Entry	Pending	August 2016	City Center	Finalizing requirements.
HCDA -HI Community Development Easement Agreement	Pending	January 2017	City Center	Process Easement Agreement.
HCDA -HI Community Development Right of Entry	Pending	August 2016	City Center	Coordination is ongoing.
DAGS – Dept. of Accounting & General Services / HHFDC Easement Agreement	Pending	January 2017	City Center	Process Easement Agreement.
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	August 2016	City Center	In process.
<b>Federal Agreements</b>				
U.S. Navy Licenses	Executed		WOFH, KHG, Airport	Consent to construct in place. Formal notification is forthcoming, however, immediate access is granted.
U.S. Navy Easements	Pending	August 2016	WOFH, KHG, Airport	Land court documents processed and awaiting recordation and filing.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Executed		Airport	Quitclaim deed received.
U.S. Post Office Honolulu Processing Center acquisition	Pending	August 2016	Airport	In negotiations.
U.S. Gov't/GSA/Federal Courthouse Agreement & Landscape Plan	Pending	September 2016	City Center	Draft agreement is under review and discussions are ongoing.
<b>Other Agreements</b>				
D.R. Horton Agreement for Construction	Executed		WOFH	Consent to construct in place to be followed by execution of the easement agreement.
D.R. Horton Final Easement Agreement	Pending	January 2018	WOFH	Easement Agreement in process and subject to owner’s development plans.

## 6 MANAGEMENT AND ADMINISTRATIVE UPDATES

### 6.1 Safety and Security

#### 6.1.1 S&S Certification Documents

<i>Key HART S&amp;S Certification Documents Update &amp; Approval Status</i>			
<b>S&amp;S Project Plans, PHAs, Core Systems SSHA and O&amp;SHA, and TVA</b>			
Documents	REV #	Date Approved	Comments
<b>Documents Approved</b>			
1. Safety & Security Management Plan (SSMP)	Rev 5	10/16/2015	SSRC approved and signed
2. Safety & Security Certification Plan (SSCP)	Rev 4.B	12/14/2015	SSRC approved and signed
3. WOFH SSCP	Rev 0	10/22/2014	SSRC approved - No future updates: HART SSCP is in affect
4. Construction S&S Plan (CSSP)	Rev 2	10/16/2015	SSRC approved and signed
5. Security Sensitive Information (SSI) Plan	Rev 0	12/15/2015	SSRC approved and signed
6. Project Preliminary Hazard Analysis (PHAs)	Rev 2.A	9/3/2015	Rev 2A - DRAFT annual update completed 9/3/2015
a. MSF – Yard and Shop	Rev 2.A	2/24/2016	SSRC approved
b. Alignment	Rev 2.A	3/23/2016	SSRC approved
c. Tracks	Rev 2.A	2/24/2016	SSRC approved
d. Stations	Rev 2.A	3/23/2016	SSRC approved
7. Central ATC O&SHA	Rev C	9/23/2015	SSRC approved
8. Wayside ATC O&SHA	Rev D	9/23/2015	SSRC approved
9. Vehicle/ATC SSHA	Rev E	2/24/2016	SSRC approved
10. Vehicle/ATC O&SHA	Rev F	2/24/2016	SSRC approved
11. UPS O&SHA	Rev C	2/24/2016	SSRC approved
12. FDAS SSHA	Rev C	3/23/2016	SSRC approved
13. FDAS O&SHA	Rev B	2/24/2016	SSRC approved
14. Threat & Vulnerability Assessments (TVAs)	Rev 1	1/16/2015	Update on hold - pending East Alignments re-design
<b>Documents not Approved</b>			
15. Project Preliminary Hazard Analysis (PHAs)	Rev 2.A	-	Rev 2A - DRAFT annual update completed 9/3/2015
e. Traction Power	Rev 2.A	-	Update on-hold - pending approval of TES SSHA and O&SHA
f. Train Control	Rev 2.A	-	Update on-hold - pending approval of ATC SSHA & O&SHA
g. Vehicles	Rev 2.A	-	Update on-hold - pending approval of PV SSHA & O&SHA
h. Communications	Rev 2.A	-	Update on-hold - pending approval of Comms SSHA and O&SHA
16. TES Back-Up Emergency Generator SSHA	Rev A	-	HART Safety developed and under review
17. Core Systems Contract (CSC) PHAs (DBOM)	Rev F	-	2/26/2016 - HART Accepted as Noted Re-submit (ANR)
18. Technologies PHAs	Rev C	-	10/29/2015 - CSC Revise & Re-submit (R&R)
19. Wayside ATC SSHA	Rev B	-	11/14/2014 - CSC R&R
20. Wayside/ATC SHA	Rev C	-	1/6/2015 - CSC R&R
21. SCADA O&SHA	Rev E	-	HART Accepted 2/9/2016 – Ready for SSCWG review
22. SCADA SSHA	Rev C	-	3/10/2015 - CSC R&R
23. Vehicle Fire Hazard Analysis (FHA)	Rev B	-	8/28/2015 - CSC R&R
24. Vehicle SSHA	Rev A	-	8/31/2015 - CSC R&R
25. Vehicle O&SHA	Rev A	-	10/26/2015 - CSC R&R
26. TES SSHA	Rev B	-	11/03/2015 - CSC R&R
27. TES O&SHA	Rev B	-	11/03/2015 - CSC R&R
28. PSGS SSHA	Rev B	-	10/05/2015 - CSC R&R
29. PSGS O&SHA	Rev B	-	2/2/2016 - Under HART Review
30. Communications SSHA	Rev B	-	01/7/2016 - CSC R&R
31. Communications O&SHA	Rec C	-	1/27/2016 - CSC R&R
32. MOW Support Vehicles O&SHA	Rev A	-	Under development

6.1.2 S&S Design Criteria Conformance Checklist (DCCC) – Civil Contracts

S & S Design Criteria Conformance Checklist (DCCC)						
Civil Contracts						
Verification Status						
Design Phase				Construction / Installation /Testing		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
<b>Civil Contracts Under Construction</b>						
FD-430, Airport Section 7-Piers	100%	N/A	6/17/2015	100%	N/A	8/26/2015
Yard Control Bungalow (YCB) CSC - Civil	60%	+12%	Verification underway	-	-	
DB-200, MSF	97%	+1	1/28/2015	31%	+10%	Verification underway
FD-430, Airport Utilities	100%	N/A	6/25/2014	51%	-	Verification underway
DB-120, WOFH Guideway - 38 total - Sub CEL/CIL Packages	99%	-	36 Sub - CELs/CILs SSRC approved	44%	+6%	Verification underway
DB-320, KHG Guideway - 40 total - Sub CEL/CIL Packages	98%	-	36 - Sub CELs/CILs, SSRC approved	9%	+2%	Verification underway
FD-140, West Oahu Station Group	99%	-	3 stations 12/09/2015	-	-	
FD-240, Farrington Hwy Station Group	100%	-	3- station- 12/09/2015	-	-	
FD-340, H2R2 Ramps	100%	N/A	5/27/2015	-	-	
<b>Construction Contracts Awarded - Not Yet Started</b>						
MI-930, Elevators & Escalators (Stations)	-	-	Base DCCC 8/26/15	-	-	
<b>Civil Contracts Under Design / in Pre-bidding or Pre-award Phases</b>						
FD-340, Kamehameha Highway Station Grp	100%	N/A	3 Stations – 8/26/2015	-	-	
AP00 Art-in-Transit, 23 artists/contracts	-	-	Base DCCC under review	-	-	
DB-275, Pearl Highlands PS/BTC	-	-	Base DCCC under review	-	-	
FD-600, West O’ahu Park & Ride	-	-	Base DCCC under review	-	-	
DB-450, AG & Stations Group (AGS)	-	-	Base DCCC being updated	-	-	
DB-550, CCG & Stations Group (CCGS)	-	-	Base DCCC being updated	-	-	
MI-900 Fare Collection System	N/A	N/A	CDRLS are being utilized	N/A	N/A	N/A

6.1.3 S&S Design Criteria Conformance Checklist (DCCC) – Core Systems Contracts

S & S Design Criteria Conformance Checklist (DCCC)						
Core Systems Contracts						
Verification Status						
Design Phase				Construction / Installation /Testing		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
<b>DBOM-920 Core Systems Contracts Under Procurement - Production - Manufacture - Installation</b>						
Passenger Vehicles (PV)	-	-	Designer input underway	-	-	
Traction Electrification System (TES)	93%	+3%	Verification underway	-	-	
MOW Vehicles – 8 support vehicles	-	-	Designer input underway	-	-	
<b>DBOM-920 Core Systems Contracts Under Design</b>						
Communication System	-	-	Designer input underway	-	-	
Fire Detection Alarm System (FDAS)	-	-	Designer input underway	-	-	
Train Control System (TCS)	-	-	Designer input underway	-	-	
Supervisory Control & Data Acquisition (SCADA)	-	-	Designer input underway	-	-	
Platform Screen Gate System (PSGS)	-	-	Designer input underway	-	-	
TES-Back-up Emergency Generator (BUEG)	N/A	N/A	No CDC Requirements	N/A	N/A	N/A

6.1.4 S&S Certification “Open Items List” Status

<i>HART S&amp;S Certification “Open Items List”</i>						
<i>Last 4 Months Status</i>						
<b>“Open Items” - Design/Construction and Verification Issues</b>						
Month – 2015, 2016	Total #	Total # Open	Total # Closed	% Closed Overall	# closed In Month	% Closed In Month
<b>December</b>	<b>205</b>	<b>48</b>	<b>157</b>	<b>77%</b>	<b>07</b>	<b>3%</b>
<b>January</b>	<b>211</b>	<b>41</b>	<b>170</b>	<b>81%</b>	<b>12</b>	<b>19%</b>
<b>February</b>	<b>215</b>	<b>30</b>	<b>185</b>	<b>86%</b>	<b>15</b>	<b>7%</b>
<b>March</b>	<b>215</b>	<b>24</b>	<b>191</b>	<b>89%</b>	<b>4</b>	<b>2%</b>

Note: Total #s are carried over from month to month

6.1.5 S&S Construction Specification Conformance Checklists (CSCC) - Civil Contracts

<i>S &amp; S Construction Specification Conformance Checklists (CSCC)</i>			
<i>Civil - Contracts</i>			
<i>Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Civil Contracts Under Construction</b>			
DBB-525, Airport Section, 7 - Drilled Shafts	100%	N/A	8/26/2015 SSRC approved –Certification Completed
Yard Control Bungalow (YCB) CSC Civil - Contract	43%	+26%	Base CSCC SSRC approved 3/23/2016, verification underway
DB-200, MSF and Rail Yard	44%	+3%	Verification underway
DBB-505, Airport Utilities - Construction	57%	-	Verification underway
DB-120, WOFH Guideway	53%	-	Verification underway
DB-320, KHG Guideway	17%	+1%	Verification underway
DBB-171, West O’ahu Station Group (WOSG)	-	-	Base CSCC SSRC approved 3/23/2016
DBB-271, Farrington Hwy Station Group (FHSG)	-	-	Base CSCC - SSRC approved, 7/22/2015
DBB-385, H2R2 Ramps	-	-	Base CSCC - SSRC approved, 5-27-2015
<b>Construction Contracts Awarded – Not Yet Started – No Verification Effort</b>			
MI-930, Elevators & Escalators, WOSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, FHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, KHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
<b>Civil Contracts Under Design or in Pre-bidding or Pre-award Phases</b>			
DBB-371, Kamehameha Hwy Stations Grp (KHSG)	-	-	Base CSCC SSRC approved 3/23/2016
MI-930, Elevators & Escalators, AP/CC Stations	-	-	Base CSCC - SSRC approved 8/26/2015
AP00 Art-in-Transit, 23 Artists/contracts	-	-	Draft Base CSCC under PM review
DBB-511, Dillingham Utilities & Road Widening	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-275, Pearl Highlands PS/ Bus Transit Center	-	-	TBD – waiting for 100% conformed specifications
MI-900 Fare Collection System	-	-	Draft Base CSCC under PM review
DBB-600, West O’ahu Park & Ride	-	-	TBD – waiting for 100% conformed specifications
DB-450, AG & Stations Group (AGS)	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-550, CCG & Stations Group (CCGS)	-	-	Draft Base CSCC needs updating - on hold – pending re-design

6.1.6 S&S Specification / Testing Conformance Checklists (STCC) - Core Systems

<i>S &amp; S Specification / Testing Conformance Checklists (STCC)</i>			
<i>Core Systems – Contracts</i>			
<i>Verification Status</i>			
<b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b><i>DBOM-920 Core System Contracts under Procurement - Production - Manufacture - Installation - STCC</i></b>			
<b>MOW Vehicles (8-support vehicles)</b>	27%	-	Base STCC SSRC approved 2/24/216, verification underway
<b>Passenger Vehicles/Cars</b>			
1) General Requirements - Applies to all PVs	2%	-	Verification in process
2) PV-001- Interim Cert - for Dynamic Testing	-	-	Verification on hold pending truck design resolution
3) PV-002- Interim Cert - for Dynamic Testing	-	-	
4) Train/4-cars Cert for Pre-revenue Service	-	-	Base STCC under development
<b>Traction Electrification System (TES)</b>			
1) General Requirements - Project Wide	26%	-	Base STCC pending April SSRC approval, verification underway
2) MSF - Rail Yard	25%	-	Base STCC pending April SSRC approval, verification underway
3) Functional Track - WOFH Guideway	-	-	Base STCC pending April SSRC approval
4) WOFH and KHG Guideways	-	-	Base STCC pending April SSRC approval
5) Airport and City Center Guideways	-	-	Base STCC pending April SSRC approval
<b><i>DBOM-920 Core Systems Contracts Under Design- STCC</i></b>			
<b>System Integration Testing (SIT)</b>	-	-	Draft base SIT STCCs on hold – SIT Plan being revised
<b>Uninterrupted Power Supply (UPS)</b>	11%	+11%	Base STCC pending April SSRC approval, verification underway
<b>Traction Power Generators Back-up System</b>	-	-	SSRC approved 3/23/2016
<b>Communication Systems</b>			
1) Project Wide Communication Requirement	-	-	Base STCC pending April SSRC approval
2) MSF and Rail Yard Communications	-	-	Base STCC pending April SSRC approval
3) Segment 1 Communications (KHG / WOFH)	-	-	Base STCC pending April SSRC approval
4) Segment 2 Communications (Airport)	-	-	Base STCC pending April SSRC approval
5) Segment 3 Communications (City Center)	-	-	Base STCC pending April SSRC approval
<b>Fire Detection Alarm System (FDAS)</b>	15%	+15%	Base STCC pending April SSRC approval, verification underway
<b>Train Control System (TCS)</b>	-	-	Base STCCs under development
<b>Supervisory Control &amp; Data Acquisition (SCADA)</b>	-	-	Base STCCs under development
<b>Platform Screen Gate System (PSGS)</b>	9%	+9%	Base STCC pending April SSRC approval, verification underway
<b><i>Operational Requirements</i></b>			
<b>Ops Readiness Conform Checklists (ORCC)</b>	6%	-	Base ORCC - SSRC approved 12/09/2015, verification underway
<b>Pre-revenue Testing Conform Checklist (PRTCC)</b>			Under development

6.1.7 Interim Certification Verification Status

<i>Interim Certification - Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b><i>Interim Certification Requirements</i></b>			
1. PV-001 Delivery - OSB, M-5 Track, ORCC, MOW-V	69%	+35%	Interim Checklists SSRC approved 2/24/2016
2. MOW Building Early Occupancy	26%	+4%	Interim checklist SSRC approved 3/23/2016 – Needs CO/TCO
3. Five (5) - MOW Vehicles Delivery	70%	-	SSRC approved checklist – 1/27/2016
4. Test Track - Rail Yard, TES/IT/ORCC/PV-002/ WOFH	-	-	IC checklists under Review – April 2016 SSRC approval
5. PV-002 Delivery	-	-	PV-002 IC checklist SSRC approved 1/27/2016
6. Functional Track - WOFH, PV-002, TES, ORCC, & IT	-	-	Interim Cert checklists under development

6.1.8 Twelve (12) Month Certification Projected Milestones

12 Month Certification Projected Milestones		
Milestones	Projected Contract and Interim Certifications	Comments
April/May	1. MOW Building Early Occupancy - Interim Certification	Civil / Systems
May 2016	2. YCB Civil Contract CSC Certification	Civil only
May 2016	3. DB-200, MSF Contract Certification	Civil / Systems
May 2016	4. Five (5) MOW Vehicles Delivery - Interim Certification	Vehicles only
Aug 2016	5. PV-002 Delivery - Interim Certification	Vehicle only
Sept 2016	6. Eight (8) MOW Vehicles Final Certification	All MOW vehicles
Sept 2016	7. FD-430 and DBB-505, Airport Utilities Contract Certification	Civil only
Sept 2016	8. Test Track - Rail Yard - Interim Certification	Civil / Systems
Sept 2016	9. PV-002, Interim Certification to enter Dynamic Testing	Vehicle only
Nov 2016	10. Functional Track - Interim Certification - Test Track	Civil / Systems
Dec 2016	11. FD-340 and DBB-385, H2R2 Contract Certification	Civil only
Dec 2016	12. DB-120, WOFH Guideway Contract Certification	Civil only

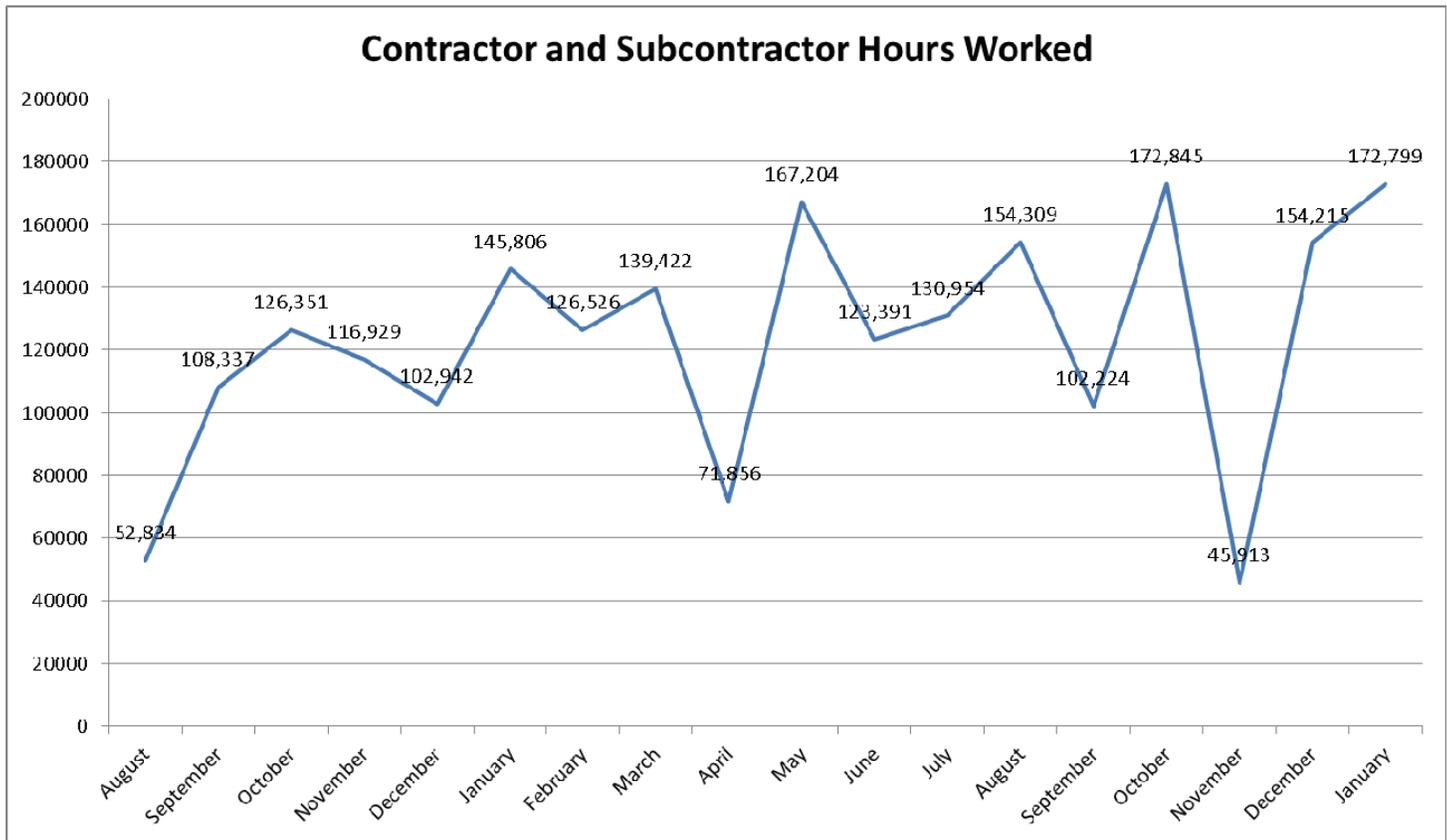
6.1.9 S&S Certification Certificates Issued to Date

S&S Certification Certificates Issued to Date		
Contracts / Interim Certification Certificates Issued	Date Signed	Comments
1. FD-430 / DBB-525 Airport 7-Piers Certifiable Element "Guideway" Cert Certificate	9/21/2015	No open items - SSRC approved
2. 3 - MOW Vehicles Delivery & M-7, M-2, M-1 MSF Tracks – Interim Cert Certificate	2/4/2016	No open items - SSRC approved
3. MSF Yard Tracks M-4 and M-6 Interim Cert Certificate	3/10/2016	No open items - SSRC approved
4. PV-001 Delivery, OSB, M-5/M-4 Tracks, ORCC, MOV MPV Interim Cert Certificate	3/24/2016	Open Items

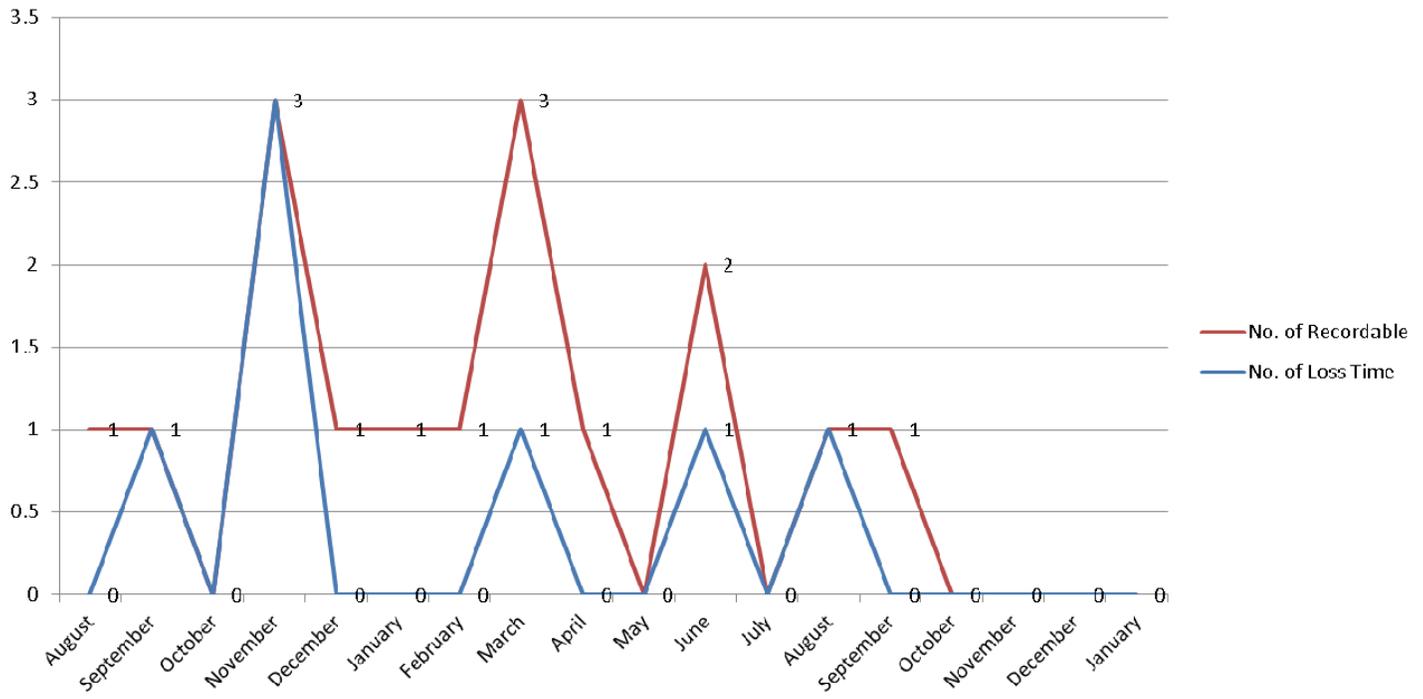
6.1.10 Construction Safety and Security

Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for Feb. 26, 2016-Mar. 24, 2016	Loss Type	Date	Event Description
Environment	15	0			
Loss or Damage	36	1	a) Minor Loss	a) 2/29/16	a) KHG: A metal lifting plate broke free from a wash basin as it was being moved which struck a 3rd party vehicle.
*Reportable Occupational Injury/Illness	0	0			
Security	58	1	a) Minor Loss	a) 3/3/16	a) AHJV: A WATTS storage container was broken into and equipment was stolen.
**Loss Time Occupational Injury/Illness	6	0			
Road/Vehicle - Driving	84	0			
Service Strike	81	3	a) Minor Loss b) Minor Loss c) Minor Loss	a) 3/10/16 b) 3/23/16 c) 3/23/16	a) ASU: An unidentified 7200V HECO line was hooked during a utility excavation. b) ASU: Irrigation conduit and wiring struck. c) ASU: 8" steel pipe struck during excavation activities.
*Reportable incidents: Requires OSHA to be notified within 8 hours, and includes the death of an employee or hospitalization of three or more employees.					
**Loss Time Injury: Time away from work due to injury.					

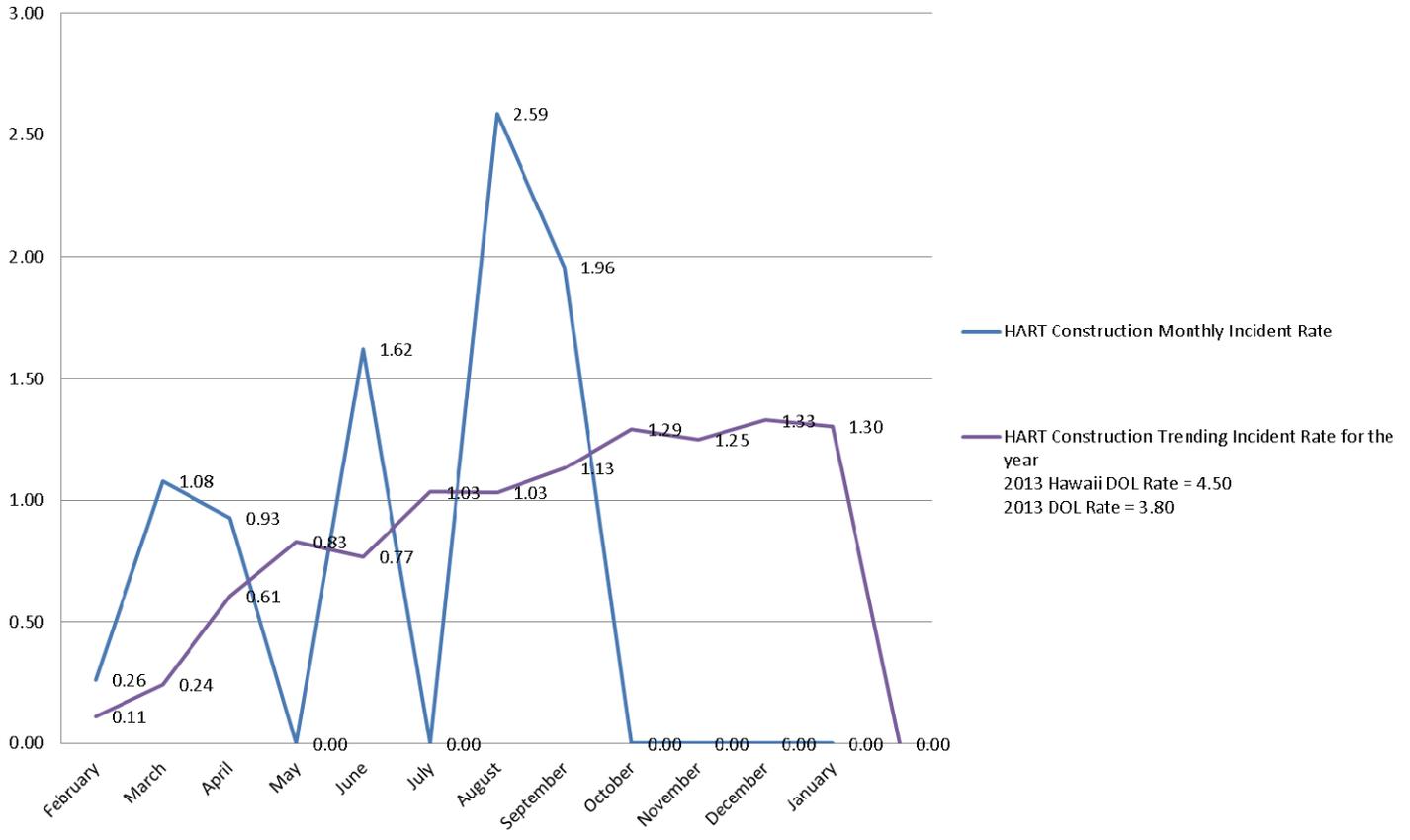
	2014			2015			2016		
	Hours worked	No. of Recordable	No. of Loss Time	Hours worked	No. of Recordable	No. of Loss Time	Hours worked	No. of Recordable	No. of Loss Time
January				145,806	1	0	172,799	0	0
February				126,526	1	0			
March				139,422	3	1			
April				71,856	1	0			
May				167,204	0	0			
June				123,391	2	1			
July				130,954	0	0			
August	52,834	1	0	154,381	1	1			
September	108,337	1	1	102,224	1	0			
October	126,351	0	0	172,845	0	0			
November	116,929	3	3	45,913	0	0			
December	102,942	1	0	154,215	0	0			
<b>Total</b>	<b>507,393</b>	<b>6</b>	<b>4</b>	<b>1,534,735</b>	<b>10</b>	<b>3</b>	<b>172,799</b>	<b>0</b>	<b>0</b>
OSHA Annual Incident Rate				1.3					
Work Hours for WOFH, KHG, MSF, Airport, CORE System, as reported to OCIP and certified.									



### HART Contractor and Subcontractor Recordable and Loss Time Injuries as Reported to iSMS and OCIP



### HART Construction Monthly and Progressive Trending Incident Rate



### KEY ISSUES

- Core Systems losing their full-time Ansaldo/H-JV Safety and Security Certification point of contact in Honolulu poses a concern of certification expertise and experience at the Core Systems contactor level that will impose a hardship to the HART Safety and Security Department efforts until a full-time, qualified replacement is on board.
- The rail shims remain an outstanding issue. A proposed plan by the contractor was reviewed by HART Engineering. The contractor will proceed at risk for the work. The extended fasteners beyond the Compendium of Design Criteria (CDC) requirement must be approved and signed off by the RE's prior to HART Safety and Security acceptance.
- DB and DBOM contracts pose a significant challenge for the certification process where 100% design verification is not realized until sometime during or at the end of the construction phase. This delay is not consistent from one contract to another and is based on the complexity of the designs and contract submittal requirements.
- The specification and testing conformance checklist verification effort (% verified) will naturally lag behind construction completion percentage due to the fact that a significant percentage of the needed submittals are submitted at the end of the project; such as test reports, O&M manuals, training, and as-built drawings.
- Safety and Security is presently lacking one (1) position (Safety Specialist, OSHA). Staff has divided the work in the interim.

## 6.2 Quality Management

### • Overview

- The HART QMP and HART-approved QAPs of contractors, consultants and suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less and less Nonconformance Reports (NCR) are reported or encountered internally and on existing contracts.
- Overall quality of the Project is good.
- Review and approve contractors, consultants and suppliers new and updated QAPs, including Inspection and Test Plans (ITP). Completed review and approved QAPs: ASTS (Hitachi), Hitachi Rail Italy, and Hitachi Rail USA.
- Conducted biweekly Quality Task Force (QTF) meetings with CE&I, contractors and consultants QA teams to discuss the status of: design and construction activities; procurement activities; inspection and testing; NCRs; Corrective Actions (CARs) and Preventative Actions (PARs); quality compliance; various process improvements; quality economics, and Buy America compliance.
- Participated in Pre-Activity Meetings for scheduled construction activities: CSC/MSF (delivery and receipt of the first train set and TC Cab Rack for Train 3); ASU (Fuel Line Removal and Parapet Street Lighting), and FHSG (Concrete, Drilled Shafts, and Drilled Shafts Reinforcing Steel).
- Closed PGH Wong (CE&I West) audit.
- Continue reviewing AHJV's additional responses to the audit findings for the Core System Configuration Management Plan.
- Performed a Combined QA, Buy America, and Environmental Audit of KKJV on the MSF contract on March 15-16, 2016. The audit report was issued on March 23, 2016.
- Prepared Management System Audits (QA, Environmental and Buy America) Schedule for 2016 as shown on the following pages:



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2016** Rev 2

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
SC-HRT-1400049	CSC Support Services	L + E	16-001 QA	2/9 - 2/10	2/9/16	2/19/16
CH-HRT-10H0449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	16-002 QA/BA/E	3/15 - 3/17	3/15-17/16	
CT-HRT-1200106	Core Systems Contract (CSC) & Hitachi Rail Design-Build-Operate-Maintain	Hitachi Rail USA	16-003 QA	5/3 - 5/5		
CT-HRT-10H0137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIWC - HI	16-004 QA/BA/E	4/12 - 4/14		
CT-HRT-11H0195	Kamehameha Highway Guideway Design-Build (KHG)					
SC-HRT-1400027	General Engineering Consultant (GEC 3)	CH2M Hill	16-005 QA	5/10 - 5/12		
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	16-006 QA	5/24 - 5/26		
CR-HRT-1500309	H2R2 Ramp Construction	Royal Contracting	16-007 QA/BA/E	6/28 - 6/30		
CT-HRT-11H0195	KHG Casting Facility	KIWC - HI	16-008 QA/BA	7/19 - 7/21		
CR-HRT-1500503	West Oahu Station Group Construction	NAN, Inc	16-009 QA/BA/E	7/26 - 7/28		
CT-HRT-1500236	Farrington Highway Station Group Construction FHSG	Hawaiian Dredging	16-010 QA/BA/E	8/09 - 8/11		
CT-HRT-11H0195	WOFH and KHG Surveying and Alignments	KIWC - HI	16-011 QA	8/16 - 8/18		
CT-HRT-10H0137						
SC-HRT-14000323	Airport Section Utilities Construction	NAN, Inc	16-012 QA/BA/E	8/30 - 8/31		
DB -	Airport Guideway and Station (Design)	TBD	16-013 QA	9/13 - 9/15		
DB-	City Center Guideway and Station (Design)	TBD	16-014 QA	9/27 - 9/29		
CT-HRT-1300318	Elevator and Escalator - Manufacture, Install and Maintain	US Schindler - HI	16-015 QA/BA	10/4 - 10/6		
		US Schindler - NJ				

Quality Assurance (QA); Buy America (BA); Environmental (E); Safety Security (SS)

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2016** Rev 2

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
CT-HRT-10H0137	WOFH Public Information	KIWC - HI	16-016 QA	10/18 - 10/20		
CT-HRT-11H0195	KHG Public Information					
SC-HRT-1400050	West Side Station Group CE&I	PGH Wong - HI	16-017 QA	10/25 - 10/27		
	West Oahu Farrington Highway and Kamehameha Highway Guideways CE&I					
	Elevator and Escalator - CE&I					
	Pearl Highlands Parking Structure/Bus Transit Center CE&I					
	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes CE&I					
CT-HRT-1200106	Configuration Management Plan (CMP)	AHJV - HI	16-018 QA	11/3 - 11/14		
DB	Kamehameha Highway Station Group Construction	NAN, Inc	16-019 QA/BA/E	11/15 - 11/17		
CCH-100	Honolulu Authority for Rapid Transportation (HART)	HART	16-020 QA/SS	12/06 - 12/13		
SC-HRT-1600008	Airport Section Guideway & Stations CE&I East	Stantec	TBD	TBD		
	City Center Section Guideway & Stations CE&I East'					
DB-	Pearl Highlands Garage Transit Center and H1R2 Ramp	TBD	TBD	TBD		
DB-	Airport Guideway and Stations (Construction)	TBD	TBD	TBD		
DB-	City Center Guideway and Stations (Construction)	TBD	TBD	TBD		
DB	UH West O'ahu Park-and-Ride and Campus Road "B"	TBD	TBD	TBD		

Quality Assurance (QA); Buy America (BA); Environmental (E); Safety Security (SS)

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• Key Issues

HART NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
<b>37 (Audits)</b>	<b>37</b>	<b>0</b>
<b>1 (Construction)</b>	<b>1</b>	<b>0</b>

- Continue updating, reviewing and approval of appropriate HART Project Baseline Plans and Procedures due to new policies, re-organization, process improvement and lessons learned from the internal audits. Upon approval of revised plans and procedures, training of HART employees must be performed in order to assure competency and proficiency.
- Resolution of one (1) major WOFH NCR that needs to be addressed and corrected to prevent recurrence and to mitigate impact on the overall progress of the project. The major NCR is described below:
  - **Span 258 – NCR 509:** a few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC is preparing a Remediation Plan to replace the failed Tendon T1L. HART and KIWC will perform a postmortem of the Tendon T1L after its removal to determine the root cause of the failure and the corrective action to prevent recurrence.

Span 258 is a heavy curve span with a spiral surface profile, 4 inches eccentric from the center of gravity, and about 50 feet above ground. The span must be supported and stabilized prior to remediation work. The failed tendon is on the top and on the Mauka side of the span. Therefore, the entire span needs to be jacked-up about three feet to clear the tendon and provide adequate space for removal and replacement work.

- **Direct Fixation Shims Tolerances – NCR 398:** On March 3, 2016, HART issued a letter to KIWC regarding NCR 398: Direct Fixation Shims Tolerances with a condition that KIWC will give HART a credit, which will be negotiated later. Therefore, NCR 398 is considered closed.
- Resolution of two (2) major KHG NCRs that need to be addressed and corrected to prevent recurrence and to mitigate impact to the overall progress of the project. The following are the major NCRs identified:
  - **Drilled Shafts:** To date there are nine (9) Open NCRs (opened three) which are related to the CSL Reports, and 130 Drilled Shafts completed (added 9), which indicates that there were few CSL issues encountered lately and the process has improved. The CSL anomalies on the nine NCRs open were found to be 10”-24” on top of the shafts, therefore correction/fixing will be quicker and easier.
  - **Span 276 – NCR 113:** Damaged (Crack) at the end and Makai side of Segment 14. The crack is minor compared to cracks found on Span 17 and 67 NCRs. KIWC is preparing a Remediation Plan to repair the crack, which is similar to Span 17.

Span 276 is the first longer span with 14 segments erected in the project. KIWC is evaluating the procedure for lowering longer spans as a corrective action to prevent recurrence.

- Erection and finishing of spans, construction of “shear keys” between columns and spans, and construction of concrete walkways on WOFH and KHG guideways.
- Resolution of one (1) major WOFH NCR: replacement of Tendon T1L.
- Resolution of two (2) major KHG NCRs: Drilled Shafts (Cross Hole Sonic Logging Reports) quality and repair, and crack on Segment 14 of Span 276.
- Construction of MSF Yard Ballasted Track: Alignment, Profile, Geometry, Sub-ballast, Drainage, Ballast, Grade Crossings, Welding, Stress Relieving, Concrete Ties, Contact Rails, Switches, etc.
- Installation and welding of rails and turnouts on top of the WOFH guideway.
- Construction of the WOFH and KHG Balanced Cantilever segmental spans.
- Manufacturing of Carbody(s) at Hitachi Rail Italy and its subcontractor manufacturing facilities in Italy.
- Final Assembly of Passenger Vehicles in Hitachi Rail Italy facilities in Pittsburg, CA.
- Pre-shipment, I&T and FAI of wayside core system and passenger vehicles materials, parts and components.
- Perform Joint (HART, KKJV and AHJV) Final Walkdown of Phases 1 and 5 of the MSF Yard, OSB, WTB, and MOW buildings prior to turnover to HART/CSC.
- Perform a Combined QA, Buy America and Environmental Audit of KIWC on the WOFH and KHG contracts.

**6.3 Buy America Compliance (49 CFR 661 and 49 CFR 663)**

- **Overview and Key Issues**

- On Feb. 8, 2016, HART submitted a request for waiver of Buy America requirements for the variable refrigerant flow (VRF) HVAC system for the train control and communications rooms at the stations. We are awaiting FTA’s determination.

**6.4 Disadvantaged Business Enterprise (DBE)**

- **Activities this Month**

- \$33,528,303 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 3/31/16
  - 6.34% = DBE utilization on total disbursed FTA funds received to date (\$33,528,303 divided by \$528,991,194)
  - 1.90% = DBE utilization to date on total Project FTA funds (\$33,528,303 divided by \$1,763,903,901)

*Total DBE Participation = \$33.5M  
(previous report = \$32.1M)*

Figure 16. DBE Participation this Month

DBE Participation in March		
DBE Firm	Contract Number	Participation
Lawson & Associates	SC-HRT-1400061 MM-964	\$77,054
ADS System Safety Consulting	SC-HRT-1400061 MM-964	\$71,793
Island Hauling	CT-HRT-10H0449 DB-200	\$47,203
LKG-CMC	SC-HRT-1400049 MM-962	\$12,111
Don’s Makiki	CT-HRT-10H0449 DB-200	\$7002
David’s Fencing	CT-HRT-10H0449 DB-200	\$5,681
Tech Inc.	CT-HRT-10H0449 DB-200	\$25,262
David’s Fencing	CT-DTS-1100195 DB-320	\$10,838
PSC Consultants	SC-HRT-1400050 MM-290	\$156,030
Element Environmental	SC-HRT-1400050 MM-290	\$158,283
Bow Construction	SC-HRT-1400050 MM-290	\$486
Amazon Construction	CT-HRT-1500297 MM-947	\$857,986
Aloha Steel	CT-HRT-1500297 MM-947	\$152
David’s Fencing	CT-HRT-1500297 MM-947	\$221
Carol Kwan	CT-HRT-1500297 MM-947	\$2,117
Pacific Preferred	CT-HRT-1500297 MM-947	\$3,840
<b>TOTAL FOR THE MONTH</b>		<b>\$1,436,059</b>

Note: For a full listing of DBE participation to date, please see Appendix F.

## 6.5 Planning and Environment

### • Activities this Month

- Programmatic Agreement Activities:
  - HART's Programmatic Agreement (PA) team met with the Hawai'i State Historic Preservation Division (SHPD) on Tuesday, March 1, 2016, as part of ongoing consultation with the division.
  - HART's two Makalapa National Register of Historic Places (NRHP) nominations were transmitted to the USN Federal Preservation Officer (FPO) and Deputy FPO for comment via certified mail on Feb. 17, 2016. A response from the FPO is expected on or before Monday, May 23, 2016.
  - A fire of unknown cause occurred at the HART-owned Ai-Goto Building near the proposed Chinatown Station site on Feb. 23, 2016, resulting in damage that required the removal of additions and placement of the building under permanent closure. A proposal for the adaptive reuse of the Ai-Goto Building as a component of the Chinatown Station's multi-modal hub was under development by March 11, 2016, prompted in part by the fire.
  - The Pearl Harbor National Historic Landmark (NHL) Update was transmitted to NAVFAC as well as SPs and Historic Hawai'i Foundation (HHF) during the week of March 7-11, 2016.
  - The new Kāko'o II Programmatic Agreement Manager had its first of two introductory meetings with Consulting Party's (CPs) on March 10, 2016. The next introductory meeting with CPs will be the first week in April, exact day to be determined.
- Planning, Environmental, and Cultural Activities:
  - HART continues to assist the Oahu Metropolitan Planning Organization (OMPO) in updating the regional long-range travel demand forecasting model for the 2040 Oahu Regional Transportation Plan.
  - Continued coordination with stakeholder agencies regarding street tree transplanting and mitigation efforts.
  - HART relocated five Shower Trees from Aloha Stadium to Central Oahu Regional Park and Blaisdell Park.
  - HART had a final inspection with the Department of Parks & Recreation (DPR) for six Narra Trees that were transplanted from Keehi Lagoon Beach to Waikiki Shell in February 2015.
  - HART had a coordination meeting with DPR, Division of Urban Forestry, for tree maintenance and mitigation measures.
  - HART convened a kickoff meeting with the Hawaiian Station Naming Committee on Feb. 20, 2016.
  - Staff continued coordination with Leeward Community College, Waipahu High School, and community stakeholders regarding a multiuse path and emergency second access along the edge of the Rail Operations Center.
  - Convened the second meeting of the HART Property Utilization Group on Feb. 12, 2016 to determine optimal land use for various HART-owned properties. This group will develop a Property Utilization Plan (PUP).
  - Planning staff participated in a design charrette with other City agencies regarding a potential Pearlridge Bus Transit Center, on March 9, 2016.
  - Environmental staff participated in Quality, Environmental, and Buy America audits of the ROC on March 16, 2016.
  - Staff is developing a Request for Information (RFI) document for the construction of the Pearl Highlands Parking Garage for release to public on March 21, 2016. HART has conducted outreach to critical stakeholders, such as the Army Corps of Engineers, Department of Planning and Permitting, HART Board member and DTS Director Mike Formby, and the Federal Transit Administration for input and guidance.
  - HART staff is continuing to coordinate with the Department of Facility Maintenance on agency compliance requirements associated with the National Pollutant Discharge Elimination System permit.
- Sustainability:
  - Developed programming for Earth Day and a complete month of earth-friendly events.
  - Continuing to explore options for energy efficiency and renewable energy.

### • Looking Ahead

- Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.
- Refine and develop bus-rail integration needs for Lagoon Drive, Waimanu Street, and Ala Moana locations.

- The next consultation meeting with HART/SHPD is scheduled for April 12, 2016.
- Continue development of HART's sustainability program.
- Evaluation of RFI respondents.
- HART to develop Sustainability Focus Group with to-be-identified stakeholders.
- Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
- Continue to review and meet, if necessary, with contractors regarding submittals.
- Prepare and submit Post-ROD Documentation for FTA approval prior to need dates as indicated:
  - Emergency Backup Generators, second quarter 2016
  - City Center Realignment (including the Ala Moana Station relocation), second quarter 2016
  - Airport and City Center Casting Yards, third quarter 2016
  - Prepare and submit separate draft Post-RODs for the following topics for third quarter 2016 and beyond: Additional Project-Wide Right-of-Way, West O'ahu Park and Ride Lots (including interim Park and Ride at Ho'opili Station), Hōlau Market and Ai-Goto Parcels at Chinatown Station, and Phased Openings.

## 6.6 Risk Management

The primary strategy of risk management is to maintain a reserved contingency balance throughout the life of the Project that is acceptable to HART and the FTA. Effective management of project risks is necessary to significantly increase the likelihood of delivering a successful project. Risk management is the systematic process of identifying, analyzing, and responding to risk in a timely manner. Risk management is integral to all phases leading up to revenue service opening including: planning, design, construction, systems testing, system operation start up, safety and security certification, and ultimately to project construction closeout.

Risk assessment interviews are held on a regular basis to identify, assess, prioritize, manage and mitigate risk exposure, and develop prudent contingency plans. The Project Risk Register (RR) is the depository for all risks identified for the Project. Every month, risks contained in the RR are reviewed to confirm risks are appropriately identified, identify new risks, and close out risks that no longer pose an issue.

This report includes a listing of the top project wide risks which is an aggregate of the individual contract risks. Key metrics for probability of occurrence and cost and schedule impacts are subject to change as more is learned about the risks. At the same time, HART is implementing mitigation measures of avoidance, transfer, and acceptance/minimization.

### NOTES OF SIGNIFICANCE

- There are a total of 133 risks in the March 2016 Risk Register, compared to 189 a year ago. There were 2 risks deleted and 0 new risks added for the month. During the month, risk reviews were focused on the west side projects and conducted for West O'ahu / Farrington Highway Guideway, Kamehameha Highway Guideway, West O'ahu Station Group, Farrington Highway Station Group, Kamehameha Highway Station Group, the Maintenance & Storage Facility, and the Ramp H2R2 contract.
- Additional focus continues to be placed on Hawaiian Electric Co. coordination and clearance issue resolution.
- Discussions of project schedule and estimated costs at completion are being evaluated to provide the most accurate information possible.
- A Risk Refresh Workshop was held on March 30, 2016 as the start of the risk and financial planning process. Completion of this process will occur when the FTA/PMOC and HART are in agreement that the budget and schedule approach are in alignment. This process will be used to identify and recommend appropriate budget contingency and schedule float for the revised Revenue Service Date.

### AREAS OF FOCUS

**A) Market Conditions** – The construction market in Hawai'i continues to outpace other major metropolitan US cities. The years 2015 and 2016 are expected to set a new record for construction in the state. This translates to increased escalation of about 1% per month from late 2014 through the end of 2016, according to the Rider Levett Bucknall, Quarterly Construction Cost Report. These conditions may impact the supply of experienced craft labor which will in turn affect contractor productivity rates and traffic mobility issues.

**Mitigation Progress:**

- HART's continuous improvement in estimating methodology has led to more confidence in the likely construction pricing, but continued pricing pressures in the market could still lead to higher than expected price proposals and bids.
- The combined guideway and station packages on the East (Airport Guideway and Stations contract and City Center Guideway and Stations contract) are still in active procurement.

**B) Utilities** – Utilities continue to be an issue for the project, as they are for most Transit and Rail projects.**Mitigation Progress:**

- Resources to relocate HECO facilities are now keeping up with scheduled requests to resolve utility conflicts through improved coordination efforts between agencies at all levels from project management to executive levels.
- Clearance of HECO overhead facilities and HART Guideway and Stations is undergoing evaluation for site specific solutions with respect to the 138kV, 46kV and 12kV transmission lines. The range of solutions to meet physical separation are extraordinary in cost, requiring further study prior to reaching an agreeable solution that is functional and affordable.

**C) Right-of-Way** – There are parcels on the east and west segments that are still in an active acquisition process. The goal is to provide site access to the contractors on the east to avoid associated inefficiencies related to re-sequencing the work plan which would have a negative impact to the revenue service date.**Mitigation Progress:**

- Nearly all west side property transactions have been accomplished.
- East side – there are a number of third-party agreements needed on the Airport Section and private parcels on the City Center Section. The revised Delivery and Procurement Plan takes into account the Right-of-Way Acquisition Plan. Cost-to-cure partial property improvement impacts have now been mostly resolved.

*Note: Risks by Contract Package and a Comparison of Risk Ratings can be found in Appendix G.*

Figure 17. Risk Matrix

RISK MATRIX					
Legend	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)
Probability	< 10%	10><50%	50><75%	75><90%	>90%
Cost	< \$250K	\$250K><\$1M	\$1M><\$3M	\$3M><\$10M	>\$10M
Schedule	< 1 Mths	1><3 Mths	3><6 Mths	6><12 Mths	>12 Mths
Rating	< =3	3.1-9.49		> =9.5	

The risk matrix is used to score and rank identified risks. The rating is the average cost and schedule impact score multiplied by the probability score.

Figure 18. Top Project Risks

Top Risks March 2016									
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Mar '16 Risk Rating	Feb '16 Risk Rating	
36.01	Project Wide	HECO Clearance - Cost & schedule exposure from unanticipated utility replacements. (Ex., overhead 138kV and 46kV circuits may require relocation, including undergrounding).	90%	5	5	5	25	25	
111.19	Airport Guideway and Stations	Cost estimate for remaining AGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5	
111.06	City Center Guideway & Stations	Cost estimates for remaining CCGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5	
184.17	Elevator/Escalator	There is a potential for cost escalation and extended OH for delay of manufacturing and installing elevator/escalator due to reprocurement of West Side Stations.	90%	5	4	5	22.5	18	
111.16	Pearl Highlands Garage	Cost estimates for Parking Structure and Transit Center FFGA Budget may be low compared to current market conditions.	90%	5	5	4	22.5	22.5	
68.14	City Center Guideway & Stations	Downtown Station planned to be integrated into Pacific Guardian Center. PGC position could extend negotiations and delay construction or increase construction costs.	90%	5	5	3	20	20	
193.08	Core Systems Contract	Delays in civil, guideway, and stations construction may cause Core Systems installation delay. Shared access to facilities needs to be coordinated.	90%	4	5	5	20	20	
110.06	City Center Guideway & Stations	Real Estate market could continue to increase rapidly before purchase of all needed properties, greatly increasing cost of property and delaying construction if legal actions are pursued.	75%	4	5	4	18	18	
6.06	City Center Guideway & Stations	Insufficient utility company resources available to resolve conflicts and meet the design, approvals, and/or construction schedule. (Dillingham bottleneck)	75%	4	4	5	18	18	
6.04	Kamehameha Highway Guideway	Insufficient utility company resources available to meet the design, approvals, and/or construction schedule.	75%	4	5	4	18	18	
37.06	City Center Guideway & Stations	Additional utility easements may be required for private utility companies or other project needs.	50%	3	5	5	15	15	
186.17	Elevator/Escalator	Increase in escalator requirements.	90%	5	3	3	15	15	
37.04	Kamehameha Highway Guideway	Additional utility easements may be required for private utility companies.	50%	3	5	5	15	15	
75.19	Airport Guideway and Stations	Late turnover of ROW and/or permit to contractor may result in claims (i.e.. Alert Alarm, Waiwai Loop, Post Office).	75%	4	4	3	14	14	
178.03	West Oahu/Farrington Highway Guideway	Disputed items escalated for resolution results in overturning field determination.	75%	4	5	2	14	14	

Risks are placed in order based on highest risk rating for the month. The Top Risks listed represents those that could have a major impact on the Project and require additional focus by management. There are other high rated risks that are not listed and are also in the process of being mitigated by HART staff.

Figure 19. Risks Deleted

Risks Deleted in March 2016					
Current Risk ID	Contract Package	Risk Description	Comments	Risk Rating	
				Mar. '16	Feb. '16
153.07	Maintenance & Storage Facility Contract	Track work may not be complete in time for AHJV to install equipment and start testing on test track.	3/16 - Risk eliminated and all required track has been installed, ready for trains by end of March.	0.5	0.5
180.03	West Oahu/Farrington Highway Guideway	Retainage recovery by contractor.	3/16 - Risk eliminated - retainage has been released.	3	3

**6.7 Community Outreach**

**• Activities this Month**

- HART Executive Director and CEO Dan Grabauskas, HART Board Chairman Don Horner and Mayor Kirk Caldwell talked with reporters when the first two of HART’s rail cars arrived in Honolulu from California.
- HART and its contractor held a ground breaking ceremony at the University of Hawai’i-West O’ahu to signal the commencement of construction for the rail stations that will be built in Kapolei and Ewa.
- HART participated in the First Hawaiian Bank International Auto Show as well as nearly two dozen other presentations to business organizations, schools and community groups.

*Since the inception of HART, the outreach team has participated in:*

- 948 Presentations and Events
- 521 Neighborhood Board Meetings

*Prior to the inception of HART, the outreach team participated in:*

- 1,001 Presentations and Events
- 541 Neighborhood Board Meetings

**• Construction Outreach**

- HART held two Business & Community meetings this month, one in Waipahu and a second one in the Pearl City area. These regular meetings are designed to provide businesses and community members along the rail corridor with updated information about construction work and upcoming traffic changes in their area. The meetings are also designed to provide businesses with the opportunity to provide feedback that helps shape some of HART’s business assistance programs.
- HART continues to provide weekly traffic updates, notifying motorists, elected officials and members of the public of upcoming lane closures due to rail construction. The advisories are posted on the project website and distributed via email to local media outlets.

Figure 20. First Train Cars Delivered



**Community Input**

- HART’s public outreach team responded to more than 100 public inquiries this month. Inquiries were related to traffic, construction and business outreach programs.

**Look Ahead**

Coming in April:

- HART plans to unveil its first four-car train.
- HART will hold two Business Alliance meetings in the Waipahu and Aiea /Pearl City areas.
- HART will make a presentation to the Kiwanis Club of Pearl Harbor.

**6.8 Staffing**

**Overview**

- The West Area Construction Manager position was filled with an internal PMC employee who was overseeing Utilities and Traffic Engineering.
- The Utilities and Traffic Engineering Manager position was filled by the existing Traffic Engineer (PMC).
- The Director of Communications position interviews have been completed; selection has been made.
- The Chief Financial Officer position interviews have been completed.
- The Deputy Director of Construction position is to be removed from the organization and will be reflected in the next org chart.
- One HDR employee (Architecture and Arts Manager) departed the project in March; position will not be filled.

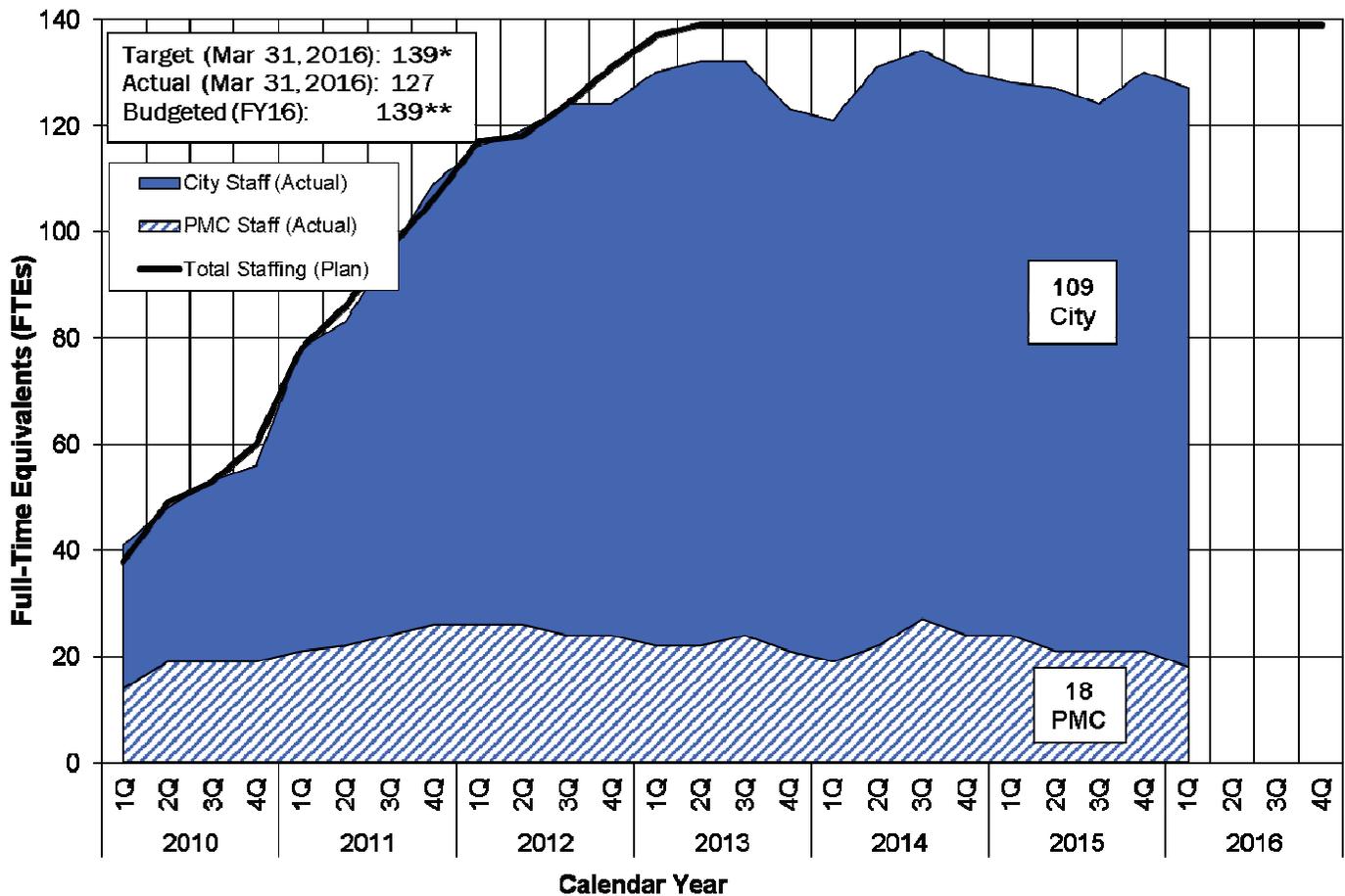
Figure 21. Staffing Activities

Staffing Activities				
Title	Group	New/Existing HART position (City or PMC)	Position Status	Start Month
<b>Design and Construction</b>				
West Area Construction Manager	Construction	Existing (PMC)	Filled	Mar
Assistant Project Manager (City Center DB)	Construction	New (City)	Selected	May
Project Manager (WOFH & KHG)	Construction	Existing (City)	Filled	Mar
Electrical Engineer	Core Systems	Existing (City)	Recruiting/Interviewing	
Utilities and Traffic Engineering Manager	Engineering & Design	Existing (PMC)	Filled	Mar
Utility Engineer	Engineering & Design	Existing (City)	Recruiting	
<b>Planning, Permits and Right-of-Way</b>				
Planner III* (Environmental)	Planning	Existing (City)	Recruiting	
Planner V	Planning	Existing (City)	Filled	Apr
<b>Budget and Finance</b>				
Chief Financial Officer	Budget and Finance	Existing (City)	Interviews complete	
<b>Operations and Maintenance</b>				
Director of Operations & Maintenance	Operations & Maintenance	Existing (PMC)	Filled	Mar
<b>Quality Assurance</b>				
Quality Assurance Engineer * (Civil)	Quality Assurance	Existing (City)	Recruiting	
<b>Administrative Services</b>				
Information Technology Support Technician	Administrative Services	Existing (City)	Filled	Apr
Information Technology Support Technician	Administrative Services	Existing (City)	Recruiting/Interviewing	
<b>Public Information</b>				
Director of Communications	Public Information	Existing (City)	Selected	
<b>Project Controls</b>				
Scheduler	Project Controls	Existing (City)	Recruiting/Interviewing	
CMS Trainer	Project Controls	Existing (City)	Recruiting	
<b>Civil Rights</b>				
Human Resources Specialist	Civil Rights	Existing (City)	Filled	Mar
<b>Procurement</b>				
HART Procurement & Contracts Clerk	Procurement & Specifications	Existing (City)	Recruiting	
<b>Contract Administration and Change</b>				
Contract Specialist	Contract Admin and Change	Existing (City)	Selected	Apr
Contract Specialist	Contract Admin and Change	Existing (City)	Selected	Apr
Contract Specialist	Contract Admin and Change	Existing (City)	Selected	Apr

\*Actual hiring level will be commensurate with candidate’s qualifications.

HART prioritizes filling all vacancies with City employees and supplements the City staff with PMC only when necessary and appropriate. HART currently receives direct project support in centralized functions from the following city departments: Honolulu Police Department (HPD), Department of Information Technology (DIT), Department of Budget and Fiscal Services (BFS), Department of Design and Construction (DDC), Corporation Counsel (COR) and Department of Human Resources (DHR); and from the State of Hawai'i Department of Transportation (HDOT) on Consultant Services Contracts. HART is currently working with the Department of Facility Maintenance (DFM) on creating a Memorandum of Understanding (MOU).

Figure 22. Project Staffing (Actual vs. Planned)



\* In accordance with Staffing and Succession Plan Rev 5 (Under Revision)  
 \*\* 139 City positions authorized in FY 2016 HART Operating Budget

The actual number of employees reflects employees hired during this period as well as employees who left the project from both HART and the PMC staffs.

The current organizational chart dated Dec. 11, 2015, is being revised to reflect several personnel changes and some minor organizational structure changes. For the latest project organization chart, see Appendix H.

# APPENDICES

## Appendix A. Action Items

The following are Action Items for HART and/or the PMOC, which are reviewed and discussed on a monthly basis.

Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status
1	Resolve HECO issue with Davis-Bacon requirements	HART/FTA	Mar-14	On-going		Open – HECO waiver is pending. HART provided MOU to PMOC.
2	<b>Updates resulting from Risk Refresh:</b>					
2a	Update the Contract Packaging Plan	HART	Aug-14	Dec-15		In progress – Draft provided to PMOC but changes may be incorporated on updated estimate and schedule
2b	Re-baseline Financial Plan	HART	Apr-14	TBD		Pending final update of budget and schedule
2c	Re-baseline budget	HART	Apr-14	TBD		In progress
2d	Re-baseline MPS	HART	Apr-14	TBD		In progress – HART has provided MPS update for review
2f	Update RCMP (including Hold Points and Secondary Mitigation Measures)	HART	Sept-13	TBD		In progress – PMOC provided review comments on early draft, but updated draft will be prepared to reflect revised budget and schedule.
3	HART to provide target date for Federal Courthouse resolution/sign-off	HART	Sep-15	Feb-16	Feb-16	
4	HART to monthly provide a matrix of ROW parcels	HART	Nov-15	Dec-15	Dec-15	
5	HART to provide Operational Readiness Checklist/Hold Points for MSF Certification	HART	Jan-16	Jan-16		
6	Provide HECO Agreement to PMOC	HART	Mar-16	Mar-16	Mar-16	
7	Provide updated Risk Register to PMOC	HART	Mar-16	Mar-16	Mar-16	
8	Provide response to SSMP and SSCP review comments	HART	Mar-16	Mar-16		
9	Schedule conference call to discuss responses to RFMP and O&M Plan review comments	PMOC	Mar-16	Mar-16		
10	Submit documentation to FTA for Post-ROD changes	HART	Mar-16	Apr-16		

## Appendix B. Project Contingency Management General Background and Clarifications

The FFGA Baseline Budget for Project Contingency is approximately \$643.6M and consists of the following elements:

*Current Contingency Balance = \$475.1M*

- 1) Unallocated Contingency – Reserve contingency to address unknown changes to the Project and not currently allocated to a particular work package.
- 2) Project Allocated Contingency – Contingency allocated to each work package to address potential uncertain changes within each respective work package.
- 3) Allowance – A reserve designated for Final Design contracts and committed under the contracts.

The \$643.6M Baseline Budget for Total Project Contingency does not include amounts for Known Changes yet to be finalized at the time the Bottom-Up Estimate (BUE) was prepared.

As the project progresses, budget transfers will be executed, moving budgeted project scope and budgeted contingencies as appropriate to reflect either a realized cost savings, cost overruns, or a transfer of scope. It is expected that project contingency will continue to be drawdown as the overall design is further developed, risks are identified, and construction progress continues to advance. The following list details ways in which project contingency can either increase or decrease:

- 1) The budgeted amount for a contract package is either lower or higher than the actual executed contract amount. Contingency will increase if the budgeted amount is higher than the actual contract amounts which results in a budget surplus, and vice versa if the budgeted amount is lower.
- 2) Increase of a contract amount through the execution of a change order or contract amendment. Contingency is decreased and transferred to the appropriate SCC.
- 3) Transfer of work scope, e.g. utility relocation, between contract packages through a change order. The scope value from one contract is decreased and transferred to Contingency. Contingency is then decreased by the same scope value and transferred to the other contract. Contingency is used as a “holding account” in this instance.
- 4) Revisions to contract packaging. Further evaluation of contract packages may be considered to seek budget savings and/or to mitigate cost or schedule impacts. Budget savings, if any, would be transferred to Contingency.
- 5) Utilization of allowance in design contracts. The allowance amount to be utilized will decrease this contingency category and will be transferred to the appropriate SCC.

### Changes Identified and Project Performance

HART and the PMOC continue to hold a monthly breakout session to review cost containment strategies and changes being considered for each contract. Changes are tracked by three categories which are determined by how well defined a change is and are summarized as Changes Identified in Project Cost reports. HART continually manages the strategy to avoid or mitigate as well as plan the timing of any potential changes. Breakout session discussions focus on opportunities to reduce costs and accelerate contract-scheduled activities to attain key milestones earlier than targeted. The session concludes with an overview of the cost and schedule drawdown curves, if and when changes might occur, in order to assess project performance against total project contingencies and buffer float.

The Risk and Contingency Management Plan (RCMP), Contract Packaging Plan (CPP), Master Project Schedule (MPS), Project Budget and Financial Plan updates are all in progress. The RCMP includes updates to the cost and schedule contingency drawdown curves, which establish minimum and buffer zone levels of cost and schedule contingency in accordance with FTA recommendations. Over the course of the project, if the cost or schedule contingency enter into the buffer zone (the area above the minimum contingency), Project Management will immediately implement actions to maintain the level of contingency appropriate for the project stage.

# HART Project Contingency Drawdown with Details

Data as of 2/26/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
<b>July '12 (Bottoms-Up Estimate)</b>					
<b>Beg. Balance:</b>				<b>\$643.6</b>	
1)	FD-240	Farmington Highway Stations Group FD	Budget Transfer to Bottoms-Up Estimate from Project Scope to Contingency (contract allowance)	\$59,443	90.03 - Contract Allowance
2)	FD-430	Airport Section Guideway Utilities FD	Budget Transfer for Contract Award less than the ASSU FD contract budget	\$2,054,106	90.02 - Allocated Contingency
3)	MM-975	LEED Commissioning Services	Budget Transfer for Contract Award above the LEED Comm. Services contract budget	(\$35,623)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer for Contract Award above the KHD DB contract budget	(\$270,863)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farmington Highway Guideway DB	Budget Transfer for Ins. Covg per executed CO No. 004	\$3,955,230	90.02 - Allocated Contingency
			<b>July '12 Contingency Drawdown</b>	<b>\$5,651,273</b>	
<b>August '12</b>					
<b>Beg. Balance:</b>				<b>\$649.4</b>	
1)	FD-140	West Oahu Stations Group FD	Budget Transfer for Contract Award under MOSSG FD contract budget	\$1,909,200	90.02 - Allocated Contingency
2)	FD-530	City Center Guideway Utilities FD	Budget Transfer for Contract Award under COGU FD contract budget	\$5,917,845	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 17 - Procure and Install Portable Buildings	(\$7,970,000)	90.02 - Allocated Contingency
			<b>August '12 Contingency Drawdown</b>	<b>\$8,166,145</b>	
<b>September '12</b>					
<b>Beg. Balance:</b>				<b>\$654.5</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			<b>September '12 Contingency Drawdown</b>	<b>\$0</b>	
<b>October '12</b>					
<b>Beg. Balance:</b>				<b>\$654.5</b>	
1)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 21 - Builders Risk Insurance Coverage	(\$59,669)	90.02 - Allocated Contingency
			<b>October '12 Contingency Drawdown</b>	<b>(\$59,669)</b>	
<b>November '12</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	FD-440	Airport Stations Group FD	Budget Transfer for Contract Award under ASG FD the contract budget	\$227,784	90.03 - Contract Allowance
2)	FD-340	Kamehameha Highway Stations Group FD	Budget Transfer for Contract Award under KHSG FD the contract budget	\$202,489	90.03 - Contract Allowance
3)	MM-905	General Engineering Consultant	Budget Transfer to align contract budget with Committed value	(\$120,630)	90.02 - Allocated Contingency
			<b>November '12 Contingency Drawdown</b>	<b>\$909,623</b>	
<b>December '12</b>					
<b>Beg. Balance:</b>				<b>\$654.7</b>	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 01 - Design & Engineering Cost Estimates	(\$275,000)	90.02 - Allocated Contingency
			<b>December '12 Contingency Drawdown</b>	<b>(\$275,000)</b>	
<b>January '13</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 01 - Acacia Rd alternative analysis	(\$19,961)	90.02 - Allocated Contingency
			<b>January '13 Contingency Drawdown</b>	<b>(\$19,961)</b>	
<b>February '13</b>					
<b>Beg. Balance:</b>				<b>\$654.4</b>	
1)	DB-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 26 - Ins. Covg Requirement/Additional BOCV at Ft. Weaver Rd	(\$1,670,178)	90.02 - Allocated Contingency
			<b>February '13 Contingency Drawdown</b>	<b>(\$1,670,178)</b>	
<b>March '13</b>					
<b>Beg. Balance:</b>				<b>\$652.8</b>	
1)	FD-240	Farmington Highway Stations Group FD	Executed Contract Amendment No. 09 - Waipahu Station sewer	(\$2,865)	90.03 - Contract Allowance
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 06 - Ins. Covg Requirement/ DBI Crossovers Insulated Joints	(\$464,876)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 06 - Ins. Covg Requirement/ DBI Crossovers Insulated Joints	(\$468,761)	90.02 - Allocated Contingency
			<b>March '13 Contingency Drawdown</b>	<b>(\$934,402)</b>	
<b>April '13</b>					
<b>Beg. Balance:</b>				<b>\$652.3</b>	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 01 - Second elevator provision	(\$11,013)	90.03 - Contract Allowance
2)	DB-120	West Oahu Farmington Highway Guideway DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 26	\$1,670,178	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 06	\$434,000	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer to align current budget to contract Schedule of Milestones	\$600	90.02 - Allocated Contingency
			<b>April '13 Contingency Drawdown</b>	<b>\$2,025,765</b>	
<b>May '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			<b>May '13 Contingency Drawdown</b>	<b>\$0</b>	
<b>June '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			<b>June '13 Contingency Drawdown</b>	<b>\$0</b>	
<b>July '13</b>					
<b>Beg. Balance:</b>				<b>\$654.3</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			<b>July '13 Contingency Drawdown</b>	<b>\$0</b>	

# HART Project Contingency Drawdown with Details

Data as of 2/26/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
<b>July '13</b>					
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 04 - Antenna Engineering Design Services	\$654.3	80.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 06 - Archeological Inventory Survey (AIS) Provisional Sum Part 2	(\$494,114)	80.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 07 - Maintenance & Storage Facility and Switch Machines	(\$1,000,000)	80.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 08 - Maintenance & Storage Facility and Switch Machines	(\$1,000,000)	80.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 09 - Maintenance & Storage Facility and Switch Machines	(\$1,000,000)	80.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 10 - Train Communications	(\$1,000,000)	80.02 - Allocated Contingency
7)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 11 - Preliminary Design & Supplemental Project Mit	(\$1,000,000)	80.02 - Allocated Contingency
			<b>July '13 Contingency Drawdown</b>	<b>(\$8,264,106)</b>	
<b>August '13</b>					
			<b>July '13 - Ending Contingency Balance</b>	<b>\$649.1</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 30 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$5,900,000)	80.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 32 - Kalo Channel Station Mod Concept	(\$72,381)	80.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 34 - Traditional Cultural Property Construction Permit Suspension	(\$1,195,084)	80.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 36 - Hahaione Station Relocation Design	(\$490,815)	80.02 - Allocated Contingency
5)	DB-320	Kameramena Highway Guideway DB	Executed Change Order No. 08 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$1,900,000)	80.02 - Allocated Contingency
6)	FD-430	West Oahu Stations Group FD	Executed Contract Amendment No. 02 - Canopy Redesign	(\$1,300,000)	80.02 - Contract Allowance
7)	WB-930	Elevator & Escalator Installation	Budget Transfer for Contract awarded under EBE TM contract budget	(\$1,638,492)	80.02 - Allocated Contingency
			<b>August '13 Contingency Drawdown</b>	<b>(\$8,624,063)</b>	
			<b>August '13 - Ending Contingency Balance</b>	<b>\$643.2</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 33 - Provisional Sum HHOIT Joint Use and Occupancy	(\$4,900,000)	80.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 35 - Aesthetic Column Design Conflict	(\$120,812)	80.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 12 - HNTB Design Escalation	(\$833,500)	80.02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group FD	Executed Contract Amendment No. 10 - NTP 2 Delay/Design Delay from Core Systems Contract & West Oahu Farrington Highway DB Contract	(\$270,885)	80.02 - Allocated Contingency
			<b>September '13 Contingency Drawdown</b>	<b>(\$6,115,297)</b>	
			<b>September '13 - Ending Contingency Balance</b>	<b>\$637.1</b>	
1)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 13 - Ins. Covg Requirements/ Roof Access Modification	(\$282,155)	80.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 13 for Ins. Covg Requirements	\$286,800	80.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 37 - AIA In-Street Mod V38 at LR Horton & Farrington HWY	\$24,819	80.02 - Allocated Contingency
4)	DB-040-820	Core Systems Design Build O&M	Executed Change Order No. 05 - Platform Screen Gates Systems	(\$28,201,657)	80.01 - Allocated Contingency
5)	FD-520	Ullinham and Kakaako Stations group FU	Budget Transfer for Contract awarded under DHS5 FD contract budget	(\$1,157,760)	80.02 - Allocated Contingency
			<b>October '13 Contingency Drawdown</b>	<b>(\$22,134,737)</b>	
			<b>October '13 - Ending Contingency Balance</b>	<b>\$615.0</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 38 - Insurance Coverage Requirement O4 2013	(\$1,800,000)	80.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 038 for Ins. Covd. Requirements	\$1,800,000	80.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 014 - Preliminary Design & Supplemental Project Management 2	(\$714,846)	80.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 015 - Yard Layout Revisions/HP Structural Steel Modification	(\$1,723,000)	80.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 016 for Ins. Covd. Requirements	\$223,000	80.02 - Allocated Contingency
6)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment No. 01 - Archeological Inventory Survey (AIS) Suspension	(\$52,800)	80.02 - Allocated Contingency
7)	FD-240	Farrington Highway Station group FU	Budget Transfer for Contract awarded for FHS5 FD II	(\$2,100,266)	80.01 - Unallocated Contingency
			<b>November '13 Contingency Drawdown</b>	<b>(\$4,947,267)</b>	
			<b>November '13 - Ending Contingency Balance</b>	<b>\$610.0</b>	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 05 - Ulena St redesign scope impact	(\$248,358)	80.02 - Allocated Contingency
2)	FD-140	West Oahu Station Group FD	Executed Contract Amendment No. 03 - Design relocation of HECO 48kV and fiber optic lines	(\$23,928)	80.02 - Allocated Contingency
			<b>December '13 Contingency Drawdown</b>	<b>(\$272,886)</b>	
			<b>December '13 - Ending Contingency Balance</b>	<b>\$609.8</b>	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 06 - Archeological Inventory Survey (AIS) Suspension	(\$2,900,000)	80.02 - Allocated Contingency
2)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment No. 02 - Soil Resistance Test and Max/Sag Calculation	(\$406,153)	80.02 - Allocated Contingency
3)	MM-595	Construction Engineering & Inspection West	Budget Transfer for Contract Award less than CE&I West contract budget	\$181,068	80.02 - Allocated Contingency
4)	MM-595	Construction Engineering & Inspection East	Budget Transfer for Contract Award less than CE&I East contract budget	\$1,102,817	80.02 - Allocated Contingency
			<b>January '14 Contingency Drawdown</b>	<b>(\$1,428,718)</b>	
			<b>January '14 - Ending Contingency Balance</b>	<b>\$608.3</b>	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 07 - Reast & Sam Search Investigation	(\$132,900)	80.02 - Allocated Contingency
2)	MM-200	HART OOC	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	(\$11,487)	80.02 - Allocated Contingency
3)	MM-910	SEC II	Budget Transfer for Contract Award - Archeological & Cultural Monitoring & Core Systems Support contracts	(\$4,424,178)	80.02 - Allocated Contingency
4)	MM-980	Archeological & Cultural Monitoring	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	\$36,761	80.02 - Allocated Contingency
5)	MM-982	Core Systems Support	Budget Transfer for Contract Award - Core Systems Support contract	\$4,389,888	80.02 - Allocated Contingency
			<b>February '14 Contingency Drawdown</b>	<b>(\$5,322,900)</b>	
			<b>February '14 - Ending Contingency Balance</b>	<b>\$608.2</b>	

# HART Project Contingency Drawdown with Details

Data as of 2/28/16

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (k\$)	Contingency Code
<b>March '14</b>				
N/A	N/A	No Contingency Drawdown	\$0	
<b>March '14 Contingency Drawdown</b>				
			\$0	
			\$0	
<b>April '14</b>				
<b>March '14 - Ending Contingency Balance</b>			<b>\$608.2</b>	
1)	West Oahu Stations Group FD	Executed Contract Amendment No. 04 - East Kapolei Staff Room Pre-Final Submittal	(\$80,243)	90.02 - Contract Allowance
2)	Airport Section Guideway Utility FD	Executed Contract Amendment No. 08 - Notice-to-Proceed 4&5 Provisional Sum for Design Support during bid	(\$1,669,014)	90.02 - Contract Allowance
3)	Maintenance & Storage Facility DB	Executed Change Order No. 016 - Rail Lubricators	(\$102,000)	90.02 - Allocated Contingency
4)	Maintenance & Storage Facility DB	Executed Change Order No. 017 - Yard Layout Reconfiguration/Automated Train Operation Design	(\$2,126,000)	90.02 - Allocated Contingency
5)	Maintenance & Storage Facility DB	Executed Change Order No. 018 - Rail Material Storage Plan	(\$370,000)	90.02 - Allocated Contingency
6)	Maintenance & Storage Facility DB	Executed Change Order No. 019 - Train Wash Facility Shortening	\$0	90.02 - Allocated Contingency
7)	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 040 - Precast Yard Alternative Site	(\$12,400,638)	90.02 - Allocated Contingency
8)	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 041 - Revised Track Alignment and Profile	(\$46,800)	90.02 - Allocated Contingency
9)	West Oahu Fanning Highway Guideway DB	Executed Change Order No. 042 - Sandwhich Isles Communications Utility Relocation @ North South Rd	(\$796,048)	90.02 - Allocated Contingency
10)	Kamehameha Highway Guideway DB	Executed Change Order No. 005 - Rebar Clear Spacing Design Criteria	\$0	90.02 - Allocated Contingency
<b>April '14 Contingency Drawdown</b>			<b>(\$7,460,782)</b>	
<b>April '14 - Ending Contingency Balance</b>			<b>\$590.7</b>	
<b>May '14</b>				
<b>April '14 - Ending Contingency Balance</b>			<b>\$590.7</b>	
1)	West Oahu Stations Group FD	Budget Transfer for Executed Contract Amendment No. 05 - Final Design for relocated Hoopili Station	\$220,123	90.02 - Allocated Contingency
2)	Maintenance & Storage Facility DB	Executed Change Order No. 008 - AFEC work restrictions/abandoned utilities removal	(\$506,674)	90.02 - Allocated Contingency
3)	Maintenance & Storage Facility DB	Executed Change Order No. 009 - Emergency walkway/insurance covg. Requirements 2013	(\$839,000)	90.02 - Allocated Contingency
4)	DBOM-920	Executed Change Order No. 007 - Relocate TPSS to system site #3	\$87,054	90.02 - Allocated Contingency
5)	MMW-915	HDOT/MTOT Consultant	\$287,391	90.02 - Allocated Contingency
6)	Maintenance & Storage Facility DB	Budget Transfer for Executed Contract Amendment No. 001 - LEED measurement and verification plan	(\$9,910)	90.02 - Allocated Contingency
7)	Maintenance & Storage Facility DB	Executed Change Order No. 020 - CSC consolidated changes construction	(\$2,500,000)	90.01 - Unallocated Contingency
8)	Maintenance & Storage Facility DB	Executed Change Order No. 025 - OSB reconfiguration	\$70,000	90.02 - Allocated Contingency
<b>May '14 Contingency Drawdown</b>			<b>(\$2,816,016)</b>	
<b>May '14 - Ending Contingency Balance</b>			<b>\$568.4</b>	
<b>June '14</b>				
<b>May '14 - Ending Contingency Balance</b>			<b>\$568.4</b>	
1)	Maintenance & Storage Facility DB	Board Approved RFCC 00010 - Amendment 1 Non-Rail Escalator	(\$5,000,000)	90.02 - Allocated Contingency
<b>June '14 Contingency Drawdown</b>			<b>(\$5,000,000)</b>	
<b>June '14 - Ending Contingency Balance</b>			<b>\$563.4</b>	
<b>July '14</b>				
<b>June '14 - Ending Contingency Balance</b>			<b>\$563.4</b>	
1)	DBOM-920	Executed Change Order No. 008 - Platform Screen Gates Mobilization	(\$889,194)	90.02 - Allocated Contingency
2)	ROW	Budget Transfer for Contract Award above the Real Estate Map & Survey budget	(\$1,344,612)	90.02 - Allocated Contingency
3)	Maintenance & Storage Facility DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,007,860	90.02 - Allocated Contingency
4)	DB-120	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,556,107	90.02 - Allocated Contingency
<b>July '14 Contingency Drawdown</b>			<b>\$321,161</b>	
<b>July '14 - Ending Contingency Balance</b>			<b>\$563.7</b>	
<b>August '14</b>				
<b>July '14 - Ending Contingency Balance</b>			<b>\$563.7</b>	
1)	Maintenance & Storage Facility DB	Executed Change Order No. 010 - Delay in issuance of Notice-to-Proceed 2 & 3	(\$1,828,000)	90.02 - Allocated Contingency
2)	West Oahu Stations Group FD	Executed Amendment No. 006 - Passenger screen gates	(\$80,233)	90.02 - Allocated Contingency
3)	DBB-505	Budget Transfer for Contract Award above Airport Section Utility Construction original budget	(\$2,759,321)	90.02 - Allocated Contingency
4)	MMW-848	On Call Hazmat Removal Consultant	\$470,823	90.02 - Allocated Contingency
5)	MMW-845	Budget Transfer for Contract Award above On Call Contractor original budget	(\$130,435)	90.02 - Allocated Contingency
<b>August '14 Contingency Drawdown</b>			<b>(\$4,328,196)</b>	
<b>August '14 - Ending Contingency Balance</b>			<b>\$559.4</b>	
<b>September '14</b>				
<b>August '14 - Ending Contingency Balance</b>			<b>\$559.4</b>	
1)	OCIP Consultant Contract	Budget Transfer to unallocated contingency as estimate at completion is less than current budget	\$750,000	90.02 - Allocated Contingency
2)	Maintenance & Storage Facility DB	Executed Change Order No. 027 - Traditional Cultural Properties (TCP) Suspension	(\$479,593)	90.02 - Allocated Contingency
3)	Maintenance & Storage Facility DB	Executed Change Order No. 026 - Insurance Coverage Requirements 2014	(\$1,112,000)	90.02 - Allocated Contingency
4)	DB-320	Executed Change Order No. 011 - Revised Vehicle Critical Construction Safety Security Plan	(\$231,500)	90.02 - Allocated Contingency
5)	DB-320	Executed Change Order No. 012 - Insurance Coverage Requirements 8/11/3 - 6/30/14	(\$1,400,000)	90.02 - Allocated Contingency
6)	DB-120	Executed Change Order No. 045 - Standard Specification Revision 2.0	(\$2,850,000)	90.02 - Allocated Contingency
7)	DB-120	Executed Change Order No. 046 - Insurance Coverage Requirements 2014	(\$3,400,000)	90.02 - Allocated Contingency
8)	FD-530	City Center Guideway Utilities FD	(\$271,850)	90.02 - Allocated Contingency
9)	City Center Guideway Utilities FD	Executed Contract Amendment 005 - City Center Section Rescue Cart Scope Impact	(\$72,000)	90.02 - Allocated Contingency
10)	Kamehameha Highway Stations Group FD	Executed Contract Amendment 001 - Special Provisions Update/Shear Wave Analysis	(\$27,952)	90.03 - Contract Allowance
11)	Kamehameha Highway Stations Group FD	Executed Contract Amendment 003 - Historic Architect/Replace Highway Sign	(\$71,911)	90.03 - Contract Allowance
12)	Kamehameha Highway Stations Group FD	Executed Contract Amendment 005 - Added Bus Shelters at Alibia Stadium Station	(\$28,893)	90.03 - Contract Allowance
13)	Airport Section Guideway Utility FD	Executed Contract Amendment 001 - Aesthetic Station Column and Pear Harbor Station Redesign	(\$289,750)	90.02 - Allocated Contingency
14)	FD-430	Airport Section Guideway Utility FD	(\$49,900)	90.02 - Allocated Contingency
15)	West Oahu Stations Group FD	Executed Contract Amendment 007 - Traffic Signal Control Utility and Signal Access Road	(\$9,536,167)	90.03 - Contract Allowance
<b>September '14 Contingency Drawdown</b>			<b>(\$9,536,167)</b>	
<b>September '14 - Ending Contingency Balance</b>			<b>\$550.1</b>	
<b>October '14</b>				
<b>September '14 - Ending Contingency Balance</b>			<b>\$550.1</b>	
1)	DBOM-920	Core Systems Contract Design Build OIM	(\$145,000)	90.02 - Allocated Contingency
2)	Maintenance & Storage Facility DB	Executed Change Order No. 028 - Escalation due to Schedule Impacts	(\$8,500,000)	90.01 - Unallocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 2/26/16

Project #	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
3)	DB-320 Kanehameha Highway Guideway DB	Executed Change Order No. 013 - Station Load & Configuration Mods.	(\$1,350,000)	90.02 - Allocated Contingency
4)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 047 - Station Load & Configuration Mods.	(\$4,400,000)	90.01 - Unallocated Contingency
5)	FD-440 Airport Stations Group FD	Executed Contract Amendment No. 002 - Extension of PM Services	(\$790,000)	90.02 - Allocated Contingency
6)	FD-440 Airport Stations Group FD	Executed Contract Amendment No. 003 - Add Pedestrian Bridges to HFA Stations	(\$424,840)	90.02 - Allocated Contingency
7)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 001 - Extension of PM Services	(\$297,500)	90.03 - Contract Allowance
8)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 002 - Incorporation of Comments	(\$768,756)	90.01 - Unallocated Contingency
9)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 003 - Value Engineering	(\$472,705)	90.01 - Unallocated Contingency
10)	FD-140 West Oahu Stations Group FD	Executed Contract Amendment No. 004 - EOR/IAOR	(\$102,268)	90.01 - Unallocated Contingency
11)	FD-140 West Oahu Stations Group FD	Executed Contract Amendment No. 010 - Temporary Parking Lot Near UHMOUHWO & Hoopili Sewage Holding Tank	(\$297,500)	90.02 - Contract Allowance
12)	FD-140 West Oahu Stations Group FD	Executed Contract Amendment No. 011 - Extension of PM Services	(\$18,307,188)	90.02 - Allocated Contingency
<b>October '14 - Ending Contingency Balance</b>				
Beg. Balance			\$531.8	
1)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Order No. 012 - Delete Ticket Vending Machines	\$10,350,000	90.02 - Allocated Contingency
2)	FD-550 Dillingham Kakahiko Stations Group FD	Executed Contract Amendment No. 002 - General Excise Tax Credit	\$365,566	90.02 - Allocated Contingency
No vendor '14 Contingency Drawdown			\$10,735,566	
<b>November '14 - Ending Contingency Balance</b>				
Beg. Balance			\$542.5	
1)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Order No. 010 - HRT Train Mock-up Shipment/Believery	(\$83,715)	90.02 - Allocated Contingency
2)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Order No. 013 - HECO Connection Changes	(\$150,000)	90.02 - Allocated Contingency
3)	DB-320 Kanehameha Highway Guideway DB	Executed Change Order No. 014 - Escalation due to Schedule Impacts	(\$3,800,000)	90.02 - Allocated Contingency
4)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 048 - Escalation due to Schedule Impacts	(\$15,000,000)	90.01 - Unallocated Contingency
December '14 Contingency Drawdown			(\$18,713,715)	
<b>December '14 - Ending Contingency Balance</b>				
Beg. Balance			\$523.8	
<b>January '15</b>				
Core Systems Contract Design Build OIM			\$523.8	
1)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Order No. 011 - Eliminate Station Manager Booths	\$310,000	90.02 - Allocated Contingency
2)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 050 - Escalation due to Schedule Impacts Subcontractor Ameron Aggregate	(\$464,413)	90.01 - Unallocated Contingency
3)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 051 - Escalation due to Schedule Impacts Subcontractor Anti-Graffiti Paint	(\$21,476)	90.01 - Unallocated Contingency
4)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 052 - Escalation due to Schedule Impacts Subcontractor HPD Spec Duty Officer	(\$156,123)	90.01 - Unallocated Contingency
5)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 053 - Escalation due to Schedule Impacts Subcontractor MESA Blocks	(\$71,663)	90.01 - Unallocated Contingency
6)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 054 - Escalation due to Schedule Impacts Subcontractor Road Builder	(\$718,655)	90.01 - Unallocated Contingency
7)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 055 - Escalation due to Schedule Impacts Subcontractor Post Tension Strand Accessories	(\$787,177)	90.01 - Unallocated Contingency
8)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 056 - Escalation due to Schedule Impacts Subcontractor Ameron Rolled Drilled Shaft Casings	(\$102,875)	90.01 - Unallocated Contingency
9)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 057 - Escalation due to Schedule Impacts Subcontractor Ameron FAC Electric	(\$77,883)	90.01 - Unallocated Contingency
10)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Order No. 014 - Eliminate Secondary Emergency Access at M/S	\$50,000	90.02 - Allocated Contingency
11)	DB-450 Airport Stations Group FD	Executed Contract Amendment No. 012 - Contaminated Soil, 7 Piers, Wayside Lubricators	(\$55,000)	90.02 - Allocated Contingency
12)	DB-450 Airport Stations Group FD	Executed Contract Amendment No. 013 - Scope for Downtown Specific Center Superkalamia Sta & Blie Farrigs	(\$49,917)	90.02 - Allocated Contingency
13)	DB-450 Airport Stations Group FD	Executed Contract Amendment No. 014 - Hoopili Grading	(\$19,000)	90.02 - Allocated Contingency
14)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 005 - Add On-Board Electric Bikes Station HESG Stg	(\$17,744)	90.02 - Allocated Contingency
15)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 006 - Addition of 30 Superkalamia Station West Lch and Waipahu Stations	(\$57,000)	90.02 - Allocated Contingency
16)	FD-240 Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 007 - MOBS to West Lch and Waipahu Sinder Design	(\$8,000)	90.02 - Allocated Contingency
January '15 Contingency Drawdown			(\$3,989,243)	
<b>January '15 - Ending Contingency Balance</b>				
Beg. Balance			\$519.8	
<b>February '15</b>				
Core Systems Contract Design Build OIM			\$519.8	
1)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 058 - Kaloa Drainage Channel Geotechnical	(\$97,501)	90.02 - Allocated Contingency
2)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 059 - Revision of Waipahu Guideway, LCC Station & Pedestrian Vibration Criteria	(\$301,052)	90.02 - Allocated Contingency
3)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 060 - Waialua Scour Design Actuals	(\$289,494)	90.02 - Allocated Contingency
4)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 061 - Kaloa Scour Design Actuals	(\$656,571)	90.02 - Allocated Contingency
5)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 062 - West Lch and UHMO Station Revisions of Guideway	(\$84,212)	90.02 - Allocated Contingency
6)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 063 - Procurement & Delivery LCC Modular Bltg	(\$1,919,021)	90.01 - Unallocated Contingency
February '15 Contingency Drawdown			(\$4,198,851)	
<b>February '15 - Ending Contingency Balance</b>				
Beg. Balance			\$515.6	
<b>March '15</b>				
Core Systems Contract Design Build OIM			\$515.6	
1)	DBOM-320 Core Systems Contract Design Build OIM	Executed Change Amendment No. 015 - Test and Storage Truck Changes at USF	(\$7,211,000)	90.02 - Allocated Contingency
2)	DB-140 West Oahu Stations Group FD	Executed Change Amendment No. 013 - WOSG Pkgs and VES - Change 168 Bay Station Canopy Roofs, Change to CSC Dev location	(\$30,000)	90.02 - Allocated Contingency
3)	DB-140 West Oahu Stations Group FD	Executed Change Amendment No. 014 - WOSG Pkgs and VES - Change 168 Bay Station Canopy Roofs, Change to CSC Dev location	(\$49,000)	90.03 - Contract Allowance
4)	DB-525 Airport Stations Guideway 7 Pier Construction	Executed Change Order No. 006 - Management Extension thru October 2014	(\$97,500)	90.02 - Allocated Contingency
5)	DB-525 Airport Stations Guideway 7 Pier Construction	Executed Change Order No. 001 - H/OOT A Utility Relocation at Piers	(\$400,863)	90.02 - Allocated Contingency
6)	DB-340 Kanehameha Highway Stations Group FD	Executed Change Amendment No. 006 - Misc RFI's Interface Items	(\$308,176)	90.02 - Allocated Contingency
7)	DB-340 Kanehameha Highway Stations Group FD	Executed Change Amendment No. 006 - Alpha Stadium Low Impact Development Requirement	(\$4,910,539)	90.03 - Contract Allowance
March '15 Contingency Drawdown			(\$6,107,088)	
<b>March '15 - Ending Contingency Balance</b>				
Beg. Balance			\$510.7	
<b>April '15</b>				
Core Systems Contract Design Build OIM			\$510.7	
1)	DB-140 West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Redesign of East Kapolei Escalator	(\$65,000)	90.02 - Allocated Contingency
2)	DB-140 West Oahu Stations Group FD	Executed Contract Amendment No. 015 - Redesign of Pkgs, Trench at SSS and CSC Cabinets at East Kapolei	(\$28,000)	90.02 - Allocated Contingency
3)	DB-525 Airport Stations Guideway 7 Pier Construction	Executed Change Order No. 002 - Contractor to Perform CSL Testing	(\$17,378)	90.02 - Allocated Contingency
4)	DB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 048 - Hazmat Assessment for LCC Portables	(\$61,174)	90.02 - Allocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 2/26/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (H)	Contingency Code
<b>April '16 Contingency Drawdown</b>					
			<b>April '15 - Ending Contingency Balance</b>	<b>\$510.4</b>	
			<b>May '15</b>	<b>\$510.4</b>	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 016 - PS&I/Rev to Canopy Design/Power to Hogarth Station Countermeasures	(\$132,000)	80 03 - Contract Allowance
2)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 009 - West Loch Generator	(\$7,000)	80 03 - Contract Allowance
3)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 004 - HIA Obstruction Investigation	(\$20,000)	80 03 - Contract Allowance
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 018 - Delay to Method Shaft B	(\$121,000)	80 02 - Allocated Contingency
5)	DBOM-920	Core Systems Contract Design Build OIM	Executed Change Order No. 016 - Delete Passenger Counters Onboard Time-Wifi Provisions on Veh	\$114,161	80 02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 030 - OSB T&E/Blg Int Ext System Design Rev	(\$450,000)	80 02 - Allocated Contingency
			<b>May '16 Contingency Drawdown</b>	<b>(\$616,839)</b>	
			<b>May '15 - Ending Contingency Balance</b>	<b>\$509.3</b>	
			<b>Jun '15</b>	<b>\$509.8</b>	
1)	MM-923	HDOT Coordination Consult City Center	Budget Transfer from Inactive CPP- HDOT Airport consultant took on City Center scope	\$1,094,782	80 01 - Unallocated Contingency
2)	MM-980	Archaeological & Cultural Monitoring	Budget Transfer to Provide funding for FY2015	(\$551,092)	80 01 - Unallocated Contingency
3)	MM-923	HDOT coord	Budget Contract Amendment No. 013 - Airport Design Build Package	(\$523,640)	80 02 - Allocated Contingency
4)	MM-901	Program Management Support Const(PM-SC-2)	Budget Transfer for extended option for one year extension of services	(\$7,616,377)	80 01 - Unallocated Contingency
5)	DBOM-920	Core Systems Contract Design Build OIM	Budget Transfer for On Call Contractor performing CSC related scope at the ROC	(\$500,000)	80 02 - Allocated Contingency
			<b>June '16 Contingency Drawdown</b>	<b>(\$5,106,327)</b>	
			<b>June '15 - Ending Contingency Balance</b>	<b>\$501.7</b>	
			<b>Jul '15</b>	<b>\$501.7</b>	
1)	GC-100	City and County of Honolulu	Inactive CPP (DTS costs), reduces budget to incurred costs	\$410,598	80 01 - Unallocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 005 - Reloc of FCC Prohibits/Park Lot	(\$400,979)	80 01 - Unallocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 006 - Revise Offset LT Lane at Kihuauli	(\$755,963)	80 01 - Unallocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 007 - Revised West Yard Lead	(\$124,505)	80 01 - Unallocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 031 - MOW Interior Blg. Systems Devices	(\$180,000)	80 02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 032 - Deletion of Vegetative Roof Request	\$153,415	80 02 - Allocated Contingency
			<b>Jul '16 Contingency Drawdown</b>	<b>(\$997,469)</b>	
			<b>July '15 - Ending Contingency Balance</b>	<b>\$500.7</b>	
			<b>Aug '15</b>	<b>\$500.7</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 068 - Delay NTP1, 2 & 4 - OMC Escalation	(\$6,228,445)	80 01 - Unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 033 - EOS Foundation	(\$44,178)	80 02 - Allocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 017 - Relocate Sewer Near 935+00 to 847+00	(\$181,291)	80 02 - Allocated Contingency
4)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 010 - Power to UH/MW Station and Electrical Bonding	(\$48,000)	80 03 - Contract Allowance
5)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 010 - Pedestrian Bridge Modifications	(\$18,750)	80 03 - Contract Allowance
6)	FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment No. 007 - Value Engineering Reduce Sign Cost and PH, PR and AS New Platform Canopy Coordination	(\$924,572)	80 02 - Allocated Contingency
7)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 005 - Design Build Bridging Documents	(\$270,000)	80 02 - Allocated Contingency
8)	DBOM-920	Core Systems Contract Design Build OIM	Executed Change Order No. 017 - Voltage Flicker Study	(\$37,850)	80 02 - Allocated Contingency
9)	DBOM-920	Core Systems Contract Design Build OIM	Executed Change Amend No. 010005 - Slope of Change - Schedule Extension	(\$333,995)	80 02 - Allocated Contingency
10)	FD-550	Billingham Kaka'ako Stations Group FD	Executed Change Amend No. 010005 - Slope of Change - Schedule Extension	(\$7,706,632)	
			<b>Aug '16 Contingency Drawdown</b>	<b>(\$14,929,3)</b>	
			<b>Aug '15 - Ending Contingency Balance</b>	<b>\$492.9</b>	
			<b>Sept '15</b>	<b>\$492.9</b>	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 018 - Unknown Subsurface at Boring 42PR Utility Varying from RFP	(\$92,251)	80 02 - Allocated Contingency
			<b>Sept '16 Contingency Drawdown</b>	<b>(\$92,251)</b>	
			<b>Sept '15 - Ending Contingency Balance</b>	<b>\$492.8</b>	
			<b>Oct '15</b>	<b>\$492.8</b>	
1)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amend No. 008 - Interface Coordination	(\$183,000)	80 02 - Allocated Contingency
2)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amend No. 009 - Replenish of NTP4	(\$60,000)	80 02 - Allocated Contingency
3)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Amend No. 011 - NTP2 Extension	(\$50,000)	80 02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Amend No. 012 - W/L Switchgear Pad & TPSS Foundation	(\$34,000)	80 02 - Allocated Contingency
5)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 018 - NTP 4 Replenishment	(\$50,000)	80 02 - Allocated Contingency
6)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 019 - East Kapolei Bent Deflections	(\$40,000)	80 03 - Contract Allowance
7)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 006 - General Excise Tax Credit	\$88,353	80 02 - Allocated Contingency
8)	DBOM-920	Core Systems Contract Design Build OIM	Executed Change Order No. 018 - Settlement of RFP 000120(gmo. Delay Claim resubmittal)	(\$9,700,000)	80 02 - Allocated Contingency
9)	DBOM-920	Core Systems Contract Design Build OIM	Executed Change Order No. 018 - Credit for four car Connsr's, eliminates the requirements for mixed fleet operations	\$5,200,000	80 02 - Allocated Contingency
			<b>Oct '16 Contingency Drawdown</b>	<b>(\$3,768,641)</b>	
			<b>Oct '15 - Ending Contingency Balance</b>	<b>\$489.0</b>	
			<b>Nov '15</b>	<b>\$489.0</b>	
1)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 035 - Flagpole, Changes to Color Scheme	(\$45,900)	80 02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 037 - AIS Reconciliation Credit from CCO 0007	\$785,304	80 02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 038 - Unpaid Suspension Amounts	(\$271,374)	80 02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 039 - Escalation of Additional Design Services Due to Schedule	(\$88,056)	80 02 - Allocated Contingency
5)	MM-970	Fare Collection Consultant	Budget Transfer for Contract Award - MM-970 Fare Collection Consultant	(\$1,178,300)	80 03 - Contract Allowance
			<b>Nov '16 Contingency Drawdown</b>	<b>(\$778,326)</b>	
			<b>Nov '15 - Ending Contingency Balance</b>	<b>\$488.2</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 069 - Utility Relocate at Waiapahu Depot	(\$200,000)	80 01 - Unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 041 - Re-work of site work due to AIS	(\$537,653)	80 02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 036 - TWF Building System Descrip. MOW Interior Blg Sys Dev P12 and OSB Interior Blg Sys Dev P12	(\$130,000)	80 02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 019 - Relocate driveway/Curb Ramps, HDOT additional scope -design speed	(\$57,889)	80 02 - Allocated Contingency

### HART Project Contingency Drawdown with Details

Data as of 2/28/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (F/H)	Contingency Code
5)	FD-530	City Center Guideway, Utilities FD	Executed Change Amend No. 007 - City Center Repackaging	(\$14,038) / 90.02 - Allocated Contingency	
			Dec '16 Contingency Drawdown	(\$839,533)	
			<b>Dec '15 - Ending Contingency Balance</b>	<b>\$487.3</b>	
			<b>Jan '16</b>	<b>\$487.3</b>	
1)	DB-120	West Oahu Farmington Highway Guideway, DB	Executed Contract Change Order No. 070 - Equipment Escalation	(\$768,874) / 90.01 - Unallocated Contingency	
2)	DB-200	Maintenance & Storage Facility, DB	Executed Contract Change Order No. 040 - Layout Direct Fix/Balasted Turnout	\$492,834 / 90.02 - Allocated Contingency	
3)	DB-200	Maintenance & Storage Facility, DB	Executed Contract Change Order No. 042 - Mainline Rail Material Quantities	\$38,000 / 90.02 - Allocated Contingency	
3)	DBB-525	Airport Section Guideway / Pier Construction	Executed Change Order No. 004 - Adjustment for Un-used Allowances	\$521,728 / 90.02 - Allocated Contingency	
4)	DBB-525	Airport Section Guideway / Pier Construction	Executed Change Order No. 005 - CMP Elevation Change, Access to Pier 549-551R	(\$88,500) / 90.02 - Allocated Contingency	
			Jan '16 Contingency Drawdown	\$146,058	
			<b>Jan '16 - Ending Contingency Balance</b>	<b>\$487.4</b>	
			<b>Feb '16</b>	<b>\$487.4</b>	
1)	DB-120	West Oahu Farmington Highway Guideway, DB	Executed Contract Change Order No. 073 - Escal Due to Schedule Impacts Pt 2	(\$11,750) / 90.01 - Unallocated Contingency	
2)	DBOW-520	Core Systems Contract Design Build OMI	Executed Change Order No. 020 - Airport City Center Alignment	(\$490,000) / 90.02 - Allocated Contingency	
3)	DBOW-520	Core Systems Contract Design Build OMI	Executed Change Order No. 021 - F-OC Pearlsbide To DTIS Patch Panel	(\$47,500) / 90.02 - Allocated Contingency	
			Feb '16 Contingency Drawdown	(\$12,250)	
			<b>Feb '16 - Ending Contingency Balance</b>	<b>\$475.1</b>	
			<b>January '16 - Board Approved Changes Only - Pending Execution</b>		
1)	DB-120	West Oahu Farmington Highway Guideway, DB	RF-CC 00748 - LCC Station Access	(\$1,447,122) / 90.01 - Unallocated Contingency	
2)	DB-120	West Oahu Farmington Highway Guideway, DB	RF-CC 00748 - LCC Campus Impacts	(\$2,214,513) / 90.01 - Unallocated Contingency	
			Subtotal Board Approved Contingency Drawdown	(\$3,661,635)	
			<b>Feb '16 - Ending Contingency Balance (Pending Execution)</b>	<b>\$471.5</b>	

Appendix C. Project Cost Reports (data as of Feb. 26, 2016)

Cost reports are run from the HART Contract Management System (CMS)

Project Costs by Contract



Costs Reported as of Month Ending: February 2016

Project Monthly Cost Report by Contract - One Line Summary  
2/26/16

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CPP No	Title	A		B		C=A+B		D		E		F	
		Original	Changes	COMMITTED	Current *	AFE	AFE**	INCURRED	Incurred To Date	PERCENT	PERCENT		
ART	ART Contracts	124,000	0	124,000	124,000	0	0	0	0	0	0	0	0%
CCH-100	Inactive HART/CHY CCH	15,348,443	0	15,348,443	15,348,443	0	0	14,925,228	0	14,925,228	0	97%	97%
CCH-101	HART/CHY Dept of BFS	105,092	0	105,092	105,092	0	0	0	0	0	0	0	0%
CCH-102	HART/CHY DDC Land Division	256,201	0	256,201	256,201	0	0	173,182	0	173,182	0	68%	68%
CCH-107	HART/CHY Corporation Courses (COR)	1,616,253	250,000	1,866,253	1,866,253	250,000	2,500,000	133,823	2,500,000	133,823	0	10%	10%
CCH-108	HART / Board of Water Supply (BWS)	928,325	0	928,325	928,325	0	0	928,325	0	928,325	0	100%	100%
DB-120	West Oahu/Farrington Hwy Guideway DB	482,924,000	161,764,593	644,688,593	644,688,593	644,688,593	644,688,593	528,233,522	644,688,593	528,233,522	0	82%	82%
DB-200	Maintenance & Storage Facility DB	195,258,000	79,427,819	274,685,819	274,685,819	274,685,819	274,685,819	253,763,288	274,685,819	253,763,288	0	92%	92%
DB-320	Kamehameha Hwy Guideway DB	372,150,000	17,306,410	389,456,410	389,456,410	389,456,410	389,456,410	208,884,937	389,456,410	208,884,937	0	54%	54%
DBB-171	West Oahu Station Group DBB	56,088,470	0	56,088,470	56,088,470	56,088,470	56,088,470	0	56,088,470	0	0	0%	0%
DBB-185	SPCD - West Side SG Construction	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-271	Farrington Highway Station Group DBB	78,999,000	0	78,999,000	78,999,000	78,999,000	78,999,000	0	78,999,000	0	0	0	0%
DBB-275	SPCD-Pearl Highlands Pkg. Str. Constr.	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-371	Kamehameha Hwy Stations Grp. DBB	115,805,845	0	115,805,845	115,805,845	115,805,845	115,805,845	0	115,805,845	0	0	0	0%
DBB-385	Pamp H2R2	5,203,646	0	5,203,646	5,203,646	5,203,646	5,203,646	136,850	5,203,646	136,850	0	3%	3%
DBB-470	SPCD-Airport Station Group Constr.	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-505	Airport Section Utilities Constr. DBB	27,993,290	23,663	28,022,953	28,022,953	28,022,953	28,022,953	10,580,738	28,022,953	10,580,738	0	38%	38%
DBB-510	City Ctr. Section Util. Constr. DBB	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-520	SPCD-Airport-City Center Gateway Cntr.	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-525	Airport Section Guideway 7 Pier DBB	3,973,000	54,843	4,027,843	4,027,843	4,027,843	4,027,843	4,027,843	4,027,843	4,027,843	0	100%	100%
DBB-580	SPCD-Ollingham/Kaka'ako SG Cntr.	0	0	0	0	0	0	0	0	0	0	0	0%
DBB-600	Park-and-Ride Lots Construction	0	0	0	0	0	0	0	0	0	0	0	0%
DBO M-920	Core Systems Design Build O/M	573,782,793	26,060,894	599,843,687	599,843,687	599,843,687	599,843,687	176,833,628	599,843,687	176,833,628	0	29%	29%
FD-140	West Oahu Station Group FD	7,789,000	2,275,305	10,064,305	10,064,305	10,064,305	10,064,305	9,199,096	10,064,305	9,199,096	0	91%	91%
FD-240	Farrington Highway Stations Group FD	9,300,696	4,981,349	14,282,045	14,282,045	14,282,045	14,282,045	12,577,157	14,282,045	12,577,157	0	88%	88%
FD-245	SPCD-Pearl Highlands Pkg. Str. FD	0	0	0	0	0	0	0	0	0	0	0	0%
FD-340	Kamehameha Hwy Station Group FD	8,702,592	1,156,698	9,859,290	9,859,290	9,859,290	9,859,290	9,177,277	9,859,290	9,177,277	0	93%	93%
FD-430	SPCD-Airport Sect. Guideway/Util. FD	38,840,960	4,293,512	43,134,472	43,134,472	43,134,472	43,134,472	41,471,470	43,134,472	41,471,470	0	96%	96%
FD-440	SPCD-Airport Station Group FD	10,177,565	1,596,487	11,573,852	11,573,852	11,573,852	11,573,852	9,801,978	11,573,852	9,801,978	0	85%	85%
FD-530	SPCD - City Center Guideway/Util. FD	43,948,220	2,249,342	46,197,562	46,197,562	46,197,562	46,197,562	41,899,799	46,197,562	41,899,799	0	91%	91%
FD-550	SPCD - Ollingham and Kaka'ako SG FD	18,321,918	986,124	19,308,042	19,308,042	19,308,042	19,308,042	11,875,668	19,308,042	11,875,668	0	62%	62%
FD-600	Park-and-Ride Lots Final Design	0	0	0	0	0	0	0	0	0	0	0	0%
HRT-200	HART Labor	47,951,942	0	47,951,942	47,951,942	47,951,942	47,951,942	47,181,965	47,951,942	47,181,965	0	98%	98%

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\* Current Committed = Original Contract + CCO /Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)

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Costs Reported as of Month Ending: February 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 2/26/16

CPP No	Title	A		B		C=A+B		D		E		F	
		Original	COMMITTED Changes	Current *	AFE	AFE**	Incurred To Date	PERCENT %					
HRT-201	HART ODC Contracts	15,391,154	141,092	16,072,246	271,192	19,664,481	122%						
M1-900	Fare Collection DFI	0	0	0	0	0	0%						
M1-930	Elevators & Escalators Install/Maint	50,982,714	0	50,982,714	5,442,108	5,348,105	10%						
MM-280	SPCD-WOFH/KHSG CE&I(REPA CKA GED)	0	0	0	0	0	0%						
MM-290	Construction Engrg & Insp CEI West	54,232,480	0	54,232,480	16,650,000	22,969,732	42%						
MM-385	SPCD-Pearl Highlands Garage Ramps CEI	0	0	0	0	0	0%						
MM-500	SPCD-By M959 CEI East	0	0	0	0	0	0%						
MM-525	SPCD-By M959 CEI East	0	0	0	0	0	0%						
MM-590	SPCD-By M959 CEI East	0	0	0	0	0	0%						
MM-595	SPCD - Const. Engrg & Insp. CEI East	63,083,417	-47,826,417	15,257,000	(32,569,417)	12,382,150	81%						
MM-596	Construction Engrg & Insp CEI East 2	55,036,130	0	55,036,130	55,036,130	1,210,034	2%						
MM-600	SPCD-UHWO Pkg-Hoopili Str Fresh CEI	0	0	0	0	0	0%						
MM-900	Program Mgt Support Const (PM SC-1)	15,952,569	0	15,952,569	20,700,000	0	0%						
MM-901	Program Mgt Support Const (PM SC-2)	33,376,897	7,616,377	40,993,274	84,237,167	39,563,917	97%						
MM-905	MM-905 Gen Engrg Const EIS/PE	0	78,564,942	78,564,942	78,564,942	74,157,822	94%						
MM-910	MM-910 Gen Engrg Const FD-Construct	150,000,000	0	150,000,000	150,000,000	149,446,962	100%						
MM-913	MM-913 Gen Engrg Re compete	46,143,277	268,451	46,411,728	312,143,951	25,915,917	56%						
MM-915	HDOT Traffic Mgmt. Consult.	1,600,000	2,400,000	4,000,000	7,000,000	3,111,487	78%						
MM-920	HDOT Coordination Const WOFH	3,000,000	7,500,000	10,500,000	11,750,000	6,685,914	64%						
MM-921	HDOT Coordination Const KHG	10,000,000	-1,400,000	8,600,000	7,600,000	4,062,710	47%						
MM-922	HDOT Coordination Const Airport	12,000,000	-5,600,000	6,400,000	4,400,000	2,610,134	41%						
MM-923	HDOT Coordination Const City Center	0	0	0	0	0	0%						
MM-925	HDOT Labor - WOFH/KHSG Agreements	550,000	1,265,633	1,815,633	3,081,266	1,715,004	94%						
MM-926	HDOT Labor - Airport Agreements	0	0	0	0	0	0%						
MM-930	HDOT State SOA Manager & Consultant	1,272,400	583,142	1,855,542	843,167	873,849	47%						
MM-935	Real Estate Consultant	3,000,000	4,227,665	7,227,665	7,227,165	6,041,572	84%						
MM-937	Real Estate Consultant - Maps/Surv.	2,998,000	0	2,998,000	1,500,000	679,108	23%						
MM-940	Kako'o Consultant	1,000,000	0	1,000,000	500,000	523,188	52%						
MM-941	Kako'o Consultant II	200,000	0	200,000	200,000	0	0%						
MM-945	On-Call Contractor	1,000,000	1,000,000	2,000,000	1,800,000	1,939,108	97%						
MM-946	On-Call Hazmat Removal Contractor	3,075,000	75,000	3,150,000	1,075,000	2,661,485	84%						
MM-947	On-Call Contractor 2	7,500,000	0	7,500,000	45,000,000	3,237,508	43%						
MM-950	OCIP Consultant	1,250,000	0	1,250,000	1,250,000	1,007,188	81%						

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\*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)



Costs Reported as of Month Ending: February 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 2/26/16

CPP No	Title	A		B		C=A+B		D		E		F
		Original	Changes	COMMITTED	Changes	Current *	AFE **	AFE **	Incurred To Date	INCURRED	PERCENT	
MM-951	Owner-Controlled Insurance Program	41,000,000	0	41,000,000	0	41,000,000	0	0	26,494,012	65%		
MM-960	Archaeological & Cultural Monitoring	1,658,474	0	1,658,474	1,658,474	1,658,474	1,362,160	82%				
MM-962	Core Systems Support	49,988,989	0	49,988,989	3,600,000	14,071,868	32%					
MM-964	Safety and Security Consultant	4,899,573	112,751	4,812,324	4,012,751	3,026,155	63%					
MM-970	Fare Collection Consultant	1,184,398	0	1,184,398	1,178,200	0	0%					
MM-975	LEED Commissioning Services for MSF	278,630	9,910	288,540	288,540	137,295	48%					
O&M	Operating/Maintenance Contracts	280,970	-58,970	222,000	141,000	189,030	30%					
OTHER	All Project Wide Documents	0	0	0	0	0	0%					
PA-101	Programmatic Agreement Humanities	0	0	0	0	0	0%					
PA-102	Programmatic Agreement HFC	400,000	0	400,000	200,000	176,809	44%					
PA-103	Programmatic Agreement HFC Park Impr	0	0	0	0	0	0%					
ROW	Real Estate / Right-of-Way	99,885,511	0	99,885,511	121,932	94,923,473	95%					
UTIL	Utility Company Contracts	95,526,631	-2,646,298	92,880,333	71,077,649	47,955,843	52%					
<b>Total Project:</b>		<b>2,937,676,264</b>	<b>348,466,316</b>	<b>3,286,142,580</b>	<b>2,638,337,622</b>	<b>1,956,019,892</b>						

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\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)

Appendix D. Procurement and Contract Status

Awarded Contracts						
Contract Code	Contract Name	Contractor Name	Advertise Date	Contract Date	Issue NTP	Contract Substantial Completion Date
DB-120	West O'ahu/Farrington Highway Guideway (WOFH)	Kiewit Infrastructure West Company (KIWC)	Apr 03 '09	Nov 11 '09	Dec 01 '09	Jul 04 '16
DB-200	Maintenance and Storage Facility (MSF)	Kiewit / Kobayashi Joint Venture (KKJV)	Jul 24 '09	June 30 '11	Jul 25 '11	May 02 '16
DB-320	Kamehameha Guideway (KHG)	Kiewit Infrastructure West Company (KIWC)	Mar 19 '10	June 30 '11	Jul 12 '11	Sep 16 '16
DBOM-920	Core Systems Contract	Ansaldo Honolulu JV	Aug 17 '09	Nov 28 '11	Jan 13 '12	Mar 31 '19
MI-930	Elevators and Escalators	Schindler Elevator Corporation	Dec 18 '12	Jul 31 '13	Aug 02 '13	May 31 '18
FD-140	West O'ahu Station Group Final Design and Support	URS Corporation	Jun 14 '10	Jun 14 '12	Jun 15 '12	Jun 30 '16
FD-240	Farrington Highway Station Group Final Design and Support -2	URS Corporation	Jun 10 '13	Sep 27 '13	Sep 30 '13	Nov 14 '16
FD-340	Kamehameha Highway Station Group Final Design (Includes H2/R2 Ramp) and Support	Anil Verma Associates, Inc.	Jun 28 '11	Nov 16 '12	Nov 26 '12	Jun 14 '17
FD-430	Airport Section Guideway and Utilities Final Design and Support	AECOM Technical Services, Inc.	Jan 26 '11	Dec 22 '11	Jan 05 '12	Jun 30 '17
FD-530	City Center Section Guideway and Utilities Final Design and Support	AECOM Technical Services, Inc.	Dec 16 '11	Jul 30 '12	Jul 31 '12	Apr 30 '18
FD-440	Airport Station Group Final Design and Support	AECOM Technical Services, Inc.	Mar 30 '12	Nov 7 '12	Nov 14 '12	Jul 15 '17
FD-550	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and Support	Perkins+Will	Nov 16 '12	Aug 15 '13	Aug 19 '13	Jul 30 '18
MM-290	Construction Engineering & Inspection West Side Sections	PGH Wong Engineering, Inc.	Jul 26 '13	Jan 9 '14	Jan 09 '14	Mar 01 '19
MM-595	Construction Engineering & Inspection East Side Sections	URS Corporation	Jul 26 '13	Jan 07 '14	Jan 09 '14	Oct 09 '15
MM-901	Program Management Support Consultant -2 (PMSC-2)	InfraConsult LLC	Aug 03 '11	Feb 28 '12	Mar 08 '12	Mar 07 '17
MM-910	General Engineering Consultant II (GEC-2) (Final Design and Construction)	Parsons Brinckerhoff	Sep 03 '09	Jun 30 '11	Aug 02 '11	Dec 31 '14
MM-913	General Engineering Consultant III (GEC-3)	CH2M HILL	Jul 26 '13	Dec 5 '13	Dec 05 '13	Apr 5 '19
MM-935	Real Estate Consultant	Paragon Partners, Ltd.	Apr 01 '11	Mar 14 '12	Mar 14 '12	Mar 13 '17
MM-937	Real Estate Mapping & Surveying	R.M. Towill Corporation	Nov 15 '13	May 22 '14	May 23 '14	Dec 30 '17
MM-940	Kāko'o Consultant	Pacific Legacy, Inc.	May 20 '11	Mar 29 '12	Mar 30 '12	Feb 14 '17
MM-941	Section 106 Programmatic Agreement Project Manager Kāko'o II	Honua Consulting	Jun 26 '15	Dec 08 '15	Jan 04 '16	2 years + option to extend up to 4 years
MM-950	Owner-Controlled Insurance Program (OCIP) Consultant	Marsh USA, Inc.	Jan 31 '12	May 10 '12	Jun 05 '12	May 09 '17
MM-951	Owner-Controlled Insurance Program (OCIP) Brokerage Services	Aon Risk Services, Inc., of Hawaii	Jun 04 '13	Apr 09 '14	Apr 09 '14	Mar 30 '19
MM-960	Archaeological & Cultural Monitoring	Cultural Surveys Hawai'i	Sep 10 '13	Jan 15 '14	Jan 15 '14	May 30 '18
MM-962	CORE Systems Support	Lea+Elliott, Inc.	Sep 13 '13	Feb 10 '14	Feb 11 '14	Mar 01 '19
MM-964	Safety / Security Support	Lawson & Associates, Inc.	Oct 23 '13	Apr 23 '14	May 01 '14	Dec 14 '17
MM-975	LEED Commissioning Services for the Maintenance and Storage Facility (MSF)	Enovity, Inc.		Oct 6 '10	Oct 07 '10	May 02 '16
PA-102	Historic Architecture Design Services	Fung Associates, Inc.	Mar 15 '13	Aug 1 '13	Aug 01 '13	May 01 '16
MM-915	HDOT Traffic Management Coordination Consultant	ICX Transportation Group, Inc.	Aug 15 '11	Jun 5 '12	Jun 12 '12	Jun 11 '17
MM-920	HDOT Design Coordination Consultant - West O'ahu/Farrington Highway	AECOM Technical Services, Inc.		Jun 7 '11	Jun 08 '11	Jun 07 '16
MM-921	HDOT Design Coordination Consultant - Kamehameha Highway Guideway Section	AECOM Technical Services, Inc.		Jun 28 '12	Jun 29 '12	Jun 28 '17
MM-922	HDOT Design Coordination Consultant - Airport and City Center Guideway	SSF International, Inc.		Jun 8 '12	Jun 12 '12	Jun 11 '17
MM-925	HDOT Labor Master Agreement WOFH	HDOT		Oct 27 '10	Oct 27 '10	Oct 27 '19
MM-945	On-Call Construction Contractor	Royal Contracting Co. Ltd.	Jun 02 '14	Aug 6 '14	Aug 14 '14	Mar 03 '19
MM-946	On-Call Hazardous Materials (HazMat) Removal Contractor	CH2M HILL		Aug 23 '12	Sep 07 '12	Feb 15 '17
MM-947	On-Call Construction Contractor II	Royal Contracting Co. Ltd.	Mar 17 '15	May 21 '15	May 21 '15	May 21 '20
MM-596	Construction Engineering and Inspection (CE&I) "I" Contract	Stantec Consulting Services	Mar 25 '15	Sep 10 '15	Sep 14 '15	Dec 31 '19
MM-970	Fare Collection System Technical Support Consultant	CH2M HILL	Mar 24 '15	Oct 22 '15	Oct 23 '15	Dec 31 '19
MI-900	Fare Systems Contract	INIT Innovations in Transportation, Inc.	Aug 11 '15	-	TBD	NTP + 120 months + 2 year option
DBB-385	Ramp H2R2	Royal Contracting Co. Ltd.	Jan 30 '15	May 18 '15	May 18 '15	Jun 17 '16
DBB-505	Airport Section Utilities Construction	Nan, Inc.	Dec 17 '13	Jun 30 '14	Oct 6 '14	Jul 13 '16
DBB-525	Airport Section Guideway Seven (7) Pier Construction Contract	HDCC / CJA JV	Jul 09 '14	Sep 18 '14	Sep 18 '14	Apr 22 '15
DBB-271	Farrington Hwy Stations Group Construction	Hawaiian Dredging Construction Company, Inc.	Dec 19 '14	Jun 22 '15	Aug 17 '15	NTP+ 29 months
DBB-171	West O'ahu Stations Group Construction	Nan, Inc.	Apr 13 '15	Jul 20 '15	Oct 13 '15	NTP+ 29 months
DBB-371	Kamehameha Hwy Stations Group Construction	Nan, Inc.	Aug 18 '15	Nov 17 '15	TBD	NTP+ 32 months
	Independent Financial Auditor "II" Contract	KMH LLP	Oct 26 '15	Mar 15 '16	Mar 23 '16	Mar 22 '18

Appendix E. Vehicle Carshell Progress Tracker

HONOLULU AB R.C. FABRICATION TRACKER

CAR-SHELL SERIAL NUMBER	CENTER ROOF FLOORING ASSEMBLY & WELDING	CENTER FLOORING ASSEMBLY & WELDING	CENTER ROOF FLOORING ASSEMBLY & WELDING	CENTER FLOORING ASSEMBLY & WELDING	CENTER ROOF FLOORING ASSEMBLY & WELDING	UNDER FRAME ASSEMBLY & WELDING	UNDER FRAME WELDING PARTS	UNDER FRAME INSPECTION	UNDER FRAME CLEANING AND PAINTING	UNDER FRAME ASSEMBLY & WELDING	UNDER FRAME WELDING PARTS	UNDER FRAME INSPECTION	PAINTING	INSULATION	FLOORING	FRONT MASK (E CAR ONLY)	CAR-SHELL FINAL INSPECTION	COMPLETED CAR-SHELL	FAI	COACHES INSTALLED	DATE SHIPPED FROM FC	DATE OF PORT DEPARTURE	DATE OF ETA TO PITTSBURGH
E/001 (CAR 1)																							
E/002 (CAR 2)																							
E/003 (CAR 3)																							
E/004 (CAR 4)																							
E/005 (CAR 5)																							
NV/006 (CAR 10)																							
E/006 (CAR 11)																							
NV/007 (CAR 12)																							
E/007 (CAR 13)																							
E/008 (CAR 14)																							
NV/009 (CAR 15)																							
E/010 (CAR 16)																							
NV/011 (CAR 17)																							
NV/012 (CAR 18)																							
E/013 (CAR 19)																							
NV/014 (CAR 20)																							
E/015 (CAR 21)																							
NV/016 (CAR 22)																							
E/017 (CAR 23)																							
NV/018 (CAR 24)																							
E/019 (CAR 25)																							
NV/020 (CAR 26)																							
E/021 (CAR 27)																							
NV/022 (CAR 28)																							
E/023 (CAR 29)																							
NV/024 (CAR 30)																							
E/025 (CAR 31)																							
NV/026 (CAR 32)																							
E/027 (CAR 33)																							
NV/028 (CAR 34)																							
E/029 (CAR 35)																							
NV/030 (CAR 36)																							
E/031 (CAR 37)																							
NV/032 (CAR 38)																							
E/033 (CAR 39)																							
NV/034 (CAR 40)																							
E/035 (CAR 41)																							
NV/036 (CAR 42)																							
E/037 (CAR 43)																							
NV/038 (CAR 44)																							
E/039 (CAR 45)																							
NV/040 (CAR 46)																							

Date: 29/03/2016

\*=Notes: Carshell Type E-45 to PT esthetic/metric Test  
(?)=Notes: shift for roof fire test

COMPLETE  
IN-PROCESS OR NEXT STATION  
CHANGED  
TEST UNIT  
ESTIMATED TIME OF COMPLETION OR SHIPPING DATES

## Appendix F. DBE Participation

HART has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), Title 49, Code of Federal Regulations, Part 26 (49 CFR Part 26). To be certified as a DBE, a firm must be small business owned and controlled by socially and economically disadvantaged individuals.

FTA funds totaling approximately \$1.764 billion in year of expenditure dollars (\$1.550 billion New Starts funds plus \$0.214 billion Section 5307/ARRA funds) will be expended for Project related goods and services. A project goal of 13% or approximately \$229 million dollars has been established for awards to DBEs through Federal Fiscal Year 2018.

It is the policy of HART to ensure that DBEs as defined in 49 CFR Part 26 have an equal opportunity to receive and participate in USDOT-assisted contracts.

DBE Participation (9/24/07 to 3/31/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	\$6,800	
				CT-DTS-1100195 DB-320	\$140,654	
				CT-HRT-1500297 MM-947	\$221	
				CT-HRT-1000449 DB-200	\$75,020	\$222,695
Glad's Landscaping	561730	APA	M	CT-HRT-10H0137 DB-120	\$303,790	\$303,790
Don's Makiki	484110	APA	M	CT-HRT-10H0137 DB-120	\$537,031	
				CT-HRT-10H0449 DB-200	\$81,581	
				CT-DTS-1100195 DB-320	\$60,714	\$679,326
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	\$85,043	
				CT-HRT-1500297 MM-947	\$3,840	\$88,883
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	\$5,836,436	\$5,836,436
PMJ Builders	238310	APA	M	CT-HRT-10H0137 DB-120	\$43,866	
				CT-DTS-1100195 DB-320	\$107,100	\$150,966
Standard Sheetmetal & Mechanical	236220	APA	M	CT-HRT-10H0449 DB-200	\$6,105	\$6,105
LP&D Hawaii	541320	APA	M	SC-DTS-1100013 FD-240	\$219,911	\$219,911
Ace Land Surveying	541370	NA	M	SC-DTS-1100013 FD-240	\$38,700	\$38,700
Integrated Security Tech.	561621	O	F	CT-HRT-1200106 DBOM-920	\$105,180	\$105,180
LKG-CMC	541618	O	F	SC-HRT-11H0131 MM-905	\$2,600,462	
				SC-DTS-0700001 **** MM-910	\$2,783,277	
				SC-HRT-1400051 MM-595	\$271,047	
				SC-HRT-1400049 MM-962	\$332,060	\$5,986,846
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	\$740,962	
				SC-DTS-0700001 **** MM-910	\$150,141	

DBE Participation (9/24/07 to 3/31/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400061 MM-964	\$1,202,674	\$2,093,777
Gary K. Omori	541618	APA	M	SC-HRT-11H0131 MM-905	\$388,609	
				SC-DTS-0700001 **** MM-910	\$392,920	\$781,529
Pat Lee & Assoc.	541618	APA	M	SC-HRT-11H0131 MM-905	\$402,791	
				SC-DTS-0700001 **** MM-910	\$374,110	\$776,901
212 Harakawa	541430	APA	F	SC-HRT-11H0131 MM-905	\$358,141	
				SC-DTS-0700001 **** MM-910	\$354,758	\$712,899
JAD & Associates	541330	APA	M	SC-DTS-0700001 **** MM-910	\$508,355	\$508,355
Pacific Architects	541310	APA	M	SC-DTS-0700001 **** MM-910	\$39,273	\$39,273
Nagame Okawa*	541310	APA	M	SC-DTS-0700001 MM-910	\$67,014	\$67,014
Consulting Structural Hawaii	541330	APA	M	SC-DTS-0700001 **** MM-910	\$298,557	\$298,557
Bright Light Marketing Group	541613	APA	F	SC-HRT-1200038 FD-430	\$162,813	
				SC-HRT-1200149 FD-530	\$191,227	
				SC-HRT-1300022 FD-440	\$134,912	\$488,952
Ki Concepts	541320	APA	M	SC-HRT-1200077 MM-922/923	\$26,550	\$26,550
Miyabara Associates	541320	APA	M	SC-HRT-1300022 FD-440	\$99,850	\$99,850
Anil Verma Associates, Inc.**	541350	HA	M	SC-HRT-1200111 FD-340	\$3,820,005	\$3,820,005
AMR Estimating Services ***	541330	HA	M	SC-HRT-11H0131 MM-905	\$135,281	
				SC-HRT-1400027 MM-913	\$817,270	\$952,551
The Nakoa Companies	541620	NA	M	CT-HRT-1200106 DBOM-920	\$3,843	\$3,843
Hawaiya Technologies	238210	APA	F	CT-HRT-10H0449 DB-200	\$27,514	
				CT-HRT-1200106 DBOM-920	\$20,142	\$47,656
Element Environmental	541620	APA	M	SC-HRT-1400050 MM-290	\$1,506,887	\$1,506,887
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	\$700,213	
				SC-HRT-1400051 MM-595	\$10,197	\$710,410
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	\$122,018	\$122,018
FIC, LLC	541611	APA	M	SC-HRT-1400051 MM-595	\$1,299,481	\$1,299,481
The Solis Group	541620	O	F	SC-HRT-1400027 MM-913	\$1,153,505	\$1,153,505
Island Hauling	484110	APA	M	CT-HRT-1000449 DB-200	\$319,693	\$319,693
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	\$1,666,203	\$1,666,203

DBE Participation (9/24/07 to 3/31/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
Dovetail Consulting	541330	BA	F	MOU-11-SO-1 MM-930	\$847,741	\$847,741
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	\$446,558	
				CT-HRT-1500297 MM-947	\$857,986	\$1,666,203
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	\$176	
				CT-HRT-1400323 DBB-505	\$34,988	
				CT-HRT-1500297 MM-947	\$152	\$35,316
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	\$13,291	
				CT-HRT-1500297 MM-947	\$2,117	\$15,408
<b>Total</b>						<b>\$33,528,303</b>

\* Nagame Okawa's countable participation is limited to the period from 1/2/09 to 2/16/10. The company graduated from the DBE program on 2/16/10.  
 \*\* Anil Verma Associates, Inc. is a prime contractor and was certified as a DBE effective 6/26/13.  
 \*\*\* AMR Estimating Services, Inc. was certified as a DBE effective 10/25/13.  
 \*\*\*\* DBE participation from 9/24/07 to 9/17/13.  
 \*\*\*\*\* ADS System Safety Consulting was certified as a DBE effective 8/7/14.

**Race Categories**

<b>APA</b>	Persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands, (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia or Hong Kong
<b>BA</b>	Persons having origins in any of the black racial groups of Africa
<b>HA</b>	Persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin regardless of race
<b>NA</b>	Persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians
<b>SAA</b>	Persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka
<b>O</b>	Any other group whose members are designated as socially and economically disadvantaged by the SBA

## Appendix G. Risk

Risk by Contract Package				
Contract Packages <sup>(Notes)</sup>	Feb. 2016 # of Risks	March 2016 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	6	6	0	0
West Oahu/Farrington Guideway <sup>(1)</sup>	11	10	0	1
Pearl Highlands Garage	4	4	0	0
Maintenance and Storage Facility <sup>(2)</sup>	5	4	0	1
Kamehameha Highway Guideway	16	16	0	0
Core Systems Contract	10	10	0	0
Elevator/Escalator	4	4	0	0
Airport Utilities	4	4	0	0
Farrington Highway Stations	5	5	0	0
Ramp H2R2	1	1	0	0
West Oahu Stations	5	5	0	0
Kamehameha Highway Stations	4	4	0	0
Airport Guideway & Stations	26	26	0	0
City Center Guideway & Stations	34	34	0	0
<b>Total</b>	<b>135</b>	<b>133</b>	<b>0</b>	<b>2</b>
<b>Notes:</b>				
(1) - One risk (180.03) deleted from WOFH.				
(2) - One risk (153.07) deleted from MSF.				

Comparison of Risk Ratings								
Contract Package/Section	February 2016 # of Risks				March 2016 Update # of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	6	2	3	1	6	2	3	1
West Oahu/Farrington Guideway	11	1	8	2	10	1	8	1
Pearl Highlands Garage	4	1	3	0	4	1	3	0
Maintenance and Storage Facility	5	0	2	3	4	0	2	2
Kamehameha Highway Guideway	16	2	10	4	16	2	10	4
Core Systems Contract	10	1	7	2	10	2	6	2
Elevator/Escalator	4	2	2	0	4	2	2	0
Airport Utilities	4	1	2	1	4	1	2	1
Farrington Highway Stations	5	1	4	0	5	1	4	0
Ramp H2R2	1	0	1	0	1	0	1	0
West Oahu Stations	5	0	5	0	5	2	3	0
Kamehameha Highway Stations	4	0	3	1	4	1	2	1
Airport Guideway & Stations	26	4	20	2	26	4	20	2
City Center Guideway & Stations	34	10	21	3	34	10	21	3
<b>Total</b>	<b>135</b>	<b>25</b>	<b>91</b>	<b>19</b>	<b>133</b>	<b>29</b>	<b>87</b>	<b>17</b>

Appendix H. Project Organization Chart

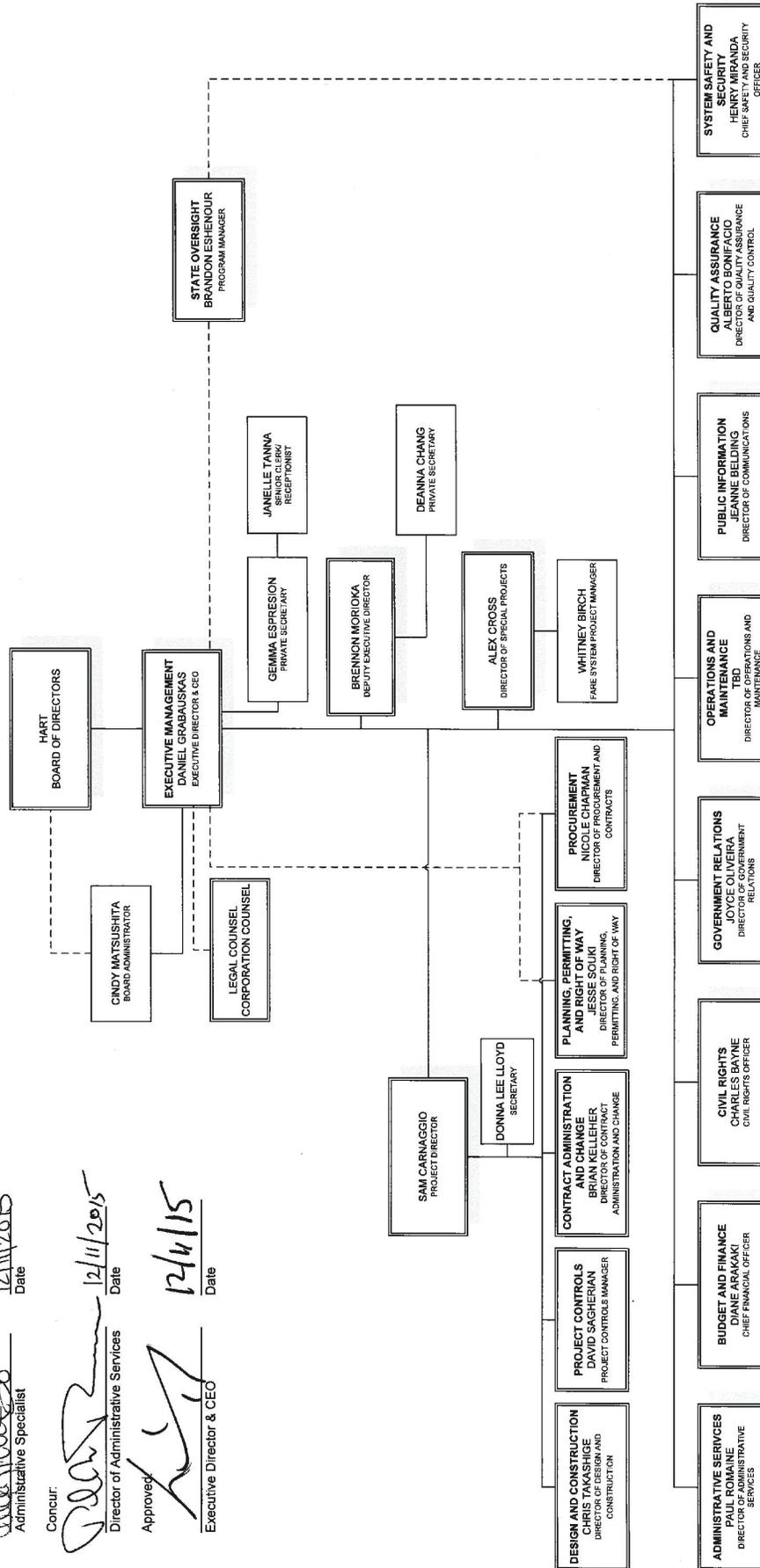
December 11, 2015

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

Prepared by: [Signature] 12/11/2015  
 Administrative Specialist Date

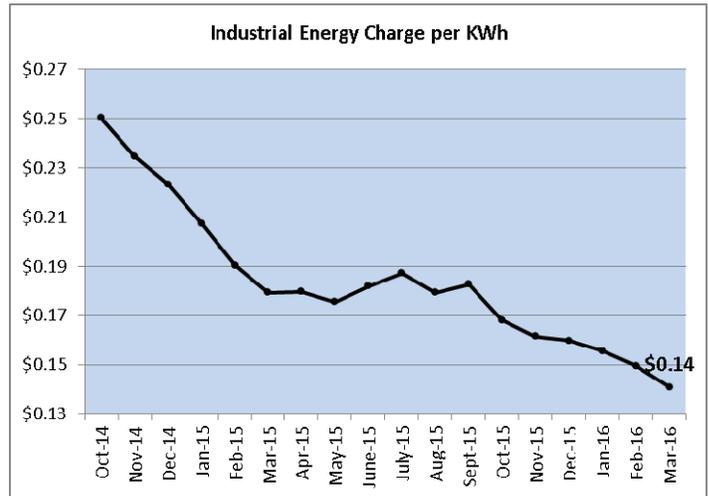
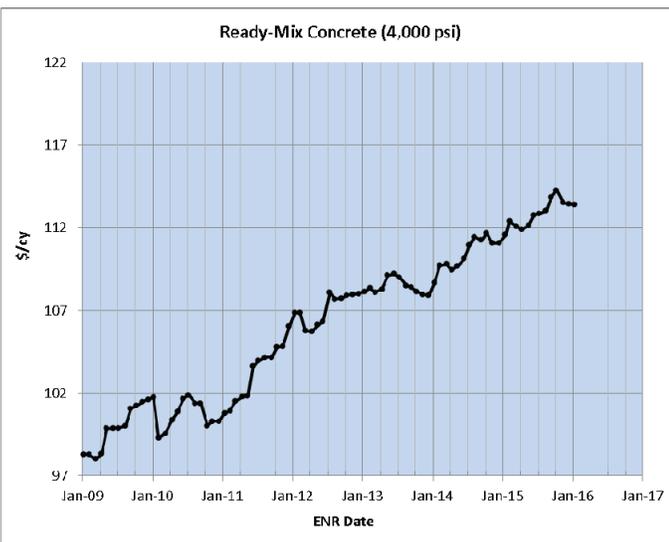
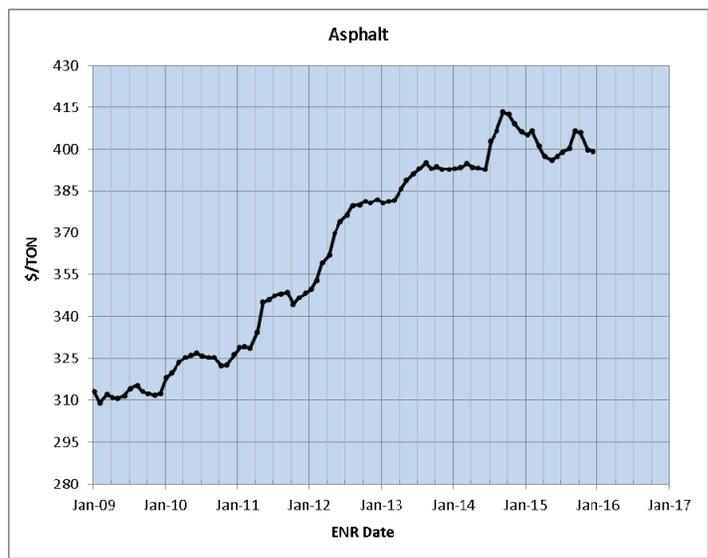
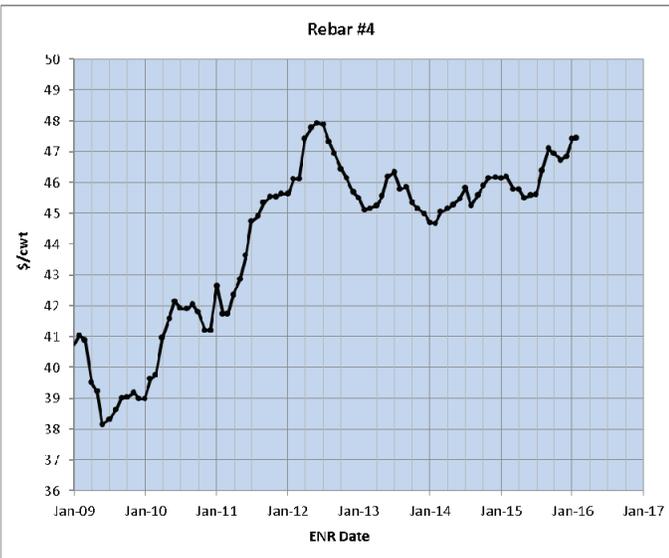
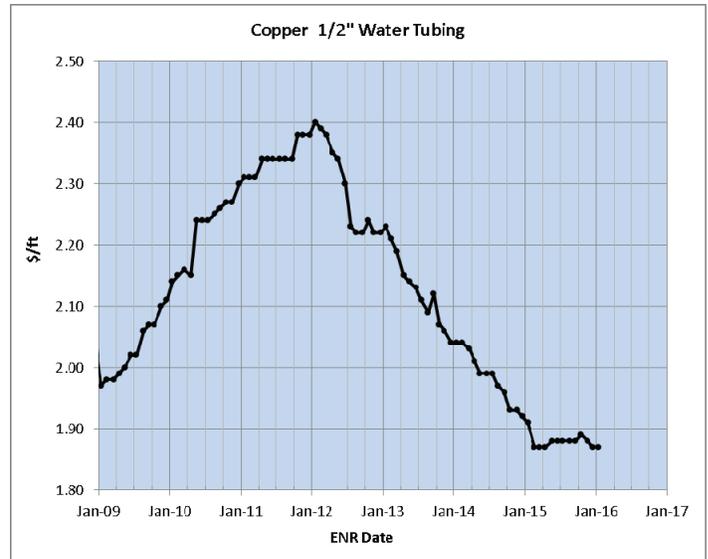
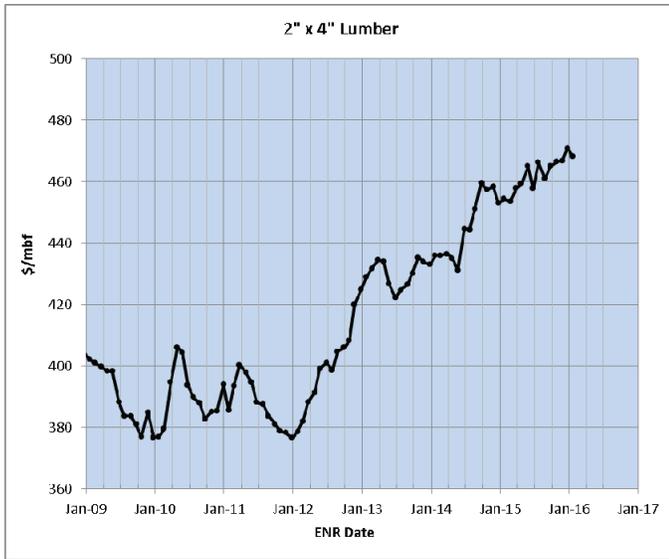
Concur: [Signature] 12/11/2015  
 Director of Administrative Services Date

Approved: [Signature] 12/4/15  
 Executive Director & CEO Date



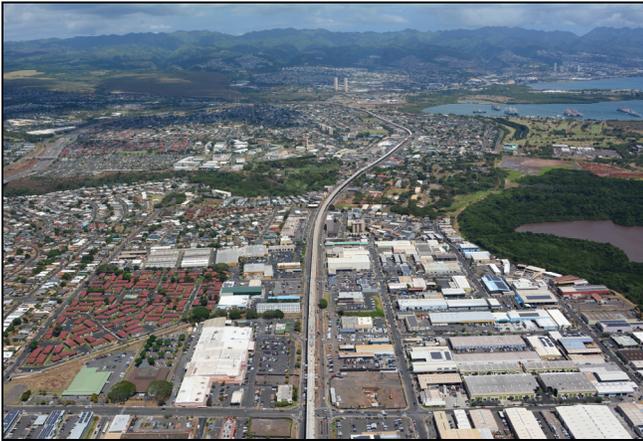
### Appendix I. Indices on Key Commodities

The following charts represent the cost trends on some of the key materials used in the program.



Source: HECO: Effective Rate Summary for P Rate

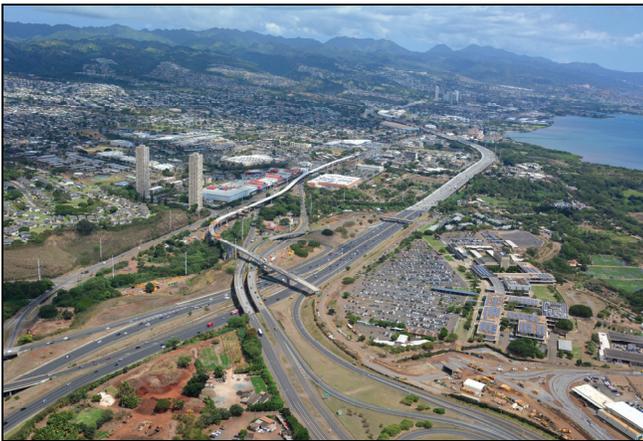
### Appendix J. Project Photos



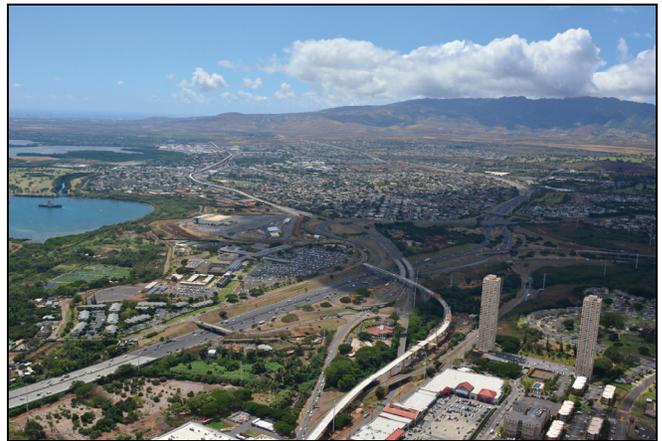
Guideway construction in West O'ahu.



Equipment storage site.



Balanced Cantilever construction near the H-1/H-2 Freeway merge.



Construction near the H-1/H-2 Freeways.



Construction along Kamehameha Highway.



Future Aloha Stadium Station.



Operations and Servicing Building (OSB).



Wheel Truing Building and OSB.



Maintenance of Way Building.



Casting Yard.