HONOLULU RAIL TRANSIT PROJECT

April 2016
MONTHLY PROGRESS REPORT

HONOLULU AUTHORITY for RAPID TRANSPORTATION

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

REPORT FORMAT AND FOCUS

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

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

ON THE COVER:
Left: West O'ahu Farrington Highway Guideway along Farrington Highway looking Waianae.
Upper right: West O'ahu Farrington Highway Guideway along Farrington Highway near Waipahu High School.
Lower right: Rail Operations Center (aka Maintenance and Storage Facility) site.

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LIST OF ACRONYMS

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

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

SSC	Safety Security Certification
SSCP	Safety and Security Certification Plan
SSCWG	Safety and Security Certification Working Group
SSI	Sensitive Security Information
SSMP	Safety and Security Management Plan
SSRC	Safety and Security Review Committee
SSSP	Site Safety Security Plan
STCC	Specification/Testing Conform Checklists
SWPPP	Storm Water Pollution Prevention Plan
T&M	Time and Material
TCCR	Train Control and Communications Room
TCO	Temporary Certificate Occupancy
TCP	Traffic Control Plan
TCS	Train Control System
TES	Traction Electrification System
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TOC	The Outdoor Circle
TOD	Transit-Oriented Development
TPO	Thermoplastic Olefin
TPSS	Traction Power Sub-Station
TSA	Transportation Security Administration
TSI	Transportation Safety Institute
TVA	Threat & Vulnerability Assessments
TVM	Ticket Vending Machine
TWF	Train Wash Facility
UCA	Utility Construction Agreement
UFRCRA	Utility Facilities Relocation and Cost Reimbursement Agreement
UH	University of Hawai‘i
UHWO	University of Hawai‘i West O‘ahu
UL	Underwriters Laboratories
UPS	Uninterrupted Power Supply
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
VE	Value Engineering
VRCS	Voice Radio Communication System
VRF	Variable Refrigerant Flow
WA	Work Area
WHS	Waipahu High School
WL	West Loch
WLO	West Loch
WOEDA	West Oahu Economic Development Association
WOFH	West O‘ahu/Farrington Highway
WOSG	West O‘ahu Station Group
WSS	West Side Stations
WSSG	West Side Station Group
WTB	Wheel Truing Building
WTC	Waipahu Transit Center
WYL	West Yard Lead
YCB	Yard Control Bungalow
YOE	Year of Expenditure

PROJECT MAP

LEGEND
HRTP Guideway
HRTP Station
Park and Ride Access Ramps
Park and Ride
Maintenance and Storage Facility (MSF)
Leeward Community College
Pearl Highlands
Waipahu Transit Center
West Loch
Ho'opili
UH West O'ahu
East Kapolei
Pearlridge
Aloha Stadium
Pearl Harbor Naval Base
Honolulu International Airport
Lagoon Drive
Middle Street Transit Center
Kalihi
Kapalama
Iwilei
Chinatown
Downtown
Civic Center
Kaka'ako
Ala Moana Center
PACIFIC OCEAN
MAMALA BAY
PEARL HARBOR
MIDDLE LOCH
EAST LOCH
WEST LOCH
KEEHI LAGOON
IROQUOIS POINT
HICKAM HOUSING
AIRPORT
EWA
EWA BEACH
BARBERS POINT
KAPOLEI
MAKAKILO
WAIPIO
WAIPAHU
PEARL CITY
AIEA
HALAWA
SALT LAKE
MOANALUA
KALIHI-PALAMA
DOWNTOWN
KAKAAKO
MAKIKI

PROGRESS REPORT SUMMARY OF CHANGES

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

Executive Summary

- The Board Meeting Q&A section has been included, as there was a public question posed at the April meeting. Please see page 13.

Project Progress

- 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. Please see pages 11 and 14-15.

Project Contingency

- $1.6 million contingency drawdown during March 2016. Please see pages 16-17.

Project Funding

- The Section 5309 New Starts Revenue amount received has increased by $10 million. Please see pages 18-19.
- The total amount of cash received has increased by $10 million. Please see pages 18-19.

Schedule

- The Master Project Schedule Summary (MPSS) has been modified to reflect all ongoing and future activities only. Please see pages 21-22.

Contract Status

- Contracts in Procurement
  - A Notice to Proceed was issued for the Fare Systems Design-Build-Operate-Maintain Contract. Please see page 23.
  - HART issued a notice of award to Royal Contracting Co., Ltd, for the On-Call Construction Contractor Contract "III." Please see page 23.
  - The deadline has been extended to Oct. 11, 2016 for the priority-listed offerors to submit their Technical and Price Proposals for the City Center Guideway and Stations Design-Build RFP. Please see page 23.
  - Procurements for Core Systems Back-up Generators, and East Kapolei and UH West O'ahu (permanent) Park and Ride are under evaluation. Please see page 23.
  - Complex Construction Claims Negotiation and Litigation Services has been added to the Remaining Contracts table. Please see page 23.

- Core Systems Contract
  - The contract substantial completion date has shifted from March 2019 to January 2021. Please see pages 24-25.
  - The projected substantial completion date has shifted from December 2019 to January 2022. Please see pages 24-25.

- Fare Collection System
  - Information on contract substantial completion, projected substantial completion and cost has been included. Please see page 30.

- West O'ahu Farrington Highway Guideway (WOFH)
  - The projected substantial completion date has shifted from January 2017 to March 2017. Please see pages 31-32.
  - The current contract value has increased due to a change order. Please see pages 31.

- West O'ahu Station Group (WOSG)
  - The WOSG schedule has been removed, and it will be published once the baseline schedule is accepted. Please see pages 36.

- Farrington Highway Station Group (FHSG)
  - The FHSG schedule has been removed, and it will be published once the baseline schedule is accepted. Please see pages 38.

- Kamehameha Highway Guideway (KHG)
  - The current contract value has increased due to a change order. Please see page 43.

- Ramp H2R2
  - The incurred-to-date amount has decreased due to a payment request adjustment. Please see page 47.
  - The percentage complete has been adjusted due to a payment request adjustment. Please see page 47.

- Kamehameha Highway Station Group Final Design
  - The incurred-to-date amount has decreased due to a payment request adjustment. Please see page 49.
  - The percentage complete has been adjusted due to a payment request adjustment. Please see page 49.
  - On April 1, 2016, administrative Notice to Proceed (NTP) was issued to Nan, Inc. for the KHSG construction contract. From the May 2016 Progress Report and on, a contract page for the Construction contract will be included in the Monthly Progress Report. As such, the KHSG FD contract page will be removed from the Progress Report, and any updates related to design will be covered in the KHSG Construction contract page. Please see page 49.
  - The KHSG schedule has been removed, and it will be published once the baseline schedule is accepted. Please see page 50.

- Airport Section Utilities
  - The current contract value has increased due to a change order. Please see page 53.

- Airport Section Guideway Seven Pier Construction
  - The project has been closed out and Final Payment has been made. Subsequently, this contract page will be removed from future Progress Reports. Please see pages 55-56.

- Construction Engineering & Inspection East Side Sections
  - The URS contract closed in April. Final cost information will be reflected in the May 2016 Progress Report. Subsequently, this contract page will be removed from future Progress Reports. Please see page 66.

Right-of Way

- The Right-of-Way Status for the Parcels and the Relocation Status for the Occupants tables have been updated. Please see pages 73 and 74.

Disadvantaged Business Enterprise (DBE)

- The total participation amount has been corrected. Please see pages 89 and 112-114.

1 EXECUTIVE SUMMARY

KEY ACTIVITIES THIS MONTH

Project Overview

Seven miles of the system's elevated guideway is up, with crews having built more than 350 columns and stressed more than 300 spans.

Meanwhile, the Maintenance and Storage Facility (MSF) is nearing substantial completion. 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.

Colbert Matsumoto

HART Board

Mayor Kirk Caldwell has appointed Colbert Matsumoto to serve on the Honolulu Authority for Rapid Transportation's (HART) Board of Directors. Matsumoto is the president of Island Holdings, Inc., a Hawai'i-based corporate holding company with insurance, real estate, information technology and private equity investments. He will serve the remaining term of former HART Chair Don Horner until June 30, 2020. Horner, a retired chairman and CEO of First Hawaiian Bank, had been a member of the board for more than five years, and resigned from the board in April.

Colleen Hanabusa

Don Horner

Mayor Caldwell has also reappointed former Congresswoman Colleen Hanabusa to an additional five-year term on the board until June 30, 2021. Her current term on the board expires this year on June 30. At the April HART Board of Directors meeting, Hanabusa, an attorney, was unanimously elected to serve as chair of the board.

Transit-Oriented Development

The City and County of Honolulu has been selected by the Federal Transit Administration (FTA) as one of nine cities to receive technical assistance to encourage development around rail stations.

As a part of the FTA's nationwide transit-oriented development (TOD) initiative, the city will receive technical assistance with economic development near transit through effective zoning and land use as well as expert advice on preserving affordable housing, and securing commercial development.

Cost:

Project Costs Summary Through March 25, 2016		
	Current Budget ($M)	Incurred To Date ($M)
Project Budget	$4,475.1	$2,034.7
Project Contingency	$473.5	$0.7
Finance Charges*	$173.1	$0.0
TOTAL	**$5,121.7**	**$2,035.4**
* $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 March 25, 2016				
	Actual		Early Plan	Late Plan
Overall Project Progress	46.3%		74.3%	67.1%
Overall Construction Progress	38.8%		68.4%	59.9%
Overall Design Progress	88.7%		99.8%	99.3%
Overall Utilities Progress	42.6%		92.2%	87.8%
* 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. Construction interface with the MSF contractor (KKJV) is ongoing. AHJV continues to install and test equipment in the Yard Control Bungalow (YCB). AHJV continues to install fire detection equipment at the MSF Operations and Servicing Building (OSB) and the Maintenance of Way (MOW) building. AHJV continues to pull communications cables in the MSF yard. Site Acceptance Tests are being conducted at the MSF. Final Assembly activities are ongoing for Train 2. (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 February 2016 reflects more than eight months of delay to the substantial completion date, primarily from the LCC portable classrooms, parking lot, station access structure and track construction activities. This schedule is under review and will probably not be accepted by HART because of the numerous unilateral changes made by KIWC. HART continues to monitor KIWC's lower than planned production rates as it relates to potential schedule impacts, and HART executed the LCC CCOs to bring impacts to the critical path activities associated with the LCC construction work to an end. A revised baseline schedule was submitted via a contract Request for Change (RFC) by KIWC in August 2015 and is under review.

Significant structural guideway completion efforts were achieved with all segments erected; the contractor is now focusing its efforts on the emergency walkways, rail and third rail installations. Substantial completion may still be achievable by July, however a significant amount of CCOs remain to be settled prior to this date. (See Section 4.2.A for details)

Maintenance and Storage Facility (MSF) Contract

The first set of four rail passenger vehicle remains on the MSF maintenance tracks. Trackwork in Phase 2 (storage area) and Phases 3 and 4 (maintenance areas) are complete and have been released to the Core Systems Contractor for installation of traction power and train control wiring and devices. Trackwork in the remaining areas including Train Wash Facility (TWF) tracks, Maintenance of Way (MOW) tracks, and ready tracks are being punch listed. The MOW building is complete and has been punch listed. Installation of the flooring and interior fixtures is complete in the Operations and Servicing Building (OSB). Installation of direct fixation track work and exterior canopies is complete in the TWF. Coordination continues with West O'ahu Farrington Highway (WOFH), the abutting mainline contractor, for completion of site access in the east and west yards, including rail, vehicular access, and utility connections. Building finishes and mechanical, electrical and plumbing installations continue for all the buildings. The contractor continues to focus on the completion of building fire detection systems. Installation of rail continues for Phases 1 and 5. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

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

Airport Section Utilities (ASU) Construction Contract

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

Board Meeting Q&A:

Listed below is a question raised by a community member at the April 21, 2016 HART Board meeting:

- **Question:** What steps is HART taking to prevent the newly-arrived rail cars from rusting?

  Answer: Several components of the rail car are stainless steel which does not readily rust or corrode with water as ordinary steel does. Additionally, other steel components have a thick, impervious coat of paint applied to prevent rusting.

2 OVERALL PROJECT PROGRESS AND FINANCIALS

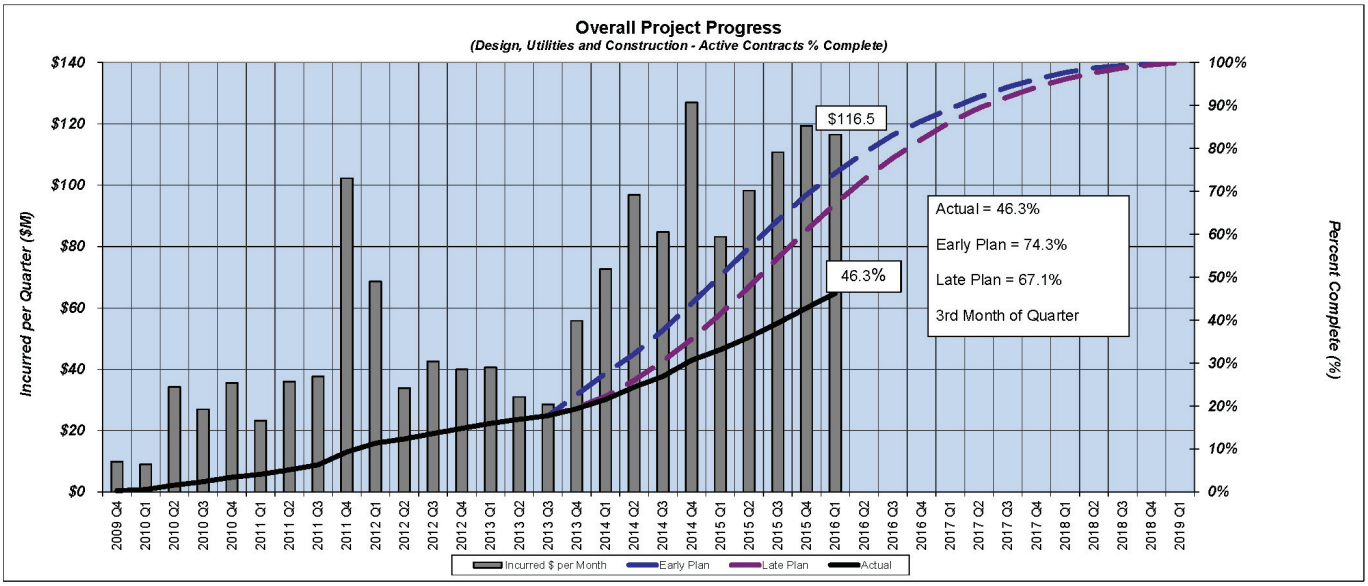
2.1 Project Progress (data as of March 25, 2016)

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:

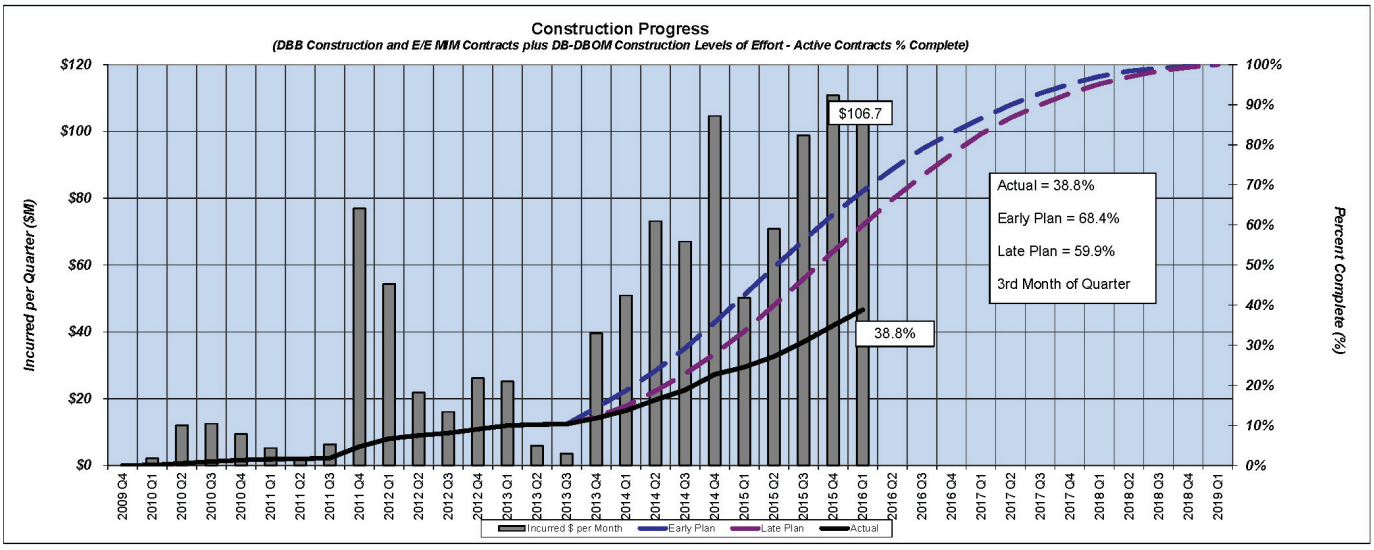
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
- Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
- Late Plan = Latest dates activities can begin and finish and not have an impact on completion date, based on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

Figure 1. Overall Project Progress (% Complete)



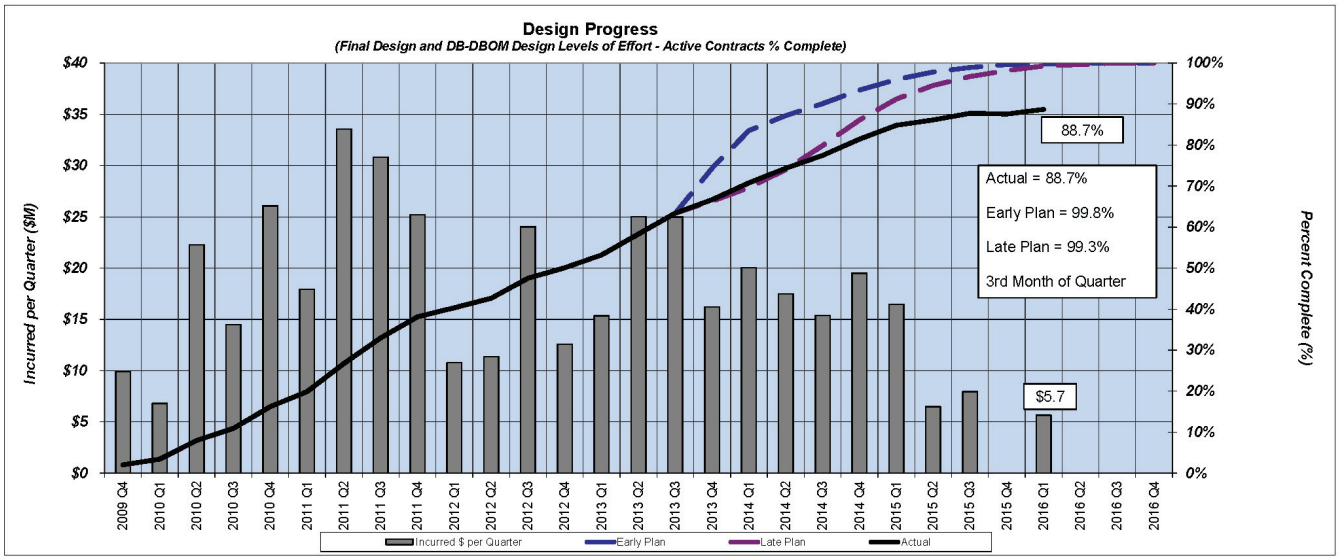
At present "overall" project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM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



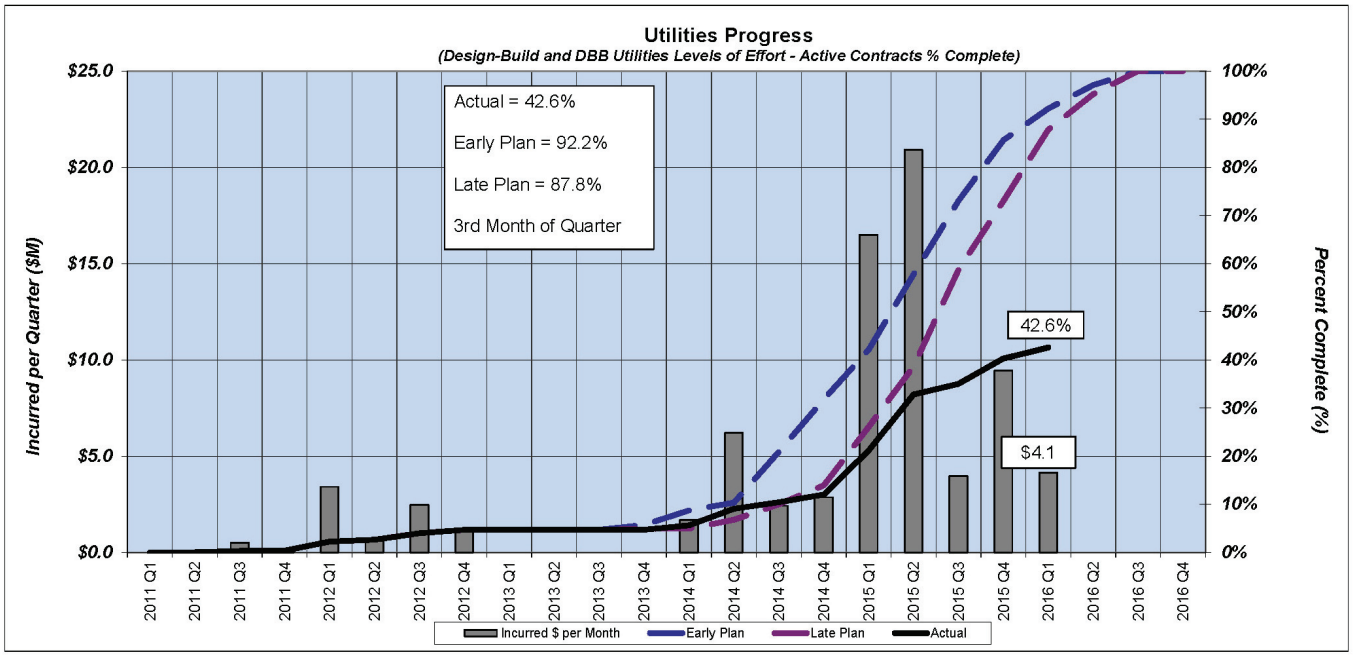
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

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 March 25, 2016)

- FFGA Project Budget = **$5,121.7M**
  - Current Project Budget - $4,475.1M
  - Current Project Contingency - $473.5M
  - Project Finance Charges - $173.1M

Total Incurred Cost = $2,035.4M
(previous report = $1,956M)

- Total Incurred Cost = **$2,035.4M** (45.5% of current project budget)
  - March 2016 Incurred Cost = $79.6M

2.3 Project Contingency (data as of March 25, 2016)

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

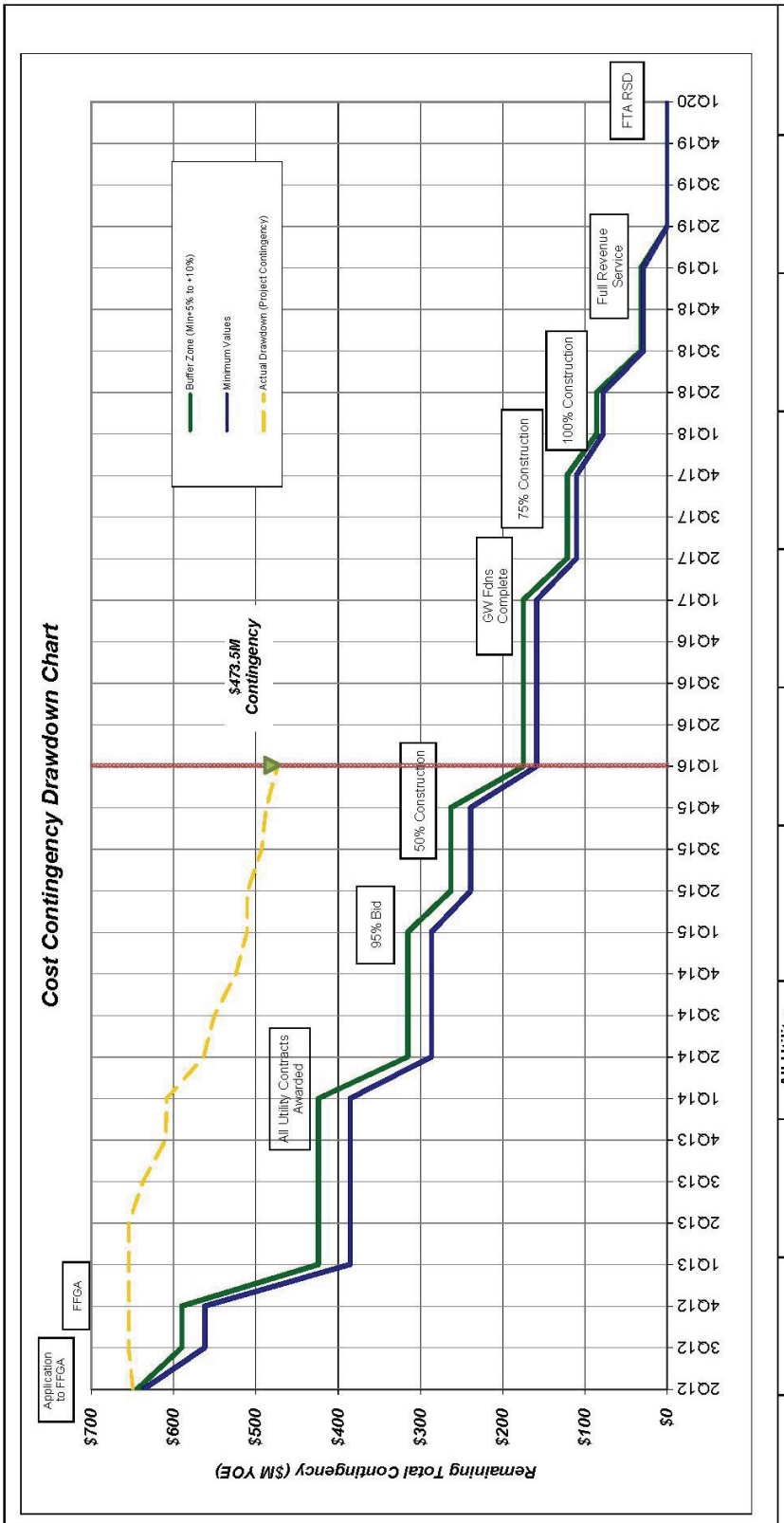
Current Contingency Balance = $473.5M
(previous report = $475.1M)

- Current Project Contingency Balance = **$473.5M**
  - Contingency drawdown to date – $170.1M (26.4% of baseline project contingency budget)
  - $1.6M contingency drawdown during March 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
Baseline FFGA Project Contingency Budget	***90.01 - 90.03***	***$643.6***
Contingency drawdown through January 2016 Report	90.01 - 90.03	($156.3)
Contingency drawdown February 2016 Report	90.01 - 90.03	$0.1
Contingency drawdown March 2016 Report	90.01 - 90.03	($12.3)
Contingency drawdown April 2016 Report	90.01 - 90.03	($1.6)
Contingency drawdown to date	90.01 - 90.03	($170.1)
Current FFGA Project Contingency	***90.01 - 90.03***	***$473.5***

Figure 6. Draft Cost Contingency Drawdown Chart



	Application to FFGA	FFGA	All Utility Contracts Awarded	95% Bid	50% Construction	GW Fdns Complete	75% Construction	100% Construction	Full Revenue Service	FTA RSD
	2Q12	4Q12	1Q14	1Q15	4Q15	1Q17	4Q17	2Q18	1Q19	1Q20
Buffer Zone (Min+5% to +10%)	$644	$590	$424	$315	$263	$175	$122	$86	$32	$0
Minimum Values	$636	$562	$385	$287	$239	$159	$111	$78	$29	$0

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

2.4 Project Funding (data as of March 25, 2016)

Figure 7. Planned vs. Received Project Funding

Planned vs. Received Project Funding				
Funding Source	*Pre-FFGA Project*[1]	FFGA Project Period		Total Project
	2007 - 2009 Actuals Received	Planned[2] ($YOE M)	2009 - Present Actuals Received	2007 - Present Actuals Received
	[A]		[B]	[C] = A +B
Beginning Project Cash Balance[3]	*0*	**298**	298	**n/a**
Interest Income on Cash Balance	*7*	**3**	2	**9**
FTA Section 5309 New Starts Revenue[4]	*0*	**1,550**	525	**525**
FTA Section 5307 Formula Funds [5]	*0*	**210**	0	**0**
ARRA Funds	*0*	**4**	4	**4**
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2022 [5]	*378*	**3,291**	1259	**1,637**
Total	***385***	**5,356**	**2,088**	**2,175**

[1] GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

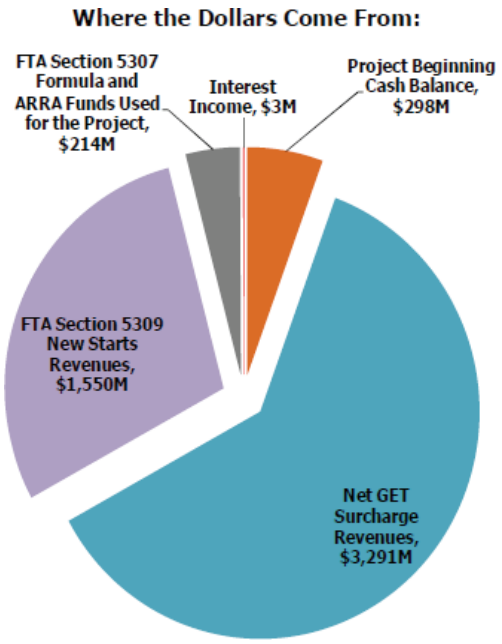
[2] FFGA Financial Plan, Table A-1 *Capital Plan Cash Flows* .

[3] 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.

[4] New Starts Funds Obligated Through Federal Fiscal Year 2014 Totals $806.3 Million

[5] 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 March 25, 2016)
  - $1,259M = amount received since the Project's entry into FTA's Preliminary Engineering phase of project development.
    - $1,299M = Projected Net GET Surcharge Revenue for FYs 2010-3Q 2016, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 3% short of Projections to date, or $40M behind.
  - $0 = GET surcharge received in March 2016.

Total Cash Received Since PE = $2,088M
(previous report = $2,078M)

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

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

- Full Funding Grant Agreement (FFGA)
  - $10M = New Starts drawdown processed and received in March 2016.
- The §5307 funds for the Project, per the Financial Plan, are $210M.
- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. The financial plan is currently being updated.

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

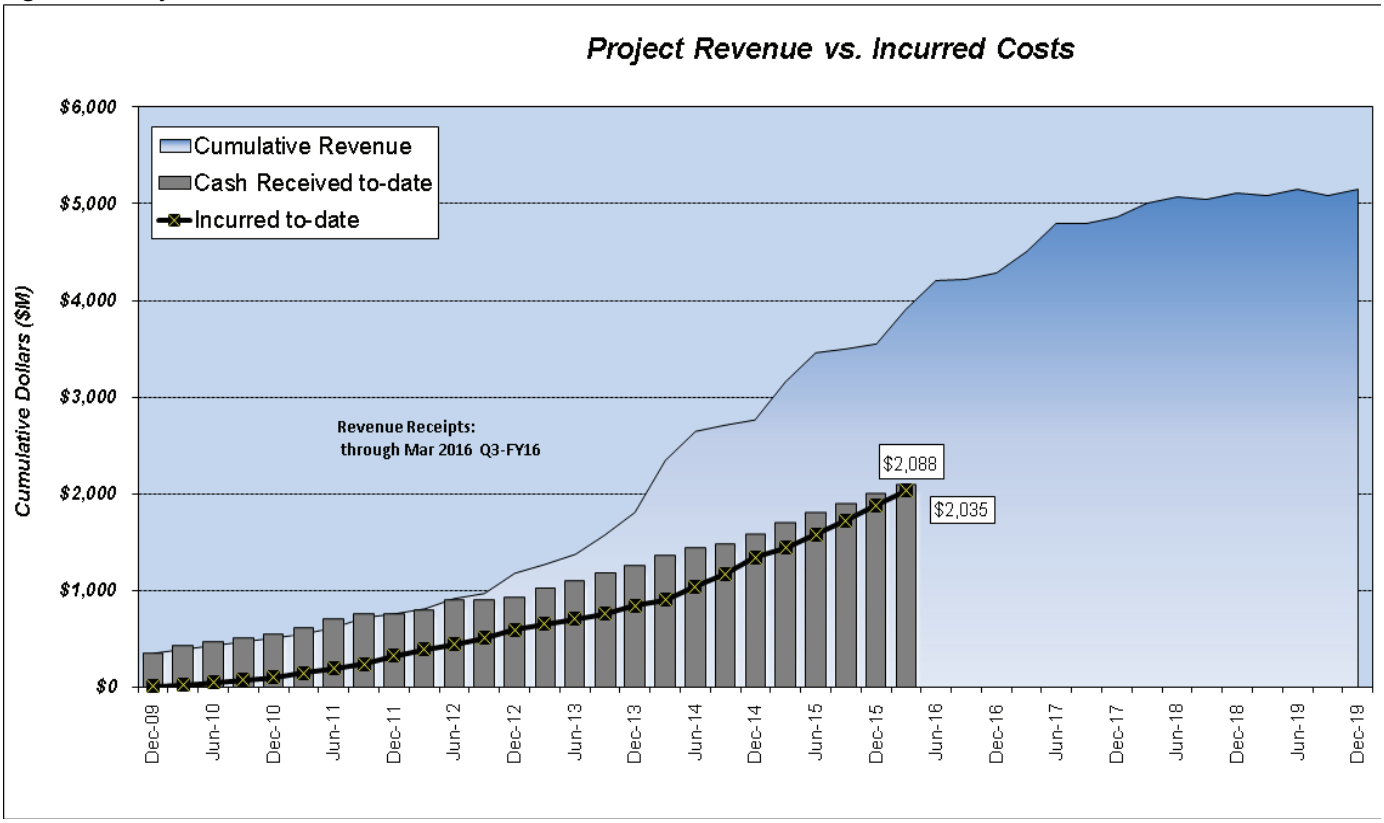
New Starts Grant Information by Federal Fiscal Year (Amounts in italics are pending)				
Federal Fiscal Year Allocation	FTA Obligated Amounts	Actual Drawdown Amounts to Date	Available Balance	FFGA Base Case Cash flow
2008	$15,190,000	$15,190,000	$0	
2009	$19,800,000	$19,800,000	$0	
2010	$30,000,000	$30,000,000	$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	$205,001,194	$31,276,164	$258,280,277
2014	$250,000,000	$0	$250,000,000	$441,719,724
2015 (pending award of grant)	*$250,000,000*	$0	*$250,000,000*	$250,000,000
2016 (pending appropriation and award of grant)	*$250,000,000*	$0	*$250,000,000*	$250,000,000
2017 (pending appropriation and award of grant)	*$243,732,642*	$0	*$243,732,642*	$230,010,000
Total	**$1,550,000,000**	**$524,991,194**	**$1,025,008,806**	**$1,550,000,000**

2.5 Project Revenue and Costs

(data as of March 25, 2016)

Ending Cash Balance 3/31/16 = $158.7M
(previous report = $192.3M)

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan
Data date for Revenue & Incurred Cost =March 25, 2016

Figure 11. Cash Balance Summary

MARCH 2016 CASH BALANCE SUMMARY		
	MARCH	FY16 YTD Cumulative
Beginning Cash Balance 03/01/16	192,335,290	293,010,823
Expenditures:		
Operating Expenditures	(1,872,167)	(12,132,625)
Capital Expenditures	(41,840,257)	(404,598,819)
Expenditures Total:	(43,712,424)	(416,731,444)
Receipts:		
GET Surcharge	0	168,374,947
FTA Drawdown	9,976,903	113,484,563
Interest	33,400	184,036
Other (rental, refunds, copy fees, etc.)	22,456	332,701
Receipts Total:	10,032,759	282,376,247
Ending Cash Balance 03/31/16	**158,655,626**	**158,655,626**

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

3 SCHEDULE

(data as of March 25, 2016)

OVERVIEW

- HART presented the status of the program budget and schedule to the Board of Directors at the October and November monthly meetings. Forecasts indicated an increase to project costs and a completion in 2021. However, based on the uncertainty related to the GET extension and availability of funds, the City Center Guideway and Stations project's request for proposal was postponed until February 2016. Due to this action, along with the transfer of scope from the Dillingham Blvd. Utilities Contract cancellation and new scope mandated by the 138 kV circuits undergrounding going into the CCGS contract, a direct effect on the RSD forecast is expected with a new forecast in mid-to-late 2022. HART will attempt to mitigate this delay through future mitigation measures taken with the CCGS contractor and/or the Core Systems Contractor.

- The Master Project Schedule Summary (MPSS) reflects currently approved schedule end dates and contractors' forecast for contracts that have been awarded, and planned dates for future contracts. The schedules in the Contract Status section (Section 4) will continue reflecting current contractor forecast end dates for contracts that have been awarded as well.

- The MPSS has been modified to reflect all ongoing and future activities only.

- 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 eight months.

- KHG guideway construction progress is behind the approved schedule by 12 months.

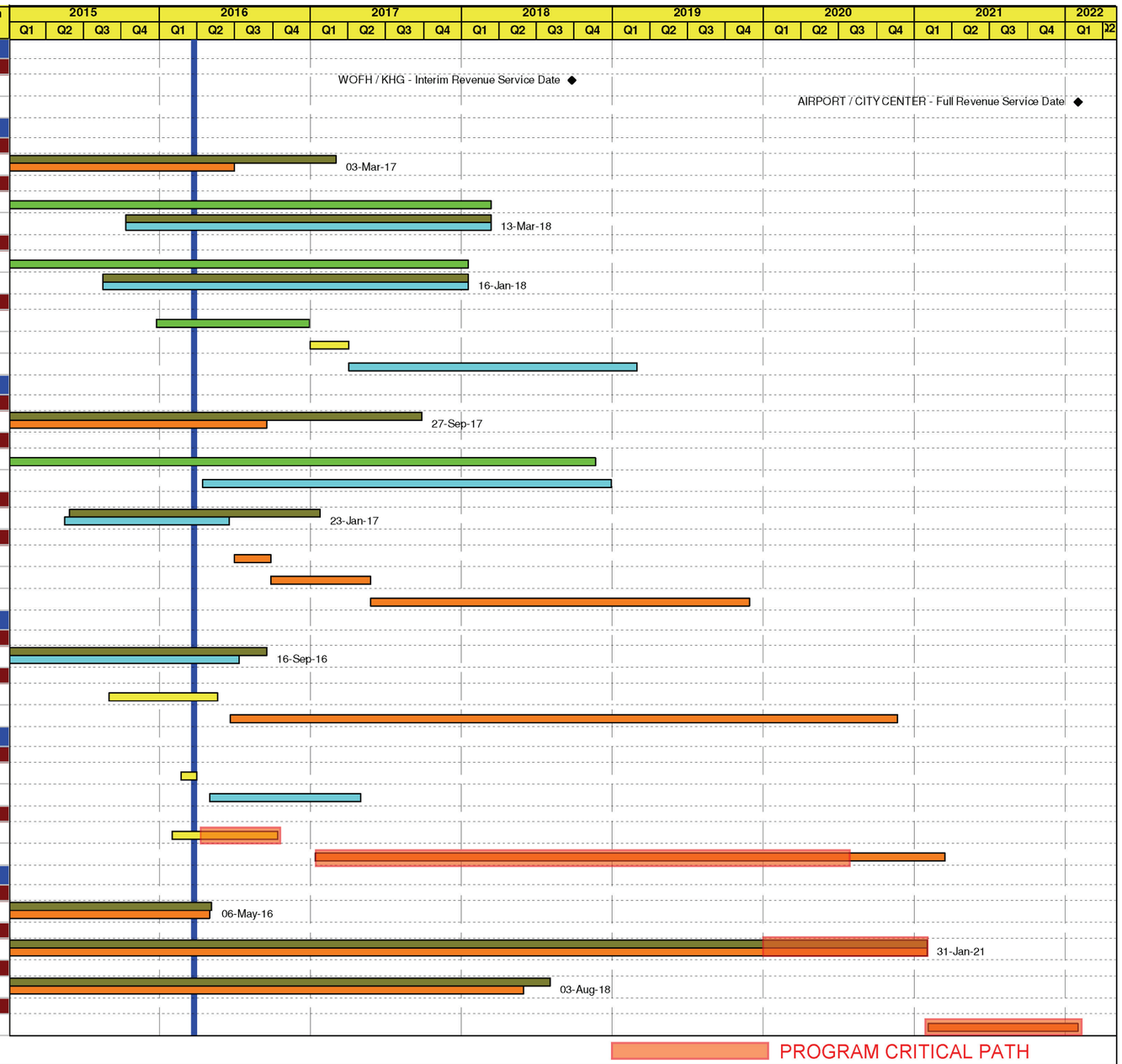
- WOSG and FHSG stations' construction has not yet begun due to various delays. HART is assessing the causes of said delays to allow construction to commence.

- ASU construction is behind the approved schedule by two months due to various delays, including differing site conditions.

Figure 12. HRTP 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).

Activity Name	Current Start	Current Finish
KEY DATA		
MILESTONES		
WOFH / KHG - Interim Revenue Service Date		24-Sep-18*
AIRPORT / CITY CENTER - Full Revenue Service Date		31-Jan-22
WEST OAHU / FARRINGTON HIGHWAY (WOFH) - SECTION 1		
WOFH Guideway & Utilities		
DB-120 - WOFH Guideway - Design & Construction	31-Jan-14 A	01-Jul-16
West Oahu Station Group (WOSG)		
FD-140 West Oahu Station Group - Including Design Services During Construction	26-Sep-14 A	13-Mar-18
DBB-171 West Oahu Station Group - Construction	13-Oct-15 A	13-Mar-18
Farrington Hwy Station Group (FHSG)		
FD-240 Farrington Highway Station Group - Including Design Services During Construction	26-Sep-14 A	16-Jan-18
DBB-271 Farrington Highway Station Group - Construction	17-Aug-15 A	16-Jan-18
UH West Oahu Park n Ride & Ho`opili Station Finishes		
FD-600 UH West Oahu Park and Ride Lots - Design	25-Dec-15 A	29-Dec-16
UH West Oahu Park and Ride Lots - Bid & Award	30-Dec-16	02-Apr-17
DBB-600 UH West Oahu Park and Ride Lots - Construction	03-Apr-17	01-Mar-19
KAMEHAMEHA HIGHWAY (KH) - SECTION 2		
Kamehameha Highway Guideway & Utilities		
DB-320 - KHG Guideway - Design & Construction	12-Jul-11 A	16-Sep-16
Kamehameha Highway Stations		
FD-340 Kamehameha Highway Station Group - Including Design Services During Construction	26-Sep-14 A	20-Nov-18
DBB-371 Kamehameha Highway Station Group - Construction (Tentative)	15-Apr-16*	28-Dec-18
Ramp H2R2		
DBB-385 Ramp H2R2 - Construction	18-May-15 A	17-Jun-16
Pearl Highlands Parking Structure & Ramps		
Pearl Highlands Garage and Transit Center - Design Build Procurement Part 1 (Tentative)	01-Jul-16*	26-Sep-16
Pearl Highlands Garage and Transit Center - Design Build Procurement Part 2 (Tentative)	27-Sep-16	25-May-17
Pearl Highlands Garage and Transit Center - Design and Construction (Tentative)	26-May-17	29-Nov-19
AIRPORT - SECTION 3		
Airport Utility Relocation		
DBB-505 - Airport Utilities - Construction	06-Oct-14 A	13-Jul-16
Airport Guideway & Stations (AGS)		
Airport Guideway & Stations - Design Build Procurement Part 2	01-Sep-15 A	20-May-16
DB-450 Airport Guideway & Stations - Design & Construction	20-Jun-16	20-Nov-20
CITY CENTER (CC) - SECTION 4		
Dillingham Utilities and Road Widening		
MM-948 Dillingham Utilities - Bid & Award (On-Call Scope)	23-Feb-16 A	31-Mar-16
MM-948 Dillingham Utilities - Construction (On-Call Scope - Duration To Be Determined)	02-May-16*	02-May-17
City Center Guideway & Stations (CCGS)		
City Center Guideway & Stations - Design Build Procurement Part 2	02-Feb-16 A	12-Oct-16
DB-550 City Center Guideway & Stations - Construction	13-Jan-17	15-Mar-21
PROJECT WIDE - ALL SECTIONS		
Maintenance & Storage Facility (MSF)		
DB-200 - MSF - Design & Construction (Design-Build)	25-Jul-11 A	02-May-16
Core Systems		
DBOM-920 - Core Systems - Design & Construction	13-Jan-12 A	31-Jan-21
Elevators & Escalators		
MI-930 - Elevators and Escalators - Design, Manufacture, Install, & Test	02-Aug-13 A	31-May-18
Final Testing and Commissioning		
Final Testing and Commissioning	02-Feb-21	31-Jan-22



HONOLULU AUTHORITY for RAPID TRANSPORTATION

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

Printed: 21-Apr-16 12:23

Honolulu Rail Transit Project
As of: 25-Mar-16

Pg 1 of 1

MPS Summary
Design & Construction Contracts

4 CONTRACT STATUS

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

- Awarded Contracts:
  - On April 14, 2016, HART entered into an agreement with INIT Innovations in Transportation, Inc. for the Fare Systems Design-Build-Operate-Maintain Contract. A Notice to Proceed was issued on April 18, 2016.
  - On April 21, 2016, HART issued a notice of award to Royal Contracting Co., Ltd., for the On-Call Construction Contractor Contract "III."

- Active Procurements:
  - Art-in-Transit: HART is in negotiations or will commence negotiations with the highest-ranked artists for each of the stations. HART has begun award of the Art-in-Transit contracts.
  - Airport Guideway and Stations Design-Build RFP: HART extended the deadline for the priority-listed offerors to submit their proposals from March 22, 2016 to April 5, 2016. Proposals were received on April 5, 2016 and are currently being evaluated.
  - City Center Guideway and Stations (CCGS) Design-Build RFP: RFP Part 2 was issued on Feb. 2, 2016. HART extended the deadline for the priority-listed offerors to submit their Technical and Price Proposals. The deadline for submission of the proposals is Oct. 11, 2016.
  - Complex Real Property Negotiations and Litigation Support RFP: The RFP was issued on Feb. 23, 2016. Proposals were received on April 4, 2016 and are currently being evaluated.
  - Outside Counsel for Land Court Petition Services RFP: The RFP was issued on March 4, 2016. Proposals were received on April 15, 2016 and are currently being evaluated.
  - Real Estate Contractor Contract "II" RFP: The RFP was issued on March 4, 2016. Proposals were received on April 28, 2016 and are currently being evaluated.
  - On Call Appraisers Contract RFP: The RFP was issued on March 18, 2016. Proposals were received on April 29, 2016 and are currently being evaluated.
  - Complex Construction Claims Negotiation and Litigation Services RFP: The RFP was issued on April 27, 2016. Proposals are due on May 31, 2016.

- Upcoming Procurements:
  - Procurements for UH West O'ahu Temporary Park and Ride and UH West O'ahu Campus Road "B" Design-Bid-Build Contract, Pearl Highlands Garage, Transit Center and Ramp H2R1, Core Systems Back-up Generators, and East Kapolei and UH West O'ahu (permanent) Park and Ride are under evaluation.

- Current plans for the remaining contracts are as follows:

Remaining Contracts

Contract Code	Contract Name	Advertise Date	Bids Due/Part 1 Proposals Due	RFP Part 2 Proposals Due	Issue NTP	Projected Contract Substantial Completion Date
AP00	Art-in-Transit	May 9 '13	-	-	TBD	TBD
DB-450	Airport Guideway and Stations	Apr 07 '15	Aug 11 '15	Apr 05 '16	TBD	NTP + 53 months
DB-550	City Center Guideway and Stations	Aug 04 '15	Nov 18 '15	Oct 11 '16	TBD	NTP + 50 months
MM-947	On-Call Construction Contract "III"	Feb 23 '16	Mar 31 '16	-	TBD	NTP + 84 months
MM-981	Complex Real Property Negotiations and Litigation Support Contract	Feb 23 '16	Apr 04 '16	-	TBD	NTP + 24 months + 2 year option
MM-936	Real Estate Contractor Contract "II"	Mar 04 '16	Apr 28 '16	-	TBD	NTP + 48 months
MM-983	Outside Counsel for Land Court Petition Services	Mar 04 '16	Apr 15 '16	-	TBD	NTP + 36 months
MM-982	On Call Appraisers	Mar 18 '16	Apr 29 '16	-	TBD	NTP + 48 months
	Complex Construction Claims Negotiation and Litigation Services	Apr 27 '16	May 31 '16	-	TBD	NTP + 60 months + 3 year option
DBB-600	East Kapolei and UH/West O'ahu Park and Ride Lots	Nov 14 '16	Feb 15 '17	-	Apr 03 '17	Mar 01 '19

4.1 System-wide

A. Core Systems Contract (CSC)

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

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

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

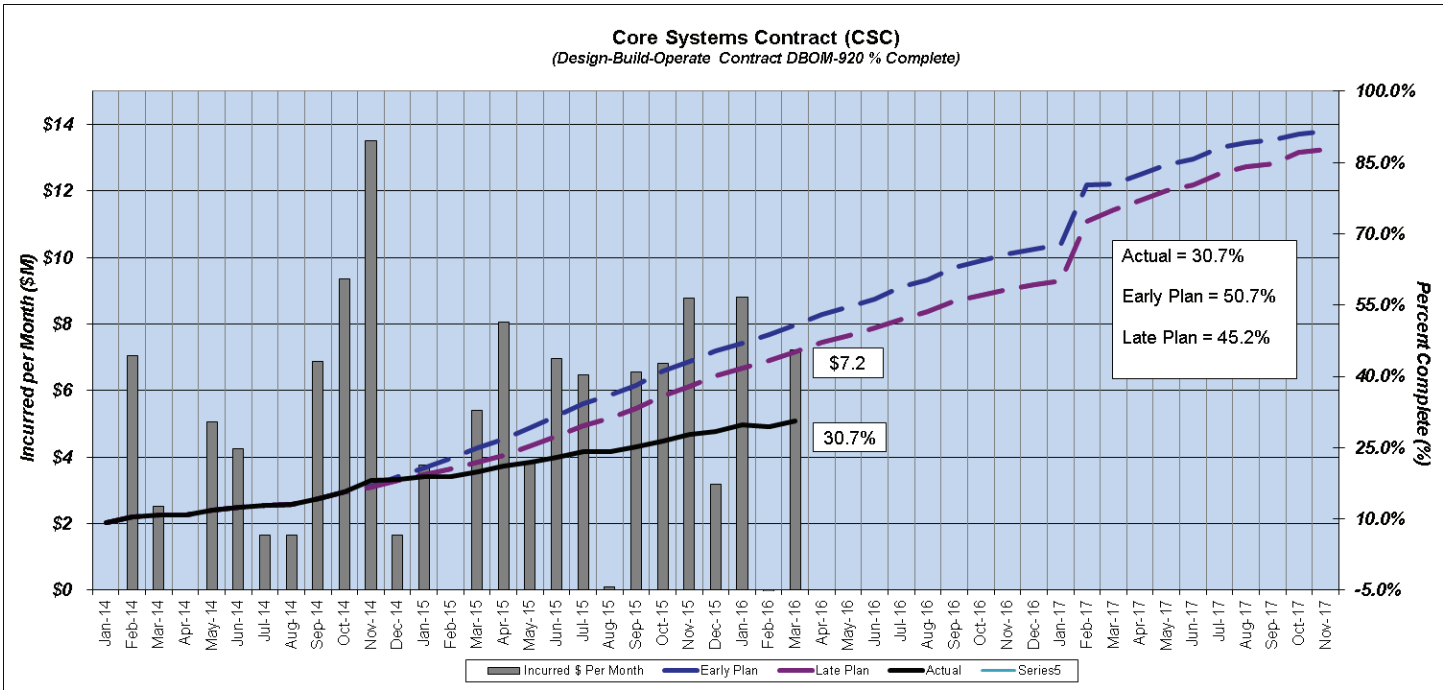
COST INFORMATION:

Original Contract:	$573,782,793	Incurred-to-Date:	$184,045,492
Current Contract Value[1]:	$599,843,687	Incurred in March:	$7,211,864

[1] *Current Contract Value = Original contract value (excluding $823.6M O&M budget) + executed Change Orders*

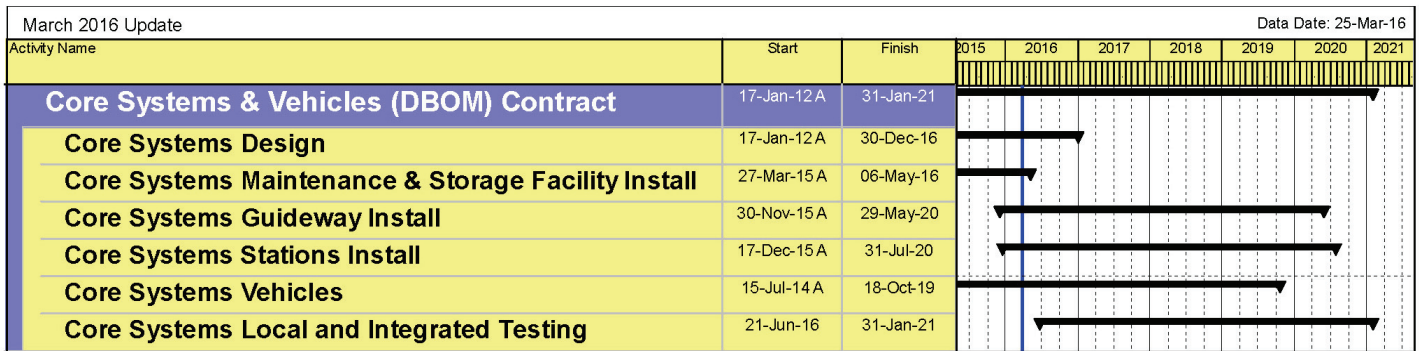
Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	$129,165
DBE % Attained:	0.029%

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$26,060,894**



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	97.7%	75%	2nd Q 2016
Communications	45%	37.3%	4th Q 2016
ATC/SCADA	99%	86%	2nd Q 2016
TES	100%	100%	Completed
Fire Detection	58.3%	55.6%	2nd Q 2016
PSGS	95.5%	81.8%	2nd Q 2016

CRITICAL PATH SUMMARY:

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

WORK PROGRESS:

Activities this Month:

Earned Value: 30.6% [(Total Achieved thru March 2016 ($176.89 million) + Projected April 2016 Period ($7.16 million))/Total Contract Including Executed Change Orders ($599.84 million)].

Design:

- ATC/SCADA – Documents Received: 13, Documents Returned: 14
- Communications – Documents Received: 0, Documents Returned: 3
- Traction Power – Documents Received: 6, Documents Returned: 8
- Fire Detection – Documents Received: 0, Documents Returned: 1
- Platform Screen Gates – Documents Received: 3, Returned: 2
- Passenger Vehicles – Documents Received: 36, Documents Returned: 18

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.
- Continue manufacturing of automated train control, traction power, and other systems equipment.

MSF:

- Train 1 gangway assembly and installation on-site.
- Complete installation of fiber optic backbone in MSF yard.
- Test Fire Detection Alarm System (FDAS) devices in the MSF OSB and MOW.
- Completion of MSF yard conduit installation.

Activities this Month (continued):

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

MSF:

- Train 1 cars delivery to MSF Track M7. Cars coupled to single consist.
- MOW vehicles (MPV, MPV trailer and Car Mover) dynamic site acceptance test are in-progress.
- Continue installation of Train Control Racks in the Yard Control Bungalow.
- Construction of foundations for the Closed Circuit Television Cameras poles at the MSF perimeter is complete.
- Foundation work for 1 remaining Communication Interface Cabinets (CIC) in the yard is ongoing.
- Commence installation of fiber optic backbone in MSF yard.
- Continue installation of Train Control devices in Phase 2.
- Installation of FDAS devices in the MOW is 95% complete. Preliminary testing and programming is complete.
- Installation of FDAS devices in the OSB is 40% complete.

Look Ahead (continued):

- Energization of the MSF Yard TPSS.
- Conduct Type and Routine test on first train.
- Installation of Telecom cabling in the MOW.
- Commence installation of Train Control devices for phase 3 and phase 4.
- Installation of TES cabling in Phase 1 and Phase 5.

KEY ISSUES:

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

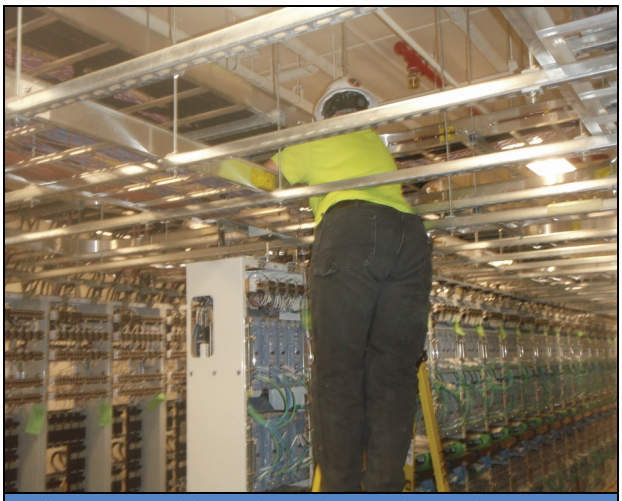
QUALITY MANAGEMENT:

Testing		
Subsystem	**Test Completed**	**Date Completed**
COMMS	On Board System Pre-shipment Inspection Test (PSIT) in Plano, Texas	March 13, 2016
COMMS	Telephone PSIT in Plano, Texas	March 15, 2016

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

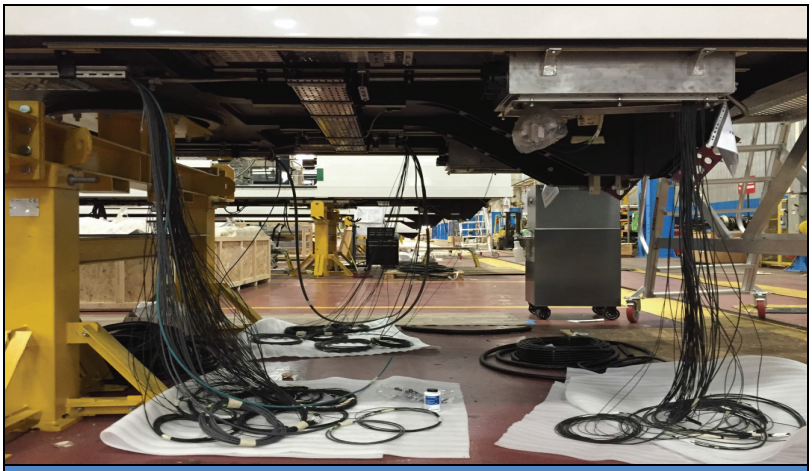
CSC NCR Log			
	TOTAL	**CLOSED**	**OPEN**
AHJV & Subs	27	26	1
Hitachi Rail	456	380	76
TOTAL	**483**	**406**	**77**

PROJECT PICTURES:



Pulling power cables in the Yard Control Bungalow.

Train #2 E-001interior wiring raceways installation.



Undercar wiring with Trainline Junction Box– Final Assembly Facility in Pittsburg, CA.

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

Contract No.: MI-930
Contractor: Schindler Elevator Corporation
Contract Start Date: August 2013
Contract Substantial Completion: May 2018
Projected Substantial Completion: The May 2018 completion date will change to a later date predicated on the award of the DB contracts for the east portion of the guideway.

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

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

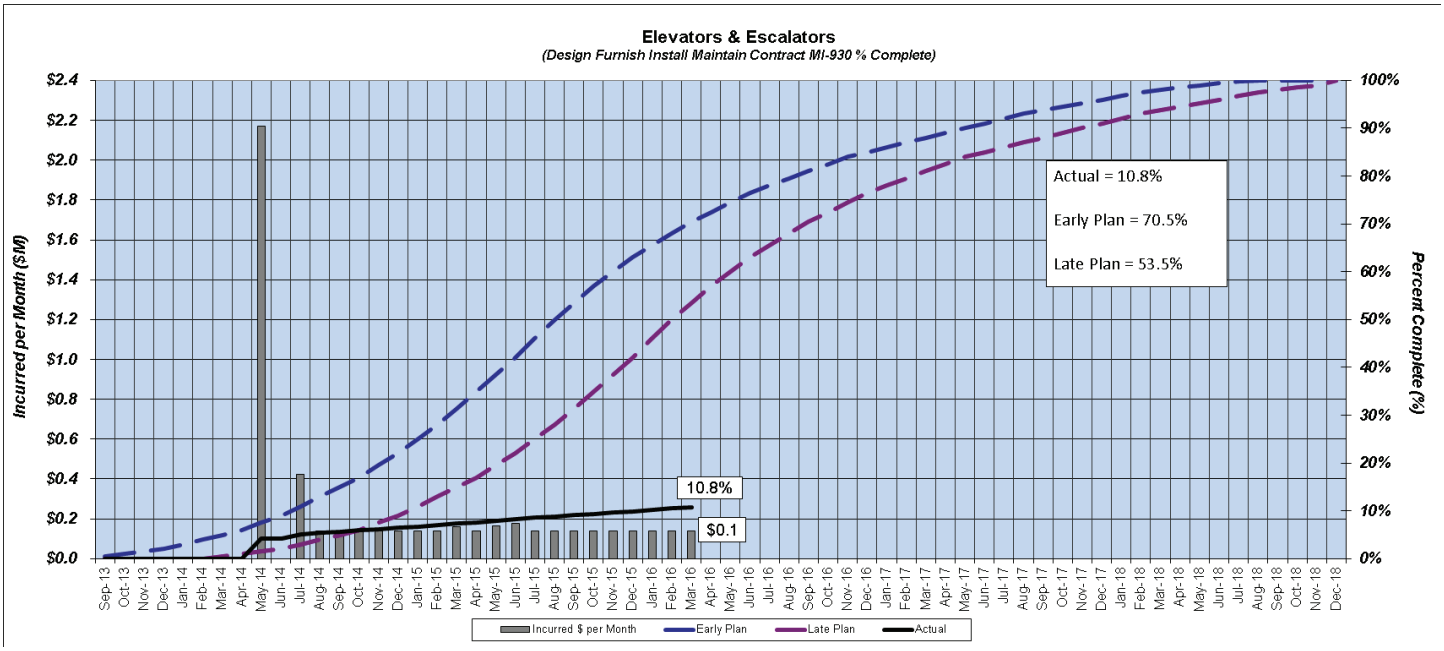
COST INFORMATION:

Original Contract: $50,982,714	Incurred-to-Date: $5,488,930
Current Contract Value[1]: $50,982,714	Incurred in March: $140,825

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



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

SCHEDULE:

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

CRITICAL PATH ISSUES:

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

WORK PROGRESS:

Activities this Month:

Earned Value: 10.8%; Planned Value: 53.5%

- Final Design is approximately 40% complete, as 9 of the 21 stations are ready to be released for manufacturing once the contractor's schedules are approved.
- All draft equipment drawings for the 21 stations have been submitted for review and have been accepted.
- Design is complete on the three FHSG stations, three WOSG stations, and the three KHSG stations.
- Permits for the installation of all elevators and escalators for the FHSG and the WOSG have been issued. These permits are for installation only, not operation.

Look Ahead:

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

KEY ISSUES:

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

C. Fare Collection System

Contract No.: MI-900
Contractor: INIT, Innovations in Transportation Inc.
Contract Start Date: April 2016
Contract Substantial Completion: September 2021
Projected Substantial Completion: 60 days proceeding full rail revenue service date

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

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

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

COST INFORMATION:

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

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SCHEDULE:

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

CRITICAL PATH ISSUES:

- Conceptual design starting by June 20, 2016.

WORK PROGRESS:

Activities this Month:

- Issued NTP.
- Confirmed expectations for PMP and kick off meeting with vendor.
- Confirm scope of work (SOW) and staffing for fare modeling work.
- Circulate for comment draft fare systems project specific risk registry and schedule to DIT and DTS partners.
- Ongoing business rules document development.

Look Ahead:

- Kick off fare modeling work in cooperation with OahuMPO, including completing grant sub-agreement.
- Review INIT draft PMP, due 30 days from NTP.
- Hold vendor kick off meeting.

KEY ISSUES:

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

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

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

Contract No.: DB-120
DB Contractor: Kiewit Infrastructure West Company (KIWC)
Contract Start Date: December 2009
Contract Substantial Completion: July 2016
Projected Substantial Completion: March 2017

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

Project Overview: In April, progress continues for span stressing, track installation and road restoration work. Segment erection from Waipahu Transit Center Station through East Kapolei Station has been completed. Heading #1 segment erection is complete and the truss has been demobilized, and will be moved to KHG. Heading #2 was demobilized and has been relocated to the KHG project. The project's key quality issues continue to focus on segment repairs, span shear keys and column pedestal repairs.

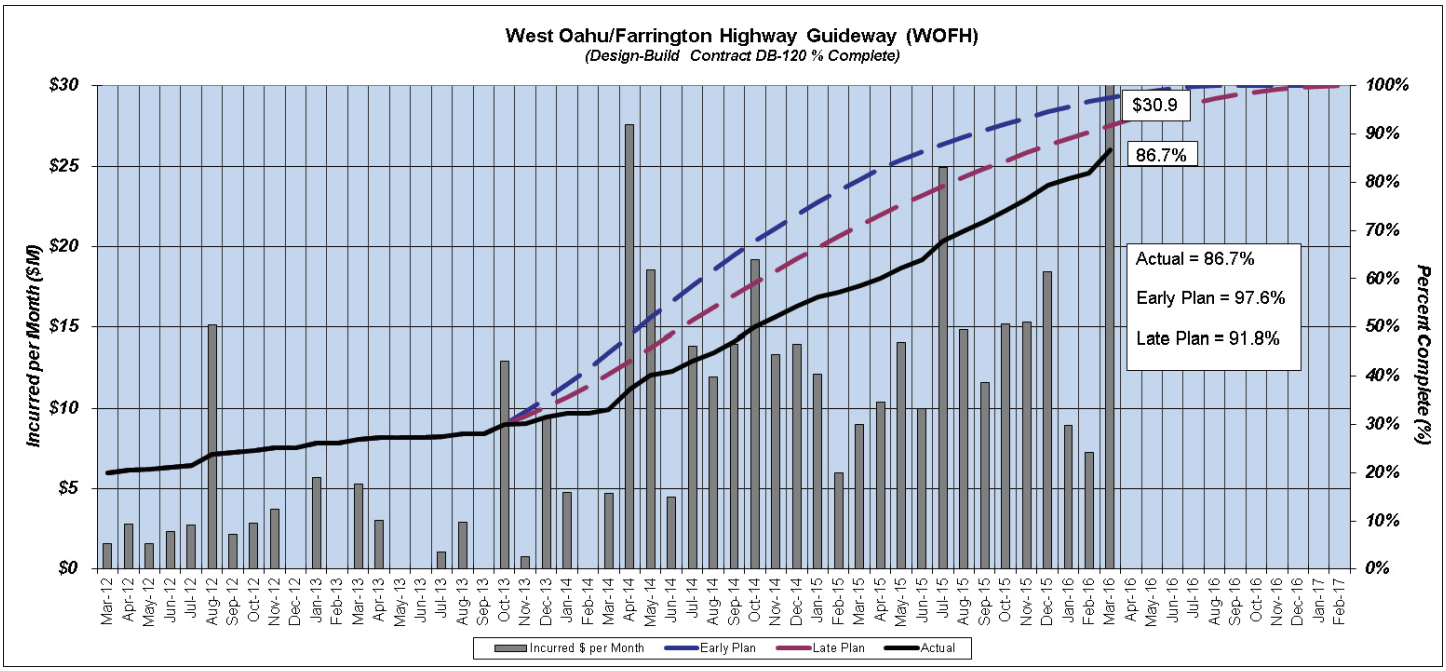
COST INFORMATION:

Original Contract:	$482,924,000	Incurred-to-Date:	$559,133,288
Current Contract Value[1]:	$644,693,995	Incurred in March:	$30,899,766

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

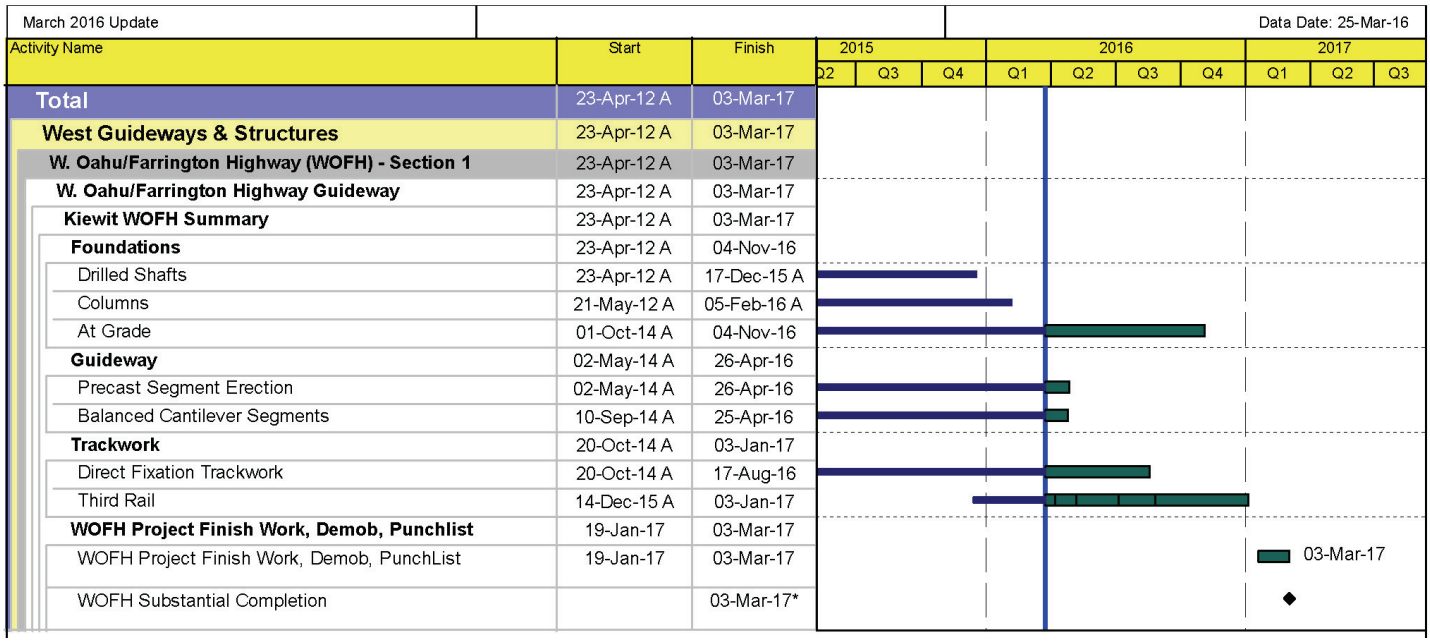
March Change Orders		
Change No.	**Description**	**Amount ($)**
CCO0079	Horiz clear @ Conflict 3-665-E1	$5,402
	Cumulative to Date	**$161,769,995**



HART processed Pay Application Escalation Invoices #79, 80, 81 and 82.

SCHEDULE:

KIWC submitted a revised baseline schedule via contract Request for Change (RFC) in August 2015. In the revised schedule, KIWC had notified HART that a 6 month time extension beyond substantial completion is needed due to the changes within the LCC work area. As of the February 2016 progress update, substantial completion was further delayed to 8 months due to the work stoppage of all LCC construction activities due to KIWC's unilateral stoppage of work. HART responded to KIWC's Contract Time Related Overhead request by denying merit.



CRITICAL PATH ISSUES:

- On Dec. 10, 2015, KIWC formally notified HART of a unilateral work stoppage of all LCC construction work activities currently being performed by KIWC until the LCC Parking Lot, Portables and Access Structure Construction Change Orders are finalized. In late February/early March 2016, KIWC (at risk) resumed LCC construction work activities and the anticipated portable classroom turnover to the university is set for May 2, 2016. KIWC's most recent progress schedule shows the project to be completed eight months beyond contractual substantial completion.

WORK PROGRESS:

WOFH Construction Status as of 4/13/16

Utility Status	Qty to Date	Final Qty	% Complete
Water Line	9,028	9,348	97%
Sewer Line	550	570	96%
Fuel Line	340	340	100%
Gas line	1,591	1,591	100%
Drainage Line	4,191	5,166	81%
Elec/Telecom	16,889	21,374	79%
Street Lights	6,335	8,357	76%
Traffic Sig/ITS Duct bank	8,552	10,802	79%
System Sites	1,683	7,046	24%
ITS Systems Devices	821	4,121	20%

Structure Element	***Total to Date	Planned to Date		Total Qty	% Complete
		Accepted Schedule*	Revised Schedule**		
Shafts	309	309	309	309	100%
Columns	283	283	283	283	100%
Segment Casting	3,209	3,209	3,209	3,209	100%
Spans Stressed	274	274	257	274	100%
Trackwork	194	184	172	278	70%
Third Rail	0	95	144	274	0%
Mill & Overlay	8,790	N/A	N/A	32,903	27%

* Accepted Schedule was submitted in 2013.
** 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.
*** Total quantity for the construction items has been revised to reflect the latest Issued for Construction number of shafts, columns, segments and spans.

Activities this Month:

Earned Value: 84.0% [(Total Achieved to March 2016 ($533.0 million) + Projected April 2016 Period ($12.3 million))/Total Contract Including Executed Change Orders ($649 million)]. Planned Value: 93.1%

Look Ahead:

Design Progress

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

Activities this Month (continued):

Shaft/Column
- Completed.

Guideway Segment Erection
- Completed and demobilized truss #1.

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

Balanced Cantilever Structure
- Casting of segments has been completed. Continue soundwall erecting. Dry finish exterior. Repair of Span 254 was set up and completed.

Track Construction
- KIWC is installing track plates as well as continuing to lay track between West Loch Station and Waipahu Transit Center. Continue constructing concrete plinths for double crossovers at station locations. Installing anchors and expansion joints for contact rail are being completed between UH West Oʻahu and Hoʻopili Station.

KIWC/Third-Party Coordination
- HECO and KIWC continued to resolve station utility conflicts relocations.

Civil Structures
- KIWC continues to mill and overlay with asphalt along Farrington Highway heading towards Leoku intersection and at Waipahu High School. KIWC is installing irrigation in median areas from Fort Weaver Road to Waipahu Access Depot Road.

Station Contractor Interfaces
- Coordination meetings are being held and the station contractors are demanding more access to KIWC's work which is causing conflicts.

Look Ahead (continued):

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

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

Utility Relocation
- Work to relocate the remaining traffic signals along Farrington Highway will restart now that a CCO has been executed.

Balanced Cantilever Structure
- Tendon grouting will continue and dry finishing of exterior.

Track Construction
- Align and final setting of the rail will be performed from Span #1 to Span #80. Continue installing rail from West Loch Station to Waipahu Transit Center and continue east to column #251. Continue installing contact rail between Hoʻopili to Waipahu Transit Center.

KIWC/Third-Party Coordination
- Continue to resolve conflict construction and traffic issues with third-parties.

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

KEY ISSUES:

- **Leeward Community College (LCC) Portables and Parking Lot Change Order –** KIWC has resumed construction work activities at the LCC Station area. The LCC Change Order has been processed.
- **Night Noise Variance –** HART was notified by the Department of Health (DOH) that backhoes and excavators will no longer be allowed for nighttime work due to the contractor's improper use of equipment and receipt of complaints. HART requested reconsideration on behalf of the contractor and the DOH responded by lifting the restriction on March 24, 2016.
- **Closeout and Coordination –** As the project approaches substantial completion, KIWC has continued coordination with station contractors and HART on project closeout documentation requirements including QA-QC final acceptance checklists. As-built and record drawings are currently being reviewed. KIWC and HART are also in discussions about partially accepting procedures to allow early access to follow-on contractors.
- **HDOT Traffic Signal Improvements** – During the design coordination with KIWC for the traffic signal design packages, HDOT requested traffic signal upgrades, which are being processed through a change order. Delay in the execution of this change order and subsequent construction of the work may have an impact on the overall schedule of the project. The change order is being processed by HART.

QUALITY MANAGEMENT:

- KIWC continues to follow their established quality processes through quality monitoring and audits.

- **Pre-Cast Segment and Span Erection Progress/Quality –** 150 of the total 533 NCRs (28%) have been related to segmental casting issues like damaged shear keys, concrete voids, and spalls. Proper correction procedures have already been developed and are being implemented, and these issues are currently being resolved.
- **Closing Out NCRs –** Both KIWC and HART have been working together to promptly correct, validate, and close out NCR's during this period. We have closed 14 NCRs this period.
- **Track Construction Operations –** HART and KIWC continue to have discussions on Direct Fixation Shim Tolerances. KIWC is working to resolve outstanding technical issues on the shim tolerances.
- **Span 258 – NCR 509–** a few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC has prepared a Remediation Plan to replace the failed Tendon T1L, which was approved by HART. The defective Tendon was removed and saved for postmortem by HART and KIWC on April 14, 2016; replaced and stressed on April 15, 2016; and grouted on April 22, 2016. Hence, Span 258 was lowered to its correct position.

  HART and KIWC will perform a postmortem of the Tendon T1L to determine the root cause of the failure and the corrective action to prevent recurrence on KHG. HART and KIWC will perform a Cause and Effect Fishbone Analysis of the defective tendon, which will be participated in by HART (Design and Engineering, GEC3, CE&I, and QA/QC) and KIWC (HNTB/FIGG, Construction, Tendon Supplier, and QA/QC). Samples of the strand were taken and sent to a Certified Laboratory in the mainland by KIWC. The HART Director of QA/QC will be the Facilitator during the root cause analysis.
- **Span 249 –NCR 525–** suffered broken tendon (T3) similar to Span 258. KIWC staff walked and inspected all the other spans as a precautionary measure.
- **Pier Table 254 –NCR 499-** Deck delamination repairs were completed.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
533	501	32

PROJECT PICTURES:

Pearl Highlands Spans 260-262 false work being erected for hammerheads, WA 7.

Balanced Cantilever Span 256 closure poured, WA 7.

LCC new decking being installed west of new Lab building.

LCC parking lot paved and striped.

B. West O'ahu Station Group (WOSG)

Contract No.: DBB-171
Contractor: Nan, Inc.
Contract Start Date: October 2015
Contract Substantial Completion: March 2018
Projected Substantial Completion: TBD

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

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

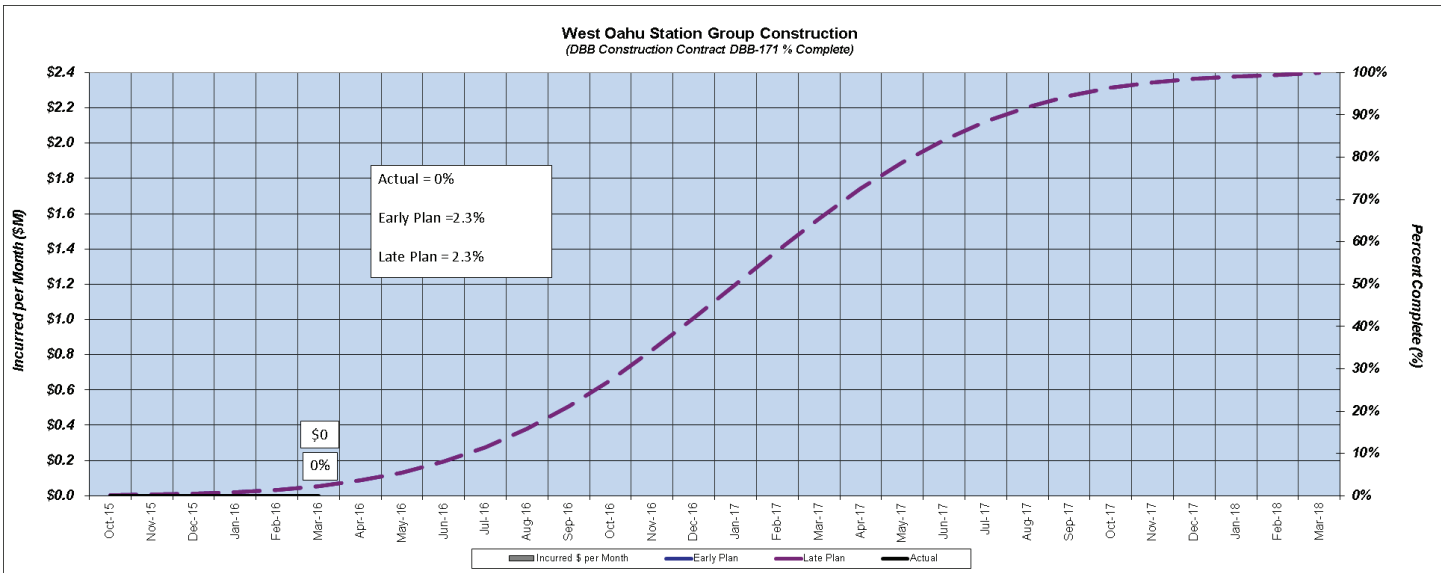
COST INFORMATION:

Original Contract:	$56,088,470	Incurred-to-Date:	$0
Current Contract Value[1]:	$56,088,470	Incurred in March:	$0

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



SCHEDULE:

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

CRITICAL PATH ISSUES:

- Baseline Schedule approval.
- Review and approval of the contractor's Public Involvement Manager.
- Construction access from Kiewit to the Hoʻopili site.
- Construction access to the Hoʻopili platform.
- Contractor to coordinate for shared access, including submitting liability forms.

WORK PROGRESS:

Activities this Month:

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

- Third iteration of the Draft Baseline schedule has been submitted. HART review is in process.
- The contractor reviewed the Issue for Construction (IFC) set of plans. HART has met with the contractor to identify changes that may have a cost or time impact. The contractor will identify those changes from the IFC set that are on the critical path for the next 6 months of work, so that the HART team can work on a change order to incorporate those items into the contractors scope. The balance of work identified from the IFC set will be issued in a change order to be issued later.
- Access coordination is being pursued with the guideway contractor. The station contractor is being directed to participate in coordination meetings to share access, per their contract.
- The contractor has resubmitted a resume for a Public Involvement Manager; Public Involvement is the lead reviewer.

Look Ahead:

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

KEY ISSUES:

- Baseline Schedule.
- Construction access to Hoʻopili site and platform.
- Evaluation of change work on the critical path is being prioritized. The most expeditious means to effectively incorporate the IFC set into the contract is being reviewed. Administrative processing time required to identify, quantify, negotiate and incorporate change formally into the contract is the greatest concern.

QUALITY MANAGEMENT:

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

C. Farrington Highway Station Group (FHSG)

Contract No.: DBB-271
Contractor: Hawaiian Dredging Construction Company, Inc.
Contract Start Date: August 2015
Contract Substantial Completion: January 2018
Projected Substantial Completion: TBD

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

Project Overview: The contractor was issued Notice-to-Proceed (NTP) on Aug. 17, 2015. Hawaiian Dredging Construction Company (HDCC) introduced one (1) Value Engineering (VE) concept– Augercast piles at the Waipahu Transit Station. HDCC has received HART's feedback regarding the concepts and intends to submit a revised VE proposal to HART. HDCC is currently 85% complete with preconstruction activities at WLO, 75% complete at WTC, and 0% complete at LCC. Acceptance of the Environmental Compliance Report was provided to HDCC on March 25, 2016, allowing HDCC to begin construction.

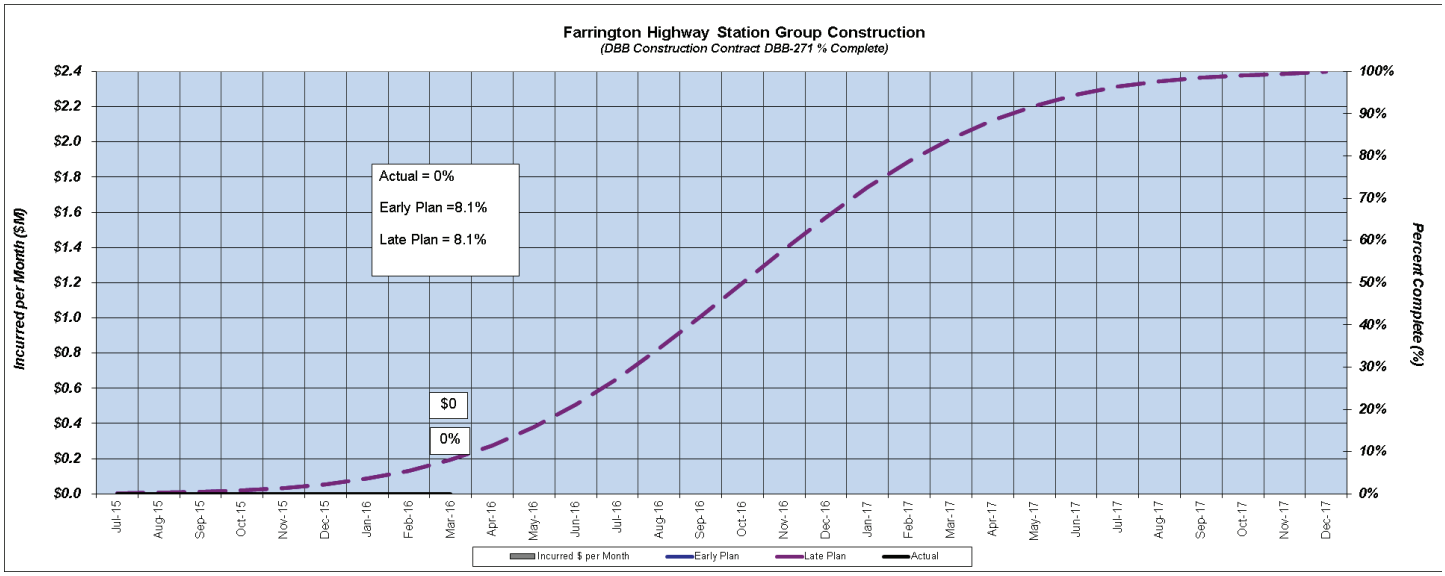
COST INFORMATION:

Original Contract:	$78,999,000	Incurred-to-Date:	$0
Current Contract Value[1]:	$78,999,000	Incurred in March:	$0

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



SCHEDULE:

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

CRITICAL PATH ISSUES:

- The Baseline Project Schedule (BPS) has not yet been accepted by HART. Awaiting HDCC's resubmittal of the schedule (review cycle E) for review and approval.
- Revisions to the contract construction plans have been provided to the contractor.
- Access to Leeward Community College.

WORK PROGRESS:

Activities this Month:

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

- Revised draft Baseline Schedule is in HDCC's court to resubmit as review cycle E.
- HART is working with CE&I staff to quantify additional scope of work added in the revised set of plans. The contractor has mobilized on the West Loch Makai site, in preparation for earthmoving activities and installation of underground utilities.

Look Ahead:

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

KEY ISSUES:

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

QUALITY MANAGEMENT:

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

D. Maintenance and Storage Facility (MSF)

Contract No.: DB-200
Contractor: Kiewit/Kobayashi Joint Venture (KKJV)
Contract Start Date: July 2011
Contract Substantial Completion: May 2016
Projected Substantial Completion: May 2016

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

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

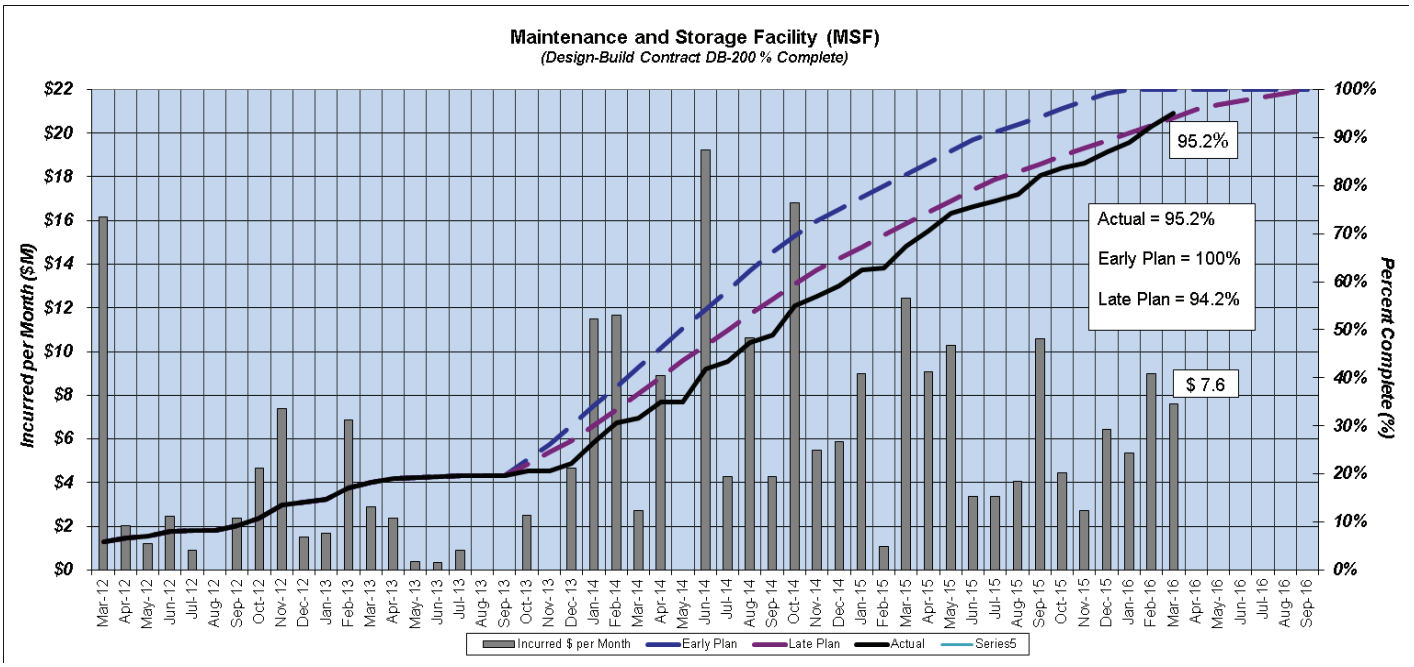
COST INFORMATION:

Original Contract:	$195,258,000	Incurred-to-Date:	$261,377,969
Current Contract Value[1]:	$274,685,819	Incurred in March:	$7,614,681

[1] *Current Contract Value = Original contract value + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$562,780
DBE % Attained:	0.29%

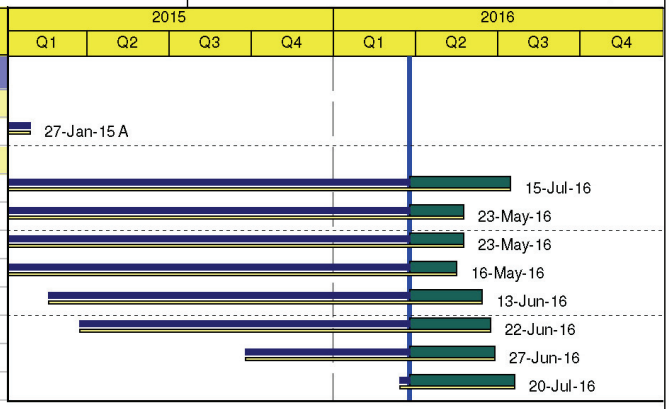
March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$79,427,819**



SCHEDULE:

March 2016 Update — Data Date: 25-Mar-16, Printed On: 07-Apr-16

Activity Name	Start	Finish
Total	29-Aug-11 A	20-Jul-16
Design	29-Aug-11 A	27-Jan-15 A
Design & Engineering	29-Aug-11 A	27-Jan-15 A
Construction	26-Jul-12 A	20-Jul-16
Site Civil/Utilities	26-Jul-12 A	15-Jul-16
Operations & Servicing Building	27-Nov-13 A	23-May-16
Maintenance of Way Building	12-May-14 A	23-May-16
Wheel Truing Building	18-Jul-14 A	16-May-16
Yard Trackwork	17-Feb-15 A	13-Jun-16
Train Wash Facility	23-Mar-15 A	22-Jun-16
Third Rail	25-Sep-15 A	27-Jun-16
Project Facility Commissioning, Closeout & Turnover	14-Mar-16 A	20-Jul-16



CRITICAL PATH ISSUES:

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

MSF Construction Status 94% Complete Overall as of 4/15/16	
Element	**% Complete***
OSB	94%
MOW Building	98%
WTB	97%
TWF	82%
Rail	95%
Paving	100%

*Not including testing and commissioning.

WORK PROGRESS:

Activities this Month:

Earned Value: 98% [(Total Achieved to March ($261 million) + Projected April 2016 Period ($9 million))/Total Contract Including Executed Change Orders ($275 million)]. Planned Value: 97%

Yard/Utilities

- Installation of the conduit for systems, communications, train control, site electrical and exterior lighting is ongoing.

Operations and Servicing Building (OSB)

- Completed installation of flooring.
- Completed installation of bathroom cabinets and fixtures.
- Completed installation of fire detection system.
- Completed installation turntables
- Installation of mechanical/electrical/plumbing is ongoing.
- Elevator installation is ongoing.
- Installing interior and exterior building finishes is ongoing.

Maintenance of Way (MOW)

- Completed installation of mechanical/electrical/plumbing systems.
- Completed interior and exterior finishes, including office furniture.

Wheel Truing Building (WTB)

- Completed extension of power to building.

Train Wash Facility (TWF)

- Completed installation of Direct Fixation Track.
- Completed installation of exterior canopies.

Look Ahead:

Yard/Utilities

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

OSB

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

MOW

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

Activities this Month (continued):

- Installation of contact rail is ongoing.
- Electrical installation is ongoing.
- Installing HVAC duct work is ongoing.

Rail Procurement and Installation

- Track drain, sub-ballast, ballast, and contact rail installation for East and West Yard Lead track (Phases 1 and 5) as well as track east and west of the TWF is ongoing.
- Turned over Phases 2, 3 and 4 storage tracks to CSC.
- Testing of running rail is ongoing.

Administration

- Continued working with the CSC to resolve design interface issues.
- Work with CSC to support assembly and movement of CSC Passenger Vehicles.

Look Ahead (continued):

- Finish fire protection system.
- Commissioning of HVAC.

WTB

- Testing of wheel lathe and wheel press.
- Training of personnel on use of wheel lathe and wheel press**.**
- Release Building Systems raceway to CSC.
- Rough-in for fire detection system.

TWF

- Installation of contact rail.
- Roll up doors.
- Complete HVAC.

KEY ISSUES:

- **Joint Occupancy with Core Systems Contractor –** Weekly meetings are held and details are being worked out for systematic release of areas and infrastructure whereby the Core Systems Contractor (CSC) can commence work.
- **Coordination with the Abutting Main Line Contract –** For completion of site access in the east and west yards, including rail, vehicular access, and utility interconnection.
- **Train Car Delivery and Assembly –** Rail, access, and building completion in support of train car delivery and assembly, including site access and internal movement of assembled rail cars. KKJV coordinated well with CSC for the delivery of the first rail passenger vehicle on MSF tracks. A second rail passenger vehicle delivery is scheduled for August/September 2016.
- **Substantial Completion & Temporary Certificate Occupancy (TCO) –** KKJV continues to work diligently and to coordinate with CSC to complete the tasks necessary to achieve TCO by the contractual Substantial Completion date.

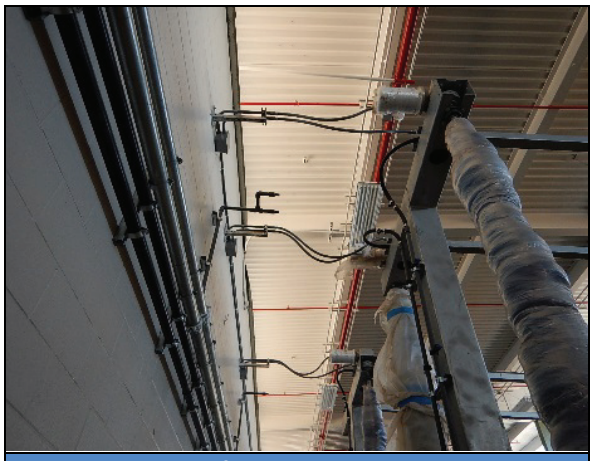
QUALITY MANAGEMENT:

- Overall quality of the contract is good.

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

PROJECT PICTURES:

Installing rack arm storage equipment in MOW.

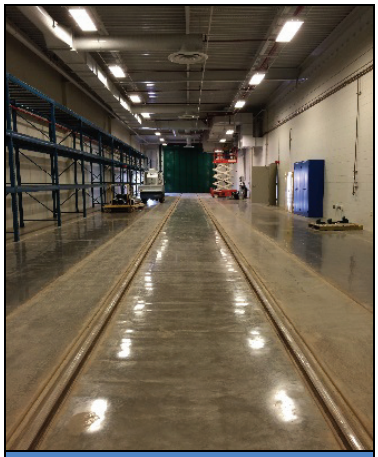


Installing raceway for sensing devices in TWF.

Installing train control cable trough along W and RL tracks.

Paving the east side of OSB parking lot.

Storefront door installations at OSB.



Installing flex fittings for fire sprinkler system at pallet racks at MOW.

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

A. Kamehameha Highway Guideway (KHG)

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

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

Project Overview: Construction of the remaining drilled shafts continues east of the H-1 overpass. Columns have been constructed from the WOFH project limits to the area approaching Kuleana Road. Construction of columns in the Aloha Stadium Station area has progressed along with heading 2 truss erecting spans 420L and 421L.

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

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

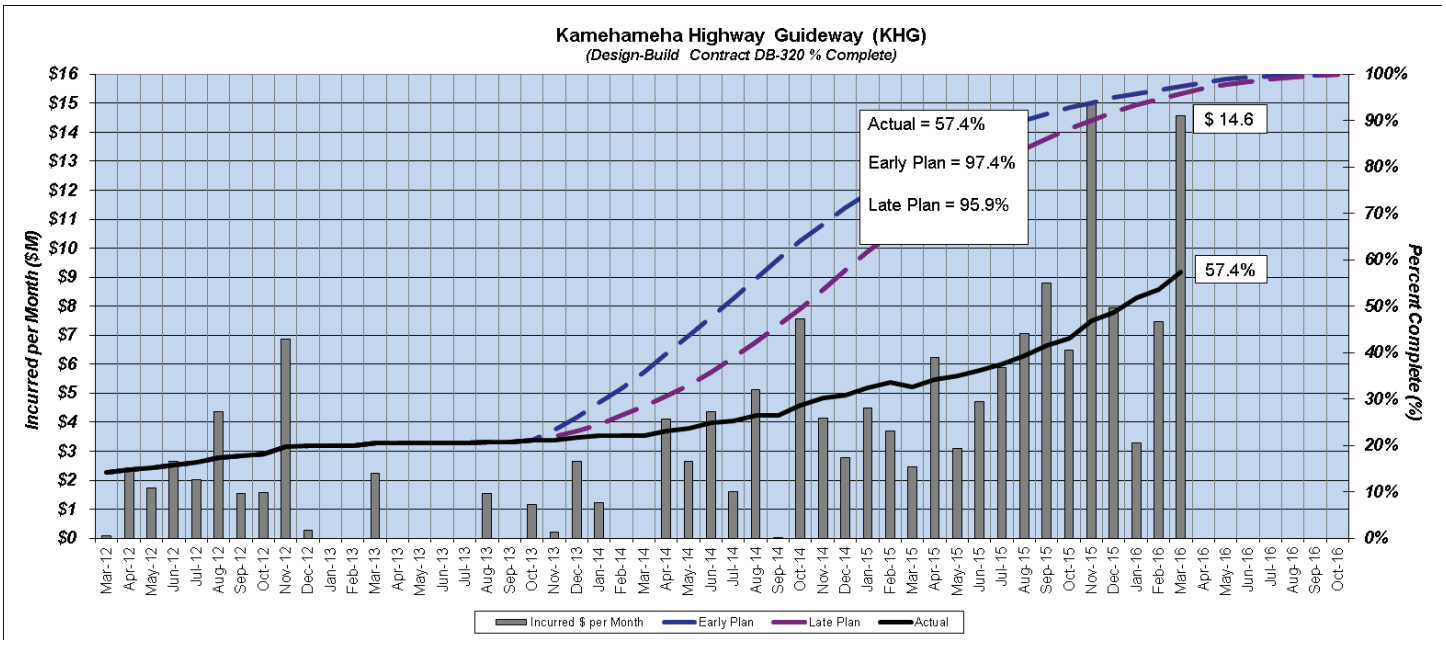
COST INFORMATION:

Original Contract:	$372,150,000	Incurred-to-Date:	$223,453,681
Current Contract Value[1]:	$389,536,410	Incurred in March:	$14,568,684

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
00023	HECO Utility conflict	$80,000
	Cumulative to Date	**$17,386,410**

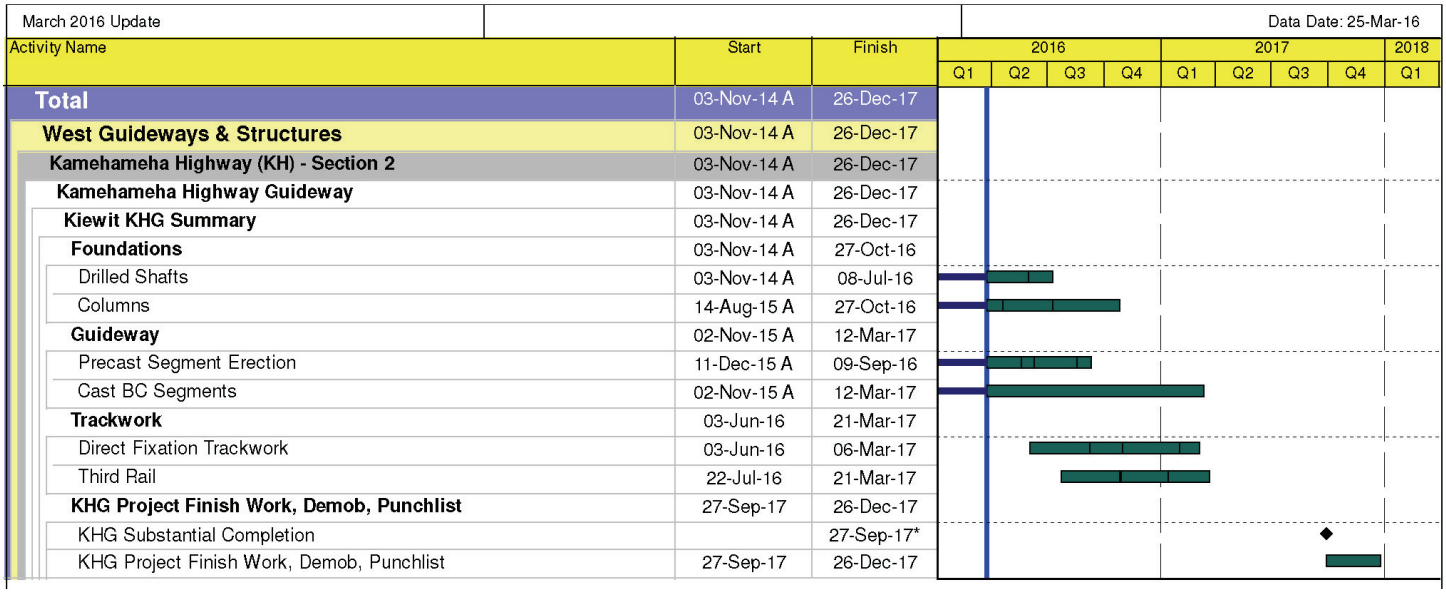


Pay Applications #57, #58 and #59 for March 2016 billing has been submitted by KIWC and is in review with HART.

SCHEDULE:

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

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



CRITICAL PATH ISSUES:

- HECO schedule forecast at utility conflict 11-920-M1 is affecting utility relocation work. HART is tracking this issue and notes that its criticality needs to be established.
- Production rate for truss 3, moving east from Segments 277 through 322, is on the longest critical path.

WORK PROGRESS:

KHG Construction Status as of 4/13/16

Utility Status	Qty to Date	Final Qty	% Complete
Water Line	4,362	4,362	100%
Gas Line	12,641	12,641	100%
Sewer Line	492	492	100%
Drainage Line	710	1,469	48%
Elec/Telecom	15,961	19,455	82%
System Sites	0%	N/A	0%
Signals/ITS/ Lights	13,587	18,486	74%

Structure Element	Total to Date	Planned to Date: Accepted Schedule*	Planned to Date: Revised Schedule**	Total Qty	% Complete
Shafts	146	182	156	186	78.5%
Columns	72	140	86	169	42.6%
Segment Casting	1,446	1,692	1,628	2,033***	71.1%
Spans Stressed	30	124	28	166	18.1%
Track work	0	65	0	166	0%
Third Rail	0	0	0	166	0%
Mill & Overlay Roadway	0	N/A	N/A	N/A	0%

* Accepted Schedule was submitted in 2013.
· Forecasted delays for track work extended the guideway completion by 3 weeks from prior updates.
** These quantities are based on KIWC's pending August 2015 schedule revision dated Sept. 23, 2015. Revised schedule reflects a 12 month delay in completion.
*** Updated to reflect actual "pre-cast" segments to be cast. Removed BCS "cast-in-place" segments from the section.

Activities this Month:

Earned Value: 61.2% [(Total achieved to March 2016 ($223.2 million) + April 2016 projection ($15.5 million))/Total contract including executed Change Orders ($390 million)]. Planned Value: 96.9%

Shaft/Column/Segments

- 146 of 186 shafts have been installed; 78.5% of all shafts have been completed on KHG.
- 72 of 169 columns have been constructed.
- 1,446 of 2,033 segments have been cast.
- Balanced Cantilever superstructure east of the H-1 overpass continues. Top deck on Column 307 has been completed.
- Structures access from Pearlridge Mall to H-201 Overcrossing.
- Balanced Cantilever travelers have been erected at pier 306, heading both east and west.
- Shaft construction in front of Pearl Kai continues.

Utility Relocation Progress

- The relocation of HECO electrical lines and Hawaiian Telcom, Oceanic Time Warner and Intelligent Transportation Systems (ITS) duct banks is occurring in various phases along the alignment.
- Systems Site #10 work is continuing.

Roadway Widening

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

Look Ahead:

Design Progress

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

Shaft/Column/Segments

- Construction of shafts will continue east of the H-1 overcrossing.
- Column construction continues eastbound from Kuleana Road towards Aloha Stadium.
- Segment erection to continue eastbound from Pu'u Momi and westbound from Kohomua St.

Utility Relocation

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

Balanced Cantilever Structure

- Superstructure construction will continue at the BCS area.
- Obtaining HDOT MOT approvals in the first week of May.

Precast Yard

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

Roadway Widening

- HART has issued RFCRs to the contractor for identified HDOT additional work. A Memorandum of Understanding (MOU) has been executed between HART and HDOT that will facilitate this work as change orders have been signed.

KEY ISSUES:

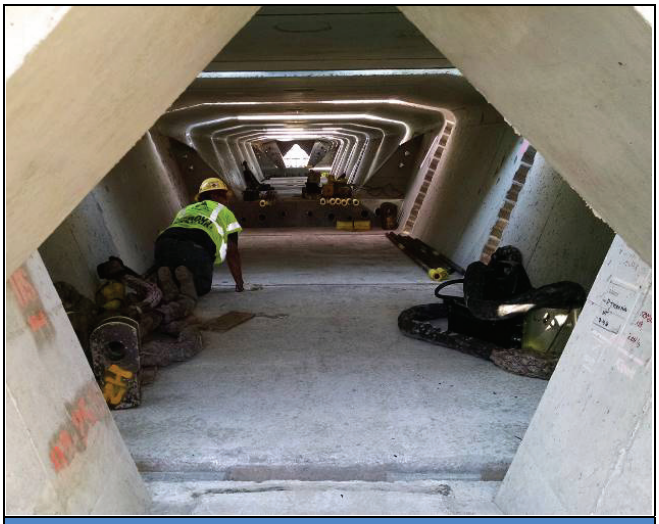
- **HECO/HDOT Utility Priorities** –HART continues to work with HECO and HDOT in addressing priorities for work to prevent delays to the superstructure work. This is being handled at elevated levels.
- **Access Coordination between Contracts** – Coordination between contractors is ongoing and requiring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

QUALITY MANAGEMENT:

- **Quality Process** – KIWC continues to follow an established quality process and have not encountered any significant new findings through quality audits.
- **Longitudinal Tendons** – Due to WOFH NCR 509, longitudinal tendons will be monitored for possible indications of rust.
- **Drilled Shaft Quality** – KIWC currently has 9 open NCRs due to velocity reduction exceeding 20%. KIWC has been reviewing their means and methods for placing concrete to reduce the issue with velocity reduction.
- **NCR 113:** Segment 276 - Damaged end flange as it was being set. KIWC has prepared a repair procedure and it was approved by HART; repair of the damaged flange was completed on April 15, 2016.

KHG NCR Log		
Total NCRs Issued to Date	CLOSED	OPEN
143	122	21

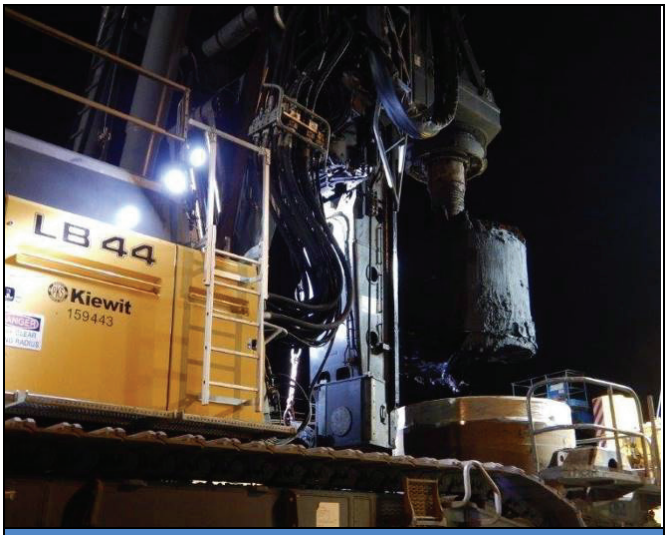
PROJECT PICTURES:



Epoxying segments, Phase 2.

Span 293, Phase 2.

Transverse Post Tensioning (PT), Pier 307, Phase 4.



Drilling Shaft 341, Phase 6.

Setting Span 421, Phase 13.

Span 421 in place, Phase 13.

B. Ramp H2R2

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

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

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

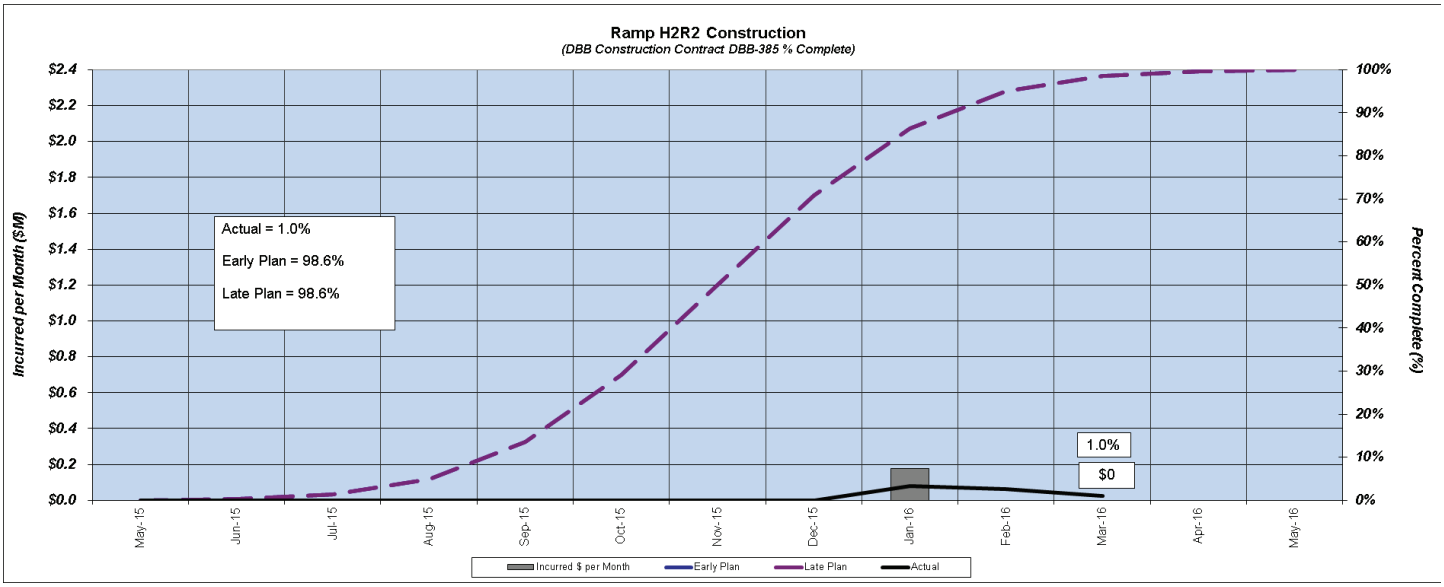
COST INFORMATION:

Original Contract: $5,203,646	Incurred-to-Date: $52,952
Current Contract Value[1]: $5,203,646	Incurred in March: ($83,898)

[1] *Current Contract Value = Original contract value + executed Change Orders*

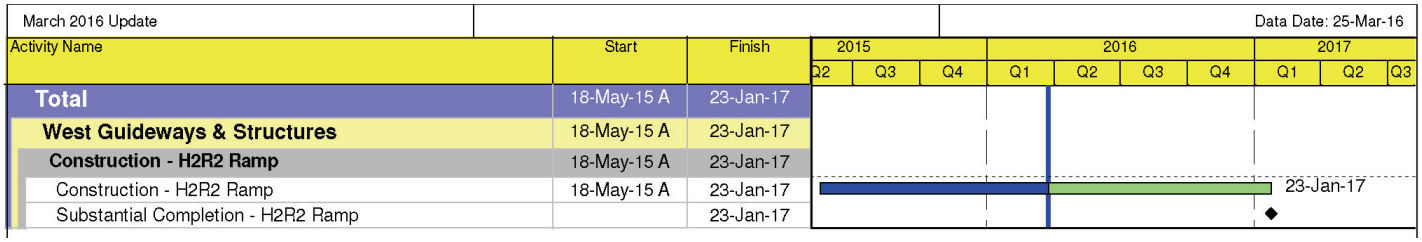
DBE Participation	
Actual DBE Participation:	$0
DBE % Attained:	0%

March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



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

SCHEDULE:



CRITICAL PATH ISSUES:

- Royal has encountered unforeseen utilities related to the 30-inch corrugated metal storm drain pipe. HART is working with HECO/DTS/HTEL/HDOT to provide direction to the contractor ASAP. HART is proactively working on a mitigation plan in case critical path earthwork being performed for surcharge is impacted.

WORK PROGRESS:

Activities this Month:

Earned Value: 1%; Planned Value: 98%

- Royal continues to provide required submittals for review and acceptance.
- Royal continues to provide project baseline schedule updates as the project progresses.
- Continue to submit and review various submittals required for certain elements of the work.

Look Ahead:

- Continue earth moving activities and finish surcharge material placement; begin settlement monitoring.
- Continue clear and grub.

KEY ISSUES:

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

QUALITY MANAGEMENT:

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

C. Kamehameha Highway Station Group (KHSG)

Contract No.: FD-340
Contractor: Anil Verma Associates, Inc. (AVA), Final Design Consultant (Engineer of Record)
Contract Start Date: November 2012
Construction Docs Bid-Ready:
Ramp H2R2: January 2015 (in construction)
Kamehameha Highway Stations: August 2015 (bids received)

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

Project Overview: The KHSG construction contract was awarded to Nan, Inc. on Jan. 27, 2016. Administrative Notice to Proceed (NTP) was issued on April 1, 2016. From the May 2016 Progress Report and on, a contract page for the Construction contract will be included in the Monthly Progress Report. As such, the KHSG FD contract page will be removed from the Progress Report, and any updates related to design will be covered in the KHSG Construction contract page.

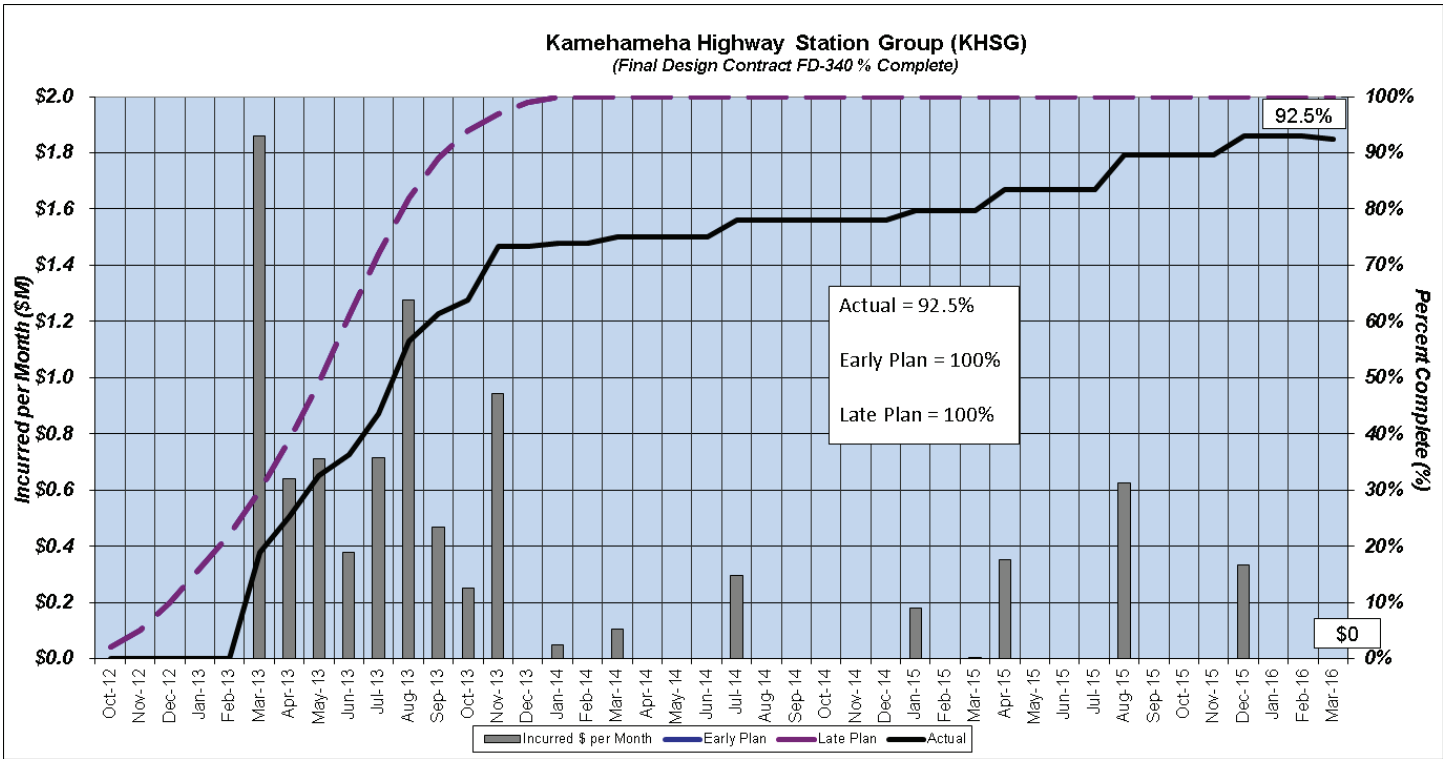
COST INFORMATION:

Original Contract:	$8,702,592	Incurred-to-Date:	$9,117,277
Current Contract Value[1]:	$9,859,290	Incurred in March:	($60,000)

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$1,199,698**



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

The design phase of this contract is substantially complete.

SCHEDULE:

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

---

CRITICAL PATH ISSUES:

- N/A.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 99%.

Look Ahead:

- N/A.

KEY ISSUES:

- N/A.

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

A. Airport Section Guideway and Utilities

Contract No.: FD-430
Contractor: AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)
Contract Start Date: January 2012
Currently in Construction:

- Airport Section Utilities (DBB-505 - Nan Inc.):
  - Contract start date: July 2014

Construction Completed:

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

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

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

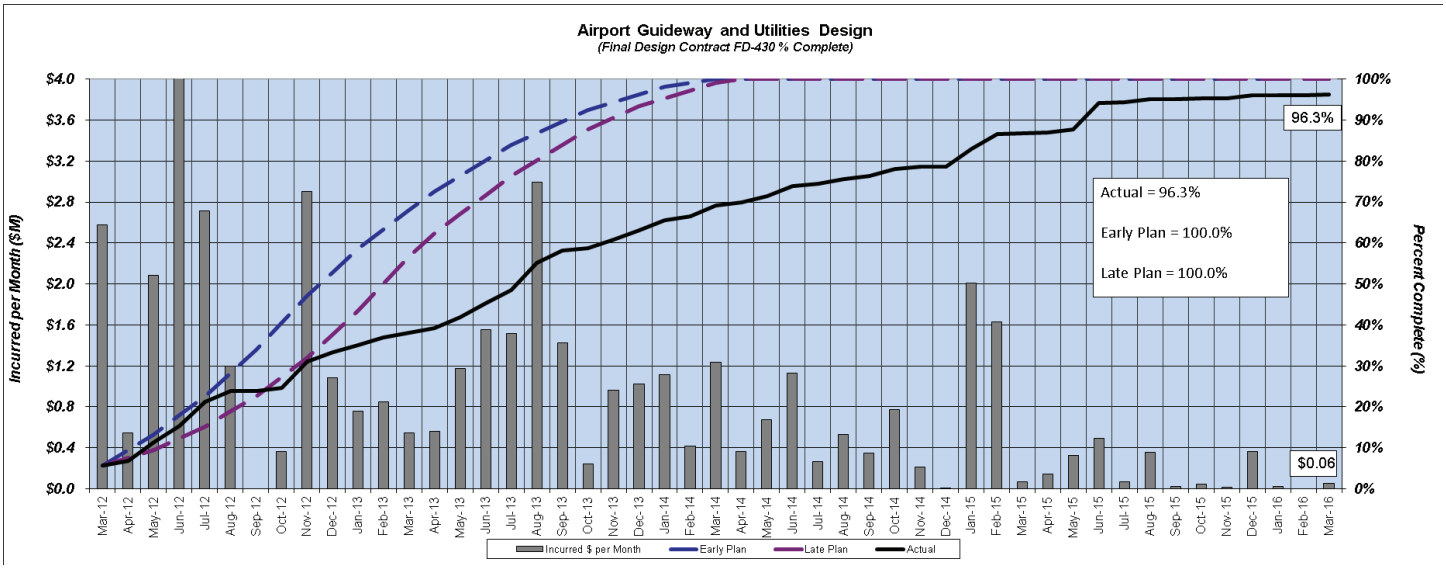
COST INFORMATION:

Original Contract:	$38,840,960	Incurred-to-Date:	$41,526,542
Current Contract Value[1]:	$43,134,472	Incurred in March:	$55,072

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

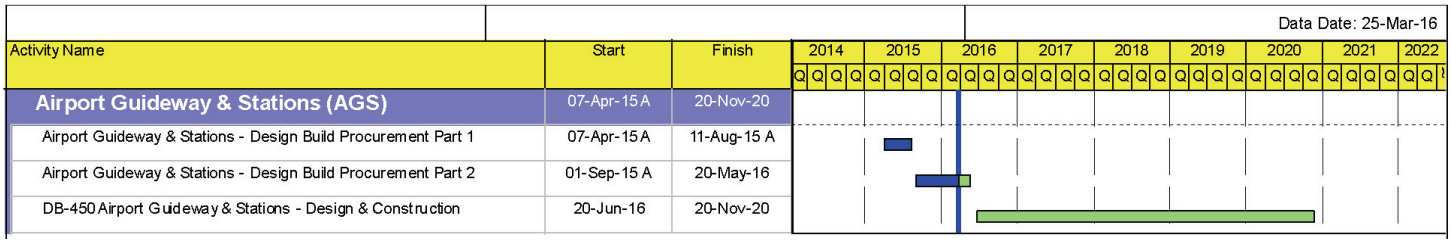
March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$4,293,512**



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:



CRITICAL PATH ISSUES:

- N/A.

WORK PROGRESS:

Activities this Month:

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

Look Ahead:

- N/A.

KEY ISSUES:

- N/A.

B. Airport Section Utilities Construction

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

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

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

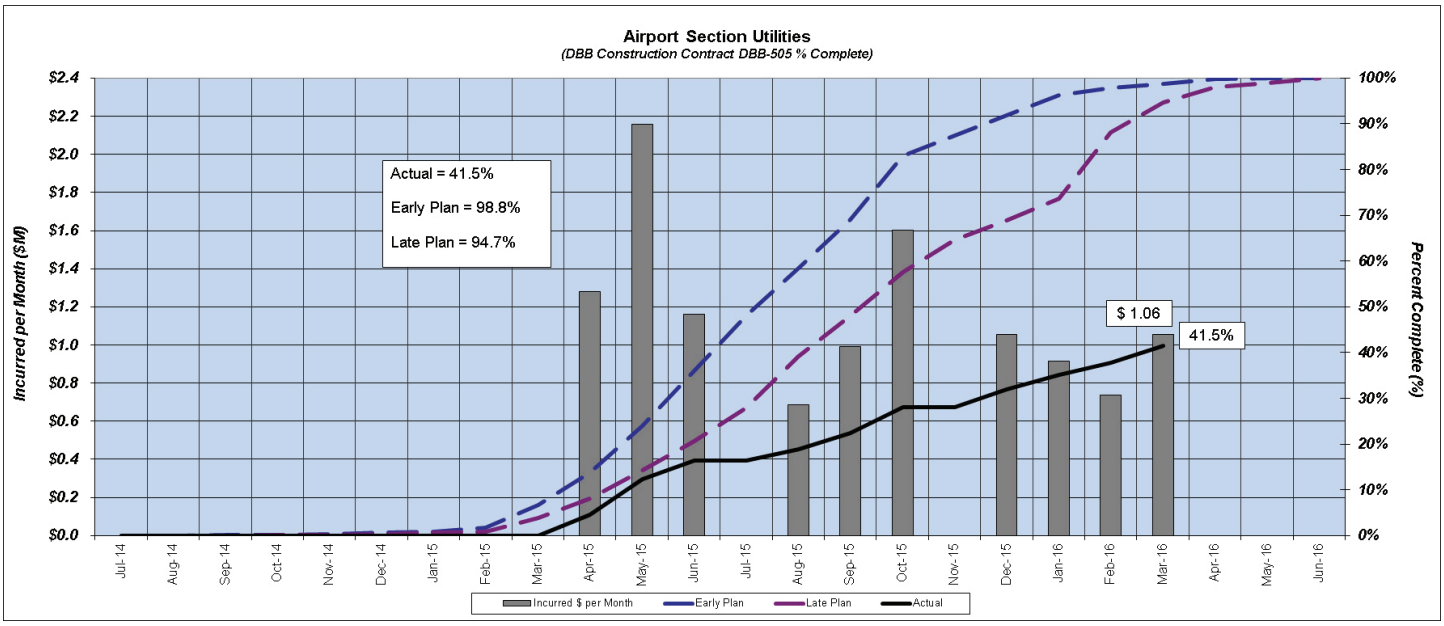
COST INFORMATION:

Original Contract:	$27,993,290	Incurred-to-Date:	$11,636,253
Current Contract Value[1]:	$28,368,984	Incurred in March:	$1,055,515

[1] *Current Contract Value = Original contract value + executed Change Orders*

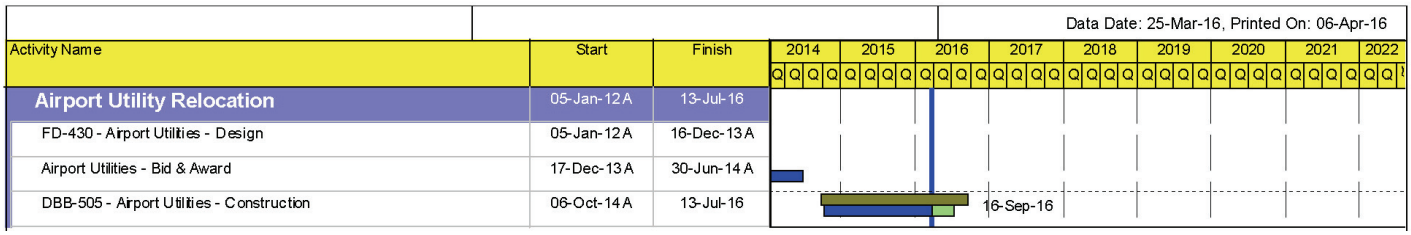
DBE Participation	
Actual DBE Participation:	$34,988
DBE % Attained:	0.12%

March Change Orders		
Change No.	**Description**	**Amount ($)**
0004	OCIP and Builder's Risk Credit	($303,388)
0005	Impact Due to Navy ROE Delay	$649,420
	Cumulative to Date	**$375,695**



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

SCHEDULE:



CRITICAL PATH ISSUES:

- No critical path issues at this time.

WORK PROGRESS:

Activities this Month:

Earned Value: 42%; Planned Value: 50%

- Nan, Inc. has submitted a baseline construction schedule, which has been approved. A revised baseline schedule, based on the current contract substantial completion and extended work hours, is being reviewed.
- Inspection and Testing Plan (ITP) has been submitted by Nan and returned by HART with comments.
- Continue to install portions of the sewer line, waterline and gas line along Kamehameha Highway.

Look Ahead:

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

KEY ISSUES:

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

QUALITY MANAGEMENT:

- Overall quality of the contract is good.

Airport Utilities NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
18	14	4

C. Airport Section Guideway Seven Pier Construction

Contract No.: DBB-525
Contractor: HDCC/CJA JV
Contract Start Date: September 2014
Contract Substantial Completion: April 24, 2015
Declared Substantial Completion: April 22, 2015

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

Project Overview: HDCC/CJA JV substantially completed the project on April 22, 2015. The site, along with maintenance of existing BMPs and traffic control measures were turned over to the HDOT-A. Generated punch list items were completed and accepted as of May 2, 2015, by HDOT-A/HART. The project has been closed out and Final Payment has been made. Subsequently, this contract page will be removed from future Progress Reports.

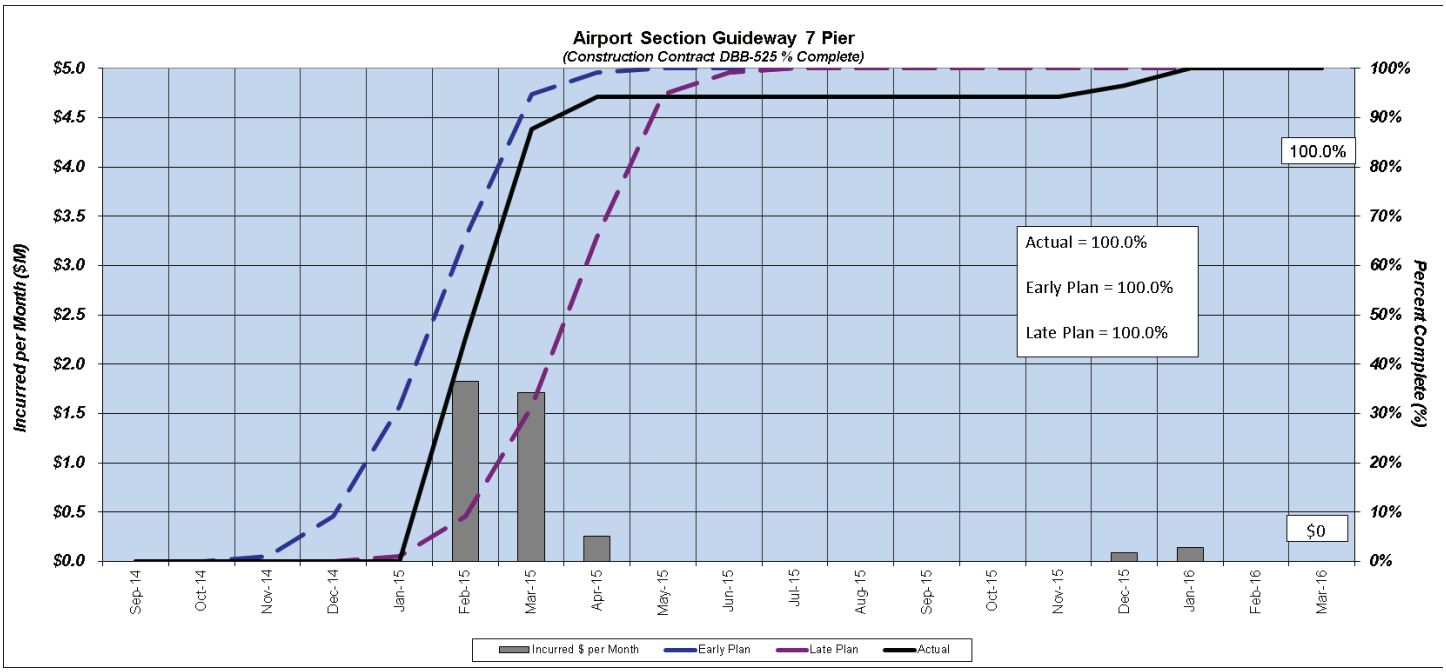
COST INFORMATION:

Original Contract:	$3,973,000	Incurred-to-Date:	$4,027,843
Current Contract Value[1]:	$4,027,843	Incurred in March:	$0

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$54,843**



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

CRITICAL PATH ISSUES:

- None - All construction work is complete, Change Orders have been executed, and Final Payment has been made. The Project is now closed.

WORK PROGRESS:

Activities this Month:

Earned Value: 100%; Planned Value: 100%

Look Ahead:

- None.

KEY ISSUES:

- None.

D. Airport Station Group (ASG)

Contract No.: FD-440
Contractor: AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)
Contract Start Date: November 2012
Construction Docs Bid-Ready: N/A

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

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

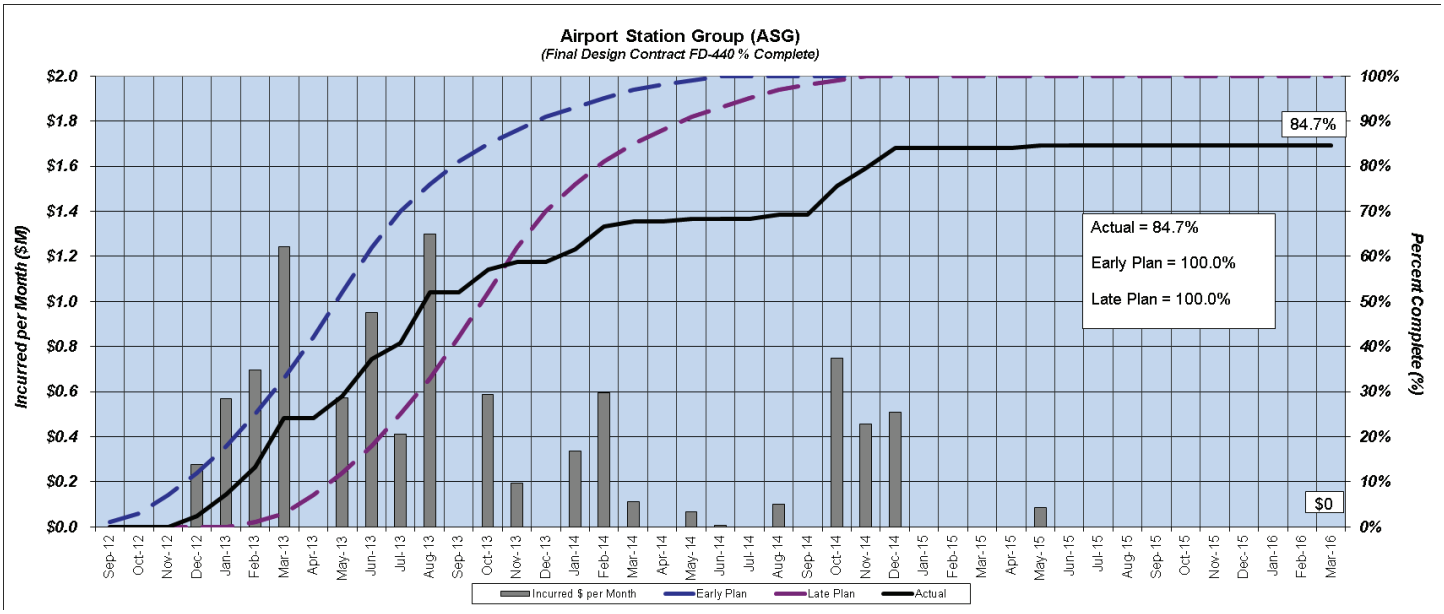
COST INFORMATION:

Original Contract:	$10,177,365	Incurred-to-Date:	$9,801,978
Current Contract Value[1]:	$11,573,852	Incurred in March:	$0

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$1,416,487**



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.

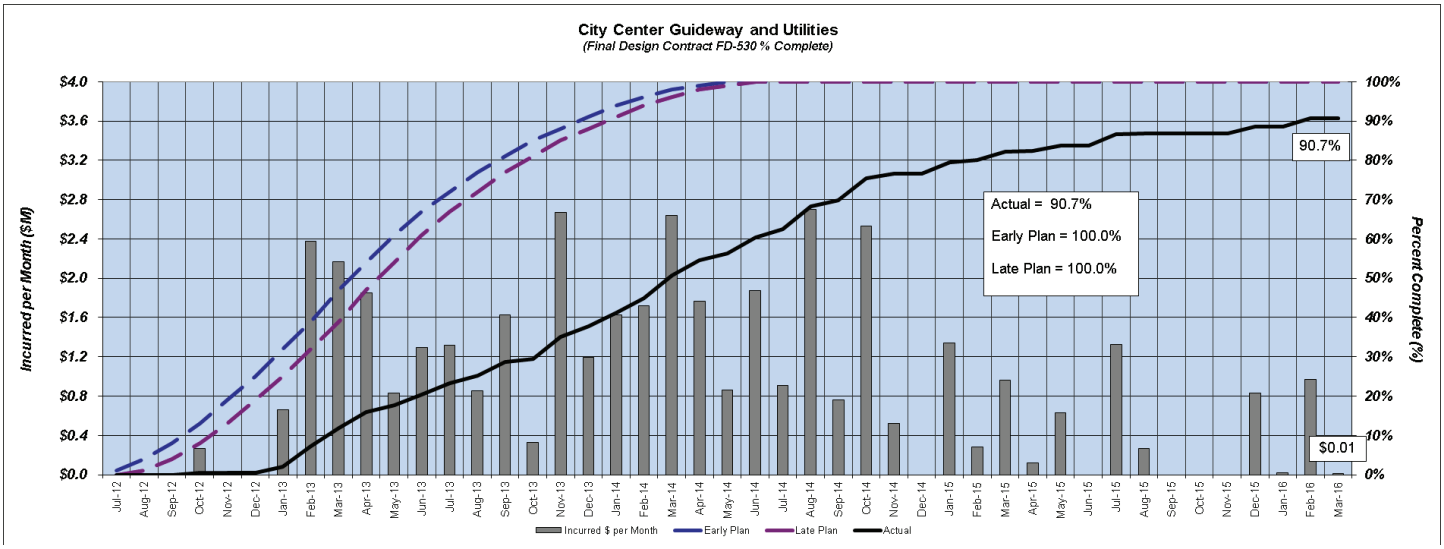
COST INFORMATION:

Original Contract:	$43,948,220
Current Contract Value[1]:	$46,197,562
Incurred-to-Date:	$41,909,894
Incurred in March:	$10,095

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

March Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$1,296,842**



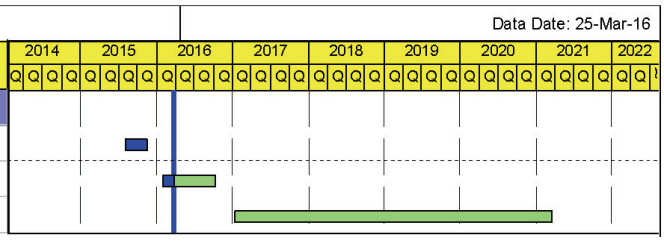
The progress chart reflects early program expectations. When the overall schedule is rebaselined, the cost curve will be revised.

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

SCHEDULE:

Data Date: 25-Mar-16

Activity Name	Start	Finish
City Center Guideway & Stations (CCGS)	04-Aug-15 A	15-Mar-21
City Center Guideway & Stations - Design Build Procurement Part 1	04-Aug-15 A	18-Nov-15 A
City Center Guideway & Stations - Design Build Procurement Part 2	02-Feb-16 A	12-Oct-16
DB-550 City Center Guideway & Stations - Construction	13-Jan-17	15-Mar-21



CRITICAL PATH ISSUES:

- N/A.

WORK PROGRESS:

Activities this Month:

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

Look Ahead:

- N/A.

KEY ISSUES:

- N/A.

B. Dillingham and Kaka'ako Station Group (DKSG)

Contract No.: FD-550
Contractor: Perkins+Will (P+W), Final Design Consultant (Engineer of Record)
Contract Start Date: August 2013
Construction Docs Bid-Ready: N/A

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

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

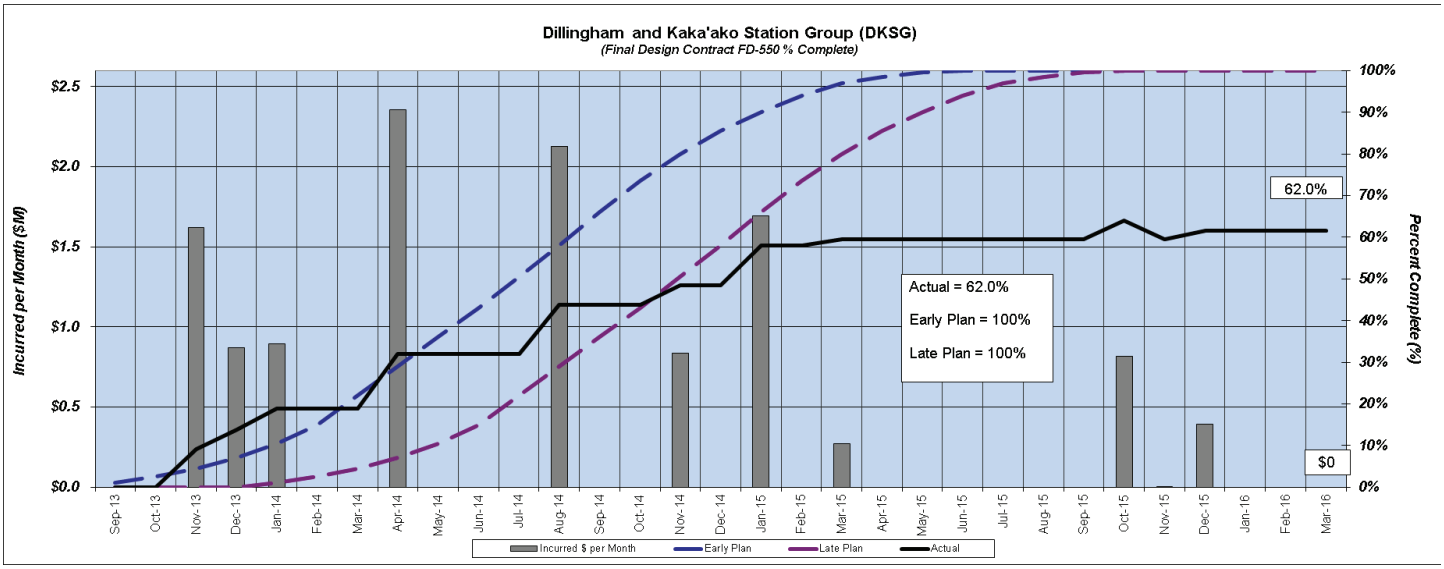
COST INFORMATION:

Original Contract:	$18,321,918	Incurred-to-Date:	$11,875,668
Current Contract Value[1]:	$19,308,042	Incurred in March:	$0

[1] *Current Contract Value = Original contract value with Design Allowance + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$1,046,743**



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

.

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

CRITICAL PATH ISSUES:

- N/A.

WORK PROGRESS:

Activities this Month:

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

Look Ahead:

- N/A.

KEY ISSUES:

- N/A.

4.6 Project-Wide

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

Contract No.: MM-901
Contractor: InfraConsult LLC
Contract Start Date: March 8, 2012
Contract Completion: March 7, 2017

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

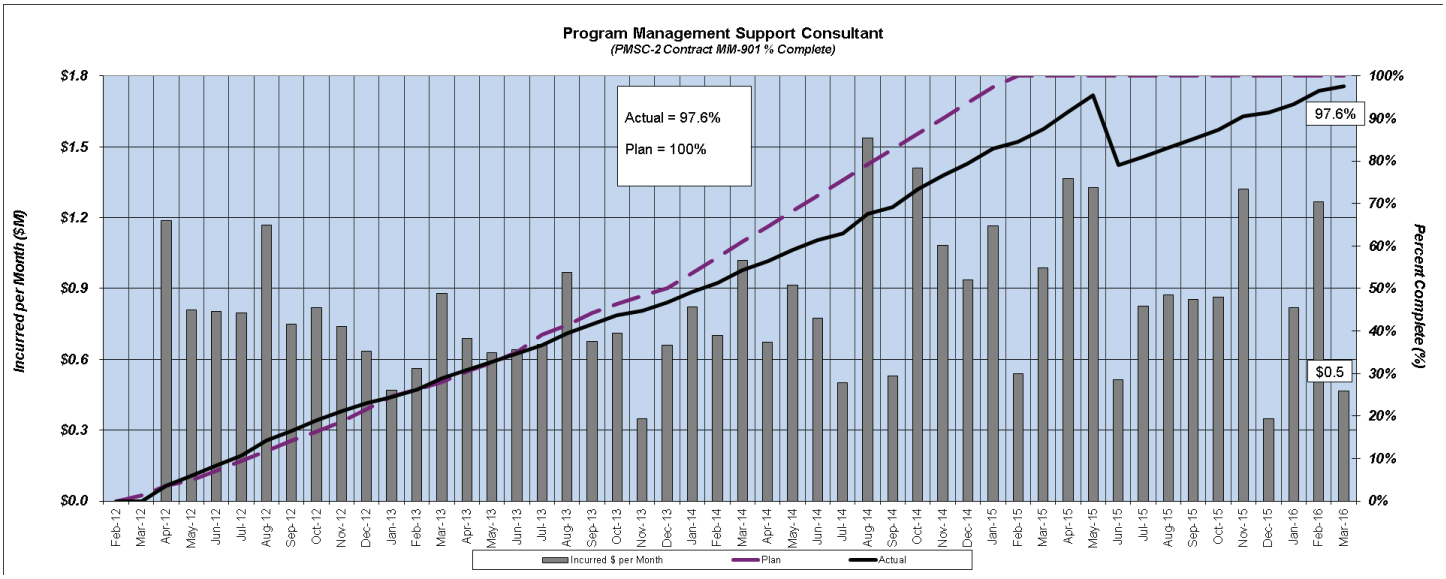
COST INFORMATION:

Original Contract:	$33,376,897	Incurred-to-Date:	$40,029,538
Current Contract Value[1]:	$40,993,274	Incurred in March:	$465,621

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$7,616,377**



KEY ISSUES:

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

B. General Engineering Consultant III (GEC-3)

Contract No.: MM-913
Contractor: CH2M HILL
Contract Start Date: December 2013
Contract Completion: April 2019, with option to extend for up to three (3) additional years

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

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

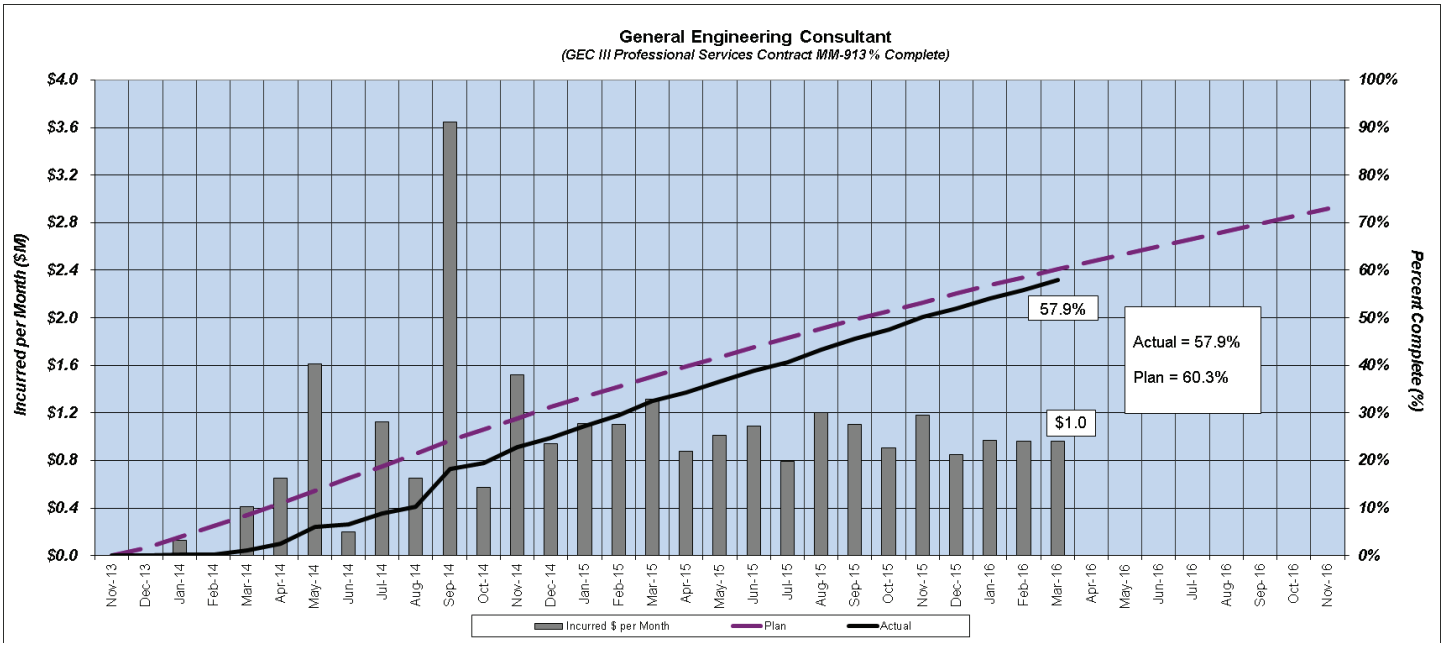
COST INFORMATION:

Original Contract:	$46,143,277	Incurred-to-Date:	$26,880,251
Current Contract Value[1]:	$46,411,728	Incurred in March:	$964,334

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$268,451**



KEY ISSUES:

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

C. Construction Engineering & Inspection West Side Sections

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

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

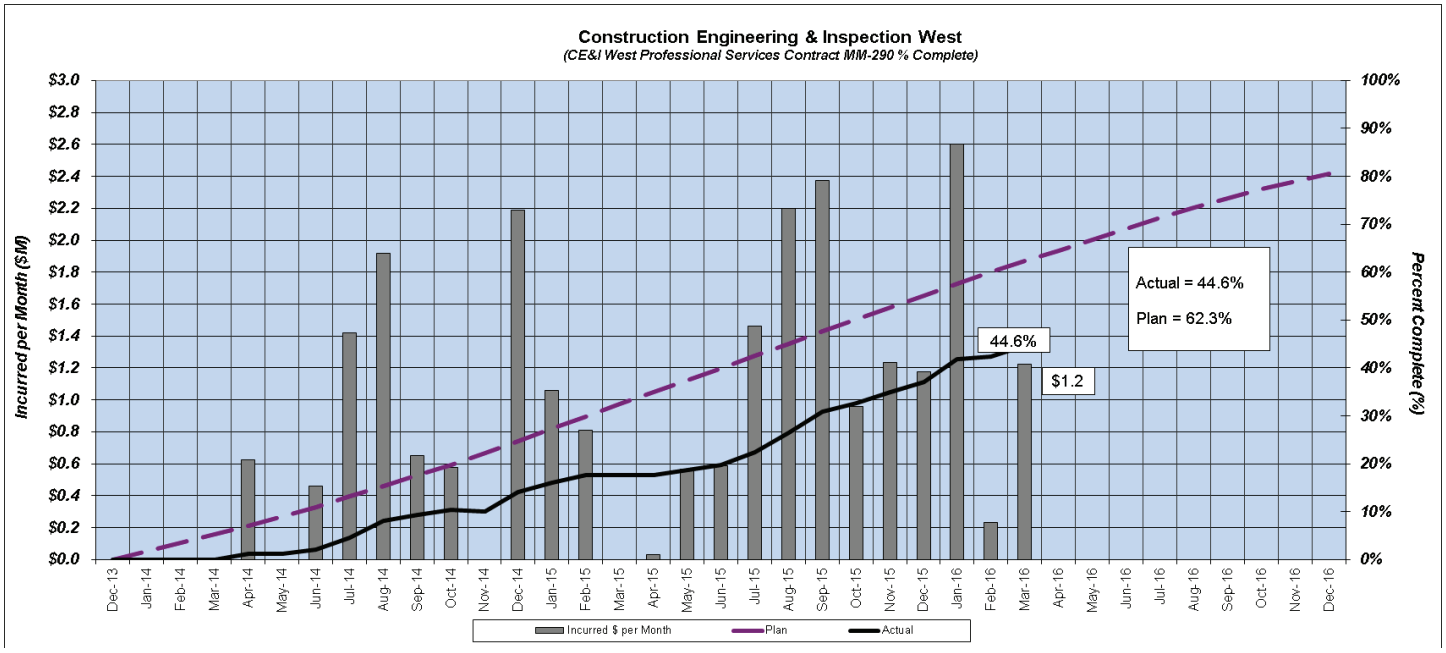
COST INFORMATION:

Original Contract:	$54,232,480	Incurred-to-Date:	$24,192,453
Current Contract Value[1]:	$54,232,480	Incurred in March:	$1,222,721

[1]*Current Contract Value = Original contract value + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$2,743,660
DBE % Attained:	5.06%

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



KEY ISSUES:

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

D. Construction Engineering & Inspection East Side Sections

Contract No.: MM-595
Contractor: URS Corporation
Contract Start Date: January 2014
Contract Completion: December 2015 (MOD no. 1)
Substantial Completion: October 2015

Project Description: The URS team provided Construction Engineering and Inspection Services (CE&I) for the east section of the Honolulu Rail Transit Project (HRTP) 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.

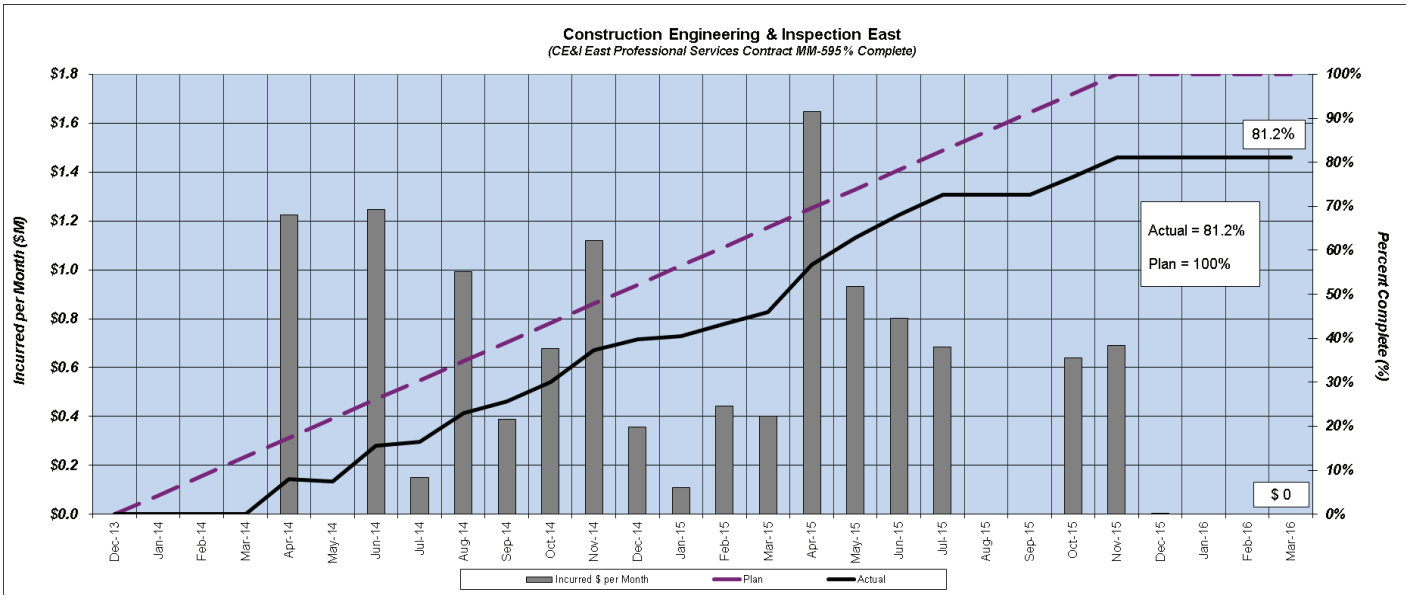
COST INFORMATION:

Original Contract:	$63,083,417	Incurred-to-Date:	$12,382,150
Current Contract Value[1]:	$15,257,000	Incurred in March:	$0

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**-$47,826,417**



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 closed in April. Final cost information will be reflected in the May 2016 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 (HRTP) for the Honolulu Authority for Rapid Transportation (HART). The Stantec team is providing services from the preconstruction phase through construction closeout. CE&I II services include: constructability review, resident engineering, construction observation, project controls, scheduling, change management, cost control, document controls, contract administration, estimating, environmental monitoring, surveying, material testing, interface coordination, geographic information system (GIS) support, and claims analysis for the Airport Guideway and Stations design-build contract, City Center Guideway and Stations design-build contract, Airport Section Utilities Construction contract, Elevators and Escalators Design-Furnish-Install-Maintain contract (construction phase only) and construction observation for the On-Call II and III work. The primary role of the Stantec team is to inform the HART Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the contractor and the corrective action that has been directed by HART to be performed by the contractor.

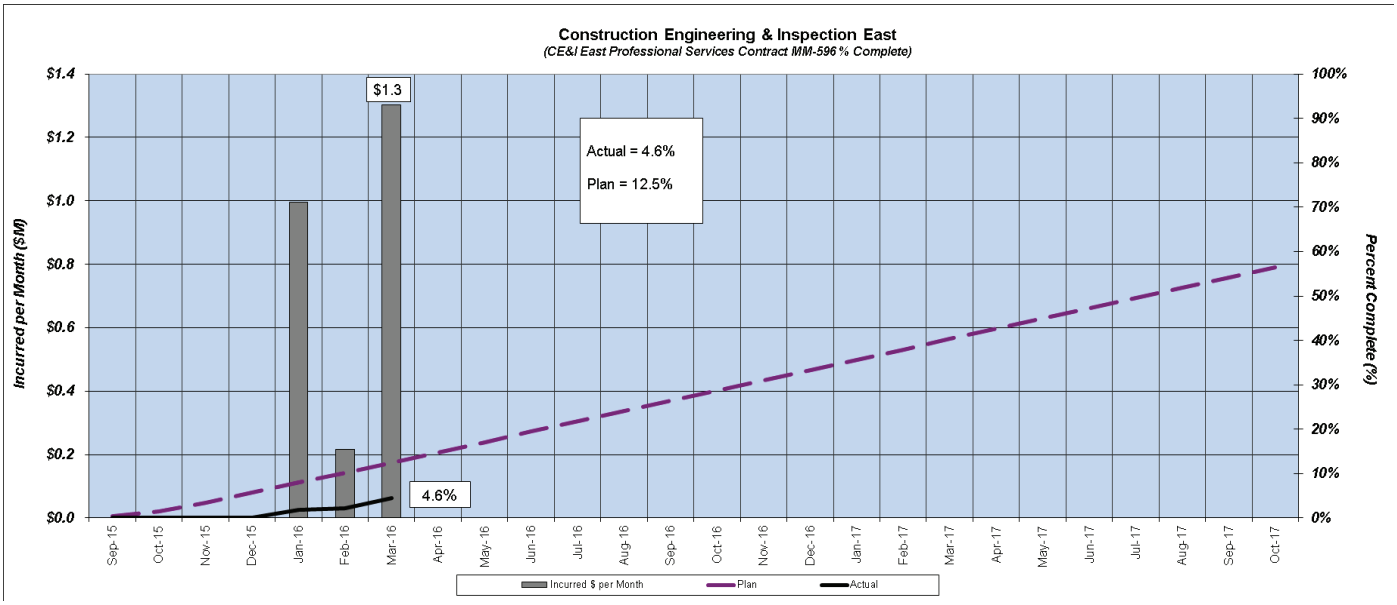
COST INFORMATION:

Original Contract: $55,036,130	Incurred-to-Date: $2,511,612
Current Contract Value[1]: $55,036,130	Incurred in March: $1,301,578

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



KEY ISSUES:

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

F. Core Systems Contract Oversight Consultant

Contract No.: MM-962
Contractor: Lea+Elliott, Inc.
Contract Start Date: February 2014
Contract Completion: August 2019
Projected Substantial Completion: N/A

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

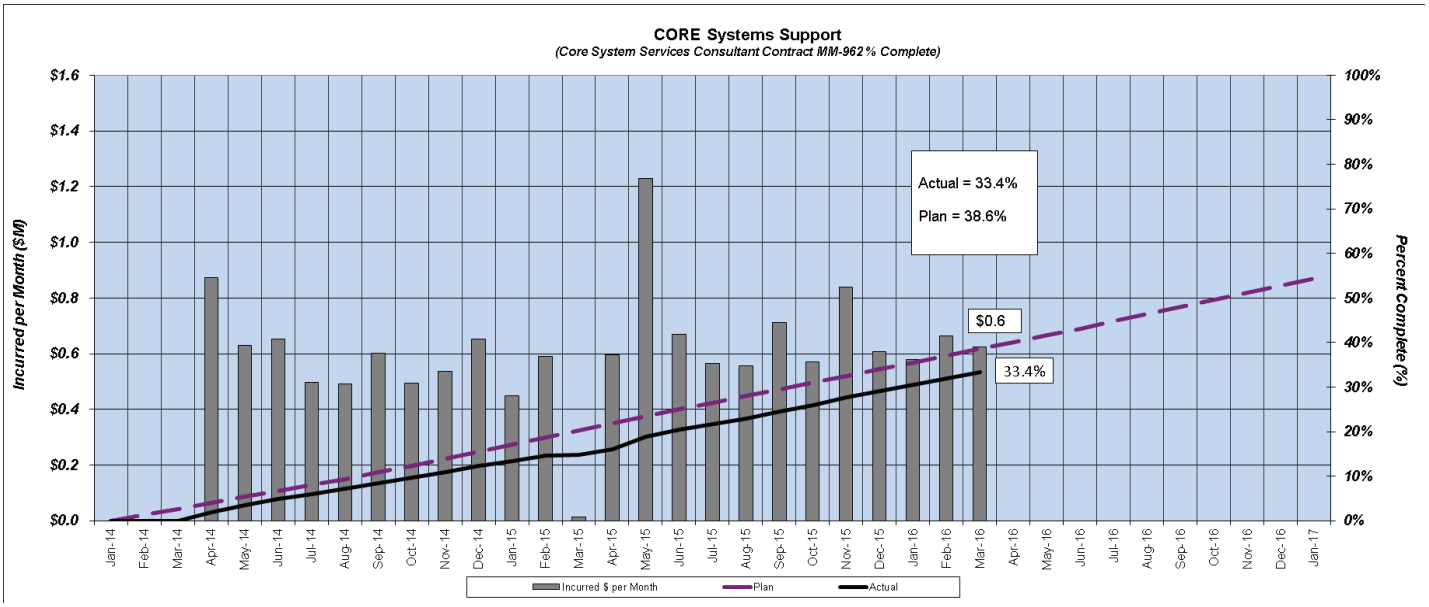
COST INFORMATION:

Original Contract:	$43,988,989	Incurred-to-Date:	$14,697,355
Current Contract Value[1]:	$43,988,989	Incurred in March:	$625,487

[1] *Current Contract Value = Original contract value + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$347,491
DBE % Attained:	0.80%

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$0**



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.

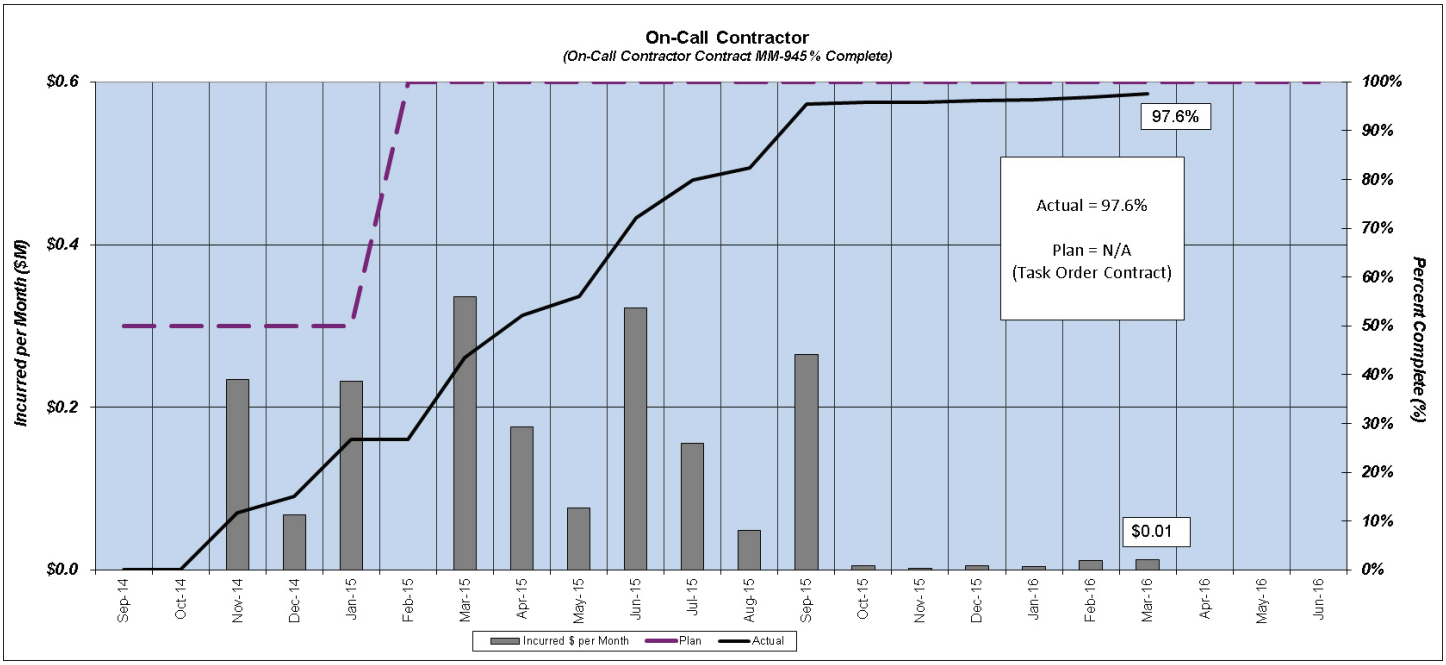
COST INFORMATION:

Original Contract:	$1,000,000	Incurred-to-Date:	$1,951,649
Current Contract Value[1]:	$2,000,000	Incurred in March:	$12,541

[1] *Current Contract Value = Original contract value + executed Change Orders*

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

March Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$1,000,000**



KEY ISSUES:

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

5 OVERALL PROJECT-WIDE ACTIVITIES

5.1 Permits

- **Permits Submitted and In-Progress**
  - HART submitted the extension of Stream Channel Alteration Permit (SCAP) 3854.3 for Waiawa Stream and Tributary.
  - HART is in the process of submitting a renewal of the KHG Community Noise Variance for continued construction from Pearl Highlands to Aloha Stadium.
  - HART is in the process of submitting a City Center Community Noise Variance for construction from Middle Street to Ala Moana.
  - HART is in the process of extending the Coast Guard Bridge Permit advanced approval.

- **Permits and Approvals Granted**
  - HART received an approved Stream Channel Alteration Permit (SCAP 4289.3) for Kalihi Stream.
  - HART received the approved continuance of the KHG Community Noise Permit for daytime construction from Pearl Highlands to Aloha Stadium.

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

5.2 Hawai‘i Department of Transportation (HDOT) Agreements

- **Activities this Month**
  - 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 draft Transportation Improvement Program (TIP) Amendment #9 for FY16.
  - Impacts and mitigation letter developed for the balanced cantilever construction height clearance for the right lane and shoulder lane in the eastbound direction.
  - An amendment to the WOFH Master Agreement is being developed addressing maintenance responsibilities and reimbursements.

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

5.3 Utility Agreements

Utility Agreements Status Matrix

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

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

Legend: = Action this month; = Not applicable

COR = Corporation Counsel
ESA = Engineering Services Agreement
UCA = Utility Construction Agreement
UFRCRA = Combined Engineering and Construction Utility Agreement

WOFH

- All WOFH agreements have been executed.

KHG

- All KHG agreements have been executed.

AIRPORT

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

CITY CENTER

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

HECO

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

- ***Alternative Equipment*** –HECO has stated that the telescoping Bronto manlift will not completely resolve the horizontal working clearance issue. HECO and HART are now researching with other equipment manufacturers to see if there is equipment (bucket trucks and cranes) that can work with less than the desired working clearance requirements.

- **New Service Connections –** HECO service requests are required for new electrical services for the MSF, Passenger Stations and Systems Sites (traction power facilities). The Passenger Station designers are providing the service request for the stations, and the Core Systems Contractor is providing the service request for the systems sites.
  - ***MSF –*** Service request approved via receipt of HECO Final Cost Letter and HECO design drawings. Installation of the MSF service is complete; buildings are energized.
  - ***Passenger Stations and Systems Sites –*** HECO service request reviews are complete and HART has not received additional comments for the west side stations and systems sites. HECO is working to finalize its designs and cost estimates.

5.4 Right-of-Way (data as of April 11, 2016)

BUDGET

	Baseline Budget	Expended	Remaining Budget Balance	Estimate to Completion	Forecast Variance
Acquisition	$ 201.70	$ 90.60	$ 111.10	$ 98.00	$ 13.10
Relocation	$ 20.50	$ 11.00	$ 9.50	$ 15.50	$ (6.00)
Total (Million)	$ 222.20	$ 101.60	$ 120.60	$ 113.50	$ 7.10

Note
* Administrative overhead costs aggregated with the Acquisition and Relocation numbers
* Estimate to complete based on offers, appraisals or assessed values

ACQUISITIONS

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

	Current No. of Parcels Needed (a)	Current Square Feet Needed (b)	No. of Completed Acquisitions (c)	Square Feet of Completed Acquisitions (d)	No. of Acquisitions Not Completed & Site Access Obtained (e)	Square Feet of Acquisitions Not Completed & Site Access Obtained (f)
W.Oahu/Farrington	**35**	**9,808,840**	**24**	**7,428,687**	**11**	**2,380,153**
Kamehameha	**13**	**3,027,319**	**5**	**2,530,534**	**7**	**493,317**
Airport	**50**	**979,875**	**11**	**235,647**	**29**	**697,907**
City Center	**121**	**849,647**	**26**	**201,299**	**4**	**11,487**
GRAND TOTAL	***219***	***14,665,681***	***66***	***10,396,167***	***51***	***3,582,864***

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

Footnotes :
(a) & (b) Current No. of Parcels Needed, Square Feet Needed - Parcels identified as needed by the project.
(c) & (d) No. of Completed Acquisitions, Square Feet of Completed Acquisitions - Acquisitions are closed and the right to access and construct is obtained for 50 private owners and agreements on 16 government parcels.
(e) & (f) No. of Acquisitions Not Completed & Site Access Obtained, Square Feet of Acquisitions Not Completed & Site Access Obtained - Acquisitions may not be completed, but the right to access and construct has been obtained.

KAMEHAMEHA

- Priorities:
  - Continuing to support negotiations with Aloha Stadium Authority to obtain right of entry for the construction of the station park-and-ride. HART has obtained the right of entry to construct the guideway.
  - Acquisition of TMK 9-8-009-005 from the City is in process.
- Look Ahead:
  - In order to support the relocation of utility easements in the Kamehameha section, a right of entry is being approved and escrow is expected to open soon for TMK 9-8-008-029.

AIRPORT

- Priorities:
  - On-going negotiations with TMKs 1-1-002-001, 1-1-016-020, 1-1-004-035 and 1-1-004-039.
  - Continuing to work with the Federal government to complete documentation for easements.
  - Closely monitoring the mapping process for Airport Station and for utility easements.
  - Design change pending for TMKs 1-2-013-020 and 1-2-013-021.
  - In order to support the upcoming procurement for the Airport Guideway and Stations Design-Build contract and to maintain the project schedule, eminent domain proceedings were authorized by the HART Board and the Honolulu City Council for several parcels. However, negotiations are still continuing with all private property owners in the Airport section in an attempt to reach mutual agreement.
- Look Ahead:
  - Working towards executing Airport agreements which will occur when the Notice to Proceed for the Airport Guideway and Stations is issued.
  - Reviewing appraisal for TMK 1-1-002-001.
  - Evaluate and address the need to advance additional recommendations for eminent domain to achieve the project's schedule.

CITY CENTER

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

RELOCATIONS

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

	Active Relocations	Relocations Completed	Total Relocations
W.Oahu\Farrington	0	25	25
Kamehameha	0	4	4
Airport	6	7	13
City Center	26	53	79
Grand Total:	***32***	***89***	***121***

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

AIRPORT

- Priority:
  - Monitoring ongoing relocation for TMKs 1-1-016-006 and 1-1-016-016.

CITY CENTER

- Priorities:
  - Continuing negotiations with TMK 2-3-002-059.
  - Working to vacate TMK 2-3-007-045 through the judicial process.
- Look Ahead:
  - Relocation is near completion for TMK 2-3-007-009.

THIRD-PARTY AGREEMENTS

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

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
City Agreements				
City Joint Use Memorandum of Understanding	Pending	Aug 2016	WOFH, KHG, Airport, City Center	Being reviewed by Corporation Counsel.
DFM – Dept. of Facility & Maintenance (Kamehameha Hwy/Makalapa Manor)	Executed		Airport	Jurisdictional transfer from DFM to HART in place.
DPR - Dept. of Parks & Recreation (MSF drainage)	Executed		WOFH	Consent to construct in place.
State Agreements				
UH - University of Hawai'i Master Agreement	Pending	September 2016	WOFH, KHG, City Center	Final negotiations are ongoing. Will secure Right of Construction as not to delay the project.
UH -West O'ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - West O'ahu (UHWO) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH	Consent to construct in place.
UH - Leeward Community College (LCC) Construction Right of Entry for Guideway	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Leeward Community College (LCC) Construction Right of Entry for Station	Executed		WOFH	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Pre-Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Urban Gardens Construction Right of Entry	Executed		KHG	Consent to construct in place to be followed by execution of the UH Master Agreement.
UH - Urban Gardens Kiewit Construction Right of Entry	Executed		KHG	Consent to construct in place.
UH - Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed		City Center	Consent to construct in place.
UH - Honolulu Community College (HCC) Construction Right of Entry for Guideway & Station	Pending	September 2016	City Center	In negotiations. Concerted effort is being made to finalize.
DLNR – Dept. of Land and Natural Resources Kapolei Right of Entry	Executed		WOFH	Consent to construct in place to be followed by execution of the easement agreement.
DLNR – Kapolei Easement	Pending	Jan 2017	WOFH	Easement agreement in process.
DLNR – Keehi Lagoon Right of Entry	Executed		Airport	Consent to construct in place to be followed by execution of the easement agreement.
DLNR – Keehi Lagoon Easement	Pending	Jan 2017	Airport	Easement Agreement in process.

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

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
DAGS – Dept. of Accounting & General Services / HHFDC Right of Entry	Pending	Aug 2016	City Center	Consent to construct in process to be followed by execution of the Easement Agreement.
DAGS – Dept. of Accounting & General Services / HHFDC Easement Agreement	Pending	Jan 2017	City Center	Process Easement Agreement.
Federal Agreements				
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	Easement agreements being prepared by Navy.
U.S. Navy Pearl Harbor Station Acquisition of Fee Transfer	Executed		Airport	Quitclaim deed received.
U.S. Post Office Honolulu Processing Center acquisition	Pending	August 2016	Airport	In negotiations.
U.S. Gov't/GSA/Federal Courthouse Agreement & Landscape Plan	Pending	September 2016	City Center	Draft agreement is under review and discussions are ongoing.
Other Agreements				
D.R. Horton Agreement for Construction	Executed		WOFH	Consent to construct in place to be followed by execution of the easement agreement.
D.R. Horton Final Easement Agreement	Pending	January 2018	WOFH	Easement Agreement in process and subject to owner's development plans.

6 MANAGEMENT AND ADMINISTRATIVE UPDATES

6.1 Safety and Security

6.1.1 S&S Certification Documents

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

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

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

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

S & S Design Criteria Conformance Checklist (DCCC) ***Core Systems Contracts*** *Verification Status*						
Design Phase				**Construction / Installation /Testing**		
Contracts: FD, DB, DBOM	% Verified	+ / - % Change	Comments: Design SSRC Approval Date	% Verified	+ / - % Change	Comments: C/I/T SSRC Approval Date
DBOM-920 Core Systems Contracts Under Procurement - Production - Manufacture - Installation						
Passenger Vehicles (PV)	63%	+63%	Verification underway	-	-	
Traction Electrification System (TES)	93%	-	Verification underway	-	-	
MOW Vehicles – 8 support vehicles	-	-	Designer input underway	-	-	
DBOM-920 Core Systems Contracts Under Design						
Communication System	-	-	Designer input underway	-	-	
Fire Detection Alarm System (FDAS)	-	-	Designer input underway	-	-	
Automatic Train Control (ATC)	96%	+96%	SSRC approved 4/27/2016	-	-	
Supervisory Control & Data Acquisition (SCADA)	96%	+96%	SSRC approved 4/27/2016	-	-	
Platform Screen Gate System (PSGS)	-	-	Designer input underway	-	-	
TES-Back-up Generator (BUG)	N/A	N/A	No CDC Requirements	N/A	N/A	N/A

6.1.4 S&S Certification "Open Items List" Status

HART S&S Certification "Open Items List" Last 4 Months Status						
"Open Items" - Design/Construction and Verification Issues						
Month - 2016	Total #	Total # Open	Total # Closed	% Closed Overall	# closed In Month	% Closed In Month
January	**211**	41	170	**81%**	12	19%
February	**215**	30	185	**86%**	15	7%
March	**215**	24	191	**89%**	4	2%
April	**227**	35	192	**85%**	1	.4%

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

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

S & S Construction Specification Conformance Checklists (CSCC) Civil - Contracts Verification Status			
Construction - Installation – Start-up & Testing Phases			
Contracts	% Verified	+ / - % Change	Comments
Civil Contracts Under Construction			
DBB-525, Airport Section, 7 - Drilled Shafts	100%	N/A	8/26/2015 SSRC approved –Certification Completed
Yard Control Bungalow (YCB) CSC Civil - Contract	51%	+8%	Base CSCC SSRC approved 3/23/2016, verification underway
DB-200, MSF and Rail Yard	50%	+6%	Verification underway
DBB-505, Airport Utilities - Construction	62%	+5%	Verification underway
DB-120, WOFH Guideway	54%	+1%	Verification underway
DB-320, KHG Guideway	24%	+5%	Verification underway
DBB-171, West O'ahu Station Group (WOSG)	-	-	Base CSCC SSRC approved, 3/23/2016
DBB-271, Farrington Hwy Station Group (FHSG)	-	-	Base CSCC - SSRC approved, 7/22/2015
DBB-385, H2R2 Ramps	-	-	Base CSCC - SSRC approved, 5-27-2015
Construction Contracts Awarded – Not Yet Started – No Verification Effort			
DBB-371, Kamehameha Hwy Stations Grp (KHSG)	-	-	Base CSCC SSRC approved, 3/23/2016
MI-930, Elevators & Escalators, WOSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, FHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
MI-930, Elevators & Escalators, KHSG	-	-	Base CSCC - SSRC approved, 8/26/2015
Civil Contracts Under Design or in Pre-bidding or Pre-Award Phases			
MI-930, Elevators & Escalators, AP/CC Stations	-	-	Base CSCC - SSRC approved, 8/26/2015
AP00 Art-in-Transit, 23 Artists/contracts	-	-	Draft Base CSCC under PM review
DBB-511, Dillingham Utilities & Road Widening	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-275, Pearl Highlands PS/ Bus Transit Center	-	-	TBD – waiting for 100% conformed specifications
MI-900 Fare Collection System	-	-	Base CSCC SSRC approved 4/27/2016
DBB-600, West O'ahu Park & Ride	-	-	TBD – waiting for 100% conformed specifications
DB-450, AG & Stations Group (AGSG)	-	-	Draft Base CSCC needs updating - on hold – pending re-design
DB-550, CCG & Stations Group (CCGSG)	-	-	Draft Base CSCC needs updating - on hold – pending re-design

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

S & S Specification / Testing Conformance Checklists (STCC) Core Systems – Contracts Verification Status			
Procurement - Production - Manufacture - Installation - Start-up & Testing Phases			
Contracts	% Verified	+ / - % Change	Comments
DBOM-920 Core System Contracts under Procurement - Production - Manufacture - Installation - STCC			
MOW Vehicles (8-support vehicles)	29%	+2%	Base STCC SSRC approved 2/24/216, verification underway
Passenger Vehicles/Cars			
1) General Requirements - Applies to all PVs	4%	+2%	Verification in process
2) PV-001- Interim Cert - for Dynamic Testing	-	-	Verification on hold pending truck design resolution
3) PV-002- Interim Cert - for Dynamic Testing	-	-	
4) Train/4-cars Cert for Pre-Revenue Service	-	-	Base STCC under development
Traction Electrification System (TES)	-	-	
1) General Requirements - Project Wide	26%	-	Base STCC pending May SSRC approval, verification underway
2) MSF - Rail Yard	31%	+6%	Base STCC pending May SSRC approval, verification underway
3) Functional Track - WOFH Guideway	-	-	Base STCC pending May SSRC approval
4) WOFH and KHG Guideways	-	-	Base STCC pending May SSRC approval
5) Airport and City Center Guideways	-	-	Base STCC pending May SSRC approval
DBOM-920 Core Systems Contracts Under Design- STCC			
System Integration Testing (SIT)	-	-	Draft base SIT STCCs on hold – SIT Plan being revised
Uninterrupted Power Supply (UPS)	13%	+2%	Base STCC pending April SSRC approval, verification underway
Traction Power Generators Back-up System	-	-	SSRC approved 3/23/2016
Communication Systems	-	-	
1) Project Wide Communication Requirements	47%	+47%	Base STCC pending May SSRC approval
2) MSF and Rail Yard Communications	-	-	Base STCC pending May SSRC approval
3) Segment 1 Communications (KHG / WOFH)	-	-	Base STCC pending May SSRC approval
4) Segment 2 Communications (Airport)	-	-	Base STCC pending May SSRC approval
5) Segment 3 Communications (City Center)	-	-	Base STCC pending May SSRC approval
Fire Detection Alarm System (FDAS)	15%	-	Base STCC pending May SSRC approval
Train Control System (TCS)	-	-	Base STCCs under development
Supervisory Control & Data Acquisition (SCADA)	-	-	Base STCCs under development
Platform Screen Gate System (PSGS)	10%	+1%	Base STCC pending May SSRC approval
Operational Requirements			
Ops Readiness Conform Checklists (ORCC)	11%	+5%	Base ORCC - SSRC approved 12/09/2015, verification underway
Pre-revenue Testing Conform Checklist (PRTCC)		-	Under development

6.1.7 Interim Certification Verification Status

Interim Certification - Verification Status			
Construction - Installation – Start-up & Testing Phases			
Contracts	% Verified	+ / - % Change	Comments
Interim Certification Requirements			
1. PV-001 Delivery - OSB, M-5 Track, ORCC, MOW-V	69%	-	Interim Cert Certificate issued – 11 open items
2. MOW Building Early Occupancy	48%	+22%	Interim checklist SSRC approved 3/23/2016 – Needs CO/TCO
3. Five (5) - MOW Vehicles Delivery	80%	+10%	SSRC approved checklist – 1/27/2016
4. Test Track - Rail Yard, TES/IT/ORCC/PV-002/ WOFH	-	-	IC checklists under Review – April 2016 SSRC approval
5. PV-002 Delivery	-	-	PV-002 IC checklist SSRC approved 1/27/2016
6. Functional Track - WOFH, PV-002, TES, ORCC, & IT	-	-	Interim Cert checklists under development

6.1.8 Twelve (12) Month Certification Projected Milestones

12 Month Certification Projected Milestones		
Milestones	***Projected Contract and Interim Certifications***	***Comments***
May 2016	1. MOW Building Early Occupancy - Interim Certification	Civil / Systems
May 2016	2. YCB Civil Contract CSC Certification	Civil only
May 2016	3. DB-200, MSF Contract Certification	Civil / Systems
May 2016	4. Five (5) MOW Vehicles Delivery - Interim Certification	Vehicles only
Aug 2016	5. PV-002 Delivery - Interim Certification	Vehicle only
Sept 2016	6. Eight (8) MOW Vehicles Final Certification	All MOW vehicles
Sept 2016	7. FD-430 and DBB-505, Airport Utilities Contract Certification	Civil only
Sept 2016	8. Test Track - Rail Yard - Interim Certification	Civil / Systems
Sept 2016	9. PV-002, Interim Certification to enter Dynamic Testing	Vehicle only
Nov 2016	10. Functional Track - Interim Certification - Test Track	Civil / Systems
Dec 2016	11. FD-340 and DBB-385, H2R2 Contract Certification	Civil only
Dec 2016	12. DB-120, WOFH Guideway Contract Certification	Civil only
Apr 2017	13. DB-320, KHG Guideway Contract Certification	Civil Only

6.1.9 S&S Certification Certificates Issued to Date

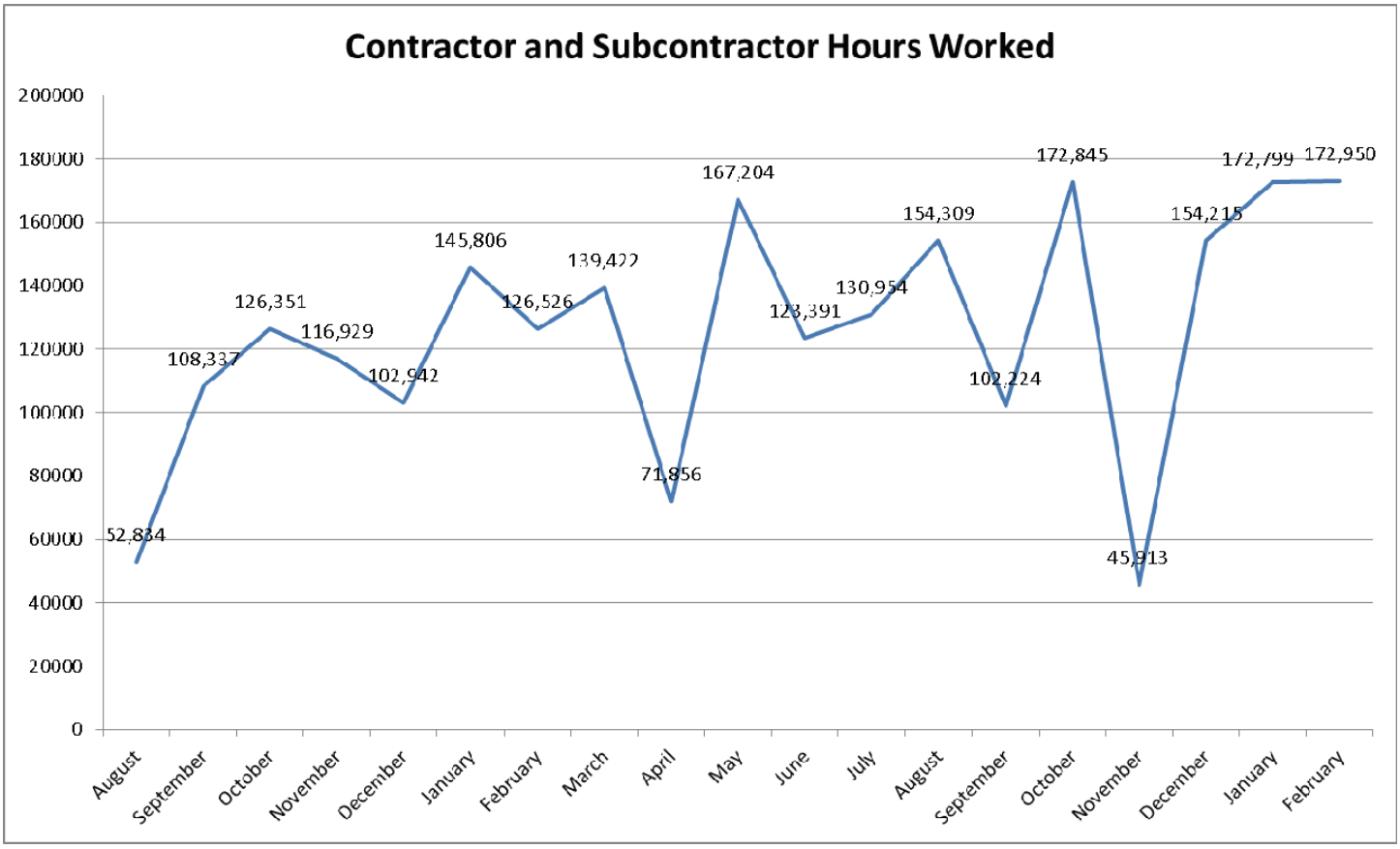
S&S Certification Certificates Issued to Date		
Contracts / Interim Certification Certificates Issued	***Date Signed***	***Comments***
1. FD-430 / DBB-525 Airport 7-Piers Certifiable Element *"Guideway"* Cert Certificate	**9/21/2015**	No open items - SSRC approved
2. 3 - MOW Vehicles Delivery & M-7, M-2, M-1 MSF Tracks – Interim Cert Certificate	**2/4/2016**	No open items - SSRC approved
3. MSF Yard M-4 and M-6 Tracks - Interim Cert Certificate	**3/10/2016**	No open items - SSRC approved
4. PV-001 Delivery, OSB, M-5/M-4 Tracks, ORCC, MOV MPV - Interim Cert Certificate	**3/29/2016**	11-Open items - SSRC approved

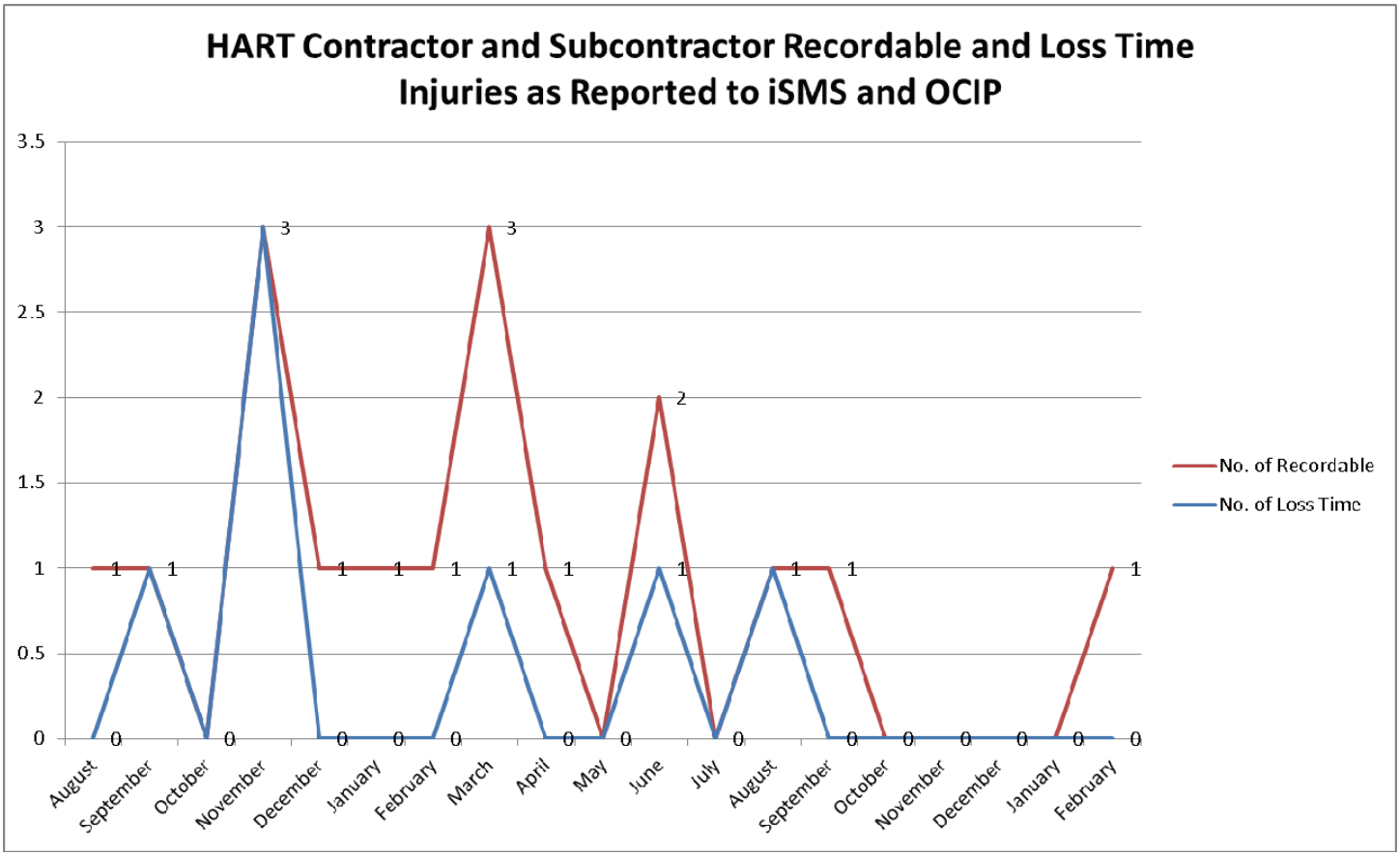
6.1.10 Construction Safety and Security

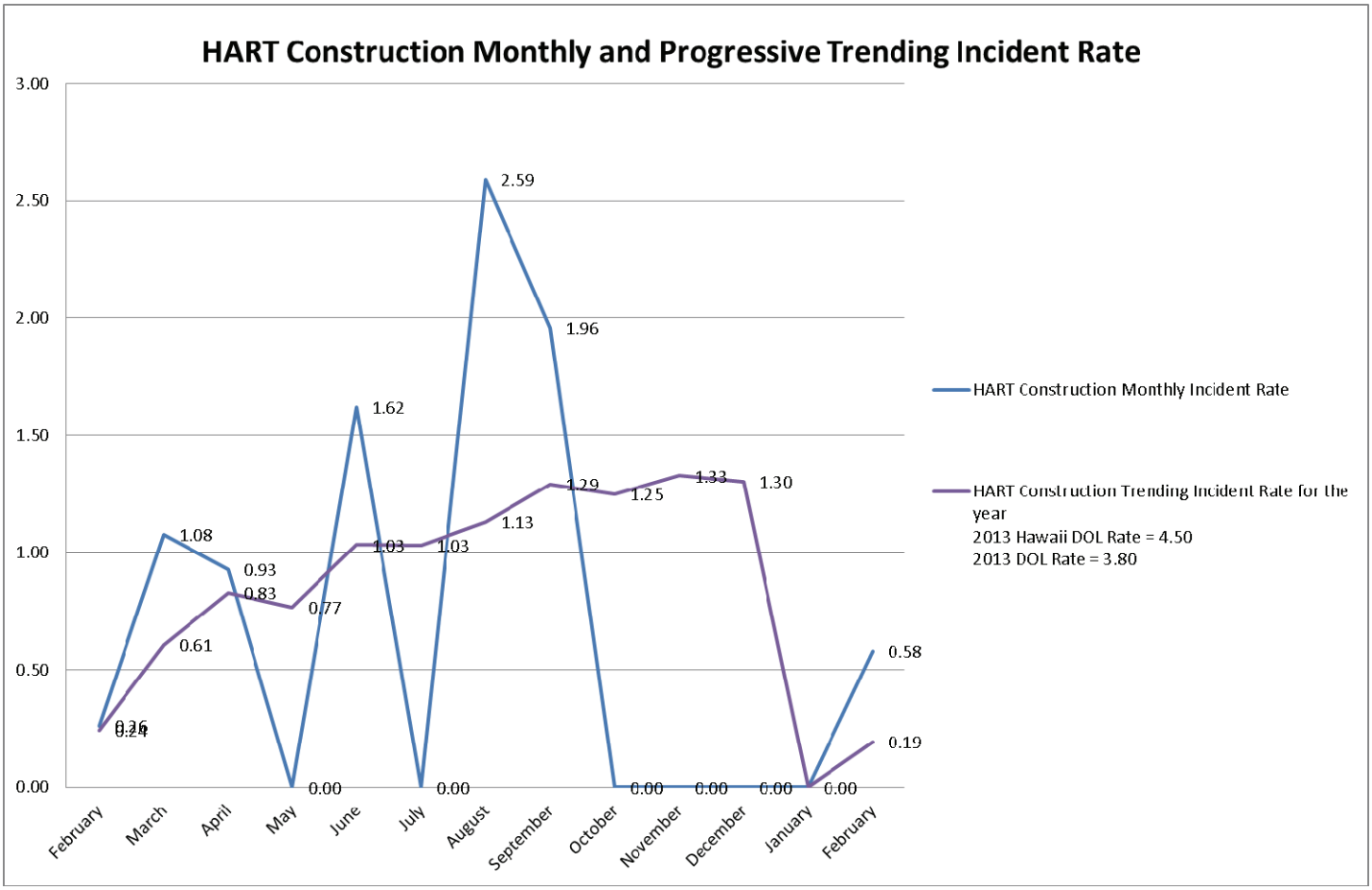
Project-Wide Incident Activity					
Event Type	**Total Number of Events since 1/1/2007**	**Total Number of Events for March 24, 2016 April 30, 2016**	**Loss Type**	**Date**	**Event Description**
Environment	15	0			
Loss or Damage	36	0			
*Reportable Occupational Injury/Illness	0	0			
Security	59	1	a) Minor Loss	a) 4/25/2016	a)WOSG: Containers broken into and tools stolen.
**Loss Time Occupational Injury/Illness	6	0			
Road/Vehicle - Driving	84	0			
Service Strike	81	0			

*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			
April				71,856	1	0			
May				167,204	0	0			
June				123,391	2	1			
July				130,954	0	0			
August	52,834	1	0	154,381	1	1			
September	108,337	1	1	102,224	1	0			
October	126,351	0	0	172,845	0	0			
November	116,929	3	3	45,913	0	0			
December	102,942	1	0	154,215	0	0			
Total	507,393	6	4	1,534,735	10	3	345,749	1	0
OSHA Annual Incident Rate				1.3					
Work Hours for WOFH, KHG, MSF, Airport, CORE System, as reported to OCIP and certified.									




HART Contractor and Subcontractor Recordable and Loss Time Injuries as Reported to iSMS and OCIP
3.5
3
2.5
2
1.5
1
0.5
0
August
September
October
November
December
January
February
March
April
May
June
July
August
September
October
November
December
January
February
No. of Recordable
No. of Loss Time


HART Construction Monthly and Progressive Trending Incident Rate
3.00
2.50
2.00
1.50
1.00
0.50
0.00
February
March
April
May
June
July
August
September
October
November
December
January
February
HART Construction Monthly Incident Rate
HART Construction Trending Incident Rate for the year
2013 Hawaii DOL Rate = 4.50
2013 DOL Rate = 3.80

KEY ISSUES

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

6.2 Quality Management

- **Overview**
  - The HART QMP and HART-approved QAPs of contractors, consultants and suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less and less Nonconformance Reports (NCR) are reported or encountered internally and on existing contracts.
  - Overall quality of the Project is good.
  - Review and approve contractors, consultants and suppliers new and updated QAPs, including Inspection and Test Plans (ITP).
  - Conducted biweekly Quality Task Force (QTF) meetings with CE&I, contractors and consultants QA teams to discuss the status of: design and construction activities; procurement activities; inspection and testing; NCRs; Corrective Actions (CARs) and Preventative Actions (PARs); quality compliance audits; various process improvements; quality economics, and Buy America compliance.
  - Participated in Pre-Activity Meetings for scheduled construction activities: CSC/MSF (Leeward GBS); ASU (Epoxy Coating for Navy Sewers Manholes); and KHG (Flash Butt Welding of Continuous Welded Rails).
  - Closed AHJV Core System Configuration Management Plan audit.
  - Performed Combined QA, Buy America and Environmental Compliance Audit of KIWC for WOFH and KHG contracts on April 14-15, 2016.
  - Closed Combined QA, Buy America, and Environmental Compliance Audit of KKJV on the MSF contract.
  - Performed Final Inspection of: Phases 1 and 5 of the MSF Yard; repair of 276 (NCR 113); removal, replacement, stressing and grouting of Tendon T1L of Span 258 (NCR 509).
  - Performed Pre-Final Walkdown of WOFH: TPSS Site 8 (Columns 246-251), Ho'opili Station (Column 95), and LCC Portables and Parking Lot.
  - Witnessed first Flash Butt welding and Nondestructive Examinations (Visual Test, Magnetic Test, and Ultrasonic Test) of Continuous Welded Rails for KHG.
  - 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 3

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit

CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
SC-HRT-1400049	CSC Support Services	L + E	16-001 QA	2/9 - 2/10	2/9/16	2/19/16
CH-HRT-10HO449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	16-002 QA/BA/E	3/15 - 3/17	3/15-17/16	4/15/16
CT-HRT-1200106	Core Systems Contract (CSC) & Hitachi Rail Design-Build-Operate-Maintain	Hitachi Rail USA	16-003 QA	6/28 -6/30		
CT-HRT-10HO137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIWC - HI	16-004 QA/BA/E	4/12 - 4/14	4/14-15/16	
CT-HRT-11HO195	Kamehameha Highway Guideway Design-Build (KHG)					
SC-HRT-1400027	General Engineering Consultant (GEC 3)	CH2M Hill	16-005 QA	6/16 - 6/17		
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	16-006 QA	5/26 - 5/27		
CR-HRT-1500309	H2R2 Ramp Construction	Royal Contracting	16-007 QA/BA/E	6/23 - 6/24		
CT-HRT-11HO195	KHG Casting Facility	KIWC - HI	16-008 QA/BA	7/19 - 7/21		
CR-HRT-1500503	West Oahu Station Group Construction	NAN, Inc	16-009 QA/BA/E	7/26 - 7/28		
CT-HRT-1500236	Farrington Highway Station Group Construction FHSG	Hawaiian Dredging	16-010 QA/BA/E	8/09 - 8/11		
CT-HRT-11HO195	WOFH and KHG Surveying and Alignments	KIWC - HI	16-011 QA	8/16 - 8/18		
CT-HRT-10HO137						
SC-HRT-14000323	Airport Section Utilities Construction	NAN, Inc	16-012 QA/BA/E	8/30 - 8/31		
DB -	Airport Guideway and Station (Design)	TBD	16-013 QA	9/13 - 9/15		
DB-	City Center Guideway and Station (Design)	TBD	16-014 QA	9/27 - 9/29		
CT-HRT-1300318	Elevator and Escalator - Manufacture, Install and Maintain	US Schindler - HI	16-015 QA/BA	10/4 - 10/6		
		US Schindler - NJ				

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

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2016 Rev 3

KEY	Local Audit	Remote Audit	Continental U.S. Audit	International Audit

CONTRACT PACKAGE NUMBER	DESCRIPTION	CONTRACTOR / CONSULTANT / SUPPLIER	AUDIT NUMBER	DATE SCHEDULED	DATE PERFORMED	DATE CLOSED
CT-HRT-10H0137	WOFH Public Information	KIWC - HI	16-016 QA	10/18 - 10/20		
CT-HRT-11HO195	KHG Public Information					
SC-HRT-1400050	West Side Station Group CE&I	PGH Wong - HI	16-017 QA	10/25 - 10/27		
	West Oahu Farrington Highway and Kamehameha Highway Guideways CE&I					
	Elevator and Escalator - CE&I					
	Pearl Highlands Parking Structure/Bus Transit Center CE&I					
	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes CE&I					
CT-HRT-1200106	Configuration Management Plan (CMP)	AHJV - HI	16-018 QA	11/3 - 11/14		
DB	Kamehameha Highway Station Group Construction	NAN, Inc	16-019 QA/BA/E	11/15 - 11/17		
CCH-100	Honolulu Authority for Rapid Transportation (HART)	HART	16-020 QA/SS	12/06 - 12/13		
SC-HRT-1600008	Airport Section Guideway & Stations CE&I East	Stantec	TBD	TBD		
	City Center Section Guideway & Stations CE&I East'					
DB-	Pearl Highlands Garage Transit Center and H1R2 Ramp	TBD	TBD	TBD		
DB-	Airport Guideway and Stations (Construction)	TBD	TBD	TBD		
DB-	City Center Guideway and Stations (Construction)	TBD	TBD	TBD		
DB	UH West O'ahu Park-and-Ride and Campus Road "B"	TBD	TBD	TBD		

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

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- **Key Issues**

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

  - 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:
    - **Span 258 – NCR 509:** a few strands of the 12-Strands Tendon T1L installed on Span 258 failed after post-tensioning. KIWC has prepared a Remediation Plan to replace the failed Tendon T1L, which was approved by HART. The defective Tendon was removed and saved for postmortem by HART and KIWC on April 14, 2016; replaced and stressed on April 15, 2016; and grouted on April 22, 2016. Hence, Span 258 was lowered to its correct position.

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

  - Resolution of two (2) major KHG NCRs that need to be addressed and corrected to prevent recurrence and to mitigate impact to the overall progress of the project. The following are the major NCRs identified:
    - **Drilled Shafts:** To date there are nine (9) Open NCRs (closed one) which are related to the CSL Reports, and 146 Drilled Shafts completed (added 16), which indicates that there were few CSL issues encountered lately and the process has improved. The CSL anomalies on the nine NCRs open were found to be 15 feet from the top due to deeper shafts, therefore correction/fixing will be more challenging.
    - **Span 276 – NCR 113:** Damaged (Crack) at the end and Makai side of Segment 14. The crack is minor compared to cracks found on Span 17 and 67 NCRs. KIWC has prepared a Remediation Plan to repair the crack, which was approved by HART. The repair work was completed on April 15, 2016.

  - Erection and finishing of spans, construction of “shear keys” between columns and spans, and construction of concrete walkways on WOFH and KHG guideways.
  - Cause and Effect Fishbone Analysis of defective Tendon T1L to determine the root cause of the defects.
  - Resolution of one (1) major KHG NCR: Drilled Shafts (Cross Hole Sonic Logging Reports) quality and repair.
  - Construction of MSF Yard Ballasted Track: Alignment, Profile, Geometry, Sub-ballast, Drainage, Ballast, Grade Crossings, Welding, Stress Relieving, Concrete Ties, Contact Rails, Switches, etc.
  - Installation and welding of rails and turnouts on top of the WOFH 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.
  - Perform Joint (HART, KKJV and AHJV) Final Walkdown of OSB, WTB, and MOW buildings prior to turnover to HART/CSC.
  - Perform a Combined QA and Environmental Compliance Audit of AHJV on the CSC DBOM contract.

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

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

6.4 Disadvantaged Business Enterprise (DBE)

Total DBE Participation = $33.8M
(previous report = $33.5M)

- **Activities this Month**
  - $33,778,897 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 4/30/16
    - 6.38% = DBE utilization on total disbursed FTA funds received to date ($33,778,897 divided by $528,991,194)
    - 1.91% = DBE utilization to date on total Project FTA funds ($33,778,897 divided by $1,763,903,901)

Figure 16. DBE Participation this Month

DBE Participation in April		
DBE Firm	**Contract Number**	**Participation**
Lawson & Associates	SC-HRT-1400061 MM-964	$60,248
ADS System Safety Consulting	SC-HRT-1400061 MM-964	$88,600
Island Hauling	CT-HRT-10H0449 DB-200	$15,669
LKG-CMC	SC-HRT-1400049 MM-962	$15,431
David's Fencing	CT-HRT-10H0449 DB-200	$4,934
PSC Consultants	SC-HRT-1400050 MM-290	$185,065
Element Environmental	SC-HRT-1400050 MM-290	$71,194
TOTAL FOR THE MONTH		**$441,141**

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, April 12, 2016, as part of ongoing consultation with the division.
    - The new Kāko'o II Programmatic Agreement Manager had its first of two introductory meetings with Consulting Party's (CPs) on March 10, 2016. The next introductory meeting with CPs is tentatively scheduled for the third week in May.
  - Planning, Environmental, and Cultural Activities:
    - HART participated in the annual FTA Programmatic Agreement meeting with Signatory and Consulting Parties on April 26, 2016 to review PA compliance, issues, and actions in 2015.
    - HART continues to work with the Oahu Metropolitan Planning Organization (OMPO) to refine the regional long-range travel demand forecasting model.
    - HART submitted the Quarterly Mitigation Monitoring Program Report for the first quarter of 2016 to FTA and PMOC. Continued coordination with stakeholder agencies regarding street tree transplanting and mitigation efforts.

- HART had a coordination meeting with Department of Parks and Recreation (DPR), Division of Urban Forestry, for City Center Station and Guideway segment landscape treatment.
- Planning staff attended Historic Urban Parks Presentation & Talk Story hosted by Historic Hawai'i Foundation (HHF) and Hawaiian Islands Land Trust (HILT).
- OMPO awarded HART and the Department of Transportation Services (DTS) a $400,000 reimbursable federal grant to construct a multiuse path and emergency second access along the edge of the Rail Operations Center. HART staff continued coordination with Leeward Community College, Waipahu High School, and community stakeholders regarding planning and design issues with this path.
- Planning staff continued participation in a design charrette with other City agencies to coordinate development of a potential Pearlridge Bus Transit Center, on April 6, 2016.
- HART Planning convened 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.
- Environmental staff participated in Quality, Environmental, and Buy America audits of WOFH and KHG on April 14, 2016.
- HART staff is continuing to coordinate with the Department of Facility Maintenance on agency compliance requirements associated with the National Pollutant Discharge Elimination System permit.
- HART staff is working with the Department of Transportation Services on a federal grant application to develop an electric bus circulator system connecting the Ala Moana Station to Waikiki and the University of Hawai'i.
- HART staff revised the FTA-required Before-and-After Study Plan.
- Provided evaluation support for AGS bid re: sustainability and sustainable design.
- Worked with procurement to provide responses to Pearl Highlands RFI questions.
- Continued management, distribution and outreach related to the Pearl Highlands RFI.
- Received Technical Assistance Grant from FTA in coordination with Department of Planning and Permitting.
- Presented at the American Planning Association National Conference in Phoenix, Arizona.

o Sustainability:
- Executed all Earth Day programming to engage HART organization with multiple sustainability-themed events over the month of April, including a social media campaign; encouraging more use of public transit, bicycling, and walking; and environmentally-friendly lifestyle and office practices.
- HART participated in Hawai'i Pacific University's Earth Week event at Aloha Tower Marketplace to showcase sustainable transportation and green initiatives.

- **Looking Ahead**
  - Ongoing coordination with DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.
  - Refine and develop bus-rail integration needs for Lagoon Drive, Waimanu Street and Ala Moana locations.
  - The next consultation meeting with HART/SHPD is scheduled for May 3, 2016.
  - Seek approval on Hawaiian Station Naming Policy from HART Board at May meeting.
  - Continue development of HART's sustainability program.
  - Evaluation of Pearl Highlands RFI respondents.
  - HART to develop Sustainability Focus Group with to-be-identified stakeholders.
  - Continue coordination with DPP, the State, and HCDA regarding transit-oriented development.
  - Continue to review and meet, if necessary, with contractors regarding submittals.
  - Prepare and submit Post-ROD Documentation for FTA approval prior to need dates as indicated:
    - Emergency Backup Generators, second quarter 2016
    - City Center Realignment (including the Ala Moana Station relocation), second quarter 2016
    - Airport and City Center Casting Yards, third quarter 2016
    - Prepare and submit separate draft Post-RODs for the following topics for third quarter 2016 and beyond: Additional Project-Wide Right-of-Way, West O'ahu Park and Ride Lots (including interim Park and Ride at Ho'opili Station), Hōlau Market and Ai-Goto Parcels at Chinatown Station, and Phased Openings.

6.6 Risk Management

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

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

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

NOTES OF SIGNIFICANCE

- There are a total of 130 risks in the April 2016 Risk Register, compared to 173 a year ago. There were 3 risks deleted and 0 new risks added for the month. During the month, risk reviews were focused on the east side projects and conducted for Airport Guideway and Stations, Airport Utilities, and the City Center Guideway and Stations contracts.
- Intensive focus continues to be placed on issues involving Hawaiian Electric Co. coordination and clearance issue resolution.
- As reported last month, a Risk Refresh Workshop was held on March 30, 2016 as the start of the risk and financial planning process. Completion of this process will occur when the FTA/PMOC and HART are in agreement that the budget and schedule approach are in alignment. This process will be used to identify and recommend appropriate budget contingency and schedule float for the revised Revenue Service Date.

AREAS OF FOCUS

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

Mitigation Progress:

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

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

Mitigation Progress:

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

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

Mitigation Progress:

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

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

Figure 17. Risk Matrix

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

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

Figure 18. Top Project Risks

Top Risks April 2016								
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Apr '16 Risk Rating	Mar '16 Risk Rating
36.01	Project Wide	HECO Clearance - Cost & schedule exposure from unanticipated utility replacements. (Ex., overhead 138kV and 46kV circuits may require relocation, including undergrounding).	90%	5	5	5	25	25
111.19	Airport Guideway and Stations	Cost estimate for remaining AGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
111.06	City Center Guideway & Stations	Cost estimates for remaining CCGS guideway contract may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
184.17	Elevator/Escalator	There is a potential for cost escalation and extended OH for delay of manufacturing and installing elevator/escalator due to reprocurement of West Side Stations.	90%	5	4	5	22.5	22.5
111.16	Pearl Highlands Garage	Cost estimates for Parking Structure and Transit Center FFGA Budget may be low compared to current market conditions.	90%	5	5	4	22.5	22.5
193.08	Core Systems Contract	Delays in civil, guideway, and stations construction may cause Core Systems installation delay. Shared access to facilities needs to be coordinated.	80%	4	5	5	20	20
6.06	City Center Guideway & Stations	Insufficient utility company resources available to resolve conflicts and meet the design, approvals, and/or construction schedule. (Dillingham bottleneck)	75%	4	4	5	18	18
110.06	City Center Guideway & Stations	Real Estate market could continue to increase rapidly before purchase of all needed properties, greatly increasing cost of property and delaying construction if legal actions are pursued.	75%	4	5	4	18	18
6.04	Kamehameha Highway Guideway	Insufficient utility company resources available to meet the design, approvals, and/or construction schedule.	75%	4	5	4	18	18
68.14	City Center Guideway & Stations	Downtown Station planned to be integrated into Pacific Guardian Center. PGC position could extend negotiations and delay construction or increase construction costs.	90%	5	4	3	17.5	20
38.20	City Center Guideway & Stations	Conflict Resolution - Costs for utility relocations may increase if utility plans have deviations greater than contract stipulation.	50%	3	5	5	15	12
37.06	City Center Guideway & Stations	Additional utility easements may be required for private utility companies or other project needs. This item does not include easements for 138kV undergrounding on Dillingham.	50%	3	5	5	15	15
186.17	Elevator/Escalator	Increase in escalator requirements.	90%	5	3	3	15	15
178.03	West Oahu/Farrington Highway Guideway	Disputed items escalated for resolution results in overturning field determination.	75%	4	5	2	14	14

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

Figure 19. Risks Deleted

Risks Deleted in April 2016					
Current Risk ID	Contract Package	Risk Description	Comments	Risk Rating	
				Apr. '16	Mar. '16
28.20	City Center Guideway & Stations	Potential for design related issues identified during construction resulting in delays to revenue service opening.	4/16 - Deleted due to changing the delivery method from Design-Bid-Build to Design/Build.	8	8
169.20	City Center Guideway & Stations	Construction laydown area may be inadequate in downtown area.	4/16 - Deleted. The CCGS RFP provides many HART properties for the Contractor's use as staging areas. Any other properties will be the responsibility of the Contractor.	5	5
199.20	City Center Guideway & Stations	Ala Moana Station shift in location approximately 200' ewa could impact ROW, construction easements, interface with Ala Moana, etc.	4/16 - Deleted. The Station shift was included in CCGS RFP package. ROW risks are contained in other risk items.	6	6

6.7 Community Outreach

- **Activities this Month**
  - HART Deputy Executive Director Brennon Morioka provided a preview of construction activities and preliminary schedule for work along Dillingham Boulevard to faculty, staff and students at Honolulu Community College.
  - HART staff provided a project update and answered questions posed by those attending the Kiwanis Club of Pearl Harbor inter-club meeting at the Aiea Public Library.
  - HART also participated in the Leeward Community College Career Fair and the Hawai'i Pacific University Earth Week Fair, in addition to providing a presentation to visitors from Seibu Railway in Japan.

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

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

Figure 20. Public Outreach at HCC

HART Deputy Executive Director Brennon Morioka talks about plans for rail construction work along Dillingham Boulevard at Honolulu Community College.

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

- **Look Ahead**

  Coming in May:
  - HART plans to unveil its first four-car train.
  - HART will hold two Business and Community meetings in the Waipahu and Aiea /Pearl City areas.
  - HART will make a presentation to the Kalihi Business Association.

6.8 Staffing

- **Overview**
  - The Director of Communications position interviews have been completed; selection has been made and is in processing.
  - The Chief Financial Officer position interviews have been completed; selection has been made and is in processing.

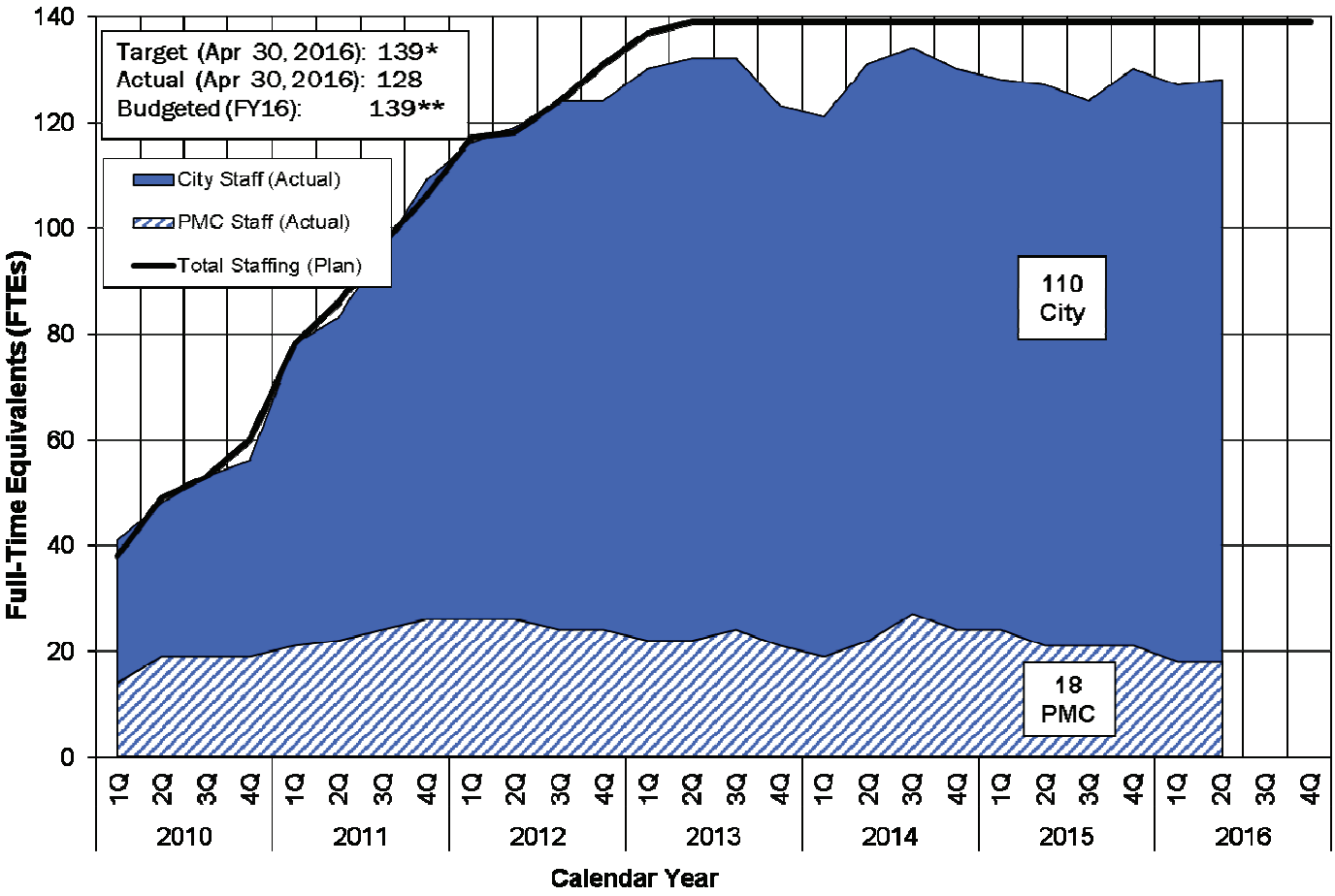
Figure 21. Staffing Activities

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

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

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

Figure 22. Project Staffing (Actual vs. Planned)



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

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

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

APPENDICES

Appendix A. Action Items

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

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

Appendix B. Project Contingency Management General Background and Clarifications

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

Current Contingency Balance = $473.5M

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

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

As the project progresses, budget transfers will be executed, moving budgeted project scope and budgeted contingencies as appropriate to reflect either a realized cost savings, cost overruns, or a transfer of scope. It is expected that project contingency will continue to be drawndown 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 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
July '12 (Bottoms-Up Estimate)			**Beg. Balance:**	**$643.6**	
1)	FD-240	Farrington Highway Stations Group FD	Budget Transfer at Bottoms-Up-Estimate from Project Scope to Contingency (contract allowance)	$58,443	90.03 - Contract Allowance
2)	FD-430	Airport Section Guideway Utilities FD	Budget Transfer for Contract Award less than the ASGU FD contract budget	$2,054,106	90.02 - Allocated Contingency
3)	MM-975	LEED Commissioning Services	Budget Transfer for Contract Award above the LEED Comm. Services contract budget	($35,623)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Budget Transfer for Contract Award above the KHG DB contract budget	($220,883)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer for Ins. Covg per executed CO No. 004	$3,995,230	90.02 - Allocated Contingency
			July '12 Contingency Drawdown	**$5,851,273**	
			July '12 - Ending Contingency Balance	**$649.4**	
August '12			**Beg. Balance:**	**$649.4**	
1)	FD-140	West Oahu Stations Group FD	Budget Transfer for Contract Awarded under WOSG FD contract budget	$1,808,200	90.02 - Allocated Contingency
2)	FD-530	City Center Guideway Utilities FD	Budget Transfer for Contract Awarded under CCGU FD contract budget	$5,917,945	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 17 - Procure and Install Portable Buildings	($2,670,000)	90.02 - Allocated Contingency
			August '12 Contingency Drawdown	**$5,056,145**	
			August '12 - Ending Contingency Balance	**$654.5**	
September '12			**Beg. Balance:**	**$654.5**	
	N/A	N/A	No Contingency Drawdown	$0	
			September '12 Contingency Drawdown	**$0**	
			September '12 - Ending Contingency Balance	**$654.5**	
October '12			**Beg. Balance:**	**$654.5**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 21 - Builders Risk Insurance Coverage	($56,689)	90.02 - Allocated Contingency
			October '12 Contingency Drawdown	**($56,689)**	
			October '12 - Ending Contingency Balance	**$654.4**	
November '12			**Beg. Balance:**	**$654.4**	
1)	FD-440	Airport Stations Group FD	Budget Transfer for Contract Award under ASG FD the contract budget	$227,784	90.03 - Contract Allowance
2)	FD-340	Kamehameha Highway Stations Group FD	Budget Transfer for Contract Award under KHSG FD the contract budget	$202,469	90.03 - Contract Allowance
3)	MM-905	General Engineering Consultant	Budget Transfer to align contract budget with Committed value	($120,630)	90.02 - Allocated Contingency
			November '12 Contingency Drawdown	**$309,623**	
			November '12 - Ending Contingency Balance	**$654.7**	
December '12			**Beg. Balance:**	**$654.7**	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 01 - Design & Engineering Cost Estimates	($275,000)	90.02 - Allocated Contingency
			December '12 Contingency Drawdown	**($275,000)**	
			December '12 - Ending Contingency Balance	**$654.4**	
January '13			**Beg. Balance:**	**$654.4**	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 01 - Acacia Rd alternative analysis	($15,981)	90.02 - Allocated Contingency
			January '13 Contingency Drawdown	**($15,981)**	
			January '13 - Ending Contingency Balance	**$654.4**	
February '13			**Beg. Balance:**	**$654.4**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 26 - Ins. Covg Requirement/ Additional BGGV at Ft. Weaver Rd	($1,670,178)	90.02 - Allocated Contingency
			February '13 Contingency Drawdown	**($1,670,178)**	
			February '13 - Ending Contingency Balance	**$652.8**	
March '13			**Beg. Balance:**	**$652.8**	
1)	FD-240	Farrington Highway Stations Group FD	Executed Contract Amendment No. 09 - Waipahu Station sewer	($3,885)	90.03 - Contract Allowance
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 06 - Ins. Covg Requirements/ Dbl Crossovers Insulated Joints	($464,876)	90.02 - Allocated Contingency
			March '13 Contingency Drawdown	**($468,761)**	
			March '13 - Ending Balance	**$652.3**	
April '13			**Beg. Balance:**	**$652.3**	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 01 - Second elevator provision	($81,013)	90.03 - Contract Allowance
2)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 26	$1,670,178	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Budget Transfer to offset Ins. Covg Requirement for Change Order No. 06	$434,000	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DE	Budget Transfer to Align current budget to contract Schedule of Milestones	$600	90.02 - Allocated Contingency
			April '13 Contingency Drawdown	**$2,023,765**	
			April '13 - Ending Contingency Balance	**$654.3**	
May '13			**Beg. Balance:**	**$654.3**	
	N/A	N/A	No Contingency Drawdown	$0	
			May '13 Contingency Drawdown	**$0**	
			May '13 - Ending Contingency Balance	**$654.3**	

HART Project Contingency Drawdown with Details

Data as of 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
June '13			**Beg. Balance:**	**$654.3**	
	N/A	N/A	No Contingency Drawdown	$0	
			June '13 Contingency Drawdown	**$0**	
			June '13 - Ending Contingency Balance	**$654.3**	
July '13			**Beg. Balance:**	**$654.3**	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 04 - Antenna Engineering Design Services	($464,114)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 07 - Archeological Inventory Survey (AIS) Provisional Sum Part 2	($3,000,000)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 08 - Maintenance & Storage Facilty Yard Switch Machines	($553,000)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 09 - Yard Layout Revisions	($514,426)	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 10 - Train Configuration	($27,700)	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 11 - Preliminary Design & Supplemental Project Mgt	($694,866)	90.02 - Allocated Contingency
			July '13 Contingency Drawdown	**($5,254,106)**	
			July '13 - Ending Contingency Balance	**$649.1**	
August '13			**Beg. Balance:**	**$649.1**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 30 - Archeological Inventory Survey (AIS) Provisional Part 2	($5,800,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 32 - Kaloi Channel Station Mod Concept	($72,381)	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 34 - Traditional Cultural Property Construction Partial Suspension	($1,195,094)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 36 - Ho'opili Station Relocation Design	($490,615)	90.02 - Allocated Contingency
5)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 06 - Archeological Inventory Survey (AIS) Provisional Part 2	($1,500,000)	90.02 - Allocated Contingency
6)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 02 - Canopy Redesign	($504,386)	90.03 - Contract Allowance
7)	MI-930	Elevator & Escalator Install/Maint	Budget Transfer for Contract Awarded under E&E I/M contract budget	$3,738,472	90.02 - Allocated Contingency
			August '13 Contingency Drawdown	**($5,824,004)**	
			August '13 - Ending Contingency Balance	**$643.2**	
September '13			**Beg. Balance:**	**$643.2**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 33 - Provisional Sum HDOT Joint Use and Occupancy	($4,900,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 35 - Aesthetic Column Design Conflict	($120,812)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 12 - HNTB Design Escalation	($823,500)	90.02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group FD	Executed Contract Amendment No. 10 - NTP 2 Delay/Design Delay from Core Systems Contract & West Oahu Farrington Highway DB Contract	($270,985)	90.02 - Allocated Contingency
			September '13 Contingency Drawdown	**($6,115,297)**	
			September '13 - Ending Contingency Balance	**$637.1**	
October '13			**Beg. Balance:**	**$637.1**	
1)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 13 - Ins. Covg Requirements/ Roof Access Modification	($282,155)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 13 for Ins. Covg Requirements	$266,500	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 37 - Ala Ike Street Mod/ W36 at DR Horton & Farrington HWY	$24,815	90.02 - Allocated Contingency
4)	DBOM-920	Core Systems Design Build O/M	Executed Change Order No. 05 - Platform Screen Gates Systems	($23,301,657)	90.02 - Allocated Contingency/ 90.01 - Unallocated Contingency
5)	FD-550	Dillingham and Kaka'ako Stations Group FD	Budget Transfer for Contract awarded under DKSG FD contract budget	$1,157,760	90.02 - Allocated Contingency
			October '13 Contingency Drawdown	**($22,134,737)**	
			October '13 - Ending Contingency Balance	**$615.0**	
November '13			**Beg. Balance:**	**$615.0**	
1)	DB-120	West Oahu/Farrington Highway Guideway DB	Executed Change Order No. 38 - Insurance Coverage Requirement Q4 2013	($1,600,000)	90.02 - Allocated Contingency
2)	DB-120	West Oahu/Farrington Highway Guideway DB	Budget Transfer for Change Order No. 038 for Ins. Covg. Requirements	$1,600,000	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 014 - Preliminary Design & Supplemental Project Management 2	($214,846)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 015 - Yard Layout Revisions/RFP Structural Steel Modification	($1,723,000)	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Budget Transfer for Change Order No. 015 for Ins. Covg. Requirements	$223,000	90.02 - Allocated Contingency
6)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment No. 01 - Archeological Inventory Survey (AIS) Suspension	($532,800)	90.02 - Allocated Contingency
7)	FD-240	Farrington Highway Station Group FD	Budget Transfer for Contract Award for FHSG FD II	($2,700,205)	90.01 - Unallocated Contingency
			November '13 Contingency Drawdown	**($4,947,851)**	
			November '13 - Ending Contingency Balance	**$610.0**	
December '13			**Beg. Balance:**	**$610.0**	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 05 - Ulena St redesign scope impact	($248,958)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Station Group FD	Executed Contract Amendment No. 03 - Design relocation of HECO 46Kv and fiber optic lines	($23,928)	90.02 - Allocated Contingency
			December '13 Contingency Drawdown	**($272,886)**	
			December '13 - Ending Contingency Balance	**$609.8**	
January '14			**Beg. Balance:**	**$609.8**	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 06 - Archeological Inventory Survey (AIS) Suspension	($2,306,450)	90.02 - Allocated Contingency
2)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment No. 02 - Soil Resistance Test and Max Sag Calculation	($406,153)	90.02 - Allocated Contingency
3)	MM-290	Construction Engineering & Inspection West	Budget Transfer for Contract Award less than CE&I West contract budget	$181,068	90.02 - Allocated Contingency
4)	MM-595	Construction Engineering & Inspection East	Budget Transfer for Contract Award less than CE&I East contract budget	$1,102,817	90.02 - Allocated Contingency
			January '14 Contingency Drawdown	**($1,428,718)**	

HART Project Contingency Drawdown with Details

Data as of 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
			January '14 - Ending Contingency Balance	**$608.3**	
		February '14	**Beg. Balance:**	**$608.3**	
1)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 07 - Resist & Sag Geotech Investigation	($132,900)	90.02 - Allocated Contingency
2)	HRT-201	HART ODC	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	($11,487)	90.02 - Allocated Contingency
3)	MM-910	GEC II	Budget Transfer for Contract Award - Archeological & Cultural Monitoring & Core Systems Support contracts	($4,424,173)	90.02 - Allocated Contingency
4)	MM-960	Archeological & Cultural Monitoring	Budget Transfer for Contract Award - Archeological & Cultural Monitoring contract	$36,761	90.02 - Allocated Contingency
5)	MM-962	Core Systems Support	Budget Transfer for Contract Award - Core Systems Support contract	$4,398,899	90.02 - Allocated Contingency
			February '14 Contingency Drawdown	**($132,900)**	
			February '14 - Ending Contingency Balance	**$608.2**	
		March '14	**Beg. Balance:**	**$608.2**	
	N/A	N/A	No Contingency Drawdown	$0	
			March '14 Contingency Drawdown	**$0**	
			March '14 - Ending Contingency Balance	**$608.2**	
		April '14	**Beg. Balance:**	**$608.2**	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 04 - East Kapolei Staff Room Pre-Final Submittal	($60,243)	90.03 - Contract Allowance
2)	FD-430	Airport Section Guideway Utility FD	Executed Contract Amendment No. 08 - Notice-to-Proceed 4&5/Provisional Sum for Design Support during bid	($1,588,014)	90.03 - Contract Allowance
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 016 - Rail Lubricators	($102,000)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 017 - Yard Layout Reconfiguration/Automated Train Operation Design	($2,125,000)	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 018 - Rail Material Storage Plan	($370,000)	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 019 - Train Wash Facility Shortening	$0	90.02 - Allocated Contingency
7)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 040 - Precast Yard Alternative Site	($12,400,638)	90.02 - Allocated Contingency
8)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 041 - Revised Track Alignment and Profile	($46,808)	90.02 - Allocated Contingency
9)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 042 - Sandwhich Isles Communications Utility Relocation @ North South Rd	($798,049)	90.02 - Allocated Contingency
10)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 005 - Rebar Clear Spacing Design Criteria	$0	90.02 - Allocated Contingency
			April '14 Contingency Drawdown	**($17,490,752)**	
			April '14 - Ending Contingency Balance	**$590.7**	
		May '14	**Beg. Balance:**	**$590.7**	
1)	FD-140	West Oahu Stations Group FD	Budget Transfer for Executed Contract Amendment No. 05 - Final Design for relocated Hoopili Station	$220,123	90.02 - Allocated Contingency
2)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 008 - APEC work restrictions/abandoned utilities removal	($505,674)	90.02 - Allocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 009 - Emergency walkway/insurance covg. Requirements 2013	($839,000)	90.02 - Allocated Contingency
4)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 007 - Relocate TPSS to system site #3	$867,054	90.02 - Allocated Contingency
5)	MM-915	HDOT MOT Consultant	Budget Transfer for Executed Contract Amendment No.002 - Increase T&M contract value	$287,391	90.02 - Allocated Contingency
6)	MM-975	MSF LEED Consultant	Budget Transfer for Executed Contract Amendment No. 001 - LEED measurement and verification plan	($9,910)	90.02 - Allocated Contingency
7)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 020 - CSC consolidated changes construction	($22,500,000)	90.01 - Unallocated Contingency
8)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 025 - OSB reconfiguration	$170,000	90.02 - Allocated Contingency
			May '14 Contingency Drawdown	**($22,310,016)**	
			May '14 - Ending Contingency Balance	**$568.4**	
		June '14	**Beg. Balance**	**$568.4**	
1)	DB-200	Maintenance & Storage Facility DB	Board Approved RFCC 00010 - Amendment 1 Non-Rail Escalation	($5,000,000)	90.02 - Allocated Contingency
			June '14 Contingency Drawdown	**($5,000,000)**	
			June '14 - Ending Contingency Balance	**$563.4**	
		July '14	**Beg. Balance**	**$563.4**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 008 - Platform Screen Gates Mobilization	($898,194)	90.02 - Allocated Contingency
2)	ROW	Real Estate/Right-of-Way	Budget Transfer for Contract Award above the Real Estate Map & Survey budget	($1,344,612)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	$1,007,860	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Budget Transfer to Project Contingency from remaining "known" Changes balance	$1,556,107	90.02 - Allocated Contingency
			July '14 Contingency Drawdown	**$321,161**	
			July '14 - Ending Contingency Balance	**$563.7**	
		August '14	**Beg. Balance**	**$563.7**	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 010 - Delay in issuance of Notice-to-Proceed 2 & 3	($1,828,000)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Stations Group FD	Executed Amendment No. 006 - Passenger screen gates	($80,233)	90.02 - Allocated Contingency
3)	DBB-505	Airport Section Utility Construction DBB	Budget Transfer for Contract Award above Airport Section Utility Construction original budget	($2,755,321)	90.02 - Allocated Contingency
4)	MM-946	On Call Hazmat Removal Consultant	Budget Transfer due to scope transfer from ROW to Hazmat consultant	$470,823	90.02 - Allocated Contingency
5)	MM-945	On Call Contractor	Budget Transfer for Contract Award above On Call Contractor original budget	($130,435)	90.02 - Allocated Contingency
			August '14 Contingency Drawdown	**($4,323,166)**	
			August '14 - Ending Contingency Balance	**$559.4**	
		September '14	**Beg. Balance**	**$559.4**	
1)	MM-950	OCIP Consultant Contract	Budget Transfer to unallocated contingency as estimate at completion is less than current budget	$750,000	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 027 - Traditional Cultural Properties (TCP) Suspension	($473,593)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 026 - Insurance Coverage Requirements 2014	($1,112,000)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 011 - Revised Vehicle Criteria/Construction Safety Security Plan	($231,500)	90.02 - Allocated Contingency
5)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 012 - Insurance Coverage Requirements 9/1/13 - 6/30/14	($1,400,000)	90.02 - Allocated Contingency

HART Project Contingency Drawdown with Details

Data as of 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
6)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 045 - Standard Specification Revision 2.0	($2,650,000)	90.02 - Allocated Contingency
7)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 046 - Insurance Coverage Requirements 2014	($3,400,000)	90.02 - Allocated Contingency
8)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment 004 - Aesthetic Station Column	($271,850)	90.02 - Allocated Contingency
9)	FD-530	City Center Guideway Utilities FD	Executed Contract Amendment 005 - City Center Section Rescue Cart Scope Impact	($72,000)	90.02 - Allocated Contingency
10)	FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 001 - Special Provisions Update/Shear Wave Analysis	($27,932)	90.03 - Contract Allowance
11)	FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 003 - Historic Architect/Replace Highway Sign	($71,911)	90.03 - Contract Allowance
12)	FD-340	Kamehameha Highway Stations Group FD	Executed Contract Amendment 005 - Added Bus Shelters at Aloha Stadium Station	($28,893)	90.03 - Contract Allowance
13)	FD-430	Airport Section Guideway Utility FD	Executed Contract Amendment 010 - Aesthetic Station Column and Pearl Harbor Station Redesign	($238,750)	90.02 - Allocated Contingency
14)	FD-430	Airport Section Guideway Utility FD	Executed Contract Amendment 011 - Airport Section Rescue Cart Scope Impact	($45,000)	90.02 - Allocated Contingency
15)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment 007 - Traffic Signal Conflict UHWO/Ho'opili Access Road	($62,722)	90.03 - Contract Allowance
			September '14 Contingency Drawdown	**($9,336,151)**	
			September '14 - Ending Contingency Balance	**$550.1**	
		October '14	**Beg. Balance**	**$550.1**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 009 - WOFH Guideway Alignment for CSC	($145,000)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 028 - Escalation due to Schedule Impacts	($8,500,000)	90.01 - Unallocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 013 - Station Load & Configuration Mods.	($1,350,000)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 047 - Station Load & Configuration Mods.	($4,400,000)	90.02 - Allocated Contingency/ 90.01 - Unallocated Contingency
5)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 002 - Extension of PM Services	($790,000)	90.02 - Allocated Contingency
6)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 003 - Add Pedestrian Bridges to HIA Stations	($434,840)	90.02 - Allocated Contingency
7)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 001 - Extension of PM Services	($297,500)	90.03 - Contract Allowance
8)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 002 - Incorporation of Comments	($768,756)	90.01 - Unallocated Contingency
9)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 003 - Value Engineering	($472,705)	90.01 - Unallocated Contingency
10)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 004 - EOR/AOR	($748,539)	90.01 - Unallocated Contingency
11)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 010 - Temporary Parking Lot Near UHWO/UHWO & Ho'opili Sewage Holding Tank	($102,298)	90.03 - Contract Allowance
12)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 011 - Extension of PM Services	($297,500)	90.02 - Allocated Contingency
			October '14 Contingency Drawdown	**($18,307,138)**	
			October '14 - Ending Contingency Balance	**$531.8**	
		November '14	**Beg. Balance**	**$531.8**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 012 - Delete Ticket Vending Machines	$10,350,000	90.02 - Allocated Contingency
2)	FD-550	Dillingham Kaka'ako Stations Group FD	Executed Contract Amendement No. 002 - General Excise Tax credit	$385,586	90.02 - Allocated Contingency
			November '14 Contingency Drawdown	**$10,735,586**	
			November '14 - Ending Contingency Balance	**$542.5**	
		December '14	**Beg. Balance**	**$542.5**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 010 - HRT Train Mock-up Shipment/Delivery	($63,715)	90.02 - Allocated Contingency
3)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 013 - HECO Connection Charges	($150,000)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 014 - Escalation due to Schedule Impacts	($3,500,000)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 048 - Escalation due to Schedule Impacts	($15,000,000)	90.01 - Unallocated Contingency
			December '14 Contingency Drawdown	**($18,713,715)**	
			December '14 - Ending Contingency Balance	**$523.8**	
		January '15	**Beg. Balance**	**$523.8**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 011- Eliminate Station Manager Booths	$310,000	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 050 - Escalation due to Schedule Impacts Subcontractor Ameron Aggregate	($464,413)	90.01 - Unallocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 051 - Escalation due to Schedule Impacts Subcontractor Anti-Graffiti Paint	($21,476)	90.01 - Unallocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 052 - Escalation due to Schedule Impacts Subcontractor HPD Spec Duty Officer	($156,123)	90.01 - Unallocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 053 - Escalation due to Schedule Impacts Subcontractor MESA Blocks	($71,663)	90.01 - Unallocated Contingency
6)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 054 - Escalation due to Schedule Impacts Subcontractor Road Builder	($716,655)	90.01 - Unallocated Contingency
7)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 055 - Escalation due to Schedule Impacts Subcontractor Post Tension Strand Accessories	($767,177)	90.01 - Unallocated Contingency
8)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 056 - Escalation due to Schedule Impacts Subcontractor Ameron Rolled Drilled Shaft Casings	($102,675)	90.01 - Unallocated Contingency
9)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 057 - Escalation due to Schedule Impacts Subcontractor PAC Electric	($777,883)	90.01 - Unallocated Contingency
10)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 014 - Eliminate Secondary Emergency Access at MSF	$50,000	90.02 - Allocated Contingency
11)	FD-430	Airport Section Guideway Utilities FD	Executed Contract Amendment No. 012 - Contaminated Soil, 7 Piers, Wayside Lubricators	($58,700)	90.02 - Allocated Contingency
12)	FD-550	Dillingham Kaka'ako Stations Group FD	Executed Contract Amendment No. 003 - Scope for Downtown Sta/Civic Center Sta/Kapalama Sta & Bike Ramps	($480,017)	90.02 - Allocated Contingency
13)	FD-550	Dillingham Kaka'ako Stations Group FD	Executed Contract Amendment No. 004 - Ala Moana Transit Ctr-Chinatown Sta Geotech Expedited Station Loads	($618,717)	90.02 - Allocated Contingency
14)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 005 - Addition of Bike Ramps to FHSG Stations	($17,744)	90.02 - Allocated Contingency
15)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 006 - Addition of 30' Guideway Section West Loch and Waipahu Stations	($57,000)	90.02 - Allocated Contingency
16)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 007 - MODS to West Loch and Waipahu Girder Design	($38,000)	90.02 - Allocated Contingency
			January '15 Contingency Drawdown	**($3,988,243)**	
			January '15 - Ending Contingency Balance	**$519.8**	
		February '15	**Beg. Balance**	**$519.8**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 058 - Kaloi Drainage Channel Geotechnical	($987,501)	90.02 - Allocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 059 - Revision of Waipahu Guideway, LCC Station & Pedestrian Vibration Criteria	($301,052)	90.02 - Allocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 060 - Waiawa Scour Design Actuals	($288,494)	90.02 - Allocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 061 - Kaloi Scour Design Actuals	($636,571)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 062 - West Loch and UHWO Station Revisions of Guideway	($64,212)	90.02 - Allocated Contingency

HART Project Contingency Drawdown with Details

Data as of 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
6)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 063 - Procurement & Delivery LCC Modular Bldg	($1,919,021)	90.01 - Unallocated Contingency
			February '15 Contingency Drawdown	**($4,196,851)**	
			February '15 - Ending Contingency Balance	**$515.6**	
		March '15	**Beg. Balance**	**$515.6**	
1)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Amendment No. 015 - Test and Storage Track Changes at MSF	($2,510,000)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - WOSG Rebid and VE Items, 4&6 Bay Station Canopy Roofs, Change to CSC Dev location	($360,000)	90.02 - Allocated Contingency
3)	FD-140	West Oahu Stations Group FD	Executed Change Amendment No. 013 - WOSG Rebid and VE Items, 4&6 Bay Station Canopy Roofs, Change to CSC Dev location	($245,000)	90.03 - Contract Allowance
4)	FD-530	City Center Guideway Utilities FD	Executed Change Amendment No. 006 - Management Extension thru October 2014	($952,500)	90.02 - Allocated Contingency
5)	DBB-525	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 001 - HDOT A Utility Relocation at Piers	($490,863)	90.02 - Allocated Contingency
6)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amendment No. 006 - Misc RFI's Interface Items	($309,176)	90.02 - Allocated Contingency
7)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amendment No. 006 - Aloha Stadium Low Impact Development Requirement	($43,000)	90.03 - Contract Allowance
			March '15 Contingency Drawdown	**($4,910,539)**	
			March '15 - Ending Contingency Balance	**$510.7**	
		April '15	**Beg. Balance**	**$510.7**	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Redesign of East kapolei Escalator	($66,000)	90.02 - Allocated Contingency
2)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 014 - Hoopili Grading	($175,000)	90.03 - Contract Allowance
3)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 015 - Redesign of TPSS Trench at SS3 and CSC Cabinets at East Kapolei	($28,000)	90.02 - Allocated Contingency
4)	DBB-525	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 002 - Contractor to Perform CSL Testing	($17,378)	90.02 - Allocated Contingency
5)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Change Order No. 049 - Hazmat Assessment for LCC Portables	($9,174)	90.02 - Allocated Contingency
			April '15 Contingency Drawdown	**($295,552)**	
			April '15 - Ending Contingency Balance	**$510.4**	
		May'15	**Beg. Balance**	**$510.4**	
1)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 016 - PSG/Rev to Canopy Design/Power to Hoopili Sta/Scour Countermeasures	($132,000)	90.03 - Contract Allowance
2)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 009 - West Loch Generator	($7,000)	90.03 - Contract Allowance
3)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 004 - HIA Obstruction Investigation	($20,000)	90.03 - Contract Allowance
4)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 016 - Delay to Method Shaft 6	($121,000)	90.02 - Allocated Contingency
5)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 016 - Delete Passenger Counters Onbrd Time -Wifi Provsions on Veh	$114,161	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Change Order No. 030 - OSB 1st Fl Bldg Int Ext System Design Rev	($450,000)	90.02 - Allocated Contingency
			May '15 Contingency Drawdown	**($615,839)**	
			May '15 - Ending Contingency Balance	**$509.8**	
		Jun'15	**Beg. Balance**	**$509.8**	
1)	MM-923	HDOT Coordination Consult City Center	Budget Transfer from Inactive CPP, HDOT Airport consultant took on City Center scope	$1,084,782	90.01 - Unallocated Contingency
2)	MM-960	Archeological & Cultural Monitoring	Budget Transfer to Provide funding for FY2015	($551,092)	90.01 - Unallocated Contingency
3)	MM-923	HDOT cordi	Executed Contract Amendment No. 013 - Airport Design Build Package	($523,640)	90.02 - Allocated Contingency
4)	MM-901	Program Management Support Consit(PMSC-2)	Budget Transfer for excercised option for one year extension of services	($7,616,377)	90.01 - Unallocated Contingency
5)	DBOM-920	Core Systems Contract Design Build O/M	Budget Transfer for On Call Contractor performing CSC related scope at the ROC	($500,000)	90.02 - Allocated Contingency
			June '15 Contingency Drawdown	**($8,106,327)**	
			June '15 - Ending Contingency Balance	**$501.7**	
		Jul'15	**Beg. Balance**	**$501.7**	
1)	CCH-100	City and County of Honolulu	Inactive CPP, (DTS costs), reduces budget to incurred costs	$410,596	90.01 - Unallocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 065 - Reloc of LCC Protables/Park Lot	($490,979)	90.01 - Unallocated Contingency
3)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 066 - Revise Offset LT Lane at Kahuali'i	($755,983)	90.01 - Unallocated Contingency
4)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 067 - Revised West Yard Lead	($124,505)	90.01 - Unallocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 031 - MOW Interior Bldg. Systems Devices	($180,000)	90.02 - Allocated Contingency
6)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 032 - Deletion of Vegetative Roof Request	$153,415	90.02 - Allocated Contingency
			Jul '15 Contingency Drawdown	**($987,456)**	
			July '15 - Ending Contingency Balance	**$500.7**	
		Aug'15	**Beg. Balance**	**$500.7**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 068 - Delay NTP1, 2 & 4 - CMC Escalation	($6,228,445)	90.01 - Unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 033 - EOS Foundation	($44,179)	90.02 - Allocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Change Order No. 017 - Relocate Sewer Near 935+00 to 947+00	($181,291)	90.02 - Allocated Contingency
4)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 017 - Power to UHWO Station and Electrical Bonding	($48,000)	90.03 - Contract Allowance
5)	FD-240	Farrington Highway Stations Group-2 FD	Executed Contract Amendment No. 010 - Pedestrian Bridge Modifications	($18,750)	90.03 - Contract Allowance
6)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amend No. 007 - Value Engineering Reduce Stn Cost and PH, PR and AS New Platform Canopy Coordination	($624,522)	90.02 - Allocated Contingency
7)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 005 - Design Build Bridging Documents	($270,000)	90.02 - Allocated Contingency
9)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 017 - Voltage Flicker Study	($37,850)	90.02 - Allocated Contingency
10)	FD-550	Dillingham Kaka'ako Stations Group FD	Executed Change Amend No. 00005 - Scope of Change - Schedule Extention	($333,595)	90.02 - Allocated Contingency
			Aug '15 Contingency Drawdown	**($7,786,632)**	
			Aug '15 - Ending Contingency Balance	**$492.9**	
		Sept'15	**Beg. Balance**	**$492.9**	
1)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 018 - Unknown Subsurface at Boring 422R Utility Varying from RFP	($92,331)	90.02 - Allocated Contingency
			Sept '15 Contingency Drawdown	($92,331)	
			Sept '15 - Ending Contingency Balance	**$492.8**	

HART Project Contingency Drawdown with Details

Data as of 3/25/16

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
Oct'15			**Beg. Balance**	**$492.8**	
1)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amend No. 008 - Interface Coordination	($163,000)	90.02 - Allocated Contingency
2)	FD-340	Kamehameha Highway Stations Group FD	Executed Change Amend No. 009 - Replenish of NTP4	($60,000)	90.02 - Allocated Contingency
3)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Amend No. 011 - NTP2 Extention	($50,000)	90.02 - Allocated Contingency
4)	FD-240	Farrington Highway Stations Group-2 FD	Executed Change Amend No. 012 - WL Switchgear Pad & TPSS Foundation	($34,000)	90.02 - Allocated Contingency
5)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 018 - NTP 4 Replenishment	($50,000)	90.02 - Allocated Contingency
6)	FD-140	West Oahu Stations Group FD	Executed Contract Amendment No. 019 - East Kapolei Bent Deflections	($40,000)	90.03 - Contract Allowance
7)	FD-440	Airport Stations Group FD	Executed Contract Amendment No. 006 - General Excise Tax Credit	$98,353	90.02 - Allocated Contingency
8)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 018 - Settlement of RFCC 00002b(9mo. Delay Claim resubmittal)	($8,700,000)	90.02 - Allocated Contingency
9)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 019 - Credut for four car Consists, eliminates the requirements for mixed fleet operations	$5,200,000	90.02 - Allocated Contingency
			Oct '15 Contingency Drawdown	($3,798,647)	
			Oct '15 - Ending Contingency Balance	**$489.0**	
Nov'15			**Beg. Balance**	**$489.0**	
1)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 035 - Flagpole, Changes to Color Scheme	($45,900)	90.02 - Allocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 037 - AIS Reconciliation Credit from CCO 0007	$785,304	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 038 - Unpaid Suspension Amounts	($271,374)	90.02 - Allocated Contingency
4)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 039 - Escalation of Additional Design Services Due to Schedule	($68,058)	90.02 - Allocated Contingency
5)	MM-970	Fare Collection Consultant	Budget Transfer for Contract Award - MM-970 Fare Collection Consultant	($1,178,300)	90.03 - Contract Allowance
			Nov '15 Contingency Drawdown	($778,328)	
			Nov '15 - Ending Contingency Balance	**$488.2**	
Dec'15			**Beg. Balance**	**$488.2**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 069 - Utility Relocate at Waipahu Depot	($200,000)	90.01 - Unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 041 - Re-work of site work due to AIS	($537,653)	90.02 - Allocated Contingency
3)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 036 - TWF Building System Design, MOW Interior Bldg Sys Dev pt2 and OSB Interior Bldg Sys Dev Pt2	($130,000)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 019 - Relocate Driveway Curb Ramps, HDOT additional scope -design speed	($57,891)	90.02 - Allocated Contingency
5)	FD-530	City Center Guideway Utilities FD	Executed Change Amend No. 007 - City Center Repackaging	($14,039)	90.02 - Allocated Contingency
			Dec '15 Contingency Drawdown	($939,583)	
			Dec '15 - Ending Contingency Balance	**$487.3**	
Jan'16			**Beg. Balance**	**$487.3**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 070 - Equipment Escalation	($768,374)	90.01 - Unallocated Contingency
2)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 040 - Layout Direct Fix/Ballasted Turnout	$422,634	90.02 - Allocated Contingency
5)	DB-200	Maintenance & Storage Facility DB	Executed Contract Change Order No. 042 - Mainline Rail Material Quantities	$38,000	90.02 - Allocated Contingency
3)	DBB-525	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 004 - Adjustment for Un-used Allowances	$521,728	90.02 - Allocated Contingency
4)	DBB-525	Airport Section Guideway 7 Pier Construction	Executed Change Order No. 005 - CMP Elevation Change, Access to Pier 549-551R	($68,330)	90.02 - Allocated Contingency
			Jan '16 Contingency Drawdown	$145,658	
			Jan'16 - Ending Contingency Balance	**$487.4**	
Feb'16			**Beg. Balance**	**$487.4**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 073 - Escal Due to Schedule Impacts Pt 2	($11,750,000)	90.01 - Unallocated Contingency
2)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 020 - Airport-City Center Alignment	($490,000)	90.02 - Allocated Contingency
3)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 021 - FOC Pearlridge To DTS Patch Panel	($47,500)	90.02 - Allocated Contingency
			Feb '16 Contingency Drawdown	($12,287,500)	
			Feb'16 - Ending Contingency Balance	**$475.1**	
Mar'16			**Beg. Balance**	**$475.1**	
1)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 076 - Additional Demo of Existing Structures	($245,000)	90.01 - Unallocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	Executed Contract Change Order No. 077 - Pre-Cast Yard Extended Lease	($518,835)	90.01 - Unallocated Contingency
3)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 021 - HDOT Fence in Roadway Median, Transite Pipe at TS Ductbank	($75,215)	90.02 - Allocated Contingency
4)	DB-320	Kamehameha Highway Guideway DB	Executed Contract Change Order No. 022 - HECO Single Line Diagrams	($413,319)	90.02 - Allocated Contingency
5)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 022 - Obstruction Detection	($330,000)	90.02 - Allocated Contingency
6)	DBOM-920	Core Systems Contract Design Build O/M	Executed Change Order No. 023 - Removal of Station Fire Sprinklers	($72,500)	90.02 - Allocated Contingency
7)	DBB-505	Airport Section Utilities	Executed Change Order No. 001 - Added Stub for future Downsprout at Valkenburgh Street and Nimitz Highway	($4,600)	90.03 - Contract Allowance
8)	DBB-505	Airport Section Utilities	Executed Change Order No. 002 - Potholing at Water Line JW1012 conflict	($25,063)	90.03 - Contract Allowance
			Mar '16 Contingency Drawdown	($1,684,532)	
			Mar'16 - Ending Contingency Balance	**$473.5**	
January '16 - Board Approved Changes Only - Pending Execution					
1)	DB-120	West Oahu Farrington Highway Guideway DB	RFCC 00149 - LCC Station Access	($1,447,122)	90.01 - Unallocated Contingency
2)	DB-120	West Oahu Farrington Highway Guideway DB	RFCC 00149 - LCC Campus Impacts	($2,214,613)	90.01 - Unallocated Contingency
			Subtotal Board Approved Contingency Drawdown	($3,661,735)	
			Mar'16 - Ending Contingency Balance (Pending Execution)	**$469.8**	

Appendix C. Project Cost Reports (data as of March 25, 2016)

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

Project Costs by Contract

HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: March 2016

Project Monthly Cost Report by Contract - One Line Summary

3/25/16

			A	B	C=A+B	D	E	F
			COMMITTED			AFE	INCURRED	PERCENT
CPP No	Title		Original	Changes	Current *	AFE**	Incurred To Date	%
ART	ART Contracts	T&M	124,000	0	124,000	0	0	0%
CCH-100	Inactive Hart/City CCH		15,348,443	0	15,348,443	0	14,925,228	97%
CCH-101	HART/ City Dept of BFS		105,092	0	105,092	0	0	0%
CCH-102	HART/ City DDC Land Division		256,201	0	256,201	0	173,182	68%
CCH-107	HART/ City Corporation Counsel (COR)		1,616,253	250,000	1,866,253	250,000	193,823	10%
CCH-108	HART / Board of Water Supply (BWS)		928,325	0	928,325	0	928,325	100%
DB-120	West Oahu/Farrington Hwy Guideway DB	SOM	482,924,000	161,769,995	644,693,995	644,693,995	559,133,288	87%
DB-200	Maintenance & Storage Facility DB	SOM	195,258,000	79,427,819	274,685,819	207,745,398	261,377,969	95%
DB-320	Kamehameha Hwy Guideway DB	SOM	372,150,000	17,386,410	389,536,410	389,536,410	223,453,681	57%
DBB-171	West Oahu Station Group DBB	SOV	56,088,470	0	56,088,470	56,088,470	0	0%
DBB-185	SPCD - West Side SG Construction	SOV	0	0	0	0	0	0%
DBB-271	Farrington Highway Station Group DBB	SOV	78,999,000	0	78,999,000	78,999,000	0	0%
DBB-275	SPCD-Pearl Highlands Pkg. Str Cnstr.	SOV	0	0	0	0	0	0%
DBB-371	Kamehameha Hwy Stations Grp. DBB	SOV	115,805,845	0	115,805,845	0	0	0%
DBB-385	Ramp H2R2	SOV	5,203,646	0	5,203,646	5,203,646	52,952	1%
DBB-470	SPCD-Airport Station Group Cnstr.	SOV	0	0	0	0	0	0%
DBB-505	Airport Section Utilities Cnstr. DBB	SOV	27,993,290	375,695	28,368,984	28,789,669	11,636,253	41%
DBB-510	City Ctr Section Util Cnstr DBB	SOV	0	0	0	0	0	0%
DBB-520	SPCD-Airport-City Center Gdway Cntr.	SOV	0	0	0	0	0	0%
DBB-525	Airport Section Guideway 7 Pier DBB	SOV	3,973,000	54,843	4,027,843	4,027,843	4,027,843	100%
DBB-580	SPCD-Dillingham/Kaka'ako S G Cntr.	SOV	0	0	0	0	0	0%
DBB-600	Park-and-Ride Lots Construction	SOV	0	0	0	0	0	0%
DBOM-920	Core Systems Design Build O/M	SOM	573,782,793	26,060,894	599,843,687	583,928,675	184,045,492	31%
FD-140	West Oahu Station Group FD	SOM	7,789,000	2,275,305	10,064,305	9,926,311	9,199,096	91%
FD-240	Farrington Highway Stations Group FD	SOM	9,300,696	4,981,349	14,282,045	12,078,454	12,577,157	88%
FD-245	SPCD-Pearl Highlands Pkg. Str. FD	SOM	0	0	0	0	0	0%
FD-340	Kamehameha Hwy Station Group FD	SOM	8,702,592	1,156,698	9,859,290	9,828,016	9,117,277	92%
FD-430	SPCD-Airport Sect. Guideway/Util FD	SOM	38,840,960	4,293,512	43,134,472	43,134,472	41,526,542	96%
FD-440	SPCD-Airport Station Group FD	SOM	10,177,365	1,396,487	11,573,852	10,635,793	9,801,978	85%
FD-530	SPCD - City Center Guideway/Util FD	SOM	43,948,220	2,249,342	46,197,562	43,581,241	41,909,894	91%
FD-550	SPCD - Dillingham and Kaka'ako S G FD	SOM	18,321,918	986,124	19,308,042	15,732,737	11,875,668	62%
FD-600	Park-and-Ride Lots Final Design	SOM	0	0	0	0	0	0%
HRT-200	HART Labor		48,951,942	0	48,951,942	0	48,163,894	98%

* 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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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: March 2016

Project Monthly Cost Report by Contract - One Line Summary

3/25/16

			A	B	C=A+B	D	E	F
			COMMITTED			AFE	INCURRED	PERCENT
CPP No	Title		Original	Changes	Current *	AFE**	Incurred To Date	%
HRT-201	HART ODC Contracts		16,311,124	82,122	16,393,246	412,192	20,771,992	127%
MI-900	Fare Collection DFI	MI	0	0	0	0	0	0%
MI-930	Elevators & Escalators Install/Maint	SOM	50,982,714	0	50,982,714	5,442,108	5,488,930	11%
MM-280	SPCD-WOFH/KHSG CE&I(REPACKAGED)	CPFF	0	0	0	0	0	0%
MM-290	Construction Engrg & Insp CEI West	CPFF	54,232,480	0	54,232,480	16,650,000	24,192,453	45%
MM-385	SPCD-Pearl Highlands Garage Rmps CEI	CPFF	0	0	0	0	0	0%
MM-500	SPCD-By MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-525	SPCD-By MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-590	SPCD-By MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-595	SPCD - Const. Engrg & Insp. CEI East	CPFF	63,083,417	-47,826,417	15,257,000	(32,569,417)	12,382,150	81%
MM-596	Construction Engrg & Insp CEI East 2	CPFF	55,036,130	0	55,036,130	55,036,130	2,511,612	5%
MM-600	SPCD-UHWO Pkg-Hoopili Stn Fnsh CEI	CPFF	0	0	0	0	0	0%
MM-900	Program Mgt Support Consit (PMSC-1)	CPFF	15,952,569	0	15,952,569	20,700,000	0	0%
MM-901	Program Mgt Support Consit (PMSC-2)	CPFF	33,376,897	7,616,377	40,993,274	34,297,167	40,029,538	98%
MM-905	MM-905 Gen Engrg Consit EIS/PE	CPFF	0	78,564,942	78,564,942	78,564,942	74,157,822	94%
MM-910	MM-910 Gen Engrg Consit FD-Construct	CPFF	150,000,000	0	150,000,000	150,000,000	149,446,962	100%
MM-913	MM-913 Gen Engrg Recompete	CPFF	46,143,277	268,451	46,411,728	31,214,951	26,880,251	58%
MM-915	HDOT Traffic Mgmt. Consult.	T&M	1,600,000	2,400,000	4,000,000	7,000,000	3,173,421	79%
MM-920	HDOT Coordination Consit WOFH	T&M	3,000,000	7,500,000	10,500,000	11,750,000	6,835,288	65%
MM-921	HDOT Coordination Consit KHG	T&M	10,000,000	-1,400,000	8,600,000	7,600,000	4,215,481	49%
MM-922	HDOT Coordination Consit. Airport	T&M	12,000,000	-5,600,000	6,400,000	4,400,000	2,664,166	42%
MM-923	HDOT Coordination Consit City Center	T&M	0	0	0	0	0	0%
MM-925	HDOT Labor - WOFH/KHG Agreements	T&M	550,000	1,265,633	1,815,633	3,081,266	1,740,081	96%
MM-926	HDOT Labor - Airport Agreements	T&M	0	0	0	0	0	0%
MM-930	HDOT State SOA Manager & Consultant	T&M	1,272,400	583,142	1,855,542	843,167	873,849	47%
MM-935	Real Estate Consultant	T&M/TI	3,000,000	5,077,665	8,077,665	8,077,165	6,184,882	77%
MM-937	Real Estate Consultant - Maps/Surv.	CPFF	2,998,000	0	2,998,000	1,500,000	679,108	23%
MM-940	Kako'o Consultant	T&M/TI	1,000,000	0	1,000,000	500,000	524,829	52%
MM-941	Kako'o Consultant II	CPFF	200,000	0	200,000	200,000	16,667	8%
MM-945	On-Call Contractor	T&M/TI	1,000,000	1,000,000	2,000,000	1,800,000	1,951,649	98%
MM-946	On-Call Hazmat Removal Contractor	T&M/TI	3,075,000	75,000	3,150,000	1,075,000	2,739,077	87%
MM-947	On-Call Contractor 2	T&M/TI	7,500,000	0	7,500,000	4,500,000	3,424,955	46%
MM-950	OCIP Consultant	FFF	1,250,000	0	1,250,000	1,250,000	1,007,188	81%

* 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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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: March 2016

Project Monthly Cost Report by Contract - One Line Summary

3/25/16

			A	B	C=A+B	D	E	F
			COMMITTED			AFE	INCURRED	PERCENT
CPP No	Title		Original	Changes	Current *	AFE**	Incurred To Date	%
MM-951	Owner-Controlled Insurance Program	FFF	41,000,000	0	41,000,000	0	26,494,012	65%
MM-960	Archeological & Cultural Monitoring	T&M	1,658,474	0	1,658,474	1,658,474	1,388,810	84%
MM-962	Core Systems Support	CPFF	43,988,989	0	43,988,989	3,600,000	14,697,355	33%
MM-964	Safety and Security Consultant	FFF	4,699,573	112,751	4,812,324	4,012,751	3,175,003	66%
MM-970	Fare Collection Consultant	MM	1,184,398	0	1,184,398	1,178,300	0	0%
MM-975	LEED Commissioning Services for MSF	T&M	278,630	9,910	288,540	318,530	149,335	52%
OTHER	All Project Wide Documents		0	0	0	0	0	0%
PA-101	Programmatic Agreement Humanities	PA	0	0	0	0	0	0%
PA-102	Programmatic Agreement HPC	T&M/TI	400,000	0	400,000	200,000	176,809	44%
PA-103	Programmatic Agreement HPC Park Impr	PA	0	0	0	0	0	0%
ROW	Real Estate / Right-of-Way		99,885,511	0	99,885,511	121,992	102,495,855	103%
UTIL	Utility Company Contracts	T&M	95,637,272	-2,646,298	92,990,975	71,077,643	50,811,389	55%
Total Project:			**2,938,885,905**	**349,747,750**	**3,288,633,655**	**2,639,672,489**	**2,035,400,456**	

* Current Committed = Original Contract + CCO/Amendment

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

m_cw_pmoc_monthly_contract_one_line - No. 19

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Appendix D. Procurement and Contract Status

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

Appendix E. Vehicle Carshell Progress Tracker

HONOLULU AB R.C. FABRICATION TRACKER

CAR SHELL SERIAL NUMBER	CENTER ROOF ASSY & WELDING	CENTER FLOOR ASSY & WELDING (2 PANEL SET)	CENTER ROOF MACHINING	CENTER FLOOR MACHINING (2 PANEL SET)	ROOF ASSY & WELDING	ROOF WELDING PARTS	FINAL ROOF INSPECTION	UNDER FRAME ASSY & WELDING	UNDERFRAME WELDING PARTS	UNDERFRAME INSPECTION	UNDER FRAME CLEANING AND PAINTING	CAR SHELL ASSY & WELDING Station #7	CAR SHELL ASSY & WELDING Station #8	CAR SHELL CALIBRATION & TESTING	WATER TEST	PAINTING	INSULATION	FLOORING	FRONT MASK (E CAR ONLY)	CAR SHELL FINAL INSPECTION	COMPLETED CAR SHELL	FAI	CRADLES INSTALLED	DATE SHIPPED FROM RC	DATE OF PORT DEPARTURE	DATE OF ETA TO PITTSBURG
M/001 (CAR 1)															N/A				N/A								
E/001 (CAR 2)															N/A					N/A							
M/002 (CAR 3)															N/A				N/A	PARTIAL		N/A					
E/002 (CAR 4)	E/003		E/003												N/A							N/A					
M/003 (CAR 5)															N/A				N/A			N/A					
E/003 (CAR 6)	USED FOR E/2		USED FOR E/2												N/A							N/A					
M/004 (CAR 7)															N/A				N/A			N/A					
E/004 (CAR 8)															N/A							N/A					
E/005 (CAR 9)											After extensimetric test				N/A	After extensimetric test	After extensimetric test	After extensimetric test	After extensimetric test	After extensimetric test	After extensimetric test	N/A	After extensimetric test	After extensimetric test	After extensimetric test	After extensimetric test
M/005 (CAR 10)															N/A				N/A			N/A				
E/006 (CAR 11)															N/A							N/A				
M/006 (CAR 12)															N/A				N/A			N/A			Etd Livorno 21/06/2016	
E/007 (CAR 13)															N/A			4/26/2016		4/27/2016	4/28/2016	N/A	4/29/2016	4/29/2016		
M/007 (CAR 14)															N/A	4/29/2016	5/6/2016	5/18/2016	N/A	5/19/2016	5/20/2016	N/A	5/23/2016	5/24/2016		
E/008 (CAR 15)													4/29/2016	5/2/2016	N/A							N/A				
M/008 (CAR 16)											5/6/2016				N/A				N/A			N/A				
E/009 (CAR 17)								5/6/2016	5/13/2016	5/16/2016					N/A							N/A				
M/009 (CAR 18)															N/A				N/A			N/A				
E/010 (CAR 19)					4/29/2016	5/5/2016	5/6/2016								N/A							N/A				
M/010 (CAR 20)															N/A				N/A			N/A				
E/011 (CAR 21)															N/A							N/A				
M/011 (CAR 22)															N/A				N/A			N/A				
E/012 (CAR 23)															N/A							N/A				
M/012 (CAR 24)															N/A				N/A			N/A				
E/013 (CAR 25)															N/A							N/A				
M/013 (CAR 26)															N/A				N/A			N/A				
E/014 (CAR 27)															N/A							N/A				
M/014 (CAR 28)															N/A				N/A			N/A				
E/015 (CAR 29)															N/A							N/A				
M/015 (CAR 30)															N/A				N/A			N/A				
E/016 (CAR 31)															N/A							N/A				
M/016 (CAR 32)															N/A				N/A			N/A				
E/017 (CAR 33)															N/A							N/A				
M/017 (CAR 34)															N/A				N/A			N/A				
E/018 (CAR 35)															N/A							N/A				
M/018 (CAR 36)															N/A				N/A			N/A				
E/019 (CAR 37)															N/A							N/A				
M/019 (CAR 38)															N/A				N/A			N/A				
E/020 (CAR 39)															N/A							N/A				
M/020 (CAR 40)															N/A				N/A			N/A				
															N/A							N/A				

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

**Notes: Carshell Type E #5 to PT estensimetric Test with ETA on RC 15/05/2016

Date: 25/04/2016

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 4/30/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	$6,800	
				CT-DTS-1100195 DB-320	$140,654	
				CT-HRT-1500297 MM-947	$221	
				CT-HRT-1000449 DB-200	$79,954	$227,629
Glad's Landscaping	561730	APA	M	CT-HRT-10H0137 DB-120	$303,790	$303,790
Don's Makiki	484110	APA	M	CT-HRT-10H0137 DB-120	$537,031	
				CT-HRT-10H0449 DB-200	$81,581	
				CT-DTS-1100195 DB-320	$60,714	$679,326
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	$85,043	
				CT-HRT-1500297 MM-947	$3,840	$88,883
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	$5,836,436	$5,836,436
PMJ Builders	238310	APA	M	CT-HRT-10H0137 DB-120	$43,866	
				CT-DTS-1100195 DB-320	$107,100	$150,966
Standard Sheetmetal & Mechanical	236220	APA	M	CT-HRT-10H0449 DB-200	$6,105	$6,105
LP&D Hawaii	541320	APA	M	SC-DTS-1100013 FD-240	$219,911	$219,911
Ace Land Surveying	541370	NA	M	SC-DTS-1100013 FD-240	$38,700	$38,700
Integrated Security Tech.	561621	O	F	CT-HRT-1200106 DBOM-920	$105,180	$105,180
LKG-CMC	541618	O	F	SC-HRT-11H0131 MM-905	$2,600,462	
				SC-DTS-0700001 **** MM-910	$2,783,277	
				SC-HRT-1400051 MM-595	$271,047	
				SC-HRT-1400049 MM-962	$347,491	$6,002,277
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	$740,962	
				SC-DTS-0700001 **** MM-910	$150,141	

DBE Participation (9/24/07 to 4/30/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				SC-HRT-1400061 MM-964	$1,262,922	$2,154,025
Gary K. Omori	541618	APA	M	SC-HRT-11H0131 MM-905	$388,609	
				SC-DTS-0700001 **** MM-910	$392,920	$781,529
Pat Lee & Assoc.	541618	APA	M	SC-HRT-11H0131 MM-905	$402,791	
				SC-DTS-0700001 **** MM-910	$374,110	$776,901
212 Harakawa	541430	APA	F	SC-HRT-11H0131 MM-905	$358,141	
				SC-DTS-0700001 **** MM-910	$354,758	$712,899
JAD & Associates	541330	APA	M	SC-DTS-0700001 **** MM-910	$508,355	$508,355
Pacific Architects	541310	APA	M	SC-DTS-0700001 **** MM-910	$39,273	$39,273
Nagame Okawa*	541310	APA	M	SC-DTS-0700001 MM-910	$67,014	$67,014
Consulting Structural Hawaii	541330	APA	M	SC-DTS-0700001 **** MM-910	$298,557	$298,557
Bright Light Marketing Group	541613	APA	F	SC-HRT-1200038 FD-430	$162,813	
				SC-HRT-1200149 FD-530	$191,227	
				SC-HRT-1300022 FD-440	$134,912	$488,952
Ki Concepts	541320	APA	M	SC-HRT-1200077 MM-922/923	$26,550	$26,550
Miyabara Associates	541320	APA	M	SC-HRT-1300022 FD-440	$99,850	$99,850
Anil Verma Associates, Inc.**	541350	HA	M	SC-HRT-1200111 FD-340	$3,820,005	$3,820,005
AMR Estimating Services ***	541330	HA	M	SC-HRT-11H0131 MM-905	$135,281	
				SC-HRT-1400027 MM-913	$817,270	$952,551
The Nakoa Companies	541620	NA	M	CT-HRT-1200106 DBOM-920	$3,843	$3,843
Hawaiya Technologies	238210	APA	F	CT-HRT-10H0449 DB-200	$27,514	
				CT-HRT-1200106 DBOM-920	$20,142	$47,656
Element Environmental	541620	APA	M	SC-HRT-1400050 MM-290	$1,578,081	$1,578,081
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	$885,278	
				SC-HRT-1400051 MM-595	$10,197	$895,475
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	$122,018	$122,018
FIC, LLC	541611	APA	M	SC-HRT-1400051 MM-595	$1,299,481	$1,299,481
The Solis Group	541620	O	F	SC-HRT-1400027 MM-913	$1,153,505	$1,153,505
Island Hauling	484110	APA	M	CT-HRT-1000449 DB-200	$335,362	$335,362
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	$1,754,803	$1,754,803

DBE Participation (9/24/07 to 4/30/16)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
Dovetail Consulting	541330	BA	F	MOU-11-SO-1 MM-930	$847,741	$847,741
Amazon Construction Co.	238990	APA	F	CT-HRT-1500056 MM-945	$446,558	
				CT-HRT-1500297 MM-947	$857,986	$1,304,544
Aloha Steel	238120	APA	M	CT-HRT-1500056 MM-945	$176	
				CT-HRT-1400323 DBB-505	$34,988	
				CT-HRT-1500297 MM-947	$152	$35,316
Carol Kwan Consulting	561730	O	F	CT-HRT-1500056 MM-945	$13,291	
				CT-HRT-1500297 MM-947	$2,117	$15,408
Total						**$33,778,897**

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

Race Categories

APA	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
BA	Persons having origins in any of the black racial groups of Africa
HA	Persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin regardless of race
NA	Persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians
SAA	Persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka
O	Any other group whose members are designated as socially and economically disadvantaged by the SBA

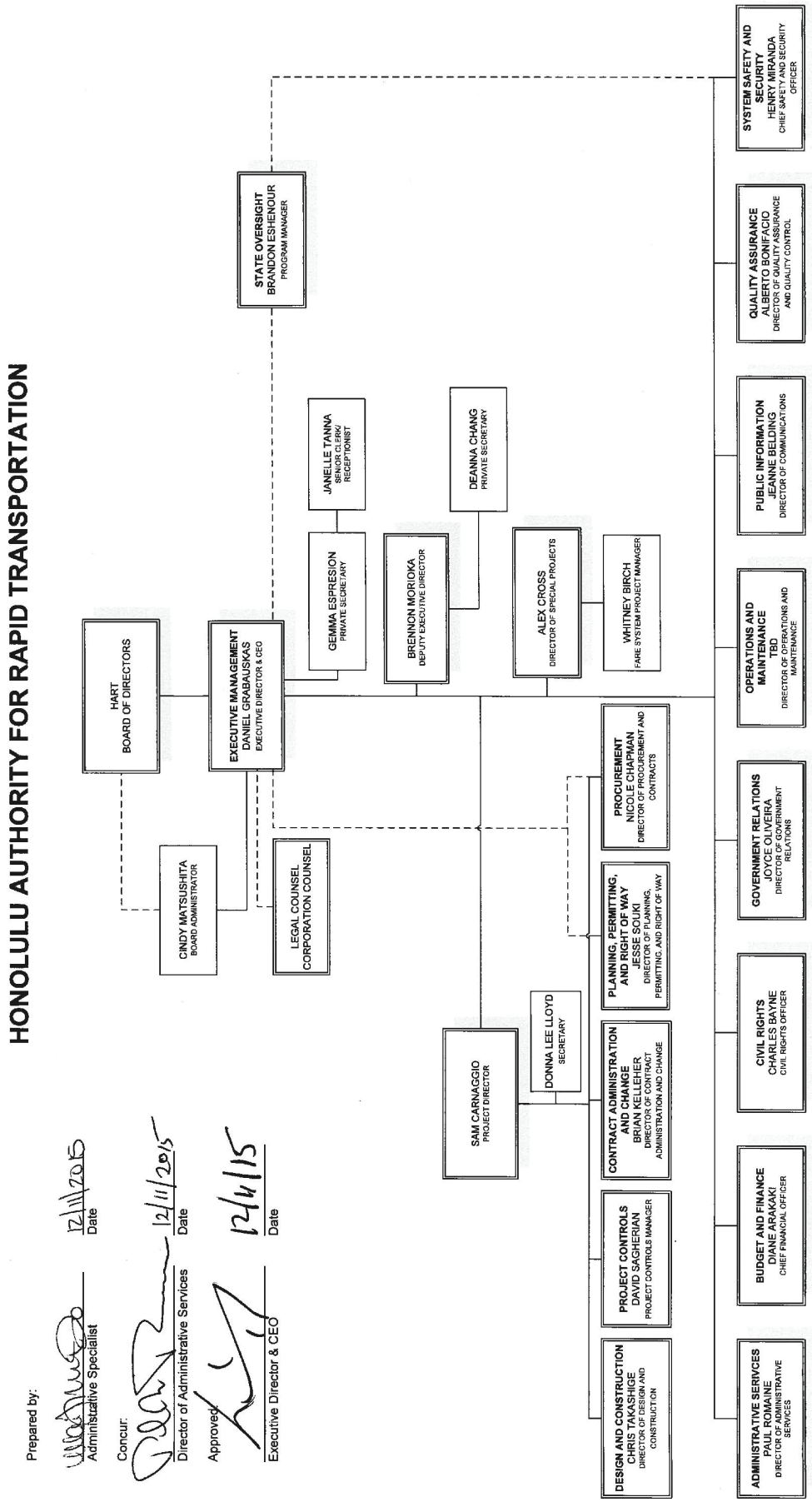
Appendix G. Risk

Risk by Contract Package				
Contract Packages[(Notes)]	Mar. 2016 # of Risks	April 2016 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	6	6	0	0
West Oahu/Farrington Guideway	10	10	0	0
Pearl Highlands Garage	4	4	0	0
Maintenance and Storage Facility	4	4	0	0
Kamehameha Highway Guideway	16	16	0	0
Core Systems Contract	10	10	0	0
Elevator/Escalator	4	4	0	0
Airport Utilities	4	4	0	0
Farrington Highway Stations	5	5	0	0
Ramp H2R2	1	1	0	0
West Oahu Stations	5	5	0	0
Kamehameha Highway Stations	4	4	0	0
Airport Guideway & Stations	26	26	0	0
City Center Guideway & Stations[(1)]	34	31	0	3
Total	**133**	**130**	**0**	**3**

Notes:
(1) - Three risks (28.20; 169.20; and 199.20) deleted from CCGS.

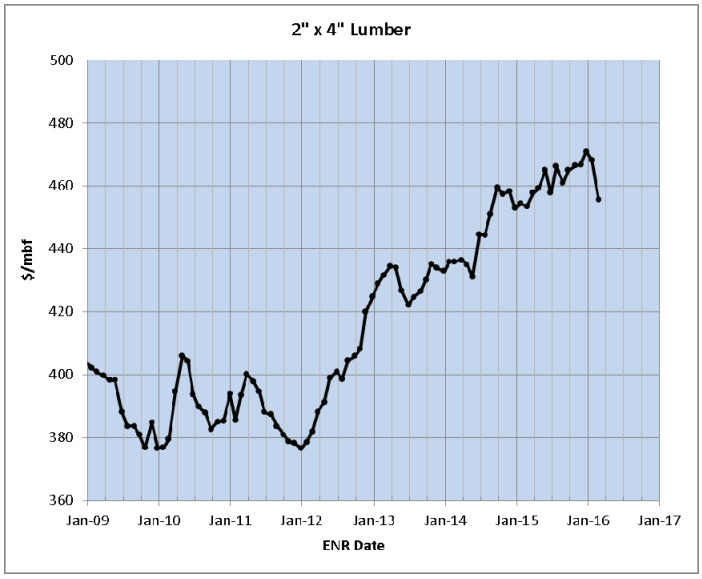
Comparison of Risk Ratings								
Contract Package/Section	March 2016 # of Risks				April 2016 Update # of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	6	2	3	1	6	2	3	1
West Oahu/Farrington Guideway	10	1	8	1	10	1	7	2
Pearl Highlands Garage	4	1	3	0	4	1	3	0
Maintenance and Storage Facility	4	0	2	2	4	0	2	2
Kamehameha Highway Guideway	16	2	10	4	16	2	8	6
Core Systems Contract	10	2	6	2	10	2	6	2
Elevator/Escalator	4	2	2	0	4	2	2	0
Airport Utilities	4	1	2	1	4	0	3	1
Farrington Highway Stations	5	1	4	0	5	0	5	0
Ramp H2R2	1	0	1	0	1	0	1	0
West Oahu Stations	5	2	3	0	5	2	3	0
Kamehameha Highway Stations	4	1	2	1	4	1	2	1
Airport Guideway & Stations	26	4	20	2	26	4	19	3
City Center Guideway & Stations	34	10	21	3	31	10	15	6
Total	**133**	**29**	**87**	**17**	**130**	**27**	**79**	**24**

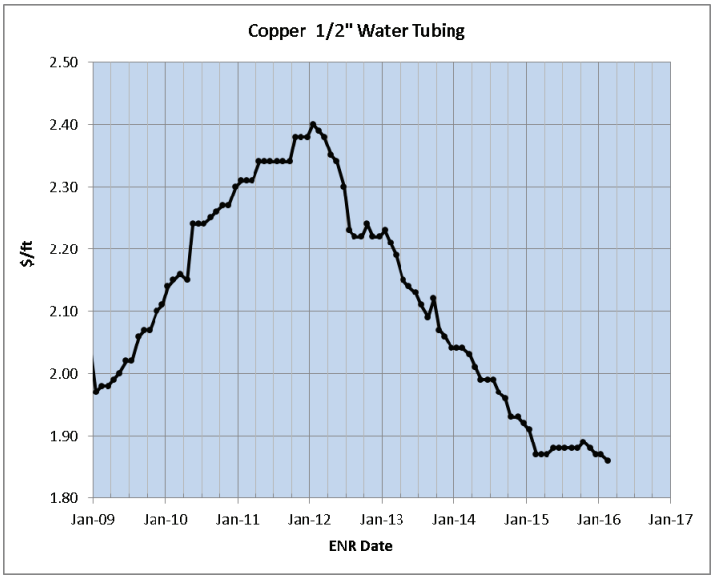
Appendix H. Project Organization Chart

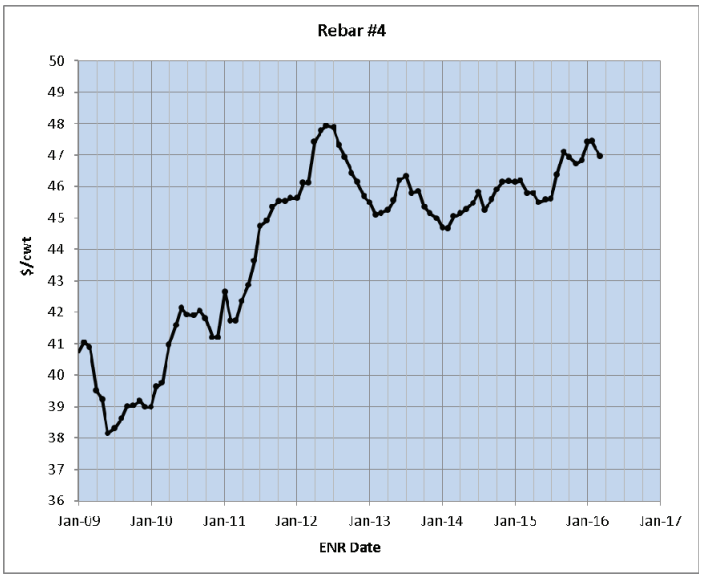


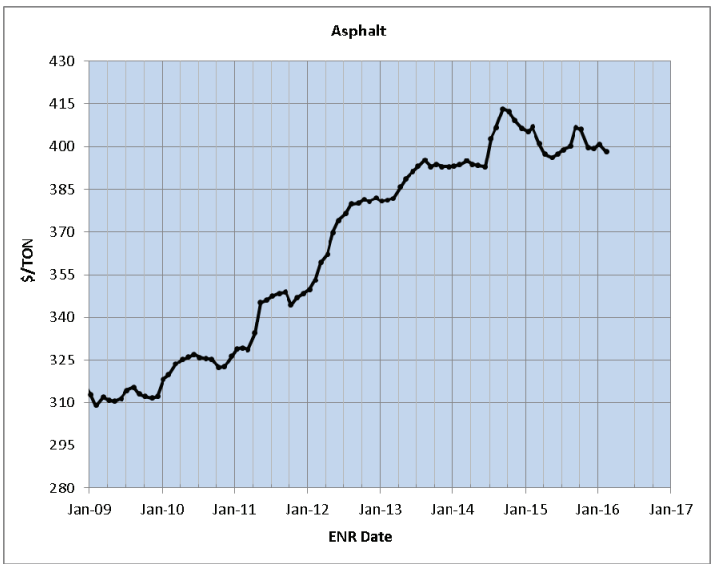
Appendix I. Indices on Key Commodities

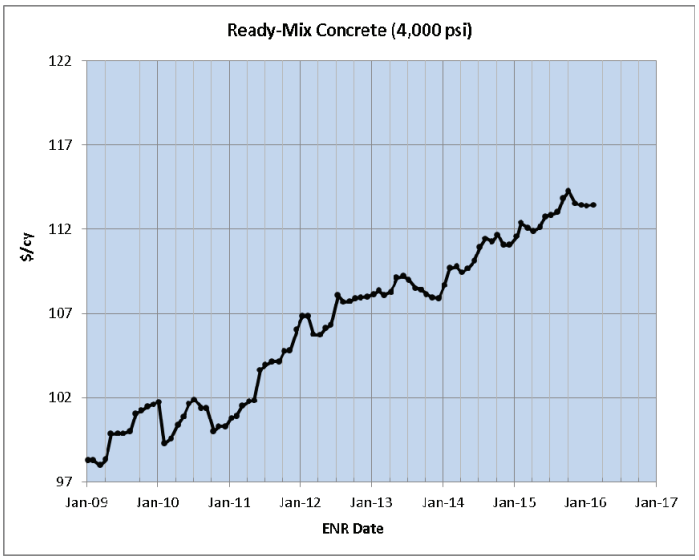
The following charts represent the cost trends on some of the key materials used in the program.

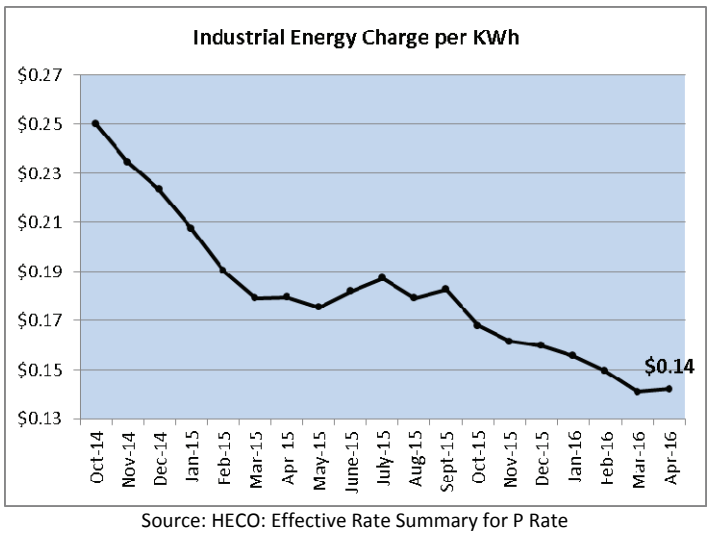












Source: HECO: Effective Rate Summary for P Rate

Appendix J. Project Photos

Guideway construction in West O'ahu.

Equipment storage site.

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

Construction on Kamehameha Highway.

Construction along Kamehameha Highway.

Future Aloha Stadium Station.

Operations and Servicing Building (OSB).

Wheel Truing Building and OSB.

Maintenance of Way Building.

Casting Yard.