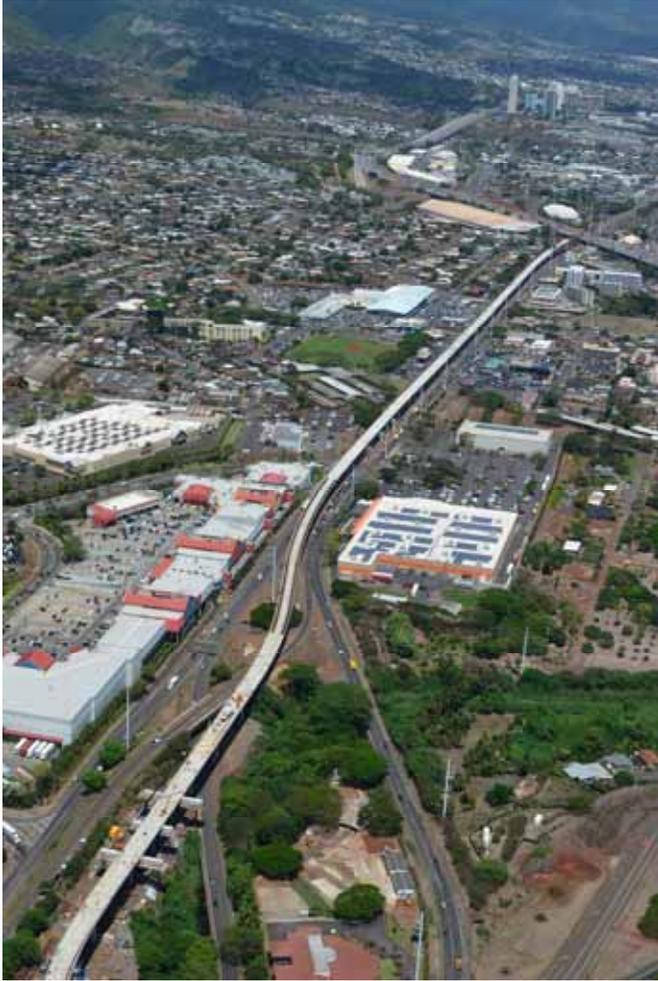


# HONOLULU RAIL TRANSIT PROJECT



## May 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: Guideway along Kamehameha Highway looking town bound.

Upper right: Kamehameha Highway Guideway along Kamehameha Highway near Aloha Stadium.

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

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LIST OF ACRONYMS

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

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

SOI	Secretary of the Interior	TWF	Train Wash Facility
SOW	Scope of Work	UCA	Utility Construction Agreement
SP	Special Provisions	UFCRA	Utility Facilities Relocation and Cost Reimbursement Agreement
SQP	Supplemental Quality Plan	UH	University of Hawai'i
SSC	Safety Security Certification	UHWO	University of Hawai'i West O'ahu
SSCP	Safety and Security Certification Plan	UL	Underwriters Laboratories
SSCWG	Safety and Security Certification Working Group	UPS	Uninterrupted Power Supply
SSI	Sensitive Security Information	USACE	U.S. Army Corps of Engineers
SSMP	Safety and Security Management Plan	USDOT	U.S. Department of Transportation
SSRC	Safety and Security Review Committee	VE	Value Engineering
SSSP	Site Safety Security Plan	VRCS	Voice Radio Communication System
STCC	Specification/Testing Conform Checklists	VRF	Variable Refrigerant Flow
SWPPP	Storm Water Pollution Prevention Plan	WA	Work Area
T&M	Time and Material	WHS	Waipahu High School
TCCR	Train Control and Communications Room	WL	West Loch
TCE	Temporary Construction Easement	WLO	West Loch
TCO	Temporary Certificate Occupancy	WOEDA	West Oahu Economic Development Association
TCP	Traffic Control Plan	WOFH	West O'ahu/Farrington Highway
TCS	Train Control System	WOSG	West O'ahu Station Group
TES	Traction Electrification System	WSS	West Side Stations
TIGER	Transportation Investment Generating Economic Recovery	WSSG	West Side Station Group
TIP	Transportation Improvement Program	WTB	Wheel Truing Building
TOC	The Outdoor Circle	WTC	Waipahu Transit Center
TOD	Transit-Oriented Development	WYL	West Yard Lead
TPO	Thermoplastic Olefin	YCB	Yard Control Bungalow
TPSS	Traction Power Sub-Station	YOE	Year of Expenditure
TSA	Transportation Security Administration		
TSI	Transportation Safety Institute		
TVA	Threat & Vulnerability Assessments		
TVM	Ticket Vending Machine		



## PROGRESS REPORT SUMMARY OF CHANGES

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

### Executive Summary

- The Board Meeting Q&A section has been removed, as there were no public questions posed at the May meetings.

### Project Budget

- The Project Budget is being updated to reflect current program expectations and will be finalized in collaboration with the FTA. Initial feedback from the FTA's Risk Refresh indicates the likely overall cost, according to their analysis, will be approximately \$8 billion. Please see page 15.

### Project Contingency

- \$4.0 million contingency drawdown during April 2016. Please see pages 15-16.

### Project Funding

- The General Excise Tax (GET) surcharge received has increased by \$61 million. Please see pages 17-18.
- The Section 5309 New Starts Revenue amount received has increased by \$12 million. Please see pages 17-18.
- The total amount of cash received has increased by \$73 million. Please see pages 17-18.

### Schedule

- The RSD forecast is currently being reassessed. Extensive utility relocation, not limited to the HECO 138KV, is required in the CCGS DB package. This would very likely extend construction beyond the current contemplated RSD from 2022 to 2024. The final RSD forecast will be determined in collaboration with the FTA. Initial feedback from the FTA's Risk Refresh analysis indicates the likely RSD will be 4<sup>th</sup> quarter 2024. Please see page 20.
- With the City Center Guideway and Stations project's request for proposal postponement to February 2016, and to maximize bidding contractors' involvement in the program, the CCGS RFP Part 2 proposals have been further postponed to October 2016. Therefore, the CCGS award will now be no earlier than January 2017. Please see page 20.

### Contract Status

- Contracts in Procurement
  - HART entered into an agreement with Royal Contracting Co. Ltd. for the On-Call Construction Contractor Contract "III." Please see page 22.
  - HART received one proposal for the Outside Counsel for Land Court Petition Services RFP. After evaluation, HART determined that it would be in the public's best interest to cancel the existing solicitation and re-issue the solicitation. The new Outside Counsel for Land Court Petition Services RFP was re-issued in May. Please see page 22.
  - Program Management Contractor Contract has been added to the Remaining Contracts table. Please see page 22.
- Elevators and Escalators Manufacture-Install-Maintain
  - The current contract value has increased due to change orders. Please see page 27.
  - The contract substantial completion date has shifted from May 2018 to June 2018 due to a change order. Please see page 27.
- West O'ahu Farrington Highway Guideway (WOFH)
  - The projected substantial completion date has shifted from March 2017 to May 2017. Please see pages 30-31.
  - The current contract value has increased due to change orders. Please see page 30.
- West O'ahu Station Group (WOSG)
  - The projected substantial completion date has changed from TBD to March 2018. Please see page 35.
- Maintenance and Storage Facility (MSF)
  - The projected substantial completion date has changed from May 2016 to a new tentative date of July 2016. Please see pages 39-41.
  - The current contract value has increased due to change orders. Please see page 39.

- Kamehameha Highway Guideway (KHG)
  - The current contract value has decreased due to a change order. Please see page 43.
- Ramp H2R2
  - The contract substantial completion date has been corrected. Please see page 47.
  - The projected substantial completion date has shifted from January 2017 to March 2017. Please see pages 47-48.
- Kamehameha Highway Station Group (KHSB)
  - As the KHSB construction contract has received an administrative NTP, a contract page for the Kamehameha Highway Station Group construction contract has been included, and the KHSB design contract page has been removed. Please see pages 49-50.
- Airport Section Utilities
  - The current contract value has decreased due to a change order. Please see page 53.
- Airport Section Guideway Seven Pier Construction
  - The Airport Section Guideway Seven Pier Construction contract page has been removed, as the project has been closed out and Final Payment has been made.
- Airport Station Group
  - The cumulative to date amount for change orders has been corrected. Please see page 55.
- City Center Section Guideway and Utilities
  - The current contract value amount has increased due to a change order. Please see page 57.
  - The cumulative to date amount for change orders/amendments has been corrected. Please see page 57.
- Dillingham and Kaka'ako Station Group
  - The cumulative to date amount for change orders has been corrected. Please see page 59.
- Program Management Support Consultant-2
  - The current contract value has increased due to a contract amendment. Please see page 61.
  - The actual percentage complete has been adjusted due to the current contract value increasing. Please see page 61.
- Construction Engineering & Inspection East Side Sections
  - The current contract value has decreased due to an amendment. Please see page 64.
  - The actual percentage complete has been adjusted due to the current contract value amount decreasing. Please see page 64.
- Core Systems Contract Oversight Consultant
  - The contract completion date has been corrected. Please see page 66.
- On-Call Construction Contractor
  - The incurred-to-date amount has decreased due to a payment request adjustment. Please see page 67.
  - The actual percentage complete has been adjusted due to the incurred-to-date amount decreasing. Please see page 67.

#### **Appendix C. Project Cost Reports**

- The Project Costs by SCC – Level 2 cost report has been included. Please see pages 108-110.

#### **Appendix D. Procurement and Contract Status**

- Contract Substantial Completion Dates have been corrected and updated. Please see page 111.

# 1 EXECUTIVE SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The Honolulu Rail Transit Project continues to make progress, with more than 370 columns completed and 325 spans stressed. Along Kamehameha Highway, guideway spans have been put into place from Acacia Road to the Sears Distribution Center, and balanced cantilever operations are taking place to cross over the H-1 Freeway.

### Unveiling Ceremony for HART’s Honolulu Train

The Honolulu Authority for Rapid Transportation (HART) unveiled its first four-car train at the Maintenance and Storage Facility site in Waipahu. Federal, state and city officials got a close-up look of the first fully-automated driverless train in the U.S.

Each four-car train can carry almost 800 passengers, and riders will be able to enjoy a number of modern features, including:

- Closed-circuit security cameras
- Air conditioning
- Free WiFi
- Seating for 188 riders
- Space for surfboards, coolers, luggage, strollers, bicycles and wheelchairs.



Photo Courtesy: Ansaldo Honolulu/iShowcase Hawaii

### Cost:

Project Costs Summary Through April 29, 2016		
	Current Budget (\$M)	Incurred To Date (\$M)
Project Budget	\$4,479.1	\$2,090.5
Project Contingency	\$469.5	\$0.7
Finance Charges*	\$173.1	\$0.0
<b>TOTAL</b>	<b>\$5,121.7</b>	<b>\$2,091.2</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 April 29, 2016				
	Actual		Early Plan	Late Plan
Overall Project Progress	47.2%		79.0%	72.9%
Overall Construction Progress	40.1%		73.9%	66.4%
Overall Design Progress	89.1%		100%	99.6%
Overall Utilities Progress	43.0%		97.1%	95.2%

\* The 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 extension of the GET, the curves are under review.

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

The CSC contractor (AHJV) is continuing to progress through Final Design. Qualification and design verification tests are ongoing. AHJV continues to install and test equipment in the Yard Control Bungalow (YCB). AHJV continues to install fire detection equipment at the MSF Operations and Servicing Building (OSB) and the Maintenance of Way (MOW) building. AHJV continues to pull communications cables in the MSF yard. Site Acceptance Tests are being conducted at the MSF. Final Assembly activities are ongoing for Train 2 and Train 3. (See Section 4.1.A for details)

Elevators and Escalators Manufacture-Install-Maintain Contract

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

West O'ahu Farrington Highway (WOFH) Contract

The progress schedule through March 2016 reflects more than ten months of delay to the substantial completion date, primarily from the LCC portable classrooms, parking lot, station's access structure and track construction activities. This schedule is under review to analyze the numerous unilateral logic and duration changes made by KIWC. HART has executed the LCC CCOs, which brings an end to the critical path impacts. A revised baseline schedule was submitted via a contract Request for Change (RFC) by KIWC in August 2015. That revised baseline also contains numerous unilateral logic and duration changes, therefore, it is considered unacceptable.

The contractor is continuing to focus their efforts on the emergency walkways, rail and third rail installations. With the execution of Traffic Signals CCO, the contractor has resumed work for this change. Several areas of the project were inspected, punchlist generated and partial acceptance/substantial completion letters issued. Substantial completion for base scope is scheduled for July, however a significant amount of CCOs remain to be settled and completion dates for these items still need to be determined. (See Section 4.2.A for details)

Maintenance and Storage Facility (MSF) Contract

All construction activities for the Train Wash Facility (TWF), Maintenance of Way (MOW), and Wheel Truing Building (WTB) have been completed and were punch listed. The elevator installation in the Operations and Servicing Building (OSB) is complete pending inspection, and the training and commissioning of the overhead bridge cranes was performed. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

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

Airport Section Utilities (ASU) Construction Contract

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

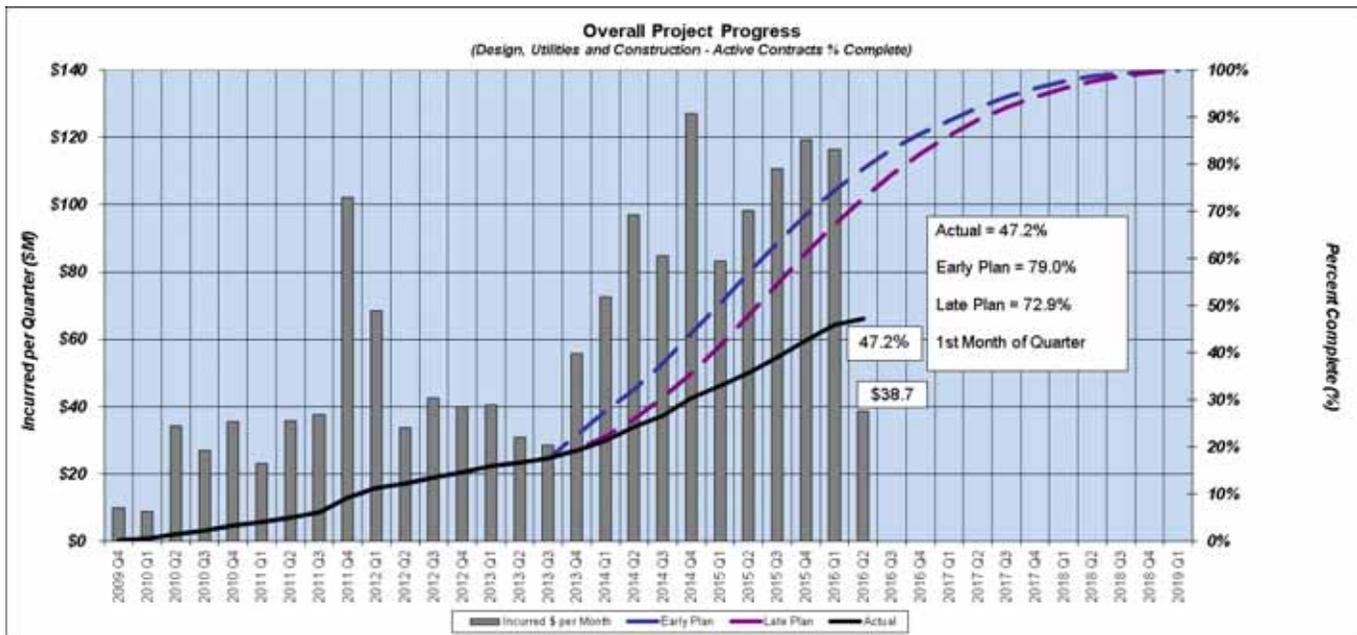
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of April 29, 2016)

The 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 extension of the GET, the curves are under review.

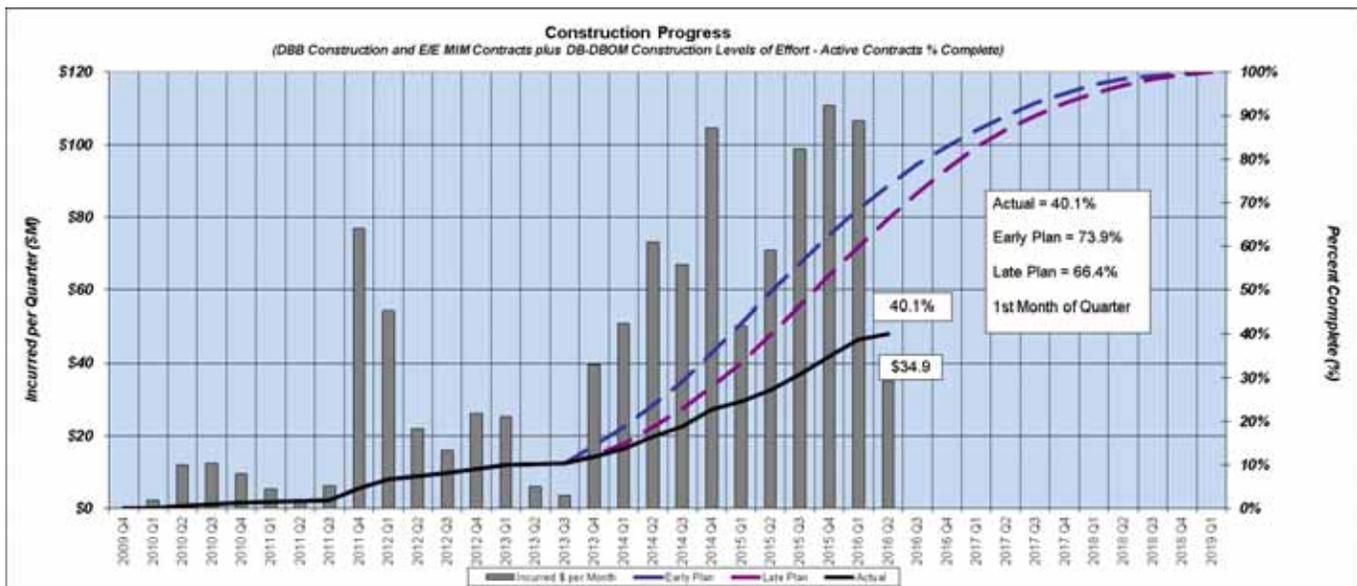
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date,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

Figure 1. Overall Project Progress (% Complete)



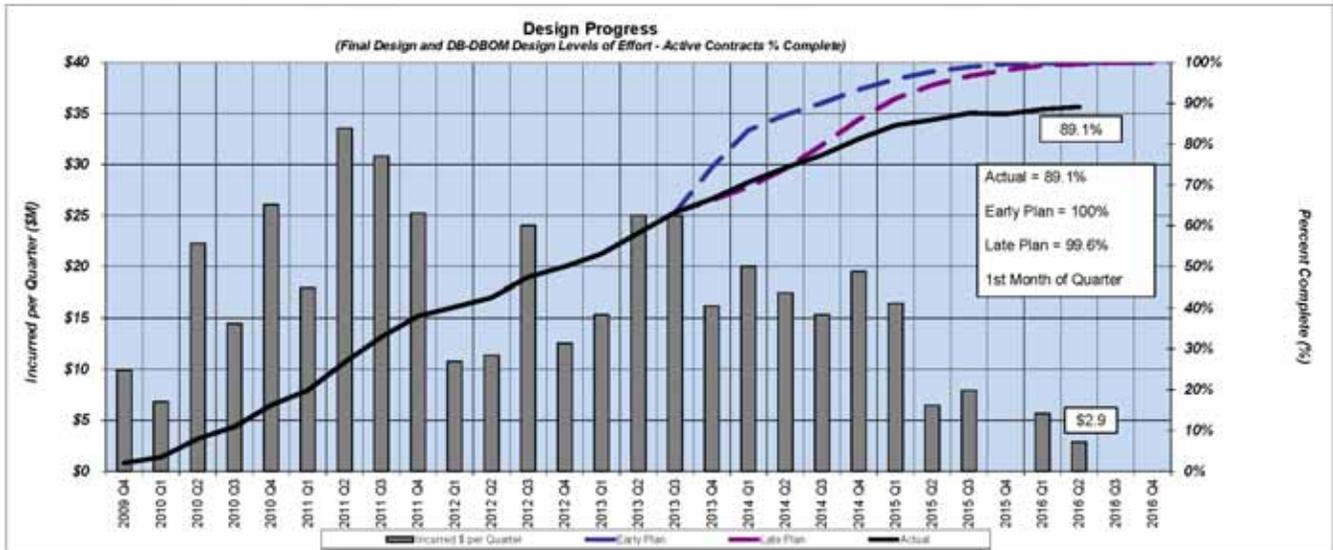
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM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

Figure 2. Construction Progress (% Complete)



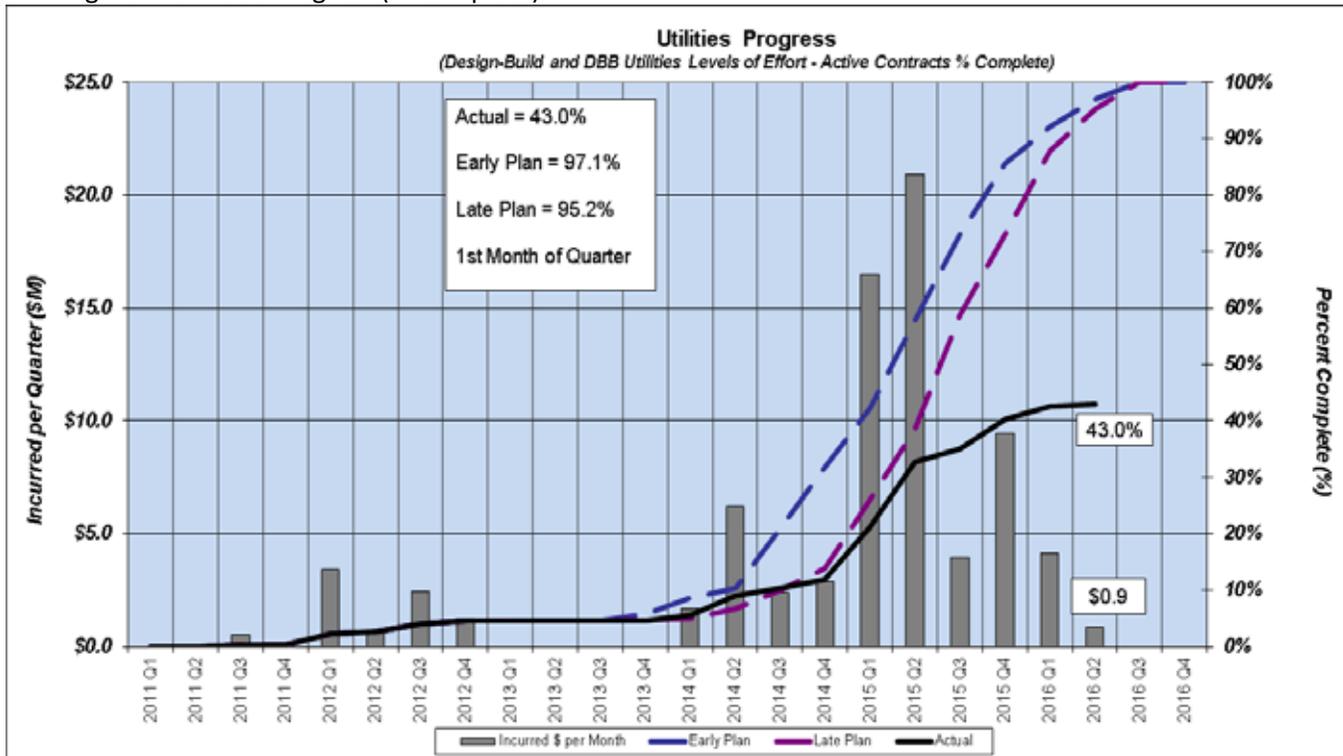
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

Figure 3. Design Progress (% Complete)



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

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 April 29, 2016)**

*Total Incurred Cost = \$2,091.2M  
(previous report = \$2,035.4M)*

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,479.1M
  - Current Project Contingency - \$469.5M
  - Project Finance Charges - \$173.1M
- Total Incurred Cost = **\$2,091.2M** (46.7% of current project budget)
  - April 2016 Incurred Cost = \$55.8M
- The Project Budget is being updated to reflect current program expectations and will be finalized in collaboration with the FTA. Initial feedback from the FTA’s Risk Refresh indicates the likely overall cost, according to their analysis, will be approximately \$8 billion.

**2.3 Project Contingency (data as of April 29, 2016)**

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

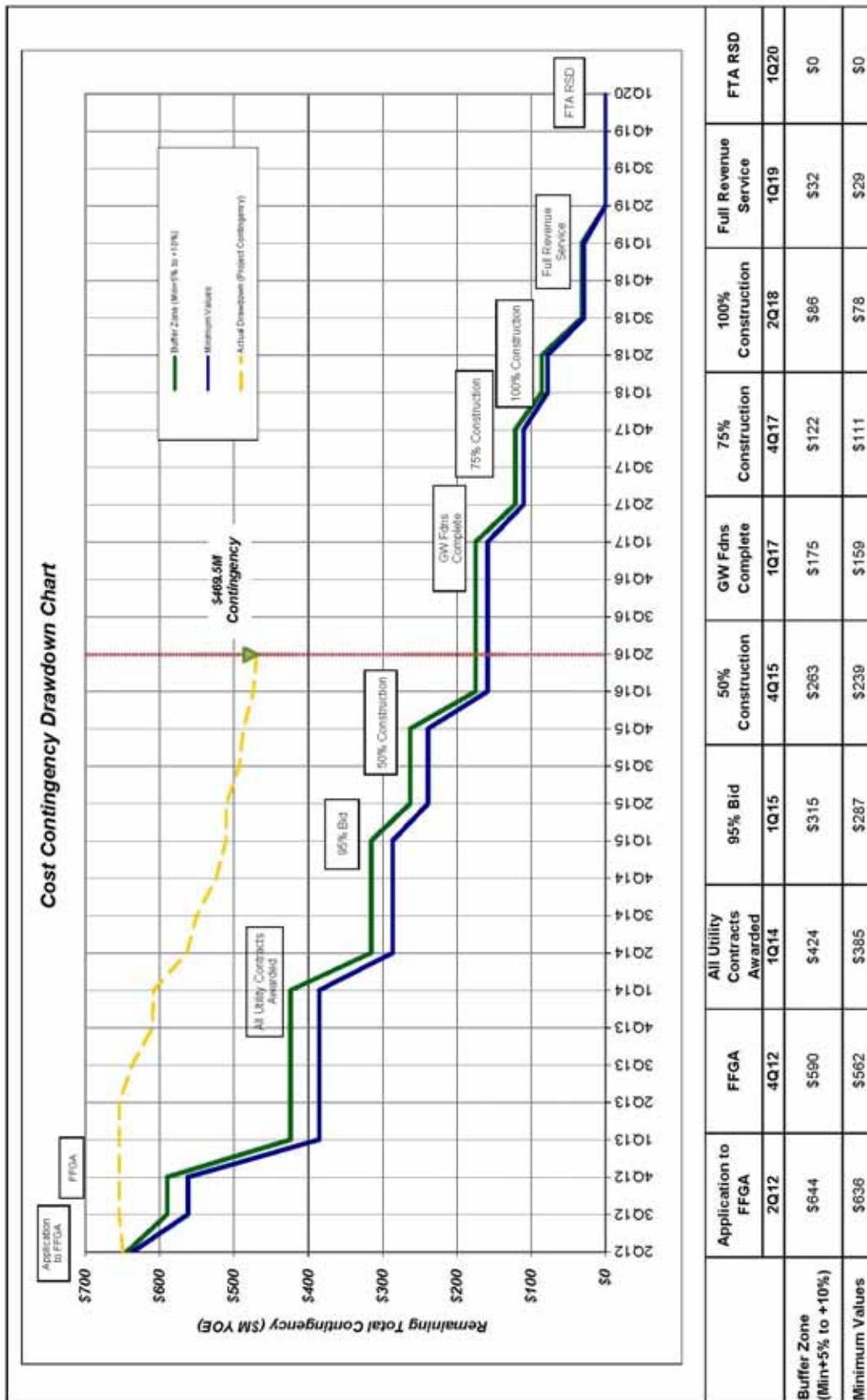
*Current Contingency Balance = \$469.5M  
(previous report = \$473.5M)*

- Current Project Contingency Balance = **\$469.5M**
  - Contingency drawdown to date – \$174.1M (27.0% of baseline project contingency budget)
  - \$4.0M contingency drawdown during April 2016. 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 February 2016 Report	90.01 - 90.03	(\$156.2)
Contingency drawdown March 2016 Report	90.01 - 90.03	(\$12.3)
Contingency drawdown April 2016 Report	90.01 - 90.03	(\$1.6)
Contingency drawdown May 2016 Report	90.01 - 90.03	(\$4.0)
Contingency drawdown to date	90.01 - 90.03	(\$174.1)
<b>Current FFGA Project Contingency</b>	<b>90.01 - 90.03</b>	<b>\$469.5</b>

Figure 6. Draft Cost Contingency Drawdown Chart



Data as of 4/29/16 - April '16 Reporting Period

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

2.4 Project Funding (data as of April 29, 2016)

Figure 7. Planned vs. Received Project Funding

Planned vs. Received Project Funding				
Funding Source	Pre-FFGA Project <sup>1</sup>	FFGA Project Period		Total Project
	2007 - 2009 Actuals Received	Planned <sup>2</sup> (\$YOE M)	2009 - Present Actuals Received	2007 - Present Actuals Received
	[A]		[B]	[C] = A + B
Beginning Project Cash Balance <sup>3</sup>	0	298	298	n/a
Interest Income on Cash Balance	7	3	2	9
FTA Section 5309 New Starts Revenue <sup>4</sup>	0	1,550	537	537
FTA Section 5307 Formula Funds <sup>5</sup>	0	210	0	0
ARRA Funds	0	4	4	4
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2022 <sup>5</sup>	378	3,291	1320	1,698
<b>Total</b>	<b>385</b>	<b>5,356</b>	<b>2,161</b>	<b>2,248</b>

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

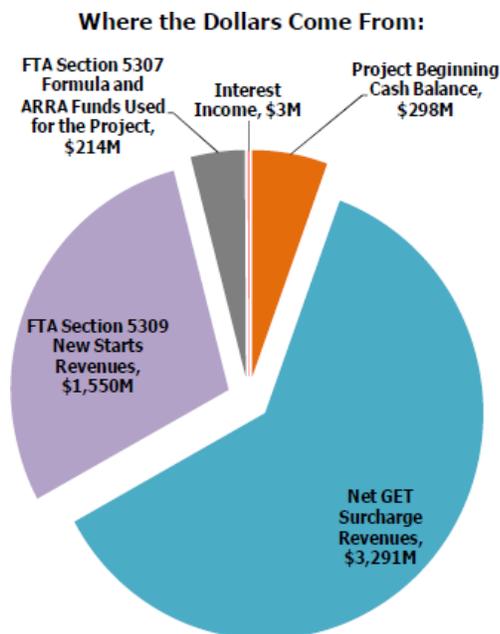
<sup>2</sup> FFGA Financial Plan, Table A-1 *Capital Plan Cash Flows*.

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

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

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

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



Source: FFGA Financial Plan, p. 2-1

- General Excise Tax (GET) Surcharge (data as of April 29, 2016)
  - \$1,320M = amount received since the Project’s entry into FTA’s Preliminary Engineering phase of project development.
    - \$1,358M = Projected Net GET Surcharge Revenue for FYs 2010-4Q 2016, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 3% short of Projections to date, or \$38M behind.
  - \$61M = GET surcharge received in April 2016.
  
- Full Funding Grant Agreement (FFGA)
  - \$12M = New Starts drawdown processed and received in April 2016.
  
- The \$5307 funds for the Project, per the FFGA Financial Plan, are \$210M.

*Total Cash Received Since PE = \$2,161M*  
 (previous report = \$2,088M)

*GET Received Since PE = \$1,320M*  
 (previous report = \$1,259M)

*GET Received Since 2007 = \$1,698M*  
 (previous report = \$1,637M)

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

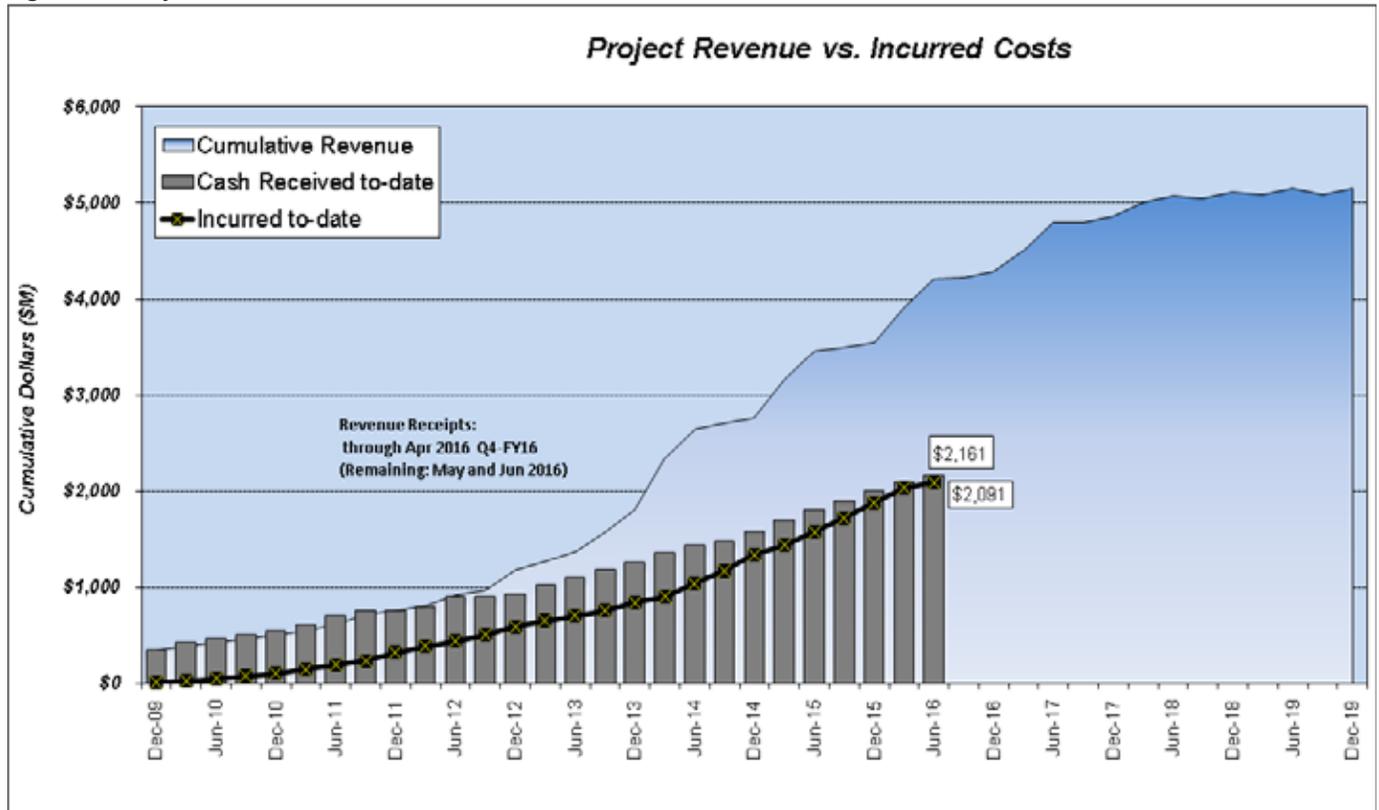
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$30,000,000	\$0	
2011	\$55,000,000	\$55,000,000	\$0	\$20,607,242
2012	\$200,000,000	\$200,000,000	\$0	\$99,382,758
2013	\$236,277,358	\$217,315,928	\$18,961,430	\$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>\$537,305,928</b>	<b>\$1,012,694,072</b>	<b>\$1,550,000,000</b>

2.5 Project Revenue and Costs

(data as of April 29, 2016)

*Ending Cash Balance 4/30/16 = \$172.6M*  
*(previous report = \$158.7M)*

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan  
Data date for Revenue & Incurred Cost = April 29, 2016

Figure 11. Cash Balance Summary

APRIL 2016 CASH BALANCE SUMMARY		
	APRIL	FY16 YTD Cumulative
<b>Beginning Cash Balance 04/01/16</b>	158,655,626	293,010,823
Expenditures:		
Operating Expenditures	(1,956,639)	(14,089,264)
Capital Expenditures	(57,420,122)	(462,018,941)
<b>Expenditures Total:</b>	<b>(59,376,761)</b>	<b>(476,108,205)</b>
Receipts:		
GET Surcharge	60,969,295	229,344,241
FTA Drawdown	12,314,734	125,799,297
Interest	38,158	222,194
Other (rental, refunds, copy fees, etc.)	29,664	362,365
<b>Receipts Total:</b>	<b>73,351,851</b>	<b>355,728,097</b>
<b>Ending Cash Balance 04/30/16</b>	<b>172,630,715</b>	<b>172,630,715</b>

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

### 3 SCHEDULE

(data as of April 29, 2016)

#### OVERVIEW

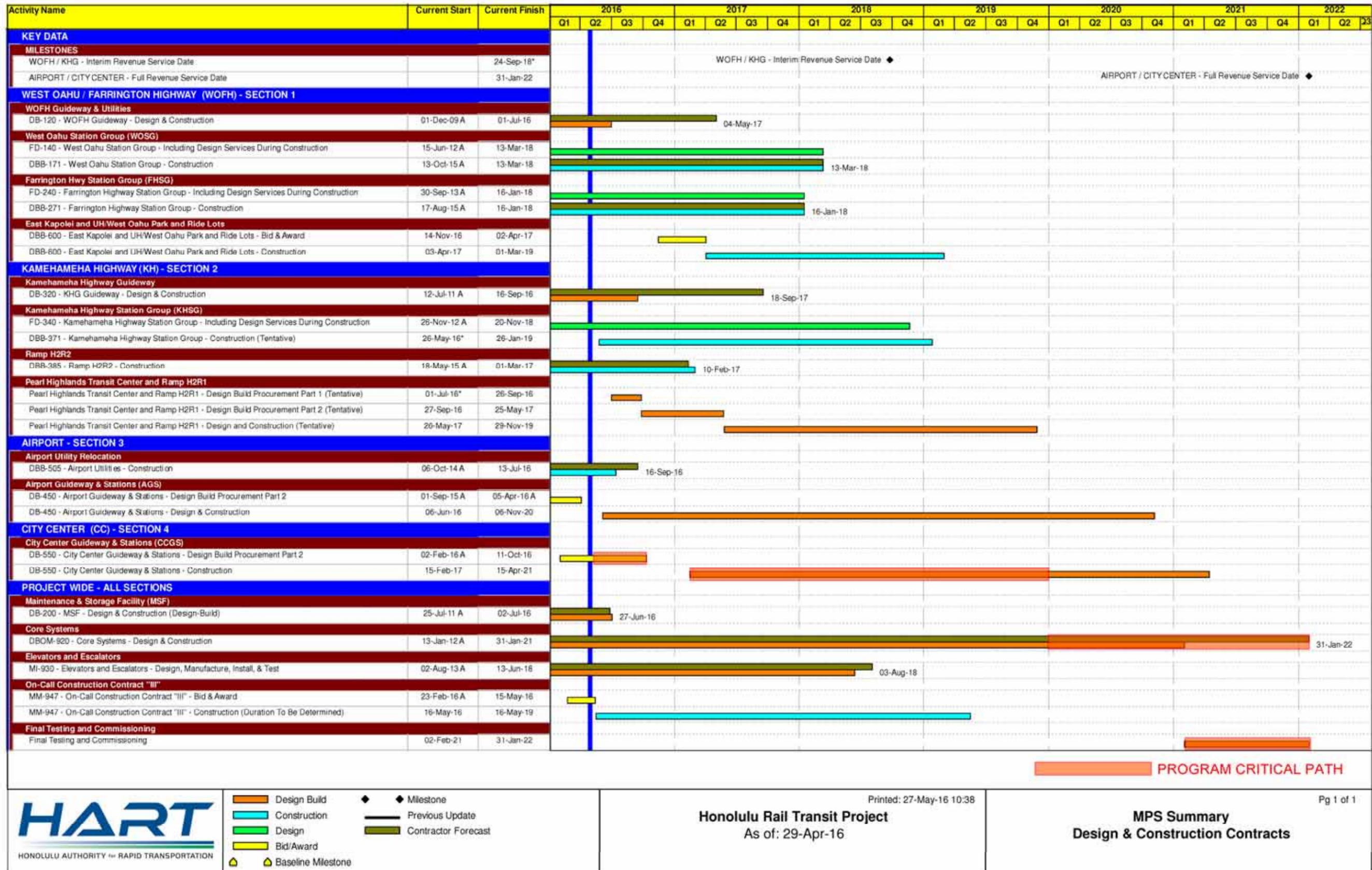
- The RSD forecast is currently being reassessed. Extensive utility relocation, not limited to the HECO 138KV, is required in the CCGS DB package. This would very likely extend construction beyond the current contemplated RSD from 2022 to 2024. The final RSD forecast will be determined in collaboration with the FTA. Initial feedback from the FTA's Risk Refresh analysis indicates the likely RSD will be 4<sup>th</sup> quarter 2024.
- With the City Center Guideway and Stations project's request for proposal postponement to February 2016, and to maximize bidding contractors' involvement in the program, the CCGS RFP Part 2 proposals have been further postponed to October 2016. Therefore, the CCGS award will now be no earlier than January 2017.
- 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 ten months.
- KHG guideway construction progress is behind the approved schedule by 12 months.
- WOSG and FHSG stations' construction has begun at West Loch and Ho'opili Stations.
- ASU construction is behind the approved schedule by two months due to various delays, including differing site conditions.
- The overall critical path to full Revenue Service is the CCGS guideway and stations' construction, core systems installation, testing and commissioning.

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

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



- Design Build
- Construction
- Design
- Bid/Award
- Baseline Milestone
- Milestone
- Previous Update
- Contractor Forecast

Printed: 27-May-16 10:38

**Honolulu Rail Transit Project**  
As of: 29-Apr-16

**MPS Summary**  
**Design & Construction Contracts**

## 4 CONTRACT STATUS

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

#### OVERVIEW

- Awarded Contracts:
  - On May 9, 2016, HART entered into an agreement with Royal Contracting Co. Ltd. for the On-Call Construction Contractor Contract “III.”
  
- Active Procurements:
  - Art-in-Transit: HART is in negotiations or will commence negotiations with the highest-ranked artists for each of the stations. HART has begun award of the Art-in-Transit contracts.
  - Airport Guideway and Stations Design-Build RFP: HART extended the deadline for the priority-listed offerors to submit their proposals from March 22, 2016 to April 5, 2016. Proposals were received on April 5, 2016 and are currently being evaluated.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 was issued on Feb. 2, 2016. HART extended the deadline for the priority-listed offerors to submit their Technical and Price Proposals. The deadline for submission of the proposals is Oct. 11, 2016.
  - Complex Real Property Negotiations and Litigation Support RFP: The RFP was issued on Feb. 23, 2016. Proposals were received on April 4, 2016 and are currently being evaluated.
  - Outside Counsel for Land Court Petition Services RFP: The RFP was issued on March 4, 2016. HART received one proposal on April 15, 2016. After evaluation, HART determined that it would be in the public’s best interest to cancel the existing solicitation and re-issue the solicitation. The new Outside Counsel for Land Court Petition Services RFP was re-issued on May 13, 2016. Proposals are due June 14, 2016.
  - Real Estate Contractor Contract “II” RFP: The RFP was issued on March 4, 2016. Proposals were received on April 28, 2016 and are currently being evaluated.
  - On Call Appraisers Contract RFP: The RFP was issued on March 18, 2016. Proposals were received on April 29, 2016 and are currently being evaluated.
  - Complex Construction Claims Negotiation and Litigation Services RFP: The RFP was issued on April 27, 2016. Proposals were received on May 31, 2016 and are currently being evaluated.
  - Program Management Contractor Contract RFQ: The RFQ was issued on May 9, 2016. Proposals are due on July 14, 2016.
  
- Upcoming Procurements:
  - Procurements for UH West O’ahu Temporary Park and Ride and UH West O’ahu Campus Road “B” Design-Bid-Build Contract, Pearl Highlands Garage, Transit Center and Ramp H2R1, Core Systems Back-up Generators, and East Kapolei and UH West O’ahu (permanent) Park and Ride are under evaluation.
  
- Current plans for the remaining contracts are as follows:

Remaining Contracts						
Contract Code	Contract Name	Advertise Date	Bids Due/Part 1 Proposals Due	RFP Part 2 Proposals Due	Issue NTP	Projected Contract Substantial Completion Date
AP00	Art-in-Transit	May 9 '13	-	-	TBD	TBD
DB-450	Airport Guideway and Stations	Apr 07 '15	Aug 11 '15	Apr 05 '16	TBD	NTP + 53 months
DB-550	City Center Guideway and Stations	Aug 04 '15	Nov 18 '15	Oct 11 '16	TBD	NTP + 50 months
MM-981	Complex Real Property Negotiations and Litigation Support Contract	Feb 23 '16	Apr 04 '16	-	TBD	NTP + 24 months + 2 year option
MM-936	Real Estate Contractor Contract "II"	Mar 04 '16	Apr 28 '16	-	TBD	NTP + 48 months
MM-982	On Call Appraisers	Mar 18 '16	Apr 29 '16	-	TBD	NTP + 48 months
MM-980	Complex Construction Claims Negotiation and Litigation Services	Apr 27 '16	May 31 '16	-	TBD	NTP + 60 months + 3 year option
MM-902	Program Management Contractor Contract	May 09 '16	Jul 14 '16	-	TBD	Dec 31 '22 + 3 year option
MM-983	Outside Counsel for Land Court Petition Services	May 13 '16	Jun 14 '16	-	TBD	NTP + 36 months
DBB-600	East Kapolei and UH/West O'ahu Park and Ride Lots	Nov 14 '16	Feb 15 '17	-	Apr 03 '17	Mar 01 '19

4.1 System-wide

A. Core Systems Contract (CSC)

**Contract No.:** DBOM-920  
**DBOM Contractor:** Ansaldo Honolulu Joint Venture (AHJV)  
**Contract Start Date:** January 2012  
**Contract Substantial Completion:** January 2021  
**Projected Substantial Completion:** January 2022



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

**Project Overview:** The CSC contractor (AHJV) is continuing to progress through Final Design. Qualification and design verification tests are ongoing. AHJV continues to install and test equipment in the Yard Control Bungalow (YCB). AHJV continues to install fire detection equipment at the MSF Operations and Servicing Building (OSB) and the Maintenance of Way (MOW) building. AHJV continues to pull communications cables in the MSF yard. Final Assembly activities are ongoing for Train 2 and Train 3.

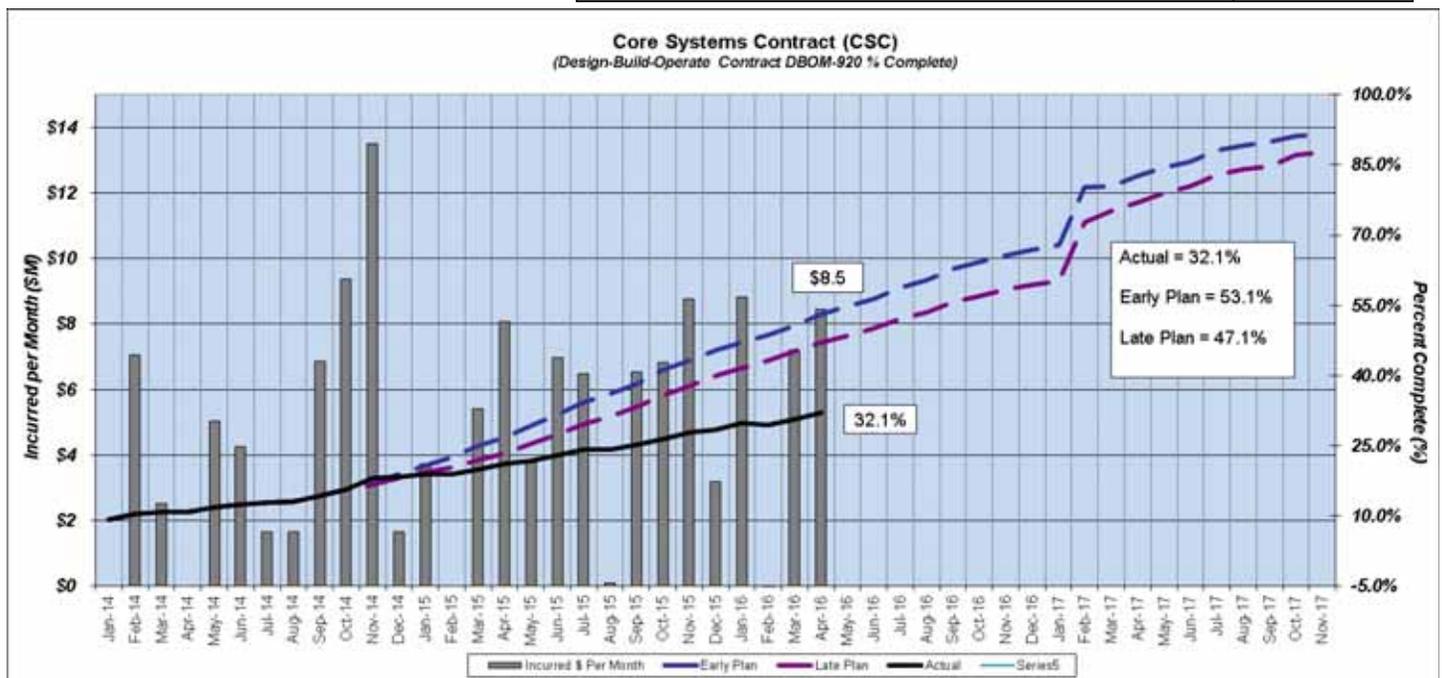
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$573,782,793</u>	<u>Incurred-to-Date:</u>	<u>\$192,496,847</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$599,843,687</u>	<u>Incurred in April:</u>	<u>\$8,451,355</u>

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

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

April Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$26,060,894</b>



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

**SCHEDULE:**



	Final Design Submitted Documents	Final Design Approved Documents	Target Completion Date
Passenger Vehicles	100%	85.2%	2 <sup>nd</sup> Q 2016
Communications	45%	37.6%	4 <sup>th</sup> Q 2016
ATC/SCADA	99%	87%	2 <sup>nd</sup> Q 2016
TES	100%	100%	Completed
Fire Detection	66.7%	55.6%	2 <sup>nd</sup> Q 2016
PSGS	95.5%	81.8%	2 <sup>nd</sup> Q 2016

**CRITICAL PATH SUMMARY:**

- The Core Systems schedule and subsequent Substantial Completion date has been revised to reflect the issuance of revised construction access dates for the west side nine (9) stations and the anticipated construction schedule for the east side construction. AHJV has begun the process of updating their baseline schedule to incorporate the new access dates.
- Continue to oversee construction activities with the CSC installation subcontractor and the On-Call contractor.
- Passenger Vehicle final assembly continues on the second and third trains.

**WORK PROGRESS:**

Activities this Month:

**Earned Value:** 32.1% [(Total Achieved thru April 2016 (\$184 million) + Projected May 2016 Period (\$8.45 million))/Total Contract Including Executed Change Orders (\$599.84 million)].

**Design:**

- ATC/SCADA – Documents Received: 18, Documents Returned: 17
- Communications – Documents Received: 6, Documents Returned: 6
- Traction Power – Documents Received: 4, Documents Returned: 5
- Fire Detection – Documents Received: 0, Documents Returned: 0
- Platform Screen Gates – Documents Received: 0, Returned: 3
- Passenger Vehicles – Documents Received: 10, Documents Returned: 21

**Manufacturing:**

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

Look Ahead:

**Design:**

- Continue Final Design of all subsystems.

**Manufacturing:**

- Passenger Vehicle Manufacturing – Continue car shell fabrication in Italy.
- Continue final assembly activities on Train 2 and Train 3.
- Continue manufacturing of automated train control, traction power, and other systems equipment.

**Installation, Testing and Commissioning:**

- Test Fire Detection Alarm System (FDAS) devices in the MSF OSB.
- Completion of MSF yard conduit installation.
- Energization of the MSF Yard TPSS.
- Conduct Type and Routine test on first train.
- Installation of Telecom cabling in the MOW.

Activities this Month (continued):

- Performed final assembly oversight work at Pittsburg, CA. Equipment installation work on the second train is ongoing.
- Two (2) car shells for train #3 are in Pittsburg for final assembly.
- Performed Truck Frame and Bolster Production oversight at Hitachi Rail Italy (HRI) supplier, DRS, in West Plains, Missouri. All eight (8) truck frames and bolsters have been shipped to the final assembly facility in Pittsburg.

**Installation, Testing and Commissioning:**

- Train 1 fully decaded and moved to the M5 track.
- MOW vehicles (flatbed trailer and grinder) have been delivered to the MSF.
- Installation of Train Control Racks in the Yard Control Bungalow is complete.
- Installation of fiber optic backbone in MSF yard is ongoing.
- Installation of Fire Detection Alarm System (FDAS) devices in the MOW is complete.
- Installation of FDAS devices in the OSB is 40% complete.
- Fire Marshal inspection of the MOW is complete.
- Waipahu TPSS was delivered and testing has commenced.
- Testing of the Automated Train Control (ATC) in the YCB.

**KEY ISSUES:**

- Revisions to the station and guideway Construction Access Milestone (CAM) dates require evaluation of interfacing work schedules.
- Vehicle Production and Testing is an ongoing monitored risk. HART continues to work closely with AHJV and Hitachi Rail to ensure good progress at the Car Shell Assembly and Final Assembly facilities.
- Communications System design completion is delayed. HART continues to work closely with AHJV to identify key issues and to implement the corrective action plan to bring design and qualification testing to closure.
- Completion of MSF FDAS system installation, testing and commissioning for MSF substantial completion.

**QUALITY MANAGEMENT:**

Testing		
Subsystem	Test Completed	Date Completed
ATC/SCADA	ATC Wayside Factory Acceptance Test of the East Kapolei TCCR in Batesburg, South Carolina	May 5, 2016

Passenger Vehicle – Oversight		
Facility	Activity	Date Completed
Pittsburg, CA	On-site inspector in place to oversee and report on Hitachi Rail Final Assembly activities.	Ongoing
Naples, Italy	Visit conducted to Nuova Comafer to inspect status of quality and production of PV truck frame and bolsters.	TBD
Reggio Calabria, Italy	Visit conducted to Reggio Calabria factory to inspect status and quality of on-going PV car shell production.	TBD

CSC NCR Log			
	TOTAL	CLOSED	OPEN
AHJV & Subs	29	26	3
Hitachi Rail	498	433	65
<b>TOTAL</b>	<b>527</b>	<b>459</b>	<b>68</b>

**PROJECT PICTURES:**



Unwrapping and inspection of the Waipahu TPSS.



ATC grounding test at the Yard Control Bungalow.



Fully decaded train on the M5 track at the MSF.

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

**Contract No.:** MI-930

**Contractor:** Schindler Elevator Corporation

**Contract Start Date:** August 2013

**Contract Substantial Completion:** June 2018

**Projected Substantial Completion:** The June 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 manufacturing of the FHSG will be released in June as the construction schedule has been accepted in May by HART. The release to begin manufacturing of the WOSG and KHSO equipment will be scheduled once an acceptable construction schedule with the respective contractors has been completed.

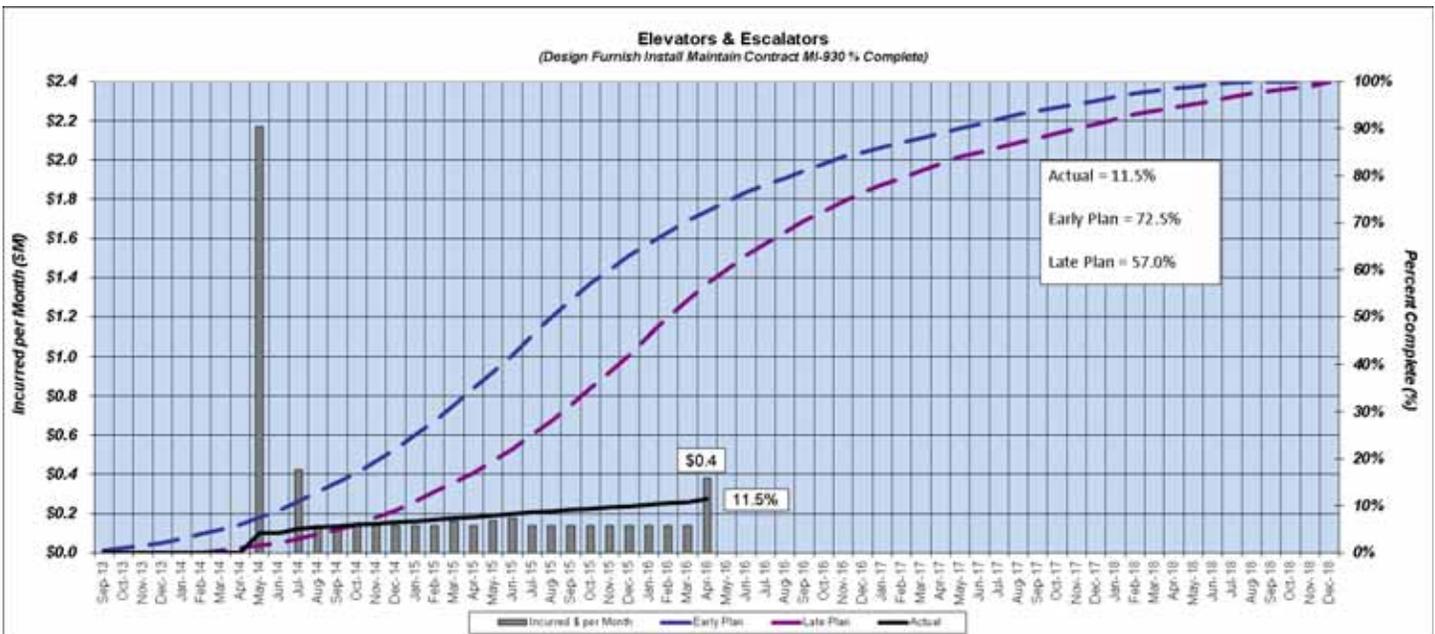
**COST INFORMATION:**

Original Contract:	\$50,982,714	Incurred-to-Date:	\$5,868,106
Current Contract Value <sup>1</sup> :	\$51,999,035	Incurred in April:	\$379,176

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

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

April Change Orders		
Change No.	Description	Amount (\$)
CCO 0001	Counterweight Safeties Product Changes	\$853,963
CCO 0002	Elevator Battery Lowering Systems	\$162,358
<b>Cumulative to Date</b>		<b>\$1,016,321</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:**

- A baseline schedule for FHSG has been accepted. Access dates will be transmitted to Schindler for incorporation into an Elevator and Escalator schedule. Elevators' schedule for the WOSG and KHSG stations will be published once the respective baseline schedules are accepted. Elevators' schedule for the remaining 12 stations will be published when their contracts are awarded.
- 

**CRITICAL PATH ISSUES:**

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

**WORK PROGRESS:**Activities this Month:

**Earned Value: 11.5%**; Planned Value: 57.0%

- Final Design is approximately 41% 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.
- Permits for the installation of all elevators and escalators for the FHSG and the WOSG have been issued. These permits are for installation only, not operation.

Look Ahead:

- Release for manufacturing for the Farrington Highway Station Group will occur in June; the West O'ahu Station Group elevators and escalators is expected to occur in June 2016, once the construction schedule is accepted by HART.
- 

**KEY ISSUES:**

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

**C. Fare Collection System**

**Contract No.:** MI-900

**Contractor:** INIT, Innovations in Transportation Inc.

**Contract Start Date:** April 2016

**Contract Substantial Completion:** September 2021

**Projected Substantial Completion:** 60 days proceeding full rail revenue service date

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

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

**Project Overview:** The Fare Systems RFP was released on Aug. 11, 2015 and an award was made on March 18, 2016 to INIT. NTP was issued April 18, 2016. An MOU for capital cost sharing with the City was executed on July 11, 2015, and an MOU for Operations and Maintenance was executed on March 10, 2016. A Fare Systems technical consultant contract was awarded on Sept. 24, 2015, to CH2M Hill to support design review, testing and installation. The selected DBOM contractor is anticipated to start conceptual design 45 days after NTP.

**COST INFORMATION:**

- Contract Award is for \$30,928,395.23. HART’s share is \$15,464,197.62  
As per MOU with DTS, HART fare systems project share also includes an additional \$3.1 million in contingency

**SCHEDULE:**

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

**CRITICAL PATH ISSUES:**

- Conceptual design starting by June 20, 2016.

**WORK PROGRESS:**

Activities this Month:

- Reviewed initial contractor PMP components.
- Held kick off meeting with contractor.
- Held kick off meeting with fare options modeling team.
- Ongoing business rules document development.
- Held initial meeting with DTS to discuss fare product options.

Look Ahead:

- Finalize contractor PMP.
- Start conceptual design review.
- Meet with new Fare Permitted Interaction Group (PIG) to begin options development for modeling.

**KEY ISSUES:**

- Starting and completing three design reviews on time in order to maintain schedule.

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: May 2017 (Change Work)



**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:** Progress continues for span stressing, track installation and road restoration work. Segment erection and final set has been completed along the entire guideway. With the execution of Traffic Signals CCO, the contractor has resumed work for this change. Several areas of the project were inspected, punch lists generated and partial acceptance/substantial completion letters issued. The project’s key quality issues continue to focus on segment repairs, span shear keys, column pedestal repairs, and project acceptance for Substantial Completion.

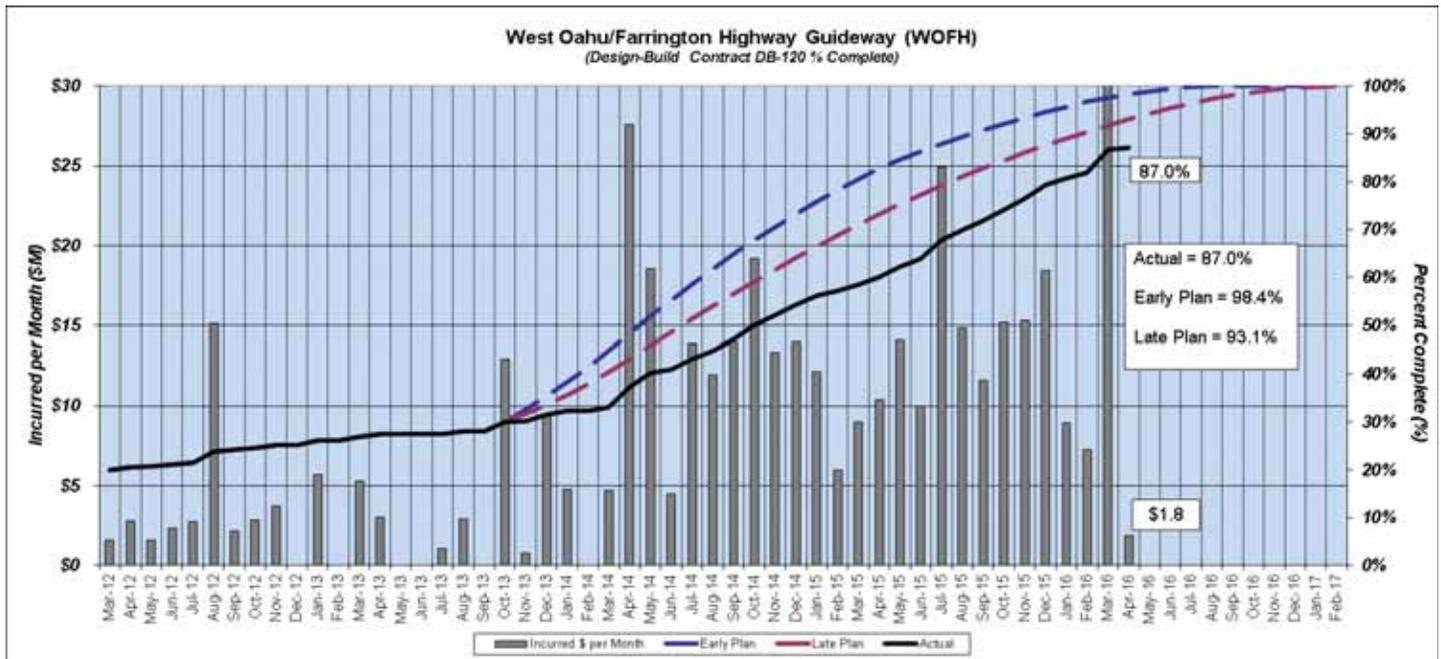
**COST INFORMATION:**

Original Contract:	\$482,924,000	Incurred-to-Date:	\$560,978,560
Current Contract Value <sup>1</sup> :	\$647,821,879	Incurred in April:	\$1,845,272

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

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

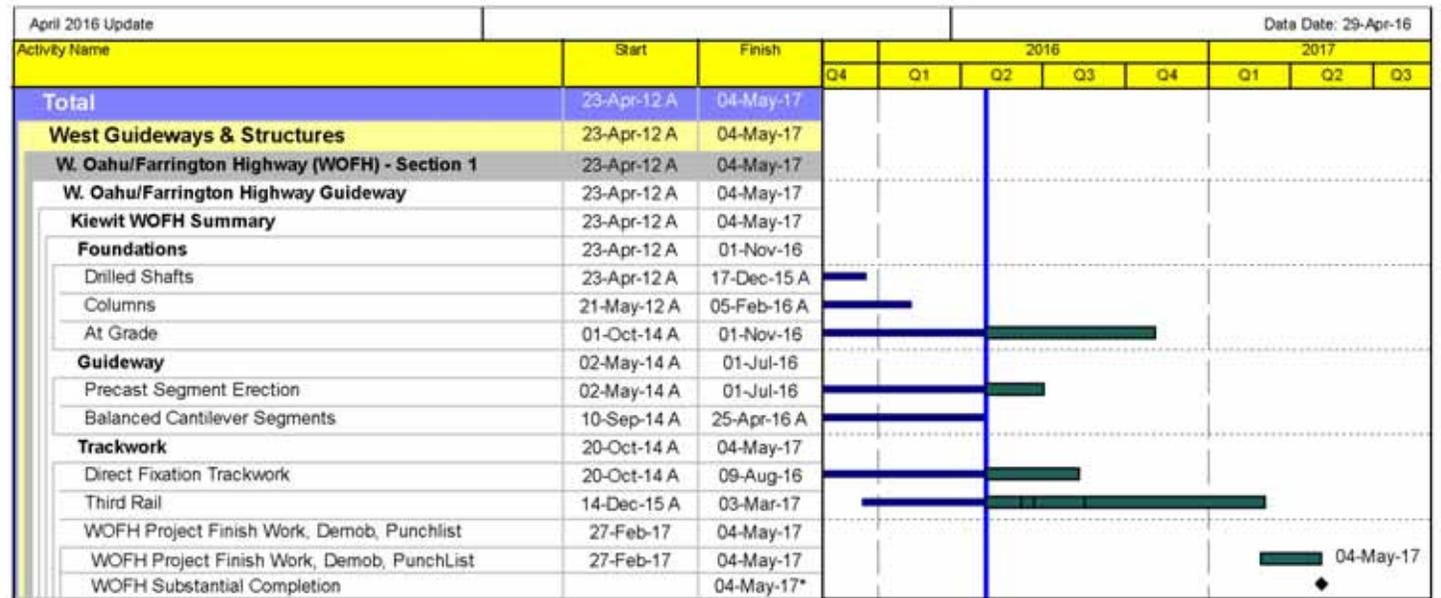
April Change Orders		
Change No.	Description	Amount (\$)
CCO0080	Unknown Utility 2 inch Gas Line	\$16,368
CCO0081	ATT Ductbank in 705-M1 (RFCC 00123)	\$6,308
CCO0082	RFCC 00118 Transite Pipe Removal at Sta	\$4,872
CCO0083	Guy Wire Mobilizations (RFCC 00121)	\$44,119
CCO0084	HTI Issue at Utility Conflict 602-T1	\$6,200
CCO0085	LCC Campus Construction Impacts	\$2,214,613
CCO0086	LCC Station Access Construction Impacts	\$1,447,123
CCO0087	RFCC 00130 HazMat at Cutter Building	\$42,027
CCO0088	RFCC 00133 Debris at Shaft 258	\$31,792
CCO0089	RFCC 00134 Shaft 211 650-E1 Conflict	\$22,975
CCO0090	RFCC 00136 Unknown Irrigation at WHS	\$2,874
CCO0091	Issue 00319 AIS Prov’l Sum Reconciliation	(\$3,023,600)
CCO0092	RFCR 00028 East Kapolei/UHWO Vertical Clearance Provisions	\$512,328
CCO0093	RFCR 00084 Delete HECO Transformer Pads @ 5 Stations	(\$6,215)
CCO0095	RFCR 00037 Emergency Walkway - Guideway Areas	\$587,110
CCO0096	RFCC 00029 Unforeseen 24" Storm Drain Line	\$300,154
CCO0097	RFCC 00084 Additional Drainage Requirements	\$275,000
CCO0098	WOFH Precast Yard Lease Extension to Jun16	\$518,836.44
<b>Cumulative to Date</b>		<b>\$164,897,879</b>



In May, HART processed pay application #83 for March 2016 billing. KIWC submitted pay escalation invoice #84 and #85 to HART for review. Both escalation invoices are currently being processed at this time.

**SCHEDULE:**

As of the March 2016 progress update, substantial completion was further delayed to 10 months due to the work stoppage of all LCC construction activities due to KIWC’s unilateral stoppage of work. HART has notified KIWC that all base scope work must be complete by July 1, 2016.



**CRITICAL PATH ISSUES:**

- In late February/early March 2016, KIWC (at risk) resumed LCC construction work activities. The portable classroom turnover to the University occurred in early May 2016. Demolition of the existing portables started in mid-May. KIWC’s most recent progress schedule shows the project to be completed ten months beyond contractual substantial completion.

**WORK PROGRESS:**

WOFH Construction Status as of 5/11/16									
Utility Status	Qty to Date	Final Qty	% Complete	Structure Element	*** Total to Date	Planned to Date		Total Qty	% Complete
						Accepted Schedule *	Revised Schedule **		
Water Line	9,028	9,348	97%	Shafts	309	309	309	309	100%
Sewer Line	550	570	96%	Columns	283	283	283	283	100%
Fuel Line	340	340	100%	Segment Casting	3,209	3,209	3,209	3,209	100%
Gas line	1,591	1,591	100%	Spans Stressed	274	274	272	274	100%
Drainage Line	4,191	5,166	81%	Trackwork	233	252	240	278	84%
Elec/Telecom	16,889	21,374	79%	Third Rail	0	278	183	278	0%
Street Lights	6,335	8,357	76%	Mill & Overlay	14,275	N/A	N/A	32,903	43%
Traffic Sig/ITS Duct bank	8,552	10,802	79%	* Accepted Schedule was submitted in 2013.					
System Sites	1,683	7,046	24%	** The planned values are based on KIWC's pending July schedule revision dated August 24, 2015. Revised schedule reflects a 6-month delay in completion.					
ITS Systems Devices	821	4,121	20%	*** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans.					

Activities this Month:

**Earned Value: 86.7%** [(Total Achieved to April 2016 (\$561.9 million) + Projected May 2016 Period (\$7 million))/Total Contract Including Executed Change Orders (\$655.9 million)]. Planned Value: 94.3%

**Shaft/Column**

- Completed.

**Guideway Segment Erection**

- Completed.

**Utility Relocation**

- KIWC continues to relocate third party utilities for station conflicts and traffic signal conflicts.

**Balanced Cantilever Structure**

- Continue sound wall erection. Dry finish the exterior. Continue to install and place rebar for plinth construction.

**Track Construction**

- KIWC continues to install CWR (Continuous Welded Rail) along the guideway from Span 1 to Span 210, and Span 231 to 249. KIWC continues to construct the third rail installing the rail, anchors, expansion joints, and cover boards from Span 1 to Span 164, and Span 237 to Span 247.

**KIWC/Third-Party Coordination**

- HECO and KIWC continued to resolve station and traffic signal utility relocation conflicts.

**Civil Structures**

- KIWC continues work on roadway restoration to mill and overlay asphalt along Farrington Highway from Fort Weaver Road to Waipahu High School. KIWC continues with median restoration constructing drain inlets, curb and gutter, and installing irrigation from Fort Weaver Road to Waipahu High School.

**Station Contractor Interfaces**

- KIWC, URS and WOSG held an Interface closeout meeting to resolve current design and construction conflict.

**Traffic Signals**

- KIWC has signed up its subcontractors and has initiated HDOT traffic signal installations.

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.

**Shaft/Column**

- KIWC will work to complete punch list items and apply anti-graffiti coating to the columns.

**Guideway Segment Erection**

- Segment span erection is complete. KIWC continues to make minor repairs in preparation for Substantial Completion.

**Utility Relocation**

- KIWC will continue to relocate utility conflicts to facilitate traffic signal betterments.

**Balanced Cantilever Structure**

- Plinth construction and dry finish of the exterior.

**Track Construction**

- Align and final setting of the rail will continue along the guideway. Complete installation of the third rail targeting Substantial Completion.

**KIWC/Third-Party Coordination**

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

**Civil Structures**

- KIWC will continue with road restoration and mill and overlay work along Farrington Highway. KIWC will continue installing irrigation in median areas along Farrington Highway.

**Traffic Signals**

- KIWC has submitted its completion schedule for this scope, which now stretches to November. KIWC will continue traffic signal installations.

**LCC Portables and Parking lots**

- Demolition of the existing portables is expected to occur followed by the initial site works for the access structure. The portable classroom and CDL parking lots were completed, walked down and punch listed. Substantial completion letters were sent.

Activities this Month (continued):

**LCC Portables and Parking lots**

- The portable classroom and Commercial Driver License (CDL) parking lots were completed, inspected and punch listed. Substantial completion letters were sent.
- KIWC was able to start the motorcycle parking lot reconstruction early and turned it over for use by LCC for commencement ceremonies on May 13, 2016.

**KEY ISSUES:**

- **Leeward Community College (LCC) Portables and Parking Lot Change Order** – KIWC is projected to start construction work activities at the LCC Station area.
- **Closeout and Coordination** – As the project approaches substantial completion, KIWC has continued coordination with station contractors and HART on project closeout documentation requirements including QA-QC final acceptance checklists. As-built and record drawings are currently being reviewed. KIWC and HART are also in discussions about partially accepting procedures to allow early access to follow-on contractors.
- **HDOT Traffic Signal Improvements** – The additional work that HDOT requested has begun. The five month delay in the execution of this change order and subsequent construction of the work has an impact on the overall project schedule.

**QUALITY MANAGEMENT:**

- KIWC continues to follow their established quality processes through quality monitoring and audits.
- **Closing Out NCRs** – KIWC has been working to promptly correct, validate, and close out NCR’s during this period. 18 NCRs were closed this period.
- **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.
- **Span 258 – NCR 509** – A few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC has prepared a Remediation Plan to replace the failed Tendon T1L. The defective Tendon was removed and saved for postmortem by KIWC on April 14, 2016; replaced and stressed on April 15, 2016; and grouted on April 22, 2016. Hence, Span 258 was lowered to its correct position.

KIWC will perform a postmortem of the Tendon T1L to determine the root cause of the failure and the corrective action to prevent recurrence on KHG. KIWC will perform a Cause and Effect Fishbone Analysis of the defective tendon, which will be participated in by HART (Design and Engineering, GEC3, CE&I, and QA/QC) and KIWC (HNTB/FIGG, Construction, Tendon Supplier, and QA/QC). Samples of the strand were taken and sent to a Certified Laboratory in the mainland by KIWC. The HART Director of QA/QC will be the Facilitator during the root cause analysis.

- **Span 249 – NCR 525** – A few strands of Tendon T3 installed in Span 249 failed after post-tensioning. The defective Tendon T3 was removed on April 21, 2016. The tendon replacement will occur when the special stressing Jacking system (that will fit the space between the two spans) arrives at the site.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
542	528	14

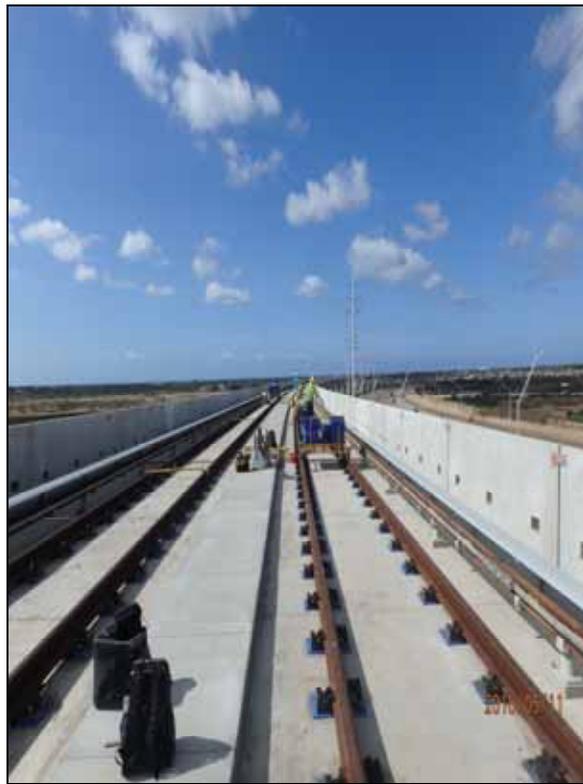
**PROJECT PICTURES:**



East facing view of the guideway passing through Waipahu.



Northeast facing view of the completed track work in the Farm Fields, WA 1.



Track work and safety walkway on Span 54.

**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:** March 2018



**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. The projected substantial completion is March 2018, based off of the accepted baseline schedule. However, the baseline schedule will be updated and this date will change.

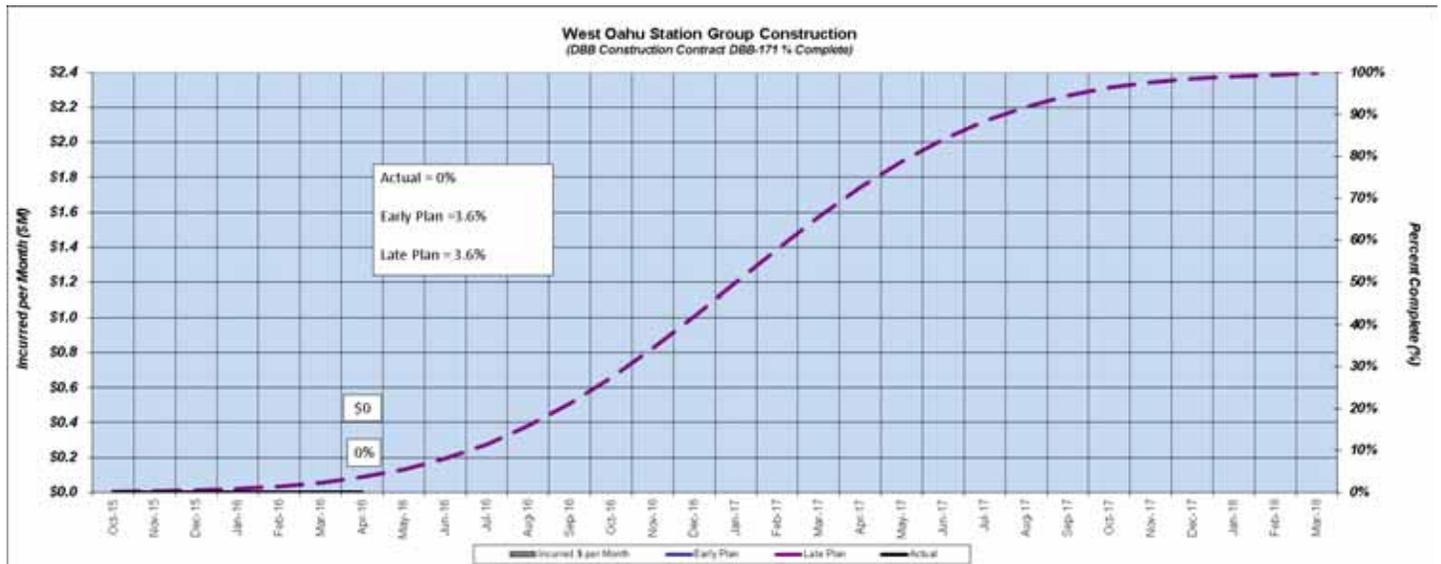
**COST INFORMATION:**

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

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

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

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



**SCHEDULE:**

- With the baseline schedule accepted, the WOSG schedule will be published in a future Progress Report.

**CRITICAL PATH ISSUES:**

- Construction access to the Ho’opili platform.
- Construction access from Kiewit to the UH West O’ahu platform and ground access.
- Construction access from Kiewit to East Kapolei.
- Contractor to coordinate for shared access, including submitting liability forms.
- Relocation of the 46kV line at UH West O’ahu Station.
- Construction of TPSS foundation to turn over with TCCR room. This TPSS turnover date has been requested by CSC for testing purposes.
- Providing infrastructure for power to Ho’opili.
- Falsework for platform box girders.
- Permits for work in HDOT Right of Way.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 1%; Planned Value: 1%**

- Baseline has been accepted as noted, revise and resubmit to address comments.
- Access has been provided to the contractor. Contractor has mobilized onto the site and started clearing, survey, grading and building access road.
- Falsework supplies have arrived on site.
- IFC changes have been categorized and priorities have been set to establish 3 levels of changes to be incorporated into the contract. Change process is underway for the “high priority” and “medium priority” changes.

Look Ahead:

- Access coordination is on-going to the Ho’opili platform.
- UHWO access to platform and ground to be provided.

**KEY ISSUES:**

- 46 kV relocation at UH West O’ahu. Station designer is resubmitting 6<sup>th</sup> iteration to address comments, in order to achieve HECO’s 95% approval, which initiates HECO’s design timeline for relocation infrastructure.
- Continuing construction access coordination for the remaining station areas to be turned over by the guideway contractor, starting with Ho’opili platform.
- Executing change orders to incorporate the IFC set into the contract.

**QUALITY MANAGEMENT:**

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

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

**Contract No.:** DBB-271

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

**Contract Start Date:** August 2015

**Contract Substantial Completion:** January 2018

**Projected Substantial Completion:** TBD



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

**Project Overview:** The contractor was issued Notice-to-Proceed (NTP) on Aug. 17, 2015. Hawaiian Dredging Construction Company (HDCC) introduced one (1) Value Engineering (VE) concept– Augercast piles at the Waipahu Transit Station. HDCC has received HART’s feedback regarding the concepts and is evaluating to determine whether to move forward with the effort. HDCC continues construction at WLO, preconstruction work is 75% complete at WTC, and no work has begun at LCC.

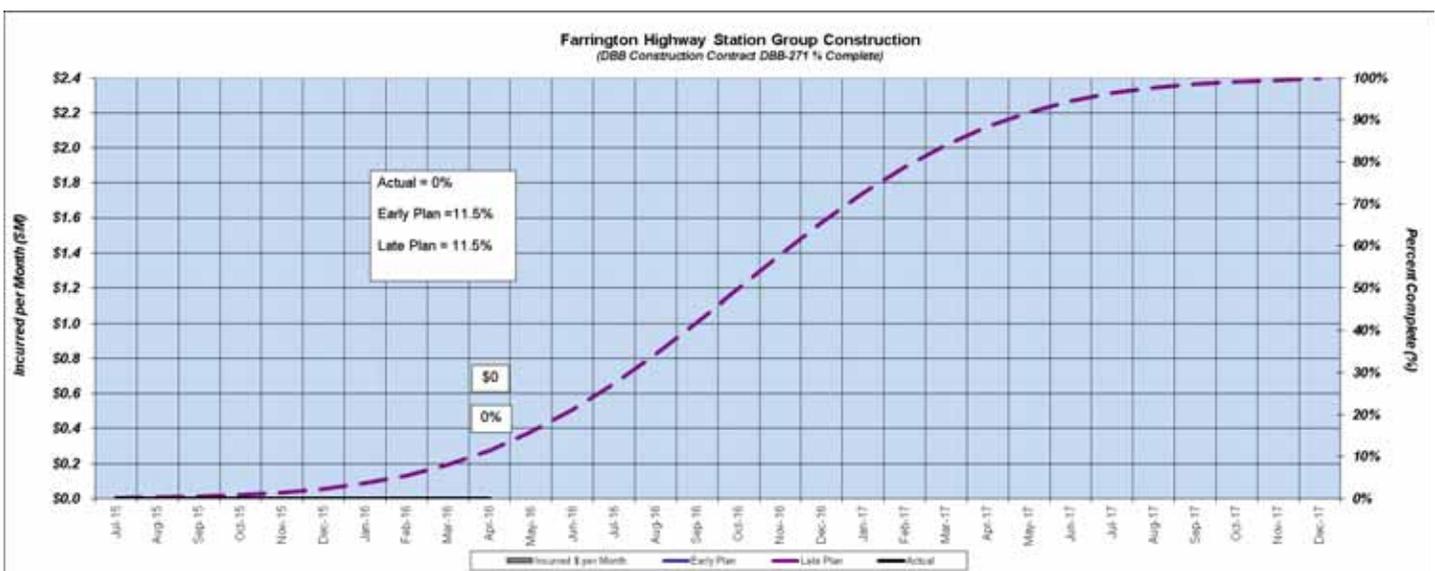
**COST INFORMATION:**

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

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

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

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



**SCHEDULE:**

- With the baseline schedule accepted in May 2016, the FHSG schedule will be published in a future Progress Report.

**CRITICAL PATH ISSUES:**

- The Baseline Project Schedule (BPS) was accepted by HART on May 16, 2016. HDCC will re-baseline LCC Station when new access dates to Leeward Community College Station are determined.
- Revisions to the contract construction plans have been provided to the contractor.
- Access to Leeward Community College.

**WORK PROGRESS:**

Activities this Month:

**Earned Value:** 0%; **Planned Value:** 15%

- Baseline Schedule accepted.
- Value engineering cost proposal comments returned to HDCC.
- HART is working with CE&I staff to quantify additional scope of work added in the revised set of plans. The contractor continues work at WLO Station with drilled shaft reinforcing steel cages, drilled shaft load and method testing, settlement control markers, and installation of steel piles for shoring.

Look Ahead:

- Drilled shaft work at WLO will continue.
- Underground utility work.
- Quantification of changes from the Bid set and addendum compared to the revised set is ongoing.

**KEY ISSUES:**

- Quantification of change work included in revised plans versus Issued for Bid (IFB) plus addendum, and how those changes are incorporated into HDCC’s contract. Administrative processing time required to identify, quantify, negotiate and incorporate the changes formally into HDCC’s contract is the largest concern.
- Access to the site for Leeward Community College Station is pending. HART is working with HDCC to mitigate impacts.
- Review and approval of critical submittals is ongoing.

**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:** New tentative date is July 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:** The new proposed date for the MSF Substantial Completion is tentatively set for July 2, 2016.

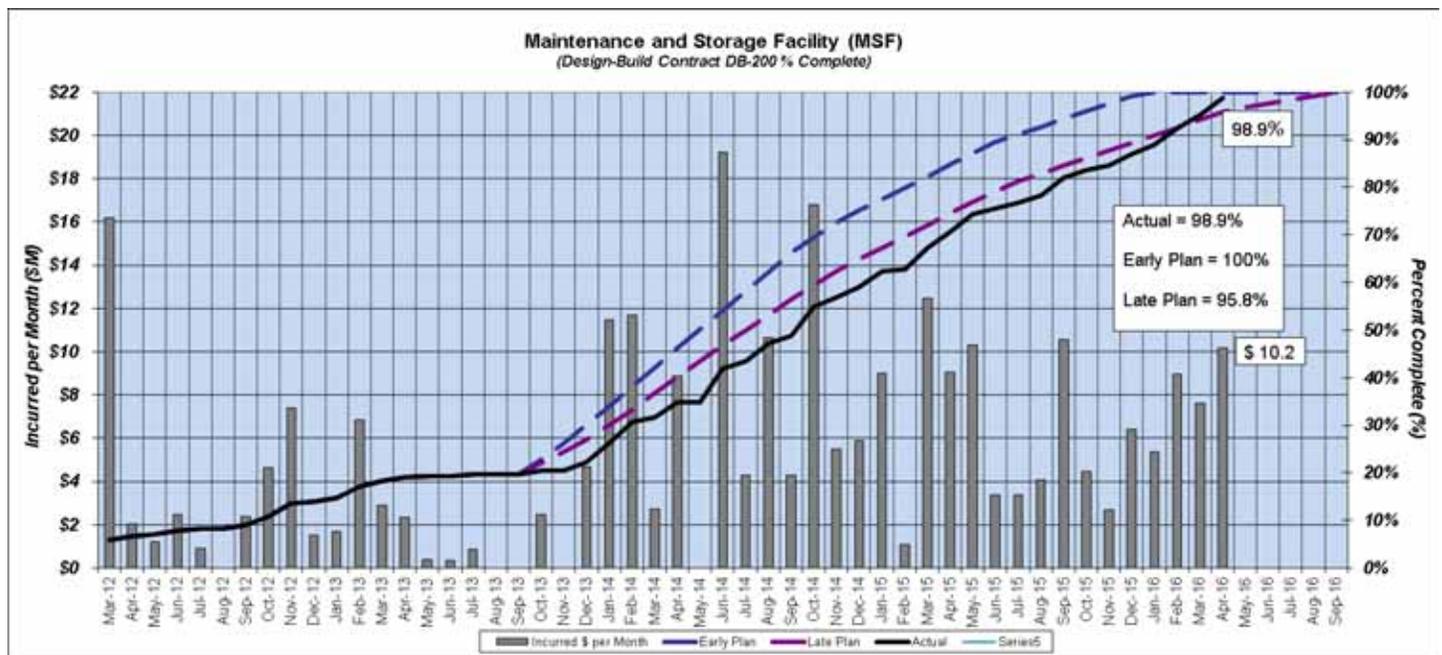
**COST INFORMATION:**

Original Contract:	\$195,258,000	Incurred-to-Date:	\$271,532,758
Current Contract Value <sup>1</sup> :	\$274,850,776	Incurred in April:	\$10,154,789

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

DBE Participation	
Actual DBE Participation:	\$583,074
DBE % Attained:	0.30%

April Change Orders		
Change No.	Description	Amount (\$)
CCO 0044	Rail Material Storage Yard	\$136,112
CCO 0045	Patented Keys Additional Rail Insulated Joints	\$28,845
<b>Cumulative to Date</b>		<b>\$79,592,776</b>



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- Coordinate with the Core Systems for the fire alarm and detection system by the Honolulu Fire Department, and inspections of the elevators by the Hawaii Occupational Safety and Health Division (HIOSH). These final inspections are a requirement for receiving Certificate of Occupancy.

MSF Construction Status 99% Complete Overall as of 5/15/16	
Element	% Complete*
OSB	98%
MOW Building	99%
WTB	99%
TWF	99%
Rail	99%
Paving	100%

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 99%** [(Total Achieved to April (\$271 million) + Projected May 2016 Period (\$3 million))/Total Contract Including Executed Change Orders (\$275 million)]. Planned Value: 99%

**Yard/Utilities**

- Completed track installation.
- Completed installation of exterior yard and perimeter lighting.
- Completed contact rail installation and testing.
- Completed the installation of the conduit for systems, communications, train control, site electrical and exterior lighting.
- Completed testing of the running rail.
- Completed the grounding system for the fencing.

**Operations and Servicing Building (OSB)**

- Installation of hydraulic lifts is ongoing.
- Installation of mechanical/electrical/plumbing is ongoing.
- Elevator installation is complete, pending inspection.
- Completed interior and exterior building finishes.
- Completed bathroom cabinets and fixtures.
- Completed installation of the Shop Traction Power Substation.
- Tested and commissioned the overhead bridge cranes.

**Maintenance of Way (MOW)**

- Completed the commissioning of the HVAC.
- Completed bathroom cabinets and fixtures.
- Completed the fire protection system.
- Completed elevator testing and inspection.
- Completed installation and testing of telephones.

Look Ahead:

**Yard/Utilities**

- Complete turnover of Phases 1 and 5 storage tracks to CSC.
- Complete punchlist activities.

**OSB**

- Installation of hydraulic lifts.
- Complete punchlist activities.

**MOW**

- Elevator Testing for Certification by State.
- Building Occupancy Certification.
- Complete punchlist activities.

**WTB**

- Complete punchlist activities.

**TWF**

- Complete punchlist activities.

Activities this Month (continued):

- Continued working on punchlist items.

**Wheel Truing Building (WTB)**

- Completed testing and training of personnel on use of wheel lathe and wheel press.
- Released Building Systems raceway to CSC.
- Completed rough-in for fire detection system.
- Continued working on punchlist items.
- Completed installation of the contact rail.

**Train Wash Facility (TWF)**

- Completed installation of contact rail.
- Completed electrical installation.
- Completed HVAC duct work.
- Completed the installation of the roll up doors.

**Rail Procurement and Installation**

- Track drain, sub-ballast, ballast, and contact rail installation for East and West Yard Lead track (Phases 1 and 5) as well as track east and west of the TWF is ongoing.
- Testing of running rail is ongoing.

**Administration**

- Continued working with the CSC to resolve design interface issues and performing pre-functional testing.

**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 (CSC) can commence work.
- 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. KKJV coordinated well with CSC for the delivery of the first rail passenger vehicle on MSF tracks. A second rail passenger vehicle delivery is scheduled for August/September 2016.
- Substantial Completion & Temporary Certificate Occupancy (TCO)** – KKJV continues to coordinate with CSC to complete the remaining fire detection and alarm systems to achieve TCO. Once the TCO is granted, Substantial Completion can be granted. Therefore, it has been proposed to modify the substantial completion date to July 2, 2016. KKJV is continuing to provide training for various equipment and is in the process of submitting warranties and turnover documentation, such as Operation and Maintenance Manuals for CSC.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

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

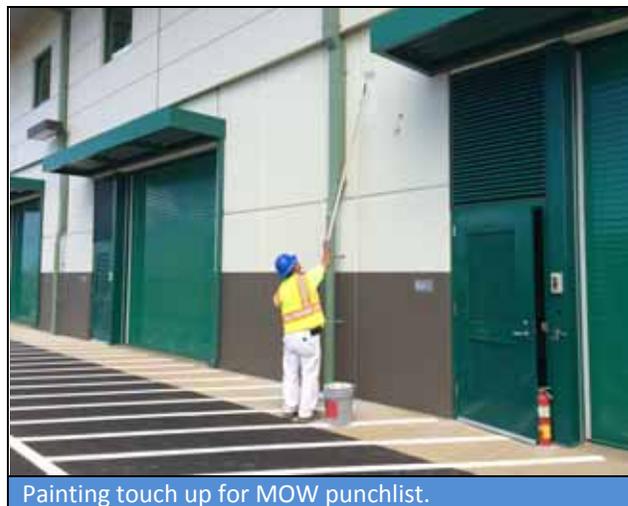
PROJECT PICTURES:



Pressure testing the fire sprinkler system in TWF.



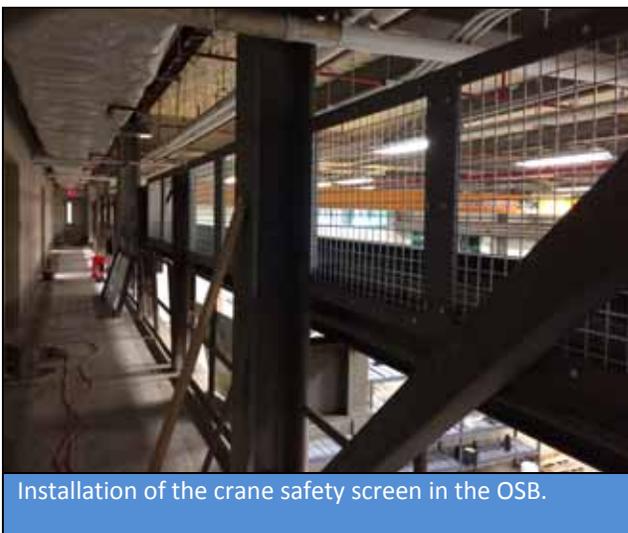
Pull testing of the direct fixation inserts in TWF.



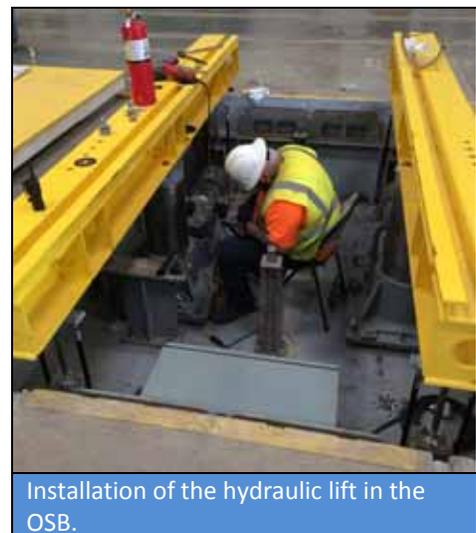
Painting touch up for MOW punchlist.



Cadwelding the grounding system for the yard fencing.



Installation of the crane safety screen in the OSB.



Installation of the hydraulic lift in the OSB.

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

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



**Contract No.:** DB-320  
**Contractor:** Kiewit Infrastructure West Company (KIWC)  
**Contract Start Date:** June 2011  
**Contract Substantial Completion:** September 2016  
**Projected Substantial Completion:** September 2017

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

**Project Overview:** Construction of the remaining drilled shafts continues east of the Pearlridge Shopping Center at Pali Momi Street. Columns have been constructed from the WOFH project limits to the area approaching Ka'ahumanu Street. Construction of columns in the Aloha Stadium Station area has progressed along with heading 2 truss erecting spans 411 to 421L.

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

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

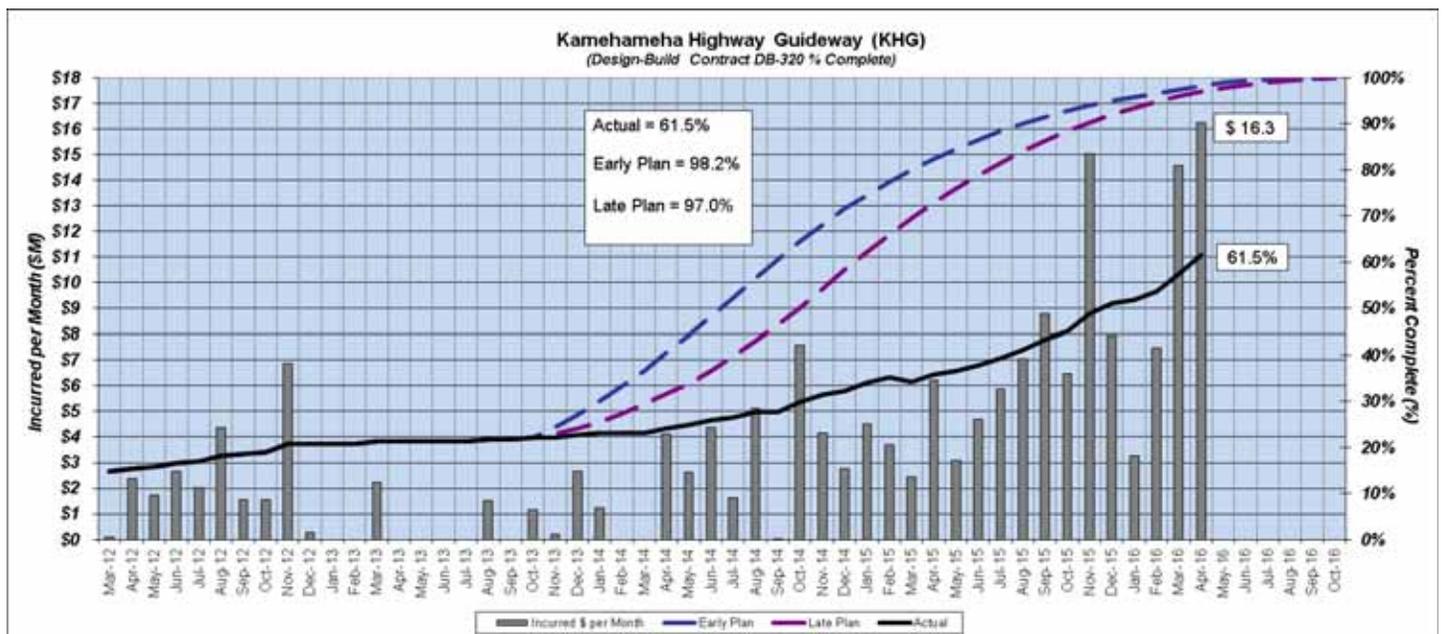
#### COST INFORMATION:

Original Contract:	\$372,150,000	Incurred-to-Date:	\$239,707,374
Current Contract Value <sup>1</sup> :	\$389,472,586	Incurred in April:	\$16,253,693

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

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

April Change Orders		
Change No.	Description	Amount (\$)
00024	Issue 225 HECO Conflict 12-943-E1 Ductbank Constr	\$550,000
00027	RFCC00077 Station Loads and Configuration Changes - Constr	\$610,000
00029	AIS Provisional Sum Reconciliation Issue 00133	(\$1,223,824)
<b>Cumulative to Date</b>		<b>\$17,322,586</b>

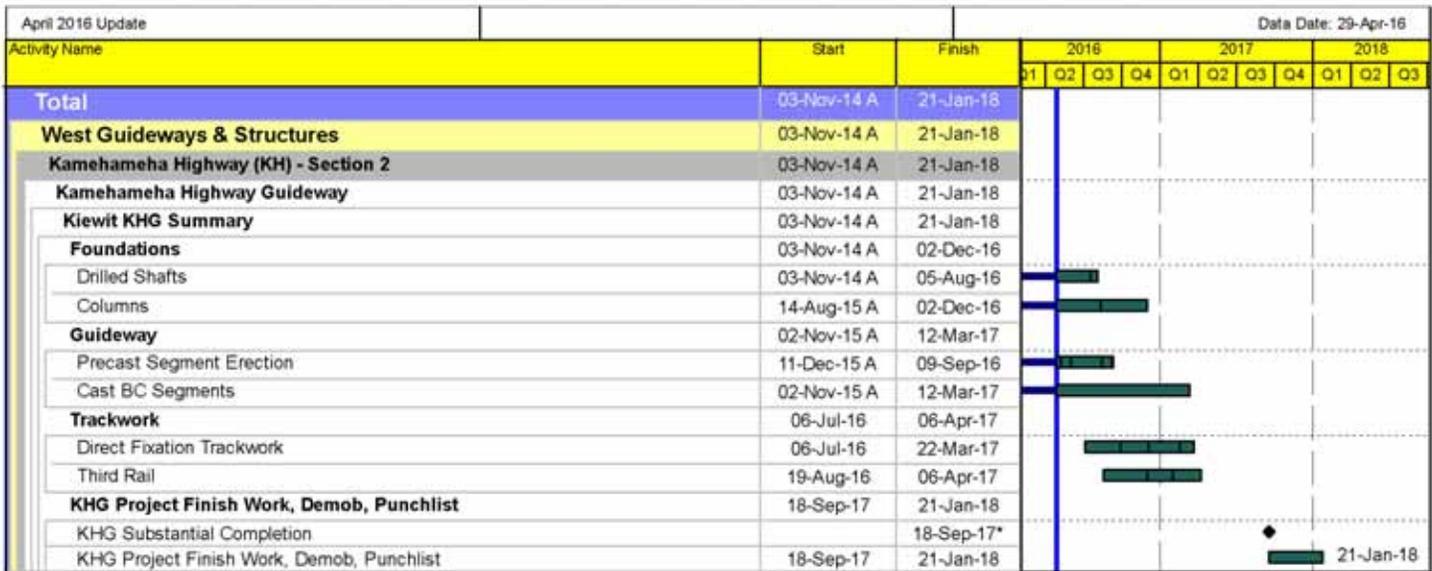


Pay Applications #57, #58, #59 and #60 were approved by HART for March 2016.

**SCHEDULE:**

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

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



**CRITICAL PATH ISSUES:**

- HECO schedule forecast at utility conflicts 11-920-M1, 12-943-E1 and 12-944-E1 are affecting utility relocation work. HART is tracking these issues and notes that its criticality needs to be established.
- Production rate for truss 3, moving east from Segments 277 through 322, is on the longest critical path.

**WORK PROGRESS:**

**KHG Construction Status as of 5/11/16**

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	159	184	168	186	85.5%
Gas Line	12,641	12,641	100%	Columns	89	150	101	169	52.7%
Sewer Line	492	492	100%	Segment Casting	1,645	1,798	1,872	2,033***	81.1%
Drainage Line	710	1,469	48%	Spans Stressed	51	136	43	166	30.7%
Elec/Telecom	15,961	19,455	82%	Track work	0	80	0	166	0%
System Sites	0%	N/A	0%	Third Rail	0	0	0	166	0%
Signals/ITS/Lights	13,587	18,486	74%	Mill & Overlay Roadway	0	N/A	N/A	N/A	0%

\* Accepted Schedule was submitted in 2013.  
 • Forecasted delays for track work extended the guideway completion by 3 weeks from prior updates.  
 \*\* 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.  
 \*\*\* Updated to reflect actual “pre-cast” segments to be cast. Removed BCS “cast-in-place” segments from the section.

Activities this Month:

**Earned Value: 65.2%** [(Total achieved to March 2016 (\$223.2 million) + April 2016 projection (\$15.5 million) + May 2016 projection (\$15.7 million))/Total contract including executed Change Orders (\$390 million)]. Planned Value: 97.7%

**Shaft/Column/Segments**

- 159 of 186 shafts have been installed; 85.5% of all shafts have been completed.
- 89 of 169 columns have been constructed.
- 1,645 of 2,033 segments have been cast.
- Balanced Cantilever superstructure east of the H-1 overpass continues.
- Balanced Cantilever travelers have been erected at Pier 306, heading both east and west. Five (5) of 22 segments cast.
- Obtained east and west bound permits.
- Shaft construction east of Pali Momi Street continues.
- Heading #1, in production erecting Span 348.
- Heading #2, continuing west of Span 411.
- Heading #3, demobing under H-1, will erect at Span 308.

**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.
- Systems Site #10 work is continuing.

**Roadway Widening**

- Roadway widening continues to be placed on hold due to crews working on WOFH.
- Shaft construction west of Salt Lake Blvd is in progress.

Look Ahead:

**Design Progress**

- KIWC is working to complete final design. To date, 43 of 49 drawing packages have been issued for construction.

**Shaft/Column/Segments**

- Construction of shafts will continue east of Pali Momi Street.
- Column construction continues eastbound from Kuleana Road towards Aloha Stadium.

**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 July 2016.

**Roadway Widening**

- KIWC initiated design and construction of cast-in-place (CIP) retaining walls 2, 3 and 4 which will facilitate the widening of Kamehameha Highway west of Waimano Home Road. Forecast completion is December 2016.

**KEY ISSUES:**

- **HECO/HDOT Utility Priorities** –HART continues to work with HECO and HDOT in addressing priorities for work to prevent delays to the superstructure work. This is being handled at elevated levels.
- **Access Coordination between Contracts** – Coordination between contractors is ongoing and requiring accelerated turnover of guideway work to follow-on contractors.
- **Third Party Utility Impacts** – HART and KIWC continue to work at senior and executive management levels to ensure current utility relocation schedules are being maintained.

**QUALITY MANAGEMENT:**

- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant new findings through quality audits.
- **Longitudinal Tendons** – Due to WOFH NCR 509, longitudinal tendons will be monitored for possible indications of rust.
- **Drilled Shaft Quality** – KIWC currently has 4 open NCRs due to velocity reduction exceeding 20%. KIWC has been reviewing their means and methods for placing concrete to reduce the issue with velocity reduction.

KHG NCR Log		
Total NCRs Issued to Date	CLOSED	OPEN
153	136	17

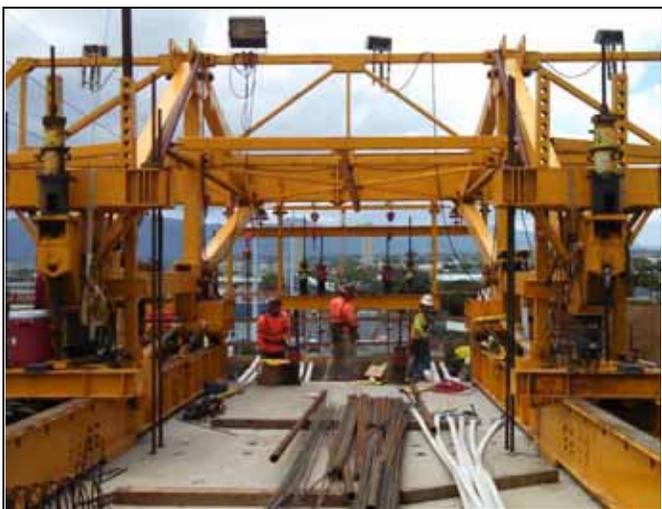
PROJECT PICTURES:



Setting Span 302, Phase 2.



Epoxying and mating segments, Span 299, Phase 3.



Installing reinforcing steel, Pier Table 306, Phase 4.



Placing concrete segment 1-U, Pier Table 306, Phase 4.



Setting Span 348, Heading 1, Phase 8.



Cage splice, Shaft 393, Phase 12.

**B. Ramp H2R2**

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



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

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

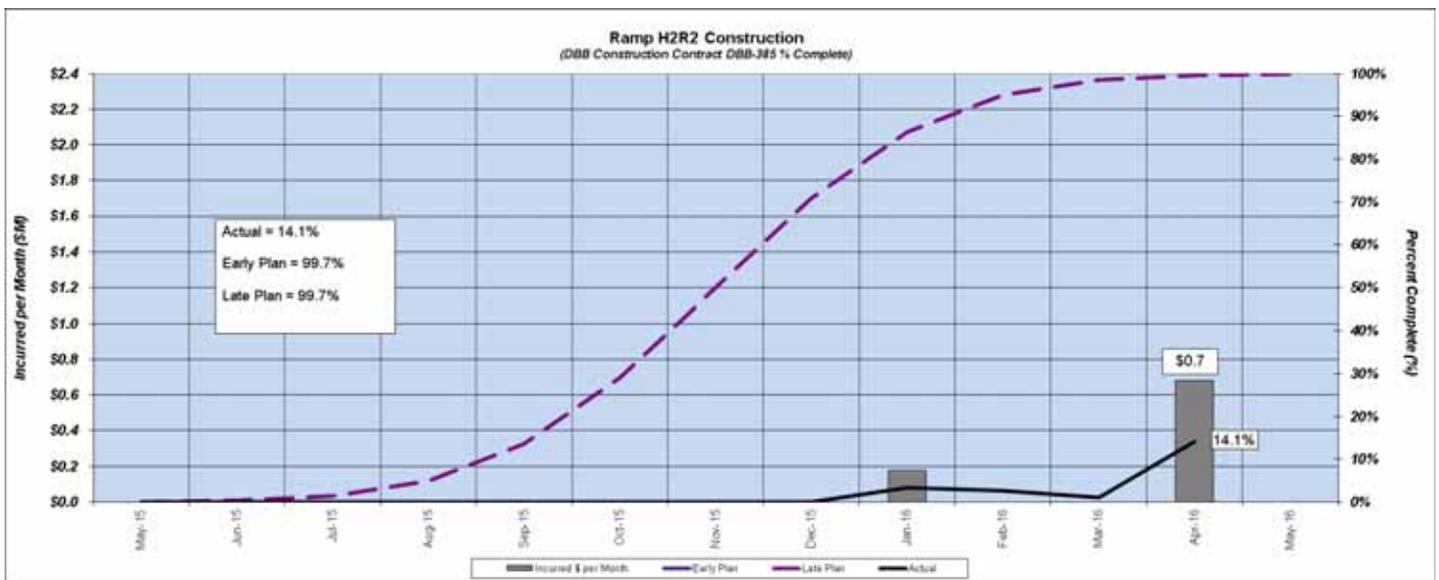
**COST INFORMATION:**

Original Contract:	\$5,203,646	Incurred-to-Date:	\$732,850
Current Contract Value <sup>1</sup> :	\$5,203,646	Incurred in April:	\$679,898

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

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

April 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:**

April 2016 Update			Data Date: 29-APR-16										
Activity Name	Start	Finish	2015				2016				2017		
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
<b>Total</b>	18-May-15 A	01-Mar-17											
<b>West Guideways &amp; Structures</b>	18-May-15 A	01-Mar-17											
<b>Construction - H2R2 Ramp</b>	18-May-15 A	01-Mar-17											
Construction - H2R2 Ramp	18-May-15 A	01-Mar-17											01-Mar-17
Substantial Completion - H2R2 Ramp		01-Mar-17											●

**CRITICAL PATH ISSUES:**

- Royal encountered unforeseen utilities related to the 30-inch corrugated metal storm drain pipe. HART is working with HECO/DTS/HTEL/HDOT to provide direction to provide a full concrete jacket around the pipe. Additionally, Royal will be directed to manually compact in the vicinity of the pipe in lieu of surcharging in order to mitigate schedule impacts.
- Pending change order in process to extend contract completion to January 2017, as a result of contaminated soil remediation which has been completed.
- Additional time to be added for unforeseen condition at 30-inch CMP to extend projected substantial completion to March 2017.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 12.4%**; Planned Value: 99%

- Royal continues to provide required submittals for review and acceptance.
- Royal continues to provide project baseline schedule updates as the project progresses.
- Continue to submit and review various submittals required for certain elements of the work.
- Embankment placement.
- Mass excavation and export.
- Surcharge settlement monitoring.

Look Ahead:

- Continue earth moving activities.
- Continue surcharge settlement monitoring.

**KEY ISSUES:**

- Unforeseen utilities discovered at 30-inch corrugated metal storm drain pipe.

**QUALITY MANAGEMENT:**

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

**C. Kamehameha Highway Stations Group (KHSB)**

**Contract No.:** DBB-371

**Contractor:** Nan, Inc.

**Contract Start Date:**

Administrative NTP Issued: April 2016

Full NTP: to be issued

**Contract Substantial Completion:** NTP+32 months

**Projected Substantial Completion:** TBD



**Project Description:** The Kamehameha Highway Station Group construction contract includes services to build three (3) transit stations along Kamehameha Highway. The stations are Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station. In addition to the transit stations, operational ancillary buildings, bus stops/transit centers, park-and-ride lots, kiss-and-rides, pedestrian crossing improvements, Train Control and Communications Rooms (TCCRs), and landscaping of the station sites are included.

The stations are Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station. In addition to the transit stations, operational ancillary buildings, bus stops/transit centers, park-and-ride lots, kiss-and-rides, pedestrian crossing improvements, Train Control and Communications Rooms (TCCRs), and landscaping of the station sites are included.

**Project Overview:** The contractor was issued Administrative NTP on April 1, 2016, and since then has been submitting RFIs as well as management and qualification based technical submittals. A Kick-Off Meeting was held with HART in April 2016 to introduce the contractor to key HART personnel. A key issue remains the determination of when to officially issue NTP to the contractor. This issuance is contingent on the contractor getting access to the Pearl Highlands Station area by July 2016. Coordination meetings with the WOFH Guideway contractor remains ongoing to ensure the proper transfer of site access.

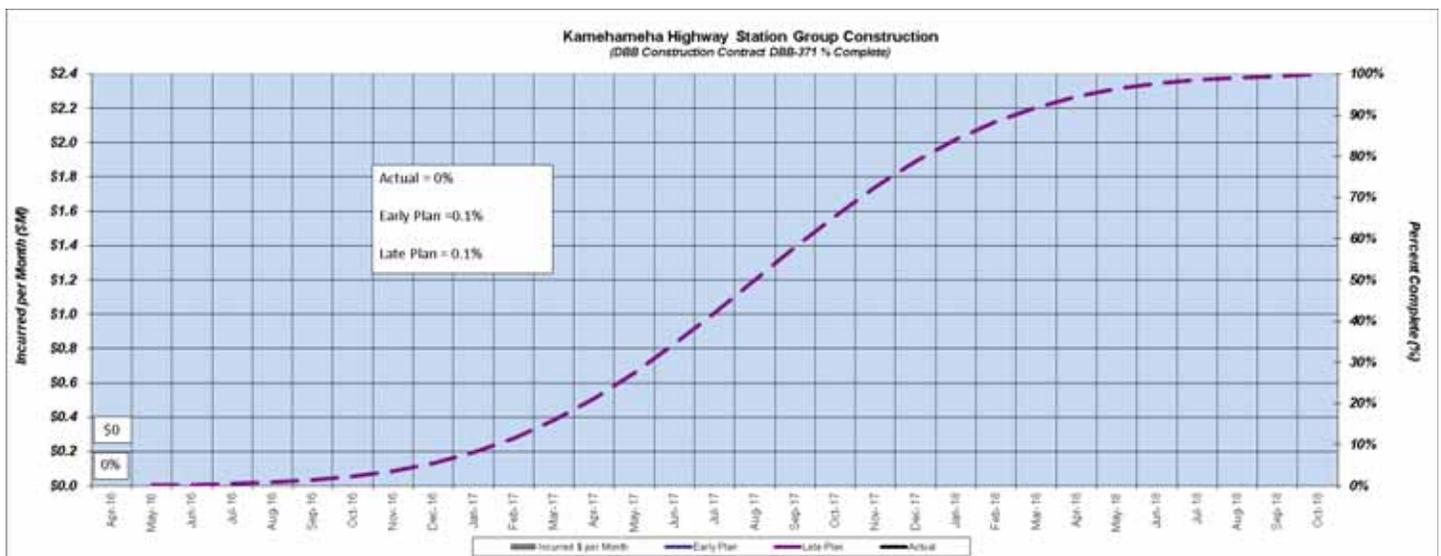
**COST INFORMATION:**

Original Contract:	\$115,805,845	Incurred-to-Date:	\$0
Current Contract Value <sup>1</sup> :	\$115,805,845	Incurred in April:	\$0

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

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

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



**SCHEDULE:**

- The KHSG schedule will be published once the baseline schedule is accepted.

**CRITICAL PATH ISSUES:**

- Issuing Formal NTP to begin contractor mobilization onto site.
- Working with the WOFH Guideway contractor to get access to the Pearl Highlands Station area.
- Executing a Contractor Change Order to incorporate Issued for Construction drawings and specifications into the contract.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 0%**, Planned Value: 0%

- Submittals and RFIs have been submitted and are being responded to.
- Held and attended various construction interface meetings with the WOFH and KHG Guideway contractor.
- Progressed the development of a Contractor Change Order (CCO 00001) to incorporate Issued for Construction drawings and specifications.
- Held project kick off meeting.

Look Ahead:

- Begin holding Project Progress, Environmental, Safety, Quality, Maintenance of Traffic, and Public Information Meetings.
- Hold an Interface Definition Meeting with the Guideway contractor, Core Systems contractor, and Elevator & Escalator contractor to develop critical interface points.
- Continuing coordination with WOFH Guideway contractor for site access and survey work at the Pearl Highlands Station area.
- Begin negotiations for CCO 00001.
- Work on the development of a Baseline Schedule.

**KEY ISSUES:**

- Guideway contractor turning over station dates at Pearl Highlands, Pearlridge, and Aloha Stadium Station areas.
- Coordination with existing contractors.

**QUALITY MANAGEMENT:**

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

### 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.):
  - Contract start date: July 2014

**Construction Completed:**

- Airport 7-Piers (DBB-525 – Hawaiian Dredging):
  - Project acceptance on May 2, 2015; project closed out in April 2016

**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.

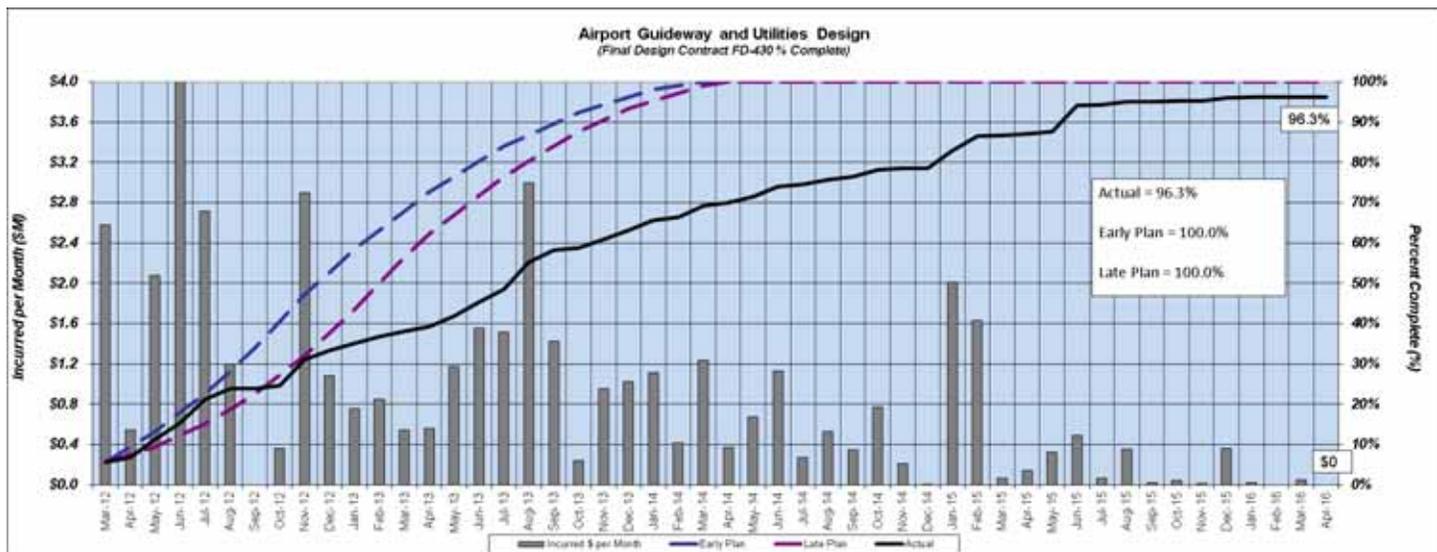
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$38,840,960</u>	<u>Incurred-to-Date:</u>	<u>\$41,526,542</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,134,472</u>	<u>Incurred in April:</u>	<u>\$0</u>

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

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

April 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.



**B. Airport Section Utilities Construction**



**Contract No.:** DBB-505  
**Contractor:** Nan, Inc.  
**Contract Start Date:** July 2014  
**Contract Substantial Completion:** July 2016  
**Projected Substantial Completion:** September 2016

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

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

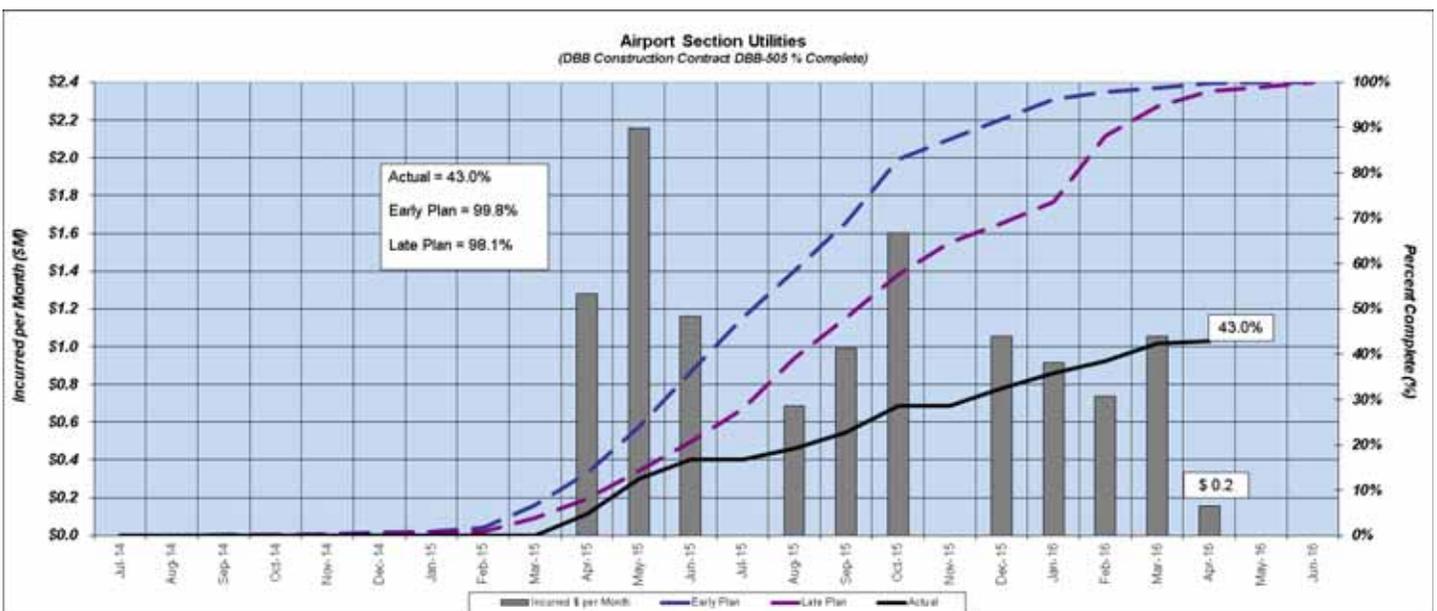
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$27,993,290</u>	<u>Incurred-to-Date:</u>	<u>\$11,793,212</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$27,514,812</u>	<u>Incurred in April:</u>	<u>\$156,959</u>

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

DBE Participation	
Actual DBE Participation:	\$35,989
DBE % Attained:	0.13%

April Change Orders		
Change No.	Description	Amount (\$)
0006	RFCR 00002-HTI Scope Revision - Kamehameha Hwy	(\$854,172)
<b>Cumulative to Date</b>		<b>(\$478,477)</b>



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

**SCHEDULE:**

			Data Date: 29-Apr-16											
Activity Name	Start	Finish	2014	2015	2016	2017	2018	2019	2020	2021	2022			
<b>Airport Utility Relocation</b>	05-Jan-12 A	13-Jul-16	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
FD-430 - Airport Utilities - Design	05-Jan-12 A	16-Dec-13 A												
Airport Utilities - Bid & Award	17-Dec-13 A	30-Jun-14 A												
DBB-505 - Airport Utilities - Construction	06-Oct-14 A	13-Jul-16												

**CRITICAL PATH ISSUES:**

- No critical path issues at this time.

**WORK PROGRESS:**

Activities this Month:

**Earned Value: 47%;** Planned Value: 55%

- Nan, Inc. has submitted a baseline construction schedule, which has been approved. A revised baseline schedule, based on the current contract substantial completion and extended work hours, is being reviewed.
- Continue to install portions of the sewer line, waterline and gas line along Kamehameha Highway.

Look Ahead:

- Ongoing utility work on Kamehameha Highway (30-inch and 24-inch waterline connection, telecom duct line and gas line).
- Coordinate with the Navy and third party communications utilities to resolve duct/lines that were damaged and utility lines that are unclaimed.
- Ongoing utility work on Aolele Street in the Airport area involving water lines and fuel lines.
- CE&I II team continues to process outstanding RFC's/Change Orders to the contract.
- CE&I II team continues to review and respond to RFI's dealing with field conflicts and unknown utilities.

**KEY ISSUES:**

- Nan, Inc. will be 2 months behind schedule.
- Determine status of telecom duct bank work and how to proceed with removal.
- Determine if relocation of an existing 24" waterline (300+LF on Kam Hwy) will be added to this contract.
- Determine if Chevron fuel lines and unknown 8" fuel line (on Aolele Street) will remain in this contract.

**QUALITY MANAGEMENT:**

- Overall quality of the contract is good.

Airport Utilities NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
<b>18</b>	<b>14</b>	<b>4</b>

**C. 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.

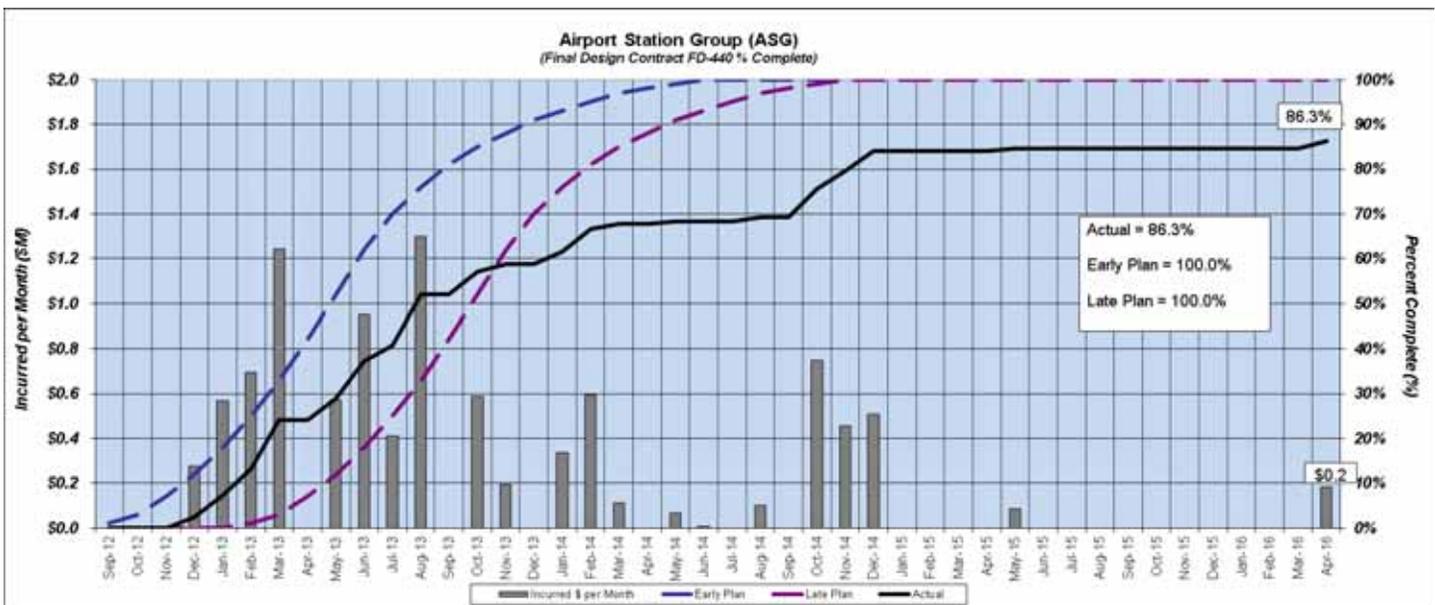
**COST INFORMATION:**

Original Contract:	\$10,177,365	Incurred-to-Date:	\$9,983,402
Current Contract Value <sup>1</sup> :	\$11,573,852	Incurred in April:	\$181,424

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

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

April Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,396,487</b>



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

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

**CRITICAL PATH ISSUES:**

- N/A.
- 

**WORK PROGRESS:**

Activities this Month:

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

Look Ahead:

- N/A.
- 

**KEY ISSUES:**

- N/A.

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

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

**Contract No.:** FD-530

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

**Contract Start Date:** July 2012

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



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

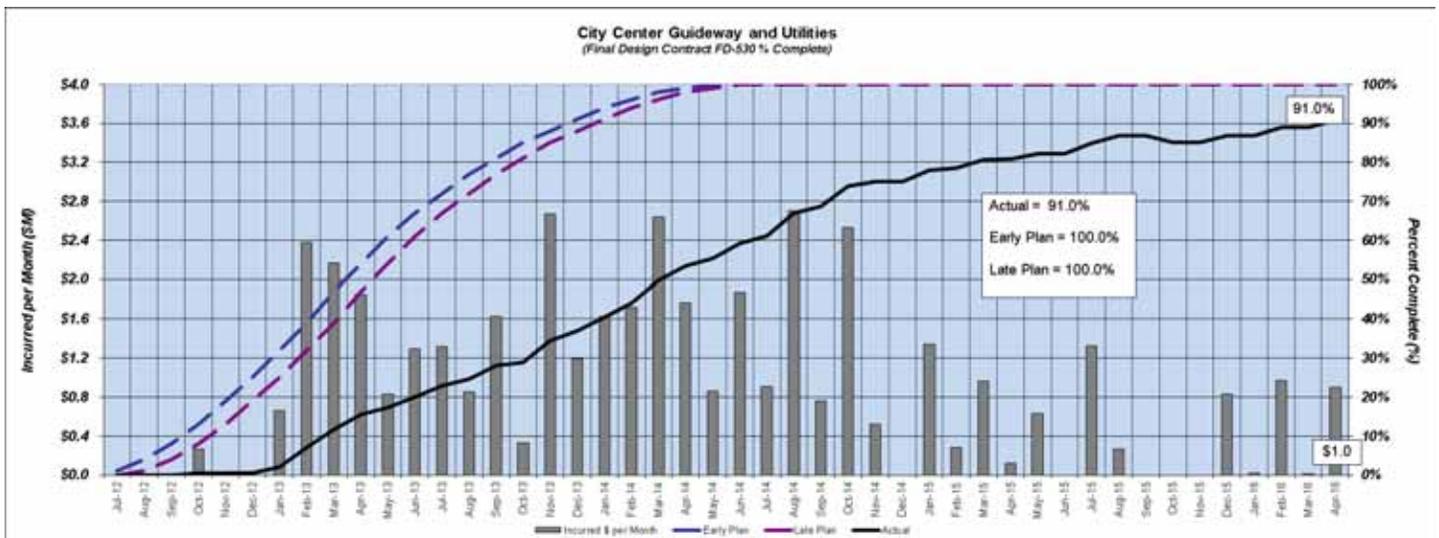
#### COST INFORMATION:

Original Contract:	\$43,948,220	Incurred-to-Date:	\$42,809,894
Current Contract Value <sup>1</sup> :	\$47,097,562	Incurred in April:	\$900,000

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

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

April Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
CA 0009	Impacts associated with HECO	\$900,000
<b>Cumulative to Date</b>		<b>\$3,149,342</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:**

Activity Name	Start	Finish	Data Date: 29-Apr-16																									
			2014	2015	2016	2017	2018	2019	2020	2021	2022	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	
<b>City Center Guideway &amp; Stations (CCGS)</b>	04-Aug-15 A	15-Apr-21																										
City Center Guideway & Stations - Design Build Procurement Part 1	04-Aug-15 A	18-Nov-15 A																										
DB-550 - City Center Guideway & Stations - Design Build Procurement Part 2	02-Feb-16 A	11-Oct-16																										
DB-550 - City Center Guideway & Stations - Construction	15-Feb-17	15-Apr-21																										

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 92%.
- Supporting HART on DB procurement.

Look Ahead:

- N/A.

**KEY ISSUES:**

- N/A.

**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.

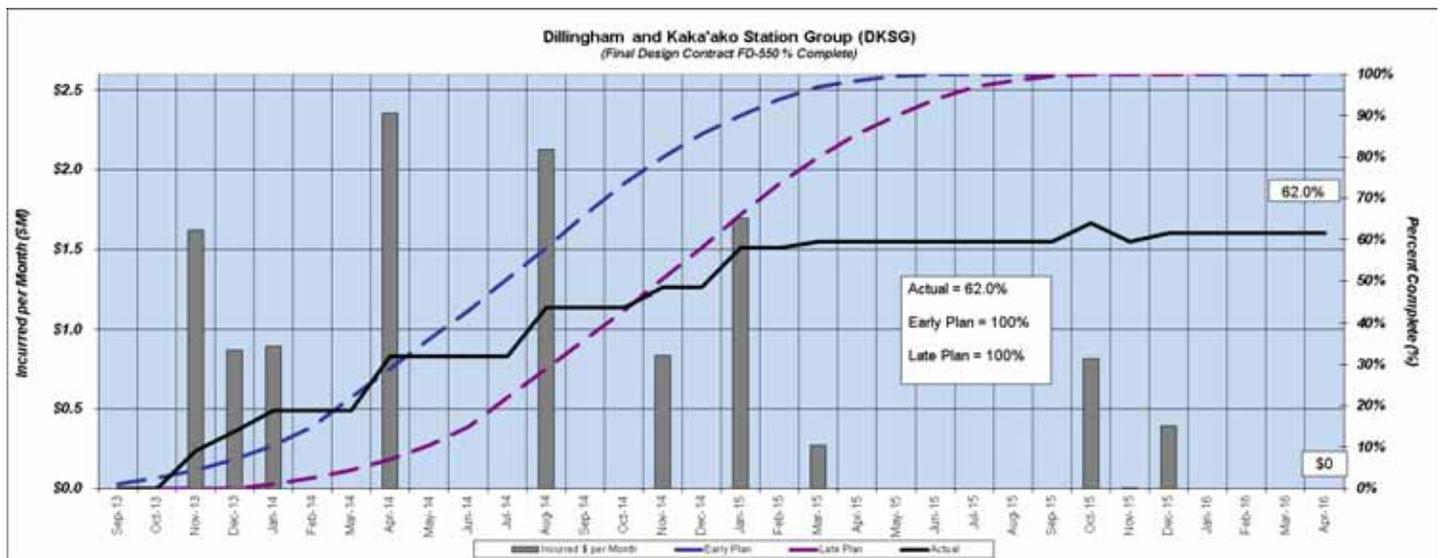
**COST INFORMATION:**

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

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

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

April Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$986,124</b>



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

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

**CRITICAL PATH ISSUES:**

- N/A.
- 

**WORK PROGRESS:**

Activities this Month:

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

Look Ahead:

- N/A.
- 

**KEY ISSUES:**

- N/A.

### 4.6 Project-Wide

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

Contract No.: MM-901

Contractor: InfraConsult LLC

Contract Start Date: March 8, 2012

Contract Completion: March 7, 2017

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

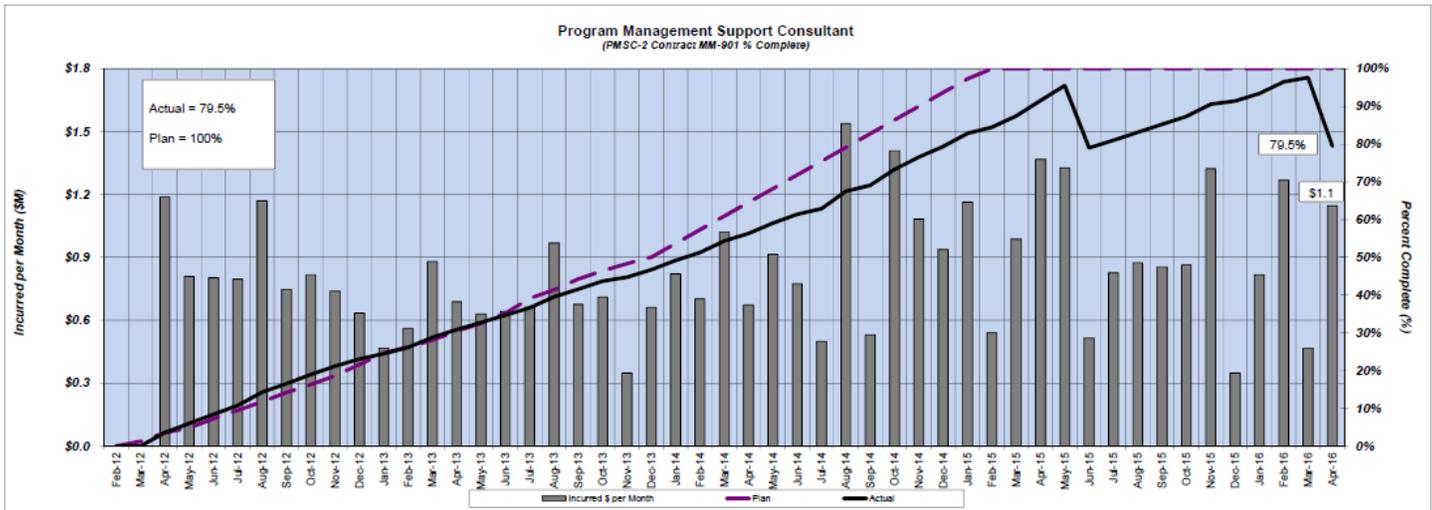
#### COST INFORMATION:

Original Contract:	\$33,376,897	Incurred-to-Date:	\$41,176,027
Current Contract Value <sup>1</sup> :	\$51,820,920	Incurred in April:	\$1,146,489

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

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

April Change Orders		
Change No.	Description	Amount (\$)
CA 005	Additional funds	\$10,827,645
<b>Cumulative to Date</b>		<b>\$18,444,022</b>



#### KEY ISSUES:

- HART exercised its option to extend the PMSC contract for the remaining option year, effective March 8, 2016. The current contract will terminate upon award of contract to the successful offeror of the new Request for Qualifications 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.

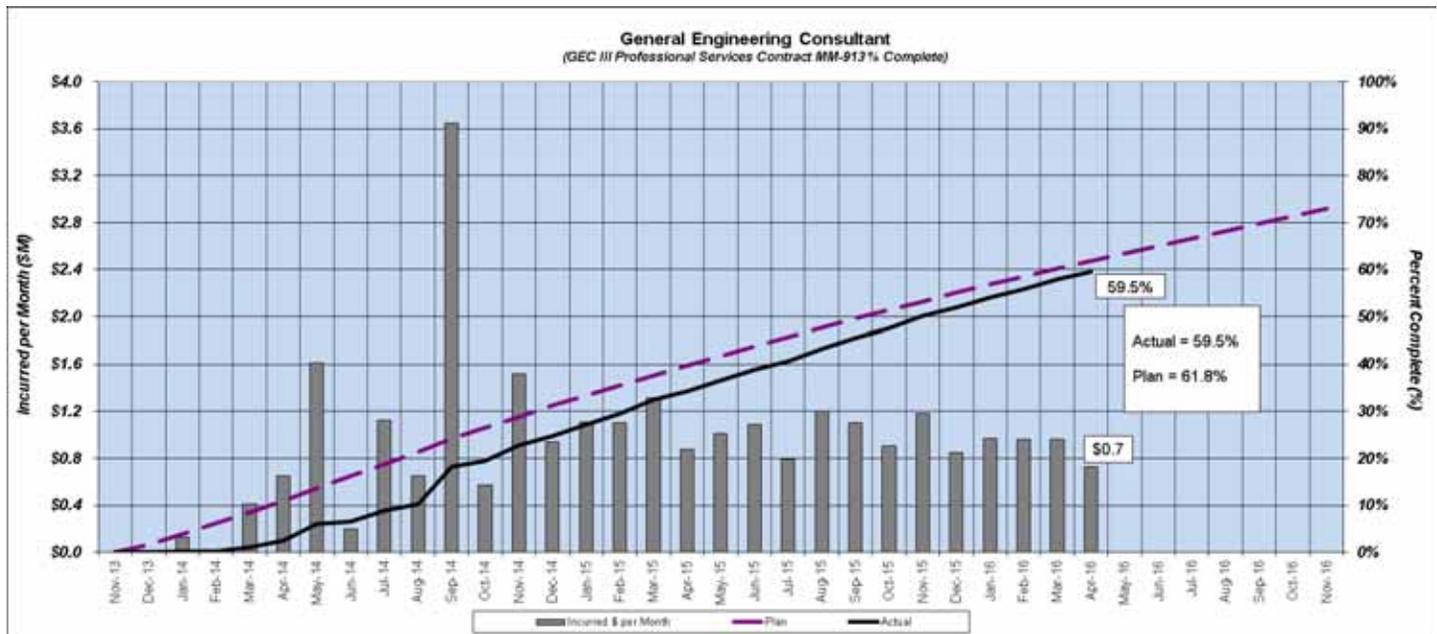
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$46,143,277</u>	<u>Incurred-to-Date:</u>	<u>\$27,606,535</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$46,411,728</u>	<u>Incurred in April:</u>	<u>\$726,284</u>

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

DBE Participation	
Actual DBE Participation:	\$2,924,713
DBE % Attained:	6.34%

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



**KEY ISSUES:**

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

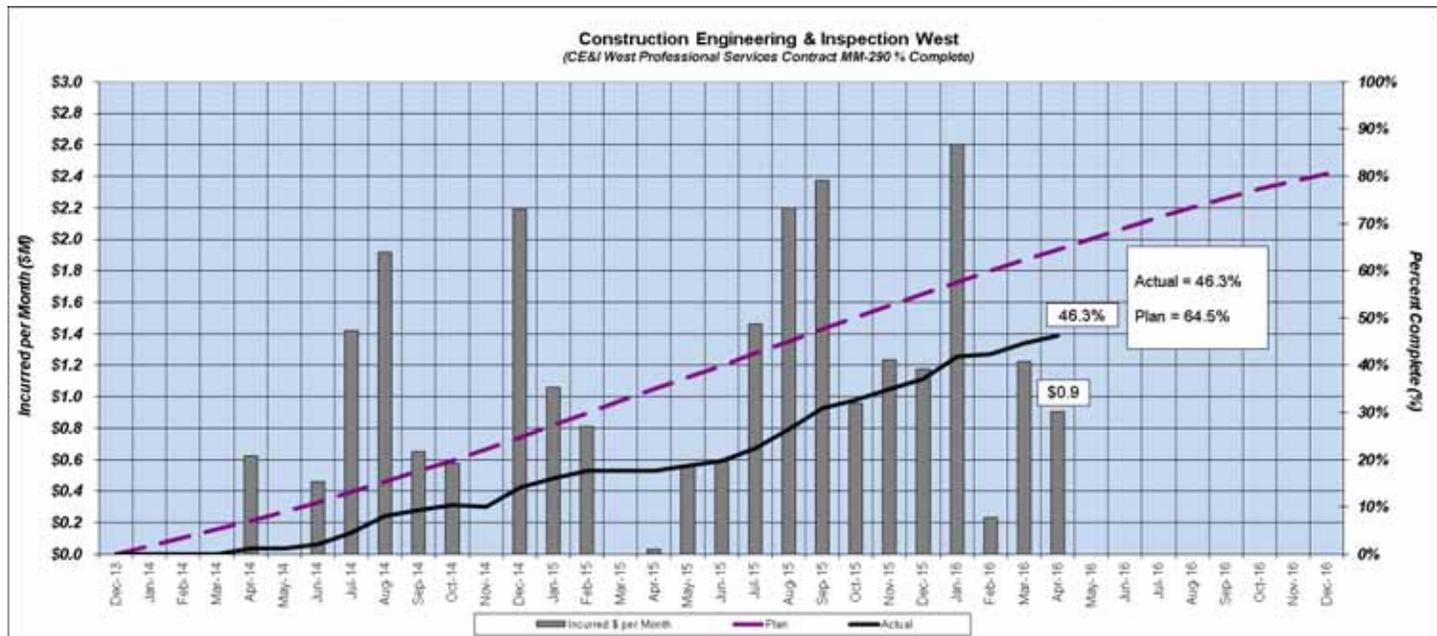
**COST INFORMATION:**

Original Contract:	\$54,232,480	Incurred-to-Date:	\$25,097,107
Current Contract Value <sup>1</sup> :	\$54,232,480	Incurred in April:	\$ 904,654

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

DBE Participation	
Actual DBE Participation:	\$2,834,728
DBE % Attained:	5.23%

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



**KEY ISSUES:**

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

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

**Contract No.:** MM-595

**Contractor:** URS Corporation

**Contract Start Date:** January 2014

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

**Substantial Completion:** October 2015

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

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

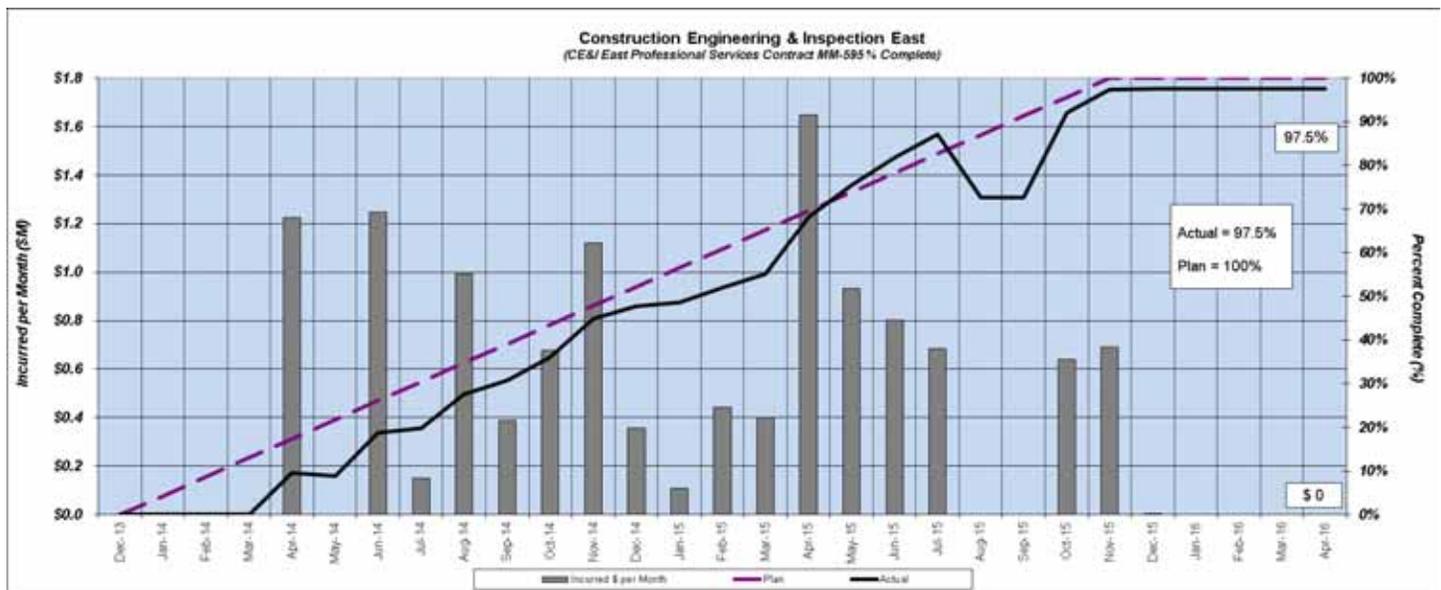
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$63,083,417</u>	<u>Incurred-to-Date:</u>	<u>\$12,382,150</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$12,706,100</u>	<u>Incurred in April:</u>	<u>\$0</u>

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

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

April Change Orders		
Change No.	Description	Amount (\$)
CA 0002	Release Remaining Funds	(\$2,550,900)
<b>Cumulative to Date</b>		<b>(\$50,377,318)</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. The URS contract was administratively closed out in April. Final cost information will be reflected in a future Progress Report. Subsequently, this contract page will be removed from future Progress Reports.

**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, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only) and construction observation for the On-Call II and III work. The primary role of the Stantec team is to inform the HART Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

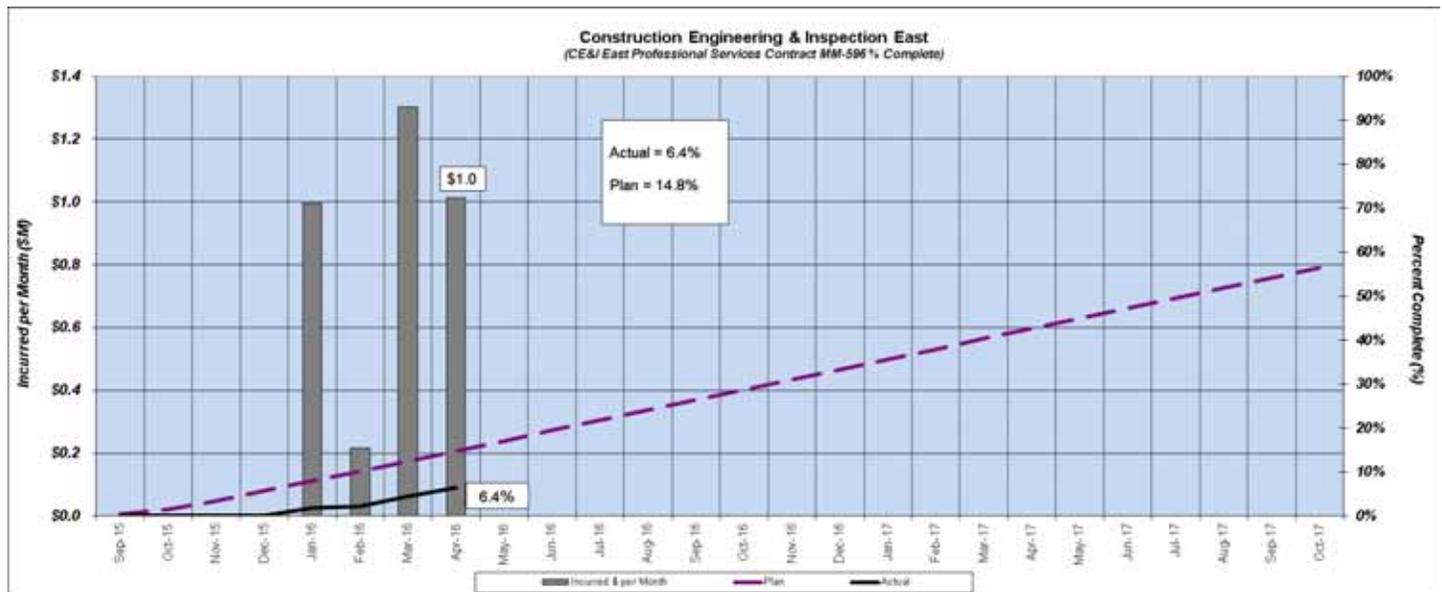
**COST INFORMATION:**

Original Contract:	\$55,036,130	Incurred-to-Date:	\$3,523,705
Current Contract Value <sup>1</sup> :	\$55,036,130	Incurred in April:	\$1,012,093

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

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

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



**KEY ISSUES:**

- The Independent Cost Estimate (ICE) and schedule analysis for the City Center Guideway and Stations DB contract is in progress. The City Center Guideway and Stations DB contract ICE and schedule analysis are scheduled to be delivered by June 30, 2016.
- The project team continues to provide schedule analysis of the HECO 138KV impact and overall utility trenching production levels in an effort to identify efficiencies and improvements that can be recognized on the East Section.
- Ongoing support continues with a review of the Airport Guideway and Stations DB alternative technical concepts.

**F. Core Systems Contract Oversight Consultant**

**Contract No.:** MM-962

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

**Contract Start Date:** February 2014

**Contract Completion:** September 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.

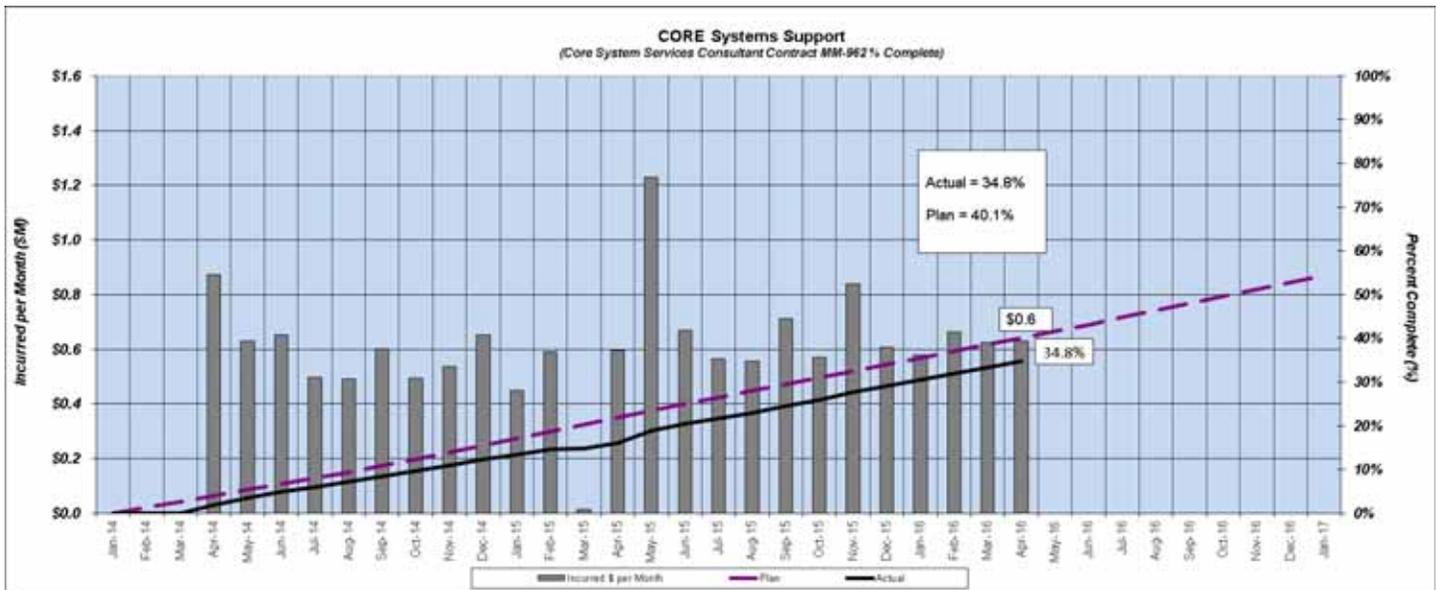
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$43,988,989</u>	<u>Incurred-to-Date:</u>	<u>\$15,328,182</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,988,989</u>	<u>Incurred in April:</u>	<u>\$630,827</u>

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

DBE Participation	
Actual DBE Participation:	\$366,156
DBE % Attained:	0.83%

April 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.

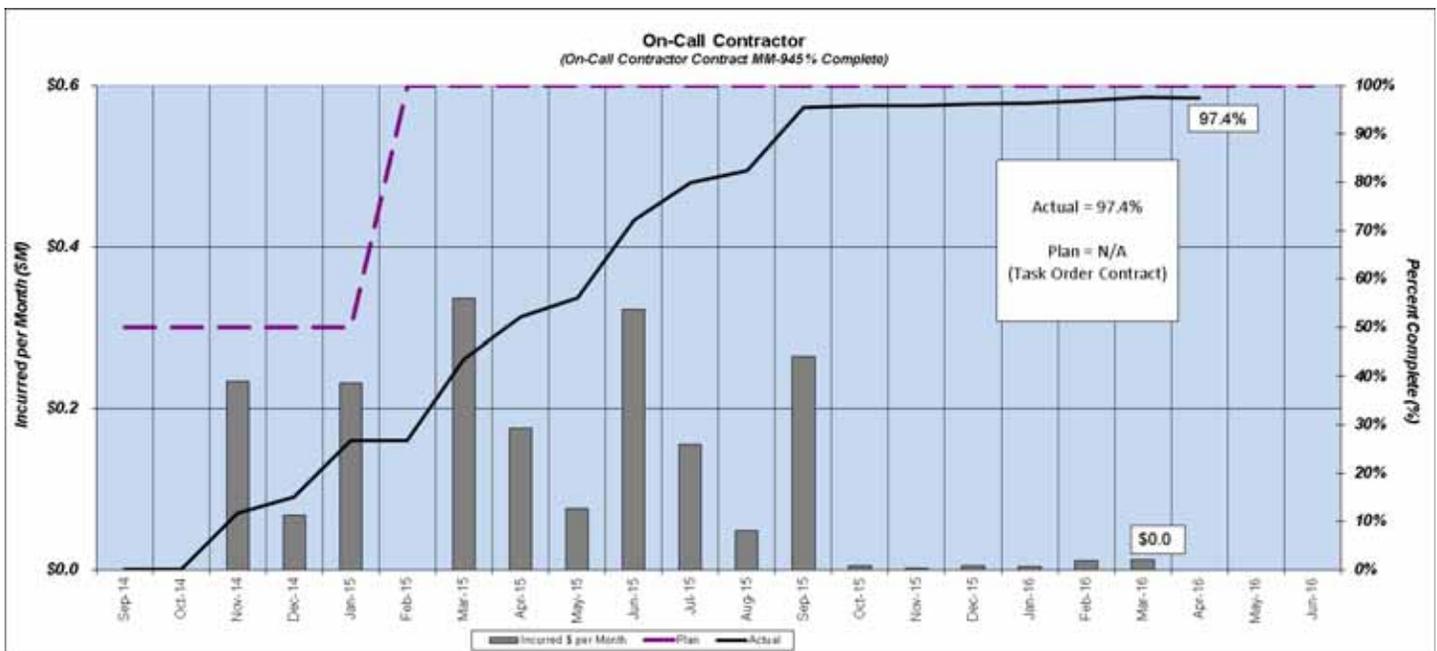
**COST INFORMATION:**

Original Contract:	\$1,000,000	Incurred-to-Date:	\$1,948,724
Current Contract Value <sup>1</sup> :	\$2,000,000	Incurred in April:	(\$2,925)

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

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

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



**KEY ISSUES:**

- The On-Call Contractor has successfully completed nearly all authorized work.
- The On-Call Contractor is in the process of completing the last remaining work authorized under this contract. Close out of this contract is targeted for July 2016.

## 5 OVERALL PROJECT-WIDE ACTIVITIES

### 5.1 Permits

- **Permits Submitted and In-Progress**

- HART submitted the Kamehameha Highway section (KHG) Community Noise Variance for continued construction from Pearl Highlands to Aloha Stadium.
- HART submitted the extension for the Coast Guard Bridge Permit advanced approval.
- HART submitted a letter to the Department of Health (DOH) to authorize Nan Inc. to submit their National Pollutant Discharge Elimination System (NPDES) Construction permit on behalf of HART.

- **Permits and Approvals Granted**

- HART received an approved extension of Stream Channel Alteration Permit (SCAP 3854.3) for Waiawa Stream and Tributary.

- **Look Ahead**

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

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

- **Activities this Month**

- Continuing to work through the process of fund transfer for the HDOT highway improvements. Transfer of funds for a portion of the MOU has been included in the Transportation Improvement Program (TIP) Amendment #9 for FY16. Transfer of funds for the full MOU amount has been included in the draft TIP Amendment #10, 11, 12 split between FY16 through FY18.
- An amendment to the WOFH Master Agreement is being developed addressing maintenance responsibilities and reimbursements.

- **Look Ahead**

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

5.3 Utility Agreements

Utility Agreements Status Matrix

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

Utility Agreements Status Matrix

Utility Owner	Status	WOFH		KHG		Airport		City Center	
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA	UCA	
	<i>Amd 03</i>				HRS Ch 104				
Level 3/TW telecom	<i>Executed</i>	12/2/09		2/14/12	Oceanic to relocate for TW telecom		10/11/12		Draft sent to TW telecom
	<i>NTP</i>	12/22/09		2/16/12					
	<i>Amd 01</i>	7/1/11							
	<i>Amd 02</i>								
Tesoro	<i>Executed</i>			2/15/12	9/12/13		8/27/13		
	<i>NTP</i>			2/16/12			9/3/13		
	<i>Amd 01</i>				9/12/14				
	<i>Amd 02</i>				5/13/15				
	<i>Amd 03</i>				HRS Ch 104				

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

WOFH

- All WOFH agreements have been executed.

KHG

- All KHG agreements have been executed.

AIRPORT

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

CITY CENTER

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

HECO

- **Davis-Bacon requirements** – HECO has an established collective bargaining agreement – which does not align with Davis-Bacon requirements – for which HART on behalf of HECO has submitted a conformance request to the U.S. Department of Labor; awaiting DOL decision.
- **HECO 46kV Substation near MSF area** – HECO indicates a need in the 2018-2019 timeframe for a new 46kV substation to feed the MSF area due to requirements in HECO Rule 13. Initial planning indicates that a currently un-used location near the MSF area may be suitable for this facility.
- **Additional Clearances** – HECO requires the need for additional horizontal working clearances from overhead line conductors to the guideway for their 138kV and 46kV overhead lines along portions of all guideway segments.
  - **Horizontal Working Clearances Analysis** – For Airport and City Center, HART and HECO have agreed to relocate the overhead 138kV lines to underground, and together are progressing to a preliminary engineering design. For WOFH and KHG, HECO has completed a pole-by pole review of the current overhead 138kV and 46kV pole and line locations and have identified areas where alternative access may be used for future pole and line maintenance. HART’s Task Force continues to meet bi-weekly with HECO staff to identify and analyze all potential solutions to the working clearance issue including relocating to new overhead alignments, underground alignments, or attach to the guideway, and alternative equipment.
  - **Alternative Equipment** – HECO has stated that the telescoping Bronto manlift will not completely resolve the horizontal working clearance issue. HECO and HART are now researching with other equipment manufacturers to see if there is equipment (bucket trucks and cranes) that can work with less than the desired working clearance requirements.
- **New Service Connections** – HECO service requests are required for new electrical services for the MSF, Passenger Stations and Systems Sites (traction power facilities). The Passenger Station designers are providing the service request for the stations, and the Core Systems Contractor is providing the service request for the systems sites.

- **MSF** – Service request approved via receipt of HECO Final Cost Letter and HECO design drawings. Installation of the MSF service is complete; buildings are energized.
- **Passenger Stations and Systems Sites** – HECO service request reviews are complete and HART has not received additional comments 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 May 9, 2016)**

**BUDGET**

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	\$ 201.70	\$ 90.80	\$ 110.90	\$ 97.80	\$ 13.10
Relocation	\$ 20.50	\$ 11.50	\$ 9.00	\$ 15.00	\$ (6.00)
<b>Total (Million)</b>	<b>\$ 222.20</b>	<b>\$ 102.30</b>	<b>\$ 119.90</b>	<b>\$ 112.80</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)]

	Current No. of Parcels Needed (a)	Current Square Feet Needed (b)	No. of Completed Acquisitions (c)	Square Feet of Completed Acquisitions (d)	No. of Acquisitions Not Completed & Site Access Obtained (e)	Square Feet of Acquisitions Not Completed & Site Access Obtained (f)
W.Oahu/Farrington	35	9,808,840	24	7,428,687	11	2,380,153
Kamehameha	13	3,027,319	5	2,530,534	7	493,317
Airport	50	979,875	12	241,519	29	651,338
City Center	121	849,647	26	201,299	6	12,047
<b>GRAND TOTAL</b>	<b>219</b>	<b>14,665,681</b>	<b>67</b>	<b>10,402,039</b>	<b>53</b>	<b>3,536,855</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) & (b) Current No. of Parcels Needed, Square Feet Needed - Parcels identified as needed by the project.
- (c) & (d) No. of Completed Acquisitions, Square Feet of Completed Acquisitions - Acquisitions are closed and the right to access and construct is obtained for 50 private owners and agreements on 16 government parcels.
- (e) & (f) No. of Acquisitions Not Completed & Site Access Obtained, Square Feet of Acquisitions Not Completed & Site Access Obtained - Acquisitions may not be completed, but the right to access and construct has been obtained.

**KAMEHAMEHA**

- **Priorities:**
  - On-going support for negotiations with Aloha Stadium Authority to obtain right of entry for the construction of the station park-and-ride. HART has obtained the right of entry to construct the guideway.
  - Acquisition of TMK 9-8-009-005 from the City is in process.

**AIRPORT**

- **Priorities:**
  - On-going negotiations with TMKs 1-1-002-001, 1-1-016-020, 1-1-004-035 and 1-1-004-039.
  - Continue working with the Federal government to complete documentation for easements.
  - Closely monitoring the mapping process for Airport Station and for utility easements.
  - Design change pending for TMKs 1-2-013-020 and 1-2-013-021.
  - In order to support the upcoming procurement for the Airport Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement.

- Look Ahead:
  - Working towards executing Airport agreements which will occur when the Notice to Proceed for the Airport Guideway and Stations is issued.
  - On-going review of appraisal for TMK 1-1-002-001.
  - Evaluate and address the need to advance additional recommendations for eminent domain to achieve the project’s schedule.

**CITY CENTER**

- Priorities:
  - Obtaining site access and acquiring parcels in the Dillingham section.
  - On-going support for negotiations with UH Honolulu Community College to secure construction right of entry.
  - Continuing to resolve issues with TMKs 1-5-015-010, 1-5-008-020, 2-3-003-000, 1-2-009-011, 1-2-009-098, 1-5-027-028, 1-1-016-020 and 1-2-019-069.
  - Design change for TMK 1-5-007-016.
  - Continuing negotiations with the owner of fifteen parcels which have complex issues, as well as TMK 2-1-031-030.
  - In order to support the upcoming procurement for the City Center Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are continuing with all private property owners in the City Center section in an attempt to reach mutual agreement.
- Look Ahead:
  - Evaluate and address the need to advance additional recommendations for eminent domain to achieve the project’s schedule.
  - Closely monitor the acquisitions in relation to construction schedules for City Center.

**RELOCATIONS**

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

	Active Relocations	Relocations Completed	Total Relocations
W.Oahu/Farrington	0	25	25
Kamehameha	0	4	4
Airport	6	7	13
City Center	21	58	79
<b>Grand Total:</b>	<b>27</b>	<b>94</b>	<b>121</b>

○ Relocations are pursuant to the Uniform Relocation Act.  
 ○ Relocations are reported by displacees.  
 ○ During design development, the relocation requirements have been adjusted to accommodate the design refinements. Relocation requirements are adjusted as design is finalized.

**AIRPORT**

- Priority:
  - Monitoring on-going relocation for TMK 1-1-016-016.
- Look Ahead:
  - Anticipate completion of relocation for TMK 1-1-016-006.

**CITY CENTER**

- Priorities:
  - Continuing negotiations with TMK 2-3-002-059.
  - Working to vacate TMK 2-3-007-045 through the judicial process.
- Look Ahead:
  - Anticipate completion of relocation for TMKs 2-1-050-001, 2-1-050-062, 1-2-003-101 and 2-3-007-027.

**THIRD-PARTY AGREEMENTS**

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

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
<b>City Agreements</b>				
City Joint Use Memorandum of Understanding	Pending	Aug 2016	WOFH, KHG, Airport, City Center	Being reviewed by Corporation Counsel.
DFM – Dept. of Facility & Maintenance (Kamehameha Hwy/Makalapa Manor)	Executed		Airport	Jurisdictional transfer from DFM to HART in place.
DPR - Dept. of Parks & Recreation (MSF drainage)	Executed		WOFH	Consent to construct in place.
<b>State Agreements</b>				
UH - University of Hawai'i Master Agreement	On Hold		WOFH, KHG, City Center	Construction is not impacted as ROE for right to access and construct will be executed for each campus.
UH -West O'ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - West O'ahu (UHWO) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - Leeward Community College (LCC) Construction Right of Entry for Guideway	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Pre-Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Urban Gardens Construction Right of Entry	Executed		KHG	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Kiewit Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed		City Center	Consent to construct in place.
UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station	Pending	Sept 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	Jan 2017	WOFH	Easement agreement in process. Construction not impacted.
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	Jan 2017	Airport	Easement Agreement in process. Construction not impacted.
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.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
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	Jan 2017	KHG	Easement Agreement in process.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for station park and ride	Pending	June 2016	KHG	In negotiations.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement for station park and ride	Pending	Jan 2017	KHG	Process Easement Agreement.
HDOT(H) – Dept. of Transportation Highways Master Agreement	Executed		WOFH	Master Agreement in place.
HDOT(H) – Dept. of Transportation Highways Master Agreement - Amendment	Pending	Aug 2016	WOFH	In process.
HDOT(H) (A) - Master Agreement for KHG, Airport and City Center	Executed		KHG, Airport, City Center	Master Agreement in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Executed		WOFH	Consent to construct in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Executed		KHG	Consent to construct in place.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Pending	Aug 2016	Airport	In process.
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Pending	Jan 2017	City Center	In process.
HDOT(A) – Dept. of Transportation Airports Joint Use & Occupancy (JU&O) Sub-agreement for Airport Division parcels	Executed		Airport	Consent to construct in place.
HDOT(A) - Easement Agreement for Airport Division parcel	Pending	Jan 2017	Airport	Process Easement Agreement.
HDOT(Har) – Dept. of Transportation Harbors Easement Agreement	Pending	Jan 2017	City Center	In process.
HDOT(Har) – Right of Entry	Pending	Aug 2016	City Center	In process.
DHHL - Dept. of Hawaiian Home Lands Master Agreement	Executed		WOFH, MSF	Master Agreement in place.
DHHL – Dept. of Hawaiian Home Lands License	Executed		WOFH, MSF	Consent to construct in place.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Dillingham Blvd., Easement Agreement	Pending	Jan 2017	City Center	In process.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Dillingham Blvd., Right of Entry	Pending	Aug 2016	City Center	Draft Right of entry under review.
HCDA -HI Community Development Agreement	Pending	Jan 2017	City Center	Coordination is ongoing.
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	Aug 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 Agreement	Pending	Jan 2017	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.

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
U.S. Navy Easement Agreements	Pending	Aug 2016	WOFH, KHG, Airport	Easement agreements being prepared by Navy.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Executed		Airport	Quitclaim deed received.
U.S. Post Office Honolulu Processing Center acquisition	Pending	Aug 2016	Airport	In negotiations.
U.S. Gov't/GSA/Federal Courthouse Master Agreement to include Security & Landscape Plan	Pending	Sept 2016	City Center	Master agreement under review and discussions are ongoing.
U.S. Gov't/GSA/Federal Courthouse License (ROE) & TCE Agreements	Pending	Sept 2016	City Center	ROE & TCE (Temporary Construction Easement) in final review.
U.S. Gov't/GSA/Federal Courthouse Easement Document	Pending	Sept 2016	City Center	Easement document under review.
<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	Jan 2018	WOFH	Easement Agreement in process and subject to owner's development plans.

## 6 MANAGEMENT AND ADMINISTRATIVE UPDATES

### 6.1 Safety and Security

#### 6.1.1 S&S Certification Documents

Key HART S&S Certification Documents Update & Approval Status			
S&S Project Plans, PHAs, Core Systems SSHA and O&SHA, and TVA			
Documents	REV #	Date Approved	Comments
<b>Documents Approved</b>			
1. Safety & Security Management Plan (SSMP)	Rev 5	10/16/2015	SSRC approved and signed
2. Safety & Security Certification Plan (SSCP)	Rev 4. B	12/14/2015	SSRC approved and signed
3. WOFH SSCP	Rev 0	10/22/2014	SSRC approved - No future updates: HART SSCP is in affect
4. Construction S&S Plan (CSSP)	Rev 2	10/16/2015	SSRC approved and signed
5. Security Sensitive Information (SSI) Plan	Rev 0	12/15/2015	SSRC approved and signed
6. Project Preliminary Hazard Analysis (PHAs)	Rev 2. A	9/3/2015	Rev 2A - DRAFT annual update completed 9/3/2015
a. MSF – Yard and Shop	Rev 2. A	2/24/2016	SSRC approved
b. Alignment	Rev 2. A	3/23/2016	SSRC approved
c. Tracks	Rev 2. A	2/24/2016	SSRC approved
d. Stations	Rev 2. A	3/23/2016	SSRC approved
7. Central ATC O&SHA	Rev C	9/23/2015	SSRC approved (CMS # 874)
8. Wayside ATC O&SHA	Rev D	9/23/2015	SSRC approved (CMS # 850)
9. Passenger Train ATC SSHA	Rev E	2/24/2016	SSRC approved (CMS # 853)
10. Passenger Train ATC O&SHA	Rev F	2/24/2016	SSRC approved (CMS # 873)
11. UPS O&SHA	Rev C	2/24/2016	SSRC approved (CMS # 1092)
12. FDAS SSHA	Rev C	4/27/2016	SSRC approved (CMS # 1216)
13. FDAS O&SHA	Rev B	2/24/2016	SSRC approved (CMS # 1217)
14. SCADA O&SHA	Rev E	5/24/2016	SSRC Approved (CMS # 887)
15. TES Back-Up Generator System HA	Rev A	5/24/2016	SSRC Approved
16. Threat & Vulnerability Assessments (TVAs)	Rev 1	1/16/2015	Update on hold - pending East Alignments re-design
<b>Documents not Approved</b>			
17. Project Preliminary Hazard Analysis (PHAs)	Rev 2. A	-	Rev 2A - DRAFT annual update completed 9/3/2015
e. Traction Power	Rev 2. A	-	Update on-hold - pending approval of TES SSHA and O&SHA
f. Train Control	Rev 2. A	-	Update on-hold - pending approval of ATC SSHA & O&SHA
g. Vehicles	Rev 2. A	-	Update on-hold - pending approval of PT SSHA & O&SHA
h. Communications	Rev 2. A	-	Update on-hold - pending approval of Comms SSHA and O&SHA
18. Core Systems Contract (CSC) PHAs (DBOM)	Rev G	-	5/20/2016 - HART AAN Re-submit (CMS # 575)
19. Technologies PHAs	Rev D	-	12/2/2015 – Under HART review (CMS # 545)
20. Wayside ATC SSHA	Rev B	-	11/24/2014 - HART Accept, ready for Jun SSRC approval (CMS# 836)
21. Wayside/ATC System HA	Rev C	-	1/21/2015 – HART Accept, ready for Jun SSRC approval (CMS# 835)
22. SCADA SSHA	Rev C	-	3/26/2015 - HART Accept, ready for Jun SSRC approval (CMS# 854)
23. Passenger Train Fire Hazard Analysis (FHA)	Rev C	-	3/14/2016 – Under HART review (CMS# 749)
24. Passenger Train ATC System HA	Rev C	-	3/18/2015 – HART Accept, ready for Jun SSRC approval (CMS # 751)
25. Passenger Train SSHA	Rev A	-	8/31/2015 - CSC R&R (CMS # 1273)
26. Passenger Train O&SHA	Rev A	-	10/26/2015 - CSC R&R (CMS # 1320)
27. TES SSHA	Rev B	-	11/03/2015 - CSC R&R (CMS # 884)
28. TES O&SHA	Rev B	-	11/03/2015 - CSC R&R (CMS # 1099)
29. PSGS SSHA	Rev B	-	10/05/2015 - CSC R&R (CMS # 938)
30. PSGS O&SHA	Rev B	-	3/3/2016 - AAN Re-submit, (CMS # 880)
31. Communications SSHA	Rev B	-	01/7/2016 - CSC R&R, (CMS # 1205)
32. Communications O&SHA	Rec C	-	1/27/2016 - CSC R&R (CMS # 1206)
33. MOW Support Vehicles O&SHA	Rev A	-	Under development
34. Elevator/Escalators System HA	Rev A	-	Under Development

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

<i>S &amp; S Design Criteria Conformance Checklist (DCCC)</i>						
<i>Civil Contracts</i>						
<i>Verification Status</i>						
Design Phase				Construction / Installation /Testing		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
<b>Civil Contracts Under Construction</b>						
FD-430, Airport Section 7-Piers	100%	N/A	6/17/2015	100%	N/A	8/26/2015
Yard Control Bungalow (YCB) CSC - Civil	86%	-	Verification underway	-	-	
DB-200, MSF	97%	-	1/28/2015	31%	-	Verification underway
FD-430, Airport Utilities	100%	N/A	6/25/2014	51%	-	Verification underway
DB-120, WOFH Guideway - 38 total - Sub CEL/CIL Packages	99%	-	36 Sub - CELs/CILs SSRC approved	44%	-	Verification underway
DB-320, KHG Guideway - 40 total - Sub CEL/CIL Packages	98%	-	36 - Sub CELs/CILs, SSRC approved	9%	-	Verification underway
FD-140, West Oahu Station Group	99%	-	3 stations 12/09/2015	-	-	
FD-240, Farrington Hwy Station Group	100%	-	3- station- 12/09/2015	-	-	
FD-340, H2R2 Ramps	100%	N/A	5/27/2015	-	-	
<b>Construction Contracts Awarded - Not Yet Started</b>						
FD-340, Kamehameha Highway Station Grp	100%	N/A	3 Stations – 8/26/2015	-	-	
MI-930, Elevators & Escalators (Stations)	-	-	Base DCCC 8/26/15			
<b>Civil Contracts Under Design / in Pre-bidding or Pre-Award Phases</b>						
AP00 Art-in-Transit, 23 artists/contracts	-	-	Base DCCC under review	-	-	
DB-275, Pearl Highlands PS/BTC	-	-	Base DCCC under review	-	-	
FD-600, West Oahu Park & Ride	-	-	Base DCCC under review	-	-	
DB-450, AG & Stations Group (AGSG)	-	-	Base DCCC being updated	-	-	
DB-550, CCG & Stations Group (CCGSG)	-	-	Base DCCC being updated	-	-	
MI-900 Fare Collection System	N/A	N/A	CDRLs are being utilized	N/A	N/A	N/A

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

<i>S &amp; S Design Criteria Conformance Checklist (DCCC)</i>						
<i>Core Systems Contracts</i>						
<i>Verification Status</i>						
Design Phase				Construction / Installation /Testing		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
<b>DBOM-920 Core Systems Contracts Under Design Procurement - Production - Manufacture - Installation</b>						
Passenger Trains (PT)	76%	+6%	Verification underway	-	-	
Traction Electrification System (TES)	93%	-	Verification underway	-	-	
MOW Vehicles – 8 support vehicles	-	-	Designer input underway	-	-	
Fire Detection Alarm System (FDAS)	-	-	Designer input underway	-	-	
Communication System	-	-	Designer input underway	-	-	
Automatic Train Control (ATC)	96%	-	SSRC approved 4/27/2016	-	-	
Supervisory Control & Data Acquisition (SCADA)	96%	-	SSRC approved 4/27/2016	-	-	
Platform Screen Gate System (PSGS)	-	-	Designer input underway	-	-	
TES-Back-up Generator (BUG)	N/A	N/A	No CDC Requirements	N/A	N/A	N/A

6.1.4 S&S Certification “Open Items List” Status

<b>HART S&amp;S Certification “Open Items List”</b>						
<i>Last 4 Months Status</i>						
<b>“Open Items” - Design/Construction and Verification Issues</b>						
Month - 2016	Total #	Total # Open	Total # Closed	% Closed Overall	# closed In Month	% Closed In Month
February	215	30	185	86%	15	7%
March	215	24	191	89%	4	2%
April	227	35	192	85%	1	1%
May	242	44	193	80%	1	1%

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

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

<b>S &amp; S Construction Specification Conformance Checklists (CSCC)</b>			
<i>Civil - Contracts</i>			
<i>Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Civil Contracts Under Construction</b>			
DBB-525, Airport Section, 7 - Drilled Shafts	100%	N/A	8/26/2015 SSRC approved –Certification Completed
Yard Control Bungalow (YCB) CSC Civil - Contract	54%	+3%	Verification underway
DB-200, MSF and Rail Yard	53%	+3%	Verification underway
DBB-505, Airport Utilities - Construction	62%	-	Verification underway
DB-120, WOFH Guideway	63%	+9%	Verification underway
DB-320, KHG Guideway	29%	+5%	Verification underway
DBB-171, West O’ahu Station Group (WOSG)	-	-	Pre-construction activities
DBB-271, Farrington Hwy Station Group (FHSG)	-	-	Pre-construction activities
DBB-385, H2R2 Ramps	-	-	Pre-construction activities
DBB-371, Kamehameha Hwy Stations Grp (KHSG)	-	-	Pre-construction activities
<b>Construction Contracts Awarded – Not Yet Started – No Verification Effort</b>			
MI-930, Elevators & Escalators, WOSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, FHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, KHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
<b>Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases</b>			
MI-930, Elevators & Escalators, AP/CC Stations	-	-	Base CSCC - SSRC approved, 8/26/2015
AP00 Art-in-Transit, 23 Artists/contracts	-	-	Draft Base CSCC under PM review
DBB-511, Dillingham Utilities & Road Widening	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-275, Pearl Highlands PS/ Bus Transit Center	-	-	TBD – waiting for 100% conformed specifications
MI-900 Fare Collection System	-	-	Base CSCC SSRC approved 4/27/2016
DBB-600, West O’ahu Park & Ride	-	-	TBD – waiting for 100% conformed specifications
DB-450, AG & Stations Group (AGSG)	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-550, CCG & Stations Group (CCGSG)	-	-	Draft Base CSCC needs updating - on hold – pending re-design

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

<i>S &amp; S Specification / Testing Conformance Checklists (STCC)</i>			
<i>Core Systems – Contracts</i>			
<i>Verification Status</i>			
<b>Procurement - Production - Manufacture - Installation - Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>DBOM-920 Core System Contracts under Procurement - Production - Manufacture - Installation - STCC</b>			
<b>MOW Vehicles (8-support vehicles)</b>	43%	+14%	Verification underway
<b>Passenger Trains (PT)/Cars</b>		-	
1) General Requirements - Applies to all PTs	4%	-	Verification underway
2) PT-001- Interim Cert - for Dynamic Testing	-	-	Verification on hold pending truck design resolution
3) PT-002- Interim Cert - for Dynamic Testing	-	-	
4) PT/4-cars Cert for Pre-Revenue Service	-	-	Base STCC under development
<b>Traction Electrification System (TES)</b>			
1) General Requirements - Project Wide	34%	+8%	Base STCC pending May SSRC approval, verification underway
2) MSF - Rail Yard	31%	-	Base STCC pending May SSRC approval, verification underway
3) Functional Track - WOFH Guideway	-	-	Base STCC pending May SSRC approval
4) WOFH and KHG Guideways	-	-	Base STCC pending May SSRC approval
5) Airport and City Center Guideways	-	-	Base STCC pending May SSRC approval
<b>DBOM-920 Core Systems Contracts Under Design- STCC</b>			
<b>System Integration Testing (SIT)</b>	-	-	Draft base SIT STCCs on hold – SIT Plan being revised
<b>Uninterrupted Power Supply (UPS)</b>	13%	-	Base STCC pending April SSRC approval, verification underway
<b>Traction Power Generators Back-up System</b>	-	-	SSRC approved 3/23/2016
<b>Communication Systems</b>			
1) Project Wide Communication Requirements	50%	+3%	Base STCC pending May SSRC approval
2) MSF and Rail Yard Communications	-	-	Base STCC pending May SSRC approval
3) Segment 1 Communications (KHG / WOFH)	-	-	Base STCC pending May SSRC approval
4) Segment 2 Communications (Airport)	-	-	Base STCC pending May SSRC approval
5) Segment 3 Communications (City Center)	-	-	Base STCC pending May SSRC approval
<b>Fire Detection Alarm System (FDAS)</b>	15%	-	Base STCC pending May SSRC approval
<b>Train Control System (TCS)</b>	-	-	Base STCCs under development
<b>Supervisory Control &amp; Data Acquisition (SCADA)</b>	-	-	Base STCCs under development
<b>Platform Screen Gate System (PSGS)</b>	10%	-	Base STCC pending May SSRC approval
<b>Operational Requirements</b>			
<b>Ops Readiness Conform Checklists (ORCC)</b>	11%	+1%	Base ORCC - SSRC approved 12/09/2015, verification underway
<b>Pre-revenue Testing Conform Checklist (PRTCC)</b>		-	Under development

6.1.7 Interim Certification Verification Status

<i>Interim Certification - Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Interim Certification Requirements</b>			
1. PV-001 Delivery - OSB, M-5 Track, ORCC, MOW-V	72%	+3%	Interim Cert Certificate issued – 9 open items
2. MOW Building Early Occupancy	81%	+32%	Interim Cert Certificate issued – 5 open items
3. Five (5) – MOW Vehicles Delivery	100%	+20%	Interim Cert Certificate issued – no open items
4. Test Track – Rail Yard, TES/IT/ORCC/PV-002/ WOFH	-	-	IC checklists under Review – April 2016 SSRC approval
5. PV-002 Delivery	-	-	PV-002 IC checklist SSRC approved 1/27/2016
6. Functional Track – WOFH, PV-002, TES, ORCC, & IT	-	-	Interim Cert checklists under development

6.1.8 Twelve (12) Month Certification Projected Milestones

12 Month Certification Projected Milestones		
Milestones	Projected Contract and Interim Certifications	Comments
Jun-Jul 2016	1. DB-200, MSF Contract Certification (Civil Only)	Limited systems
Jul 2016	2. YCB Civil Contract CSC Certification	Civil only
Sept 2016	3. Eight (8) MOW Vehicles Final Certification	All MOW vehicles
Sept 2016	4. FD-430 and DBB-505, Airport Utilities Contract Certification	Civil only
Oct 2016	5. PV-002 Delivery – Interim Cert – Delivery	Vehicle only
Dec 2016	6. Test Track – Rail Yard – TES Interim Certification	TES
Dec 2016	7. PV-002, Interim Certification to enter Dynamic Testing	Vehicle only
Dec 2016	8. FD-340 and DBB-385, H2R2 Contract Certification	Civil only
Dec 2016	9. DB-120, WOFH Guideway Contract Certification	Civil only
Jan 2017	10. Functional Track – Interim Certification – Test Track	Systems
Apr 2017	11. DB-320, KHG Guideway Contract Certification	Civil Only

6.1.9 S&S Certification Certificates Issued to Date

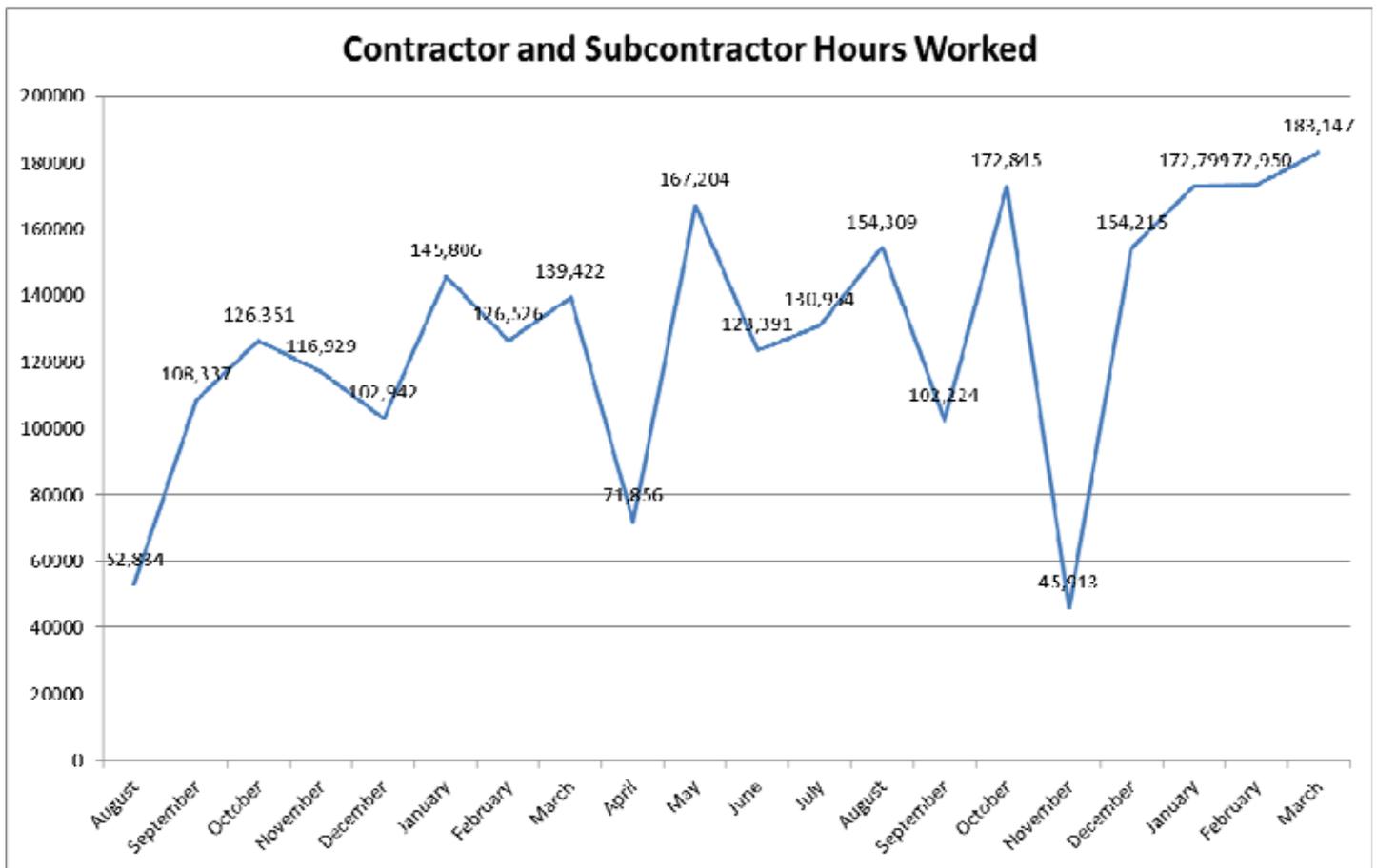
S&S Certification Certificates Issued to Date		
Contracts / Interim Certification Certificates Issued	Date Signed	Comments
1. FD-430 / DBB-525 Airport 7-Piers Certifiable Element "Guideway" Cert Certificate	9/21/2015	No open items – SSRC approved
2. 3 – MOW Vehicles Delivery & M-7, M-2, M-1 MSF Tracks – Interim Cert Certificate	2/4/2016	No open items – SSRC approved
3. MSF Yard M-4 and M-6 Tracks – Interim Cert Certificate	3/10/2016	No open items – SSRC approved
4. PV-001 Delivery, OSB, M-5/M-4 Tracks, ORCC, MOV MPV - Interim Cert Certificate	3/29/2016	9-Open items – SSRC approved
5. Five (5) – MOW Vehicles Delivery – Interim Cert Certificate (Vehicles Only)	5/20/2016	No Open Items – SSRC approved
6. MOW Facility Early Occupancy – Interim Cert Certificate (Admin Areas Only)	5/23/2016	5 – Open Items – SSRC approved

6.1.10 Construction Safety and Security

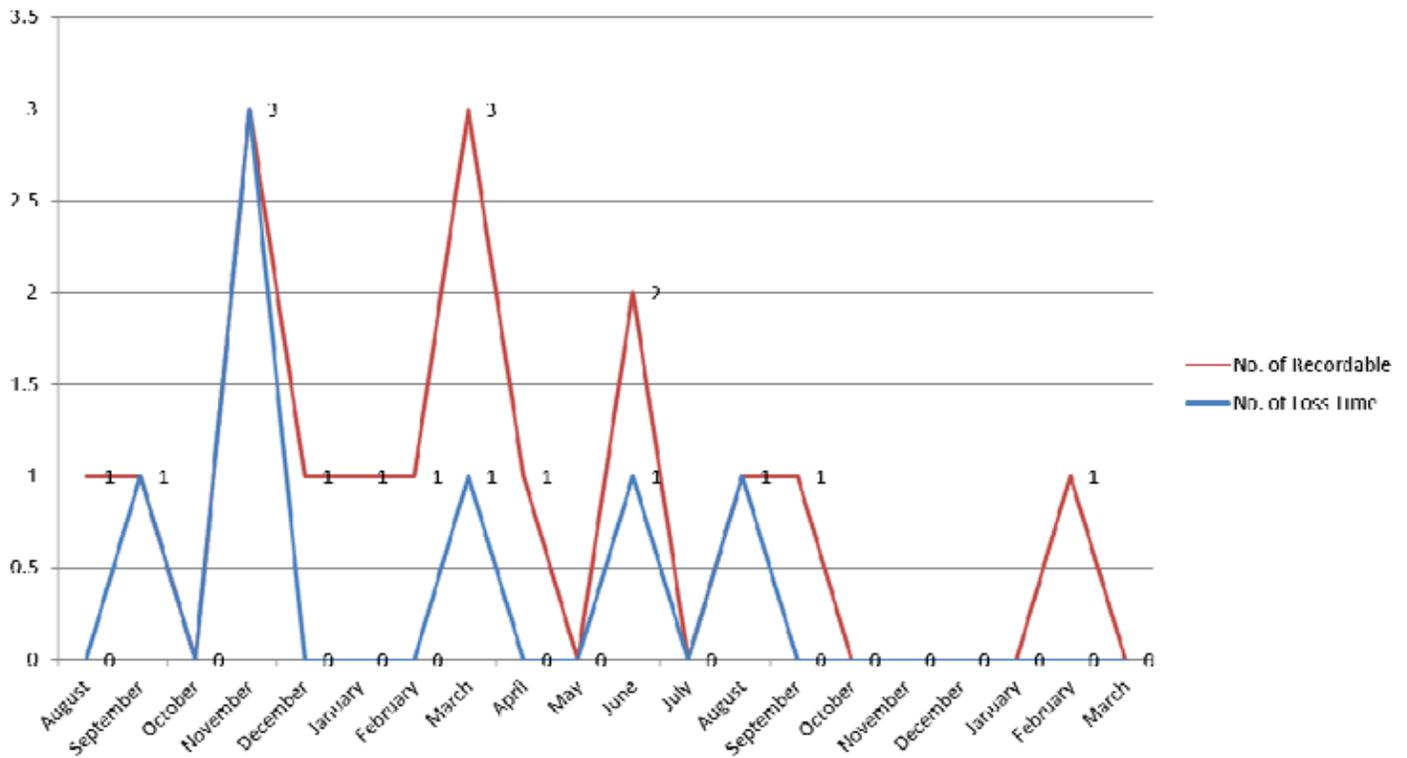
Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for April 30, 2016-May 27, 2016	Loss Type	Date	Event Description
Environment	15	0			
Loss or Damage	38	2	a) Minor Loss b) Minor Loss	a) 5/12/16 b) 5/17/16	a) CORE: Employee backed truck into concrete pole base. B) WOFH: A utility pole was damaged by an excavator.
*Reportable Occupational Injury/Illness	0	0			
Security	60	1	a) Minor Loss	a)5/21/2016	a) CORE: Equipment was stolen from the MSF facility.
**Loss Time Occupational Injury/Illness	7	1	a) Recordable	a) 5/14/2016	a)MSF: Alakai Mechanical Foreman was struck by a 4" PVC pipe, fracturing his tibia.
Road/Vehicle - Driving	84	0			
Service Strike	85	4	a)Minor Loss b)Minor Loss c) Minor Loss d)Minor Loss	a)5/2/16 b)5/6/16 c)5/10/16 d)5/12/16	a) ASU: Com line struck during excavation for drain. b)ASU: 12 strand fiber optic cable was damaged. c)ASU: 1.5" Irrigation line struck. d)ASU: 2" PVC irrigation line struck

\*Reportable incidents: Requires OSHA to be notified within 8 hours, and includes the death of an employee or hospitalization of three or more employees.  
 \*\*Loss Time Injury: Time away from work due to injury.

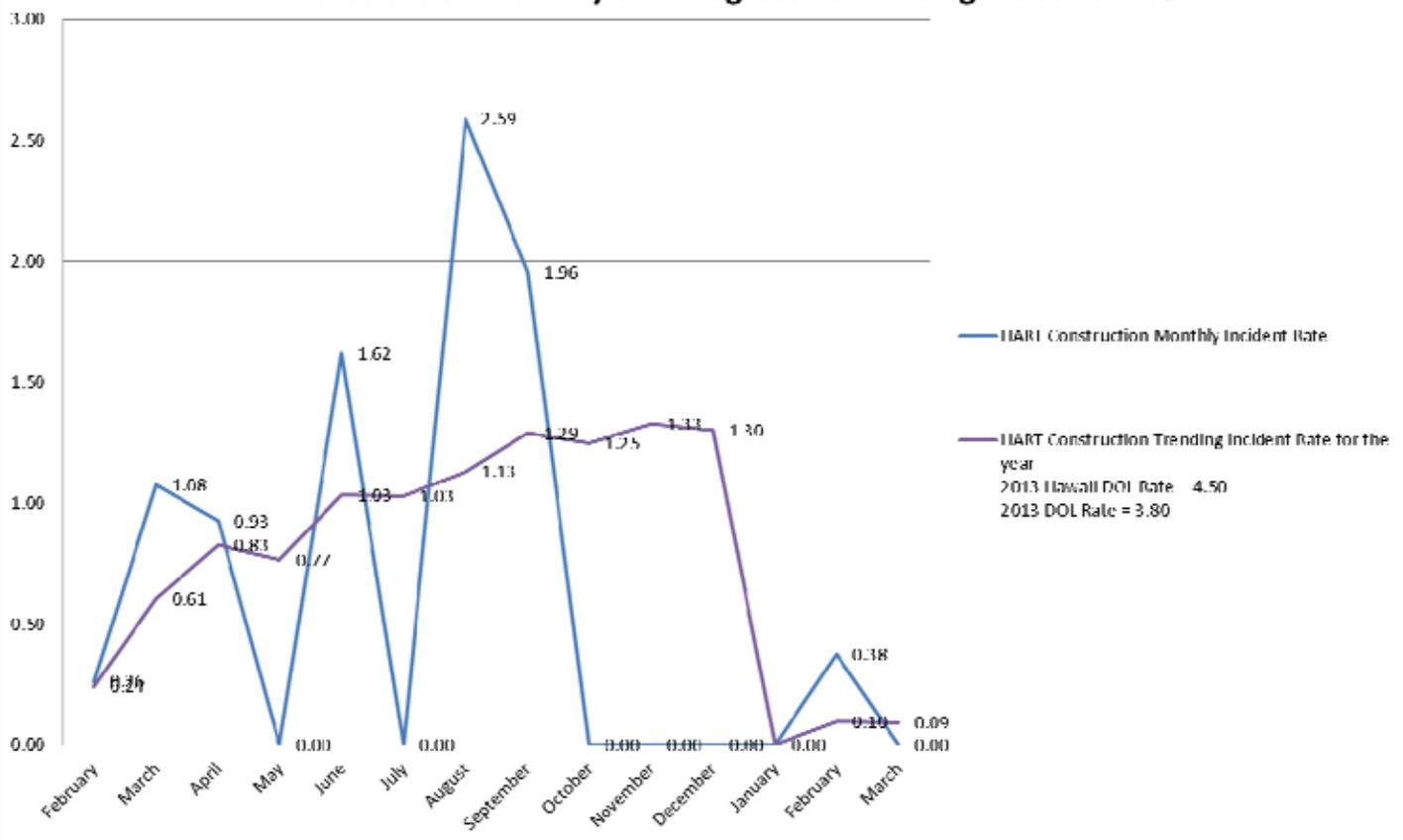
	2014			2015			2016		
	Hours worked	No. of Recordable	No. of Loss Time	Hours worked	No. of Recordable	No. of Loss Time	Hours worked	No. of Recordable	No. of Loss Time
January	/	/	/	145,806	1	0	172,799	0	0
February	/	/	/	126,526	1	0	172,950	1	0
March	/	/	/	139,422	3	1	183,147	0	0
April	/	/	/	71,856	1	0			
May	/	/	/	167,204	0	0			
June	/	/	/	123,391	2	1			
July	/	/	/	130,954	0	0			
August	52,834	1	0	154,381	1	1			
September	108,337	1	1	102,224	1	0			
October	126,351	0	0	172,845	0	0			
November	116,929	3	3	45,913	0	0			
December	102,942	1	0	154,215	0	0			
Total	507,393	6	4	1,534,735	10	3	528,896	1	0
OSHA Annual Incident Rate				1.3					
Work Hours for WOFH, KHG, MSF, Air Port, CORE System as reported to OCIP and certified.									



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



### HART Construction Monthly and Progressive Trending Incident Rate



### KEY ISSUES

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

## 6.2 Quality Management

- **Overview**
  - The HART QMP and HART-approved QAPs of contractors, consultants and suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less and less Nonconformance Reports (NCR) are reported or encountered internally and on existing contracts.
  - Overall quality of the Project is good.
  - Review and approve contractors, consultants and suppliers new and updated QAPs, including Inspection and Test Plans (ITP).
  - 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 audits; various process improvements; quality economics, and Buy America compliance.
  - Participated in Pre-Activity Meetings for scheduled construction activities: CSC/MSF, ASU, WOFH and KHG.
  - Issued Audit Report on Combined QA, Buy America and Environmental Compliance Audit of KIWC for WOFH and KHG contracts held on April 14-15, 2016.
  - Performed Final Inspection of: MSF OSB Offices, MOW, WTB, TWF and Site Civil Work; repair of 276 (NCR 113); removal, replacement, stressing and grouting of Tendon T1L of Span 258 (NCR 509) and Tendon T3 of Span 249 (NCR 525); and WOFH TPSS Site 8 (Columns 246-251), Ho'opili Station (Column 95), and LCC Portables and Parking Lot.
  - Updated Management System Audits (QA, Environmental and Buy America) Schedule for 2016, as shown on the following pages:



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2016 Rev 4

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
SC-HRT-1400049	CSC Support Services	L + E	16-001 QA	2/9 - 2/10	2/9/16	2/19/16
CH-HRT-10HO449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	16-002 QA/BA/E	3/15 - 3/17	3/15-17/16	4/15/16
CT-HRT-1200106	Core Systems Contract (CSC) & Hitachi Rail Design-Build-Operate-Maintain	Hitachi Rail USA	16-003 QA	6/28 - 6/30		
CT-HRT-10HO137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIVC - HI	16-004 QA/BA/E	4/12 - 4/14	4/14-15/16	
CT-HRT-11HO195	Kamehameha Highway Guideway Design-Build (KHG)					
SC-HRT-1400027	General Engineering Consultant (GEC-3)	CH2M Hill	16-005 QA	6/16 - 6/17		
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	16-006 QA/E	6/2 - 6/3		
CR-HRT-1500309	H2R2 Ramp Construction	Royal Contracting	16-007 QA/BA/E	6/23 - 6/24		
CT-HRT-11HO195	KHG Casting Facility	KIVC - HI	16-008 QA/BA	7/19 - 7/21		
CR-HRT-1500503	West Oahu Station Group Construction	NAN, Inc	16-009 QA/BA/E	9/13 - 9/15		
CT-HRT-1500236	Farrington Highway Station Group Construction FHSG	Hawaiian Dredging	16-010 QA/BA/E	9/27 - 9/29		
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	TBD		
DB-	City Center Guideway and Station (Design)	TBD	16-014 QA	TBD		
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 4

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-1600008	Airport Section Utilities CE&I East	Stantec	16-016 QA	10/18 - 10/20		
	Airport Section Guideway & Stations CE&I East	Stantec	TBD	TBD		
	City Center Section Guideway & Stations CE&I East'					
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		
CT-HRT-1600152	Kamehameha Highway Station Group Construction	NAN, Inc	16-019 QA/BA/E	11/15 - 11/17		
CCH-100	Honolulu Authority for Rapid Transportation (HART)	HART	16-020 QA/SS	12/06 - 12/13		
DB-	Pearl Highlands Garage Transit Center and H1R2 Ramp	TBD	TBD	TBD		
DB-	Airport Guideway and Stations (Construction)	TBD	TBD	TBD		
DB-	City Center Guideway and Stations (Construction)	TBD	TBD	TBD		
DB	UH West O'ahu Park-and-Ride and Campus Road "B"	TBD	TBD	TBD		

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

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• Key Issues

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

- Continue updating, reviewing and approval of appropriate HART Project Baseline Plans and Procedures due to new policies, re-organization, process improvement and lessons learned from the internal audits. Upon approval of revised plans and procedures, training of HART employees and consultants 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 major NCRs are described below:
  - **Span 258 – NCR 509:** a few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC has prepared a Remediation Plan to replace the failed Tendon T1L. The defective Tendon was removed and saved for postmortem by KIWC on April 14, 2016; replaced and stressed on April 15, 2016; and grouted on April 22, 2016. Hence, Span 258 was lowered to its correct position.
  - **Span 249 – NCR 525:** a few strands of Tendon T3 installed in Span 249 failed after post-tensioning. The defective Tendon T3 was removed on April 21, 2016. The tendon replacement will occur when the special stressing Jacking system (that will fit the space between the two spans) arrives at the site.

KIWC will perform a postmortem of the Tendons T1L and T3 to determine the root cause of the failure and the corrective action to prevent recurrence on KHG. KIWC will perform a Cause and Effect Fishbone Analysis of the defective tendon, which will be participated in by HART (Design and Engineering, GEC3, CE&I, and QA/QC) and KIWC (HNTB/FIGG, Construction, Tendon Supplier, and QA/QC). Samples of the strand were taken and sent to a Certified Laboratory in the mainland by KIWC. The HART Director of QA/QC will be the Facilitator during the root cause analysis.

- 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 following is the major NCR identified:
  - **Drilled Shafts:** To date there are four (4) Open NCRs (closed five) which are related to the CSL Reports, and 156 Drilled Shafts completed (added 10), which indicates that there were few CSL issues encountered lately and the process has improved. The CSL anomalies on the four NCRs open were found to be 15 feet from the top due to deeper shafts, therefore correction/fixing will be more challenging.
- Erection and finishing of spans, construction of “shear keys” between columns and spans, and construction of concrete walkways on WOFH and KHG guideways.
- Cause and Effect Fishbone Analysis of defective Tendons T1L and T3 to determine the root cause of the defects.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Cross Hole Sonic Logging Reports) quality and repair.
- Final Inspection 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 and KHG guideways.
- Construction of the 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 facilities in Pittsburg, CA.
- Pre-shipment, I&T and FAI of wayside core system and passenger vehicles materials, parts and components.
- Final Inspection of OSB, WTB, TWF and MOW buildings prior to turnover to HART/CSC.
- Perform a Combined QA and Environmental Compliance Audit of AHJV on the CSC DBOM contract.

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

• Overview and Key Issues

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

### 6.4 Disadvantaged Business Enterprise (DBE)

- **Activities this Month**

- \$35,082,821 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 5/31/16
  - 6.48% = DBE utilization on total disbursed FTA funds received to date (\$35,082,821 divided by \$541,305,928)
  - 1.99% = DBE utilization to date on total Project FTA funds (\$35,082,821 divided by \$1,763,903,901)

*Total DBE Participation = \$35.1M  
(previous report = \$33.8M)*

Figure 16. DBE Participation this Month

DBE Participation in May		
DBE Firm	Contract Number	Participation
Lawson & Associates	SC-HRT-1400061 MM-964	\$67,802
ADS System Safety Consulting	SC-HRT-1400061 MM-964	\$81,045
Island Hauling	CT-HRT-10H0449 DB-200	\$20,294
LKG-CMC	SC-HRT-1400049 MM-962	\$18,665
Aloha Steel	CT-HRT-1400323 DBB-505	\$1,001
PSC Consultants	SC-HRT-1400050 MM-290	\$9,354
Element Environmental	SC-HRT-1400050 MM-290	\$81,714
Anil Verma	SC-HRT-1200111 FD-340	\$70,111
AMR Estimating	SC-HRT-1400027 MM-913	\$237,143
The Solis Group	SC-HRT-1400027 MM-913	\$381,529
Minatoishi Palumbo Architects	SC-HRT-1400027 MM-913	\$335,266
<b>TOTAL FOR THE MONTH</b>		<b>\$1,303,924</b>

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

### 6.5 Planning and Environment

- **Activities this Month**

- Programmatic Agreement Activities:
  - HART’s Programmatic Agreement (PA) team met with the Hawai’i State Historic Preservation Division (SHPD) on Tuesday, May 3, 2016, as part of ongoing consultation with the division.
  - The new Kāko’o II Programmatic Agreement Manager had its introductory meeting with Consulting Parties (CPs) on March 10, 2016.
- Planning, Environmental, and Cultural Activities:
  - HART researched, prepared and submitted responses to correspondence regarding floodplain encroachment at two stations.
  - HART submitted regular Transportation Improvement Plan updates to the Oahu Metropolitan Planning Organization (OMPO).

- HART submitted the Quarterly Mitigation Monitoring Program Report for the first quarter of 2016 to FTA and PMOC. The next quarterly report is due in July for the reporting period of April-June 2016. Continued coordination is planned with stakeholder agencies regarding street tree transplanting and mitigation efforts.
- HART, in partnership with SHPD, held a historic preservation event showcasing HART-owned Hōlau Market at the proposed Chinatown Station site to commemorate the story of the property as a part of Historic Preservation Month in May.
- Received approval from the HART Board of Directors to form and commence work with a Hawaiian Station Naming Group tasked with recommending Hawaiian names for all 21 stations.
- HART relocated a 25' tall Monkeypod tree from Queen Street to Waiau District Park.
- HART conducted a final inspection of three (3) Narra Trees transplanted from Keehi Lagoon to Ala Wai Golf Course to complete a 1-year maintenance commitment. Trees were accepted by Ala Wai Golf Course.
- HART staff continued coordination with Leeward Community College, Waipahu High School, and community stakeholders regarding planning and design issues with the Middle Loch Connector.
- HART Planning continued to participate in a weekly Multimodal Integration Technical Team (MITT) consisting of HART, DTS, and O'ahu Transit Services (OTS) planners to work on technical issues supporting bus-rail integration planning.
- Planning staff provided evaluation support for Airport Guideway and Stations (AGS) contract bid regarding sustainability and sustainable design.
- Planning staff worked with procurement to provide responses to Pearl Highlands RFI questions; continued management, distribution, and outreach related to the Pearl Highlands RFI.
- Presented a training session to Board of Water Supply on Transit-Oriented Development.
- Led interactive walk of Kapalama to Chinatown Stations for the community as part of Better Block Hawaii's Jane's Walk Initiative in honor of prominent urban planner, Jane Jacobs', 100<sup>th</sup> birthday.
- Sustainability:
  - Presented HART sustainability initiatives to Hawaii DOH Hazard Evaluation and Emergency Response (HEER) office and US EPA on May 18, 2016.

- **Looking Ahead**

- HART will evaluate and make a decision regarding the issuance of a Public Private Partnership RFP for the Pearl Highlands Parking Structure and Transit Center.
- Will apply to FTA Pilot Project Grant for Joint Development Strategic Plan on June 13, 2016.
- Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.
- Refine and develop bus-rail integration needs for Lagoon Drive, Waimanu Street and Ala Moana locations.
- The next consultation meeting with HART/SHPD is scheduled for June 7, 2016.
- Commence Hawaiian Station Naming Working Group to provide Hawaiian Station names for 21 stations.
- Environmental staff will participate in Quality, Environmental, and Buy America audits of Ansaldo Honolulu Joint Venture (AHJV) on June 2 and 3, 2016.
- Continue development of HART's sustainability program.
- HART to develop Sustainability Focus Group with to-be-identified stakeholders.
- Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
- Continue to review and meet, if necessary, with contractors regarding submittals.
- Prepare and submit Post-ROD Documentation for FTA approval prior to need dates as indicated:
  - Emergency Backup Generators, second quarter 2016
  - City Center Realignment (including the Ala Moana Station relocation), second quarter 2016
  - Airport and City Center Casting Yards, third quarter 2016
  - Prepare and submit separate draft Post-RODs for the following topics for third quarter 2016 and beyond: Additional Project-Wide Right-of-Way, West O'ahu Park and Ride Lots (including interim Park and Ride at Ho'opili Station), Hōlau Market and Ai-Goto Parcels at Chinatown Station, and Phased Openings.

## 6.6 Risk Management

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

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

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

### NOTES OF SIGNIFICANCE

- Intensive focus continues to be placed on issues involving Hawaiian Electric Co. coordination and clearance issue resolution.
- As reported earlier, a Risk Refresh Workshop was held on March 30, 2016 as the start of the risk and financial planning process. Completion of this process will occur when the FTA/PMOC and HART are in agreement that the budget and schedule approach are in alignment. This process will be used to identify and recommend appropriate budget contingency and schedule float for the revised Revenue Service Date.
- HART has begun to roll out the new Risk Management software. Following the Risk Refresh, HART conducted risk workshops with each of the construction project managers to perform a bottoms-up risk assessment. The Risk Register will be updated with the results in the following Monthly Report.

### AREAS OF FOCUS

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

Mitigation Progress:

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

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

Mitigation Progress:

- Resources to relocate HECO facilities are now keeping up with scheduled requests to resolve utility conflicts through improved coordination efforts between agencies at all levels from project management to executive levels.

- Clearance of HECO overhead facilities and HART Guideway and Stations is undergoing evaluation for site specific solutions with respect to the 138kV, 46kV and 12kV transmission lines. The range of solutions to meet physical separation are extraordinary in cost, requiring further study prior to reaching an agreeable solution that is functional and affordable.

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

Mitigation Progress:

- Nearly all west side property transactions have been accomplished.
- East side – there are a number of third-party agreements needed on the Airport Section and private parcels on the City Center Section. Cost-to-cure partial property improvement impacts have now been mostly resolved.

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

Figure 17. Risk Matrix

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

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

Figure 18. Top Project Risks

Top Risks May 2016								
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	May '16 Risk Rating	Apr '16 Risk Rating
36.01	Project Wide	HECO Clearance - Cost & schedule exposure from unanticipated utility replacements. (Ex., overhead 138kV and 46kV circuits may require relocation, including undergrounding).	90%	5	5	5	25	25
111.19	Airport Guideway and Stations	Cost estimate for remaining AGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
111.06	City Center Guideway & Stations	Cost estimates for remaining CCGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
184.17	Elevator/Escalator	There is a potential for cost escalation and extended OH for delay of manufacturing and installing elevator/escalator due to reprourement of West Side Stations.	90%	5	4	5	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
193.08	Core Systems Contract	Delays in civil, guideway, and stations construction may cause Core Systems installation delay. Shared access to facilities needs to be coordinated.	80%	4	5	5	20	20
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 continue to increase rapidly before purchase of all needed properties, greatly increasing cost of property and delaying construction if legal actions are pursued.	75%	4	5	4	18	18
6.04	Kamehameha Highway Guideway	Insufficient utility company resources available to meet the design, approvals, and/or construction schedule.	75%	4	5	4	18	18
68.14	City Center Guideway & Stations	Downtown Station planned to be integrated into Pacific Guardian Center. PGC position could extend negotiations and delay construction or increase construction costs.	90%	5	4	3	17.5	17.5
38.20	City Center Guideway & Stations	Conflict Resolution - Costs for utility relocations may increase if utility plans have deviations greater than contract stipulation.	50%	3	5	5	15	15
37.06	City Center Guideway & Stations	Additional utility easements may be required for private utility companies or other project needs. This item does not include easements for 138kV undergrounding on Dillingham.	50%	3	5	5	15	15
186.17	Elevator/Escalator	Increase in escalator requirements.	90%	5	3	3	15	15
178.03	West Oahu/Farrington Highway Guideway	Disputed items escalated for resolution results in overturning field determination.	75%	4	5	2	14	14

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

**6.7 Community Outreach**

**• Activities this Month**

- HART unveiled its first four-car train at a ceremony at the Rail Operations Center attended by federal, state and local community and political leaders as well as officials from Hitachi and Ansaldo Honolulu Joint Venture.
- HART staff provided a project overview and a presentation about the construction plans for the Dillingham Boulevard portion of the City Center section of the rail project at a community meeting attended by more than one hundred people.
- HART also made a presentation about the project to members of the Kalihi Business Association.

**• Construction Outreach**

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

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

- 974 Presentations and Events
- 537 Neighborhood Board Meetings

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

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

Figure 19. Honolulu Train #1



**• Community Input**

- HART’s public outreach team responded to more than 100 public inquiries this month. Inquiries were related to traffic and lane closures as well as construction plans.

**• Look Ahead**

Coming in June:

- HART will hold two Business Alliance meetings in the Waipahu and Aiea /Pearl City areas.
- HART plans to participate in the Hire Leeward Job & Career Fair.

**6.8 Staffing**

• **Overview**

- The Director of Communications position interviews have been completed; selection has been made, but hiring action is on hold by the City Department of Human Resources.
- The Chief Financial Officer position interviews have been completed; selection has been made, but hiring action is on hold.
- HART has hired 5 College Student Engineering Interns for the summer.

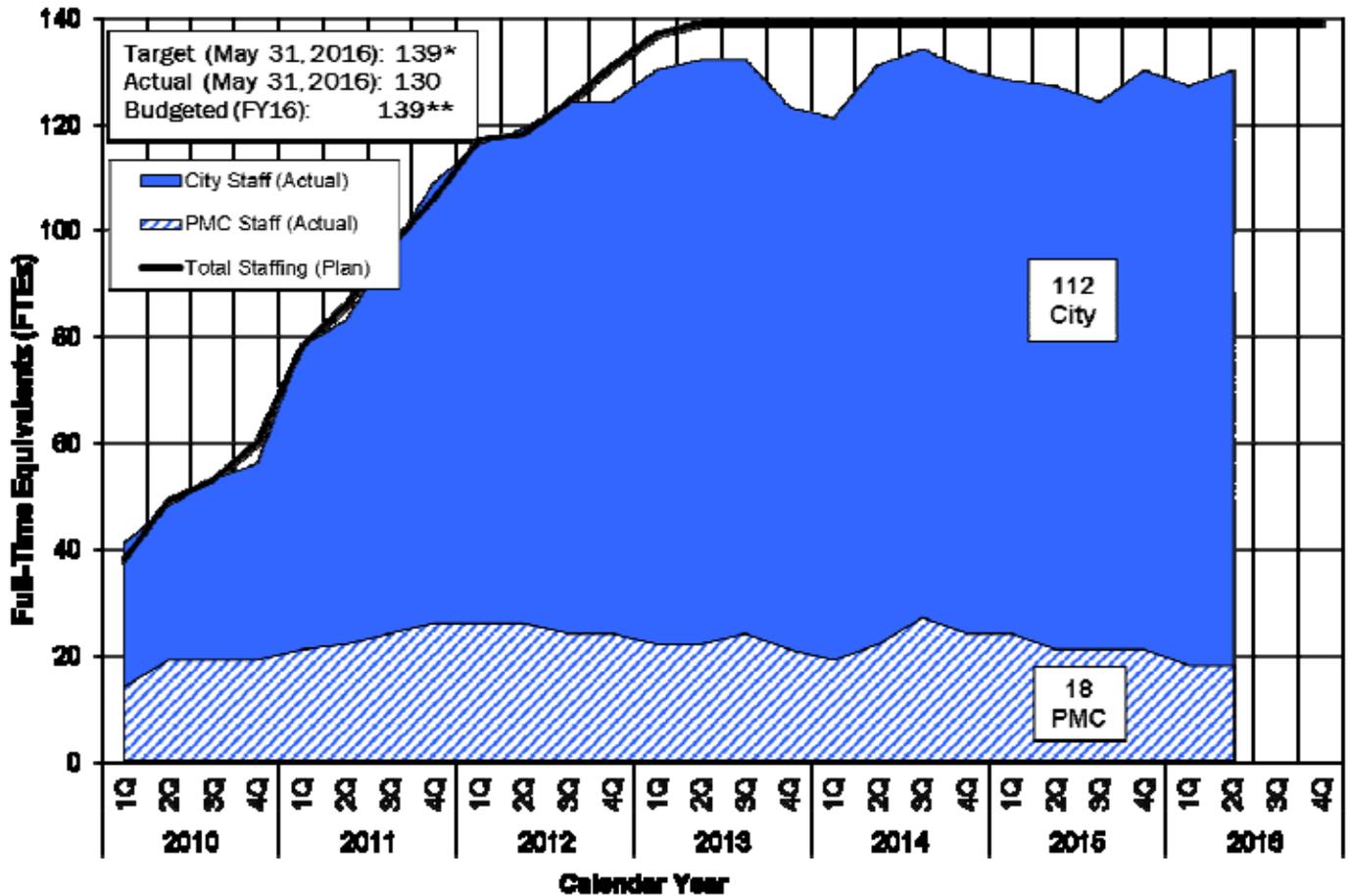
Figure 20. Staffing Activities

Staffing Activities				
Title	Group	New/Existing HART position (City or PMC)	Position Status	Start Month
<b>Design and Construction</b>				
Assistant Project Manager (City Center DB)	Construction	New (City)	Filled	June
Electrical Engineer	Core Systems	Existing (City)	Filled	June
Project Manager (KHSG & H2R2 Ramp)	Construction	Existing (City)	Recruiting	
Assistant Project Manager (Utilities)	Engineering & Design	Existing (City)	Filled	May
Mechanical Engineer	Core Systems	Existing (City)	Recruiting	
<b>Planning, Permits and Right-of-Way</b>				
Planner III* (Environmental)	Planning	Existing (City)	Recruiting	
<b>Budget and Finance</b>				
Chief Financial Officer	Budget and Finance	Existing (City)	Selected (on hold)	
<b>Quality Assurance</b>				
Quality Assurance Engineer * (Civil)	Quality Assurance	Existing (City)	Recruiting	
<b>Administrative Services</b>				
Information Technology Support Technician	Administrative Services	Existing (City)	Filled	May
Information Technology Support Technician	Administrative Services	Existing (City)	Recruiting/Interviewing	
<b>Public Information</b>				
Director of Communications	Public Information	Existing (City)	Selected (on hold)	
<b>Project Controls</b>				
Scheduler	Project Controls	Existing (City)	Recruiting	
CMS Trainer	Project Controls	Existing (City)	Recruiting/Interviewing	
<b>Procurement</b>				
Procurement & Contracts Clerk	Procurement & Specifications	Existing (City)	Selected	June

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

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

Figure 21. Project Staffing (Actual vs. Planned)



\* In accordance with Staffing and Succession Plan Rev 6 (Under Revision)  
 \*\* 139 City positions authorized in FY 2016 HART Operating Budget

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

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

# APPENDICES

## Appendix A. Action Items

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

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

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

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

*Current Contingency Balance = \$469.5M*

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

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

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

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

### Changes Identified and Project Performance

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

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

# HART Project Contingency Drawdown with Details

Data as of 4/28/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (f.d.)	Contingency Code
<b>July '12 (Bottoms-Up Estimate)</b>					
1)	P-D-240	Farrington Highway Stations Group HD	Budget Transfer of Estimate to Estimate from Project Scope to Contingency (Contract Allowance)	\$59,443	00 03 - Contract Allowance
2)	P-D-300	Airport Section Outbound Utilities HD	Budget Transfer for Contract Award less than the ASSU HD Contract Budget	\$2,054,100	00 02 - Allocated Contingency
3)	MA-975	LEED Commissioning Services	Budget Transfer for Contract Award above the LEED Comm. Services Contract Budget	(155,923)	00 02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer for Contract Award above the KH3 DB Contract Budget	(1270,853)	00 02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer for Ins. Cov'd per executed CO No. 004	\$3,065,230	00 02 - Allocated Contingency
			July '12 Contingency Drawdown	\$5,061,273	
			<b>July '12 - Ending Contingency Balance</b>	<b>\$649.4</b>	
1)	P-D-140	West Oahu Stations Group HD	Budget Transfer for Contract Awarded under W0-55 HD Contract Budget	\$1,008,200	00 02 - Allocated Contingency
2)	P-D-530	Jay Center Outbound Utilities HD	Budget Transfer for Contract Award under O0-53 HD Contract Budget	\$5,911,545	00 02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 17 - Procure and Install Portable Buildings	(12,707,000)	00 02 - Allocated Contingency
			August '12 Contingency Drawdown	\$5,065,145	
			<b>August '12 - Ending Contingency Balance</b>	<b>\$654.5</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			September '12 Contingency Drawdown	\$0	
			<b>September '12 - Ending Contingency Balance</b>	<b>\$654.5</b>	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 21 - Builders Risk Insurance Coverage	(59,850)	00 02 - Allocated Contingency
			October '12 Contingency Drawdown	(66,669)	
			<b>October '12 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	P-D-440	Airport Stations Group HD	Budget Transfer for Contract Award under AS5 HD the contract budget	\$227,784	00 03 - Contract Allowance
2)	P-D-340	Kamehameha Highway Stations Group HD	Budget Transfer for Contract Award under KH50 HD this contract budget	\$202,469	00 03 - Contract Allowance
3)	MA-905	General Engineering Consultant	Budget Transfer to align contract budget with committed value	(13,703,030)	00 02 - Allocated Contingency
			November '12 Contingency Drawdown	\$329,623	
			<b>November '12 - Ending Contingency Balance</b>	<b>\$654.7</b>	
1)	P-D-430	Airport Section Outbound Utilities HD	Executed Contract Amendment No. 01 - Design & Engineering cost estimates	(1,275,000)	00 02 - Allocated Contingency
			December '12 Contingency Drawdown	(6276,000)	
			<b>December '12 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 01 - Akacia HD alternative analysis	(19,591)	00 02 - Allocated Contingency
			January '13 Contingency Drawdown	(19,591)	
			<b>January '13 - Ending Contingency Balance</b>	<b>\$654.4</b>	
1)	DB-170	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 26 - Ins. Cov'd Requirement Additional Body at Ft. Weaver HQ	(1,710,176)	00 02 - Allocated Contingency
			February '13 Contingency Drawdown	(1,670,176)	
			<b>February '13 - Ending Contingency Balance</b>	<b>\$652.8</b>	
1)	P-D-240	Farrington Highway Stations Group HD	Executed Contract Amendment No. 09 - Waipahu Station sewer	143,860	00 03 - Contract Allowance
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 06 - Ins. Cov'd Requirements/ Let Crossovers Insulated Joints	(424,076)	00 02 - Allocated Contingency
			March '13 Contingency Drawdown	(4,687,163)	
			<b>March '13 - Ending Contingency Balance</b>	<b>\$652.3</b>	
1)	P-D-140	West Oahu Stations Group HD	Executed Contract Amendment No. 01 - Second elevator provision	(81,015)	00 03 - Contract Allowance
2)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer to offset Ins. Cov'd Requirement for Change Order No. 26	\$1,070,176	00 02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Budget Transfer to offset Ins. Cov'd Requirement for Change Order No. 06	\$434,000	00 02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer to Align current budget to contract Schedule of Milestones	\$200	00 02 - Allocated Contingency
			April '13 Contingency Drawdown	\$2,023,166	
			<b>April '13 - Ending Contingency Balance</b>	<b>\$654.3</b>	
	N/A	N/A	No Contingency Drawdown	\$0	
			May '13 Contingency Drawdown	\$0	
			<b>May '13 - Ending Contingency Balance</b>	<b>\$654.3</b>	

# HART Project Contingency Drawdown with Details

Data as of 4/29/16

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown Lfd	Contingency Code
<b>June '13</b>				
N/A	N/A	June '13 Contingency Drawdown	\$654.3	30
<b>July '13</b>				
Beg. Balance: \$654.3				
FD-130	Airport Station guideway Utilities PD	Executed Contract Amendment No. 04 - Archana Engineering Design Services	(\$494,113)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 07 - Archeological Inventory Survey (AIS) Provisional Sum Part 2	(\$5,000,000)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 08 - Maintenance & Storage Facility Yard Switch Machines	(\$553,000)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 09 - Yard Layout Revisions	(\$174,420)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 10 - Train Configuration	(\$27,700)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 11 - Preliminary Design & Supplemental Project Mgt	(\$694,860)	00.02 - Allocated Contingency
July '13 Contingency Drawdown				
Beg. Balance:			<b>\$65,264,106</b>	
<b>August '13</b>				
Beg. Balance: \$649.1				
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 30 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$5,900,000)	00.02 - Allocated Contingency
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 32 - Kula Chemical Station Mod contract	(\$27,481)	00.02 - Allocated Contingency
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 34 - Traditional Cultural Property Construction Factual Suspension	(\$1,105,094)	00.02 - Allocated Contingency
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 36 - Honolulu Station Relocation Design	(\$480,815)	00.02 - Allocated Contingency
CE-130	Waikanae Highway guideway LB	Executed Change Order No. 06 - Archeological Inventory Survey (AIS) Provisional Part 2	(\$1,599,000)	00.02 - Allocated Contingency
FD-140	West Oahu Stations Group PD	Executed Contract Amendment No. 03 - Canopy Revision	(\$404,340)	00.03 - Contingent Allowance
ME-300	Elevator & Escalator Installation	Budget Transfer for Contract Awarded under E&E IM contract budget	\$3,739,472	00.02 - Allocated Contingency
August '13 Contingency Drawdown				
Beg. Balance:			<b>\$84,322</b>	
<b>September '13</b>				
Beg. Balance: \$643.2				
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 33 - Provisional Sum HOOE Joint Use and Occupancy	(\$4,900,000)	00.02 - Allocated Contingency
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 35 - Aesthetic Column Design Contract	(\$120,812)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 12 - H&NB Design Escalator	(\$293,500)	00.02 - Allocated Contingency
FD-340	Farringham Highway Stations Group PD	Executed Contract Amendment No. 10 - HTP-2 Delay/Design Delay from Core Systems Contract & West Oahu Farringham Highway LB Contract	(\$270,465)	00.02 - Allocated Contingency
September '13 Contingency Drawdown				
Beg. Balance:			<b>\$637.1</b>	
<b>October '13</b>				
Beg. Balance: \$637.1				
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 13 - Int. Core Requirements/ Roof Access Modification	(\$39,130)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Budget Transfer for Change Order No. 13 for Int. Core Requirements	(\$26,500)	00.02 - Allocated Contingency
CE-130	West Oahu Farringham Highway guideway LB	Executed Change Order No. 37 - Ala Wai Street Moop W06 at DR Horton & Farringham HWY	\$24,815	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 05 - Platform Screen Gates Systems	(\$23,301,657)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Budget Transfer for Contract Awarded under BKS05 PD contract budget	\$1,157,760	00.01 - Unallocated Contingency
CE-200	Maintenance & Storage Facility CE	Budget Transfer for Contract Awarded under BKS05 PD contract budget	(\$22,134,739)	00.02 - Allocated Contingency
October '13 Contingency Drawdown				
Beg. Balance:			<b>\$615.0</b>	
<b>November '13</b>				
Beg. Balance: \$615.0				
CE-120	West Oahu Farringham Highway guideway LB	Executed Change Order No. 38 - Insurance Coverage Requirement Q4-2013	(\$1,500,000)	00.02 - Allocated Contingency
CE-120	West Oahu Farringham Highway guideway LB	Budget Transfer for Change Order No. 08 for Int. Core Requirements	\$1,000,000	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 014 - Preliminary Design & Supplemental Project Management 2	(\$214,840)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Executed Change Order No. 015 - Yard Layout Revisions/PPP Structural Steel Modification	(\$1,723,000)	00.02 - Allocated Contingency
CE-200	Maintenance & Storage Facility CE	Budget Transfer for Change Order No. 015 for Int. Core Requirements	\$223,000	00.02 - Allocated Contingency
FD-530	Chi Center guideway Utilities PD	Executed Contract Amendment No. 01 - Archeological Inventory Survey (AIS) Suspension	(\$533,000)	00.02 - Allocated Contingency
FD-200	Farringham Highway Station Group PD	Budget Transfer for Contract Award for FHS05 PD II	(\$2,000,000)	00.01 - Unallocated Contingency
November '13 Contingency Drawdown				
Beg. Balance:			<b>\$610.0</b>	
<b>December '13</b>				
Beg. Balance: \$610.0				
FD-130	Airport Station guideway Utilities PD	Executed Contract Amendment No. 05 - Ulenia 3rd reobsign scope impact	(\$20,920)	00.02 - Allocated Contingency
FD-140	West Oahu Station Group PD	Executed Contract Amendment No. 03 - Design relocation of PCB cables and fiber optic lines	(\$3,000)	00.02 - Allocated Contingency
December '13 Contingency Drawdown				
Beg. Balance:			<b>\$609.8</b>	
<b>January '14</b>				
Beg. Balance: \$609.8				
FD-130	Airport Station guideway Utilities PD	Executed Contract Amendment No. 06 - Archeological Inventory Survey (AIS) Suspension	(\$1,300,420)	00.02 - Allocated Contingency
FD-530	Chi Center guideway Utilities PD	Executed Contract Amendment No. 02 - Soil Resistance Test and Mar. Slip Calculation	(\$496,153)	00.02 - Allocated Contingency
ME-280	Construction Engineering & Inspection West	Budget Transfer for Contract Award less than CE&I West contract budget	(\$181,000)	00.02 - Allocated Contingency
ME-505	Construction Engineering & Inspection East	Budget Transfer for Contract Award less than CE&I East contract budget	\$1,107,817	00.02 - Allocated Contingency
January '14 Contingency Drawdown				
Beg. Balance:			<b>\$1,428,719</b>	

# HART Project Contingency Drawdown with Details

Data as of 4/29/16

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (to)	Contingency Code
<b>February '14</b>				
		January '14 - Ending Contingency Balance	\$608.3	
		Beg. Balance:	\$608.3	
1)	FD-140 Airport Section Guideway Utilities PD	Executed Contract Amendment No. 07 - Permit & Sign Investigation	(1,132,000)	00 02 - Allocated Contingency
2)	HRT-201 HART TOD	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	(11,249)	00 02 - Allocated Contingency
3)	MM-910 REC-11	Budget Transfer for Contract Award - Archeological & Cultural Monitoring & Core Systems Support contracts	(14,426,173)	00 02 - Allocated Contingency
4)	MM-900 Archeological & Cultural Monitoring	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	\$30,761	00 02 - Allocated Contingency
5)	MM-902 Core Systems Support	Budget Transfer for Contract Award - Core Systems Support contract	\$4,368,660	00 02 - Allocated Contingency
		February '14 Contingency Drawdown	<b>(1,132,000)</b>	
		February '14 - Ending Contingency Balance	\$608.2	
		Beg. Balance:	\$608.2	
	N/A	No Contingency Drawdown	\$0	
		March '14 Contingency Drawdown	\$0	
<b>March '14</b>				
		March '14 - Ending Contingency Balance	\$608.2	
		Beg. Balance:	\$608.2	
1)	FD-140 West Oahu Stations Group HD	Executed Contract Amendment No. 04 - East Kapolei Staff Room Pre-Final Submittal	(869,243)	00 03 - Contract Allowance
2)	FD-140 Airport Section Guideway Utility HD	Executed Contract Amendment No. 08 - Notice to Proceed 48.5 Provisional Sum for Design Support during bid	(1,581,014)	00 03 - Contract Allowance
3)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 016 - Rail Lubricants	(1,032,000)	00 02 - Allocated Contingency
4)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 017 - Yard Lubricant Reconfigurator/ Automated Train Operation Design	(17,124,000)	00 02 - Allocated Contingency
5)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 018 - Rail National Storage Plan	(13,019,000)	00 02 - Allocated Contingency
6)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 019 - Train Wash Facility Siting/Design	\$0	00 02 - Allocated Contingency
7)	CB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 040 - Project Yard Alternative Site	(17,400,430)	00 02 - Allocated Contingency
8)	CB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 041 - Revised Track Alignment and Profile	(148,168)	00 02 - Allocated Contingency
9)	CB-120 West Oahu Farmington Highway Guideway DB	Executed Change Order No. 042 - Switchback Jct. Communications Utility Relocation at North South Rd	(1,768,040)	00 02 - Allocated Contingency
10)	CB-120 Kamehameha Highway Guideway DB	Executed Change Order No. 005 - Retail Clear Spacing Criteria	\$0	00 02 - Allocated Contingency
		April '14 Contingency Drawdown	<b>(17,460,740)</b>	
		April '14 - Ending Contingency Balance	\$590.7	
		Beg. Balance:	\$590.7	
1)	FD-140 West Oahu Stations Group HD	Budget Transfer for Executed Contract Amendment No. 05 - Final Design for relocated Hoopoe Station	\$20,121	00 02 - Allocated Contingency
2)	CB-200 Kamehameha Highway Guideway DB	Executed Change Order No. 008 - AFEC work restrictions/ abandoned utilities removal	(1,905,614)	00 02 - Allocated Contingency
3)	CB-200 Kamehameha Highway Guideway DB	Executed Change Order No. 009 - Emergency walkway/insurance coop. Requirements 2013	(1,539,000)	00 02 - Allocated Contingency
4)	MM-900 Core Systems Contract Design Build O&M	Executed Change Order No. 007 - Release TFS5 to System Site #3	\$80,654	00 02 - Allocated Contingency
5)	MM-915 O&M A&I Consultant	Budget Transfer for Executed Contract Amendment No. 001 - Increase TAM contract value	\$29,381	00 02 - Allocated Contingency
6)	MM-915 S&S LEED Consultant	Budget Transfer for Executed Contract Amendment No. 001 - LEED measurement and verification plan	(19,618)	00 02 - Allocated Contingency
7)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 020 - S&S consolidated change construction	(172,400,000)	00 01 - Unallocated Contingency
8)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 025 - O&M reconfiguration	(170,000)	00 02 - Allocated Contingency
		May '14 Contingency Drawdown	<b>(122,310,018)</b>	
		May '14 - Ending Contingency Balance	\$568.4	
		Beg. Balance	\$568.4	
1)	CB-200 Maintenance & Storage Facility DB	Board Approved RFCC 00010 - Amendments 1 Non-Rail Escalator	(1,100,000)	00 02 - Allocated Contingency
		June '14 Contingency Drawdown	<b>(15,000,000)</b>	
<b>June '14</b>				
		June '14 - Ending Contingency Balance	\$563.4	
		Beg. Balance	\$563.4	
1)	CB-14-900 Core Systems Contract Design Build O&M	Executed Change Order No. 008 - Halford Screen Orders Mobilization	(1,338,194)	00 02 - Allocated Contingency
2)	ROW Real Estate/Right-of-Way	Budget Transfer for Contract Award above the Real Estate Map & Survey budget	\$1,344,013	00 02 - Allocated Contingency
3)	CB-200 Maintenance & Storage Facility DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,007,660	00 02 - Allocated Contingency
4)	CB-120 West Oahu Farmington Highway Guideway DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	\$1,556,107	00 02 - Allocated Contingency
		July '14 Contingency Drawdown	<b>\$321,161</b>	
		July '14 - Ending Contingency Balance	\$563.7	
		Beg. Balance	\$563.7	
1)	CB-120 Kamehameha Highway Guideway DB	Executed Change Order No. 010 - Delay in issuance of Notice-to-Proceed 2 & 3	(1,700,000)	00 02 - Allocated Contingency
2)	FD-140 West Oahu Stations Group HD	Executed Amendment No. 006 - Passenger screen gates	(180,930)	00 02 - Allocated Contingency
3)	CB-120 Airport Section Utility Construction DB	Budget Transfer for Contract Award above Airport Section Utility Construction original budget	(12,755,341)	00 02 - Allocated Contingency
4)	MM-946 On Call Hazard Removal Consultant	Budget Transfer due to scope transfer from ROW to Hazard consultant	(170,623)	00 02 - Allocated Contingency
5)	MM-945 On Call Contractor	Budget Transfer for Contract Award above On Call Contractor original budget	(130,450)	00 02 - Allocated Contingency
		August '14 Contingency Drawdown	<b>(14,826,166)</b>	
		August '14 - Ending Contingency Balance	\$559.4	
		Beg. Balance	\$559.4	
1)	MM-950 O&P Consultant Contract	Budget Transfer to unallocated contingency as estimate at completion is less than current budget	(1,750,000)	00 02 - Allocated Contingency
2)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 027 - Traditional Cultural Properties (TCP) Suspension	(147,545)	00 02 - Allocated Contingency
3)	CB-200 Maintenance & Storage Facility DB	Executed Change Order No. 026 - Insurance Coverage Requirements 2014	(1,112,000)	00 02 - Allocated Contingency
4)	CB-120 Kamehameha Highway Guideway DB	Executed Change Order No. 011 - Revised Vehicle Collision/Construction Safety Security Plan	(1,241,400)	00 02 - Allocated Contingency
5)	CB-120 Kamehameha Highway Guideway DB	Executed Change Order No. 012 - Insurance Coverage Requirements 9/11/13 - 6/30/14	(1,400,000)	00 02 - Allocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 4/29/16

Project No.	Project Desc.	Bidding/Transfer/Change/Description	Contingency Drawdown (M)	Contingency Code
6)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 045 - Standard Specification Revision 2.0	(\$2,650,000)	00.02 - Allocated Contingency
7)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 046 - Insurance Coverage Requirements 2014	(\$3,400,000)	00.02 - Allocated Contingency
8)	City Center guideway, Utilities HD	Executed Contract Amendment 004 - Aesthetic Station Column	(\$71,850)	00.02 - Allocated Contingency
9)	City Center guideway, Utilities HD	Executed Contract Amendment 005 - City Center Station Rescue Cart Scope Impact	(\$27,030)	00.02 - Allocated Contingency
10)	Kamaliama Highway Stations Group, FD	Executed Contract Amendment 010 - Special Provisions Updates/Shear Wall Allowance	(\$27,030)	00.03 - Contract Allowance
11)	Kamaliama Highway Stations Group, FD	Executed Contract Amendment 006 - Historic Architectural Release Highway Sign	(\$29,600)	00.03 - Contract Allowance
12)	Kamaliama Highway Stations Group, FD	Executed Contract Amendment 007 - Aesthetic Station Column and Pearl Harbor Station Redesign	(\$238,150)	00.02 - Allocated Contingency
13)	West Oahu Farrington Highway guideway, CB	Executed Contract Amendment 011 - Airport Section Rescue Cart Scope Impact	(\$45,000)	00.02 - Allocated Contingency
14)	West Oahu Farrington Highway guideway, CB	Executed Contract Amendment 007 - Traffic Signal Control Upgrade/Signal Access Signal	(\$93,720)	00.03 - Contract Allowance
15)	West Oahu Stations Group, HD	September '14 Contingency Drawdown	(\$3,306,161)	
<b>September '14 - Ending Contingency Balance</b>				
<b>Beg. Balance</b>			<b>\$550.1</b>	
1)	Core Systems Contract Design Build O&M	Executed Change Order No. 009 - WSPH Guideway Alignment for C-5C	(\$145,000)	00.02 - Allocated Contingency
2)	Maintenance & Storage Facility, CB	Executed Change Order No. 028 - Escalation due to Schedule Impacts	(\$1,900,000)	00.01 - Unallocated Contingency
3)	Kamaliama Highway guideway, CB	Executed Change Order No. 013 - Station Load & Configuration Mods	(\$1,950,000)	00.02 - Allocated Contingency
4)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 047 - Station Load & Configuration Mods	(\$4,400,000)	00.01 - Unallocated Contingency
5)	Airport Stations Group, FD	Executed Contract Amendment No. 002 - Extension of PM Services	(\$290,000)	00.02 - Allocated Contingency
6)	Airport Stations Group, FD	Executed Contract Amendment No. 003 - Add Pedestrian Bridges to HA Stations	(\$434,240)	00.02 - Allocated Contingency
7)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 001 - Extension of PM Services	(\$297,500)	00.03 - Contract Allowance
8)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 000 - Incorporation of Comments	(\$768,750)	00.01 - Unallocated Contingency
9)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 003 - Value Engineering	(\$472,000)	00.01 - Unallocated Contingency
10)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 004 - Escalation	(\$468,500)	00.01 - Unallocated Contingency
11)	West Oahu Stations Group, FD	Executed Contract Amendment No. 010 - Temporary Parking Lot Near UH/NOVA/USF and No Local Sewage Holding Tank	(\$103,240)	00.03 - Contract Allowance
12)	West Oahu Stations Group, FD	October '14 Contingency Drawdown	(\$18,307,186)	
<b>October '14 - Ending Contingency Balance</b>				
<b>Beg. Balance</b>			<b>\$531.8</b>	
1)	Core Systems Contract Design Build O&M	Executed Change Order No. 012 - Delete Ticket Vending Machines	(\$10,360,000)	00.02 - Allocated Contingency
2)	Uluwatu/Kalaheo Stations Group, HD	Executed Contract Amendment No. 002 - General Escalation for CB&T	(\$325,538)	00.02 - Allocated Contingency
<b>November '14 Contingency Drawdown</b>			<b>\$10,735,568</b>	
<b>November '14 - Ending Contingency Balance</b>				
<b>Beg. Balance</b>			<b>\$542.5</b>	
1)	Core Systems Contract Design Build O&M	Executed Change Order No. 010 - HRT from Moonah Shire/MS/DeWitt	(\$63,718)	00.02 - Allocated Contingency
2)	Core Systems Contract Design Build O&M	Executed Change Order No. 013 - HCOO Contract Changes	(\$20,000)	00.02 - Allocated Contingency
3)	Kamaliama Highway guideway, CB	Executed Change Order No. 014 - Escalation due to Schedule Impacts	(\$3,500,000)	00.02 - Allocated Contingency
4)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 048 - Escalation due to Schedule Impacts	(\$15,000,000)	00.01 - Unallocated Contingency
<b>December '14 Contingency Drawdown</b>			<b>(\$18,793,716)</b>	
<b>December '14 - Ending Contingency Balance</b>				
<b>Beg. Balance</b>			<b>\$523.8</b>	
1)	Core Systems Contract Design Build O&M	Executed Change Order No. 011 - Eliminate Station Manager Booths	(\$310,000)	00.02 - Allocated Contingency
2)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 050 - Escalation due to Schedule Impacts Subcontractor American Aggregate	(\$294,413)	00.01 - Unallocated Contingency
3)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 051 - Escalation due to Schedule Impacts Subcontractor Am-Crete Paint	(\$1,476,263)	00.01 - Unallocated Contingency
4)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 052 - Escalation due to Schedule Impacts Subcontractor HFO Spec Duty Officer	(\$166,120)	00.01 - Unallocated Contingency
5)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 053 - Escalation due to Schedule Impacts Subcontractor MESA Books	(\$11,060)	00.01 - Unallocated Contingency
6)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 054 - Escalation due to Schedule Impacts Subcontractor Road Bulver	(\$10,650)	00.01 - Unallocated Contingency
7)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 055 - Escalation due to Schedule Impacts Subcontractor Post Location Strand Accessories	(\$17,177)	00.01 - Unallocated Contingency
8)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 056 - Escalation due to Schedule Impacts Subcontractor American Related Unpaid Grant Claims	(\$109,010)	00.01 - Unallocated Contingency
9)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 057 - Escalation due to Schedule Impacts Subcontractor PAC Electric	(\$177,653)	00.01 - Unallocated Contingency
10)	Core Systems Contract Design Build O&M	Executed Change Order No. 014 - Eliminate Secondary Emergency Access at MSF	(\$58,700)	00.02 - Allocated Contingency
11)	Airport Section Guideway Utilities, HD	Executed Contract Amendment No. 012 - Contaminated Soil at Piers, Wayside Laboratories	(\$58,700)	00.02 - Allocated Contingency
12)	Uluwatu/Kalaheo Stations Group, HD	Executed Contract Amendment No. 005 - Scope for Downtown Sign/Civic Center Signage/Signage Sign & Blue Range	(\$60,017)	00.02 - Allocated Contingency
13)	Uluwatu/Kalaheo Stations Group, HD	Executed Contract Amendment No. 004 - Aia Moana Transit Center/Chinatown San Check/Expected Station Loads	(\$118,177)	00.02 - Allocated Contingency
14)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 006 - Addition of Blue Ramps to H1555 Stations	(\$17,244)	00.02 - Allocated Contingency
15)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 008 - Addition of 30 Guideway Section West Loch and Waipahu Stations	(\$57,000)	00.02 - Allocated Contingency
16)	Farrington Highway Stations Group, 2 HD	Executed Contract Amendment No. 007 - M-UCS to West Loch and Waipahu Station Design	(\$38,000)	00.02 - Allocated Contingency
<b>January '15 Contingency Drawdown</b>			<b>(\$3,988,243)</b>	
<b>January '15 - Ending Contingency Balance</b>				
<b>Beg. Balance</b>			<b>\$519.8</b>	
1)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 058 - Kala Drainage Channel Geotechnical	(\$487,501)	00.02 - Allocated Contingency
2)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 059 - Revision of Waipahu guideway, LCC Station & Pedestrian Vibration Criteria	(\$301,050)	00.02 - Allocated Contingency
3)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 060 - Waipahu Score Design Actuals	(\$288,484)	00.02 - Allocated Contingency
4)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 061 - Kala Score Design Actuals	(\$336,571)	00.02 - Allocated Contingency
5)	West Oahu Farrington Highway guideway, CB	Executed Change Order No. 062 - West Loch and Uluwatu Station Revisions of Guideway	(\$44,217)	00.02 - Allocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 4/28/16

Project No.	Project Description	Budget Transfer/Change Description	Contingency Drawdown (4/1)	Contingency Code
06S-200	West Oahu Farmington Highway Guideway DB	February '16 Contingency Drawdown	\$4,199,853	0001 - Unallocated Contingency
<b>February '16 - Ending Contingency Balance</b>			<b>\$515.0</b>	
<b>March '15</b>			<b>\$515.6</b>	
06M-920	Core Systems Contract Design Build OIM	Executed Change Amendment No. 015 - Test and Storage Truck Changes at MCF	\$7,110.00	0002 - Associated Contingency
FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - W0550 Rebid and VE Items, also Bay Station Canopy Roofs, Change to CSC DW location	\$300.00	0002 - Associated Contingency
FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - W0550 Rebid and VE Items, also Bay Station Canopy Roofs, Change to CSC DW location	\$345.00	0003 - Contract Allowance
FD-500	City Center Guideway Utilities FD	Executed Change Amendment No. 008 - Management Extension thru October 2014	\$92,500.00	0002 - Associated Contingency
06B-925	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 001 - HCOAT Utility Relocation at Piers	\$500.00	0002 - Associated Contingency
FD-340	Kamaleihua Highway Stations Group HD	Executed Change Amendment No. 006 - Misc. RF's Interface Items	\$309,170.00	0002 - Associated Contingency
FD-340	Kamaleihua Highway Stations Group FD	Executed Change Amendment No. 006 - Alpha Stadium Low Impact Development Requirement	\$43,000.00	0003 - Contract Allowance
<b>March '15 Contingency Drawdown</b>			<b>\$4,910,639</b>	
<b>March '15 - Ending Contingency Balance</b>			<b>\$510.7</b>	
<b>April '15</b>			<b>\$510.7</b>	
FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Redesign of East Station Escalator	\$39,000.00	0003 - Associated Contingency
FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Hoopii Grading	\$175,000.00	0003 - Contract Allowance
FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 015 - Redesign of TPSS Trench at SSS and CSC Stations at East Kapolee	\$39,000.00	0002 - Associated Contingency
06B-925	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 002 - Contractor to Perform PSL Training	\$17,216.00	0002 - Associated Contingency
06S-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 049 - Hazard Assessment for LCC Portables	\$9,174.00	0002 - Associated Contingency
<b>April '15 Contingency Drawdown</b>			<b>\$296,660</b>	
<b>April '15 - Ending Contingency Balance</b>			<b>\$510.4</b>	
<b>May '15</b>			<b>\$510.4</b>	
FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 016 - PS/Rebar to Canopy, Design/Power to Hoopii Station Countermeasures	\$133,000.00	0003 - Contract Allowance
FD-340	Kamaleihua Highway Stations Group-2 FD	Executed Contract Amendment No. 009 - West Loch Generator	\$37,000.00	0003 - Contract Allowance
FD-340	Kamaleihua Highway Stations Group HD	Executed Contract Amendment No. 004 - HA Construction Investigation	\$20,000.00	0002 - Associated Contingency
06S-120	West Oahu Farmington Highway Guideway DB	Executed Change Order No. 016 - Delay to Midblock Street 6	\$121,000.00	0002 - Associated Contingency
06M-920	Core Systems Contract Design Build OIM	Executed Change Order No. 016 - Delete Passenger Counters Cont'd Term w/In Provisions on Veh	\$114,161.00	0002 - Associated Contingency
06S-200	Maintenance & Storage Facility DB	Executed Change Order No. 030 - OSB, 1st & 2nd Bay System Design Rev	\$460,000.00	0002 - Associated Contingency
<b>May '15 Contingency Drawdown</b>			<b>\$615,839</b>	
<b>May '15 - Ending Contingency Balance</b>			<b>\$509.8</b>	
<b>June '15</b>			<b>\$509.8</b>	
MM-923	HOOPII Coordination Consult/ City Center	Budget Transfer from Inactive CPP, HOOPII Airport consultant took on City Center scope	\$1,094,282.00	0001 - Unallocated Contingency
MM-923	Architectural & Cultural Monitoring	Budget Transfer to Provide Funding for FY 2015	\$501,000.00	0001 - Unallocated Contingency
MM-923	HOOPII Core	Executed Contract Amendment No. 013 - Airport Design Build Package	\$503,640.00	0002 - Associated Contingency
MM-923	Program Management Support Consult/Phase-2	Budget Transfer for excused action for one year extension of services	\$7,616,317.00	0001 - Unallocated Contingency
06M-920	Core Systems Contract Design Build OIM	Budget Transfer for On Call Contractor performing CSC related scope at the ROC	\$500,000.00	0003 - Associated Contingency
<b>June '15 Contingency Drawdown</b>			<b>\$8,168,329</b>	
<b>June '15 - Ending Contingency Balance</b>			<b>\$501.7</b>	
<b>July '15</b>			<b>\$501.7</b>	
06H-100	City and County of Honolulu	Inactive CPP, (D/S costs), reduces budget to incurred costs	\$470,598.00	0001 - Unallocated Contingency
06S-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 065 - Rebid of LCC Prototypes/Final LCC	\$300,910.00	0001 - Unallocated Contingency
06S-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 066 - Rebid of LCC Prototypes/Final LCC	\$355,000.00	0001 - Unallocated Contingency
06S-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 067 - Revised West Yard Lead	\$124,526.00	0001 - Unallocated Contingency
06S-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 031 - WAW Interior Bldg. Systems Devices	\$160,000.00	0002 - Associated Contingency
06S-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 032 - Revision of Vegetative Roof Request	\$53,415.00	0002 - Associated Contingency
<b>July '15 Contingency Drawdown</b>			<b>\$1,807,459</b>	
<b>July '15 - Ending Contingency Balance</b>			<b>\$500.7</b>	
<b>Aug '15</b>			<b>\$500.7</b>	
06S-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 068 - Delay RTPT 2, 3, 4 - CM Escalation	\$6,229,445.00	0001 - Unallocated Contingency
06S-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 083 - EUS Foundation	\$44,179.00	0002 - Associated Contingency
06S-200	Kamaleihua Highway Guideway DB	Executed Change Order No. 017 - Reallocate Sewer 935+100 to 947+00	\$191,200.00	0002 - Associated Contingency
FD-140	West Oahu Stations Group HD	Executed Contract Amendment No. 017 - Power to LHW Station and Electrical Bonding	\$43,000.00	0003 - Contract Allowance
FD-340	Farmington Highway Stations Group-2 FD	Executed Contract Amendment No. 015 - Pedestrian Bridge Modifications	\$18,750.00	0003 - Contract Allowance
FD-340	Kamaleihua Highway Stations Group FD	Executed Change Amend No. 007 - Value Engineering Reduce 3rd Cost and PH, and AS New Platform Canopy Coordination	\$24,622.00	0002 - Associated Contingency
FD-340	Airport Stations Group FD	Executed Contract Amendment No. 005 - Eleton Build Building Documents	\$70,000.00	0002 - Associated Contingency
06M-920	Core Systems Contract Design Build OIM	Executed Change Order No. 017 - Voltage Flicker Study	\$57,650.00	0003 - Associated Contingency
FD-500	City Center Guideway Utilities Group FD	Executed Change Amend No. 0005 - Scope of Change - School's location	\$133,542.00	0002 - Associated Contingency
<b>Aug '15 Contingency Drawdown</b>			<b>\$17,868,033</b>	
<b>Aug '15 - Ending Contingency Balance</b>			<b>\$492.9</b>	
<b>Sept '15</b>			<b>\$492.9</b>	
06S-120	Kamaleihua Highway Guideway DB	Executed Contract Change Order No. 018 - Unpaved Subsurface at Boring 472R Utility Variance from RFP	\$52,331.00	0002 - Associated Contingency
<b>Sept '15 Contingency Drawdown</b>			<b>\$52,331</b>	
<b>Sept '15 - Ending Contingency Balance</b>			<b>\$492.8</b>	

# HART Project Contingency Drawdown with Details

Date as of 4/29/16

Project No.	Project Desc.	Budget Transfers/Change Description	Contingency Drawdown (FY)	Contingency Credit
<b>Oct'15</b>				
1)	DCS-200	Kamaliameha Highway Stations Group HD	\$492.8	
2)	DC-300	Kamaliameha Highway Stations Group HD		
3)	DC-300	Kamaliameha Highway Stations Group 2 HD		
4)	DC-300	Kamaliameha Highway Stations Group 2 HD		
5)	DC-140	West Oahu Stations Group HD		
6)	DC-140	West Oahu Stations Group HD		
7)	DC-400	Airport Stations Group HD		
8)	DC-900	Core Systems Contract Design Build O&M		
9)	DC-900	Core Systems Contract Design Build O&M		
<b>Oct '15 Contingency Drawdown</b>				
<b>Oct '15 - Ending Contingency Balance</b>			<b>\$489.0</b>	
<b>Nov'15</b>				
1)	DCS-100	Maintenance & Storage Facility DB	\$488.2	
2)	DCS-200	Maintenance & Storage Facility DB		
3)	DCS-300	Maintenance & Storage Facility DB		
4)	DCS-300	Maintenance & Storage Facility DB		
5)	MMA-970	Fare Collection Consultant		
<b>Nov '15 Contingency Drawdown</b>				
<b>Nov '15 - Ending Contingency Balance</b>			<b>\$488.2</b>	
<b>Dec'15</b>				
1)	DCS-120	West Oahu Farrington Highway guideway DB	\$487.3	
2)	DCS-200	Maintenance & Storage Facility DB		
3)	DCS-300	Maintenance & Storage Facility DB		
4)	DCS-320	Kamaliameha Highway guideway DB		
5)	DC-550	City Center guideway 7 Phase Construction		
<b>Dec '15 Contingency Drawdown</b>				
<b>Dec '15 - Ending Contingency Balance</b>			<b>\$487.3</b>	
<b>Jan'16</b>				
1)	DCS-120	West Oahu Farrington Highway guideway DB	\$487.4	
2)	DCS-200	Maintenance & Storage Facility DB		
3)	DCS-300	Maintenance & Storage Facility DB		
4)	DCS-525	Airport Section guideway 7 Phase Construction		
5)	DCS-525	Airport Section guideway 7 Phase Construction		
<b>Jan '16 Contingency Drawdown</b>				
<b>Jan '16 - Ending Contingency Balance</b>			<b>\$487.4</b>	
<b>Feb'16</b>				
1)	DCS-120	West Oahu Farrington Highway guideway DB	\$475.1	
2)	DCS-200	Maintenance & Storage Facility DB		
3)	DCS-300	Maintenance & Storage Facility DB		
4)	DCS-320	Kamaliameha Highway guideway DB		
5)	DCS-525	Airport Section guideway 7 Phase Construction		
6)	DCS-900	Core Systems Contract Design Build O&M		
7)	DCS-900	Core Systems Contract Design Build O&M		
8)	DCS-905	Airport Section Utilities		
9)	DCS-905	Airport Section Utilities		
<b>Feb '16 Contingency Drawdown</b>				
<b>Feb '16 - Ending Contingency Balance</b>			<b>\$475.1</b>	
<b>Mar'16</b>				
1)	DCS-120	West Oahu Farrington Highway guideway DB	\$473.5	
2)	DCS-120	West Oahu Farrington Highway guideway DB		
3)	DCS-120	West Oahu Farrington Highway guideway DB		
4)	DCS-120	West Oahu Farrington Highway guideway DB		
5)	DCS-120	West Oahu Farrington Highway guideway DB		
6)	DCS-120	West Oahu Farrington Highway guideway DB		
7)	DCS-120	West Oahu Farrington Highway guideway DB		
8)	DCS-120	West Oahu Farrington Highway guideway DB		
9)	DCS-120	West Oahu Farrington Highway guideway DB		
10)	DCS-120	West Oahu Farrington Highway guideway DB		
11)	DCS-120	West Oahu Farrington Highway guideway DB		
<b>Mar '16 Contingency Drawdown</b>				
<b>Mar '16 - Ending Contingency Balance</b>			<b>\$473.5</b>	
<b>Apr'16</b>				
1)	DCS-120	West Oahu Farrington Highway guideway DB	\$473.5	
2)	DCS-120	West Oahu Farrington Highway guideway DB		
3)	DCS-120	West Oahu Farrington Highway guideway DB		
4)	DCS-120	West Oahu Farrington Highway guideway DB		
5)	DCS-120	West Oahu Farrington Highway guideway DB		
6)	DCS-120	West Oahu Farrington Highway guideway DB		
7)	DCS-120	West Oahu Farrington Highway guideway DB		
8)	DCS-120	West Oahu Farrington Highway guideway DB		
9)	DCS-120	West Oahu Farrington Highway guideway DB		
10)	DCS-120	West Oahu Farrington Highway guideway DB		
11)	DCS-120	West Oahu Farrington Highway guideway DB		



**Appendix C. Project Cost Reports** (data as of April 29, 2016)

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

**Project Costs by Contract**



Costs Reported as of Month Ending: April 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 4/29/16

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CPP No	Title	T&M	A		B		C=A+B		D		E		F	
			Original	COMMITTED Changes	Current *	AFE	AFE**	Incurred To Date	PERCENT %					
A.RT	A.RT Contracts		124,000	0	124,000	0	0	6,200	0	6,200	5%			
CCH-100	Inactive Hart/City CCH		15,348,443	0	15,348,443	0	0	14,325,228	0	14,325,228	97%			
CCH-101	HART/City Dept of BFS		105,092	0	105,092	0	0	0	0	0	0%			
CCH-102	HART/City DDC Land Division		256,201	0	256,201	0	0	173,182	0	173,182	68%			
CCH-107	HART/City Corporation Counsel (CO R)		1,616,253	250,000	1,866,253	250,000	0	212,328	0	212,328	11%			
CCH-108	HART / Board of Water Supply (BWS)		928,325	0	928,325	0	0	928,325	0	928,325	100%			
DB-120	West Oahu/Farrington Hwy. Guideway/DB	SOM	482,924,000	164,897,879	647,821,879	647,821,879	0	560,378,560	0	560,378,560	87%			
DB-200	Maintenance & Storage Facility/DB	SOM	195,258,000	79,592,776	274,850,776	274,850,776	0	271,532,758	0	271,532,758	99%			
DB-320	Kamehameha Hwy. Guideway/DB	SOM	372,150,000	17,322,586	389,472,586	389,472,586	0	239,707,374	0	239,707,374	62%			
DBB-171	West Oahu Station Group/DBB	SOV	56,088,470	0	56,088,470	0	0	0	0	0	0%			
DBB-185	SPCD - West Side SG Construction	SOV	0	0	0	0	0	0	0	0	0%			
DBB-271	Farrington Highway Station Group/DBB	SOV	78,999,000	0	78,999,000	0	0	0	0	0	0%			
DBB-275	SPCD-Pearl Highlands Pkg. Str. Constr.	SOV	0	0	0	0	0	0	0	0	0%			
DBB-371	Kamehameha Hwy Stations Grp./DBB	SOV	115,805,845	0	115,805,845	0	0	0	0	0	0%			
DBB-385	Ramp H2R2	SOV	5,203,646	0	5,203,646	0	0	732,850	0	732,850	14%			
DBB-470	SPCD-Airport Station Group Constr.	SOV	0	0	0	0	0	0	0	0	0%			
DBB-505	Airport Section Utilities Constr./DBB	SOV	27,993,290	-478,477	27,514,812	27,514,812	0	11,799,212	0	11,799,212	43%			
DBB-510	City Qtr. Section Util. Constr./DBB	SOV	0	0	0	0	0	0	0	0	0%			
DBB-520	SPCD-Airport-City Center Gateway Cntr.	SOV	0	0	0	0	0	0	0	0	0%			
DBB-525	Airport Section Guideway 7 Pier/DBB	SOV	3,973,000	54,843	4,027,843	4,027,843	0	4,027,843	0	4,027,843	100%			
DBB-580	SPCD-Dillingham/Kaka'ako SG Cntr.	SOV	0	0	0	0	0	0	0	0	0%			
DBB-600	Park-and-Ride Lots Construction	SOV	0	0	0	0	0	0	0	0	0%			
DBO M-9.20	Core Systems Design Build D/M	SOM	573,782,793	26,060,894	599,843,687	599,843,687	0	192,486,847	0	192,486,847	32%			
FD-140	West Oahu Station Group/DBB	SOM	7,789,000	2,270,103	10,059,103	10,059,103	0	9,199,096	0	9,199,096	91%			
FD-240	Farrington Highway Stations Group/DBB	SOM	9,300,696	4,981,349	14,282,045	14,282,045	0	12,577,157	0	12,577,157	88%			
FD-245	SPCD-Pearl Highlands Pkg. Str./FD	SOM	0	0	0	0	0	0	0	0	0%			
FD-340	Kamehameha Hwy Station Group/DBB	SOM	8,702,592	1,257,636	9,960,228	9,960,228	0	9,305,132	0	9,305,132	93%			
FD-490	SPCD-Airport Sect. Guideway/Util./FD	SOM	38,840,960	4,299,512	43,140,472	43,140,472	0	41,526,542	0	41,526,542	96%			
FD-440	SPCD-Airport Station Group/DBB	SOM	10,177,865	1,386,487	11,573,852	11,573,852	0	9,363,402	0	9,363,402	86%			
FD-530	SPCD - City Center Guideway/Util./FD	SOM	43,948,220	3,149,342	47,097,562	47,097,562	0	42,809,894	0	42,809,894	91%			
FD-550	SPCD - Dillingham and Kaka'ako S/G/DBB	SOM	18,321,918	966,124	19,308,042	19,308,042	0	11,875,668	0	11,875,668	62%			
FD-600	Park-and-Ride Lots Final Design	SOM	0	0	0	0	0	0	0	0	0%			
HRT-200	HART Labor		49,951,942	0	49,951,942	0	0	49,183,648	0	49,183,648	98%			

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Costs Reported as of Month Ending: April 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 4/29/16

CPP No	Title	A		B		C=A+B		D		E		F	
		Original	COMMITTED Changes	Current*	Current*	AFE**	AFE**	Incurred To Date	Incurred To Date	PERCENT %	PERCENT %		
HRT-201	HART ODC Contracts	16,311,124	82,122	16,393,246	412,132	21,706,306	412,132	132%					
MI-900	Fare Collection DFI	15,464,198	0	15,464,198	15,464,198	0	0	0%					
MI-930	Elevators & Escalators Install/Maint	50,882,714	1,016,321	51,899,035	6,458,429	5,868,106	5,868,106	11%					
MM-280	SPCD-WOFH/KHSG CE&I(REPA CK&GED)	0	0	0	0	0	0	0%					
MM-290	Construction Engrg & Insp CEI West	54,232,480	0	54,232,480	16,650,000	25,087,107	25,087,107	46%					
MM-385	SPCD-Pearl Highlands Garage Rmps CEI	0	0	0	0	0	0	0%					
MM-500	SPCD-By MM959 CEI East	0	0	0	0	0	0	0%					
MM-525	SPCD-By MM959 CEI East	0	0	0	0	0	0	0%					
MM-590	SPCD-By MM959 CEI East	0	0	0	0	0	0	0%					
MM-595	SPCD - Const. Engrg & Insp. CEI East	63,083,417	-50,377,317	12,706,100	(35,120,217)	12,382,150	12,382,150	37%					
MM-596	Construction Engrg & Insp CEI East 2	55,036,130	0	55,036,130	55,036,130	3,523,705	3,523,705	6%					
MM-600	SPCD-UHWO Pkg-Hoopili Str Fresh CEI	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	0	0	0%					
MM-901	Program Mgt Support Const (PM SC-2)	33,376,897	18,444,023	51,820,920	45,124,813	41,176,027	41,176,027	79%					
MM-905	MM-905 Gen Engrg Consil EIS/PE	0	78,564,942	78,564,942	78,564,942	74,157,822	74,157,822	34%					
MM-910	MM-910 Gen Engrg Consil FD-Construct	150,000,000	0	150,000,000	150,000,000	149,446,362	149,446,362	100%					
MM-913	MM-913 Gen Engrg Recomplete	46,143,277	268,451	46,411,728	31,214,951	27,606,535	27,606,535	59%					
MM-915	HDOT Traffic Mgmt. Consult.	1,600,000	2,400,000	4,000,000	7,000,000	3,237,969	3,237,969	81%					
MM-920	HDOT Coordination Const WOFH	3,000,000	7,500,000	10,500,000	11,750,000	6,900,049	6,900,049	66%					
MM-921	HDOT Coordination Const KHG	10,000,000	-1,400,000	8,600,000	7,600,000	4,295,156	4,295,156	50%					
MM-922	HDOT Coordination Const Airport	12,000,000	-5,600,000	6,400,000	4,400,000	2,727,863	2,727,863	43%					
MM-923	HDOT Coordination Const City Center	0	0	0	0	0	0	0%					
MM-925	HDOT Labor - WOFH/KHSG Agreements	550,000	1,265,633	1,815,633	3,081,266	1,769,511	1,769,511	37%					
MM-926	HDOT Labor - Airport Agreements	0	0	0	0	0	0	0%					
MM-930	HDOT State S.O.M. Manager & Consultant	1,272,400	583,142	1,855,542	843,167	873,849	873,849	47%					
MM-935	Real Estate Consultant	3,000,000	5,077,665	8,077,665	8,077,165	6,385,488	6,385,488	79%					
MM-937	Real Estate Consultant - Maps/Surv.	2,998,000	0	2,998,000	1,500,000	1,052,109	1,052,109	35%					
MM-940	Kako'o Consultant	1,000,000	0	1,000,000	500,000	526,643	526,643	53%					
MM-941	Kako'o Consultant II	200,000	0	200,000	200,000	25,000	25,000	12%					
MM-945	On-Call Contractor	1,000,000	1,000,000	2,000,000	1,800,000	1,948,724	1,948,724	37%					
MM-946	On-Call Hazmat Removal Contractor	3,075,000	75,000	3,150,000	1,075,000	2,788,610	2,788,610	89%					
MM-947	On-Call Contractor 2	7,500,000	0	7,500,000	4,500,000	4,166,059	4,166,059	56%					
MM-950	OCIP Consultant	1,250,000	0	1,250,000	1,250,000	1,041,875	1,041,875	83%					

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Costs Reported as of Month Ending: April 2016  
**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		COMMITTED	Current *	AFE	AFE**		
									Incurred To Date	%
MM-351	Owner-Controlled Insurance Program	41,000,000	0	41,000,000	0	41,000,000	0	26,542,505	65%	
MM-360	Archaeological & Cultural Monitoring	1,658,474	0	1,658,474	1,658,474	1,658,474	1,388,810	84%		
MM-362	Core Systems Support	43,988,989	0	43,988,989	3,600,000	43,988,989	15,328,182	35%		
MM-364	Safety and Security Consultant	4,639,573	112,751	4,812,324	4,012,751	4,812,324	3,472,697	72%		
MM-370	Fare Collection Consultant	1,184,388	0	1,184,388	1,178,200	1,178,200	0	0%		
MM-375	LEED Commissioning Services for MSF	278,630	39,800	318,530	318,530	318,530	170,360	54%		
OTHER	All Project Wide Documents	0	0	0	0	0	0	0%		
PA-101	Programmatic Agreement Humanities	0	0	0	0	0	0	0%		
PA-102	Programmatic Agreement HPC	400,000	0	400,000	200,000	400,000	176,809	44%		
PA-103	Programmatic Agreement HPC Park Impr	0	0	0	0	0	0	0%		
ROW	Real Estate / Right-of-Way	109,885,511	0	109,885,511	121,992	109,885,511	103,187,811	99%		
UTIL	Utility Company Contracts	95,637,272	-1,920,761	93,716,512	71,803,181	93,716,512	52,287,629	56%		
<b>Total Project:</b>		<b>2,965,350,103</b>	<b>363,166,925</b>	<b>3,328,517,028</b>	<b>2,668,105,413</b>	<b>3,328,517,028</b>	<b>2,091,233,876</b>			

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Project Costs by SCC – Level 2

Costs Reported as of Month Ending: April 2016  
 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	Current	AFE**	Changes ID'd****	Est. # of Completion****	Variance	Incurred To Date						
<b>1. Subtotal 10 - 80 SCC Costs</b>																			
NTP.2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.02	Guideway & Track Elements	1,114,215,147	44,322,979	1,158,738,126	549,578,573	35,241,165	(451,846)	1,158,738,126	0	359,320,081	0	0	0	0	0	0	0	0	0
10.04	Guideway: Aerial Structure	1,022,380,671	41,962,902	1,064,343,573	464,691,819	25,955,522	(451,846)	1,064,343,573	0	304,693,000	0	0	0	0	0	0	0	0	0
10.05	Guideway: Built-up fill	0	0	0	0	0	0	0	0	2,095,982	0	0	0	0	0	0	0	0	0
10.08	Guideway: Retained Cut or Fill	7,492,944	(1,056,888)	6,436,056	6,436,256	0	0	6,436,256	0	0	0	0	0	0	0	0	0	0	0
10.09	Track: Direct Fixation	79,347,205	2,664,360	82,011,565	74,204,369	9,197,889	0	82,011,565	0	52,462,945	0	0	0	0	0	0	0	0	0
10.11	Track: Ballasted	3,293,724	(595,849)	2,697,875	2,697,875	0	0	2,697,875	0	0	0	0	0	0	0	0	0	0	0
10.12	Track: Special (Switches, turnouts)	1,700,603	1,530,876	3,231,479	1,530,876	30,876	0	3,231,479	0	30,876	0	0	0	0	0	0	0	0	0
20. Stations	Stops/Terminals, Intermodal	421,804,740	(2,189,830)	419,615,110	302,892,350	1,016,321	0	419,615,110	0	5,868,106	0	0	0	0	0	0	0	0	0
20.01	A-grade station, stop, shelter...	6,111,332	(6,111,332)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20.02	Aerial Station, stop, shelter, mall	294,563,457	6,643,853	301,207,310	250,893,315	0	0	301,207,310	0	0	0	0	0	0	0	0	0	0	0
20.06	Automobile parking multi-story str	66,408,765	0	66,408,765	0	0	0	66,408,765	0	0	0	0	0	0	0	0	0	0	0
20.07	Elevators, Escalators	54,721,186	(2,722,151)	51,999,035	51,999,035	10,163,21	0	51,999,035	0	5,868,106	0	0	0	0	0	0	0	0	0
30. Support Facilities: Yards, Sheds, Admin		92,535,015	22,731,655	115,266,670	115,402,782	19,059,118	7,792	115,266,670	0	116,534,536	0	0	0	0	0	0	0	0	0
30.01	Administration Bldg, Office, sales	0	231,250	231,250	231,250	231,250	0	231,250	0	205,266	0	0	0	0	0	0	0	0	0
30.02	Light Maintenance Facility	7,591,888	(9,184)	7,582,704	7,582,704	(4,083)	0	7,582,704	0	7,537,682	0	0	0	0	0	0	0	0	0
30.03	Heavy Maintenance Facility	38,099,138	5,108,668	43,207,806	43,207,806	5,350,776	0	43,207,806	0	43,248,881	0	0	0	0	0	0	0	0	0
30.04	Storage or Maintenance of Way Bui	7,797,460	819,670	8,617,130	8,753,242	1,017,332	0	8,617,130	0	8,650,085	0	0	0	0	0	0	0	0	0
30.05	Yard and Yard Track	39,046,529	16,381,251	55,627,780	55,627,780	12,463,849	7,792	55,627,780	0	56,892,622	0	0	0	0	0	0	0	0	0
40. Sitework & Special Conditions		983,178,121	37,633,771	1,020,811,892	733,427,315	166,346,841	(639,529)	1,020,811,892	0	589,715,612	0	0	0	0	0	0	0	0	0
40.01	Demolition, Clearing, Earthwork	29,980,158	(3,066,868)	26,913,290	10,804,041	1,505,797	0	26,913,290	0	4,052,666	0	0	0	0	0	0	0	0	0
40.02	Site Utilities, Utility Relocation	299,449,756	(343,895)	299,095,861	196,993,138	4,948,653	(248,225)	299,095,861	0	126,563,527	0	0	0	0	0	0	0	0	0
40.03	Haz. mat'l, contain'd soil removal	9,199,237	(5,241,732)	3,957,505	3,555,987	270,887	(391,304)	3,957,505	0	2,984,597	0	0	0	0	0	0	0	0	0
40.04	Environmental Mitigation	26,979,122	4,990,976	31,970,098	16,557,672	16,864	0	31,970,098	0	11,384,137	0	0	0	0	0	0	0	0	0
40.05	Site structures, retaining walls,	7,998,960	11,000,743	18,999,703	14,681,531	4,734,883	0	18,999,703	0	5,957,823	0	0	0	0	0	0	0	0	0
40.06	Pedestrian/bike access/landscaping	41,073,897	(5,627,842)	35,446,055	5,697,888	473,454	0	35,446,055	0	1,465,734	0	0	0	0	0	0	0	0	0
40.07	Auto, bus, van accessways	181,979,367	(17,592,167)	164,387,200	38,506,351	2,438,835	0	164,387,200	0	5,708,044	0	0	0	0	0	0	0	0	0
40.08	Temporary Facilities/Indirect Cost	386,517,624	55,524,588	446,042,212	446,690,708	151,957,667	0	446,042,212	0	411,579,064	0	0	0	0	0	0	0	0	0

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

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Costs Reported as of Month Ending: April 2016  
 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	Current	COMMITTED	Current*	AFE**	AFE**	Changes ID'd***	ESTIMATE AT COMPLETION	Est. At Completion***	Variance	Incurred To Date			
<b>1. Subtotal 10 - 80 SCC Costs</b>																			
80.0	Systems	221,284,301	27,474,531	248,758,832	249,068,814	27,033,099	437,000	248,758,832	0	50,761,884	0	50,761,884	0	50,761,884	0	50,761,884	0	50,761,884	0
50.01	Train control and signals	81,982,556	24,381,140	106,363,696	106,363,696	23,861,050	0	106,363,696	0	6,969,403	0	6,969,403	0	6,969,403	0	6,969,403	0	6,969,403	0
50.02	Traffic signals and crossing prot.	10,459,226	(206,890)	10,252,336	0	0	0	10,251,336	0	0	0	10,251,336	0	10,251,336	0	10,251,336	0	10,251,336	0
50.03	Traction power supply: substation	29,500,926	1,379,880	30,880,806	30,880,806	(87,485)	437,000	30,880,806	0	4,751,819	0	4,751,819	0	4,751,819	0	4,751,819	0	4,751,819	0
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	22,444,552	0	22,444,552	0	22,444,552	0	22,444,552	0	22,444,552	0
50.05	Communications	53,691,339	6,193,477	59,824,816	59,824,816	5,573,419	0	59,824,816	0	17,708,011	0	17,708,011	0	17,708,011	0	17,708,011	0	17,708,011	0
50.06	Fare collection system and equipm	9,159,277	(9,112,878)	46,399	15,516,895	(10,350,000)	0	46,399	0	(1,131,301)	0	(1,131,301)	0	(1,131,301)	0	(1,131,301)	0	(1,131,301)	0
50.07	Central Control	3,613,827	(160,036)	3,453,791	3,453,791	0	0	3,453,791	0	0	0	3,453,791	0	3,453,791	0	3,453,791	0	3,453,791	0
80.0	ROW, Land, Existing Improvements	197,397,947	515,616	197,913,563	114,952,326	2,065,815	5,000,000	197,913,563	0	115,890,114	0	115,890,114	0	115,890,114	0	115,890,114	0	115,890,114	0
80.01	Purchase or lease of real estate	179,360,664	237,816	179,598,480	97,236,849	39,015	5,000,000	179,598,480	0	103,194,962	0	103,194,962	0	103,194,962	0	103,194,962	0	103,194,962	0
80.02	Relocation of existing households	18,037,283	277,800	18,315,083	17,695,477	2,027,800	0	18,315,083	0	12,695,152	0	12,695,152	0	12,695,152	0	12,695,152	0	12,695,152	0
70.0	Vehicles	186,829,020	4,645,501	191,474,521	191,474,521	1,446,224	0	191,474,521	0	39,678,906	0	39,678,906	0	39,678,906	0	39,678,906	0	39,678,906	0
70.01	Light Rail	166,721,386	5,947,191	172,568,577	172,568,577	1,446,224	0	172,568,577	0	31,151,288	0	31,151,288	0	31,151,288	0	31,151,288	0	31,151,288	0
70.06	Non-revenue vehicles	14,346,923	(1,320,375)	13,026,548	13,026,548	0	0	13,026,548	0	8,527,618	0	8,527,618	0	8,527,618	0	8,527,618	0	8,527,618	0
70.07	Spare parts	5,760,711	118,685	5,879,396	5,879,396	0	0	5,879,396	0	0	0	5,879,396	0	5,879,396	0	5,879,396	0	5,879,396	0
80.0	Professional Services	1,087,890,119	36,753,719	1,124,643,838	1,065,075,271	111,010,200	(25,342,613)	1,124,643,838	0	817,288,876	0	817,288,876	0	817,288,876	0	817,288,876	0	817,288,876	0
80.01	Preliminary Engineering	94,055,262	24,644,185	118,699,447	109,567,127	20,905,682	0	118,699,447	0	103,764,827	0	103,764,827	0	103,764,827	0	103,764,827	0	103,764,827	0
80.02	Final Design	228,321,632	(4,648,893)	223,672,739	207,783,063	32,868,637	(7,805,886)	223,672,739	0	171,249,680	0	171,249,680	0	171,249,680	0	171,249,680	0	171,249,680	0
80.03	Project Management Design & Cons	363,849,768	(28,315,655)	335,534,113	376,047,087	84,809,428	(17,409,214)	335,534,113	0	328,991,861	0	328,991,861	0	328,991,861	0	328,991,861	0	328,991,861	0
80.04	Constr. Adm'n. & Management	199,656,728	(34,420,307)	165,236,421	131,252,384	(44,789,988)	0	165,236,421	0	91,460,776	0	91,460,776	0	91,460,776	0	91,460,776	0	91,460,776	0
80.05	Professional Liability & other Ins	46,549,724	26,781,938	73,331,662	43,174,657	700,500	0	73,331,662	0	28,543,680	0	28,543,680	0	28,543,680	0	28,543,680	0	28,543,680	0
80.06	Legal: Permits Review Fees et...	67,641,005	(3,206,464)	64,434,541	38,203,625	5,032,053	0	64,434,541	0	22,622,295	0	22,622,295	0	22,622,295	0	22,622,295	0	22,622,295	0
80.07	Surveys, Testing, Investigation, I	21,759,396	47,202,100	68,961,496	101,230,950	1,574,480	48,296	68,961,496	0	34,249,111	0	34,249,111	0	34,249,111	0	34,249,111	0	34,249,111	0
80.08	Start up	65,996,664	8,716,816	74,713,480	57,816,477	9,909,409	(775,809)	74,713,480	0	36,366,647	0	36,366,647	0	36,366,647	0	36,366,647	0	36,366,647	0
A.C.	Provisional Pay Requests	0	0	0	0	0	0	0	0	15,484,305	0	15,484,305	0	15,484,305	0	15,484,305	0	15,484,305	0
ACR	Provisional Request For Payment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Subtotal:</b>		4,305,074,410	174,088,143	4,479,162,553	3,321,872,053	363,234,683	(21,569,196)	4,479,162,553	0	2,090,542,421	0	2,090,542,421	0	2,090,542,421	0	2,090,542,421	0	2,090,542,421	0
<b>2. NTP</b>																			
NTP	Authorized For Expenditure	0	0	0	0	2,300,861,710	0	2,300,861,710	0	0	0	2,300,861,710	0	2,300,861,710	0	2,300,861,710	0	2,300,861,710	0
NTP	Notice To Proceed	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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: April 2016  
**Project Monthly Cost Report by SCC Details**  
 4/29/16

SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	Current	Current*	AFE**	Changes ID'd***	Est. At Completion****	Variance	Incurred To Date			
<b>2. NTP</b>													
	NTP Authorized For Expenditure	0	0	0	0	0	0	0	2,300,861,710	0	0	0	0
	NTP Notice To Proceed	0	0	0	0	0	0	0	2,300,861,710	0	0	0	0
	<b>Subtotal:</b>	0	0	0	0	0	0	0	2,300,861,710	0	0	0	0
<b>3. Contingency</b>													
	CNTR Allocated Contingency	541,689,343	(89,388,423)	441,700,914	6,644,975	4,018,120	341,616,379	441,700,914	0	0	0	0	691,455
	90.02 Allocated Contract Contingency	540,101,329	(102,597,586)	437,503,743	4,019,120	4,019,120	341,600,069	437,503,743	0	0	0	0	691,455
	90.03 Allowances	1,588,014	2,608,157	4,197,171	2,625,855	0	16,309	4,197,171	0	0	0	0	0
	90.07 Known Change Contingency	0	0	0	0	0	0	0	0	0	0	0	0
	PRJ Unallocated Contingency	101,871,170	(74,099,714)	27,771,456	0	0	0	27,771,456	0	0	0	0	0
	90.01 Unallocated Project Contingency	101,871,170	(74,099,714)	27,771,456	0	0	0	27,771,456	0	0	0	0	0
	<b>Subtotal:</b>	643,560,513	(174,088,143)	469,472,370	6,644,975	4,019,120	341,616,379	469,472,370	0	0	0	0	691,455
<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
	100.1 Finance Charges:Project-Eligible	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>ETA TOTAL PROJECT COSTS 5,421,693,166</b>													
		(0)	5,121,693,166	3,328,517,028	2,668,105,413	320,027,183	5,121,693,166	0	2,091,233,876	0	0	0	2,091,233,876
<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
	100.2 FTA Non-Eligible Costs	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>													
		(0)	5,163,693,166	3,328,517,028	0	0	0	42,000,000	0	0	0	0	0
	<b>Total Project:</b>	(0)	5,163,693,166	3,328,517,028	320,027,183	5,163,693,166	320,027,183	5,163,693,166	0	2,091,233,876	0	0	2,091,233,876

\* 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

Appendix D. Procurement and Contract Status

Awarded Contracts						
Contract Code	Contract Name	Contractor Name	Advertise Date	Contract Date	Issue NTP	Contract Substantial Completion CMA
DB-120	West O'ahu/Farrington Highway Guideway (WOFH)	Kiewit Infrastructure West Company (KIWC)	Apr 03 '09	Nov 11 '09	Dec 01 '09	Jul 01 '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 16 '19
MI-930	Elevators and Escalators	Schindler Elevator Corporation	Dec 18 '12	Jul 31 '13	Aug 02 '13	Jun 13 '16
FD-140	West O'ahu Station Group Final Design and Support	URS Corporation	Jun 14 '10	Jun 14 '12	Jun 15 '12	Jun 21 '17
FD-240	Farrington Highway Station Group Final Design and Support -2	URS Corporation	Jun 18 '13	Sep 27 '13	Sep 30 '13	Nov 14 '16
FD-340	Kamehameha Highway Station Group Final Design (includes H2/R2 Ramp) and Support	Anil Verma Associates, Inc.	Jun 28 '11	Nov 16 '12	Nov 26 '12	Jun 14 '17
FD-430	Airport Section Guideway and Utilities Final Design and Support	AECOM Technical Services, Inc.	Jan 26 '11	Dec 22 '11	Jan 05 '12	Jun 30 '17
FD-530	City Center Section Guideway and Utilities Final Design and Support	AECOM Technical Services, Inc.	Dec 16 '11	Jul 30 '12	Jul 31 '12	Apr 30 '18
FD-440	Airport Station Group Final Design and Support	AECOM Technical Services, Inc.	Mar 30 '12	Nov 7 '12	Nov 14 '12	Jul 01 '15
FD-550	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and Support	Perkins+Will	Nov 16 '12	Aug 15 '13	Aug 19 '13	Jul 30 '18
MM-290	Construction Engineering & Inspection West Side Sections	PGH Wong Engineering, Inc.	Jul 26 '13	Jan 9 '14	Jan 09 '14	Jan 09 '20
MM-595	Construction Engineering & Inspection East Side Sections	URS Corporation	Jul 26 '13	Jan 07 '14	Jan 09 '14	Oct 09 '15
MM-901	Program Management Support Consultant - 2 (PMSC-2)	InfraConsult LLC	Aug 03 '11	Feb 28 '12	Mar 08 '12	Mar 07 '17
MM-910	General Engineering Consultant II (GEC-2) (Final Design and Construction)	Parsons Brinckerhoff	Sep 03 '09	Jun 30 '11	Aug 02 '11	Dec 31 '14
MM-913	General Engineering Consultant III (GEC-3)	CH2M HILL	Jul 26 '13	Dec 5 '13	Dec 05 '13	Apr 04 '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	May 21 '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	Jan 03 '18
MM-950	Owner-Controlled Insurance Program (OCIP) Consultant	Marsh USA, Inc.	Jan 31 '12	May 10 '12	Jun 05 '12	May 09 '17
MM-951	Owner-Controlled Insurance Program (OCIP) Brokerage Services	Aon Risk Services, Inc., of Hawaii	Jun 04 '13	Apr 09 '14	Apr 09 '14	Mar 30 '19
MM-960	Archaeological & Cultural Monitoring	Cultural Surveys Hawai'i	Sep 10 '13	Jan 15 '14	Jan 15 '14	Sep 10 '19
MM-962	CORE Systems Support	Lea+Elliott, Inc.	Sep 13 '13	Feb 10 '14	Feb 11 '14	Sep 10 '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	Aug 31 '17
PA-102	Historic Architecture Design Services	Fung Associates, Inc.	Mar 15 '13	Aug 1 '13	Aug 01 '13	Oct 28 '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 '18
MM-921	HDOT Design Coordination Consultant - Kamehameha Highway Guideway Section	AECOM Technical Services, Inc.		Jun 28 '12	Jun 29 '12	Jun 30 '17
MM-922	HDOT Design Coordination Consultant - Airport and City Center Guideway	SSFM International, Inc.		Jun 8 '12	Jun 12 '12	Jun 13 '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	Jul 06 '19
MM-946	On-Call Hazardous Materials (HazMat) Removal Contractor	CH2M HILL		Aug 23 '12	Sep 07 '12	Aug 22 '19
MM-947	On-Call Construction Contractor II	Royal Contracting Co. Ltd.	Mar 17 '15	May 21 '15	May 21 '15	May 21 '20
MM-948	On-Call Construction Contract "III"	Royal Contracting Co. Ltd.	Feb 23 '16	May 19 '16	TBD	NTP + 84 months
MM-596	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
MI-900	Fare Systems Contract	INIT Innovations in Transportation, Inc.	Aug 11 '15	Apr 14 '16	Apr 18 '16	Apr 17 '26
DBB-385	Ramp H2R2	Royal Contracting Co. Ltd.	Jan 30 '15	May 18 '15	May 18 '15	May 31 '16
DBB-505	Airport Section Utilities Construction	Nan, Inc.	Dec 17 '13	Jun 30 '14	Oct 6 '14	Jul 13 '16
DBB-525	Airport Section Guideway Seven (7) Pier Construction Contract	HDCC / CJA JV	Jul 09 '14	Sep 18 '14	Sep 18 '14	Apr 22 '15
DBB-271	Farrington Hwy Stations Group Construction	Hawaiian Dredging Construction Company, Inc.	Dec 19 '14	Jun 22 '15	Aug 17 '15	NTP + 29 months
DBB-171	West O'ahu Stations Group Construction	Nan, Inc.	Apr 13 '15	Jul 20 '15	Oct 13 '15	NTP + 29 months
DBB-371	Kamehameha Hwy Stations Group Construction	Nan, Inc.	Aug 18 '15	Nov 17 '15	TBD	NTP + 32 months
	Independent Financial Auditor "II" Contract	KMH LLP	Oct 26 '15	Mar 15 '16	Mar 23 '16	Mar 22 '18

Appendix E. Vehicle Car Shell Progress Tracker

HONOLULU AB R.C. FABRICATION TRACKER

CAR SHELL SERIAL NUMBER	CENTER ROOF FLOOR ASST & WELDING (PART 1)	CENTER FLOOR ASST & WELDING (PART 2)	CENTER ROOF FLOOR MACHINING (PART 3)	CENTER ROOF ASST & WELDING (PART 4)	ROOF WELDING PARTS	FINAL ROOF INSPECTION	UNDER FRAME ASST & WELDING	UNDER FRAME WELDING PARTS	UNDERFRAME INSPECTION	UNDER FRAME PAINTING	CAR SHEET METAL WELDING (PART 5)	CAR SHEET CALIBRATED (PART 6)	WATER TEST	PAINTING	INSULATION	FLOORING	REPORT MARK OF CAR UNIT	CAR SHEET FINAL INSPECTION	COMPLETED CAR SHELL	FAC	CRANES INSTALLED	DATE SHIPPED FROM RC	DATE OF FIRST DEPARTURE	DATE OF FTA TO FITTING
M101																								
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Date: 2/16/2016

Comments: Car shell ready for fit and finish. Test with FTA on 4/1/2016. (M170-M180)

COMPLETED IN PROGRESS OR NEXT STATION  
CHANGED  
TEST UNIT  
DATE

COMPLETED PERMANENT TIME OF COMPLETION OF SHIFTING  
CHANGED  
TEST UNIT

## 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 5/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	\$ 6,800	
				CT-DTS-1100195 DB-320	\$ 140,654	
				CT-HRT-1500297 MM-947	\$ 221	
				CT-HRT-1000449 DB-200	\$ 79,954	\$ 227,629
Glad's Landscaping	561730	APA	M	CT-HRT-10H0137 DB-120	\$ 303,790	\$ 303,790
Don's Makiki	484110	APA	M	CT-HRT-10H0137 DB-120	\$ 537,031	
				CT-HRT-10H0449 DB-200	\$ 81,581	
				CT-DTS-1100195 DB-320	\$ 60,714	\$ 679,326
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	\$ 85,043	
				CT-HRT-1500297 MM-947	\$ 3,840	\$ 88,883
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	\$ 5,836,436	\$ 5,836,436
PMJ Builders	238310	APA	M	CT-HRT-10H0137 DB-120	\$ 43,866	
				CT-DTS-1100195 DB-320	\$ 107,100	\$ 150,966
Standard Sheetmetal & Mechanical	236220	APA	M	CT-HRT-10H0449 DB-200	\$ 6,105	\$ 6,105
LP&D Hawaii	541320	APA	M	SC-DTS-1100013 FD-240	\$ 219,911	\$ 219,911
Ace Land Surveying	541370	NA	M	SC-DTS-1100013 FD-240	\$ 38,700	\$ 38,700
Integrated Security Tech.	561621	O	F	CT-HRT-1200106 DBOM-920	\$ 105,180	\$ 105,180
LKG-CMC	541618	O	F	SC-HRT-11H0131 MM-905	\$ 2,600,462	
				SC-DTS-0700001 ****MM-910	\$ 2,783,277	
				SC-HRT-1400051 MM-595	\$ 271,047	

DBE Participation (9/24/07 to 5/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400049 MM-962	\$ 366,156	\$ 6,020,942
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-095	\$ 740,962	
				SC-DTS-0700001 ****MM-910	\$ 150,141	
				SC-HRT-1400061 MM-964	\$ 1,330,724	\$ 2,221,827
Gary K. Omori	541618	APA	M	SC-HRT-11H0131 MM-905	\$ 388,609	
				SC-DTS-0700001 ****MM-910	\$ 392,920	\$ 781,529
Pat Lee & Assoc.	541618	APA	M	SC-HRT-11H0131 MM-905	\$ 402,791	
				SC-DTS-0700001 ****MM-910	\$ 374,110	\$ 776,901
212 Harakawa	541430	APA	F	SC-HRT-11H0131 MM-905	\$ 358,141	
				SC-DTS-0700001 ****MM-910	\$ 354,758	\$ 712,899
JAD & Associates	541330	APA	M	SC-DTS-0700001 ****MM-910	\$ 508,355	\$ 508,355
Pacific Architects	541310	APA	M	SC-DTS-0700001 ****MM-910	\$ 39,273	\$ 39,273
Nagame Okawa*	541310	APA	M	SC-DTS-0700001 MM-910	\$ 67,014	\$ 67,014
Consulting Structural Hawaii	541330	APA	M	SC-DTS-0700001 ****MM-910	\$ 298,557	\$ 298,557
Bright Light Marketing Group	541613	APA	F	SC-HRT-1200038 FD-430	\$ 162,813	
				SC-HRT-1200149 FD-530	\$ 191,227	
				SC-HRT-1300022 FD-440	\$ 134,912	\$ 488,952
Ki Concepts	541320	APA	M	SC-HRT-1200077 MM-922/923	\$ 26,550	\$ 26,550
Miyabara Associates	541320	APA	M	SC-HRT-1300022 FD-440	\$ 99,850	\$ 99,850
Anil Verma Associates, Inc. **	541350	HA	M	SC-HRT-1200111 FD-340	\$ 3,890,116	\$ 3,890,116
AMR Estimating Services ***	541330	HA	M	SC-HRT-11H0131 MM-905	\$ 135,281	
				SC-HRT-1400027 MM-913	\$ 1,054,413	\$ 1,189,694
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	\$ 1,659,795	\$ 1,659,795
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	\$ 894,632	

DBE Participation (9/24/07 to 5/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400051 MM-595	\$ 10,197	\$ 904,829
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	\$ 122,018	\$ 122,018
FIC, LLC	541611	APA	M	SC-HRT-1400051 MM-595	\$ 1,299,481	\$ 1,299,481
The Solis Group	541620	O	F	SC-HRT-1400027 MM-913	\$ 1,535,034	\$ 1,535,034
Island Hauling	484110	APA	M	CT-HRT-1000449 DB-200	\$ 355,656	\$ 355,656
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	\$ 1,835,848	\$ 1,835,848
Minatoishi Architects	541310	APA	F	SC-HRT-1400027 MM-913	\$ 335,266	\$ 335,266
Dovetail Consulting	541330	BA	F	MOU-11-SO-1 MM-930	\$ 847,741	\$ 847,741
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	\$ 446,558	
				CT-HRT-1500297 MM-947	\$ 857,986	\$ 1,304,544
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	\$ 176	
				CT-HRT-1400323 DBB-505	\$ 35,989	
				CT-HRT-1500297 MM-947	\$ 152	\$ 36,317
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	\$ 13,291	
				CT-HRT-1500297 MM-947	\$ 2,117	\$ 15,408
<b>Total</b>						<b>\$ 35,082,821</b>

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

**Race Categories**

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

## Appendix G. Risk

Risk by Contract Package				
Contract Packages	April 2016 # of Risks	May 2016 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	6	6	0	0
West Oahu/Farrington Guideway	10	10	0	0
Pearl Highlands Garage	4	4	0	0
Maintenance and Storage Facility	4	4	0	0
Kamehameha Highway Guideway	16	16	0	0
Core Systems Contract	10	10	0	0
Elevator/Escalator	4	4	0	0
Airport Utilities	4	4	0	0
Farrington Highway Stations	5	5	0	0
Ramp H2R2	1	1	0	0
West Oahu Stations	5	5	0	0
Kamehameha Highway Stations	4	4	0	0
Airport Guideway & Stations	26	26	0	0
City Center Guideway & Stations	31	31	0	0
<b>Total</b>	<b>130</b>	<b>130</b>	<b>0</b>	<b>0</b>

Comparison of Risk Ratings								
Contract Package/Section	April 2016 # of Risks				May 2016 Update # of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	6	2	3	1	6	2	3	1
West Oahu/Farrington Guideway	10	1	7	2	10	1	7	2
Pearl Highlands Garage	4	1	3	0	4	1	3	0
Maintenance and Storage Facility	4	0	2	2	4	0	2	2
Kamehameha Highway Guideway	16	2	8	6	16	2	8	6
Core Systems Contract	10	2	6	2	10	2	6	2
Elevator/Escalator	4	2	2	0	4	2	2	0
Airport Utilities	4	0	3	1	4	0	3	1
Farrington Highway Stations	5	0	5	0	5	0	5	0
Ramp H2R2	1	0	1	0	1	0	1	0
West Oahu Stations	5	2	3	0	5	2	3	0
Kamehameha Highway Stations	4	1	2	1	4	1	2	1
Airport Guideway & Stations	26	4	19	3	26	4	19	3
City Center Guideway & Stations	31	10	15	6	31	10	15	6
<b>Total</b>	<b>130</b>	<b>27</b>	<b>79</b>	<b>24</b>	<b>130</b>	<b>27</b>	<b>79</b>	<b>24</b>

Appendix H. Project Organization Chart

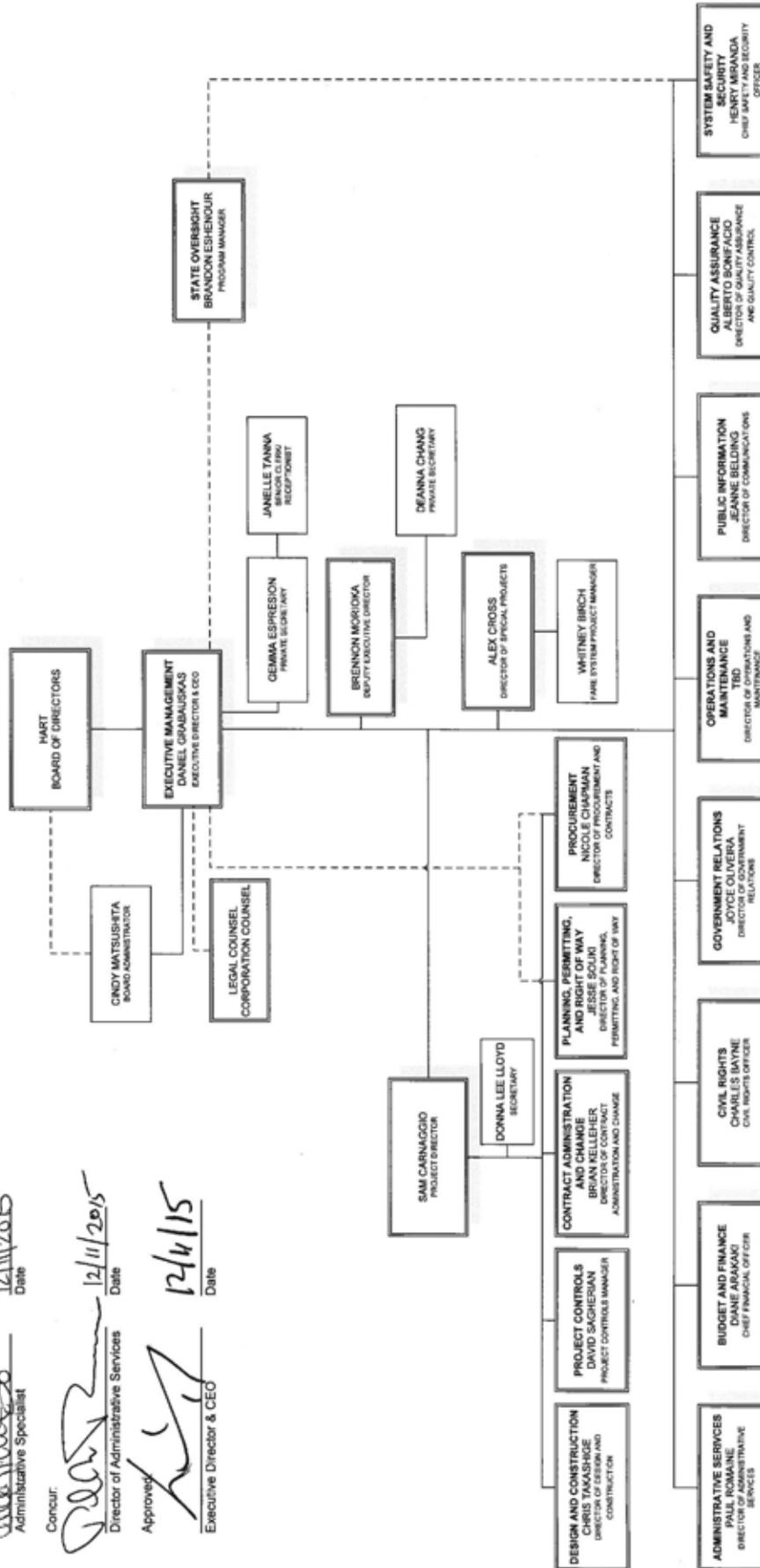
December 11, 2015

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

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

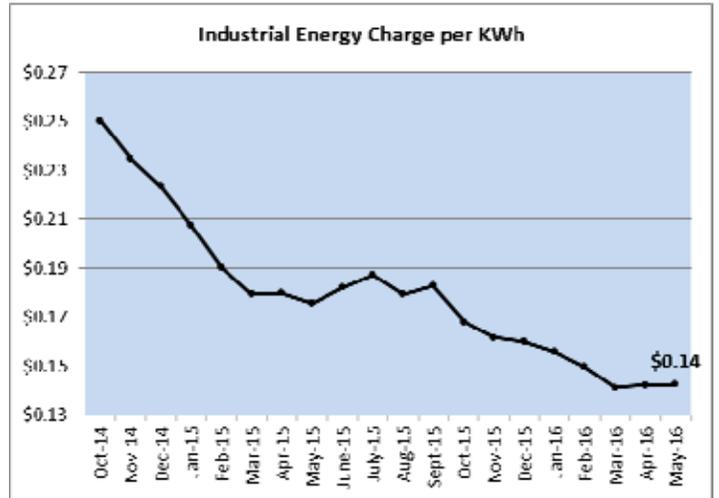
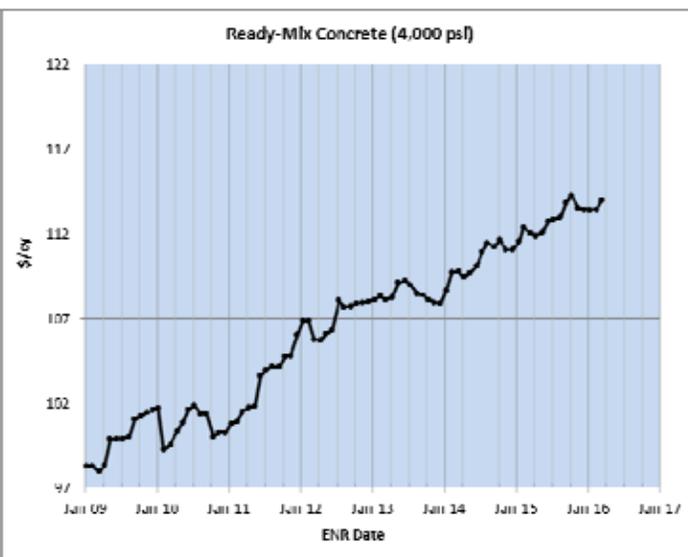
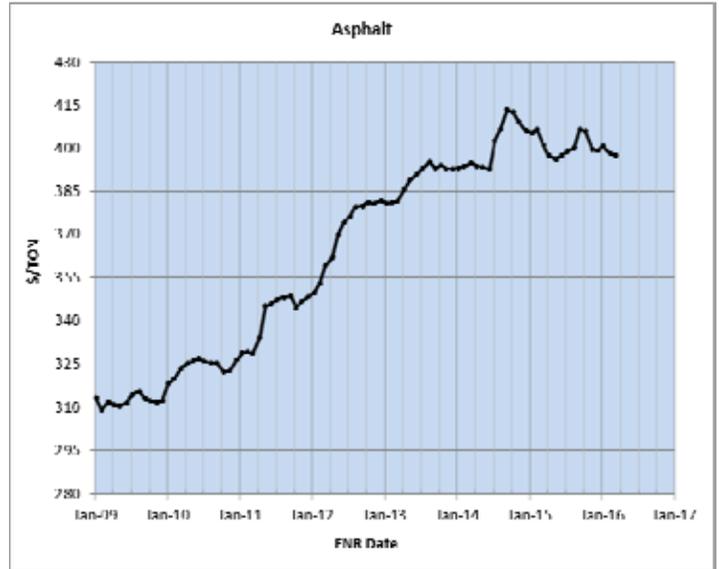
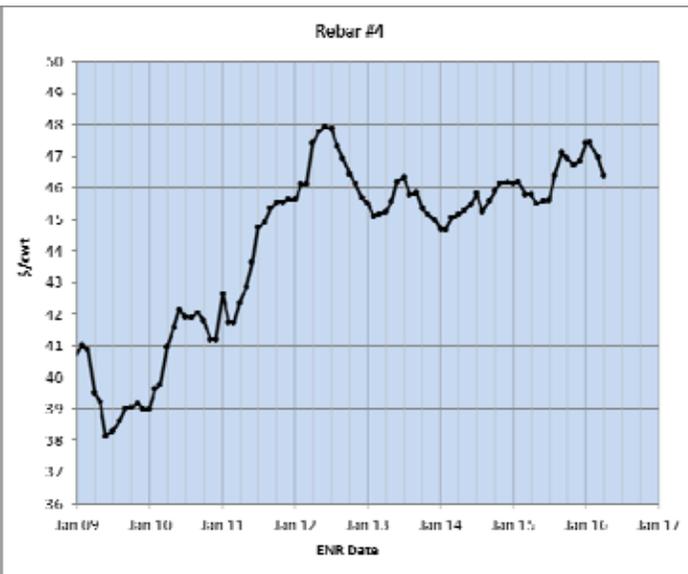
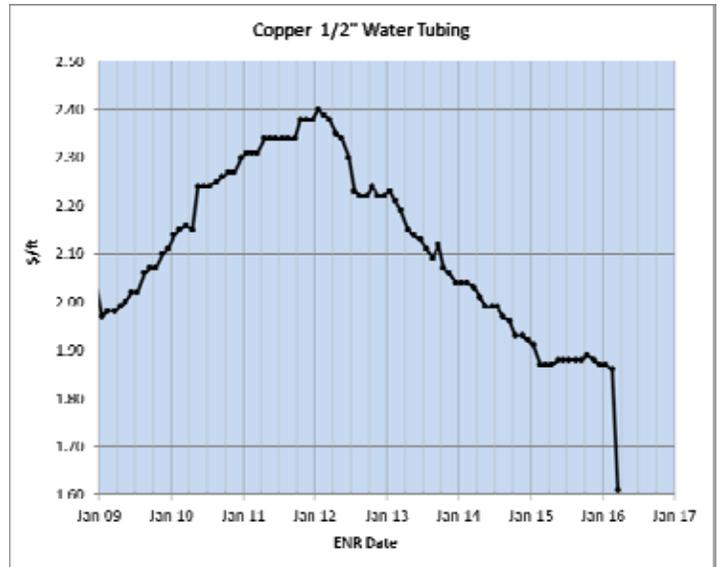
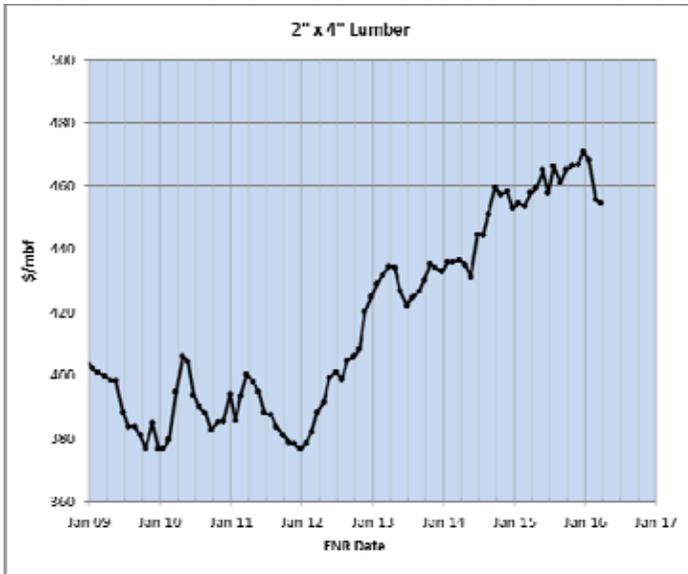
Concur: [Signature]  
 Director of Administrative Services  
 Date: 12/11/2015

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.



Construction on Kamehameha Highway.



Balanced cantilever operations near the H-1 Freeway.



Construction along Kamehameha Highway.



Future Aloha Stadium Station.



Operations and Servicing Building (OSB).



Wheel Truing Building and OSB.



Maintenance of Way Building.



Casting Yard.