

# HONOLULU RAIL TRANSIT PROJECT



## January 2016 MONTHLY PROGRESS REPORT



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**THIRD PARTY DISCLAIMER**

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	DIT	Department of Information Technology
ACHP	Advisory Council on Historic Preservation	DKSG	Dillingham and Kaka’ako Station Group
ACS	Access Control System	DLIR	Hawai’i Department of Labor and Industrial Relations
AFE	Authorized for Expenditure	DLNR	Department of Land and Natural Resources
AGS	Airport Guideway and Stations	DOE	Department of Education
AHJV	Ansaldo Honolulu Joint Venture	DOH	Department of Health
AIS	Archaeological Inventory Survey	DOL	Department of Labor
APTA	American Public Transportation Association	DPM	Deputy Project Managers
ARRA	American Recovery and Reinvestment Act	DPP	Department of Planning and Permitting
ASG	Airport Station Group	DPR	Department of Parks and Recreation
ASU	Airport Section Utilities	DPS	Department of Public Safety
ATC	Automated Train Control	DS	Downstream
ATO	Automated Train Operation	DTS	Department of Transportation Services
AVA	Anil Verma Associates, Inc.	DVT	Design Verification Test
BA	Buy America	ECP	Environmental Compliance Plan
BAC	Buy America Compliance	E/E	Elevator/Escalator
BACM	Buy America Compliance Matrix	EK	East Kapolei
BAFO	Best and Final Offer	EMC	Electromagnetic Compatibility
BCS	Balanced Cantilever System	EMF	Electromagnetic Forces
BFS	Budget and Fiscal Services	EMI	Electromagnetic Interference
BLS	Bureau of Labor Statistics	EMP	Environmental Management Plan
BMP	Best Management Practice	EOR	Engineer of Record
BOD	Board of Directors	EOS	Electrically Operated Switch
BUE	Bottom-Up Estimate	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	FTA	Federal Transit Administration
CMU	Concrete Masonry Unit	FTE	Full-Time Equivalent
CNMMP	Construction Noise Mitigation and Monitoring Plan	FWS	Fish and Wildlife Service
COI	Conflict of Interest	GAT	Great Aleutian Tsunami
COMMs	Communications	GBS	Gap Breaker Station
CONRAC	Consolidated Rental Car Facility	GDR	Geotechnical Data Report
COR	Corporation Counsel	GEC	General Engineering Consultant
CP	Consulting Party	GET	General Excise Tax
CPM	Critical Path Method	GIS	Geographic Information System
CPO	Chief Procurement Officer	GSA	General Services Administration
CPP	Contract Packaging Plan	GT	General Terms
CROE	Construction Right-of-Entry	HA	Hazard Analysis
CSC	Core Systems Contract	HABS	Historic American Buildings Survey
CSCC	Construction Specification Conformance Checklists	HAER	Historic American Engineering Record
CSL	Cross Hole Sonic Logging	HALS	Historic American Landscape Survey
CSOC	Core Systems Oversight Consultant	HART	Honolulu Authority for Rapid Transportation
CSSP	Construction Safety & Security Plan	HCC	Honolulu Community College
CTS	Communications Transmission System	HCDA	Hawaii Community Development Authority
CWRM	Commission on Water Resource Management	HCSD	Hawai’i Capital Special District
CZM	Coastal Zone Management	HDCC	Hawaiian Dredging Construction Company
DAGS	Department of Accounting & General Services	HDOE	Hawai’i Department of Education
DB	Design-Build	HDOH	Hawai’i Department of Health
DBB	Design-Bid-Build	HDOT	Hawai’i Department of Transportation
DBE	Disadvantaged Business Enterprise	HDPE	High-density polyethylene
DBEDT	Department of Business, Economic Development and Tourism	HECO	Hawaiian Electric Company
DBOM	Design-Build-Operate-Maintain	HFD	Honolulu Fire Department
DCAB	Disability and Communication Access Board	HHF	Historic Hawai’i Foundation
DCCC	Design Criteria Conformance Checklists	HHPRB	Hawai’i Historic Places Review Board
DCN	Design Change Notice	HIE	Hawaii Independent Energy
DDC	Department of Design and Construction	HP	Historic Preservation
DES	Department of Environmental Services	HPC	Historic Preservation Committee
DFIM	Design Furnish Install Maintain	HPCA	Historic Preservation Certification Application
DFM	Department of Facility Maintenance	HPD	Honolulu Police Department
DHHL	Department of Hawaiian Homelands	HPF	Historic Preservation Fund
DHR	Department of Human Resources	HRHP	Hawai’i Register of Historic Places

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

TOC	The Outdoor Circle	VE	Value Engineering
TOD	Transit-Oriented Development	VRCS	Voice Radio Communication System
TPO	Thermoplastic Olefin	VRF	Variable Refrigerant Flow
TPSS	Traction Power Sub-Station	WA	Work Area
TSA	Transportation Security Administration	WHS	Waipahu High School
TSI	Transportation Safety Institute	WL	West Loch
TVA	Threat & Vulnerability Assessments	WOEDA	West Oahu Economic Development Association
TVM	Ticket Vending Machine	WOFH	West O'ahu/Farrington Highway
TWF	Train Wash Facility	WOSG	West O'ahu Station Group
UCA	Utility Construction Agreement	WSS	West Side Stations
UFCRA	Utility Facilities Relocation and Cost Reimbursement Agreement	WSSG	West Side Station Group
UH	University of Hawai'i	WTB	Wheel Truing Building
UHWO	University of Hawai'i West O'ahu	WYL	West Yard Lead
UL	Underwriters Laboratories	YCB	Yard Control Bungalow
UPS	Uninterrupted Power Supply	YOE	Year of Expenditure
VRCS	Voice Radio Communication System		
USACE	U.S. Army Corps of Engineers		
USDOT	U.S. Department of Transportation		

### 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 HART Board Meeting Q&A section has been included, as there were public questions posed at the January meeting. Please see page 13.

### Project Contingency

- The current contingency balance has decreased. Please see pages 16-17.

### Project Funding

- The Section 5309 New Starts Revenue amount received has increased. Please see pages 18-19.
- The total amount of cash received has increased. Please see pages 18-19.

### Project Revenue and Costs

- The ending cash balance amount has decreased. Please see page 20.

### Schedule

- Based on the uncertainty related to the GET extension and availability of funds during the month of December, the City Center Guideway and Stations project's request for proposal was postponed one month until early February. This will have a direct effect on the RSD forecast which will now be January 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 21.
- The Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract has been added to the Master Project Schedule Summary. Please see pages 21-23.

### Contracts in Procurement

- HART issued a notice to proceed for the Section 106 Programmatic Agreement Project Manager (Kāko'o "II") Contract. Please see page 26.
- HART entered into an agreement for the Kamehameha Highway Stations Group Construction Contract. Please see page 26.
- Procurements for On-Call Construction Contractor "III" Contract, Real Estate Acquisition "II" Contract, Litigation Services for Eminent Domain Contract, Land Court Petition Services Contract, and On-Call Appraiser Contracts are under evaluation. Please see page 26.

### Contract Status

- Fare Collection System
  - The award date for the Fare Systems Contract has shifted to a later date. Please see page 33.
- West O'ahu Farrington Highway Guideway (WOFH)
  - The current contract value has increased. Please see page 34.
- Maintenance and Storage Facility (MSF)
  - The contract substantial completion and the projected substantial completion dates have shifted to later dates. Please see page 42.
  - The current contract value has decreased. Please see page 42.

- Program Management Support Consultant-2 (PMSC-2)
  - HART intends to exercise its option to extend the PMSC contract for the remaining option year, effective March 8, 2016. Please see page 66.
- General Engineering Consultant III (GEC-3)
  - The current contract value has increased. Please see page 67.

**Right-of-Way**

- The percentage for total square footage of site control obtained has increased. Please see pages 73-74 and 78-82.

**Safety and Security**

- An Interim Certification Verification Status chart has been included. Please see pages 83 and 91.

**Risk Management**

- The total number of risks in the risk register has decreased. Please see pages 85, 96-99, and 125.

**Staffing**

- The actual number of employees has decreased. Please see page 102.

**Appendix D. Procurement and Contract Status**

- The contract substantial completion dates for DB-200 Maintenance and Storage Facility and MM-975 LEED Commissioning Services for the MSF have shifted to later dates due to change orders. Please see page 119.

# 1 EXECUTIVE SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The Honolulu Authority for Rapid Transportation (HART) continues to prepare for the first set of train vehicles to arrive in Honolulu this Spring. The fifth and sixth carshells have been delivered to the Final Assembly facility, and the seventh and eighth carshells are in transit to the Final Assembly facility in Pittsburg, California.

Construction progress also continues on island. As of January, crews on the West O’ahu Farrington Highway and Kamehameha Highway Guideway contracts have cast more than 4,000 segments and have stressed approximately 250 spans.



### City Council Approves GET Surcharge Extension

In January, the Honolulu City Council approved an extension of the state general excise tax surcharge to fund construction of the Honolulu rail project. Upon the Mayor’s signature, the general excise tax surcharge will be collected through the end of 2027, and will allow HART to complete construction of the rail transit project.

### APTA Business Members in Hawai’i

Members of the American Public Transportation Association (APTA) gathered in Hawaii for their Business Member Board of Governors’ Annual Business Meeting.

Approximately 100 APTA members had the opportunity to tour the precast yard operations, the rail alignment and the Maintenance and Storage Facility. HART’s Executive Director and CEO Dan Grabauskas also participated in a CEO Roundtable panel with APTA members about the progress of the rail project.

Every year, APTA hosts conferences and webinars to improve the knowledge, professional and technical skills and networking opportunities for public transportation professionals. APTA serves and leads its membership through advocacy, innovation and information sharing to strengthen and improve public transportation.

### Cost:

Project Costs Summary Through Dec. 25, 2015		
	Current Budget (\$M)	Incurred To Date (\$M)
Project Budget	\$4,461.3	\$1,883.3
Project Contingency	\$487.3	\$0.6
Finance Charges*	\$173.1	\$0.0
<b>TOTAL</b>	<b>\$5,121.7</b>	<b>\$1,883.9</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 Dec. 25, 2015				
	Actual		Early Plan	Late Plan
Overall Project Progress	43.0%		69.2%	61.0%
Overall Construction Progress	35.1%		62.6%	53.4%
Overall Design Progress	87.8%		99.6%	98.2%
Overall Utilities Progress	40.3%		85.6%	73.0%

\*All progress charts reflect early program expectations regarding the type of contract, timing of award, design, and execution of the nine western stations, eastern guideway and stations, and utilities work. These contracts have been repackaged and rescheduled to later dates and once the overall schedule is rebaselined, the cost curves will be revised to reflect the contract approved dates at that time. With the City Council decision on Jan. 27 and pending Mayor’s signature, HART will revise these charts to reflect the new budget and schedules.

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. With the Jan. 27 City Council decision, HART will revise project budget and program schedule plans once the Mayor’s signature is received.

**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 is on site and is continuing to install equipment in the Yard Control Bungalow (YCB). AHJV progress on fire detection wiring at the MSF Operations and Servicing Building (OSB) and Maintenance of Way (MOW) is at 90% complete, and AHJV continues to pull Communications cable in the MSF OSB and MOW building. Final Assembly activities are ongoing for the first four passenger vehicle carshells. (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 and WOSG 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

HART and Kiewit Infrastructure West Company (KIWC) continue to work together to ensure that quality and safety are the highest priorities. KIWC submitted a revised baseline schedule dated October 2014 which is progressed monthly and submitted with the progress payment in accordance with the WOFH contractual requirement. The most recent progress schedule, through November 2015, reflects a nearly six month delay to the contractual substantial completion date specific to 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 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

Preparation for rail car delivery, anticipated in spring 2016, continues. Coordination is ongoing with the abutting WOFH mainline contractor for completion of site access in the east and west yards, including rail, vehicular access, and utility connections. Startup testing of the HVAC system in the MOW is complete achieving a conditioned space within the MOW. Building finishes and mechanical, electrical and plumbing installations continue for the Operations and Servicing Building (OSB), and Wheel Truing Building (WTB). Installation of roofing and Direct Fixation Track installation commenced for the Train Wash Facility (TWF). Installation of rail continues for the ready tracks north of the TWF. Grading and paving has commenced for portions of Driveway 'A', 'B' and 'C.' (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

HART and Kiewit Infrastructure West Company (KIWC) continue to work together to ensure that quality and safety are the highest priorities. Per KIWC's progress schedule, as submitted with the application for payment, 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. This schedule has not yet been accepted by HART and is under review. A revised baseline schedule was submitted via contract Request for Change (RFC) by KIWC in September 2015 and is under review. (See Section 4.3.A for details)

Airport Section Utilities (ASU) Construction Contract

The Airport Section Utilities contract continues to be impacted by differing and unforeseen site conditions. In spite of these impediments, work is proceeding along Kamehameha Highway, Airport 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, which will directly impact the follow on guideway contract, 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)

**Board Meeting Q&A:**

Listed below are questions raised by community members at the January 28 HART Board meeting:

- **Question:** Will the FTA still grant the \$1.55 billion from the Full Funding Grant Agreement with the funding cap in Bill 23 in place?

**Answer:** The FTA has indicated that the wording in the bill is acceptable, and the current cap is not expected to jeopardize our grant funding.

- **Question:** If the \$4.8 billion in Bill 23 is not enough to complete the project, do we have to go back to the legislature to request more?

**Answer:** While we cannot predict the impact of the current construction market, our best estimates indicate that the funding in place is enough to complete the project, including funds for contingencies.

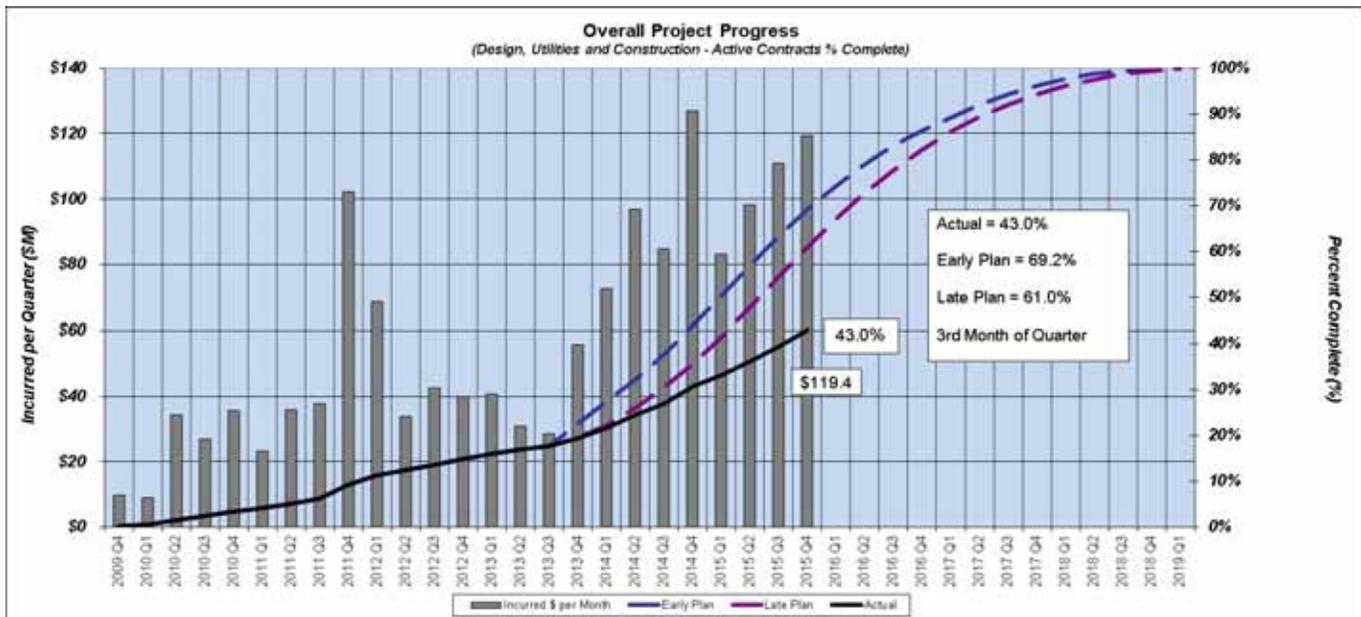
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of Dec. 25, 2015)

All progress charts reflect early program expectations regarding the type of contract, timing of award, design, and execution of the nine western stations, eastern guideway and stations, and utilities work. These contracts have been repackaged and rescheduled to later dates and once the overall schedule is rebaselined, the cost curves will be revised to reflect the contract approved dates at that time. With the City Council decision on Jan. 27 and pending Mayor’s signature, HART will revise these charts to reflect the new budget and schedules.

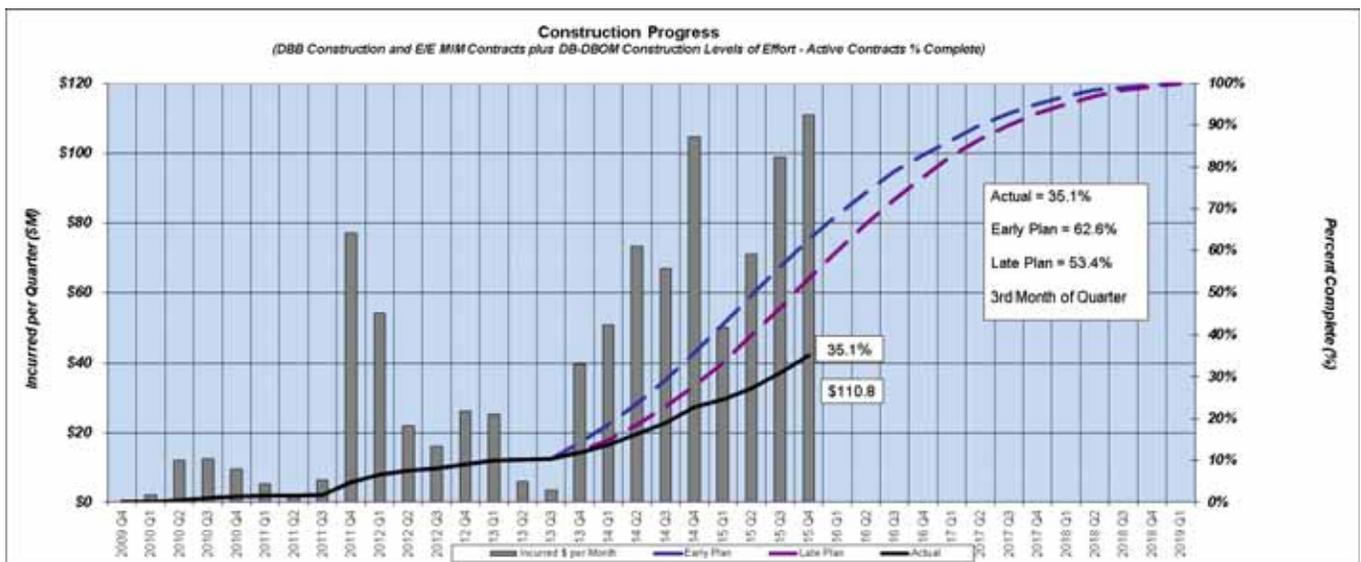
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date,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

Figure 1. Overall Project Progress (% Complete)



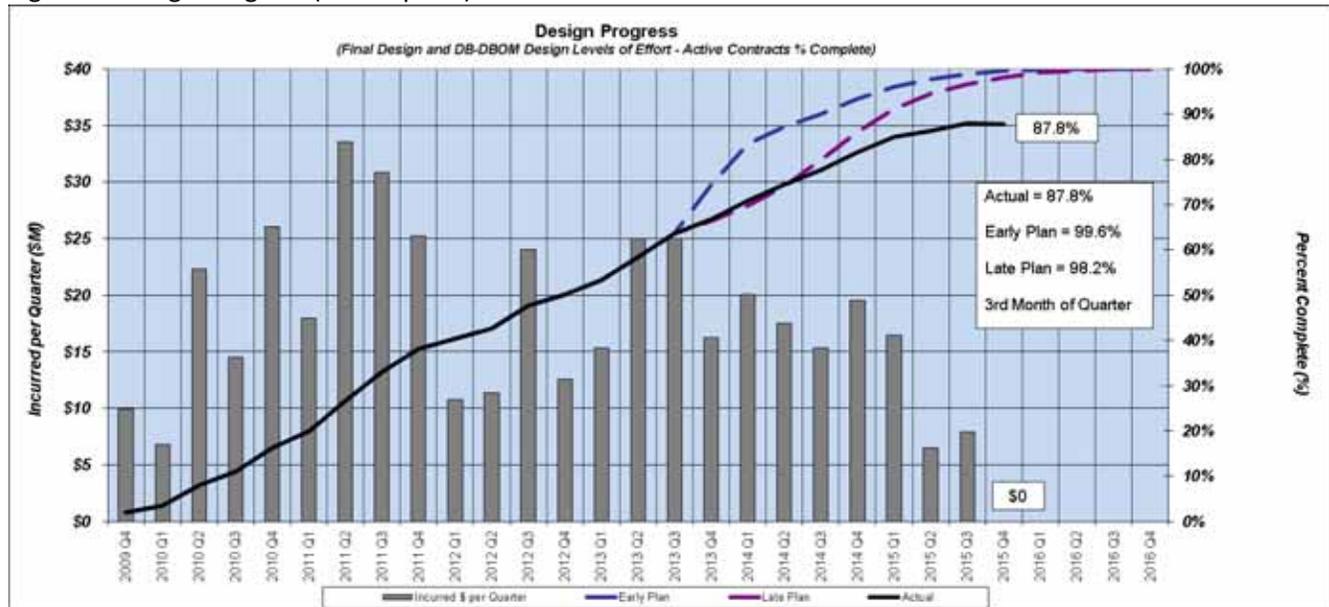
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM 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)



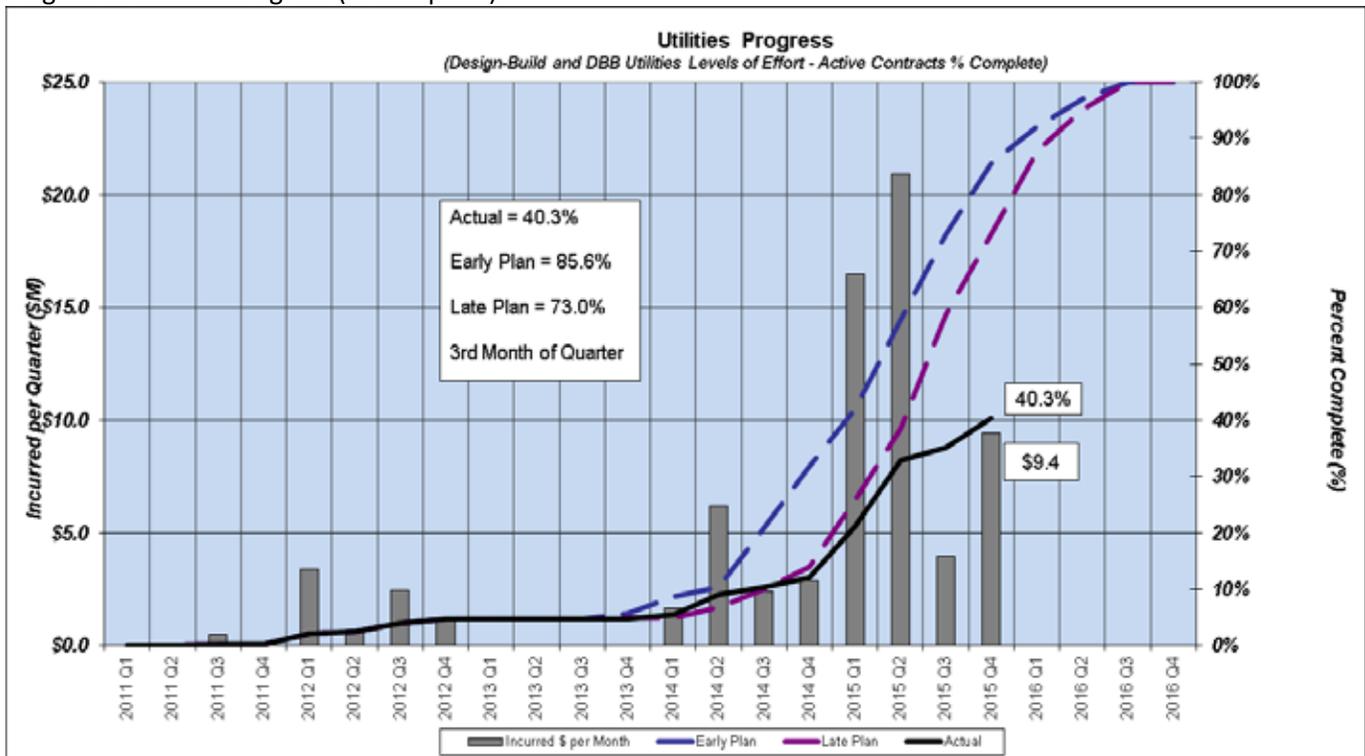
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

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.

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 Dec. 25, 2015)**

*Total Incurred Cost = \$1,883.9M  
(previous report = \$1,834.4M)*

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,461.3M
  - Current Project Contingency - \$487.3M
  - Project Finance Charges - \$173.1M
  
- 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.
  
- Total Incurred Cost = **\$1,883.9M** (42.2% of current project budget)
  - December 2015 Incurred Cost = \$49.5M

**2.3 Project Contingency (data as of Dec. 25, 2015)**

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

*Current Contingency Balance = \$487.3M  
(previous report = \$488.2M)*

- Current Project Contingency Balance = **\$487.3M**
  - Contingency drawdown to date – \$156.3M (24% of baseline project contingency budget)
  - \$0.9M contingency drawdown during December 2015. Please see Appendix B for more details.

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 October 2015 Report	90.01 - 90.03	(\$150.8)
Contingency drawdown November 2015 Report	90.01 - 90.03	(\$3.8)
Contingency drawdown December 2015 Report	90.01 - 90.03	(\$0.8)
Contingency drawdown January 2016 Report	90.01 - 90.03	(\$0.9)
Contingency drawdown to date	90.01 - 90.03	(\$156.3)
<b>Current FFGA Project Contingency</b>	<b>90.01 - 90.03</b>	<b>\$487.3</b>



2.4 Project Funding (data as of Dec. 25, 2015)

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	489	489
FTA Section 5307 Formula Funds	0	210	0	0
ARRA Funds	0	4	4	4
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2023	378	3,291	1208	1,586
<b>Total</b>	<b>385</b>	<b>5,356</b>	<b>2,001</b>	<b>2,088</b>

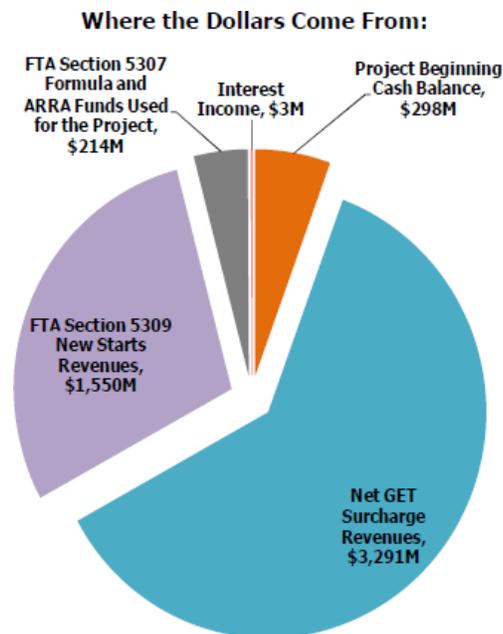
<sup>1</sup> GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

<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

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



Source: FFGA Financial Plan, p. 2-1

- General Excise Tax (GET) Surcharge (data as of Dec. 25, 2015)
  - \$1,208M = amount received since the Project’s entry into FTA’s Preliminary Engineering phase of project development.
    - \$1,239M = Projected Net GET Surcharge Revenue for FYs 2010-2Q 2016, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 2.5% short of projections to date, or \$31M behind.
    - \$31M shortfall is approximately 0.9% of the total GET surcharge projections per the FFGA Financial Plan of \$3.291B.
  - \$0 = GET surcharge received in December 2015.
- Full Funding Grant Agreement (FFGA)
  - \$16.8M = New Starts drawdown processed and received in December 2015.
- 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. Forecasts indicated an increase to project costs and a completion in 2021. The financial plan is currently being updated.

*Total Cash Received Since PE = \$2,001M*  
 (previous report = \$1,985M)

*GET Received Since PE = \$1,208M*  
 (previous report = \$1,208M)

*GET Received Since 2007 = \$1,586M*  
 (previous report = \$1,586M)

Figure 9. New Starts Drawdown by Federal Fiscal Year (data date as of Dec. 25, 2015)

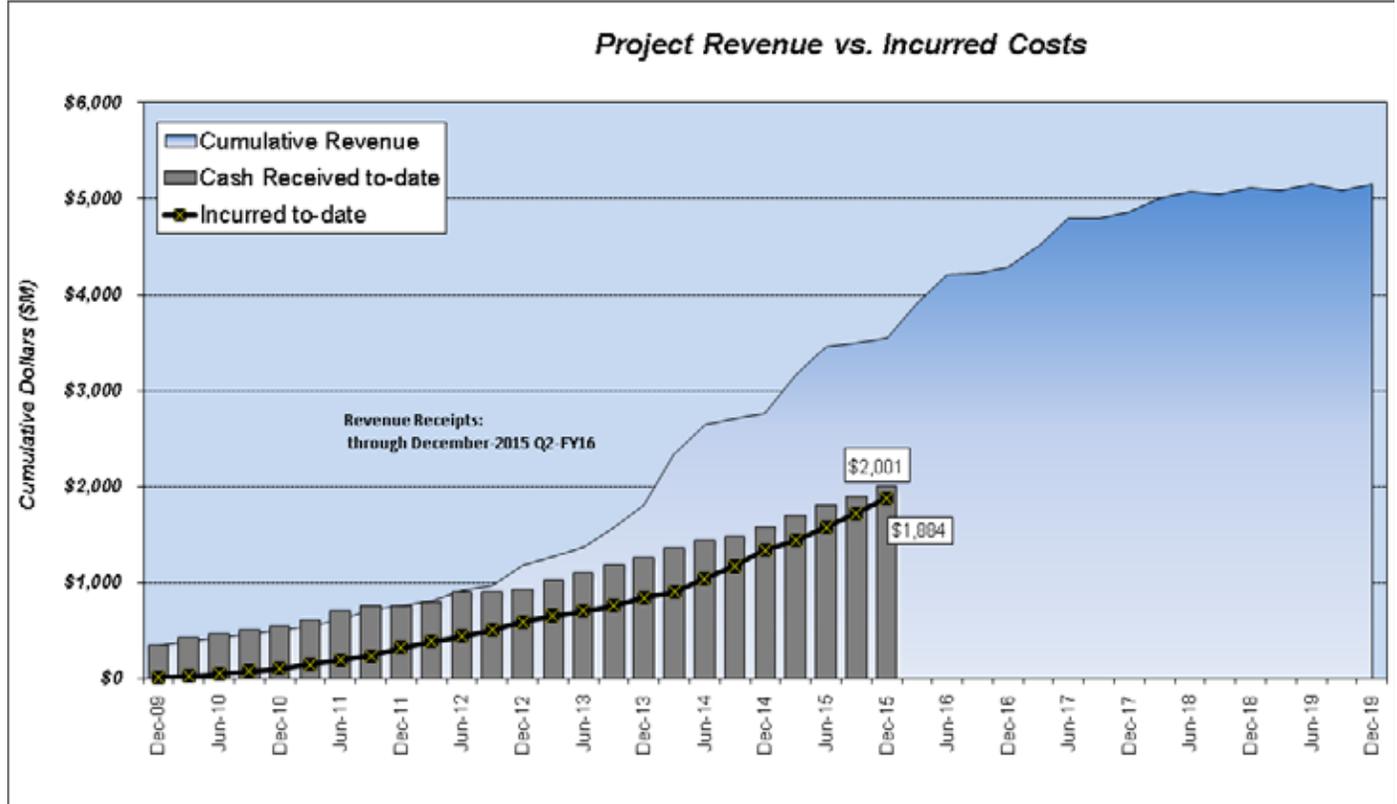
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$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	\$169,291,853	\$66,985,505	\$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>	<i>\$0</i>	<i>\$250,000,000</i>	<i>\$250,000,000</i>
<i>2016 (pending appropriation and award of grant)</i>	<i>\$250,000,000</i>	<i>\$0</i>	<i>\$250,000,000</i>	<i>\$250,000,000</i>
<i>2017 (pending appropriation and award of grant)</i>	<i>\$243,732,642</i>	<i>\$0</i>	<i>\$243,732,642</i>	<i>\$230,010,000</i>
<b>Total</b>	<b>\$1,550,000,000</b>	<b>\$489,281,853</b>	<b>\$1,060,718,147</b>	<b>\$1,550,000,000</b>

2.5 Project Revenue and Costs

(data as of Dec. 25, 2015)

*Ending Cash Balance 12/31/15 = \$198.1M*  
*(previous report = \$230.2M)*

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan  
Data date for Revenue & Incurred Cost = Dec. 25, 2015

Figure 11. Cash Balance Summary

DECEMBER 2015 CASH BALANCE SUMMARY		
	DECEMBER	FY16 YTD Cumulative
<b>Beginning Cash Balance 12/01/15</b>	230,175,216	293,010,823
Expenditures:		
Operating Expenditures	(2,702,719)	(7,866,130)
Capital Expenditures	(46,190,862)	(282,184,473)
<b>Expenditures Total:</b>	<b>(48,893,581)</b>	<b>(290,050,603)</b>
Receipts:		
GET Surcharge	0	117,151,246
FTA Drawdown	16,772,687	77,775,222
Interest	27,319	115,046
Other (rental, refunds, copy fees, etc.)	28,290	108,197
<b>Receipts Total:</b>	<b>16,828,297</b>	<b>195,149,711</b>
<b>Ending Cash Balance 12/31/15</b>	<b>198,109,931</b>	<b>198,109,931</b>

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

### 3 SCHEDULE

(data as of Dec. 25, 2015)

#### 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. Based on the uncertainty related to the GET extension and availability of funds during the month of December, the City Center Guideway and Stations project's request for proposal was postponed one month until early February. This will have a direct effect on the RSD forecast which will now be January 2022. HART will attempt to mitigate this delay through future mitigation measures taken with the CCGS contractor and/or the Core Systems Contractor.
- The Master Program Summary Schedule reflects currently approved schedule end dates for contracts that have been awarded, and planned dates for future contracts. The schedules in the Contract Status section (Section 4) reflect current contractor forecast end dates for contracts that have been awarded.
- The Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract is being readied for issuance for bid in the second half of 2016. A tentative schedule has now been included in the MPSS. Schedule dates are subject to change.
- Ramp H2R2 (DBB-385), WOSG (DBB-171) and FHSG (DBB-271) contractor schedules will be added to this report as soon as baseline schedules are accepted by HART. Until accepted contractor schedules become available, placeholder schedules spanning the contract dates are displayed in the contract sections of this report.
- 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.





## 4 CONTRACT STATUS

### Core Systems Contract (Section 4.1.A)

#### OVERVIEW

- Vehicle Aluminum Carshell Manufacturing continues to move forward in Reggio Calabria, Italy. The fifth and sixth carshells have been delivered to the Final Assembly facility. The seventh and eighth carshells are currently in transit to the Final Assembly facility in Pittsburg, California.
- Final Assembly of Train 1 is ongoing with the installation of door operators, doors, cabling, raceway, underfloor, interior and rooftop equipment.
- Progressing with sub-system testing and design verification activities.
- Yard Control Bungalow construction is ongoing – Installation of lighting fixtures and HVAC units continues.
- Traction Power Cable installation continues; pre-drilling of contact rail is complete and ready for termination of traction power cable in the storage area of the MSF Phase 2. Phase 3 and 4 are underway.
- Started terminating and testing of traction electrification system (TES) cables at the MSF Phase 2.

#### KEY ISSUES

- Revisions to the station and guideway Construction Access Milestone (CAM) dates requires coordination for interfacing work.
- Vehicle Production and Testing is an ongoing monitored risk. Final Assembly of the first train is experiencing delays due to equipment availability. The fabrication of welded steel Truck Frame and Bolster assemblies continues to be impacted by an extended subcontractor learning curve. AHJV/HRI has stationed truck fabrication experts at the Truck and Bolster fabricator, DRS, to assist with issue resolution. HART and CSC are addressing existing issues and will continue to work together to identify and respond to issues as they arise.

### Fare Collection System (Section 4.1.C)

#### OVERVIEW

- Fare Systems Technical Consultant Contract awarded to CH2M Hill on Sept. 24, 2015, for a term of five years.
- Proposals for the Fare Systems Contract were received on Nov. 13, 2015 and a Priority Offerors List of the top three Offerors was developed. Clarification discussions took place mid-January 2016. Best and Final Offer (BAFO) documents were issued to Priority-Listed Offerors (PLOs) at the end of January 2016. BAFO submissions are anticipated at the end of February 2016. Award is anticipated in mid-March 2016.

#### KEY ISSUES

- Completing legal review of Memorandum of Understanding (MOU) for Operations and Maintenance (O&M) cost sharing between HART and the City.
- Determining the best value proposal for HART and the City for the Fare System.

### West O'ahu Farrington Highway Guideway (Section 4.2.A)

#### OVERVIEW

- Leeward Community College (LCC) Portables, Parking Lot and Station Access Structure Change Order – HART and KIWC continue discussions on the scope and costs associated with the construction of the LCC Portables, Parking Lot and Station Access changes. KIWC has unilaterally halted all LCC construction work activities until the LCC Construction Change Order is executed by HART. The change order for this work is currently with HART senior management to be forwarded to the Board.
- Balanced Cantilever System (BCS) Form Advancement – BCS construction is progressing and all pier tables are complete. Segment casting and stressing is proceeding in both eastward and westward directions from Pier 256. All segments for Pier Table 253, 254 and 255 have been completed.
- Span by Span Advancement – Heading #2 at Waipahu High School, Work Area 4, is currently progressing westbound. Eastbound spans have been erected by West Loch Station and are proceeding towards Waipahu Transit Center Station.
- Construction Completion Milestones – In January, KIWC completed the construction of all drilled shafts, cast all segments in the casting yard, and completed shaft conflict relocations on the WOFH project. KIWC is on schedule to complete column construction by February 2016. Segment erection, track construction and third rail work are still ongoing.

KEY ISSUES

- LCC Portables, Parking Lot and Station Access Structure Change Order (for additional detail, see 4.2.A Key Issues)
- Construction Production/Baseline Schedule (for additional detail, see 4.2.A Key Issues)
- Night Noise Variance (for additional detail, see 4.2.A Key Issues)
- Intersection Closure for Span by Span (for additional detail, see 4.2.A Key Issues)
- Design Completion Schedule (for additional detail, see 4.2.A Key Issues)
- Closeout and Coordination (for additional detail, see 4.2.A Key Issues)

**Maintenance and Storage Facility (Section 4.2.D)**OVERVIEW

- HVAC Startup and testing is complete for the MOW. Mechanical and electrical installations as well as building finishes continue for the OSB.
- Roofing commenced for the Train Wash Facility (TWF) as well as installation of Direct Fixation track within the building.
- Traction power, signal, and train control conduit installation continues in the yard.
- Installation of rail is continuing for the tracks north of the Train Wash Facility and the East Yard Lead and West Yard Lead tracks.

KEY ISSUES

- Coordination with the abutting WOFH main line contract for completion of site access in the east and west yards, including rail, vehicular access and utility interconnection.
- Preparation for the receipt of rail car delivery is underway, including completion of an unloading area on the maintenance track adjacent to the OSB.
- Orderly completion of traction power, train control and building services raceways for turnover to Core Systems Contractor.
- Establish telephone service, as necessary, for building occupancy (elevator and fire alarm).

**Kamehameha Highway Guideway (Section 4.3.A)**OVERVIEW

- Construction of Drilled Shafts – KIWC currently has 4 drill spreads working on KHG. Over 56% of the KHG shafts have been completed.
- Utility Relocation – Relocation of utility pole 51 at TMK 9-8-008-029 is pending finalization of the ROE with the property owners and utility companies.
- HDOT Betterments – KIWC has been issued RFCRs to incorporate HDOT's betterments into the design and construction. HART has received the cost proposal for RFCR 30 (Replace CMP with RCP), has finalized the ICE, received HDOT concurrence, and is waiting for NSM approval for negotiation. HART has negotiated the cost for RFCR 32 (Traffic Signals), which is currently in the HART approval and execution process. The remainder of the betterment RFCR is still pending receipt of cost proposals from KIWC.
- Balanced Cantilever System (BCS) – KIWC completed Columns 307 up and down station east of the H-1 overpass and began pier table construction at pier 307. Column 306 pier table is complete and KIWC began working on stem wall and diaphragms.
- Span-by-span – KIWC continues Heading 3 span-by-span erection from the west end of the project limits toward Acacia Road.

KEY ISSUES

- Night Noise Variance (for additional detail, see 4.3.A Key Issues)
- HDOT Betterments (for additional detail, see 4.3.A Key Issues)
- Third Party Utility Impacts (for additional detail, see 4.3.A Key Issues)
- KIWC Resource Allocations (for additional detail, see 4.3.A Key Issues)
- Lack of Column Construction Progress

**Airport Section Utilities (ASU) (Section 4.4.B)**OVERVIEW

- The contractual Substantial Completion milestone for ASU is Feb. 6, 2016, and was intended to ensure completion of this work prior to the contractor for the Airport guideway beginning construction. Delays, in particular the Navy right of entry issue, have extended the projected ASU milestone date to August/September 2016. However, the Airport Segment Guideway and Stations contract has also been delayed and will not be impacted by the delay on the ASU contract.

KEY ISSUES

- Resolving ongoing change including delay claims.
- Amendments to the current approved Noise Mitigation plan are being prepared to allow Nan to utilize the equipment required to complete the work needed to be accomplished.
- A traffic maintenance plan to allow for a reversible lane during contraflow operations has been submitted for review and approval. Principle parts of the plan included 2 east bound lanes in the AM hours and 2 westbound lanes in the PM hours, with a goal of allowing lane closures for 8 hours a day. Implementation (amount of times lanes will be closed), if, approved will be gradual over several weeks such that impacts can be mitigated with various strategies such as the use of special duty officers at key intersections. By increasing the time work can be conducted, HART and the contractor can achieve two benefits, a reduction in overall contract time and a reduction in steel plates on the road as the longer time will allow the contractor to backfill and pave more areas as they are progressing rather than waiting until the following day.

**Contracts in Procurement**OVERVIEW

- Awarded Contracts:
  - On Jan. 4, 2016, HART issued a notice to proceed to Honua Consulting for the Section 106 Programmatic Agreement Project Manager (Kāko’o “II”) Contract.
  - On Jan. 27, 2016, HART entered into an agreement with Nan, Inc. for Kamehameha Highway Stations Group Construction Contract.
- Active Procurements:
  - Art-in-Transit: HART is in negotiations or will commence negotiations with the highest-ranked artists for each of the stations.
  - Airport Guideway and Stations Design-Build RFP: HART continues to be on schedule with the Part 2 solicitation timeline.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 will be issued on Feb. 2, 2016.
  - Fare Systems Contract RFP: Discussions have commenced with the priority listed offerors. HART has requested the offerors to submit their best and final offers (BAFO).
  - Independent Financial Auditor “II” Contract RFP: Proposals are currently in the evaluation process.
- Upcoming Procurements:
  - Procurements for UH West O’ahu Temporary Park and Ride and UH West O’ahu Campus Road “B” Design-Bid-Build Contract, Pearl Highlands Garage, Transit Center and Ramp H2R1 Design-Build Contract, On-Call Construction Contractor “III” Contract, Real Estate Acquisition “II” Contract, Litigation Services for Eminent Domain Contract, Land Court Petition Services Contract, and On-Call Appraiser Contracts are under evaluation.

KEY ISSUES

- Kamehameha Highway Stations Group Construction Contract: On Dec. 30, 2015, Watts Constructors LLC (“Watts”) filed a protest of the award of contract to Nan, Inc. for the Kamehameha Highway Stations Group Construction Contract. On Jan. 15, 2016, HART’s chief procurement officer issued a determination denying Watts’ protest. An appeal was not filed by Watts, therefore lifting the stay that went into effect upon filing of the protest.

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 is continuing to progress through Final Design. Qualification and design verification tests are ongoing. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV is on site and is completing the Yard Control Bungalow (YCB) by installing equipment. AHJV progress on fire detection wiring at the MSF OSB and MOW is at 90% complete, and AHJV continues to pull Communications cable in the MSF OSB and MOW building. Final Assembly activities are ongoing for the first four passenger vehicle carshells.

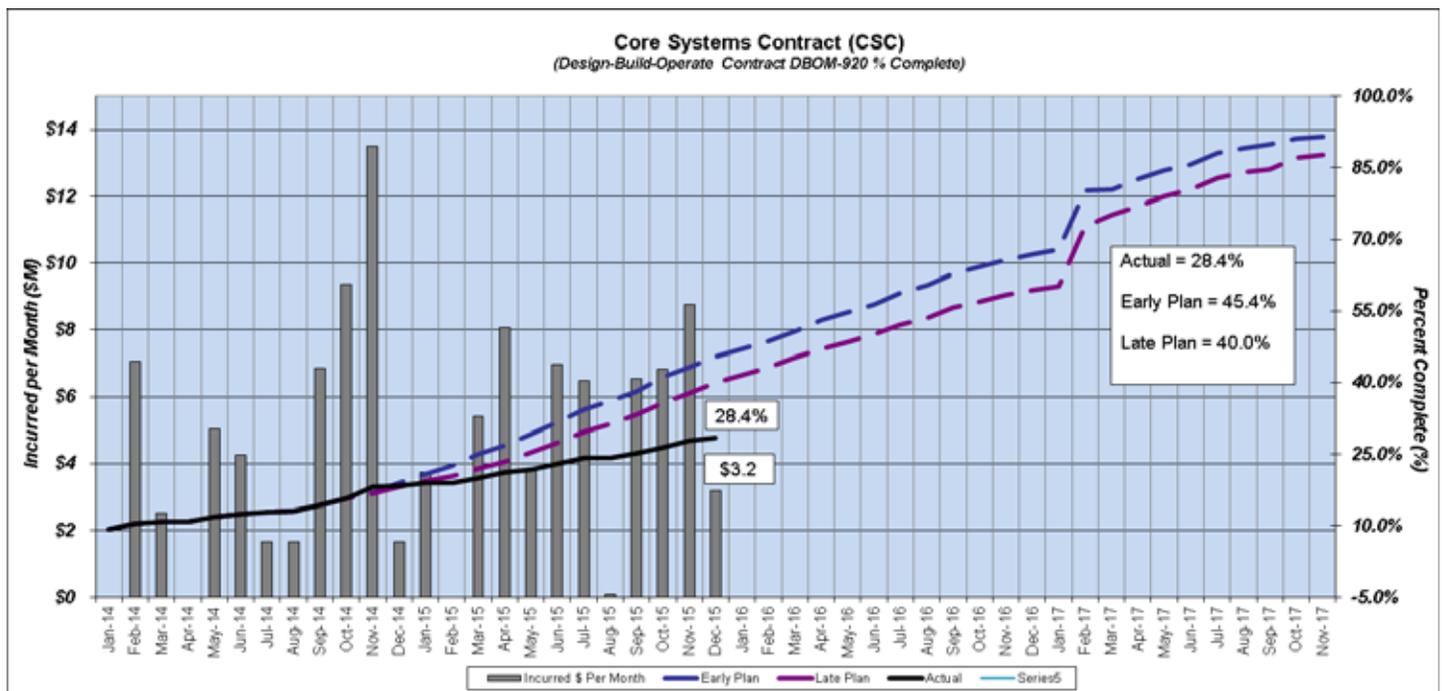
**COST INFORMATION:**

Original Contract:	\$573,782,793	Incurred-to-Date:	\$168,956,392
Current Contract Value <sup>1</sup> :	\$598,563,687	Incurred in December:	\$3,172,884

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

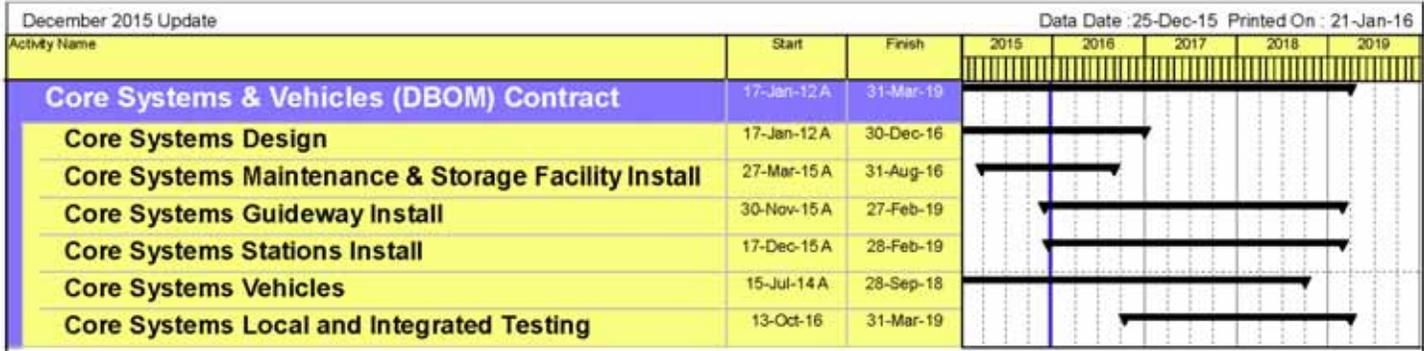
Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	\$129,165
DBE % Attained:	0.029%

December Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$24,780,894</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:**



	Interim Design Submitted Documents	Final Design Submitted Documents	Target Completion Date
Passenger Vehicles	100%	76%	1 <sup>st</sup> Q 2016
Communications	100%	45%	4 <sup>th</sup> Q 2016
ATC/SCADA	93%	99%	1 <sup>st</sup> Q 2016
TES	100%	100%	Completed
Fire Detection	100%	56%	1 <sup>st</sup> Q 2016
PSG, UPS, MOW, YCB	N/A	78%	1 <sup>st</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 crews continued cabling and equipment installation work on the first four carshells at the final assembly facility in Pittsburg, CA. This work is being monitored closely by a full-time on-site Core Systems Oversight Consultant (CSOC) specialist.
- Due to the modified CAM dates, the equipment installation at Pearl Highlands and Pearlridge Stations is driving the critical path.

**WORK PROGRESS:**

Activities this Month:

**Earned Value:** 28.2% [(Total Achieved to December 2015 (\$165.8 million) + Projected January 2016 Period (\$3.2 million))/Total Contract Including Executed Change Orders (\$598.5 million)].

**Design:**

- ATC/SCADA – Documents Received: 20, Documents Returned: 11.
- Communications – Documents Received: 12, Documents Returned: 8.
- Traction Power – Documents Received: 1, Documents Returned: 15.
- Fire Detection – Documents Received: 0, Documents Returned: 1.
- Platform Screen Gates – Documents Received: 3, Returned: 4.
- Passenger Vehicles – Documents Received: 27, Documents Returned: 8.

**Manufacturing:**

- Performed manufacturing oversight work at Hitachi Rail factories. (For additional details, please see the Vehicle Carshell Progress Tracker in Appendix E.)

Look Ahead:

**Design:**

- Continue Final Design of all subsystems.

**Manufacturing:**

- Passenger Vehicle Manufacturing – Continue carshell assembly for the first ten carshells.
- Continue installation of cable bundles, raceways, windows and vehicle equipment of the first train.

**Testing:**

- Traction Power – Pre-shipment Inspection and Test Leeward Community College Gap Breaker Station (GBS) – Fontana, CA (February 2016).
- Communication Systems – Pre-Shipping Inspection and Test for On-Board Systems – Plano, TX (March 2016).
- Communication System – Pre-Shipping Inspection and Test for Telephone System – Plano, TX (March 2016).

Activities this Month (continued):

- Performed final assembly oversight work at Pittsburg, CA. Equipment installation work on the first train is ongoing.
- Performed Truck Frame and Bolster Production oversight at Hitachi Rail Italy (HRI) supplier, DRS, in West Plains, Missouri.

**Testing:**

- Train Control Systems – Pre-Shipping Inspection and Test of Cabricks for Train 2 in Batesburg, South Carolina.
- Traction Power – Design Verification of TPSS Temperature Rise – Fontana, CA.

**MSF:**

- Yard conduit installation: On-Call contractor installation of yard conduit extensions is complete in Phase 2, 3 and 4. Phase 1 and 5 are pending KKJV Track Installation.
- Yard Control Bungalow - Installation of lighting and HVAC unit are ongoing. Fire Detection Alarm System (FDAS) cable wiring is complete.
- AHJV completed walk through activities with KKJV for shared access for the Wheel Truing Building (WTB), Operations and Servicing Building (OSB) and Maintenance of Way (MOW) building.
- TES feeder cable termination is underway in the storage track area.
- Construction of foundations for the Closed Circuit Television Cameras poles at the MSF perimeter is ongoing.
- Foundation work for 16 Communication Interface Cabinets (CIC) in the yard is ongoing.
- Started installation of Train Control devices (O-Bond and S-Bond) in Phase 2.
- Prepared TPSS for HECO Energization.
- Procurement in preparation for installation of COMMS cabling in MSF OSB and MOW.

Look Ahead (continued):

- Communication System – Pre-Shipping Inspection and Test for Voice Radio Communication System (VRCS) – Plano, TX (February 2016).

**MSF:**

- Construction of the foundations and conduits for Communication Interface Cabinets at the MSF yard.
- Installation of Train Control and COMMs cables in the track areas will continue in February 2016.
- Install and test FDAS devices in the MSF OSB and MOW.
- Delivery of MOW vehicles is scheduled for February 2016.

**KEY ISSUES:**

- Revisions to the station and guideway Construction Access Milestone (CAM) dates requires evaluation of interfacing work schedules.
- Vehicle Production and Testing is an ongoing monitored risk. HART and CSC identified and are responding to challenges with final assembly of the first train. A critical element is the production of the steel Truck Frame and Bolster assembly weldments which is impacted by an extended subcontractor learning curve. HART and CSC are addressing the issues and will continue to work together to identify and respond to issues as they arise.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

Design Verifications & System Testing		
Subsystem	Test Completed	Date Completed
Train Control	Pre-Shipping Inspection and Test of Cabricks for Train 2	Jan. 22, 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. Equipment installation work is ongoing on the first train. Seventh and eighth carshells are in transit to the Final Assembly Facility.	Ongoing

CSC NCR Log			
	TOTAL	CLOSED	OPEN
AHJV & Subs	24	23	1
Hitachi Rail	358	281	77
<b>TOTAL</b>	<b>382</b>	<b>304</b>	<b>78</b>

- Hitachi Rail Italy had previously generated NCRs for each aluminum carshell element with manufacturing issues found during carshell production; primarily at the subassembly supplier (CMC). Corrective actions have been taken for future production, and adjustments are being made to current assembled parts.
- Hitachi Rail Italy Supplier, DRS, has generated NCRs for the Truck and Bolster weldment assemblies. These NCRs are being addressed by DRS in coordination with Hitachi Rail Italy.
- Hitachi Rail USA has generated NCRs for various final assembly issues. These NCRs are being addressed by Hitachi Rail USA in coordination with Hitachi Rail Italy.

**PROJECT PICTURES:**



Installation of cable tray and conduit at the Yard Control Bungalow.



Electrically Operated Switch (EOS) mounted on a foundation at the MSF yard.



Door panels installed at Hitachi Rail Final Assembly facilities in Pittsburg, California.

**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 and WOSG equipment will be scheduled once an approved construction schedule with the respective contractors has been completed.

**COST INFORMATION:**

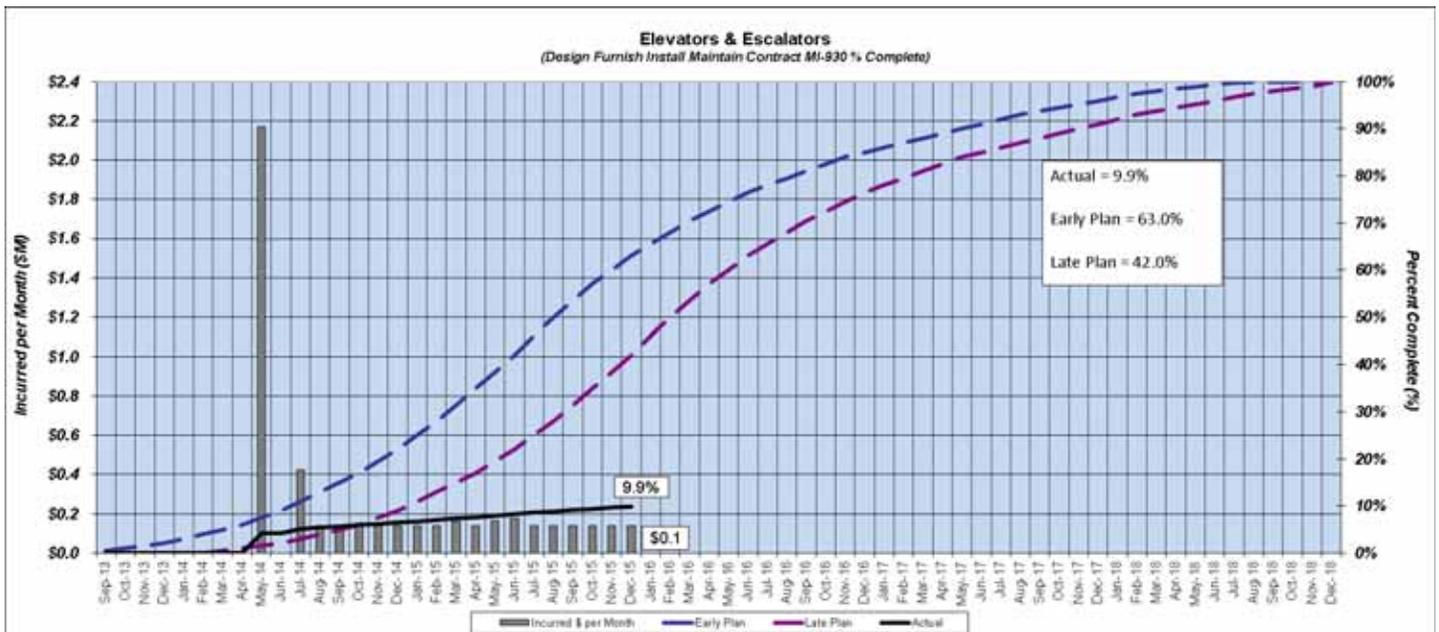
Original Contract: \$50,982,714  
Current Contract Value<sup>1</sup>: \$50,982,714

Incurred-to-Date: \$5,066,456  
Incurred in December: \$140,825

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

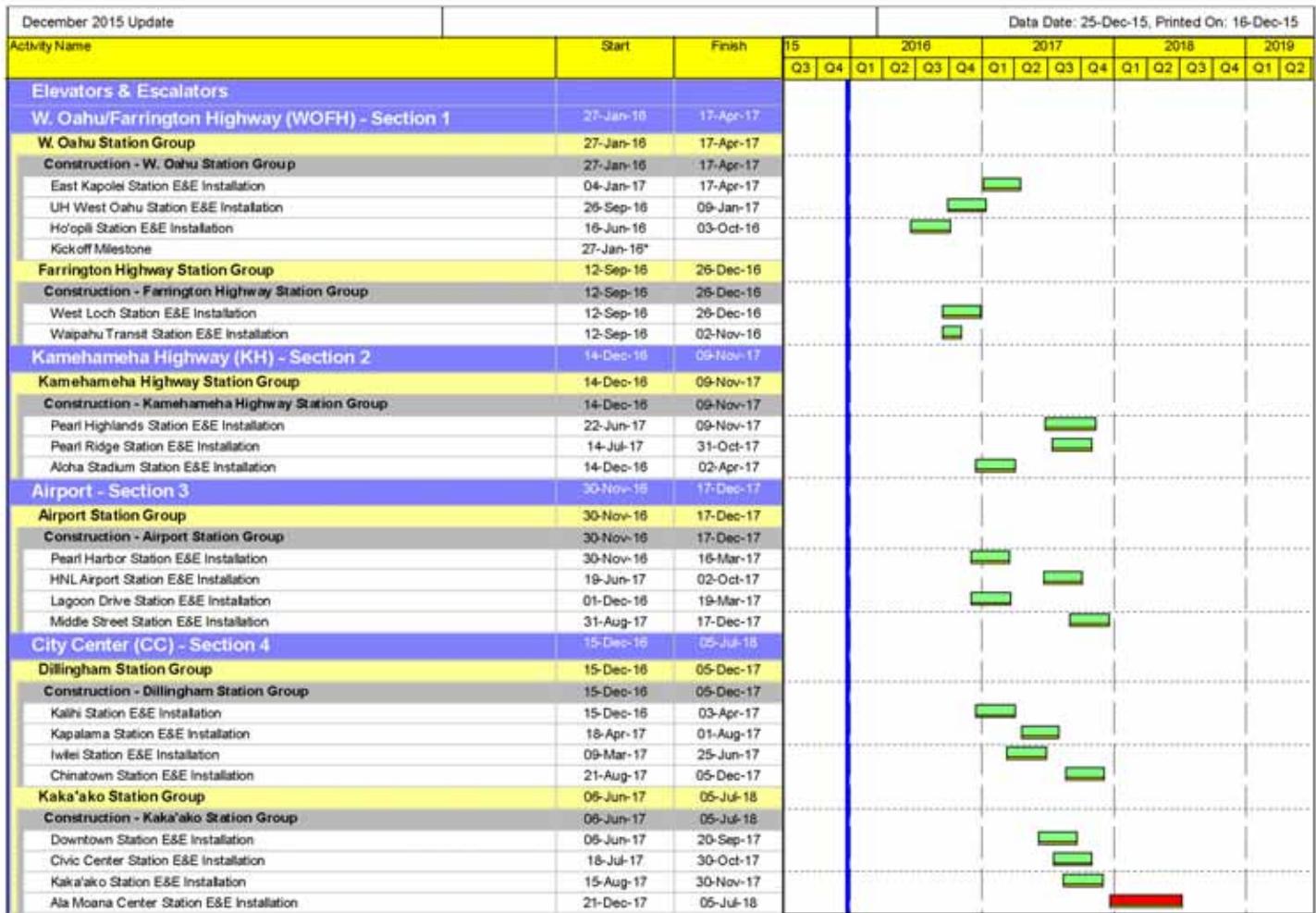
DBE Participation	
Actual DBE Participation:	\$0
DBE % Attained:	0%

December 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:**



**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: 9.9%; Planned Value: 42%

- 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 February 2016.

**KEY ISSUES:**

- The release to allow manufacturing for FHSG and WOSG is expected to occur in February 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.

**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 and installation 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. As a result of potential Offeror requests, the deadline for proposals was again extended to Nov. 13, 2015. Best and Final Offer (BAFO) is now anticipated at the end of February 2016 with a recommended best value proposal selected by the evaluation team by mid-March 2016. An MOU for capital cost sharing with the City has been executed and an MOU for Operations and Maintenance has been drafted and the technical review is complete. The document is currently with COR for legal review. 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 design in April 2016.

**COST INFORMATION:** TBD

**SCHEDULE:**

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

**CRITICAL PATH ISSUES:**

- MOU for O&M cost sharing between HART and the City.

**WORK PROGRESS:**

Activities this Month:

- Conducted discussions with PLO.
- Additional reviews with COR on the terms of the Operations and Maintenance MOU.
- Conformed BAFO documents.
- Provided technical communiqué to Board on fare systems procurement schedule.

Look Ahead:

- Finalize Fare Systems O&M MOU.
- Review BAFO documents and make a recommendation to Chief Procurement Officer (CPO) on best value offeror.
- Kick off fare modeling work in cooperation with OahuMPO including completing grant sub-agreement.

**KEY ISSUES:**

- Completing legal review of MOU for O&M cost sharing between HART and the City.
- Determining the best value proposal for HART and the City for the Fare System.

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: December 2016



**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 January, progress continues for utilities, columns, and span stressing. Segment erection from West Loch Station through East Kapolei Station has been completed. Headings #1 and #2 are erecting segments from West Loch Station and Waipahu High School (WHS), respectively, to progress towards Waipahu Transit Center Station. The Project’s Key Quality Issues continue to focus on segment repairs, column pedestal repairs, and the repair of Span 17.

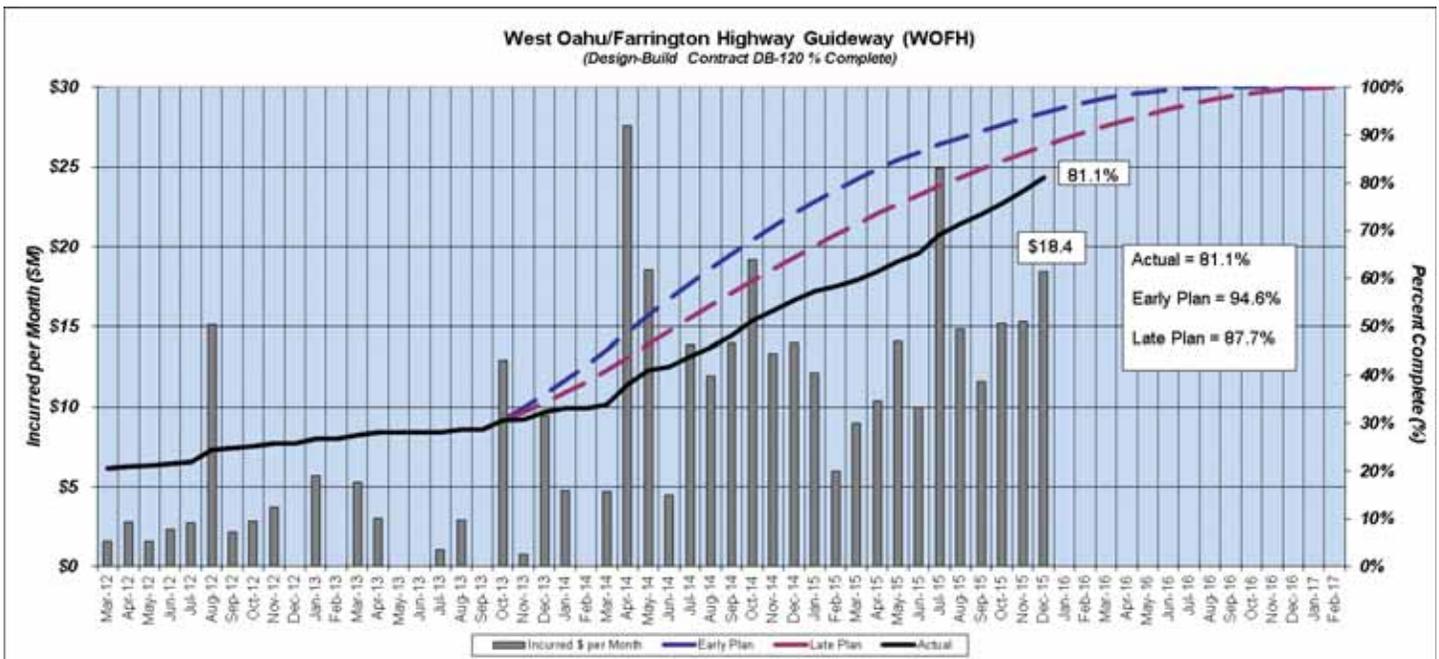
**COST INFORMATION:**

Original Contract:	\$482,924,000	Incurred-to-Date:	\$512,032,937
Current Contract Value <sup>1</sup> :	\$632,174,758	Incurred in December:	\$18,447,067

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December Change Orders		
Change No.	Description	Amount (\$)
CCO070	Equipment Escalation	\$768,374
<b>Cumulative to Date</b>		<b>\$149,250,758</b>



In January, KIWC submitted Pay Application #76 for the December 2015 billing. The pay application is currently being reviewed by HART. Pay Application #74 releasing retainage billing and Pay Application #75 for November 2015 billing have been approved and closed. Retention for all progress above 50% completion will continue to be released on future pay applications. HART is currently reviewing a no-cost Change Order to allow for percentage completion billing.

**SCHEDULE:**

- KIWC has notified HART that a 6 month time extension beyond substantial completion is needed due, according to KIWC, to the changes at the LCC work area. HART has analyzed the request and will relay its different findings back to KIWC. KIWC has submitted a revised baseline schedule via contract Request for Change (RFC) in August 2015 that is under review. HART is currently reviewing the contract time extension request for merit as well as preparing a negotiations position, while working with KIWC to mitigate any further delays to the contract surrounding the LCC construction work activities.

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 Order is resolved.



**CRITICAL PATH ISSUES:**

- The execution of the HART/UH/LCC Construction Right-of-Entry (CROE), the lead time for new modular buildings, and delays with procurement authorization change for new modular buildings continue to drive completion of the project. KIWC proceeded in August 2015 with construction activities including all scope changes. The modular buildings arrived on site in October 2015 and were in the installation phase until December 2015. KIWC formally notified HART of a unilateral work stoppage of all LCC construction work activities.
- Work at the Balanced Cantilever System (BCS) area has slipped from the October 2014 schedule and resides near the critical path with minimal total float days available. HART continues to monitor the BCS work closely.

**WORK PROGRESS:**

WOFH Construction Status as of 1/15/16									
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	308	309	100%
Sewer Line	550	570	96%	Columns	270	273	257	283	95.4%
Fuel Line	340	340	100%	Segment Casting	3,209	3,209	3,031	3,209	100%
Gas line	1,591	1,591	100%	Spans Stressed	241	246	216	274	88%
Drainage Line	4,191	5,166	81%	* Accepted Schedule was submitted in 2013.					
Elec/Telecom	16,889	21,374	79%	** 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.					
Street Lights	6,335	8,357	76%	*** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans.					
Traffic Sig/ITS Duct bank	8,552	10,802	79%						
System Sites	1,683	7,046	24%						
ITS Systems Devices	821	4,121	20%						

Activities this Month:

**Earned Value: 84%** [(Total Achieved to December 2015 (\$511.1 million) + Projected January 2016 Period (\$20.2 million))/Total Contract Including Executed Change Orders (\$632 million)].  
Planned Value: 89.2%

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**

- Performed drilled shaft construction, drilling, and placing of concrete for a total of 2 drill shafts. Shaft construction is now complete. Set rebar and placed concrete for 16 columns.

**Guideway Segment Erection**

- Eastbound Heading #1 segments were erected from Span 193 through Span 199. Westbound Heading #2 segments were erected from Span 237 through 231.

**Utility Relocation**

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

**Balanced Cantilever Structure**

- Cast three segments downstream and four segments upstream at Pier 256.

**Track Construction**

- KIWC completed thermite welding activities. KIWC is also installing track plates and concrete plinth forms east of East Kapolei Station as well as continuing to lay track between Ho’opili and West Loch Station.

**Precast Yard**

- Precast Yard casting of the segments has been completed and segment repair work will continue.

**KIWC/Third-Party Coordination**

- HECO and KIWC continue to resolve conflicts with utility relocations.

**Civil Structures**

- Mechanically Stabilized Earth (MSE) Block Walls A, B, C and D by Pier 251 have been completed. KIWC will continue the installation of reinforcing membrane seal ahead of sub-ballast and ballast installation.

Look Ahead (continued):

**Shaft/Column**

- Continue with column production along Farrington between Work Area 3 Phase 7 (Mukuola St.) continuing towards Work Area 3 Phase 9. Column production is proceeding from Work Area 3 Phase 9 (Kahuali’i St.) westward.

**Guideway Segment Erection**

- Segment span erection will continue from Span 231 westbound towards Waipahu Transit Center and from Span 199 eastbound along Farrington Highway to intersect Heading #2 at Waipahu Transit Center Station.

**Utility Relocation**

- Work to relocate the remaining wet utilities (sewer/water) and traffic signals along Farrington Highway.

**Balanced Cantilever Structure**

- Segments will be cast downstream and upstream from Pier 256. The Pier 255 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.

**Precast Yard**

- KIWC will continue with segment repair work.

**KIWC/Third-Party Coordination**

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

**Civil Structures**

- MSE Block Walls will progress with the fixated slab construction by Pier Slab 251.

**KEY ISSUES:**

- **Leeward Community College (LCC) Portables and Parking Lot Change Order** – KIWC elected to halt all construction work activities at the LCC Station area until a change order for the work in this area is executed.
- **Construction Production/Baseline Schedule** – A re-sequenced October 2014 baseline schedule was submitted to HART in December 2014, showing more realistic construction durations, which is being used to track progress against schedule of payment milestones. KIWC submitted an updated schedule in August 2015 via an RFC containing significant changes in durations, logic, as well as activity modifications, which are currently under review by HART and will be negotiated as part of the contract time extension change order.
- **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 continued at Paiwa intersection, through January, to support span operations. KIWC and HART will continue to evaluate opportunities for minimizing full closures at intersections during span by span operations over intersections along Farrington Highway. HART has requested for KIWC to perform traffic analysis at intersections to determine the impact of full lane closures, as a requirement for lane closure permits to be issued.
- **Design Completion Schedule** – As of mid-January, 130 of 134 design submittals have been accepted. Department of Transportation Services (DTS) traffic signal design packages account for a majority of the remainder of the design, which is not impacting construction.
- **Closeout and Coordination** – As the project approaches substantial completion, KIWC has continued coordination with station contractors, as well as discussions between HART and KIWC on project closeout documentation requirements, including as-built drawing reviews and generating the QA-QC final acceptance checklists.

**QUALITY MANAGEMENT:**

- KIWC continues to follow their established quality processes. There have not been any significant new findings through quality monitoring and audits.
- **Span 17 Damage and Repair** – During the erection process of Span 17, segments 17-1, 17-2, 17-11 and 17-12 were damaged due to unbalanced support from the temporary bearings. NCR 00314 was opened to address this issue. This issue has been technically resolved and the repair is ongoing.
- **Pre-Cast Segment Progress/Quality** – 139 of the total 501 NCRs (27.7%) 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 11 NCRs have been closed since last month.
- **Maintenance of Traffic (MOT) Concerns** – HART and KIWC continue to work together through joint site meetings to ensure that the MOT is in place and in conformance with KIWC’s approved plans. KIWC performed an independent audit on their MOT, and recommendations were discussed and implemented.
- **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.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
501	453	48

**PROJECT PICTURES:**



Epoxy segment Span 197, WA 3.



Excavation at MSE Wall 2, WA 5.



Plinth concrete placement at Span 9L, WA 1.



Traveler at BCS Span 256-6D, WA 6.

**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.

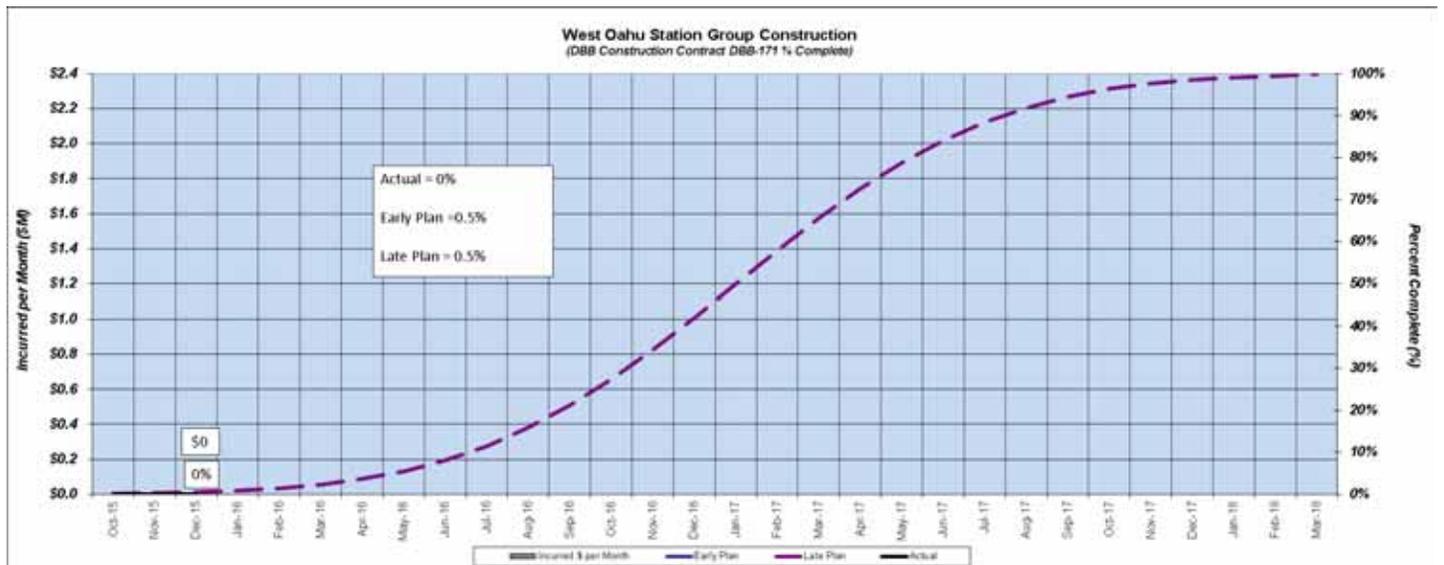
**COST INFORMATION:**

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

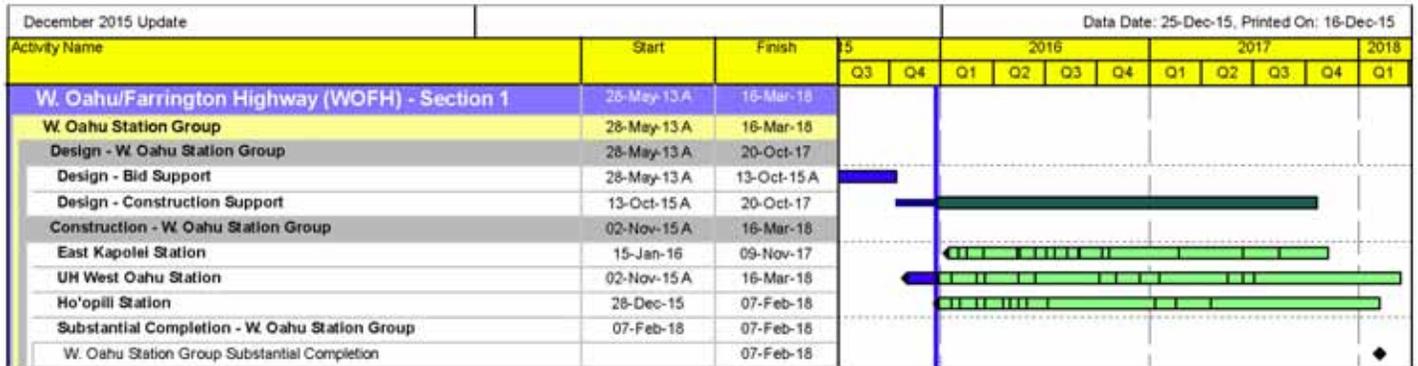
<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December 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 administrative plans and procedures are required by the contract.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 0%; Planned Value: 0%

- Draft Baseline Schedule has been resubmitted. Review comments were provided; contractor to resubmit.
- Draft plans and procedures are being submitted.
- Ho’opili Right of Entry – Certificate of Insurance has been submitted to fulfill Right of Entry agreement. Awaiting D.R. Horton’s confirmation that all requirements have been fulfilled.
- Contractor is obtaining permits for stockpiling at various station locations.
- A Change Order is being routed to add the Conformed Set into the contract documents.

Look Ahead:

- Right of Entry documents from Ho’opili.
- Baseline Schedule approval.
- Incorporating the final conformed set into the contract document, upon receipt from design.

**KEY ISSUES:**

- Baseline Schedule.
- Right of Entry to Ho’opili.

**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 (WL), Waipahu Transit 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 an official VE proposal to HART. HDCC is currently working on the project plans, baseline schedule and contractual submittals.

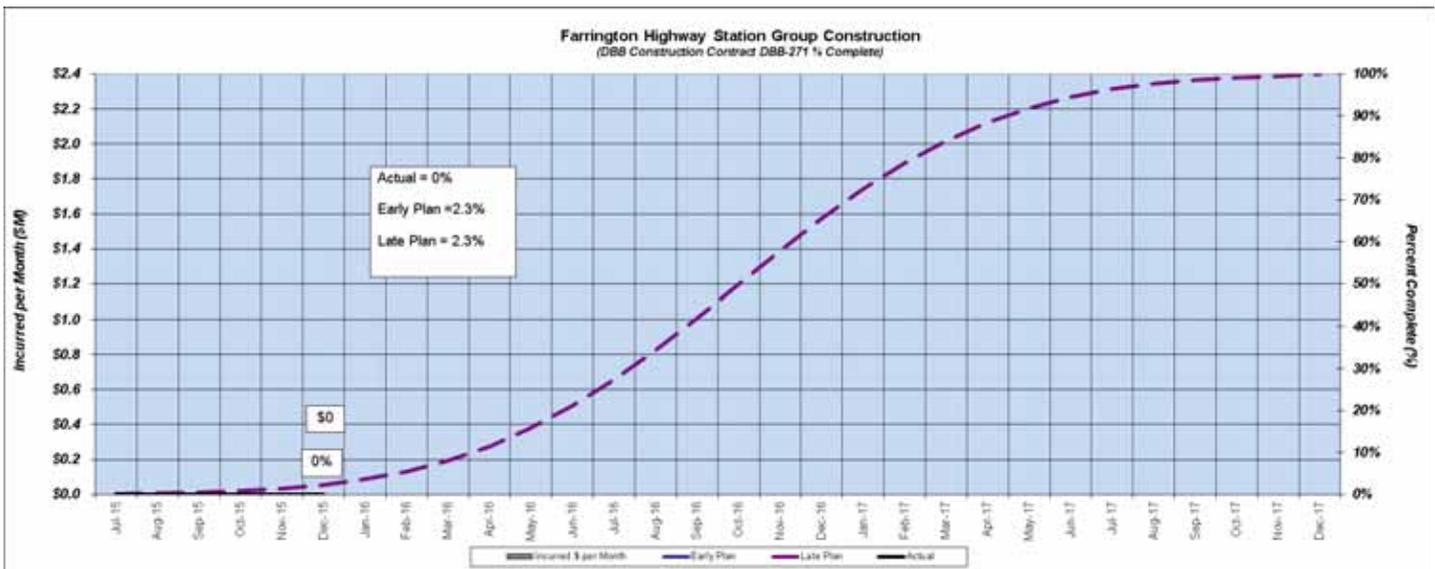
**COST INFORMATION:**

<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 December:</u>	<u>\$0</u>

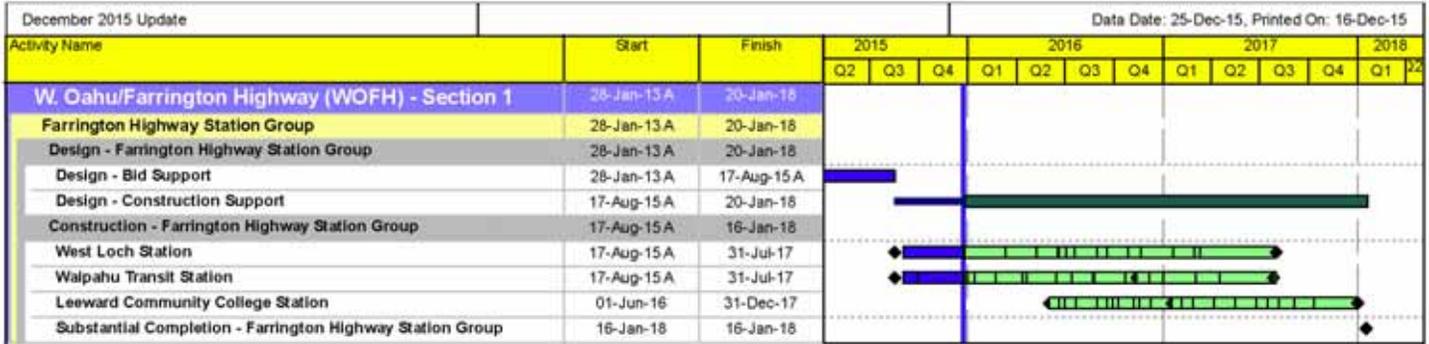
<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- Obtaining NPDES permit.
- Baseline Schedule approval.
- Review and approval of contractor’s administrative plans and procedures as required by the contract.

**WORK PROGRESS:**

Activities this Month:

Earned Value: 0%; Planned Value: 0%

- Revised draft Baseline Schedule to be submitted; HART will review.
- HDCC’s Draft Quality Assurance Plan has been resubmitted and approved.
- Submission of required contractual documents, such as resumes and personnel directory.
- HDCC has submitted a Public Involvement Manager’s resume.
- The contractor has mobilized on the West Loch Makai site, in preparation for earthmoving activities.
- A Change Order is being routed to add the Conformed Set into the contract documents.

Look Ahead:

- Value Engineering proposals.
- Baseline Schedule approval.
- Incorporating the final conformed set into the contract document, upon receipt from design.
- Transmittal of the Issue for Construction set of plans to HDCC.
- HDCC to plan mobilization to the Waipahu Station site in anticipation of preparing to start construction.
- Groundbreaking to occur in mid to late February.

**KEY ISSUES:**

- Transmittal of the Issue for Construction set of plans.
- Baseline Schedule.

**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. Contract Change Order 00042 extended the completion time by 11 calendar days due to weather.

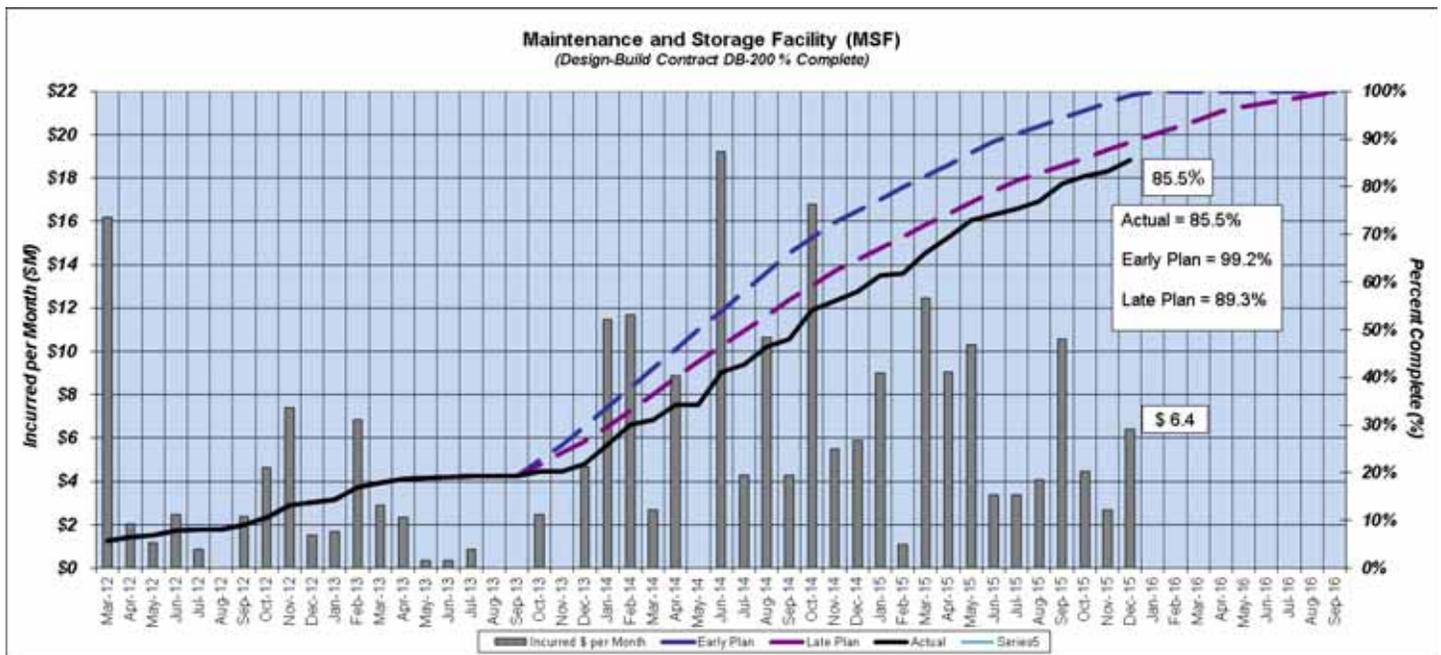
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$195,258,000</u>	<u>Incurred-to-Date:</u>	<u>\$239,428,393</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$275,047,423</u>	<u>Incurred in December:</u>	<u>\$6,420,535</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$454,006
DBE % Attained:	0.23%

December Change Orders		
Change No.	Description	Amount (\$)
CCO 034	Storage Yard 3 months reduction credit to HART	(\$99,030)
<b>Cumulative to Date</b>		<b>\$79,789,423</b>



**SCHEDULE:**



**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	
86% Complete Overall as of 1/31/16	
Element	% Complete*
OSB	93%
MOW Building	93%
WTB	97%
TWF	56%
Rail Procurement	98%

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 86%** [(Total Achieved to November (\$234 million) + Projected December 2015 Period (\$3.8 million))/Total Contract Including Executed Change Orders (\$275 million)]. Planned Value: 92%

**Yard/Utilities**

- Installing conduit for systems, communications, train control, traction power, site electrical and exterior lighting.
- Yard lighting installation continues.
- Track drain, subballast, and ballast installation at East Yard Lead and West Yard Lead and RL 1 Track north of TWF.
- Paving for portions of Driveway B and Driveway C continues.
- Grading for portions of Driveway 'A' commenced.

**Operations and Servicing Building (OSB)**

- Installation of mechanical/electrical/plumbing is ongoing.
- Elevator installation is ongoing for elevators 1 and 2.
- Installing service and emergency lighting.
- Installing interior and exterior building finishes.
- Installing framing for fixed ceilings.
- Installing doors and glazing.
- Installing power distribution cabinets.
- Installation of refrigeration lines continues.

**Maintenance of Way (MOW)**

- Completed HVAC startup and testing.
- Installing mechanical/electrical/plumbing systems.
- Completed installation of framing for storefront glazing.
- Application of polished floor finish continues.
- Continue installation of ceiling tiles.

**Look Ahead:**

**Yard/Utilities**

- Continue train wash, MOW, and ready track installation.
- Continue East Yard Lead track.
- Continue West Yard Lead track.
- Continue contact rail installation and testing.
- Continue testing of running rail.
- Continue installation of exterior yard and perimeter lighting.
- Complete Signal and Control Raceway.
- Complete turnover of Phase 3, 4 and 5 storage tracks to CSC.
- Complete paving of Driveways A, B and C.

**OSB**

- Installation of turntables and hydraulic lifts.
- Installation of overhead cranes.
- Completion of interior finishes.
- Complete installation of HVAC.
- Continue elevator installation.
- Install floor tile and bathroom accessories.
- Energize distribution power.
- Complete installation of refrigeration lines.

Activities this Month (continued):

- Commenced installation of bathroom tiles.

**Wheel Truing Building (WTB)**

- Installed lightning protection.
- Floor finishing complete.
- Continue installing plumbing trimout.

**Train Wash Facility (TWF)**

- Commenced roofing installation.
- Transport and commenced installation of Direct Fixation Track.

**Rail Procurement and Installation**

- Installation of contact rail is ongoing.
- Receiving materials and installing turnouts is ongoing.
- Distributing rail materials to WOFH is ongoing.
- Installation of pre-curved rail is ongoing.
- Installing subballast and ballast for ready tracks RL1 north of Train Wash.
- Continuity testing of running rail and conductivity testing of contact rail.
- Preparing for turnover of Phase 3 Storage Tracks to CSC.

**Administration**

- Continue working with the CSC to resolve design interface issues and turned over raceways for CSC cable pulling activities.

Look Ahead (continued):

**MOW**

- Interior and exterior finishes.
- Continue electrical, mechanical and plumbing.
- Complete tile installation.

**WTB**

- Testing of Wheel Lathe.
- Complete finishing of floors.
- Complete plumbing trim.
- Ceramic tile.
- Release Building Systems raceway to CSC.

**Train Wash Facility**

- Continue roofing installation.
- Continue installation of Direct Fixation Track.

**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.
- Orderly completion of traction power, train control and building services conduits.
- Resolution of outstanding Interface Control Documents (ICDs).

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.
- NCR 28 concerns application of fire stops and seals in rated walls.
- NCR 29 concerns a missing ground wire.
- NCR 30 concerns TWF sewer drain discrepancies.
- NCR 31 concerns TWF CMU Walls.

MSF NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
31	27	4

**PROJECT PICTURES:**



Installing rail on Y-10 turnout concrete ties.



Placing concrete curb for Dwy 'B'.



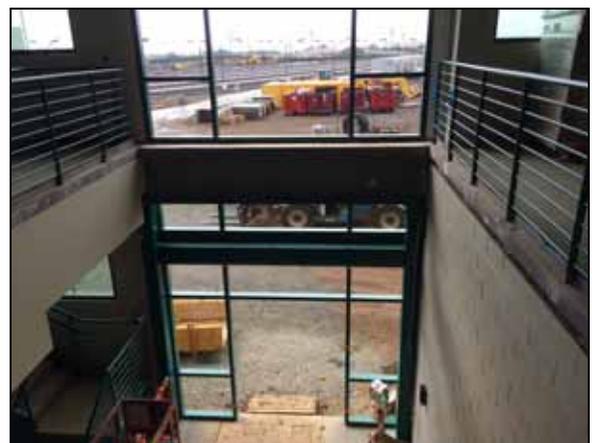
Paved Dwy 'B'.



TWF steel connection bracket installation.



OSB entry structural steel.



MOW entry window frame.

### 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 is made up of utility relocations, highway widening, drilled shaft foundations, columns and aerial structure.

**Project Overview:** Construction of the drilled shafts has moved east of the H-1 overpass in order to maintain progress. Column construction has been completed from the WOFH project limits to Waimano Home Rd., with the exception of the Cantilever “C” piers at Acacia that are currently being post-tensioned. HART and KIWC continue to work at senior and executive management levels to ensure current utility relocation schedules are being maintained.

Per KIWC’s progress schedule, as submitted with the application for payment, 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.

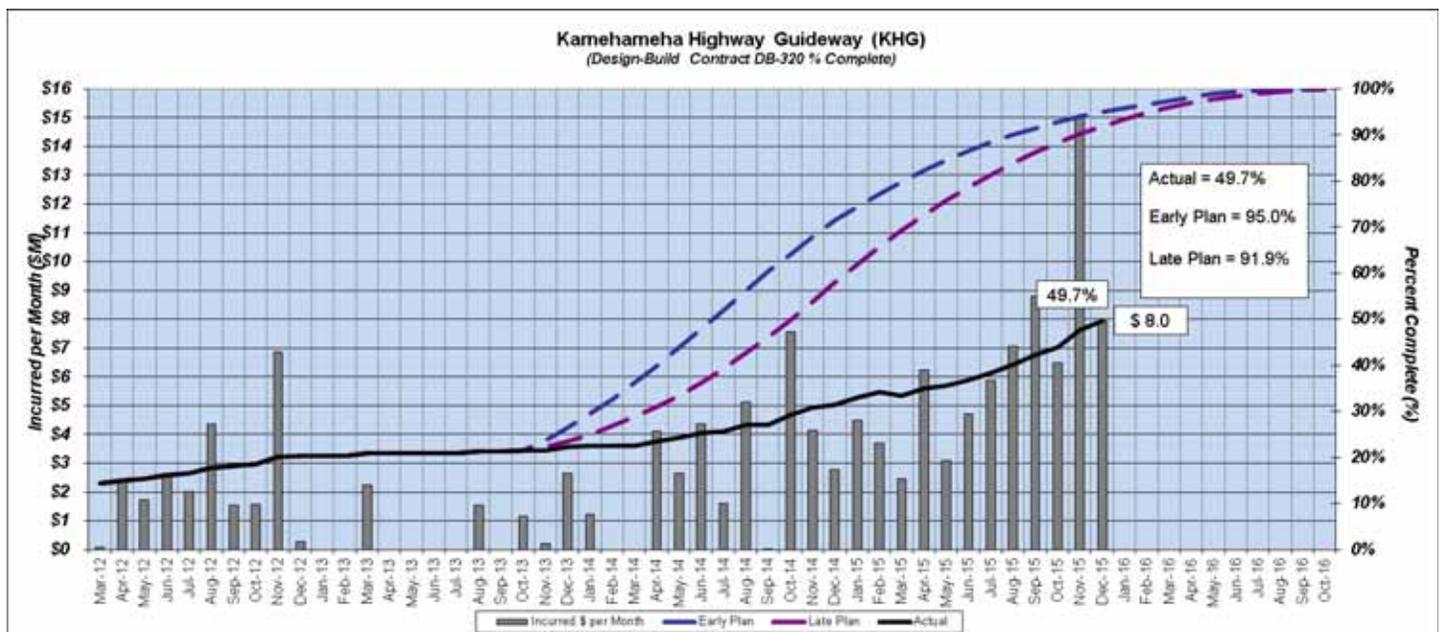
**COST INFORMATION:**

<u>Original Contract:</u> \$372,150,000	<u>Incurred-to-Date:</u> \$198,133,217
<u>Current Contract Value<sup>1</sup>:</u> \$388,967,876	<u>Incurred in December:</u> \$7,951,400

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$297,631
DBE % Attained:	0.08%

December Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$16,817,876</b>



KIWC Pay Application #53 for the November 2015 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: weather, MOT restrictions, lower productivity, resource sharing between the KHG and WOFH projects, third-party utility relocation work, and lack of truss availability.

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15 12:57										
Activity Name	Start	Finish	2016				2017				2018		
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
<b>Total</b>	03-Nov-14 A	28-Feb-16											
Drilled Shafts	03-Nov-14 A	26-Oct-16											
Precast Segment Erection	12-Jan-16	16-May-17											
Cast BC Segments	30-Nov-15 A	01-Nov-16											
Columns	14-Aug-15 A	22-Feb-17											
Trackwork	09-May-16	28-Feb-18											
Direct Fixation Trackwork	09-May-16	19-Jul-17											
Third Rail	24-May-16	01-Aug-17											
KHG Project Finish Work, Demob, Punchlist	01-Dec-17	28-Feb-18											
KHG Project Finish Work, Demob, Punchlist	01-Dec-17	28-Feb-18											
KHG Substantial Completion		01-Dec-17											

**CRITICAL PATH ISSUES:**

- The KIWC third truss (Heading 3) began erecting spans on KHG in mid-December and is currently moving eastbound along the alignment.
- 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.

**WORK PROGRESS:**

KHG Construction Status as of 1/15/16									
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	105	150	111	186	56%
Gas Line	12,641	12,641	100%	Columns	24	112	36	169	14%
Sewer Line	492	492	100%	Segment Casting	868	1,316	984	2,075	41%
Drainage	710	1,469	48%	Spans Stressed	7	101	9	166	4%
Elec/Telecom	15,665	19,455	81%	* Accepted Schedule was submitted in 2013.					
Signals/ITS/Lights	13,587	18,486	74%	** 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: 53.0%** [(Total achieved to December 2015 (\$194.7 million) + January 2016 projection (\$11.5 million))/Total contract including executed Change Orders (\$389 million)]. Planned Value: 93.5%

**Shaft/Column/Segments**

- 105 of 186 shafts have been installed; 56% of all shafts have been completed on KHG.
- 24 of 169 columns have been constructed.
- 868 of 2,075 segments have been cast.

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):

- Column construction has ceased on KHG, excluding C-piers, as of late December. Column crews have remobilized to WOFH, after completing 2 columns in December. No column work was done in January, other than C-piers.
- Balanced Cantilever superstructure east of the H-1 overpass has started.
- Structures access in front of Pearl Kai Shopping Center has been installed.
- Construction of Balanced Cantilever stem wall and diaphragms are underway west of the H-1 overpass.
- "C" pier columns at Shafts 277, 278 and 279 have been post-tensioned.

**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 due to crew reallocation to WOFH.
- System site 10 work is underway.

**Roadway Widening**

- Roadway widening has been placed on hold due to crews being moved to WOFH.

Look Ahead (continued):

- Shaft construction in front of Pearl Kai Shopping Center will begin early February.

**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.

**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 betterments. Work is anticipated to begin after issuance of a change order.

**KEY ISSUES:**

- **Night Noise Variance** – HART was notified by the Department of Health that backhoes and excavators will no longer be allowed 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 and unexecuted change orders.
- **HDOT Betterments** – HART has issued eight RFCRs to date covering HDOT betterments and have completed negotiations with KIWC and have obtained scope and cost concurrence from HDOT. HART and HDOT are working in partnership to identify the source of funding, which is being finalized via a separate agreement. HART has negotiated the cost for RFCR 32 (Traffic Signals), which is currently in the HART approval and execution process. The remainder of the betterment RFCR is 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 Betterments until HART issues an executed change order for the out of scope work. HART is tracking this issue and notes that its criticality needs to be established.

- **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.
- **KIWC Resource Allocations** – Column construction resumed again in November, but operations were again halted to support the WOFH project in late December, while continuing to implement structures access MOT along Kamehameha Highway. KIWC continues to try and balance between the KHG and WOFH projects. Resource allocation continues to be an issue in January (nothing changed from December to January).

**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 10%. KIWC has been reviewing their means and methods for placing concrete to reduce the issue with velocity reduction.

KHG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
107	83	24

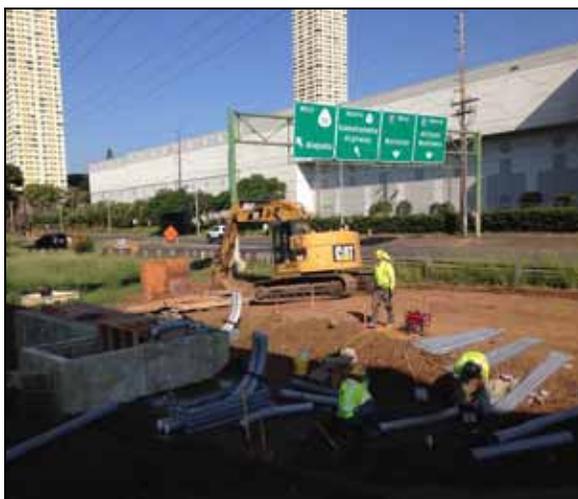
PROJECT PICTURES:



Span by span at Pier 270, Phase 1.



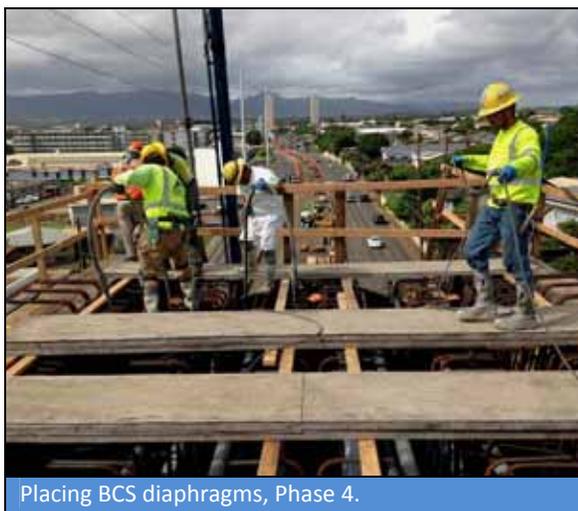
Span 272 epoxy and temp PT, Phase 1.



System site work, Phase 1.



Post tensioning ducts at C Pier 278, Phase 1.



Placing BCS diaphragms, Phase 4.



LB44 shaft drilling at 331, Phase 6.

**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:** November 2016



**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 has not yet started construction due to delays in obtaining required permits and submittal of required documentation. The contractor has projected a substantial completion of November 2016; HART has requested a revised schedule for review and analysis.

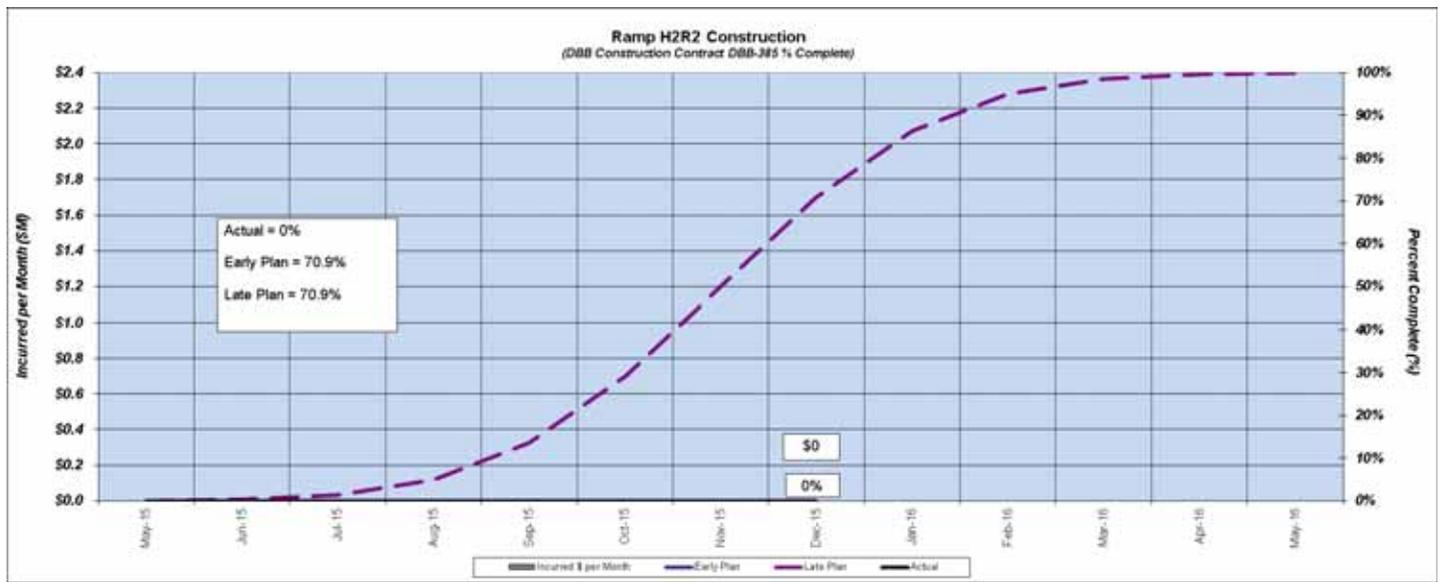
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$5,203,646</u>	<u>Incurred-to-Date:</u>	<u>\$0</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$5,203,646</u>	<u>Incurred in December:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December 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:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15 16:17							
Activity Name	Start	Finish	2015				2016			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Total</b>	18-May-15 A	15-Jul-16								
<b>West Guideways &amp; Structures</b>	18-May-15 A	15-Jul-16								
<b>Construction - H2R2 Ramp</b>	18-May-15 A	15-Jul-16								
Construction - H2R2 Ramp	18-May-15 A	15-Jul-16								15-Jul-16
Substantial Completion - H2R2 Ramp		15-Jul-16								8

**CRITICAL PATH ISSUES:**

- TMK 9-6-004:006 soils remediation area has been enlarged by DOH to now include approximately 200 cubic yards of soil remediation.
- HDOT has disallowed use of any contaminated fill under the ramp. HART to remove all existing contaminated soil in the ramp area.

**WORK PROGRESS:**

Activities this Month:

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

- Required Forms, Reports and Certifications are not yet approved.
- Required submittals reviewed and returned for revision.

Look Ahead:

- Approval of all required submittals.
- Resolve all contaminated soil issues within the site.
- Start construction of concrete retaining wall.

**KEY ISSUES:**

- Contractor to submit revised work schedule.

**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 design has incorporated value engineering changes and was advertised in a construction solicitation in August 2015. The corresponding bids received in November 2015 showed significant cost savings as compared to the prior solicitation for these same stations in 2014.

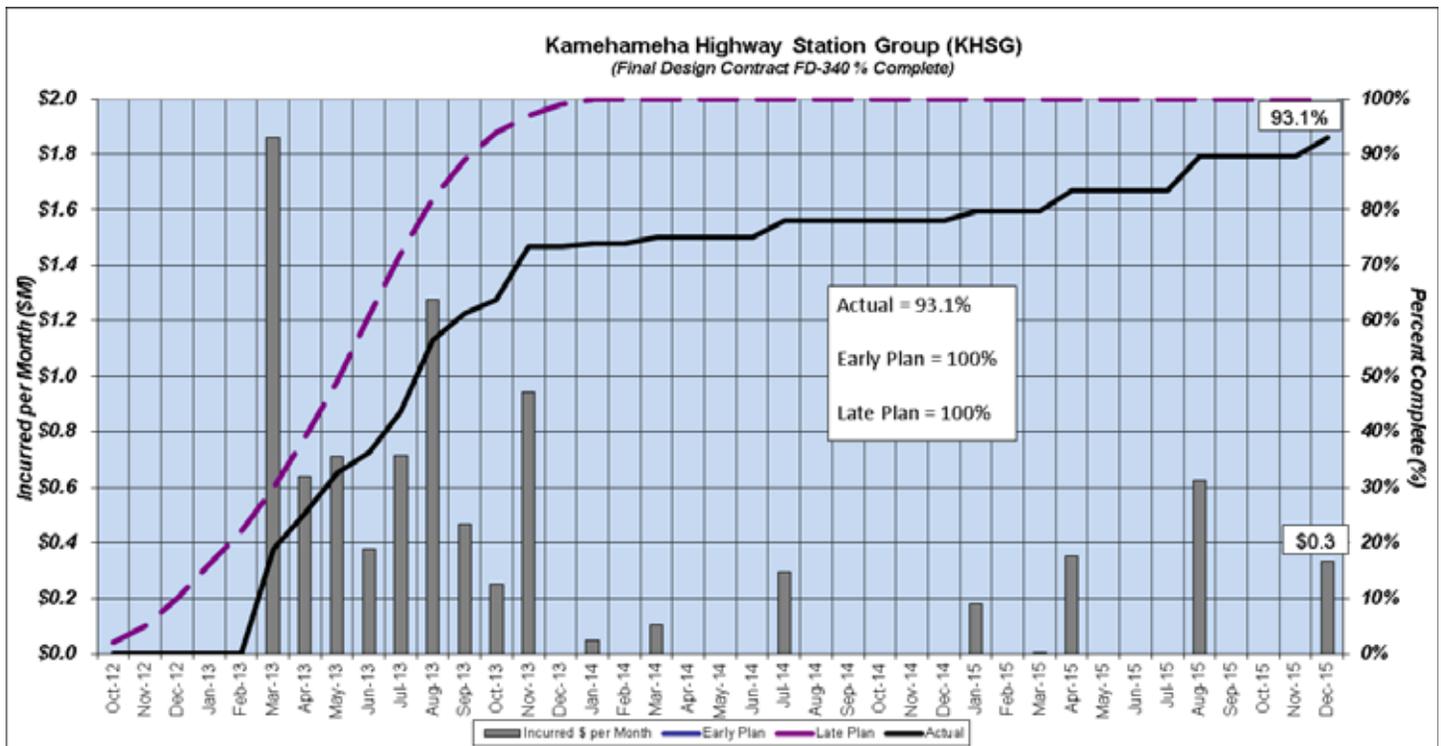
**COST INFORMATION:**

Original Contract: \$8,702,592	Incurred-to-Date: \$9,177,277
Current Contract Value <sup>1</sup> : \$9,859,290	Incurred in December: \$333,436

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

December 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:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15															
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 (KH) - Section 2</b>	16-May-14 A	01-Jun-18																
<b>Kamehameha Highway Station Group</b>	16-May-14 A	01-Jun-18																
Design - Kamehameha Highway Station Group	16-May-14 A	01-Jun-18																
Design - Bid Support	16-May-14 A	18-Jan-16																
Design - Construction Support	19-Jan-16	01-Jun-18																
Construction - Kamehameha Highway Station Group	01-Mar-16	01-Jun-18																
Pearl Highlands - Station	01-Mar-16	28-May-18																
Pearl Ridge Station	01-Jun-16	28-May-18																
Aloha Stadium Station	03-Oct-16	01-Jun-18																

**CRITICAL PATH ISSUES:**

- Obtaining final design approval from DPP.

**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.

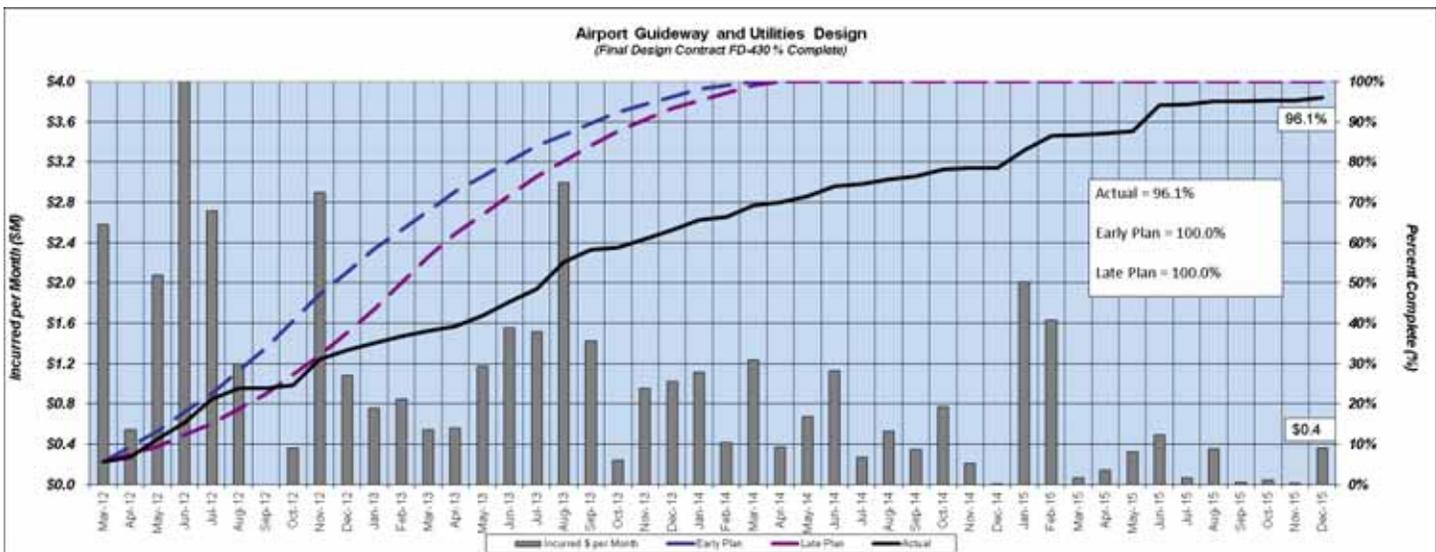
**COST INFORMATION:**

<u>Original Contract:</u> \$38,840,960	<u>Incurred-to-Date:</u> \$41,447,161
<u>Current Contract Value<sup>1</sup>:</u> \$43,134,472	<u>Incurred in December:</u> \$360,472

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

December 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:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15												
Activity Name	Start	Finish	15	2016			2017			2018			2019		
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Airport Section Guideway</b>	09-Nov-11 A	19-Jul-19													
Airport Programmatic	01-May-12A	14-Feb-14 A													
Airport Permits	09-Nov-11 A	09-May-16													
Design - Airport Guideway & Utilities	05-Jan-12A	27-Mar-15 A													
Construction - Airport Guideway	04-Apr-16	19-Jul-19													

**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:** February 2016

**Projected Substantial Completion:** August/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. ITS installation work along Kamehameha and Nimitz Highways is completed at 3 of the 4 sites. The 4<sup>th</sup> site needed power which is outside the scope of this contract. The power issue has been satisfactorily resolved with HDOT and all sites are undergoing commissioning. Utility work was impacted due to lack of Navy ROE, however ongoing coordination with the Navy has allowed them to grant access. Details are still being finalized at this time. Meanwhile, Nan, Inc. continues to develop and submit outstanding submittals.

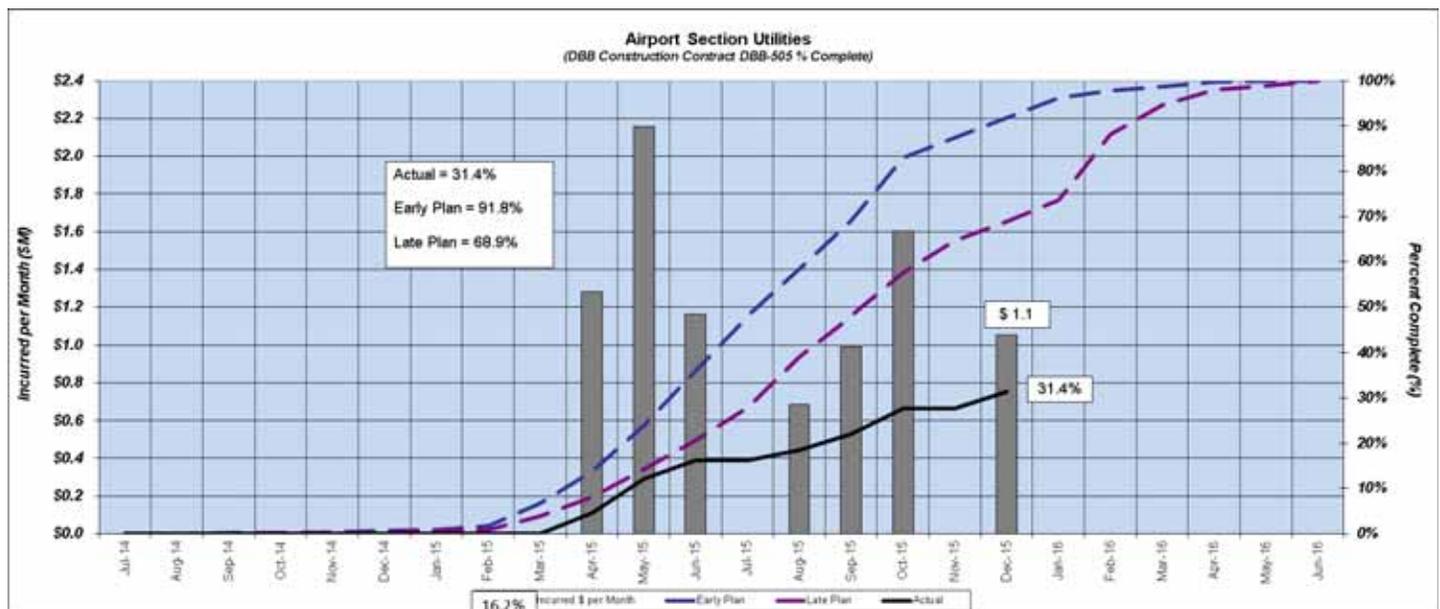
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$28,413,974</u>	<u>Incurred-to-Date:</u>	<u>\$8,930,361</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$28,413,974</u>	<u>Incurred in December:</u>	<u>\$1,056,711</u>

<sup>1</sup>Current Contract Value = Original contract value (not including a contingency) + executed Change Orders

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

December 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, the cost curve will be revised.

**SCHEDULE:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15							
Activity Name	Start	Finish	2015		2016					
			Q3	Q4	Q1	Q2	Q3	Q4		
<b>Airport Section Utilities</b>	30-Jun-14 A	17-Feb-16								
<b>Airport - Section 3</b>	30-Jun-14 A	17-Feb-16								
<b>Airport Utility Relocation</b>	30-Jun-14 A	17-Feb-16								
Construction - Airport Utilities Relocation	30-Jun-14 A	17-Feb-16								
Construction - Airport Utilities Relocation	30-Jun-14 A	12-Feb-16								
Airport Utilities Relocation - Execute Contract	30-Jun-14 A	30-Jun-14 A								
Permits for Airport Utilities Construction	22-Jan-15 A	16-Mar-15 A								
Airport Utilities Construction	16-Mar-15 A	05-Feb-16								
Airport Utility Relocation - Substantially Complete		12-Feb-16								
Utility Relocation Inspection	29-Jan-16	17-Feb-16								
Inspect and Accept Airport Section Utilities Relocations	29-Jan-16	17-Feb-16								

**CRITICAL PATH ISSUES:**

- No critical path issues at this time.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 31.5%;** Planned Value: 35%

- Nan, Inc./CE&I are finalizing coordination’s with DTS to bring the LPR’s online.
- Nan, Inc. has submitted a baseline construction schedule, which has been approved. They are working on a revised baseline schedule based on deductive RFCRs that have been issued.
- Inspection and Testing Plan (ITP) has been submitted by Nan and returned by HART with comments.
- Tree relocation by On-Call (Royal Contracting) is ongoing.

Look Ahead:

- Ongoing utility work on Kamehameha Highway (30-inch and 24-inch waterline connection, telecom duct line and gas line).
- Installation of new sewer line.
- Coordinate with Navy and third party communications utilities to resolve duct/lines that were damaged.
- Summarizing descoped items to be added to the guideway contract.
- CE&I II team continues to review RFC and initiate plans to reduce the current outstanding RFCs.

**KEY ISSUES:**

- Nan has submitted a construction delay claim due to the delay in access to Navy right of entry to perform work. HART is in the process of negotiation of this claim.
- Nan, Inc. is presently 7 months behind schedule; due to the delay in access to construction sites as well as other factors, such as differing site conditions.
- Determine status of telecom duct bank work and how to proceed with removal.
- Design issues associated with the Navy 30-inch waterline connection has been completed at the station site and work has begun.
- Nan’s proposed cost/schedule of work to relocate a section of 24-inch waterline has been received.
- Noise Mitigation Plan has been approved, however an amended plan is requested and preparation is in progress.

**QUALITY MANAGEMENT:**

Airport Utilities NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
17	14	3

**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. Project is currently in a close out phase; final change orders have been executed.

**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$3,973,000</u>	<u>Incurred-to-Date:</u>	<u>\$3,889,433</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$4,481,241</u>	<u>Incurred in December:</u>	<u>\$93,192</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$508,241</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 are in progress.
- 

**WORK PROGRESS:**

Activities this Month:

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

Look Ahead:

- HDCC/CJA JV has the following items to submit for Contract Closeout:
    - Provide Release of Liens.
    - Submit final DBE forms.
    - Submit final invoice.
- 

**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.

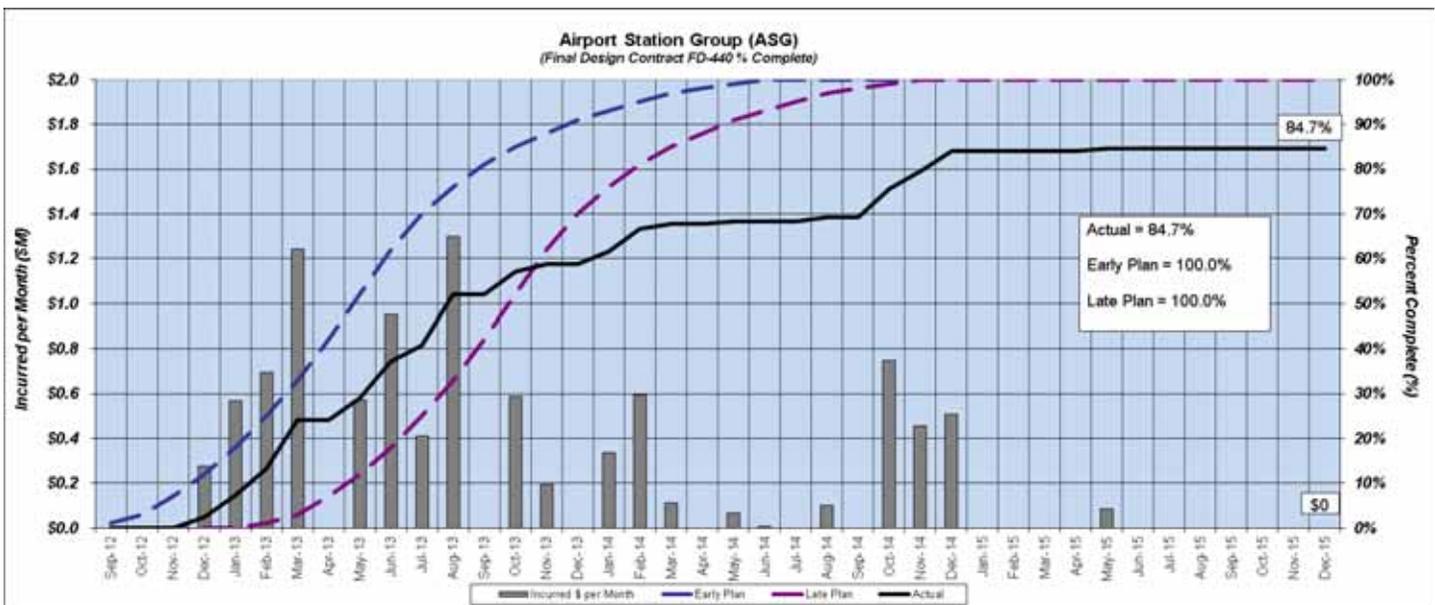
**COST INFORMATION:**

<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 December:</u>	<u>\$0</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

December 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.

**SCHEDULE:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15															
Activity Name	Start	Finish	15		2016				2017				2018					
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Airport - Section 3</b>	02-May-11 A	01-Jun-18																
<b>Airport Station Group</b>	02-May-11 A	01-Jun-18																
Design - Airport Station Group	02-May-11 A	14-Jul-17																
Construction - Airport Station Group	02-Mar-16	01-Jun-18																
Pearl Harbor Station	02-Mar-16	02-Jan-18																
HNI Airport Station	31-May-16	01-Jun-18																
Lagoon Drive Station	18-Apr-16	22-Feb-18																
Middle Street Station	15-Jul-16	13-Apr-18																

**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

**Construction Docs Bid-Ready:**

- Potential Expedited Utilities Package (DBB): TBD

**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 an early utility relocation package, and support to HART during design-build procurement.

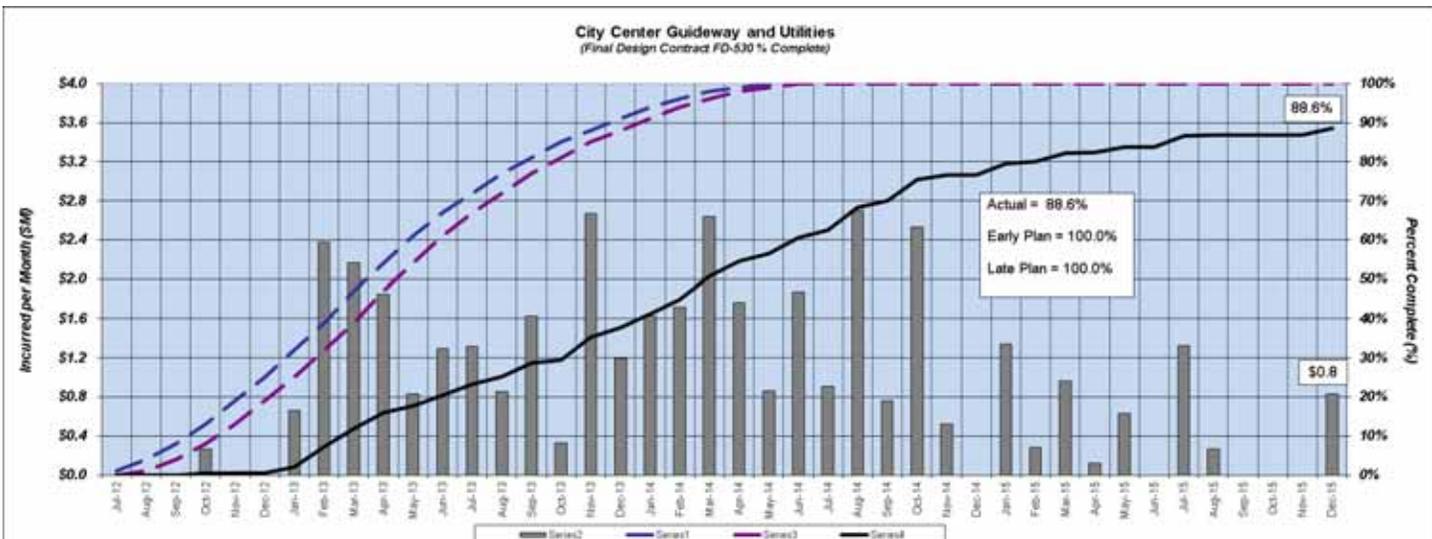
#### COST INFORMATION:

Original Contract:	\$43,948,220	Incurred-to-Date:	\$40,908,953
Current Contract Value <sup>1</sup> :	\$46,197,562	Incurred in December:	\$833,467

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

December 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.

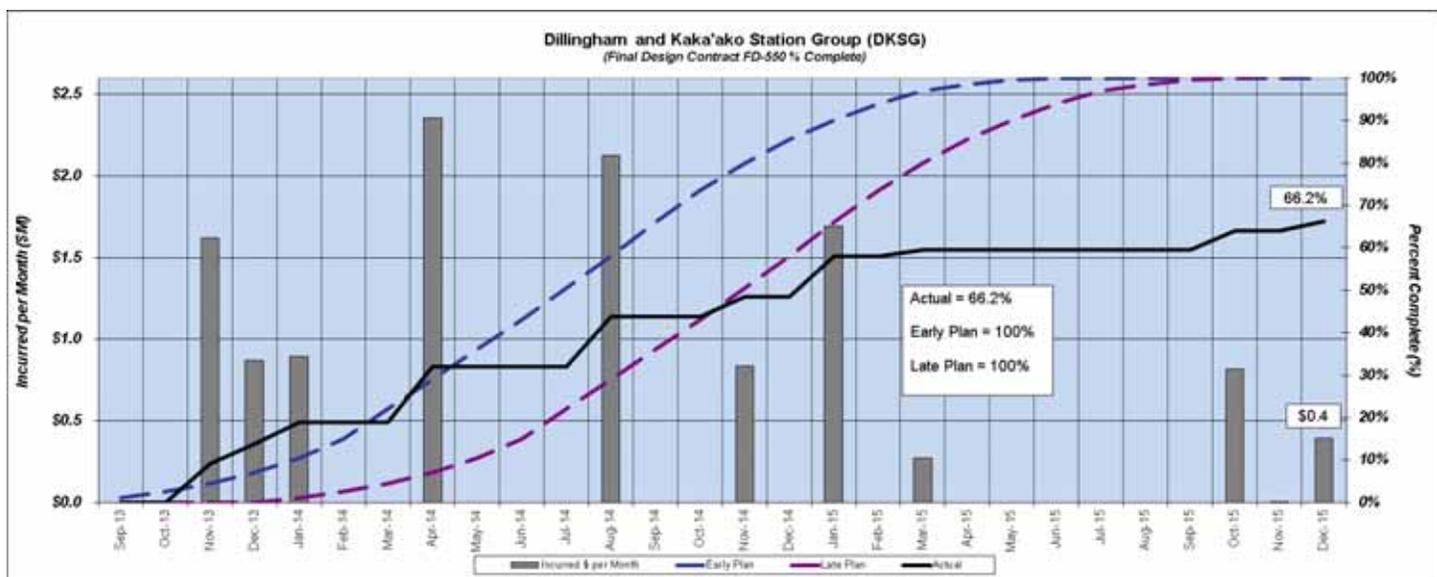
**COST INFORMATION:**

Original Contract:	\$18,321,918	Incurred-to-Date:	\$11,875,668
Current Contract Value <sup>1</sup> :	\$19,308,042	Incurred in December:	\$393,463

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders

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

December 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.

**SCHEDULE:**

December 2015 Update			Data Date: 25-Dec-15, Printed On: 16-Dec-15																	
Activity Name	Start	Finish	15		2016				2017				2018				2019			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>City Center (CC) - Section 4</b>	15-Oct-12 A	05-Dec-18																		
<b>Dillingham Station Group</b>	15-Oct-12 A	08-Mar-18																		
Design - Dillingham Station Group	15-Oct-12 A	28-Dec-15																		
Construction - Dillingham Station Group	25-Jan-16	08-Mar-18																		
Kalihi Station	25-Jan-16	20-Jul-17																		
Kapalama Station	07-Mar-16	27-Sep-17																		
Iwilei Station	27-Jan-16	08-Mar-18																		
Chinatown Station	11-Jul-16	21-Feb-18																		
<b>Kaka'ako Station Group</b>	15-Oct-12 A	05-Dec-18																		
Design - Kaka'ako Station Group	15-Oct-12 A	28-Dec-15																		
Construction - Kaka'ako Station Group	26-Apr-16	05-Dec-18																		
Downtown Station	26-Apr-16	21-Feb-18																		
Civic Center Station	06-Jun-16	28-Dec-17																		
Kaka'ako Station	01-Aug-16	02-Apr-18																		
Ala Moana Center Station	16-Sep-16	05-Dec-18																		

**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, 2016, with option to renew contract one additional year

**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:

<u>Original Contract:</u>	<u>\$33,376,897</u>	<u>Incurred-to-Date:</u>	<u>\$37,479,508</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$40,993,274</u>	<u>Incurred in December:</u>	<u>\$347,881</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



#### KEY ISSUES:

- HART intends to exercise 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.

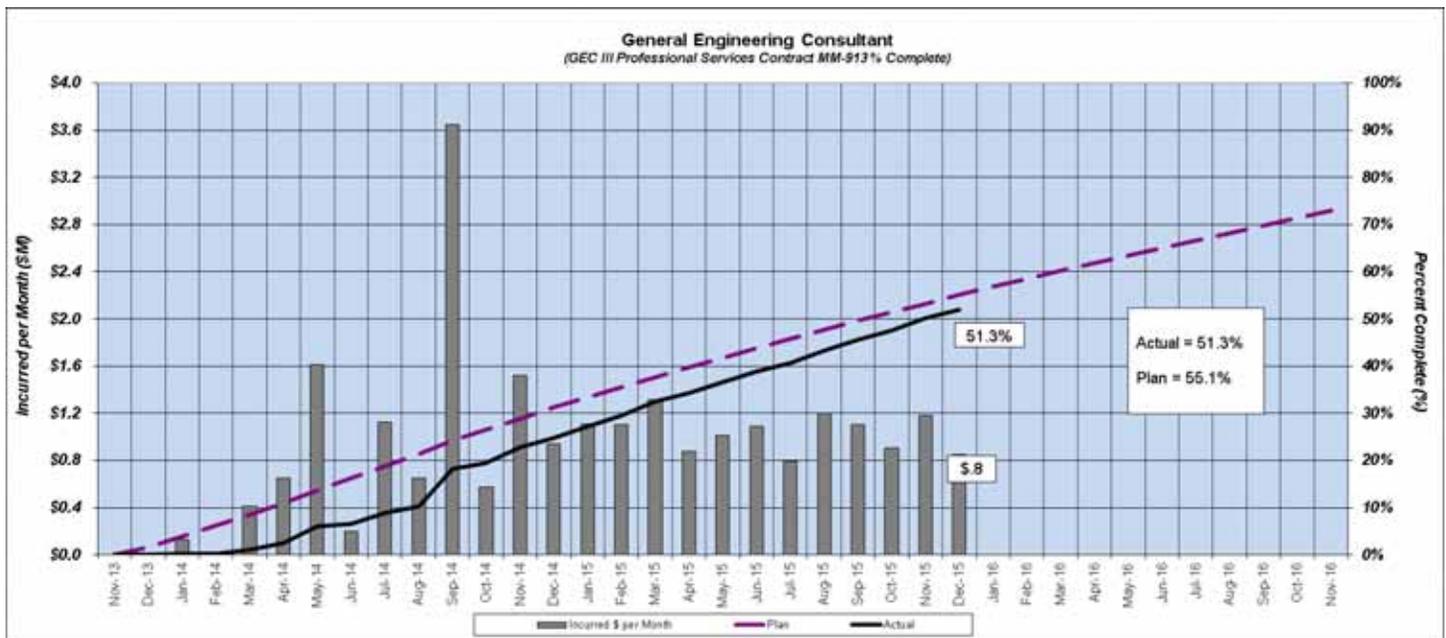
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$46,143,277</u>	<u>Incurred-to-Date:</u>	<u>\$23,982,916</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$46,411,728</u>	<u>Incurred in December:</u>	<u>\$847,079</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December Change Orders		
Change No.	Description	Amount (\$)
Amend 01	Draft PLA	\$268,451
<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.

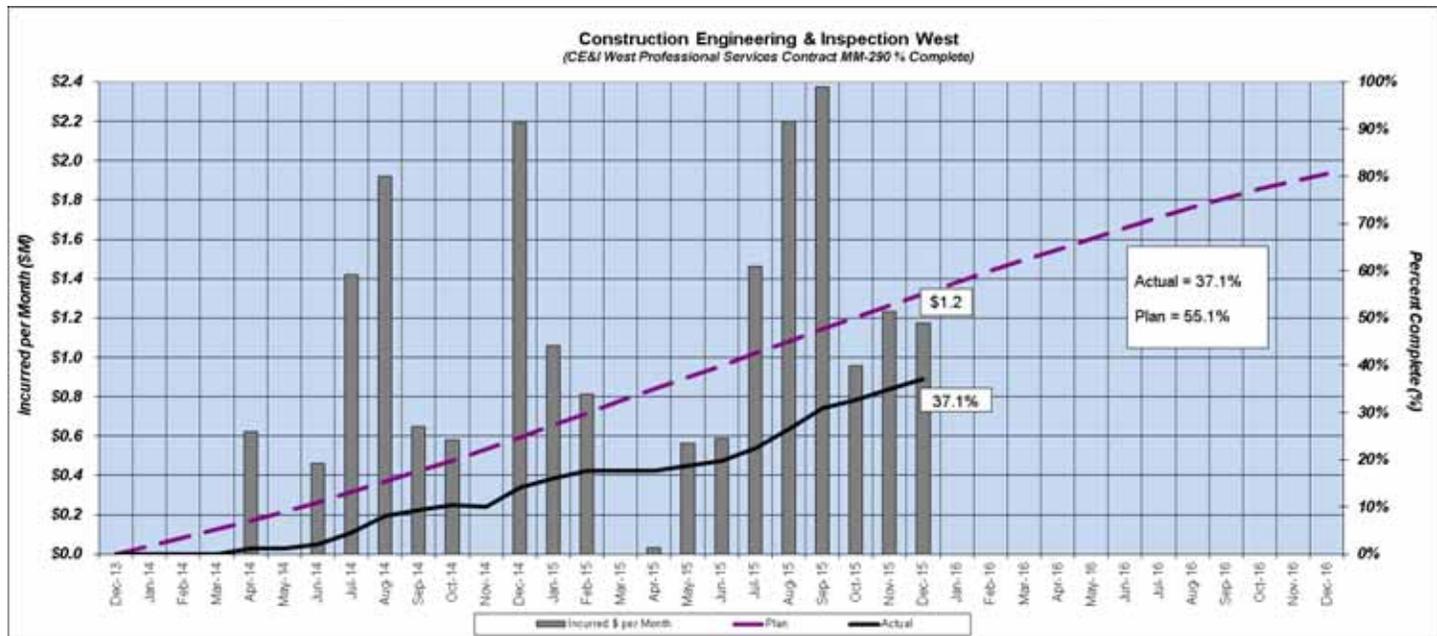
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$54,232,480</u>	<u>Incurred-to-Date:</u>	<u>\$20,135,729</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$54,232,480</u>	<u>Incurred in December:</u>	<u>\$1,175,792</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$2,172,602
DBE % Attained:	4%

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



**KEY ISSUES:**

- In the process of procuring a combined field office space to support the staffing requirements for the west section station group’s multiple procurement contracts. A contract amendment will be required to increase the other direct cost reimbursement allowance.
- Recent schedule discussions on guideway and stations contracts need to be aligned with anticipated West CE&I staffing durations.
- The management organization for the stations has been modified to provide a separate CE&I team for each west side station group procurement package.

**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.

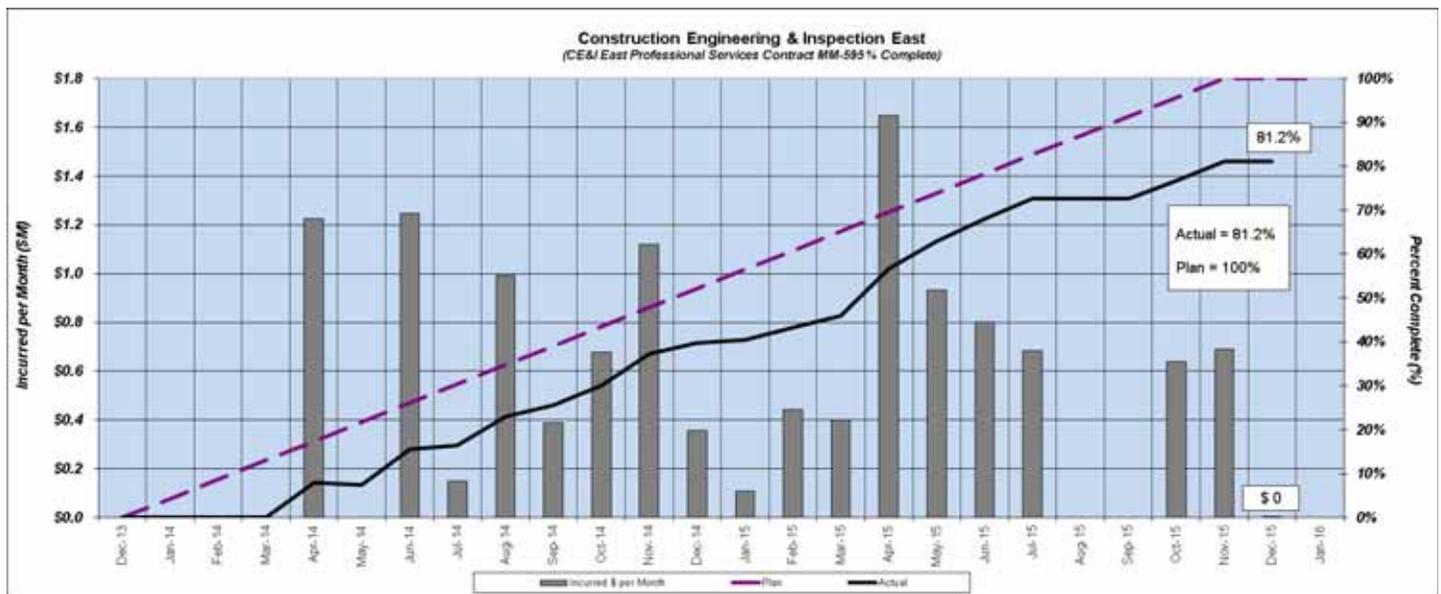
**COST INFORMATION:**

<u>Original Contract:</u> \$63,083,417	<u>Incurred-to-Date:</u> \$12,382,150
<u>Current Contract Value<sup>1</sup>:</u> \$15,257,000	<u>Incurred in December:</u> \$4,200

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December 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. 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 and Roadway contract, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only) and Construction On-Call II 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.

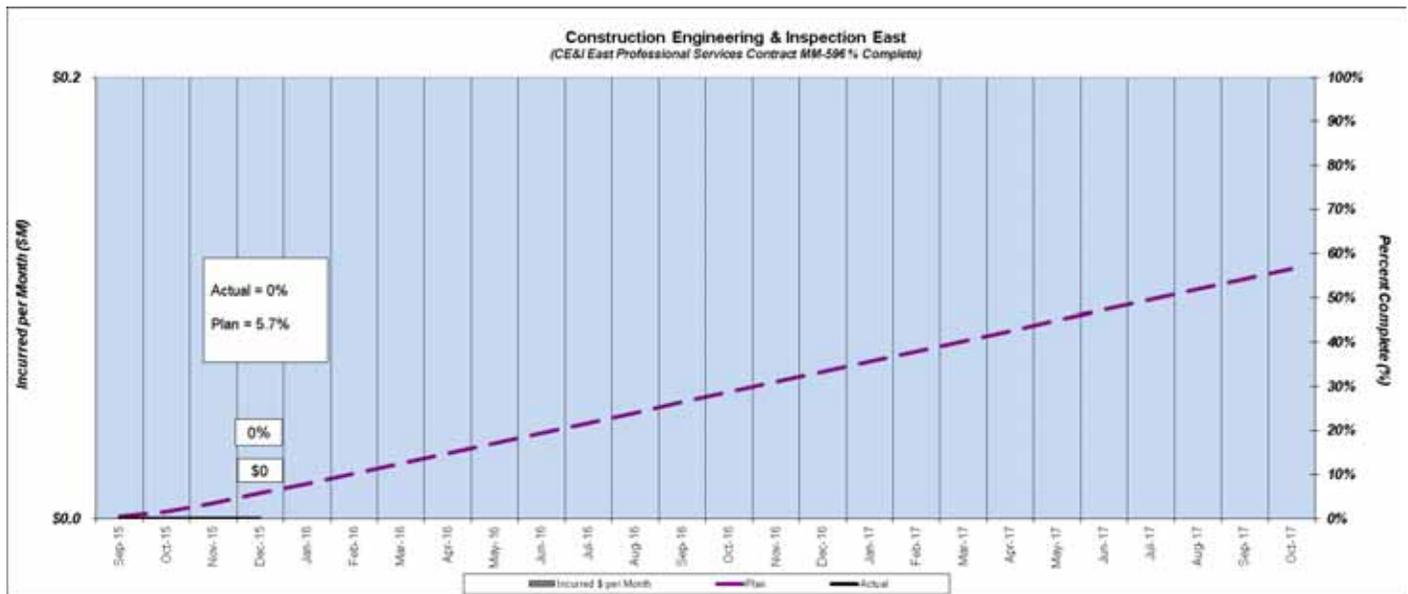
**COST INFORMATION:**

Original Contract:	\$55,036,130	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$55,036,130	Incurred in December:	\$0

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

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



**KEY ISSUES:**

- The East Section CE&I II team is completing initial invoicing for all services performed through December 2015. Various coordination meetings have occurred in an effort to eliminate any errors, confusion, or delays in payment.
- HART has requested an Independent Cost Estimate (ICE) and schedule analysis be performed on the Airport Guideway and Stations DB contract, the Dillingham Utilities and Roadway DBB contract, and the City Center Guideway and Stations DB contract. These reviews are currently in process, and scheduled to start being delivered to HART beginning in February 2016 and continuing through April 2016.

**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.

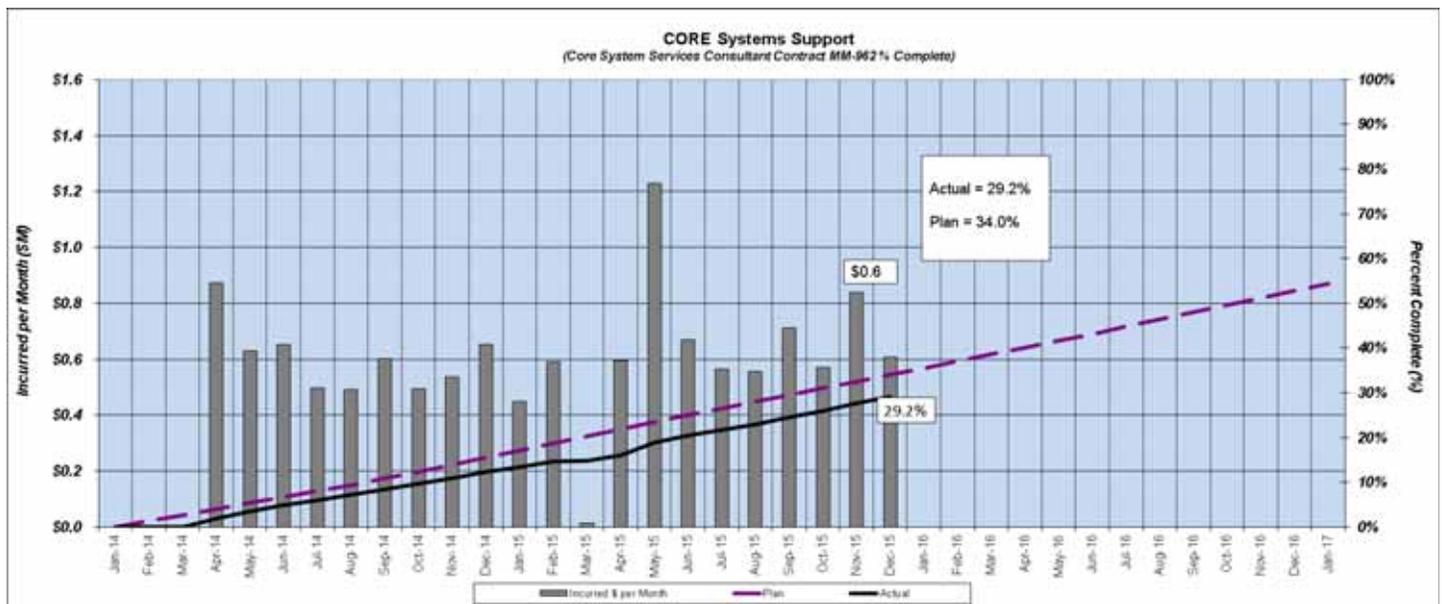
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$43,988,989</u>	<u>Incurred-to-Date:</u>	<u>\$12,830,304</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,988,989</u>	<u>Incurred in December:</u>	<u>\$608,676</u>

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

DBE Participation	
Actual DBE Participation:	\$305,662
DBE % Attained:	0.70%

December 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.

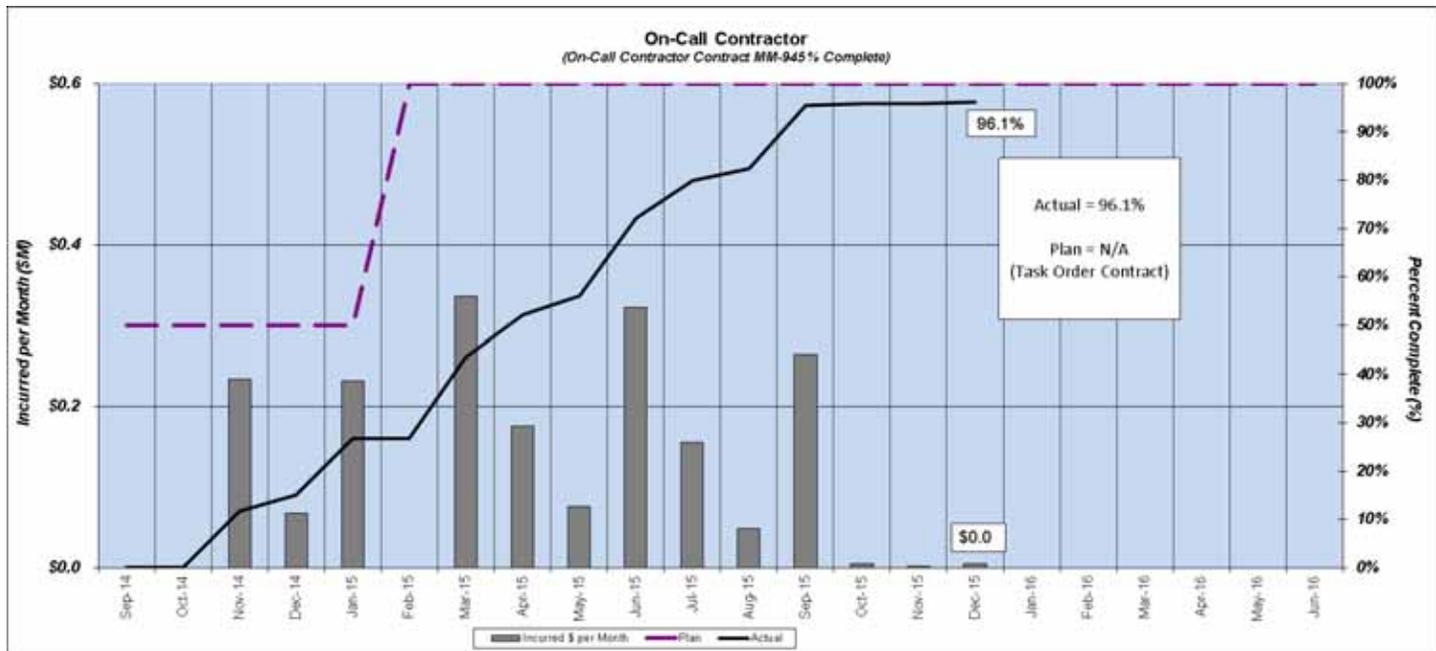
**COST INFORMATION:**

<u>Original Contract:</u> \$1,000,000	<u>Incurred-to-Date:</u> \$1,922,968
<u>Current Contract Value<sup>1</sup>:</u> \$2,000,000	<u>Incurred in December:</u> \$4,735

<sup>1</sup>Current Contract Value = Original contract value (not including contingency) + executed Change Orders

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

December 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:
  - relocated/removed more than 70 trees in the Airport right-of-way, and four trees located along Dillingham.
  - 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.
- 26 of the 28 buildings targeted for demolition were completed. All demolition work includes the abatement of any hazardous materials identified prior to demolition. Two remaining structures are scheduled for demolition in July 2016, as the current tenant has not yet relocated from the building.
- Maintenance of landscaping along Kamehameha Highway continued during the month of January.
- 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

### Permits (Section 5.1)

#### OVERVIEW

- HART and Kiewit public involvement teams are proactively addressing resident concerns about noise levels in construction areas along the West O'ahu/Farrington (WOFH) and Kamehameha Highway Guideway (KHG) sections.

#### KEY ISSUES

- HART has begun an ambient noise study in the City Center section to establish the baseline noise levels.
- HART has completed the ambient noise study in the Airport section.

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

#### OVERVIEW

- Ongoing coordination for Intelligent Transportation Systems (ITS), Maintenance of Traffic (MOT) and final operational expectations. Temporary ITS is fully operational and temporary Closed Circuit Cameras are in place to observe traffic and make appropriate adjustments to signal timing as necessary. Signal timing, in most cases, is maximized in the westbound direction during the afternoon peak. HART has been coordinating with DTS on adjustments.

#### KEY ISSUES

- Discussions begin with HDOT to include project funding for betterments being requested by HDOT. An MOU is drafted and being transmitted for HDOT comment.
- Ensure all agreement requirements have been met for HDOT Airports.

### Utility Agreements (Section 5.3)

#### OVERVIEW

- Draft City Center Construction Agreements have been issued to HTI, TW telecom, and Oceanic for review and comment. Awaiting information from the utilities to finalize the outstanding agreements.

#### KEY ISSUES

- HART continues to address multiple issues with HECO that may affect the design and construction of planned work. HART is continuing to meet with HECO on a weekly basis to resolve the issues. Executive meetings continue to include HART's Executive Director and CEO, and HECO's President.

### Right-of-Way (Section 5.4)

(Data as of Jan. 11, 2016)

#### OVERVIEW

- Currently, there are no ROW actions impeding construction work. Site control has been obtained for nearly 14 million square feet or nearly 95% of the total square footage that is required for the project. The ROW team continues to seek site access or complete acquisitions to ensure construction is not delayed. The process is continuing for parcels that may require eminent domain proceedings, although HART is simultaneously negotiating with owners to obtain access.

KEY ISSUES

- Working to execute third-party agreement with UH Honolulu Community College in order to allow construction to proceed without delay.
- Working to obtain right of entry from Aloha Stadium for station park-and-ride construction.
- HART proposed the use of irrevocable right of entry documents (Right-of-Entry, Possession and Use Agreement) to gain control of a parcel prior to eminent domain. However, the use of the irrevocable right of entry has been delayed due to concerns expressed by owners regarding liability arising from third parties. This approach is a modification of the current procedures, and HART has updated the Real Estate Acquisition Management Plan (RAMP) to include this approach. HART is refining the proposal to address the owners' concerns.
- Working with the Federal government to complete documentation for easements, and reviewing documents to expedite transfer of TMK 9-9-002-004.
- The Honolulu City Council process has been completed for the following eminent domain cases. While the HART Board has proceeded by approving the resolutions authorizing eminent domain, HART staff is still striving to reach an agreement with each owner for the following:
  - To support the schedule for the Airport Guideway and Stations Design-Build (DB) contract:
    - Five (5) cases were initiated in May 2015.
  - To support the schedule for both the Airport, and the City Center Guideway and Stations DB contracts:
    - Four (4) cases were initiated in September 2015. The Honolulu City Council rejected one of the cases.
  - To primarily support the City Center Guideway and Stations DB contract:
    - Twenty (20) cases were initiated in June 2015.
    - Four (4) cases were initiated in July 2015. One case was not submitted because of design refinements, and the Honolulu City Council rejected one of the cases.
    - Seven (7) cases were initiated in August 2015 and five of the cases were forwarded to the Honolulu City Council. Two cases required amendments and were withheld.
    - One (1) case was initiated in November 2015.
    - HART continues to negotiate with each property owner in an attempt to reach mutual agreement. However, several more parcels may be proposed to the HART Board of Directors for eminent domain to support east DB contracts.

## 5.1 Permits

- **Permits Submitted and In-Progress**

- HART submitted the revised Kalihi Stream Section 404 application to the US Army Corps of Engineers.
- HART submitted the Municipal Separate Storm Sewer System permit application for the West Loch station of the Farrington Highway Station Group contract to the State of Hawai'i Department of Transportation (HDOT).
- HART is in the process of submitting a renewal of the KHG Community Noise permit for continued construction from Pearl Highlands to Aloha Stadium.

- **Permits and Approvals Granted**

- HART received an approved Noise Variance for nighttime, environmental and geotechnical activities in the City Center section.
- The Department of Land and Natural Resources confirmed receipt of the Kalihi Stream Channel Alteration Permit Application and will provide recommendations within 90 days.
- HART received the HDOT approved Municipal Separate Storm Sewer System permit for the East Kapolei, University of Hawai'i West O'ahu, and Ho'opili stations in order to discharge storm water runoff.
- HART received the HDOT approved Municipal Separate Storm Sewer System permit which allows for construction discharge at the H2R2 ramp.

- **Look Ahead**

- Upcoming significant permit activity:
  - HART is in the process of preparing the Noise Permit Variance application for the City Center construction activities.

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

- **Activities this Month**

- An MOU concerning DOT additional scope is being reviewed and moved forward for execution.
- Balanced cantilever construction will require height clearance considerations and waivers from DOT.

- **Look Ahead**

- Execution of the Airport and City Center Joint Use and Occupancy.

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			Combining with KHG & City Center – Draft revised to include Temp poles	12/26/13	Including with Airport		
	NTP	5/12/11	12/21/11	5/18/12	Including with Airport					
	Amd 01	7/1/11	HRS Ch 104							
AT&T (Government Solutions)	Executed			12/26/13	Drafted	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				9/27/13	Draft revised to include Temp poles		
	NTP	6/14/10	11/18/14	5/10/12	12/31/14	5/28/15				
	Amd 01	7/1/11		4/13/15						
	Amd 02	5/10/12								
HECO	Executed	4/20/12 Agreement superseded by Design & Construction Services Agreements - CLOSED		7/12/12 Agreement superseded by Design & Construction Services Agreements - CLOSED		Airport (1 of 2) and City Center Bridging Agreements superseded by Design Services Agreements - CLOSED; 2nd Airport agreement being closed out				
	NTP									
		Pre-Construction - CLOSED		Pre-Construction - CLOSED						
	Executed	10/30/13		10/4/13						
	Expired	11/29/13		11/29/13						
		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 revisions forthcoming	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)					Dillingham Blvd Materials-with HECO for signature					
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 revised		
	NTP	12/22/09					4/4/13			
	Amd 01	7/1/11	2/27/14		HRS Ch 104	HRS Ch 104				
	Amd 02	10/7/13	HRS Ch 104							
	Executed							Drafted for Temp Poles		
	NTP									
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		HRS Ch 104		10/23/15				
	Amd 03				HRS Ch 104				
TW telecom	Executed	12/2/09		2/14/12	Oceanic to relocate for TW telecom		10/11/12	To be combined with Oceanic	
	NTP	12/22/09		2/16/12					
	Amd 01	7/1/11							
	Amd 02								
Tesoro	Executed			2/15/12			8/27/13		
	NTP			2/16/12		9/12/13	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. HART is coordinating to resolve this with HECO.
- **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 unused location on the MSF property 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 indicates the need for additional horizontal working clearances from overhead pole alignments and additional buffer radial clearances from the actual overhead high-voltage lines.
  - **Horizontal Working Clearances Analysis** – HECO has completed a pole-by pole review of the current overhead 138kV and 46kV pole and line locations for WOFH and KHG and have identified areas where alternative access may be used for future pole and line maintenance. HART’s Task Force is currently meeting weekly with HECO to identify and analyze all potential solutions to the working clearance issue.

- **Alternative Equipment** –HECO has stated that the Bronto 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 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 Jan. 11, 2016)**

**BUDGET**

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	\$ 201.70	\$ 86.00	\$ 115.70	\$ 102.60	\$ 13.10
Relocation	\$ 20.50	\$ 10.40	\$ 10.10	\$ 16.10	\$ (6.00)
<b>Total (Million)</b>	<b>\$ 222.20</b>	<b>\$ 96.40</b>	<b>\$ 125.80</b>	<b>\$ 118.70</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		5	3	4	4
City Center	18		16	16	16			16	14	16	16
<b>TOTAL</b>	<b>43</b>		<b>38</b>	<b>39</b>	<b>37</b>	<b>2</b>	<b>2</b>	<b>40</b>	<b>31</b>	<b>39</b>	<b>38</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	1		1	7		4	1
City Center	78		66	67	29	2		12		3	7
<b>TOTAL</b>	<b>95</b>		<b>75</b>	<b>76</b>	<b>34</b>	<b>3</b>	<b>1</b>	<b>25</b>		<b>13</b>	<b>11</b>
<b>Easement</b>											
W.Oahu/Farrington	16		1	1	1		6	16		15	6
Kamehameha	6						1	6		6	1
Airport	34		8	7	1		4	28		27	4
City Center	29		22	21	2		1	1		1	1
<b>TOTAL</b>	<b>85</b>		<b>31</b>	<b>29</b>	<b>4</b>		<b>12</b>	<b>51</b>		<b>49</b>	<b>12</b>
<b>GRAND TOTAL</b>	<b>223</b>		<b>144</b>	<b>144</b>	<b>75</b>	<b>5</b>	<b>15</b>	<b>116</b>	<b>31</b>	<b>101</b>	<b>61</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 46 privately-owned parcels, and 15 'Agreements Completed' for the transfer or joint use of government-owned parcels.

KAMEHAMEHA

- Issues:
  - Negotiating 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.
  - In order to support the relocation of utility easements in the Kamehameha section, eminent domain proceedings have been initiated for one case. The HART Board approved the resolution to notify the Honolulu City Council of eminent domain. The City Council approved eminent domain, but negotiations are still continuing with the private property owner in an attempt to reach mutual agreement.

AIRPORT

- Issues:
  - Continuing negotiations with TMK 1-1-002-001.
  - Closely monitoring the Airport Station mapping process.
  - 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 DB contract, eminent domain proceedings have been initiated. Negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement. Through November, the HART Board approved the resolutions to notify the Honolulu City Council of eminent domain. The City Council approved eminent domain and the status of these cases are:
    - 1 Acquired
    - 1 Order of Possession obtained
    - 4 in escrow
    - 5 in negotiations
- Look Ahead:
  - Working towards completing Airport agreements and acquisition of TMK 1-1-002-001.

CITY CENTER

- Issues:
  - Continuing to place priority on obtaining site control and acquiring parcels in the Dillingham section.
  - Negotiating with UH Honolulu Community College to secure construction right of entry for the City Center guideway.
  - Working to resolve issues with TMKs 2-3-039-017, 1-5-007-016, 1-2-009-011 and 1-2-009-098, and the owner of three parcels.
  - Negotiating with the owner of fifteen parcels which have complex issues, as well as TMKs 2-1-031-030, 1-2-003-006 and 2-3-002-069.
  - In order to support the upcoming procurement for the City Center Guideway and Stations DB contract, eminent domain proceedings have been initiated. Negotiations are still continuing with all private property owners in the City Center section in an attempt to reach mutual agreement. Through November, the HART Board approved the resolutions to notify the Honolulu City Council of eminent domain, and the Honolulu City Council approved eminent domain for most of the cases. The status of the cases are:
    - 2 obtained by Order of Possession
    - 5 acquired
    - 5 in escrow
    - 14 in negotiations
    - 2 rejected by the Honolulu City Council
    - 1 withdrawn due to design changes
  - Other parcels may be presented to the HART Board for eminent domain in the coming months to ensure that the construction schedule is maintained. HART continues to negotiate with each property owner in an attempt to reach mutual agreement.
- Look Ahead:
  - Evaluate and address the need to advance additional recommendations for eminent domain in order to achieve the Project's schedule.
  - Closely monitor the acquisitions in relation to construction schedules for City Center.

- HART has received a counteroffer with contingencies from an owner of thirteen parcels, which is being addressed.

**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	16	66		82	31	55	22	53
<b>Grand Total:</b>	<b>34</b>	<b>89</b>	<b>1</b>	<b>124</b>	<b>52</b>	<b>80</b>	<b>33</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

- Issue:
  - Ongoing relocation for TMKs 1-1-016-006 and 1-1-016-016.
- Look Ahead:
  - Plans are continuing for several relocations.

CITY CENTER

- Issue:
  - Continuing negotiations with TMK 2-3-002-059.
- Look Ahead:
  - Planning and monitoring the relocation of several parcels including TMKs 2-3-007-039 and 2-3-007-045.

**THIRD-PARTY AGREEMENTS**

Figure 15. Third-Party Agreement Status

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
<b>City Agreements</b>				
City Joint Use Memorandum of Understanding	Pending	March 2016	WOFH, KHG, Airport, City Center	In process.
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	April 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.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
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	April 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.
DLNR – Kapolei Easement	Pending	March 2016	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	Pending	March 2016	Airport	Process Easement Agreement.
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 for guideway	Pending	March 2016	KHG	Easement Agreement in process.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for station park and ride	Pending	March 2016	KHG	In negotiations.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement for station park and ride	Pending	March 2016	KHG	Process Easement Agreement.
HDOT(H) – Dept. of Transportation Highways Master Agreement	Executed		WOFH	Master Agreement in place.
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.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
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	April 2016	Airport	Sub-agreement in process for leased/revenue parcels.
HDOT(A) - Joint Use & Occupancy (JU&O) Sub-agreement	Pending	April 2016	City Center	Sub-agreement in process for leased/revenue parcels.
HDOT(A) - Easement Agreement for Airport Division parcel	Pending	April 2016	Airport	Process Easement Agreement.
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 Agreement, Dillingham Blvd.	Pending	April 2016	City Center	Finalizing requirements.
HCDA -HI Community Development Agreement	Pending	June 2016	City Center	Coordination is ongoing.
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	March 2016	City Center	Consent to construct in process to be followed by execution of the Easement Agreement.
DAGS – Dept. of Accounting & General Services / HHFDC Easement	Pending	March 2016	City Center	Process Easement Agreement.
<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 Licenses	Pending	March 2016	WOFH, KHG, Airport	Land court documents processed and awaiting recordation and filing.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Adopted	March 2016	Airport	Congressional approval received and immediate access is granted. Conveyance documents are in process.
U.S. Post Office Honolulu Processing Center acquisition	Pending	June 2016	Airport	In negotiations.
U.S. Gov't/GSA/Federal Courthouse Agreement & Landscape Plan	Pending	June 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	March 2016	WOFH	Easement Agreement in process.

## 6 MANAGEMENT AND ADMINISTRATIVE UPDATES

### Safety and Security (S&S) (Section 6.1)

#### OVERVIEW

- **S&S Certification Program**
  - **Certification documents:** See status chart
  - **Design Criteria Conformance Checklists (DCCC) development and verification:** See status chart
  - **Civil – Construction Spec Conform Checklist (CSCC) development/verification:** See status chart
  - **Core Systems – Spec/Testing Conform Checklist (STCC) development/verification:** See status chart
  - **Base Operational Readiness Conformance Checklists (ORCC):** See status chart
  - **PHAs and Core Systems SSHAs/O&SHAs:** See status chart
  - **TVA:** No change, on hold - pending Airport Guideway/Stations and City Center Guideway/Stations re-design.
  - **Open Items List (OIL):** See status chart
  - **Hazard Tracking Log:** No status change
  - **Interim Certification Requirements:** See the new Interim Certification Verification status chart
  - **Key S&S Certification related meetings held in January 2016:**
    - Fire Life Safety Working Group (FLSWG) meeting: 01/12/2016
    - Interim Certification Working Group (ICWG) meeting: 1/14/2016
    - Safety and Security Review Committee Meeting: 01/27/2016
    - PMOC monthly review meeting: 01/19-21/2016
    - Bi-weekly and/or monthly project coordination meetings with Core Systems, MSF, WOFH and KHG
    - HART Safety and Security weekly meeting with HDOT
- The SSRC approved the following certification documents on 01/27/2016:
  - KHG Wall # 8, Sub-CEL/CIL
  - KHG Dry Utility Package 12, Sub-CEL/CIL
  - Three (3) MOW Vehicles delivery and MSF receiving tracks (M-7 and M-2) Interim Certification Checklists
  - PV-001 Delivery Interim Certification Checklist
  - Draft Interim Certification Certificate for the delivery of the 3 MOW vehicles
  - FHSG CSCC update notification
- **S&S Certification Certificates Issued:** See status chart and the 12 month milestone projection updated
- **Construction Safety and Security:** See status chart

#### KEY ISSUES

- The rail plinths 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.
- The CDC lighting levels for the MSF complex remains an issue. The lighting levels are inadequate to support rail yard operations and basic security concerns and are under internal review based on PHA and TVA results.
- The zoning of the MSF complex as "Parks and Recreational" remains an issue. An internal review is on-going to determine if the zoning needs to be modified to an industrial zone to better support rail system operations and maintenance.
- Safety and Security is presently lacking one (1) position (Safety Specialist). Staff has divided the work in the interim.

### Quality Management (Section 6.2)

#### 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.
- Overall quality of the Project is good.

- There are two (2) major NCRs remaining on the WOFH contract and one (1) major NCR on the KHG contract that need to be addressed and corrected to prevent recurrence and mitigate impact on the overall progress of the project. These NCRs are discussed in more detail in the Key Issues of Section 6.2.
- Closeout QA Audit 15-008 PI: KIWC Public Information for WOFH and KHG contracts.
- Verifying PGH Wong (CE&I West) responses to the audit findings for WOFH, KHG, MSF and EE contracts.
- Reviewing AHJV responses to the audit findings for the Core System Configuration Management Plan.
- Issued report on the Combined Internal QA and Safety Audit of HART held on Dec. 1-8, 2015.
- Performed Joint (KKJV, AHJV and HART) Final Walkdown of Phase 4 Tracks (M1-M7) at the MSF Yard East of the Operations and Servicing Building (OSB) and Wheel Truing Building (WTB). A HART Punchlist was issued to KKJV for correction and completion.
- Reviewed the adequacy of the revised HART QMP and effectiveness of its implementation with the HART ED-CEO and the senior management team.

#### KEY ISSUES

- Erection and finishing of spans (12-segments) and installation of permanent “shear keys” between the WOFH guideway columns and both ends of the spans.
- Construction of KHG drilled shafts, columns, and segments at the Casting Facility.
- Resolution of two (2) major WOFH NCRs: repair of cracked four (4) segments of Span 17 and Direct Fixation Shims Tolerances.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Crosshole Sonic Logging [CSL] Reports) quality and repairs.
- Construction of MSF Yard Ballasted Track: Alignment, Profile, Geometry, Sub-ballast, Drainage, Ballast, Grade Crossings, Welding, Stress Relieving, Concrete Ties, Contact Rail, 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 at Hitachi Rail Italy facility in Pittsburg, CA.
- Pre-shipment, Inspection & Testing (I&T) and First Article Inspections (FAI) of wayside core system and passenger vehicles materials, parts and components.

### **Buy America Compliance (Section 6.3)**

#### OVERVIEW and KEY ISSUES

- HART will be submitting 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.

### **Disadvantaged Business Enterprise (Section 6.4)**

#### OVERVIEW

- \$31,887,153 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 1/31/16.

### **Planning and Environment (Section 6.5)**

#### OVERVIEW

- HART’s Planning and Environmental team continues to collaborate with city, state, and federal agencies to ensure proper environmental review occurs in advance of procurement and construction activities. Monitoring and compliance efforts regarding the Programmatic Agreement are ongoing.

#### KEY ISSUES

- HART is completing final Post-Record of Decision (Post-ROD) documentation of project design refinements and needs.

**Risk Management (Section 6.6)**OVERVIEW

- There are a total of 137 risks in the January 2016 risk register, compared to 206 a year ago. There were 4 risks deleted and 3 new risks added for the month. HECO Clearance issues are combined and are being tracked at a Program Wide level. The HECO Clearance issue has escalated significantly and goes well beyond the scope of what the project managers can resolve on a singular project. During the month, risk reviews were focused on the East Section and conducted for Airport Guideway & Stations (AGS), Airport Utilities, and City Center Guideway & Stations (CCGS).

KEY ISSUES – West Side

- HECO Clearance requirements will have significant cost impacts on the AGS and CCGS contracts, specifically along Kamehameha Highway near Joint Base Pearl Harbor and along the Dillingham Blvd. portion of City Center.
- HECO Clearance issues on the west side are being studied with HECO to try and resolve by the most cost effective means.
- Delay in the approval for the GET extension has delayed the issuance of the City Center Guideway & Stations package, originally anticipated to be sent to Priority Listed Offerors in late December 2015. The new anticipated issuance date is Feb. 2, 2016. This is likely to have an impact on the completion of the east side contracts.
- The protest on the Kamehameha Highway Station Group (KHSG) bid (now resolved) will likely have a schedule impact to the program related to access dates, substantial completion, and potentially upon the interim opening.
- The MSF is progressing toward completion in early May 2016. The site will be ready to accommodate vehicle delivery in late March.

**Community Outreach (Section 6.7)**OVERVIEW

- HART continues to expand its business outreach programs with feedback from local businesses and with the addition of its new Shop, Dine & Shuttle program, the free shuttle service designed to assist local businesses along the rail route through construction.
- HART's outreach team participated in several presentations, meetings and events this month, including meetings with business and community groups, and a tour of the project's casting yard and the Rail Operations Center (ROC) for the attendees of the American Public Transportation Association's (APTA) national Business Member Board of Governors' Annual Business Meeting.

KEY ISSUES

- Traffic management continues to be a key issue surrounding construction work in the project's corridor. HART's public outreach team responded to more than 80 public inquiries this month. Inquiries were related to traffic, construction and business outreach programs.
- Business mitigation remains a priority for HART's outreach team. Meetings with businesses and stakeholders in the urban core also continued this month in preparation for construction.

**Staffing (Section 6.8)**OVERVIEW

- The FHSG Project Manager position has been filled.
- The Director of Communications (PMC employee) announced her resignation, effective Jan. 29, 2016. Recruitment to fill this position with a City employee is under way.
- The Chief Financial Officer announced her resignation; effective date is to be determined. Recruitment to fill this position with a City employee is under way.
- The Assistant Deputy of Transit Property Acquisition and Relocation was transitioned from a Project Management Consultant (PMC) employee to a City employee on Jan. 1, 2016.
- HART prioritizes filling all vacancies with City employees and supplements the City staff with PMC when required and appropriate.

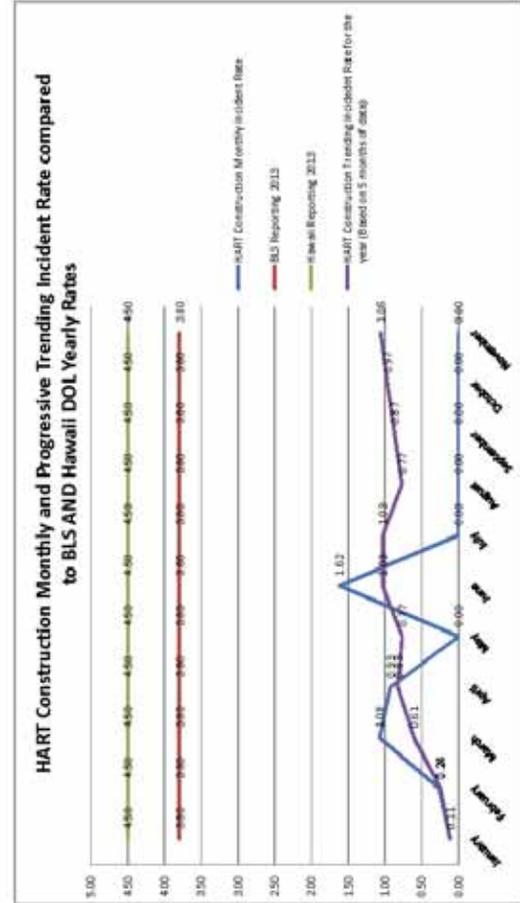
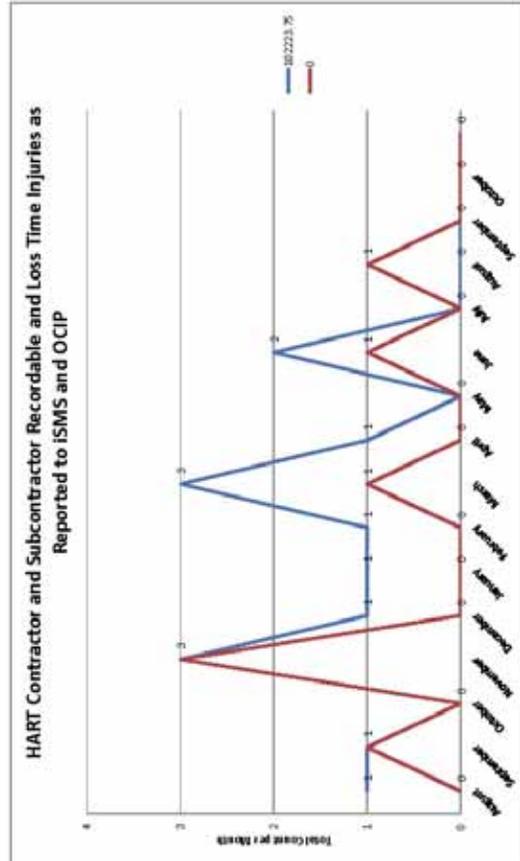
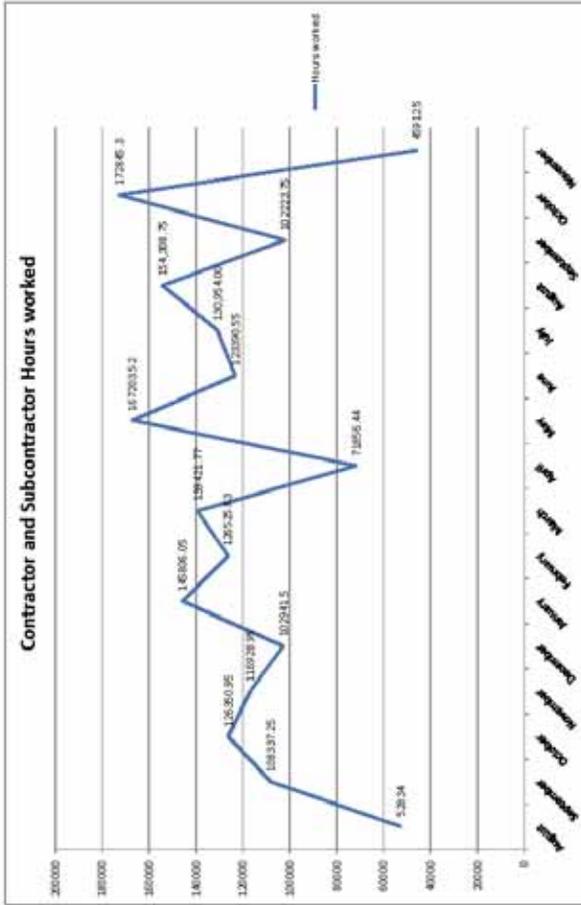
KEY ISSUES

- The current organizational chart is dated Dec. 11, 2015, and will be updated to reflect personnel changes when key positions have been filled.

6.1 Safety and Security

	2014		2015	
	Hours worked	No of Recordable	Hours worked	No of Recordable
January	5263.4	1	145806.65	1
February	108337.25	1	126525.63	1
March	126350.85	0	139421.77	3
April	116838.85	3	116568.44	0
May	102941.5	1	107300.52	0
June	507989.85	8	123390.52	2
July			130054.02	0
August			154380.7	0
September			102223.75	0
October			172845.3	0
November			45512.5	0
December				0
Total	507989.85	8	1181789.41	8

Work Hours for WOH, RWS, MSF, Air Port, CORE System as reported to OCIP and certified.



Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for Dec. 23, 2015-Jan. 30, 2016	Loss Type	Date	Event Description
Environment	15	0			
Loss or Damage	33	1	a)Minor Damage	a) 1/13/16	a) WOFH: Grout spilled from guideway over balanced cantilever section and lightly damaged car from on duty officer.
*Reportable Occupational Injury/Illness	0	0			
Security	57	1	a) Minor Loss	a) 1/25/16	a)DBOM: Equipment theft from Mass Electric Storage Container.
**Loss Time Occupational Injury/Illness	6	0			
Road/Vehicle - Driving	84	0			
Service Strike	74	6	a)Minor Damage b)Minor Damage c)Moderate Damage d)Minor Damage e)Minor Damage f)Minor Damage	a) 12/30/15 b) 12/30/15 c) 1/7/16 d) 1/8/16 e) 1/14/16 f) 1/19/16	a) AU: Struck an unidentified conduit while potholing. b) AU: Struck a traffic signal line while milling. c) KHG: Struck an 8" gas line during excavation. d) AU: Struck an unidentified 1" lead encased cable. e) WOFH: Struck a 1" water line during excavation. f) AU: Struck DTS conduit.
*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.					

HART S&S Certification "Open Items List"						
Last 6 Months Status						
"Open Items" - Design/Construction and Verification Issues						
Month - 2015	Total #	Total # Open	Total # Closed	% Closed Overall	# closed In Month	% Closed In Month
August	154	88	66	42%	4	3%
September	154	88	67	44%	1	1%
October	193	85	108	56%	41	18%
November	205	55	150	73%	44	21%
December	205	48	157	77%	07	3%
January	211	41	170	81%	12	19%

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

<b>Key HART S&amp;S Certification Documents</b>			
<i>Update &amp; Approval Status</i>			
<b>S&amp;S Project Plans, PHAs, Core Systems SSHA and O&amp;SHA, and TVA</b>			
<b>Documents</b>	<b>Revision #</b>	<b>Date Approved</b>	<b>Comments</b>
Safety and Security Management Plan (SSMP)	Rev 5	10/16/2015	SSMP signed
Safety and Security Certification Plan (SSCP)	Rev 4.B	12/14/2015	SSCP signed
WOFH SSCP	Rev 0	10/22/2014	SSRC approved - No future updates: HART SSCP is in affect
Construction Safety & Security Plan (CSSP)	Rev 2	10/16/2015	
Security Sensitive Information (SSI) Plan	Rev 0	12/15/2015	SSI plan signed
Project Preliminary Hazard Analysis (PHAs)	Rev 2.A	Pending	Rev 2A – DRAFT annual update completed 9/3/2015
- MSF – Yard and Shop	Rev 2.A	-	Nov 2015 – Jan 2016 - update, ready for Feb 2016 SSRC approval
- Alignment	Rev 2.A	-	Nov 2015 – Jan 2016 - update, ready for Feb 2016 SSRC approval
- Tracks	Rev 2.A	-	Nov 2015 – Jan 2016 - update, ready for Feb 2016 SSRC approval
- Stations	Rev 2.A	-	Nov 2015 – Jan 2016 - update, ready for Feb 2016 SSRC approval
- Traction Power	Rev 2.A	-	Update on-hold - pending approval of TES SSHA and O&SHA
- Train Control	Rev 2.A	-	Update on-hold - pending approval of ATC related SSHA & O&SHA
- Vehicles	Rev 2.A	-	Update on-hold - pending approval of PV related SSHA & O&SHA
- Communications	Rev 2.A	-	Update on-hold - pending approval of Comms SSHA and O&SHA
Core Systems Contract (CSC) PHAs (DBOM)	Rev E	-	12/23/2015 – CSC R&R
- Technologies PHAs	Rev C	-	10/29/2015 – CSC R&R
- Central ATC O&SHA	Rev C	9/23/2015	SSRC approved
- Wayside ATC SSHA	Rev B	-	11/14/2014 – CSC Revise & Re-submit (R&R)
- Wayside ATC O&SHA	Rev D	9/23/2015	SSRC approved
- Wayside/ATC SHA	Rev C	-	1/6/2015 – CSC R&R
- SCADA O&SHA	Rev D	-	7/14/2015 – CSC R&R
- SCADA SSHA	Rev C	-	3/10/2015 – CSC R&R
- Vehicle Fire Hazard Analysis (FHA)	Rev B	-	8/28/2015 – CSC R&R
- Vehicle SSHA	Rev A	-	8/31/2015 – CSC R&R
- Vehicle O&SHA	Rev A	-	10/26/2015 – CSC R&R
- Vehicle/ATC SSHA	Rev E	-	HART accepted - 11/02/2015 – ready for Feb 2016 SSRC approval
- Vehicle/ATC O&SHA	Rev F	-	HART accepted 1/08/2016 – ready for Feb 2016 SSRC approval
- TES SSHA	Rev B	-	11/03/2015 – CSC R&R
- TES O&SHA	Rev B	-	11/03/2015 – CSC R&R
- PSGS PHAs	Rev A	-	Under development
- PSGS O&SHA	Rev A	-	12/8/2014 – CSC R&R
- PSGS SSHA	Rev B	-	10/05/2015 – CSC R&R
- UPS O&SHA	Rev C	-	HART accepted - 11/04/2015 – ready for Feb 2016 SSRC approval
- Communications SSHA	Rev B	-	01/7/2016 – CSC R&R
- Communications O&SHA	Rec C	-	1/27/2016 – CSC R&R
- FDAS SSHA	Rev B	-	11/03/2015 – CSC R&R
- FDAS O&SHA	Rev B	-	HART accepted - 11/24/2015 – ready for Feb 2016 SSRC approval
- MOW Support Vehicles O&SHA	Rev A	-	Under development
Project Threat & Vulnerability Assessments (TVAs)	Rev 1	1/16/2015	On hold pending contract restructure & re-design

<b>S &amp; S Design Criteria Conformance Checklist (DCCC)</b>						
<i>Civil and Core Systems Contracts</i>						
<b>Verification Status</b>						
<b>Design Phase</b>				<b>Construction / Installation /Testing</b>		
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	48%	-	DCCC under review			
DB-200, MSF	96%	-	1/28/2015	21%	+21%	Verification underway
FD-430, Airport Utilities	100%	N/A	6/25/2014	51%	+51%	Verification underway
DB-120, WOFH Guideway - 38 total – Sub CEL/CIL Packages	99%	-	35 Sub - CELs/CILs SSRC approved	38%	+18%	Verification underway
DB-320, KHG Guideway - 40 total – Sub CEL/CIL Packages	98%	+1%	36 - Sub CELs/CILs, SSRC approved	7%	+7%	Verification underway
<b>Construction Contracts Awarded - Not Yet Started</b>						
FD-340, H2R2 Ramps	100%	N/A	5/27/2015			
FD-240, Farrington Hwy Station Group	99%	-	3- station- 12/09/2015			
FD-140, West Oahu Station Group	99%	-	3 stations 12/09/2015			
MI-930, Elevators & Escalators	-	-	Base DCCC 8/26/15			
<b>Civil Contracts Under Design or in Pre-bidding Status</b>						
FD-340, Kamehameha Highway Station Grp	100%		3 Stations – 8/26/2015			
FD-530, City Center Utilities	-	-	On hold – re-designing			
AP00 Art-in-Transit, 23 artists/contracts	-	-	Base DCCC under review			
MI-900 Fare Collection System	-	-	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)	-	-	2016 Redesign			
DB-550, CCG & Stations Group (CCGS)	-	-	2016 Redesign			
<b>DBOM-920 Core Systems Contracts Under Procurement - Production - Manufacture - Installation</b>						
DBOM-920, Core Systems						
- Passenger Vehicles (PV)	-	-	Designer input underway			
- Traction Electrification System (TES)	-	-	Designer input underway			
- MOW Vehicles	-	-	Base DCCC 9/23/2015			
<b>DBOM-920 Core Systems Contracts Under Design</b>						
DBOM-920, Core Systems						
- Traction Power Generator Back-up System	-	-	Base DCCC under review			
- Communication System	-	-	Designer input underway			
- Fire Detection Alarm System (FDAS)	-	-	Designer input underway			
- Train Control System (TCS)	-	-	Designer input underway			
- SCADA	-	-	Designer input underway			
- Platform Screen Gate System (PSGS)	-	-	Designer input underway			

<b>S &amp; S Construction Specification Conformance Checklists (CSCC)</b>			
<i>Civil - Contracts</i>			
<b>Verification Status</b>			
<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	17%	+17%	Base CSCC not yet SSRC approved, verification underway
DB-200, MSF and Rail Yard	40%	+3%	Verification underway
DBB-505, Airport Utilities - Construction	56%	+16%	Verification underway
DB-120, WOFH Guideway	50%	+6%	Verification underway
DB-320, KHG Guideway	11%	+3%	Verification underway
<b>Construction Contracts Awarded – Not Yet Started – No Verification Effort</b>			
DBB-385, H2R2 Ramps.net	-	-	Base CSCC - SSRC approved, 5-27-2015
DBB-271, Farrington Hwy Station Group	-	-	Base CSCC - SSRC approved, 7/22/2015
DBB-171, West O’ahu Station Group	-	-	Draft Base CSCC updated, 8/6/2015 under PM review
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 Bidding - Pre-Bidding Phases</b>			
DBB-371, Kamehameha Hwy Stations Grp	-	-	Draft Base CSCC updated 8/20/2015 under PM review
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 review
DBB-511, Dillingham Utilities & Road Widening	-	-	Draft Base CSCC under review – Related to FD-530, C&C Utilities
DB-275, Pearl Highlands PS/ Bus Transit Center	-	-	TBD
MI-900 Fare Collection System	-	-	Draft Base CSCC under review
DBB-600, West O’ahu Park & Ride	-	-	TBD
DB-450, AG & Stations Group (AGS)	-	-	On hold pending re-design
DB-550, CCG & Stations Group (CCGS)	-	-	On hold pending re-design

<b>S &amp; S Specification/Testing Conformance Checklists (STCC)</b>			
<i>Core Systems - Contracts</i>			
<b>Verification Status</b>			
<b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>DBOM-920 Core System Contracts Under Procurement - Production - Manufacture - Installation - STCC</b>			
<b>MOW Vehicles</b>	16%	+16%	Base STCC not yet SSRC approved, verification underway
<b>Passenger Vehicles/Cars</b>			
1) General Requirements – Applies to all PVs	2%	+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-PV Cert for Pre-revenue Service	-	-	Draft Base STCC under development
<b>Traction Electrification System (TES)</b>			
1) General Requirements – Project Wide	26%	+26%	Draft base STCC under review, verification underway
2) MSF – Rail Yard	25%	+25%	Draft base STCC under review, verification underway
3) Functional Track – WOFH Guideway	-	-	Draft base STCC under review
4) WOFH and KHG Guideways	-	-	Draft base STCC under review
5) Airport and City Center Guideways	-	-	Draft base STCC under review
<b>Operational Requirements</b>			
- Operational Readiness Conformance Checklists	6%	+1%	Base ORCC - SSRC approved 12/09/2015, verification underway
<b>DBOM-920 Core Systems Contracts Under Design- STCC</b>			
- System Integration Testing (SIT)	-	-	Draft base STCCs updated & under review – 5 - STCCs
- Traction Power Generators Back-up System	-	-	Draft base STCCs under review
- Communication Systems	-	-	Draft base STCCs under review – 5 - STCCs
- Fire Detection Alarm System (FDAS)	-	-	Base STCCs under development
- Train Control System (TCS)	-	-	Base STCCs under development
- Supervisory Control & Data Acquisition (SCADA)	-	-	Base STCCs under development
- Platform Screen Gate System (PSGS)	-	-	Base STCCs under development

<b>Interim Certification - Verification Status</b>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Interim Certification Requirements</b>			
1. MOW – 3 Vehicles Delivery – Receiving Tracks	87%	+87%	Interim Cert checklists SSRC approved 1/27/2016
2. PV-001 Delivery – OSB-TCO/PTCO, IT, ORCC, PV-001	-	-	PV-001 Interim checklist SSRC approved 1/27/2016 OSB/IT,ORCC checklists pending Feb 2016 SSRC approval
3. PV-002 Delivery – vehicle only	-	-	PV-002 Interim Cert checklist SSRC approved 1/27/2016
3. Rail Yard - Test Track #1, TES/IT/ORCC/PV-002/ WOFH	-	-	Interim Cert checklists under Review – for Feb 2016 SSRC
4. Functional Track – WOFH, PV-002, TES, ORCC, & IT	-	-	Interim Cert checklists under development

<b>S &amp; S Certification Certificates Issued to Date and 12 Month Projected Milestones</b>		
<b>Certification Certificates Issued</b>	<b>Date Signed</b>	<b>Comments</b>
FD-430 / DBB-525 Airport 7-Piers Certifiable Element "Guideway"	9/21/2015	None – No open Items
<b>Projected Certification Milestones next 12 Months</b>	<b>Milestone Dates</b>	<b>Comments</b>
1. MOW Vehicles Delivery - Interim Certification (Hard Certification Date)	2/8/2016	3 - MOW vehicles
2. PV-001 Delivery - Interim Certification (Hard Interim Certification Dates)	3/17/2016 3/24/2016	PV-001 (2-cars) PV-001 (2-cars)
3. YCB Civil Contract – Core Systems	March 2016	Civil only
4. DB-200, MSF Contract & Certifiable Element "Maintenance & Storage Facility"	May 2016	Civil only
5. PV-002 Delivery – Interim Certification	July-August 2016	Vehicle only
6. DBB-505, Airport Utilities Contract and Certifiable Element "Guideway"	September 2016	Civil only
7. PV-002, Interim Certification to enter Dynamic Testing	September 2016	Vehicle only
8. Rail Yard Test Track # 1 – Interim Certification	September 2016	
9. Functional Track – WOFH Guideway – Interim Certification – Test Track # 2	November 2016	
10. DBB-385, H2R2 Contract and Certifiable Element - "Guideway"	December 2016	Civil only
11. DB-120, WOFH Guideway Contract and Certifiable Element - "Guideway"	January 2017	Civil Only
12. PV-001, Interim Certification to enter Dynamic Testing	On Hold - TBD	

## 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.
- Overall quality of the Project is good.
- Review and approve contractors, consultants and suppliers new and updated QAPs, including Inspection and Test Plans (ITP).
- 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 (YCB Lightning Protection, Floor Coating, UPS Installation); KKJV/MSF (Flooring Installation) and HDCC/FHSG (Mobilization and Earthmoving).
- Issued QA Audit Report on Combined QA and Safety Internal Audit of HART held on Dec. 1-8, 2015.
- Performed Joint (HART, KKJV, AHJV) Final Walkdown of Phase 4 Tracks (M1-M7) at the MSF Yard. A Punchlist was created and issued to KKJV by HART for correction and completion.
- Prepared Management System Audits (QA, Environmental and Buy America) Schedule for 2016 as shown below:



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2016 Rev 0

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULE D	DATE PERFORMED	DATE CLOSED
SC-HRT-1400049	CSC Support Services	L + E	16-001 QA	2/9 - 2/10		
CH-HRT-10HO449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	16-002 QA/BA/E	2/23 - 2/25		
CT-HRT-1200106	Core Systems Contract (CSC) & Hitachi Rail Design-Build-Operate-Maintain	Hitachi Rail USA	16-003 QA	3/29 - 4/1		
CT-HRT-10HO137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIVC - HI	16-004 QA/BA/E	4/12 - 4/14		
CT-HRT-11HO195	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-11HO195	KHG Casting Facility	KMVC - 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 Hi-way Station Group Construction FHSG	Hawaiian Dredging	16-010 QA/BA/E	8/09 - 8/11		
CT-HRT-11HO195	WOFH and KHG Surveying and Alignments	KIVC - HI	16-011 QA	8/16 - 8/18		
CT-HRT-10HO137						
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 0

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULE D	DATE PERFORMED	DATE CLOSED
CT-HRT-10H0137	WOFH Public Information	KIVC - 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 Hi-way 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 Secion 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>36</b>	<b>1</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 two (2) major WOFH NCRs that need to be addressed and corrected to prevent recurrence and to mitigate impact on the overall progress of the project. The following are the major NCRs identified:
  - **Span 17 – NCR 314:** The procedure for lowering a heavier and wider span was not followed during the setting of the span to the columns. The result of the error was cracked segments 17-1, 17-2, 17-11 and 17-12. KIWC has evaluated the damages, disposition and the proposed corrective actions. KIWC has submitted a Remediation Plan to HART, which was approved by HART (CE&I, Design and Construction Department, and GEC-3). Therefore, the disposition on the NCR is Repair. KIWC continued the repair of the cracked segments. Repair completion of Span 17 is expected by mid-February 2016.
  - **Direct Fixation Shims Tolerances – NCR 398:** KIWC shims shall exceed the 9/16 inches specified requirements. HART and KIWC continue discussions on the direct fixation shim tolerances. KIWC has decided to halt installation of shims exceeding 9/16 inches until the issue is resolved. HART is currently reviewing the KIWC NCR Disposition and Corrective Actions.
- Resolution of one (1) major KHG NCR that needs to be addressed and corrected to prevent recurrence and to mitigate impact to the overall progress of the project. The major NCR identified:
  - **Drilled Shafts:** To date there are 12 Open NCRs (closed one) which are related to the CSL Reports, and 109 Drilled Shafts completed (added 19), which indicates that there were no CSL issues encountered lately and the process was improved. The CSL anomalies on the 12 NCRs open were found to be 10”-24” on top of the shafts, therefore correction/fixing will be quicker and easier.
- Erection and finishing of spans (12-segments), construction of “shear keys” between columns and spans, and construction of concrete Walkways on WOFH and KHG guideways.
- Resolution of two (2) major WOFH NCRs: cracked segments 1, 2, 11 and 12 of Span 17 repair, and Direct Fixation Shims Tolerances.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Crosshole Sonic Logging Reports) quality and repair.
- 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 1-5 of the MSF Yard, OSB, WTB, and MOW buildings prior to turnover to CSC.

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

• **Look Ahead**

- HART will provide updates on any new construction agreements HART enters into with a utility company.

### 6.4 Disadvantaged Business Enterprise (DBE)

- **Activities this Month**

- \$31,887,153 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 1/31/16
  - 6.29% = DBE utilization on total disbursed FTA funds received to date (\$31,887,163 divided by \$506,844,811)
  - 1.81% = DBE utilization to date on total Project FTA funds (\$31,887,153 divided by \$1,763,903,901)

*Total DBE Participation = \$31.9M  
(previous report = \$31.6M)*

Figure 16. DBE Participation this Month

DBE Participation in January		
DBE Firm	Contract Number	Participation
Lawson & Associates	SC-HRT-1400061 MM-964	\$57,521
ADS System Safety Consulting	SC-HRT-1400061 MM-964	\$88,599
Don’s Makiki	CT-HRT-10H0449 DB-200	\$6,190
David’s Fencing	CT-HRT-10H0449 DB-200	\$1,257
Island Hauling	CT-HRT-10H0449 DB-200	\$57,636
Element Environmental	SC-HRT-1400050 MM-290	\$70,336
LKG-CMC	SC-HRT-1400049 MM-962	\$11,354
FIC, LLC	SC-HRT-1400051 MM-595	\$1,627
Aloha Steel	CT-HRT-1400323 DBB-505	\$34,988
PSC Consultants	SC-HRT-1400051 MM-595	\$298
<b>TOTAL FOR THE MONTH</b>		<b>\$329,806</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 issued a Notice to Proceed (NTP) to Honua Consulting on Jan. 4, 2016 for Section 106 Programmatic Agreement Project Manager, (Kāko’o “II”). Honua Consulting will replace former Kāko’o services provided by Pacific Legacy.
  - HART’s Programmatic Agreement (PA) team met with the Hawai’i State Historic Preservation Division (SHPD) on Tuesday, Jan. 12, 2016, as part of ongoing consultation with the division.
  - HART’s two Makalapa National Register of Historic Places (NRHP) nominations that were withdrawn from the Nov. 13, 2015 hearing of the Hawai’i Historic Places Review Board (HHPRB) were sent to the Keeper of the National Register in Washington, D.C. for concurrence on the boundaries, per recommendations of the PA Consulting Parties. The two nominations have also been withdrawn from the Feb. 19, 2016 HHPRB meeting agenda.
  - HART has compiled a status update on Historic Preservation Fund progress to date.
- 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.

- Cultural sensitivity training was provided to teams from Royal Contracting, PGH Wong, Hawaiian Dredging, Nan, Inc., and HART on Jan. 13, 2016.
- Activities to further secure Holau Market occurred on Jan. 7, 2016. It was discovered in January that vagrants had entered the second story from the roof during the Christmas holidays. Additional work was performed to prevent further access as well as to overpaint new graffiti. A new roof will be installed on Holau Market, starting in January.
- The Ai-Goto Building was further secured as well on Jan. 7, 2016 by replacing plywood over a service window that had been removed by vagrants.
- Convened the first meeting of the HART Property Utilization Group on Jan. 8, 2016 to further the development of a Property Utilization Plan (PUP).
- Continued coordination with stakeholder agencies regarding street tree transplanting and mitigation efforts, including the Hawaii Community Development Authority.
- Sustainability:
  - Bike shelters to encourage integrated multimodal access to rail stations were added to the planned Lagoon Drive and Pearl Harbor Stations as a priced option to the Airport Guideway and Stations (AGS) contract offering.
  - HART attended the City Department of Transportation Services (DTS) Bike Ways meeting on Jan. 13, 2016.
- **Looking Ahead**
  - Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.
  - The next consultation meeting with HART/SHPD is scheduled for Feb. 2, 2016.
  - HART to draft sustainability policy to present to the HART Board.
  - HART to present purchase power agreement vs. photovoltaic ownership evaluation to the HART Board.
  - HART to develop Sustainability Focus Group with to-be-identified stakeholders.
  - Introduce new Kāko'o Programmatic Agreement Manager to PA Signatory and Consulting Parties.
  - Attend Kāko'o Meetings with Programmatic Agreement Signatory and Consulting Parties, if scheduled.
  - Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
  - Continue development of HART's sustainability program.
  - Continue development of the photovoltaic RFP for the Rail Operations Center (ROC).
  - HART to schedule kickoff meeting for Hawaiian Station Naming committee.
  - Draft Request for Information (RFI) for potential Pearl Highlands Parking Garage public-private partnership (P3).
  - Continued development of Property Utilization Plan (PUP).
  - Prepare and submit Draft Post-ROD for Emergency Backup Generators to FTA.
  - Prepare and submit Draft Post-ROD for the Airport Casting Yard to FTA.

## 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 assessments are performed 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.

Maintaining the RR includes assessing the potential for a risk to happen as well as the cost and schedule impacts should the risk occur in isolation. The cost and time impacts to the Project are assessed based on a "most likely scenario" rather than the maximum or the minimum impact. Not all risks (known and unknown) will occur with the same frequency or probability as estimated in isolation. In addition, risks can be eliminated due to design best practices as well as through the implementation of safe alternative means and methods of construction to avoid the risk occurrence.

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**

- 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 will be scheduled when the PMOC and HART are in agreement that 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.

#### **ADDITIONAL BACKGROUND**

The narrative below provides additional background on the mitigation actions being taken to control and contain cost and schedule impacts to the Project. Provided below are the risk category and specific actions being taken. Dates are tracked separately. Based on the effectiveness of the mitigation efforts, more actions may be required to further contain cost and schedule impacts in future months. The major risks covered this month are: A) Market Conditions, B) Utilities, and C) Right-of-Way.

**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 for late 2014 and through 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 contractor outreach efforts have been successful with respect to the West Side Stations. The net benefit of Value Engineering, revisions to the General Terms and Conditions, and repackaging have resulted in a savings of \$40M.
- HART's continuous improvement in estimating methodology has led to more confidence in the likely construction pricing.
- The combined guideway and station packages on the East 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 under active procurement. Lack of access by the contractor has been partially mitigated through re-sequencing the work on the west. 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 elevated and 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 were delayed initially. The majority have now been 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 January 2016								
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Jan '16 Risk Rating	Dec '15 Risk Rating
36.01	Project Wide	HECO Clearance - Cost exposure from unexpected utility replacements. (Ex. underground piping quality may be degraded and require extensive replacement which may not all be offset as betterment).	90%	5	5	5	25	15
111.19	Airport Guideway and Stations	Estimates for remaining guideway contracts 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 guideway contracts may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
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; agreement with owner yet to be proposed. PGC demands could extend negotiations and delay construction or increase construction costs.	90%	5	5	3	20	16
193.08	Core Systems Contract	Delays in Civil, Guideway and Stations may cause Core Systems installation delay.	75%	4	5	5	20	14
37.19	Airport Guideway and Stations	Additional utility easements may be required for military properties or private utility companies.	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
110.06	City Center Guideway & Stations	Real Estate market could rebound 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
184.17	Elevator/Escalator	There is a potential for cost escalation and extended OH for delay of manufacturing and installing elevator/escalator due to procurement of West Side Stations.	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/decrease in escalator requirements.	90%	5	3	3	15	15

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 Added

Risks Added in January 2016							
Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Risk Rating
198.19	Airport Guideway and Stations	Current Airport Utilities contractor could delay downstream construction activities on AGS.	25%	2	5	3	8
199.20	City Center Guideway & Stations	Ala Moana Station shift in location approximately 200' ewa could impact ROW, construction easements, interface with Ala Moana, etc.	25%	2	3	3	6
200.19	Airport Guideway and Stations	Guideway Profile @ Ualena St. to comply with 7460 glide slope at HIA.	25%	2	5	3	8

Figure 20. Risks Deleted

Risks Deleted in January 2016					
Current Risk ID	Contract Package	Risk Description	Comments	Risk Rating	
				Jan. '16	Dec. '15
37.19	Airport Guideway and Stations	Additional utility easements may be required for Military or private utility companies.	1/16 - Deleted (duplicate). Combined with 37.19 Construction category item since this is now D/B.	7.5	10
124.19	Airport Guideway and Stations	Potential delays in steel (i.e. canopy fabrication, peripheral device mountings and connections, etc.) due to amount of fabrication required and logistics involved.	1/16 - Item deleted due to transfer of risk to the DB contractor (now a DB contract).	7	7
146.19	Airport Guideway and Stations	HART Service Connection - HECO and other utility service hook up requests have not been processed according to utility company procedures causing potential delay (i.e. HIA undocumented communication or electrical lines).	1/16 - Deleted due to duplication of risk item 126.19.	4	4
190.15	Airport Utilities	Utility contractor could delay downstream construction activities.	1/16 - Deleted risk from this contract. Delay would impact AGS, not AU.	4	4

### 6.7 Community Outreach

- **Activities this Month**

- HART’s public outreach included more than a dozen presentations to business organizations, schools and community groups.
- HART’s outreach and leadership team sponsored site visits of portions of the alignment and a tour at the Rail Operations Center for national transportation leaders. Approximately 100 attendees from the American Public Transportation Association’s (APTA) Business Member Board of Governor’s 2016 Annual Business Meeting participated in the HART event.

*To date, HART’s outreach team has participated in:*

- *1,925 presentations and events*
- *1,043 Neighborhood Board meetings*

**Construction Outreach**

- Following its initial launch of a free shuttle service as part of its Shop & Dine on the Line program, a second shuttle run was provided to assist business along the alignment. The new Shop, Dine & Shuttle program features an open-air trolley and a minibus that will provide free shuttle service for people who want to visit local businesses along the Kamehameha Highway corridor. The shuttle connects at Aloha Stadium, connecting swap meet patrons and other riders with businesses along the route. Shuttle riders are given Shop & Dine on the Line brochures, which list special offers and discounts from approximately 100 businesses along the route participating in the program. The successful launch has prompted HART to make the shuttle service a regular feature of its business outreach program.
- HART held two Business Alliance meetings this month, one in Waipahu and a second one in the Pearl City area. These regular meetings are designed to provide businesses 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 outreach programs. HART’s Business Alliance partnership continues to provide businesses in the construction corridor with tailored construction briefings, free business development workshops, and other programs to assist local businesses during construction.

Figure 21. HART Executive Director and CEO Dan Grabauskas shares information about the project with national transportation leaders.



Approximately 100 members of the American Public Transportation Association visited the project’s casting yard, toured a portion of the rail route, and visited the Rail Operations Center this month.

Figure 22. HART’s Shop & Dine on the Line program connects customers with businesses during the construction process.



Steven Wong, owner of Honolulu Kitchen in Waipahu, is participating in HART’s Shop & Dine on the Line program. His business is one of about 100 that are offering special offers during rail construction.

**Community Input**

- HART’s public information team responded to more than 80 inquiries and requests in January that came in via the agency’s website, email and 24-hour hotline. Inquiries this month primarily focused on traffic and the impact of Kiewit’s construction work.

**Look Ahead**

Coming in February:

- HART’s outreach and construction teams prepare to break ground at its West Loch station.
- HART holds two Business Alliance meetings for businesses in the Waipahu, Aiea and Pearl City areas.
- HART expands its business outreach program in Waipahu and continues its free shuttle service along Kamehameha Highway as part of its Shop & Dine on the Line program to assist businesses along the rail route during construction.

**6.8 Staffing**

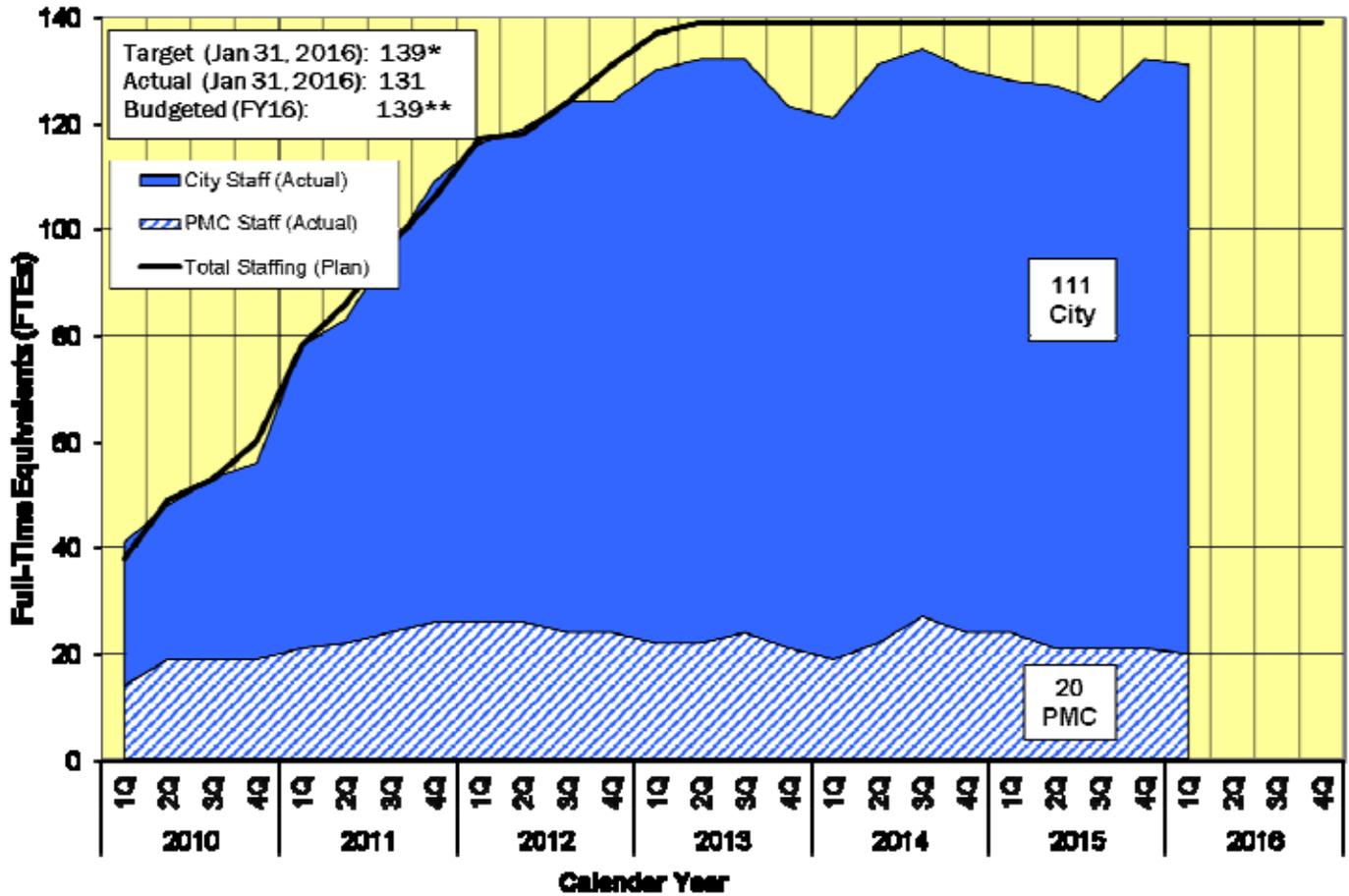
Figure 23. Staffing Activities

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	New (City)	Recruiting	
Project Manager (FHSG)	Construction	New (City)	Filled	Jan
Assistant Project Manager (City Center DB)	Construction	New (City)	Recruiting	
Project Manager (WOFH & KHG)	Construction	Existing (City)	Recruiting	
Electrical Engineer	Core Systems	Existing (City)	Recruiting	
<b>Planning, Permits and Right-of-Way</b>				
Planner III* (Environmental)	Planning	Existing (City)	Recruiting	
Land Document Technician	ROW	New (City)	Filled	Jan
Assistant Deputy of Transit Property Acquisition and Relocation	ROW	Existing (PMC transitioned to City)	Filled	Jan
<b>Budget and Finance</b>				
Chief Financial Officer	Budget and Finance	Existing (City)	Recruiting	
<b>Operations and Maintenance</b>				
Director of Operations & Maintenance	Operations & Maintenance	Existing (City or PMC)	Recruiting	
<b>Quality Assurance</b>				
Quality Assurance Engineer * (Civil)	Quality Assurance	Existing (City)	Recruiting	
<b>Administrative Services</b>				
Personnel Clerk	Administrative Services	New (City)	Recruiting via Civil Service	
<b>Public Information</b>				
Director of Communications	Public Information	Existing (City)	Recruiting	
<b>Project Controls</b>				
Scheduler	Project Controls	Existing (City)	Recruiting	
<b>Civil Rights</b>				
Human Resources Specialist	Civil Rights	Existing (City)	Recruiting	
<b>Procurement</b>				
Procurement & Specification Specialist	Procurement & Specifications	Existing (City)	Selected	Feb
<b>Contract Administration and Change</b>				
Contract Specialist (2)	Contract Admin and Change	Existing (City)	Recruiting	

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

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 24. Project Staffing (Actual vs. Planned)



\* In accordance with Staffing and Succession Plan Rev 8 (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.

Note: For a 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.

Action Items						
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		
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		

## 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:

- 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.

*Current Contingency Balance = \$487.3M*

*Current Known Changes Contingency = \$0M*

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.

### Known Changes Contingency

Known Changes, though tracked separately from the Project Contingency established under the FFGA, functions like contingency and is designated as SCC 90.07 on project cost reports. In re-baselining the Project Budget for FFGA, a bottoms-up estimate (BUE) was developed for each work package identified in the CPP based on the level of design and current pricing of material, equipment, construction labor, professional services, real estate and all other costs. These revised estimates took into account the reduction of contingency to reflect the advancement of Final Design since the Preliminary Engineering phase. Contingency was then allocated in accordance with FTA guidelines and current risk modeling methodologies. The net effect was a reduction of approximately \$170M of contingency between the previous Final Design Project Budget and the FFGA Project Budget. Included in the base costs of the BUE were elements that were considered “Known” or pending changes that were still subject to final negotiations with contractors and the execution of change orders. The estimated costs for Known Changes were applied to work packages established under the FFGA. Based on the level of risk, the estimated costs for Known Changes were either classified as base cost or as separate contingency for specific work packages (contingencies eventually convert to base costs via change order). Of the total \$170M estimated for Known Changes, \$97M was classified as base cost and allocated to multiple contracts. The remaining \$74M was classified as “contingency” in order to process all changes using a consistent methodology of transferring budget from contingency to the appropriate base cost code when a change order is executed. As it was intended for this reserve, this line item has been debited to zero as all changes contemplated to draw-down against “known” contingency has been executed.

# HART Project Contingency Drawdown with Details

Data as of 1/25/15

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown Amt	Contingency Code
<b>July '12 (Bottoms-Up Estimate)</b>					
1)	FD-240	Farmington Highway Station Group FO	Budget Transfer for Contract Award less than the AS500 FO contract budget	\$59,443	00 00 - Contract Allowance
2)	FD-230	Superficial Outlayway, Ulaeala FO	Budget Transfer for Contract Award above the LEED Comm. Services contract budget	\$7,054,100	00 00 - Allocated Contingency
3)	MM-3175	LEED Construction Services	Budget Transfer for Contract Award above the LEED Comm. Services contract budget	\$475,000	00 00 - Allocated Contingency
4)	UB-2200	Waiananai Highway Outlayway, UB	Budget Transfer for Ints. Cont. par executed COI No. 104	\$3,959,230	00 00 - Allocated Contingency
5)	UB-1200	West Oahu Farmington Highway Outlayway, UB	Budget Transfer for Ints. Cont. par executed COI No. 104	\$3,959,230	00 00 - Allocated Contingency
			<b>July '12 Contingency Drawdown</b>	<b>\$8,061,273</b>	
			<b>July '12 - Ending Contingency Balance</b>	<b>\$649.4</b>	
1)	FD-140	WHEELONG Stations Group FO	Budget Transfer for Contract Award under VADOC FO contract budget	\$1,808,200	00 00 - Allocated Contingency
2)	FD-240	City Center Outlayway, Ulaeala FO	Budget Transfer for Contract Award under COOUI FO contract budget	\$5,117,045	00 00 - Allocated Contingency
3)	UB-1200	West Oahu Farmington Highway Outlayway, UB	Revised Change Order No. 17 - Procure and Install Portable Buildings	\$4,118,000	00 00 - Allocated Contingency
			<b>August '12 Contingency Drawdown</b>	<b>\$8,099,145</b>	
			<b>August '12 - Ending Contingency Balance</b>	<b>\$654.3</b>	
1)	UB-1	UB-1	No Contingency Drawdown	0.0	
			<b>September '12 Contingency Drawdown</b>	<b>0.0</b>	
			<b>September '12 - Ending Contingency Balance</b>	<b>\$654.3</b>	
1)	UB-1200	West Oahu Farmington Highway Outlayway, UB	Estimated Change Order No. 21 - Builders Risk Insurance Coverage	1,058,000	00 00 - Allocated Contingency
			<b>October '12 Contingency Drawdown</b>	<b>\$668,668</b>	
			<b>October '12 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	FD-440	Superficial Station Group FO	Budget Transfer for Contract Award under ASO FO the contract budget	\$277,764	00 00 - Contract Allowance
2)	FD-240	Waiananai Highway Station Group FO	Budget Transfer for Contract Award under HHSO FO the contract budget	\$202,465	00 00 - Contract Allowance
3)	MM-3045	General Engineering Consultant	Budget Transfer to align contract budget with Commuted value	\$1,120,832	00 00 - Allocated Contingency
			<b>November '12 Contingency Drawdown</b>	<b>\$1,599,063</b>	
			<b>November '12 - Ending Contingency Balance</b>	<b>\$654.7</b>	
1)	FD-440	Superficial Station Group FO	Estimated Contract Amendment No. 01 - Design & Engineering cost estimates	\$245,000	00 00 - Allocated Contingency
			<b>December '12 Contingency Drawdown</b>	<b>\$278,652</b>	
			<b>December '12 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	UB-2200	Waiananai Highway Outlayway, UB	Estimated Change Order No. 01 - Alopa FO alternative analysis	\$15,260	00 00 - Allocated Contingency
			<b>January '13 Contingency Drawdown</b>	<b>\$18,343</b>	
			<b>January '13 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	UB-1200	West Oahu Farmington Highway Outlayway, UB	Estimated Change Order No. 26 - Ints. Cont. Requirements Assistance Body at Ft. Weaver HQ	\$1,810,130	00 00 - Allocated Contingency
			<b>February '13 Contingency Drawdown</b>	<b>\$1,810,130</b>	
			<b>February '13 - Ending Contingency Balance</b>	<b>\$652.8</b>	
1)	FD-140	WHEELONG Stations Group FO	Estimated Contract Amendment No. 09 - Waipahu Station Issues	\$1,145	00 00 - Contract Allowance
2)	UB-200	Waiananai Highway Station Group FO	Estimated Change Order No. 08 - Ints. Cont. Requirements Assistance Body at Ft. Weaver HQ	\$3,145	00 00 - Contract Allowance
			<b>March '13 Contingency Drawdown</b>	<b>\$4,290</b>	
			<b>March '13 - Ending Balance</b>	<b>\$652.3</b>	
1)	FD-140	WHEELONG Stations Group FO	Estimated Contract Amendment No. 01 - Second Revolver provision	\$81,317	00 00 - Contract Allowance
2)	UB-1200	West Oahu Farmington Highway Outlayway, UB	Budget Transfer to offset Ints. Cont. Requirement for Change Order No. 26	\$1,010,118	00 00 - Allocated Contingency
3)	UB-200	Waiananai Highway Station Group FO	Budget Transfer to offset Ints. Cont. Requirement for Change Order No. 08	\$434,000	00 00 - Allocated Contingency
4)	UB-2200	Waiananai Highway Outlayway, UB	Budget Transfer to align current budget to contract Schedule of Milestones	\$600	00 00 - Allocated Contingency
			<b>April '13 Contingency Drawdown</b>	<b>\$2,022,765</b>	
			<b>April '13 - Ending Contingency Balance</b>	<b>\$654.3</b>	
1)	UB-1	UB-1	No Contingency Drawdown	0.0	
			<b>May '13 Contingency Drawdown</b>	<b>0.0</b>	
			<b>May '13 - Ending Contingency Balance</b>	<b>\$654.3</b>	
1)	UB-1	UB-1	No Contingency Drawdown	0.0	
			<b>June '13 Contingency Drawdown</b>	<b>0.0</b>	
			<b>June '13 - Ending Contingency Balance</b>	<b>\$654.3</b>	









### HART Project Contingency Drawdown with Details

Date as of 12/25/15

#	Project No.	Project Desc.	Budget Transfers/Change Description	Contingency Drawdown (M)	Contingency Code
01	100512	City Center Gateway Station EOP	Estimated Change Amount: \$0.00 as of 12/25/15. Current Release: \$0.00 Dec '15 Contingency Drawdown	\$487.3	01012-Associated Contingency
<b>Dec '15 - Ending Contingency Balance</b>				<b>\$487.3</b>	

**Appendix C. Project Cost Reports** (data as of Dec. 25, 2015)

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

**Project Costs by Contract**



Costs Reported as of Month Ending December 2015

**Project Monthly Cost Report by Contract - One Line Summary**

Page: 1 of 3

CPP No	Title	A		B	C=A+B		D	E	F
		Original	Changes		COMMITTED	Current*			
								Incurred To Date	%
A RT	T&M	0	0	0	0	0	0	0	0%
CCH-100	Inactive Hrt/City CCH	15,348,443	0	15,348,443	0	0	0	14,325,228	93%
CCH-101	HART/City Dept of BFS	105,092	0	105,092	0	0	0	0	0%
CCH-102	HART/City DDC Land Division	256,201	0	256,201	0	0	0	173,182	68%
CCH-107	HART/City Corporation Counsel (CDR)	1,889,960	250,000	1,889,960	250,000	0	0	152,899	8%
CCH-108	HART / Board of Water Supply (BWS)	928,325	0	928,325	0	0	0	928,325	100%
DB-120	West Oahu/Farrington Hwy Guideway DB	482,924,000	149,250,758	632,174,758	632,174,758	0	0	512,032,937	81%
DB-200	Maintenance & Storage Facility DB	195,238,000	79,789,423	275,027,423	275,027,423	0	0	239,428,393	87%
DB-320	Kamehameha Hwy Guideway DB	372,150,000	16,817,876	388,967,876	388,967,876	0	0	204,866,978	53%
DBB-171	West Oahu Station Group DBB	56,088,470	0	56,088,470	0	0	0	0	0%
DBB-185	SPCD - West Side S.G. Construction	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	0	0	0	0%
DBB-275	SPCD-Pearl Highlands Pkg. Str. Constr.	0	0	0	0	0	0	0	0%
DBB-385	Ramp H2R2	5,203,646	0	5,203,646	5,203,646	0	0	0	0%
DBB-470	SPCD-Airport Station Group Constr.	0	0	0	0	0	0	0	0%
DBB-505	Airport Section Utilities Constr. DBB	27,993,290	0	27,993,290	27,993,290	0	0	8,930,361	32%
DBB-510	City Ctr. Section Util. Constr. DBB	0	0	0	0	0	0	0	0%
DBB-520	SPCD-Airport-City Center Gateway Cntr.	0	0	0	0	0	0	0	0%
DBB-525	Airport Section Guideway 7 Pier DBB	3,973,000	508,241	4,481,241	4,481,241	0	0	3,889,433	87%
DBB-580	SPCD-Dillingham/Kakaako S.G. Cntr.	0	0	0	0	0	0	0	0%
DBB-600	Park-and-Ride Lots Construction	0	0	0	0	0	0	0	0%
DBO M-920	Core Systems Design Build O/M	573,762,793	25,270,894	599,033,687	599,033,687	0	0	172,162,423	29%
FD-140	West Oahu Station Group FD	7,789,000	2,275,305	10,064,305	10,064,305	0	0	9,199,096	91%
FD-240	Farrington Highway Stations Group FD	9,300,696	4,981,349	14,282,045	14,282,045	0	0	12,577,157	88%
FD-245	SPCD-Pearl Highlands Pkg. Str. FD	0	0	0	0	0	0	0	0%
FD-340	Kamehameha Hwy Station Group FD	8,702,492	1,156,698	9,859,190	9,859,190	0	0	9,177,277	93%
FD-430	SPCD-Airport Sect. Guideway/Util. FD	38,840,960	4,293,512	43,134,472	43,134,472	0	0	41,447,161	96%
FD-440	SPCD-Airport Station Group FD	10,177,365	1,396,487	11,573,852	11,573,852	0	0	9,801,378	85%
FD-530	SPCD - City Center Guideway/Util. FD	43,948,220	2,249,342	46,197,562	46,197,562	0	0	40,913,566	89%
FD-550	SPCD - Dillingham and Kakaako S.G. FD	18,321,918	986,124	19,308,042	19,308,042	0	0	11,875,668	62%
FD-600	Park-and-Ride Lots Final Design	0	0	0	0	0	0	0	0%
HRT-200	HART Labor	45,951,942	0	45,951,942	45,951,942	0	0	45,247,479	98%
HRT-201	HART DDC Contracts	15,859,154	0	15,859,154	15,859,154	130,100	0	19,127,792	121%

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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)  
 Report data as of 1/21/16 therefore may differ from cost data in other sections



Costs Reported as of Month Ending December 2015  
**Project Monthly Cost Report by Contract - One Line Summary**

CPP No	Title	A		B		C=A+B		D		E		F
		Original	COMMITTED Changes	Current*	AFE**	AFE**	Incurred To Date	PERCENT %				
MM-900	Fare Collection DFI	0	0	0	0	0	0	0	0	0	0	0%
MM-930	Elevators & Escalators Install/Maint	50,982,714	0	50,982,714	5,442,108	5,442,108	5,066,456	5,066,456	0	0	0	10%
MM-280	SPCD-WOFR/KHSG CE&I (REPACKAGED)	0	0	0	0	0	0	0	0	0	0	0%
MM-290	Construction Engrg & Insp CEI West	54,232,480	0	54,232,480	16,650,000	16,650,000	20,135,729	20,135,729	0	0	0	37%
MM-385	SPCD-Pearl Highlands Garage Ramps CEI	0	0	0	0	0	0	0	0	0	0	0%
MM-500	SPCD-By M8559 CEI East	0	0	0	0	0	0	0	0	0	0	0%
MM-525	SPCD-By M8559 CEI East	0	0	0	0	0	0	0	0	0	0	0%
MM-590	SPCD-By M8559 CEI East	0	0	0	0	0	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)	15,257,000	12,982,150	12,982,150	0	0	0	81%
MM-596	Construction Engrg & Insp CEI East 2	55,036,130	0	55,036,130	55,036,130	55,036,130	0	0	0	0	0	0%
MM-600	SPCD-UHWO Pkg-Hoopili Str Fish CEI	0	0	0	0	0	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	20,700,000	0	0	0	0	0	0%
MM-901	Program Mgt Support Const (PM SC-2)	33,376,897	7,616,377	40,993,274	342,971,67	342,971,67	37,479,508	37,479,508	0	0	0	31%
MM-905	MM-905 Gen Engrg Const EIS/PE	0	78,564,942	78,564,942	78,564,942	78,564,942	74,157,822	74,157,822	0	0	0	94%
MM-910	MM-910 Gen Engrg Const FD-Construct	150,000,000	0	150,000,000	150,000,000	150,000,000	149,446,962	149,446,962	0	0	0	100%
MM-913	MM-913 Gen Engrg Reconnect	46,143,277	268,451	46,411,728	13,346,659	13,346,659	23,962,916	23,962,916	0	0	0	52%
MM-915	HDOT Traffic Mgmt. Consult.	4,000,000	1,400,000	5,400,000	4,000,000	4,000,000	2,966,289	2,966,289	0	0	0	55%
MM-920	HDOT Coordination Const WOFRH	3,000,000	7,500,000	10,500,000	10,000,000	10,000,000	6,614,555	6,614,555	0	0	0	63%
MM-921	HDOT Coordination Const KHG	10,000,000	-1,400,000	8,600,000	5,000,000	5,000,000	4,007,909	4,007,909	0	0	0	47%
MM-922	HDOT Coordination Const Airport	12,000,000	-5,600,000	6,400,000	3,000,000	3,000,000	2,492,729	2,492,729	0	0	0	39%
MM-923	HDOT Coordination Const City Center	0	0	0	0	0	0	0	0	0	0	0%
MM-925	HDOT Labor - WOFR/KHG Agreements	550,000	1,265,633	1,815,633	3,081,266	3,081,266	1,642,155	1,642,155	0	0	0	30%
MM-926	HDOT Labor - Airport Agreements	0	0	0	0	0	0	0	0	0	0	0%
MM-930	HDOT State S.O.M. Manager & Consultant	1,272,400	563,142	1,835,542	843,167	843,167	832,095	832,095	0	0	0	45%
MM-935	Real Estate Consultant	3,000,000	4,227,665	7,227,665	7,227,165	7,227,165	5,745,129	5,745,129	0	0	0	79%
MM-937	Real Estate Consultant - Maps/Surv.	2,998,000	0	2,998,000	1,500,000	1,500,000	508,128	508,128	0	0	0	17%
MM-940	Kakio Consultant	1,000,000	0	1,000,000	500,000	500,000	520,942	520,942	0	0	0	52%
MM-941	Kakio Consultant II	200,000	0	200,000	200,000	200,000	0	0	0	0	0	0%
MM-945	On-Call Contractor	1,000,000	1,000,000	2,000,000	1,800,000	1,800,000	1,922,968	1,922,968	0	0	0	96%
MM-946	On-Call Hazmat Removal Contractor	3,075,000	0	3,075,000	1,000,000	1,000,000	2,557,509	2,557,509	0	0	0	83%
MM-947	On-Call Contractor 2	7,500,000	0	7,500,000	4,500,000	4,500,000	2,664,092	2,664,092	0	0	0	36%
MM-950	OCIP Consultant	1,250,000	0	1,250,000	1,250,000	1,250,000	955,156	955,156	0	0	0	76%
MM-951	Owner-Controlled Insurance Program	41,000,000	0	41,000,000	0	41,000,000	26,494,012	26,494,012	0	0	0	65%

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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)

Report data as of 1/21/16 therefore may differ from cost data in other sections



Costs Reported as of Month Ending December 2015  
**Project Monthly Cost Report by Contract - One Line Summary**

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CPP No	Title	A		B	C=A+B	D	E	F
		Original	Changes					
MM-960	Archaeological & Cultural Monitoring	T&M	1,559,474	0	1,559,474	1,010,609	1,261,882	76%
MM-962	Core Systems Support	C/PFF	43,988,989	0	43,988,989	3,800,000	12,830,304	29%
MM-964	Safety and Security Consultant	FFF	4,639,573	112,751	4,812,324	4,012,751	2,733,916	57%
MM-970	Fare Collection Consultant	MM	1,178,300	0	1,178,300	1,178,300	0	0%
MM-975	LEED Commissioning Services for MS F	T&M	278,630	9,910	288,540	288,540	137,295	48%
O&M	Operating/Maintenance Contracts	FFF	280,970	-59,970	222,000	141,000	199,030	90%
OTHER	All Project Wide Documents		0	0	0	0	0	0%
PA-101	Programmatic Agreement Humanities	PA	0	0	0	0	0	0%
PA-102	Programmatic Agreement HP C	T&M/PA	400,000	0	400,000	200,000	176,809	44%
PA-103	Programmatic Agreement HP C Park Impr	PA	0	0	0	0	0	0%
ROW	Real Estate / Right-of-Way		99,885,511	0	99,885,511	121,982	94,245,535	94%
UTIL	Utility Company Contracts	T&M	95,528,631	-2,530,760	92,997,871	71,193,181	49,291,120	47%
<b>Total Project:</b>			<b>2,822,092,028</b>	<b>334,356,731</b>	<b>3,156,450,760</b>	<b>2,599,776,418</b>	<b>1,894,308,233</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) Print 1/21/16 16:14

Report data as of 1/21/16 therefore may differ from cost data in other sections

Project Costs by SCC – Summary



Costs Reported as of Month Ending December 2015  
 Project Monthly Cost Report by SCC Summary

SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	Budget	Current	Current	Current*						
<b>1. Subtotal 10 - 80 SCC Costs</b>													
10.	Guideway & Track Elements	1,114,215,147	46,008,500	1,160,223,647	550,392,093	37,178,532	(2,895,056)	1,160,223,647	0	0	0	0	277,141,295
20.	Stations, Stops, Terminals, Intermodal	421,804,740	(3,205,951)	418,598,789	186,070,184	0	0	418,598,789	0	0	0	0	5,066,456
30.	Support Facilities: Yards, Shops, Admin	92,593,015	22,463,009	114,998,024	114,998,024	18,654,360	239,801	114,998,024	0	239,801	0	0	90,169,783
40.	Sitework & Special Conditions	983,178,121	23,502,343	1,006,680,464	719,599,567	147,943,888	21,373,395	1,006,680,464	0	21,373,395	0	0	525,282,842
50.	Systems	221,284,301	27,474,531	248,758,832	233,598,619	27,038,099	0	248,758,832	0	27,038,099	0	0	37,082,160
60.	ROW, Land, Existing Improvements	197,397,947	528,621	197,926,568	104,102,226	1,216,815	5,000,000	197,926,568	0	5,000,000	0	0	100,303,144
70.	Vehicles	186,829,020	4,645,501	191,474,521	191,474,521	1,446,224	0	191,474,521	0	1,446,224	0	0	34,051,880
80.	Professional Services	1,087,830,119	34,847,518	1,122,677,637	1,046,585,404	97,148,567	(115,708)	1,122,677,637	0	(115,708)	0	0	774,986,110
A.C.	Provisional Pay Requests	0	0	0	0	0	0	0	0	0	0	0	39,255,396
<b>Subtotal:</b>		4,305,074,410	156,264,072	4,461,338,482	3,147,420,739	330,626,495	23,602,432	4,461,338,482	0	23,602,432	0	0	1,883,339,064
<b>2. NTP</b>													
NTP	Authorized For Expenditure	0	0	0	0	2,260,992,295	0	0	0	0	0	0	0
<b>Subtotal:</b>		0	0	0	0	2,260,992,295	0	0	0	0	0	0	0
<b>3. Contingency</b>													
CHTR	Allocated Contingency	541,689,343	(100,041,167)	441,648,176	7,021,566	3,920,090	277,576,010	441,648,176	0	277,576,010	0	0	566,692
PRJ	Unallocated Contingency	101,871,170	(56,222,805)	45,648,265	0	0	0	45,648,265	0	0	0	0	0
<b>Subtotal:</b>		643,560,513	(156,264,072)	487,296,441	7,021,566	3,920,090	277,576,010	487,296,441	0	277,576,010	0	0	566,692
<b>4. Finance Charges - Eligible</b>													
OTH	Finance Charges	173,058,243	0	173,058,243	0	0	0	173,058,243	0	0	0	0	0
<b>Subtotal:</b>		173,058,243	0	173,058,243	0	0	0	173,058,243	0	0	0	0	0
<b>FIA TOTAL PROJECT COSTS</b>		<b>5,121,693,166</b>	<b>(0)</b>	<b>5,121,693,166</b>	<b>3,154,442,304</b>	<b>2,595,538,869</b>	<b>301,178,442</b>	<b>5,121,693,166</b>	<b>0</b>	<b>301,178,442</b>	<b>0</b>	<b>0</b>	<b>1,883,905,756</b>
<b>4. Finance Charges - Ineligible Costs</b>													
FINC	Finance Charges	42,000,000	0	42,000,000	0	0	0	42,000,000	0	0	0	0	0
<b>Subtotal:</b>		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0	0	0	0
<b>INELIGIBLE COSTS</b>		<b>42,000,000</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Project:</b>		<b>5,163,693,166</b>	<b>(0)</b>	<b>5,163,693,166</b>	<b>3,154,442,304</b>	<b>2,595,538,869</b>	<b>301,178,442</b>	<b>5,163,693,166</b>	<b>0</b>	<b>301,178,442</b>	<b>0</b>	<b>0</b>	<b>1,883,905,756</b>

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)  
 \*\*\* Changes Identified= Pending + Probable + Potential Changes  
 \*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified

Project Costs by SCC – Level 2

Costs Reported as of Month Ending December 2015  
Project Monthly Cost Report by SCC Details

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SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	BUDGET	Transfers	Current	COMMITTED						
<b>1. Subtotal 10 - 80 SCC Costs</b>													
10.00	Guideway & Track Elements	1,114,215,147	46,008,500	1,160,223,647	550,992,093	17,378	17,378	37,178,532	(2,895,056)	1,160,223,647	0	277,141,295	
10.02	Guideway: A-grade semi-exclusive	0	17,378	17,378	17,378	0	0	17,378	0	17,378	0	17,378	
10.04	Guideway: Aerial Structure	1,022,380,671	43,014,961	1,065,395,632	485,671,878	6,436,256	6,436,256	27,499,427	(2,189,484)	1,065,395,632	0	225,597,278	
10.08	Guideway: Retained Cut or Fill	7,482,944	(1,058,688)	6,424,256	6,436,256	0	0	0	(706,572)	6,424,256	0	0	
10.09	Track: Direct Fixation	79,347,205	3,097,822	82,445,027	74,637,891	2,697,875	2,697,875	9,830,851	0	82,445,027	0	51,495,763	
10.11	Track: Ballasted	3,293,724	(595,849)	2,697,875	2,697,875	0	0	30,876	0	2,697,875	0	30,876	
10.12	Track: Special (Switches, turnouts)	1,700,603	1,530,876	3,231,479	1,530,876	0	0	3,231,479	0	3,231,479	0	3,231,479	
20.00	Stations/ Terminals/ Intermodal	421,804,740	(3,205,951)	418,598,789	186,070,184	0	0	418,598,789	0	418,598,789	0	5,066,456	
20.01	A-grade station, stop, shelter, ...	6,111,332	(6,111,332)	0	0	0	0	0	0	0	0	0	
20.02	Aerial Station, stop, shelter, mail	294,563,457	6,643,853	301,207,310	135,087,470	0	0	301,207,310	0	301,207,310	0	0	
20.06	Automobile parking multi-story str	66,408,765	0	66,408,765	0	0	0	66,408,765	0	66,408,765	0	0	
20.07	Elevators, Escalators	54,721,186	(3,738,472)	50,982,714	50,982,714	0	0	50,982,714	0	50,982,714	0	5,066,456	
30.00	Support Facilities: Yards, Shops, Admin	92,535,015	22,463,009	114,998,024	114,998,024	239,801	239,801	18,654,360	0	114,998,024	0	90,169,783	
30.01	Administration Bldg: Office, sales	0	205,266	205,266	205,266	0	0	205,266	0	205,266	0	191,495	
30.02	Light Maintenance Facility	7,591,888	(5,095)	7,586,793	7,586,793	0	0	7,586,793	0	7,586,793	0	4,539,985	
30.03	Heavy Maintenance Facility	38,099,138	5,108,668	43,207,806	43,207,806	0	0	5,350,776	0	43,207,806	0	29,157,826	
30.04	Storage or Maintenance of Way Built	7,797,480	819,670	8,617,150	8,617,150	0	0	881,220	0	8,617,150	0	6,803,772	
30.05	Yard and Yard Track	39,046,529	16,334,500	55,381,029	55,381,029	239,801	239,801	12,217,098	0	55,381,029	0	49,456,765	
40.00	Sitework & Special Conditions	983,178,121	23,502,343	1,006,680,464	719,599,567	147,943,888	21,373,395	1,006,680,464	0	525,282,842	0	2,539,412	
40.01	Demolition, Clearing, Earthwork	29,980,158	(9,349,660)	20,630,498	11,839,349	1,229,005	0	20,630,498	0	20,630,498	0	112,539,707	
40.02	Site Utilities, Utility Relocation	299,449,756	(522,285)	298,927,471	193,368,559	592,715	3,564,418	298,927,471	0	298,927,471	0	2,706,597	
40.03	Haz. mat'l, contami'd soil removal	9,199,237	(5,288,691)	3,910,546	3,434,088	149,088	(391,304)	3,910,546	0	3,910,546	0	10,816,505	
40.04	Environmental Mitigation	26,979,122	4,990,976	31,970,098	16,557,672	16,864	0	31,970,098	0	31,970,098	0	4,618,004	
40.05	Site structures: retaining walls,	7,998,960	6,540,840	14,539,800	11,229,628	274,780	4,647,403	14,539,800	0	14,539,800	0	50,000	
40.06	Pedestrian/bike access/handscaping	41,073,897	(6,105,894)	34,968,003	5,199,868	(4,566)	478,020	34,968,003	0	34,968,003	0	5,472,264	
40.07	Auto, bus, van accessways	181,979,367	(18,453,760)	163,525,607	38,724,738	1,577,242	1,324,868	163,525,607	0	163,525,607	0	386,540,353	
40.08	Temporary Facilities/Indirect Cost	386,517,624	51,684,757	438,202,381	438,202,381	144,108,760	11,750,000	438,202,381	0	438,202,381	0	37,082,160	
50.00	Systems	221,284,301	27,474,531	248,758,832	233,598,619	27,098,099	0	248,758,832	0	248,758,832	0	2,250,972	
50.01	Train control and signals	81,982,556	24,381,140	106,363,696	106,363,696	23,961,050	0	106,363,696	0	106,363,696	0	0	
50.02	Traffic signals and crossing prot.	10,458,226	(208,890)	10,251,336	0	0	0	10,251,336	0	10,251,336	0	0	
50.03	Traction power supply: substation	29,500,926	1,379,890	30,880,806	30,880,806	(87,465)	0	30,880,806	0	30,880,806	0	4,751,819	

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\*\*\* Changes Identified= Pending + Probable + Potential Changes

\*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified



Costs Reported as of Month Ending December 2015  
**Project Monthly Cost Report by SCC Details**

SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	BUDGET	Transfers	Current	COMMITTED	Current*	AFE**	Changes ID'd***	ESTIMATE AT COMPLETION	Variance	Incurred To Date
<b>1. Subtotal 10 - 80 SCC Costs</b>													
50.01	Systems	221,284,301	27,474,531	248,758,832	233,598,619	27,039,039	0	248,758,832	0	248,758,832	0	37,082,160	
50.04	Traction power distribution: cat	32,878,150	5,059,838	37,937,988	33,029,111	7,941,115	0	37,937,988	0	37,937,988	0	16,942,485	
50.05	Communications	53,691,399	6,193,477	59,824,816	59,824,816	5,873,419	0	59,824,816	0	59,824,816	0	14,268,775	
50.06	Fare collection system and equipm	9,153,277	(9,112,878)	46,399	46,399	(10,830,000)	0	46,399	0	46,399	0	(1,131,901)	
50.07	Central Control	3,613,827	(160,036)	3,453,791	3,453,791	0	0	3,453,791	0	3,453,791	0	0	
60.01	ROW, Land, Existing Improvements	197,937,947	528,621	197,936,568	104,102,326	1,216,815	5,000,000	197,936,568	0	197,936,568	0	100,303,144	
60.01	Purchase or lease of real estate	179,360,664	250,821	179,611,485	91,236,849	39,015	5,000,000	179,611,485	0	179,611,485	0	88,850,279	
60.02	Relocation of existing households	18,037,283	277,800	18,315,083	12,845,477	1,177,800	0	18,315,083	0	18,315,083	0	11,452,865	
70.01	Vehicles	186,829,020	4,645,501	191,474,521	191,474,521	1,446,224	0	191,474,521	0	191,474,521	0	34,051,890	
70.01	Light Rail	166,721,386	5,847,191	172,568,577	172,568,577	1,446,224	0	172,568,577	0	172,568,577	0	26,259,419	
70.06	Non-revenue vehicles	14,346,923	(1,320,975)	13,026,548	13,026,548	0	0	13,026,548	0	13,026,548	0	7,792,461	
70.07	Spare parts	5,760,711	118,685	5,879,396	5,879,396	0	0	5,879,396	0	5,879,396	0	0	
80.01	Professional Services	1,087,830,119	34,847,518	1,122,677,637	1,046,585,404	97,146,567	(115,706)	1,122,677,637	0	1,122,677,637	0	774,986,110	
80.01	Preliminary Engineering	94,055,262	24,644,185	118,699,447	109,567,127	20,905,682	0	118,699,447	0	118,699,447	0	103,465,648	
80.02	Final Design	228,321,692	(6,899,230)	221,422,402	204,525,054	29,810,628	(6,908,683)	221,422,402	0	221,422,402	0	163,164,307	
80.03	Project Management Design & Cons	363,849,768	(28,315,655)	335,534,113	415,367,614	73,840,690	(17,322,901)	335,534,113	0	335,534,113	0	313,488,523	
80.04	Const. Adm. & Management	199,656,728	(35,796,681)	163,860,047	111,535,544	(42,849,088)	0	163,860,047	0	163,860,047	0	82,963,677	
80.05	Professional Liability & other hs	46,549,724	28,791,938	75,341,662	43,174,637	700,500	0	75,341,662	0	75,341,662	0	28,408,468	
80.06	Legal: Permits Review Fees ect..	67,641,005	(3,206,464)	64,434,541	37,023,860	3,782,053	0	64,434,541	0	64,434,541	0	21,141,132	
80.07	Surveys, Testing, Investigation, I	21,759,336	47,172,110	68,931,446	67,822,570	1,496,194	0	68,931,446	0	68,931,446	0	29,585,563	
80.08	Start up	65,996,664	8,469,316	74,465,980	57,568,977	9,661,909	(626,309)	74,465,980	0	74,465,980	0	32,798,793	
80.09	Provisional Pay Requests	0	0	0	0	0	23,646,085	0	0	23,646,085	0	0	
ACR	Provisional Request For Payment	0	0	0	0	0	0	0	0	0	0	39,255,396	
<b>Subtotal:</b>		4,305,074,410	156,264,072	4,461,338,482	3,147,420,739	330,626,485	23,602,492	4,461,338,482	0	4,461,338,482	0	1,883,339,064	
<b>2. NTP</b>													
NTP	Authorized For Expenditure	0	0	0	0	0	0	2,260,992,295	0	2,260,992,295	0	0	
NTP	Notice To Proceed	0	0	0	0	0	0	2,260,992,295	0	2,260,992,295	0	0	
<b>Subtotal:</b>		0	0	0	0	0	0	2,260,992,295	0	2,260,992,295	0	0	

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)  
 \*\*\* Changes Identified= Pending + Probable + Potential Changes  
 \*\*\*\* Est. At Completion = Original Contract + CCO/Amendments + Changes Identified



Costs Reported as of Month Ending December 2015  
**Project Monthly Cost Report by SCC Details**

SCC	Title	A		B		C=A+B		D		E		F		G		H=C-G		I	
		Baseline	Transfers	BUDGET	Transfers	Current	COMMITTED	Current*	AFE	AFE**	Changes ID'd***	ESTIMATE AT COMPLETION	Est. At Completion****	Variance	Incurred To Date				
<b>3. Contingency</b>																			
CNTR	All-located Contingency	541,689,343	(100,041,187)		441,648,176	7,021,566	3,920,090	277,576,010	441,648,176	0	566,692								
90.02	Allocated Contract Contingency	540,101,329	(102,214,996)		437,886,433	3,920,090	3,920,090	272,795,283	437,886,433	0	566,692								
90.03	Allowances	1,588,014	2,173,728		3,761,743	3,101,476	0	4,780,727	3,761,743	0	0								
90.07	Known Change Contingency	0	0		0	0	0	0	0	0	0								
PRJ	Unallocated Contingency	101,871,170	(56,222,905)		45,648,265	0	0	0	45,648,265	0	0								
90.01	Unallocated Project Contingency	101,871,170	(56,222,905)		45,648,265	0	0	0	45,648,265	0	0								
<b>Subtotal:</b>		<b>643,560,513</b>	<b>(156,264,072)</b>		<b>487,296,441</b>	<b>7,021,566</b>	<b>3,920,090</b>	<b>277,576,010</b>	<b>487,296,441</b>	<b>0</b>	<b>566,692</b>								
<b>4. Finance Charges - Eligible</b>																			
OTH	Finance Charges	173,058,243	0		173,058,243	0	0	0	173,058,243	0	0								
100.1	Finance Charges-Project-Eligible	173,058,243	0		173,058,243	0	0	0	173,058,243	0	0								
<b>Subtotal:</b>		<b>173,058,243</b>	<b>0</b>		<b>173,058,243</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>173,058,243</b>	<b>0</b>	<b>0</b>								
<b>FTA TOTAL PROJECT COSTS</b>		<b>5,121,693,166</b>	<b>0</b>		<b>5,121,693,166</b>	<b>3,154,442,304</b>	<b>2,595,538,869</b>	<b>301,178,442</b>	<b>5,121,693,166</b>	<b>0</b>	<b>1,883,905,756</b>								
<b>4. Finance Charges - Ineligible Costs</b>																			
FINC	Finance Charges	42,000,000	0		42,000,000	0	0	0	42,000,000	0	0								
100.2	FTA Non-Eligible Costs	42,000,000	0		42,000,000	0	0	0	42,000,000	0	0								
<b>Subtotal:</b>		<b>42,000,000</b>	<b>0</b>		<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>								
<b>INELIGIBLE COSTS</b>		<b>42,000,000</b>	<b>0</b>		<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>								
<b>Total Project:</b>		<b>5,163,693,166</b>	<b>0</b>		<b>5,163,693,166</b>	<b>3,154,442,304</b>	<b>2,595,538,869</b>	<b>301,178,442</b>	<b>5,163,693,166</b>	<b>0</b>	<b>1,883,905,756</b>								

\* Current Committed = Original Contract + CCO/Amendment  
 \*\* AFE = Authorized For Expenditure (Latest NTP Amounts or equal to current commitment Plus Executed Change Orders/Amendments)  
 \*\*\* Changes Identified= Pending + Probable + Potential Changes  
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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 Airport Section Guideway and Utilities Final Design and Support	Anil Verma Associates, Inc.	Jun 28 '11	Nov 16 '12	Nov 26 '12	Jun 14 '17
FD-430	City Center 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-630	Airport Station Group Final Design and Support	AECOM Technical Services, Inc.	Dec 16 '11	Jul 30 '12	Jul 31 '12	Apr 30 '18
FD-440	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and Construction Engineering & Inspection West Side Sections	AECOM Technical Services, Inc.	Mar 30 '12	Nov 7 '12	Nov 14 '12	Jul 15 '17
FD-650	Construction Engineering & Inspection East Side Sections	Perkins+Will	Nov 16 '12	Aug 15 '13	Aug 19 '13	Jul 30 '18
MM-290	Program Management Support Consultant -2 (PMSC-2)	PGH Wong Engineering, Inc.	Jul 26 '13	Jan 9 '14	Jan 09 '14	Mar 01 '19
MM-696	General Engineering Consultant II (GEC-2) (Final Design and Construction)	URS Corporation	Jul 26 '13	Jan 07 '14	Jan 09 '14	Oct 09 '15
MM-901	General Engineering Consultant III (GEC-3)	InfraConsult LLC	Aug 03 '11	Feb 26 '12	Mar 08 '12	Mar 07 '16
MM-910	Real Estate Consultant	Parsons Brinckerhoff	Sep 03 '09	Jun 30 '11	Aug 02 '11	Dec 31 '14
MM-913	Real Estate Mapping & Surveying	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 00 '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 00 '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 Hawaii	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 26 '12	Jun 29 '12	Jun 28 '17
MM-922	HDOT Design Coordination Consultant - Airport and City Center Guideway	SSFM 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-696	Construction Engineering and Inspection (CE&I) "II" 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
DBB-385	Ramp H2R2	Royal Contracting Co. Ltd.	Jan 30 '15	May 18 '15	May 18 '15	Jun 17 '16
DBB-605	Airport Section Utilities Construction	Nan, Inc.	Dec 17 '13	Jun 30 '14	Oct 6 '14	Feb 05 '16
DBB-625	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+ 20 months
DBB-171	West O'ahu Stations Group Construction	Nan, Inc.	Apr 13 '15	Jul 28 '15	Oct 13 '15	NTP+ 20 months

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	Feb 23 '16	Apr 05 '16	NTP + 53 months
DB-550	City Center Guideway and Stations	Aug 04 '15	Nov 10 '15	TBD	TBD	TBD
MI-900	Fare Systems Contract	Aug 11 '15	Nov 13 '15	-	Feb 12 '16	NTP + 120 months + 2 year option
DBB-371	Kamehameha Hwy Stations Group Construction	Aug 18 '15	Nov 17 '15	-	TBD	NTP + 32 months
	Independent Financial Auditor "II" Contract	Oct 26 '15	Dec 01 '15	-	Feb 19 '16	NTP + 48 months
DBB-510	Dillingham Utilities and Roadway	TBD	TBD	-	TBD	TBD
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



## 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 1/31/16)						
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	\$129,816	
				CT-HRT-1000449 DB-200	\$69,339	\$205,955
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	\$85,043
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	\$305,662	\$5,960,448
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	\$740,962	
				SC-DTS-0700001 **** MM-910	\$150,141	
				SC-HRT-1400061 MM-964	\$1,068,099	\$1,959,202
Gary K. Omori	541618	APA	M	SC-HRT-11H0131 MM-905	\$388,609	

DBE Participation (9/24/07 to 1/31/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				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	\$544,183	
				SC-HRT-1400051 MM-595	\$10,197	\$554,380
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	\$121,532	\$121,532
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	\$269,467	\$269,467
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	\$1,505,811	\$1,505,811
Dovetail Consulting	541330	BA	F	MOU-11-SO-1 MM-930	\$806,080	\$806,080
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	\$446,558	\$446,558

DBE Participation (9/24/07 to 1/31/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	\$176	
				CT-HRT-1400323 DBB-505	\$34,988	\$35,164
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	\$13,291	\$13,291
<b>Total</b>						<b>\$31,887,153</b>
<p>* 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.</p> <p>** Anil Verma Associates, Inc. is a prime contractor and was certified as a DBE effective 6/26/13.</p> <p>*** AMR Estimating Services, Inc. was certified as a DBE effective 10/25/13.</p> <p>**** DBE participation from 9/24/07 to 9/17/13.</p> <p>***** ADS System Safety Consulting was certified as a DBE effective 8/7/14.</p>						

**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	Dec. 2015 # of Risks	January 2016 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	6	6	0	0
West Oahu/Farrington Guideway	15	15	0	0
Pearl Highlands Garage	4	4	0	0
Maintenance and Storage Facility	4	4	0	0
Kamehameha Highway Guideway	15	15	0	0
Core Systems Contract	9	9	0	0
Elevator/Escalator	4	4	0	0
Airport Utilities	5	4	0	1
Farrington Highway Stations	5	5	0	0
Ramp H2R2	1	1	0	0
West Oahu Stations	5	5	0	0
Kamehameha Highway Stations	5	5	0	0
Airport Guideway & Stations	27	26	2	3
City Center Guideway & Stations	33	34	1	0
<b>Total</b>	<b>138</b>	<b>137</b>	<b>3</b>	<b>4</b>

Comparison of Risk Ratings								
Contract Package/Section	December 2015 # of Risks				January 2016 Update # of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	6	2	2	2	6	2	3	1
West Oahu/Farrington Guideway	15	1	12	2	15	1	12	2
Pearl Highlands Garage	4	1	3	0	4	1	3	0
Maintenance and Storage Facility	4	0	1	3	4	0	1	3
Kamehameha Highway Guideway	15	2	8	5	15	2	8	5
Core Systems Contract	9	1	6	2	9	1	6	2
Elevator/Escalator	4	2	2	0	4	2	2	0
Airport Utilities	5	1	3	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	0	5	0
Kamehameha Highway Stations	5	0	4	1	5	0	4	1
Airport Guideway & Stations	27	4	21	2	26	4	20	2
City Center Guideway & Stations	33	9	20	4	34	10	20	4
<b>Total</b>	<b>138</b>	<b>24</b>	<b>92</b>	<b>22</b>	<b>137</b>	<b>25</b>	<b>91</b>	<b>21</b>

Appendix H. Project Organization Chart

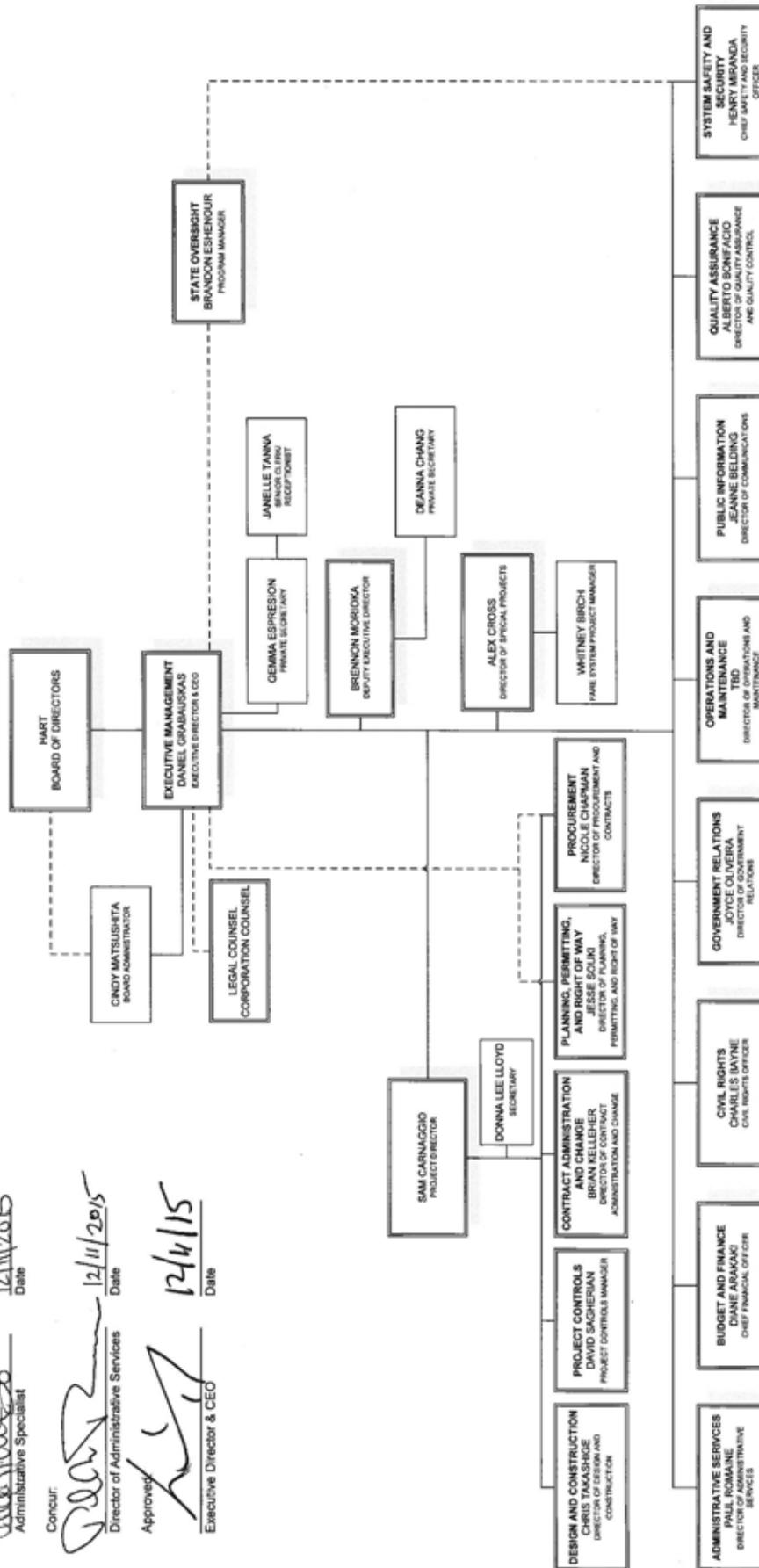
December 11, 2015

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

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

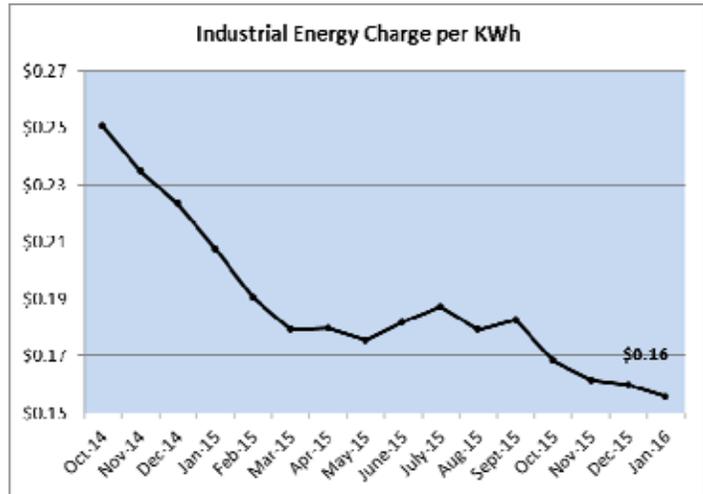
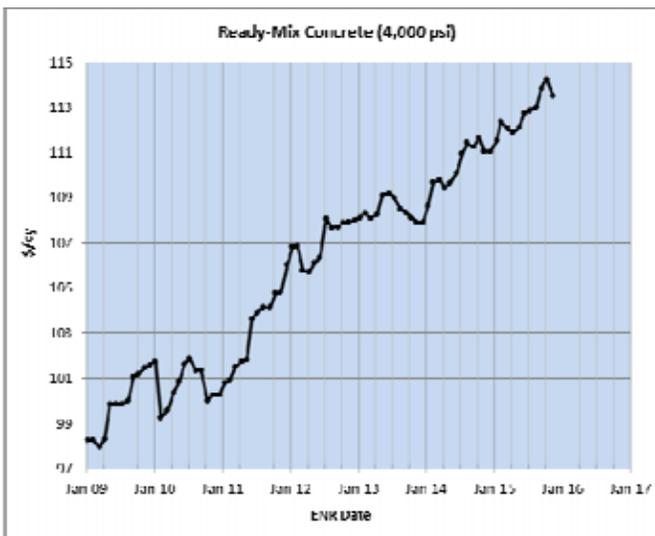
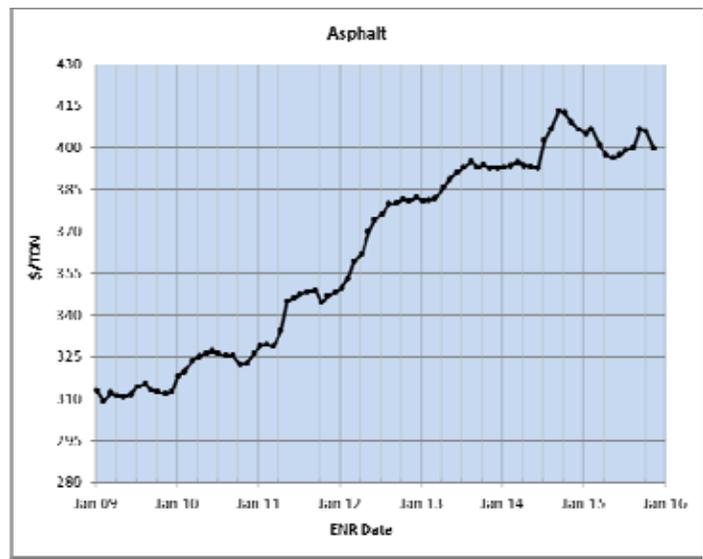
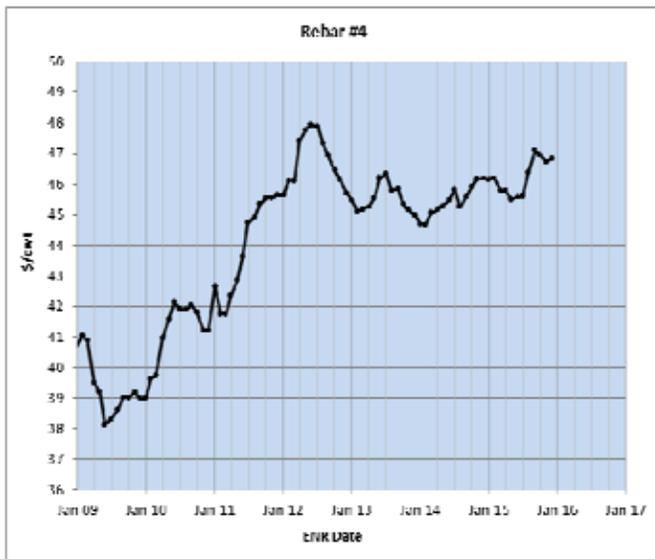
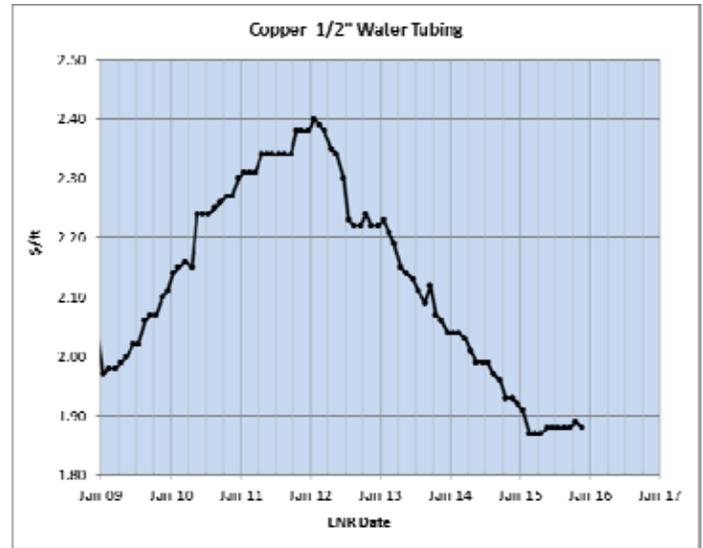
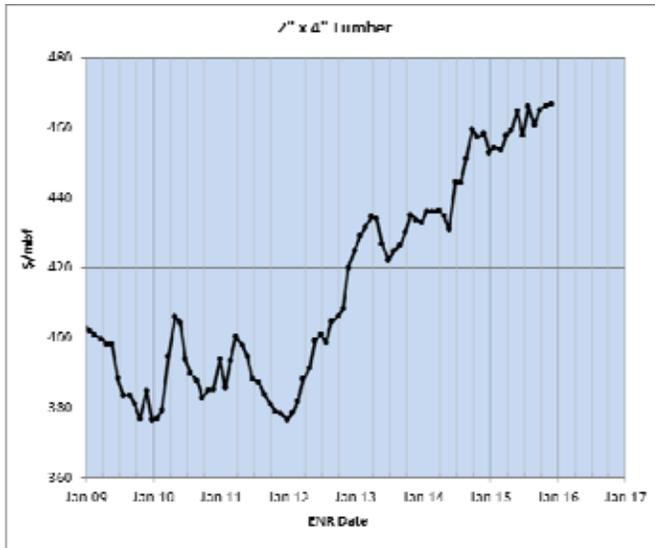
Concur: [Signature]  
 Director of Administrative Services  
 Date: 12/11/2015

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



### 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.