

HART'S INDUSTRY DAY EVENT

March 23, 2015

Aloha!



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www.HONOLULUTRANSIT.ORG

HART

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

Construction Update



Current as of 3/23/15

Precast Yard

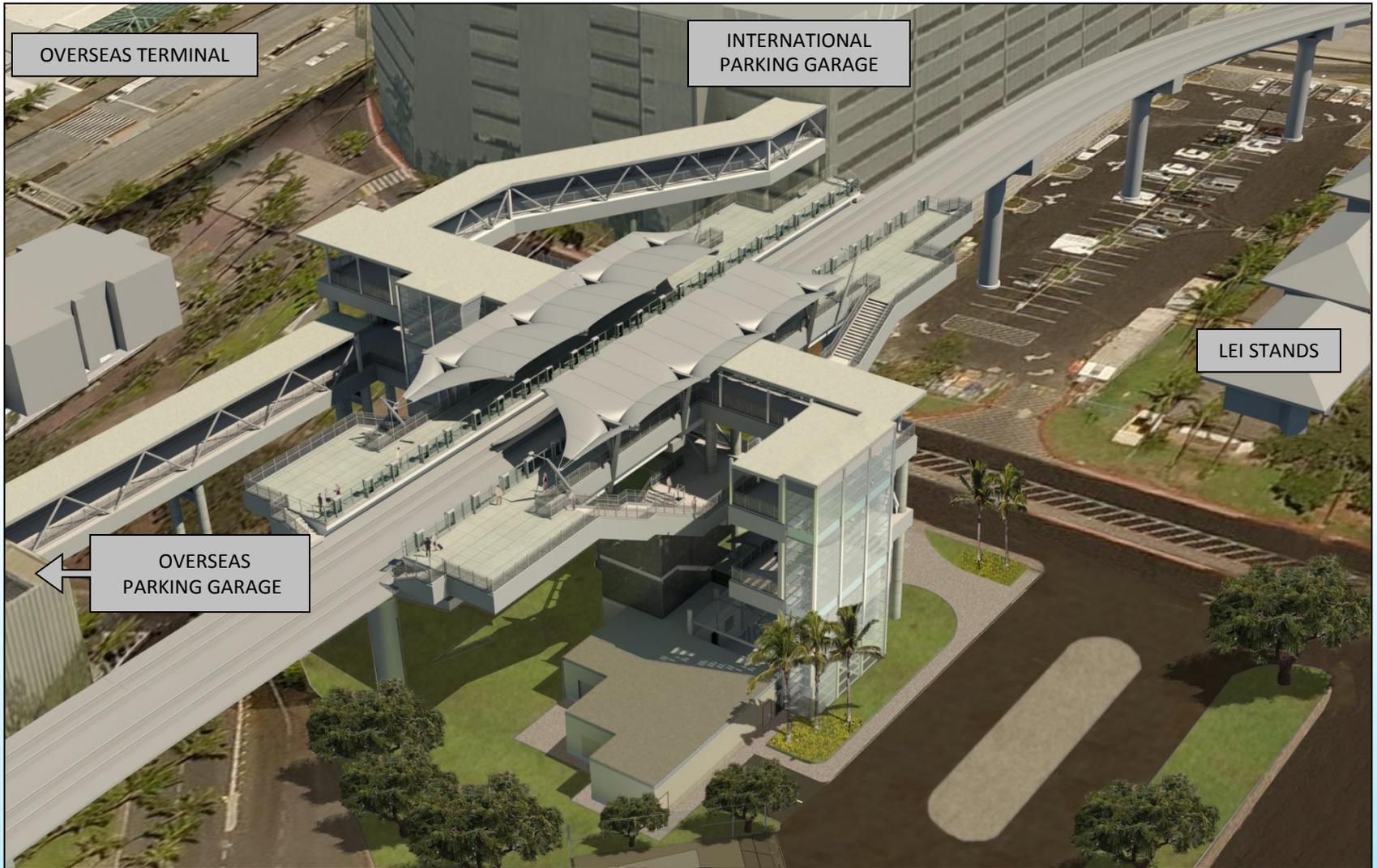


HART Industry Day

Airport Stations



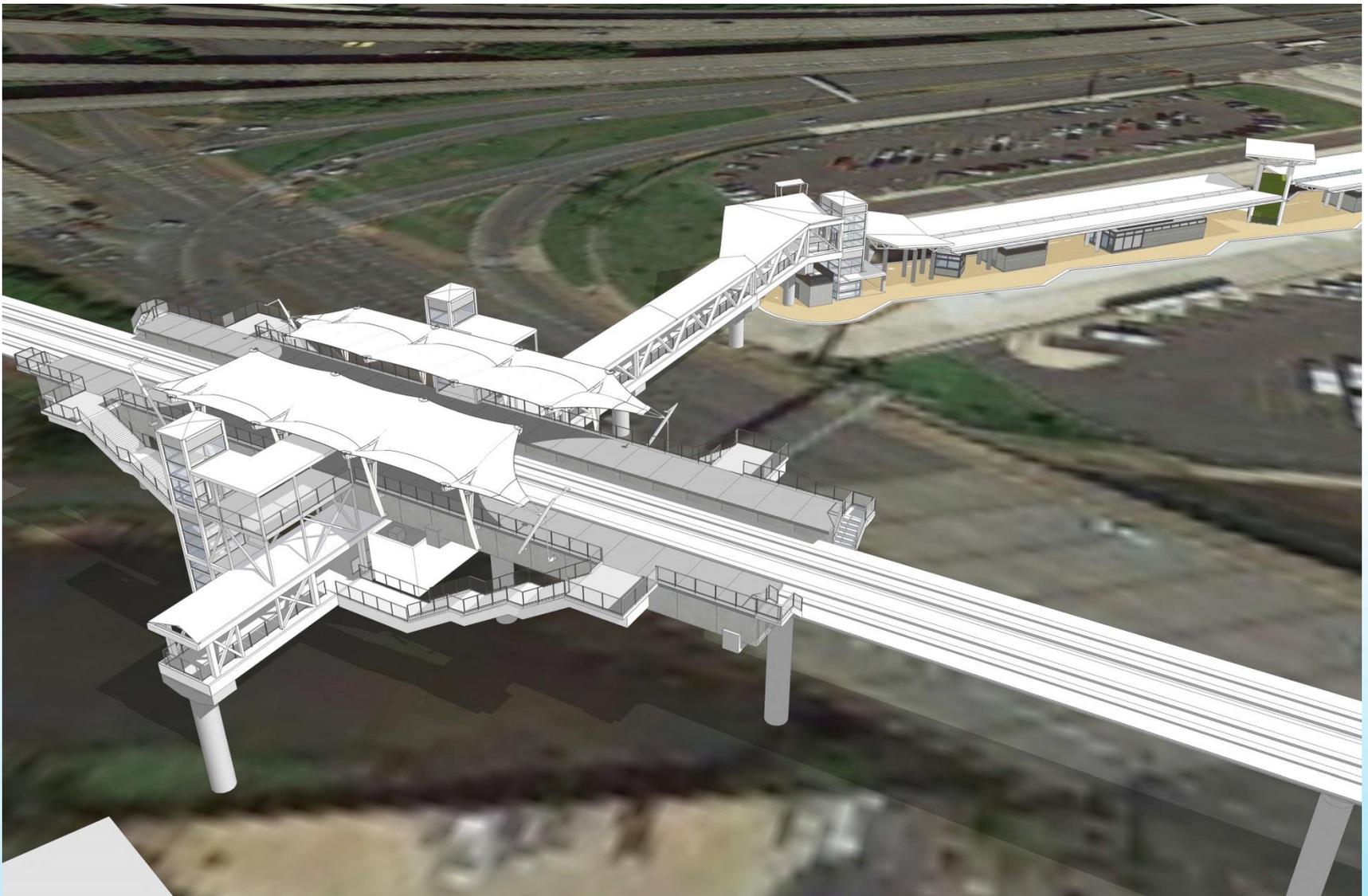
Pearl Harbor Naval Base Station Entrance



Honolulu International Airport Station – Aerial View



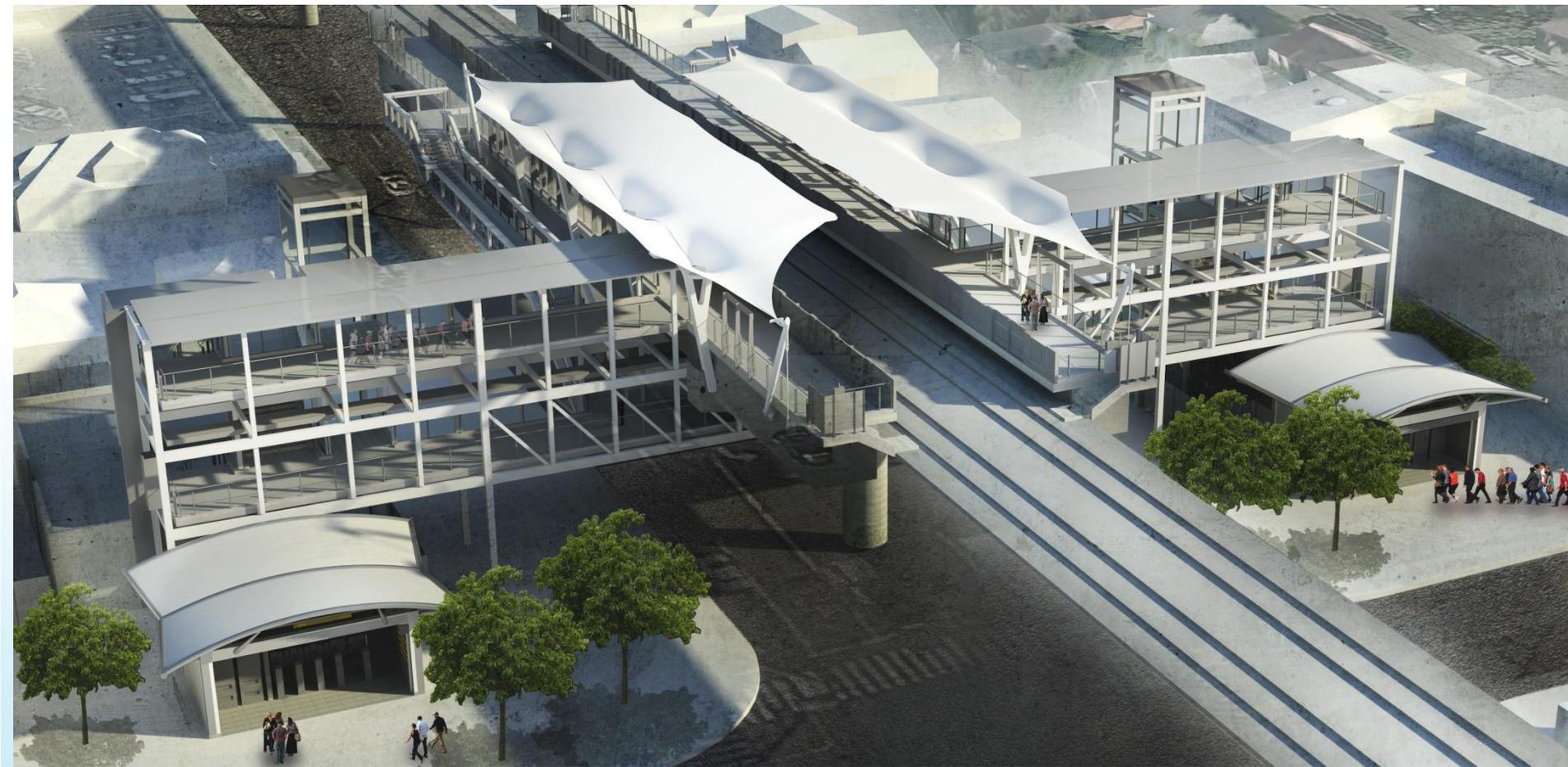
Lagoon Drive Station – Aerial View



Middle Street Transit Center Station– Aerial View

HART Industry Day

City Center Stations



Kalihi Station – Aerial View



Kapālama Station Entrance



Iwilei Station – Aerial View



Chinatown Station – Aerial View



Downtown Station Entrance

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Civic Center Station – Aerial View



Kaka'ako Station Entrance



Ala Moana Station – Aerial View

Operating Details

When will trains run?

- 4 a.m. to midnight
- Every 5 minutes during peak travel times
- Every 11 minutes during non-peak travel times
- Single systemwide fare system for rail and TheBus
- ADA compliant
- Bicycles, surfboards, wheelchairs, strollers, and luggage allowed
- Free Wi-Fi

How fast will trains travel?

- 55 mph top speed & 30 mph average including station stops. East Kapolei Station to Ala Moana Center Station approximately 43 minutes.

Current as of 3/23/15

Active Contracts

- **West O'ahu/Farrington Highway Guideway** (DB - Kiewit Infrastructure West Company)
E. Kapolei Station to Pearl Highlands Station
- **Kamehameha Highway Guideway** (DB - Kiewit Infrastructure West Company)
Pearl Highlands Station to Aloha Stadium Station
- **Rail Operations Center** (DB - Kiewit/Kobayashi Joint Venture)
43 acres - between Waipahu High School and Leeward Community College Station
- **Core Systems Contract** (DBOM - Ansaldo/Honolulu Joint Venture)
Vehicles, train control system, operations and maintain.
- **Airport Section Utilities** (DBB - Nan, Inc)
- **Airport 7 Pier (A7)** (DBB - Hawaiian Dredging/Condon Johnson JV)
- **On-Call Construction Contractor** (DBB - Royal Contracting)
- **Construction Engineering & Inspection - West Side Section** (PGH Wong)

Current as of 3/23/15

Future Contracts

(All dates subject to change)

West Side

- **Farrington Hwy Station Group**
(West Loch, Waipahu Transit Center, Leeward Community College)
DBB: Bids received March 3, 2015
- **West O'ahu Station Group**
(Kapolei, University Hawaii West O'ahu, Ho'opilli)
DBB: Advertise: April 2015; Bids Due: June 2015
- **Kamehameha Hwy Station Group**
(Pearl Highlands, Pearl Ridge, Aloha Stadium)
DBB: Advertise: August 2015; Bids Due: November 2015

Current as of 3/23/15

Future Contracts

(All dates subject to change)

East Side

- **City Center Utilities and Civil Works**
DBB: Advertise: June 2015; Bids Due: August 2015
- **Airport Guideway and Stations** (DB - Aloha Stadium Station to Middle Street Transit Center)
Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive, Middle Street Transit Center
Part 1 Advertise: April 2015; Quals Due: June, 2015
Part 2 Advertise: July 2015; Proposals Due: December 2015; NTP: February 2016
- **City Center Guideway and Stations** (DB - Middle Street Transit Center to Ala Moana Center)
Kalihi, Kapalama, Iwilei, Chinatown, Downtown, Civic Center, Kaka’ako, Al Moana Center
Part 1 Advertise: August 2015; Quals Due: October 2015
Part 2 Advertise: November 2015; Proposals Due: April 2016; NTP: June 2016

Current as of 3/23/15

Future Contracts

(All dates subject to change)

- **Pearl Highlands Garage, Bus Terminal & H2R1 Ramp**
DB: Active procurement currently on hold
- **H2R2 Ramp**
DBB: Advertise: 1/30/15; Bids Due 4/28/15
- **On-Call Construction Contractor II**
DBB: Advertise: 3/17/15; Proposal Due Date: 4/20/15
- **Construction Engineering & Inspection – East Section**
Advertise: March 2015; Proposals Due: April 2015; NTP: June 2015
- **East Kapolei and UHWO Park and Ride Lots**
DBB: Advertise: November 2016; Bids Due: February 2017

Current as of 3/23/15

HART DB Lessons Learned

Sam Carnaggio, Project Director

Design-Build Lessons Learned

March 23rd, 2015

Project Director: Sam Carnaggio



Design-Build Lessons Learned

March 23rd, 2015

Project Director: Sam Carnaggio

•Design/Build vs. Design/Bid/Build

- ✓ Alternative Technical Concepts (ATC)
- ✓ Improved interface and communication efficiencies
- ✓ Reduced agency soft costs
- ✓ Reduced changes and extra work
- ✓ Reduce potential for claims and litigation
- ✓ Accelerate the schedule as much as possible
- ✓ Provide a greater focus on quality

•Payment methods

- ✓ Earned Value vs. Schedule of Milestones
- ✓ Contractors Cash-flow



Design-Build Lessons Learned

March 23rd, 2015

Project Director: Sam Carnaggio

- **OCIP**

- ✓ The ability to obtain broader coverage with higher liability limits.
- ✓ More effective safety, loss control, and risk management programs.
- ✓ Coordinated claims handling/adjusting procedures and claims management services.
- ✓ Elimination of coverage disputes and subrogation between contractor and insurers.
- ✓ OCIP claims not counted as part of the contractor's own aggregate limit.

- **Change Management**

- ✓ Time is of the essence
- ✓ Project level control
- ✓ Importance of clear and concise General Conditions



Design-Build Lessons Learned

March 23rd, 2015

Project Director: Sam Carnaggio

• Invoice processing

- ✓ HART is committed to timely payment to prime contractors, which in turn directly affects the subcontracting industry.

• Subcontractor Participation

- ✓ Importance of local competitive bidding of subcontractor work elements
- ✓ Subcontract packaging and planning
- ✓ Meeting M/WDBE goals.
- ✓ Advantages in design-build

• Third Parties and Utility coordination

- ✓ The Achilles heel of any project
- ✓ Assigned third party and utilities coordinator



Design-Build Lessons Learned

March 23rd, 2015

Project Director: Sam Carnaggio

•Environmental

✓ Noise Mitigation Planning is crucial to the success of the program and its public objectives in the dense urban environment of Honolulu. As such HART has emphasized the importance of:

- Time Periods and Duration
- Specified Equipment
- Noise Related Incentives/Disincentives

•Public Outreach / Involvement

✓ Maintaining public outreach and involvement

- The Community
- The Traveling Public

MEGA-LITH RISING

BRIDGING THE HIGHWAYS: BALANCED CANTILEVER STRUCTURE

The elevated viaduct spanning the I-15 highway near Waipahu will use the balanced cantilever structure, or BC, which will involve the 2,000-ton concrete bridge deck being cast and pushed out from the center.

LANE CLOSURE UPDATES

→ The newly updated www.honolulurail.com website www.honolulurail.com/updates will provide the most up-to-date information on the project.

BUILDING IN URBAN AREAS: SPAN-BY-SPAN CONSTRUCTION

Over construction vehicles in city streets, steel trusses will be used to build the rail guideway above ground to help minimize lane closures and traffic congestion. The major structure was recently being used in the Tule street guideway from the University of Hawaii-Hilo campus to Waipahu, where it will join the BC project.

MEASUREMENTS AND THIS TOGETHER

1,000	Approximate weight of concrete used in the structure.
210,000	Approximate weight of steel used in the structure.
40	Approximate number of construction workers on site.
271	Approximate number of construction vehicles on site.

ALL THE PIECES

72	Concrete segments.
2	Truss segments.

CONCRETE

10,000	Approximate weight of concrete used in the structure.
10,000	Approximate weight of steel used in the structure.
10,000	Approximate weight of steel used in the structure.

STEEL TRUSS

10,000	Approximate weight of steel used in the structure.
10,000	Approximate weight of steel used in the structure.
10,000	Approximate weight of steel used in the structure.

Panel Discussion

- Host: Brennon Morioka, HART Deputy Executive Director
- Tracy Lawson, Lawson & Associates
- Len Dempsey, Hawaiian Dredging
- Roland Au, Royal Contracting
- Bill Corn, Shimmick
- Samsung

Stay Connected

- Monthly HART Facts Ad
- Public Access Television Program
- Weekly e-Blast
- Weekly Traffic Advisories
- Website and Social Media



HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

HART FACTS—FEBRUARY 2015

HART CEO Dan Grabauskas answers community questions about rail transit.

QUESTION:
What is the status of the manufacturing of HART's rail cars?

DAN GRABAUSKAS:
Late last year, on schedule, the production of HART's first rail car began in factories in Italy. Work on the shells and chassis of the rail vehicle is progressing and meeting HART's expectations of high quality and reliability. Later this year, the car will be shipped from Italy to its final assembly plant in California and is on schedule to be delivered to Honolulu in the first quarter of 2016.

Visit HonoluluTransit.org for more information.

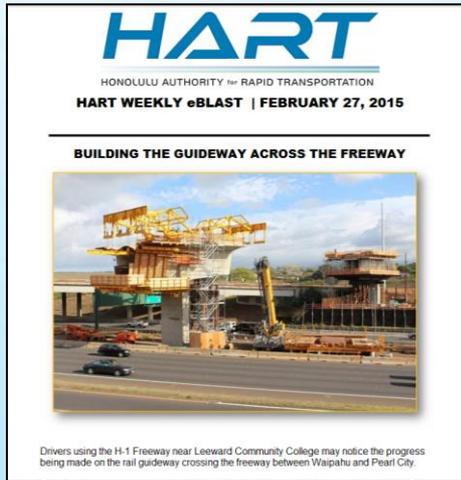
PROJECT REVENUE STATUS As of December 31, 2014	Projections to Date ¹	Collected or Committed to Date	Percentage (of projections)
REVENUE SOURCE:	(in millions)	(in millions)	
Project Beginning Cash Balance (Dec. 2009)	\$ 298	\$ 298	100%
General Excise Tax (GET) Surcharge ²	3,291	968	29%
Federal New Starts Funds	3,559	806	23%
Other Federal Transportation Funds	214	4	2%
Interest Income	2	9	—
TOTAL	\$5,355	\$2,085	39%

1 - Projections to date from the June 2012 Financial Plan.
2 - Total GET surcharge revenue collected since January 1, 2007, is \$1.3 billion (includes \$378 million collected before December 2009).

PROJECT COST STATUS As of December 31, 2014	Current Budget ¹	Amount Committed ²	Amount Expended ³
	(in millions)	(in millions)	(in millions)
Guideway & Track Elements	\$1,153	\$ 544	\$ 126
Stations, Stops, Terminals, Intermodal	397	51	3
Support Facilities, Yards, Shops, Admin	114	114	55
Site-work & Special Conditions	1,031	711	404
Systems	247	231	15
Vehicles	192	192	21
SUB-TOTAL*	\$3,133	\$1,843	\$ 624
Right-of-Way (ROW), Land, Existing Improvements	\$ 198	\$ 45	\$ 81
Professional Services (e.g., Planning and Design)	1,094	1,012	636
Contingency	324	11	1
Finance Charges	255	9	9
SUB-TOTAL*	\$2,030	\$1,088	\$ 718
TOTAL*	\$5,164	\$2,930	\$1,341

1 - Current Budget reflects the June 2012 Baseline Budget with executed Budget Transfers.
2 - Approved contract value. 3 - Portion of the work that has been paid.
* All costs are rounded to the millions therefore subtotals may not add up to the amounts shown.

DID YOU KNOW? Rail ridership is estimated at more than 119,000 weekday passenger trips by the year 2030.



HART Rapid Response:

- 24-Hour Project Hotline number 808-566-2299
- Email Inquiries: info@HonoluluTransit.org
- Website Inquiries

Mahalo!



HONOLULU RAIL TRANSIT

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