

# HONOLULU RAIL TRANSIT PROJECT



## July 2016 MONTHLY PROGRESS REPORT



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

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

**REPORT FORMAT AND FOCUS**

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

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

**ON THE COVER:**

Left: 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.

**TABLE OF CONTENTS**

TABLE OF FIGURES ..... 4

LIST OF ACRONYMS ..... 5

PROJECT MAP ..... 8

PROGRESS REPORT SUMMARY OF CHANGES..... 9

1 EXECUTIVE SUMMARY ..... 11

2 OVERALL PROJECT PROGRESS AND FINANCIALS ..... 13

    2.1 Project Progress ..... 13

    2.2 Project Budget ..... 15

    2.3 Project Contingency ..... 15

    2.4 Project Funding ..... 17

    2.5 Project Revenue and Costs ..... 19

3 SCHEDULE..... 20

4 CONTRACT STATUS ..... 22

    4.1 System-Wide ..... 23

    4.2 Section I – West O’ahu/Farrington Highway: East Kapolei to Pearl Highlands ..... 31

    4.3 Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium ..... 42

    4.4 Section III – Airport: Aloha Stadium to Middle Street Transit Center Station ..... 50

    4.5 Section IV – City Center: Middle Street Transit Center Station to Ala Moana Center..... 56

    4.6 Project-Wide ..... 60

5 OVERALL PROJECT-WIDE ACTIVITIES ..... 67

    5.1 Permits ..... 67

    5.2 Hawai’i Department of Transportation (HDOT) Agreements ..... 67

    5.3 Utility Agreements ..... 68

    5.4 Right-of-Way ..... 70

6 MANAGEMENT AND ADMINISTRATIVE UPDATES ..... 75

    6.1 Safety and Security ..... 75

    6.2 Quality Management ..... 83

    6.3 Buy America Compliance ..... 86

    6.4 Disadvantaged Business Enterprise (DBE) ..... 87

    6.5 Planning and Environment..... 88

    6.6 Risk Management ..... 89

    6.7 Community Outreach ..... 91

    6.8 Staffing ..... 93

APPENDICES..... 95

    A. Action Items ..... 96

    B. Project Contingency Management General Background and Clarifications ..... 97

    C. Project Cost Reports ..... 105

    D. Procurement and Contract Status..... 111

    E. Vehicle Car Shell Progress Tracker ..... 112

    F. DBE Participation..... 113

    G. Project Organization Chart ..... 116

    H. Indices on Key Commodities ..... 117

    I. Project Photos ..... 118

**Table of Figures**

Figure 1. Overall Project Progress (% Complete) ..... 13

Figure 2. Construction Progress (% Complete) ..... 13

Figure 3. Design Progress (% Complete) ..... 14

Figure 4. Utilities Progress (% Complete)..... 14

Figure 5. Project Contingency Budget..... 15

Figure 6. Draft Cost Contingency Drawdown Chart ..... 16

Figure 7. Planned vs. Received Project Funding..... 17

Figure 8. Project Funding Sources (YOE \$M)..... 17

Figure 9. New Starts Drawdown by Federal Fiscal Year ..... 18

Figure 10. Project Revenue versus Incurred Costs..... 19

Figure 11. Cash Balance Summary ..... 19

Figure 12. HRTP Master Project Schedule Summary (MPSS) ..... 21

Figure 13. Right-of-Way Status for the Parcels ..... 70

Figure 14. Relocation Status for the Occupants..... 71

Figure 15. Inter-Governmental Agreement / Third-Party Agreement Status ..... 72

Figure 16. DBE Participation this Month..... 87

Figure 17. Providing Answers to Questions ..... 92

Figure 18. Staffing Activities..... 93

Figure 19. Project Staffing (Actual vs. Planned) ..... 94

LIST OF ACRONYMS

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

HDPE	High-density polyethylene	NTS	Network Time Server
HECO	Hawaiian Electric Company	O&M	Operations and Maintenance
HFD	Honolulu Fire Department	OCC	Operations Control Center
HHF	Historic Hawai'i Foundation	OCIP	Owner-Controlled Insurance Program
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	PHPR	Pearl Highlands Park and Ride
ICD	Interface Control Documents	PICM	Project Interface Control Manual
ICE	Independent Cost Estimate	PIG	Permitted Interaction Group
ICM	Interface Control Manual	PIM	Project Interface Manager
ICWG	Interim Certification Working Group	PLA	Project Labor Agreement
IDS	Intrusion Detection System	PLO	Priority-Listed Offerors
IFB	Issued for Bid	PM	Project Managers
IFC	Issued for Construction	PMC	Project Management Consultant
IJ	Isolation Joint	PMIM	Project Management and Interface Management
INMS	Integrated Network Management System	PMOC	Project Management Oversight Contractor
IP	Implementing Procedures	PMP	Project Management Plan
ITP	Inspection and Test Plan	PMSC	Program Management Support Consultant
ITS	Intelligent Transportation Systems	PPE	Personal Protective Equipment
JTMS	Joint Traffic Management System	PRTCC	Pre-revenue Testing Conform Checklist
JU&O	Joint Use & Occupancy	PSG	Platform Screen Gate
JUOA	Joint Use and Occupancy Agreement	PSGS	Platform Screen Gate System
JV	Joint Venture	PSIT	Pre-shipment Inspection Test
KCDD	Kaka'ako Community Development District	PT	Post Tensioning
KCH	Kanehili Cultural Hui	PUP	Property Utilization Plan
KHG	Kamehameha Highway Guideway	PV	Passenger Vehicle
KHSG	Kamehameha Highway Station Group	QA	Quality Assurance
KIWC	Kiewit Infrastructure West Company	QAM	Quality Assurance Manager
KKJV	Kiewit/Kobayashi Joint Venture	QAP	Quality Assurance Plan
LCC	Leeward Community College	QC	Quality Control
LEED	Leadership in Energy and Environmental Design	QMP	Quality Management Plan
LPR	License Plate Reader	QMS	Quality Management System
LRV	Light Rail Vehicle	QTF	Quality Task Force
MIM	Manufacture-Install-Maintain	R&R	Revise & Re-submit
MITT	Multimodal Integration Technical Team	RAC	Rail Activation Committee
MMIS	Maintenance Management Information System	RAMP	Real Estate Acquisition and Relocation Management Plan
MMP	Mitigation Monitoring Program	RCMP	Risk and Contingency Management Plan
MOT	Maintenance of Traffic	RCP	Reinforced Concrete Pipe
MOU	Memorandum of Understanding	RE	Resident Engineer
MOW	Maintenance of Way	READ	Real Estate Acquisition Database
MPS	Master Project Schedule	RFC	Request for Change
MPSS	Master Project Schedule Summary	RFI	Request for Information
MPV	Multiple Purpose Vehicle	RFID	Requests for Interface Data
MS4	Municipal Separate Storm Sewer System	RFMP	Rail Fleet Management Plan
MSE	Mechanically Stabilized Earth	RFP	Request for Proposals
MSF	Maintenance and Storage Facility	RFQ	Request for Qualifications
MTM	Modern Track Machineries	ROC	Rail Operations Center
NCE	Non-Conformance Evaluation	ROD	Record of Decision
NCR	Non-Conformance Report	ROE	Right of Entry
NDC	Notice of Design Change	ROW	Right-of-Way
NEPA	National Environmental Policy Act	RR	Risk Register
NHL	National Historic Landmark	RSD	Revenue Service Date
NOI	Notice of Intent	RTM	Requirements Traceability Matrix
NPDES	National Pollutant Discharge Elimination System	RTSA	Regional Transit Stabilization Agreement
NPS	National Park Service	S1	Segment 1
NR	National Register	SAIS	Supplemental Archaeological Inventory Survey
NRHP	National Register of Historic Places	SCADA	Supervisory Control and Data Acquisition
NSM	Negotiation Strategy Memo	SCAP	Stream Channel Alteration Permit
NTP	Notice to Proceed	SCC	Standard Cost Category

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

PROJECT MAP



## PROGRESS REPORT SUMMARY OF CHANGES

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

### Project Contingency

- \$3.7M contingency drawdown during June 2016. Please see pages 15-16.
- An internal review of the HART Project Contingency Drawdown with Details table revealed errors in the details for the months of March '16, April '16 and May '16. Those corrections have been incorporated in this month's contingency drawdown details table. Please see pages 98-104.

### Project Funding

- The Section 5309 New Starts Revenue amount received has increased by \$18.2 million. Please see pages 17-18.
- The total amount of cash received has increased by \$18.2 million. Please see pages 17-18.

### Schedule

- The deferred Kamehameha Highway Station Group (KHSB) Notice to Proceed (NTP) impacts the Interim Opening date from September 2018 to a date that is to be determined once the KHSB construction NTP has been issued. Please see pages 20-21.
- The City Center Guideway and Stations' construction NTP has been revised from Feb. 15, 2017 to May 15, 2017. Please see pages 20-21.

### Contract Status

- Contracts in Procurement
  - HART issued a notice of award to Shimmick/Traylor/Granite, JV for the Airport Guideway and Stations Design-Build Contract. Please see page 22.
  - HART issued a notice of award to Colliers International HI, LLC for the Real Estate Contractor Contract "II". Please see page 22.
  - The date for City Center Guideway and Stations RFP Part 2 Proposals Due has changed from March 24, 2017 to TBD. Please see page 22.
- Core Systems Contract (CSC)
  - The projected substantial completion date has shifted from April 2024 to July 2024. Please see pages 23-24.
  - The current contract value has increased due to change orders. Please see page 23.
- West O'ahu Farrington Highway Guideway (WOFH)
  - The contract substantial completion date has shifted from July 2016 to November 2016 due to a change order. Please see page 31 and 111.
  - The current contract value has increased due to change orders. Please see page 31.
  - The following notation has been added to the schedule graphic: "Contractor Forecast Dates: Dates not approved until HART signoff." Please see page 32.
- Farrington Highway Station Group (FHSB)
  - The current contract value has increased due to a change order. Please see page 37.
- Maintenance and Storage Facility (MSF)
  - The contract substantial completion date has shifted from May 2016 to July 2016 due to a change order. Please see page 39 and 111.
  - The projected substantial completion date has been removed, as substantial completion was granted on July 2, 2016. Please see page 39.
  - The current contract value has increased due to a change order. Please see page 39.

- Kamehameha Highway Guideway (KHG)
  - The projected substantial completion date has shifted from September 2017 to April 2018. Please see page 42.
  - The current contract value has increased due to a change order. Please see page 42.
  - The following notation has been added to the schedule graphic: “Contractor Forecast Dates: Dates not approved until HART signoff.” Please see page 43.
  
- Ramp H2R2
  - The following notation has been added to the schedule graphic: “Contractor Forecast Dates: Dates not approved until HART signoff.” Please see page 47.
  
- Kamehameha Highway Station Group (KHSG)
  - A date for “Notice to Commence Investigative/Pre-Construction Work at Pearl Highlands” has been included. Please see page 48.
  
- Airport Section Utilities (ASU)
  - The current contract value has decreased due to a change order. Please see page 52.
  - The following notation has been added to the schedule graphic: “Contractor Forecast Dates: Dates not approved until HART signoff.” Please see page 53.

**Right-of-Way**

- The name of the Third-Party Agreements table has been changed to “Inter-Governmental Agreements / Third-Party Agreements.” Please see page 72.

# 1 EXECUTIVE SUMMARY

## KEY ACTIVITIES THIS MONTH

### Project Overview

The Maintenance and Storage Facility (MSF) is now substantially complete. The 43-acre site in Waipahu contains four main buildings where the fleet of 80 rail cars will be maintained and from which the rail system will be operated and monitored.

Along the alignment, the Honolulu Rail Transit Project continues to make progress. In Waipahu, approximately four miles of track have been laid out on the finished guideway. Construction of the rail project is also moving through Kamehameha Highway in Pearl City and Aiea, with more than 120 columns installed and more than 80 spans stressed in that section of the rail corridor. (See picture representing Kamehameha Highway Guideway.)



The Honolulu Authority for Rapid Transportation (HART) also announced it has issued a notice of award to Shimmick/Traylor/Granite, JV in the amount of \$874.8 million for the Airport Guideway and Stations Design-Build contract. The contract is for the design and construction of four stations and 5.2 miles of elevated guideway from Aloha Stadium to Middle Street Transit Center Station.

### Recovery Plan

As discussed in HART’s June 2016 Monthly Report, the Federal Transit Administration (FTA) previously requested that HART submit a Recovery Plan in August 2016. On June 24, 2016, Mayor Kirk Caldwell issued a letter to the FTA requesting a Recovery Plan deadline extension to enable the development of Project options which, given additional time, could consider other resources that the City intends to pursue in the coming months. In response, on July 21, 2016, the FTA granted an adjustment to the Recovery Plan schedule to include discussions with HART in August 2016, an interim plan by HART in September 2016, and a Recovery Plan deadline at the end of the 2016 calendar year.

### HART Board

The Honolulu City Council has appointed John Henry Felix to the HART board of directors. Felix has had a five-decade career in business, government, labor-management relations, community service, diplomacy and education. His broad government experience includes 16 years on the Honolulu City Council, chairmanship of various City commissions, as well as service in the U.S. Army. He currently serves as the Executive Chairman, COO and CFO of Hawaii Medical Assurance Association. Felix has a five-year term on the board, beginning July 1, 2016.



John Henry Felix

### Cost:

Project Costs Summary Through June 24, 2016		
	Current Budget (\$M)	Incurred To Date (\$M)
Project Budget	\$4,482.6	\$2,199.7
Project Contingency	\$466.0	\$0.7
Finance Charges*	\$173.1	\$0.0
<b>TOTAL</b>	<b>\$5,121.7</b>	<b>\$2,200.4</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 June 24, 2016				
	Actual		Early Plan	Late Plan
Overall Project Progress	50.4%		78.9%	72.7%
Overall Construction Progress	43.6%		73.9%	66.4%
Overall Design Progress	89.5%		100%	99.6%
Overall Utilities Progress	45.7%		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. Kiewit/Kobayashi Joint Venture (KKJV) has handed over the MSF to AHJV. AHJV continues to test equipment in the Yard Control Bungalow (YCB). Fire Detection Alarm System (FDAS) installation and testing is complete and Fire Marshall acceptance has been received for all MSF buildings. AHJV continues to pull train control cables and traction power cables in the MSF; installation of Electrically Operated Switch (EOS) cabinets is complete, and train control device installation in the MSF is continuing. Train Manufacturing and Final Assembly activities are ongoing. (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 June 2016 reflects more than six 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 has been under review to analyze the numerous unilateral logic and duration changes made by KIWC.

The contractor is continuing to focus their efforts on the emergency walkways, rail and third rail installations, and civil and traffic signal works, with work ongoing on these elements in July 2016. Several areas of the project were inspected, punch list generated and partial acceptance/substantial completion letters issued. (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 the final punch was generated. The elevator installation in the Operations and Servicing Building (OSB) is complete. Substantial completion was granted for July 2, 2016, with the final punchlist, building and equipment commissioning and other required items, as summarized in the critical path issues, to be completed for final acceptance. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

KIWC's June 2016 schedule reflects more than 18 months of delay to the contractual substantial completion date, with the guideway structure completion in May 2017 and the remaining roadway civil work being completed by April 2018. This schedule, as well as all previous updates submitted by KIWC to-date, has not been accepted by HART. HART continues to monitor lower than planned KIWC production rates as it relates to potential schedule impacts. (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 work along the proposed shaft locations has been conducted incidental to verifying locations of existing abandoned utilities and have resulted in the discovery of additional utility conflicts. Those unforeseen wet and dry utilities that have been encountered along Kamehameha Highway are addressed as RFI's have been prepared and answered, Requests for Proposals have been generated, and change orders and/or directives are being prepared or issued. HART is coordinating the remaining scope of work relative to the schedule with the contractor. (See Section 4.4.B for details)

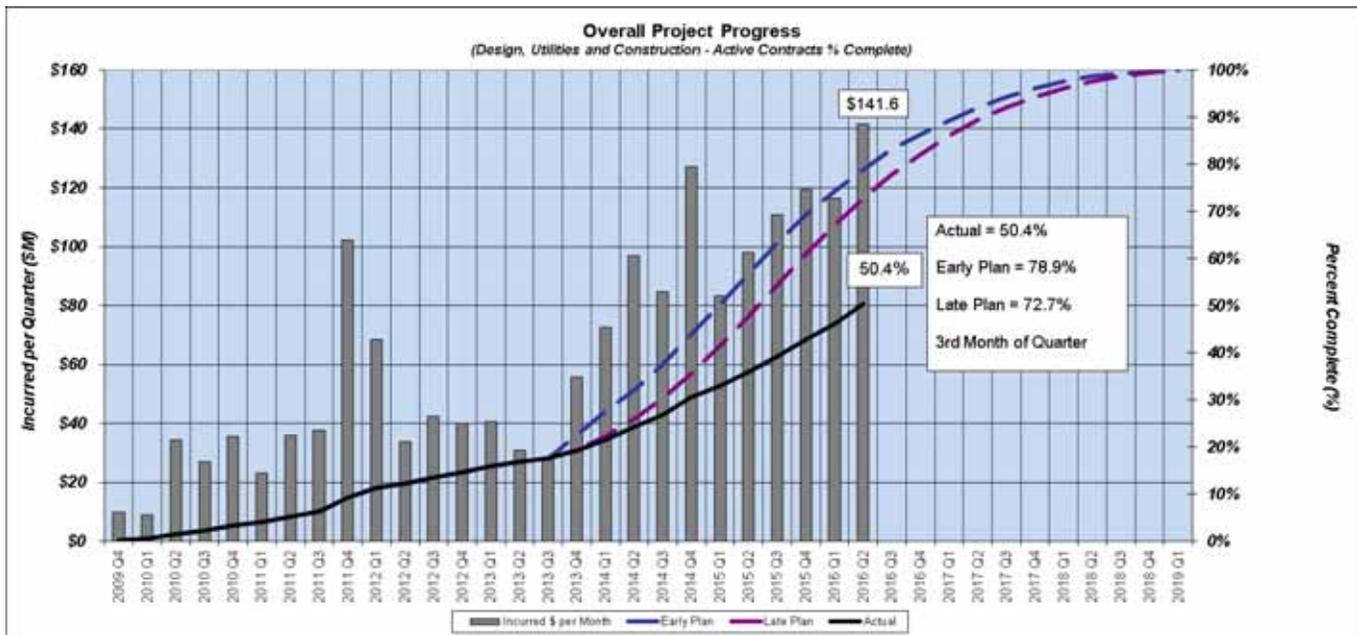
## 2 OVERALL PROJECT PROGRESS AND FINANCIALS

### 2.1 Project Progress (data as of June 24, 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.

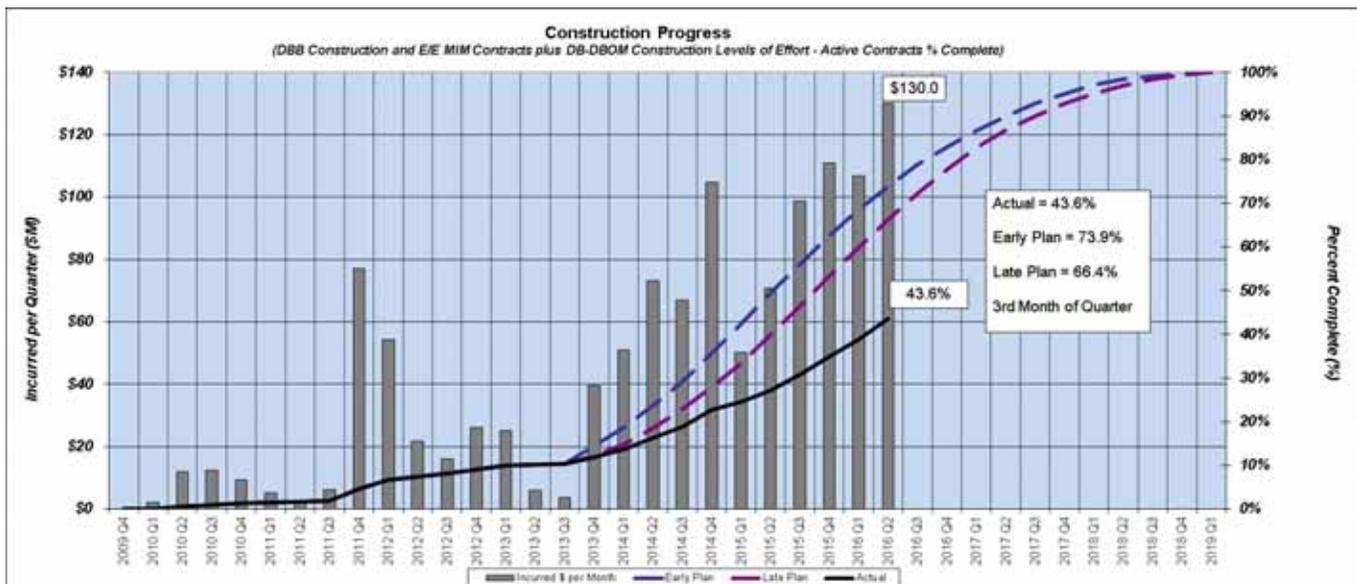
- Note:
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
  - Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
  - Late Plan = Latest dates activities can begin and finish and not have an impact on completion date,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

Figure 1. Overall Project Progress (% Complete)



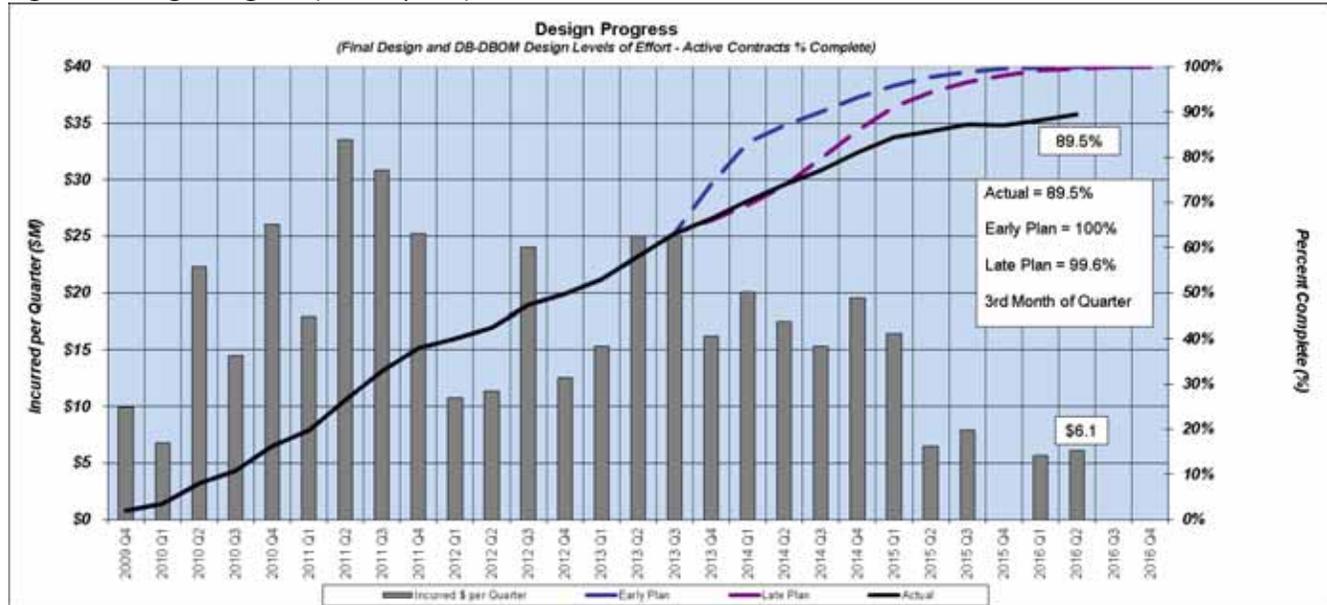
At present “overall” project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM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



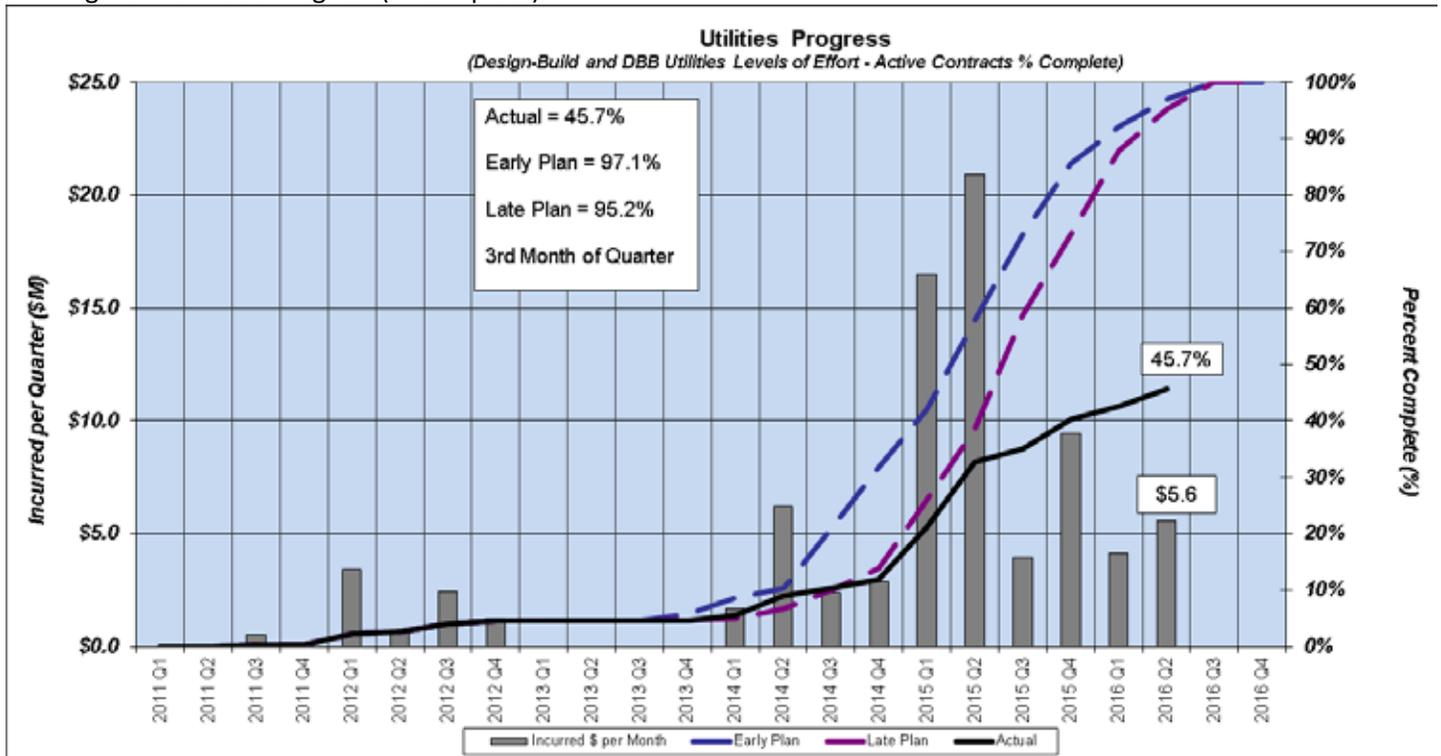
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

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 June 24, 2016)**

*Total Incurred Cost = \$2,200.4M  
(previous report = \$2,144.5M)*

- FFGA Project Budget = **\$5,121.7M**
  - Current Project Budget - \$4,482.6M
  - Current Project Contingency - \$466.0M
  - Project Finance Charges - \$173.1M
- Total Incurred Cost = **\$2,200.4M** (49.1% of current project budget)
  - June 2016 Incurred Cost = \$56.0M
- The Project Budget is being updated to reflect current program expectations and will be finalized in collaboration with the FTA. The PMOC’s predicted EAC values, not including finance costs, were \$7.338 billion and \$7.623 billion for the p50 and p65 probability levels, respectively, based on FTA’s Beta Range model.

**2.3 Project Contingency (data as of June 24, 2016)**

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

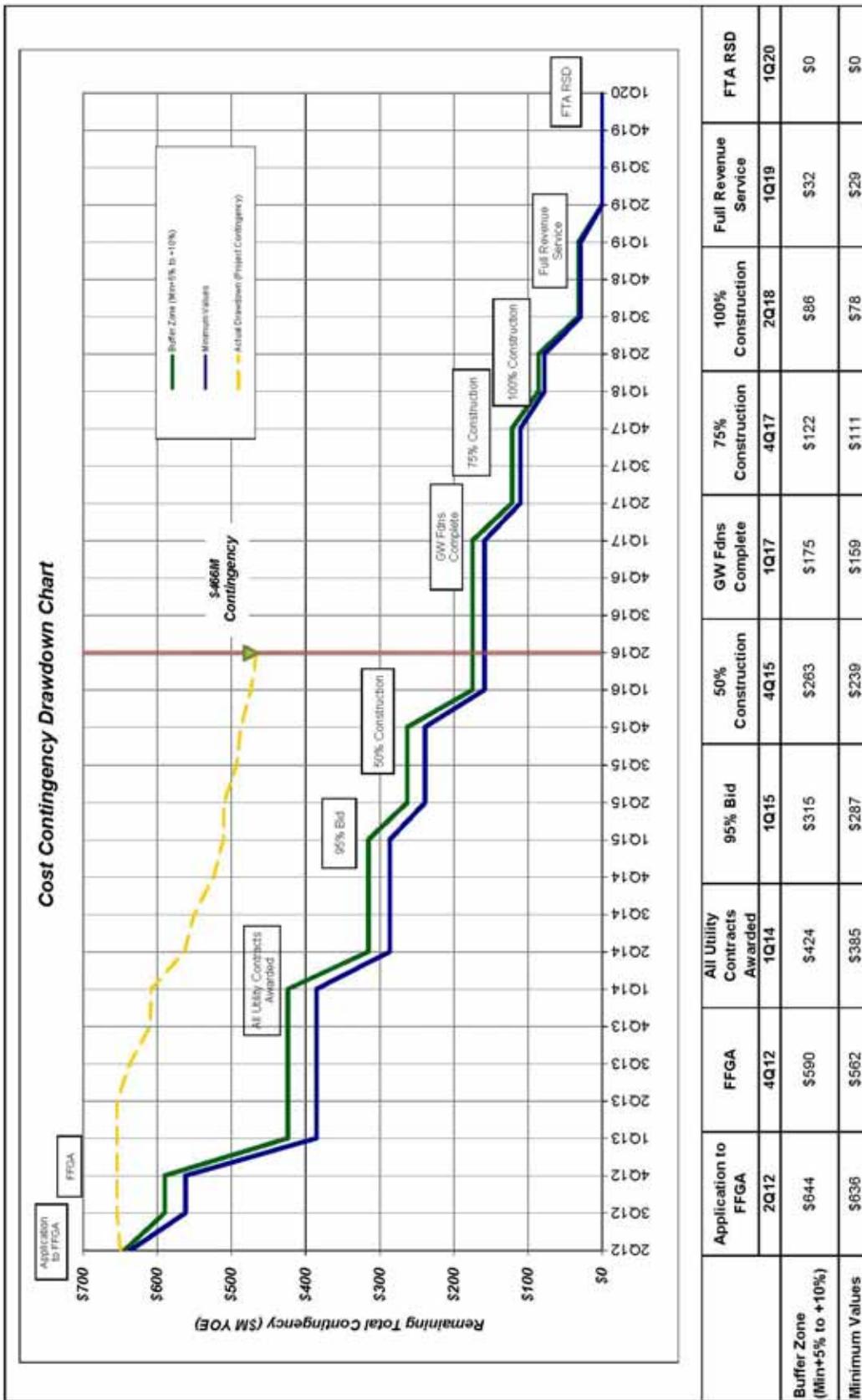
*Current Contingency Balance = \$466.0M  
(previous report = \$469.7M)*

- Current Project Contingency Balance = **\$466.0M**
  - Contingency drawdown to date – \$177.6M (27.6% of baseline project contingency budget)
  - \$3.7M contingency drawdown during June 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 April 2016 Report	90.01 - 90.03	(\$170.1)
Contingency drawdown May 2016 Report	90.01 - 90.03	(\$4.0)
Contingency drawdown June 2016 Report	90.01 - 90.03	\$0.2
Contingency drawdown July 2016 Report	90.01 - 90.03	(\$3.7)
Contingency drawdown to date	90.01 - 90.03	(\$177.6)
<b>Current FFGA Project Contingency</b>	<b>90.01 - 90.03</b>	<b>\$466.0</b>

Figure 6. Draft Cost Contingency Drawdown Chart



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

Data as of 6/24/16 - June '16 Reporting Period

2.4 Project Funding (data as of June 24, 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	569	569
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>2,193</b>	<b>2,280</b>

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

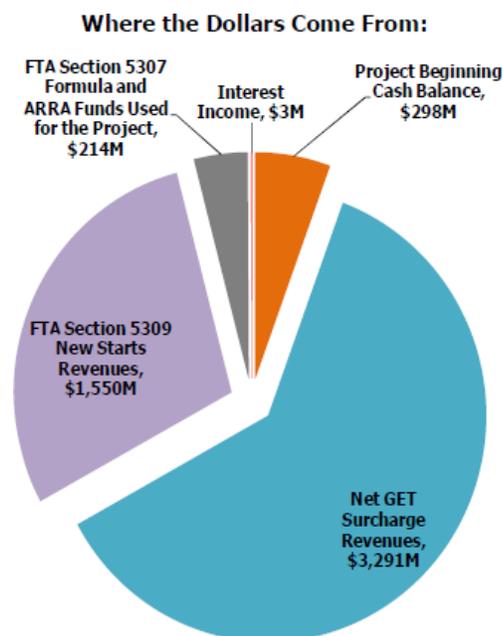
<sup>2</sup> FFGA Financial Plan, Table A-1 Capital Plan Cash Flows .

<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 June 24, 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.
  - \$0 = GET surcharge received in June 2016.

*Total Cash Received Since PE = \$2,193M*  
 (previous report = \$2,175M)

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

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

- Full Funding Grant Agreement (FFGA)
  - \$18.2M = New Starts drawdown processed and received in June 2016.
- The \$5307 funds for the Project, per the FFGA Financial Plan, are \$210M.

Figure 9. New Starts Drawdown by Federal Fiscal Year (data date as of June 30, 2016)

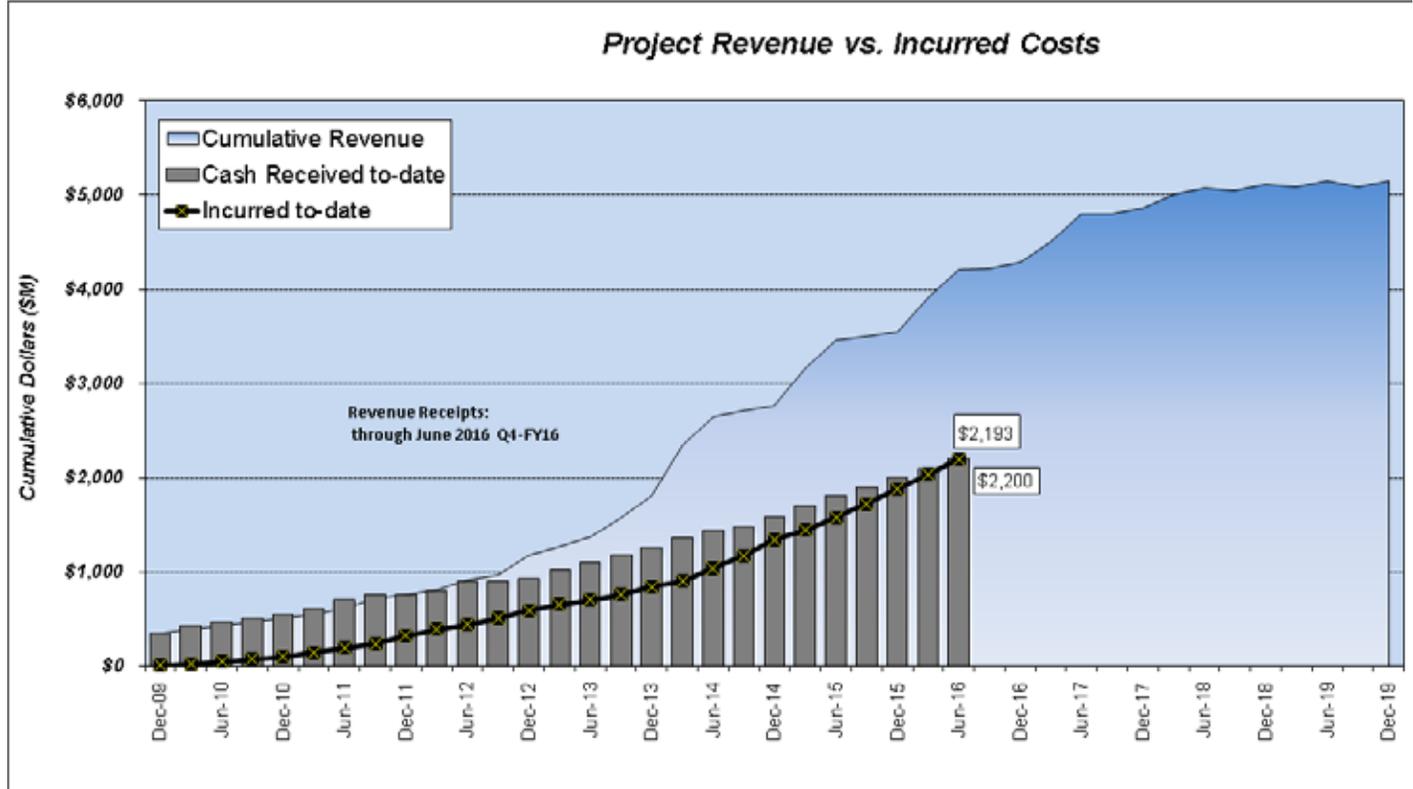
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	\$15,190,000	\$15,190,000	\$0	
2009	\$19,800,000	\$19,800,000	\$0	
2010	\$30,000,000	\$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	\$236,277,358	\$0	\$258,280,277
2014	\$250,000,000	\$12,818,447	\$237,181,553	\$441,719,724
<i>2015 (pending award of grant)</i>	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
<i>2016 (pending appropriation and award of grant)</i>	<i>\$250,000,000</i>	\$0	<i>\$250,000,000</i>	\$250,000,000
<i>2017 (pending appropriation and award of grant)</i>	<i>\$243,732,642</i>	\$0	<i>\$243,732,642</i>	\$230,010,000
<b>Total</b>	<b>\$1,550,000,000</b>	<b>\$569,085,805</b>	<b>\$980,914,195</b>	<b>\$1,550,000,000</b>

2.5 Project Revenue and Costs

(data as of June 24, 2016)

*Ending Cash Balance 6/30/16 = \$94.7M*  
*(previous report = \$123.0M)*

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan  
Data date for Revenue & Incurred Cost = June 24, 2016

Figure 11. Cash Balance Summary

JUNE 2016 CASH BALANCE SUMMARY		
	JUNE	FY16 YTD Cumulative
<b>Beginning Cash Balance 06/01/16</b>	123,016,451	293,010,823
Expenditures:		
Operating Expenditures	(2,587,741)	(17,995,780)
Capital Expenditures	(44,135,061)	(568,037,722)
<b>Expenditures Total:</b>	<b>(46,722,801)</b>	<b>(586,033,502)</b>
Receipts:		
GET Surcharge	0	229,344,241
FTA Drawdown	18,240,510	157,579,174
Interest	115,032	376,077
Other (rental, refunds, copy fees, etc.)	9,489	381,867
<b>Receipts Total:</b>	<b>18,365,031</b>	<b>387,681,360</b>
<b>Ending Cash Balance 06/30/16</b>	<b>94,658,681</b>	<b>94,658,681</b>

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

### 3 SCHEDULE

(data as of June 24, 2016)

#### OVERVIEW

- In the June MPS, HART assessed the potential construction NTP date for the third station construction contract, KHSO. HART noted that KHSO's NTP is yet to be determined due to access issues with preceding contractor's work. If granted in Fall 2016, the KHSO substantial completion date will be no earlier than second quarter of 2019, which will, in turn, delay the Core Systems contract work.

The deferred KHSO NTP impacts the Interim Opening date from September 2018 to a date that is to be determined once the KHSO construction NTP has been issued.

- The City Center Guideway and Stations' (CCGS) construction NTP had been shown previously as February 2017 to maximize bidding contractors' involvement in the program. Further revision to the NTP is needed to allow current funding issues' resolution, and the current plan is mid-May 2017. With the CCGS on the critical path of the program, facilities construction completion will now be July 2023 and systems installation and testing is forecasted to December 2024.
- On June 8, 2016, HART made a presentation titled: "Options to the current FFGA scope" to address a possible shortfall in revenue needed to construct the full FFGA scope. In this presentation, five CCGS options were presented:
  - Build to Middle Street as planned plus guideway only to Ala Moana
  - Build to Middle Street as planned and continue with bus service or at-grade rail system
  - Construct as far as funding allows (a la carte evaluation)
  - Public-Private Partnership (P3) solicitations for all stations
  - Change Alignment to Nimitz

Feedback to that presentation is being sought prior to further refinement and presentations to the Mayor's office and the City Council. A working group has been tasked to develop plans to complete the project.

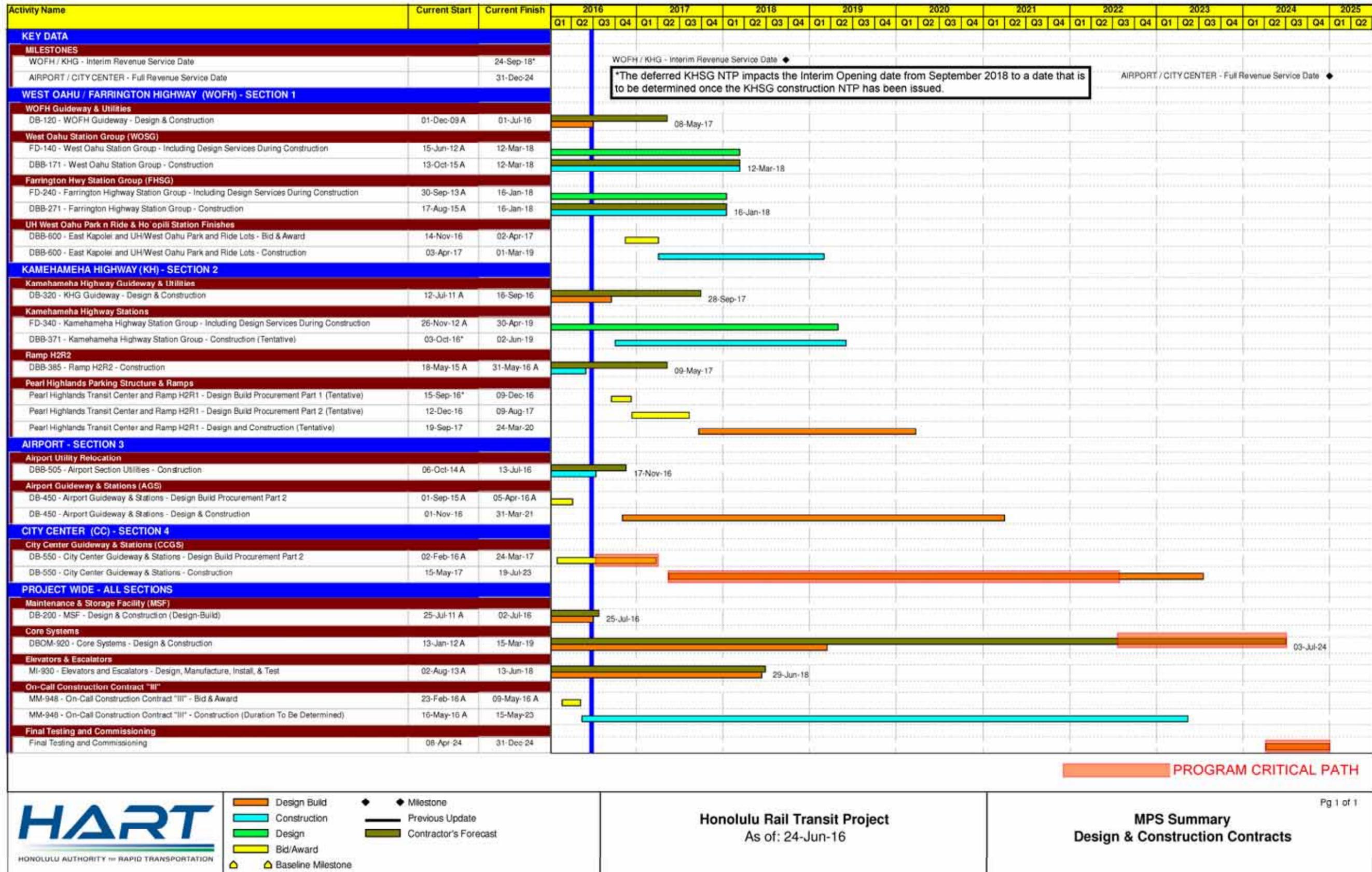
- HART continues to closely monitor, review and manage all active construction packages. Previously reported delays continue to be addressed by the project teams. See contract pages for further details.

#### KEY ISSUES

- WOFH construction progress is behind the approved schedule for the LCC station area civil and structural work by six months, with Contract Change Order No. 00106 extending the Substantial Completion Date to Nov. 16, 2016.
- HART is assessing KHG's latest contractor's schedule with guideway construction progress behind approved schedule by 18 months.
- WOSG and FHSO stations' construction has begun at West Loch and Ho'opili Stations. WOSG baseline schedule is working towards approval. The first FHSO progress schedule is being reviewed and reflects a delay.
- Ramp H2R2 construction progress is behind by 11 months due to delayed construction start from HDOT required soil remediation.
- ASU construction is behind the approved schedule by four 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).



## 4 CONTRACT STATUS

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

### OVERVIEW

- **Awarded Contracts:**
  - On July 19, 2016, HART issued a notice of award to Shimmick/Traylor/Granite, JV in the amount of \$874,750,000 for the Airport Guideway and Stations Design-Build Contract.
  - On July 29, 2016, HART issued a notice of award to Colliers International HI, LLC in the amount of \$8,190,000 for the Real Estate Contractor Contract "II".
  
- **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.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 was issued on Feb. 2, 2016. The proposals are not yet due.
  - 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 were accepted on June 14, 2016, and are currently under evaluation.
  - Program Management Contractor Contract RFQ: The RFQ was issued on May 9, 2016. Proposals were received on July 14, 2016, and are currently being evaluated.
  
- **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.

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-550	City Center Guideway and Stations	Aug 04 '15	Nov 18 '15	TBD	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-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
DB-275	Pearl Highlands Transit Center and Ramp H2R1 Design-Build Contract	TBD	TBD	-	TBD	TBD
MI-940	Core Systems Back-up Generators	TBD	TBD	-	TBD	TBD

4.1 System-wide

A. Core Systems Contract (CSC)

**Contract No.:** DBOM-920  
**DBOM Contractor:** Ansaldo Honolulu Joint Venture (AHJV)  
**Contract Start Date:** January 2012  
**Contract Substantial Completion:** March 2019  
**Projected Substantial Completion:** July 2024



**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. KKJV has handed over the MSF to AHJV. AHJV continues to test equipment in the Yard Control Bungalow (YCB). Fire Detection Alarm System (FDAS) installation and testing is complete and Fire Marshall acceptance has been received for all MSF buildings. AHJV continues to pull train control cables and traction power cables in the MSF; installation of Electrically Operated Switch (EOS) cabinets is complete, and train control device installation in the MSF is continuing. Train Manufacturing and Final Assembly activities are ongoing.

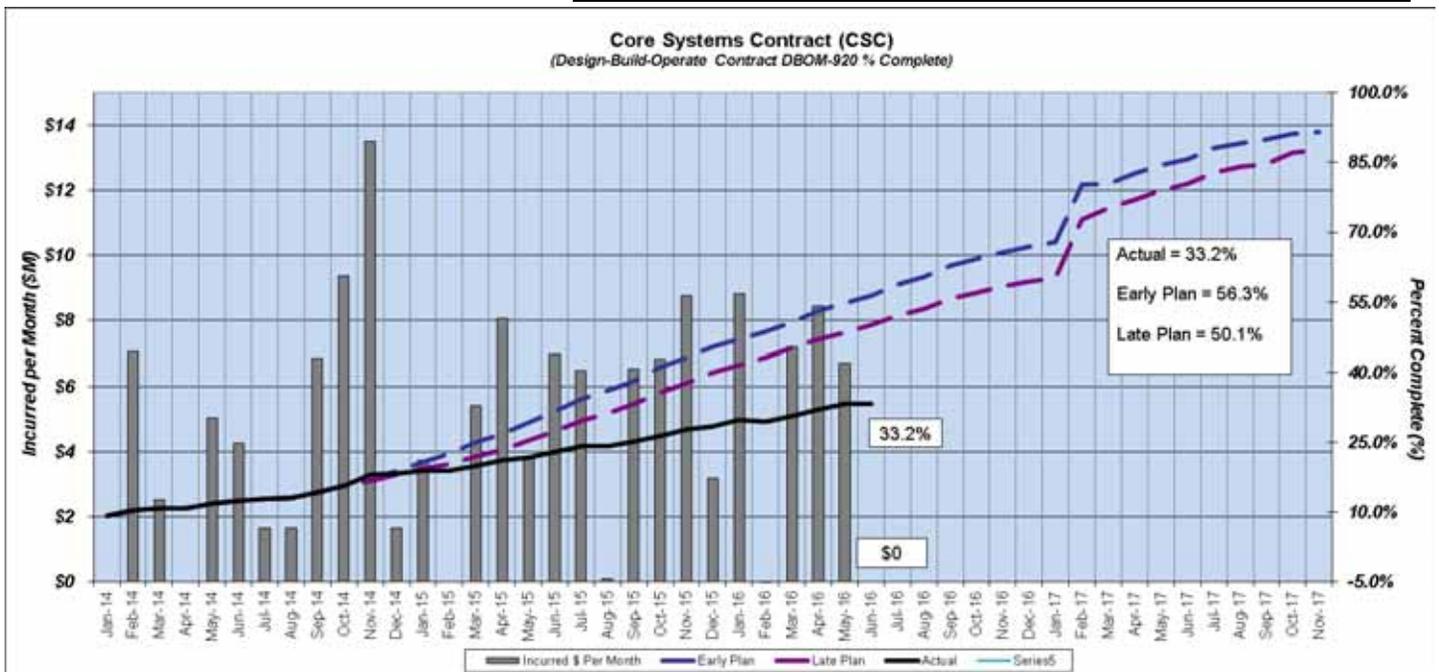
**COST INFORMATION:**

Original Contract:	\$573,782,793	Incurred-to-Date:	\$199,202,996
Current Contract Value <sup>1</sup> :	\$600,820,687	Incurred in June:	\$0

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

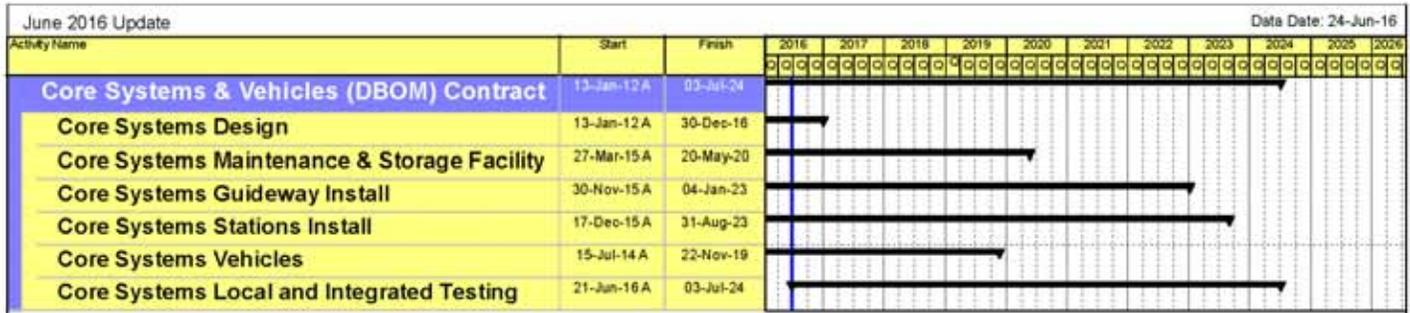
Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	\$129,165
DBE % Attained:	0.029%

June Change Orders		
Change No.	Description	Amount (\$)
CCO 26	TPSS at Civic Center	\$727,000
CCO 27	Minor Field Work Allowance	\$250,000
<b>Cumulative to Date</b>		<b>\$27,037,894</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%	88.6%	3 <sup>rd</sup> Q 2016
Communications	48.5%	39.3%	4 <sup>th</sup> Q 2016
ATC/SCADA	99%	98%	3 <sup>rd</sup> Q 2016
TES	100%	100%	Completed
Fire Detection	66.7%	58.3%	3 <sup>rd</sup> Q 2016
PSGS	95.5%	90.9%	3 <sup>rd</sup> Q 2016

\* Target Completion Date for Communications and Fire Detection is for the first segment. Second segment completion date is to be determined.

**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:

**Weighted Value:** 34.65% [(Total Achieved thru June 2016 (\$199.15 million) + Projected July 2016 Period (\$8.7 million))/Total Contract Including Executed Change Orders (\$599.84 million)].

**Design:**

- ATC/SCADA – Documents Received: 9, Documents Returned: 6
- Communications – Documents Received: 9, Documents Returned: 6
- Traction Power – Documents Received: 7, Documents Returned: 4
- Fire Detection – Documents Received: 1, Documents Returned: 4
- Platform Screen Gates – Documents Received: 4, Returned: 1
- Passenger Vehicles – Documents Received: 12, Documents Returned: 7

**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.
- PV Truck Fabrication – Continue truck frame and bolster fabrication activities in Italy.
- Continue manufacturing of automated train control, traction power, and other systems equipment.

**Installation, Testing and Commissioning:**

- Installation and testing of communications system cabling and devices in MSF buildings.
- Installation and testing of communications devices in MSF yard.

Activities this Month (continued):

- Performed Passenger Vehicle (PV) truck manufacturing oversight support at Hitachi Rail Subcontract factory in Italy.
- Performed final assembly oversight work at Pittsburg, CA. Equipment installation work on the second train is ongoing.
- Two (2) car shells for train #4 are now in Pittsburg for final assembly.
- Performed Truck Frame and Bolster Production oversight at Hitachi Rail Italy (HRI) supplier, Nuova Comafer, in Italy.
- Two of the first eight (8) DRS fabricated truck frames and bolsters have been assembled at the final assembly facility in Pittsburg.
- Propulsion “Combined” Qualification Test commenced at the HRI test facility in Naples, Italy.
- Quality Assurance Audit conducted at Pittsburg PV Final Assembly facility.

Look Ahead (continued):

- Completion of MSF yard conduit installation.
- Energization of the MSF Yard TPSS.
- Conduct Type and Routine test on first train.
- Continue installation of TES cabling.
- Continue installation of Train Control cabling and devices in MSF.
- Installation of Operations Control Center (OCC) technical room equipment.
- Functional testing of Wheel Truing Building (WTB) and Train Wash Facility (TWF).

**Installation, Testing and Commissioning:**

- Installation, testing and Fire Marshal acceptance of FDAS devices in the MSF is complete.
- Five Blue Light Stations have been installed.
- Installation of ATC cables in MSF is 60% complete.
- Installation of ATC Devices in MSF is 75% complete.
- TES installation in the MSF is 90% complete.

**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 Fabrication, Truck Fabrication 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.

**QUALITY MANAGEMENT:**

Testing		
Subsystem	Test Completed	Date Completed
Passenger Vehicle	PV Propulsion System “Combined” Test at Naples laboratory.	July 14, 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 conduct First Article Inspection (FAI) of first welded truck frame.	July 5, 2016

CSC NCR Log			
	TOTAL	CLOSED	OPEN
AHJV & Subs	30	28	2
Hitachi Rail	697	521	176
<b>TOTAL</b>	<b>727</b>	<b>549</b>	<b>178</b>

**PROJECT PICTURES:**



Propulsion Combined Test in Naples, Italy.



Train 3: Car E1 Semi-permanent Coupler Installation.



Train 4: Car E1 arrival in Pittsburg, CA.

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

**Contract No.:** MI-930

**Contractor:** Schindler Elevator Corporation

**Contract Start Date:** August 2013

**Contract Substantial Completion:** 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 August as the construction schedule has been accepted in May by HART. The release to begin manufacturing of the WOSG equipment will be in September, and the KHSG equipment will be scheduled once an acceptable construction schedule with the respective contractor has been completed.

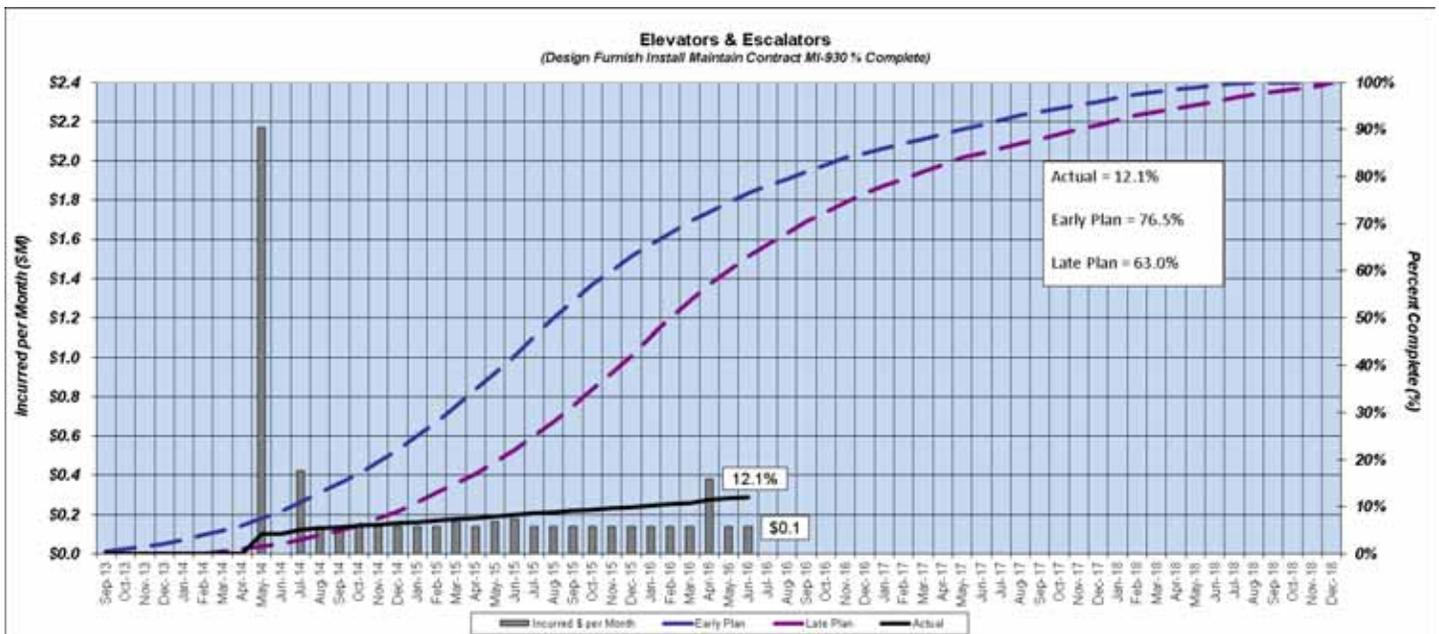
**COST INFORMATION:**

Original Contract: \$50,982,714	Incurred-to-Date: \$6,149,756
Current Contract Value <sup>1</sup> : \$51,999,035	Incurred in June: \$140,825

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

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

June Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<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:**

- Elevators' schedule for the FHSG, WOSG and KHSG stations will be published once the respective baseline schedules are accepted and all access dates are transmitted to Schindler. Elevators' schedule for the remaining 12 stations will be published when their contracts are awarded and schedules are accepted.

**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:

**Weighted Value: 12.1%;** Planned Value: 63%

- 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, KHSG 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 August; the West O'ahu Station Group elevators and escalators is expected to occur in September 2016, once the construction schedule is approved by HART. KHSG will be released for construction later this year, once a schedule has been accepted by HART.

**KEY ISSUES:**

- The release to allow manufacturing for FHSG is expected to occur in August 2016. WOSG will be released in September, once the construction schedule is approved. 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 will be subject to the final design of the DB. This work will resume with the issuance of the NTP for this contract. 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 after 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. Conceptual design documents have been reviewed and CDR (Conceptual Design Review) occurred the last week of July 2016.

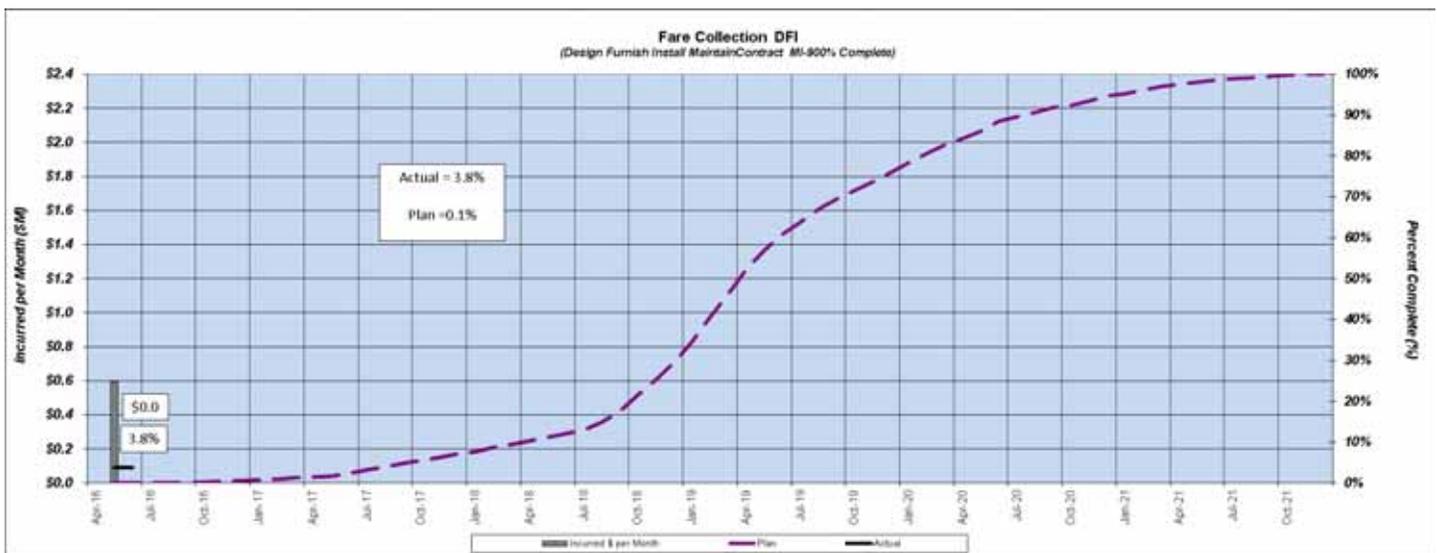
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$15,464,198</u>	<u>Incurred-to-Date:</u>	<u>\$593,840</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$15,464,198</u>	<u>Incurred in June:</u>	<u>\$0</u>

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

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

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



**SCHEDULE:**

June 2016 Update			Data Date: 24-Jun-16													
Activity Name	Start	Finish	2016 2017 2018 2019 2020 2021 2022													
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
<b>Fare Systems Contract</b>	11-Aug-15 A	30-Sep-21														
Fare Systems Contract - Bid & Award	11-Aug-15 A	14-Apr-16 A														
Fare Systems Contract	18-Apr-16 A	30-Sep-21														
Substantial Completion - Fare Systems		30-Sep-21														

**CRITICAL PATH ISSUES:**

- CDR acceptance by Aug. 31, 2016.

**WORK PROGRESS:**

Activities this Month:

- Reviewed and commented on Conceptual Design Documents.
- Conducted CDR meetings with the contractor and Steering Committee.
- Review model revision requirements and work with fare policy study staff to calibrate the fare model to create a baseline.
- Finalized baseline schedule.
- Confirmed milestone payment amounts and dates with the contractor.
- Ongoing business rules document development.

Look Ahead:

- Finalize CDR milestone with acceptance.
- Establish new fare policy Permitted Interaction Group (PIG) and review potential fare policy options for modeling.

**KEY ISSUES:**

- Starting and completing three design reviews on time in order to maintain schedule with final design milestone acceptance by May 2017.

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: November 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 on track installation, road restoration work, LCC Station and traffic signals. Segment erection and final set has been completed along the entire guideway. 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 NCR closeout.

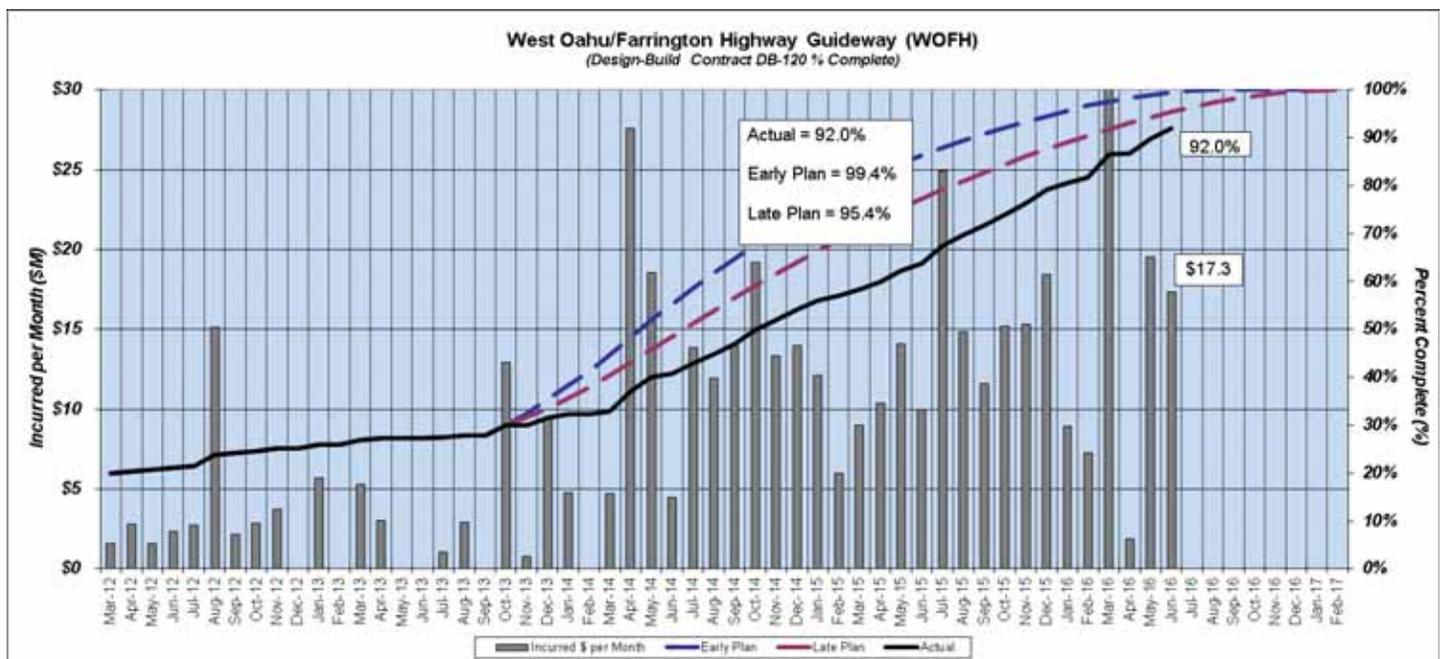
**COST INFORMATION:**

Original Contract:	\$482,924,000	Incurred-to-Date:	\$597,863,510
Current Contract Value <sup>1</sup> :	\$650,308,042	Incurred in June:	\$17,348,256

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

DBE Participation	
Actual DBE Participation:	\$8,446,121
DBE % Attained:	1.75%

June Change Orders		
Change No.	Description	Amount (\$)
CCO 103	Ho’opili Station Relocation	\$832,414
CCO 104	Median Contaminated soil	\$1,875,000
<b>Cumulative to Date</b>		<b>\$167,384,042</b>



In July, KIWC submitted pay application # 89 for June 2016 billing to HART for review.

**SCHEDULE:**

As of the June 2016 progress update, substantial completion beyond November has been delayed by 6 months due to the work scheduling of all LCC construction activities including KIWC’s unilateral stoppage of work for a period of time. HART has notified KIWC that all base scope work must be complete by July 1, 2016.

June 2016 Update			Data Date: 24-Jun-16							
Activity Name	Start	Finish	2016				2017			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	
<b>W. Oahu/Farrington Highway Guideway</b>			Contractor Forecast Dates: Dates not approved until HART signoff.							
<b>Foundations</b>	23-Apr-12 A	08-May-17								
<b>Drilled Shafts</b>	23-Apr-12 A	17-Dec-15 A								
<b>Columns</b>	21-May-12 A	05-Feb-16 A								
<b>At Grade</b>	01-Oct-14 A	22-Nov-16								
<b>Guideway</b>	02-May-14 A	28-Jul-16								
<b>Precast Segment Erection</b>	02-May-14 A	28-Jul-16								
<b>Balanced Cantilever Segments</b>	10-Sep-14 A	25-Apr-16 A								
<b>Trackwork</b>	20-Oct-14 A	08-May-17								
<b>Direct Fixation Trackwork</b>	20-Oct-14 A	24-Jun-16								
<b>Third Rail</b>	14-Dec-15 A	14-Mar-17								
<b>WOFH Project Finish Work, Demob, Punchlist</b>	18-May-16 A	08-May-17								
WOFH Project Finish Work, Demob, PunchList	18-May-16 A	07-May-17								07-May-17
WOFH Substantial Completion		08-May-17								

**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 on May 2, 2016. Demolition of the existing portables started in mid-May. KIWC’s most recent progress schedule shows the project to be completed six months beyond contractual substantial completion.

**WORK PROGRESS:**

WOFH Construction Status as of 7/13/16									
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	274	274	100%
Drainage Line	4,191	5,166	81%	Trackwork	277	278	278	278	99.6%
Elec/Telecom	16,889	21,374	79%	Third Rail	277	278	278	278	99.6%
Street Lights	6,335	8,357	76%	Mill & Overlay	27,353	N/A	N/A	27,643	99.0%
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:

**Weighted Value: 93.2%** [(Total Achieved to June 2016 (\$600.5 million) + July 2016 Period (13.1 million))/Total Contract Including Executed Change Orders (\$658.7 million)]. Planned Value: 96.4%

**Utility Relocation**

- KIWC continues to work with third party utilities to relocate utilities conflicts to facilitate station and traffic signal construction.

Look Ahead:

**Design Progress**

- KIWC will continue to work toward completing one package.

**Column**

- KIWC will continue work correcting punch list items.

**Guideway Segment Erection**

- KIWC will continue work correcting punch list items.

Activities this Month (continued):

**Track Construction**

- KIWC continues to construct concrete plinths and install CWR (Continuous Welded Rail) and third rail from Spans 249 – 266.

**KIWC/Third-Party Coordination**

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

**Civil Structures**

- KIWC continues work to complete the roadway restoration, mill and overlay asphalt. Continue with median restoration constructing drain inlets, curb and gutter and sidewalk. Installing irrigation from Fort Weaver Road to Waipahu High School.

**Station Contractor Interfaces**

- KIWC, URS, MSF and WOSG are holding Interface closeout meetings to resolve current design and construction conflicts.

**Traffic Signals**

- KIWC is working on installing the traffic signals, per the unilateral change order executed by HART.

Look Ahead (continued):

**Utility Relocation**

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

**Balanced Cantilever Structure**

- KIWC will continue work correcting punch list items.

**Track Construction**

- KIWC will continue work to complete the construction of concrete plinths, installation of CWR, and third rail.

**KIWC/Third-Party Coordination**

- Continue to resolve utility conflicts with third parties.

**Civil Structures**

- KIWC will continue with road restoration work.

**Traffic Signals**

- KIWC will continue traffic signal installations.

**LCC Station Access Structure**

- KIWC will continue with the construction of the access structure footings and walls.

**KEY ISSUES:**

- **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. Per the contract, written agreements are being executed between HART and KIWC to document partial occupancy requirements where other HART contractors require access to complete their work.
- **Shared Access** – progress was made for the three western stations, West Loch Station, and shared access was provided for Pearl Highlands by July 11.

**SUBSTANTIAL COMPLETION:**

- No progress to report this month.

**QUALITY MANAGEMENT:**

- KIWC continues to follow their established quality processes through quality monitoring and audits.
- **Closing Out NCRs** – KIWC has been working to correct, validate, and close out NCR’s during this period. 9 NCRs were closed this period.
- **NCR 549 – Corroded Longitudinal PT Tendons** – After investigation, KIWC found possible vacuum grouting repair work not applicable to PT tendons at spans 33, 38, 45 and 51. KIWC’s disposition is to remove and replace these tendons. Work on Span 45 began in late July and is scheduled to finish in mid-August.

Weekly meetings of the Tendons Task Group from KIWC (management, construction and quality staff), HNTB/FIGG (EOR, Field Engineers), CE&I (RE, Office Engineers, CCM), and HART (management, engineering and quality staff) were held at the KIWC Field Office to discuss the tendons structural integrity and reliability. HART has engaged the services of WJE materials consultant to review the tendon corrosion problem.

WOFH NCR LOG		
Total NCRs Issued To Date	CLOSED	OPEN
549	546	3

**PROJECT PICTURES:**



Pearl Highlands Station.



LCC access structure.



LCC to BCS.

**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. Contractually, the projected substantial completion is March 2018. However, once the baseline schedule is accepted and updates received, it is expected that the forecast will change.

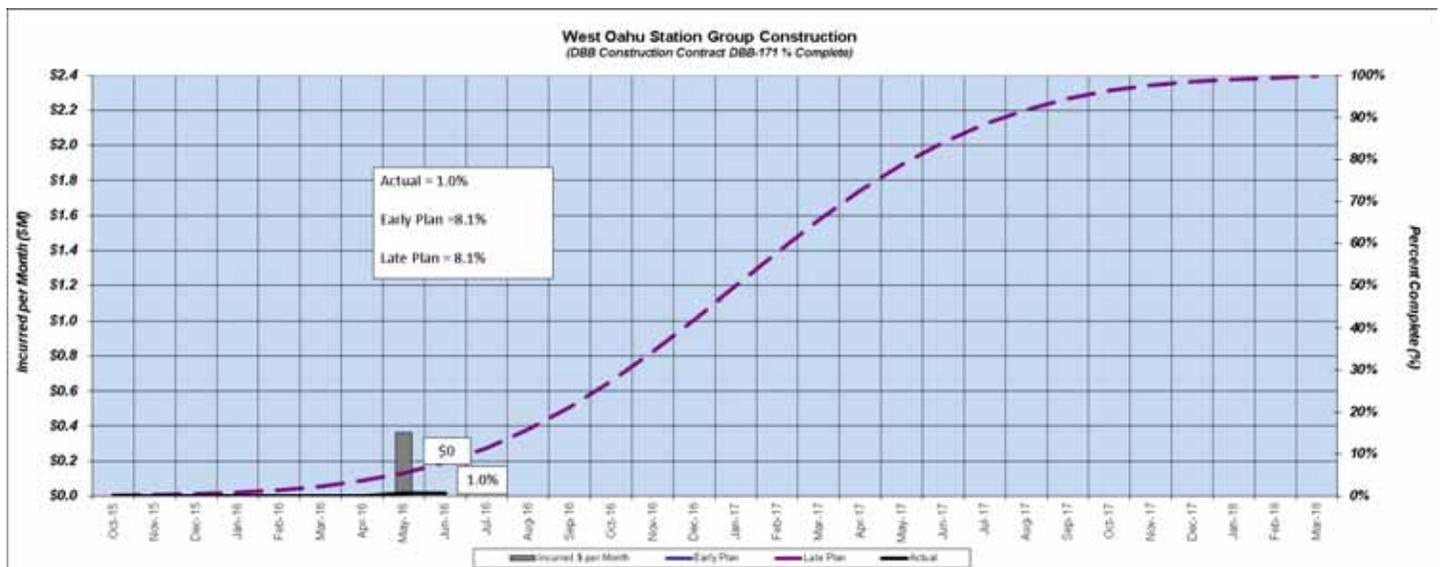
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$56,088,470</u>	<u>Incurred-to-Date:</u>	<u>\$361,800</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$56,088,470</u>	<u>Incurred in June:</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%

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



**SCHEDULE:**

- The baseline schedule requires added details before it can be approved, as per contract requirements. Contract and project team will address all comments, except two, which require management discussion. Once the baseline is approved, the updated WOSG schedule will be published in future progress reports.

**CRITICAL PATH ISSUES:**

- Construction access to the platforms at Ho’opili and UH West O’ahu.
- Construction access from Kiewit to East Kapolei.
- Contractor to coordinate for shared access.
- Relocation of the 46kV line at UH West O’ahu Station.
- Construction of TPSS foundation and TCCR/UPS room to meet the program schedule needs.
- Providing infrastructure for power to Ho’opili.
- Falsework for platform box girders formwork.
- Permits for work in HDOT Right of Way.
- Approval of the method shaft.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 3%;** Planned Value: 4%

- The baseline re-submittal has been reviewed, with only 5 comments open. Contractor to address 2 comments (start date adjustments and inspection work tasks), HART to assist with 1 comment (location codes), and 2 comments (production rates and partial access definition) have been elevated for further discussion with management, as they are contractual interpretation issues.
- Contractor has been doing civil work, grading, formwork and falsework in preparation of footings and platform girder construction at the Ho’opili Station site.
- Scoping meetings have been held to ensure a proper comparison of the Contractor’s Cost Proposal and the Independent Cost estimate can be completed. Cost analysis is being performed and a Negotiation Strategy memo is being formulated. A follow-up meeting will be scheduled with the contractor.
- Additional changes to Ho’opili TCCR/TPSS, a result of interface, have been issued to the contractor. Field Change Notice (FCN) has been issued to the contractor to address changes to the underground conduits impacting the construction of the footing.
- Contractor has completed the method shaft. Final report and testing results will be submitted to HART for review and approval.

Look Ahead:

- East Kapolei access to ground to be coordinated.
- Formwork to be constructed for the platform box girder at Ho’opili.
- Approving the baseline schedule, with the contractual requirements addressed and monthly updates to the current date reflecting submittal dates and work progress.
- Review and approval of the method shaft report
- Production shaft to begin at UH West O’ahu.

**KEY ISSUES:**

- 46 kV relocation at UH West O’ahu. 100% design approval has been given to the Designer/HART. HECO to begin the design of the poles and schedule relocation work.
- Continuing construction access coordination for the remaining station areas to be turned over by the guideway contractor. East Kapolei ground access and Ho’opili platform access are the priority.
- Executing change orders to incorporate the Issued for Construction (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 Cost Proposal (VECP) concept– Augercast piles at the Waipahu Transit Station. HDCC has received HART’s feedback regarding the concepts and is collectively working together to negotiate time, cost and technical concerns to determine whether to move forward with the effort. HDCC continues construction at WLO, preconstruction work is 75% complete for WTC, and work by the guideway contractor (WOFH) continues at LCC.

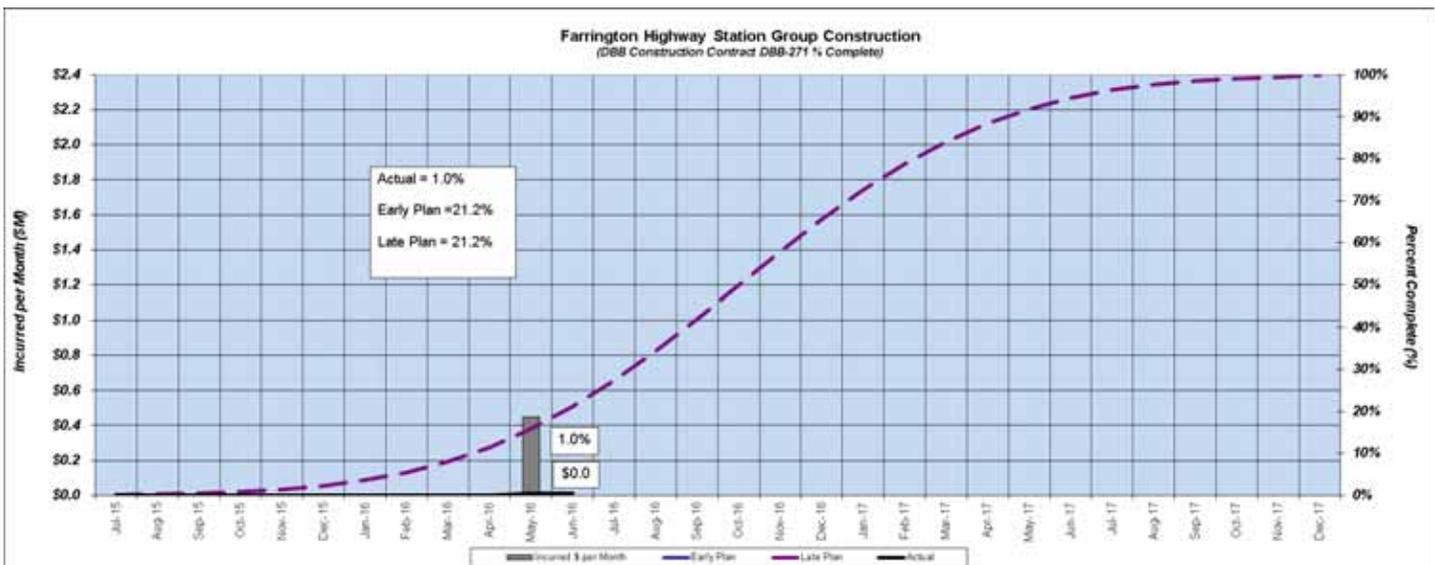
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$78,999,000</u>	<u>Incurred-to-Date:</u>	<u>\$450,000</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$79,784,600</u>	<u>Incurred in June:</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%

June Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
CCO 004	Install TPSS Foundation & Switchgear	\$785,600
<b>Cumulative to Date</b>		<b>\$785,600</b>



**SCHEDULE:**

June 2016 Update			Data Date: 24-Jun-16														
Activity Name	Start	Finish	2016				2017				2018				2019		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>Farrington Highway Station Group</b>	31-Aug-15 A	16-Jan-18															
<b>Construction - Farrington Highway Station Group</b>	31-Aug-15 A	16-Jan-18															
West Loch Station	31-Aug-15 A	15-Sep-17															
Waipahu Transit Center Station	17-Dec-15 A	16-Jan-18															
Leeward Community College Station	04-Jan-16 A	16-Jan-18															
<b>Substantial Completion - Farrington Highway Station Group</b>	16-Jan-18	16-Jan-18															

Note: Dates updated using the Contractor's baseline schedule

**CRITICAL PATH ISSUES:**

- Access to LCC - HDCC will need to re-baseline the project schedule when new access dates to LCC are determined.
- Timing of the VECP and how the work will impact the project schedule and projected substantial completion may affect the critical path if the VECP is incorporated into the contract.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value:** 0.57%; **Planned Value:** 30%

- Approved the Load Test Shaft at West Loch Makai site. VECP comments returned to HDCC. Several scoping meetings have been held to bring cost differences in line.
- 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, installation of steel piles for shoring, and waterline and sewer modifications.
- Unilateral Contract Change Order issued for Traction Power Substation (TPSS) work at WLO.

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.
- Installation of waterline at Zippy's.
- Installation of ground grid at the WLO TCCR Building.
- Preliminary survey work for WTC Station.

**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 LCC is pending. HART is working with HDCC to mitigate impacts.
- Review and approval of critical submittals is ongoing.
- Past due monthly schedule updates need to be brought to current data date, so progress payments can be made. Ongoing efforts to come to agreement on how access delays should be documented in the schedule.

**QUALITY MANAGEMENT:**

FHSN NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
2	1	1

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

**Contract No.:** DB-200

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

**Contract Start Date:** July 2011

**Contract Substantial Completion:** 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:** Substantial Completion effective July 2, 2016 as revised under Change Order No. 047 was granted.

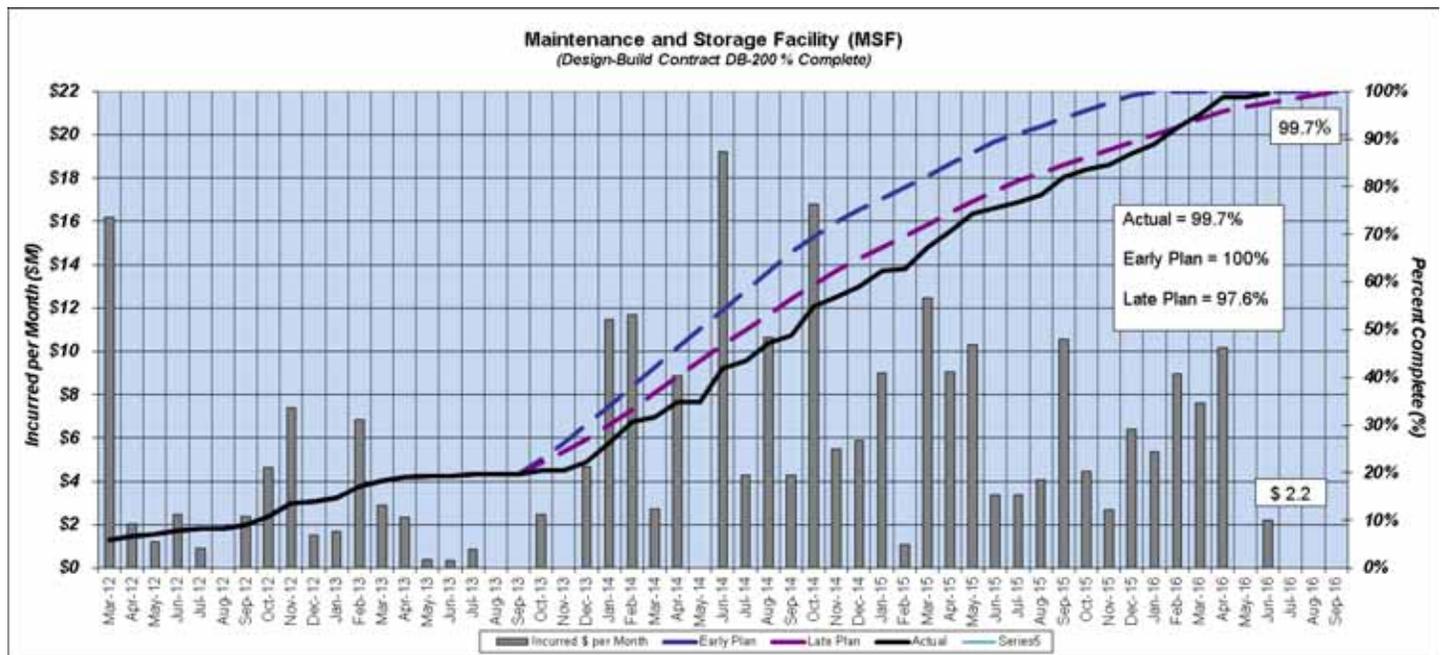
**COST INFORMATION:**

Original Contract:	\$195,258,000	Incurred-to-Date:	\$273,728,742
Current Contract Value <sup>1</sup> :	\$274,858,568	Incurred in June:	\$2,195,983

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

DBE Participation	
Actual DBE Participation:	\$551,698
DBE % Attained:	0.28%

June Change Orders		
Change No.	Description	Amount (\$)
CCO 046	Relocate Chain Link Fence	\$7,792
<b>Cumulative to Date</b>		<b>\$79,600,568</b>



**SCHEDULE:**



**CRITICAL PATH ISSUES:**

- Coordinate with KKJV the equipment and systems commissioning, completion of the punchlist, turnover of remaining submittals, complete training, submit O&M manuals, and turnover of spare parts and equipment for final acceptance.

MSF Construction Status	
99% Complete Overall as of 7/15/16	
Element	% Complete*
OSB	99%
MOW Building	99%
WTB	99%
TWF	99%
Rail	99%
Paving	100%

\*Not including testing and commissioning.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 99%** [(Total Achieved to June (\$272 million) + Projected July 2016 Period (\$1.5 Million))/Total Contract Including Executed Change Orders (\$275 million)]. Planned Value: 99%

**Yard/Utilities**

- Removal of the temporary fence, including the erosion and sediment control along the east side of the MSF at Leeward Community College.

**Operations and Servicing Building (OSB)**

- Installation of the hydraulic lifts is ongoing.
- Punchlist activities are ongoing.

**Maintenance of Way (MOW)**

- Completed.

**Wheel Truing Building (WTB)**

- Completed.

**Train Wash Facility (TWF)**

- Completed.

**Rail Procurement and Installation**

- Completed.

**Administration**

- Assisting with the completion of final documents for final acceptance of the MSF project.

Look Ahead:

**Yard/Utilities**

- Removal of erosion and sediment control, and temporary fencing.

**OSB**

- Installation of hydraulic lifts.
- Complete punchlist activities.
- Equipment and Building Systems Commissioning.

**MOW**

- Equipment and Building Systems Commissioning.

**WTB**

- Equipment and Building Systems Commissioning.

**TWF**

- Equipment and Building Systems Commissioning

**KEY ISSUES:**

- **Final Acceptance** – KKJV is working on completing equipment and building commissioning, final punchlist, submittals, training, O&M manuals, spare parts, and equipment turnover for final acceptance.
- **LEED Commissioning** – Commissioning of HVAC, domestic water, and building lighting controls is in process. The completion requires the fiber optic communication network by 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:**



OSB – Wheel Press.



OSB – Punchlist activities.



Yard- Perimeter fence removal.



OSB – Car Lift.

### 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:** April 2018

**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, traffic signal improvements, highway widening, drilled shaft foundations, columns and aerial structure.

**Project Overview:** Construction of the remaining drilled shafts continues east of Honomanu Street. Columns have been constructed from the WOFH project limits to the area just past Kaahumanu St., and from Kanuku St. to Pali Momi. Additionally, columns have been constructed from the west side of Salt Lake Blvd. to the end of the alignment. Heading #2 truss is currently erecting 421R and proceeding west.

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

Per KIWC’s progress schedule, the contract is more than 18 months behind schedule, which includes the guideway structure completion in May 2017 and the remaining roadway/civil work being completed by April 2018.

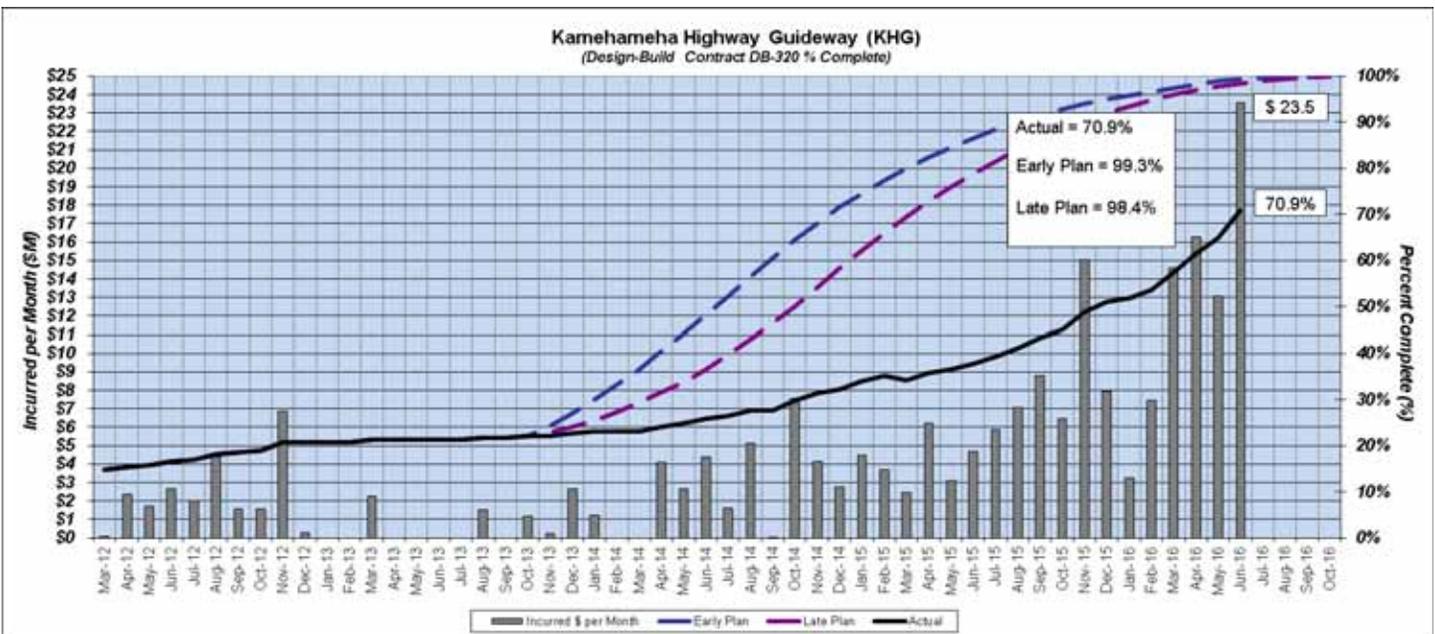
#### COST INFORMATION:

Original Contract:	\$372,150,000	Incurred-to-Date:	\$276,302,382
Current Contract Value <sup>1</sup> :	\$390,292,368	Incurred in June:	\$23,543,660

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

DBE Participation	
Actual DBE Participation:	\$308,468
DBE % Attained:	0.08%

June Change Orders		
Change No.	Description	Amount (\$)
CCO 030	Pre-cast Yard Extended Lease Jul-Oct 2016	\$819,782
<b>Cumulative to Date</b>		<b>\$18,142,368</b>

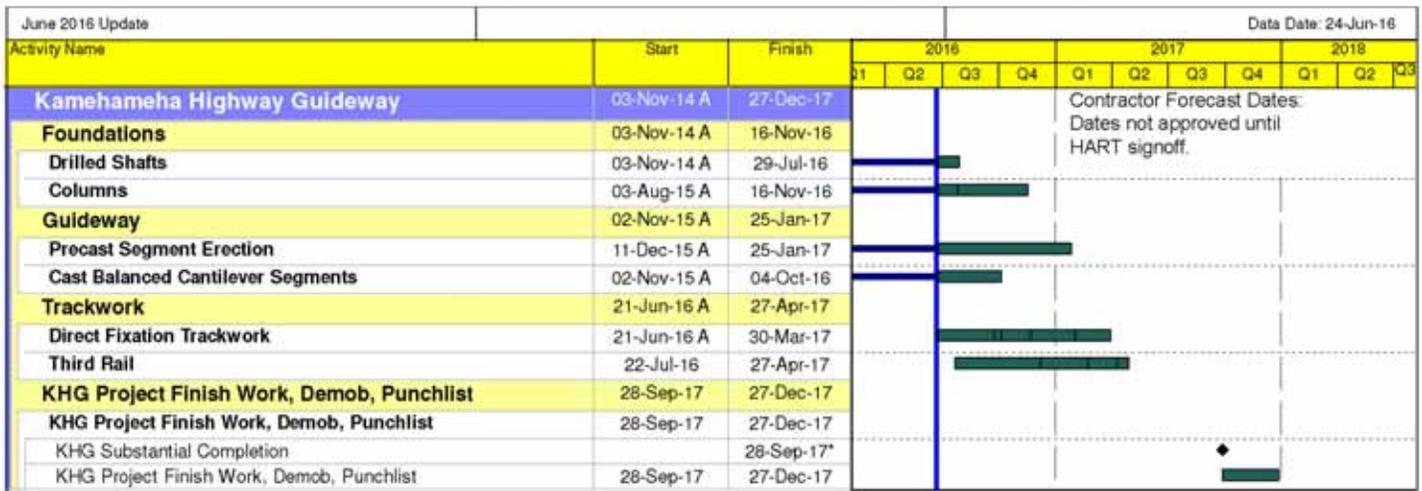


Pay Application #63 for June 2016 billing has been submitted by KIWC and is in review with HART. Pay application #62 for May 2016 billing has been approved for payment.

**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, in September 2015, KIWC submitted a re-baselined August 2015 schedule via an RFC for contract time extension. The re-sequencing of the guideway and road work contains significant unilateral changes in durations, logic, as well as activity modifications, and cannot be accepted. The re-baselined August 2015 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. The current progress schedule (June 2016) shows guideway to be completed in May 2017 and overall project schedule to be completed in April 2018; this reflects more than 18 months of 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, and self-directed work stoppage for traffic signal and civil work.



**CRITICAL PATH ISSUES:**

- HECO schedule forecast at utility conflicts 11-920-M1, 11-923-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.
- KIWC’s latest progress schedules have been forecasting 6 additional months of civil work due to changes in Walls 2, 3 and 4 design from mechanically stabilized earth (MSE) to cast-in-place (CIP), and longer construction duration.

**WORK PROGRESS:**

KHG Construction Status as of 7/13/16									
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	180	186	183	186	96.8%
Gas Line	12,641	12,641	100%	Columns	128	169	140	169	75.7%
Sewer Line	492	492	100%	Segment Casting	1,974	2,031	2,031	2,031	97.2%
Drainage Line	710	1,469	48%	Spans Stressed	85	157	68	166	51.2%
Elec/Telecom	15,961	19,455	82%	Track work	0	106	0	166	0%
System Sites	10%	N/A	10%	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.

Activities this Month:

**Weighted Value: 72.5%** [(Total achieved to June 2016 (\$276.3 million) + July 2016 projection (\$12.8 million))/Total contract including executed Change Orders (\$398.5 million)]. Planned Value: 98.9%

**Shaft/Column/Segments**

- 180 of 186 shafts have been installed; 96.8% of all shafts have been completed.
- 128 of 169 columns have been constructed.
- 1,974 of 2,031 segments have been cast.
- Balanced Cantilever superstructure east and west of the H-1 overpass continues.
- Balanced Cantilever travelers have been erected at Piers 306 and 307, heading both east and west. Twenty-seven (27) of forty (40) segments cast.
- Obtained east and west bound permits.
- Shaft construction east of Honomanu Street continues.
- Heading #1 is in production erecting Span 368.
- Heading #2 is in production erecting span 419R.
- Heading #3 is in production erecting Span 319.

**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 and #24 work is ongoing.

**Roadway Widening**

- Roadway widening continues to be placed on hold, due to crews working on WOFH.
- Shaft construction west of Aiea Access Road at 397 is in progress.

Look Ahead:

**Design Progress**

- KIWC is working to complete final design. To date, 44 of 49 drawing packages have been issued for construction.

**Shaft/Column/Segments**

- Construction of shafts will continue west of Aiea Access Road.
- Column construction continues eastbound from the area around Hekaha and Kanuku Street.

**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 Piers 306 and 307.

**Precast Yard**

- KIWC will continue casting segments. Based on the current rate, the forecasted completion is August 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 April 2018.

**KEY ISSUES:**

- **HECO/HDOT Utility Priorities** – HECO designs for utility conflicts 920-M1 and 943-E1 (On-Call) have been completed and approved by HART. HART is awaiting construction schedule from third parties. HART is also awaiting on the installation of two poles so HARTs On-Call contractor can complete duct bank for 943. At the 920 conflict, HART is waiting on HECO to schedule work.
- **Access Coordination between Contracts** – Coordination between contractors is ongoing and requiring accelerated turnover of guideway work to follow-on station 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:**

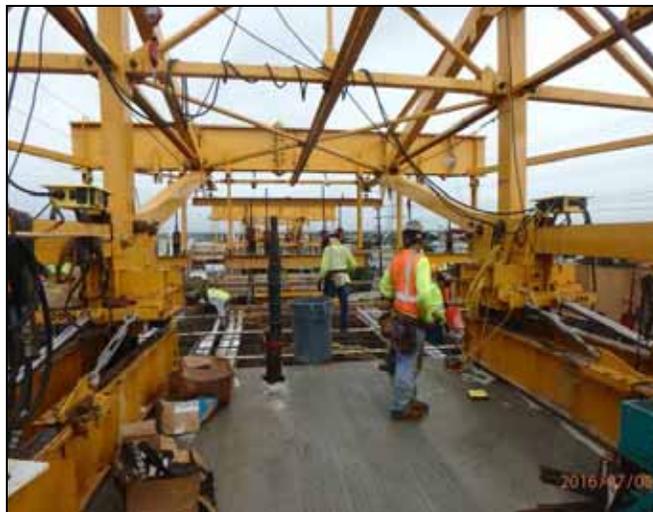
- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant new findings through quality audits.
- **Longitudinal Tendons** – Due to WOFH NCR 509, longitudinal tendons have been monitored for possible indications of rust. HART to inspect tendon anchorage for corrosion, prior to grouting.
- **Drilled Shaft Quality** – KIWC currently has 3 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
187	173	14

PROJECT PICTURES:



BCS 306 to Span 306, Phase 4.



Installing rebar at BCS 307, Phase 4.



Setting segment for Span 315, Phase 5.



Setting falsework for L-pier 329, Phase 6.



Setting Span 364, Phase 10.



Heading 2 span set 421R, Phase 13.

**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:** April 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 April 2017. The contractor was formally notified to commence construction on March 21, 2016, however, they commenced construction on March 28, 2016.

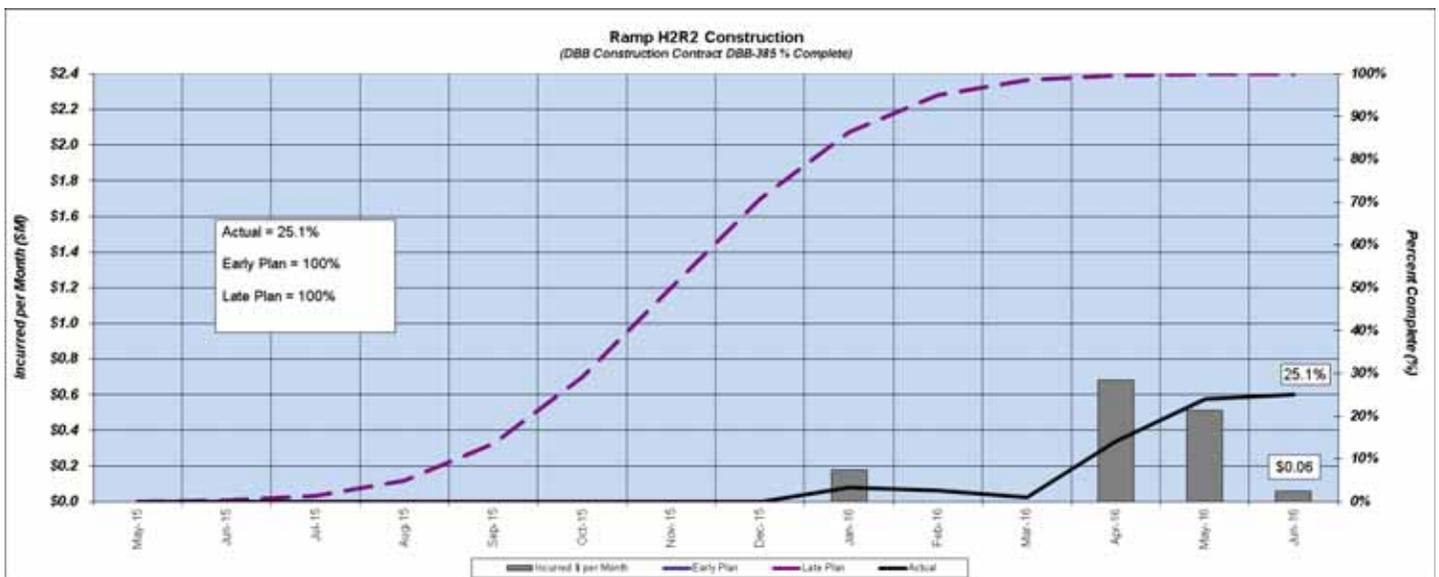
**COST INFORMATION:**

Original Contract:	\$5,203,646	Incurred-to-Date:	\$1,305,336
Current Contract Value <sup>1</sup> :	\$5,203,646	Incurred in June:	\$58,670

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

DBE Participation	
Actual DBE Participation:	\$159,032
DBE % Attained:	3.06%

June 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:**

June 2016 Update		Data Date: 24-Jun-16							
Activity Name	Start	Finish	2016				2017		
			Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>West Guideways &amp; Structures</b>	18-May-15 A	09-May-17							
<b>Construction - H2R2 Ramp</b>	18-May-15 A	09-May-17							
Construction - H2R2 Ramp	18-May-15 A	09-May-17							
Substantial Completion - H2R2 Ramp		09-May-17							09-May-17

**CRITICAL PATH ISSUES:**

- Approval from HDOT on repairs to existing 30-inch corrugated metal storm pipe. Royal was provided direction to proceed with change work by field change notice. No impact to critical path with alternate mechanical compaction method that was approved and implemented.
- No additional time to be added for unforeseen condition at 30-inch corrugated metal pipe (CMP) to extend projected substantial completion to April 2017. HART was able to mitigate delay by choosing an alternative compaction method in one small area adjacent to the CMP.
- Change order in process that will extend contract completion 124 days as a result of an approved time impact analysis resulting from an unforeseen condition encountered in the beginning of the project (contaminated soils).

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 25%;** 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.
- Embankment placement.
- Surcharge settlement monitoring.

Look Ahead:

- Continue earth moving activities.
- Continue export of fill material.
- Continue surcharge settlement monitoring.

**KEY ISSUES:**

- Field change notice (FCN) was issued on July 20, 2016 for temporary street lighting along H2. Design engineers are assessing the streetlights, addition of guard rail, and how those elements will all tie into the existing retaining wall design. Design engineers are researching a potential issue related to a storm drain adjacent to H2 and are to provide a re-design in coordination with HDOT for approval.
- Additional MOT barriers require installation to address safety concerns.

**QUALITY MANAGEMENT:**

Ramp H2R2 NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
1	0	1

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

**Contract No.:** DBB-371

**Contractor:** Nan, Inc.

**Contract Start Date:**

Notice to Commence Administrative Work: April 2016

Notice to Commence Investigative/Pre-Construction Work at Pearl Highlands: July 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.

**Project Overview:** The contractor was issued a Notice to Commence Administrative Work on April 1, 2016, and since then has been submitting RFIs as well as management and qualification based technical submittals. A Notice to Commence Investigative/Pre-Construction Work at Pearl Highlands was issued in July 2016, and the contractor has begun work at the Pearl Highlands Station site. A key issue remains the determination of when to officially issue NTP to the contractor. This issuance is contingent on the contractor getting full or shared access to the Pearl Highlands, Pearlridge, and Aloha Stadium Station areas. Coordination meetings with the WOFH and KHG Guideway contractor remain ongoing to ensure the proper transfer of site access.

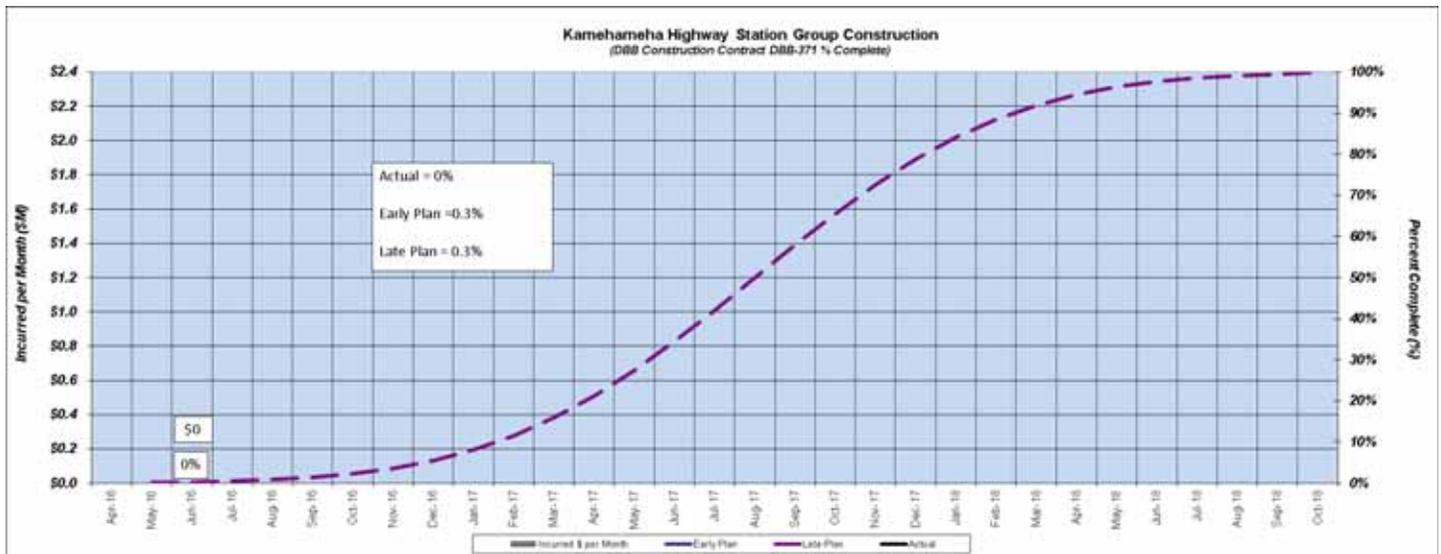
**COST INFORMATION:**

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

June 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 full NTP to begin contractor mobilization onto site.
- Working with the WOFH and KHG Guideway contractor to get full site access to all stations.
- Executing a Contractor Change Order to incorporate Issued for Construction drawings and specifications into the contract.

**WORK PROGRESS:**

Activities this Month:

**Weighted 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.
- Obtained shared access at the Pearl Highlands Station area.
- Progressed the development of a Contractor Change Order (CCO 00001) to incorporate Issued for Construction drawings and specifications.
- Held Project Progress, Trainings, and Interface Definition Meetings with the guideway contractor and Fare Collection contractor to develop interface definition points.
- Held Value Engineering Meetings to determine the potential for schedule savings and minimal traffic disturbances to the public.

Look Ahead:

- Submit interface definition points.
- Continue surveying, investigative, and cleaning and grubbing work at Pearl Highlands.
- Continuing coordination with the WOFH Guideway contractor for full site access at the Pearl Highlands Station area.
- Continuing coordination with the KHG Guideway contractor for full site access to Pearlridge and Aloha Stadium Station areas.
- Begin negotiations for CCO 00001.
- Submit Baseline Schedule.
- Continue Value Engineering discussions and determine if any should be pursued.

**KEY ISSUES:**

- Guideway contractor turning over station dates at Pearlridge and Aloha Stadium Station areas.
- Submitting and accepting all contractual documents prior to construction.

**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 as-needed support for HART’s oversight of the Airport Guideway and Stations design-build contract.

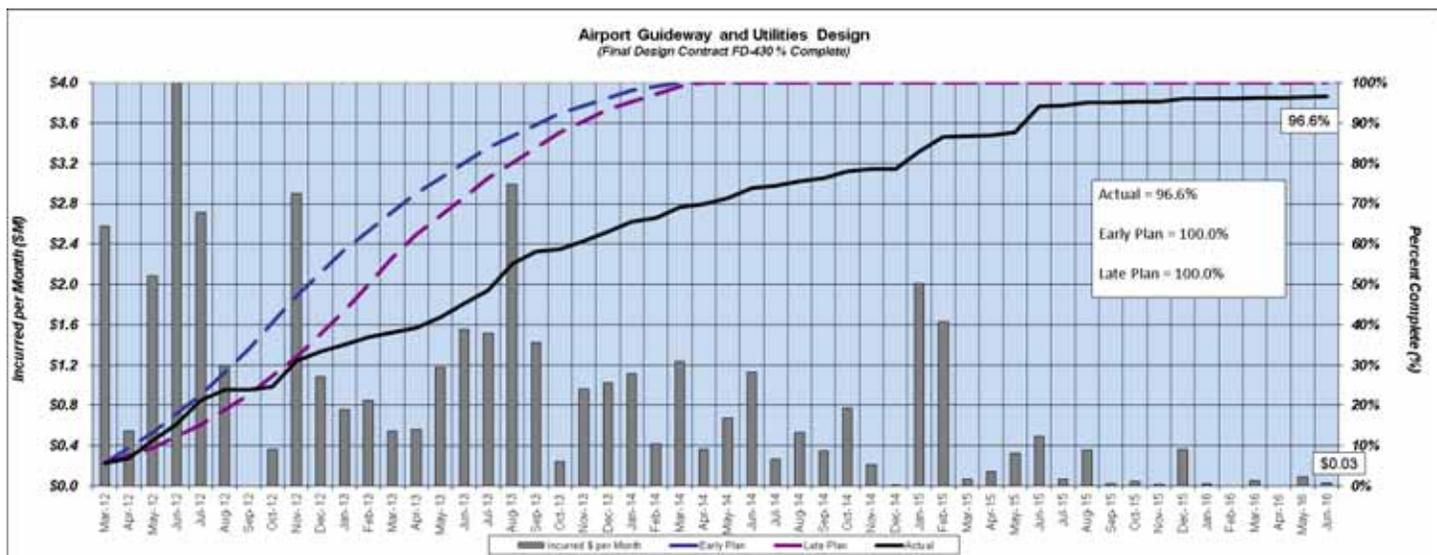
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$38,840,960</u>	<u>Incurred-to-Date:</u>	<u>\$41,647,169</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,134,472</u>	<u>Incurred in June:</u>	<u>\$29,685</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%

June 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:** November 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. The current substantial completion date is being revised from July 13, 2016 to Sept. 11, 2016 in a change order. An approval of modified Traffic Control Plans has allowed the contractor to have more time to perform work during the day. Nan is also working closely with the Navy on utility issues discovered in the field, including unclaimed / unidentified power lines along Kamehameha Highway, and DOT-A regarding utilities along Aolele Street. Several work items are being removed from Nan’s scope of work due to unresolved conflicts with the Navy and potential significant cost and schedule impacts.

**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$27,993,290</u>	<u>Incurred-to-Date:</u>	<u>\$13,910,706</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$27,384,809</u>	<u>Incurred in June:</u>	<u>\$980,461</u>

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

DBE Participation	
Actual DBE Participation:	\$36,094
DBE % Attained:	0.13%

June Change Orders		
Change No.	Description	Amount (\$)
CCO 007	Delete Sewer Relocation FHB	(\$142,106)
CCO 008	Potholing at 1059+45 for Pier 476	\$12,103
<b>Cumulative to Date</b>		<b>(\$608,480)</b>



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

**SCHEDULE:**

June 2016 Update			Data Date: 24-Jun-16																				
Activity Name	Start	Finish	2016			2017			2018			2019			2020			2021			2022		
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
<b>Airport Utility Relocation</b>	05-Jan-12 A	17-Nov-16																					
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 Section Utilities - Construction	06-Oct-14 A	17-Nov-16																					

Contractor Forecast Dates:  
Dates not approved until  
HART signoff.

**CRITICAL PATH ISSUES:**

- 8” Navy waterline reconnection.
- Switch over of work area for the Chevron work to On-Call.

**WORK PROGRESS:**

Activities this Month:

**Weighted Value: 55%;** Planned Value: 60%

- Nan, Inc. has submitted a baseline construction schedule, which has been accepted. A revised baseline schedule, based on the current contract substantial completion and extended work hours, is being reviewed.
- Continued work on utility line relocations along Kamehameha Highway. Work will be performed on waterline manholes, utility box installations, and installation of irrigation lines in the Airport area. Work will also involve the removal of sewer lines that are abandoned.

Look Ahead:

- Ongoing drain line and waterline work on Aolele Street in the Airport area.
- CE&I II team continues to review and respond to RFI’s dealing with field conflicts as well as process RFC’s/Change Orders.
- Transfer of work scope that has been discovered or unforeseen to this contract. Items such as the Telecom duct bank work, 24” waterline, and 8” fuel line removal, are planned to be performed under another contract.
- The ASU contract scope to remove a 3-4” Chevron line and relocation of the utility line associated with the Navy Secured Fleet and Industrial Supply Center (FISC) area will be removed from the Nan, Inc. ASU contract and will be addressed in future contracts due to schedule constraints, additional need for rights to enter property for utility relocation, third party stakeholders, or hazardous material abatement issues.
- Planning for final paving and stripping.

**KEY ISSUES:**

- Concluding change order agreements and negotiations, and processing a time extension to modify the contract substantial and final completion dates.
- Resolving issues related to the contractors ability to partially invoice items, based on the schedule of values, where the scope has been removed from the 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>17</b>	<b>1</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.

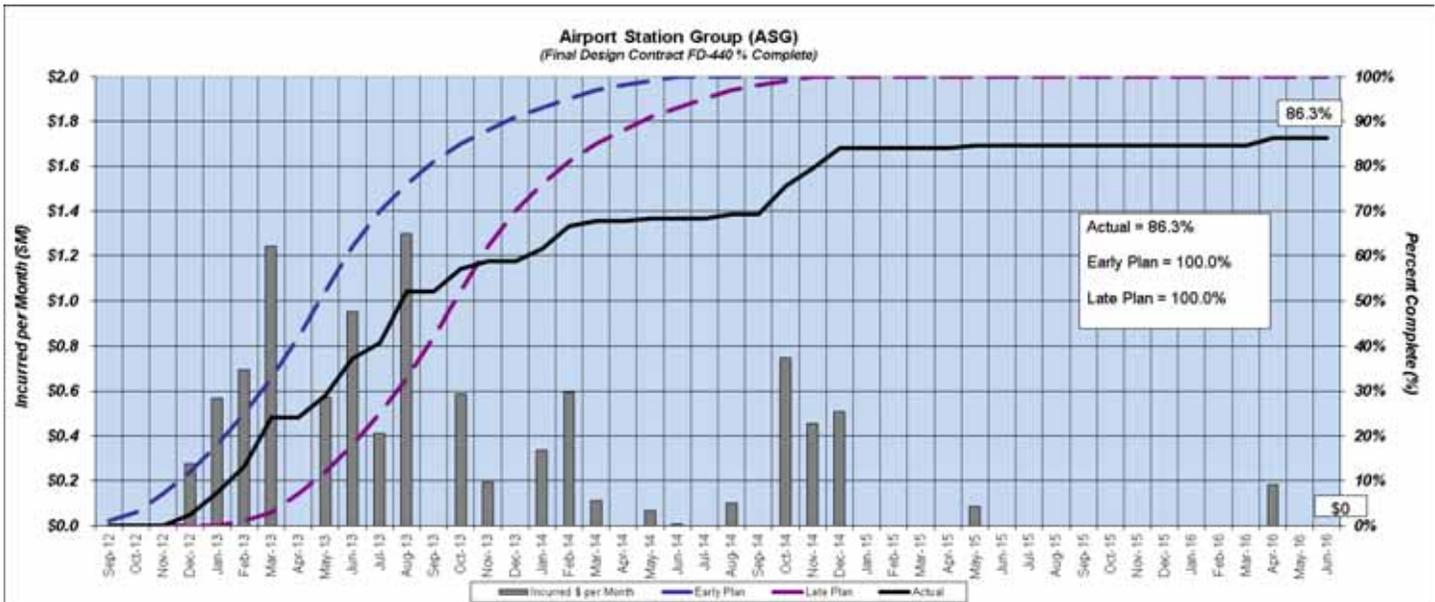
**COST INFORMATION:**

Original Contract:	\$10,177,365	Incurred-to-Date:	\$9,983,402
Current Contract Value <sup>1</sup> :	\$11,573,852	Incurred in June:	\$0

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

DBE Participation	
Actual DBE Participation:	\$234,762
DBE % Attained:	2.31%

June 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.

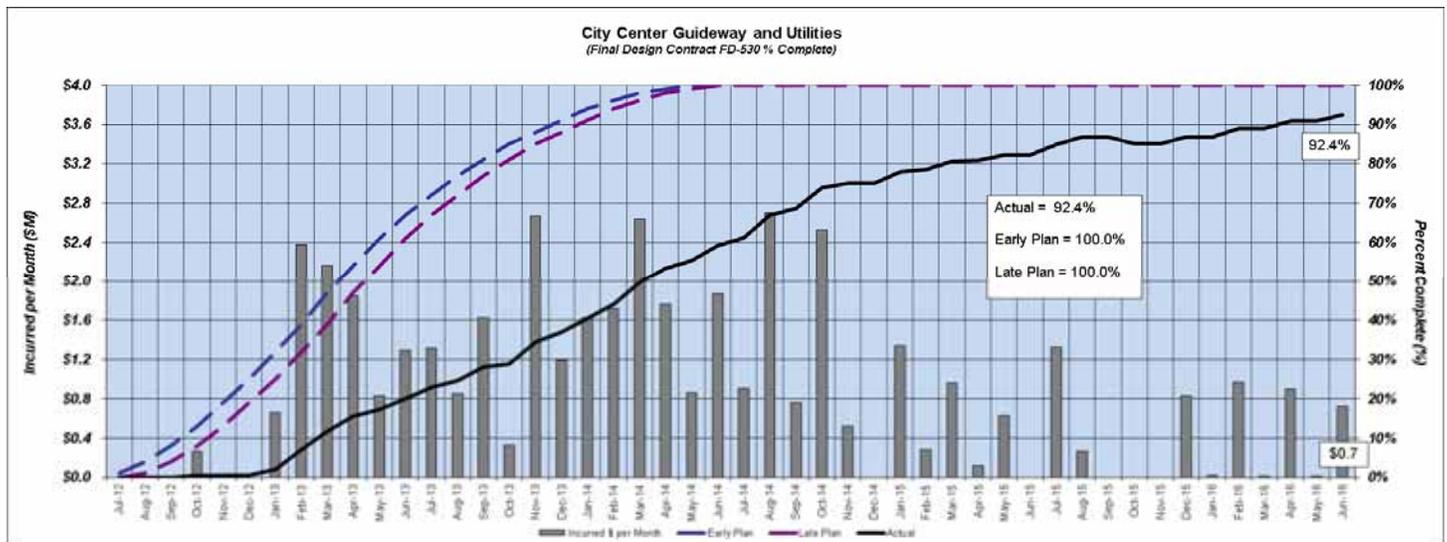
#### COST INFORMATION:

Original Contract:	\$43,948,220	Incurred-to-Date:	\$43,540,880
Current Contract Value <sup>1</sup> :	\$47,097,562	Incurred in June:	\$721,076

<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%

June Change Orders/Amendments		
Change No./Amend	Description	Amount (\$)
None	---	---
<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:**

June 2016			Data Date: 24-Jun-16																													
Activity Name	Start	Finish	2015			2016			2017			2018			2019			2020			2021			2022			2023					
			Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	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	19-Jul-23																														
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	24-Mar-17																														
DB-550 - City Center Guideway & Stations - Construction	15-May-17	19-Jul-23																														

**CRITICAL PATH ISSUES:**

- N/A.

**WORK PROGRESS:**

Activities this Month:

- Current earned value is approximately 93%.
- 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.

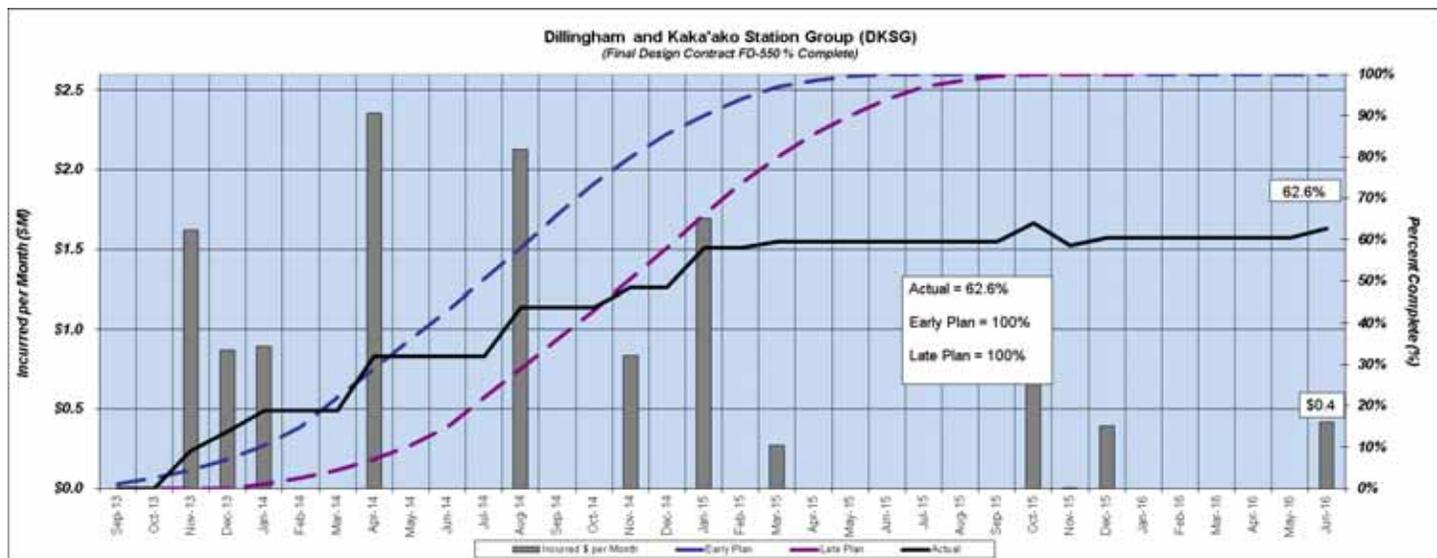
**COST INFORMATION:**

Original Contract:	\$18,321,918	Incurred-to-Date:	\$12,293,535
Current Contract Value <sup>1</sup> :	\$19,631,717	Incurred in June:	\$417,867

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

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

June Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$1,309,799</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:

<u>Original Contract:</u>	<u>\$33,376,897</u>	<u>Incurred-to-Date:</u>	<u>\$43,168,824</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$51,820,920</u>	<u>Incurred in June:</u>	<u>\$1,451,595</u>

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

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

June Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<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.

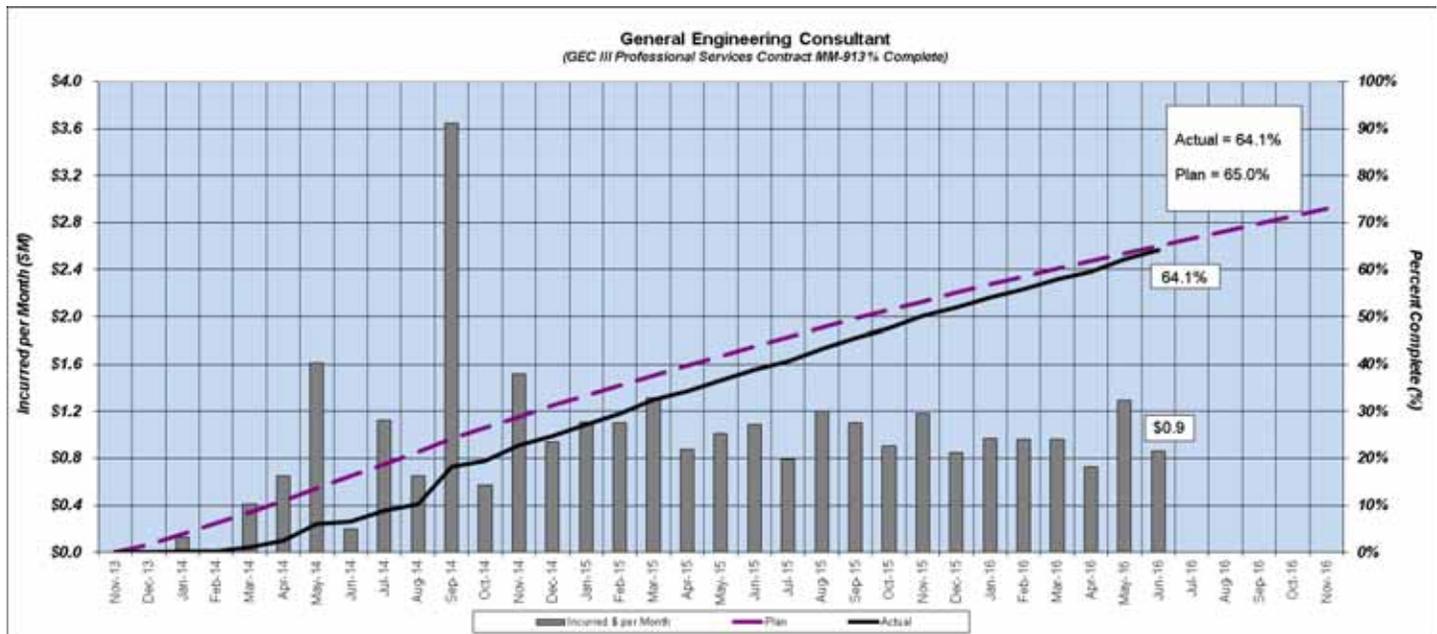
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$46,143,277</u>	<u>Incurred-to-Date:</u>	<u>\$29,761,613</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$46,541,728</u>	<u>Incurred in June:</u>	<u>\$863,648</u>

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

DBE Participation	
Actual DBE Participation:	\$3,386,089
DBE % Attained:	7.34%

June Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<b>Cumulative to Date</b>		<b>\$398,451</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 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.

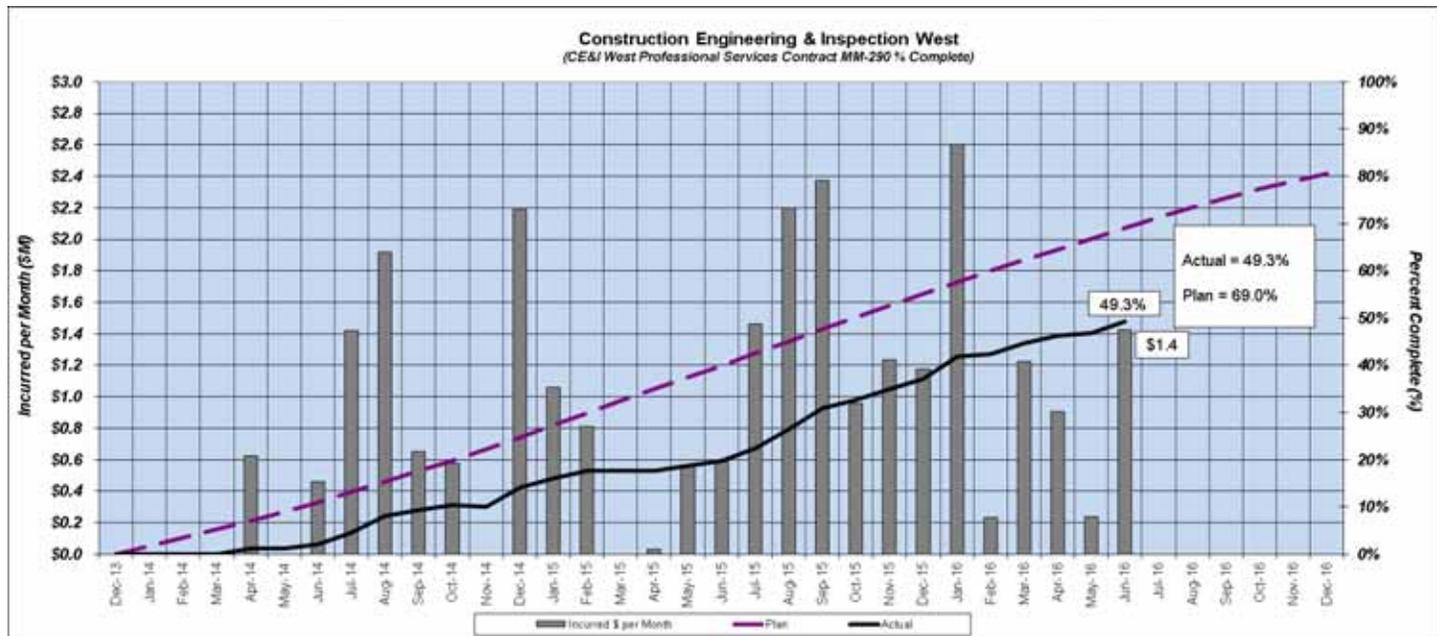
**COST INFORMATION:**

Original Contract:	\$54,232,480	Incurred-to-Date:	\$26,756,710
Current Contract Value <sup>1</sup> :	\$54,232,480	Incurred in June:	\$1,424,683

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

DBE Participation	
Actual DBE Participation:	\$3,082,998
DBE % Attained:	5.68%

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



**KEY ISSUES:**

- Continued to provide management of and coordination between various west side contracts.
- Continuing toward substantial completion of the WOFH contract.
- Shared site access between station construction contractors and the guideway contractor remains an issue.
- Provided additional staffing to support West CE&I efforts.

**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.

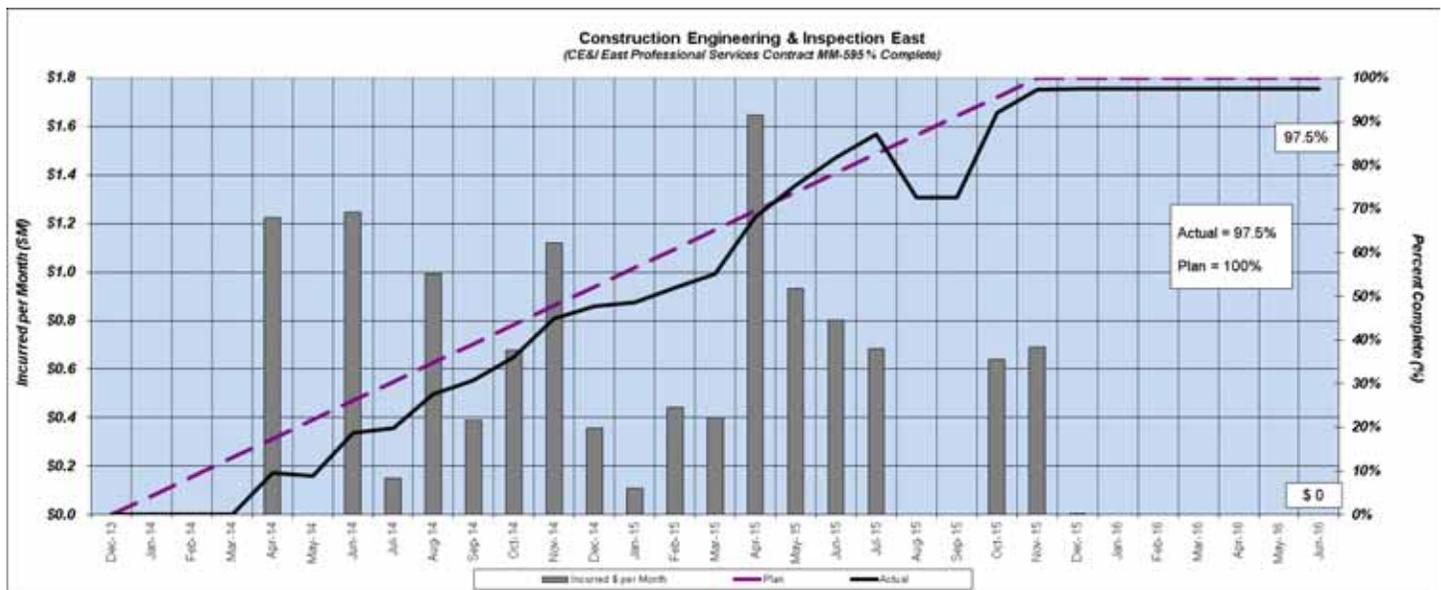
**COST INFORMATION:**

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

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

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

June Change Orders		
Change No.	Description	Amount (\$)
None	---	---
<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. HART East Section 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.

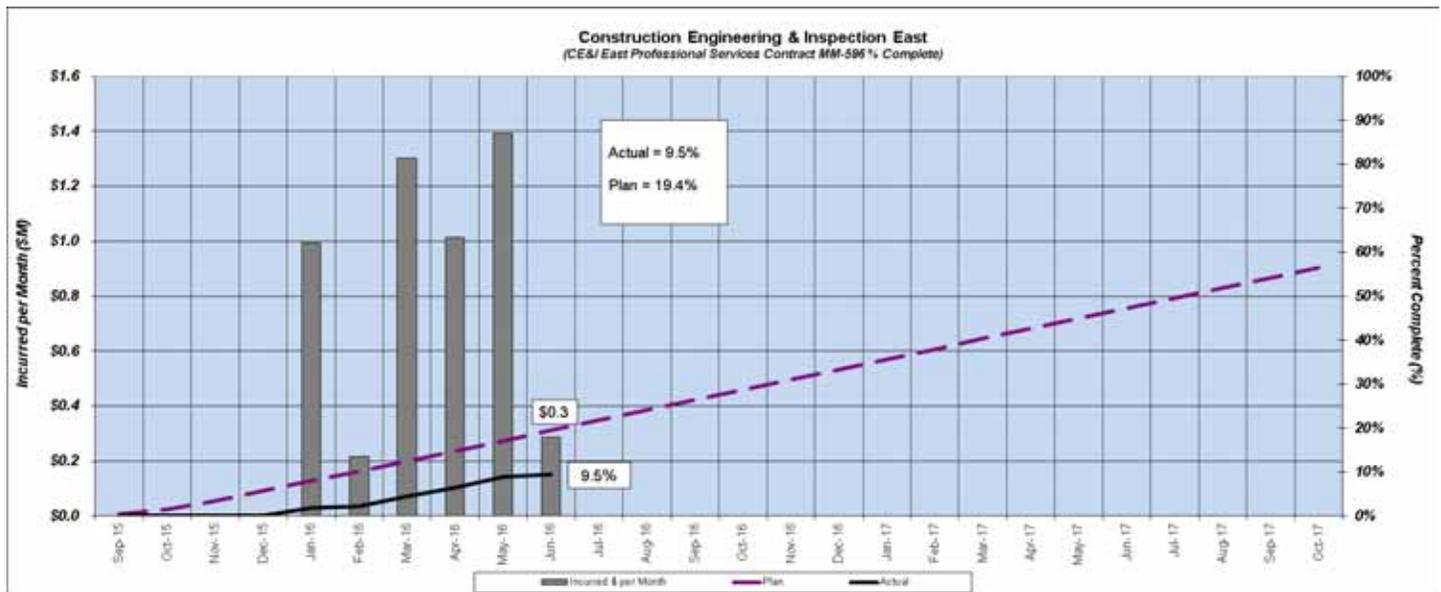
**COST INFORMATION:**

Original Contract:	\$55,036,130	Incurred-to-Date:	\$5,205,557
Current Contract Value <sup>1</sup> :	\$55,036,130	Incurred in June:	\$288,187

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

DBE Participation	
Actual DBE Participation:	\$1,262,459
DBE % Attained:	2.30%

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



**KEY ISSUES:**

- A draft Independent Cost Estimate (ICE) for the CCGS DB contract was provided to HART on July 5, 2016.
- The project team continues to provide schedule and cost analysis for the HECO 138KV impact on CCGS DB.
- The project team continues to support HART with review of CCGS DB construction options under the current budget challenges.
- Completed the support to HART for the Airport Guideway and Stations DB procurement and award.

**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.

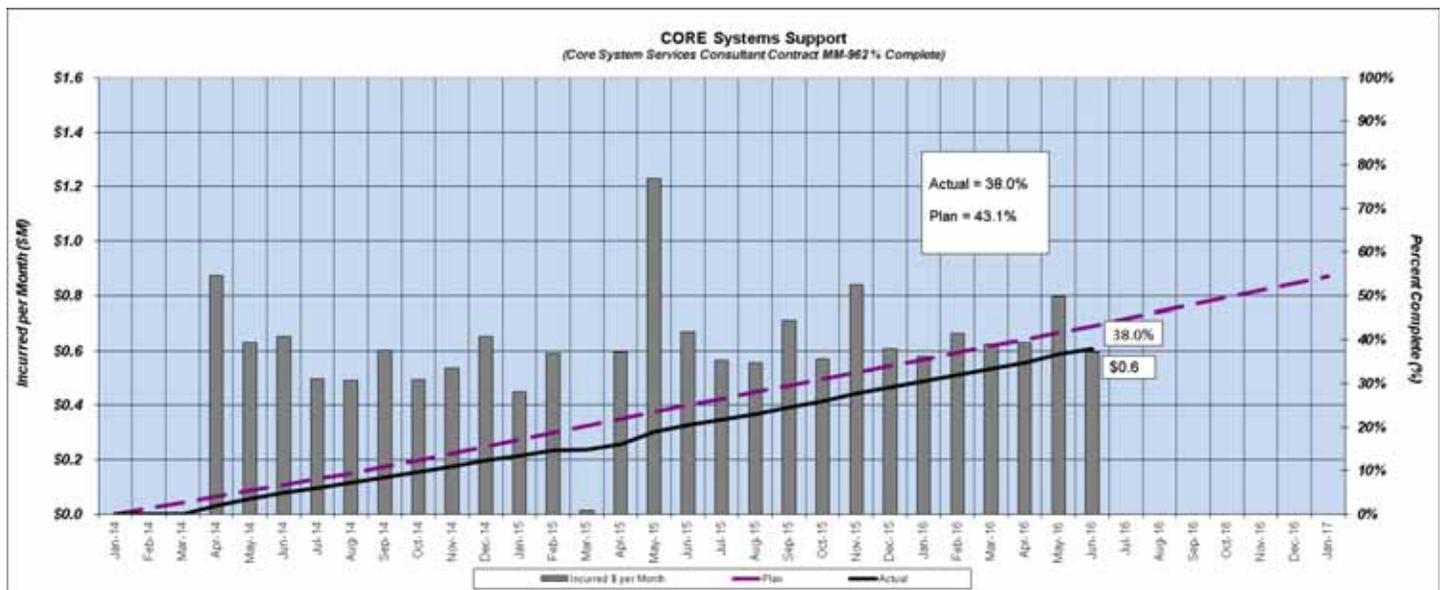
**COST INFORMATION:**

<u>Original Contract:</u>	<u>\$43,988,989</u>	<u>Incurred-to-Date:</u>	<u>\$16,720,673</u>
<u>Current Contract Value<sup>1</sup>:</u>	<u>\$43,988,989</u>	<u>Incurred in June:</u>	<u>\$596,755</u>

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

DBE Participation	
Actual DBE Participation:	\$392,422
DBE % Attained:	0.89%

June 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.

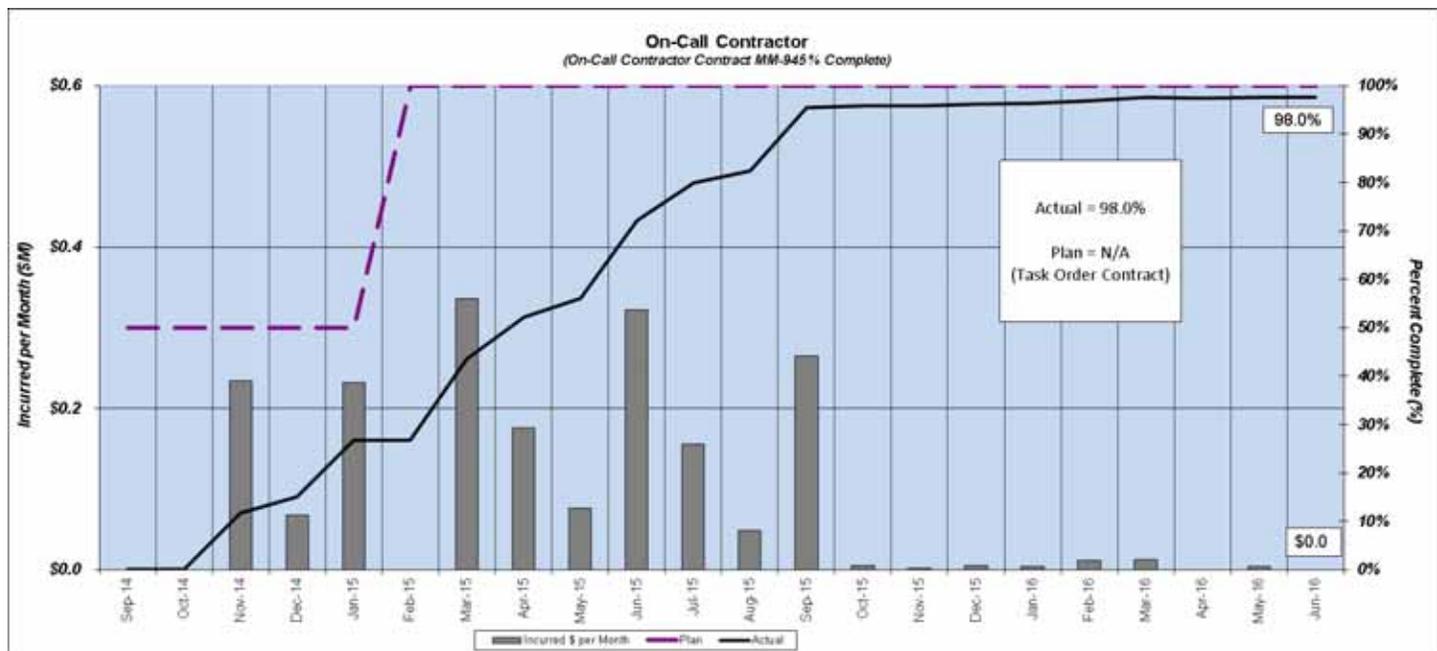
**COST INFORMATION:**

Original Contract:	\$1,000,000	Incurred-to-Date:	\$1,952,468
Current Contract Value <sup>1</sup> :	\$2,000,000	Incurred in June:	\$0

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

DBE Participation	
Actual DBE Participation:	\$460,025
DBE % Attained:	23%

June 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 all authorized work.
- The On-Call Contractor is in the process of being closed. All required work on this contract was completed in July 2016.

## 5 OVERALL PROJECT-WIDE ACTIVITIES

### 5.1 Permits

- **Permits Submitted and In-Progress**
  - HART submitted the extension for the Coast Guard Bridge Permit advanced approval.
- **Permits and Approvals Granted**
  - HART received an approved Kamehameha Highway section (KHG) Community Noise Variance for continued night construction from Pearl Highlands to Aloha Stadium.
  - HART received the National Oceanic Atmospheric Administration Fisheries' concurrence of the Essential Fish Habitat Assessment.
- **Look Ahead**
  - Upcoming significant permit activity:
    - HART will prepare the Community Noise Permit continuance application for the West O'ahu Farrington Highway (WOFH) construction activities.
    - HART will prepare the Community Noise Permit continuance application for the Rail Operations Center (ROC) construction activities.
    - HART will prepare 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. The Federal Highway Administration (FHWA) fund transfer form has been sent to FTA.
  - A draft amendment to the WOFH Master Agreement and Joint Use and Occupancy agreement has been sent to HDOT for review and comment. The amendment addresses 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 and Joint Use and Occupancy 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 Pending 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	Draft agreement under 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						
7/13/16 – KHG Vertical Clearance										
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 Pending 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

General

- Coordinating with Board of Water Supply to provide stray current information and maintenance plans.

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 unused 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 accepted the use of Altec bucket trucks in lieu of clearance requirements for 90% of the areas where clearance distances were not met, on the west side, for 12kv and 46kv. The remaining 10% of the areas are in design for other mitigation measures as the distances were too close for alternative equipment. The 138kv clearance issue areas are still under investigation and test, utilizing specialized trucks or cranes.
- **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** – 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.

**5.4 Right-of-Way (data as of July 6, 2016)**

**BUDGET**

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	\$ 201.70	\$ 91.50	\$ 110.20	\$ 97.10	\$ 13.10
Relocation	\$ 20.50	\$ 14.20	\$ 6.30	\$ 12.30	\$ (6.00)
<b>Total (Million)</b>	<b>\$ 222.20</b>	<b>\$ 105.70</b>	<b>\$ 116.50</b>	<b>\$ 109.40</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	6	2,531,705	6	492,146
Airport	50	1,007,392	12	246,305	31	668,836
City Center	121	841,641	30	187,911	16	40,769
<b>GRAND TOTAL</b>	<b>219</b>	<b>14,685,192</b>	<b>72</b>	<b>10,394,608</b>	<b>64</b>	<b>3,581,904</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 55 private owners and agreements on 17 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.

**AIRPORT**

- Priorities:
  - On-going negotiations with TMKs 1-1-002-001 and 1-1-016-020.
  - Continue working with the Federal government to complete documentation for easements.
  - 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:
  - Obtaining site access for TMK 1-1-016-020.

**CITY CENTER**

At the direction of the HART Board in executive session at its regular June 16, 2016 meeting, the Right-of-Way Section is temporarily suspending certain acquisition transactions beyond the planned Middle Street Station, including any new eminent domain actions and negotiations that have not resulted in a signed agreement amongst the parties. The following status is as of July 6, 2016.

- Priorities:
  - On-going support for negotiations with UH Honolulu Community College to secure construction right of entry.

**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>
<small>                     ○ 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.                 </small>			

**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**

At the direction of the HART Board in executive session at its regular June 16, 2016 meeting, the Right-of-Way Section is temporarily suspending certain acquisition transactions beyond the planned Middle Street Station, including any new eminent domain actions and negotiations that have not resulted in a signed agreement amongst the parties. However, relocations are continuing at the option of the displacee, if the suspended relocation will result in harm to the displacee. The following status is as of July 6, 2016.

- Priorities:
  - Continuing 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.

**INTER-GOVERNMENTAL AGREEMENTS / THIRD-PARTY AGREEMENTS**

Figure 15. Inter-Governmental Agreement / Third-Party Agreement Status – These are 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.

Inter-Governmental Agreements / Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
<b>City Agreements</b>				
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 the ROE for right to access and construct will be executed for each campus.
UH – University of Hawai'i Pre-Construction Right of Entry and Amendment	Executed		WOFH, KHG, City Center	Consent to construct in place.
UH - West O'ahu (UHWO) Construction Right of Entry for Station	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.
UH - Leeward Community College (LCC) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place.
UH - Urban Gardens Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH – Urban Gardens Conveyance to HDOT (H)	Pending	Oct 2016	KHG	In process.
UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station	Pending	May 2017	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 Agreement	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 Agreement	Pending	Jan 2017	Airport	Easement Agreement in process. Construction not impacted.
DOE – Dept. of Education Master/Construction Agreement for Waipahu H.S.	Executed		WOFH	Set-aside from DLNR to HART in process.
DOE/DLNR Right of Entry for Waipahu High School	Executed		WOFH	DLNR Consent to construct in place with DOE concurrence.
Aloha Stadium / Department of Accounting & General Services (DAGS) MOU for guideway & station	Executed		KHG	MOU in place.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry for guideway	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	Aug 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.

Inter-Governmental Agreements / Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
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	Jan 2017	Airport	In process
HDOT(H) – Joint Use & Occupancy (JU&O) Sub-agreement	Pending	May 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	May 2017	City Center	In process.
HDOT(Har) – Dept. of Transportation Harbors Right of Entry	Pending	May 2017	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	May 2017	City Center	In process.
OCCC - Dept. of Public Safety, Oahu Community Correctional Center, Dillingham Blvd., Right of Entry	Pending	May 2017	City Center	Draft Right of entry under review.
HCDA -HI Community Development Agreement	Pending	May 2017	City Center	Coordination is ongoing.
HCDA -HI Community Development Agreement Pre-construction Right of Entry	Approved		City Center	Verbal approval granted by the HCDA Board in 6/2016.
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	May 2017	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	May 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.
U.S. Navy Easement Agreements	Pending	August 2016	WOFH, KHG, Airport	Navy completing documentation.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Executed		Airport	Quitclaim deed received.
U.S. Post Office Honolulu Processing Center acquisition	Pending	Jan 2017	Airport	Appraisal report received.
U.S. Gov't/GSA/Federal Courthouse Master Agreement to include Security & Landscape Plan	Pending	May 2017	City Center	Master agreement under review and discussions are ongoing.
U.S. Gov't/GSA/Federal Courthouse License (Right of Entry) & Temporary Construction Easement (TCE) Agreements	Pending	May 2017	City Center	In final review.

Inter-Governmental Agreements / Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
U.S. Gov't/GSA/Federal Courthouse Quitclaim Easement Document	Pending	May 2017	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>			
<b>HART SAFETY</b>			
1. Safety & Security Management Plan (SSMP)	Rev 5	10/16/2015	SSRC approved and signed, update underway
2. Safety & Security Certification Plan (SSCP)	Rev 4. B	12/14/2015	SSRC approved and signed, update underway
3. WOFH SSCP	Rev 0	10/22/2014	SSRC approved - No future updates: HART SSCP is in affect
4. Construction S&S Plan (CSP)	Rev 3	10/06/2015	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. TES Back-Up Generator System HA	Rev A	5/25/2016	SSRC Approved
8. Threat & Vulnerability Assessments (TVAs)	Rev 1	1/16/2015	Update on hold - pending East Alignments re-design
<b>HART CORE SYSTEMS</b>			
9. Central ATC O&SHA	Rev C	9/23/2015	SSRC approved (CMS # 874)
10. Wayside/ATC System HA	Rev C	6/22/2016	SSRC approved (CMS# 835)
11. Wayside ATC SSHA	Rev B	6/22/2016	SSRC approved (CMS# 836)
12. Wayside ATC O&SHA	Rev D	9/23/2015	SSRC approved (CMS # 850)
13. Passenger Train ATC SSHA	Rev E	2/24/2016	SSRC approved (CMS # 853)
14. Passenger Train ATC O&SHA	Rev F	2/24/2016	SSRC approved (CMS # 873)
15. UPS O&SHA	Rev C	2/24/2016	SSRC approved (CMS # 1092)
16. FDAS SSHA	Rev C	4/27/2016	SSRC approved (CMS # 1216)
17. FDAS O&SHA	Rev B	2/24/2016	SSRC approved (CMS # 1217)
18. SCADA SSHA	Rev C	6/22/2016	SSRC approved (CMS# 854)
19. SCADA O&SHA	Rev E	5/25/2016	SSRC Approved (CMS # 887)
<b>Documents Pending Approval</b>			
<b>HART SAFETY</b>			
20. 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
21. Elevator/Escalators System HA	Rev A	-	Under Development
22. Project OHAs	Rev A	-	Under development
<b>HART CORE SYSTEMS</b>			
23. Core Systems Contract (CSC) PHAs (DBOM)	Rev G	-	5/23/2016 - HART Accept, ready for SSRC approval (CMS # 575)
24. Technologies PHAs	Rev D	-	7/12/2016 – HART Accept, ready for SSRC approval (CMS # 545)
25. Passenger Train ATC System HA	Rev C	-	3/18/2015 – HART Accept, ready for SSRC approval (CMS # 751)
26. Passenger Train Fire Hazard Analysis (FHA)	Rev C	-	6/22/2016 – CSC R&R (CMS# 749)
27. Passenger Train SSHA	Rev A	-	8/31/2015 - CSC R&R (CMS # 1273)
28. Passenger Train O&SHA	Rev A	-	10/26/2015 - CSC R&R (CMS # 1320)
29. TES SSHA	Rev B	-	11/03/2015 - CSC R&R (CMS # 884)
30. TES O&SHA	Rev B	-	11/03/2015 - CSC R&R (CMS # 1099)
31. PSGS SSHA	Rev B	-	10/05/2015 - CSC R&R (CMS # 938)
32. PSGS O&SHA	Rev B	-	3/3/2016 - AAN Re-submit, (CMS # 880)
33. Communications SSHA	Rev B	-	01/7/2016 - CSC R&R, (CMS # 1205)
34. Communications O&SHA	Rec C	-	1/27/2016 - CSC R&R (CMS # 1206)
35. MOW Support Vehicles O&SHA	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>Interim Revenue Service Date</b>						
<b>Civil Contracts Under Construction</b>						
DB-200, MSF	98%	+1%	1/28/2015	66%	+5%	Verification underway
DB-120, WOFH Guideway - 38 total - Sub CEL/CIL Packages	99%	-	36 Sub - CELs/CILs SSRC approved	49%		Verification underway
DB-320, KHG Guideway - 40 total - Sub CEL/CIL Packages	98%	-	36 - Sub CELs/CILs, SSRC approved	27%		Verification underway
FD-140, West Oahu Station Group	99%	-	3 stations - 12/09/2015	-	-	Pre-construction activities
FD-240, Farrington Hwy Station Group	100%	N/A	3- station - 12/09/2015	-	-	Pre-construction activities
FD-340, Kamehameha Highway Station Grp	100%	N/A	3 Stations - 8/26/2015	-	-	Pre-construction activities
FD-340, H2R2 Ramps	100%	N/A	5/27/2015	-	-	Pre-construction activities
MI-930, Elevators (Stations)	25%	+25%	Verification underway	-	-	
MI-930, Escalators (Stations)	41%	+41%	Verification underway			
MI-900 Fare Collection System	96%	+96%	DCCC needs SSRC approval			
<b>Civil Contracts Under Design / in Pre-bidding or Pre-Award Phases</b>						
DB-275, Pearl Highlands PS/BTC	-	-	Base DCCC under review	-	-	
FD-600, West Oahu Park & Ride	-	-	Base DCCC under review	-	-	
AP00 Art-in-Transit, 12 artists/contracts	-	-	SSRC approved 5/25/16	-	-	
<b>Airport &amp; City Center Final Revenue Service Date</b>						
<b>Civil Contracts Under Construction</b>						
FD-430, Airport Section 7-Piers	100%	N/A	6/17/2015	100%	N/A	8/26/2015
FD-430, Airport Utilities	100%	N/A	6/25/2014	51%	-	Verification underway
<b>Civil Contracts Under Design / in Pre-bidding or Pre-Award Phases</b>						
DB-450, Airport Guideway	-	-	DCCC update under review	-	-	
DB-450, Stations Group	-	-	DCCC update under review	-	-	
DB-550, City Center Guideway	-	-	DCCC update under review	-	-	
DB-550, CCG & Stations Group	-	-	DCCC update under review	-	-	

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>Interim Revenue Service Date</b>						
<b>DBOM-920 Core Systems Contracts Under Design Procurement - Production - Manufacture - Installation</b>						
Yard Control Bungalow (YCB) CSC - Civil	86%	-	Verification underway	-	-	
Passenger Trains (PT)	90%	+11%	Verification underway	-	-	
Traction Electrification System (TES)	97%	-	Ready for SSRC approval	-	-	
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 C & D 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
<b>Airport &amp; City Center Final Revenue Service Date - All above applies – Design changes are as needed</b>						

6.1.4 S&S Certification “Open Items List” Status

<i>HART S&amp;S Certification “Open Items List” 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
April	227	35	192	85%	1	1%
May	242	44	193	80%	1	1%
June	248	41	207	84%	12	5%
July	249	42	207	84%	1	1%

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

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

<i>S &amp; S Construction Specification Conformance Checklists (CSCC) Civil - Contracts Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>Interim Revenue Service Date</b>			
<b>Civil Contracts Under Construction</b>			
DB-200, MSF and Rail Yard	86%	+17%	Verification underway – IC Certificate issued
DB-120, WOFH Guideway	72%	+4%	Verification underway
DB-320, KHG Guideway	42%	+6%	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
MI-930, Elevators & Escalators, WOSG	-	-	Pre-install activities
MI-930, Elevators & Escalators, FHSG	-	-	Pre-install activities
MI-930, Elevators & Escalators, KHSG	-	-	Pre-install activities
<b>Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases</b>			
AP00 Art-in-Transit, 12 Artists/contracts	-	-	Draft Base CSCC under PM review
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
<b>Airport &amp; City Center Final Revenue Service Date</b>			
<b>Civil Contracts Under Construction</b>			
DBB-525, Airport Section, 7 - Drilled Shafts	100%	N/A	8/26/2015 SSRC approved –Certification Completed
DBB-505, Airport Utilities - Construction	63%	-	Verification underway
<b>Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases</b>			
DBB-511, Dillingham Utilities & Road Widening	-	-	Draft Base CSCC update - pending re-design
DB-450, Airport Guideway	-	-	Draft Base CSCC update - pending re-design
DB-450, Airport Stations	-	-	Draft Base CSCC update - pending re-design
DB-550, City Center Guideway	-	-	Draft Base CSCC update - pending re-design
DB-550, City Center Stations	-	-	Draft Base CSCC update - pending re-design
MI-930, Elevators & Escalators, Airport Stations	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, City Center Stations	-	-	Base CSCC - SSRC approved, 8/26/2015
AP00 Art-in-Transit, 11 Artists/contracts	-	-	Draft Base CSCC under PM review
MI-900 Fare Collection System	-	-	Base CSCC SSRC approved 4/27/2016

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>Interim Revenue Service Date</b>			
<b>DBOM-920 Core System Contracts under Design / Procurement - Production - Manufacture - Installation - STCC</b>			
Yard Control Bungalow (YCB) CSC Civil - Contract	59%	-	Verification underway
MOW Vehicles (8-support vehicles)	57%	+14%	Verification underway
Passenger Trains (PT)/Cars	-	-	
1) General Requirements - Applies to all PTs	4%	-	Verification underway
2) PT-001- Certification (E-1, E-2, M-1, M-2 Cars)	-	-	Verification on hold pending delivery of trucks
3) PT-001- Interim Cert - for Dynamic Testing	-	-	
4) PT-002 – Certification (E-1, E-2, M-1, M-2 Cars)	-	-	
5) PT-002- Interim Cert – for Dynamic Testing	-	-	
6) PT Certification for Pre-Revenue Service (STCC)	-	-	Base STCC under development
<b>Traction Electrification System (TES)</b>	-	-	
1) General Requirements - Project Wide	34%	-	Base STCC pending July SSRC approval, verification underway
2) MSF - Rail Yard	31%	-	Base STCC pending July SSRC approval, verification underway
3) Functional Track - WOFH Guideway	-	-	Base STCC pending July SSRC approval
4) WOFH and KHG Guideways	-	-	Base STCC pending July SSRC approval
<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 July 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%	-	SSRC approved 6/22/2016
2) MSF and Rail Yard Communications	-	-	SSRC approved 6/22/2016
3) KHG and WOFH Communications	-	-	SSRC approved 6/22/2016
<b>Fire Detection Alarm System (FDAS)</b>	15%	-	Base STCC pending July 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 July SSRC approval
<b>Operational Requirements</b>			
Ops Readiness Conform Checklists (ORCC)	24%	+19%	Base ORCC - SSRC approved 12/09/2015, verification underway
Pre-revenue Testing Conform Checklist (PRTCC)	-	-	Under development
<b>Airport &amp; City Center Final Revenue Service Date</b>			
Passenger Trains (PT)/Cars	-	-	
1) PT-011-20 Certification (E-1, E-2, M-1, M-2 Cars)	-	-	Base STCC - SSRC approved 12/09/2015
2) PT-011-20- Interim Cert - for Dynamic Testing	-	-	Base STCC - SSRC approved 12/09/2015
3) PT-011-20 Cert for Pre-Revenue Service	-	-	Base STCC under development
<b>Traction Electrification System (TES)</b>	-	-	
1) Airport and City Center Guideways	-	-	Base STCC pending July SSRC approval
<b>System Integration Testing (SIT)</b>	-	-	Draft base SIT STCCs on hold – SIT Plan being revised
<b>Uninterrupted Power Supply (UPS)</b>	-	-	Base STCC pending July SSRC approval
<b>Traction Power Generators Back-up System</b>	-	-	SSRC approved Base STCC 3/23/2016
<b>Communication Systems</b>	-	-	
1) Airport Communications	-	-	Base STCC SSRC approved 6/22/2016
2) City Center Communications	-	-	Base STCC SSRC approved 6/22/2016
<b>Fire Detection Alarm System (FDAS)</b>	-	-	Base STCC pending July 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>	-	-	Base STCC pending July SSRC approval
<b>Operational Requirements</b>			
Ops Readiness Conform Checklists (ORCC)	-	-	Base ORCC - SSRC approved 12/09/2015
Pre-revenue Testing Conform Checklist (PRTCC)	-	-	Base PRTCC under development

6.1.7 Interim Certification Verification Status

<i>Active Interim Certification (IC) - Verification Status</i>			
<b>Construction - Installation – Start-up &amp; Testing Phases</b>			
Contracts	% Verified	+ / - % Change	Comments
<b>IC -Requirements</b>			
1. PT-001 Delivery - OSB, M-5 Track, ORCC, MOW-MVP	96%	-	IC - Certificate issued – 4 open items
2. MOW Building Early Occupancy IC Certificate	96%	-	IC - Certificate issued – 1 open item
3. MSF Civil IC – Facilities and Trackwork	86%	+17%	IC - Certificate issued – 38 open items
<b>Verification yet to Start</b>			
4. PT-001 Truck (Bogies) Delivery	-	-	IC checklist SSRC approved 1/27/2016
5. Test Track – Rail Yard, TES/IT/ORCC	-	-	IC checklists under review
6. PT-002 Delivery	-	-	PT-002 IC checklist SSRC approved 1/27/2016
7. Functional Track – WOFH, PT-001, TES, ORCC, & IT	-	-	Interim Cert checklists under development

6.1.8 Twelve (12) Month Certification Projected Milestones and Work Priority:

<i>12 Month Certification Projected Milestones</i>		
<b>Milestones</b>	<b>Projected Contract and/or Interim Certifications</b>	<b>Comments</b>
<b>Aug 2016</b>	1. YCB Civil Certification (CSC)	Civil only
<b>Sept 2016</b>	2. FD-430 and DBB-505, Airport Utilities Civil Certification	Civil only
<b>Oct-Nov 2016</b>	3. PT-001 Truck (Bogies) Delivery Interim Certification	Track Interface
<b>Dec 2016</b>	4. Test Track – Rail Yard – TES Interim Certification	Systems
<b>Dec 2016</b>	5. FD-340 and DBB-385, H2R2 Civil Certification	Civil only
<b>Dec 2016</b>	6. DB-120, WOFH Guideway Civil Certification	Civil only
<b>Dec 2016</b>	7. Eight (8) MOW Vehicles Final Certification	All MOW Vehicles
<b>Jan 2017</b>	8. PT-002 Delivery – Interim Certification – Delivery	Vehicle only
<b>Jan 2017</b>	9. Functional Track – Interim Certification – Test Track	IC – TES - SIT
<b>Apr 2017</b>	10. PT-002, Interim Certification to enter Dynamic Testing	Vehicle only
<b>Apr 2017</b>	11. DB-320, KHG Guideway Civil Certification	Civil Only

6.1.9 S&S Certification Certificates Issued to Date

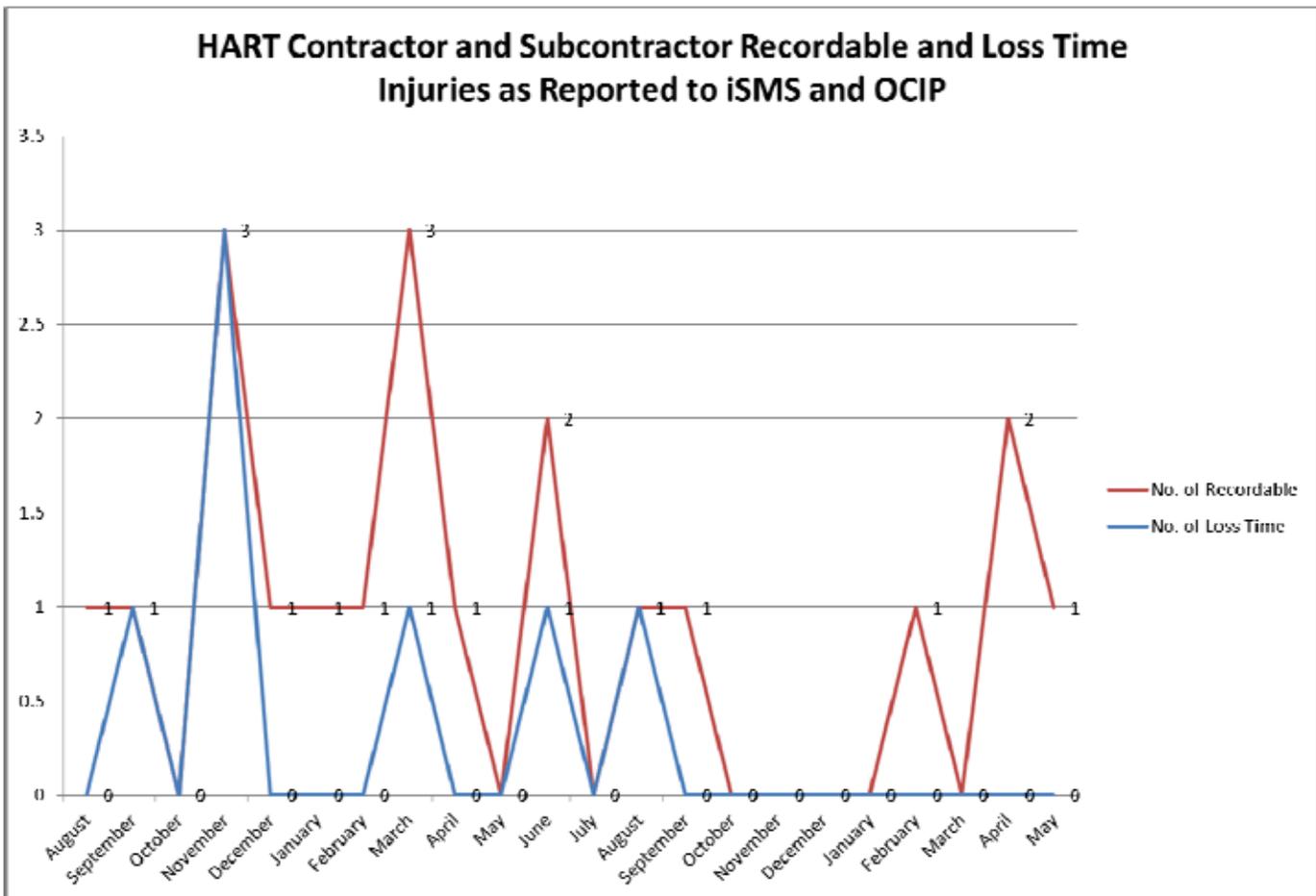
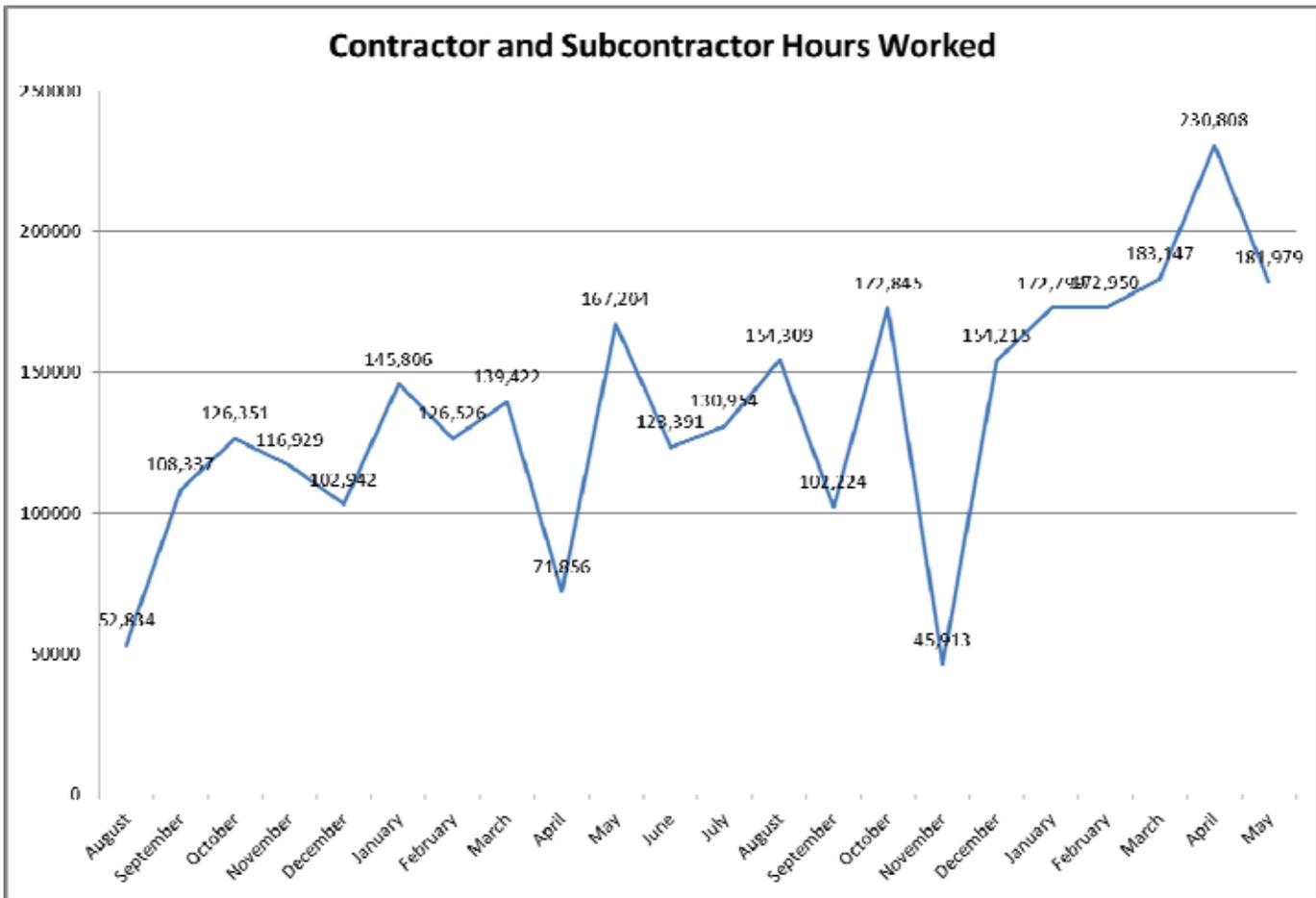
<i>S&amp;S Certification Certificates Issued to Date</i>		
<b>Contracts / Interim Certification Certificates Issued</b>	<b>Date Signed</b>	<b>Comments</b>
1. FD-430 / DBB-525 Airport 7-Piers Civil Cert Certificate	9/21/2015	SSRC approved
2. Three (3) – MOW Vehicles Delivery & M-7, M-2, M-1 MSF Tracks – IC Certificate	2/4/2016	SSRC approved
3. MSF Yard M-4 and M-6 Tracks – IC Certificate	3/10/2016	SSRC approved
4. PT-001 Delivery, OSB, M-5/M-4 Tracks, ORCC, MOW MPV - IC Certificate	3/29/2016	SSRC approved
5. Five (5) – MOW Vehicles Delivery – IC Certificate (Vehicles Only)	5/20/2016	SSRC approved
6. MOW Facility Early Occupancy – IC Certificate (Administrative Areas Only)	5/23/2016	SSRC approved
7. MSF Civil IC Certificate - Tracks and Facilities	7/6/2016	SSRC approved

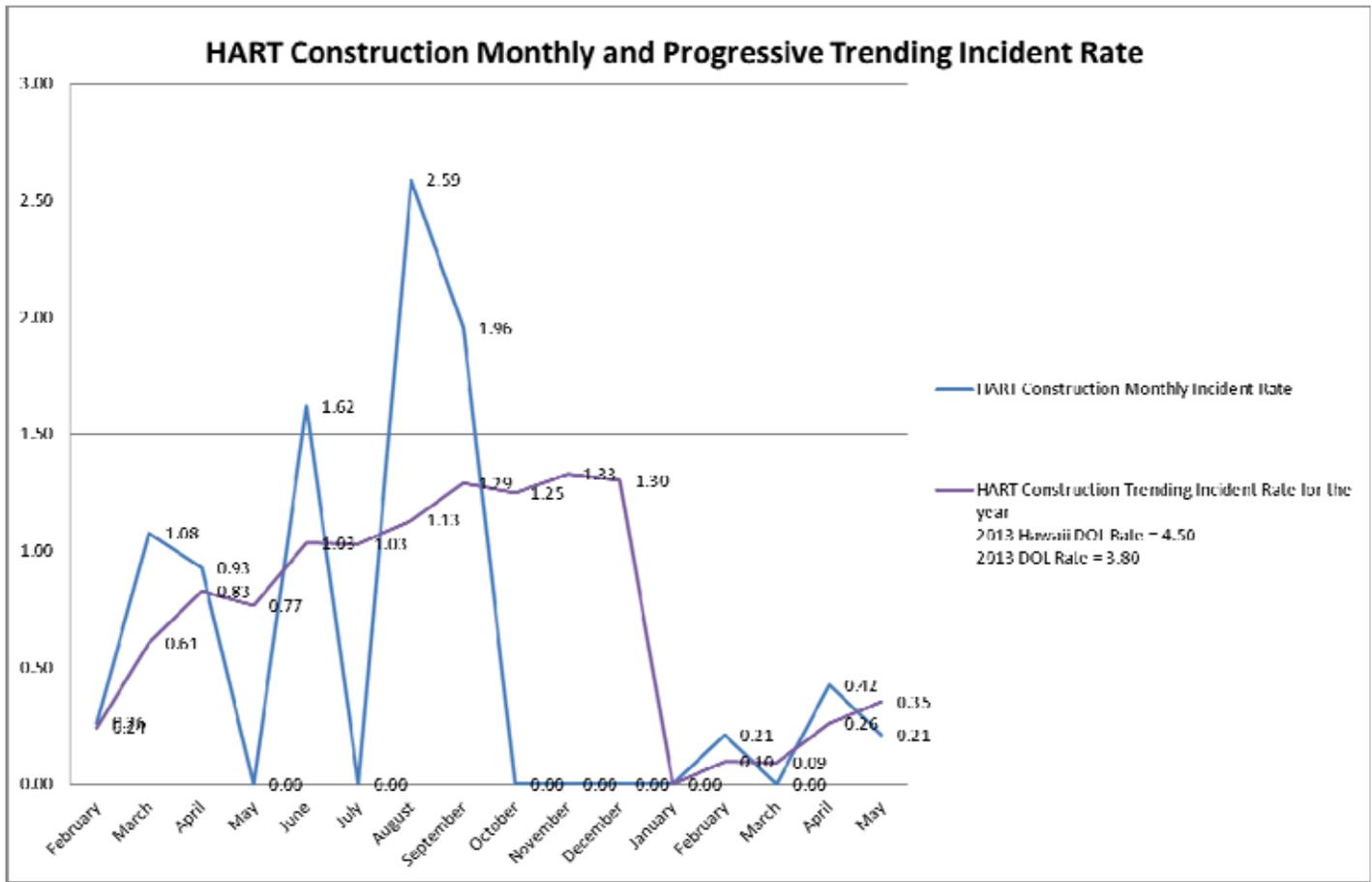
6.1.10 Construction Safety and Security

Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for June 25, 2016- July 28, 2016	Loss Type	Date	Event Description
Environment	15	0			
Loss or Damage	40	0			
*Reportable Occupational Injury/Illness	0	0			
Security	63	1	a)Minor Loss	a)7/5/2016	a) FHSG: Break-in burglary. Personal protective equipment (PPE), some tools and a wifi router stolen.
**Loss Time Occupational Injury/Illness	7	0			
Road/Vehicle - Driving	84	0			
Service Strike	87	1	a)Minor Loss	a)6/27/2016	a) WOFH: Struck 1-1.4" gas line. Line repaired.

\*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	230,808	2	0
May				167,204	0	0	181,979	1	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	941,683	4	0
OSHA Annual Incident Rate				1.3					
Work Hours for WOFH, KHG, MSF, Air Port, CORE System as reported to OCIP and certified.									





**KEY ISSUES**

- Core Systems lost their full-time Ansaldo/H-JV Safety and Security Certification point of contact in Honolulu that poses a concern of certification expertise and experience at the Core Systems contractor level, and will impose a hardship to the HART Safety and Security Department efforts until a full-time, on site, qualified/certified replacement is on AHJV staff. A discussion will occur in September on status of the replacement manager and/or additional staff for the AHJV Safety Manager. The same issue applies to the Security Manager from AHJV.
- 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 review.
- The tendon problems on the guideway poses unacceptable risk for Safety and Security. A clear solution has not been accepted.
- 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. Final 3 persons have been identified to fill this (one) position. The final candidates will be interviewed the week of August 1, 2016.

## 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, KHG, WOSG, FHSG and KHSG.
- Issued Audit Report on Combined QA, Buy America and Environmental Compliance Audit of KIWC for Casting Facility for the KHG contract held on June 20, 2016, and Joint HART/AHJV QA Audit of Hitachi Rail USA, Inc. (HRU) for Final Assembly of Passenger Vehicles held on June 28-30, 2016.
- Performed Punch List Inspection of: MSF OSB Offices, MOW, WTB, TWF and Site Civil Work; and Spans 59 and 60 (NCR 544) Track re-alignment.
- 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 6

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit		
CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
SC-HRT-1400049	CSC Support Services	L + E	16-001 QA	2/9 - 2/10	2/9/16	2/19/16
CH-HRT-10H0449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	16-002 QA/BA/E	3/15 - 3/17	3/15-17/16	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	6/28-30/16	
CT-HRT-10H0137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIWC - HI	16-004 QA/BA/E	4/12 - 4/14	4/14-15/16	6/7/16
CT-HRT-11H0195	Kamehameha Highway Guideway Design-Build (KHG)					
SC-HRT-1400027	General Engineering Consultant (GEC-3)	CH2M Hill	16-005 QA	6/16 - 6/17	6/16-17/16	6/24/16
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	16-006 QA/E	6/2 - 6/3	6/2-3/16	
RFB-HRT-837903	H2R2 Ramp Construction	Royal Contracting	16-007 QA/BA/E	10/18 - 10/20		
CT-HRT-11H0195	KHG Casting Facility	KIWC - HI	16-008 QA/BA/E	7/20 - 7/21	7/20	
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-11H0195	WOFH and KHG Surveying and Alignments	KIWC - HI	16-011 QA	8/16 - 8/18		
CT-HRT-10H0137						
SC-HRT-14000323	Airport Section Utilities Construction	NAN, Inc	16-012 QA/BA/E	8/30 - 8/31		
DB -	Airport Guideway and Station (Design)	TBD	16-013 QA	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)

Page 1 of 2



HONOLULU AUTHORITY for RAPID TRANSPORTATION

## COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: **2016** Rev 6

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-1600008	Airport Section Utilities CE&I East	Stantec	16-016 QA	8/30 - 8/31			
	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 - 11/4			
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)

Page 2 of 2

• Key Issues

HART NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
<b>46 (Audits)</b>	<b>37</b>	<b>9</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 one (1) major WOFH NCR that needs to be addressed and corrected to prevent recurrence and to mitigate impact on the overall progress of the project. The major NCR is described below:
  - **Spans 33, 38, 45 and 51 – NCR 549:** Grouting of six (6) tendons on Spans 33, 38, 45 and 51 were found defective. KIWC’s disposition is to remove and replace the affected tendons, then stress and grout. A pre-activity meeting was held on this work discussing the removal procedure, which includes safety, quality and environmental activities. Removal and replacement work began in late July and is scheduled to finish by mid-August.
- Resolution of one (1) major KHG NCR that needs to be addressed and corrected to prevent recurrence and to mitigate impact to the overall progress of the project. The major NCR is described below:
  - **Drilled Shafts:** To date, there is one (1) Open NCR which is related to the CSL Reports, and 182 Drilled Shafts completed (added 10), which indicates that there were few CSL issues encountered lately and the process has improved.
- Erection and finishing of spans, construction of “shear keys” between columns and spans, and construction of concrete walkways on KHG guideway.
- Resolution of one (1) major KHG NCR: Drilled Shafts (Cross Hole Sonic Logging Reports) quality and repair.
- Resolution of one (1) major WOFH NCR: Removal and replacement of tendons with defective grouts.
- Punch List 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.
- Punch List Inspection of OSB, WTB, TWF and MOW buildings.
- Perform QA Audit of WOFH and KHG Surveying and Alignments.
- Perform Combined QA, Buy America and Environmental Compliance Audit of Nan, Inc. on the ASU contract.
- Perform QA Audit of CE&I East (Stantec/SSFM) on the ASU 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.
- Vehicles: In accordance with FTA clarification on the definition of “post-delivery audit period” as the “time period in the procurement process when the rolling stock’ (first vehicle) ‘is delivered to the recipient until title to the rolling stock’ (last vehicle) ‘is transferred to the recipient or the rolling stock’ (last vehicle) ‘is put into revenue service, whichever is first,” HART intends to conduct a post-delivery audit during the defined “post-delivery audit period,” when actual costs can be verified. We anticipate this to occur on or around first quarter of 2017.

**6.4 Disadvantaged Business Enterprise (DBE)**

**• Activities this Month**

- \$39,344,590 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 7/31/16
  - 6.87% = DBE utilization on total disbursed FTA funds received to date (\$39,344,590 divided by \$573,085,805)
  - 2.23% = DBE utilization to date on total Project FTA funds (\$39,344,590 divided by \$1,763,903,901)

*Total DBE Participation = \$39.3M*  
*(previous report = \$36.8M)*

Figure 16. DBE Participation this Month

DBE Participation in July		
DBE Firm	Contract Number	Participation
Lawson & Associates	SC-HRT-1400061 MM-964	\$61,867
ADS System Safety Consulting	SC-HRT-1400061 MM-964	\$81,047
LKG-CMC	SC-HRT-1400049 MM-962	\$14,814
David's Fencing	CT-HRT-10H0137 DB-120	\$5,683
Don's Makiki	CT-HRT-10H0137 DB-120	\$15,245
PAC Electric	CT-HRT-10H0137 DB-120	\$1,108,464
Glad's Landscaping	CT-HRT-10H0137 DB-120	\$9,558
Pacific Preferred Contractors	CT-HRT-10H0137 DB-120	\$127,071
AMR Estimating	SC-HRT-1400027 MM-913	\$92,727
The Solis Group	SC-HRT-1400027 MM-913	\$87,713
Aloha Steel	CT-HRT-1400323 DBB-505	\$105
Geotech	CT-HRT-1500309 DBB-385	\$1,766
Amazon Construction	CT-HRT-1500309 DBB-385	\$145,858
Lenax Construction	SC-HRT-1600008 MM-595	\$327,218
LKG-CMC	SC-HRT-1600008 MM-595	\$16,183
PSC Consultants	SC-HRT-1400050 MM-290	\$275,551
Element Environmental	SC-HRT-1400050 MM-290	\$125,481
Bow Construction	SC-HRT-1400050 MM-290	\$5,521
<b>TOTAL FOR THE MONTH</b>		<b>\$2,501,872</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, July 12, 2016, as part of ongoing consultation with the division.
  - HART continued coordination with the Navy's Federal Preservation Officer to prepare final submittals of Big Makalapa and Little Makalapa National Register nominations in July 2016.
  - HART met with the Kāko'o to discuss better management of Consulting Party (CP) concerns on Monday, July 11, 2016.
  - The Semi-Annual PA report was finalized and distributed to the Kāko'o.
- Planning, Environmental, and Cultural Activities:
  - HART researched, prepared and submitted responses to correspondence regarding karst caverns and project safety.
  - HART submitted regular Transportation Improvement Plan updates to the Oahu Metropolitan Planning Organization (OMPO).
  - The quarterly Mitigation Monitoring report is currently in preparation.
  - Continued coordination is planned with stakeholder agencies regarding street tree transplanting and mitigation efforts.
  - HART Board of Directors approved HART's Hawaiian Station Naming Policy to form a working group tasked with recommending Hawaiian names for all 21 stations. HART convened a meeting with the Hawaiian Station Naming Working Group on June 28, 2016 to start discussions on proposing Hawaiian names for the first six stations.
  - HART staff met with the Department of Parks & Recreation at multiple City Parks to conduct inspections for relocated trees.
  - HART staff continued coordination with HDOT, OMPO and DTS regarding grant obligation for 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.
  - HART planning staff are managing the refinement of the travel demand model being used in the fare options study.
  - Environmental staff continued working on the WOFH contract closeout.
  - Environmental staff participated in Quality, Environmental, and Buy America audits of the Kiewit Infrastructure West Corporation Casting Facility on July 20-21, 2016.
  - Submitted revised drafts of the following Post-RODs to FTA for review:
    - Emergency Backup Generators
    - City Center Realignment (including the Ala Moana Station relocation)
    - Airport Casting Yard
    - City Center Casting Yard
  - Submitted application for FTA Pilot Program for Transit-Oriented Development grant, on June 13, 2016.
    - Council Transportation Meeting on July 21, 2016 was cancelled.
    - DTS will present to the Transportation Committee on August 25, and full committee on Sept. 7, 2016.
  - Working with HDR to develop P3 potential analysis for HART-owned properties.
  - HART is coordinating planning and design of Kekaulike Street access to Chinatown Station, and Pearlridge Bus Transit Center interface to Pearlridge Station with DTS.
  - HART participated in DPP's Kapalama Canal Internal Visioning Charrette on July 26, 2016.
- Sustainability:
  - HART presented on HART's landscaping and tree program to the Hawaii Green Growth Smart Sustainable Cities Study Team on July 7, 2016.
  - HART coordinated with HCDA on their Environmental Protection Agency (EPA) Food Systems Planning Grant.
  - HART developed a preliminary strategy for stakeholder engagement for the Sustainability Plan.
  - HART's presentation on photovoltaic power to the HART Board was deferred to a later date.

- **Looking Ahead**

- HART will provide preliminary options analysis to inform Board on further project P3 potential activities.
- HART is preparing a slideshow presentation for the upcoming Floodplain Managers Conference hosted by State Department of Land and Natural Resources (DLNR).
- 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 Tuesday, August 9, 2016.
- Continue Hawaiian Station Naming Working Group efforts to provide primary Hawaiian station names for 21 stations; the next meeting is scheduled for Tuesday, August 2, 2016.
- Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
- Continue to review and meet with contractors regarding proper environmental submittals.
- HART will coordinate the closeout of environmental items related to the KHG contract.
- Prepare and submit Post-ROD Documentation for FTA approval prior to need dates as indicated:
  - Emergency Backup Generators, third quarter 2016
  - City Center Realignment (including the Ala Moana Station relocation), third 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 the Project revised Phased Openings.
- HART will present to HCDA and consultants on Civic Center Station as part of HCDA's EPA Urban Food Systems Grant.
- HART will present Photovoltaic cost-benefit analysis at August HART Board Meeting.
- Continue development of HART's sustainability program.
- HART will develop Sustainability Focus Group with to-be-identified stakeholders.
- DTS will present FTA TOD Grant on HART's Joint Development Strategy to the City Council Transportation Committee on August 25, 2016.

## 6.6 Risk Management

The primary goal 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.

The HART program has adopted a new Risk Management System that focuses on mitigation strategies to assist the project teams in project delivery. The program has recently performed bottoms up risk assessment for every project in the program. This process evaluated every base cost and schedule for each of the individual projects in the program. A network risk model was created to define how a risk on one project in the program affects other projects in the program. By monetizing the potential impacts of schedule, it assists the project teams in decision support of how to best manage the risk.

Risk assessment discussions with the project teams 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. HART has begun to train the project managers using the risk management system. During the updates with individual project teams, the HART Risk management team updated the project risk registers and demonstrated reporting capabilities to the project team. HART will invite the PMOC to a risk workshop during the next monthly visit to demonstrate the effectiveness of the Risk Management system.

A workshop was held for each construction project and residual risks were refined and quantified for cost and schedule impacts. After each risk is quantified, a strategy was developed on how to mitigate its impacts, and a risk owner was assigned. The program risk manager will seek continuous updates from the risk owner on how the progress of the strategy is performing. This process is called monitor and control. This new risk management system generates reports to assist the risk manager and project managers in managing the risk reserve (contingencies) for the program.

The new risk management system quantifies the risk as schedule impact or direct cost impact independently. The schedule impact is then monetized based in the model and based upon the contracts impacted. The top risks to the program are then evaluated on both schedule and cost. The top risks from the most recent risk workshops are:

- Enough available funding to complete the entire program
- HECO East – Utility clearance issues
- HECO West – Utility clearance issues
- Misidentified and unidentified utilities on City Center Guideway and Stations project
- De-energizing the existing overhead 138kv and 46kv lines on Airport Guideway and Stations project
- Late identification of additional 138kv created the additional need for permission to enter property for utility relocation on City Center Guideway and Stations project
- Re-baseline the schedule for the Core Systems project
- HECO East Airport Guideway and Stations - Utility Clearance Issues
- Potential change orders in construction for the KHG project
- Potential change orders in construction for the WOGH Guideway project
- Procurement delays for City Center project.

As HART implements the risk management system focused on mitigation, monitoring, and control, the PMOC has requested to work with HART to possibly develop a new tracking mechanism or data reporting set to better assist in the oversight of the program.

#### **NOTES OF SIGNIFICANCE**

- HART is currently going through an exercise in developing a recovery plan to manage the funding gap.
- Intensive focus continues to be placed on issues involving Hawaiian Electric Co. (HECO) coordination and clearance issue resolution.
- Established an on-call contract to pothole to better define existing utilities, and specifications are being developed for the City Center project to assist the design-builder in pricing unidentified and misidentified utilities.
- Developing agreements with landowners and utilities for access during construction is mitigating potential construction schedule delays.
- 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.

#### **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 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.

**6.7 Community Outreach**

**• Activities this Month**

- HART Executive Director and CEO Dan Grabauskas delivered an update on the Honolulu rail project and answered questions from members of the Native Hawaiian Chamber of Commerce at its monthly meeting.
- The HART Public Outreach team participated in the Hawaii Lodging Hospitality and Food Service Expo, providing information and answering questions about the Honolulu rail transit project.
- HART also partnered with Hawaiian Dredging Construction Company and the Waipahu Community Association to put on a Shop, Dine & Shuttle event through the Waipahu community.

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

- *991 Presentations and Events*
- *553 Neighborhood Board Meetings*

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

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

**• Construction Outreach**

- HART held two Business 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 continues to provide weekly traffic updates, notifying motorists, elected officials and members of the public of upcoming lane closures due to rail construction and utility work. The advisories are posted on the project website and distributed via email to local media outlets.

Figure 17. Providing Answers to Questions



HART Information Specialist Shere'e Quitevis talks with members of the public who attended the Hawaii Lodging Hospitality and Food Service Expo at the Blaisdell Center.

- **Community Input**

- HART’s public outreach team responded to more than 100 public inquiries and comments this month. Inquiries were related to project construction plans, and a majority of the comments urged that the project not stop at Middle Street but continue on to Ala Moana Center.

- **Look Ahead**

Coming in August:

- HART plans to participate in the Hawaii Community College 2016 Small Business Fair and participate in the Civil Engineering Conference in the Asian Region (CECAR) program.

**6.8 Staffing**

• **Overview**

- Interviews have been conducted for the Deputy Director of Operations and Maintenance position and a tentative selection has been made.
- The Kamehameha Highway Station Group Project Manager has been selected and is being processed.

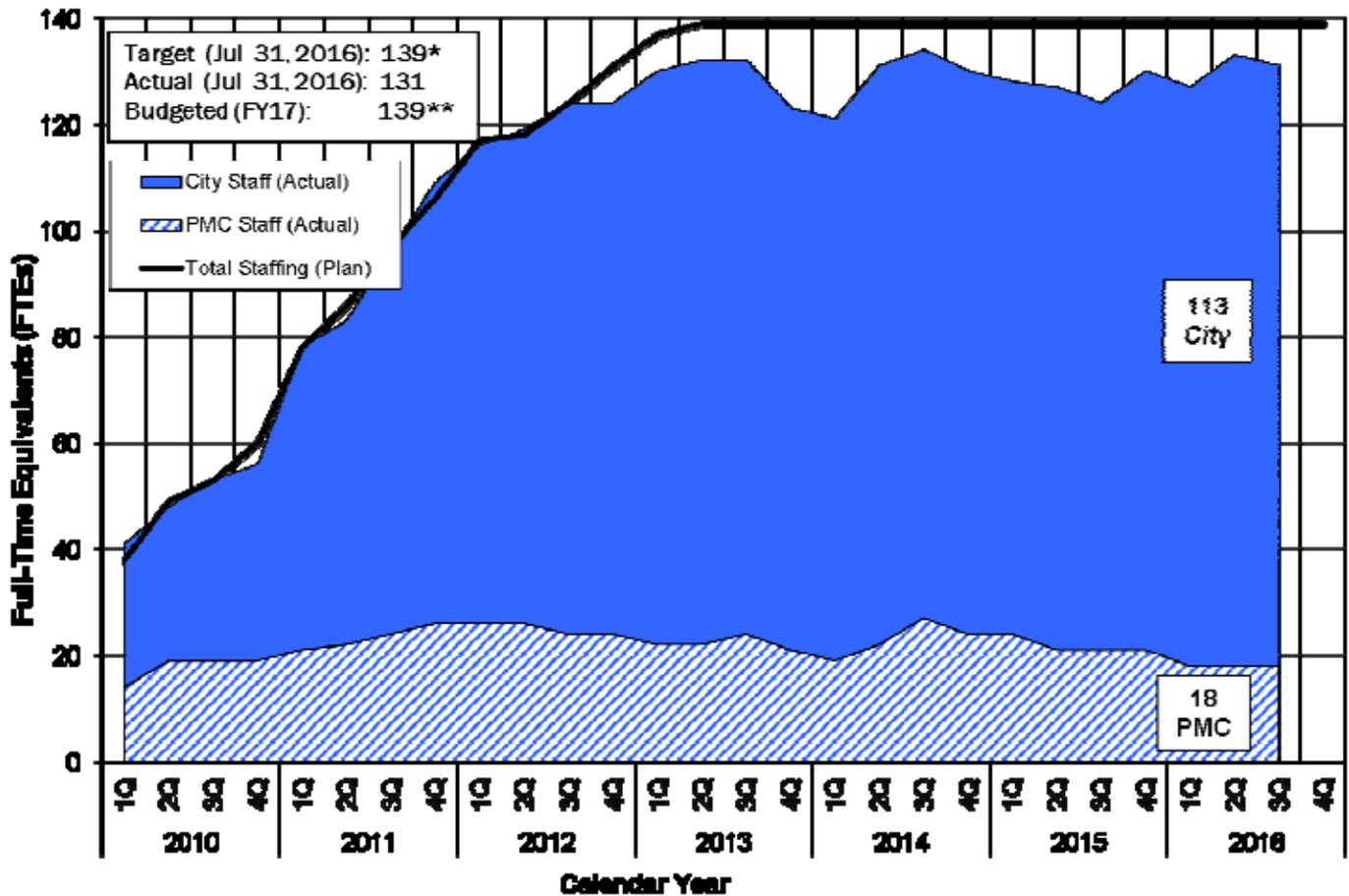
Figure 18. Staffing Activities

Staffing Activities				
Title	Group	New/Existing HART position (City or PMC)	Position Status	Start Month
<b>Design and Construction</b>				
Project Manager (KHSG)	Construction	Existing (City)	Selected	Aug
Mechanical/Electrical Engineer	Core Systems	Existing (City)	Recruiting	
<b>Budget and Finance</b>				
Financial Analyst	Budget and Finance	Existing (City)	Recruiting	
<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)	Recruiting/Interviewing	
Personnel Clerk	Administrative Services	Existing (City)	Recruiting via Civil Service	
<b>Public Information</b>				
Information Specialist	Public Information	Existing (City)	Recruiting via Civil Service	
<b>Project Controls</b>				
Scheduler	Project Controls	Existing (City)	Recruiting	
CMS Trainer	Project Controls	Existing (City)	Recruiting/Interviewing	
<b>Safety</b>				
Safety Specialist	Safety	Existing (City)	Recruiting	
<b>Operations &amp; Maintenance</b>				
Deputy Director	Operations & Maintenance	New (City)	Recruiting/Interviewing	

\*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 19. Project Staffing (Actual vs. Planned)



\* In accordance with Staffing and Succession Plan Rev 5 (Under Revision)  
 \*\* 139 City positions authorized in FY 2017 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.

For the latest project organization chart, see Appendix G.

# 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.
2	Updates required from Risk Refresh:					
	Contract Packaging Plan	HART	Aug-14	TBD		Pending update of budget and schedule
	Financial Plan	HART	Apr-14	TBD		Pending update of budget and schedule
	Budget	HART	Apr-14	TBD		In progress
	MPS	HART	Apr-14	TBD		In progress
	RCMP	HART	Sept-13	TBD		Pending update of budget and schedule
3	Provide Recovery Plan	HART	Jun-16	Aug-16		
4	AHJC Security Contract	HART	Jul-16	Jul-16	Jul-16	Completed
5	LRV Buy America Calculation Sheet	HART	Jul-16	Aug-16		
6	USPS Mediation Settlement	HART	Jul-16	Aug-16	Jul-16	Completed

## 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 = \$466.0M*

- 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 7/28/16

#	Project ID	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown H14	Contingency Code
<b>July '12 (Bottoms-Up Estimate)</b>					
1	H-43-450	Farrington Highway Stations Group HD	Budget transfer to Bottoms-Up Estimate from project scope to Contingency (contract allowance)	\$63,443	00103 - Contract Allowance
2	H-43-450	Airport Section Causeway Utilities HD	Budget transfer for Contract Award less than the AS501 HD contract budget	\$2,054,106	00102 - Associated Contingency
3	MM-976	LEED Commissioning Services	Budget transfer for Contract Award above the LEED Comm. Services contract budget	\$55,753	00102 - Associated Contingency
4	H-43-520	Kaunahāhā Highway Causeway LB	Budget transfer for Contract Award above the H-43-520 contract budget	\$200,893	00102 - Associated Contingency
5	H-43-520	West Oahu - Farrington Highway Causeway LB	Budget transfer for int. scope per executed COI No. 104	\$1,909,233	00102 - Associated Contingency
			July '12 Contingency Drawdown	\$6,812,123	
<b>August '12</b>					
			July '12 - Ending Contingency Balance	\$649.4	
1	H-43-450	West Oahu Stations Group HD	Budget Transfer for Contract Awarded under W0555 HD contract budget	\$1,838,700	00102 - Associated Contingency
2	H-43-550	City Center Causeway Utilities HD	Budget Transfer for Contract Awarded under COU HD contract budget	\$5,017,455	00102 - Associated Contingency
3	H-43-520	West Oahu - Farrington Highway Causeway LB	Executed Change Order No. 1 - Procure and install portable buildings	\$2,210,000	00102 - Associated Contingency
			August '12 Contingency Drawdown	\$6,068,145	
			August '12 - Ending Contingency Balance	\$654.5	
<b>September '12</b>					
			September '12 Contingency Drawdown	\$0	
			September '12 - Ending Contingency Balance	\$654.5	
<b>October '12</b>					
1	H-43-520	West Oahu - Farrington Highway Causeway LB	Executed Change Order No. 21 - Builders Risk Insurance Coverage	\$25,650	00102 - Associated Contingency
			October '12 Contingency Drawdown	\$66,899	
			October '12 - Ending Contingency Balance	\$654.4	
<b>November '12</b>					
1	H-43-450	Airport Stations Group HD	Budget transfer for Contract Award under AS5 HD contract budget	\$27,754	00103 - Contract Allowance
2	H-43-500	Kaunahāhā Highway Stations Group HD	Budget transfer for Contract Award under H-43-500 HD contract budget	\$307,469	00102 - Contract Allowance
3	MM-905	General Engineering Consultant	Budget transfer to align contract budget with committed value	\$130,630	00102 - Associated Contingency
			November '12 Contingency Drawdown	\$309,653	
			November '12 - Ending Contingency Balance	\$654.7	
<b>December '12</b>					
1	H-43-450	Report Section Causeway Utilities HD	Executed Contract Amendment No. 01 - Design & Engineering Cost Estimates	\$375,000	00102 - Associated Contingency
			December '12 Contingency Drawdown	\$276,000	
			December '12 - Ending Contingency Balance	\$654.4	
<b>January '13</b>					
1	H-43-520	Kaunahāhā Highway Causeway LB	Executed Change Order No. 01 - Access Rd alternative analysis	\$15,901	00102 - Associated Contingency
			January '13 Contingency Drawdown	\$15,901	
			January '13 - Ending Contingency Balance	\$654.4	
<b>February '13</b>					
1	H-43-520	West Oahu - Farrington Highway Causeway LB	Executed Change Order No. 26 - int. scope Requirement Approval BIDDY # H-43-520-13	\$1,010,103	00102 - Associated Contingency
			February '13 Contingency Drawdown	\$1,070,198	
			February '13 - Ending Contingency Balance	\$652.8	
<b>March '13</b>					
1	H-43-450	Farrington Highway Stations Group HD	Executed Contract Amendment No. 01 - Second draw for provision	\$3,562	00103 - Contract Allowance
2	H-43-500	Maintenance & Storage Facility LB	Executed Change Order No. 06 - int. scope Requirement for Crossovers installed joints	\$454,130	00102 - Associated Contingency
			March '13 Contingency Drawdown	\$468,181	
			March '13 - Ending Balance	\$652.3	
<b>April '13</b>					
1	H-43-450	West Oahu Stations Group HD	Executed Contract Amendment No. 01 - Second draw for provision	\$81,013	00103 - Contract Allowance
2	H-43-520	West Oahu - Farrington Highway Causeway LB	Budget Transfer to offset int. scope Requirement for Change Order No. 30	\$1,070,178	00102 - Associated Contingency
3	H-43-500	Maintenance & Storage Facility LB	Budget Transfer to offset int. scope Requirement for Change Order No. 06	\$454,000	00102 - Associated Contingency
4	H-43-520	Kaunahāhā Highway Causeway LB	Budget transfer to align contract budget to contract schedule of Milestones	\$600	00102 - Associated Contingency
			April '13 Contingency Drawdown	\$1,205,786	
			April '13 - Ending Contingency Balance	\$654.3	
<b>May '13</b>					
			May '13 Contingency Drawdown	\$0	
			May '13 - Ending Contingency Balance	\$654.3	

# HART Project Contingency Drawdown with Details

Drawn as of 7/28/16

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (t/c)	Contingency Code
<b>June '13</b>				
10A	FA	FA Contingency Drawdown	\$654.3	
		June '13 Contingency Drawdown	\$0	
<b>July '13</b>				
		June '13 - Ending Contingency Balance	\$654.3	
11	FD-130	Executed Contract Amendment No. 04 - Antenna Engineering Design Services	14,264.13	90.02 - Allocated Contingency
21	DB-300	Executed Change Order No. 07 - Archaeological Inventory Survey (AIS) Provisional Part 2	13,000.00	90.02 - Allocated Contingency
31	DB-300	Executed Change Order No. 08 - Maintenance & Storage Facility Yard and Switch Machine	14,563.00	90.02 - Allocated Contingency
41	DB-300	Executed Change Order No. 09 - Yard Layout Revisions	13,114.42	90.02 - Allocated Contingency
51	DB-300	Executed Change Order No. 10 - Train Configuration	13,171.00	90.02 - Allocated Contingency
61	DB-200	Executed Change Order No. 11 - Preliminary Design & Supplemental Project Mgt	16,624.86	90.02 - Allocated Contingency
		July '13 Contingency Drawdown	166,264.106	
<b>August '13</b>				
		July '13 - Ending Contingency Balance	\$649.1	
11	DB-120	Executed Change Order No. 10 - Archaeological Inventory Survey (AIS) Provisional Part 2	14,300.00	90.02 - Allocated Contingency
21	DB-120	Executed Change Order No. 32 - Kaha Channel Station Mass Concept	17,978.83	90.02 - Allocated Contingency
31	DB-120	Executed Change Order No. 34 - Traditional Cultural Property Construction Partial Suspension	11,145.04	90.02 - Allocated Contingency
41	DB-120	Executed Change Order No. 36 - Historic Station Restoration Design	14,569.15	90.02 - Allocated Contingency
51	DB-300	Executed Change Order No. 06 - Archaeological Inventory Survey (AIS) Provisional Part 2	13,000.00	90.02 - Allocated Contingency
61	FD-340	Executed Contract Amendment No. 02 - Carney Roadway	19,004.36	90.03 - Contract Allowance
71	MR-000	Budget Transfer for Contract Awarded under E&E/IM contract budget	\$3,236.472	90.02 - Allocated Contingency
		August '13 Contingency Drawdown	165,624.004	
<b>September '13</b>				
		August '13 - Ending Contingency Balance	\$643.2	
11	DB-120	Executed Change Order No. 33 - Provisional Sum HCO's Joint Use and Occupancy	14,000.00	90.02 - Allocated Contingency
21	DB-120	Executed Change Order No. 35 - Architectural Column Design Contract	13,700.87	90.02 - Allocated Contingency
31	DB-200	Executed Change Order No. 12 - RRTB Design Education	13,023.500	90.02 - Allocated Contingency
41	FD-340	Executed Contract Amendment No. 10 - NTP 2 Delay/Design Delay from Core Systems Contract & West Oahu Farmington Highway DB Contract	13,270.955	90.02 - Allocated Contingency
		September '13 Contingency Drawdown	165,115.297	
<b>October '13</b>				
		September '13 - Ending Contingency Balance	\$637.1	
11	DB-200	Executed Change Order No. 13 - Ins. Comp Requirements Roof Access Modification	13,269.150	90.02 - Allocated Contingency
21	DB-200	Budget Transfer for Change Order No. 13 for Ins. Comp Requirements	3,265.500	90.02 - Allocated Contingency
31	DB-120	Executed Change Order No. 37 - Ala Iwe Street Moor V256 at DR/Horton & Farmington HWY	5,348.15	90.02 - Allocated Contingency
41	DB-000	Executed Change Order No. 05 - Platform Screen Gates Systems	13,231.657	90.02 - Allocated Contingency
51	FD-550	Budget Transfer for Contract awarded under DK55 FD contract budget	\$1,157.700	90.01 - Unallocated Contingency
		October '13 Contingency Drawdown	162,334.739	
<b>November '13</b>				
		October '13 - Ending Contingency Balance	\$615.0	
11	DB-120	Executed Change Order No. 38 - Insurance Coverage Requirement 04-2013	11,000.000	90.02 - Allocated Contingency
21	DB-120	Budget Transfer for Change Order No. 038 for Ins. Comp. Requirements	\$1,000.000	90.02 - Allocated Contingency
31	DB-200	Executed Change Order No. 014 - Preliminary Design & Supplemental Project Management 2	13,214.848	90.02 - Allocated Contingency
41	DB-200	Executed Change Order No. 015 - Yard Layout Revisions/RFI Structure Steel Modification	13,723.000	90.02 - Allocated Contingency
51	DB-200	Budget Transfer for Change Order No. 015 for Ins. Comp. Requirements	2,233.000	90.02 - Allocated Contingency
61	FD-500	Executed Contract Amendment No. 01 - Archaeological Inventory Survey (AIS) Suspension	13,532.000	90.02 - Allocated Contingency
71	FD-240	Budget Transfer for Contract Award for FH55 F03	13,300.265	90.01 - Unallocated Contingency
		November '13 Contingency Drawdown	164,547.863	
<b>December '13</b>				
		November '13 - Ending Contingency Balance	\$610.0	
11	FD-450	Executed Contract Amendment No. 05 - Ukena St redesign scope impact	13,243.926	90.02 - Allocated Contingency
21	FD-540	Executed Contract Amendment No. 03 - Design relocation of HECO/Alway and floor optic lines	123,926	90.02 - Allocated Contingency
		December '13 Contingency Drawdown	162,727.806	
<b>January '14</b>				
		December '13 - Ending Contingency Balance	\$609.8	
11	FD-450	Executed Contract Amendment No. 06 - Archaeological Inventory Survey (AIS) Suspension	13,300.450	90.02 - Allocated Contingency
21	FD-550	Executed Contract Amendment No. 07 - Soil Resistance Test and Max. Sdg. Calculation	14,000.000	90.02 - Allocated Contingency
31	MR-200	Construction Engineering & Inspection West	\$1,106	90.02 - Allocated Contingency
41	MR-595	Construction Engineering & Inspection East	\$1,102.81	90.02 - Allocated Contingency
		January '14 Contingency Drawdown	141,626.781	

# HART Project Contingency Drawdown with Details

Data as of 7/28/16

Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (k)	Contingency Code
<b>February '14</b>				
		<b>January '14 - Ending Contingency Balance</b>	<b>\$608.3</b>	
1)	HIA-140 Airport Section Guideway Utilities PD	Executed Contract Amendment No. 07 - Resist & Slop Geotech Investigation	(1,132,900)	90.02 - Associated Contingency
2)	HIA-201 HART COC	Budget Transfer for Contract Award - Archaeological & Cultural Monitoring Contract	(1,132,900)	90.02 - Associated Contingency
3)	MAS-110 GEC II	Budget Transfer for Contract Award - Archaeological & Cultural Monitoring & Core Systems Support contracts	(14,434,173)	90.02 - Associated Contingency
4)	MAS-160 Archaeological & Cultural Monitoring	Budget Transfer for Contract Award - Archaeological & Cultural Monitoring contract	\$30,761	90.02 - Associated Contingency
5)	MAS-162 Core Systems Support	Budget Transfer for Contract Award - Core Systems Support contract	\$4,348,859	90.02 - Associated Contingency
		<b>February '14 Contingency Drawdown</b>	<b>(1,132,900)</b>	
		<b>February '14 - Ending Contingency Balance</b>	<b>\$608.2</b>	
<b>March '14</b>				
		<b>Beg. Balance:</b>	<b>\$608.2</b>	
	N/A	No Contingency Drawdown	\$0	
		<b>March '14 Contingency Drawdown</b>	<b>\$0</b>	
<b>April '14</b>				
		<b>Beg. Balance:</b>	<b>\$608.2</b>	
1)	FD-140 West Oahu Stations Group PD	Executed Contract Amendment No. 04 - ERM Kopala Staff Room Pre-Final Submittal	(809,345)	90.03 - Contract Allowance
2)	FD-200 Airport Section Guideway Utility PD	Executed Contract Amendment No. 08 - Notice to Proceed at 56 Provisional Sum for Design Support during bid	(1,107,000)	90.03 - Contract Allowance
3)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 016 - Rail Lubricators	(1,107,000)	90.02 - Associated Contingency
4)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 017 - Yard Layout Reconfiguration/Automated Train Operation Design	(12,125,000)	90.02 - Associated Contingency
5)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 018 - Rail Material Storage Plan	(1,370,000)	90.02 - Associated Contingency
6)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 019 - Train Wash Facility Shortening	\$0	90.02 - Associated Contingency
7)	DB-170 West Oahu Farrington Highway Guideway DB	Executed Change Order No. 041 - Precast Track Alternative Site	(1,12,400,630)	90.02 - Associated Contingency
8)	DB-170 West Oahu Farrington Highway Guideway DB	Executed Change Order No. 041 - Revised Track Alignment and Profile	(40,808)	90.02 - Associated Contingency
9)	DB-170 West Oahu Farrington Highway Guideway DB	Executed Change Order No. 042 - Signalization/Intercommunications Utility Relocation @ North South Rd	(1,160,000)	90.02 - Associated Contingency
10)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 005 - Retain Clear - Signal Design Criteria	\$0	90.02 - Associated Contingency
		<b>April '14 Contingency Drawdown</b>	<b>(157,660,652)</b>	
		<b>April '14 - Ending Contingency Balance</b>	<b>\$590.7</b>	
<b>May '14</b>				
		<b>Beg. Balance:</b>	<b>\$590.7</b>	
1)	FD-140 West Oahu Stations Group PD	Budget Transfer for Executed Contract Amendment No. 05 - Final Design for relocated Hospital Station	(270,123)	90.02 - Associated Contingency
2)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 008 - APEC work restrictions/landscaping/Utilities removal	(1,905,674)	90.02 - Associated Contingency
3)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 009 - Emergency water/insurance comp. Requirements 2013	(1,529,000)	90.02 - Associated Contingency
4)	DB-300M-600 Core Systems Contract Design Bids O&M	Executed Change Order No. 001 - Retainable IPSS to replace site as	(267,054)	90.02 - Associated Contingency
5)	MAS-015 HOOI M&O Consultant	Budget Transfer for Executed Contract Amendment No. 002 - Increase TAM contract value	\$201,391	90.02 - Associated Contingency
6)	MAS-075 MSF/LEED Consultant	Budget Transfer for Executed Contract Amendment No. 003 - LEED measurement and verification plan	(10,930)	90.02 - Associated Contingency
7)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 009 - CSR consolidated changes contribution	(1,292,500,000)	90.01 - Unallocated Contingency
8)	DB-200 Maintenance & Storage Facility DB	Executed Change Order No. 005 - OSB reconfiguration	(1,170,000)	90.02 - Associated Contingency
		<b>May '14 Contingency Drawdown</b>	<b>(422,310,016)</b>	
		<b>May '14 - Ending Contingency Balance</b>	<b>\$568.4</b>	
<b>June '14</b>				
		<b>Beg. Balance:</b>	<b>\$568.4</b>	
1)	DB-200 Maintenance & Storage Facility DB	Board Approved BEUC 00010 - Amendment 1 Non-Rail Escalation	(15,000,000)	90.02 - Associated Contingency
		<b>June '14 Contingency Drawdown</b>	<b>(15,000,000)</b>	
<b>July '14</b>				
		<b>Beg. Balance:</b>	<b>\$563.4</b>	
1)	DB-300M-600 Core Systems Contract Design Bids O&M	Executed Change Order No. 008 - Platform Screen Gates Mobilization	(1,606,154)	90.02 - Associated Contingency
2)	ROW Real Estate/Lease of Way	Budget Transfer for Contract Award above the Real Estate Map & Survey Budget	(1,343,612)	90.02 - Associated Contingency
3)	DB-200 Maintenance & Storage Facility DB	Budget Transfer to Project Contingency from remaining "Known" Changes balance	\$1,007,890	90.02 - Associated Contingency
4)	DB-170 West Oahu Farrington Highway Guideway DB	Budget Transfer to Project Contingency from remaining "Known" Changes balance	\$1,556,107	90.02 - Associated Contingency
		<b>July '14 Contingency Drawdown</b>	<b>\$321,181</b>	
		<b>July '14 - Ending Contingency Balance</b>	<b>\$563.7</b>	
<b>August '14</b>				
		<b>Beg. Balance:</b>	<b>\$563.7</b>	
1)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 010 - Delay in issuance of Notice to Proceed 2 & 3	(11,300,000)	90.02 - Associated Contingency
2)	FD-140 West Oahu Stations Group PD	Executed Amendment No. 008 - Preliminary screen gates	(180,330)	90.03 - Associated Contingency
3)	DB-300 Airport Section Utility Construction DB	Budget Transfer for Contract Award above Airport Section Utility Construction original budget	(13,250,331)	90.02 - Associated Contingency
4)	MAS-145 On Call Hazmat Removal Consultant	Budget Transfer due to scope transfer from ROW to Hazmat consultant	(470,823)	90.02 - Associated Contingency
5)	MAS-145 On Call Contractor	Budget Transfer for Contract Award above On Call Contractor original budget	(1,130,450)	90.02 - Associated Contingency
		<b>August '14 Contingency Drawdown</b>	<b>(14,322,164)</b>	
		<b>August '14 - Ending Contingency Balance</b>	<b>\$559.4</b>	
<b>September '14</b>				
		<b>Beg. Balance:</b>	<b>\$559.4</b>	
1)	DB-300 O&M consultant contract	Budget Transfer to unallocated contingency as estimate at completion is less than current budget	\$500,000	90.02 - Associated Contingency
2)	DB-300 Maintenance & Storage Facility DB	Executed Change Order No. 007 - Traditional Cultural Properties (TCP) Suspension	(1,417,500)	90.02 - Associated Contingency
3)	DB-300 Maintenance & Storage Facility DB	Executed Change Order No. 006 - Insurance Coverage Requirements 2014	(1,112,000)	90.02 - Associated Contingency
4)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 011 - Revised Vehicle Criteria/Contributor Safety Security Plan	(1,931,500)	90.02 - Associated Contingency
5)	DB-320 Kanehama Highway Guideway DB	Executed Change Order No. 012 - Insurance Coverage Requirements 9/013 - 6/30/14	(1,200,000)	90.02 - Associated Contingency

# HART Project Contingency Drawdown with Details

Data as of 7/26/16

Project No.	Project Desc.	Budget Transfers/Change Description	Contingency Drawdown (Hd)	Contingency Code
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 045 - Standard Specification Revision 2.0	\$3,650,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 046 - Insurance Coverage Requirements 2014	\$3,650,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Contract Amendment 004 - AutoCAD Station Column	\$1,674,100.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Contract Amendment 005 - City Center Station Because Left-Handed Impact	\$2,749,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Contract Amendment 001 - Special Provisions Update/Share Work Analysis	\$2,749,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment 003 - Historic Architecture/Architectural Signage	\$2,749,000.00	50.03 - Contract Allowance
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment 006 - Add/Modify Stations @ Aloha Station	\$1,418,100.00	50.03 - Contract Allowance
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment 010 - Add/Modify Station Column and Platform Station Roofing	\$1,318,700.00	50.03 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment 011 - Airport Station Reserve Car Escape Impact	\$491,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment 007 - Traffic Signal Contract/Technology Access Road	\$697,720.00	50.03 - Contract Allowance
		<b>September '14 Contingency Drawdown</b>	<b>(48,586,165)</b>	
		<b>September '14 - Ending Contingency Balance</b>	<b>\$550.1</b>	
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 009 - West-H Guideway Alignment for CSF	\$1,444,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 028 - Escalation due to Schedule Impacts	\$3,500,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 013 - Station Loss & Configuration Mode	\$1,250,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Guideway LB	Executed Change Order No. 047 - Station Loss & Configuration Mode	\$4,000,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 002 - Extension of PM Services	\$1,700,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 003 - Add/Modify Stations @ Aloha Station	\$2,977,500.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 001 - Extension of PM Services	\$1,700,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 002 - Incorporation of Comments	\$1,700,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 003 - Value Engineering	\$1,700,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 004 - EOR/ACR	\$1,418,100.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 010 - Temporary Parking Lot Near UHWOV/HWOV & Hospital Sewage Holding Tank	\$1,007,350.00	50.03 - Contract Allowance
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 011 - Extension of PM Services	\$2,977,500.00	50.02 - Allocated Contingency
		<b>October '14 Contingency Drawdown</b>	<b>(618,307,136)</b>	
		<b>October '14 - Ending Contingency Balance</b>	<b>\$531.8</b>	
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 012 - Delete Right-Handed Manholes	\$10,350,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 002 - General Excise Tax Credit	\$385,586	50.02 - Allocated Contingency
		<b>November '14 Contingency Drawdown</b>	<b>\$10,735,586</b>	
		<b>November '14 - Ending Contingency Balance</b>	<b>\$542.5</b>	
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 010 - HRT from Midway Station/Gateway	\$3,710,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 013 - HECO Connection Changes	\$1,700,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 014 - Escalation due to Schedule Impacts	\$13,000,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 048 - Escalation due to Schedule Impacts	\$13,000,000.00	50.01 - Unallocated Contingency
		<b>December '14 Contingency Drawdown</b>	<b>(618,113,745)</b>	
		<b>December '14 - Ending Contingency Balance</b>	<b>\$523.8</b>	
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 011 - Eliminate Station Manager Booths	\$310,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 050 - Escalation due to Schedule Impacts Subcontractor Ameron Approx	\$484,413.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 051 - Escalation due to Schedule Impacts Subcontractor Anti-Griffith Paint	\$2,710,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 052 - Escalation due to Schedule Impacts Subcontractor HFO Spec Duty Officer	\$1,560,120.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 054 - Escalation due to Schedule Impacts Subcontractor MESA Blocks	\$1,710,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 054 - Escalation due to Schedule Impacts Subcontractor Road Buffer	\$1,710,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 055 - Escalation due to Schedule Impacts Subcontractor Post-Tension Strand Accessories	\$1,610,110.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 052 - Escalation due to Schedule Impacts Subcontractor Ameron Holed/Unholed Shaft Cappings	\$1,000,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 014 - Estimate Secondary Emergency Access at M9	\$50,000.00	50.01 - Unallocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 013 - Contingent Soil/Fuels/Water/Lubrication	\$50,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 003 - Scope for Downtown Station/Center Station/Ala Moana Station & Blue Henge	\$5,010,110.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 049 - Ala Moana Transit Corridor/Station/Ala Moana Station/Ala Moana Station	\$1,010,110.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 004 - Addition of Escalators to PHSS Stations	\$1,174,440.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 006 - Addition of 30' guideway, Section West Loch and Waipahu Station	\$1,500,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Contract Amendment No. 007 - MOCSS for West Loch and Waipahu Center Design	\$300,000.00	50.02 - Allocated Contingency
		<b>January '15 Contingency Drawdown</b>	<b>(43,686,243)</b>	
		<b>January '15 - Ending Contingency Balance</b>	<b>\$519.8</b>	
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 052 - Kalo Lagoon Channel Geotechnical	\$1,977,500.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 050 - Revision of Waipahu Guideway, LCC Station & Pedestrian Viaduct Criteria	\$3,071,000.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 050 - Waipahu Station Design Actuals	\$2,885,400.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 051 - Kalo Lagoon Design Actuals	\$1,610,510.00	50.02 - Allocated Contingency
635-120	West Oahu Arrivignon Highway Stations Group HD	Executed Change Order No. 062 - West Loch and UHWOV Station Revisions of Guideway	\$1,641,120.00	50.02 - Allocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 7/28/16

#	Project No.	Project Desc.	Budget Transfer/Change Description		Contingency Drawdown (M\$)	Contingency Code
			Budget Transfer/Change Description	Contingency Code		
20	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Change Order No. 063 - Procurement & Delivery LCC Modular B3g	February '16 Contingency Drawdown	\$1,019,021	90.01 - Unallocated Contingency
				February '16 Contingency Drawdown	\$4,198,851	
				<b>February '15 - Ending Contingency Balance</b>	<b>\$515.6</b>	
				<b>March '15</b>		
1)	MDR-328	Core Systems Contract Design Build O&M	Executed Change Amendment No. 015 - Field and Storage Truck Changes at MSP		\$2,510,000	90.02 - Allocated Contingency
2)	PD-140	West Oahu Stations Group PD	Executed Change Amendment No. 013 - WO-565 Rebid and VE Items, 467 Bay Station Canopy Roofs, Change to CSC Bay Location		\$300,000	90.02 - Allocated Contingency
3)	PD-140	West Oahu Stations Group PD	Executed Change Amendment No. 013 - WO-565 Rebid and VE Items, 467 Bay Station Canopy Roofs, Change to CSC Bay Location		\$345,000	90.05 - Contract Allowance
4)	PD-550	City Center Gateway Utilities PD	Executed Change Amendment No. 006 - Management Extension thru October 2014		\$262,500	90.02 - Allocated Contingency
5)	DB-526	Airport Section Gateway 7 Fair Construction	Executed Change Order No. 001 - HOOT A Utility Reclamation at Park		\$400,803	90.02 - Allocated Contingency
6)	PD-340	Kaunahāhewa Highway Stations Group PD	Executed Change Amendment No. 006 - Misc RFPs Interim Terms		\$339,130	90.02 - Allocated Contingency
7)	PD-340	Kaunahāhewa Highway Stations Group PD	Executed Change Amendment No. 006 - Aloha Stadium Low Impact Development Rebidment		\$43,000	90.03 - Contract Allowance
				<b>March '15 Contingency Drawdown</b>	<b>\$4,910,539</b>	
				<b>March '15 - Ending Contingency Balance</b>	<b>\$510.7</b>	
				<b>April '15</b>		
1)	PD-140	West Oahu Stations Group PD	Executed Contract Amendment No. 014 - Rebid of EBR Halowen Escalator		\$60,000	90.02 - Allocated Contingency
2)	PD-140	West Oahu Stations Group PD	Executed Contract Amendment No. 014 - Hoopla Grading		\$175,000	90.03 - Contract Allowance
3)	PD-140	West Oahu Stations Group PD	Executed Contract Amendment No. 015 - Rebid of FPS Trench at S53 and USC Cabinets at East Rappell		\$39,000	90.02 - Allocated Contingency
4)	DB-526	Airport Section Gateway 7 Fair Construction	Executed Change Order No. 002 - Contractor to Perform CSL Testing		\$17,478	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Change Order No. 049 - Haemat Assessment for LCC Potables		\$59,149	90.02 - Allocated Contingency
				<b>April '15 Contingency Drawdown</b>	<b>\$1,266,626</b>	
				<b>April '15 - Ending Contingency Balance</b>	<b>\$510.4</b>	
				<b>May '15</b>		
1)	PD-140	West Oahu Stations Group PD	Executed Contract Amendment No. 016 - PS-36 to Canopy Design/Power to Hoopla Stop-Scour Countermeasures		\$13,000	90.03 - Contract Allowance
2)	PD-340	Farmington Highway Stations Group-2 PD	Executed Contract Amendment No. 009 - West Loch Generator		\$7,000	90.03 - Contract Allowance
3)	PD-440	Airport Stations Group PD	Executed Contract Amendment No. 004 - RFA Construction Investigation		\$20,000	90.05 - Contract Allowance
4)	DB-300	Kaunahāhewa Highway Gullyway DB	Executed Change Order No. 016 - Delay to Hoopla Shaft 6		\$32,000	90.02 - Allocated Contingency
5)	DB-300	Core Systems Contract Design Build O&M	Executed Change Order No. 016 - Delay to Hoopla Counters Order Time-018 Provisions on Vah		\$14,161	90.02 - Allocated Contingency
6)	DB-500	Maintenance & Storage Facility DB	Executed Change Order No. 030 - OSB 1st R Flggy Int Ext System Design Bldg		\$450,000	90.02 - Allocated Contingency
				<b>May '15 Contingency Drawdown</b>	<b>\$616,839</b>	
				<b>May '15 - Ending Contingency Balance</b>	<b>\$509.8</b>	
				<b>June '15</b>		
1)	MDR-923	HOOT Construction Consult City Center	Budget Transfer from Inactive CPE, HOOT Airport consultant bid on City Center scope		\$1,084,752	90.01 - Unallocated Contingency
2)	MDR-923	Architectural & Cultural Monitoring	Budget Transfer to Provide Funding for FY2015		\$1,050,000	90.01 - Unallocated Contingency
3)	MDR-923	HOOT Core	Budget Transfer for excess cost option for one year extension of services		\$523,640	90.02 - Allocated Contingency
4)	MDR-901	Program Management Support Contract (PMSC-2)	Budget Transfer for On Call Contractor performance CSC-related scope at the ROC		\$7,616,377	90.01 - Unallocated Contingency
5)	DB-300	Core Systems Contract Design Build O&M	Budget Transfer for On Call Contractor performance CSC-related scope at the ROC		\$200,000	90.02 - Allocated Contingency
				<b>June '15 Contingency Drawdown</b>	<b>\$14,108,829</b>	
				<b>June '15 - Ending Contingency Balance</b>	<b>\$501.7</b>	
				<b>July '15</b>		
1)	DB-150	City and County of Honolulu	Inactive PSF, DBS costs, reduces budget to incurred costs		\$410,558	90.01 - Unallocated Contingency
2)	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Contract Change Order No. 066 - Rebid of LCC Potables/PSLs L&E		\$480,000	90.01 - Unallocated Contingency
3)	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Contract Change Order No. 066 - Rebid of LCC Potables/PSLs L&E		\$165,583	90.01 - Unallocated Contingency
4)	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Contract Change Order No. 067 - Rebid of LCC Potables/PSLs L&E		\$174,500	90.01 - Unallocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 031 - RFP Interim Bldg - Systems Device		\$380,000	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 032 - Deletion of Vegetative Roof Recept		\$53,415	90.02 - Allocated Contingency
				<b>July '15 Contingency Drawdown</b>	<b>\$1,987,466</b>	
				<b>July '15 - Ending Contingency Balance</b>	<b>\$500.7</b>	
				<b>August '15</b>		
1)	DB-120	West Oahu Farmington Highway Gullyway DB	Executed Contract Change Order No. 068 - Delta MFP 2.4.4 - O&M Escalation		\$6,228,456	90.01 - Unallocated Contingency
2)	DB-300	Maintenance & Storage Facility DB	Executed Contract Change Order No. 033 - EOS Foundation		\$44,120	90.02 - Allocated Contingency
3)	DB-320	Kaunahāhewa Highway Gullyway DB	Executed Change Order No. 017 - Potables Sewer Main 050+00 to 940+00		\$131,740	90.02 - Allocated Contingency
4)	PD-340	Kaunahāhewa Highway Stations Group PD	Executed Contract Amendment No. 017 - Power to UHWO Station and Electrical Bidding		\$48,000	90.03 - Contract Allowance
5)	PD-340	Farmington Highway Stations Group-2 PD	Executed Contract Amendment No. 010 - Potable/Bridge Modifications		\$404,522	90.02 - Allocated Contingency
6)	PD-340	Kaunahāhewa Highway Stations Group PD	Executed Change Amend No. 007 - Value Engineering reduce 9m Cost and PH, PE and AS New Platform Canopy Coordination		\$370,000	90.02 - Allocated Contingency
7)	PD-140	Airport Stations Group PD	Executed Contract Amendment No. 006 - Egress Build Engring Documents		\$37,800	90.02 - Allocated Contingency
8)	DB-300	Core Systems Contract Design Build O&M	Executed Change Order No. 017 - Votage Picher Study		\$33,526	90.02 - Allocated Contingency
9)	PD-550	Uluhāhā Highway Stations Group PD	Executed Change Amend No. 00065 - Scope of Change - Schedule Extension		\$1,768,830	90.02 - Allocated Contingency
				<b>August '15 Contingency Drawdown</b>	<b>\$13,768,830</b>	
				<b>August '15 - Ending Contingency Balance</b>	<b>\$492.9</b>	
				<b>September '15</b>		
1)	DB-320	Kaunahāhewa Highway Gullyway DB	Executed Contract Change Order No. 018 - Uluhāhā Substation & Bldg R228 Utility Varies from RFP		\$69,111	90.02 - Allocated Contingency
				<b>September '15 Contingency Drawdown</b>	<b>\$69,111</b>	
				<b>September '15 - Ending Contingency Balance</b>	<b>\$492.8</b>	

# HART Project Contingency Drawdown with Details

Data as of 7/28/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (M\$)	Contingency Credit
<b>October '15</b>					
			<b>Beg. Balance</b>	<b>\$492.8</b>	
1)	FD-350	Kaemahāhā Highway Stations Group HD	Executed Change Order No. 008 - Interface Cooperation	(1.83,000)	0008 - Allocated Contingency
2)	FD-350	Kaemahāhā Highway Stations Group HD	Executed Change Order No. 009 - Reclamation of R1704	(60,000)	0009 - Allocated Contingency
3)	FD-350	Farrington Highway Stations Group-2 HD	Executed Change Order No. 011 - R1702 Erection	(60,000)	0011 - Allocated Contingency
4)	FD-350	Farrington Highway Stations Group-2 HD	Executed Change Order No. 012 - R1703 Reclamation	(43,000)	0012 - Allocated Contingency
5)	FD-140	West Oahu Stations Group HD	Executed Change Order No. 013 - R1704 Reclamation	(150,000)	0013 - Allocated Contingency
6)	FD-140	West Oahu Stations Group HD	Executed Contract Amendment No. 019 - East Lapointe Bent Erection	(40,000)	0019 - Contract Allowance
7)	FD-140	Airport Stations Group HD	Executed Contract Amendment No. 006 - General Excise Tax Credit	(88,253)	0006 - Allocated Contingency
8)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 018 - Settlement of RFCC 000026/160 - Delay Claim (requirements)	(5,200,000)	0018 - Allocated Contingency
9)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 019 - Credits for four contracts, eliminates the requirements for mixed fleet operations	(5,200,000)	0019 - Allocated Contingency
			<b>October '15 Contingency Drawdown</b>	<b>(13,796,247)</b>	
			<b>October '15 - Ending Contingency Balance</b>	<b>\$489.0</b>	
<b>November '15</b>					
			<b>Beg. Balance</b>	<b>\$489.0</b>	
1)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 005 - Fabricate, Charge to O&M Schedule	(45,000)	0005 - Allocated Contingency
2)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 007 - AS Reclamation Credit from COO 0007	(185,204)	0007 - Allocated Contingency
3)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 008 - Unpaid Surplus Amounts	(7,713,124)	0008 - Allocated Contingency
4)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 009 - Escalation of Additional Foreign Services Due to Schedule	(66,053)	0009 - Allocated Contingency
5)	MM-300	Fare Collection Consultant	Budget Transfer for Contract Award - MM-300 Fare Collection Consultant	(1,176,300)	0003 - Contract Allowance
			<b>November '15 Contingency Drawdown</b>	<b>(1,776,226)</b>	
			<b>November '15 - Ending Contingency Balance</b>	<b>\$488.2</b>	
<b>December '15</b>					
			<b>Beg. Balance</b>	<b>\$488.2</b>	
1)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 009 - Utility Relocate at Waiwai Depot	(1,700,000)	0009 - Unallocated Contingency
2)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 041 - Review of bid work due to AS	(531,653)	0041 - Allocated Contingency
3)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 006 - R170 Building System Change, R1004 Interior B558 SWS Low R2 and OSB Interior B169 SWS Low P2	(1,100,000)	0006 - Allocated Contingency
4)	FD-330	Kaemahāhā Highway Guideway DB	Executed Contract Change Order No. 019 - Fabricate Driveway Curb Flange, R1001 additional scope design speed	(167,891)	0019 - Allocated Contingency
5)	FD-330	City Center Guideway Utilities HD	Executed Change Order No. 007 - City Center Reprovisioning	(14,036)	0007 - Allocated Contingency
			<b>December '15 Contingency Drawdown</b>	<b>(3,553,580)</b>	
			<b>December '15 - Ending Contingency Balance</b>	<b>\$487.3</b>	
<b>January '16</b>					
			<b>Beg. Balance</b>	<b>\$487.3</b>	
1)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 009 - Utility Relocate at Waiwai Depot	(1,700,000)	0009 - Unallocated Contingency
2)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 041 - Review of bid work due to AS	(531,653)	0041 - Allocated Contingency
3)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 042 - Refine R170 Material Quantities	(55,000)	0042 - Allocated Contingency
4)	FD-505	Airport Section Guideway / Pier Construction	Executed Change Order No. 004 - Adjustment for Un-Used Allowance	(501,728)	0004 - Allocated Contingency
5)	FD-505	Airport Section Guideway / Pier Construction	Executed Change Order No. 005 - O&M Elevation Change, Access to Pier 504-55 HD	(568,330)	0005 - Allocated Contingency
			<b>January '16 Contingency Drawdown</b>	<b>(1,458,688)</b>	
			<b>January '16 - Ending Contingency Balance</b>	<b>\$487.4</b>	
<b>February '16</b>					
			<b>Beg. Balance</b>	<b>\$487.4</b>	
1)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 005 - Equal Due to Schedule Impact P1-2	(1,111,250,000)	0005 - Unallocated Contingency
2)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 020 - Airport City Center Agreement	(4,400,000)	0020 - Allocated Contingency
3)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 021 - FOC Freight to ETS Patch Road	(147,400)	0021 - Allocated Contingency
			<b>February '16 Contingency Drawdown</b>	<b>(1,120,287,600)</b>	
			<b>February '16 - Ending Contingency Balance</b>	<b>\$475.1</b>	
<b>*March '16</b>					
			<b>Beg. Balance</b>	<b>\$475.1</b>	
1)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 076 - Additional Items of Existing Structures	(3,345,000)	0076 - Unallocated Contingency
2)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 077 - Pre-Cast Yard Extended Lease	(5,118,335)	0077 - Allocated Contingency
3)	FD-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 034 - Credit of COO 18 Real Material Storage	(69,030)	0034 - Allocated Contingency
4)	FD-330	Kaemahāhā Highway Guideway DB	Executed Contract Change Order No. 021 - R1701 Fabric at Roshay, Mahan, Transtite Piles at 15-Durbin	(85,919)	0021 - Allocated Contingency
5)	FD-330	Kaemahāhā Highway Guideway DB	Executed Contract Change Order No. 022 - HELO Single Line Log and	(4,113,319)	0022 - Allocated Contingency
6)	FD-505	Airport Section Utilities	Executed Change Order No. 001 - Added Sub for tubing connector at Volcanburg Street and Linnite Highway	(14,000)	0001 - Contract Allowance
7)	FD-505	Airport Section Utilities	Executed Change Order No. 002 - Preliminary at Water Line 301012 conflict	(125,000)	0002 - Contract Allowance
8)	FD-505	Airport Section Utilities	Executed Change Order No. 004 - R170-000009 - cooler and blower's Risk Credit	(303,388)	0004 - Contract Allowance
9)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 022 - Distribution Extension	(3,300,000)	0022 - Allocated Contingency
10)	FD-600	Core Systems Contract Design Build O&M	Executed Change Order No. 020 - Removal of Station P&S Schematics	(177,500)	0020 - Allocated Contingency
11)	FD-140	West Oahu Stations Group HD	Executed Contract Amendment No. 020 - Elevator Modifications	(45,000)	0020 - Contract Allowance
12)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 099 - RFCC 00058 Additional Change Requirements	(6,275,000)	0099 - Allocated Contingency
			<b>March '16 Contingency Drawdown</b>	<b>(11,600,114)</b>	
			<b>March '16 - Ending Contingency Balance</b>	<b>\$473.5</b>	
<b>*April '16</b>					
			<b>Beg. Balance</b>	<b>\$473.5</b>	
1)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 079 - 8615016 clearance at Contract 3-655-E1	(15,420)	0079 - Allocated Contingency
2)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 080 - Unshown Utility 2 inch Gas Line	(116,368)	0080 - Allocated Contingency
3)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 081 - AIT Ductwork in 705-M1	(85,306)	0081 - Allocated Contingency
4)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 082 - RFCC 00119 Transtite Pile Removal at Sta 6+16+6	(4,072)	0082 - Allocated Contingency
5)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 083 - Guy Wire Modifications RFCC 00121	(444,119)	0083 - Allocated Contingency
6)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 084 - HTI Issue at Utility Conflict 602-11 RFCC 00125	(66,300)	0084 - Allocated Contingency
7)	FD-130	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 085 - LCC Campus Construction Impacts RFCC 149	(1,214,613)	0085 - Unallocated Contingency

# HART Project Contingency Drawdown with Details

Data as of 7/28/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (\$)	Contingency Code
81	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 089 - LCC Station Access Construction Impacts (85-COM-148)	(\$4,487,143)	00 01 - Unallocated Contingency
90	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 087 - RF-CO-001180 Hazardous Materials (E-Culter Excavation)	(\$4,029,777)	00 02 - Allocated Contingency
100	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 088 - RF-CO-001183 Excavation at Site #58	(\$3,116,169)	00 02 - Allocated Contingency
110	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 089 - RF-CO-001184 Staff #211 650-ET Conflict	(\$2,910,151)	00 02 - Allocated Contingency
121	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 090 - RF-CO-001186 Unknown Impaction Lines at VHS	(\$2,814,041)	00 02 - Allocated Contingency
131	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 091 - Issue 000319 AIS Protrusion/Sum Reconciliation	\$3,003,000	00 02 - Allocated Contingency
141	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 092 - RF-CR 000328 East Tapered/HMM Vertical Clearance Provisions	\$6,715	00 02 - Allocated Contingency
151	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 093 - RF-CR 000344 Debris HECOC Transformer Poles @ 5 Stations	(\$597,110)	00 02 - Allocated Contingency
161	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 095 - RF-CR 000347 Emergency Walkway - Guideway Areas	(\$300,154)	00 02 - Allocated Contingency
171	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 096 - RF-CO-000349 Interference 24" Storm Drain Line	(\$519,820)	00 01 - Unallocated Contingency
181	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 098 - WOPHI Precast Yard Lease Extension to Jun 16	(\$136,117)	00 02 - Allocated Contingency
191	085-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 045 - Patented Hoops, Revision of Rail Progression System	(\$28,849)	00 02 - Allocated Contingency
201	085-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 034 - CCB Design for Future Platform VHS	(\$265,000)	00 02 - Allocated Contingency
211	085M-000	Core Systems Contract Design Build O&M	Executed Change Order No. 095 - LPS Transformer Winding Temperature	\$15,000	00 02 - Allocated Contingency
221	085M-000	Core Systems Contract Design Build O&M	Executed Change Order No. 095 - RF-CO-000061 Impacts Due to Heavy ROR Daily	(\$249,240)	00 03 - Contract Allowance
231	085-500	Airport Section Utilities	Executed Change Order No. 003 - Plot Construction Services	(\$29,900)	00 02 - Allocated Contingency
241	085-015	EHED Commissioning Services	Executed Change Order No. 001 Elevator Battery Lowering Systems	(\$199,350)	00 02 - Allocated Contingency
251	ML-030	Elevators & Escalators Install/Maint	April '16 Contingency Drawdown	(\$4,080,011)	
<b>April '16 - Ending Contingency Balance</b>				<b>\$469.5</b>	
<b>May '16</b>					
17	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 075 - Left Turn Formation Hwy. @ Tunnels	(\$325,000)	00 01 - Unallocated Contingency
20	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 099 - Deletion of Station Platform Graders (P&C-000080)	\$451,940	00 02 - Allocated Contingency
30	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 100 - RF-CO-00120 - Hazardous Materials (E-Culter Excavation) @ STA	(\$48,790)	00 02 - Allocated Contingency
40	085-320	Kaunahana Highway Guideway DB	Executed Contract Change Order No. 023 - Provisional Sum - HECOC Utility Conflict	(\$50,000)	00 02 - Allocated Contingency
50	085-320	Kaunahana Highway Guideway DB	Executed Contract Change Order No. 024 - Issue 229 HECOC Conflict 12-143-ET Doublebank Contr.	(\$550,000)	00 02 - Allocated Contingency
60	085-320	Kaunahana Highway Guideway DB	Executed Contract Change Order No. 027 - RF-CO-000077 Station Loads and Configuration Changes - Construction	(\$810,000)	00 02 - Allocated Contingency
70	085-320	Kaunahana Highway Guideway DB	Executed Contract Change Order No. 029 - AIS Provisional Sum Reconciliation Issue 00133	\$1,223,824	00 02 - Allocated Contingency
80	085-505	Airport Section Utilities	Executed Change Order No. 009 - RF-CR 000002-H11 Scope Revision - Kamehameha Hwy	(\$54,117)	00 03 - Contract Allowance
90	FD-530	City Center Guideway Utilities PD	Executed Change Order No. 008 - Impact Associated with HECOC	(\$300,000)	00 02 - Allocated Contingency
<b>May '16 Contingency Drawdown</b>				<b>\$216,448</b>	
<b>May '16 - Ending Contingency Balance</b>				<b>\$469.7</b>	
<b>June '16</b>					
17	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 102 - Hazardous Materials (E-Culter Property)	(\$192,299)	00 02 - Allocated Contingency
20	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 103 - Hypoxal Station Relocation	(\$832,414)	00 02 - Allocated Contingency
30	085-120	West Oahu Farmington Highway Guideway DB	Executed Contract Change Order No. 104 - Contaminated Material at Median	(\$1,825,000)	00 02 - Allocated Contingency
40	085-201	Farmington Highway Station Group	Executed Change Order No. 004 - Install TPSS Foundation & Switchgear	(\$155,600)	00 04 - Allocated Contingency
<b>June '16 Contingency Drawdown</b>				<b>(\$3,875,313)</b>	
<b>June '16 - Ending Contingency Balance</b>				<b>\$466.0</b>	
<b>July '16 - Board Approved Changes Only - Pending Execution</b>					
17	085-120	West Oahu Farmington Highway Guideway DB	RF-CR 00006 - Enter Emergencies Lighting - Guideway	\$2,482,713	00 02 - Allocated Contingency
20	085-320	Kaunahana Highway Guideway DB	RF-CR 00003 - Enter Emergencies Lighting - Guideway	\$1,458,000	00 02 - Allocated Contingency
<b>July '16 Contingency Drawdown</b>				<b>\$4,028,713</b>	
<b>July '16 - Ending Contingency Balance (Pending Execution)</b>				<b>\$470.0</b>	

\* An internal review of monthly drawdown revealed errors in the details for the months of March '16, April '16, and May '16. Those corrections have been incorporated in this month's contingency drawdown details.

**Appendix C. Project Cost Reports** (data as of June 24, 2016)

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

**Project Costs by Contract**



Costs Reported as of Month Ending: June 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 6/24/16

Page: 1 of 3

CPP No	Title	A		B		C-A+B		D		E		F	
		Original	Changes	COMMITTED	Current *	AFE	AFE**	INCURRED	INCURRED To Date	PERCENT	PERCENT		
A RT	T&M	124,000	0	124,000	0	124,000	0	0	0	6,200	6,200	5%	5%
CCH-100	Inactive Hart/Qty.CCH	15,348,443	0	15,348,443	0	15,348,443	0	0	0	14,925,228	14,925,228	97%	97%
CCH-101	HART/Qty Dept of BFS	105,082	0	105,082	0	105,082	0	0	0	173,182	173,182	68%	68%
CCH-102	HART/Qty DDC Land Division	256,201	0	256,201	0	256,201	0	0	0	236,418	236,418	13%	13%
CCH-107	HART/Qty Corporation Counsel (COB)	1,816,253	230,000	2,046,253	1,866,253	2,046,253	2,046,253	0	0	928,325	928,325	100%	100%
CCH-108	HART /Board of Water Supply(BWS)	928,325	0	928,325	0	928,325	0	0	0	537,863,510	537,863,510	92%	92%
DB-120	West Oahu/Farrington Hwy Guideway DB	482,924,000	167,384,042	650,308,042	650,308,042	650,308,042	650,308,042	0	0	273,728,742	273,728,742	100%	100%
DB-200	Maintenance & Storage Facility DB	195,258,000	79,600,568	274,858,568	274,858,568	274,858,568	274,858,568	0	0	276,302,382	276,302,382	1%	1%
DBB-320	Kamehameha Hwy Guideway DB	372,150,000	18,142,368	390,292,368	390,292,368	390,292,368	390,292,368	0	0	361,800	361,800	0%	0%
DBB-171	West Oahu Station Group DBB	56,088,470	0	56,088,470	0	56,088,470	0	0	0	0	0	0%	0%
DBB-185	SPCD - West Side S.G. Construction	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-271	Farrington Highway Station Group DBB	78,999,000	785,600	79,784,600	79,784,600	79,784,600	79,784,600	0	0	450,000	450,000	1%	1%
DBB-275	SPCD-Pearl Highlands Pkg. Str. Constr.	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-371	Kamehameha Hwy Stations Grp. DBB	115,805,845	0	115,805,845	0	115,805,845	0	0	0	0	0	0%	0%
DBB-385	Ramp H2R2	5,203,646	0	5,203,646	0	5,203,646	0	0	0	1,305,336	1,305,336	25%	25%
DBB-470	SPCD-Airport Station Group Constr.	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-505	Airport Section Utilities Constr. DBB	27,993,290	-608,481	27,384,809	27,384,809	27,384,809	27,384,809	0	0	13,910,706	13,910,706	51%	51%
DBB-510	City Ctr. Section Util. Constr. DBB	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-520	SPCD-Airport-City Center Gateway Dntr.	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-525	Airport Section Guideway 7 Pier DBB	3,973,000	548,483	4,521,483	4,027,843	4,027,843	4,027,843	0	0	0	0	0%	0%
DBB-580	SPCD-Dillingham/Kaka'ako S.G. Cntr.	0	0	0	0	0	0	0	0	0	0	0%	0%
DBB-600	Park-and-Ride Lots Construction	0	0	0	0	0	0	0	0	0	0	0%	0%
DBO M-320	Core Systems Design/Built O/M	573,782,793	27,037,894	600,820,687	600,820,687	600,820,687	600,820,687	0	0	199,202,996	199,202,996	33%	33%
FD-140	West Oahu Station Group FD	7,789,000	2,402,989	10,191,989	10,191,989	10,191,989	10,191,989	0	0	9,199,086	9,199,086	90%	90%
FD-240	Farrington Highway Stations Group FD	9,300,696	4,981,249	14,281,945	14,281,945	14,281,945	14,281,945	0	0	12,577,157	12,577,157	88%	88%
FD-245	SPCD-Pearl Highlands Pkg. Str. FD	0	0	0	0	0	0	0	0	0	0	0%	0%
FD-340	Kamehameha Hwy Station Group FD	8,702,592	1,257,636	9,960,228	9,960,228	9,960,228	9,960,228	0	0	9,317,068	9,317,068	94%	94%
FD-430	SPCD-Airport Sect. Guideway/Util. FD	38,840,960	4,293,512	43,134,472	43,134,472	43,134,472	43,134,472	0	0	41,647,163	41,647,163	97%	97%
FD-440	SPCD-Airport Station Group FD	10,177,365	1,386,487	11,563,852	11,563,852	11,563,852	11,563,852	0	0	9,983,402	9,983,402	86%	86%
FD-530	SPCD - City Center Guideway/Util. FD	43,948,220	3,149,342	47,097,562	47,097,562	47,097,562	47,097,562	0	0	43,540,880	43,540,880	92%	92%
FD-550	SPCD - Dillingham and Kaka'ako S.G. FD	18,321,918	1,309,799	19,631,717	19,631,717	19,631,717	19,631,717	0	0	12,293,585	12,293,585	63%	63%
FD-600	Park-and-Ride Lots Final Design	0	0	0	0	0	0	0	0	0	0	0%	0%
HRT-200	HART Labor	51,951,942	0	51,951,942	51,951,942	51,951,942	51,951,942	0	0	51,848,113	51,848,113	100%	100%

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

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Costs Reported as of Month Ending: June 2016  
**Project Monthly Cost Report by Contract - One Line Summary**  
 6/24/16

CPP No	Title	A		B		C-A+B		D		E		F	
		Original	COMMITTED Changes	Current*	AFE**	INURRED To Date	PERCENT %						
HRT-201	HART ODC Contracts	16,352,584	82,122	16,434,706	412,132	22,924,663	139%						
MM-900	Fare Collection DFI	15,464,198	0	15,464,198	15,464,198	593,840	4%						
MM-930	Elevators & Escalators Install/Maint	50,982,714	1,016,321	51,999,035	6,458,429	6,149,756	12%						
MM-280	SPCD-WDFH/KHSD CE&I(REPA.CKA GED) CPFF	0	0	0	0	0	0%						
MM-290	Construction Engng & Insp CEI/West CPFF	54,232,480	0	54,232,480	16,650,000	26,756,710	49%						
MM-385	SPCD-Pearl Highlands Garage Rmpps CEI CPFF	0	0	0	0	0	0%						
MM-300	SPCD-By MM959 CEI East CPFF	0	0	0	0	0	0%						
MM-325	SPCD-By MM959 CEI East CPFF	0	0	0	0	0	0%						
MM-390	SPCD-By MM959 CEI East CPFF	0	0	0	0	0	0%						
MM-595	SPCD - Const. Engng & Insp. CEI East CPFF	63,083,417	-50,377,817	12,706,100	(85,120,217)	12,382,150	37%						
MM-596	Construction Engng & Insp CEI East 2 CPFF	55,036,130	0	55,036,130	55,036,130	5,205,557	9%						
MM-600	SPCD-UHWO Pkg-Hoopili Stn Fresh CEI CPFF	0	0	0	0	0	0%						
MM-900	Program Mgt Support Const (PM SC-1) CPFF	15,952,569	0	15,952,569	20,700,000	0	0%						
MM-901	Program Mgt Support Const (PM SC-2) CPFF	33,376,897	18,444,023	51,820,920	45,124,813	43,168,824	83%						
MM-905	MM-905 Gen Engng Const EIS/PE CPFF	0	78,564,942	78,564,942	78,564,942	74,157,822	94%						
MM-910	MM-910 Gen Engng Const FD-Construct CPFF	150,000,000	0	150,000,000	150,000,000	149,446,962	100%						
MM-913	MM-913 Gen Engng Reconnect CPFF	46,143,277	398,451	46,541,728	31,344,951	29,761,613	64%						
MM-915	HDOT Traffic Mgmt. Consult. T8M	1,600,000	2,400,000	4,000,000	7,000,000	3,390,972	85%						
MM-920	HDOT Coordination Const WDFH T8M	3,000,000	6,500,000	9,500,000	10,750,000	7,104,012	75%						
MM-921	HDOT Coordination Const KHG T8M	10,000,000	-1,400,000	8,600,000	7,600,000	4,450,481	52%						
MM-922	HDOT Coordination Const Airport T8M	12,000,000	-5,600,000	6,400,000	4,400,000	2,727,863	43%						
MM-923	HDOT Coordination Const City Center T8M	0	0	0	0	0	0%						
MM-925	HDOT Labor - WDFH/KHG Agreements T8M	550,000	2,865,633	3,415,633	4,681,266	1,844,565	54%						
MM-926	HDOT Labor - Airport Agreements T8M	0	0	0	0	0	0%						
MM-930	HDOT State SOA Manager & Consultant T8M	1,272,400	583,142	1,855,542	843,167	921,092	50%						
MM-935	Real Estate Consultant T8M/T1	3,000,000	5,077,665	8,077,665	8,077,165	6,745,179	84%						
MM-937	Real Estate Consultant - Maps/Surv. CPFF	2,998,000	0	2,998,000	1,500,000	1,056,637	35%						
MM-940	Kako'o Consultant T8M/T1	1,000,000	0	1,000,000	500,000	526,643	53%						
MM-941	Kako'o Consultant II CPFF	200,000	0	200,000	200,000	33,333	17%						
MM-945	On-Call Contractor T8M/T1	1,000,000	1,000,000	2,000,000	1,900,000	1,952,468	98%						
MM-946	On-Call Hazmat Removal Contractor T8M/T1	3,075,000	75,000	3,150,000	1,075,000	3,110,407	99%						
MM-947	On-Call Contractor 2 T8M/T1	7,500,000	0	7,500,000	4,500,000	4,638,516	62%						
MM-950	OCIP Consultant FFF	1,250,000	0	1,250,000	1,250,000	1,076,563	86%						

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



Costs Reported as of Month Ending: June 2016

Project Monthly Cost Report by Contract - One Line Summary

6/24/16

Page: 3 of 3

CPP No	Title	A		B		C=A+B		D		E		F	
		Original	COMMITTED Changes	Current*	AFE**	AFE**	Incurring To Date	PERCENT %					
MM-951	Owner-Controlled Insurance Program	41,000,000	0	41,000,000	0	26,564,887	65%						
MM-960	Archaeological & Cultural Monitoring	1,638,474	0	1,638,474	1,638,474	1,469,244	89%						
MM-962	Core Systems Support	43,988,989	0	43,988,989	3,600,000	16,720,673	38%						
MM-964	Safety and Security Consultant	4,639,373	112,751	4,812,324	4,012,751	3,615,611	75%						
MM-970	Fare Collection Consultant	1,178,300	0	1,178,300	1,178,300	42,037	4%						
MM-975	LEED Commissioning Services for MSF	278,630	39,900	318,530	318,530	170,560	54%						
OTHER	All Project Wide Documents	0	0	0	0	0	0%						
PA-101	Programmatic Agreement Humanities	0	0	0	0	0	0%						
PA-102	Programmatic Agreement HP C	400,000	0	400,000	200,000	197,716	49%						
PA-103	Programmatic Agreement HP C Park Impr	0	0	0	0	0	0%						
ROW	Real Estate / Right-of-Way	113,885,511	0	113,885,511	121,992	112,522,833	99%						
UTIL	Utility Company Contracts	95,637,272	-1,320,761	93,716,512	71,808,181	55,135,936	59%						
<b>Total Project:</b>		<b>2,971,385,465</b>	<b>369,299,820</b>	<b>3,340,685,285</b>	<b>2,674,702,489</b>	<b>2,200,395,225</b>							

\* Current Committed = Original Contract + COO/Amendment

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

Project Costs by SCC – Level 2



Costs Reported as of Month Ending: June 2016  
**Project Monthly Cost Report by SCC Details**

6/24/16

Page: 1 of 3

SCC	Title	A		B		C=A+B		D		E		F		G		H=C-G		I	
		Baseline	Transfers	BUDGET	Current	Current*	COMMITTED	AFE	AFE**	Changes ID***	Est. At 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.	Guideway & Track Elements	1,114,215,147	44,903,547	1,159,118,694	550,778,923	36,893,861	(1,365,500)	1,159,118,694	0	432,916,076	0	0	0	0	0	0	0	0	0
10.02	Guideway: At-grade semi-exclusive	0	17,378	17,378	17,378	17,378	0	17,378	0	17,378	0	0	0	0	0	0	0	0	17,378
10.04	Guideway: Aerial Structure	1,022,380,671	42,349,470	1,064,724,141	465,892,169	27,647,718	(1,385,500)	1,064,724,141	0	365,403,400	0	0	0	0	0	0	0	0	365,403,400
10.05	Guideway: Built-up fill	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.08	Guideway: Retained Cut or Fill	7,492,944	(1,056,688)	6,436,256	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	9,197,389	0	82,011,565	0	63,354,874	0	0	0	0	0	0	0	0	63,354,874
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	30,876
20.	Stations, Shops, Terminals, Intermodal	421,804,740	(2,189,830)	419,615,110	303,677,930	1,801,921	162,358	419,615,110	0	61,49,756	0	0	0	0	0	0	0	0	61,49,756
20.01	At-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, mail	294,563,457	6,643,853	301,207,310	251,678,915	7,855,600	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	1,016,321	162,358	51,999,035	0	6,149,756	0	0	0	0	0	0	0	0	6,149,756
30.	Support Facilities: Yards, Shops, Admin	92,535,015	22,731,655	115,266,670	115,410,574	19,066,910	0	115,266,670	0	119,493,020	0	0	0	0	0	0	0	0	119,493,020
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	205,266
30.02	Light Maintenance Facility	7,531,888	(9,194)	7,522,704	7,522,704	(4,089)	0	7,522,704	0	7,571,836	0	0	0	0	0	0	0	0	7,571,836
30.03	Heavy Maintenance Facility	38,099,138	5,108,688	43,207,806	43,207,806	5,350,776	0	43,207,806	0	44,886,233	0	0	0	0	0	0	0	0	44,886,233
30.04	Storage or Maintenance of Way Buil	7,797,460	819,670	8,617,130	8,759,242	1,017,332	0	8,617,130	0	8,782,967	0	0	0	0	0	0	0	0	8,782,967
30.05	Yard and Yard Track	39,046,529	16,581,251	55,627,780	55,635,572	12,471,641	0	55,627,780	0	56,986,718	0	0	0	0	0	0	0	0	56,986,718
40.	Sitework & Special Conditions	983,178,121	39,941,070	1,023,119,191	735,592,508	168,511,834	(2,144,167)	1,023,119,191	0	591,669,951	0	0	0	0	0	0	0	0	591,669,951
40.01	Demolition, Cleaning, Earthwork	29,980,158	(9,066,868)	20,913,290	10,804,041	1,505,797	0	20,913,290	0	4,780,623	0	0	0	0	0	0	0	0	4,780,623
40.02	Site Utilities, Utility Relocation	299,449,736	(353,895)	299,095,861	196,791,032	4,806,547	569,756	299,095,861	0	133,764,130	0	0	0	0	0	0	0	0	133,764,130
40.03	Haz. mat'l, contain'd soil removal	9,199,237	(3,164,433)	6,034,804	5,613,286	2,328,286	(379,304)	6,014,804	0	4,413,634	0	0	0	0	0	0	0	0	4,413,634
40.04	Environmental Mitigation	26,979,122	4,990,976	31,970,098	16,557,672	16,864	0	31,970,098	0	11,391,864	0	0	0	0	0	0	0	0	11,391,864
40.05	Site structures, retaining walls,	7,998,960	11,000,743	18,999,703	14,681,531	4,794,693	14,574	18,999,703	0	7,521,200	0	0	0	0	0	0	0	0	7,521,200
40.06	Pedestrian/bike access/landscaping	41,073,897	(5,627,874)	35,446,023	5,637,888	473,454	(2,349,213)	35,446,023	0	2,314,654	0	0	0	0	0	0	0	0	2,314,654
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	12,958,829	0	0	0	0	0	0	0	0	12,958,829
40.08	Temporary Facilities/Indirect Cost	386,517,624	59,774,588	446,292,212	446,940,708	152,207,367	0	446,292,212	0	414,525,017	0	0	0	0	0	0	0	0	414,525,017

Report: M\_CW\_proj\_monthly\_Scc\_detail - No. 23

\* 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

Print Date: 7/8/16 11:35



Costs Reported as of Month Ending: June 2016  
**Project Monthly Cost Report by SCC Details**  
 6/24/16

SCC	Title	A		B		C=A+B		D		E		F		G		H=C-G		I	
		Baseline	Transfers	BUDGET	Transfers	COMMITTED	Current	COMMITTED	Current	AFE**	AFE**	Changes ID'd***	Est. At Completion***	Variance	Incurred To Date				
<b>1. Subtotal 10 - 80 SCC Costs</b>																			
50.01	Systems	221,284,301	27,911,531	249,195,832	249,498,816	27,475,099	0	249,195,832	0	52,760,195	0	0	0	0	0	0	0	0	0
50.02	Train control and signals	81,982,556	24,381,140	106,363,696	106,363,696	23,961,050	0	106,363,696	0	6,989,403	0	0	0	0	0	0	0	0	0
50.03	Traction power supply: substation	29,500,928	1,816,880	31,317,808	31,317,806	3,485,515	0	31,317,806	0	6,114,252	0	0	0	0	0	0	0	0	0
50.04	Traction power distribution: cat	32,878,150	5,059,838	37,937,988	37,937,988	7,941,115	0	37,937,988	0	22,484,552	0	0	0	0	0	0	0	0	0
50.05	Communications	53,691,339	6,133,477	59,824,816	59,824,816	5,573,419	0	59,824,816	0	17,708,011	0	0	0	0	0	0	0	0	0
50.06	Fare collection system and equipm	9,159,277	(9,112,878)	46,399	15,510,597	(10,830,000)	0	46,399	0	(496,024)	0	0	0	0	0	0	0	0	0
50.07	Central Control	3,613,827	(160,036)	3,453,791	3,453,791	0	0	3,453,791	0	0	0	0	0	0	0	0	0	0	0
80.01	ROW, Land, Existing Improvements	187,387,947	515,616	187,903,563	187,903,563	2,066,815	5,000,000	187,913,563	5,000,000	0	0	0	0	0	0	0	0	0	0
80.02	Purchase or lease of real estate	179,360,664	237,816	179,598,480	179,598,480	39,015	5,000,000	179,598,480	5,000,000	0	0	0	0	0	0	0	0	0	0
80.02	Relocation of existing households	18,037,283	277,800	18,315,083	18,315,083	2,027,800	0	18,315,083	0	14,419,783	0	0	0	0	0	0	0	0	0
70.01	Light Rail	166,721,386	5,847,191	172,568,577	172,568,577	1,446,224	40,000	172,568,577	40,000	0	0	0	0	0	0	0	0	0	0
70.06	Non-revenue vehicles	14,346,923	(1,320,375)	13,026,548	13,026,548	0	40,000	13,026,548	40,000	0	0	0	0	0	0	0	0	0	0
70.07	Spare parts	5,760,711	118,885	5,879,596	5,879,596	0	0	5,879,596	0	0	0	0	0	0	0	0	0	0	0
80.01	Professional Services	1,087,830,119	39,092,015	1,126,922,134	1,089,641,588	113,547,932	(26,618,933)	1,126,922,134	(26,618,933)	0	0	0	0	0	0	0	0	0	0
80.01	Preliminary Engineering	94,055,262	24,644,185	118,699,447	109,567,127	20,905,632	0	118,699,447	0	104,144,827	0	0	0	0	0	0	0	0	0
80.02	Final Design	228,321,632	(4,358,893)	223,962,739	208,529,624	33,675,829	(8,338,930)	223,962,739	(8,338,930)	174,082,684	0	0	0	0	0	0	0	0	0
80.03	Project Management Design & Cons	363,846,768	(28,315,655)	335,531,113	378,218,547	849,394,428	(17,504,214)	335,531,113	(17,504,214)	337,566,627	0	0	0	0	0	0	0	0	0
80.04	Constr. Admin. & Management	199,656,728	(34,420,307)	165,236,421	131,252,384	(44,789,888)	0	165,236,421	0	95,339,904	0	0	0	0	0	0	0	0	0
80.05	Professional Liability & other ins	46,549,724	28,781,938	75,331,662	43,174,657	7,005,500	0	75,331,662	0	28,600,749	0	0	0	0	0	0	0	0	0
80.06	Legal; Permits Review Fees e.t.c.	67,641,005	(3,206,464)	64,434,541	39,803,525	6,632,053	0	64,434,541	0	23,310,224	0	0	0	0	0	0	0	0	0
80.07	Surveys; Testing; Investigation, I	21,759,336	47,250,936	69,009,732	101,279,246	1,574,480	0	69,009,732	0	35,354,064	0	0	0	0	0	0	0	0	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	(775,809)	37,017,297	0	0	0	0	0	0	0	0	0
<b>Subtotal:</b>		4,305,074,410	177,551,506	4,482,625,916	3,395,028,207	370,809,556	(24,946,282)	4,482,625,916	(24,946,282)	2,199,703,770	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0
NTP	Notice To Proceed	0	0	0	0	2,300,861,710	0	2,300,861,710	0	0	0	0	0	0	0	0	0	0	0
<b>Subtotal:</b>		0	0	0	0	2,300,861,710	0	2,300,861,710	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: June 2016  
**Project Monthly Cost Report by SCC Details**

6/24/16

Page: 3 of 3

SCC	Title	A		B		C=A+B		D	E	F	G	H=C-G	I
		Baseline	Transfers	BUDGET	Transfers	Current	Current						
<b>3. Contingency</b>													
CNTR	Allocated Contingency	541,689,343	(101,576,592)	440,112,751	5,657,078	3,031,222	337,845,443	440,112,751	0	0	0	0	631,455
90.02	Allocated Contract Contingency	540,101,323	(104,185,749)	435,915,580	3,031,222	3,031,222	337,878,746	435,915,580	0	0	0	0	631,455
90.03	Allowances	1,588,014	2,609,137	4,197,171	2,625,855	0	(33,302)	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	(75,974,714)	25,896,456	0	0	0	25,896,456	0	0	0	0	0
90.01	Unallocated Project Contingency	101,871,170	(75,974,714)	25,896,456	0	0	0	25,896,456	0	0	0	0	0
<b>Subtotal:</b>		<b>643,560,513</b>	<b>(177,551,306)</b>	<b>466,009,207</b>	<b>5,657,078</b>	<b>3,031,222</b>	<b>337,845,443</b>	<b>466,009,207</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>631,453</b>
<b>4. Finance Charges - Eligible</b>													
OTH	Finance Charges	173,058,243	0	173,058,243	0	0	0	173,058,243	0	0	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>		<b>173,058,243</b>	<b>0</b>	<b>173,058,243</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>173,058,243</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>FIA TOTAL PROJECT COSTS 5,121,693,166</b>													
<b>FIA TOTAL PROJECT COSTS 5,121,693,166</b>													
<b>4. Finance Charges - Ineligible Costs</b>													
FINC	Finance Charges	42,000,000	0	42,000,000	0	0	0	42,000,000	0	0	0	0	0
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>		<b>42,000,000</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>42,000,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>INELIGIBLE COSTS 42,000,000</b>													
<b>INELIGIBLE COSTS 42,000,000</b>													
<b>Total Project: 5,163,693,166</b>													
<b>Total Project: 5,163,693,166</b>													

Report: M\_Civil\_Proc\_monthly\_Scc\_Details - No. 23

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Print Date: 7/8/16 11:35

Appendix D. Procurement and Contract Status

Awarded Contracts						
Contract Code	Contract Name	Contractor Name	Advertise Date	Contract Date	Issue NTP	Contract Substantial Completion Date
DB-120	West O'ahu/Farrington Highway Guideway (WOFH)	Kiewit Infrastructure West Company (KIWC)	Apr 03 '09	Nov 11 '09	Dec 01 '09	Nov 16 '16
DB-200	Maintenance and Storage Facility (MSF)	Kiewit / Kobayashi Joint Venture (KKJV)	Jul 24 '09	June 30 '11	Jul 25 '11	Jul 02 '16
DB-320	Kamehameha Guideway (KHG)	Kiewit Infrastructure West Company (KIWC)	Mar 10 '10	June 30 '11	Jul 12 '11	Sep 16 '16
DB-450	Airport Guideway and Stations	Shimmick/Traylor/Granite, JV	Apr 07 '15	TBD	TBD	NTP + 33 months
DBOM-920	Core Systems Contract	Ansaldo Honolulu JV	Aug 17 '09	Nov 28 '11	Jan 13 '12	Mar 15 '16
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	Jan 14 '10	Jan 14 '12	Jan 15 '12	Jan 21 '17
FD-240	Farrington Highway Station Group Final Design and Support -2	URS Corporation	Jan 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.	Jan 28 '11	Nov 16 '12	Nov 26 '12	Jan 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	Jan 30 '17
FD-530	City Center Section Guideway and Utilities Final Design and Support	AECOM Technical Services, Inc.	Dec 18 '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-650	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design and Support	Perkins+Will	Nov 16 '12	Aug 15 '13	Aug 09 '13	Jul 30 '16
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-695	Construction Engineering & Inspection East Side Sections	URS Corporation	Jul 26 '13	Jan 02 '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+Elliot, 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-936	Real Estate Contractor Contract "II"	Colliers International HI, LLC	Mar 04 '16	TBD	TBD	NTP + 48 months
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 09 '16	May 16 '16	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
MM-980	Complex Construction Claims Negotiation and Litigation Services	Arcadis U.S., Inc.	Apr 27 '16	Jun 29 '16	TBD	NTP + 60 months + 3 year option
MM-980	Complex Construction Claims Negotiation and Litigation Services	Hill International Consulting, Inc.	Apr 27 '16	Jun 29 '16	TBD	NTP + 60 months + 3 year option
MM-980	Complex Construction Claims Negotiation and Litigation Services	Kobayashi Sugita & Goda, LLP	Apr 27 '16	Jun 29 '16	TBD	NTP + 60 months + 3 year option
MM-982	On Call Appraisers	ACM Consultants, Inc.	Mar 18 '16	Jun 23 '16	Jun 23 '16	NTP + 48 months
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 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 7/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	\$ 15,492	
				CT-DTS-1100195 DB-320	\$ 140,654	
				CT-HRT-1500297 MM-947	\$ 221	
				CT-HRT-1000449 DB-200	\$ 80,842	\$ 237,209
Glad's Landscaping	561730	APA	M	CT-HRT-10H0137 DB-120	\$ 331,197	\$ 331,197
Don's Makiki	484110	APA	M	CT-HRT-10H0137 DB-120	\$ 588,941	
				CT-HRT-10H0449 DB-200	\$ 81,581	
				CT-DTS-1100195 DB-320	\$ 60,714	\$ 731,236
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	\$ 212,114	
				CT-HRT-1500297 MM-947	\$ 3,840	\$ 215,954
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	\$ 7,254,511	\$ 7,254,511
PMJ Builders	238310	APA	M	CT-HRT-10H0137 DB-120	\$ 43,866	
				CT-DTS-1100195 DB-320	\$ 107,100	\$ 150,966
Standard Sheetmetal & Mechanical	236220	APA	M	CT-HRT-10H0449 DB-200	\$ 6,105	\$ 6,105
LP&D Hawaii	541320	APA	M	SC-DTS-1100013 FD-240	\$ 219,911	\$ 219,911
Ace Land Surveying	541370	NA	M	SC-DTS-1100013 FD-240	\$ 38,700	\$ 38,700
Integrated Security Tech.	561621	O	F	CT-HRT-1200106 DBOM-920	\$ 105,180	\$ 105,180
LKG-CMC	541618	O	F	SC-HRT-11H0131 MM-905	\$ 2,600,462	
				SC-DTS-0700001 ****MM-910	\$ 2,783,277	
				SC-HRT-1400051 MM-595	\$ 271,047	
				SC-HRT-1600008 MM-595	\$ 118,824	

DBE Participation (9/24/07 to 7/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400049 MM-962	\$ 392,422	\$ 6,166,032
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	\$ 740,962	
				SC-DTS-0700001 ****MM-910	\$ 150,141	
				SC-HRT-1400061 MM-964	\$ 1,454,459	\$ 2,345,562
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	\$ 1,209,793	\$ 1,345,074
The Nakoia 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	\$ 1,785,276	\$ 1,785,276
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	\$ 1,170,183	

DBE Participation (9/24/07 to 7/31/16)						
DBE Firm	NAICS	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400051 MM-595	\$ 10,197	\$ 1,180,380
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	\$ 127,539	\$ 127,539
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	\$ 1,841,030	\$ 1,841,030
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	\$ 1,997,940	\$ 1,997,940
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	\$ 873,849	\$ 873,849
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	\$ 446,558	
				CT-HRT-1500309 DBB-385	\$ 151,633	
				CT-HRT-1500297 MM-947	\$ 857,986	\$ 1,456,177
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	\$ 176	
				CT-HRT-1400323 DBB-505	\$ 36,094	
				CT-HRT-1500297 MM-947	\$ 152	\$ 36,422
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	\$ 13,291	
				CT-HRT-1500297 MM-947	\$ 2,117	\$ 15,408
Geotech	423390	NA	M	CT-HRT-1500309 DBB-385	\$ 7,399	\$ 7,399
Lenax Construction	541611	O	F	SC-HRT-1600008 MM-595	\$ 1,143,635	\$ 1,143,635
<b>Total</b>						<b>\$ 39,344,590</b>
<p>* Nagame Okawa's countable participation is limited to the period from 1/2/09 to 2/16/10. The company graduated from the DBE program on 2/16/10.</p> <p>** Anil Verma Associates, Inc. is a prime contractor and was certified as a DBE effective 6/26/13.</p> <p>*** AMR Estimating Services, Inc. was certified as a DBE effective 10/25/13.</p> <p>**** DBE participation from 9/24/07 to 9/17/13.</p> <p>***** ADS System Safety Consulting was certified as a DBE effective 8/7/14.</p>						

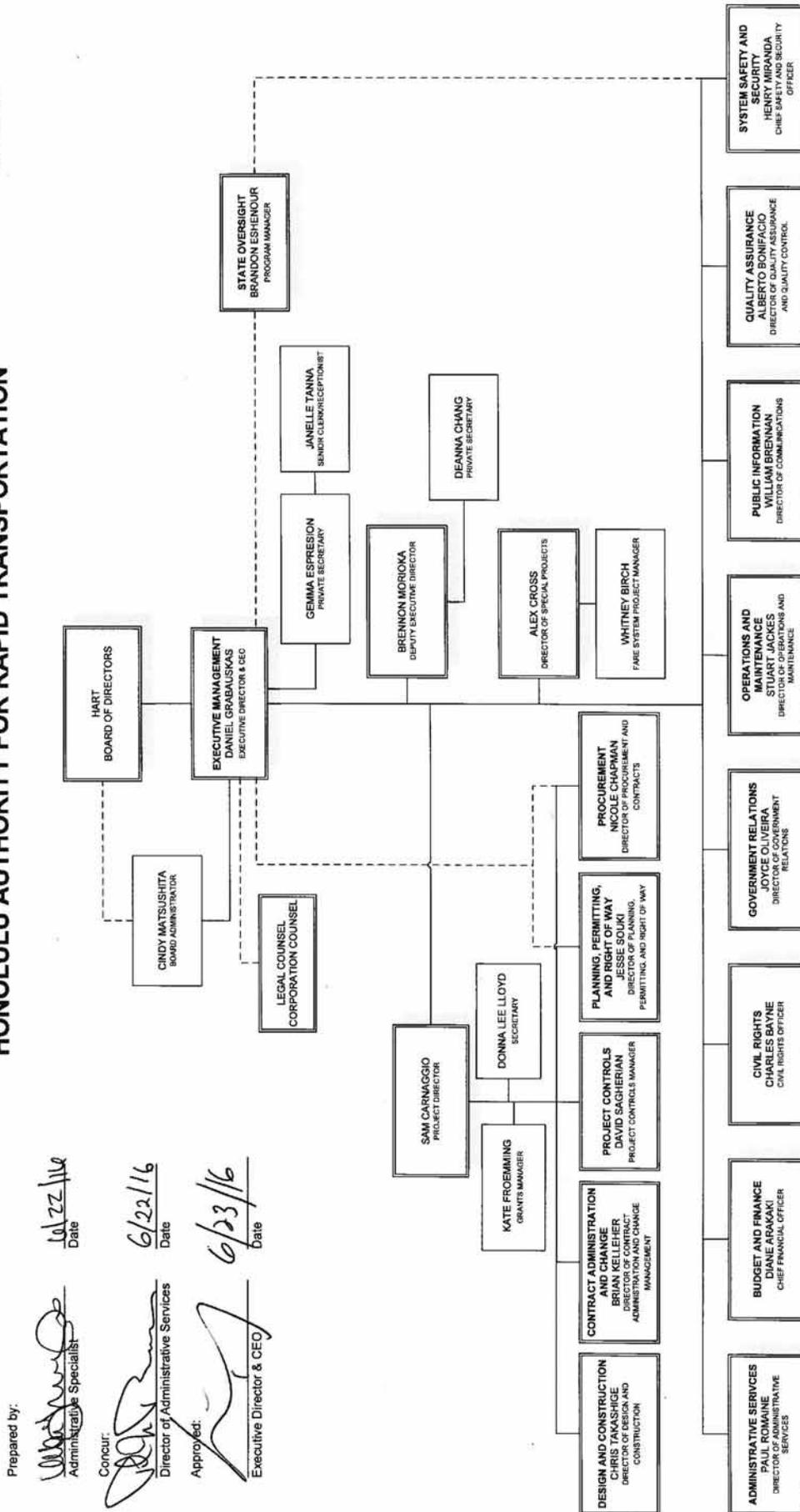
**Race Categories**

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

Appendix G. Project Organization Chart

June 27, 2016

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION



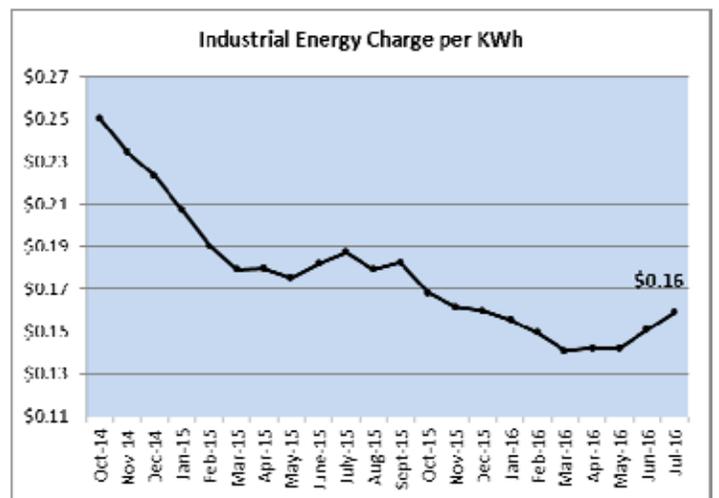
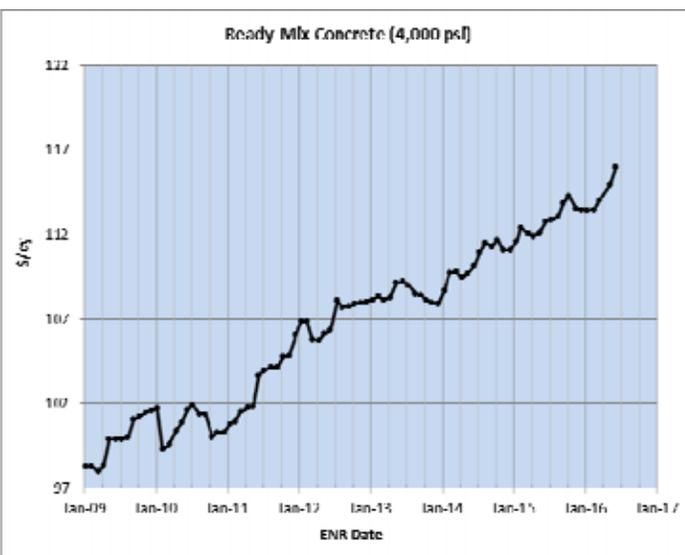
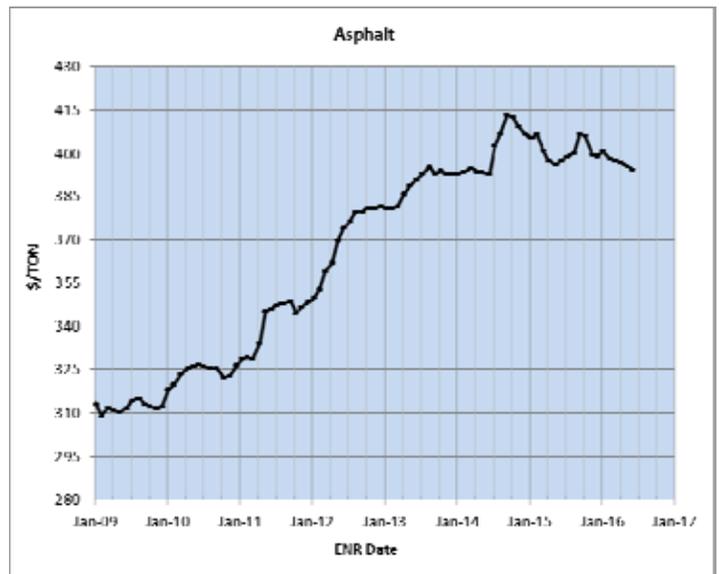
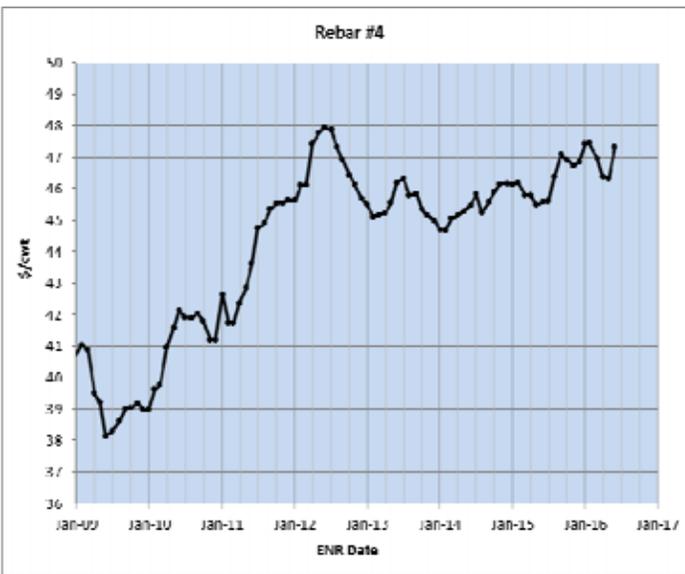
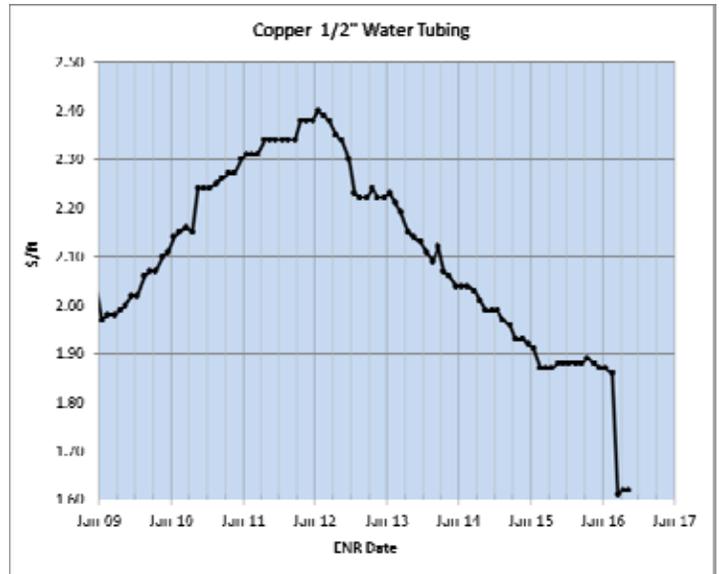
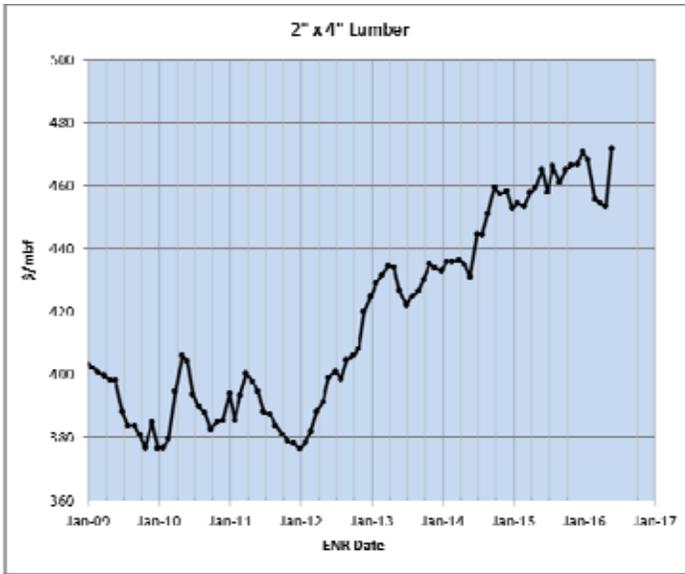
Prepared by:  Administrative Specialist Date: 6/22/16

Concur:  Director of Administrative Services Date: 6/22/16

Approved:  Executive Director & CEO Date: 6/23/16

### Appendix H. 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 I. 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.