HONOLULU AUTHORITY for RAPID TRANSPORTATION

Daniel A. Grabauskas
EXECUTIVE DIRECTOR AND CEO

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Board of Directors Meeting
Kapolei Hale, Conference Room B
1000 Uluohia Street, Kapolei, Hawaii
Thursday, January 29, 2015, 2014 10:00 am

Agenda

I. Call to Order by Chair

II. Public Testimony on All Agenda Items

III. Approval of the Minutes of the December 18, 2014 Board of Directors Meeting

IV. Right of Way Update

V. Construction and Traffic Update

VI. December Monthly Progress Report

VII. Eminent Domain
- A. Resolution 2015-1 Authorizing the Acquisition of the Real Property Identified as Tax Map Key 1-2-010:072 (Portion) By Eminent Domain
- B. Resolution 2015-2 Authorizing the Acquisition of the Real Property Identified as Tax Map Key 9-9-003:066 By Eminent Domain

VIII. Rail Car Manufacturing Progress Report

IX. HART Position on Legislative Matters
- A. Resolution 2015-3 Regarding the Position of the Board of Directors of the Honolulu Authority for Rapid Transportation on the County Tax Surcharge Proceeds Collected by the State of Hawaii for the Honolulu Rail Transit Project
- B. Resolution 2015-4 Regarding the Position of the Board of Directors of the Honolulu Authority for Rapid Transportation on Transit-Oriented Development

X. Aloha Stadium Station Site Considerations

XI. Executive Director and CEO's Report

XII. Executive Session
To consult with the Board of Directors' attorneys on questions and issues pertaining to its powers, duties, privileges, immunities and liabilities pursuant to Hawaii Revised Statutes Section 92-4 and Section 92-5(a)(4) regarding the Office of Information Practices Notice of Appeal of Sunshine Law Complaint (S APPEAL 15-17).

XIII. Adjournment

Note: Persons wishing to testify on items listed on the agenda are requested to register by completing a speaker registration form at the meeting or online on the HART section of the www.honolulutransit.org website. Each speaker is limited to a **two-minute** presentation. Persons who have not registered to speak in advance should raise their hands at the time designated for public testimony and they will be given an opportunity to speak following oral testimonies of the registered speakers.
If you require special assistance, auxiliary aid and/or service to participate in this event (i.e. sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please contact Cindy Matsushita at 768-6258 or email your request to cmatsushita@honolulu.gov at least three business days prior to the event.

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HONOLULU RAIL TRANSIT PROJECT

December 2014
QUARTERLY REPORT

HONOLULU AUTHORITY for RAPID TRANSPORTATION

www.HonoluluTransit.org

THIRD PARTY DISCLAIMER

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

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

REPORT FORMAT AND FOCUS

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

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

ON THE COVER:
Left: West O'ahu Farrington Highway Guideway along Kualakai Parkway looking Waianae.
Upper right: West O'ahu Farrington Highway Guideway along Farrington Highway looking Diamond Head.
Lower right: Rail Operations Center (aka Maintenance and Storage Facility) site.

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LIST OF ACRONYMS

AB	AnsaldoBreda
ACG	Airport City Center Guideway
AFE	Authorized for Expenditure
AHJV	Ansaldo Honolulu Joint Venture
AIS	Archaeological Inventory Survey
APTA	American Public Transportation Association
ARRA	American Recovery and Reinvestment Act
ASG	Airport Station Group
ATC	Automated Train Control
ATO	Automated Train Operation
BA	Buy America
BAC	Buy America Compliance
BACM	Buy America Compliance Matrix
BFS	Budget and Fiscal Services
BMP	Best Management Practice
BUE	Bottom-Up Estimate
CAR	Corrective Actions
CE&I	Construction Engineering and Inspection
CEL	Certifiable Elements List
CIL	Certifiable Items List
CMS	Contract Management System
CMU	Concrete Multiple Unit
CONRAC	Consolidated Rental Car Facility
COR	Corporation Counsel
CPM	Critical Path Method
CPP	Contract Packaging Plan
CSC	Core Systems Contract
CSL	Cross Hole Sonic Logging
CSOC	Core Systems Oversight Consultant
CTS	Communications Transmission System
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
DCN	Design Change Notice
DDC	Department of Design and Construction
DES	Department of Environmental Services
DFIM	Design Furnish Install Maintain
DHHL	Department of Hawaiian Homelands
DHR	Department of Human Resources
DIT	Department of Information Technology
DKSG	Dillingham and Kakaʻako Station Group
DLIR	Hawaiʻi Department of Labor and Industrial Relations
DLNR	Department of Land and Natural Resources
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
DTS	Department of Transportation Services
ECP	Environmental Compliance Plan
E/E	Elevator/Escalator
EMI	Electromagnetic Interference
EMP	Environmental Management Plan
EOR	Engineer of Record
EOS	Electrically Operated Switches
ESA	Engineering Services Agreement
FAA	Federal Aviation Administration
FAI	First Article Inspections
FAT	Factory Acceptance Tests
FD	Final Design
FDC	Field Design Change
FEIS	Final Environmental Impact Statement
FFC	Fixed Facility Contractors
FFGA	Full Funding Grant Agreement
FHSG	Farrington Highway Station Group
FTA	Federal Transit Administration
FTE	Full-Time Equivalent
FWS	Fish and Wildlife Service
GAT	Great Aleutian Tsunami
GDR	Geotechnical Data Report
GEC	General Engineering Consultant
GET	General Excise Tax
GIS	Geographic Information System
GSA	General Services Administration
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	Hawaiʻi Community Development Authority
HCSD	Hawaiʻi Capital Special District
HDOE	Hawaiʻi Department of Education
HDOH	Hawaiʻi Department of Health
HDOT	Hawaiʻi Department of Transportation
HDPE	High-density polyethylene
HECO	Hawaiian Electric Company
HFD	Honolulu Fire Department
HHF	Historic Hawaiʻi Foundation
HHPRB	Hawaiʻi Historic Places Review Board
HP	Historic Preservation
HPC	Historic Preservation Committee
HPCA	Historic Preservation Certification Application
HPD	Honolulu Police Department
HPF	Historic Preservation Fund
HRHP	Hawaiʻi Register of Historic Places
HRTP	Honolulu Rail Transit Project
HTI	Hawaiian Telcom
ICCS	Interface Communications Control System
ICD	Interface Control Documents
ICM	Interface Control Manual
INMS	Integrated Network Management System
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
KCDD	Kakaʻako Community Development District
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
LRV	Light Rail Vehicle

MIM	Manufacture-Install-Maintain
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
NHL	National Historic Landmark
NOI	Notice of Intent
NPDES	National Pollution Discharge Elimination System
NPS	National Park Service
NR	National Register
NRHP	National Register of Historic Places
NTP	Notice to Proceed
NTS	Network Time Server
O&M	Operations and Maintenance
OCC	Operational Control Center
OCIP	Owner-Controlled Insurance Program
OIBC	Oʻahu Island Burial Council
OSB	Operations and Servicing Building
OSHA	Occupational Safety and Health Administration
OTS	Oʻahu Transit Services
OTW	Oceanic Time Warner
OTWC	Oceanic Time Warner Cable
PA	Programmatic Agreement
PARs	Preventative Actions
PB	Parsons Brinckerhoff, Inc.
PE	Preliminary Engineering
PICM	Project Interface Control Manual
PIG	Permitted Interaction Group
PIM	Project Interface Manager
PLA	Project Labor Agreement
PM	Project Managers
PMC	Project Management Consultant
PMOC	Project Management Oversight Contractor
PMSC	Program Management Support Consultant
PPE	Personal Protective Equipment
PSG	Platform Screen Gate
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
RCMP	Risk and Contingency Management Plan
RE	Resident Engineer
READ	Real Estate Acquisition Database
RFC	Request for Change
RFI	Requests 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
SLAN	Station Local Area Network
SOG	Slab on Grade
SOI	Secretary of the Interior
SOW	Scope of Work
SQP	Supplemental Quality Plan
SSC	Safety Security Certification
SSCWG	Safety and Security Certification Working Group
SSI	Sensitive Security Information
SSSP	Site Safety Security Plan
SWPPP	Storm Water Pollution Prevention Plan
T&M	Time and Material
TCCR	Train Control and Communications Room
TES	Traction Electrification System
TIGER	Transportation Investment Generating Economic Recovery
TOC	The Outdoor Circle
TOD	Transit-Oriented Development
TPSS	Traction Power Sub-Station
TSA	Transportation Security Administration
TSI	Transportation Safety Institute
TVA	Threat and Vulnerability Analysis
TWF	Train Wash Facility
UCA	Utility Construction Agreement
UFRCRA	Utility Facilities Relocation and Cost Reimbursement Agreement
UH	University of Hawaiʻi
UHWO	University of Hawaiʻi West Oʻahu
UPS	Uninterrupted Power Supply
USACE	U.S. Army Corps of Engineers
USDOT	U.S. Department of Transportation
VE	Value Engineering
WA	Work Area
WHS	Waipahu High School
WOFH	West Oʻahu/Farrington Highway
WOSG	West Oʻahu Station Group
WSS	West Side Stations
WSSG	West Side Station Group
WTB	Wheel Truing Building
YOE	Year of Expenditure

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PROJECT MAP

***HIGHLIGHT OF THE MONTH: MIDDLE STREET STATION**

Serving the Kalihi, Honolulu Harbor and Outlying Residential Areas

Station Features:

- ADA Pedestrian Access
- Bicycle Parking
- Elevators and Stairs
- Direct pedestrian bridge to transit center platform
- TheBus Transit Center – Local and Express services along School Street and King Street; circulator services to Tripler, Kalihi Valley, Alewa Heights and Kalihi Kai
- TheHandi-Van Pick-up/Drop-off
- Platform Type: Side
- Planned # of Entrances: 1

*Each month a different station will be highlighted with architectural renderings and key information.

1 EXECUTIVE SUMMARY

KEY ACTIVITIES THIS MONTH

The Honolulu rail transit project reached another construction milestone in December with the completion of the first mile of the 20-mile elevated guideway in West O'ahu.

The first mile includes 516 guideway segments that have been engineered into place among 42 column spans, with each span measuring approximately 125 feet. Several embossed columns will also be located at each of the future rail stations to illustrate the historic and cultural significance of each region.

First Rail Tracks Installed

Workers have begun installing some of the steel train rails on the rail guideway segments near what will be the Honolulu Authority for Rapid Transportation's (HART's) Ho'opili rail station in 'Ewa.

HART will use about 140 miles of rail for the Project. Tracks will run in each direction and a "third" rail will power the system.

HART will also build tracks at its Rail Operations Center in Waipahu where the train cars will be cleaned, maintained and stored.

HART purchased more than 13,000 tons of steel rail and other track-related materials, including concrete ties, fasteners and special trackwork for the Honolulu rail transit system. The total cost for all the products was $77.4 million.

HART anticipates delivery of its rail cars, which are now in the initial stages of manufacturing in Italy, in mid-2016.

HART Unveils Plan to Meet Budget Challenges Ahead

HART announced several steps to reduce costs and explore new revenue sources in an effort to address some financial challenges ahead.

"We want to be transparent and let the public know early on what some of our financial challenges are," said HART Executive Director and CEO Dan Grabauskas. "For the first time in recent months, several factors have come together to create a new fiscal landscape. Legal and delay costs have had a cumulative effect and pushed us into a more competitive construction market resulting in bids coming in significantly higher. To meet these challenges, we are repackaging and recalibrating our contract solicitations to further reduce scope and costs. We are also looking at additional sources of revenue, including public-private partnerships and other financing options."

Nearly 60 percent of the project's contracts were issued in a favorable market, resulting in those contracts coming in under budget. The remaining 40 percent will prove more challenging because of the heated construction market, Grabauskas added.

Federal funding for the project remains strong and HART has received $806 million of its $1.55 billion grant, with another $250 million installment agreed to by Congress in December.

In addition, the project has received $1.3 billion of its projected General Excise and Use Tax (GET) surcharge revenue. But GET receipts are currently running 4 percent short of projections, or $41 million behind.

HART is looking at several ways to generate cost savings and yield additional revenue, including:

- Taking advantage of lower interest rates through an improved borrowing plan to save $60 million-$75 million
- Leverage transit-oriented development opportunities to generate revenue
- Seek additional public-private partnerships to share costs and leverage resources on key project components, such as parking facilities
- Begin the discussion now of extending the existing half-percent GET surcharge that currently provides about 70 percent of the projects revenue.

PROJECT OVERVIEW

Cost:

Project Costs Summary Through November 28, 2014		
	Current Budget ($M)	Incurred To Date ($M)
Project Budget	$4,406.1	$1,304.8
Project Contingency	$542.5	$0.4
Finance Charges	$173.1	$0.0
TOTAL	**$5,121.7**	**$1,305.2**

Schedule:

Project Progress Through November 28, 2014				
	Actual		Early Plan	Late Plan
Overall Project Progress	30.2%		44.0%	35.7%
Overall Construction Progress	22.1%		35.8%	27.9%
Overall Design Progress	81.6%		93.5%	86.2%
Overall Utilities Progress	12.0%		31.7%	13.8%

Overview:

Core Systems Contract (CSC)

The Core Systems Contract has rebaselined the contract schedule to incorporate revised construction access dates, interim opening and final opening dates that were transmitted in May 2014. The CSC contractor is progressing according to plan. Passenger vehicle manufacturing, key system manufacturing, design verification and qualification testing activities have started. (See Section 4.1.A for details)

Elevators and Escalators Manufacture-Install-Maintain Contract

The Elevator/Escalator contract is on schedule and draft equipment drawings have been submitted. The manufacturing and installation of the escalators and elevators is dependent on the award and construction of the individual stations. HART purchased standard elevators and escalators so that engineering requirements are kept to a minimum, and only slight modifications are necessary based on specific requirements at the individual stations. (See Section 4.1.B for details)

West O'ahu Farrington Highway (WOFH) Contract

Progress continues to lag behind the planned schedule due to the Design-Builder's slower production rates and longer activity durations at locations such as Leeward Community College (LCC). Kiewit has submitted a revised baseline schedule for review and comment, which reflects a four month delay to the contractual substantial completion date. Kiewit and HART are working to mitigate the impacts to the critical path activities, including the LCC construction Right of Entry agreement with the University of Hawai'i (UH). Kiewit and HART are also working together with the third-party utilities (HECO, Hawaiian Tel, Oceanic, etc.) to get a more reliable schedule for their work. The schedule baseline revision currently in review includes the resequencing of the work activities, which are being vetted to minimize Program impacts prior to HART's acceptance of the Kiewit rebaseline schedule. (See Section 4.2.A for details)

Maintenance and Storage Facility (MSF) Contract

The MSF contract substantial completion date has slipped 10 calendar days (based on the December 2014 schedule update). This delay is due to weather that impacted construction operations. KKJV and HART are working to mitigate the impacts to the critical path. (See Section 4.2.D for details)

Kamehameha Highway Guideway (KHG) Contract

Progress continues to lag behind the planned schedule due to construction right of entry access delays at UH Urban Gardens and Aloha Stadium as well as the Design-Builder's slower production rates and longer activity durations at locations. Kiewit has submitted a revised baseline schedule for review and comment, which reflects a seven month delay to the contractual substantial completion date. Kiewit and HART are working to mitigate the impacts to the critical path activities, including the implementation of alternative MOT plans along Kamehameha Highway. Kiewit and HART are also working together with the third-party utilities to get a more reliable schedule for their work. The schedule baseline revision currently in review includes the resequencing of the work activities, which are being vetted to minimize Program impacts prior to HART's acceptance of the Kiewit rebaseline schedule. (See Section 4.3.A for details)

Airport Section Utilities Construction Contract

The Airport Utilities contract has been awarded and the NTP for construction was issued on Oct. 6, 2014. Potholing was originally scheduled to begin in mid-December, but due to permit issues it is now slated to occur in early January 2015, with the actual utility relocations to commence in late January/February 2015. (See Section 4.4.B for details)

Airport Seven Piers Construction Contract

The Airport Seven Piers Construction contract was awarded and the NTP for construction was issued on Sept. 18, 2014. HDCC/CJA is scheduled to begin construction in mid-January 2015. (See Section 4.4.C for details)

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2 OVERALL PROJECT PROGRESS AND FINANCIALS

OVERVIEW

- Project incurred cost of $52.6M for the reporting period.
- Project contingency was credited $10.7M for the reporting period.
- There were no revenues received during the reporting period.

KEY ISSUES

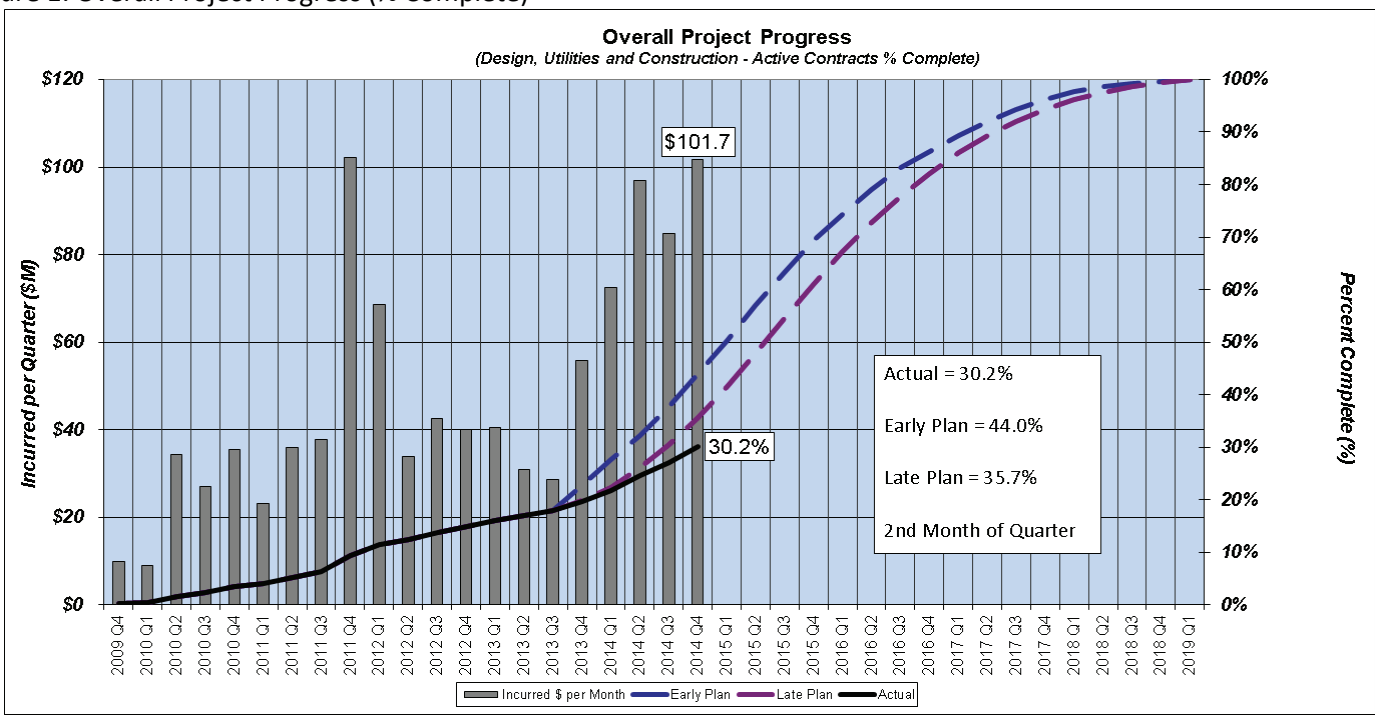
- Cost estimates for construction on the eastern segment section of guideway and all 21 stations are trending higher than their respective FFGA budget. To mitigate rising costs, HART has been analyzing alternative delivery methods on future contracts, continues to use an aggressive contractor outreach strategy to attract more interest on future contract packages, has implemented value engineering alternatives into the design on future contracts to lower costs, and continues to identify primary and secondary mitigation options to add budget to project contingency among other strategies.
- Estimate-at-completion estimates on active construction contracts are projecting higher than the FFGA budget for those respective contract packages. The active construction contracts were most significantly impacted by the various project delays and as a result up to approximately $190M in change orders will be issued to settle all delay related impacts instead of being used towards design or physical construction. HART will continue to identify strategies to offset the costs of these delays with primary and secondary mitigation, value engineering alternatives where applicable, and cost effective delivery methods on future contracts.
- Actual GET collection continues to lag planned GET revenue collections by slightly above 4% or $41M. HART has continued to work with both State and City and County legislative officials as well as the Department of Taxation to understand the reasons for this shortfall and to identify ways to recover the lagging GET collections.
- HART is actively seeking alternative sources of revenue to replace the $210M planned FTA Section 5307 Formula Funds. HART's commitment to the city is not to utilize those funds, however there will be a significant gap in revenues needed to pay for capital costs without identifying alternative sources of revenue.

2.1 Project Progress (data as of Nov. 28, 2014)

Note:

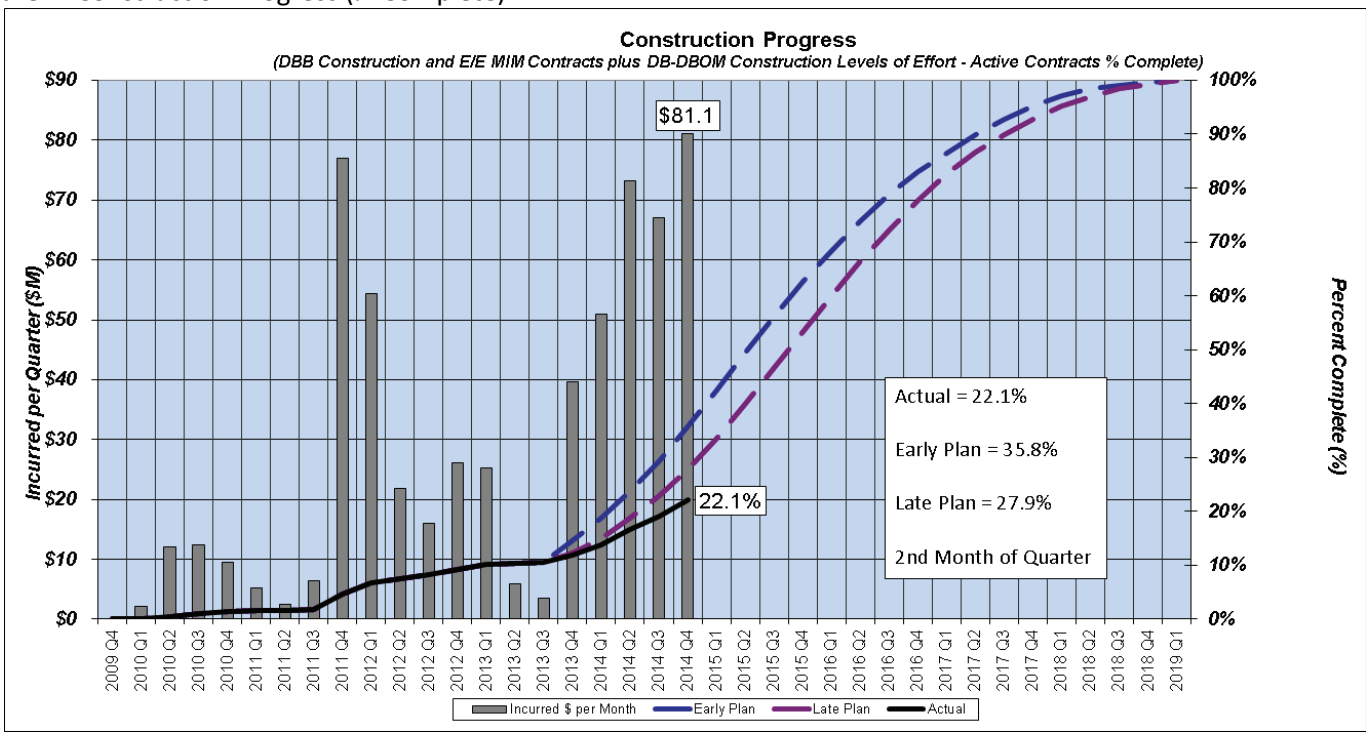
- Actual = Actual cost of work performed, based on invoiced-to-date amount.
- Early Plan = Earliest dates activities can begin and finish, based on logic and durations used in the schedule.
- Late Plan = Latest dates activities can begin and finish and not have an impact on completion date, based on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

Figure 1. Overall Project Progress (% Complete)



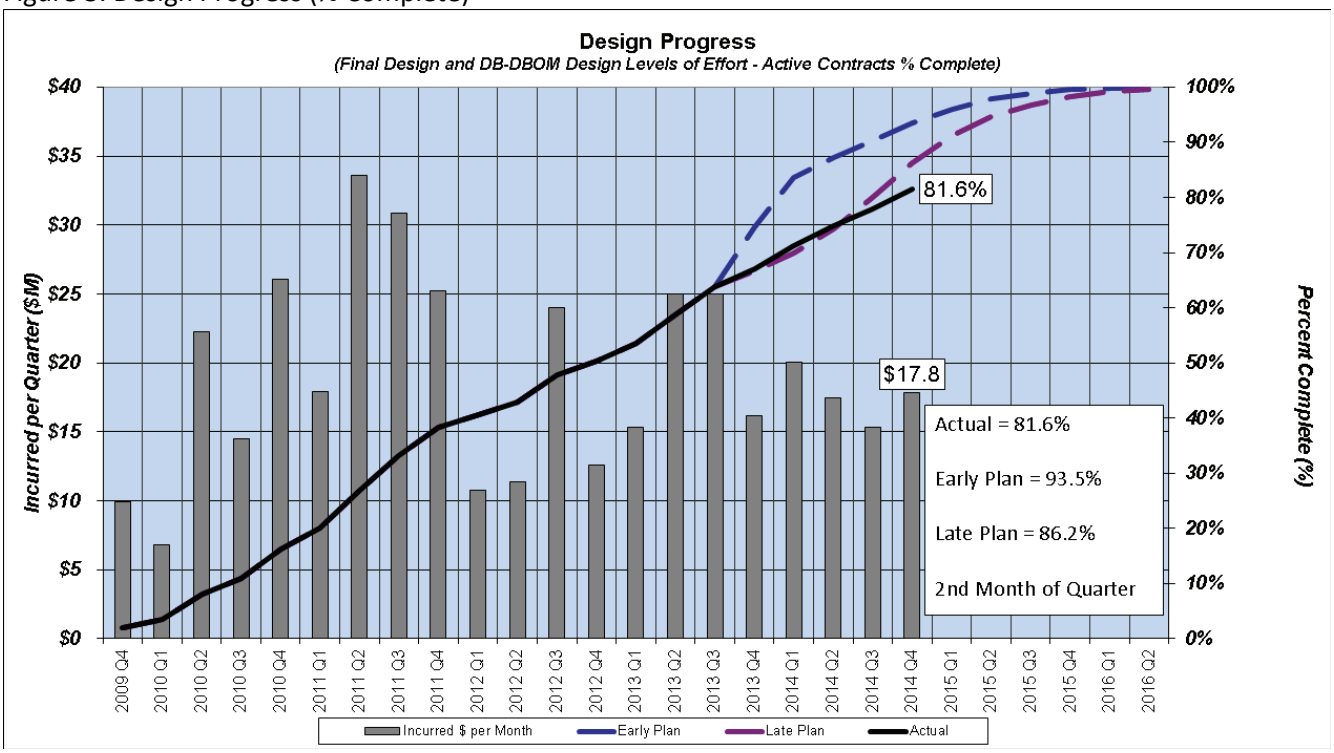
At present "overall" project progress is based on the weighted value progress of the individual construction and design contracts (Design-Build [DB], Design-Bid-Build [DBB], Design-Build-Operate-Maintain [DBOM], Elevator/Escalator Manufacture-Install-Test-Maintain [MIM], Final Design [FD] and DB-DBOM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

Figure 2. Construction Progress (% Complete)



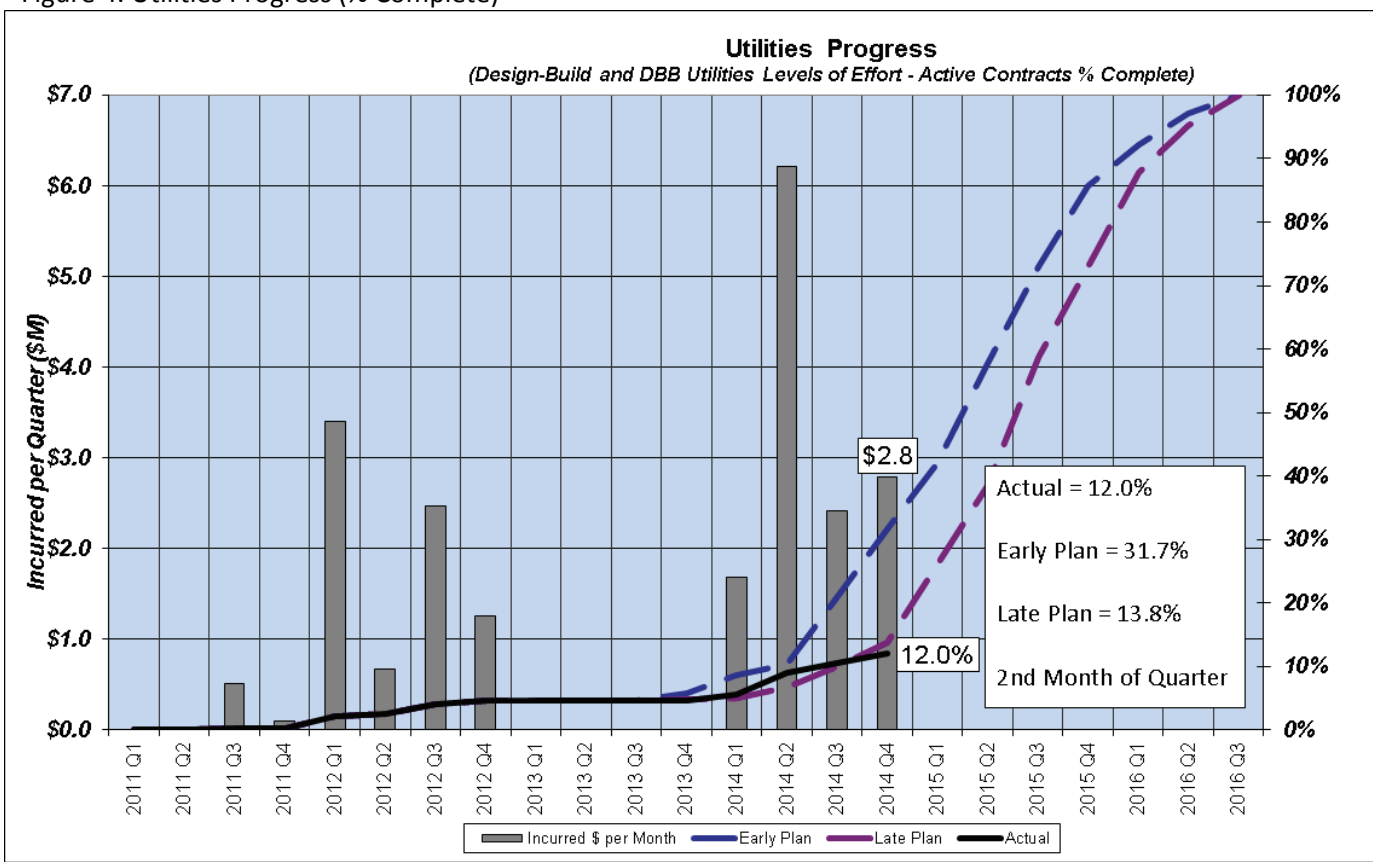
Overall construction progress is based on the weighted average progress of the individual DBB and E/E MIM construction contracts and the DB-DBOM construction levels of effort, not including consultant construction engineering and inspection (CE&I) services.

Figure 3. Design Progress (% Complete)



Overall design progress is based on the weighted average progress of the individual FD contracts and the design levels of effort of the DB and DBOM construction contracts, not including City or non-design consultant labor.

Figure 4. Utilities Progress (% Complete)



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

2.2 Project Budget (data as of Nov. 28, 2014)

- FFGA Project Budget = **$5,121.7M**
  - Current Project Budget - $4,406.1M
  - Current Project Contingency - $542.5M
  - Project Finance Charges - $173.1M
- Total Incurred Cost = **$1,305.2M** (29.6% of current project budget)

Total Incurred Cost = $1,305.2M
(previous report = $1,252.6M)

2.3 Project Contingency (data as of Nov. 28, 2014)

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

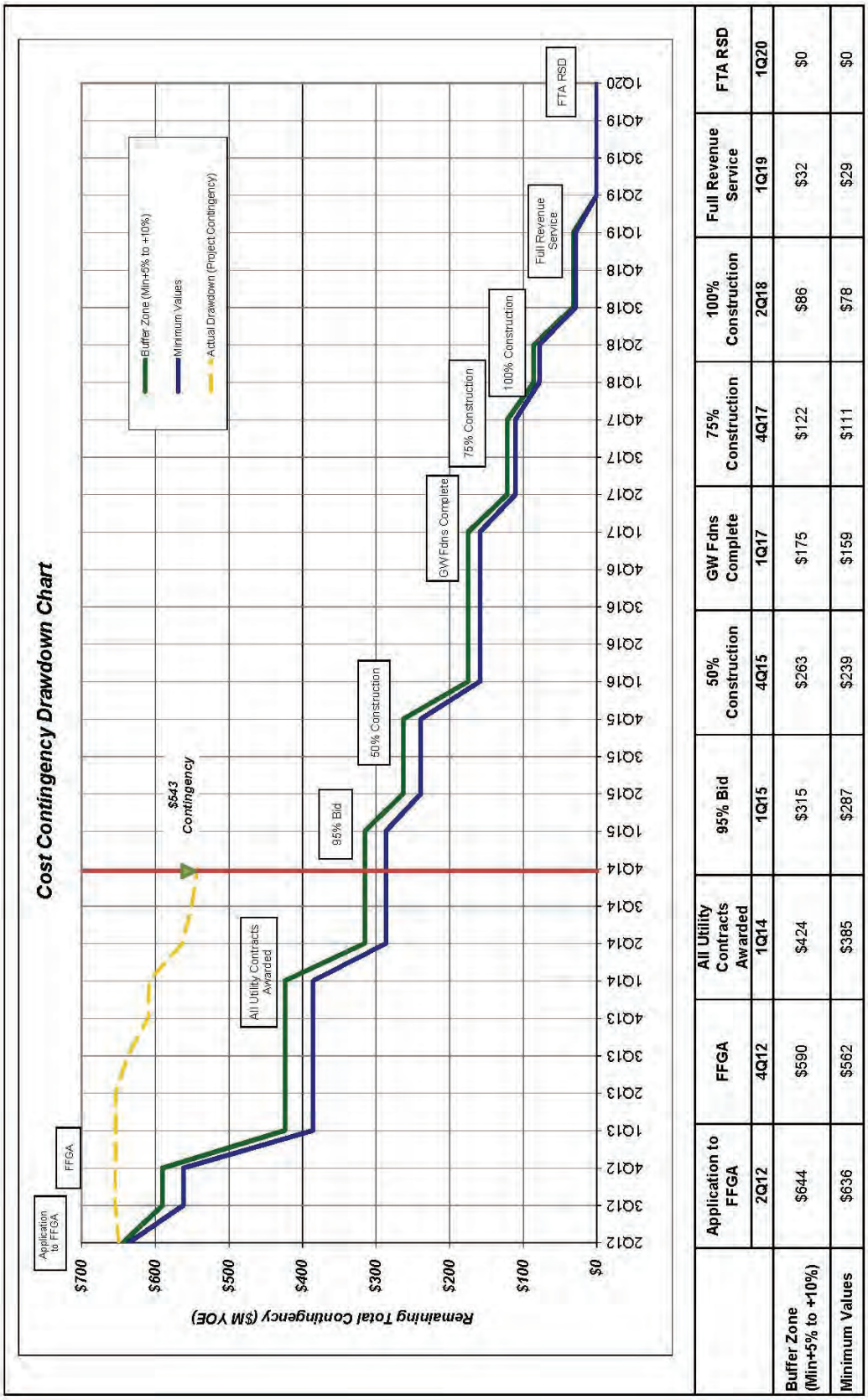
Current Contingency Balance = $542.5M
(previous report = $531.8M)

- Current Project Contingency Balance = **$542.5M**
  - Contingency drawdown to date - $101.1M (15.7% of baseline project contingency budget)
  - $10.7M credited to contingency during November 2014. 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 September 2014 Report	90.01 - 90.03	($84.2)
Contingency drawdown October 2014 Report	90.01 - 90.03	($9.3)
Contingency drawdown November 2014 Report	90.01 - 90.03	($18.3)
Contingency drawdown December 2014 Report	90.01 - 90.03	$10.7
Contingency drawdown to date	90.01 - 90.03	($101.1)
Current FFGA Project Contingency	***90.01 - 90.03***	***$542.5***

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 Nov. 28, 2014)

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		**$298**
Interest Income on Cash Balance	*$7*		**$3**	$2		**$9**
FTA Section 5309 New Starts Revenue[4]	*$0*		**$1,550**	$312		**$312**
FTA Section 5307 Formula Funds	*$0*		**$210**	$0		**$0**
ARRA Funds	*$0*		**$4**	$4		**$4**
Net General Excise Tax (GET) Surcharge revenues FY2010-FY2023	*$378*		**$3,291**	$968		**$1,346**
Total	***$385***		**$5,356**	**$1,584**		**$1,969**

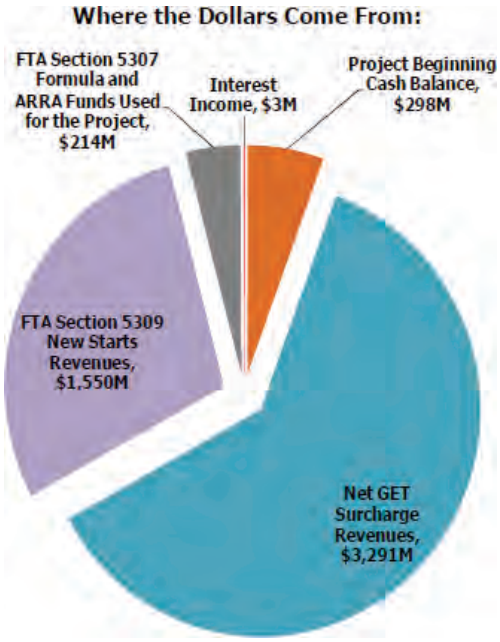
[1] GET and Interest Income received during Pre-Preliminary Engineering (pre-PE) phase prior to entry into PE

[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) = GET, investment and miscellaneous income minus pre-PE expenditures.

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

Figure 8. Project Funding Sources (YOE $M)



Source: FFGA Financial Plan, p. 2-1

Total Cash Received Since PE = $1,584M
(previous report = $1,584M)

GET Received Since PE = $968M
(previous report = $968M)

GET Received Since 2007 = $1,346M
(previous report = $1,346M)

- General Excise Tax (GET) Surcharge
  - $968M = amount received since the Project's entry into FTA's Preliminary Engineering phase of project development.
    - $1,009M = Projected Net GET Surcharge Revenue for FYs 2010-2Q 2015, as stated in FFGA Financial Plan (Table A-1 *Capital Plan Cash Flows*)
    - GET receipts are currently running 4% short of projections, or $41M behind.
  - $0.0M = GET surcharge received in November 2014

- Full Funding Grant Agreement (FFGA)
  - $0 = New Starts drawdown received in November 2014.

- No §5307 funds will be used in Fiscal Years 2013, 2014 and 2015. The total forecasted §5307 funds for the Project, per the Financial Plan, is $209.9M.

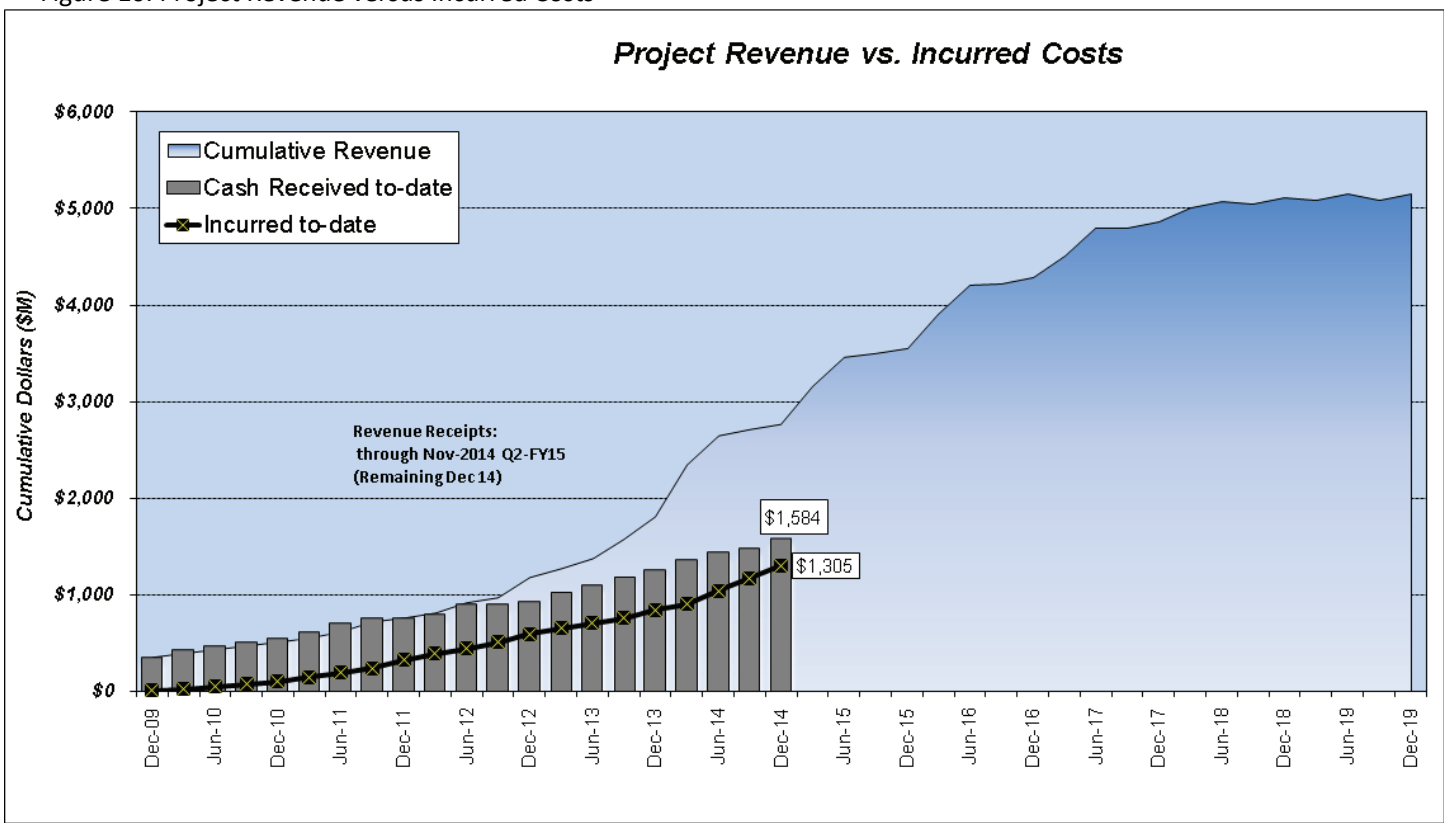
Figure 9. New Starts Drawdown by Federal Fiscal Year (as of Nov. 30, 2014)

New Starts Grant Information by Federal Fiscal Year				
Federal Fiscal Year Allocation	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	$192,322,417	$7,677,583	$99,382,758
2013	$236,277,358	$0	$236,277,358	$258,280,277
2014	$250,000,000	$0	$250,000,000	$441,719,724
2015 (pending)	$250,000,000	$0	$250,000,000	$250,000,000
2016 (pending)	$250,000,000	$0	$250,000,000	$250,000,000
2017 (pending)	$243,732,642	$0	$243,732,642	$230,010,000
Total	**$1,550,000,000**	**$312,312,417**	**$1,237,687,583**	**$1,550,000,000**

Ending Cash Balance 11/28/14 = $366.8M
(previous report = $427.6M)

2.5 Project Revenue and Costs
(data as of Nov. 28, 2014)

Figure 10. Project Revenue versus Incurred Costs



Planned Funding levels as per the June 2012 FFGA Finance Plan
Data date for Revenue & Incurred Cost = Nov. 28, 2014

Figure 11. Cash Balance Summary

NOVEMBER 2014 CASH BALANCE SUMMARY		
	NOVEMBER	YTD Cumulative
Beginning Cash Balance	427,596,018	441,011,319
Expenditures:		
Operating Expenditures	(919,734)	(4,883,055)
Capital Expenditures	(60,002,965)	(223,893,572)
Expenditures Total:	(60,922,699)	(228,776,627)
Receipts:		
GET Surcharge	0	97,944,371
FTA Drawdown	0	56,352,391
Interest	21,583	107,208
Other (rental, refunds, copy fees, etc.)	57,107	113,346
Receipts Total:	78,689	154,517,317
Ending Cash Balance 11/30/14	**366,752,009**	**366,752,009**

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

3 SCHEDULE

(data as of Nov. 28, 2014)

OVERVIEW

- The November MPS Summary schedule reflects no variances from the previous month's forecasts for:
  - Interim Revenue Service Date: 6/22/18
  - Full Revenue Service Date: 7/31/19

- Despite the NTP, AIS and recent contract procurement delays, HART is implementing mitigation measures to maintain a 3Q 2019 full revenue service date (RSD). The FFGA commitment for full revenue service is January 2020.

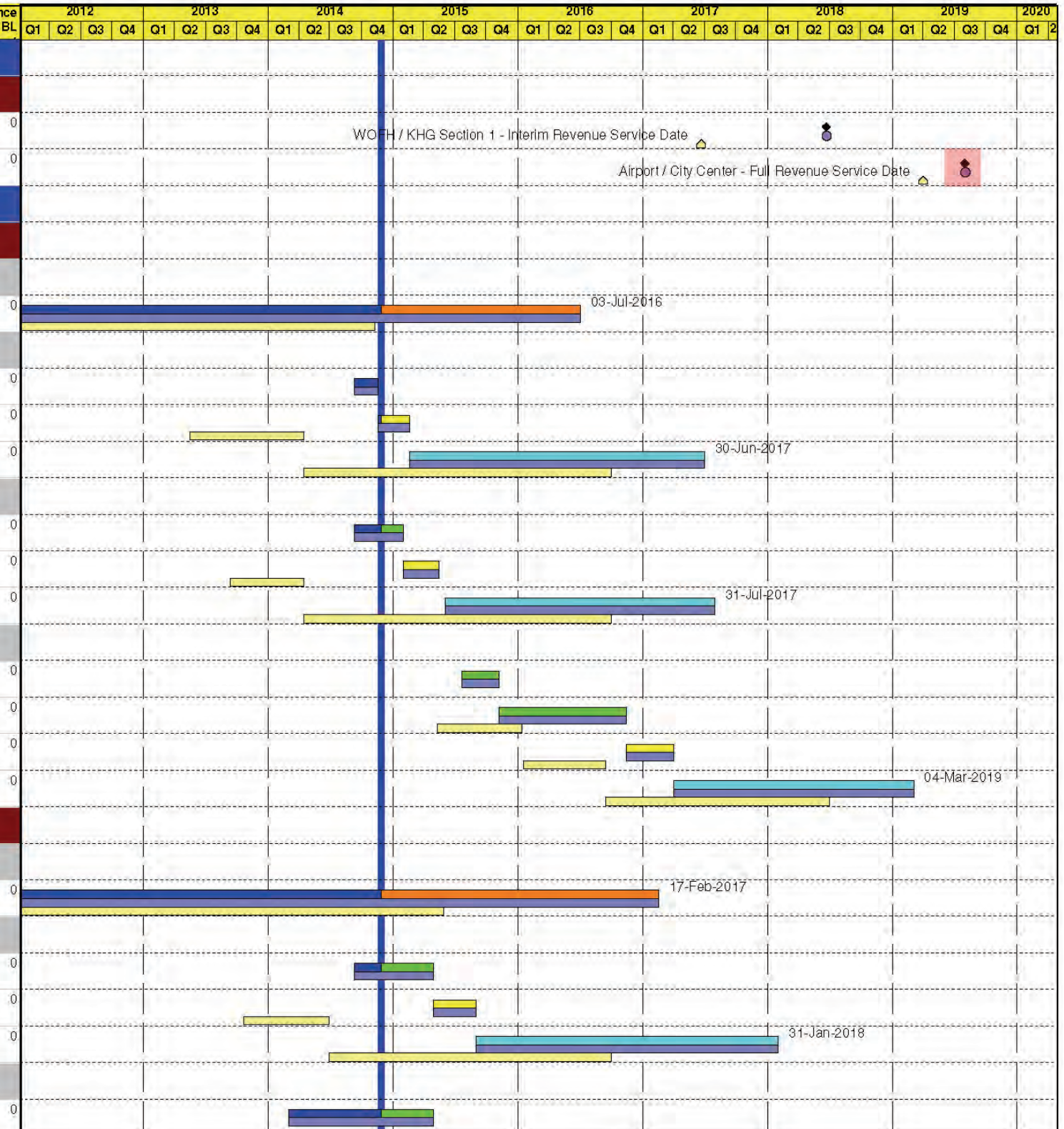
- HART continues to closely monitor and manage the MPS and all key milestones.
  - The November 2014 MPS schedule is reflecting slippages on non-critical projects. These delays are being addressed by the project teams. See contract pages for further details.
  - The East guideway and stations contracting approach is being examined for possible revisions to include schedule improvements and cost reduction opportunities learned on the West side contracts.
  - Passenger Vehicle Carshell manufacturing has begun for the 1st and 2nd Vehicle.

KEY ISSUES

- Right-of-way acquisition and utility relocations are possible areas of concern for the East guideway and stations contracts on-time completion.

Figure 12. HRTP Master Project Schedule Summary (MPSS)
The MPSS is statused against the FFGA Baseline MPS. The baseline and actual/planned durations of each contract are displayed for comparison.

Activity Name	Current Start	Current Finish	Variance - BL	Variance - BL
KEY DATA				
MILESTONES				
WOFH / KHG Section 1 - Interim Revenue Service Date		22-Jun-2018*	0	0
Airport / City Center - Full Revenue Service Date		31-Jul-2019	0	0
CONTRACTS - DESIGN & CONSTRUCTION				
WEST OAHU / FARRINGTON HIGHWAY (WOFH) - SECTION 1				
WOFH Guideway & Utilities				
SUMM: DB-120 - WOFH Guideway - Design & Construction (Design-Build)	01-Dec-2009 A	03-Jul-2016	0	0
Farrington Hwy Station Group (FHSG)				
Farrington Hwy Station Group - Redesign	10-Sep-2014 A	20-Nov-2014 A	0	0
Farrington Hwy Station Group - Bid & Award	20-Nov-2014 A	17-Feb-2015	0	0
Farrington Hwy Station Group - Construction	18-Feb-2015	30-Jun-2017	0	0
West Oahu Station Group (WOSG)				
West Oahu Station Group - Redesign	10-Sep-2014 A	31-Jan-2015	0	0
West Oahu Station Group - Bid & Award	01-Feb-2015	15-May-2015	0	0
West Oahu Station Group - Construction	01-Jun-2015	31-Jul-2017	0	0
UH West Oahu Park n Ride				
SUMM: FD-600 UH West Oahu Park & Ride - Procurement	20-Jul-2015	08-Nov-2015	0	0
SUMM: FD-600 UH West Oahu Park - Design	09-Nov-2015	13-Nov-2016	0	0
SUMM: DBB-600 UH West Oahu Park & Ride - Bid & Award	14-Nov-2016	02-Apr-2017	0	0
SUMM: DBB-600 UH West Oahu Park & Ride - Construction	03-Apr-2017	04-Mar-2019	0	0
KAMEHAMEHA HIGHWAY (KH) - SECTION 2				
Kamehameha Highway Guideway & Utilities				
SUMM: DB-320 - KHG Guideway - Design & Construction (Design-Build)	12-Jun-2011 A	17-Feb-2017	0	0
Kamehameha Highway Stations				
Kamehameha Hwy Station Group - Redesign	10-Sep-2014 A	30-Apr-2015	0	0
Kamehameha Hwy Station Group - Bid & Award	01-May-2015	31-Aug-2015	0	0
Kamehameha Station Group - Construction	01-Sep-2015	31-Jan-2018	0	0
Pearl Highlands Parking Structure & Ramps				
SUMM: Pearl Highlands Pking Structure & H2 Ramps - DB Procurement	03-Mar-2014 A	30-Apr-2015	0	0



HART
HONOLULU AUTHORITY for RAPID TRANSPORTATION

FFGA Baseline
Oct 2014 Updt
Design Build
Design
Bid/Award
Construction
Actual Work
FFGA Baseline Milestone
Oct 2014 Updt Milestone
Milestone

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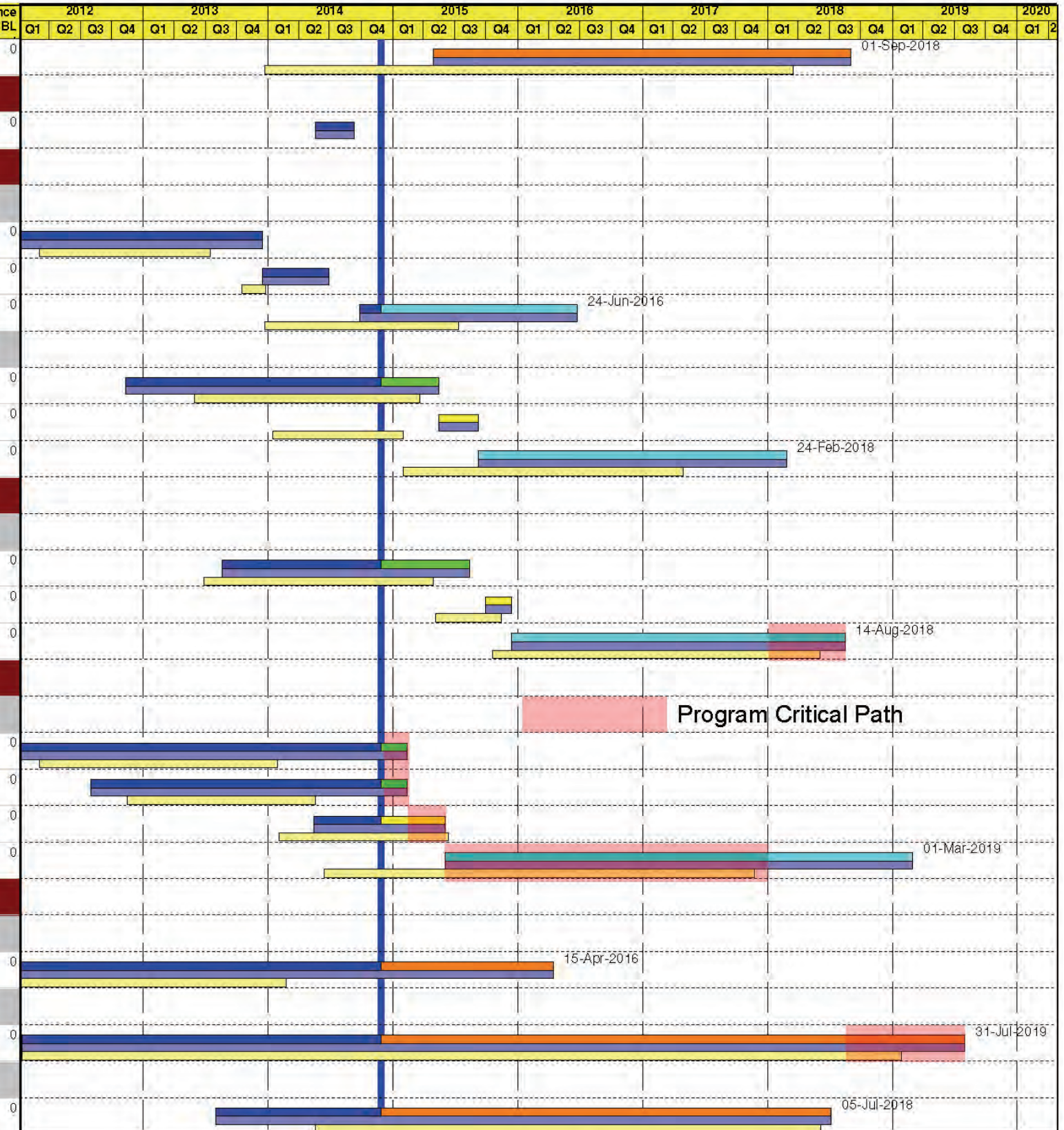
MPS Summary
Design & Construction Contracts

Activity Name	Current Start	Current Finish	Variance - BL Project	Variance - BL Project
SUMM: DB-275 - Pearl Highlands Pking Structure & H2 Ramps - Design & Construction (Design Build)	30-Apr-2015	01-Sep-2018	0	0
West Oahu / Farrington Highway & Kamehameha Station Combined Package				
SUMM: West Oahu / Farrington & Kamehameha Station Group - Bid (Bids Canceled)	20-May-2014 A	10-Sep-2014 A	0	0
AIRPORT - SECTION 3				
Airport Utility Relocation				
SUMM: FD-430 - Airport Utilities - Design	05-Jan-2012 A	16-Dec-2013 A	0	0
SUMM: Airport Utilities - Bid & Award	17-Dec-2013 A	30-Jun-2014 A	0	0
DBB-505 - Airport Utilities - Construction	26-Sep-2014 A	24-Jun-2016	0	0
Airport Stations				
SUMM: FD-440 - Airport Stations Group - Design	14-Nov-2012 A	14-May-2015	0	0
SUMM: Airport Stations Group - Bid & Award	15-May-2015	08-Sep-2015	0	0
SUMM: DBB-470 - Airport Stations Group - Construction	09-Sep-2015	24-Feb-2018	0	0
CITY CENTER (CC) - SECTION 4				
City Center Stations				
SUMM: FD-550 - Dillingham & Kaka'ako Stations Group - Design	19-Aug-2013 A	14-Aug-2015	0	0
SUMM: Dillingham & Kaka'ako Station Group - Bid & Award	28-Sep-2015	14-Dec-2015	0	0
SUMM: DBB-580 - Dillingham & Kaka'ako Station Group - Construction	15-Dec-2015	14-Aug-2018	0	0
Airport & City Center Guideway / City Center Utilities Combined Package				
Airport & City Center Guideway / City Center Utility Relocation				
SUMM: FD-430 - Airport Guideway - Design	05-Jan-2012 A	12-Feb-2015	0	0
SUMM: FD-530 - City Center Guideway & Utilities - Design	31-Jul-2012 A	12-Feb-2015	0	0
SUMM: Airport & City Center Guideway / City Center Utilities - Bid & Award	16-May-2014 A	01-Jun-2015	0	0
SUMM: DBB-520 - Airport & City Center Guideway / City Center Utilities - Construction	02-Jun-2015	01-Mar-2019	0	0
PROJECT WIDE - ALL SECTIONS				
Maintenance & Storage Facility (MSF)				
SUMM: DB-200 - MSF - Design & Construction (Design-Build)	25-Jul-2011 A	15-Apr-2016	0	0
Core Systems				
SUMM: DBOM-920 - Core Systems - Design & Construction	13-Jan-2012 A	31-Jul-2019	0	0
Elevators & Escalators				
SUMM: MI-930 - Elevators and Escalators - Design, Manufacture, Install, & Test	02-Aug-2013 A	05-Jul-2018	0	0



HART
HONOLULU AUTHORITY for RAPID TRANSPORTATION

FFGA Baseline
Oct 2014 Updt
Design Build
Design
Bid/Award
Construction
Actual Work
FFGA Baseline Milestone
Oct 2014 Updt Milestone
Milestone

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Honolulu Rail Transit Project
November 2014 Update
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MPS Summary
Design & Construction Contracts

4 CONTRACT STATUS

Core Systems Contract (Section 4.1.A)

OVERVIEW

- Vehicle Manufacturing is moving forward in Reggio Calabria, Italy.
- Ticket Vending Machines scope of work was removed from Core Systems Contractor.
- Progressing with sub-system testing and design verification activities.

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

OVERVIEW

- Completion of Conflict 2-555-M1 for Shaft 135 Excavation to Begin. Per the contract, utility conflicts identified within the corridor are designed and installed jointly by the design-builder and the utility owner. The design-builder is responsible for the infrastructure while the utility owner is responsible for the installation of the cable, poles and appurtenances. The utilities have been a focus of the Project as their schedule for completion has potential to impact the schedule. Conflicts have to be removed prior to advancing the work.
- Consistent Span Erection/Stressing Construction Progress. This consistency will allow the team to have a better reference for reviewing the schedule and forecasting future work.
- Significant Change Orders in Review. Five change orders were sent to KIWC for review during this period. These include CO #58 for Kaloi Drainage Channel Geotechnical (RFCR 053); CO #59 for Waipahu Station Rev to Guideway (RFCR 046), Pedestrian Vibration Criteria (RFCR 042), and Revision to LCC Station (RFCR 017); CO #60 for Waiawa Scour Design Actuals (RFCC 109); CO #61 for Kaloi Scour Design Actuals (RFCC 108); and CO #62 for West Loch Station Rev to Guideway (RFCR 047) and UHWO Station & Guideway Changes (RFCR 045).

KEY ISSUES

- Span 67 Damage & Repair Procedures (for additional detail, see 4.2.A Key Quality Issues)
- Drill Shaft Quality (for additional detail, see 4.2.A Key Quality Issues)
  Drill Shaft Repair Process (Shaft 245) (for additional detail, see 4.2.A Key Quality Issues)

Maintenance and Storage Facility (Section 4.2.D)

OVERVIEW

- MSF work focused on completion of underground utility installation, OSB and MOW structural steel, concrete tilt-up panel erection and SOG work, and MOW underpass concrete decking.

KEY ISSUES

- Interface Management with Core Systems Contractor: predominant areas of focus include a general revision to the location of rail control system insulated joints and track devices; building internal requirements for access control, intrusion detection and fire detection and alarm system device locations; and resolution of traction power duct bank terminations at electrically operated traction power switches. Details are being worked out through the Request for Interface Details process, however schedule dictates demands HART assumption of risk by directing the contractor to proceed in advance of Change Order negotiation.
- Joint Occupancy with Core Systems Contractor: details are being worked out for systematic release of areas and infrastructure whereby the Core Systems Contractor can commence work in a safe and systematic manner.
- Change Order Negotiation: as stated above, late and changing requirements relative to infrastructure necessary to support Core Systems' evolving design has created multiple changes.
- WOFH West Yard Lead Retaining Wall: continued delay associated with ROW issues is impacting the completion of yard grading and utility installation in support of track work and electrical service to the site.

Kamehameha Highway Guideway (Section 4.3.A)

OVERVIEW

- A revised schedule showing an estimated completion date of April 4, 2017 was submitted on Dec. 5, 2014.
- No work was performed Dec. 19 to 25 in order to mitigate the impact to the businesses along the KHG alignment. No work was performed Dec. 26 to Jan. 4 due to KIWC holidays.

KEY ISSUES

- HECO Coordination – HECO has scheduled the relocation of their 46kV overhead line as part of utility conflict 1-773-E1 and provided temporary outage of their 138kV line for the end of January, allowing KIWC to schedule the drilling of Shaft 270 upon completion of the relocation. Any failure on the part of HECO to achieve this date will potentially delay the resumption of shaft drilling.
- HDOT betterments – HDOT continues to require the inclusion of betterment items in the design packages as a prerequisite to their approval. This has resulted in delays to the completion of the design packages, and procurement of long lead time items such as traffic signal materials that were not originally part of the contract.
- Schedule – Lack of a current project schedule from KIWC hampers the project team's ability to plan and mitigate for any critical path items that may be upcoming. A revised schedule submitted on Dec. 5, 2014 shows a revised completion date of April 4, 2017. Analysis of the basis and merit of this extension is under review by HART.

Final Design Contracts (various sections)

OVERVIEW

- Airport and City Center Guideway Utilities Request for Bid was canceled via Addendum #6, on Dec. 2, 2014.
- The Farrington Highway Station Group (FHSG) construction package was advertised on Dec. 19, 2014. The pre-bid meeting date is Jan. 12, 2015, and the bid due date is March 3, 2015.

KEY ISSUES

- HART is in the process of finalizing its selection of a delivery method for the Airport and City Center Guideway and associated stations. In anticipation of selecting a design-build delivery method for this work, HART is working closely with our final design consultants to prioritize efforts that would support a design-build solicitation. These efforts include geotechnical investigations and reporting, cost estimates, environmental surveys, and support of coordination with select third parties. Other activities that would only be required under a design-bid-build delivery are being temporarily suspended until a selection is finalized.
- The recently advertised FHSG package included value engineering changes aimed at reducing the cost of the three FHSG stations. Similar changes are being incorporated into the West O'ahu Station Group (WOSG) and Kamehameha Highway Station Group (KHSG) designs. Concurrently, HART is evaluating additional cost reduction measures that will be implemented in the Airport and City Center sections of the alignment. These changes will be incorporated into the final designs, or into a design-build criteria, depending on the delivery method chosen.

Airport Utilities (Section 4.4.B)

OVERVIEW

- Field office set up for DBB-505 Airport Section Utilities Construction.

4.1 System-wide

A. Core Systems Contract (CSC)

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

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

Project Overview: Passenger vehicle manufacturing, key system manufacturing, design verification and qualification testing activities have started. Change Order 12 was executed removing the Ticket Vending Machines from the CSC scope of work.

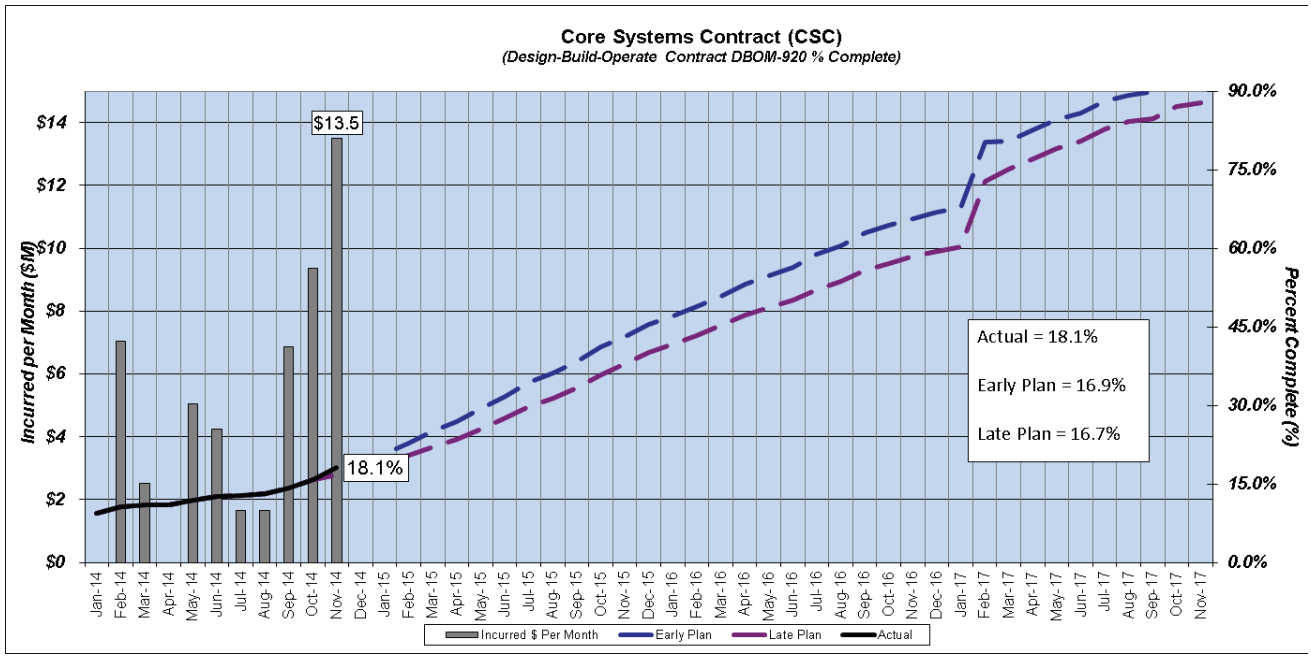
COST INFORMATION:

Original Contract:	$573,782,793	Incurred-to-Date:	$107,344,227
Current Contract Value[1]:	$592,679,998	Incurred in Nov.:	$13,498,276

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

Disadvantaged Business Enterprise (DBE) Participation	
Actual DBE Participation:	$109,023
DBE % Attained:	0.025%

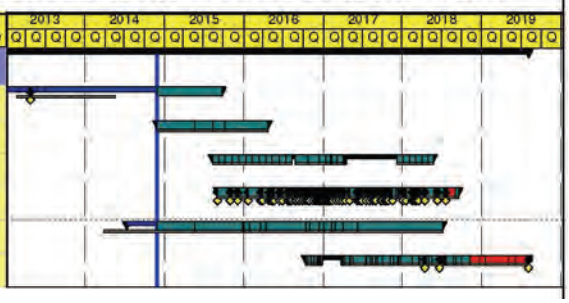
November Change Orders		
Change No.	Description	Amount ($)
*CCO# 0010	HRT Train Mockup Shipment Delivery	$63,714.50
*CCO# 0011	Eliminate Station Manager Booth Req	$-310,000
CCO# 0012	Deletion of Ticket Vending Machines(TVM)	$-10,350,000
*CCO# 0013	HECO Connection Charges	$150,000
	Cumulative to Date	**$18,897,205**
CCO executed in December 2014		



SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14 Printed On: 28-Nov-14 08:45

Activity ID	Activity Name	Start	Finish	Finish Variance
	Core Systems & Vehicles (DBOM) Contract	17-Jan-12 A	01-Aug-19	0d
	Core Systems Design	17-Jan-12 A	25-Sep-15	-491d
	Core Systems Maintenance & Storage Facility Install	01-Dec-14	20-Apr-16	0d
	Core Systems Guideway Install	11-Aug-15	24-May-18	0d
	Core Systems Stations Install	04-Sep-15	13-Sep-18	0d
	Core Systems Vehicles	15-Jul-14 A	06-Jul-18	0d
	Core Systems Local and Integrated Testing	14-Oct-16	01-Aug-19	0d



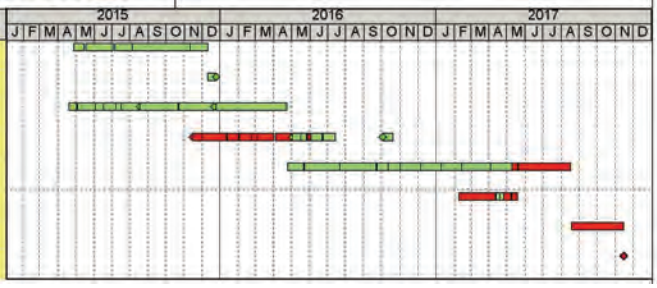
	Interim Design Submitted Documents	Final Design Submitted Documents	Target Completion Date
Passenger Vehicles	76%	1%	2nd Q 2015
Communications	100%	15%	1st Q 2015 (S1)
ATC/SCADA	94%	80%	1st Q 2015 (S1)
TES	100%	78%	1st Q 2015 (S1)
Fire Detection	100%	42%	1st Q 2015 (S1)
PSG, UPS, MPV	N/A	5%	1st Q 2015 (S1)

- TES subsystems began design verification testing in preparation for manufacturing activities.
- ATC/SCADA and Communication subsystems components started Factory Inspection activities.
- Passenger Vehicles continue to progress Interim Design with an expected completion by early 2015.
- Passenger Vehicle Final Design started.
- Passenger Vehicle Carshell manufacturing has begun for the 1st and 2nd Vehicle.
- Continue HECO coordination of design; quality of power; harmonics and voltage spikes.

CRITICAL PATH SUMMARY:

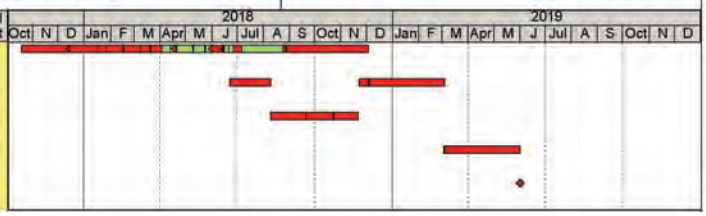
CSC BPS for PR36 Nov 28, 2014 — Interim Opening Critical Path — Run Date: Dec-11-14 09:14

Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
	1 - OSB/OCC Install & Test	164	Apr-27-15	Dec-10-15	1
	1a - Yard Ready for Train Testing	10	Dec-11-15	Dec-24-15	1
	2 - MSF Subsystem Completion	265	Apr-20-15	Apr-22-16	1
	3 - Station and Wayside Install & Test	243	Nov-16-15	Oct-19-16	9
	4 - SCADA/Train Control Testing	480	Apr-25-16	Aug-17-17	0
	5 - PV Low & Line Speed Testing	72	Feb-09-17	May-19-17	0
	6 - Pre-Operation System Demonstration	90	Aug-18-17	Nov-15-17	0
	7 - Interim Opening	0	Nov-15-17	Nov-15-17	0



CSC BPS for PR36 Nov 28, 2014 — Full Opening Critical Path — Run Date: Dec-11-14 09:37

Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
	3 - Station and Wayside Install & Test	294	Oct-18-17	Dec-03-18	0
	4 - SCADA/Train Control Testing	255	Jun-22-18	Mar-03-19	0
	5 - Low and Line Speed Testing	74	Aug-10-18	Nov-21-18	0
	6 - Pre Operational System Demonstration	91	Mar-03-19	Jun-01-19	0
	7 - Full Opening	0	Jun-01-19	Jun-01-19	0



- All design activities associated with the start of OSB/OCC installation and testing are progressing according to plan.
- All Vehicle activities both with regard to subsystem design and Carshell assembly are progressing according to plan.

WORK PROGRESS:

Activities this Month:

- Project-Wide Percent Complete: 17.3%
- Passenger Vehicle Percent Complete: 16.7%
- Conducted Design Verification tests for Traction Electrification System (TES) equipment – Power Rectifier – Part II.
- Passenger Vehicle Interim Design Review Meeting Part II.
- Workshop Review meeting for the ATC/SCADA Final Design Requirements Traceability Matrix (RTM).
- PSG Technical Reviews.
- Resolved key items on Safety Open Items list.

Look Ahead:

- Completion of Passenger Vehicle final design.
- Passenger Vehicle Manufacturing – Vehicles 1 to 4.
- Factory Acceptance Tests for TES equipment (Blue Light Stations, MSF TPSS)
- Communications Design Verification for Interface Communications Control System (ICCS), Maintenance Management Information System (MMIS), and OSB Equipment.
- ATC/SCADA Design Verification.
- Platform Screen Gates Design Verification and Factory Acceptance Tests.

KEY ISSUES:

- Finalize design options for shielding of communications equipment from Electromagnetic Interference (EMI) due to the proximity of the AM radio tower near the Middle Street Station. – HART is evaluating alternatives to mitigate EMI, and/or moving the antenna.
- Construction Interface coordination at MSF; Core Systems is continuing efforts to proactively provide timely design inputs and minimize impacts to construction. – Quick resolution of issues is necessary to limit the impact to the MSF. HART, AHJV and the MSF are meeting on a weekly basis at the site to address necessary issues. Fire Detection Configuration at the OSB was resolved this way.
- Finalize Interface design inputs for Farrington Highway, West O'ahu and Kamehameha Highway station groups. – HART is reviewing the station design packages for consistency with the Core System's design.
- The vacant AHJV position for Operations and Maintenance (O&M) manager is expected on site in early 2015. The Construction Manager position has been filled and is currently on-site. The Lead Engineer for Light Rail Vehicles (LRVs) has been filled and is currently in training in Italy; expected on-site in the 2nd quarter of 2015.
- AHJV's revised baseline contract schedule has been approved. However, re-procurement of Westside Stations Group will result in revisions to the CSC schedule.
- AHJV has asserted that it has had a 9-month delay in starting work due to CSC protest. This issue is in mediation, but the mediation is delayed awaiting AHJV input to proceed.
- Alignment changes from Airport and City Center Fixed Facility Contractors may affect system performance. AHJV analyzed and incorporated the revised alignments for WOFH and KHG. There is a gain in performance from these revised alignments. AHJV is to incorporate and analyze the revised Airport Alignment.
- HART is closely monitoring Passenger Vehicle production in Italy and working with AnsaldoBreda (AB) to prepare for Pittsburg, CA start-up.
- UPS loads are still under discussions.
- O&M Procedures – AHJV has provided preliminary MSF Operations Plans, but will resubmit to better follow HART's OM Plan and FTA guidelines.
- 4-Car Train – Negotiations are still in progress. Buy America compliance and total savings issues are under discussion.

QUALITY MANAGEMENT:

- Testing and Oversight Activities:

Design Verifications & System Testing		
Subsystem	Test Completed	Date Completed
Traction Power	Design Verification for Power Rectifier Transformer – Part II	11/10/14 – 11/13/14

Passenger Vehicle - Oversight		
Facility	Activity	Date Completed
Reggio Calabria, Italy	Inspection of Carshell Assembly facility, drawings, procedures, jigs.	11/17/14 – 11/21/14
Pittsburgh, CA	Vehicle Final Assembly	Not Started

CSC NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
13	**13**	**0**

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: predicated upon the building of the City Center section stations which is being protracted

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

Project Overview: Elevator and Escalator equipment design is expected to be completed in January 2015 and released for manufacturing in February 2015. The design for the remaining west side stations is expected to be completed during the first quarter of 2015.

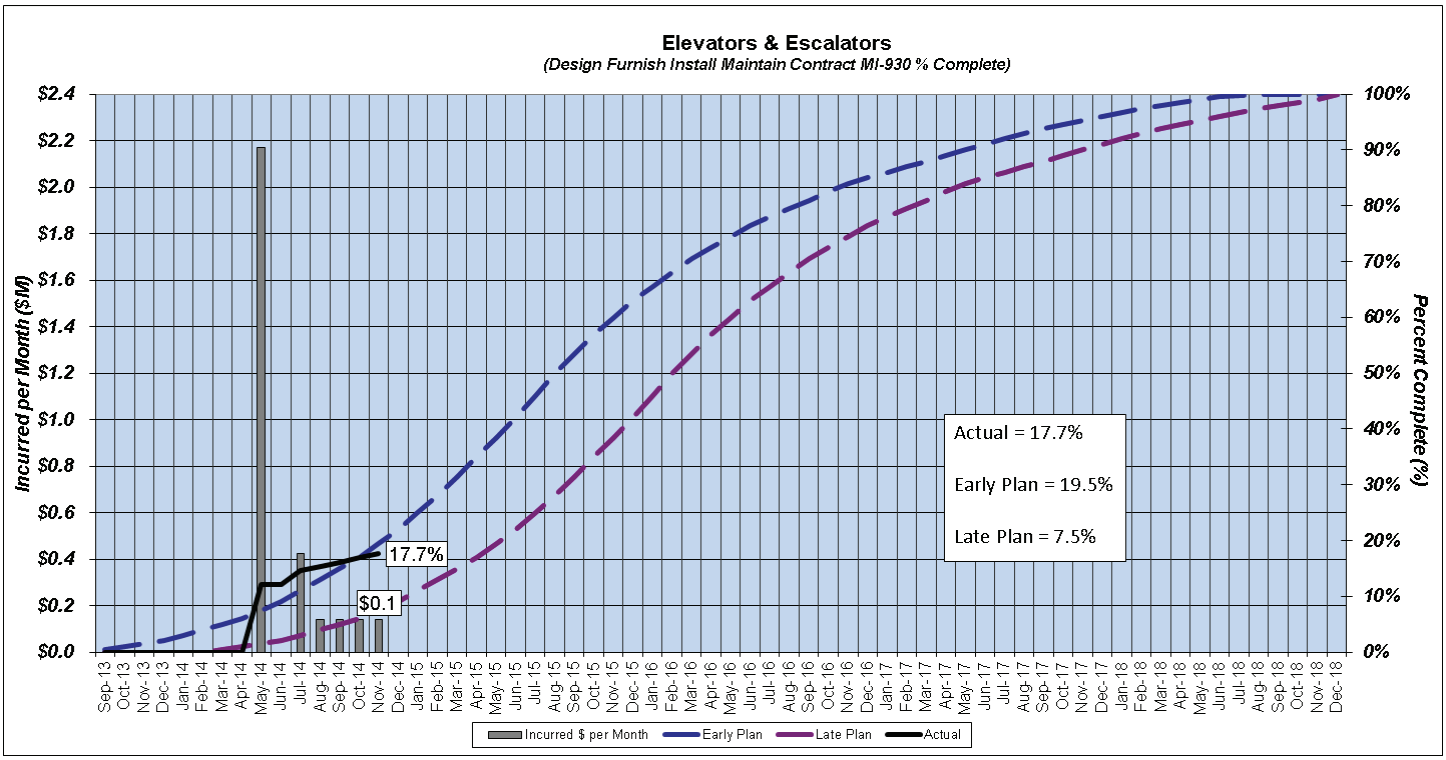
COST INFORMATION:

Original Contract: $50,982,714	Incurred-to-Date: $3,157,523
Current Contract Value[1]: $50,982,714	Incurred in Nov.: $140,825

[1] *Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

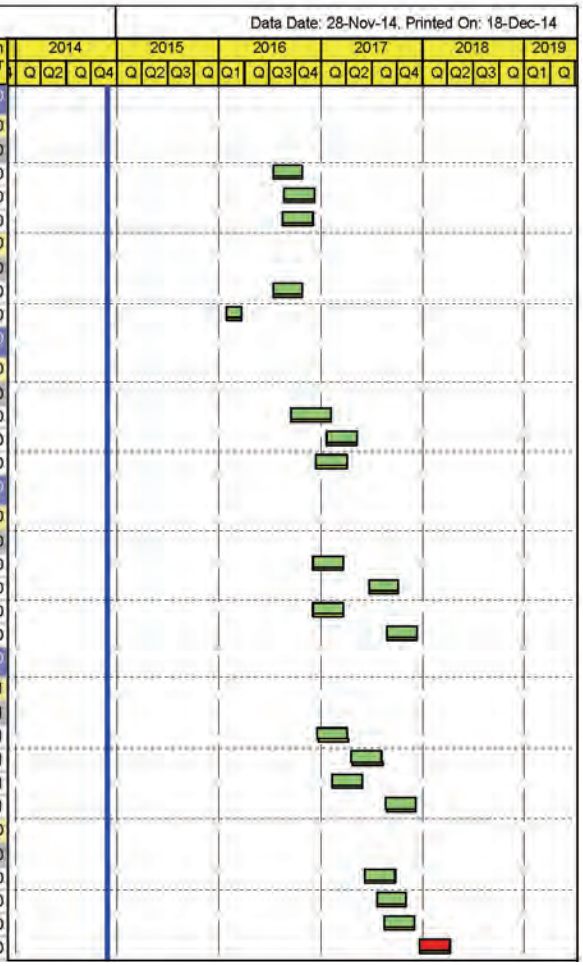
November Change Orders		
Change No.	Description	Amount ($)
None	---	---
	Cumulative to Date	**$0**



SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	W. Oahu/Farrington Highway (WOFH) - Sectio...	27-Jan-16	08-Dec-16	0
	W. Oahu Station Group	12-Jul-16	08-Dec-16	0
	Construction - W. Oahu Station Group	12-Jul-16	08-Dec-16	0
	East Kapolei Station	12-Jul-16	25-Oct-16	0
	UH West Oahu Station	23-Aug-16	08-Dec-16	0
	Ho'opili Station	15-Aug-16	02-Dec-16	0
	Farrington Highway Station Group	27-Jan-16	25-Oct-16	0
	Construction - Farrington Highway Station Group	27-Jan-16	25-Oct-16	0
	West Loch Station	12-Jul-16	25-Oct-16	0
	Waipahu Transit Station	27-Jan-16	21-Mar-16	0
	Kamehameha Highway (KH) - Section 2	16-Sep-16	09-May-17	0
	Kamehameha Highway Station Group	16-Sep-16	09-May-17	0
	Construction - Kamehameha Highway Station Group	16-Sep-16	09-May-17	0
	Pearl Highlands - Station	16-Sep-16	06-Feb-17	0
	Pearl Ridge Station	20-Jan-17	09-May-17	0
	Aloha Stadium Station	14-Dec-16	03-Apr-17	0
	Airport - Section 3	01-Dec-16	12-Dec-17	0
	Airport Station Group	01-Dec-16	12-Dec-17	0
	Construction - Airport Station Group	01-Dec-16	12-Dec-17	0
	Pearl Harbor Station	01-Dec-16	20-Mar-17	0
	HNL Airport Station	20-Jun-17	04-Oct-17	0
	Lagoon Drive Station	02-Dec-16	21-Mar-17	0
	Middle Street Station	25-Aug-17	12-Dec-17	0
	City Center (CC) - Section 4	19-Dec-16	09-Apr-18	0
	Dillingham Station Group	19-Dec-16	07-Dec-17	1
	Construction - Dillingham Station Group	19-Dec-16	07-Dec-17	1
	Kalihi Station	19-Dec-16	06-Apr-17	1
	Kapalama Station	21-Apr-17	07-Aug-17	1
	Iwilei Station	09-Feb-17	26-May-17	1
	Chinatown Station	22-Aug-17	07-Dec-17	1
	Kaka'ako Station Group	06-Jun-17	09-Apr-18	0
	Construction - Kaka'ako Station Group	06-Jun-17	09-Apr-18	0
	Downtown Station	06-Jun-17	21-Sep-17	0
	Civic Center Station	20-Jul-17	02-Nov-17	0
	Kaka'ako Station	14-Aug-17	30-Nov-17	0
	Ala Moana Center Station	19-Dec-17	09-Apr-18	0



CRITICAL PATH ISSUES:

- Resolution of design interface issues with other designers.
- Coordination with station contractors on construction interface milestones.

WORK PROGRESS:

Activities this Month:

Earned Value: 6.5% *[(Total Achieved to November 2014 (3.2 million) + Projected December 2014 Period (0.1 million))/Total Contract Including Executed Change Orders (51 million)].*
Planned Value: 20%

- Design is 12% complete.
- Interface meetings between design teams and Core Systems Contractor.
- All draft equipment drawings for the 21 stations have been submitted for review and acceptance and are in review.

Look Ahead:

- Design continues for the West Loch and Waipahu Transit Center Stations and is scheduled to be completed in January.
- Design will continue on the Leeward Community College station, the three WOSG stations, and the three KHSG stations.
- Elevator & Escalator team will continue meeting with the Core Systems Contractor and final designers of the remaining 18 stations to discuss and resolve interface issues.

KEY ISSUES:

- Final Product acceptance was completed in December.
- The release to begin manufacturing of the FHSG equipment will occur in February 2015.

C. Fare Collection System

Contract No.: TBD
Contractor: TBD
Contract Start Date: TBD
Contract Substantial Completion: TBD
Projected Substantial Completion: TBD

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

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

Project Overview: The technical specification for the project is approximately 80% complete and the remaining RFP package is at 75% complete. Current schedule would see the start of procurement in February 2015 provided an MOU defining the roles, relationships, and funding responsibilities between the City and County and HART is in place and the funds are allocated and committed. An additional RFP for technical support service will also be launched in a similar timeframe.

COST INFORMATION: TBD

SCHEDULE:

- Anticipated RFP release in February 2015 with RFP award anticipated for start of FY2016 (July 1, 2015).
- System design anticipated for winter 2015-2016.
- Manufacture in spring 2016.
- System testing prior to pilot, fall 2016 to spring 2017.
- Anticipated system pilot launch on TheBus in June 2017 with full roll out on TheBus (including all central systems) for fall 2017.
- Interim roll out on rail in late 2018.
- Full roll out on rail in late 2019.

CRITICAL PATH ISSUES:

- M4 completed and funds committed for Fare System Design Build.
- M4 completed and funds committed for Fare System Consultant Technical Support.
- MOU with City and County of Honolulu (DTS, BFS and DIT) signed committing to cost share central system elements and pay for TheBus equipment.

WORK PROGRESS:

Activities this Month:

- Completed final Technical Specification review with technical consultant.
- Gathering DTS, BFS and DIT comments on first draft of MOU.
- Confirming interface requirements with City credit\debit acquirer.
- Establishing Work Plan for HART Board Fare Structure Permitted Interaction Group (PIG).

Look Ahead:

- Meeting with Fare System RFP evaluation team to confirm evaluation criteria.
- Complete RFQ package for technical consultant and be prepared to issue in January 2015.
- Work with PIG to complete Fare Policy Project Charter.
- Setup a City Council PIG.

KEY ISSUES:

- Confirmation of cost sharing amounts for capital portion of the Fare system with the City and agreement by City to fund the project with HART in lead for procurement. See critical path MOU.
- Allocation of fare system capital budget in time for procurement in early 2015 to meet current schedule.
- Current fare system procurement plan includes interim opening inclusive of two deployments, two warranties and approximately 1 year of equipment storage (for remaining equipment) for rail. Budget and RFP structure would change if no revenue collection at rail stations during interim opening. The FFGA assumes $2 million in revenue is captured from fare collection during interim opening.
- Governance for HART fare policy agreement is still to be determined. Any changes to current transit fare policy are required by end of 2015 to meet system design and testing requirements for interim opening with revenue collection.

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: October 2016

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

Project Overview: For the December 2014 report, work progress has been updated to include both wet and dry utilities for the period. In addition to updating progress for shaft, column, segment casting, and span stressing, construction trends were used to better forecast the January 2015 look ahead. Key Issues from the previous period have remained unchanged with the exception of the completion of Conflict 2-555-M1 which allows work at Shaft 135 to begin. The Project's Key Quality Issues focuses mainly on shafts and spans in repair. Quality Issues highlighted focus on positive construction trends and well as significant completion of the Project's key civil structures at Cane Haul Road and the North Access Road.

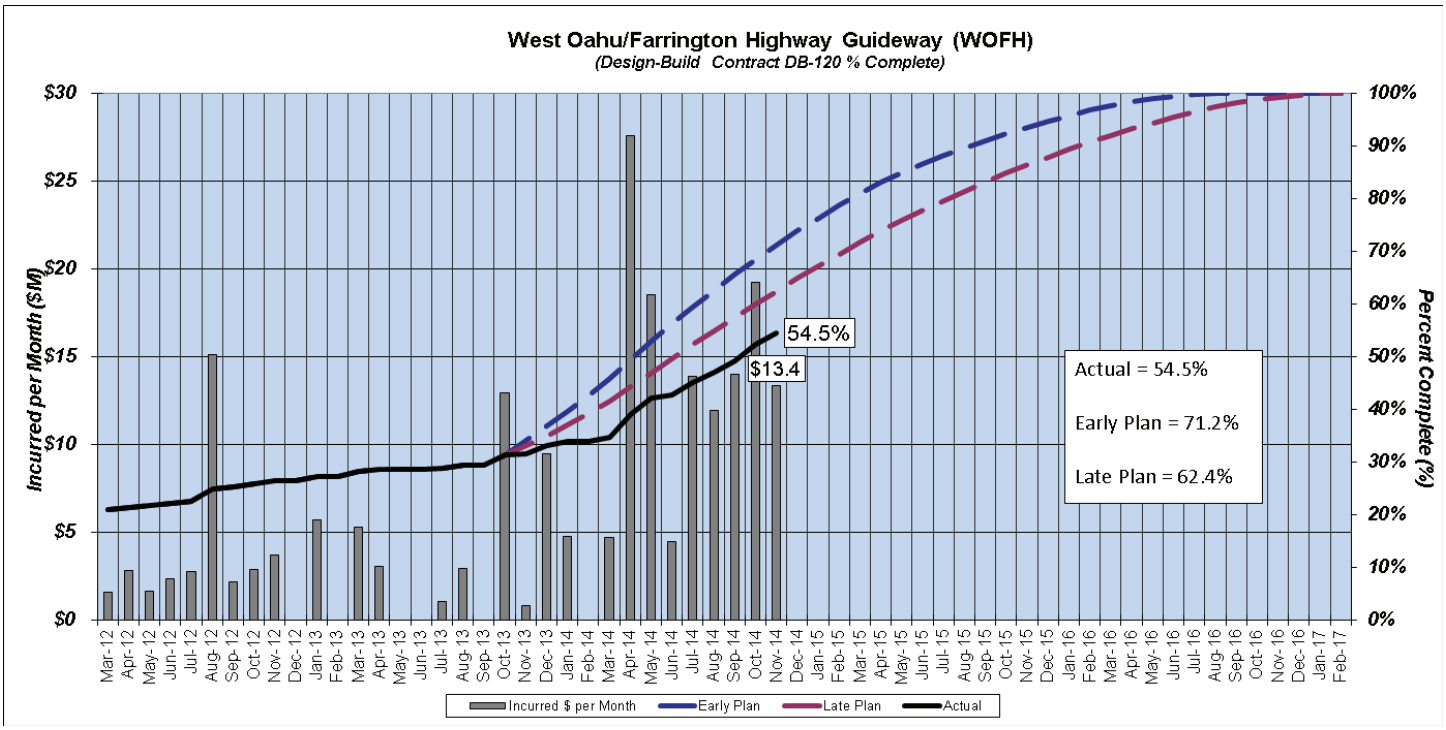
COST INFORMATION:

Original Contract:	$482,924,000	Incurred-to-Date:	$336,060,580
Current Contract Value[1]:	$616,322,382	Incurred in Nov.:	$13,356,543

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$3,635,375
DBE % Attained:	0.75%

November Change Orders		
Change No.	Description	Amount ($)
*CCO # 0048	Escalation Due to Schedule Impacts	$15,000,000
	Cumulative to Date	**$133,398,382**
**CCO executed in December 2014*		



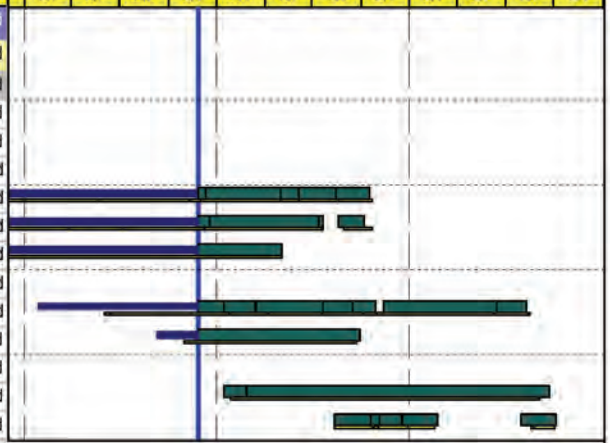
For the month of October 2014, Pay Application #59 has been submitted and is currently being verified by HART. KIWC requested that retention on progress payments be removed from this pay application and all future applications since 50% of the total contract value has already been exceeded. The Progress Payment for the month of October 2014 was delayed due to KIWC's delayed submission of the October 2014 Schedule Update, but was submitted during this period.

SCHEDULE:

- Progress is lagging the planned schedule. HART and Kiewit are working to mitigate impacts to critical path activities. A revised schedule is being evaluated.

November 2014 Update — Data Date: 28-Nov-14, Printed On: 22-Dec-14 16:58

Activity Name	Start	Finish	Finish Variance
Total	08-Mar-12 A	05-Oct-16	-2d
West Guideways & Structures	08-Mar-12 A	05-Oct-16	-2d
W. Oahu/Farrington Highway (WOFH) - Section 1	08-Mar-12 A	05-Oct-16	-2d
W. Oahu/Farrington Highway Guideway	08-Mar-12 A	05-Oct-16	-2d
Kiewit WOFH Summary	08-Mar-12 A	05-Oct-16	-2d
Foundations	08-Mar-12 A	17-Oct-15	6d
Drilled Shafts	23-Apr-12 A	17-Oct-15	4d
Columns	21-May-12 A	05-Oct-15	18d
At Grade	08-Mar-12 A	03-May-15	1d
Guideway	29-Jan-14 A	08-Aug-16	7d
Precast Segment Erection	29-Jan-14 A	08-Aug-16	7d
Balanced Cantilever Segments	10-Sep-14 A	29-Sep-15	-6d
Trackwork	15-Jan-15	05-Oct-16	-2d
Direct Fixation Trackwork	15-Jan-15	20-Sep-16	-18d
Third Rail	11-Aug-15	05-Oct-16	-2d



CRITICAL PATH ISSUES:

- HART continues to work to resolve construction right of entry for UH LCC campus, as well as associated approval of new campus portable buildings and site plans.
- Production rates for precast span erection are lagging planned rate. KIWC is developing mitigation plans.
- KIWC implemented re-sequencing of segment erection work in October 2014. This was done in order to alleviate potential negative float on the project schedule. The re-sequencing will be incorporated into the next schedule submittal.

WORK PROGRESS:

WOFH Status as of 12/22/14

Utility Status	Qty to Date	Final Qty	% Complete
Water Line	8,188	9,348	87.6%
Sewer Line	550	570	96.5%
Fuel Line	340	340	100.0%
Gas line	1,498	1,591	94.5%
Drainage Line	3,325	5,066	65.6%
Elec/Telecom	9,119	21,374	42.7%
Street Lights	5,530	8,357	66.2%
Traffic Sig/ITS Duct bank	3,378	10,802	31.3%
System Sites	-	7,046	0%
ITS Systems Devices	821	4,121	19.9%

Structure Element	Total to Date	Planned to Date*	Total Qty	% Complete
Shafts	183	201	266	68.8%
Columns	136	131	266	51.1%
Segment Casting	1,846	2,339	3,163	58.4%
Spans Stressed	61	91	266	22.9%

* The planned values are based on WOFH REVISED SCHEDULE REV C 2014.04.08 (with data date of October 25, 2013), which was Accepted as Noted on May 9, 2014.

Activities this Month:

Earned Value: 57.6% *[(Total Achieved to November 2014 (334 million + Projected December 2014 Period (12 million))/Total Contract Including Executed Change Orders (601 million)].*

Planned Value: 64.8%

Shaft/Column

- Performed drilled shaft construction, drilling, and placed concrete for a total of 7 drill shafts. Column construction was not performed.

Look Ahead:

Design Progress

- HART and KIWC are working together to complete final design. 5 more submittals are expected to be issued for construction, increasing the total to 103 out of 124 design submittals.

Shaft/Column

- Continue with drilled shaft and column concrete placement. KIWC will complete the drill shaft repair for Shaft 245 and will proceed with repairs for Shafts 144, 145, 150, and 151 in preparation for eastbound segment erection.

Guideway Segment Erection

- Eastbound heading segments were erected for Span 97 through Span 102. Westbound heading segments were erected for Span 43 through Span 41.

Utility Relocation

- Addressed utility conflicts along the alignment, relocating traffic signals, streetlights, and existing water/sewer lines. HECO relocating power lines. Third-party companies relocating overhead fiber-optic lines.

Precast Yard

- Precast Yard performed daily segment and sound wall casting, averaging 12 segments per day and up to 62 segments per week.

KIWC/Third-Party Coordination

- Coordination continued with HECO and KIWC to resolve conflicts with utility relocation.
- Coordination continued with Leeward Community College regarding the relocation of portable classrooms.

Guideway Segment Erection

- Segment span erection will continue westbound from Span 40 to 37 towards East Kapolei Station and from Span 103 to 108 eastbound towards Farrington Highway, based on current monthly trends.

Utility Relocation

- Relocate wet utilities (sewer/water) and dry utilities (traffic signal, street lighting and fiber optics) along Farrington Highway in preparation for eastbound segment erection.

Balanced Cantilever Structure

- KIWC will be installing travelers and constructing cast in place segments from Piers Tables 253 and 254 to start launching across the H1 Freeway. Construct pier columns at Piers 255 and 256.

Precast Yard

- Production of segment casting and soundwalls are expected to continue at a rate of 12 segments per day. At this rate, 2,150 (68%) segments should be casted by end of month.

KIWC/Third-Party Coordination

- Continue to resolve conflict issues with third-party agencies (HDOT, DTS, HECO and Hawaiian Telcom).

KEY ISSUES:

- **Design Completion Schedule** – The Project's design schedule continues to be tracked closely by HART. Comment Disposition and Over-the-Shoulder Meetings also continue to occur. As of December 2014, the total of 98 of 124 design submittals still remains due to ongoing third-party (HDOT, DTS, HECO and Hawaiian Telcom) reviews. HART will continue to facilitate the third-party review process and will track against KIWC's design schedule.
- **Leeward Community College (LCC) Portables and Parking Lot Change Order** – In order for KIWC to begin work at the LCC Station Area, four (4) portable buildings need to be relocated to another location within the campus. RFCR 017 was executed for KIWC to conduct a Hazardous Materials assessment of the existing buildings.
- **MS4 Waipahu High School (WHS) Permit** – HART needs to obtain an MS4 Permit with the Hawai'i Department of Education (DOE) in order for construction to begin on a Mechanically Stabilized Earth (MSE) Wall by Piers 251 and 252. The permit would allow for a permanent connection to the WHS MS4. Conditional approval of this permit should be in place by January 2015.
- **Shaft 135 Delay Due to Overhead Line Obstruction** – HECO completed the connections on the outlying pole structures as part of an electrical overhead line relocation underneath the guideway identified as Conflict 2-555-M1. KIWC began excavation of Drill Shaft 135 in December 2014 and this no longer remains an issue.
- **Construction Production** – Meeting the project's schedule will continue to be a challenge for the project. A re-sequenced baseline schedule was submitted to HART in December 2014 showing more realistic construction durations and is currently being reviewed.
- **Third-Party Utility Relocations Due to Re-sequenced Schedule** – Originally KIWC had planned to move their Span by Span Heading #1 from Span 89 by Ho'opili Station to Span 250 by Waipahu High School after completion of Span 89. KIWC has decided to continue progressing east past Span 89 and therefore electrical utilities will need to be relocated earlier than expected. KIWC continues to discuss their schedule with Hawaiian Electric (HECO), Hawaiian Telecom (HTI), and Oceanic Time Warner (OTW). HECO has provided HART a January 2015 work schedule.

KEY QUALITY ISSUES:

- **Span 67 Damage and Repair Procedures** – During the erection process of Span 67, the underside of Segments 67-11 and 67-12 were damaged due to unbalanced support from the temporary bearings. NCR 00144 was opened on June 17, 2014 to address the issue as a Root Cause Analysis was submitted to HART on Oct. 4, 2014. KIWC continued to finalize the redesign of the segments as well as the repair process which is scheduled to begin in January 2015 and to be completed in February 2015.

- **Drill Shaft Quality** – Of the 202 drill shafts that have been Crosshole Sonic Logging (CSL) tested to date, 31 shafts (15%) were found to have velocity reductions outside of the acceptable design criteria limits potentially because concrete was segregated during concrete placement. CSL testing is a method to verify the structural integrity of the drilled shafts. KIWC continues to have weekly Drill Shaft Quality Meetings with HART to discuss testing results, quality issues, the concrete mix, and methods for repair.
- **Drill Shaft 245 Repair** – Of the 31 drill shafts that were found to have velocity reduction issues, NCRs have been opened and submitted to HART. HART will not close an NCR until KIWC completes another CSL test and demonstrates soundness of the concrete shaft. Shaft repairs have begun at Shaft 245. As the first shaft that will need repairs to anomalies at greater depths below the top of concrete, this repair process is expected to take longer to allow KIWC time to get the proper protocols in place. Shaft 245 should be completed in early January 2015 and repairs for Shaft 145 will follow.
- **Civil Structures/Roadway Progress –** Both the Cane Haul Road Underpass and North Access Road Underpass have progressed relatively close to completion. At North Access Road, formwork for all 4 wing walls has already been setup and concrete pouring of the walls has begun. The Cane Haul Road box is essentially complete and the project is now awaiting work for the MSE Wall by Piers 251 and 252 to complete the area around the structure.
- **Consistent Span Erection/Stressing Trends –** In December, KIWC has erected and stressed 9 Spans, averaging 3-4 per week. KIWC has maintained this positive trend and momentum from previous months, erecting 11 in November, 9 in October, and 9 in September. Progress is being made both westward towards East Kapolei Station and eastward towards Farrington Highway. At this rate, KIWC will reach Farrington Highway by the end of January 2015 and East Kapolei Station by the end of April 2015.
- **Pre-Cast Segment Yard Progress –** The Casting Yard has been very consistent in producing approximately 62 segments per week and is currently 58% complete with segment production for the overall project. Although 79 of the total 268 NCRs (30%) have been related to segmental issues like damaged shear keys, concrete voids, and spalls, proper correction procedures have already been developed and are being implemented.

WOFH NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
268	182	86

PROJECT PICTURES:

Erecting guideway segments for Span 43.

Concrete placement for drilled Shaft 167.

Balance Cantilever structures for Piers 253 and 254, Work Area 6.

Installing rebar cage for Piers 255, Work Area 6.

B. West O'ahu Station Group (WOSG)

Contract No.: FD-140
Contractor: URS Corporation, Final Design Consultant (Engineer of Record)
Contract Start Date: June 2012
Construction Docs Bid-Ready: April 13, 2015
Projected Substantial Completion: August 2017

Project Description: Architectural and engineering services for the design of three (3) transit stations situated along the WOFH Guideway. The three stations comprising the WOSG contract are the East Kapolei Station, the UH West O'ahu Station and the Ho'opili Station.

Project Overview: The WOSG consultant is currently incorporating value engineering changes into the station designs as directed by HART. The consultant and HART are closing out remaining issues including design interfaces and third party approvals in preparation for a spring 2015 construction advertisement.

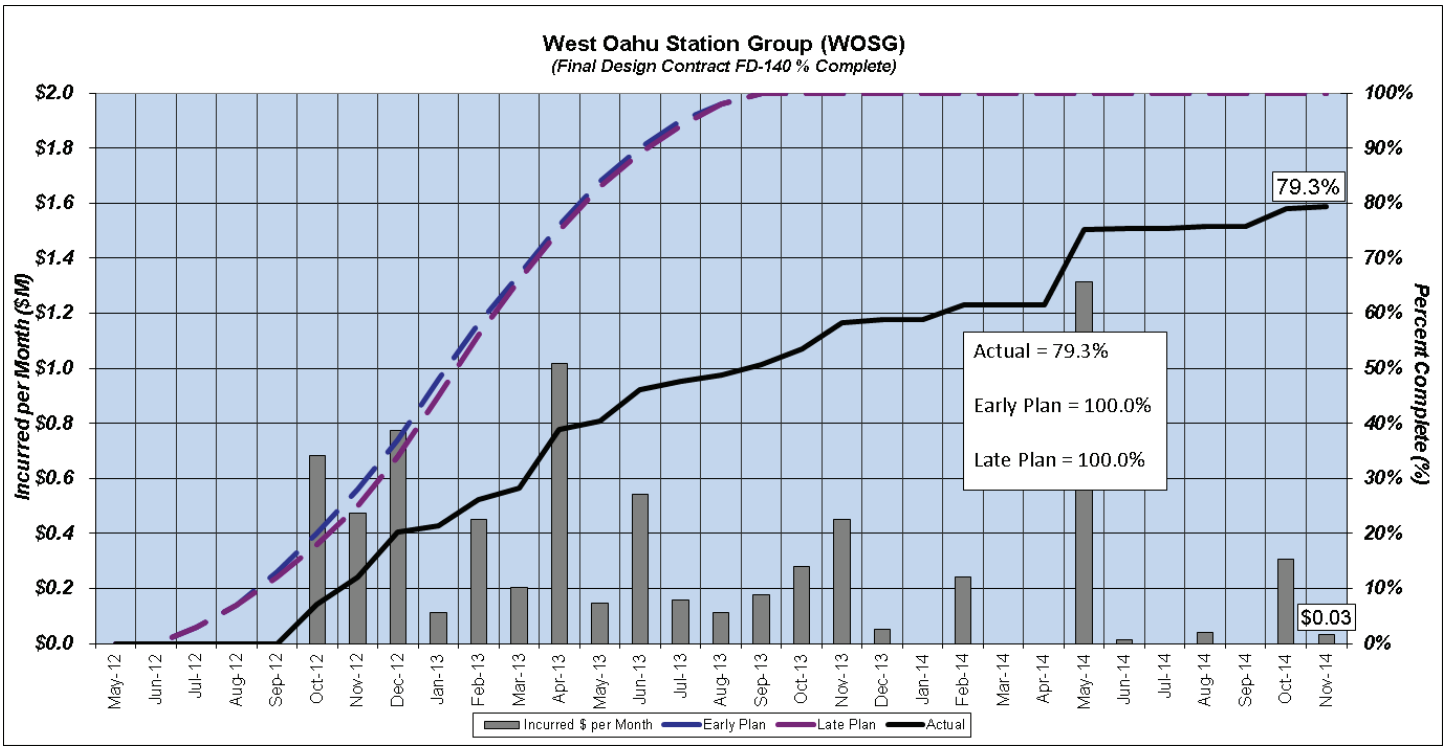
COST INFORMATION:

Original Contract:	$7,789,000	Incurred-to-Date:	$7,579,602
Current Contract Value[1]:	$9,560,305	Incurred in Nov.:	$33,056

[1] *Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

November Change Orders/Amendment		
Change No./Amend	Description	Amount ($)
None	---	---
	Cumulative to Date	**$1,771,305**

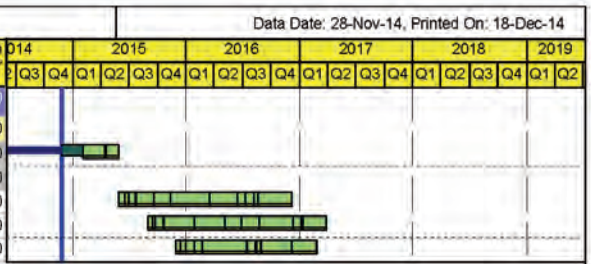


The closeout of the WOSG contract is currently 14 months behind schedule due to design interfaces with other HART contracts, ongoing value engineering efforts, and a reorganization of the WOSG construction solicitation package. Actions to minimize this delay are discussed below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	W. Oahu/Farrington Highway (WOFH) - Sectio...	14-Jan-10 A	30-Mar-17	0
	W. Oahu Station Group	14-Jan-10 A	30-Mar-17	0
	Design - W. Oahu Station Group	14-Jan-10 A	01-Jun-15	0
	Construction - W. Oahu Station Group	01-Jun-15	30-Mar-17	0
	East Kapolei Station	01-Jun-15	07-Dec-16	0
	UH West Oahu Station	01-Sep-15	30-Mar-17	0
	Ho'opili Station	01-Dec-15	24-Feb-17	0



CRITICAL PATH ISSUES:

- HART is overseeing and expediting value engineering design efforts to save construction costs on these three stations. These changes will be consistent with the effort already underway on the FHSG contract.
- HART is accelerating URS' completion of the WOSG construction documents in anticipation of a spring 2015 construction solicitation.
- HART is proactively facilitating interface resolution with the CSC, WOFH and E/E contracts to ensure consistency and integration of these designs.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 88%.
- Interfacing design with CSC, WOFH and E/E contracts.
- Incorporating value engineering changes.
- Modifying package to be a standalone 3-station bid set, as compared to previous 9-station bid set.
- Resolving third-party comments and pursuing approvals.
- Coordinating with private developer to establish utility services to Hoʻopili Station.

Look Ahead:

- Complete design and value engineering efforts.
- Document design interface agreements with CSC, WOFH and E/E contracts.
- Obtain third-party approvals.
- Prepare construction solicitation package.
- Finalize construction agreements with adjacent land owners.
- Implement additional value engineering opportunities.

KEY ISSUES:

- Coordinating with HDOT to resolve significant policy level design review comments.
- Tracking resolution of interfacing designs and managing risks associated with misaligned design schedules.

C. Farrington Highway Station Group (FHSG)

Contract No.: FD-240
Contractors:
URS Corporation
Start Date: September 27, 2013 End Date: June 2017
HDR Engineering, Inc.
Start Date: January 12, 2011 End Date: April 5, 2013
Construction Docs Bid-Ready: December 19, 2014
Projected Substantial Completion: September 2017

Project Description: Architectural and engineering services for the design of three (3) transit stations situated along the WOFH Guideway. The three stations comprising the FHSG contract are the West Loch Station, the Waipahu Transit Center Station and the at-grade Leeward Community College Station.

Project Overview: The FHSG construction package was issued for bid on Dec. 19, 2014. A pre-bid conference is scheduled for Jan. 12, 2015. Bids are due in March 2015.

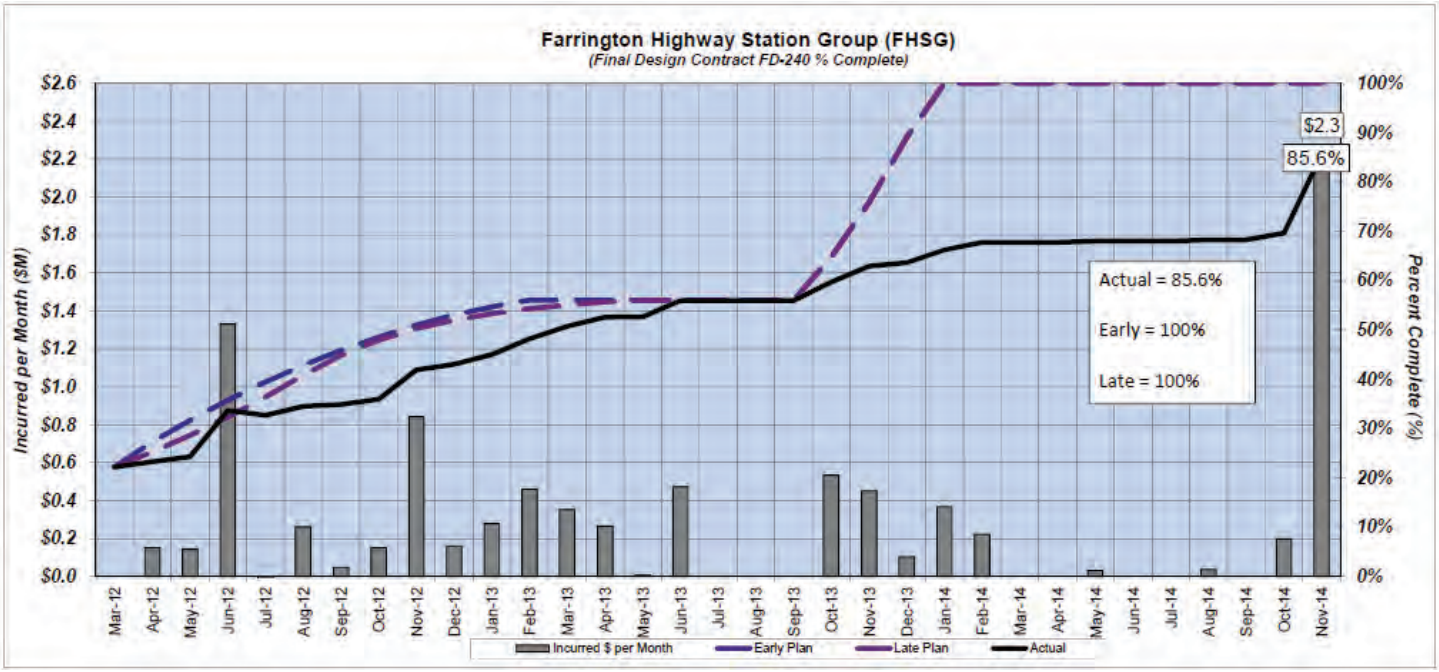
COST INFORMATION:

Original Contract: $9,300,696	Incurred-to-Date: $12,157,989
Current Contract Value[1]: $14,198,045	Incurred in Nov.: $2,272,777

[1]*Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$258,611
DBE % Attained:	4.7%

November Change Orders/Amendments		
Change No./Amend	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$4,897,349**

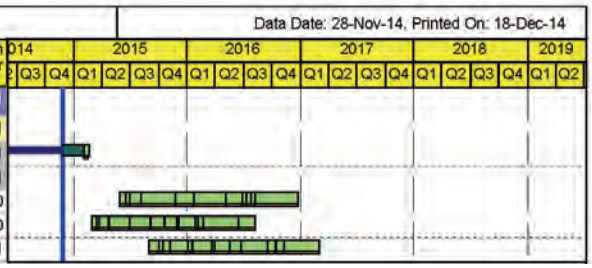


The closeout of the FHSG contract is currently 10 months behind schedule due to a change in the final design consultant, design interface issues with other HART contracts, a round of value engineering changes, and a reorganization of the recently reissued FHSG construction solicitation package. Actions to minimize the impact of this delay are discussed below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	W. Oahu/Farrington Highway (WOFH) - Sectio...	02-Oct-09 A	03-Mar-17	-1
	Farrington Highway Station Group	02-Oct-09 A	03-Mar-17	-1
	Design - Farrington Highway Station Group	02-Oct-09 A	19-Feb-15	-1
	Construction - Farrington Highway Station Group	02-Mar-15	03-Mar-17	-1
	West Loch Station	01-Jun-15	22-Dec-16	0
	Waipahu Transit Station	02-Mar-15	05-Aug-16	0
	Leeward Community College Station	02-Sep-15	03-Mar-17	-1



CRITICAL PATH ISSUES:

- HART is proactively facilitating the finalization and documentation of interface agreements between the FHSG, CSC, WOFH and E/E contracts to ensure consistency in these designs prior to construction.
- Coordinated construction access milestones.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 88%.
- Preparing design interface agreements with all interfacing partners.
- Issued construction solicitation package.
- Pursuing approvals from third parties.

Look Ahead:

- Obtain outstanding third-party approvals.
- Obtain remaining construction permits and rights-of-entry.
- Document design agreements with interfacing partners.
- Amend bid documents, if necessary, to address any third-party comments.

KEY ISSUES:

- Tracking resolution of designs that interface with FHSG, but lag in completion schedule.
- Tracking construction interface handoff dates with WOFH contractor.
- Obtaining access to properties required for construction at West Loch Mauka and Leeward Community College.

D. Maintenance and Storage Facility (MSF)

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

Project Description: The MSF contract consists of the operations and servicing building, maintenance of way, train wash facility and wheel truing building. In addition to the four (4) facility buildings, MSF includes rail procurement, special trackwork, ties, third rail and other track material for the four guideway segments on the project.

Project Overview: The MSF contract substantial completion date has slipped 10 calendar days (based on the December 2014 schedule update). Work is continuing to progress without CSC final design through HART direction and contractor cooperation.

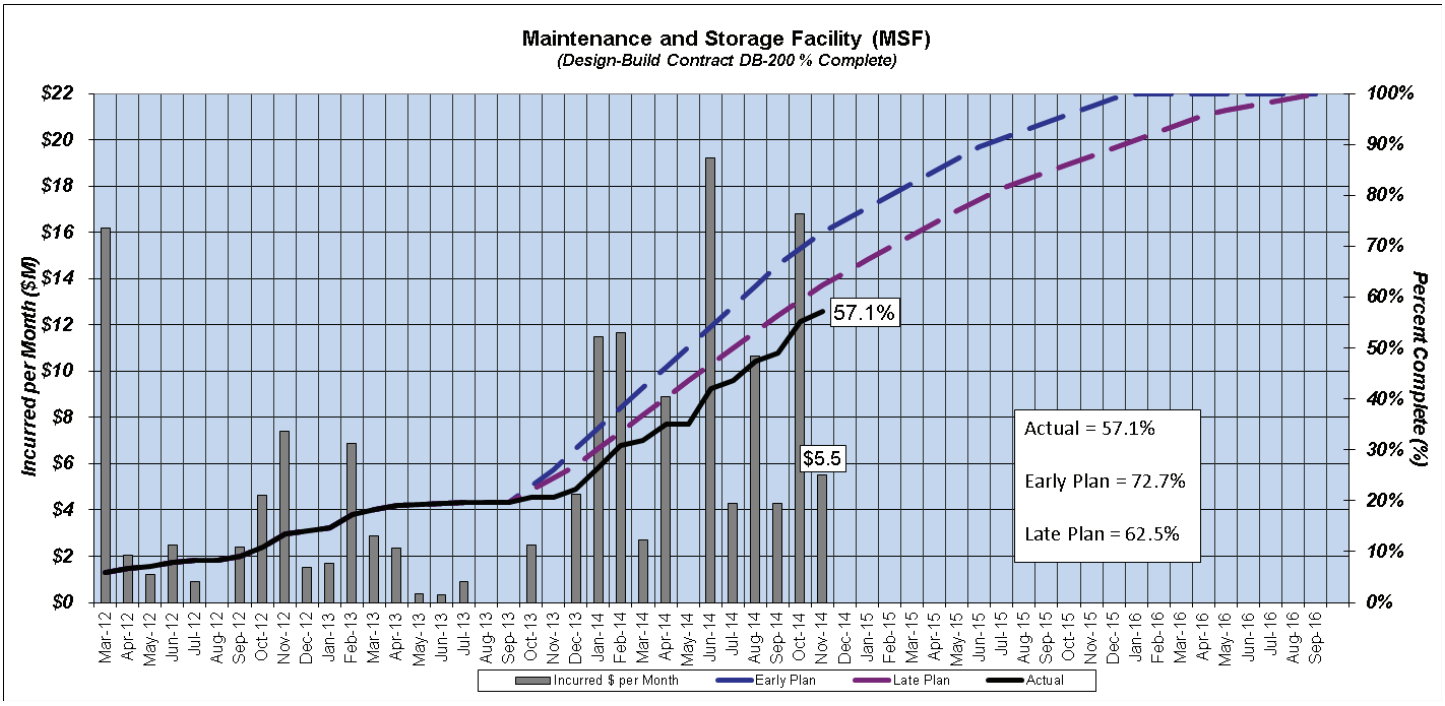
COST INFORMATION:

Original Contract:	$195,258,000	Incurred-to-Date:	$156,709,688
Current Contract Value[1]:	$274,358,008	Incurred in Nov.:	$5,495,571

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$145,819
DBE % Attained:	0.08%

November Change Orders		
Change No.	**Description**	**Amount ($)**
None	---	---
	Cumulative to Date	**$79,100,008**

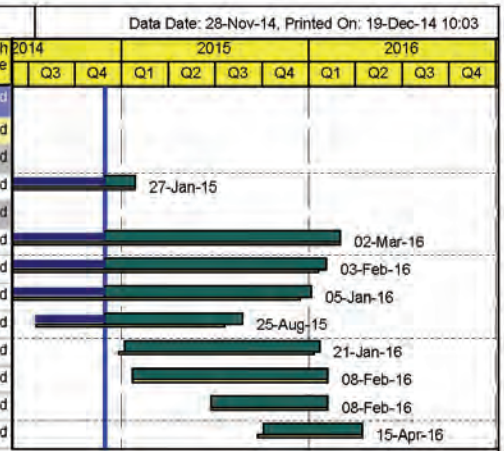


SCHEDULE:

- The MSF substantial completion has slipped from April 15, 2016 to April 25, 2016 (based on the December 2014 schedule update).

November 2014 Update — Data Date: 28-Nov-14, Printed On: 19-Dec-14 10:03

Activity Name	Start	Finish	Orig Dur	Finish Variance
Total	29-Aug-11 A	15-Apr-16	1204d	0d
Maintenance & Storage Facility (MSF)	29-Aug-11 A	15-Apr-16	1204d	0d
Design	29-Aug-11 A	27-Jan-15	1204d	0d
Design & Engineering	29-Aug-11 A	27-Jan-15	1204d	0d
Construction	26-Jul-12 A	15-Apr-16	841d	0d
Site Civil/Utilities	26-Jul-12 A	02-Mar-16	125d	0d
Operations & Servicing Building	27-Nov-13 A	03-Feb-16	655d	-14d
Maintenance of Way Building	12-May-14 A	05-Jan-16	360d	-21d
Wheel Truing Building	18-Jul-14 A	25-Aug-15	253d	-36d
Train Wash Facility	06-Jan-15	21-Jan-16	381d	-10d
Yard Trackwork	22-Jan-15	08-Feb-16	383d	0d
Third Rail	24-Jun-15	08-Feb-16	230d	0d
Project Facility Commissioning, Closeout & Turnover	05-Oct-15	15-Apr-16	194d	0d



CRITICAL PATH ISSUES:

- The MSF contract substantial completion date has slipped 10 calendar days. This delay is due to weather that impacted construction operations. KKJV and HART are working to mitigate the impacts to the critical path.
- Addressing yard reconfiguration interface with Core Systems Contractor.
- Scheduling work related to test track and functional track to support program opening dates.

MSF Construction Status as of 12/31/14	
Element	**% Complete**
OSB	40%
MOW Building	32%
WTB	31%
Rail Procurement	90%

WORK PROGRESS:

Activities this Month:

Earned Value: 60.4% [(Total Achieved to November 2014 (157.3 million) + Projected December 2014 Period (8.4 million))/Total Contract Including Executed Change Orders (274 million)]. Planned Value: 65.4%

Yard/Utilities

- Installing site water, sewer, drainage and electrical utilities.
- Completed trench excavation for Rail Traction Power and electrical conduit (phase 2).
- Concrete placement for MOW south underpass structure concrete decking.

Operations and Servicing Building (OSB)

- Installing OSB underground electrical and plumbing.
- Completed structural steel erection.
- Placing concrete for OSB SOG (44% complete).
- Completed metal framing above concrete tilt-up panels.
- Completed erection of concrete tilt-up panels.

Maintenance of Way (MOW)

- Completed concrete tilt-up panel pours.
- Forming, installing rebar and pouring SOG concrete.
- Erection of concrete tilt-up panels (80% complete).

Wheel Truing Building (WTB)

- Backfilled perimeter stem wall.
- Installed utility conduits under SOG.
- Completing concrete tilt-up panel pours.

Look Ahead:

- Completion of site utilities.
- Installation of MOW structural steel.
- Completion of OSB and MOW underground electrical and plumbing rough in.
- OSB and MOW slab on grade preparation and concrete pours.
- Installation of Traction Power and system duct banks (phase 3).
- Installation of Wheel Truing Building structure.
- WTB concrete tilt-up panel erection.
- Metal framing at OSB (Makai).
- Complete erection of Retaining wall 4, 5, 6 and 7.
- Commence work at Train Wash Facility (TWF).

Rail Procurement

- Continued with the procurement of rail materials.
- Distributing rail materials to WOFH.

Administration

- Continued working with the CSC to resolve design interface issues.

KEY ISSUES:

- **Interface Management with Core Systems Contractor –** predominant areas of concern include a general revision to the location of rail control system insulated joints and track devices; building internal requirements for access control, intrusion detection and fire detection and alarm system device locations; and resolution of traction power duct bank terminations at electrically operated traction power switches. Details are being worked out through the Request for Interface Details process, however schedule dictates demands HART assumption of risk by directing the contractor to proceed in advance of Change Order negotiation.
- **Joint Occupancy with Core Systems Contractor –** details are being worked out for systematic release of areas and infrastructure whereby the Core Systems Contractor can commence work in a safe and systematic manner.
- **Change Order Negotiation –** as stated above, late and changing requirements relative to infrastructure necessary to support Core Systems' evolving design has created a back log of changes. HART is coordinating with Interfacing Contractors developing different options to mitigate potential cost and schedule impacts.
- **WOFH West Yard Lead Retaining Wall –** continued delay associated with ROW issues is impacting the completion of yard grading and utility installation in support of track work and electrical service to the site. HART is working diligently to resolve ROW issues.

KEY QUALITY ISSUES:

- None at this time; two NCRs remain open solely until the dispositions are constructed including removal and replacement of column base plate grout and epoxy rebar dowel replacement, both underway.
- **OSB Grout Under Columns** – The grout mix installed under the columns at the OSB was installed without accurately measuring the water added to the mix and without accurately timing the grout mixing time. The contractor is currently removing the non-conformance grout and replacing it with proper grout.
- **Missing Dowels in Pour Back Strip** – The concrete joint between the Maintenance of Way interior slab on grade and abutting perimeter slab pour was improperly prepared as an isolated expansion joint utilizing slip plates to interlock the slabs. An NCR was issued, rebar dowels are epoxied in. The NCR is being held open until the pours are complete.

MSF NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
21	19	2

PROJECT PICTURES:

Installed bulkhead and placing rebar for the underpass deck slab.

Continued setting comm., train control and traction power manhole, installed conduits to/from and backfill at track S1-10.

OSB concrete tilt-up panel and metal framing.

Installation of conduits for various ductbanks underneath SOG at OSB.

Tilt-up panel erection at MOW.

Embedded track 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: April 4, 2017

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

Project Overview: KIWC submitted a revised schedule for review on Dec. 5, 2014 showing a revised completion date of April 4, 2017. KIWC is not working from Dec. 22, 2014 to Jan. 5, 2015 due to the holidays.

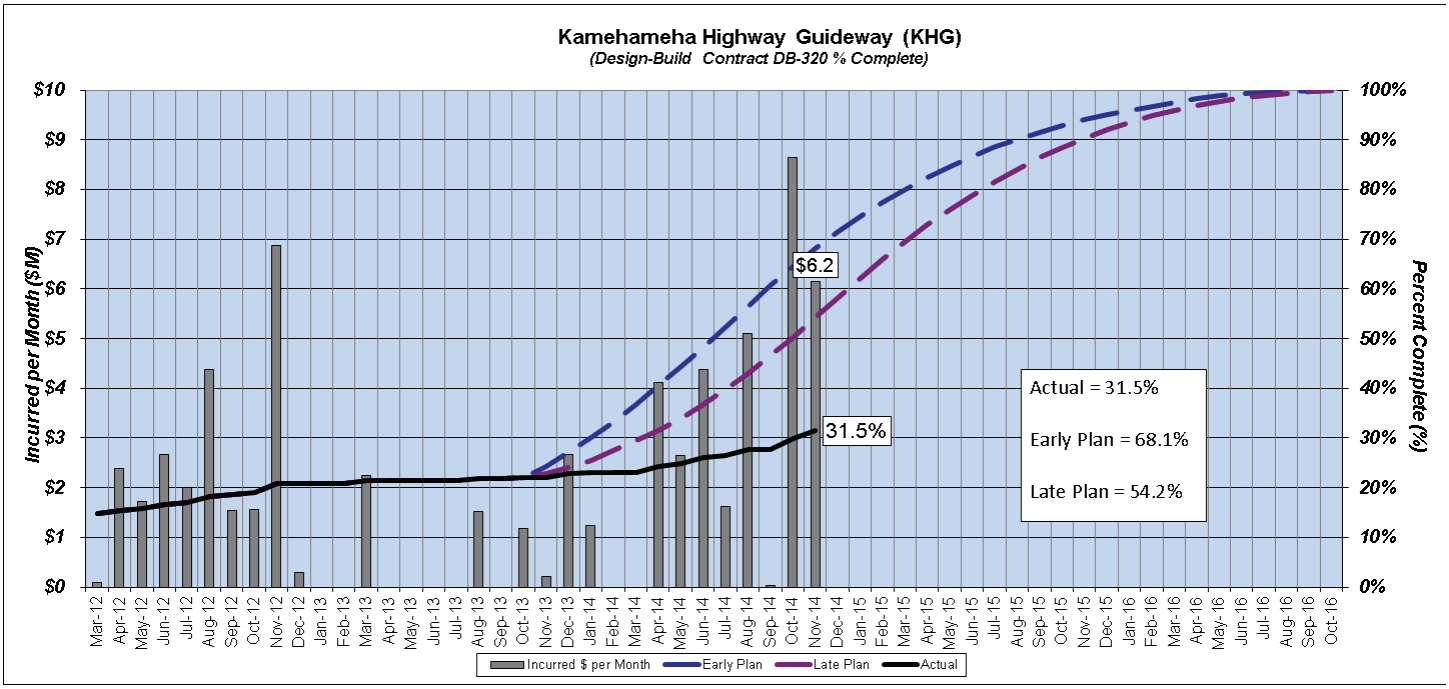
COST INFORMATION:

Original Contract: $372,150,000	Incurred-to-Date: $122,545,400
Current Contract Value[1]: $388,515,363	Incurred in Nov.: $6,154,572

[1]*Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

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

November Change Orders		
Change No.	**Description**	**Amount ($)**
*CO00014	Escalation due to Sched. Impacts	$3,500,000
	Cumulative to Date	**$16,365,363**
**CCO executed in December 2014*		



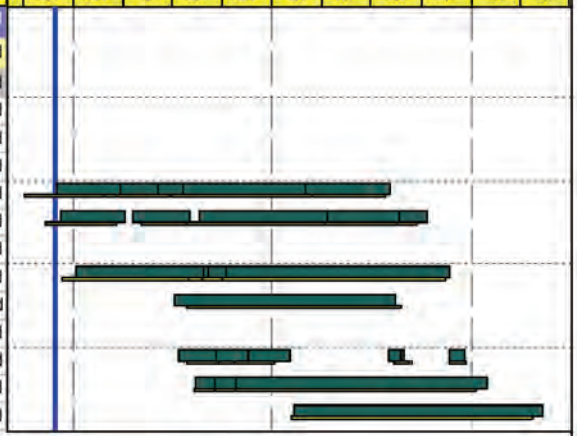
- Progress #37 (August) and #38 (September) have been submitted and approved in the system.

SCHEDULE:

- The accepted rebaselined schedule dated Oct. 28, 2013 is no longer valid, and HART has requested a recovery schedule showing how KIWC would achieve the currently agreed upon substantial completion date of Sept. 16, 2016. KIWC initially proposed a list of mitigation measures that would allow recovery, but has since notified HART that the substantial completion date is no longer achievable. They have provided a draft schedule which is under review.

November 2014 Update — Data Date: 28-Nov-14, Printed On: 22-Dec-14 17:27

Activity Name	Start	Finish	Finish Variance
Total	01-Dec-14	13-May-17	-19d
West Guideways & Structures	01-Dec-14	13-May-17	-19d
Kamehameha Highway (KH) - Section 2	01-Dec-14	13-May-17	-19d
Kamehameha Highway Guideway	01-Dec-14	13-May-17	-19d
Kiewit KHG Summary	01-Dec-14	13-May-17	-19d
Foundations	01-Dec-14	11-Oct-16	-19d
Drilled Shafts	01-Dec-14	05-Aug-16	-9d
Columns	08-Dec-14	11-Oct-16	-19d
Guideway	06-Jan-15	22-Nov-16	-8d
Precast Segment Erection	06-Jan-15	22-Nov-16	-8d
Cast BC Segments	06-Jul-15	15-Aug-16	10d
Trackwork	13-Jul-15	29-Jan-17	-20d
Direct Fixation Trackwork	13-Jul-15	20-Dec-16	2d
Third Rail	12-Aug-15	29-Jan-17	-20d
KHG Project Finish Work, Demob, Punchlist	09-Feb-16	13-May-17	-19d



CRITICAL PATH ISSUES:

- Mitigate third-party dry utility relocation durations.
- Outstanding ROW issues, including securing construction right of entries for UH Urban Garden and the guideway work at Aloha Stadium, as well as reaching an understanding with TMKs 9-7-023-008, 9-7-022-008 and 9-7-022-021.

WORK PROGRESS:

KHG Construction Status as of 12/12/14

Utility Status	Qty to Date	Final Qty	% Complete
Water Line	2,780	4,362	63.7%
Gas Line	8,895	12,641	70.4%
Sewer Line	190	1,077	17.6%
Drainage	536	2,081	25.8%
Elec/Telecom	6,026	19,455	31.0%
Signals/ITS/ Lights	1,743	18,486	9.4%

Structure Element	Total to Date	Planned to Date*	Total Qty**	% Complete
Shafts	3	3	155	1.9%
Columns	0	0	155	0%
Segment Casting	0	0	2,991	0%
Segment Erection	0	0	2,991	0%
Spans Stressed	0	0	155	0%

* Planned Values based on current 5 week schedule. Awaiting recovery schedule submittal from Kiewit.
**Total Quantity based on RFP plans. Final design has not been completed.

Activities this Month:

Earned Value: 32.6% [(Total achieved to September 2014 (108.7 million) + projected October, November & December 2014 period (16.6 million))/Total contract including executed Change Orders (385 million)]. Planned Value: 60%

Shaft/Column

- No additional shaft work was performed in December due to holiday lane restrictions.

Utility Relocation Progress

- Gas and water line relocations are ongoing in Phases 5, 9, 10 and 12.
- The relocation of HECO electrical lines and Hawaiian Tel., Time Warner and Intelligent Transportation Systems (ITS) duct banks is occurring in Phases 4, 5 and 6.

Look Ahead:

Design Progress

- HART and KIWC are working together to complete final design. To date, 31 of 50 design submittals have been issued for construction.

Utility Relocation

- HECO to resolve conflict at Shaft 270 in late January, allowing KIWC to continue shaft installation in Phase 1.

Recovery Schedule

- Review revised schedule submitted Dec. 5, 2014, and negotiate change order if required.

- Joint use poles are being installed in Phase 5. HECO will not allow KIWC to perform at risk the installation of joint use poles under their authority.

Safety and Security Certification (CIL)

- 556 of the expected 878 CILs have been submitted and verified to date.

Roadway Widening

- Roadway widening activities are ongoing in Phases 5, 6 and 11.

Roadway Widening

- Begin installation of retaining wall fronting UH Urban Garden; start of this work is pending the receipt of a construction right-of-entry from UH Urban Garden.

KEY ISSUES:

- **HECO Coordination –** HECO has scheduled the relocation of their 46kV overhead line as part of utility conflict 1-773-E1 and provided temporary outage of their 138kV line for the end of January, allowing KIWC to schedule the drilling of Shaft 270 upon completion of the relocation. However, any failure on the part of HECO to achieve this date will potentially delay the resumption of shaft drilling.
- **HDOT betterments** – HDOT continues to require the inclusion of betterment items in the design packages as a prerequisite to their approval. This has resulted in delays to the completion of the design packages, and procurement of long lead time items such as traffic signal materials that were not originally part of the contract. HART and HDOT upper management are in discussions to resolve these issues.
- **Schedule** – Lack of a current project schedule from KIWC hampers the project team's ability to plan and mitigate for any critical path items that may be upcoming. A revised schedule submitted on Dec. 5, 2014 shows a revised completion date of April 4, 2017. Analysis of the basis and merit of this extension is under review by HART.

KEY QUALITY ISSUES:

- **Design –** Design packages seem to lack QC prior to submittal for review to third parties, resulting in longer than expected review times and additional review requirements.
- **Field Design Change (FDC) vs. Notice of Design Change (NDC)** – Changes made to the FDC/NDC process in the latest Quality Assurance Plan (QAP Rev 7) removed HART from the approval process. NCR 00029 was issued on August 21, with a corrective action response from KIWC proposed the same day. The proposed revision is being reviewed by a HART FDC/NDC task force.
- **NCR 17 - Drain Line B Pipe Material** – While verifying the pipe material requirements for Drain Line B, KIWC noticed that the note on UP106B differed from the note on UP106. On UP106 the call out for the pipe to pipe connection at Sta 3+67 specifies "New D24 to match Exist D24 pipe material." UP106B specifies that "New D24 pipe material shall match existing D24 pipe material and shall be consistent for all of DL "B"." Concrete Pipe was used to connect from the existing concrete pipe at STA 3+67 to SDMH B-3, however, KIWC installed HDPE pipe between SDMH B-1 (STA 0+00) and SDMH B-3 (3+45). Per the note on UP106B, KIWC should have used Concrete Pipe for the entire Drain Line B. NCR 00017 was issued, and KIWC requested the pipe be allowed to remain in place. KIWC is still working with HDOT to gain their concurrence to this solution.
- **Independent Verification Testing of KIWC QC** – PSC will be performing independent verification testing for soil mechanics (gradation, plasticity and elongation, proctor testing, earthwork compaction), asphalt (compaction and coring) and concrete testing (slump, temperature, and compressive strength). Verification testing is being coordinated with KIWC to ensure verifications are made on common samples to accurately compare results and evaluate deviations.
- **Casting Segments for the KHG project –** will begin on April 15 with casting of some expansion joint segments. A pre-activity meeting was held at the casting yard on December 19. The KHG project team reminded KIWC that all submittals related to casting segments for the KHG project need to be accepted by the KHG team prior to casting our segments, and that submittals having been approved on the WOFH project does not guarantee acceptance on the KHG project.

KHG NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
35	30	5

PROJECT PICTURES:

Streetlight and traffic signal duct bank installation.

Placing light pole foundations in Phase 3.

Grading Phase 5 curb and gutter.

Forming Phase 11 sidewalk.

Widening area in Phase 5.

Gas line M2 tie-in Phase 8.

B. 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: TBD
Projected Substantial Completion: January 2018

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

Project Overview: The KHSG design is being revised to incorporate value engineering changes in preparation for a construction solicitation in mid-2015. Several components of the work around Pearl Highlands Station are being evaluated and may be expedited in one or more standalone bid packages.

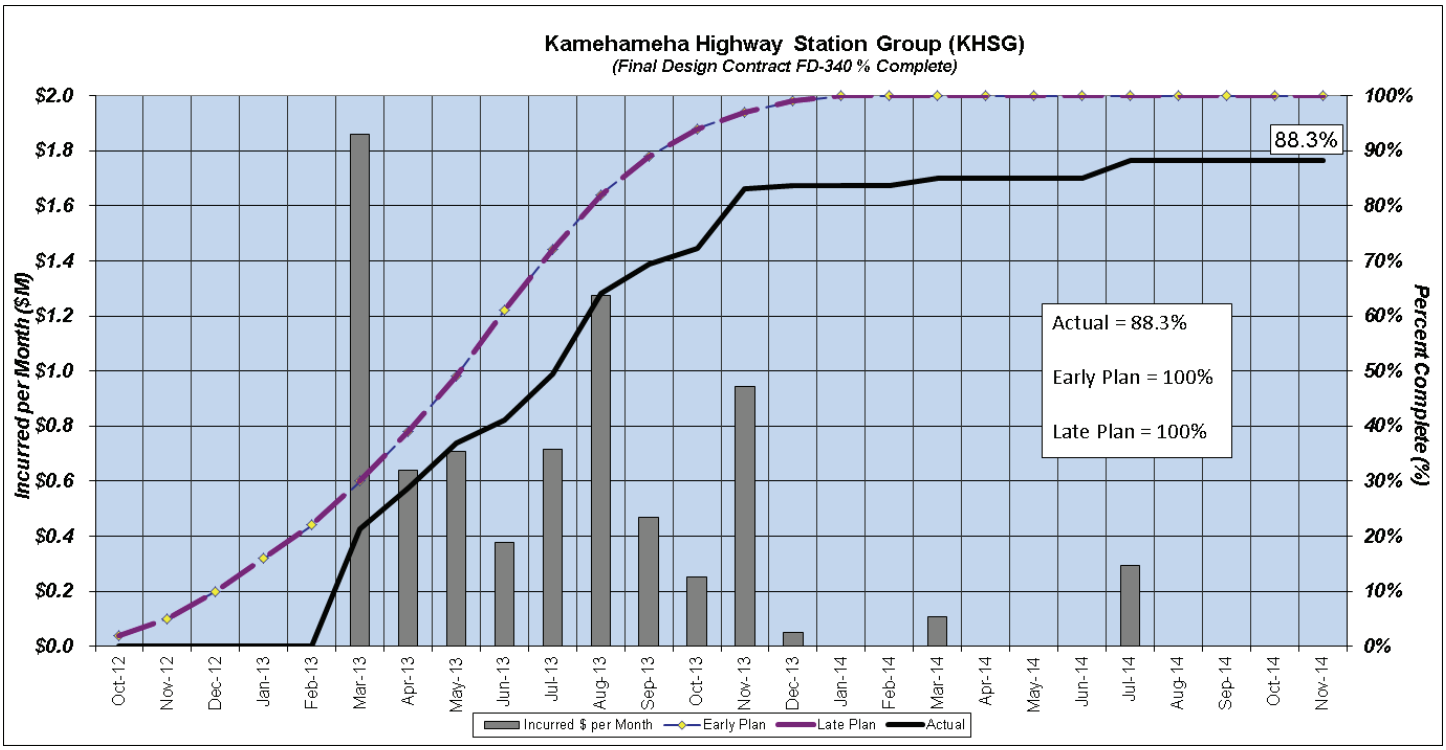
COST INFORMATION:

Original Contract: $8,702,592	Incurred-to-Date: $7,687,346
Current Contract Value[1]: $8,702,592	Incurred in Nov.: $0

[1]*Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed*

DBE Participation	
Actual DBE Participation:	$3,239,360
DBE % Attained:	37.22%

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



The closeout of the KHSG contract is currently 10 months behind schedule due to design interfaces with other HART contracts, ongoing value engineering efforts, and a reorganization of the KHSG construction solicitation package from its previous format in the canceled West Side Stations Group solicitation. Actions to correct this delay are discussed below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	Kamehameha Highway (KH) - Section 2	28-Jun-11 A	25-Sep-17	0
	Kamehameha Highway Station Group	28-Jun-11 A	25-Sep-17	0
	Design - Kamehameha Highway Station Group	28-Jun-11 A	01-Sep-15	0
	Construction - Kamehameha Highway Station Group	01-Sep-15	25-Sep-17	0
	Pearl Highlands - Station	01-Sep-15	02-Jun-17	0
	Pearl Ridge Station	01-Mar-16	25-Sep-17	0
	Aloha Stadium Station	01-Dec-15	27-Jun-17	0

CRITICAL PATH ISSUES:

- HART is overseeing and expediting value engineering design efforts to reduce costs in construction.
- HART is tracking AVA's completion of the KHSG construction documents in preparation for a mid-2015 construction solicitation.
- HART is proactively facilitating interface resolution with the CSC, WOFH, KHG and E/E contracts to ensure consistency and integration of these designs.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 91%.
- Evaluating packaging strategy for H2R2 ramp, Waiawa Stream bank protection, Pearl Highlands Station drilled shafts and columns.
- Interfacing design with the CSC, WOFH, KHG and E/E contracts.
- Incorporating value engineering directives from HART to save costs during construction.
- Resolving third-party comments.
- Modifying package to be a standalone 3-station bid set, as compared to previous 9-station bid set.

Look Ahead:

- Document design interface agreements.
- Obtain third-party approvals.
- Complete design and value engineering.
- Prepare construction bid package(s).

KEY ISSUES:

- Pursuing HDOT acceptance of Interstate Access Modification Report, which will be sent to the Federal Highway Administration.
- Pursuing 401/404 Permit approval from Hawai'i DOH Clean Water Branch.
- Coordinating design for transit-oriented development at Pearlridge Station.

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
Construction Docs Bid-Ready:
Expedited Utilities: June 2014 (now in construction)
Guideway and Remaining Utilities: TBD
Projected Substantial Completion: TBD

Project Description: The Airport Segment Guideway and Utilities FD Contract (Airport) consists of widening of portions of Kamehameha Highway and other streets to accommodate the guideway columns, provide bus stops, improve sidewalks and medians, related traffic signals, address environmental mitigation commitments, and other related improvements. Design of barrier walls attached to the guideway, and running rails. Numerous utilities along the proposed alignment require relocation to allow for the guideway construction.

Project Overview: The delivery method for this contract is under evaluation. Efforts that would support a design-build procurement are being prioritized. Efforts that would support only a design-bid-build procurement are being temporarily suspended to prevent what could be unnecessary expenses. Work being advanced is discussed below.

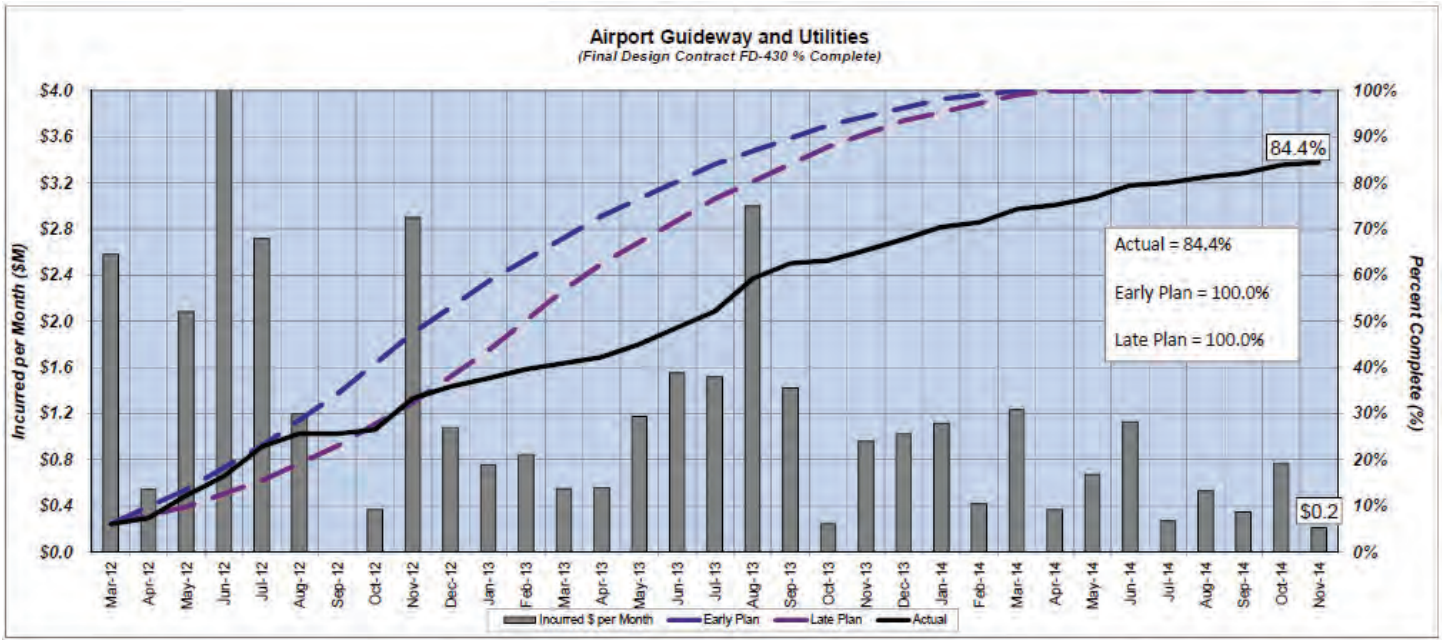
COST INFORMATION:

Original Contract:	$38,840,960	Incurred-to-Date:	$35,911,130
Current Contract Value[1]:	$42,552,132	Incurred in Nov.:	$211,053

[1]*Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

November Change Orders/Amendments		
Change No./Amend	Description	Amount ($)
None	---	---
	Cumulative to Date	**$3,711,172**

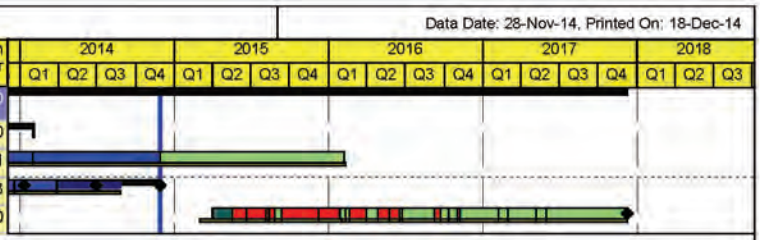


Design was combined with the City Center Guideway and Utilities and was issued for bid in June 2014 to support the Airport and City Center Guideway and Utilities Construction solicitation in July 2014. This procurement was canceled on Dec. 2, 2014. Completion of the Airport Guideway and Utilities design is seven (7) months behind schedule due to interfaces with other HART contracts and coordination with third parties. Actions to mitigate this delay are discussed below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity Name	Start	Finish	Finish Var
Total	09-Nov-11 A	07-Dec-17	0
Airport Programmatic	01-May-12 A	04-Feb-14 A	0
Airport Permits	09-Nov-11 A	08-Feb-16	1
Design - Airport Guideway & Utilities	05-Jan-12 A	28-Nov-14	-28
Construction - Airport Guideway	31-Mar-15	07-Dec-17	0



CRITICAL PATH ISSUES:

- HART is pursuing property rights and using documented design assumptions where geotechnical data cannot be obtained to support the current design schedule. Verification borings are to be done during construction in those instances.
- HART is overseeing coordination between the final design consultant AECOM and critical third parties.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 93%.
- Coordinating with HDOT (Highway and Airport Divisions), utility companies, U.S. Navy, HECO, and other stakeholders.
- Coordinating design with right-of-way acquisitions.

Look Ahead:

- Finalize Faraday shielding design for guideway near Middle Street Station.
- Obtain third-party approvals.
- Prepare construction bid package.

KEY ISSUES:

- Assessing cost and schedule impacts associated with HECO's potential requirement to reconstruct existing building electrical service connections.
- Assessing potential right-of-way impacts due to unforeseen HECO requests.
- Acquiring rights-of-way and rights-of-entry, and pursuing partial demolition of select properties.
- Finalize design options for shielding of communications equipment from Electromagnetic Interference (EMI) due to the proximity of the AM radio tower near the Middle Street Station.
- Coordinating with property owners and evaluating potential cost and schedule impacts to determine practicality of partial demolition and repair of select buildings.

B. Airport Section Utilities Construction

Contract No.: DBB-505
Contractor: Nan, Inc.
Contract Start Date: July 2014
Contract Substantial Completion: February 2016
Projected Substantial Completion: February 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 demolition of buildings 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. has been canvasing in anticipation of performing potholing activities followed by utility relocation work. They are slated to begin work the second week of 2015. Nan is presently setting up a field office in the Aloha Stadium property. Meanwhile, they continue to develop and submit the necessary submittals in preparation for planned construction activities.

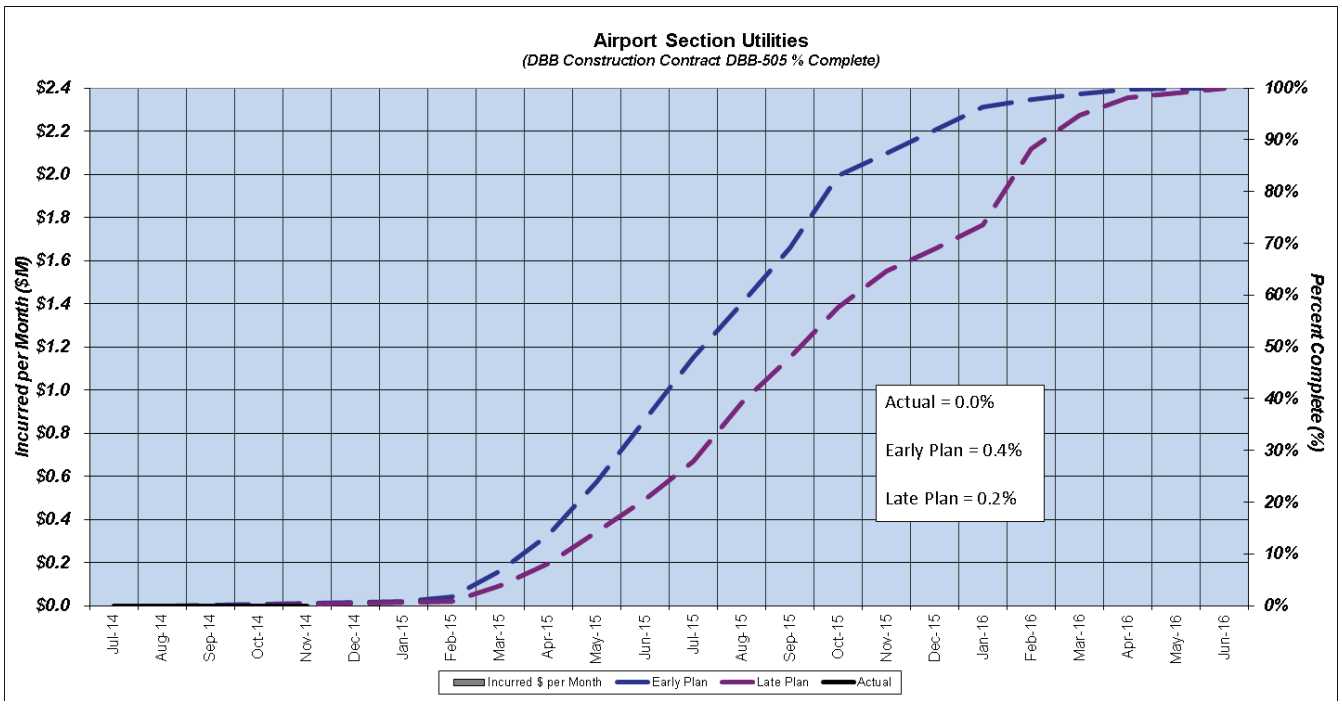
COST INFORMATION:

Original Contract:	$28,413,974	Incurred-to-Date:	$0
Current Contract Value[1]:	$28,413,974	Incurred in Nov.:	$0

[1]*Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

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

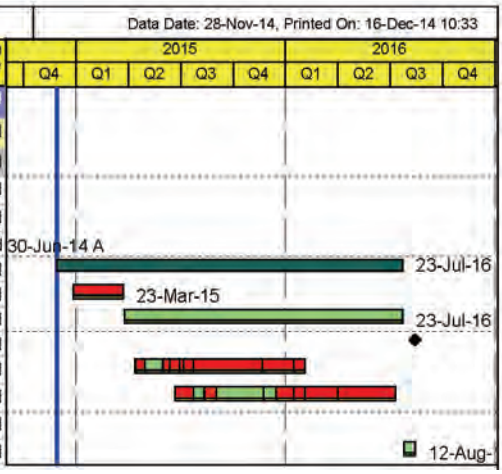
November Change Orders		
Change No.	Description	Amount ($)
None	---	---
	Cumulative to Date	**$0**



SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 16-Dec-14 10:33

Activity Name	Start	Finish	Finish Variance
Total	30-Jun-14 A	12-Aug-16	0d
East Guideways & Structures	30-Jun-14 A	12-Aug-16	0d
Airport - Section 3	30-Jun-14 A	12-Aug-16	0d
Airport Utility Relocation	30-Jun-14 A	12-Aug-16	0d
Construction - Airport Utilities Relocation	30-Jun-14 A	12-Aug-16	0d
Airport Utilities Relocation - Execute Contract	30-Jun-14 A	30-Jun-14 A	40d
SUMM: DBB-505 - Airport Utilities - Construction	28-Nov-14	23-Jul-16	0d
Permits for Airport Utilities Construction (Permits)	25-Dec-14	23-Mar-15	0d
Airport Utilities Construction	24-Mar-15	23-Jul-16	0d
Airport Utility Relocation - Substantially Complete		12-Aug-16	0d
HART Utilities	13-Apr-15	03-Feb-16	0d
HECO Utilities	22-Jun-15	11-Jul-16	0d
Utility Relocation Inspection	24-Jul-16	12-Aug-16	0d
Inspect and Accept Airport Section Utilities Relocations	24-Jul-16	12-Aug-16	0d



CRITICAL PATH ISSUES:

- Currently, there are no critical path issues; construction is slated to begin next month.

WORK PROGRESS:

Activities this Month:

Earned Value: 0% *as no construction work has begun.*

- Nan, Inc. has submitted a baseline construction schedule, which has been approved.
- NPDES permit application (transferred to Nan), Quality Management Plan (QMP), Environmental Management Plan (EMP), Environmental Compliance Plan (ECP), Public Information Plan and developing a Public Awareness and Community Relations plan have been submitted and are under HART review.
- Nan, Inc. continues to submit RFI and shop drawings for approvals.
- Nan, Inc. is currently setting up their field office at Aloha Stadium property.
- Nan, Inc. has secured HDOT permit for potholing.

Look Ahead:

- Coordinating Project blessing program for groundbreaking.
- Contractor to provide a proposed cost for the changes identified in Rev 1 and Rev 2 drawing changes (anticipated net credit).
- Start of potholing work is projected to begin in January 2015.
- Tree relocation scope to be removed from contract and to be performed by on-call contractor.

KEY ISSUES:

- Navy right-of-entry to perform work
  - Ongoing coordination with HART ROW regarding access to Navy property for construction related work.
  - Potential construction delays if Right-of-Entry is not granted by Navy.
- Nan, Inc. is behind schedule for beginning construction work. Scope of work is being reduced as a result of further coordination, such that schedule may be adjusted.

C. Airport Section Guideway Seven Pier Construction

Contract No.: DBB-525
Contractor: HDCC/CJA JV
Contract Start Date: September 2014
Contract Substantial Completion: February 2015
Projected Substantial Completion: March/April 2015

Project Description: The Airport 7-piers contract consists of seven drilled shaft foundations to be installed within the Honolulu Airport Consolidated Rental Car Facility (CONRAC), which is currently in construction. This work needs to be completed in conjunction with the current construction of the HDOT Airport CONRAC facility; if not the work area will not be available until early 2018, per HDOT Airport. The contractor will be installing seven pier foundations, No. 546, 547, 548, 549, 550, 551R and 552R, relocating miscellaneous utilities, and coordinating with the HDOT Airport and Kiewit, who is the contractor for the CONRAC facility.

Project Overview: HDCC/CJ is working towards an early 2015 date to begin work. Equipment is being shipped here for the drilling work. They continue to actively be involved with discussions and coordination with the Airport. The construction period for this work will shift two weeks due to further scheduling coordination with HDOT-A.

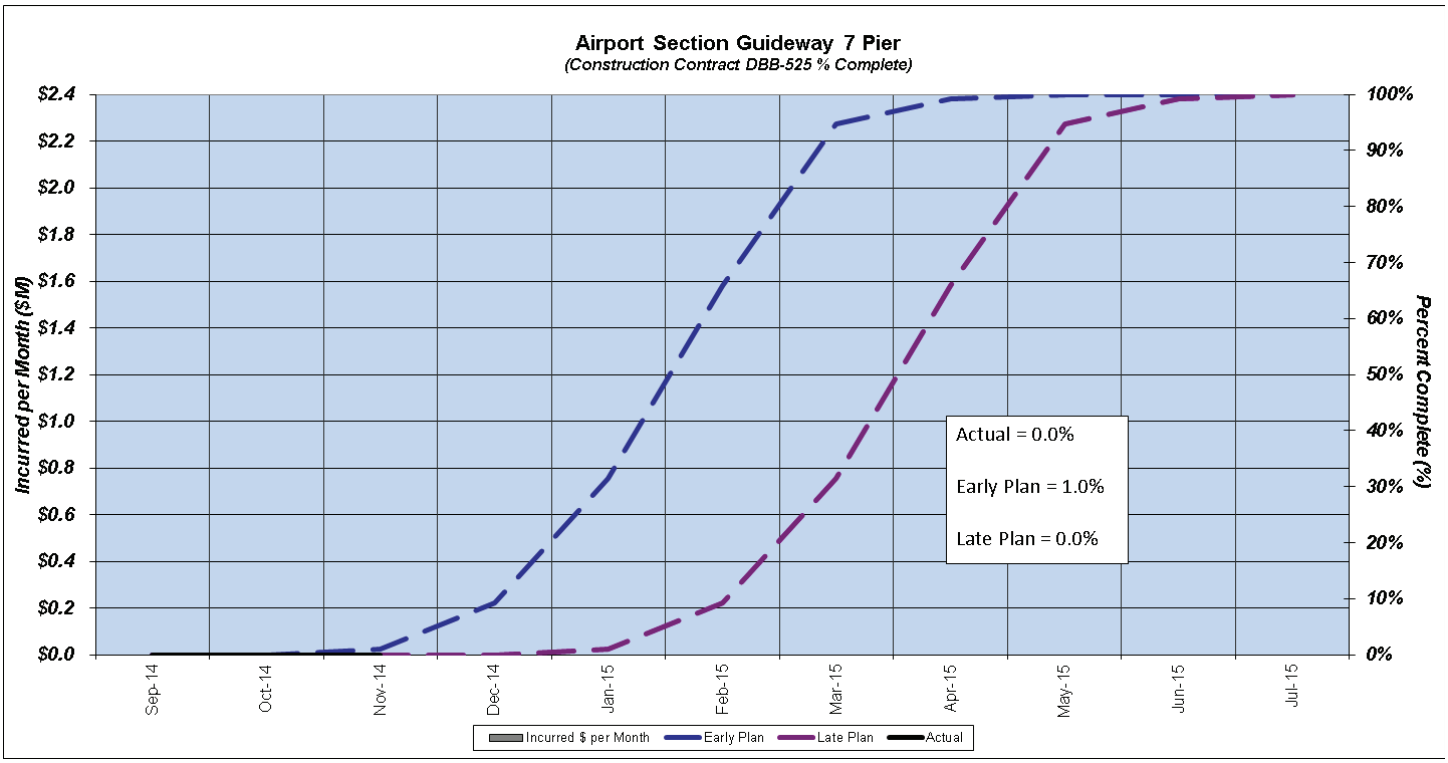
COST INFORMATION:

Original Contract:	$3,973,000	Incurred-to-Date:	$0
Current Contract Value[1]:	$3,973,000	Incurred in Nov.:	$0

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

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

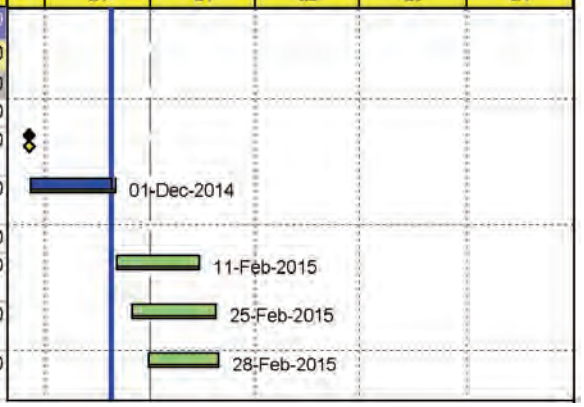
November Change Orders		
Change No.	Description	Amount ($)
None	---	---
	Cumulative to Date	**$0**



SCHEDULE:

November 2014 Update — Data Date: 28-Nov-2014, Printed On: 22-Dec-2014 17:36

Activity Name	Start	Finish	Finish Variance
Total	18-Sep-2014 A	28-Feb-2015	0
East Guideways & Structures	18-Sep-2014 A	28-Feb-2015	0
Airport - Section 3	18-Sep-2014 A	28-Feb-2015	0
Airport Section Guideway 7-Pier Construction	18-Sep-2014 A	28-Feb-2015	0
NTP	18-Sep-2014 A		0
Mobilization	19-Sep-2014 A	01-Dec-2014	0
Foundations	02-Dec-2014	28-Feb-2015	0
Drilled Shafts	02-Dec-2014	11-Feb-2015	0
Pour Foundation Piers	16-Dec-2014	25-Feb-2015	0
Transition Zone Rebar Cages	30-Dec-2014	28-Feb-2015	0



CRITICAL PATH ISSUES:

- HDCC/CJ has submitted baseline contract schedule, recently approved.
- HDCC/CJ in process of permit applications.
- HDCC/CJ in process of submitting required safety, quality and work plans.
- HDOT Airport Car Rental Facility contractor is limiting work area availability for Guideway Pier contractor, adjusting the start of pier construction to begin January 2015.

WORK PROGRESS:

Activities this Month:

Earned Value: 0% *because no construction work has begun.*

- Attended weekly HDOT-Airport construction update meetings to monitor updates of Kiewit's construction progress (CONRAC) at Honolulu Airport.
- Ongoing meeting with HDOT-Airport CONRAC project team to coordinate work scope and schedule access with the Kiewit CONRAC team.
- Weekly meetings with HART to discuss coordination and key issues.
- Submitted Draft baseline and impact schedule for review.

Look Ahead:

- Finalize baseline schedule to include cost loading.
- Review Draft schedule (adjusted January start date).
- Responding to RFI's and submittal reviews.

KEY ISSUES:

- Awaiting approval of HDCC/CJ concrete submittal and requested temperature variance.
- Coordination with HDOT Airport to finalize shift in project schedule due to CONRAC construction delays.

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: TBD
Projected Substantial Completion: TBD

Project Description: Architectural and engineering services for the design of four (4) transit stations situated along 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: The delivery method for this contract is under evaluation. Efforts that would support a design-build procurement are being prioritized. Efforts that would support only a design-bid-build procurement are being temporarily suspended to prevent what could be unnecessary expenses. Work being advanced is discussed below.

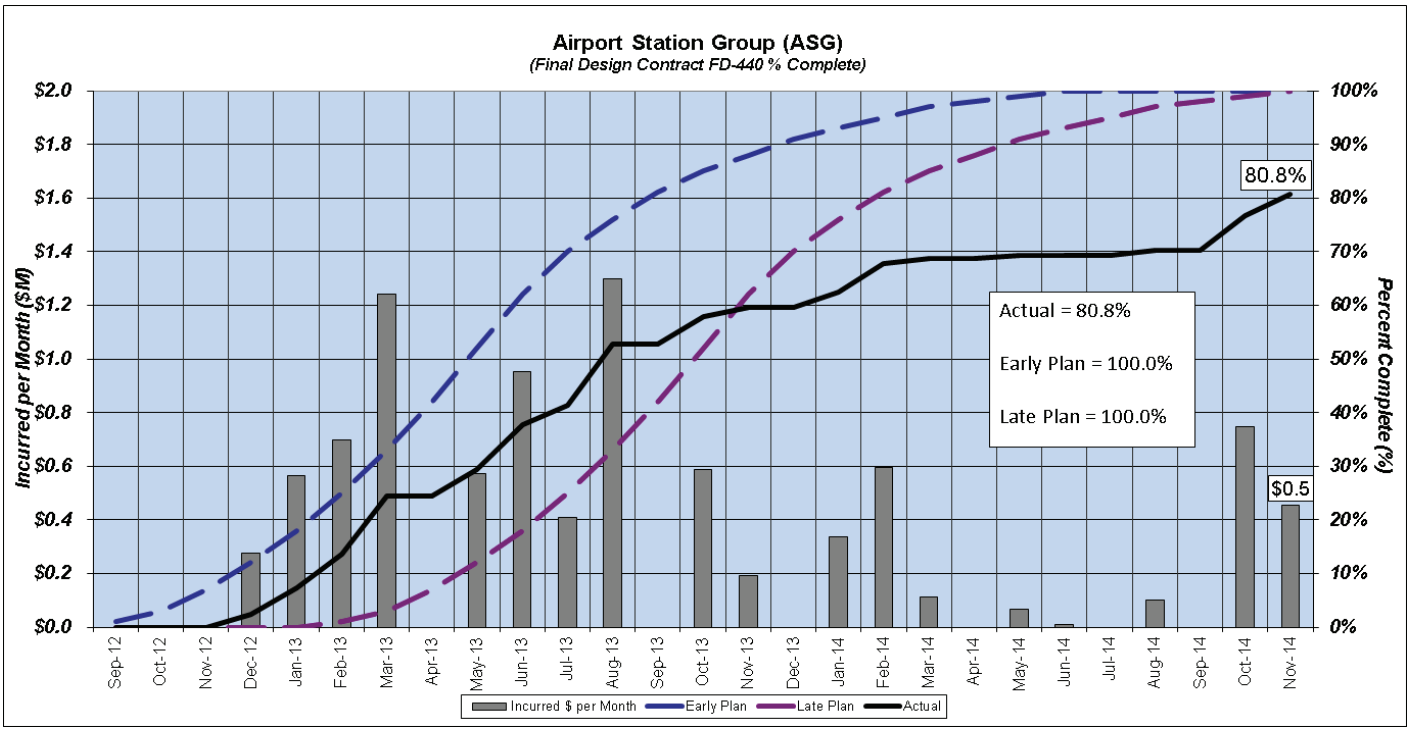
COST INFORMATION:

Original Contract:	$10,177,365	Incurred-to-Date:	$9,211,251
Current Contract Value[1]:	$11,402,205	Incurred in Nov.:	$454,882

[1]*Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

November Change Orders		
Change No.	Description	Amount ($)
None	---	---
	Cumulative to Date	**$1,224,840**

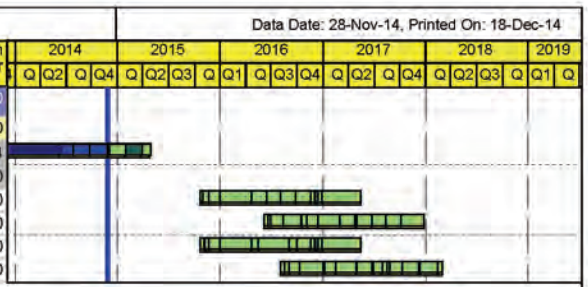


The closeout of the ASG contract is currently one (1) month behind schedule due to ongoing design coordination with third parties, pending rights-of-entry for design investigations, and design coordination with other HART contracts. Actions to mitigate this delay are outlined below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	Airport - Section 3	02-May-11 A	28-Feb-18	0
	Airport Station Group	02-May-11 A	28-Feb-18	0
	Design - Airport Station Group	02-May-11 A	29-Apr-15	-4
	Construction - Airport Station Group	20-Oct-15	28-Feb-18	0
	Pearl Harbor Station	20-Oct-15	15-May-17	0
	HNL Airport Station	03-Jun-16	28-Dec-17	0
	Lagoon Drive Station	21-Oct-15	16-May-17	0
	Middle Street Station	03-Aug-16	28-Feb-18	0



CRITICAL PATH ISSUES:

- HART is overseeing coordination between final design consultant AECOM and critical third parties.
- HART is aggressively pursuing access to remaining properties.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 88%.
- Developing list of value engineering directives to reduce construction costs for either delivery method.
- Received Final Design submittals for three stations (Pearl Harbor, Lagoon, and Middle Street) including plans and specifications.

Look Ahead:

- Receipt of nearly completed Geotechnical Data Reports and Geotechnical Engineering Reports.
- Preparation of construction bid package.

KEY ISSUES:

- Finalizing design options for shielding of communications equipment from Electromagnetic Interference (EMI) due to the proximity of the AM radio tower near the Middle Street Station.
- Acquiring right-of-entry to Pearl Harbor Station site.
- Airport Station Group is lagging the development of the other stations and is affecting the preparation for bid package. Evaluation of contract packaging is underway.
- CSC interface is lagging design development. Mitigation has been implemented including using information from other typical station interfaces.

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

A. City Center Section Guideway and Utilities

Contract No.: FD-530
Contractor: AECOM Technical Services, Inc., Final Design Consultant (Engineer of Record)
Contract Start Date: July 2012
Construction Docs Bid-Ready:
Guideway and Utilities: TBD
Projected Substantial Completion: TBD

Project Description: The City Center Guideway and Utilities FD Contract (CCUG) consists of widening of portions of Kamehameha Highway and other streets to accommodate the guideway columns, provide bus stops, improve sidewalks and medians, related traffic signals, address environmental mitigation commitments, and other related improvements. Design of barrier walls attached to the guideway, and running rails.

Project Overview: The delivery method for this contract is under evaluation. Efforts that would support a design-build procurement are being prioritized. Efforts that would support only a design-bid-build procurement are being temporarily suspended to prevent what could be unnecessary expenses. Work being advanced is discussed below.

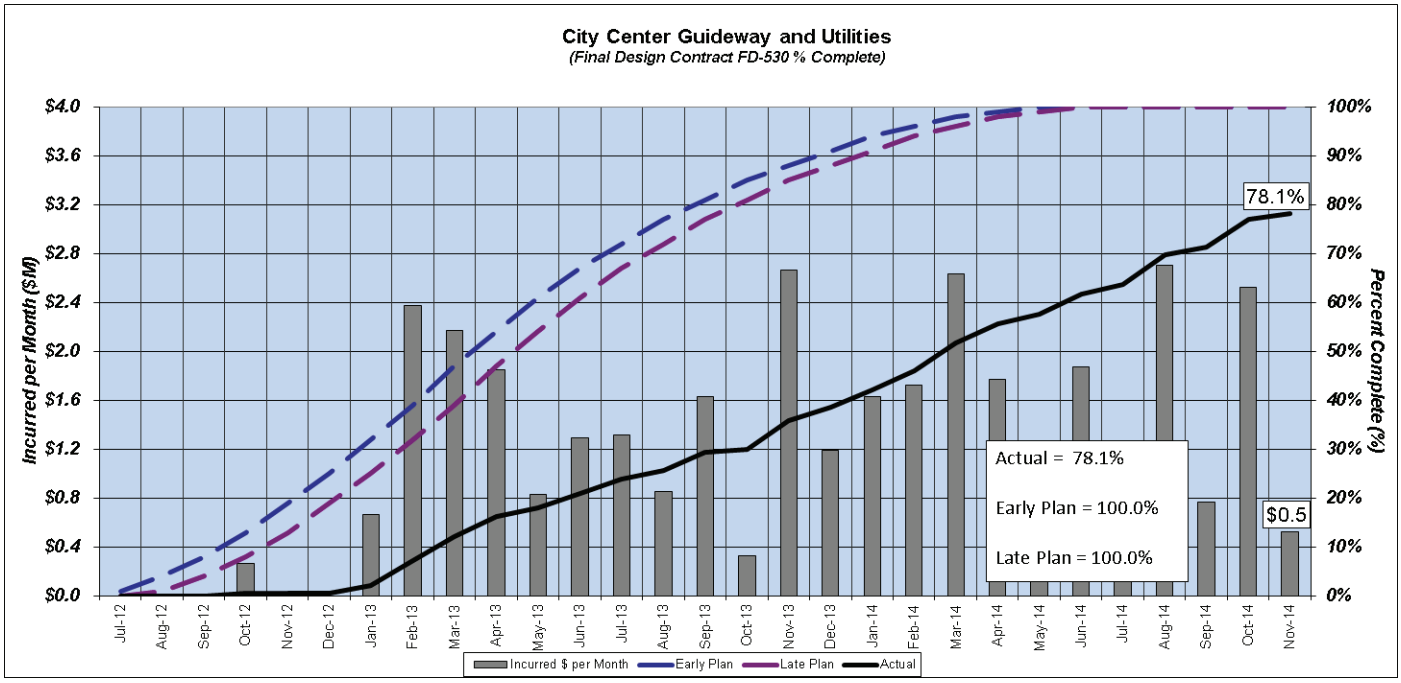
COST INFORMATION:

Original Contract: $43,948,220	Incurred-to-Date: $35,345,804
Current Contract Value[1]: $45,231,023	Incurred in Nov.: $524,838

[1]*Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

November Change Orders/Amendments		
Change No./Amend	Description	Amount ($)
None	---	---
	Cumulative to Date	**$1,282,803**

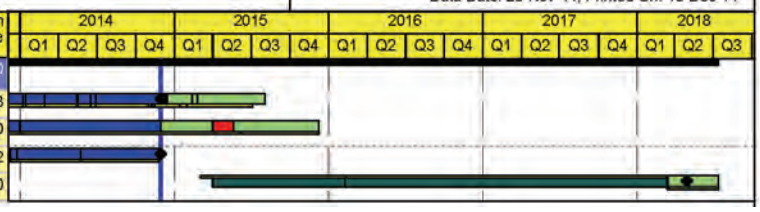


Design was combined with the Airport Guideway and Utilities and was issued for bid in June 2014 to support the Airport and City Center Guideway and Utilities Construction solicitation in July 2014. This procurement was canceled on Dec. 2, 2014. The completion of the City Center Guideway and Utilities design is currently five (5) months behind schedule due to pending rights-of-entry on select properties, interfaces with other HART contracts, and ongoing coordination with third parties. Actions to mitigate these schedule challenges are discussed below.

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity Name	Start	Finish	Finish Variance
Total	19-Aug-11 A	12-Jul-18	0
City Center Programmatic	01-Nov-11 A	03-Aug-15	-28
City Center Permits	19-Aug-11 A	08-Dec-15	0
Design - City Center Guideway & I	01-Jul-12 A	28-Nov-14	-2
Construction - City Center Guidew	31-Mar-15	12-Jul-18	0



CRITICAL PATH ISSUES:

- HART is evaluating roadway and utilities work in this contract that can be expedited in a separate solicitation.
- HART is overseeing coordination between final design consultant AECOM and critical third parties.
- HART is pursuing property rights and using documented design assumptions where geotechnical data cannot be obtained to support the current design schedule. Verification borings are to be done during construction in those instances.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 86%.
- Coordinating with HDOT, HECO and other stakeholders.
- Pursuing rights-of-way and rights-of-entry.
- Completed geotechnical investigations on all available properties.

Look Ahead:

- Obtain third-party approvals.
- Conclude geotechnical investigations for remaining properties that require Right-of-Entry.
- Identify available work that can be expedited in a smaller civil construction package.

KEY ISSUES:

- Assessing cost and schedule impacts associated with HECO's potential requirement to reconstruct existing building electrical service connections.
- Coordinating HECO evaluation of electrical lines along Dillingham and associated equipment for access.
- Assessing potential right-of-way impacts due to unforeseen HECO requests.
- Acquiring rights-of-way and rights-of-entry, and pursuing partial demolition of select properties.
- Coordinating with property owners and evaluating potential cost and schedule impacts to determine practicality of partial demolition and repair of select buildings.
- Modifying several column locations for agreement with effected property owners.

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: TBD
Projected Substantial Completion: TBD

Project Description: Design eight stations for the fourth and final phase of the rail transit project that will connect Dillingham Blvd. to Ala Moana Center.

Project Overview: The delivery method for this contract is under evaluation. Efforts that would support a design-build procurement are being prioritized. Efforts that would support only a design-bid-build procurement are being temporarily suspended to prevent what could be unnecessary expenses. Work being advanced is discussed below.

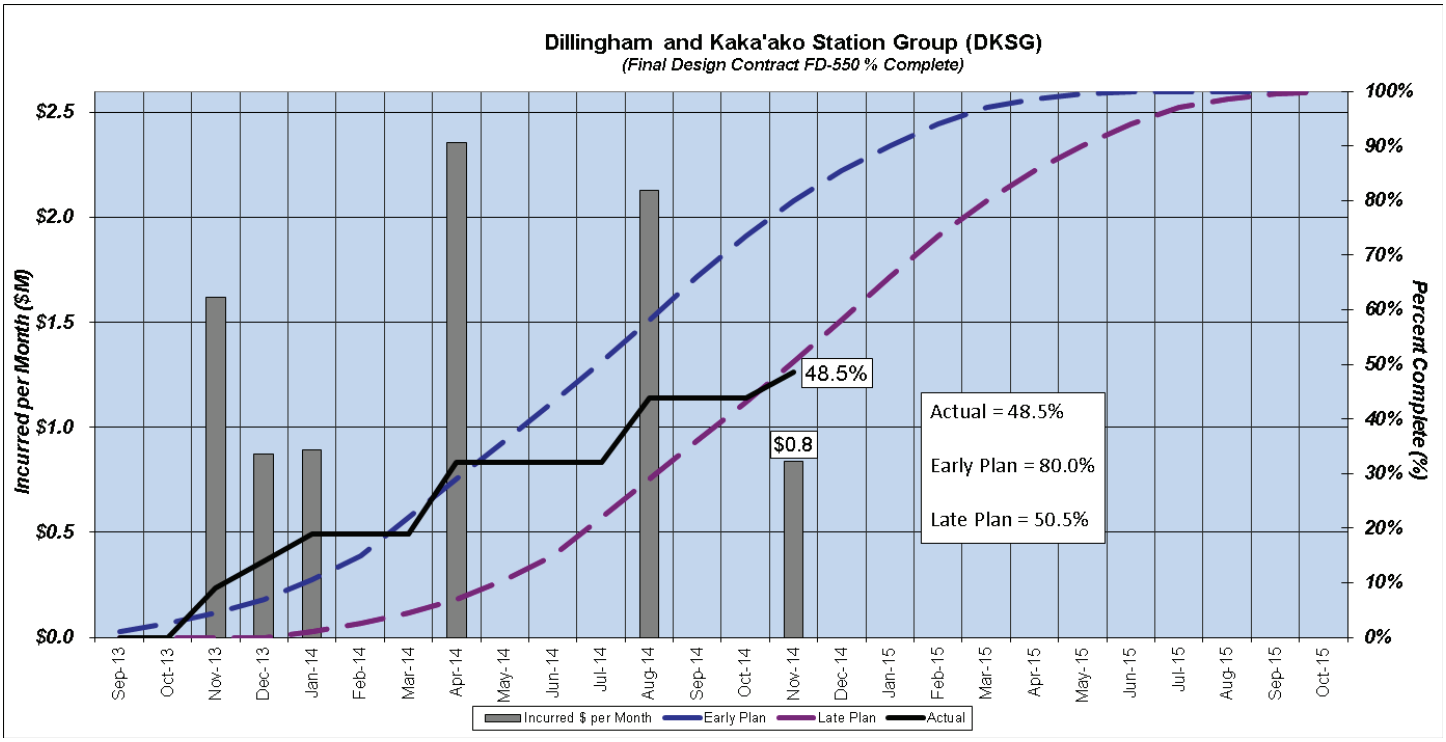
COST INFORMATION:

Original Contract:	$18,321,918	Incurred-to-Date:	$8,702,316
Current Contract Value[1]:	$17,936,332	Incurred in Nov.:	$837,393

[1] *Current Contract Value = Original contract value (not including contingency) with Design Allowance + executed Change Orders*

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

November Change Orders		
Change No.	Description	Amount ($)
None	---	---
	Cumulative to Date	**($385,586)**

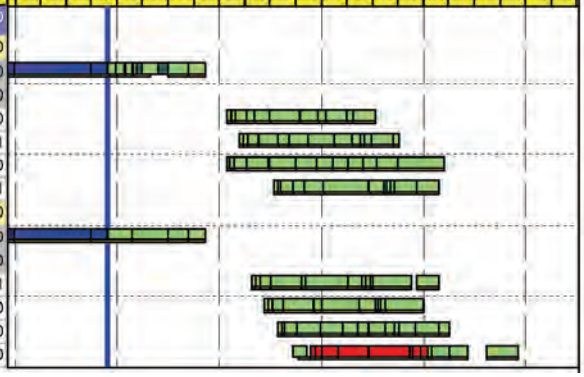


The design of the Dillingham Kaka'ako Station Group is currently one (1) month behind schedule due to ongoing coordination with third parties and pending rights-of-entry on several properties. Actions to mitigate the current delay on this contract are discussed below

SCHEDULE:

November 2014 Update — Data Date: 28-Nov-14, Printed On: 18-Dec-14

Activity ID	Activity Name	Start	Finish	Finish Var
	City Center (CC) - Section 4	15-Oct-12 A	04-Dec-18	0
	Dillingham Station Group	15-Oct-12 A	14-Mar-18	0
	Design - Dillingham Station Group	15-Oct-12 A	10-Nov-15	0
	Construction - Dillingham Station Group	27-Jan-16	14-Mar-18	0
	Kalihi Station	27-Jan-16	13-Jul-17	0
	Kapalama Station	10-Mar-16	02-Oct-17	1
	Iwilei Station	27-Jan-16	14-Mar-18	0
	Chinatown Station	12-Jul-16	22-Feb-18	1
	Kaka'ako Station Group	15-Oct-12 A	04-Dec-18	0
	Design - Kaka'ako Station Group	15-Oct-12 A	10-Nov-15	0
	Construction - Kaka'ako Station Group	26-Apr-16	04-Dec-18	0
	Downtown Station	26-Apr-16	22-Feb-18	1
	Civic Center Station	08-Jun-16	02-Jan-18	0
	Kaka'ako Station	29-Jul-16	04-Apr-18	0
	Ala Moana Center Station	19-Sep-16	04-Dec-18	0



CRITICAL PATH ISSUES:

- HART is overseeing coordination between final design consultant Perkins+Will and critical third parties.
- HART is aggressively pursuing property rights and coordinating station designs with surrounding developments.

WORK PROGRESS:

Activities this Month:

- Current earned value is approximately 51%.
- Completed special district neighborhood meeting and HCDA consultation meetings.
- Coordinating with utility companies, HCDA, private developers and DPP.

Look Ahead:

- Review milestone dates for nearly completed interim design with consultant (4 stations).
- Complete interim design review (4 stations).
- Finalize agreements with various stakeholders and private developers.
- Initiate review of maintenance agreements with HART.

KEY ISSUES:

- Finalizing Geotechnical Data Reports for all stations.
- Receiving drafts of Geotechnical Engineering Reports for six stations.

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, 2015 with option to renew contract for up to two additional years

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.

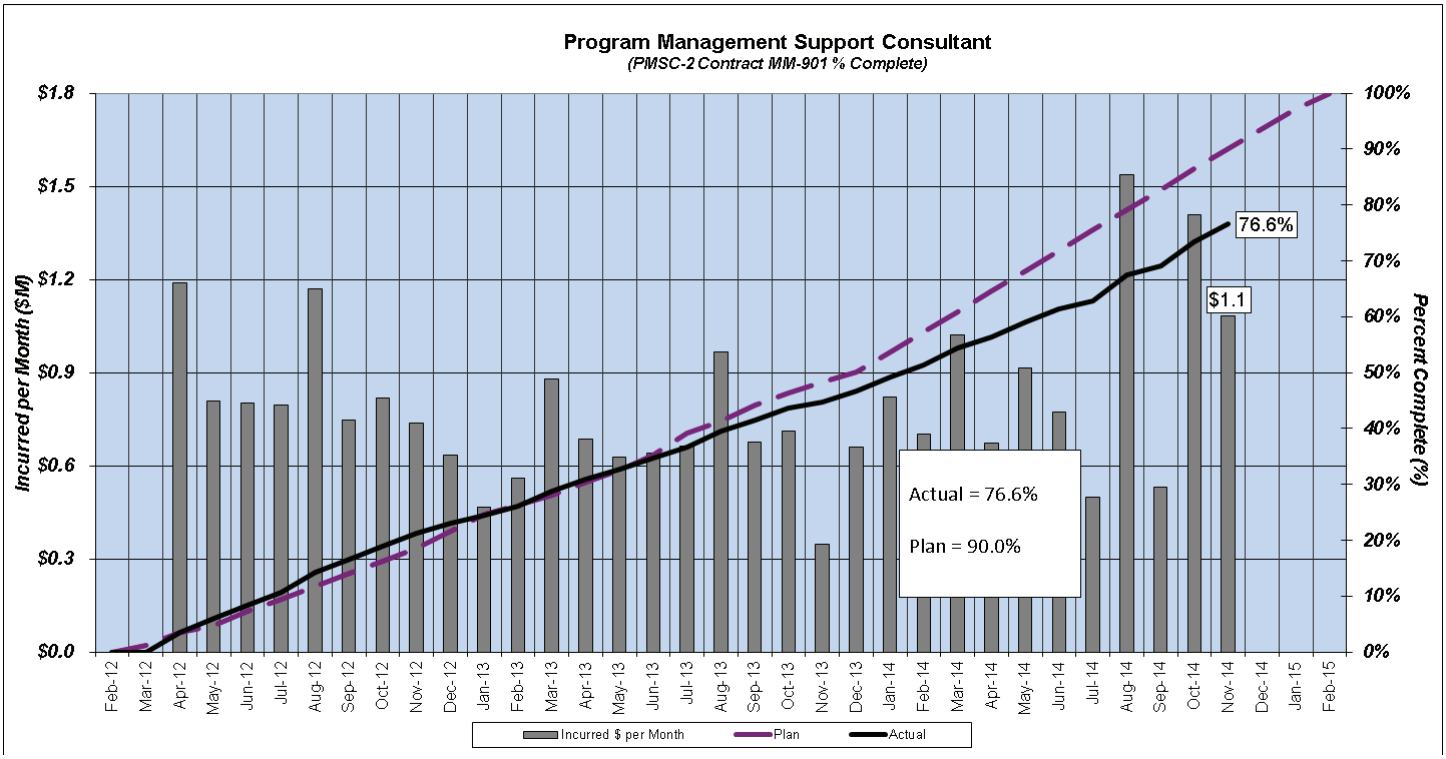
COST INFORMATION:

Original Contract: $33,376,897	Incurred-to-Date: $25,554,756
Current Contract Value[1]: $33,376,897	Incurred in Nov.: $1,082,224

[1]*Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

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

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



KEY ISSUES:

- The original contract completion date is March 7, 2015. HART is evaluating its contractual right to exercise the option to renew the contract for up to two years.

B. General Engineering Consultant III (GEC-3)

Contract No.: MM-913
Contractor: CH2M HILL
Contract Start Date: December 2013
Contract Completion: April 5, 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 and management, environmental and planning, design management services, and program management (aka GEC III contract management).

Project Overview: The GEC III contract will include support services for Regional Transit Stabilization Agreement (RTSA) starting in January 2015 for a period of one (1) year. The revised delivery and procurement strategy will impact the Design Support Task No.4.

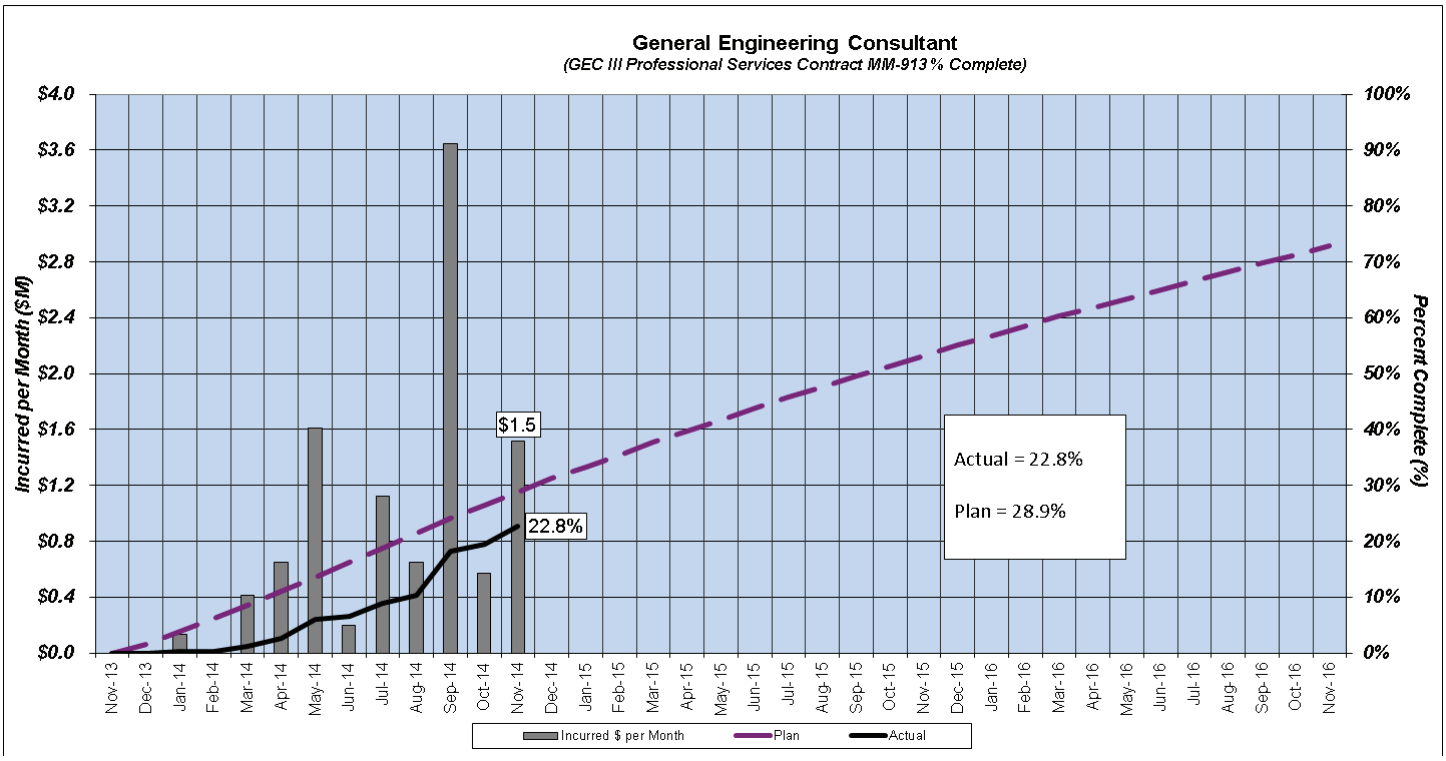
COST INFORMATION:

Original Contract: $46,143,277	Incurred-to-Date: $10,504,814
Current Contract Value[1]: $46,143,277	Incurred in Nov.: $1,517,145

[1]*Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$653,071
DBE % Attained:	1.42%

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



KEY ISSUES:

- The level of effort required to administer and support environmental and planning activities is being closely monitored to ensure budget requirements are met.
- Design management support efforts are being extended in an effort to improve contract documents and lower overall project construction costs.
- The revised delivery and procurement strategy will impact the Design Support Task No. 4. All efforts will be closely monitored and coordinated to minimize impact.

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, WSSG, 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.

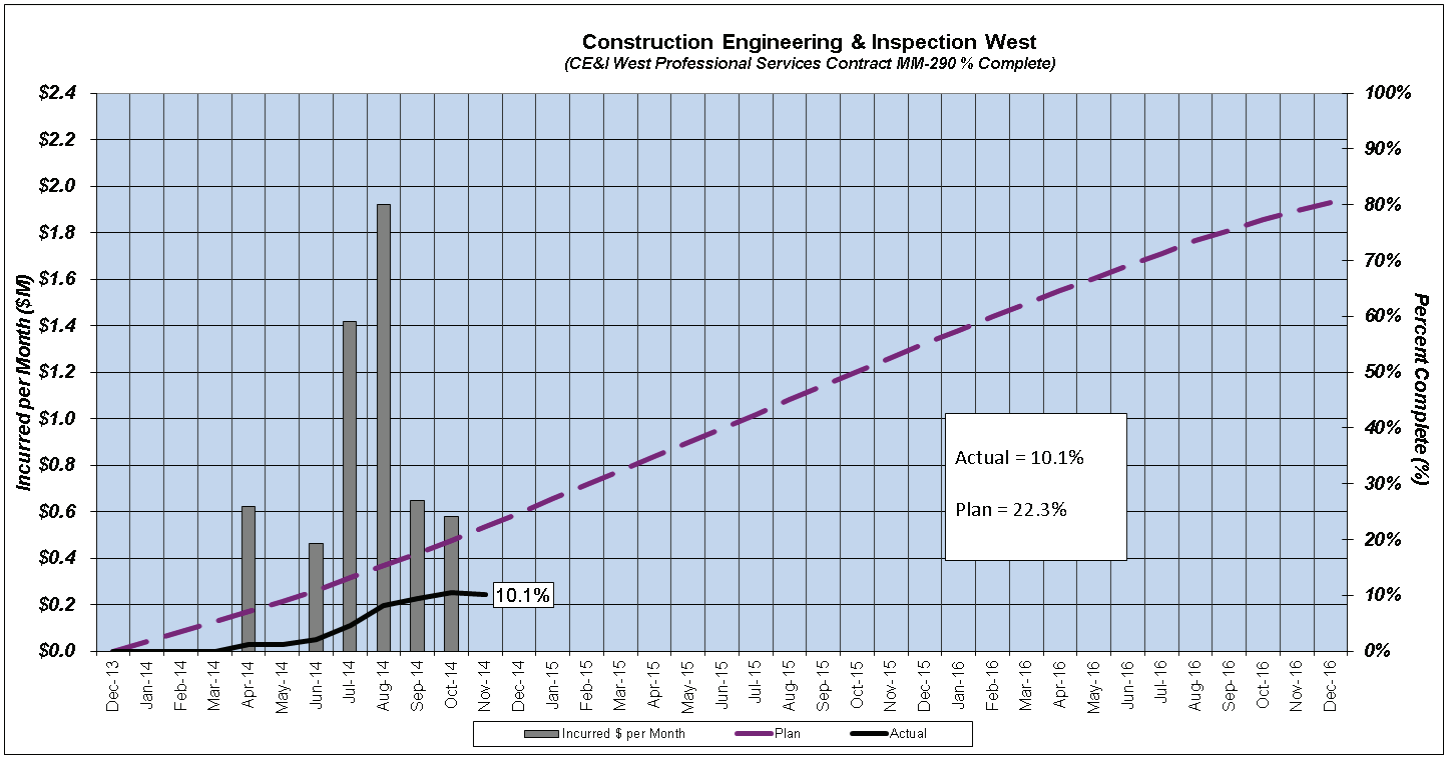
COST INFORMATION:

Original Contract:	$54,232,480	Incurred-to-Date:	$5,482,472
Current Contract Value[1]:	$54,232,480	Incurred in Nov.:	$0

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$500,036
DBE % Attained:	0.92%

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



KEY ISSUES:

- No issues.

D. Construction Engineering & Inspection East Side Sections

Contract No.: MM-595
Contractor: URS Corporation
Contract Start Date: January 2014
Contract Completion: December 2018
Projected Substantial Completion: August 2018

Project Description: The URS team is providing 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). The HRTP will construct a 20-mile passenger rail system connecting East Kapolei in west O'ahu to Ala Moana Center in Honolulu's dense urban core.

The URS team is providing services from the preconstruction phase through construction closeout. CE&I 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. The primary role of the URS 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.

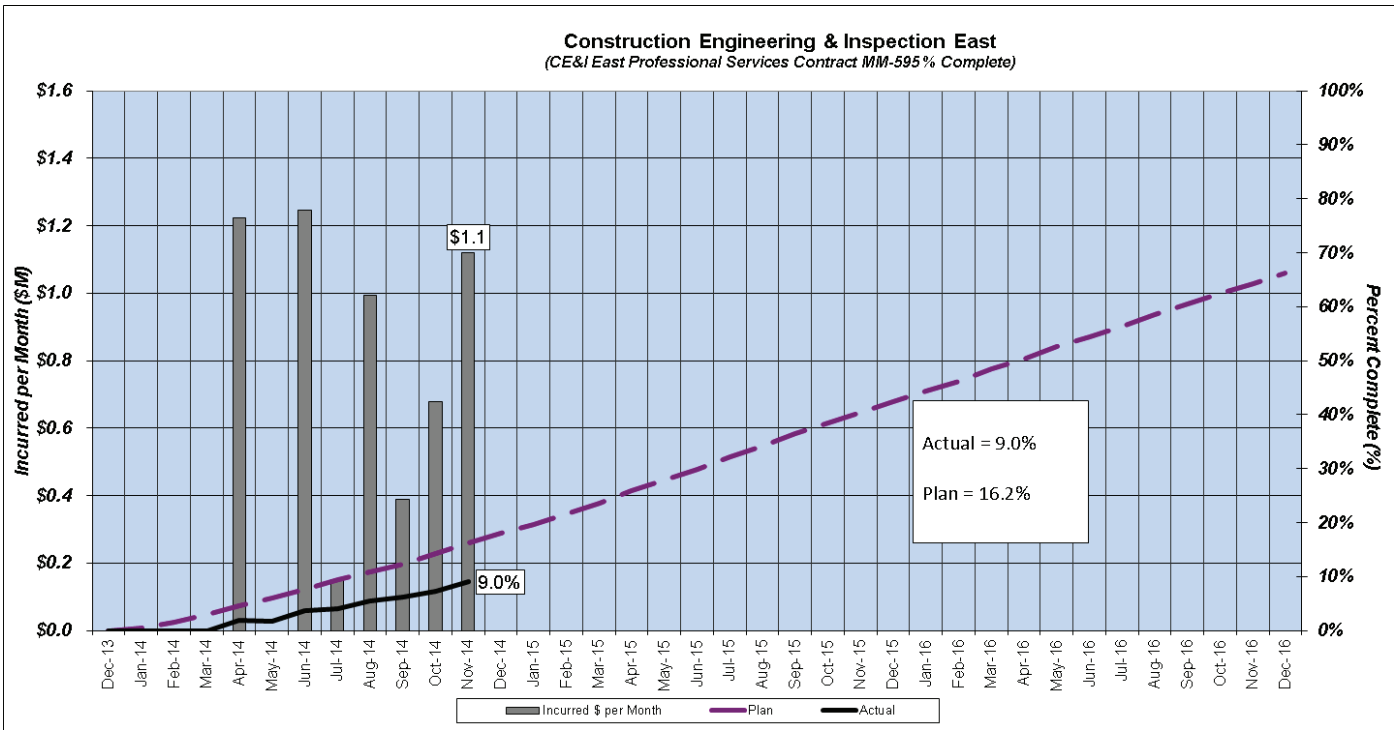
COST INFORMATION:

Original Contract: $63,083,417	Incurred-to-Date: $5,701,013
Current Contract Value[1]: $63,083,417	Incurred in Nov.: $1,118,954

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$546,716
DBE % Attained:	0.87%

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



KEY ISSUES:

- HART is evaluating the AECOM acquisition of URS and possible impacts to the CE&I services.

E. Core Systems Contract Oversight Consultant

Contract No.: MM-962
Contractor: Lea+Elliot, 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 of the Core Systems Design-Build-Operate-Maintain (DBOM) Contract. The major systems of the Core Systems DBOM contract are the vehicles, the automated train control (ATC) system, the traction electrification system, the communications system, and the platform screen gates (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.

Project Overview: No major changes from the November report.

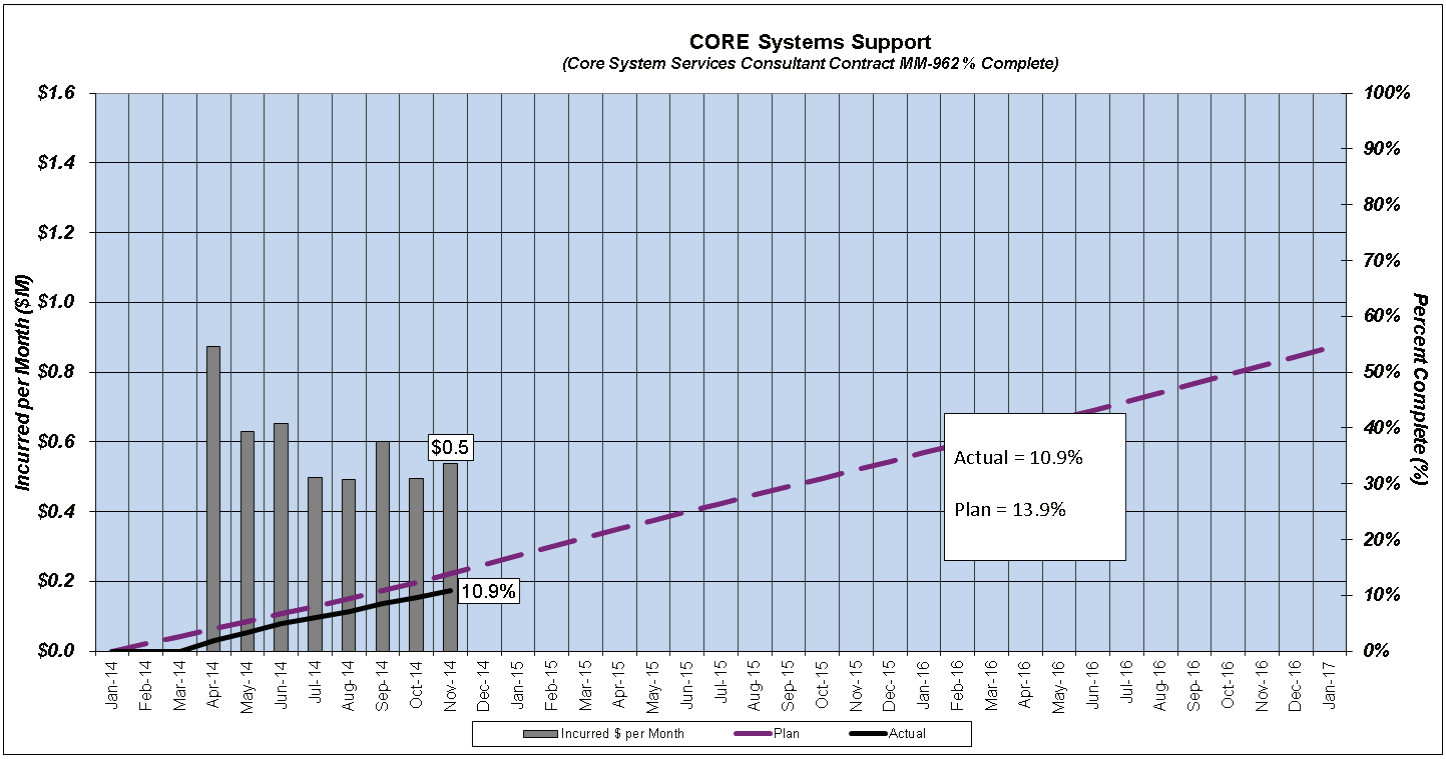
COST INFORMATION:

Original Contract: $43,988,989	Incurred-to-Date: $4,783,093
Current Contract Value[1]: $43,988,989	Incurred in Nov.: $537,726

[1] *Current Contract Value = Original contract value (not including contingency) + executed Change Orders*

DBE Participation	
Actual DBE Participation:	$124,940
DBE % Attained:	0.28%

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



KEY ISSUES:

- Support oversight of Vehicle Carshell manufacturing.
- Coordination with other contractors on construction interface milestones.
- Review and acceptance of procedures for factory acceptance tests.
- Design review completion with respect to manufacturing fabrication and test schedule.

5 OVERALL PROJECT-WIDE ACTIVITIES

Permits (Section 5.1)

KEY ISSUES

- HART continues to wait for approval of its Section 401 permit application for Waiawa Stream and Tributary from the Hawai'i Department of Health (HDOH). If this permit is not approved and issued before the end of February, construction at Waiawa Stream for WOFH guideway will be potentially delayed. HART is actively and regularly communicating with HDOH to resolve this permitting issue as soon as possible.

Utility Agreements (Section 5.3)

OVERVIEW

- Hawaiian Telcom (HTI) KHG Construction Agreement was executed on Dec. 31, 2014. All KHG Utility Relocation Agreements have been executed.
- HECO completed its first customer reconnection for utility relocations.

Right-of-Way (Section 5.4)

OVERVIEW

- Right-of-Way is under budget by $10.7M, as of Dec. 18, 2014.
- HART's design and construction timelines are being adjusted to implement a revised procurement strategy to lower construction costs. A consequence of those changes is that the prior Dec. 15, 2014 deadline for completion of acquisitions is no longer applicable nor accurately reflective of the actual right-of-way needs for the project. ROW has been working closely with design and construction staff, and has adjusted the anticipated acquisition dates to correspond with the revised timeline projected by the updated procurement strategy.
- HART has acquired nearly all needed property for the WOFH section, for both guideway and the stations. The key issues are completing discussions on parcels for guideway construction in Banana Patch.
- All private property site access for guideway is complete for Kamehameha.
- Currently, there are no impacts to City Center construction work because of ROW.

KEY ISSUES

- Resolve third-party agreements with Aloha Stadium, UH, the Navy and Post Office. These are all critical to allowing construction to proceed without delay.

5.1 Permits

- **Permits Submitted and In-Progress**
  - HART is waiting to receive approval of its Coastal Zone Management (CZM) Permit from the Department of Planning and Permitting for Waiawa Stream and Tributary. This CZM Permit will be approved immediately when the Waiawa Section 401 permit is approved.
  - HART is waiting to receive approval of its Airport Community Noise Variance from the Hawaiʻi Department of Health (HDOH). This permit is required for night work for Airport section utilities, guideway construction and station construction.
  - HART submitted an extension request of the WOFH-MSF Community Noise Variance to allow nighttime work activities until Dec. 31, 2016. The current Noise Variance was extended until April 2015, allowing HDOH more time to review the extension request. A consultant holds regular meetings with this agency to gather input and revise the application as needed.

- **Permits and Approvals Granted**
  - HART received approval of the National Pollution Discharge Elimination System (NPDES) from the Hawaiʻi Department of Health for the CONRAC A7 contract on Dec. 17, 2014.
  - HART received a letter of concurrence and request of special conditions prior to MS4 approval from the Hawaiʻi Department of Education (HDOE), for permanent construction connections near Waipahu High School.
  - HART submitted the Clean Water Act Section 404 Certification permit application for Halawa and Moanalua streams to the U.S. Army Corps of Engineers (USACE) on Nov. 17, 2014. HART received a letter indicating "No Permit Required" from USACE on Dec. 8, 2014, stating the construction impact within these streams does not require USACE oversight or mitigation.

- **Look Ahead**
  - HART received notification from the Fish & Wildlife Service that biological assessments will be required for Halawa, Moanalua, Kalihi, Kapalama, and Nuʻuanu streams. HART will initiate fieldwork for the assessments in January 2015.
  - HART will submit the Clean Water Act Section 401 permit application for Halawa and Moanalua streams to the Hawaiʻi Department of Health (HDOH).
  - HART will submit the Clean Water Act Section 404 permit application for Kapalama and Nuʻuanu streams to the U.S. Army Corps of Engineers (USACE).
  - HART will submit a Stream Channel Alteration Permit request for Halawa, Moanalua and Kalihi streams.

5.2 Hawaiʻi Department of Transportation (HDOT) Agreements

- **Activities this month**
  - Alignment-wide, the HDOT Traffic Management Consultant (contract MM-915) continues to review traffic signals, ITS and construction Maintenance of Traffic (MOT) for HDOT.
  - Kiewit is responsible for maintenance of Farrington Highway and Kamehameha Highway as part of the Master Agreement.
  - The HDOT Design Coordination Consultant for the WOFH section (contract MM-920), AECOM Technical Services, Inc. (AECOM), continues to review design submittals for HDOT.
  - AECOM, the HDOT Design Consultant for the KHG section (contract MM-921), continues to review design submittals for HDOT.
  - SSFM, the HDOT Design Coordination Consultant for the Airport and City Center Guideway sections (contract MM-922), is reviewing guideway design submittals for HDOT.

- **Look Ahead**
  - Airport Joint Use and Occupancy expected to be executed Jan. 31, 2015.
  - City Center Joint Use and Occupancy expected to be executed early 2015.

5.3 Utility Agreements

Figure 13. Utility Agreements Status

Utility Agreements Status Matrix									
Utility Owner	*Status*	WOFH		KHG		Airport		City Center	
		ESA	UCA	ESA	UCA	UCA	COMBINED ESA		UCA
AT&T	*Executed*	5/11/11	12/20/11	5/18/12	AT&T has provided comments 4/11/14 (will include City Center)	Submitted draft to AT&T (will include City Center)	Agreement Executed		
	NTP	5/12/11	12/21/11						
Chevron	*Executed*	12/4/09		11/4/11					
	NTP	12/22/09		11/15/11					
Hawaiian Telcom	*Executed*	5/20/10	11/17/14	5/10/12	Executed 12/31/14	Draft is routing internally for review.	HTI agreement executed 9/27/13		
	NTP	6/14/10							
HECO	*Executed*	By Agreement with PB	4/20/12 (to be vacated once Design and Construction Services Agreements Executed)	7/12/12 (Agreement to be vacated once Design and Construction Services Agreements are Executed)			Airport Bridging Agreement (Expired 11/29/13) City Center Bridging Agreement (Expired 11/29/13)		
	NTP								
		Pre-Construction		Pre-Construction		Pre-Construction			
	Executed	10/30/13		10/4/13		n/a			
	Expired	11/29/13		11/29/13		n/a			
		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		11/25/13	
	NTP	11/20/13	11/29/13	11/20/13	11/29/13	11/20/13		11/25/13	
Oceanic Time Warner Cable	*Executed*	12/8/09	12/21/11	1/9/12	6/2/14	Executed 12/19/14	4/4/2013		Draft is routing internally for review.
	NTP	12/22/09							
Pacific Lightnet/ Wavecom	*Executed*	4/28/10	3/12/12	2/15/12					
	NTP	4/29/10	3/13/12	2/16/12					
Sandwich Isle Communications	*Executed*	5/20/10	Submitted draft to SIC	4/20/12	Submitted draft to SIC		Submitted draft to SIC		
	NTP	6/8/10							
Hawai'iGAS	*Executed*	12/18/09	6/30/11	6/1/12	4/14/14	8/20/14	9/27/13		Draft under review by Hawai'iGAS
	NTP	12/22/09	7/12/11						
tw telecom	*Executed*	12/2/09		2/14/12	No Scope – Oceanic to relocate for tw telecom for KHG		10/11/12		Draft is routing internally for review.
	NTP	12/22/09		2/16/12					
Tesoro	*Executed*			2/15/12	Agreement executed 9/12/13		Agreement executed 9/3/13		
	NTP			2/16/12					

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

- The Hawaiian Telcom (HTI) Utility Construction Agreement (UCA) has been executed.

KHG

- The Hawaiian Telcom Utility Construction Agreement has been executed.

AIRPORT

- All engineering utility agreements for the Airport and City Center sections have been executed.
- AT&T Corp. is reviewing HART comments to the draft Construction Agreement. It is not necessary for this agreement to be in place for the Airport Segment utility construction.
- The Oceanic Time Warner Cable (OTWC) Utility Construction Agreement was executed on Dec. 19, 2014.
- HART has prepared a draft of the Utility Construction Agreement to HTI and is routing internally for review/comments.
- Looking Ahead:
  - Execute HTI Airport UCA.
  - Execute HECO Airport UCA.

CITY CENTER

- All engineering utility agreements for the Airport and City Center sections have been executed.
- AT&T Corp. is reviewing HART comments to the draft Construction Agreement.
- HART has sent a draft of the Utility Construction Agreement to Hawai'iGAS Utility for review/comments.
- HART has prepared a draft of the Utility Construction Agreement to OTWC and is routing internally for review/comments.
- HART has prepared a draft of the Utility Construction Agreement to tw telecom and is routing internally for review/comments.
- Looking Ahead:
  - Execute Hawai'iGAS City Center UCA.
  - Execute Oceanic City Center UCA.

HECO

- **Service Reconnections for Undergrounding HECO facilities** – Completed first HECO service reconnection on Dec. 11 for Farrington Highway utility relocation work. HART has established meetings and processes for this coordination with HECO and Kiewit and this effort will be on-going.
- **Davis-Bacon requirements –** HECO has established a collective bargaining agreement, which does not align with Davis-Bacon requirements, for which HECO is requesting a waiver. HECO is in the process of finalizing additional written information/documents requested by the U.S. Department of Labor (DOL) and Hawai'i Department of Labor and Industrial Relations (DLIR) to support their waiver request. HART will also be setting up meetings to further discuss and resolve this with HECO.
- **HECO 46kV Substation near Rail Operations Center (ROC) area –** HECO indicates a need in the 2018-2019 timeframe for a new 46kV substation to feed the ROC area due to requirements in HECO Rule 13. Initial planning indicates that a currently un-used location on the ROC property may be suitable for this facility. HECO is investigating a 'system' substation, which would also feed the area surrounding the ROC.
- **Additional Clearances –** HECO indicates the need for additional horizontal working clearances from overhead pole alignments and additional buffer radial clearances from the actual overhead high-voltage lines.
  - ***Horizontal Working Clearances Analysis –*** HECO is reviewing the current overhead pole and line locations to identify areas where accessibility for HECO maintenance is a concern. HART is waiting to receive the results of HECO's analysis, which is anticipated to be available in January 2015.
  - ***Bronto Bucket Truck Rental/Testing –*** To allow for increased accessibility for HECO maintenance personnel when considering horizontal working clearances, HECO identified a bucket truck with a telescoping boom (versus a knuckle) and with extendable outrigger supports (versus swinging outrigger supports). The truck allows for greater accessibility and less required setup space than the current larger HECO bucket trucks. HART has agreed to reimburse HECO for 3 months of rental for an un-insulated model of the proposed Bronto Bucket Truck. HART is waiting for the results of the rental/testing, which will be provided with the Horizontal Working Clearance Analysis.
- **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. Coordination with HECO for installation is progressing.
- ***Passenger Stations and Systems Sites –*** HECO service request reviews are in progress and approvals are anticipated in Q1 2015 for the west side stations. HECO is working to finalize its designs and cost estimates.

5.4 Right-of-Way (data as of Dec. 18, 2014)

BUDGET

- The ROW budget continues to show a favorable trend. $70.1M was spent to acquire 34 properties. The budgeted amount for the 34 parcels was $80.8M, resulting in a budget underrun of $10.7M.
- $4.1M has been expended to date for relocations.

ACQUISITIONS

Figure 14. Right-of-Way Status for the Parcels [data provided by Real Estate Acquisition database (READ)]

	No. of Parcels Impacted	Current No. of Parcels Needed	Appraisals In Process	Appraisals Completed	Letters of Offer Sent	Offers Accepted	Possession Granted For Condemnation	Agreements Executed	Acquisitions Completed	Relocations Completed	Properties Available for Contractor
Full Acquisition											
W.Oahu\Farrington	16	16		14	14	13	1	2	15	10	16
Kamehameha	3	3		3	3	3			3	1	3
Airport	5	5	1	4	5	5			4	3	3
City Center	21	21	1	18	18	15			14	8	8
TOTAL	*45*	*45*	*2*	*39*	*40*	*36*	*1*	*2*	*36*	*22*	*30*
Partial Acquisition											
W.Oahu\Farrington	12	4		2	2	1		2	1		1
Kamehameha	19	4		3	3		1		1		3
Airport	8	8		3	3			1	1		1
City Center	88	77	6	29	24	4					0
TOTAL	*127*	*93*	*6*	*37*	*32*	*5*	*1*	*3*	*3*		*5*
Easement											
W.Oahu\Farrington	17	15	5					9	7		8
Kamehameha	5	5	1					7	3		3
Airport	44	41		5	5			22	22		22
City Center	41	33	1	2	2			2	2		2
TOTAL	*107*	*94*	*7*	*7*	*7*			*40*	*34*		*35*
GRAND TOTAL	***279***	***232***	***15***	***83***	***79***	***41***	***2***	***45***	***73***	***22***	***70***

WEST O'AHU/FARRINGTON

- Issues:
  - HART has acquired nearly all needed property for the WOFH section, for both guideway and the stations. The key issues are completing discussions on one parcel needed for guideway construction in Banana Patch.

KAMEHAMEHA

- Issues:
  - All private property site access for guideway is complete for Kamehameha.
  - HART requested a right of entry for Aloha Stadium for guideway column construction. As of December, this is outstanding and is causing impact to construction. Aloha Stadium has required compensatory mitigation from HART, which is not acceptable to HART. This item has been elevated to executives on both sides.
  - HART is working with the University of Hawai'i for rights of entry for access to Urban Garden, Leeward Community College, and UH West O'ahu. These are all needed for guideway construction, and are critical to avoid delay to work activities.

AIRPORT

- Issues:
  - On multiple TMK's, HART is proceeding with the mapping process. This is important so HART can complete several key partial acquisitions.
  - HART made an offer to the Post Office for easement at Honolulu International Airport, which is pending and is being closely monitored.
  - HART is also closely monitoring easements needed from the Navy to expedite the subdivision process and the land court process.

- Look Ahead:
  - Complete Post Office and Navy agreements.
  - On multiple TMK's, HART will meet with consultants to expedite appraisal reports. This allows offers to move forward on remaining airport parcels in anticipation of construction.

CITY CENTER

- Issues:
  - Currently, there are no impacts to City Center construction work because of ROW.
  - There continues to be a great deal of effort toward City Center ROW efforts, which is prioritized to focus on the Dillingham section and resolving remaining full acquisitions.
  - As indicated in the table, there are a number of appraisals and offers in progress.
  - HART also continued to track potential eminent domain.
- Look Ahead:
  - Completion of pending eminent domain for two parcels, which received HART board approval in November and pending City Council.

RELOCATIONS

Figure 15. Relocation Status for the Occupants (data provided by READ)

Section	Residential Relocations (a)	Business Relocations (b)	Not-For-Profit Relocations (c)	Total Relocations (a+b+c)	Relocation Assessment Completed	90-Day Notice Sent	30-Day Notice Sent	Relocations Completed for Occupants
W.Oahu\Farrington	18	6	1	25	11	12	8	24
Kamehameha		4		4	4	3	3	4
Airport		11		11	5	9		7
City Center	12	63		75	30	38	16	35
Grand Total:	***30***	***84***	***1***	***115***	***50***	***62***	***27***	***70***

WEST O'AHU/FARRINGTON

- Look Ahead:
  - There is one relocation outstanding, which is critical to guideway construction. HART will expedite the remediation process for TMK 9-6-004-006. HART anticipates completion in January.

CITY CENTER

- Look Ahead:
  - Complete relocation by Jan. 31, 2015 for several TMKs.
  - Start relocation on multiple TMKs.

THIRD-PARTY AGREEMENTS (data as of Dec. 29, 2014)

Figure 16. Third-Party Agreement Status

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
University of Hawai'i (UH) Master Agreement	Pending	July 2015	WOFH, KHG, City Center	Final negotiations are underway. Will secure Right of Construction as not to delay the project.
UH -West O'ahu (UHWO) Pre-Construction Right of Entry	Executed		WOFH	
UH - West O'ahu (UHWO) Construction Right of Entry	Pending	April 2015	WOFH	In negotiations.
Leeward Community College (LCC) Pre-Construction Right of Entry	Executed		WOFH	
Leeward Community College (LCC) Construction Right of Entry	Pending	February 2015	WOFH	In negotiations.
UH Urban Garden Pre-Construction Right of Entry	Executed		KHG	
UH Urban Garden Construction Right of Entry	Executed		KHG	Follow-up action required for contractor access.
UH Urban Garden Kiewit Construction Right of Entry	Pending	January 2015	KHG	Issue: Pending contractor negotiating ROE with UH.
D.R. Horton Agreement for Construction	Executed		WOFH	Allows for construction to proceed.
D.R. Horton Final Easement Agreement	Pending	June 2015	WOFH	Document in process with D.R. Horton.
Honolulu Community College (HCC) Pre-Construction Right of Entry	Executed		City Center	
Honolulu Community College (HCC) Construction Right of Entry	Pending	July 2015	City Center	In negotiations.
Department of Land and Natural Resources (DLNR) Right of Entry	Executed		WOFH	Right of entry is in place.
Department of Land and Natural Resources (DLNR) Easement	Pending		WOFH	Easement documents in process.
Department of Land and Natural Resources (DLNR) Keehi Lagoon Right of Entry	Executed		WOFH	Construction ROE in place.
Department of Land and Natural Resources (DLNR) Keehi Lagoon Easement	Pending	June 2015	WOFH	Process Easement Agreement.
Department of Education Master Agreement and Consent to Construct	Executed		WOFH	ROE is pending to allow entry for work to proceed; Master Agreement is pending.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry	Executed		KHG	Limited ROE granted for staging for Kiewit for KHG Contract.
Aloha Stadium / Department of Accounting & General Services (DAGS) Right of Entry	Pending	January 2015	KHG	Limited ROE granted for staging for Kiewit for KHG Contract.
Aloha Stadium / Department of Accounting & General Services (DAGS) Easement	Pending	January 2015	KHG	Easement in process.
DHHL Master Agreement	Executed		WOFH, MSF	
DHHL Consent to Construct	Executed		WOFH, MSF	Consent to construct in place.
DHHL License	Executed		WOFH, MSF	
HDOT Master Agreement	Executed		WOFH	
HDOT Joint Use & Occupancy (JU&O) Sub-agreement	Executed		WOFH	

Third-Party Agreements				
Agreement	Status	Target	Section	Notes/Remarks
HDOT Master Agreement for KHG, Airport and City Center	Executed		KHG, Airport, City Center	
HDOT JU&O Sub-agreement	Executed		KHG, Airport, City Center	
HDOT SOA MOU	Executed		Program	
OCCC/Hawai'i Department of Public Safety Agreement Dillingham Blvd	Pending	January 2015	City Center	Finalizing requirements.
HI Community Development Agreement (HCDA)	Pending	February 2015	City Center	Coordination is on-going.
DAGS/HHFDC	Pending	January 2015	City Center	Processing.
U.S. Navy	Pending	January 2015	Airport	Easements are being processed by the Navy. Navy will not charge for all licenses and easements. Exemption granted. Issue: Request for temporary ROE for the Land Court parcels denied.
U.S. Navy Pearl Harbor Station	Adopted		Airport	Congress passed bill to transfer property to City.
U.S. Post Office Honolulu Processing Center	Pending	January 2015	Airport	Offer tendered to the Post Master General. HART awaiting response.
Federal Court House/GSA	Pending	February 2015	City Center	Draft agreement is under review and discussions on-going.
Pacific Guardian Center	Pending	December 2015	City Center	Awaiting final design requirements for the guideway and Downtown station.
Howard Hughes Corporation	Pending	December 2015	City Center	Appraisal and negotiations underway.
Sam House Development	Pending	December 2015	City Center	Appraisal and negotiations underway.
GGP Ala Moana LLC	Pending	December 2015	City Center	Appraisal and negotiations underway.

6 MANAGEMENT AND ADMINISTRATIVE UPDATES

Safety and Security (Section 6.1)

OVERVIEW

Significant progress was made in the last couple of months on CIL/CEL verification. Safety and Security has developed detailed charts of the progress per contract and packages that have been returned to the contractor or have not been received. Safety is working closely with Design and Construction to close out the CIL/CEL issues and identified open items. Highlights are:

- Progress on CILs (Ball in Court for the remaining CILs is with the Contractors)
  - After the previous 2134 CIL submittals, DB-120 WOFH Guideway Design & Construction is 49% verified by HART System Safety. This is a 24% increase in verified CIL from the previous month.
  - After the previous 790 CIL submittals, DB-310 KHG Design & Construction is 63% verified by HART System Safety. This is a 29% increase in verified CIL from the previous month.
- There were 8 Safety and Security incidents to report this month, down from the 11 incidents from the previous month.
- 2 of the 20 HART Open Items log have been closed.

KEY ISSUES

- HART System Safety is currently addressing the lack of base line documents from the contractors.
- HART System Safety is ensuring that reports from the Contractors are submitted in a timely fashion by talking and working closely with the contractors.
- The two broken segments at Span 67 are still an outstanding issue from June 2014. This has been addressed by System Safety with Design and Construction and is being tracked.

HDOT SSOA

- HART Safety and Security meets weekly to discuss progress issues and concerns.
- HART has responded to HDOT concerns.
- HDOTs' State Safety Oversight Agency (SSOA) attended a HART sponsored class on System Safety with HART staff and AHJV staff.

Quality Management (Section 6.2)

OVERVIEW

- The HART QMP and HART-approved QAPs of Contractors, Consultants and Suppliers have been assimilated by their respective employees and are being implemented as standard operating procedures. Therefore, less Nonconformance Reports (NCR) are reported or encountered.

KEY ISSUES

- QA audits of FSHG, WOSG and KHSG Final Design prior to issuance for bid solicitation.

Buy America Compliance (Section 6.3)

OVERVIEW:

- For Buy America, updated percentages for E and M cars are provided in this month's report. Also, a list of utility companies who have submitted a Buy America certification is provided.

KEY ISSUES:

- An interim Buy America audit will be conducted for the vehicles.

Disadvantaged Business Enterprise (Section 6.4)

OVERVIEW

- $20,439,853 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 12/31/14.

Risk Management (Section 6.6)

OVERVIEW

- There are a total of 208 risks in December's risk register. Seven risks have been deleted from November's risk register and no new risks have been added.

KEY ISSUES

- Risks associated with the market, right-of-way, utilities and third parties top the list of concerns; this is fairly typical of transit projects.
- The construction market represents a particularly challenging situation for HART.
    - Construction escalation is expected to continue to be high for 2015, as growth in island permitted work continues at a faster rate than construction completion of work.
    - HART construction contracts are a major contributor of the construction backlog and may contribute as much as 25% of the total construction volume (private and public) in 2015 and 2016.

Community Outreach (Section 6.7)

OVERVIEW

- HART achieves a major milestone with the completion of its first mile of guideway and laying its first portion of rail track in West O'ahu.

KEY ISSUES

- HART presents its plan on how to address some of its fiscal challenges ahead due to rising construction costs and lower GET revenue.

Staffing (Section 6.8)

OVERVIEW

- HART has filled all key positions and continues to pursue the goal of hiring city employees for vacant positions wherever possible and supplementing the organization with consultants where the positions are difficult to fill at city salary levels.

KEY ISSUES

- The organizational structure continues to evolve to best deal with the issues at hand and a new organizational chart is included with this report. The latest organization chart is dated Dec. 2, 2014.

6.1 Safety and Security

Figure 17. Safety and Security Project-Wide Activity

Project-Wide Incident Activity					
Event Type	Total Number of Events since 1/1/2007	Total Number of Events for December 2014	Loss Type	Date	Event Description
Environment	11	0			
Loss or Damage	16	1	No Loss	12/11/2014	While moving one segment another segments was hit and the corner of the curb was broken on the expansion joint.
Near Miss	27	2	No Loss	a) 12/8/2014 b) 12/27/14	a) Launching the Truss to the next pier, the girder came off the rollers and was not level. b) Span 103 slipped 11 inches off the column.
*Reportable Occupational Injury/Illness	0	0			
Security	40	1	Loss	12/27/2014	Theft of equipment by third party.
**Loss Time Occupational Injury/Illness	5	0			
Road/Vehicle - Driving	33	1	No Loss	12/11/2014	Citizen hit unattended loader forks while driving.
Service Strike	23	3	No Loss No Loss No Loss	a) 12/2/2014 b) 12/3/2014 c) 12/4/2014	a) Unmarked 1 inch copper water line was struck. b) Unmarked 8 inch water line was struck. c) Contract excavator came in contact with street light power line.
*Reportable incidents: Requires OSHA to be notified within 8 hours, and includes the death of an employee or hospitalization of three or more employees.					

Subject: Certification Game Plan / Priority of effort – As of 12/11/2014

Top Priorities: Next 90 days (Dec 2014 thru Feb 2015).

1. **Design criteria conformance verification on all contracts under construction:**
    a. WOFH
        i. **5** CEL/CIL packages ready for Safety and Security Review Committee (SSRC) approval (Jan 2015)
    b. KHG
        i. **20** CEL/CIL packages ready for SSRC approval (Jan 2015)
2. **Fully implement the certification process changes:**
    a. Training project leadership – partially accomplished (Nov/Dec 2014)
    b. Follow up training with contract PMs & certification contractors by contract
        i. Priority
            1. MSF
            2. WOFH/KHG
            3. Airport Utilities
            4. Airport Stations Group
3. **Develop specification conformance checklists for contracts under construction for SSRC approval:**
    a. MSF – draft in hand – Provided to MSF for review (seeking Jan 2015 SSRC approval)
    b. WOFH – draft in hand – Provided to WOFH for review (seeking Feb 2015 SSRC approval)
    c. KHG – draft in hand – Provided to KHG for review (seeking Feb 2015 SSRC approval)
    d. Airport Utilities – Provided to AU for review (seeking Jan 2015 SSRC approval)
4. **Update the Safety and Security Management Plan (SSMP) and Safety and Security Certification Plan (SSCP) to reflect changes –** SSMP and SSCP (seeking Jan 2015 SSRC approval)

Figure 18. HART Open Items Log

Honolulu Authority for Rapid Transportation

Revised 1/2/15

HART Open Items Log

No.	Date Added	Assigned Due Date	Topic	Description	Reference/ Forum	Status/BIC	Notes
1.0 General Safety							
1.10	4/2/14	---	Job Site Safety Meetings	Regular Safety Meetings at job sites must be held and documented. All field staff must attend Safety Meetings		Open/PM's	Core Systems has agreed to comply. Records must be turned over to HART Safety and Security.
2.0 Core Systems Contractor							
2.80	4/2/14	3/15/15	Emergency Traction Power Generators	Hazard analysis needed for integration into the (4) stations.		Open/CSG Justin Garrod	Pending AHJV Design
2.10	4/2/14	---	Platform Screen Gates (PSGs)	Touch potential hazard with PSG's being studied.		Closed	Core Systems is waiting for final report
2.14	4/2/14	3/15/2015	EMI Study	Concern on potential EMI impact from HECO power lines.	HECO / HART	Open/HART	
2.15	12/15/14	8/1/2105	Evacuation on-board ladder is too short to reach platform	In researching Cliffside evacuation it was found that the AHJV on-board ladder is at least four (4) inches too short to reach the emergency walkway	GEC Study	Open / Justin Garrod	
3.0 WOFH Guideway							
3.60	6/2/2014	2/15/2015	Damaged Aerial Guideway Segments	During the moving of the truss system two sections of Span 67 Segments 11+12 were severely damaged. HART Safety and Security is currently waiting on a Kiewit report on the causes of this damage. Kiewit is also expected to provide a written fix to correct these damaged sections. Both the Investigative Report and the Proposed Fix will require Kiewit Engineering Review with Engineers Stamps on both the report and proposed fix.		Open WOFH Karley Halsted	WOFH is suppose to provide this information in a timely fashion as work continues to move forward. Kiewit is moving ahead with the installation of Span Segments at their own risk
3.80	12/1/2014	1/15/2015	Direct Fixation Plinthless comments not addressed in reviewed procedure	There are concerns with the lack of review for the Direct Fixation Plinthless rail installation that must be addressed.		Open / WOFH Karley Halsted	Certification requires that this important element of the work must be resolved. Missing too are Track Tensioning and Installation requirements that must be provided and reviewed, test reporting procedures on embedded insert installation, and pull-out test results.
3.90	12/18/2014	1/15/2015	Span 103 Shift	Span 103 shifted 11 inches during the weekend of 12/27/14, cause unknown.		Open / WOFH Karley Halsted	A comprehensive Root Cause analysis needed as is a Corrective Action Plan for fixing this span.
3.10	12/29/2014	1/15/2015	Cross Sonic Logging	A reported 21 columns are deficient due to lack of requited testing.		Open / WOFH Karley Halsted	Testing data must be provided in a timely fashion in order for the HART Engineering Team to review data. This important data must be reviewed and approved before subsequent work starts.
3.11	12/29/2014	1/15/2015	Open Geotech GEC Final Design Comments	WOFH Geotech review comments not addressed by Designer of Record concerning structural design concerns.	Engineers comments per WOFH SUB 0087 Shaft 150-151	Open / WOFH Karley Halsted	GEC Engineering comments must be responded and completed by Kiewit and resubmitted for GEC final review
3.12							
4.0 WOSG Stations							
5.0 FHSG Stations							
1.10	12/16/14	1/15/2015	Skylight at Tunnel roof	The skylight at the roof of the tunnel is exposed to vehicle traffic on a nearby road. Suggested mitigation might be bollards or traffic rated skylight	HART	Open / Michele Guidry	HART Safety and Security is concerned about a stray car leaving the roadway and running over this skylight.

Originator: H. Miranda

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Updated: 1/215
Created on: 4/2/14

Honolulu Authority for Rapid Transportation

Revised 1/2/15

HART Open Items Log

No.	Date Added	Assigned Due Date	Topic	Description	Reference/ Forum	Status/BIC	Notes
1.20	12/30/14	1/15/2015	Stations and Parking CIL's Noncompliance with design requirements	Elements of the required CDC are noncompliant with CDC 6.4.4.3.H.2	CIL Comment Sheet Farrington Highway Station Group	Open / Michele Guidry	Clear noncompliant CIL items and resubmit to HART Safety and Security.
6.0 MSF							
6.15	7/28/14	MSF	Retaining wall Concrete/no sand	Support wall for tunnel was poured without sand in concrete mix		Closed	Wall Removed and replaced.
7.0 KHG Guideway							
7.40	6/9/14	1/15/2015	Second Crosswalk length and Ped crossing at Aloha Station under review			Open / M. Scanlon	
8.0 KHSG Stations							
8.20	4/28/14	1/15/2015	Electrical Grounding Systems	AHJV via an April 3, 2014 letter objected to the HART Design Team electrical grounding grid as a design that is flawed.	AHJV-PM-14031	Open KHSG Cheryl Kaneshiro	CS Group will be examining this issue
9.0 Airport Guideway							
9.20	4/28/14	3/15/2015	Electrical Grounding Systems	AHJV via an April 3, 2014 letter objected to the HART Design Team electrical grounding grid as a design that is flawed.	AHJV-PM-14031	Open / ASG Greg Rapp	CS Group will be examining this issue
10.0 Airport Utilities							
10.30	5/19/14	3/15/2015	AM Antenna	EM Emissions require mitigation for both ATC and the exposure to human life.	HART	Open / Greg Rapp	Antenna is scheduled to be relocated but concerns remain over new location.
11.0 ASG Stations							
11.30	5/2/14	1/15/2015	VDE Clearances at Super Elevated Sections	Guideway Clearances per NFPA 130 Section A.6.2.1.9 must be met.		Open / In-Tae Le	A full review and verification of Clearances at Super Elevated sections
12.0 City Center Guideway							
13.0 City Center Stations							
13.20	4/28/14	Stations and Guideway	Electrical Grounding Systems	AHJV via an April 3, 2014 letter objected to the HART Design Team electrical grounding grid as a design that is flawed.	AHJV-PM-14031	Open / Nancy Tornatore	CS Group will be examining this issue
14.0 Escalators/Elevators							
14.10	9/19/2014	2/15/2015	CEL and CIL's need to be submitted for review		SSCP and SSMP	Open / John Moore	
15.0 Pearl Highlands Garage/Transit Center							

Originator: H. Miranda

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Updated: 1/215
Created on: 4/2/14

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 Nonconformance Reports (NCR) are reported or encountered.
  - Conducted biweekly Quality Task Force (QTF) meetings with CE&I, contractors and consultants QA teams to discuss the status of: design and construction activities; procurement activities; inspection and testing; NCRs; Corrective Actions (CARs) and Preventative Actions (PARs); quality compliance; various process improvements; and Buy America compliance.
  - Participated in Pre-Activity Meeting for scheduled construction activities on WOFH, KHG and MSF contracts; pre-shipment inspection and validation testing on CSC. QA Hold Points and Witness Points were assigned on contractors Inspection and Test Plan (ITP).
  - Perform Management System Audits (QA, Environmental and Buy America), per 2014-2015 Audit Schedule.

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2015 Rev 1

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
CCH-100	Honolulu Authority for Rapid Transportation (HART)	HART	15-005	3/24 - 4/7		
	Honolulu Authority for Rapid Transportation (HART) -Security & Safety Only		15-005	3/24 - 4/7		
CT-HRT-10HO137	West O'ahu/Farrington Highway Guideway Design-Build (WOFH)	KIWC - HI	15-001	2/17 - 2/19		
CH-HRT-10HO449	Maintenance and Storage Facility Design-Build (MSF)	KKJV - HI	15-003	2/25 - 2/26		
CT-HRT-11HO195	Kamehameha Highway Guideway Design-Build (KHG)	KIWC - HI	15-001	2/17 - 2/19		
CT-HRT-11HO195	WOFH-KHG Casting Yard	KIWC - HI	TBD	7/13		
CT-HRT-10HO137	WOFH, KHG, MSF) Audit Surveillance - Survey	KIWC - HI	TBD	8/17 - 8/18		
CH-HRT-10HO449	MSF-Swanson Structural Steel	KKJV/Swanson	TBD	8/24		
CT-HRT-1200106	Core Systems Contract (CSC) Design-Build-Operate-Maintain	ASTS Italy R Calabria	TBD	TBD		
		AB Italy Pistoia	TBD	TBD		
		AB Italy Naples	TBD	TBD		
CT-HRT-1200106	Core Systems Contract (CSC)	AHJV - HI	TBD	6/25 - 6/26		
SC-HRT-1200116	West O'ahu Station Group Final Design (WOSG)	URS - HI	15-002	1/29 - 1/30		
SC-HRT-1400012	Farrington Highway Station Group Final Design (FHSG) Group 2	URS - HI				
FD-245	Pearl Highlands Parking Structure/Bus Transit Center Final Design					

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2015 Rev 1

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-1200111	Kamehameha Highway Station Group Final Design (KHSG) PH, PR, AS	AVA - HI	15-006	3/2 -3/3		
		AVA - CA		3/2 -3/3		
	H2R2 Final Design	AVA - HI	15-004	1/28		
		AVA - CA		1/28		
SC-HRT- 1200038	Airport Section Utilities and Guideway Final Design (AUG)	AECOM - HI	TBD	TBD		
SC-HRT- 1300022	Airport Station Group Final Design (ASG)	AECOM - HI	TBD	TBD		
SC-HRT-1200149	City Center Section Utilities and Guideway Final Design (CCUG)	AECOM - HI	TBD	TBD		
SC-HRT-1400003	Dillingham and Kaka'ako Station Groups "East Side Stations" Final Design (DKSG)	PERKINS+WILL - SEA	TBD	TBD		
SC-HRT-1400049	CSC Support Services	L + E	TBD	11/23 - 11/24		
FD-600	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes Final Design			-		
DBB-185	West O'ahu/Farrington Hwy/Kamehameha Hwy Station Groups "West Side Stations" Construction					
DBB-275	Pearl Highlands Parking Structure/Bus Transit Center Construction					
DBB-470	Airport Station Group Construction					
SC-HRT-1200038	Airport Section Utilities Construction	NAN, Inc	TBD	7/15 - 7/16		
CT-HTR-1500080	Airport Section Guideway Seven Pier Construction	HDCC/CJA JV	TBD	3/15		

HONOLULU AUTHORITY for RAPID TRANSPORTATION

COMBINED MANAGEMENT SYSTEM AUDIT SCHEDULE

YEAR: 2015 Rev 1

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
DBB-510	City Center Section Utilities Construction					
DBB-520	Airport and City Center Sections Guideway Construction					
DBB-580	Dillingham/Kaka'ako Station Groups "East Side Stations" Construction					
DBB-600	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes Construction					
CT-HRT-1300318	Elevator and Escalator - Manufacture, Install and Maintain	US Schindler - HI	TBD	6-24 -6/25		
		US Schindler - NJ		6-24 -6/25		
SC-HRT-1400050	West O'ahu, Farrington Highway, and Kamehameha Highway Station Groups "West Side Stations" CE&I	PGH Wong - HI	TBD	8/18 - 8/19		
	Pearl Highlands Parking Structure/Bus Transit Center CE&I		TBD	8/20 - 8/21		
	UH West O'ahu Park-and-Ride and Ho'opili Station Finishes CE&I		TBD	8/24 - 8/25		
SC-HRT-1400051	Airport and City Center Section Utilities CE&I	URS - HI	TBD	9/14 - 9/15		
	Airport and City Center Sections Guideway CE&I		TBD	9/16 - 9/17		
	Airport, Dillingham, and Kaka'ako Station Groups "East Side Stations" CE&I		TBD	9/21 - 9/22		
SC-HRT-1400027	General Engineering Consultant III for Final Design and Construction (GEC III)	CH2M Hill	TBD	4/7 - 4/8		
SC-HRT-1200100	On-Call HazMat Contractor	CH2M Hill	TBD	8/7		

- **Key Issues**

HART NCR Log		
Total NCRs Issued To Date	CLOSED	OPEN
31 (Audits)	26	5
1 (Construction)	0	1

- Updating, reviewing and approval of appropriate Project Baseline Plans and Procedures due to new policies, re-organization, process improvement and lessons learned from the internal audits. Upon approval of revised plans and procedures, training of HART employees must be performed in order to assure competency and proficiency.
- Review and approval of Core Systems Contract Oversight Consultant (Lea+Elliott) QAP (Revision A).
- Closing of QA audits performed, including NCRs and Observations in order to prevent recurrence and occurrence, respectively. See HART NCR Log above.
- QA audits of FSHG, WOSG and KHSG Final Design prior to issuance for bid solicitation.

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

Core Systems

- **Activities this month**
  - AHJV/AB have started making adjustments on the HART-established Buy America Compliance Matrix (BACM) for E Cars and started populating the BACM for the M Cars based on the components and subcomponents procured on contracts to date. However, both BACMs for E Cars and M Cars cannot be finalized until the Change Order for the 2 Car Consist (E-E) and 4 Car Consist (E-M-M-E) has been agreed to by HART and AHJV/AB.
  - Continued discussion on procurement status and Buy America updates with AHJV (ASTS/AB):
    - E Cars (Breda): 69.3% Pre-Award Audit US contents. Advised by AB that the E-Car is at 64% US contents. (If broken down further, the lowest percentage is the E1car, which is 61% US contents.)
    - M Cars (Breda): Started populating BACM based on procured components and subcomponents to date.
    - Overall 4-car vehicle: 67% US contents.
    - Train Control System Wayside Portion (ASTS USA): 90% US contents HART-approved BACM; no changes during this reporting period.
    - Supervisory Control and Data Acquisition (SCADA) System (ASTS USA): 92.8% US contents HART-approved BACM; no changes during this reporting period.
    - Traction Electrification System (Siemens): 69.9% US contents HART-approved BACM; no changes during this reporting period.
    - Communication System Wayside Portion (Alcatel-Lucent): 80.7% US contents HART-approved BACM; no changes during this reporting period.
    - MOW Multi-purpose Vehicle (Modern Track Machinery, Inc. [MTM]): 100% US contents HART-approved BACM; no changes during this reporting period.
    - MOW 15 Ton Flatbed Trailer (MTM): 100% US contents HART-approved BACM; no changes during this period.
    - MOW Rail Grinder Equipment (MTM): 69.3% US contents HART-approved BACM; changed to **70.0** % (+0.7%). No changes during this reporting period.
    - MOW Tamper (MTM): 85% US contents HART-approved BACM; changed to **88**% (+3%).
    - MOW Geometry Car (MTM): 81.7**%** (+9.8%) US contents HART-approved BACM; no changes during this reporting period.
    - MOW High Reach Lift Truck (MTM): 100% US contents HART-approved BACM; no changes during this period.
    - MOW Rail Car Mover (MTM): 100% US contents HART-approved BACM; no changes during this reporting period.
    - MOW Enclosed Trailer (MTM): 71% US contents HART-approved BACM; changed to 73.9% (+2.9%); no changes during this reporting period.
    - Fire Detection & Alarm System Components (Johnson Controls): 100% US contents HART-approved BACM; no changes during this reporting period.
    - Uninterrupted Power Supply (UPS) System: 73.6% US contents HART-approved BACM.
    - Platform Screen Gates System, a Train Control Subsystem (Stanley Access Technologies, LLC): 96.4% US contents HART-approved BACM; no changes during this reporting period.
- **Look Ahead**
  - HART will conduct an interim Buy America compliance audit in first quarter of 2015.
  - HART will continue to request updates on the US contents of the vehicles.

Utilities

- **Activities this month**
  - HART has entered into construction agreements with the following utility companies, under which each of the listed utility company has signed the Buy America compliance certification:
    - Hawaiian Electric Company
    - Oceanic
    - Hawaiian Telcom
    - Hawai‘iGAS

- Hawaii Independent Energy (formerly Tesoro)

- **Look Ahead**
  - Will provide updates on any new construction agreements HART enters into with a utility company.

6.4 Disadvantaged Business Enterprise (DBE)

- **Activities this month**
  - $20,439,853 = total dollar participation for all DBEs on all HART contracts from 9/24/07 to 12/31/14
    - 6.46% = DBE utilization on total disbursed FTA funds received to date ($20,439,853 divided by $316,312,417)
    - 1.16% = DBE utilization to date on total Project FTA funds ($20,439,853 divided by $1,763,903,901)

Total DBE Participation = $20.4M
(previous report = $20.2M)

Figure 19. DBE Participation this Month

DBE Participation in December		
DBE Firm	**Contract Number**	**Participation**
Ki Concepts	SC-HRT-1200077 MM-922/923	$2,610
David's Fencing	CT-HRT-1000449 DB-200	$2,514
Island Hauling	CT-HRT-1000449 DB-200	$382
Lawson & Associates	SC-HRT-1400061 MM-964	$53,222
ADS System Safety Consulting	SC-HRT-1400061 MM-964	$91,488
LKG-CMC	SC-HRT-1400049 MM-962	$14,699
AMR Estimating Services	SC-HRT-1400027 MM-913	$42,522
TOTAL FOR THE MONTH		**$207,437**

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

6.5 Planning and Environment

- **Activities this month**
  - Programmatic Agreement Activities:
    - HART has retained Ku'iwalu to assist with management of the activities of the Programmatic Agreement in response to Consulting Parties' request of HART to better support the coordination and support of the Agreement.
    - Draft Supplemental Archaeological Inventory Survey (SAIS) Report for Kaka'ako/Ward alignment refinement was completed and submitted to SHPD for review and acceptance the week of Dec. 22.
    - Historic Preservation and Cultural Awareness Training for new Airport Guideway utility relocation contractor, Nan, Inc., is scheduled for Jan. 5.
    - City Center data recovery lab work was completed.
    - An inadvertent discovery of human skeletal remains was revealed in 'Aiea on Dec. 4 during utility relocation work. Mitigation and consultation is ongoing.

  - Planning, Environmental, and Cultural Activities:
    - HART, in coordination with FTA, is processing documentation, as appropriate, on project refinements in accordance with 23 C.F.R 771.130(c). This ensures that any project refinement is consistent with the Record of Decision and Final EIS.

- HART continues to coordinate with Department of Parks and Recreation (DPR) and Department of Environmental Services (DES) on the relocation of street trees prior to construction, particularly along Kamehameha Highway and near Honolulu International Airport.
- HART participated in the Department of Planning and Permitting's (DPP) Hoʻopili Zone change hearing on Dec. 3.
- HART presented station and guideway designs to the Downtown Neighborhood Board for Special District Permit Minor application on Dec. 4.

- **Looking Ahead**
  - Conduct regular monthly HART/Kākoʻo meeting with consulting parties.
  - Conduct regular monthly Oʻahu Island Burial Council (OIBC) and cultural descendant meetings.
  - Conduct regular monthly bus-rail integration planning meetings with city DTS to ensure consistent planning of seamless bus and rail services focusing on rail's interim opening date.

6.6 Risk Management

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 management is the systematic process of identifying, analyzing, and responding to risk in a timely manner. Risk assessments are performed to identify, assess, prioritize, manage and mitigate risk exposure, and develop prudent contingency plans. The Project Risk Register (RR) is the depository for all risks identified for the Project. Every month, risks contained in the RR are reviewed to confirm risks are appropriately identified, identify new risks, and close out risks that no longer pose an issue.

A major goal for HART and the FTA is to complete the Project within budget and on schedule. 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, and in turn reassures the public that the Project will be completed on time and on budget. Effective management of project risks is necessary to significantly increase the likelihood of delivering a successful project. Some risks are directly within HART's control while others are not.

Maintaining the RR includes assessing the potential for a risk to happen as well as the cost and schedule impacts should the risk occur in isolation. The cost and time impacts to the Project are assessed based on a "most likely scenario." Construction of the Project involves systematically using equipment and materials through a variety of means and methods to create a quality transit system. Therefore, not all risks (known and unknown) will occur with the same frequency or probability as estimated in isolation. In addition, risks can be eliminated due to design best practices as well as through the implementation of safe alternative means and methods of construction to avoid the occurrence.

This report includes a listing of the top program wide risks which is an aggregate of the individual contract risks of the same category. Key metrics are subject to change as more is learned about the risks while implementing mitigation of avoidance, minimization and transfer, and as additional expertise is brought in to implement various aspects of the Project. By actively managing the RR, HART is able to actively manage the Project and ensure it is built on time and on budget for the tax payer and future passengers.

- **Notes of Significance:**
  - Kamehameha Highway Guideway production rates are behind schedule.
  - Construction market escalation rates are exceeding forecast and FFGA budget. Cost containment is critical.
  - Subsurface risk is going down with geotech and foundation design validation.

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

Figure 20. Risk Matrix

Risk Matrix					
Legend	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)
Probability	< 10%	10><50%	> 50%	75% ><90%	>90%
Cost	< $250K	$250<><$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 21. Top Project Risks

Top Risks December 2014								
Current Risk ID	Contract Package	Risk Description	Probability	Prob Rating	Cost Impact	Time Impact	Dec. '14 Risk Rating	Nov. '14 Risk Rating
96.09	West Side Station Group	Market - Procurement results in higher pricing than FFGA estimate assumptions.	100%	5	5	4	22.5	22.5
111.05	Airport Guideway	Market - Estimates may be low for remaining guideway based on WOFH and KHG relative to construction market escalation.	90%	5	5	4	22.5	22.5
111.06	City Center Guideway	Market - Estimates may be low for remaining guideway based on WOFH and KHG relative to construction market escalation.	90%	5	5	4	22.5	22.5
110.06	City Center Guideway	Right-of-Way - Real Estate market could rebound before purchase of all needed properties, greatly increasing cost of property and delaying construction if legal actions are pursued.	75%	4	5	4	18	18
1.16	Pearl Highlands Garage	Market - Escalation rates may be higher than forecasted (ie. Labor, equipment and materials).	75%	4	5	4	18	18
20.04	Kamehameha Highway Guideway	Interface - Late delivery of/or acceptance of civils, stations, or systems interface to guideway results in change orders.	100%	5	3	4	17.5	14
170.04	Kamehameha Highway Guideway	Construction - Production rates of Fixed Facility contracts are lagging planned results.	75%	4	4	4	16	16
75.03	West O'ahu/ Farrington Highway Guideway	ROW - Late turnover of ROW to contractor may result in delays to interim opening.	90%	5	4	2	15	17.5
20.08	Core Systems Contract	Interface - Delays in access milestones of MSF, stations, or guideway interfaces to systems results in delays to core systems contractor substation completion milestones.	100%	5	4	2	15	15
83.06	City Center Guideway	Utilities - Due to court case, delay of utility easement identification for City Center Guideway may result in a delay of ROW acquisition and ultimately the start of construction.	75%	4	4	3	14	14
106.13	Airport Station Group	ROW - Right-of-way acquisition at Pearl Harbor may take longer due to Navy NEPA/Section 10b process requirements.	75%	4	3	4	14	14
35.06	City Center Guideway	Geotech - Due to court delays, limited geotechnical information was available at the preliminary engineering phase. Additional costs for redesign may be incurred.	75%	4	4	3	14	14
129.13	Airport Station Group	Third Party - Potential delays at Pearl Harbor Station due to community actions concerning historical site.	75%	4	2	5	14	14
145.09	West Side Station Group	Procurement - There may be delays associated with re-procurement and access dates impacting cost and/or schedule.	75%	4	3	4	14	14

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

Figure 22. Risks Deleted

Risks Deleted in December					
Current Risk ID	Contract Package	Risk Description	Comments	Risk Rating	
				Dec. '14	Nov. '14
26.04	Kamehameha Highway Guideway	Technical Capacity - Concurrent design reviews of numerous contracts may result in delays.	Mitigated through GEC III as well as procurement schedule.	7.5	7.5
26.05	Airport Guideway	Technical Capacity - Concurrent design reviews of numerous contracts may result in delays.	Mitigated through GEC III as well as procurement schedule.	9	9
26.06	City Center Guideway	Technical Capacity - Concurrent design reviews of numerous contracts may result in delays.	Mitigated through GEC III as well as procurement schedule.	9	9
26.07	Maintenance & Storage Facility Contract	Technical Capacity - Concurrent design reviews of numerous contracts may result in delays.	Mitigated through GEC III as well as procurement schedule.	7.5	7.5
27.03	West O'ahu/Farrington Highway Guideway	Contractual - OCIP coverage was originally projected to be in place by the end of 2012.	The OCIP is now in place.	4	4
171.05	Airport Guideway	Right-of-Way - Construction laydown areas may be inadequate in downtown area.	Duplicate item.	5	5
171.06	City Center Guideway	Right-of-Way - Construction laydown areas may be inadequate in downtown area.	Duplicate item.	5	5

6.7 Community Outreach

To date, HART's outreach team has participated in:

- *1,744 presentations and events*
- *942 Neighborhood Board meetings*

- **Activities this month**
  - HART's public outreach team pulled together several key meetings and briefings this month focusing on the project's construction and its finances. Dozens of business owners from the Aiea-Pearl City area attended a special meeting this month to discuss the impact of the construction work in their area. The meeting also served as the official kick-off for HART's Kamehameha Highway Business Alliance, which will provide business owners with the latest information on traffic, workshops on social media, and other tools and resources to help them navigate through the construction phase.
  - HART also unveiled its plan to the public this month on how to address some of its fiscal challenges ahead. As part of its commitment to transparency, HART discussed its 10-point action plan during a public meeting and in media briefings. Roughly $190 million in legal and construction delays have also pushed the project into a highly competitive construction market, resulting in significantly higher construction bids. In addition, a shortfall of $41 million in GET revenue and the desire to find a substitute for $210 million 5307 formula funds have triggered a comprehensive action plan. That plan calls for repackaging and recalibrating our future contracts; reducing scope and costs; looking for additional sources of revenue through various methods such as public-private partnerships, leveraging transit-oriented development, taking advantage of lower interest rates through an improved borrowing plan, and beginning the discussion of extending the existing GET surcharge.

Figure 23. HART reviews its action plan to meet some of its fiscal challenges ahead in a news conference.

HART Executive Director and CEO Dan Grabauskas discussed the agency's 10-point action plan to meet some new fiscal challenges at a news conference. Honolulu Mayor Kirk Caldwell and Honolulu City Council Transportation Committee Chairman Joey Manahan expressed their continued support for the project and for HART.

Figure 24. HART celebrates the completion of its first mile of guideway and the installation of rail track in West O'ahu.

HART marked a major milestone this month with the completion of its first mile of the rail guideway in West O'ahu. City and state officials joined HART's leadership team in a media briefing held on top of the guideway.

- **Construction Outreach**
  - HART marked a milestone this month, with the completion of its first mile of guideway and the laying of the first portions of track for the 20-mile rail system. City and state officials joined HART's team for a media briefing on top of the guideway. The briefing provided a detailed explanation of the work, as well as a bird's eye view of what it will be like atop the guideway once the system is completed.
  - To help ease the holiday traffic crunch, particularly for businesses along the Kamehameha Highway corridor, construction lane closures were adjusted so that traffic would not be affected until after 10 p.m. Happy Holidays!
  - Traffic updates provided the media and the community with updated information on lane closures and the new holiday work schedule. HART's outreach team ensured the information reached as many people as possible using media briefings, weekly news releases, and regular posts on Facebook and Twitter.
- **Community Input**
  - HART's public information team responded to nearly 100 inquiries and requests in December that came in via the agency's website, email and 24-hour hotline. Inquiries this month primarily focused on construction activities, including traffic and general questions about the project.
- **Look Ahead**

  Coming in January:
  - Meetings for businesses and the community along the rail alignment to provide construction and traffic updates.
  - Presentations and community events to provide overall updates on the project and its finances.

6.8 Staffing

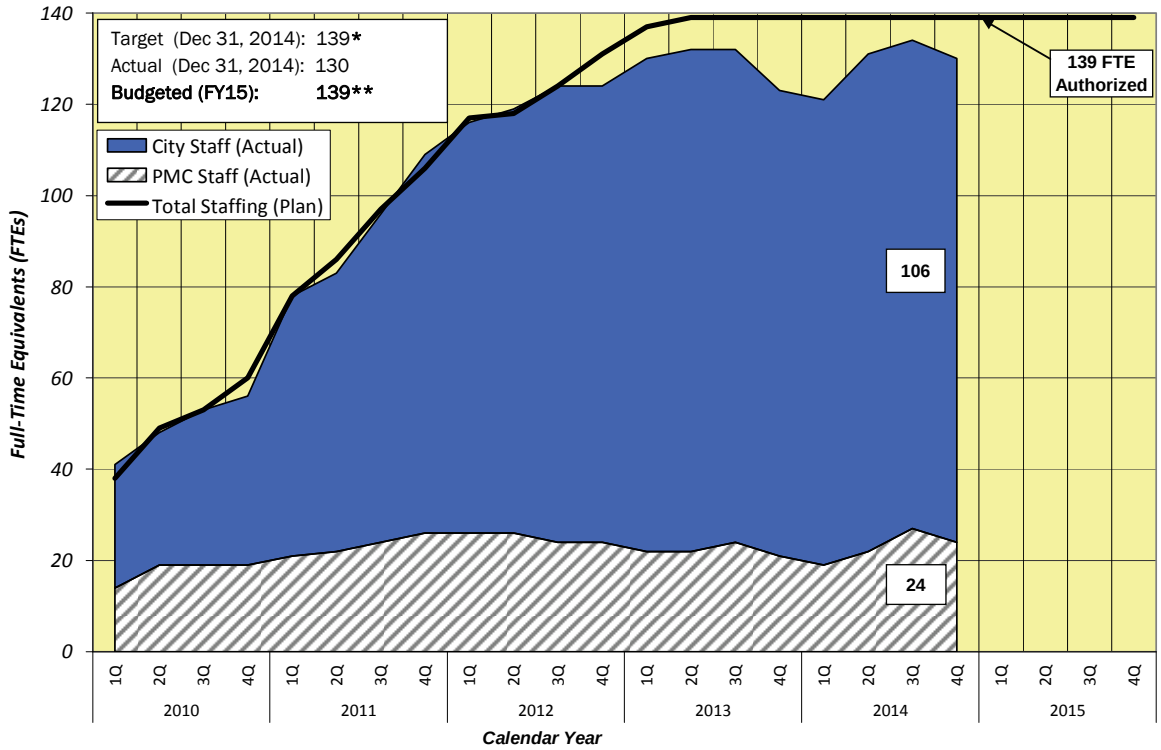
Figure 25. Staffing Activities

Staffing Activities				
Title	**Group**	**New/Existing HART position (City or PMC)**	**Position Status**	**Start Month**
Executive Management				
Senior Clerk (Receptionist)	Executive Management	Existing (City)	Recruiting via Civil Service	
Design and Construction				
Assistant Project Manager	Construction (KHG)	New (City)	Recruiting	
Assistant Project Manager	Construction (WOFH)	New (City)	Recruiting	
HECO Coordinator	Design & Construction	Existing (City)	Creating Position/Recruiting	
Budget and Finance				
Budget Analyst	Budget and Finance	New (City)	Recruiting	
Procurement				
Deputy Director of Procurement & Contracts	Procurement & Contracts	Existing (City)	Creating Position/Recruiting	
Contract Administration and Change				
Transit Contracts Manager* (2)	Contract Administration and Change Management	Existing (City)	Recruiting/Interviewing	
Planning, Permits & Right-of-Way				
Planner V* (Land Use)	Planning	Existing (City)	Recruiting via Civil Service	
Planner III* (Environmental)	Planning	Existing (City)	Recruiting	
Right-of-Way Agent/Planner	Right-of-Way	New (City)	Recruiting	
Administrative Services				
Personnel Clerk	Administrative Services	New (City)	Creating Position via Civil Service	

*Per qualifications.

HART currently receives direct project support in centralized functions from the following city departments: Honolulu Police Department (HPD), Department of Information Technology (DIT), Department of Budget and Fiscal Services (BFS), Department of Design and Construction (DDC), Corporation Counsel (COR) and Department of Human Resources (DHR); and from the State of Hawai'i Department of Transportation (HDOT) on Consultant Services Contracts.

Figure 26. Project Staffing (Actual vs. Planned)



* In accordance with Staffing and Succession Plan Rev 5 (Under Revision)
** 139 City positions authorized in FY 2015 HART Operating Budget

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

Note: For a project organization chart, see Appendix G.

APPENDICES

Appendix A. Action Items

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

Action Items						
Item No.	Item	Responsible Party	Date Identified	Date Due	Date Completed	Status
1	Provide information and resolution on HECO's 50-foot offset requirement	HART	Mar-14	Jan-15		On-going – Boom truck equipment was delivered in September 2014 and field testing began in October 2014. HECO evaluating site specific locations where truck may not fully address their requested clearance.
2	Resolve issue with AHJV regarding cost savings associated with change to 4-car trains	HART	Mar-14	Dec-14		Open – in progress.
3	Resolve HECO issue with Davis-Bacon requirements	HART/FTA	Mar-14	Dec14		Open – HECO waiver is pending. HART provided MOU to PMOC.
4	HART to provide updated Cost Estimates: - WSSG - Airport/City Center GW	HART	Oct-14	Dec-14		Open
5	Updates resulting from Risk Refresh:					
5a	PMOC to schedule a conference call with HART to discuss RCMP	PMOC	Oct-14	TBD		Open
5b	Risk Register Breakout Session	HART	Jul-14	TBD		Open
5c	Procurement strategy	HART	Aug-14	Dec-14		On-going
5d	Re-baseline MPS	HART	Apr-14	Feb-15		Open
5e	Update the RCMP (including Hold Points and Secondary Mitigation Measures)	HART	Sept-13	Feb-15		Open
5f	Re-baseline budget	HART	Apr-14	Mar-15		Open
5g	Re-baseline Financial Plan	HART	Apr-14	Mar-15		Open
6	HART to provide plan to address conflict of interest with AECOM acquisition of URS	HART	Jul-14	Jan- 15		Open
7	HART QAM to review constructability and design QA of remaining bid packages	HART	Jul-14	Dec-14		Open – In progress.
8	HART to provide response letter to HDOT letter regarding safety and security CELs/CILs	HART	Oct-14	Dec-14		Open
9	Provide updates on Buy America status with Utility contracts	HART	Nov-14	Jan-15		HART will submit prior to the Quarterly Meeting.
10	HART to provide to PMOC letters regarding contract status	HART	Dec-14	Jan-15		
11	HART to provide PMOC with information regarding the Art in Transit contracts and the dollar amount	HART	Dec-14	Dec-14	12/17/14	Completed

Appendix B. Project Contingency Management General Background and Clarifications

Current Contingency Balance = $542.5M

Current Known Changes Contingency = $0M

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

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

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 changes being considered for each contract. Changes are tracked by four 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) is complete. It is consistent with the FFGA submittals, including the CPP, MPS, Project Budget and Financial Plan. The RCMP includes cost and schedule contingency drawdown curves, which establish minimum and buffer zone levels of cost and schedule contingency in accordance with FTA recommendations. Over the course of the project, if the cost or schedule contingency enter into the buffer zone (the area above the minimum contingency), Project Management will immediately implement actions to maintain the level of contingency appropriate for the project stage.

Known Changes Contingency

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

HART Project Contingency Drawdown with Details

Data as of 12/30/14

#	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	$5,917,845	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 DB	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**	
June '13			**Beg. Balance:**	**$654.3**	

HART Project Contingency Drawdown with Details

Data as of 12/30/14

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
	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	($490,815)	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)**	
			January '14 - Ending Contingency Balance	**$608.3**	
February '14			**Beg. Balance:**	**$608.3**	

HART Project Contingency Drawdown with Details

Data as of 12/30/14

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
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	($2,126,000)	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	($898,184)	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	($1,928,000)	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
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

HART Project Contingency Drawdown with Details

Data as of 12/30/14

#	Project No.	Project Desc.	Budget Transfer/Change Description	Contingency Drawdown (+/-)	Contingency Code
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	**($9,336,161)**	
			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	**$542.49**	
***November '14 - Board Approved Changes Only - Pending execution**					
1)	DB-120	West Oahu Farrington Highway Guideway DB	Provisional Sum pt. 1 Escalation due to the AIS Suspension	($15,000,000)	90.01 - Unallocated Contingency
2)	DB-320	Kamehameha Highway Guideway DB	Provisional Sum pt. 1 Escalation due to the AIS Suspension	($3,500,000)	90.02 - Allocated Contingency
***December '14 - Board Approved Changes Only - Pending execution**					
	N/A	N/A	No changes brought to the board this period	$0	90.01 - Unallocated Contingency
			Subtotal Board Approved Contingency Drawdown	**($18,500,000)**	
			December '14 - Ending Contingency Balance (Pending Execution)	**$524.0**	

Appendix C. Project Cost Reports (data as of Nov. 28, 2014)

Project Costs by Contract

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

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: November 2014

Project Monthly Cost Report by Contract - One Line Summary

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CPP No	Title		A COMMITTED Original	B COMMITTED Changes	C=A+B COMMITTED Current *	D AFE AFE**	E INCURRED Incurred To Date	F PERCENT %
ART	Project Wide ART	T&M	0	0	0	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)		1,692,366	0	1,692,366	0	149,466	9%
CCH-108	Board of Water Supply (BWS)		928,325	0	928,325	0	928,325	100%
DB-120	West Oahu/Farrington Hwy Guideway	SOM	482,924,000	133,398,382	616,322,382	616,322,382	336,060,580	55%
DB-200	Maintenance & Storage Facility DB	SOM	195,258,000	79,100,008	274,358,008	207,388,742	156,709,688	57%
DB-320	Kamehameha Hwy Guideway DB	SOM	372,150,000	16,365,363	388,515,363	178,531,444	122,545,400	32%
DBB-185	West Side SG Construction	SOV	0	0	0	0	0	0%
DBB-275	Pearl Highlands Pkg. Str Cnstr. DLD	SOV	0	0	0	0	0	0%
DBB-470	Airport Station Group Cnstr.	SOV	0	0	0	0	0	0%
DBB-505	Airport Section Utilities Cnstr.	SOV	28,413,974	0	28,413,974	27,383,022	0	0%
DBB-510	City Center Section Utilities Cnstr.	SOV	0	0	0	0	0	0%
DBB-520	Airport-City Center Guideway Cnstr.	SOV	0	0	0	0	0	0%
DBB-525	Airport Section Guideway 7 Pier Cnst	SOV	3,973,000	0	3,973,000	3,973,000	0	0%
DBB-580	Dillingham/Kaka'ako SG Contruction	SOV	0	0	0	0	0	0%
DBB-600	UHWO PnR/Hoopili Stn Finishes Cnstr.	SOV	0	0	0	0	0	0%
DBOM-920	Core Systems Design Build O/M	SOM	573,782,793	18,897,205	592,679,998	576,764,986	107,344,227	18%
FD-140	West Oahu Station Group Final Design	SOM	7,789,000	1,771,305	9,560,305	8,293,505	7,579,602	79%
FD-240	Farrington Highway Stations Group 2	SOM	9,300,696	4,897,349	14,198,045	12,877,632	12,157,989	86%
FD-245	Pearl Highlands Pkg. Str. FD OLD	SOM	0	0	0	0	0	0%
FD-340	Kamehameha Hwy Station Group H2R2 FD	SOM	8,702,592	0	8,702,592	8,004,496	7,687,346	88%
FD-430	Airport Sect. Guideway/Utilities FD	SOM	38,840,960	3,711,172	42,552,132	42,552,132	35,911,130	84%
FD-440	Airport Station Group FD	SOM	10,177,365	1,224,840	11,402,205	10,352,862	9,211,251	81%
FD-530	City Center Guideway/Utilities FD	SOM	43,948,220	1,282,803	45,231,023	42,614,702	35,345,804	78%
FD-550	Dillingham and Kaka'ako SG FD	SOM	18,321,918	-385,586	17,936,332	14,300,408	8,702,316	49%
FD-600	UHWO Pkg-Hoopili Station Finishes FD	SOM	0	0	0	0	0	0%
HRT-200	HART Labor		32,451,942	0	32,451,942	0	31,672,580	98%
HRT-201	HART ODC		15,759,154	0	15,759,154	0	12,776,243	81%
MI-930	Elevators & Escalators Install/Maint	SOM	50,982,714	0	50,982,714	5,442,108	3,157,523	6%
MM-280	WOFH/KHSG CE&I (REPACKAGED)	CPFF	0	0	0	0	0	0%
MM-280	Construction Engrg & Inspection West	CPFF	54,232,480	0	54,232,480	16,650,000	5,482,472	10%

* 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: November 2014

Project Monthly Cost Report by Contract - One Line Summary

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CPP No	Title		A Original	B COMMITTED Changes	C=A+B Current *	D AFE AFE**	E INCURRED Incurred To Date	F PERCENT %
MM-385	Pearl Highlands Garage and Ramps CEI	CPFF	0	0	0	0	0	0%
MM-500	Repackaged into MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-525	Repackaged into MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-590	Repackaged into MM959 CEI East	CPFF	0	0	0	0	0	0%
MM-595	Construction Engrg & Inspection East	CPFF	63,083,417	0	63,083,417	15,257,000	5,701,013	9%
MM-600	UHWO Pkg-Hoopili Stn Finishes CEI	CPFF	0	0	0	0	0	0%
MM-900	Program Mgt Support Consit (PMSC-1)	CPFF	36,727,162	0	36,727,162	20,700,000	0	0%
MM-901	Program Mgt Support Consit (PMSC-2)	CPFF	33,376,897	0	33,376,897	26,680,790	25,554,756	77%
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	149,189,582	99%
MM-913	MM-913 Gen Engrg Recompete	CPFF	46,143,277	0	46,143,277	13,078,208	10,504,814	23%
MM-915	HDOT Traffic Mgmt. Consult.	T&M	1,600,000	1,400,000	3,000,000	4,000,000	1,699,311	57%
MM-920	HDOT Coordination Consit WOFH	T&M	3,000,000	7,500,000	10,500,000	9,000,000	5,822,213	55%
MM-921	HDOT Coordination Consit KHG	T&M	10,000,000	-1,400,000	8,600,000	4,000,000	2,371,444	28%
MM-922	HDOT Coord. Consit. Airport	T&M	12,000,000	-5,600,000	6,400,000	3,000,000	1,725,273	27%
MM-923	HDOT Coordination Consit City Center	T&M	0	0	0	0	0	0%
MM-925	HDOT Labor - Highway Group	T&M	550,000	0	550,000	815,633	1,062,526	193%
MM-926	HDOT Labor - Airport Group	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	514,371	28%
MM-935	Real Estate Consultant	T&M/T:	3,000,000	3,327,665	6,327,665	4,817,665	2,239,949	35%
MM-937	Real Estate Consultant - Maps/Surv.	CPFF	2,998,000	0	2,998,000	1,500,000	321,808	11%
MM-940	Kako'o Consultant	T&M/T:	1,000,000	0	1,000,000	500,000	397,813	40%
MM-945	On-Call Contractor	T&M/T:	1,000,000	0	1,000,000	800,000	234,211	23%
MM-946	On-Call Hazmat Removal Contractor	T&M/T:	3,075,000	0	3,075,000	1,000,000	1,441,151	47%
MM-950	OCIP Consultant	FFF	1,250,000	0	1,250,000	833,750	747,031	60%
MM-951	Owner-Controlled Insurance Program	FFF	41,000,000	0	41,000,000	0	17,325,204	42%
MM-960	Archeological & Cultural Monitoring	T&M	459,517	0	459,517	417,426	61,779	13%
MM-962	CORE Systems Support	CPFF	43,988,989	0	43,988,989	3,600,000	4,783,093	11%
MM-964	Safety and Security	FFF	4,699,573	0	4,699,573	1,200,000	868,259	18%
MM-975	LEED Commissioning Services for MSF	T&M	278,630	9,910	288,540	288,540	58,660	20%
OTHER	Project Wide		0	0	0	0	0	0%
PA-101	Programmatic Agreement Humanities	PA	0	0	0	0	0	0%
PA-102	Programmatic Agreement HPC	PA	400,000	0	400,000	200,000	44,032	11%

* 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: November 2014

Project Monthly Cost Report by Contract - One Line Summary

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CPP No	Title		A Original	B COMMITTED Changes	C=A+B Current *	D AFE AFE**	E INCURRED Incurred To Date	F PERCENT %
PA-103	Programmatic Agreement HPC Park Impr	PA	0	0	0	0	0	0%
ROW	Real Estate / Right-of-Way		61,254,663	0	61,254,663	121,992	78,182,611	128%
UTIL	Utilities by Utility Companies	T&M	89,735,935	1,070,000	90,805,935	67,943,941	11,707,097	13%
Total Project:			**2,577,232,694**	**345,718,500**	**2,922,951,194**	**2,180,614,474**	**1,305,236,172**	

* 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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Project Costs by SCC – Summary

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

HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: November 2014

Project Monthly Cost Report by SCC Summary

Page: 1 of 1

SCC	Title	A	B	C=A+B	D	E	F	G	H=C-G	I
		BUDGET			COMMITTED	AFE	ESTIMATE AT COMPLETION			INCURRED
		Baseline	Transfers	Current	Current *	AFE**	Changes ID'd***	Est. At Completion****	Variance	Incurred To Date
1. Subtotal 10 - 80 SCC Costs										
10.	Guideway & Track Elements	1,114,215,147	38,569,024	1,152,784,171	542,961,754	29,248,193	788,653	1,152,784,171	0	115,048,974
20.	Stations,Stops,Terminals,Intermodal	421,804,740	(25,138,472)	396,666,268	50,982,714	0	0	396,666,268	0	3,157,523
30.	Support Facilities:Yards,Shops,Admin	92,535,015	21,771,122	114,306,137	114,306,137	17,962,473	0	114,306,137	0	50,913,755
40.	Sitework & Special Conditions	983,178,121	29,461,254	1,012,639,375	707,809,700	152,568,276	8,855,764	1,012,639,375	0	350,099,143
50.	Systems	221,284,301	25,456,231	246,740,532	231,420,319	26,038,099	0	246,740,532	0	11,295,493
60.	ROW, Land, Existing Improvements	197,397,947	528,621	197,926,568	64,584,483	329,820	5,000,000	197,926,568	0	80,700,360
70.	Vehicles	186,829,020	4,713,997	191,543,017	191,543,017	1,514,720	0	191,543,017	0	21,203,394
80.	Professional Services	1,087,830,119	5,692,253	1,093,522,372	1,008,127,974	114,978,958	(17,128,235)	1,093,522,372	0	625,190,833
A.C.	Provisional Pay Requests	0	0	0	0	0	0	0	0	47,184,824
Subtotal:		4,305,074,410	101,054,030	4,406,128,440	2,911,736,099	342,640,540	(2,483,818)	4,406,128,440	0	1,304,794,300
2. NTP										
NTP	Authorized For Expediture	0	0	0	0	1,831,372,696	0	0	0	0
Subtotal:		0	0	0	0	1,829,872,696	0	0	0	0
3. Contingency										
CNTR	Allocated Contingency	541,689,343	(65,642,915)	476,046,428	11,215,095	6,601,239	174,426,169	476,046,428	0	441,872
PRJ	Unallocated Contingency	101,871,170	(35,411,115)	66,460,055	0	0	0	66,460,055	0	0
Subtotal:		643,560,513	(101,054,030)	542,506,483	11,215,095	6,601,239	174,426,169	542,506,483	0	441,872
4. Finance Charges - Eligible										
DTH	Finance Charges	173,058,243	0	173,058,243	0	0	0	173,058,243	0	0
Subtotal:		173,058,243	0	173,058,243	0	0	0	173,058,243	0	0
FTA TOTAL PROJECT COSTS		5,121,693,166	0	5,121,693,166	2,922,951,194	2,180,614,474	171,942,351	5,121,693,166	0	1,305,236,172
4. Finance Charges -Ineligible Costs										
FINC	Finance Charges	42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
Subtotal:		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
INELIGIBLE COSTS		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
Total Project:		5,163,693,166	0	5,163,693,166	2,922,951,194	2,180,614,474	171,942,351	5,163,693,166	0	1,305,236,172

* Current Committed = Original Contract + CCO/Amendment

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

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

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

Report: H_CW_pmoc_monthly_Scc_summary - No. 22

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Project Costs by SCC – Level 2

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

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: November 2014

Project Monthly Cost Report by SCC Details

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SCC	Title	A Baseline	B Transfers	C=A+B Current	D Current*	E AFE**	F Changes ID'd***	G Est. At Completion****	H=C-G Variance	I Incurred To Date
		BUDGET			COMMITTED	AFE	ESTIMATE AT COMPLETION			INCURRED
1. Subtotal 10 - 80 SCC Costs										
10.	Guideway & Track Elements	1,114,215,147	38,569,024	1,152,784,171	542,961,754	29,248,193	788,653	1,152,784,171	0	115,048,974
10.04	Guideway: Aerial Structure	1,022,380,671	35,592,863	1,05,79,73,5,34	457,658,917	19,586,466	788,653	1,057,973,534	0	76,934,788
10.08	Guideway: Retained Cut or Fill	7,492,944	(1,056,688)	64,36,2,56	6,436,256	0	0	6,436,256	0	0
10.09	Track: Direct Fixation	79,347,205	3,097,822	8,24,45,0,27	74,637,831	9,630,851	0	82,445,027	0	38,114,186
10.11	Track: Ballasted	3,293,724	(595,849)	26,97,8,75	2,697,875	0	0	2,697,875	0	0
10.12	Track:Special (Switches, turnouts)	1,700,603	1,530,876	32,31,4,79	1,530,876	30,876	0	3,231,479	0	0
20.	Stations,Stops,Terminals,Intermodal	421,804,740	(25,138,472)	396,666,268	50,982,714	0	0	396,666,268	0	3,157,523
20.01	At-grade station, stop, shelter,..	6,111,332	0	61,11,3,32	0	0	0	6,111,332	0	0
20.02	Aerial Station, stop, shelter,mall	294,563,457	(21,400,000)	27,31,63,4,57	0	0	0	273,163,457	0	0
20.06	Automobile parking multi-story str	66,408,765	0	6,64,08,7,65	0	0	0	66,408,765	0	0
20.07	Elevators, Escalators	54,721,186	(3,738,472)	5,09,82,7,14	50,982,714	0	0	50,982,714	0	3,157,523
30.	Support Facilities;Yards,Shops,Admin	92,535,015	21,771,122	114,306,137	114,306,137	17,962,473	0	114,306,137	0	50,913,755
30.02	Light Maintenance Facility	7,591,888	(5,095)	75,86,7,93	7,586,793	0	0	7,586,793	0	884,433
30.03	Heavy Maintenance Facility	38,099,138	4,595,814	4,26,94,9,52	42,694,952	4,837,922	0	42,694,952	0	14,458,075
30.04	Storage or Maintenance of Way Buil	7,797,460	964,571	87,62,0,31	8,762,031	1,026,121	0	8,762,031	0	1,563,811
30.05	Yard and Yard Track	39,046,529	16,215,832	5,52,62,3,61	55,262,361	12,098,430	0	55,262,361	0	34,007,436
40.	Sitework & Special Conditions	983,178,121	29,461,254	1,012,639,375	707,809,700	152,568,276	8,855,764	1,012,639,375	0	350,099,143
40.01	Demolition, Clearing, Earthwork	29,980,158	(2,308,147)	2,76,72,0,11	8,022,358	125,214	567,088	27,672,011	0	241,537
40.02	Site Utilities, Utility Relocation	299,449,756	8,115,662	30,75,65,4,18	191,878,517	6,902,637	7,735,539	307,565,418	0	30,082,544
40.03	Haz. mat'l, contam'd soil removal	9,199,237	(5,421,634)	37,77,6,03	3,091,085	16,085	(391,304)	3,777,603	0	1,457,236
40.04	Environmental Mitigation	26,979,122	4,976,801	3,19,55,9,23	16,543,497	2,689	0	31,955,923	0	6,836,521
40.05	Site structures, retaining walls,	7,998,960	1,062,414	90,61,3,74	8,902,848	0	71,663	9,061,374	0	885,463
40.06	Pedestrian/bike access/landscaping	41,073,897	741,177	4,18,15,0,74	4,991,868	(4,566)	0	41,815,074	0	50,000
40.07	Auto, bus, van accessways	181,979,367	(11,513,507)	17,04,65,8,60	35,553,416	784,900	716,655	170,465,860	0	2,723,037
40.08	Temporary Facilities/Indirect Cost	386,517,624	33,808,488	42,03,26,1,12	438,826,112	144,741,317	156,123	420,326,112	0	307,822,806
50.	Systems	221,284,301	25,456,231	246,740,532	231,420,319	26,038,039	0	246,740,532	0	11,295,493
50.01	Train control and signals	81,982,556	23,381,140	10,53,63,6,96	105,363,696	22,961,050	0	105,363,696	0	1,197,986
50.02	Traffic signals and crossing prot.	10,458,226	(206,890)	1,02,51,3,36	0	0	0	10,251,336	0	0
50.03	Traction power supply: substation	29,500,926	1,229,880	3,07,30,8,06	30,880,806	(87,485)	0	30,730,806	0	342,747
50.04	Traction power distribution: cate	32,878,150	5,059,838	3,79,37,9,88	33,029,111	7,941,115	0	37,937,988	0	5,171,668
50.05	Communications	53,691,339	6,443,477	6,01,34,8,16	59,824,816	5,573,419	0	60,134,816	0	5,714,993

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

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: November 2014

Project Monthly Cost Report by SCC Details

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		A	B	C=A+B	D	E	F	G	H=C-G	I
		BUDGET			COMMITTED	AFE	ESTIMATE AT COMPLETION			INCURRED
SCC	Title	Baseline	Transfers	Current	Current *	AFE**	Changes ID'd***	Est. At Completion****	Variance	Incurred To Date
1. Subtotal 10 - 80 SCC Costs										
50. Systems		221,284,301	25,456,231	246,740,532	231,420,319	26,038,099	0	246,740,532	0	11,295,493
50.06	Fare collection system and equipme	9,159,277	(10,291,178)	(113,1,901))	(1,131,901)	(10,350,000)	0	(1,131,901)	0	(1,131,901)
50.07	Central Control	3,613,827	(160,036)	34,53,7,91	3,453,791	0	0	3,453,791	0	0
60. ROW, Land, Existing Improvements		197,397,947	528,621	197,926,568	64,584,483	329,820	5,000,000	197,926,568	0	80,700,360
60.01	Purchase or lease of real estate	179,360,664	250,821	17,96,11,4,85	57,628,735	52,020	5,000,000	179,611,485	0	74,919,449
60.02	Relocation of existing households	18,037,283	277,800	1,83,15,0,83	6,955,748	277,800	0	18,315,083	0	5,780,911
70. Vehicles		186,829,020	4,713,997	191,543,017	191,543,017	1,514,720	0	191,543,017	0	21,203,394
70.01	Light Rail	166,721,386	5,915,687	17,26,37,0,73	172,637,073	1,514,720	0	172,637,073	0	14,473,908
70.06	Non-revenue vehicles	14,346,923	(1,320,375)	1,30,26,5,48	13,026,548	0	0	13,026,548	0	6,729,486
70.07	Spare parts	5,760,711	118,685	58,79,3,96	5,879,396	0	0	5,879,396	0	0
80. Professional Services		1,087,830,119	5,692,253	1,093,522,372	1,008,127,974	114,978,958	(17,128,235)	1,093,522,372	0	625,190,833
80.01	Preliminary Engineering	94,055,262	24,644,185	11,86,99,4,47	109,567,127	20,905,682	0	118,699,447	0	101,098,184
80.02	Final Design	228,321,632	(11,416,238)	21,69,05,3,94	197,293,412	22,378,985	962,301	216,905,394	0	136,093,120
80.03	Project Management Design & Cons	363,849,768	(44,051,182)	31,97,98,5,86	350,380,099	64,946,774	(17,323,901)	319,798,586	0	262,316,593
80.04	Constr. Admin. & Management	199,656,728	(37,885,393)	16,17,71,3,36	156,506,875	2,122,243	0	161,771,336	0	57,301,675
80.05	Professional Liability & other Ins	46,549,724	28,781,938	7,53,31,6,62	43,174,657	700,500	0	75,331,662	0	19,005,952
80.06	Legal; Permits,Review Fees ect..	67,641,005	(211,086)	6,74,29,9,19	35,564,005	2,516,420	0	67,429,919	0	15,646,223
80.07	Surveys, Testing, Investigation, I	21,759,336	46,124,427	6,78,83,7,63	66,772,822	446,446	9,174	67,883,763	0	18,584,464
80.08	Start up	65,996,664	(294,399)	6,57,02,2,65	48,868,977	961,909	(775,909)	65,702,265	0	15,144,622
A.C. Provisional Pay Requests		0	0	0	0	0	0	0	0	47,184,824
ACR	Provisional Request For Payment	0	0		0	0	0	0	0	47,184,824
Subtotal:		4,305,074,410	101,054,030	4,406,128,440	2,911,736,099	342,640,540	(2,493,818)	4,406,128,440	0	1,304,794,300
2. NTP										
NTP Authorized For Expediture		0	0	0	0	1,831,372,696	0	0	0	0
NTP	Notice To Proceed	0	0		0	1,831,372,696	0	0	0	0
Subtotal:		0	0	0	0	1,831,372,696	0	0	0	0
3. Contingency										
CNTR Allocated Contingency		541,689,343	(65,642,915)	476,046,428	11,215,095	6,601,239	174,426,169	476,046,428	0	441,872
90.02	Allocated Contract Contingency	540,101,329	(68,718,757)	47,13,82,5,72	6,601,239	6,601,239	167,919,252	471,382,572	0	441,872

* Current Committed = Original Contract + CCO/Amendment

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

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

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

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HONOLULU AUTHORITY for RAPID TRANSPORTATION

Costs Reported as of Month Ending: November 2014

Project Monthly Cost Report by SCC Details

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		A	B	C=A+B	D	E	F	G	H=C-G	I
		BUDGET			COMMITTED	AFE	ESTIMATE AT COMPLETION			INCURRED
SCC	Title	Baseline	Transfers	Current	Current *	AFE**	Changes ID'd***	Est. At Completion****	Variance	Incurred To Date
3. Contingency										
CNTR Allocated Contingency		541,889,343	(65,642,915)	476,046,428	11,215,095	6,601,239	174,426,169	476,046,428	0	441,872
90.03	Allowances	1,588,014	3,075,842	4,663,856	4,613,857	0	6,506,918	4,663,856	0	0
90.07	Known Change Contingency	0	0		0	0	0	0	0	0
PRJ Unallocated Contingency		101,871,170	(35,411,115)	66,460,055	0	0	0	66,460,055	0	0
90.01	Unallocated Project Contingency	101,871,170	(35,411,115)	66,460,055	0	0	0	66,460,055	0	0
Subtotal:		643,560,513	(101,054,030)	542,506,483	11,215,095	6,601,239	174,426,169	542,506,483	0	441,872
4. Finance Charges - Eligible										
OTH Finance Charges		173,058,243	0	173,058,243	0	0	0	173,058,243	0	0
100.1	Finance Charges:Project-Eligible	173,058,243	0	173,058,243	0	0	0	173,058,243	0	0
Subtotal:		173,058,243	0	173,058,243	0	0	0	173,058,243	0	0
FTA TOTAL PROJECT COSTS		5,121,693,166	0	5,121,693,166	2,922,951,194	2,180,614,474	171,942,351	5,121,693,166	0	1,305,236,172
4. Finance Charges -Ineligible Costs										
FINC Finance Charges		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
100.2	FTA Non-Eligible Costs	42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
Subtotal:		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
INELIGIBLE COSTS		42,000,000	0	42,000,000	0	0	0	42,000,000	0	0
Total Project:		5,163,693,166	0	5,163,693,166	2,922,951,194	2,180,614,474	171,942,351	5,163,693,166	0	1,305,236,172

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

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Appendix D. Procurement and Contract Status

Procurement Issues:

- The Pearl Highlands Garage and Transit Center DB Solicitation has been deferred and a new solicitation timetable will be issued in January 2015.
- The East corridor design and construction solicitation packages are under evaluation and may be subject to change than as indicated in the charts below. In the meantime, the Airport and City Center Guideway and City Center Utilities construction solicitation was canceled. HART is currently conducting industry outreach.

Procurement: Design-Build (DB), Design-Build-Operate-Maintain (DBOM) and Manufacture-Install-Maintain (MIM) Contracts

Procurement Tracking Report - DB, DBOM, MITM						
Contract Code	Contract Name	Contractor	Issue RFP	Contract Execution	Issue NTP	Contract Completion
Design-Build Contracts						
DB-120	West O'ahu/Farrington Highway Guideway (WOFH)	Kiewit Infrastructure West Company (KIWC)	Apr 03 '09	Nov 11 '09	Dec 01 '09	Jul 01 '16
DB-200	Maintenance and Storage Facility (MSF)	Kiewit / Kobayashi Joint Venture (KKJV)	Jul 24 '09	June 30 '11	Jul 25 '11	Apr 15 '16
DB-320	Kamehameha Guideway (KHG)	Kiewit Infrastructure West Company (KIWC)	Mar 19 '10	June 30 '11	Jul 12 '11	Sep 16 '18
DB-275	Pearl Highlands Parking Structure / Bus Transit Center		Mar 03 '14		TBD	TBD
Design-Build-Operate-Maintain Contract						
DBOM-920	Core Systems Contract	Ansaldo Honolulu JV	Aug 17 '09	Nov 28 '11	Jan 13 '12	Mar 31 '19
Manufacture - Install - Test - Maintain						
MI-930	Elevators and Escalators	Schindler Elevator Corporation	Dec 18 '12	Jul 31 '13	Aug 02 '13	Jul 05 '18

Procurement: Final Design (FD) Contracts

Procurement Tracking Report - FD						
Contract Code	Contract Name	Contractor Name	Issue RFQ	Contract Execution	Issue NTP	Contract Completion
Final Design Contracts						
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)	Anil Verma Associates, Inc.	Jun 28 '11	Nov 16 '12	Nov 26 '12	Oct 31 '16
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	Perkins+Will	Nov 16 '12	Aug 15 '13	Jul 31 '13	Jul 30 '18
FD-600	UH West O'ahu Park-and-Ride		TBD	TBD	TBD	TBD

Procurement: Design-Bid-Build (DBB) Contracts

Procurement Tracking Report - DBB							
Contract Code	Contract Name	Contractor Name	Advertise for Bids	Bids Due Date	Contract Execution	Issue NTP	Contract Completion
Design-Bid-Build (DBB) Contracts							
DBB-505	Airport Section Utilities Construction	Nan, Inc.	Dec 17 '13	Mar 18 '14	Jun 30 '14	Oct 6 '14	Dec 22 '15
DBB-525	Airport Section Guideway Seven (7) Pier Construction Contract	HDCC / CJA JV	Jul 09 '14	Aug 11 '14	Sep 18 '14	Sep 18 '14	TBD
DBB-271	Farrington Hwy Station Group Construction		Dec 19 '14	Mar 3'15	TBD	Apr 1 '15	Aug 31 '17
	H2R2 Ramp		Jan 30 '15	Mar 24 '15	TBD	May 1 '15	Apr 30 '16
	Waiawa Stream Bank Protection; Drilled Shafts		TBD	TBD	TBD	TBD	TBD
	City Center Utilities/Dillingham Blvd Widening		TBD	TBD	TBD	TBD	TBD
DBB-171	West O'ahu Station Group Construction		Apr 13 '15	Jun 12' 15	TBD	Jul 8' 15	Nov 30 '17
DBB-371	Kamehameha Hwy Station Group Construction		TBD	TBD	TBD	TBD	TBD
DBB-470	Airport Station Group Construction		TBD	TBQ	TBD	TBD	TBD
DBB-580	Dillingham/Kaka'ako Station Groups "East Side Stations" Construction		TBD	TBD	TBD	TBD	TBD
DBB-520	Airport and City Center Sections Guideway Construction / City Center	CANCELED	Jul 02 '14	TBD	TBD	TBD	Canceled Dec 2 '14
DBB-600	UH West O'ahu Park-and-Ride Construction		TBD	TBD	TBD	TBD	TBD

Procurement: Construction Engineering and Inspection Services (CE&I) Contracts

Procurement Tracking Report - CE & I						
Contract Code	Contract Name	Contractor Name	Advertise RFQ	Contract Execution	Issue NTP	Contract Completion
Construction Engineering & Inspection (CE&I) Services Contracts						
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 9 '14	Jan 09 '14	Mar 01 '19

Procurement: Project Management and Specialty Consultant Services Contracts

Procurement Tracking Report - Program Management / Specialty Consultant							
Contract Code	Contract Name	Contractor Name	Issue RFQ/RFP	Contract Execution	Issue NTP	Contract Completion	Comments
Project Management and Specialty Consultant Services Contracts							
MM-901	Program Management Support Consultant - 2 (PMSC-2)	InfraConsult LLC	Aug 03 '11	Feb 28 '12	Mar 08 '12	Mar 07 '15	2 year option extension
MM-910	General Engineering Consultant II (GEC-2) (Final Design and Construction)	Parsons Brinckerhoff	Sep 03 '09	Jun 30 '11	Aug 02 '11	Dec 31 '14	
MM-913	General Engineering Consultant III (GEC-3)	CH2M HILL	Jul 26 '13	Dec 5 '13	Dec 05 '13	Apr 5 '19	
MM-935	Real Estate Consultant	Paragon Partners, Ltd.	Apr 01 '11	Mar 14 '12	Mar 14 '12	Mar 13 '17	
MM-937	Real Estate Mapping & Surveying	R.M. Towill Corporation	Nov 15 '13	May 22 '14	May 23 '14	Dec 30 '17	
MM-940	Kāko'o Consultant	Pacific Legacy, Inc.	May 20 '11	Mar 29 '12	Mar 30 '12	Feb 14 '17	
MM-945	On-Call Construction Contractor	Royal Contracting Co. Ltd.	Jun 02 '14	Aug 6 '14	Aug 14 '14	Mar 03 '19	
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 9 '14	Apr 08 '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	Feb 11 '14	Dec 14 '17	
MM-975	LEED Commissioning Services for the Maintenance and Storage Facility (MSF)	Enovity, Inc.		Oct 6 '10	Oct 07 '10	Jan 14 '16	
PA-102	Historic Architecture Design Services	Fung Associates, Inc.	Mar 15 '13	Aug 1 '13	Aug 01 '13	May 01 '16	
AP00	Art-in-Transit		May 9 '13		TBD	TBD	
	Faregate Systems Engineer RFQ		TBD	TBD	TBD	TBD	
	Faregate Collections Systems and Construction		TBD	TBD	TBD	TBD	

Procurement: HDOT Consultant Services and Other Contracts

Procurement Tracking Report - HDOT						
Contract Code	Contract Name	Contractor Name	Issue RFQ	Contract Execution	Issue NTP	Contract Completion
Hawai'i Department of Transportation (HDOT) Consultant Services Contracts						
MM-915	HDOT Traffic Management Coordination Consultant	ICX Transportation Group, Inc.	Aug 15 '11	Jun 5 '12	Jun 12 '12	Jul 01 '17
MM-920	HDOT Design Coordination Consultant - West O'ahu/Farrington Highway Guideway Section	AECOM Technical Services, Inc.		Jun 7 '11	Jun 08 '11	Jun 15 '18
MM-921	HDOT Design Coordination Consultant - Kamehameha Highway Guideway Section	AECOM Technical Services, Inc.		Jun 28 '12	Jun 29 '12	Jul 15 '15
MM-922	HDOT Design Coordination Consultant - Airport and City Center Guideway Sections	SSFM International, Inc.		Jun 8 '12	Jun 12 '12	Jun 15 '18
Other Contracts						
MM-946	On-Call Hazardous Materials (HazMat) Removal Contractor	CH2M HILL		Aug 23 '12	Sep 07 '12	Feb 15 '17

Appendix E. 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 12/31/14)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
David's Fencing	238990	APA	M	CT-HRT-10H0137 DB-120	$6,800	
				CT-DTS-1100195 DB-320	$129,816	
				CT-HRT-1000449 DB-200	$52,821	$189,437
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	$41,232	
				CT-DTS-1100195 DB-320	$60,714	$638,977
Pacific Preferred Contractors Corp.	237310	APA	M	CT-HRT-10H0137 DB-120	$13,610	$13,610
PAC Electric	238210	APA	F	CT-HRT-10H0137 DB-120	$2,730,278	$2,730,278
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	$92,562	
				SC-HRT-1400049 MM-962	$124,940	$5,601,241
Lawson & Associates	541690	O	F	SC-HRT-11H0131 MM-905	$740,962	
				SC-DTS-0700001 **** MM-910	$150,141	
				SC-HRT-1400061 MM-964	$372,554	$1,263,657
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	

DBE Participation (9/24/07 to 12/31/14)						
DBE Firm	NAICS Code	Race	Sex	Contract Number	Participation to Date	Total DBE Participation
				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	$25,020	$25,020
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	$3,239,360	$3,239,360
AMR Estimating Services ***	541330	HA	M	SC-HRT-11H0131 MM-905	$135,281	
				SC-HRT-1400027 MM-913	$287,479	$422,760
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	$27,514
Element Environmental	541620	APA	M	SC-HRT-1400050 MM-290	$387,544	$387,544
PSC Consultants	541330	APA	M	SC-HRT-1400050 MM-290	$4,477	$4,477
Bow Construction Management	541330	APA	M	SC-HRT-1400050 MM-290	$108,015	$108,015
FIC, LLC	541611	APA	M	SC-HRT-1400051 MM-595	$454,154	$454,154
The Solis Group	541620	O	F	SC-HRT-1400027 MM-913	$365,592	$365,592
Island Hauling	484110	APA	M	CT-HRT-1000449 DB-200	$18,147	$18,147
ADS System Safety Consulting *****	541620	BA	M	SC-HRT-1400061 MM-964	$348,245	$348,245
Total						**$20,439,853**

** 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 F. Risk

Risk by Contract Package				
Contract Packages	Nov. 2014 # of Risks	December 2014 Update		
		Total # of Risks	New Risks	Deleted Risks
Project Wide	5	5	0	0
WOFH Guideway	23	22	0	1
Maintenance and Storage Facility	6	5	0	1
Kamehameha Highway Guideway	24	23	0	1
Core Systems Contract	11	11	0	0
Elevator/Escalator	3	3	0	0
Airport Utilities	2	2	0	0
Pearl Highlands	6	6	0	0
West Side Stations	17	17	0	0
Airport Guideway	33	31	0	2
City Center Guideway	45	43	0	2
Airport Section Stations	26	26	0	0
City Center Section Stations	14	14	0	0
Total	**215**	**208**	**0**	**7**

Notes of Significance:

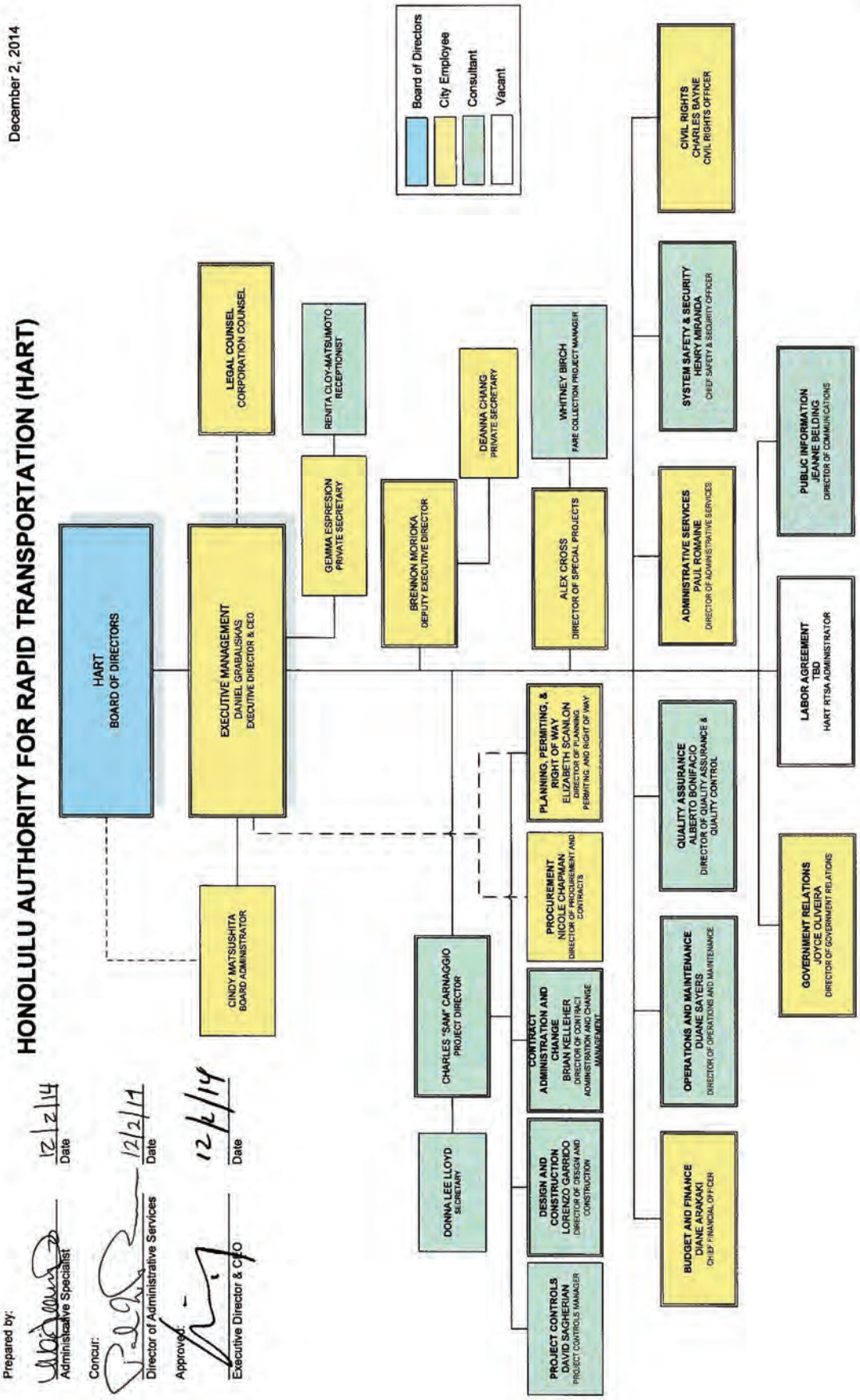
1) There were two duplicate risks for others contained in the register for Contractor Laydown Area.

2) Four risks regarding design review concerns are mitigated through procurement date revisions.

3) Risk of duplicate insurance cost has been deleted because OCIP coverage is in place. The OCIP does not negate the contractor's need for supplemental coverage to secure comprehensive coverage.

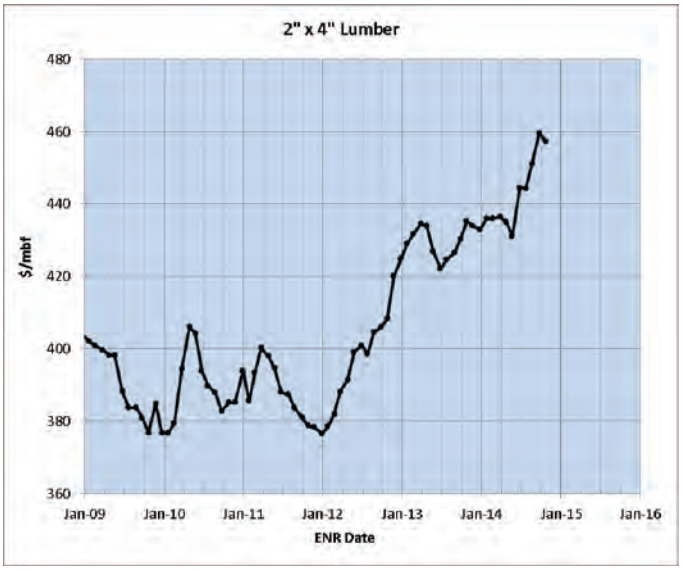
Comparison of Risk Ratings								
Contract Package/Section	November 2014 Update # of Risks				December 2014 Update # of Risks			
	Total	High	Medium	Low	Total	High	Medium	Low
Project Wide	5	1	3	1	5	1	3	1
WOFH Guideway	23	4	13	6	22	4	11	7
Maintenance and Storage Facility	6	0	5	1	5	0	4	1
Kamehameha Highway Guideway	24	2	17	5	23	2	16	5
Core Systems Contract	11	1	4	6	11	1	4	6
Elevator/Escalator	3	1	2	0	3	1	2	0
Airport Utilities	2	0	2	0	2	0	2	0
Pearl Highlands	6	1	5	0	6	1	5	0
West Side Stations	17	6	10	1	17	6	10	1
Airport Guideway	33	8	23	2	31	7	22	2
City Center Guideway	45	14	26	5	43	14	24	5
Airport Stations	26	4	20	2	26	4	20	2
City Center Stations	14	1	12	1	14	1	12	1
Total	**215**	**43**	**142**	**30**	**208**	**42**	**135**	**31**

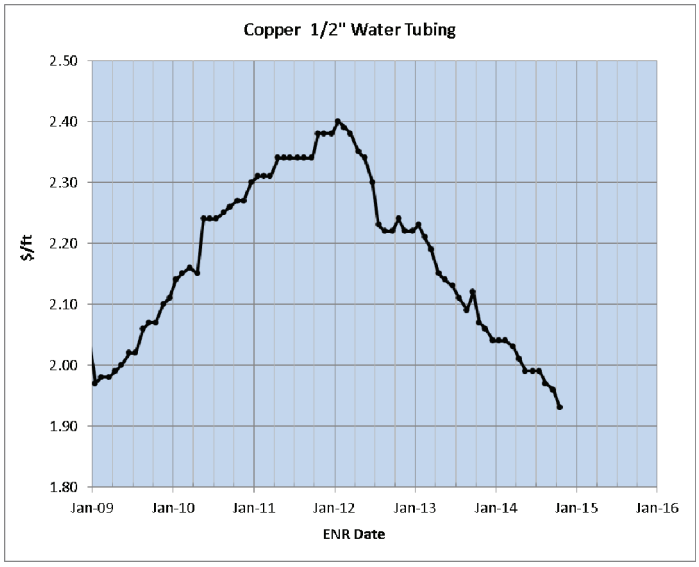
Appendix G. Project Organization Chart

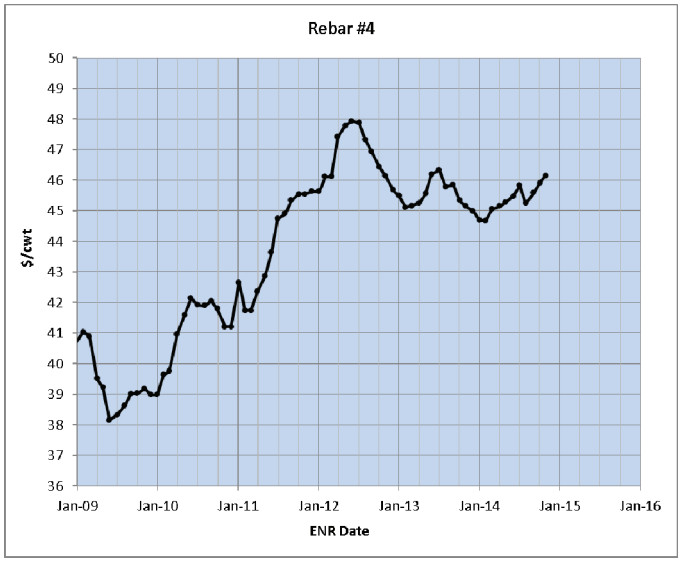


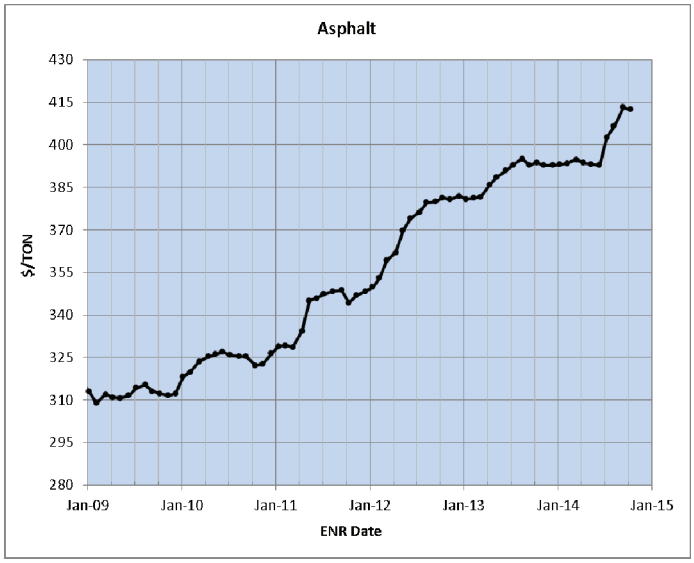
Appendix H. Indices on Key Commodities

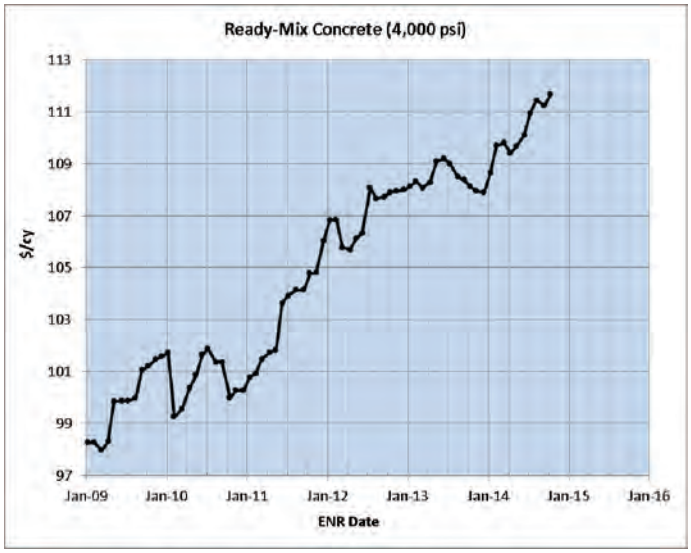
The following charts represent the cost trends on some of the key materials used in the program.

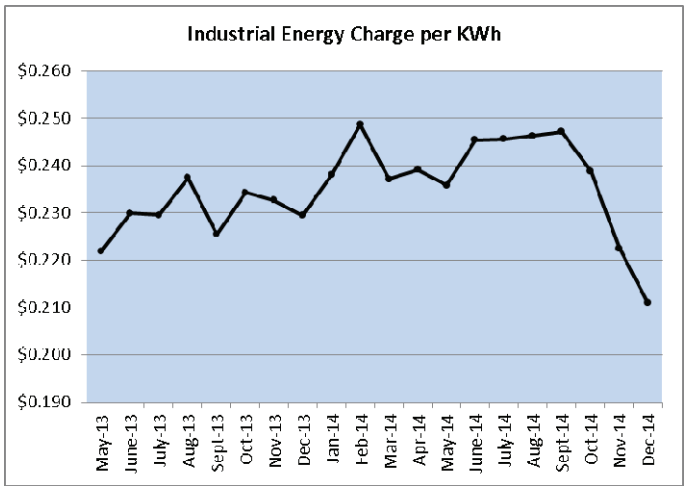












Source: HECO: Effective Rate Summary for DS Rate

Appendix I. Project Photos

Guideway construction in West O'ahu.

Equipment storage site.

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

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

Construction along Kamehameha Highway.

Future Aloha Stadium Station.

Operations and Servicing Building (OSB).

Wheel Truing Building and OSB.

Maintenance of Way Building.

Casting Yard.

Honolulu Authority for Rapid Transportation

RESOLUTION NO. 2015-1

AUTHORIZING THE ACQUISITION OF EASEMENT OVER, ON, AND ACROSS THE REAL PROPERTY IDENTIFIED AS TAX MAP KEY 1-2-010:072 (PORTION) BY EMINENT DOMAIN

WHEREAS, the Honolulu Authority for Rapid Transportation (HART) has been established pursuant to Article XVII of the Revised Charter of the City and County of Honolulu 1973, as amended (Charter); and

WHEREAS, Section 17-103.2(b) of the Charter empowers HART "to acquire by eminent domain . . . all real property or any interest therein necessary for the construction, maintenance, repair, extension or operation of the fixed guideway system;" and

WHEREAS, the City Council approved or did not object to the acquisition of an electrical easement over, on, and across the real property identified as Tax Map Key (TMK) 1-2-010:072 (por.) by eminent domain after written notification by HART; and

WHEREAS, the acquisition by eminent domain of said easement over, on, and across the above-identified real property, which is more particularly described in the attached legal description marked as Exhibit A, is necessary for the Honolulu Rail Transit Project fixed guideway system, a valid public use and purpose;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of HART as follows:

1. That acquisition by eminent domain of an electrical easement over, on, and across the real property identified as TMK 1-2-010:072 (por.) is hereby authorized and the Corporation Counsel of the City and County of Honolulu is empowered to institute eminent domain proceedings as provided by law for the acquisition thereof; and

2. That the acquisition of said easement by eminent domain is determined and declared to be for a valid public use and purpose as aforesaid; and

3. That the acquisition of said easement by eminent domain is determined and declared to be necessary for the aforesaid public use and purpose; and

4. That in the process of said proceedings in eminent domain, the Corporation Counsel is authorized and empowered to negotiate

DRAFT

terms of settlement, subject to the approval of HART and/or the Court before which such proceedings are commenced; and

5. That the Board Administrator be directed to transmit copies of this resolution to HART and the Department of the Corporation Counsel.

ADOPTED by the Board of the Honolulu Authority for Rapid Transportation on _____.

_____
Board Chair

ATTEST:

_____
Board Administrator

Exhibit A – Legal Description of TMK 1-2-010:072 (por.)

DRAFT

Easement A
For Electrical Purposes
Affecting a Portion of Lot 18, Block 7 of "Kapiolani Tract"
In favor of Hawaiian Electric Company

Being a portion of Royal Patent Number 8194, Land Commission
Award Number 6450, Apana 1 to Kaumohua no Moehonua

SITUATE AT MOKAUEA, KALIHI, HONOLULU, ISLAND OF OAHU, HAWAII

Beginning at the West corner of this easement, along the Northeast side of Dillingham Boulevard, the coordinates of said point of beginning referred to Government Survey Triangulation Station "MOKAUEA" being 4,737.45 feet South and 4,780.48 feet East, thence running by azimuths measured clockwise from true South:

1.	222° 20'	8.61	feet;
2.	312° 20'	16.33	feet;
3.	42° 20'	8.61	feet;
4.	132° 20'	16.33	feet along the Southeast side of Dillingham Boulevard to the point of beginning and containing an area of 141 Square Feet, more or less.

R. M. TOWILL CORPORATION

Description prepared by:

RYAN M. SUZUKI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10059
HAWAII, U.S.A.

Ryan M. Suzuki Exp: 4/30/16
Licensed Professional Land Surveyor
Certificate Number 10059

2024 North King Street, Suite 200
Honolulu, Hawaii 96819
November 3, 2014

2024 North King Street
Suite 200
Honolulu HI 96819-3470
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@hawaii.rr.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

Honolulu Authority for Rapid Transportation

RESOLUTION NO. 2015 – 2

AUTHORIZING THE ACQUISITION OF THE REAL PROPERTY IDENTIFIED AS TAX MAP KEY 9-9-003:066 BY EMINENT DOMAIN

WHEREAS, the Honolulu Authority for Rapid Transportation (HART) has been established pursuant to Article XVII of the Revised Charter of the City and County of Honolulu 1973, as amended (Charter); and

WHEREAS, Section 17-103.2(b) of the Charter empowers HART "to acquire by eminent domain. . . all real property or any interest therein necessary for the construction, maintenance, repair, extension or operation of the fixed guideway system;" and

WHEREAS, the City Council approved or did not object to the acquisition of the real property identified as Tax Map Key (TMK) 9-9-003:066 by eminent domain in fee simple after written notification by HART; and

WHEREAS, the acquisition by eminent domain in fee simple of the above-identified real property, which is more particularly described in the attached legal description marked as Exhibit A, is necessary for the Honolulu Rail Transit Project fixed guideway system, a valid public use and purpose;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of HART as follows:

1. That acquisition by eminent domain in fee simple of the real property identified as TMK 9-9-003:066 is hereby authorized and the Corporation Counsel of the City and County of Honolulu is empowered to institute eminent domain proceedings as provided by law for the acquisition thereof; and

2. That the acquisition of the above-identified property by eminent domain is determined and declared to be for a valid public use and purpose as aforesaid; and

3. That the acquisition of the above-identified property by eminent domain is determined and declared to be necessary for the aforesaid public use and purpose; and

4. That in the process of said proceedings in eminent domain, the Corporation Counsel is authorized and empowered to negotiate

DRAFT

terms of settlement, subject to the approval of HART and/or the Court before which such proceedings are commenced; and

5. That the Board Administrator be directed to transmit copies of this resolution to HART and the Department of the Corporation Counsel.

ADOPTED by the Board of the Honolulu Authority for Rapid Transportation on _____.

_____
Board Chair

ATTEST:

_____
Board Administrator

Exhibit A – Legal description of TMK 9-9-003:066

DRAFT

PARCEL 1

Honolulu Rail Transit Project

Being a Portion of Royal Patent 6717,
Land Commission Award 7712 and 8516-B to M. Kekuanaoa and Kamaikui
And Royal Patent 457, Land Commission Award 2131 Apana 1 to Kanihoalii for Kaukiwaa

Situate at Halawa, Ewa, Island of Oahu, Hawaii

Beginning at the West corner of this parcel of land and along the East side of Kamehameha Highway, the coordinates of said point of beginning referred to Government Survey Triangulation Station "SALT LAKE" being 653.17 feet North and 9,331.23 feet West, thence running by azimuths measured clockwise from true South:

1.	203° 32'	116.70	feet along the East side of Kamehameha Highway;
2.	293° 32'	15.00	feet along the East side of Kamehameha Highway;
3.	203° 32'	710.19	feet along the East side of Kamehameha Highway;
4.	Thence along the East side of Kamehameha Highway, on a curve to the right with a radius of 5,679.65 feet, the chord azimuth and distance being:		
		203° 46' 00.5"	46.29 feet;
5.	267° 30'	17.39	feet along Lot A, being a portion of R. P. 6717, L.C. Aw. 7712 and 8516-B to M. Kekuanaoa and Kamaikui;
6.	17° 33' 30"	577.95	feet along Lot 4-B, being a portion of R. P. 6717, L.C. Aw. 7712 and 8516-B to M. Kekuanaoa and Kamaikui, a portion of R. P. 157, L. C. Aw. 2131, Apana 1 to Kanihoalii for Kaukiwaa, Kalaloa Street, and Lot A, being a portion of R. P. 6717, L.C. Aw. 7712 and 8516-B to M. Kekuanaoa and Kamaikui;
7.	23° 32'	322.54	feet along Lot A, being a portion of R. P. 6717, L.C. Aw. 7712 and 8516-B to M. Kekuanaoa and Kamaikui;

2024 North King Street
Suite 200
Honolulu HI 96819-3470
Telephone 808 842 1133
Fax 808 842 1937
eMail rmtowill@hawaii.rr.com

R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

8. 123° 50' 92.49 feet along Kamehameha Highway, to the point of beginning and containing an area of 1.196 Acres, more or less.

RYAN M. SUZUKI
LICENSED PROFESSIONAL LAND SURVEYOR
No. 10059
HAWAII, U.S.A.

R. M. TOWILL CORPORATION

Description prepared by:

Ryan M. Suzuki Exp: 4/30/16
Licensed Professional Land Surveyor
Certificate Number 10059

2024 North King Street, Suite 200
Honolulu, Hawaii 96819
December 19, 2012

This description is for exhibit purposes and does not purport a legally subdivided lot.

2024 North King Street
Suite 200
Honolulu HI 96819-3470
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R. M. TOWILL CORPORATION
SINCE 1930

Planning
Engineering
Environmental Services
Photogrammetry
Surveying
Construction Management

Honolulu HART
QA Audit & Readiness Review
December 10th – 17th

Objectives

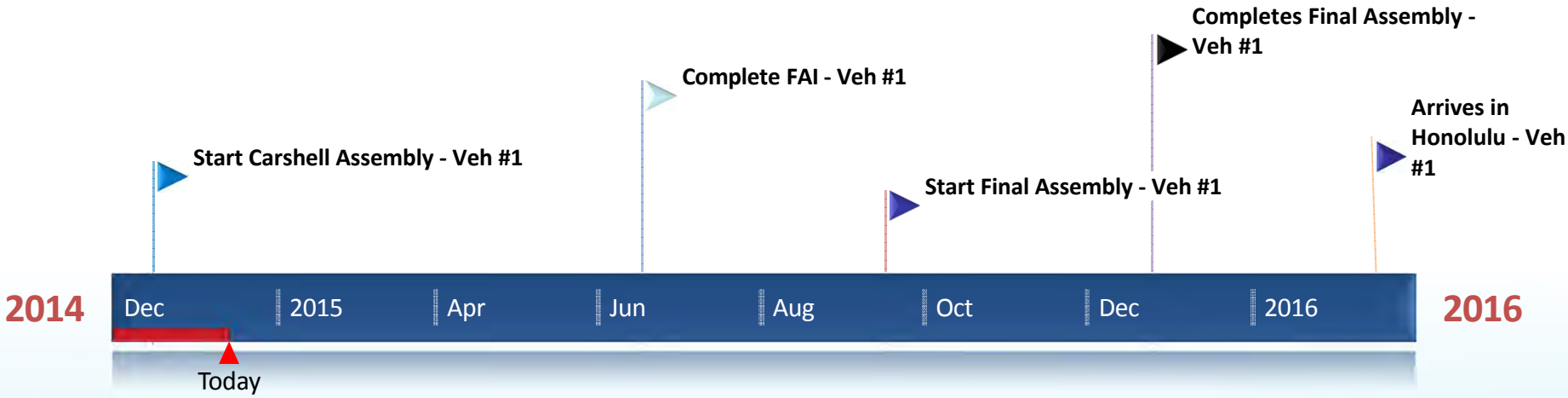
- Perform a QA Audit of the Design Activities and Assembly Work performed in Italy
  - Reggio Calabria, Carshell Assembly, Welding and Paint
  - Pistoia, Carshell Design, Truck Design, Mechanical System Design and Testing
  - Naples, Electrical Systems Design and Testing
- Perform a readiness review of Carshell Assembly activities
  - Review work in progress
  - Review Project Schedule and HART expectations for meeting the delivery milestones
  - Review quality of workmanship and reinforce HART's expectation of high quality and reliability

Vehicle Trip Report
Ansaldo Breda - Italy

Pistoia, Italy
- Carshell and Truck Design
- Carshell, Truck and Climate Room Testing

Naples, Italy
- Electrical Systems Design and Testing Facilities

Reggio Calabria, Italy
- Carshell Assembly



- 4th Qtr 2014: Start Carshell Assembly
- 2nd Qtr 2015: Carshell First Article Inspection
- 3rd Qtr 2015: Start Final Assembly Facility
- 4th Qtr 2015: Complete Final Assembly
- 1st Qtr 2016: Vehicle Arrives in Honolulu

Reggio Calabria - Carshell Assembly

Reggio Calabria Facility Overview

Welding

Welding

Painting

Assembly

Testing

Objectives

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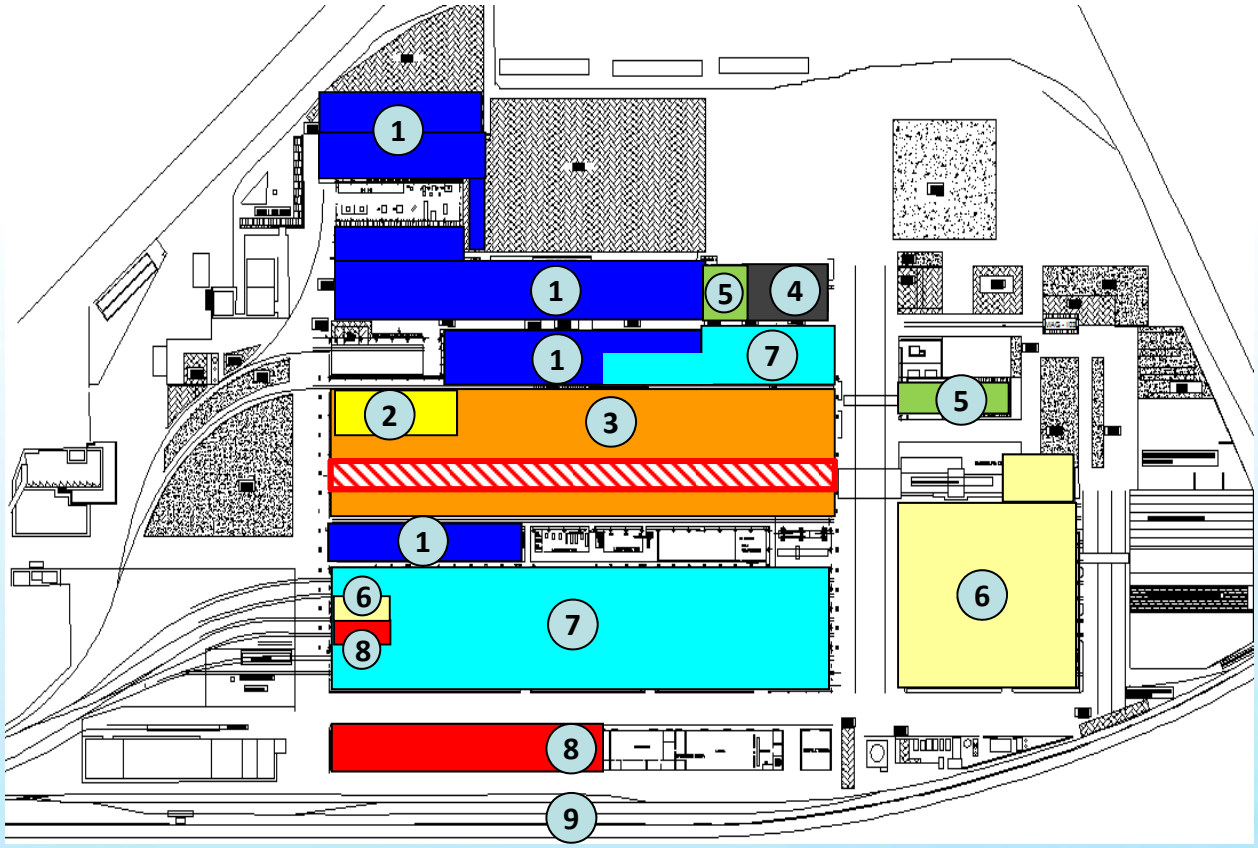
  - Naples, Electrical Systems Design and Testing
- Perform a readiness review of Carshell Assembly activities
  - **Review work performed**
  - **Review Project Schedule and HART expectations for meeting the delivery milestones**
  - **Review quality of workmanship and reinforce HART's expectation of high quality and reliability**

Reggio Calabria Plant Layout



1 Warehouse

2 Machining

3 Welding area

4 Calibration

5 Preparation for painting

6 Painting area

7 Assembly area

8 Testing area

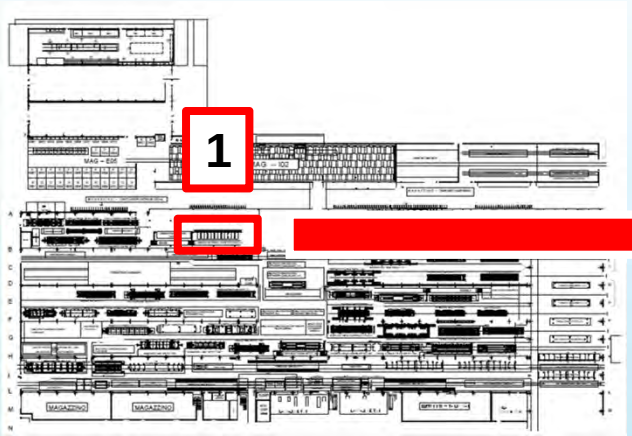
9 Test track

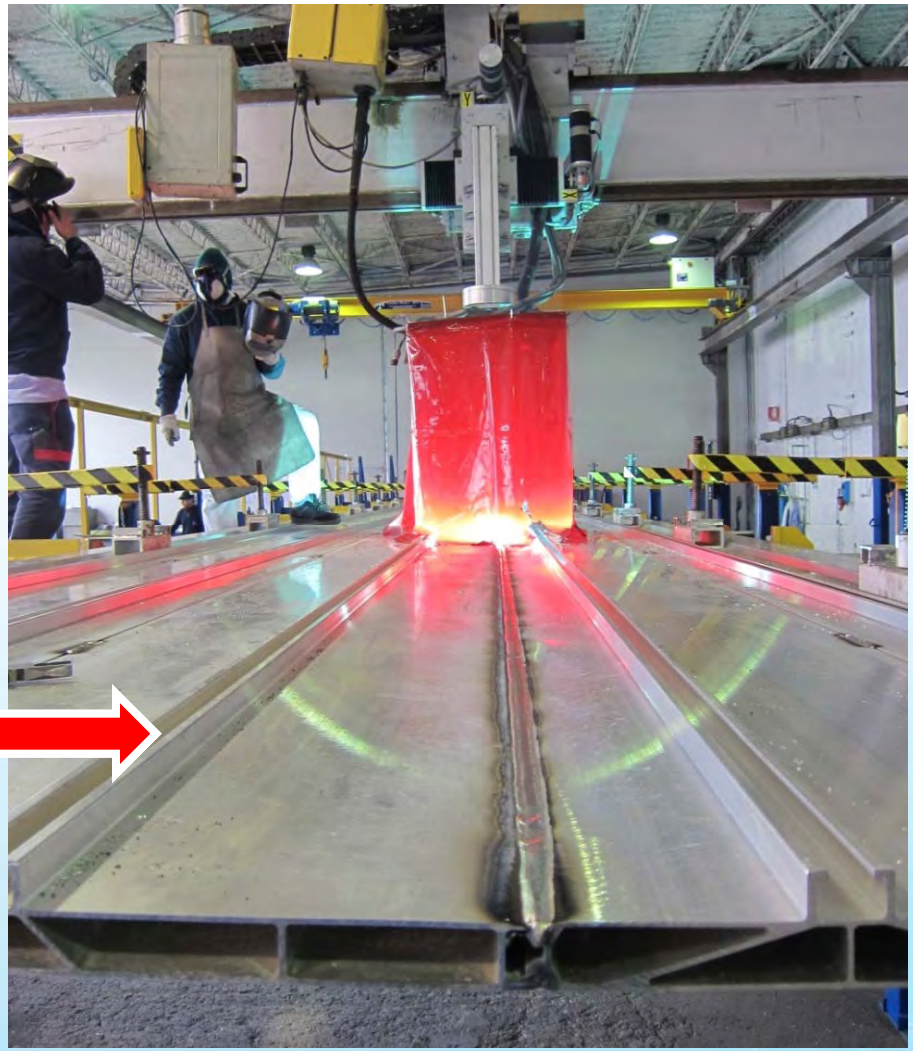
HART dedicated production line

Roof Assembly and Welding

Assembly and Welding of HRTP Roof Assembly with automatic gantry welding machine

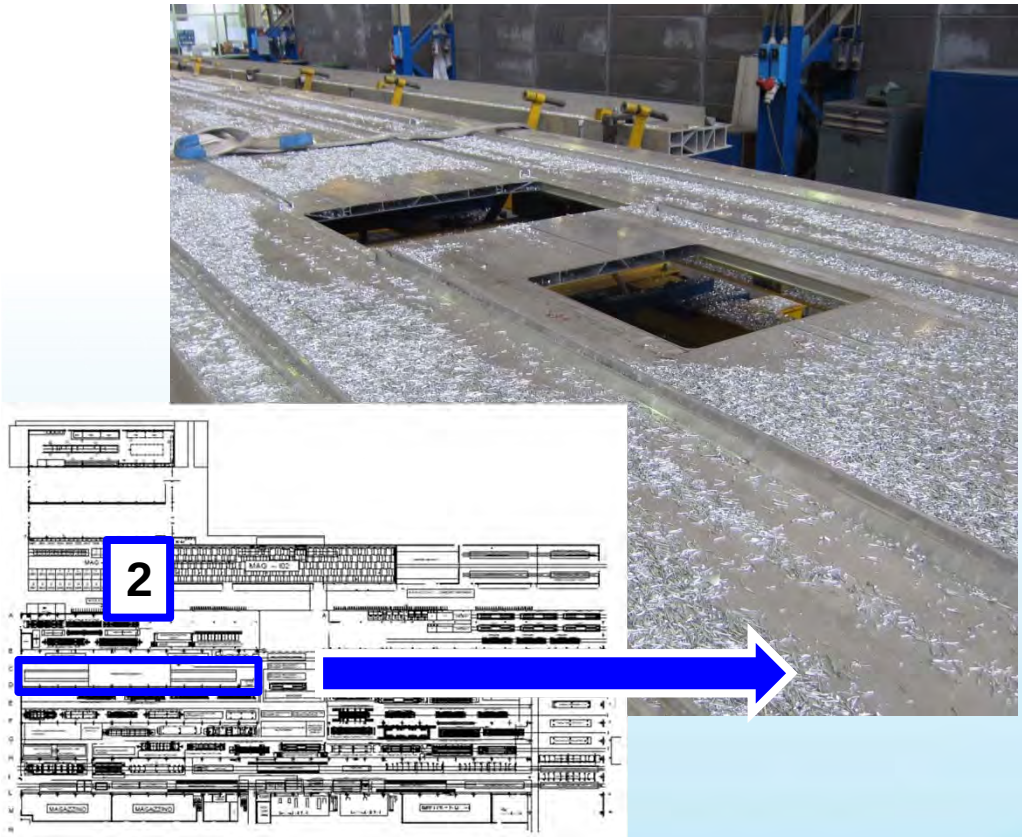
Roof Assembly and Welding (Cont'd)





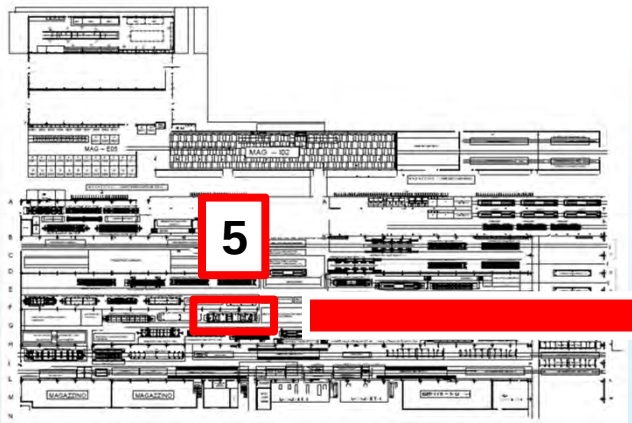
Assembly and Welding of HRTP Roof Assembly with automatic gantry welding machine

Roof Panel Machining



HRTP Center Roof Assembly machined by 5-axis milling machine

Floor/Underframe Assembly & Welding



HRTP Floor/Underframe Assembly & Welding

Car Shell Assembly & Welding

HRTP Car Shell Assembly & Welding Area is complete

Pistoia – Carshell & Truck Design, Structural & Climate Room Testing

Objectives

- Perform a QA Audit of the Design Activities and Assembly work performed in Italy
  - Reggio Calabria, Carshell Assembly, Welding and Paint
  - **Pistoia, Carshell Design, Truck Design, Mechanical System Design and Testing**
  - Naples, Electrical Systems Design and Testing
- Perform a readiness review of Carshell Assembly activities
  - Review work performed
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AB Pistoia Structural Testing

Carshell Static Testing

Bogie Fatigue Testing

AB Pistoia Climactic Chamber

-Dimensions: approx. 7 m x 37 m
-Testing temperature range: -40 °C / +50 °C
-Climatic testing on complete vehicles and equipment

Naples – Electrical Systems Design and Testing Facilities

Objectives

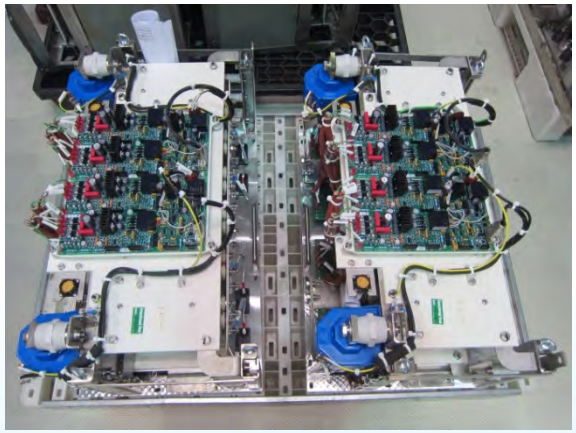
- Perform a QA Audit of the Design Activities and Assembly work performed in Italy
  - Reggio Calabria, Carshell Assembly, Welding and Paint
  - Pistoia, Carshell Design, Truck Design, Mechanical System Design and Testing
  - **Naples, Electrical Systems Design and Testing**

- Perform a readiness review of Carshell Assembly activities
  - Review work performed
  - Review Project Schedule and HART expectations for meeting the delivery milestones
  - Review quality of workmanship and reinforce HART's expectation of high quality and reliability

AB Service Proven Technologies on HART Project

Environmental Chamber

Low Voltage Power Supply

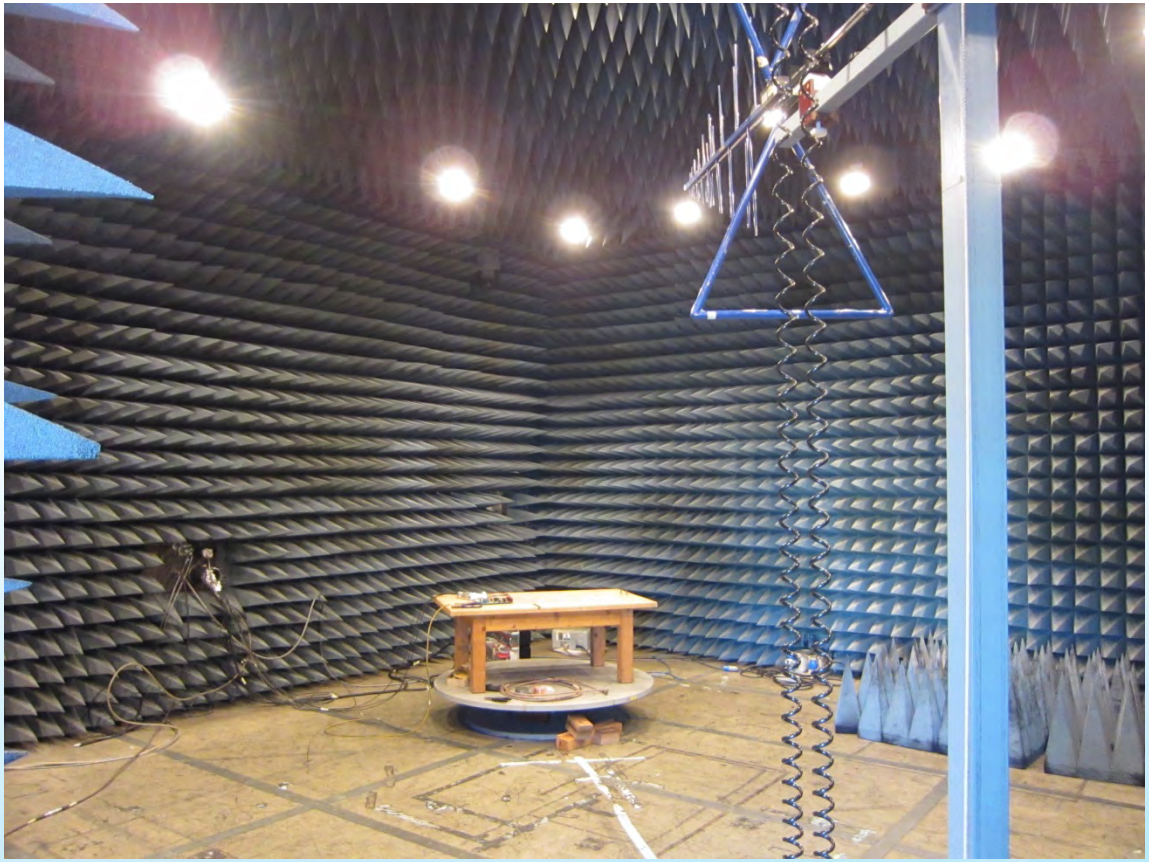


Traction Inverter Module

Train Control & Monitoring System

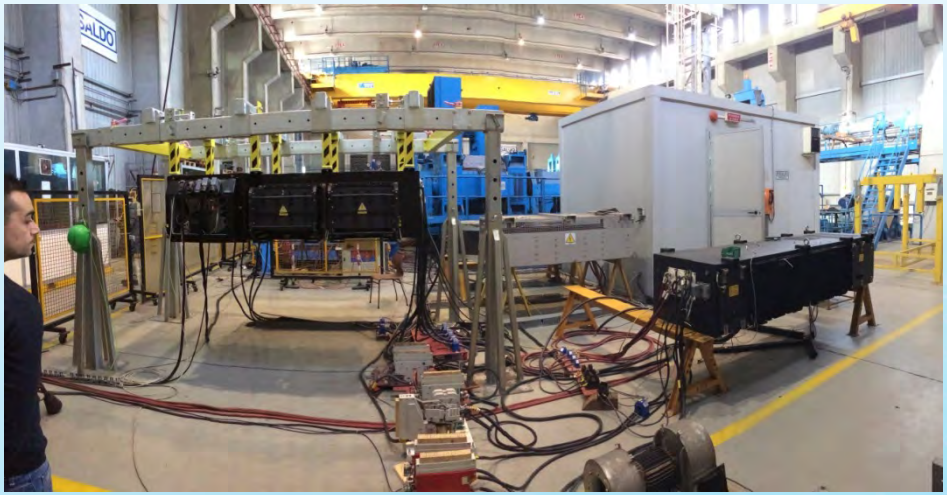
Auxiliary Power Supply

AB Naples EMI/EMC, Acoustic Testing



- Test susceptibility to radiated and conducted emissions
- Frequency range: from 14 kHz to 1 GHz

AB Naples Test Facility



Overall Findings

1. AnsaldoBreda are utilizing processes and procedures in compliance with their approved Quality Assurance Plan

2. The Carshell Assembly has started on Schedule and is making good progress towards meeting the next key milestones

3. The audit team found High Quality workmanship at each of the 3 Facilities we visited.

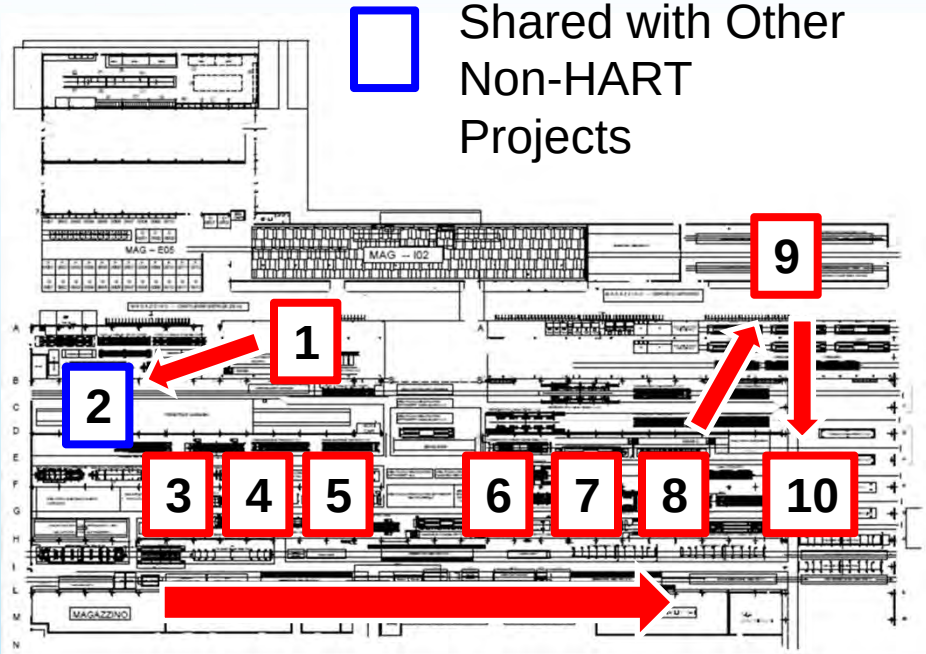
4. The AnsaldoBreda Management Team recognized the importance of the HART Vehicle delivery schedule, quality and reliability requirements.

Questions?

Reggio Calabria Production Area Descriptions

Dedicated to HART

Shared with Other Non-HART Projects



1. Center Roof Assembly & Welding
2. Center Roof Machining
3. Roof Assembly & Welding
4. Final Roof Assembly & Test
5. Underframe Assembly & Welding
6. Final Underframe Assembly & Inspection
7. Car Shell Assembly & Welding
8. Car Shell Welding Phase 2
9. Car Shell Calibration
10. Car Shell Final Inspection and Weighing

AB Naples Bench Test Facility

Roller bench test facility for vehicle experimentation and validation

Max weight

120 t

Max speed

300 km/h

Max axle effort

100 KN

Max power

8 MW

Power supply

500 - 4000 Vdc
25kV 50 Hz
15kV 16 2/3 Hz

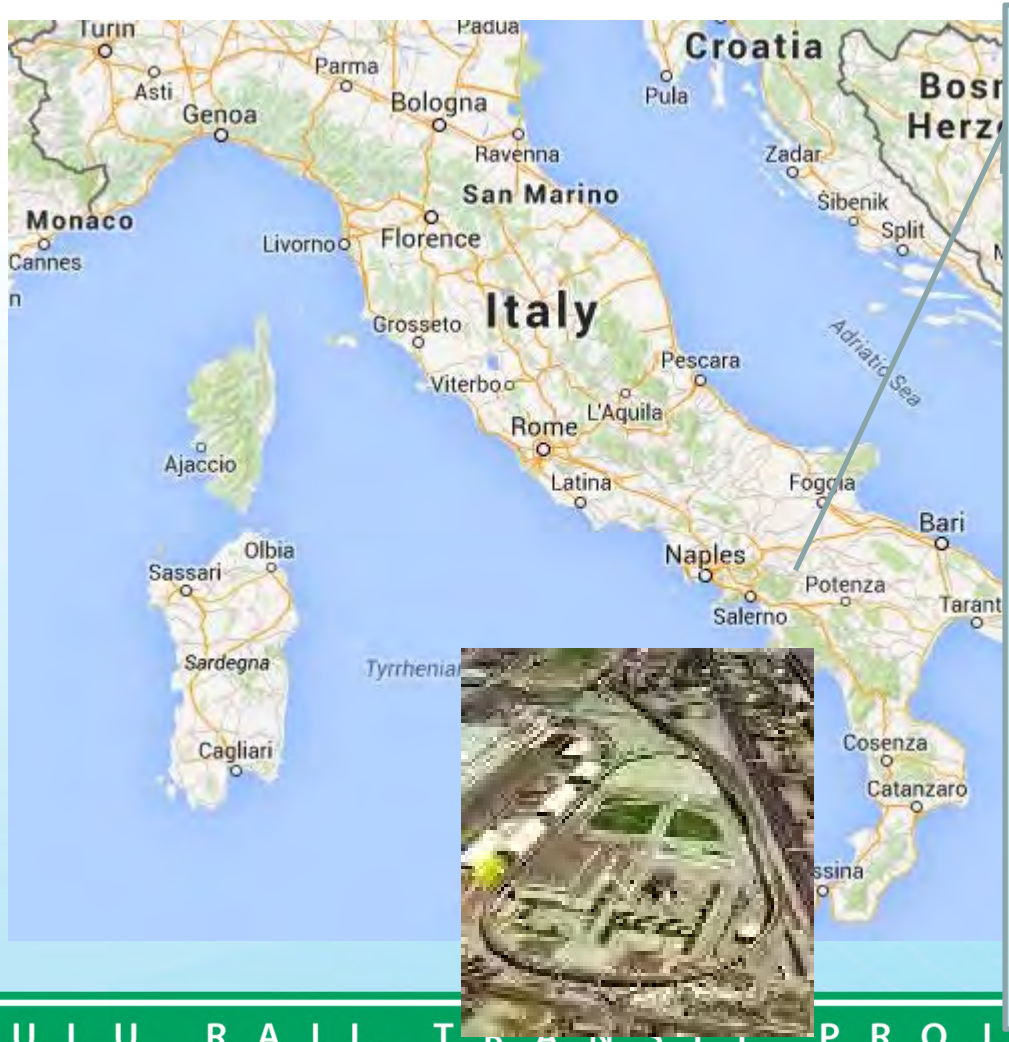
Reggio Calabria - Carshell Assembly

Reggio Calabria, Italy - Carshell Assembly

Pistoia – Carshell & Truck Design / Carshell, Truck & Climate Room Testing

- Carbody Structure Design
- Truck Design
- Vehicle Mechanical Design
- Vehicle Mechanical & Architecture Design
- Vehicle Dynamics

Naples – Electrical Systems Design and Testing Facilities



Naples, Italy

- Vehicle Electrical & Architecture Design
- Train Control and Monitoring System
- Traction Inverter Design
- Traction Motor Design
- Traction Control Design
- Auxiliary Converters Design
- Control Equipment Design
- Software Design
- Software V&V

Honolulu Authority for Rapid Transportation

RESOLUTION NO. 2015-3

REGARDING THE POSITION OF THE BOARD OF DIRECTORS OF THE HONOLULU AUTHORITY FOR RAPID TRANSPORTATION ON THE COUNTY TAX SURCHARGE PROCEEDS COLLECTED BY THE STATE OF HAWAII FOR THE HONOLULU RAIL TRANSIT PROJECT

WHEREAS, the Honolulu Authority for Rapid Transportation (HART) has been established pursuant to Article XVII of the Revised Charter of the City and County of Honolulu 1973, as amended; and

WHEREAS, with the enactment of Act 247, Hawaii Session Laws 2005, the Hawaii State Legislature authorized the City and County of Honolulu to levy a surcharge of one-half percent on the state general excise and use taxes by ordinance to fund operating or capital costs of a locally preferred alternative (LPA) for a mass transit project, and expenses in complying with the Americans with Disabilities Act of 1990 with respect to such project; and

WHEREAS, on August 10, 2005, the Honolulu City Council passed Ordinance 05-027 which established the one-half percent surcharge to be collected by the State beginning January 1, 2007; and

WHEREAS, through the approval of Ordinance 07-001, the Honolulu City Council selected a fixed guideway system as the LPA for the Honolulu High-Capacity Transit Corridor Project (now known as the Honolulu Rail Transit Project or HRTP); and

WHEREAS, Ordinance 07-001 requires that the LPA be financed only by general excise and use tax surcharge revenues, interest earned on the revenues, and any federal, state, or private revenues; and

WHEREAS, during the Twenty-Eighth State Legislature (2015-2016), there will be various legislative measures introduced and discussed relating to the county surcharge on state general excise tax; and

WHEREAS, in order to meet current and future financial needs of the HRTP, any assurance of additional county surcharge amounts for building the HRTP will enhance HART's ability to avoid using funds from the Federal Transit Administration's Urbanized Area Formula Program (49 U.S.C. §5307) or from financing through bonds or other debt instruments, and without adversely impacting the city and county of Honolulu's fiscal status;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of HART as follows:

1. The HART Board of Directors favors and supports legislative measures which seek to increase the amount that will be paid to the City for HART of the county surcharge on state tax revenues to construct the HRTP; and

DRAFT

2. The HART Executive Director and CEO is authorized to submit testimony on pertinent legislation consistent with the overall policies set forth herein; and

3. This Resolution shall take effect immediately upon its adoption.

ADOPTED by the Board of the Honolulu Authority for Rapid Transportation on _____.

_____
Board Chair

ATTEST:

_____
Board Administrator

DRAFT

Honolulu Authority for Rapid Transportation

RESOLUTION NO. 2015-4

REGARDING THE POSITION OF THE BOARD OF DIRECTORS OF THE HONOLULU AUTHORITY FOR RAPID TRANSPORTATION ON TRANSIT-ORIENTED DEVELOPMENT

WHEREAS, the Honolulu Authority for Rapid Transportation (HART) has been established pursuant to Article XVII of the Revised Charter of the City and County of Honolulu 1973, as amended (RCH); and

WHEREAS, RCH Section 17-103.1 authorizes HART to "develop, operate, maintain and expand the city fixed guideway system;" and

WHEREAS, RCH Section 17-103.2(n) empowers HART to "promote, create and assist transit oriented development projects near fixed guideway system stations that promote transit ridership, and are consistent with the intent of the adopted community plans and zoning"; and

WHEREAS, the HART Board of Directors recognizes that transit oriented development (TOD) will benefit the Honolulu Rail Transit Project (HRTP) and its ridership through:

- Encouraging convenient, safe multi-modal access to transit;
- Encouraging the creation of mixed-use, pedestrian and bicycle-friendly communities that provide employment, housing, and services;
- Creating housing options including market-rate and affordable units;
- Supporting economic development efforts; and
- Promoting sustainability by reducing pollution, noise and reliance on automobiles; and

WHEREAS, TOD provides a unique opportunity to foster more livable communities that take advantage of the benefits of transit, specifically, reducing transportation costs for residents, businesses and workers while improving mobility and circulation in the station area for all modes of travel; and

WHEREAS, in order to capitalize on this tremendous opportunity, development around future rail station stations needs to be focused, balanced and well-planned; and

WHEREAS, during the Twenty-Eighth State Legislature (2015-2016), there will be various legislative measures introduced and discussed seeking to maximize the potential for TOD;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of HART as follows:

1. The HART Board of Directors favors and supports legislative measures which maximize the potential for TOD, promote effective community planning and provide a vision for neighborhood improvements and future urban redevelopment; and

DRAFT

2. The HART Executive Director and CEO is authorized to submit testimony on pertinent legislation consistent with the overall policies set forth herein; and

3. This Resolution shall take effect immediately upon its adoption.

ADOPTED by the Board of the Honolulu Authority for Rapid Transportation on _____.

_____
Board Chair

ATTEST:

_____
Board Administrator

DRAFT