

**SPECIAL PROVISIONS**  
**FOR**  
**HONOLULU AUTHORITY FOR RAPID TRANSPORTATION**  
**KAMEHAMEHA HIGHWAY STATIONS GROUP CONSTRUCTION CONTRACT**  
**RFB-HRT-838104**

These SPECIAL PROVISIONS (“SP”) are intended to modify and amend the General Conditions of Construction Contracts for the Honolulu Authority for Rapid Transportation (12/2014) (“General Conditions” or “GC”) and provide specific requirements for the Kamehameha Highway Stations Group Construction Contract (“KHSG”) Construction Contract. The SPs are organized as follows:

- (a) SP-1 through SP-7 modifies or supplements the General Conditions;
- (b) SP-8 provides additional performance requirements specific to the Project.

The Contractor shall mean the Offeror to whom the Contract has been awarded by HART.

**PROJECT SUMMARY**

- (a) This KHSG Contract (the “Project”) is an estimated \$100 million to \$125 million dollar project. The Work of the Project is set forth in the Contract Documents, which consists of the construction of three (3) stations and associated structures, platforms, canopies, passenger bridge, and site work and includes the Pearl Highlands Station, Pearlridge Station, and the Aloha Stadium Station.
- (b) The Project Information is as follows:
  - (1) Project Identification: Honolulu Rail Transit Project – Kamehameha Highway Station Group;
  - (2) Project Location: as indicated in the Contract Documents;
  - (3) Project Owner: Honolulu Authority for Rapid Transportation (HART); and
  - (4) Architects and Engineers: Anil Verma Associates, Inc.

**CHAPTER SP-1 TO SP-7**

**1. SP-2.13 LIQUIDATED DAMAGES**

Section 2.13 of the General Conditions shall be amended by adding the following subparagraph:

- (b) If the Contractor fails to provide access to others or achieve Contract Substantial Completion by the deadline specified in Table 7.1 of SP-7.1.1, the Contractor agrees to pay the stated Liquidated Damages Charge, as follows:
  - Kamehameha Highway Stations Group Contract Substantial Completion: \$2,000.00 per day.
  - Kamehameha Highway Stations Group Contract Access to Others: \$2,000.00 per day.

**2. SP-7.1 GENERAL PERFORMANCE AND ACCESS PROVISIONS**

**SP-7.1.1 Time is of the Essence**

Section 7.1.1 of the General Conditions is hereby amended by adding the following subparagraphs (a), (b), and (c):

(a) **Schedule of Access Date Milestones.** The following dates in Table 7.1 shall be incorporated into the Contractor’s Baseline Project Schedule and serve as a part of the Contract requirements for the Kamehameha Highway Stations Group Construction Contract.

Abbreviations used in Table 7.1 include:

- CSC Core Systems Contractor
- E&E Elevator and Escalator contractor
- KHSG Kamehameha Highway Stations Group Contractor (this Contract)
- ALS Aloha Stadium Station
- NLT No Later Than date when access is provided by the “Providing contractor” to the “Receiving contractor”
- TCCR Train Control & Communications Room
- UPS Uninterruptible Power Supply
- WOFH West O’ahu / Farrington Highway Guideway contractor
- KHG Kamehameha Highway Guideway contractor
- PHL Pearl Highlands Station
- PLR Pearlridge Station

TABLE 7.1 - ACCESS SCHEDULE REQUIREMENTS (Based on NTP, anticipated to occur on or about January 18, 2016)				
	Description	Date NLT:	Receiving Contractor:	Providing Contractor:
<b>1.0</b>	<b>Pearl Highlands Station</b>	(~ start 3/1/16)		
1a	PHL – TCCR and UPS rooms, Partial Access for Systems Installation	3/15/2017	CSC	KHSG
1b	PHL – Balance of Building and Structures, Partial Access for Systems Installation	6/1/2017	CSC	KHSG
1c	PHL – Platform Construction, Partial Access on Guideway Deck for KHSG to construct platform	7/1/2016	KHSG	WOFH
1d	PHL – Elevator & Escalators Installation, Partial Access for E&E	9/1/2017	E&E	KHSG
1e	PHL – Station Platform, Partial Access for Systems Installation	8/1/2017	CSC	KHSG
1f	PHL – E&E Complete Installation & Testing to support Station Completion	6/1/2018	KHSG	E&E

<b>TABLE 7.1 - ACCESS SCHEDULE REQUIREMENTS</b>				
<b>(Based on NTP, anticipated to occur on or about January 18, 2016)</b>				
	<b>Description</b>	<b>Date NLT:</b>	<b>Receiving Contractor:</b>	<b>Providing Contractor:</b>
1g	PHL – CSC Complete Installation & Testing to support Station Completion	6/1/2018	KHSG	CSC
1h	PHL – CSC provided Full Access at Station Construction Completion	6/30/2018	CSC	KHSG
<b>2.0</b>	<b>Pearlridge Station</b>	(~ start 6/1/16)		
2a	PLR – TCCR / UPS Building, Partial Access for Systems Installation	6/1/2017	CSC	KHSG
2b	PLR – Balance of Building and Structures, Partial Access for Systems Installation	9/1/2017	CSC	KHSG
2c	PLR – Platform Construction, Partial Access on Guideway Deck for KHSG to construct platform	3/1/2017	KHSG	KHG
2d	PLR – Elevator & Escalators Installation, Partial Access for E&E	12/1/2017	E&E	KHSG
2e	PLR – Station Platform, Partial Access for Systems Installation	10/1/2017	CSC	KHSG
2f	PLR – E&E Complete Installation & Testing to support Station Completion	6/1/2018	KHSG	E&E
2g	PLR – CSC Complete Installation & Testing to support Station Completion	6/1/2018	KHSG	CSC
2h	PLR – CSC provided Full Access at Station Construction Completion	6/30/2018	CSC	KHSG
<b>3.0</b>	<b>Aloha Stadium Station</b>	(~ start 10/1/2016)		
3.1	Parking Lot Site Access (all except ALS station footprint)	10/1/2016	KHSG	KHG
3.2	Station Site Access (station footprint prior to this date will be limited due to KHG falsework at station)	3/1/2017	KHSG	KHG
3a	ALS – TCCR / UPS rooms, Partial Access for Systems Installation	9/1/2017	CSC	KHSG

TABLE 7.1 - ACCESS SCHEDULE REQUIREMENTS (Based on NTP, anticipated to occur on or about January 18, 2016)				
	Description	Date NLT:	Receiving Contractor:	Providing Contractor:
3b	ALS – Balance of Building and Structures, Partial Access for Systems Installation	11/1/2017	CSC	KHSG
3c	ALS – Platform Construction, Partial Access on Guideway Deck for KHSG to construct platform	4/1/2017	KHSG	KHG
3d	ALS – Elevator & Escalators Installation, Partial Access for E&E	2/1/2018	E&E	KHSG
3e	ALS – Station Platform, Partial Access for Systems Installation	12/1/2017	CSC	KHSG
3f	ALS – E&E Complete Installation & Testing to support Station Completion	7/1/2018	KHSG	E&E
3g	ALS – CSC Complete Installation & Testing to support Station Completion	7/1/2018	KHSG	CSC
3h	ALS – CSC provided Full Access @ Station Construction Completion	7/31/2018	CSC	KHSG
	<b>Kamehameha Highway Station Group Contract Substantial Completion</b>	<b>8/31/2018</b>		

(b) **Access Coordination.** The Contractor shall have shared use of the Project site for construction operations during the construction period. The Contractor's use of the Project site is limited only by HART's right to perform work or to retain other contractors on portions of the Project. The Contractor will perform pre-acceptance walkthroughs and provide a punchlist of other contractors' contractual elements that need to be incorporated in order to begin Work. The Contractor will also be providing access to other contractors to perform their work within the same Work site or Work area. The following terms are defined as follows:

- (1) “Work Site Control” or “Work Site Controller” means the contractor that controls the construction activity on a shared work site. The contractor that controls the work site is held responsible for all activities on that work site in terms of site safety, site security, and overall site coordination and management. Work Site Control may transfer between contractors, if necessary, to maintain project schedules but must be established prior to any work commencing by two or more contractors in a given work site.
- (2) “Partial Access” at the KHSG Stations as used in Table 7.1 means, as follows:
  - (a) “TCCR & UPS building/rooms, Partial Access for Systems Installation” includes shared occupancy between the Contractor and the CSC of the station

interior spaces near to and including the electrical room, UPS room, TCCR, and other CSC-associated equipment rooms. These rooms are expected to be completed to a degree in which the CSC can securely access and install racks, cables, and equipment within the rooms. The TCCR and UPS building/rooms need to be completed by the station contractor once the CSC contractor has completed their work in these areas including final coat of paint with touchup. The rooms and adjacent areas are clean and free of dust. Equipment room doors are mounted and lockable. Pathways (duct bank, conduit, etc.) by the Contractor are to be installed and completed from the TCCR and UPS building to the guideway to support the CSC's installation of the main fiber and other cabling/wiring for communications, train control, SCADA, etc. Temporary and/or alternate routing of pathways may be required by the Contractor to permit the CSC's timely access. Permanent power and lighting within the station is to be made available to the CSC by the Contractor. All specified interface points are to be complete and validated. The Contractor shall take the necessary steps to adequately protect CSC equipment and materials from dust and harm during any subsequent work.

(b) "Balance of Building and Structures, Partial Access for Systems Installation" includes shared access to the remainder of the station areas to allow the CSC to install its own contracted conduits/raceways, cabling within its own conduits as well as within conduits installed by the Contractor, equipment, and devices from the TCCR and UPS building throughout the remainder of the station, including ground, entry, and concourse levels (excludes the platform).

(c) "Platform Construction, Partial Access on Guideway Deck for KHSG to Construct Platform" includes shared access by the WOFH guideway contractor and the Contractor to facilitate the Contractor's installation of the precast or cast-in-place station platforms and, where applicable, the steel trusses for the concourse level and platform level passenger bridges. The Contractor shall coordinate with the CSC and utility providers for the installation of final power and other utilities.

(d) "Elevator & Escalators Installation, Partial Access for E&E" includes the shared access to the areas immediately adjacent to the elevators and escalator locations (including machine rooms) to permit the E&E contractor to install its equipment. Elevator shaft structure (including lifting beam) is complete, ready to receive guide rails, hoisting equipment, platform, cab, electrification, etc. Escalator landing structures are complete at all station levels. Permanent power is required to be available by the time E&E testing is started.

(e) "Station Platform, Partial Access for Systems Installation" includes shared access on the station platform and the installation of all concealed conduits, raceways, canopy steel structure, etc. by the Contractor is complete, ready for the CSC's installation of wiring, devices, equipment, and Platform Screen Gates. The Contractor's installation of canopy fabric will typically follow the CSC's wiring rough-in.

(3) "Full Access" as used in Table 7.1 in the stations means:

(A) Work Site Control is handed over from the Contractor to the CSC at the completion of each station.

(B) With exception of minor finishing activities and punchlist items, all station construction work must be complete, including station auxiliary equipment such as fire control and air conditioning, enabling all mechanical and electrical work to be completed and tested.

(C) Station is clean and free of dust.

<b>TABLE 7.2 – Active contracts to coordinate with KHSG</b>		
<b>Contract Title</b>	<b>Start Date</b>	<b>Finish Date</b>
WOFH Guideway DB Contract	December 2009	July 2016
KHG Guideway DB Contract	July 2011	September 2016
Core Systems Contract DBOM (Design-Build Portion)	January 2012	March 2019
Elevator & Escalator DFIM (Design, Furnish & Install Portion)	August 2013	July 2018

(c) **Use of Site:** The Contractor shall limit the use of Project site(s) to areas within the Contract limits indicated as property lines. Do not disturb portions of the Project site beyond areas in which the Work is indicated.

- (1) Limits: Confine construction operations to property lines.
- (2) Limits: Limit site disturbance, including earthwork and clearing of vegetation, to 40 feet beyond building perimeter; 10 feet beyond surface walkways, surface parking, and utilities less than 12 inches in diameter; 15 feet beyond primary roadway curbs and main utility branch trenches; and 25 feet beyond constructed areas with permeable surfaces such as storm water detention facilities that require additional staging areas in order to limit compaction in the constructed area.
- (3) Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to HART, HART's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
  - (A) Schedule deliveries to minimize use of driveways and entrances by construction operations.
  - (B) Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

### 3. SP-7.1.7 PERMITS, LICENSES

Section 7.1.7 of the General Conditions is hereby amended by adding the following subparagraphs (e).

(e) HART will furnish the permits listed in Table 7.3, HART-Obtained Permits. The Contractor shall comply with all of the HART-obtained permit conditions and requirements. All permits listed as being obtained by HART are based on the design provided in the Contract Documents. There are conditions in the HART-obtained permits that may require additional notifications to the permitting agencies. The Contractor shall be responsible to provide any additional notifications or information required for the HART-obtained permits, including renewals. Should the Contractor's means and methods require permit modifications or additional permits, the Contractor will be responsible for obtaining those permits in consultation with HART at no additional cost to HART.

Permit or Agency Submittal	Agency	Permit No.	Date Available	Date Expires
Clean Water Act §404	United States Army Corps of Engineers; Environmental Protection Agency	June 29, 2017 June 29, 2017 <sup>1</sup>	May 12, 2015	November 13, 2019
Clean Water Act §401 Certification	Hawaii Department of Health, Clean Water Branch	Waiawa Stream and Waiawa Stream Tributary: WQC0789.FNL.15 <sup>2</sup>	April 29, 2015	April 29, 2020
Stream Channel Alteration	Department of Land and Natural Resources, Commission on Water Resource Management	Waiawa Stream: SCAP No. 3854.3	June 18, 2014	June 18, 2016
		Waiawa Stream Tributary: SCAP No. 2864.3	June 29, 2011	June 29, 2017
Coastal Zone Management	Department of Business, Economic Development and Tourism	P-13755	5/23/2013	N/A
Special Management Area (SMA) Permit	Council of the City and County of Honolulu	2010/SMA-57; Reso 11-7 CD1	9/11/2013	N/A

<sup>1</sup> HART has obtained a Standard Individual 404 Permit (Department of the Army Permit) for work in Waiawa Stream and Waiawa Stream Tributary. The Contractor shall be responsible for complying with all permit conditions for “Phase 2,” including relevant elements of the Compensatory Mitigation Plan and any conditions provided by the US Army Corps of Engineers.

#### Compensatory Mitigation Plan

The Contractor shall construct the Phase 2 work affecting Waiawa Stream to include and comply with the mitigation work plan described in the *Compensatory Mitigation Plan, Waiawa Stream Tributary and Waiawa Stream* as well as any special permit conditions. In general the work will replace the stream functions from permanently impacted areas of Waiawa Stream and Waiawa Stream Tributary. The mitigation work area includes areas upstream, downstream and across of the impacted area. Construction activities will include excavation and grading, installation of Vegetated Reinforced Soil Slope (VRSS) and associated components, seeding with a native plant seed mix, planting of native tree and herbaceous plants, noxious weed management, cutting/removal of existing trees and other invasive species removal, and other activities required to construct the site.

HART will maintain the mitigation area for the required monitoring period in accordance with the requirements outlined in *Regulatory Guidance Letter 08-03*. The Contractor will construct and turnover the required planting area which must be 90% free of weeds and invasive species and have achieved at least a 95% planting surface coverage, including the VRSS area. Ninety

percent or better of the tree canopy, 60 percent or better of the shrub layer, and 30 to 40 percent of the herbaceous plants shall be native.

<sup>2</sup>HART has obtained a Section 401 Water Quality Certification. The Contractor is responsible for complying with all conditions of the certification for the Phase 2 work. This includes the Site-Specific Construction Best Management Practices (BMP) Plan for Waiawa Stream. The plan covers:

- Temporary BMPs to be employed during the three phases of construction to occur at Waiawa Stream Tributary and Waiawa Stream.
- Semi-permanent BMPs to be installed and maintained between the three phases of construction; and
- Permanent BMPs to control stormwater pollutants from the site once the transit system begins operation.

#### Water Quality Monitoring

As a part of the 401 permit application, HART has developed an *Applicable Monitoring and Assessment Plan* (AMAP). The Contractor is responsible for understanding all elements of the Plan assigned to Phase 2, although water quality monitoring will be conducted by HART's CE&I contractor(s). The Contractor will coordinate with CE&I to facilitate monitoring and adjust BMPs as necessary.

#### 4. SP-7.5 CHARACTER OF WORKERS AND KEY PERSONNEL

Section 7.5.2(c)(4) of the General Conditions is hereby amended by replacing the first paragraph with the following:

- (4) Safety and Security Specialist: "The Contractor's Safety and Security Specialist shall be a full time professional on the project and who will conduct and document daily safety inspections. **Only one (1) full-time safety and security specialist will be required. The Contractor is responsible to meet the requirements for Safety and Security Compliance as stated in Section 7.10 of the General Conditions.** The Safety and Security Specialist responsibilities shall include:"

Section 7.5.2(c)(5) of the General Conditions is hereby amended by adding the following subparagraph:

- (E) The Public Involvement Manager is not required to be onsite full time. However, the Contractor shall meet the requirements of Section 7.24, Public Awareness and Community Relations, of the General Conditions.

#### 5. SP-7.11 QUALITY ASSURANCE

Subparagraph (c) is here by added to Section 7.11.1 of the General Conditions:

- (c) HDOT Quality Assurance Manual for Materials:

The procedures and guidelines in the *HDOT Quality Assurance Manual for Materials* are provided to ensure the quality of materials for all State Highway

construction projects, and County Federal-aid projects on the National Highway System, according to Title 23, Code of Federal Regulations, Part 637, subpart B, Quality Assurance Procedure for Construction. The quality control (QC) testing requirements (including frequency of each required test) contained in the *HDOT Quality Assurance Manual for Materials* shall be performed and recorded by the Contractor.

Section 7.11.3 subparagraph (d)(1) is hereby deleted and replaced with the following:

- (1) The Contractor shall, at a minimum, identify its Project Principal, Project Construction Manager, Quality Manager, Safety and Security Specialist, and Public Involvement Manager.

## **5. SP-7.15 CONSTRUCTION FACILITIES**

Section 7.15.1 of the General Conditions is hereby deleted and replaced with the following:

### 7.15.1 Construction Facilities

(a) The Contractor shall maintain for the duration of the Contract, a permanent place of business within Oahu, where the Contractor may be served notice and legal process. Written notice may also be served with the Contractor on the Project site personally or via fax, email, or the local post office address or post office box.

(b) The Contractor shall pay for all office and other building space, facilities, and equipment required to meet the requirements of the Contract, including providing one workspace for the use of members of HART's field office staff within the Contractor's office for use by HART's staff. HART's workspace shall include one (1) desk with lockable drawers and two (2) chairs. This workspace will not be HART's primary field office, but should be available for HART staff visits, including inspections. A parking space shall be available for HART staff visits.

(c) In making arrangements for its office and facilities, the Contractor shall:

- (1) Provide facilities for key personnel to be present in the local office so that they may be available to HART and the Project, whenever required.
- (2) Locate its field office in close proximity to the Project. Location to be approved by HART.

(d) The Contractor shall be wholly responsible for its office and facilities, including, but not limited to, securing the sites, obtaining all site permits, installing, setting up, providing utility services, maintaining the facilities, and having appropriate security for the facilities. The facilities shall meet OSHA and local code requirements for office space, and ADAAG requirements.

(e) Site identification signage shall be provided at all Project offices, and all sites of Work. See GC Section 7.25, Project Identification.

## **6. SP-7.16 MAINTENANCE OF TRAFFIC**

Subsection 7.16.1(b)(6) shall be amended by adding the following after the first sentence of this subsection:

"Project-specific lane closure requirements are included in the following Table 7.16-1.



- (3) The Contractor shall prepare surfaces and substrates as indicated on the Contract Documents.
- (4) Artwork location(s) shall be free of construction debris, materials, equipment, etc. Area shall be broom clean.
- (5) The Contractor shall facilitate the artwork installation and provide temporary electrical and water at no additional cost to HART.
- (6) The Contractor shall provide barriers, and install materials to protect the Work site during installation, and protect artwork after completion.

**2. SP-8.2 Specialty Contractors**

- (a) The following required specialty contractor classifications have been identified in connection with the Contract Work. It is the Contractor’s responsibility to know the State of Hawai’i contractor license laws, including the scope of contractor and specialty classifications. Refer to the Instructions to Bidders regarding timely written submission of content of the solicitation, including comments, request for clarification, or if the bidder does not agree with the list below, such as additions or deletions to the identified list of required specialty contractor licenses. The identified required specialty contractor classifications are as follows:

<u>Specialty Classification</u>	<u>Description</u>
C-13	Electricals
C-14	Sign Contractor
C-22	Glazing and tinting contractor
C-27	Landscaping
C-37	Plumbing
C-42	Roofing
C-52	Ventilating and air conditioning
C-55	Waterproofing
C-62	Pole and Line

**3. SP-8. 3 Special Coordination Procedures for Elevators & Escalators**

- (a) The Contractor shall provide the Elevator & Escalator (E&E) contractor partial access on the dates provided in Table 7.1 of SP-7.1.1 of the Special Provisions.
- (b) The E&E contractor’s installation work will be performed during normal working hours of normal working days after hoistways and machine/control rooms have been prepared by the Contractor in accordance with the requirements set forth in the subsections below. All work items herein shall be provided at no additional cost to HART or the E&E contractor, and in accordance with all governing codes.
- (c) All preparatory work as described in the subsections below for elevator and escalator installation shall be performed per the latest applicable revision of the national (ASME A17.1 or CSA B44) and/or local codes.
- (d) The Contractor shall coordinate with the E&E contractor to clarify the sequence of construction for each elevator and each escalator, to ensure that required preparatory work is completed in advance of the E&E contractor’s installation date, and that any elements of the

Work relating to closing in elevators and escalators is deferred until acceptably coordinated and agreed with the E&E contractor.

- (e) Where machine rooms are remote from the hoistway, electrical duct runs and piping serving the elevators and escalators will be underground or embedded in the concrete slab. The Contractor shall provide notification to the E&E contractor at least two (2) weeks in advance of pouring concrete in the floor area between any hoistway and its corresponding machine room, and provide access to the E&E contractor to supply and install ducting and piping prior to the Contractor pouring concrete.
- (f) The Contractor shall provide availability of a crane and operator to place the elevator/escalator machine, controller, and machine supports (where applicable) into the machine/control room or hoistway overhead, and to place the escalators into the wellways, prior to enclosing these areas. The Contractor shall coordinate this work with the E&E contractor's field supervisor. The crane shall be of adequate capacity to hoist a minimum load of 30 tons and shall have a vertical lift capability to position escalator trusses and elevator hoistway equipment into place.
- (g) The Contractor shall provide an acceptable material unloading area within 100 feet of hoistway (for elevators) and within 300 feet of well-way (for escalators) with 'rollable' access (planked or paved). Unloading area shall be accessible to a 43-foot semi-trailer to allow for unloading of the E&E contractor's equipment during normal working hours.
- (h) The work areas to be used by the E&E contractor, including wellways, hoistways, machine rooms, pits, storage areas and assembly areas, shall be kept clear of construction debris resulting from other than the E&E contractor at all times.
- (i) The Contractor shall coordinate with the E&E contractor regarding requirements for E&E contractor's partial access. At minimum, the Contractor shall provide the following in compliance with the Contract Documents prior to the E&E contractor's partial access dates shown in Table 7.1 of SP-7.1.1 and shall provide notice to the E&E contractor that the station is ready for elevator and escalator installation:
  - (1) Hoistways or wellways, including any supports for elevator or escalator equipment, shall be completed in accordance with the Contract Documents and enclosed, except as required for installation access.
  - (2) Hoistways or wellways shall be plumb from top to bottom within a variation of 1" (one inch) per 100' (one hundred feet), and provided with sufficient clearance at the top and bottom for proper installation of machinery. Inside edge of door sill supports shall be parallel, level and plumb from the center line of the hoistway, with allowable variation of one-quarter inch (1/4").
  - (3) Machine rooms shall be completed in accordance with the Contract Documents, including cooling system, concrete floors and foundations.
  - (4) All pits shall be completed in accordance with the Contract Documents, including drains, sumps and waterproofing. Provide any additional measures required to ensure effective prevention of pit exposure to storm water or ground water for the duration of the Work.
  - (5) Concrete surfaces of hoistways, wellways, pits and machine rooms shall be fully dry and cured.

- (6) Power shall be provided to the elevator and/or escalator controller and associated lighting circuits, including necessary disconnect switches, switches, conduit, wiring and junction boxes etc., in accordance with the Contract Documents. Where permanent power is not available, temporary electric power shall be provided, with the same characteristics as the permanent supply, for construction, testing and adjusting. Permanent power is required prior to any testing of elevator or escalator installations.
- (j) The Contractor shall coordinate with the E&E contractor regarding the requirements for preparatory work for elevators. At minimum, the Contractor shall provide the following preparatory work for elevators:
- (1) Pit floor shall be dry, level, flat, and free of surface imperfections and debris.
  - (2) Provide a dry and enclosed storage area of 15 feet by 30 feet for elevator materials and tools, adjacent to the lowest entrance at each hoistway. If this space cannot be provided, the Contractor shall provide an alternate lay down area acceptable to the E&E contractor. The Contractor shall provide power for construction adjacent to hoistways and machine/control rooms (110/220-V, single phase, for welders and hoists) and sufficient 480-V 3-phase power to run elevator(s) at the same time.
  - (3) Provide a temporary work platform, as approved by the E&E contractor for all elevators at the top floor served by each elevator. The platform shall comply with applicable codes and regulations and shall be securely fastened to the structure. Construction, maintenance and removal of this platform shall be provided by the Contractor.
  - (4) Provide 75° bevel guards on all projections, recesses or setbacks over 4", except on side used for loading/unloading within all elevator shafts.
  - (5) Provide venting of hoistways in accordance with the Contract Documents.
  - (6) Provide construction barricades outside elevator hoistways in accordance with OSHA requirements. Barricades shall be freestanding and removable, located at each hoistway opening at each floor.
  - (7) Provide drains and sumps in elevator pits in accordance with the Contract Documents. The cover shall be secured and level with the pit floor (Rules 2.2.2.4 and 2.2.2.6 in cars following ANSI 2000 or greater or Rules 106.1b(3)&(4) less than ANSI 2000) and shall be located to clear elevator equipment.
  - (8) Access to the machine room shall be secured (Rule 2.7.3 in cars following ANSI 2000 or greater or Rule 101.3 for less than ANSI 2000). Door shall be self-closing, self-locking and operable from inside without a key.
  - (9) Provide a GFI convenience outlet and telephone outlet for each elevator in the machine/control room, in accordance with the Contract Documents.
  - (10) Provide lighting, power, and cooling of elevator machine room (Rule 2.7.5 in cars following ANSI 2000 or greater and less than ANSI 2007 and Rule 2.7.9 for ANSI 2007 or greater or Rule 101.5 for less than ANSI 2000), in accordance with the Contract Documents. Machine room temperature shall be maintained between 55°F and 90°F. Humidity levels shall be maintained to prevent condensation on equipment or surfaces.

- (11) Provide lighting and GFCI per hoistway code requirements as shown on the Contract Documents. For elevator machine roomless (MRL) type elevators, the “machine room” and “control room” as shown are two separate spaces and require a “GFI” outlet and for lighting (19ftc) per code in each space.
  - (12) Provide hoisting beams, trap doors and other means of access to machinery space, in accordance with the Contract Documents (Rules 2.7.3.4 and 2.9.3.3 in cars following ANSI 2000 or greater or Rules 101.3d and 105.3c for less than ANSI 2000). Hoisting beams in each shaft shall be located and load rated in accordance with the Contract Documents. Lifting points or beams shall be visibly marked with the safe working load.
  - (13) Provide Class “ABC” fire extinguishers in electrical machinery and control space in accordance with the Contract Documents. Extinguishers shall be located convenient to access door (Rule 8.6.1.6.5 in cars following ANSI 2000 or greater or Rule 1206.1h for less than ANSI 2000).
  - (14) All elevator glass and secondary steel framing shall be left open at ground level entrances for the E&E contractor to install elevator cab assemblies. Coordinate with E&E contractor for installation of elevator door frame.
  - (15) At the Elevator Roof level, all roof structure and finishes shall not be installed until the elevator cab assembly is complete. Provide an effective prevention of hoistway exposure to storm water by means of removable barriers at the roof level.
- (k) The Contractor shall coordinate with the E&E contractor regarding work to be performed prior to placing the elevators into automatic operation. At minimum, the Contractor shall have completed the following work before elevators are placed into automatic operation, prior to code-required inspections by the authority having jurisdiction:
- (1) The machine room shall be completed in accordance with the Contract Documents, and in compliance with code, including stairways or steps and guardrails, and lockable fire rated door, self-closing and self-locking with label to be provided (Rules 2.7.3 & 2.11.14 in cars following ANSI 2000 or greater or Rules 101.3 & 110.14 for less than ANSI 2000).
  - (2) All penetrations through 2-hour (or greater) rated walls shall be sealed in accordance with the Contract Documents.
  - (3) Cab light circuits and all receptacles installed in machine rooms, and ground fault circuit interrupter protection shall be installed in pits (GFI) (NEC 620 or CSA 38).
  - (4) The conduit runs from elevators to remote status panel and monitoring systems shall be in accordance with the Contract Documents.
  - (5) The conduit for fire alarm system to each elevator control in machine room shall be in accordance with the Contract Documents.
- (l) The Contractor shall coordinate with the E&E contractor regarding preparatory work for escalators. At minimum, the Contractor shall provide the following preparatory work for escalators:
- (1) The wellway framed openings shall be complete in the floors, including necessary supports for the truss in accordance with the Contract Documents. Any indicated enclosures, wellway railings, baffles and barricades around the wellway shall be in place prior to escalator installation, so that the E&E

contractor can hoist trusses into place. Roof structures shall not be used for hoisting escalators into place. Confirm and coordinate with EE for locations of intermediate or other supports as shown on Contract Documents. Locate and install supports required for escalator truss attachments prior to installation of the intermediate supports.

- (2) Provide a staging area for the exclusive use of the E&E contractor, with a minimum area of 15 feet by 50 feet (per escalator), located at the bottom or most accessible landing within crane picking distance of each escalator wellway.
  - (3) Coordinate with the Core Systems Contractor for their installation of a RJ11C-one pair telephone line to phone jack in either the top or bottom landing.
- (m) The Contractor shall coordinate with the E&E contractor regarding the work to be provided by the Contractor during E&E contractor's performance of its work. At minimum, the Contractor shall perform the following Work during the E&E contractor's performance of its work:
- (1) Provide all cutting, patching and chasing of walls, beams, masonry, finish work and painting, together with all repairs made necessary by such work.
  - (2) Provide protection to hoistway or wellway during the time the equipment is being installed.
  - (3) Provide blockout/cutout through steel or masonry as required, to accommodate hall button boxes, signal fixtures, hoistway access switches, fire service fixtures, hydraulic piping, electrical conduit and hatch duct. Provide any repairs such as grouting, patching, painting, or fire-proofing. Coordinate blockout/cutout with the E&E contractor's field supervisor.
- (n) The Contractor shall at minimum perform the following Work following the completion of the E&E contractor's work:
- (1) Completed elevators and escalators shall be barricaded, protected and secured by the Contractor for the duration of the Work.
  - (2) Provide any repairs such as grouting, patching, painting, or fire-proofing around entrance frames and finished floor and grout to sill line after installation of entrance.

#### **4. SP-8. 4 Protections of Adjacent Guideway and Core Systems Work Elements**

(a) The Contractor is advised that other contractors will be performing work prior to, concurrently with, and after the Contractor work on the stations. During periods of testing, the Contractor shall maintain a clear path on at least one track line to allow trains to pass through any of the stations unimpeded. Special care shall be taken to protect other contractors' work-in-place to eliminate the potential for damage.

- (1) Track Installation. The Contractor shall not use the tracks to carry or transport materials or equipment for its construction. The Contractor shall be responsible to repair or replace any damage done by its work to track, third rail, duct banks and conduit pathways and conduits, and appurtenances installed by others.
- (2) Baseline As-Builts. A baseline that will be utilized by HART to determine whether the damage resulted from the Contractor's work is the As-Built documentation

provided by the WOFH guideway contractor for the guideway segment at, and adjacent to, the station construction work area.

- (3) Quantification of Damage. The Contractor shall be responsible for repair and replacement of any damage to track, contact rail, and deck appurtenances to the extent that they have to be corrected in order to comply with specifications applied to the initial new construction by other contractors.
- (4) Safety. If train testing and commissioning commences during the course of the Contractor's work schedule, Contractor personnel working adjacent to track shall be safety-certified in accordance with 49FRA214.

## **5. SP-8.5 Meteorological Data**

### **(a) Flood Risks at Waiawa Stream**

- (1) The Contractor shall anticipate the estimated flood risks as outlined in "Analysis of Monthly Discharge Exceedance Probabilities, Waiawa Stream to Estimate Monthly Flood Risks at Pearl Highlands Station and the Ramp H2R2 Area." The Contractor shall include in its construction schedule additional days as necessary to allow for delays due to flooding, and no time extension will be granted nor additional compensation paid for construction delays due to the normal flood risk.
- (2) The occurrence of flooding incidents beyond those outlined in the forecast data may be considered by HART for schedule impact, as prescribed in the General Conditions of Construction Contracts, Section 3.8 "Delays and Time Extensions; Force Majeure."

## **6. SP-8.6 Potential Station Site Contamination**

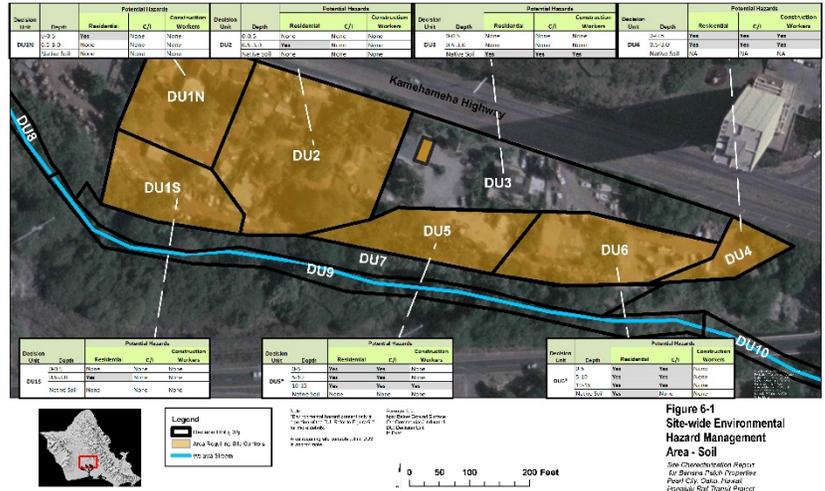
(a) The following is provided for information purposes only and is a brief summary for each of the station sites of the known contaminants of potential concern as documented in the site-specific relevant background reports and studies.

### **(1) Station: Pearl Highlands**

There is known contamination that is likely to be encountered during construction activities at the future Pearl Highlands Station. The Station footprint will intersect several Tax Map Key (TMK) parcels extending over the Banana Patch Properties and the RHS Lee Property, which include several areas and decision units (DUs). Soil and groundwater removed from some of these areas during construction of the Pearl Highlands Station may require special handling, testing, and/or coordination with HART prior to onsite or offsite reuse. A brief summary of recommended soil and groundwater management practices is provided herein; more details are included in the referenced documents, which shall be read and understood to properly handle contaminated media and comply with the site-specific environmental hazard management plan (EHMP) and applicable regulations.

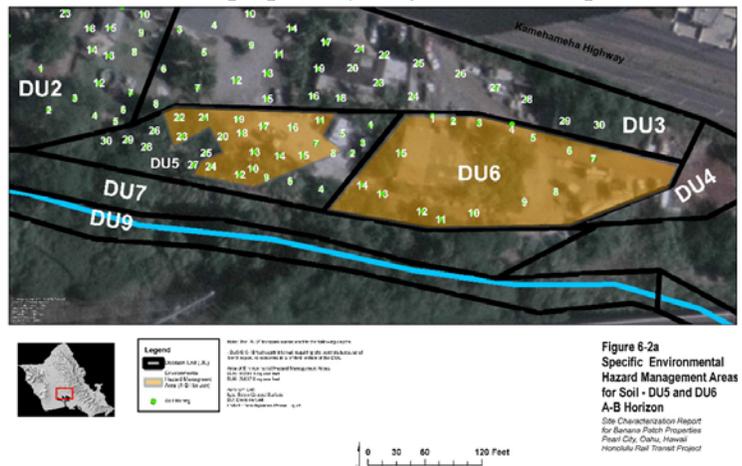
**Banana Patch Properties** - A Phase I Environmental Site Assessment (ESA) was conducted within the Banana Patch Properties in 2009 which identified several environmental concerns (Environet Inc., 2009). Additional site characterization was conducted in 2014 (CH2M HILL, 2015a). Residual contamination was identified in soil and groundwater at concentrations exceeding HDOH Tier 1 Environmental Action Levels (EAL) for unrestricted or commercial/industrial land use.

Contaminants of potential concern (COPCs) are TPH-DRO, TPH-RRO, PAHs, pesticides, and metals. Additionally, construction and other debris was identified in the subsurface. Therefore, the Contractor shall manage soil, groundwater, and fill/debris generated within the site boundary during construction in accordance with the site-specific EHMP and recommendations provided in the Site Characterization Report(CH2M HILL, 2015a), which includes the following (see Banana Patch Figures 6-1, 6-2a, and 6-2b):

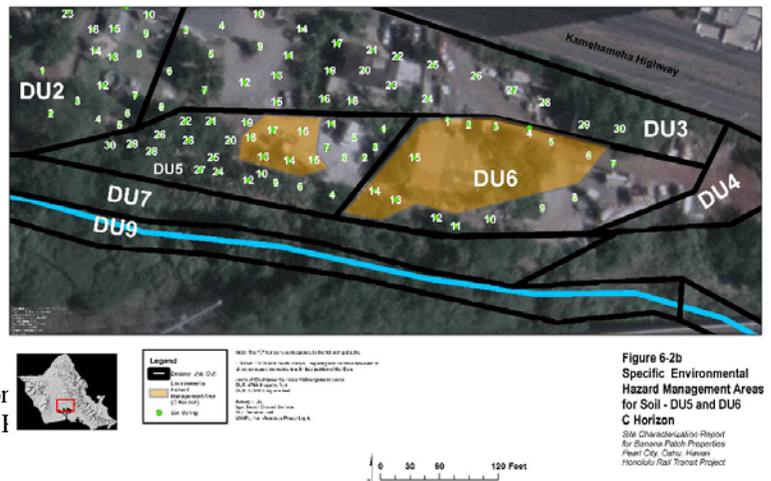


**Figure 6-1**  
Site-wide Environmental Hazard Management Area - Soil  
Site Characterization Report for Banana Patch Properties Pearl City, Oahu, Hawaii Honolulu Rail Transit Project

- Removal of surface and subsurface debris (with proper recycling or off-site disposal) before filling/construction activities unless debris is determined to meet inert fill and construction requirements, in which case it can be reused within the Pearl Highlands Work Area
- Soil removal and off-site disposal within DU4
- Removal and off-site disposal of petroleum-impacted soil within DU3
- Reuse within the Pearl Highlands Work Area of soil removed around borings 1 through 6 and 25 through 30 within the 0-10 feet below ground surface (bgs) interval of DU5. If reused, soil



**Figure 6-2a**  
Specific Environmental Hazard Management Areas for Soil - DUs and DUs A-B Horizon  
Site Characterization Report for Banana Patch Properties Pearl City, Oahu, Hawaii Honolulu Rail Transit Project



**Figure 6-2b**  
Specific Environmental Hazard Management Areas for Soil - DUs and DUs C Horizon  
Site Characterization Report for Banana Patch Properties Pearl City, Oahu, Hawaii Honolulu Rail Transit Project

should be placed with at least 3 feet of soil with concentrations below the commercial/industrial (C/I) EALs at the top. Soil from remaining portion of the DU/depth interval will need to be disposed of offsite at a permitted facility as non-hazardous waste

- Soil removed around borings 1 through 12 within the 10-15 feet bgs interval of DU5 can be reused within the Pearl Highlands Work Area. Soil from remaining portion of the DU/depth interval will need to be disposed of offsite at a permitted facility as non-hazardous waste
- Removal and off-site disposal of soil excavated from the 0-10 feet bgs interval of DU6
- Soil removed around borings 7 through 12 feet bgs interval of DU6 can be reused within the Pearl Highlands Work Area. Soil from remaining portion of the DU/depth interval will need to be disposed of offsite at a permitted facility as non-hazardous waste
- Recycle or off-site disposal of metal debris and concrete not meeting inert fill requirements within the Waiawa Stream bank area
- No groundwater direct discharge to Waiawa Stream during future construction activities. Any groundwater extracted from the Banana Patch Properties may be reused on-site for dust control
- Surface water monitoring of the Waiawa Stream during construction activities

Any soil that may be removed from the Banana Patch Properties (any DU) and that is planned for reuse outside the Pearl Highlands Work Area will require additional sampling for pre-characterization of soil intended for offsite reuse (e.g., one sample per 200 cubic yards of soil). Soil exceeding residential EALs should be either reused within the Pearl Highlands Work Area (if concentrations are below the C/I EALs) or properly disposed of at a permitted facility (if also exceeding C/I EALs). No soil exceeding residential EALs will be reused outside of the Pearl Highlands Work Area.

**RHS Lee Property** - Future construction work within the RHS Lee Property will include the construction of the ramps to access the Pearl Highlands Station parking structure and the H-2 freeway offramp that will connect with Kamehameha Highway. A Phase I and II Environmental Site Assessment was performed for the property that identified petroleum-contaminated soil in surface soil (0-0.5 feet below ground surface [bgs]) (Phase I ESA: Environet, 2009; Phase II ESA: Environet, 2010). During more recent site walks conducted in 2013 and 2014, visual staining of surface soil was observed throughout the property. An additional Phase I ESA (CH2M HILL, 2015b), and Supplemental Phase II ESA (CH2M HILL, 2015c) investigation was completed for the RHS Lee property (Western Area and accessible portions of Southern Area and Northern Area) and for column locations. COPCs were identified including TPH-DRO, TPH-ORO, pesticides, and PCBs. Other COPCs may exist in the large portions of the Southern and Northern area that were not investigated because inaccessible due to equipment and material staged in the areas. Additionally, construction and other debris was identified in the surface and subsurface. Therefore, the Contractor shall manage soil, groundwater, and fill/debris

generated within the site boundary during construction in accordance with the site-specific EHMP and recommendations provided in the Site Supplemental Phase II Environmental Site Assessment Report(CH2M HILL, 2015c), which includes the following (see RHS Lee Figures 6-1 and 6-2):

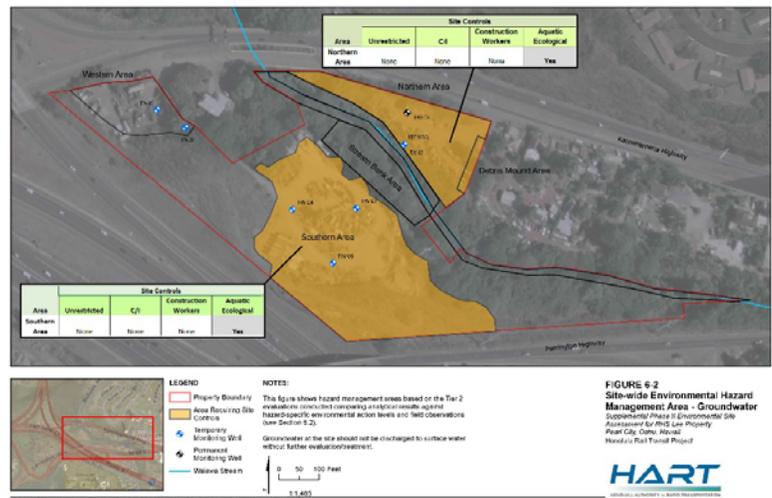
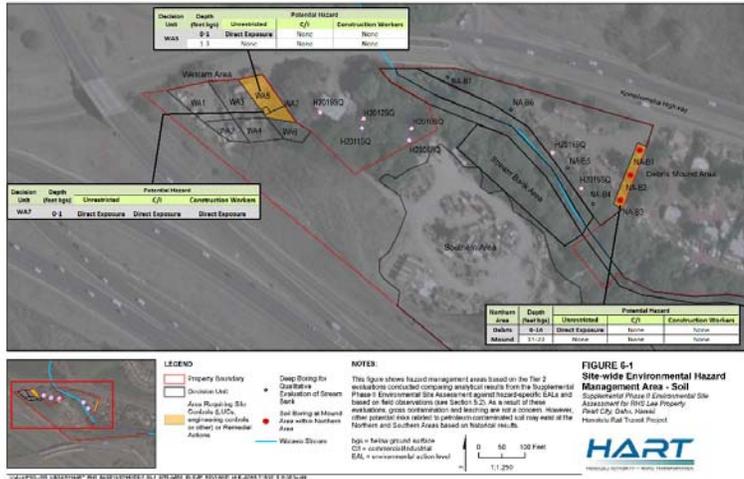
- Removal of surface and subsurface debris (with proper recycling or off-site disposal) before filling/construction activities unless debris is determined to meet inert fill and construction requirements, in which case it can be reused within the Pearl Highlands Work Area.

- Removal and off-site disposal of surface soil (0 to 1 foot bgs) and near surface soil (1 to 3 feet bgs) within DU WA7 of the Western Area. Note: This work may be performed by others in advance of construction.

- Any soil removed from the Southern Area and Northern Area should be disposed of off-site (after waste characterization), unless additional sampling is conducted to demonstrate that the soil can be reused within the Pearl Highlands Work Area (i.e., soil concentrations must be below the C/I EALs in order to be reused within the Pearl Highlands Work Area).

- Groundwater extracted from the Western Area can be reused with no restrictions. Groundwater extracted from the Southern and Northern Areas cannot be directly discharged to Waiawa Stream during future construction activities. While groundwater extracted from the Northern Area may be reused on-site for dust control, groundwater generated from the Southern Area should be disposed off-site or treated to reduce contaminant concentrations below HDOH Tier 1 EALs before being reused within the Pearl Highlands Work Area for dust control.

- Any soil removed from ramp column locations H2017SQ and H2018SQ during future construction activities should be analyzed to evaluate disposal/reuse options



Any soil that may be removed from the RHS Lee Property and that is planned for reuse outside the Pearl Highlands Work Area will require additional sampling for pre-characterization of soil intended for offsite reuse (e.g., one sample per 200 cubic yards of soil). Soil exceeding residential EALs should be either reused within the Pearl Highlands Work Area (if concentrations are below the C/I EALs) or properly disposed of at a permitted facility (if also exceeding C/I EALs). No soil exceeding residential EALs will be reused outside of the Pearl Highlands Work Area.

The Hickam Petroleum, Oil, and Lubricants (HPOL) Site ST02 is located downgradient of the Station and is considered unlikely to impact the Station. However, an access road through the Laborer's Union property will impact existing monitoring wells. The Contractor shall coordinate work to construct the access road and other site work with HART and US Navy prior to mobilization.

References:

1. Central Planet Repair. 2014. *Draft Remedial Action Work Plan. Former RHS Lee Baseyard, Western Area*. December.
2. CH2M HILL. 2015a. *Site Characterization for Banana Patch Properties. Pearl City, Oahu, Hawaii. Prepared for Honolulu Authority for Rapid Transportation*. January.
3. CH2M HILL. 2015b. *Phase I ESA for RHS Lee Property (TMK 96004006), Pearl City, Oahu, Hawaii. Prepared for Honolulu Authority for Rapid Transportation*. July.
4. CH2M HILL. 2015c. *Supplemental Phase II ESA for RHS Lee Property (TMK 96004006), Pearl City, Oahu, Hawaii. Prepared for Honolulu Authority for Rapid Transportation*. August.
5. Environet Inc. 2009. *Phase I Environmental Site Assessment RHS Lee Baseyard. Pearl City, Oahu, Hawaii*. December.
6. Environet Inc. 2009. *Phase I Environmental Site Assessment Former Banana Patch, Pearl City, Oahu, Hawaii 96797, TMK (1) 9-6-3, Parcel 16*. December.
7. Environet Inc. 2010. *Phase II Soil Investigation RHS Lee Baseyard. Pearl City, Oahu, Hawaii*. February.
8. Geolabs Inc. 2014. *Geotechnical Data Report for Honolulu Rail Transit Project Pearl Highlands Parking Structure Transit Center and H2R1 Ramp, Pearl City Oahu, Hawaii*. April 10.
9. HART. *Revision 1 Programmatic Environmental Hazard Evaluation and Environmental Hazard Management Plan, Honolulu Rail Transit Project, Oahu, Hawaii*. July 2014.

(2) Station: Pearlridge

Based on readily available information, there is a slight potential that contamination will be encountered during construction activities at the future Pearlridge Station. However, soil and groundwater that cannot be reused on site may require testing and further coordination with HART prior to removal for offsite reuse.

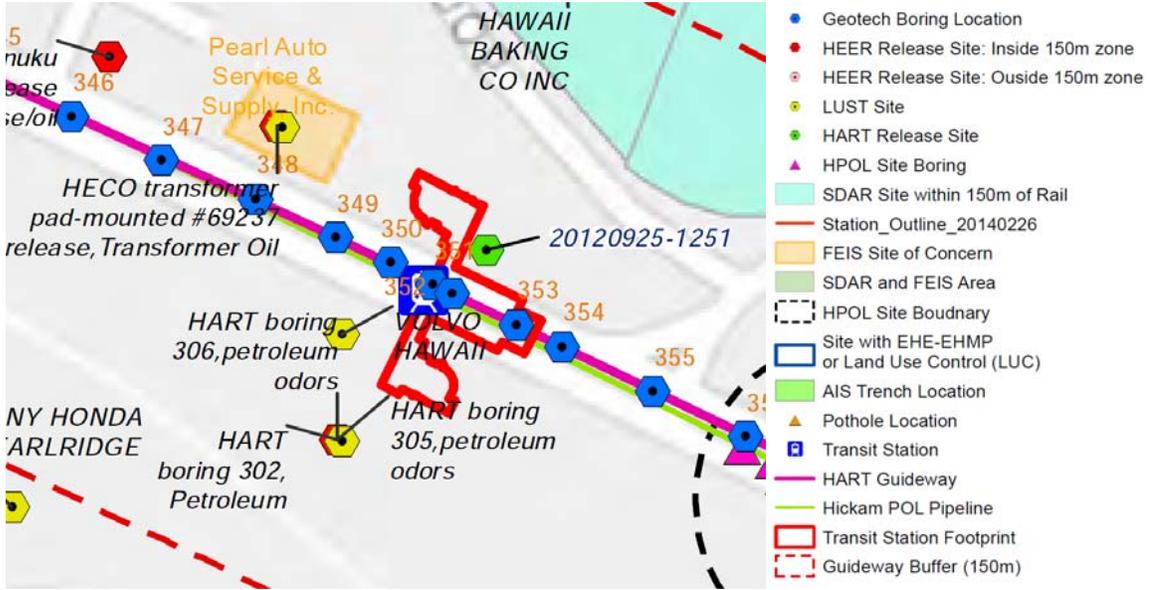
The Station footprint will intersect the TMK boundary of the property located at 98-77 Kamehameha Highway, Aiea, Hawaii. A Phase I Environmental Site Assessment (ESA) was conducted in November 2010 (ESI, 2010) and Phase II ESA was conducted in June 2011 (ESI, 2011). Soil and groundwater sampling was performed, and although historical releases at the site were confirmed, no chemicals were detected at concentration

exceeding their HDOH Tier 1 Environmental Action Levels (EALs). Several Release Sites were identified at this property during preconstruction activities associated with the Honolulu Rail Transit Project in 2012, where fuel odors and/or elevated photoionization detector (PID) readings were observed during geotechnical drilling on the property.

The Station footprint will also intersect the TMK boundary of the property located at 98-080 Kamehameha Highway. A complete Phase I ESA could not be performed at the property because of access issues, however, a review of environmental records for the property was performed (PB, 2011). It was concluded that no large-scale environmental impacts likely remain on the property, although some limited residual petroleum contamination may be present in the subsurface. One Release Site was identified at this property during pre-construction activities associated with the Honolulu Rail Transit Project in 2012, where fuel odors and elevated PID readings were observed in soil at 2 feet below ground surface.

There are several Leaking Underground Storage Tank (LUST) sites in the vicinity of the Station, all of which have received No Further Action (NFA) status.

If encountered, the Contractor shall manage contaminated soil and groundwater generated within the Station footprint in accordance with the Programmatic EHE-EHMP (HART, July 2014). COPCs are HVOCs, PAHs, TPH-GRO, TPH-DRO, TPH-RRO, PCBs, lead, and cadmium. Additional forms, such as Form D-3 (Inactive Pipeline and Underground Storage Tank [UST] Management Plan) or Form D-11 (Release Response Plan), may need to be completed if such situations are encountered during work.



References:

1. ESI. Final Phase I Environmental Site Assessment, Former Lava Motors Car Dealership, 98-77 Kamehameha Highway, Aiea, Honolulu, Hawaii 96701, TMK No. (1) 9-8-009:017. December 21, 2010.
2. ESI. Final Phase II Environmental Site Assessment, Former Texaco Service Station, 98-77 Kamehameha Highway, Aiea, Honolulu, Hawaii 96701, TMK No. (1) 9-8-009:017. August 11, 2011.

3. PB. Environmental Review, *98-080 Kamehameha Highway, TMK 9-8-010:002, Kamehameha Highway Guideway Segment, Honolulu High-Capacity Transit Corridor Project*. Letter dated April 20, 2011.
4. Hawaii Hazardous Substance Written Follow-Up Notification, State of Hawaii Department of Health, Release ID 20120925-1122. October 23, 2012.
5. Hawaii Hazardous Substance Written Follow-Up Notification, State of Hawaii Department of Health, Release ID Release ID 20130711-1112, 20130713-1000, and 20130715-1038, Revision 1. December 5, 2014.

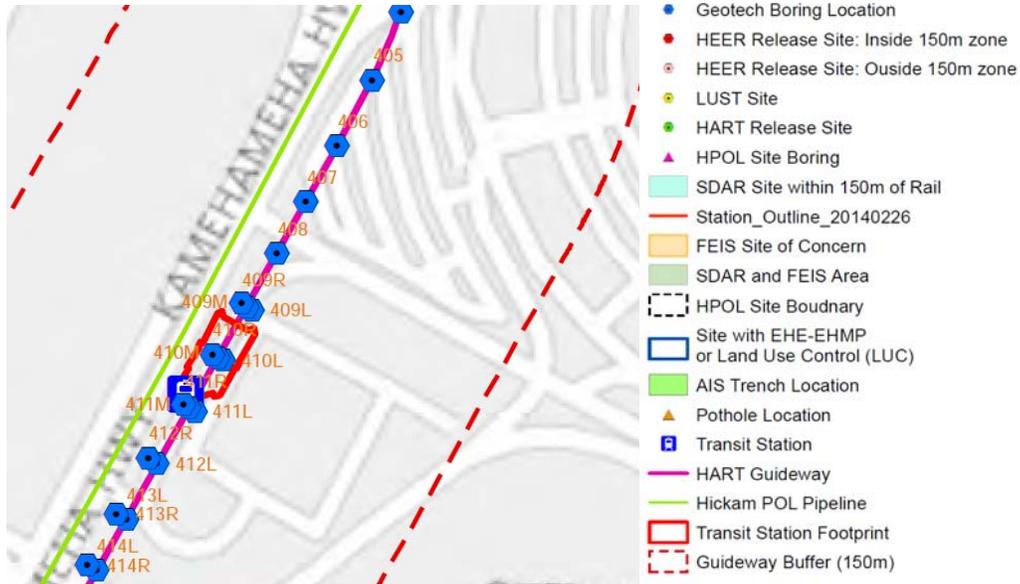
(3) Station: Aloha Stadium

Based on readily available information, there is a slight potential that contamination will be encountered during construction activities at the future Aloha Stadium Transit Station.

The Station footprint lies within the Aloha Stadium Overflow Parking TMK 9-9-003:071 and adjacent to the abandoned HPOL pipeline. During pre-construction activities for the Honolulu Rail Transit Project, petroleum-contaminated soil (PCS) was encountered in several geotechnical borings conducted in the adjacent Aloha Stadium parcel (TMK 9-9-003:061) to support the design of rail transit guideway support columns. It is likely that the contamination stems from the abandoned HPOL pipeline. However, no PCS was encountered in the parcel that encompasses the station footprint.

Based on the initial site assessments conducted during preparation of the Environmental Impact Statement (EIS) and Hazardous Materials Technical Report (HMTR) dated August 15, 2008 (PB, 2011), it was determined that the Aloha Stadium Overflow Parking parcel as well as the Aloha Stadium parcel do not require any further study into possible environmental concerns.

However, soil and groundwater that cannot be reused within the Work Area may require testing and further coordination with HART prior to removal for reuse. The Contractor shall track soil and groundwater in accordance with the Programmatic EHE-EHMP (HART, July 2014). In addition, the Contractor shall manage any contaminated media encountered or generated within the Work Area in accordance with the appropriate corresponding management plan provided in the Programmatic EHE-EHMP (HART, July 2014). Additional forms, such as Form D-3 (Inactive Pipeline and Underground Storage Tank [UST] Management Plan) or Form D-11 (Release Response Plan), may need to be completed if contaminated media is encountered during work.



References:

1. PB. *Environmental Review, Properties to be Acquired, Kamehameha Highway Segment, Honolulu High-Capacity Transit Corridor Project*. Letter dated January 11, 2011.
2. HART. 2012. *Honolulu Rail Transit Project, Kamehameha Highway Guideway Section, Release Identification Number 2011-1123-1028, Petroleum-Contaminated Soil, TMK 9-9-003:061 (Aloha Stadium), Honolulu, Hawaii*. 3 May.
3. HART. *Revision 1 Programmatic Environmental Hazard Evaluation and Environmental Hazard Management Plan, Honolulu Rail Transit Project, Oahu, Hawaii*. July 2014.