



IN REPLY REFER TO:  
CMS-DSFD340-00001

HONOLULU AUTHORITY for RAPID TRANSPORTATION

November <sup>16, 11, 12</sup> 15, 2012

Daniel A. Grabauskas  
EXECUTIVE DIRECTOR AND CEO

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Mr. Anil Verma  
President  
Anil Verma Associates, Inc.  
444 South Flower Street, Suite 1688  
Los Angeles, California 90071

Dear Mr. Verma:

Subject: Kamehameha Highway Station Group Design Consultant  
Contract No. SC-HRT-1200111, Honolulu Rail Transit Project  
Contract Documents

The Honolulu Authority for Rapid Transportation has executed Contract No. SC-HRT-1200111, Kamehameha Highway Station Group Design Consultant Contract for the Honolulu Rail Transit Project. A copy of the executed Contract Documents is enclosed for your files. A separate correspondence will be sent out issuing NTP #1a.

I have designated Mr. Lorenzo Garrido as Officer-in-Charge and Mr. Michael Yoshida as the HART Station Group Project Manager in accordance with Section VII.B of the Special Provisions. We look forward to working with you on this project.

If you have any questions, please contact Mr. Michael Yoshida at (808) 768-5459.

Sincerely,

Daniel A. Grabauskas  
Executive Director and CEO

Enclosure

cc: Mr. Michael Yoshida

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT FOR PROFESSIONAL SERVICES dated NOV 16 2012 (this "Agreement"), is entered into by and between the HONOLULU AUTHORITY FOR RAPID TRANSPORTATION, a semi-autonomous agency of the City and County of Honolulu, whose principal place of business and mailing address is 1099 Alakea Street, Suite 1700, Honolulu, Hawai'i 96813, hereinafter referred to as "HART," and ANIL VERMA ASSOCIATES, INC., a corporation, whose principal place of business and mailing address is 444 South Flower Street, Suite 1688, Los Angeles, California 90071, hereinafter referred to as the "CONSULTANT." HART and the CONSULTANT collectively, are the "Parties," and individually a "Party," all as governed by the context in which such words are used.

WITNESSETH THAT:

WHEREAS, HART desires to engage the CONSULTANT for architectural and engineering services for the design of three (3) transit stations of the Honolulu Rail Transit Project ("H RTP") comprising the Kamehameha Highway Station Group: Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station;

WHEREAS, the services entered hereunder are technical and professional in nature and HART personnel are not able to provide these services;

WHEREAS, the CONSULTANT was selected pursuant to Section 103D-304 of the Hawai'i Revised Statutes, as amended, and related Hawai'i Administrative Rules ("HAR"), relating to the procurement of professional services; and

WHEREAS, the CONSULTANT shall provide the required technical and professional services as set forth in this Agreement;

NOW, THEREFORE, HART and the CONSULTANT, in consideration of the foregoing and of the mutual promises hereinafter set forth, the sufficiency and adequacy of which are hereby acknowledged, and intending to be legally bound, hereby mutually agree as follows:

1. The CONSULTANT shall perform and complete in a professional manner all of the services required for the PROJECT in accordance with and as set forth in the Contract Documents as hereinafter described, shall furnish all services, labor, goods, materials, supplies, equipment and other incidentals reasonably necessary for the successful completion of the PROJECT and Work contemplated under the Contract Documents (the "Work"), and the CONSULTANT shall receive and accept as full compensation for all of the Work the price as set forth in this Agreement.

2. The CONSULTANT shall complete and perform the Work in accordance with:

a. Part 1 - This Agreement;

- b. Part 2 - The Special Provisions and any exhibits and attachments thereto;
- c. Part 3 - The General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu, dated 08/2000 (General Terms and Conditions); and
- d. Part 4 – Statement of Qualifications submitted by the CONSULTANT under RQS-DTS-407417;

all of which are collectively referred to as the “Contract Documents,” “Agreement,” or “Contract,” are attached hereto and incorporated herein, and are listed in the order of controlling preference should there be any conflict in the terms of the Contract Documents, and any modifications, changes or amendments in connection therewith being specifically referred to and incorporated herein by reference and made a part hereof as though fully set forth herein; provided, however, those portions of Part 4, whereby Contractor has provided that Contractor will exceed the specification requirements of the other Contract Documents, will become the new minimum Contract requirements.

3. The CONSULTANT shall complete the Work required under the Contract Documents.

There will be several separate and distinct written Notices to Proceed (“NTPs”) issued under the Agreement. Work shall not begin until HART has issued the respective NTP. Any Work undertaken by the CONSULTANT prior to issuance of a NTP will be the sole responsibility of and will be undertaken at the sole risk of the CONSULTANT without any obligation on the part of HART.

The first NTP will be NTP #1a. The CONSULTANT shall submit a Draft Baseline Design Schedule and a Schedule of Milestones (“SM”) within forty (40) calendar days after receipt of NTP #1a. The SM shall be completed as described in the Contract Documents. HART’s approved SM shall be added to the Agreement by contract amendment and become part of the Agreement by amending Exhibit 2B-1 to the Special Provisions.

NTP #1b will be limited to Work activities related to the revision of preliminary engineering (“PE”) drawings and preliminary design drawings, as defined by HART, to incorporate approved value engineering recommendations and other HART preferences, and to bring schematic designs in compliance with all applicable codes, regulations and design standards.

NTP #2 will be to commence interim design (“ID”) drawings, detailed working drawings and other PE phase activities, as defined by HART.

NTP #3 will be to commence final design (“FD”) and preparation of construction contract documents, cost estimating and other services in support of construction activities.

NTP #4 will be for design support during the Bidding Phase, as defined and directed by HART.

NTP #5 will be for design support during the Construction Phase of the stations, as defined and directed by HART.

4. This is a firm-fixed price contract, and HART agrees to pay the CONSULTANT, for the satisfactory performance and completion of the Work, the payments in accordance with the Approved Schedule of Milestones, Exhibit 2B-1, of the Special Provisions and as set forth in the Agreement. The maximum lump sum payments shall not exceed EIGHT MILLION FOUR HUNDRED NINETY-NINE THOUSAND FIVE HUNDRED EIGHTY-TWO AND 00/100 DOLLARS (\$8,499,582.00) (the "Total Contract Amount"). The lump sum payments for services and the Work performed under this Agreement are all inclusive of direct labor, overhead, general and administrative expenses, other direct costs, subcontractor costs, fixed fees, and all applicable taxes, including State general excise and use tax ("GET"), and county one-half percent (0.5%) GET surcharge.

Only in the event extra work is required and approved by HART, a maximum allowance of TWO HUNDRED THREE THOUSAND TEN AND 00/100 DOLLARS (\$203,010.00) has been encumbered. Payment for extra work will be negotiated on a fixed-price basis and shall only be in effect upon a mutually-agreed and executed contract amendment. Extra work requested by HART shall be authorized as set forth in Section 5 of the General Terms and Conditions, as amended by the Special Provisions. Any funds remaining at the end of the Agreement will revert back to HART.

In accordance with the paragraphs above, the total aggregate amount of this Agreement shall not exceed EIGHT MILLION SEVEN HUNDRED TWO THOUSAND FIVE HUNDRED NINETY-TWO AND 00/100 DOLLARS (\$8,702,592.00) (the "Total Aggregate Amount"), subject to the terms of the Agreement.

5. By signing below, the CONSULTANT hereby represents that, to the best of its knowledge and belief, cost or pricing data, as defined in HAR § 3-122-122 and submitted pursuant to HAR § 3-122-125, either actually or by specific identification in writing to the Officer-in-Charge in support of this Agreement, is accurate, complete, and current as of the date of this Agreement.

6. When notice is to be given to HART, it shall be mailed or delivered to:

Daniel A. Grabauskas  
Executive Director and CEO  
Honolulu Authority for Rapid Transportation  
1099 Alakea Street, Suite 1700  
Honolulu, Hawai'i 96813

7. When notice is to be given to the CONSULTANT, it shall be mailed or delivered to:

HART-12 (11/11)

## Certificate

The attached contract for architectural and engineering services for the design of three (3) transit stations of the Honolulu Rail Transit Project comprising the Kamehameha Highway Station Group: Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station

\$8,702,592.00

is hereby approved as to availability and designation of funds, and certification is hereby made that there is a valid appropriation from which expenditures to be made under said contract may be made and that sufficient unencumbered funds are available in the Treasury of the City and County of Honolulu to the credit of such appropriation to pay the amounts of such expenditures when the same become due and payable.

CONTRACT NO. SC-HRT-1200111  
FUND Transit Fund (690)  
ACCOUNT NO. 690/7790-13 = \$8,702,592.00 (4064)

HONOLULU, HAWAII

Date: 11/16/12



Executive Director and CEO

Honolulu Authority for Rapid Transportation

*John 11/14/12*  
*AKA 11/14/12*

Anil Verma  
President  
Anil Verma Associates, Inc.  
444 South Flower Street, Suite 1688  
Los Angeles, California 90071

8. This Agreement, its integrated attachments, and the Contract Documents constitute the entire agreement of the Parties and such is intended as a complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless an integrated attachment to this Agreement specifically displays a mutual intent to amend a particular part of this Agreement, general conflicts in language between any such attachment and this Agreement shall be construed to be consistent with the terms of this Agreement. Unless otherwise expressly authorized by the terms of this Agreement or the Contract Documents, no modification or amendment to this Agreement or the Contract Documents shall be binding upon the Parties unless the same is in writing and signed by the respective Parties hereto.

IN WITNESS WHEREOF, this Agreement is executed by the duly authorized officer or agents of HART and CONSULTANT.

HONOLULU AUTHORITY FOR RAPID  
TRANSPORTATION



By: Daniel A. Grabauskas NOV 16 2012  
Executive Director and CEO

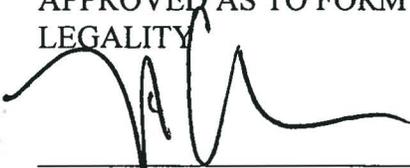
ANIL VERMA ASSOCIATES, INC.



By: ANIL VERMA  
Its: PRESIDENT

Address: ANIL VERMA ASSOCIATES, INC  
444 S. FLOWER STREET, #1688  
LOS ANGELES, CA 90071.

APPROVED AS TO FORM AND  
LEGALITY



Deputy Corporation Counsel

Attach Notary Page

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California

County of Los Angeles

On 11/2/2012 before me, Viktoriya Kucherenko, Notary Public,  
Date Here Insert Name and Title of the Officer

personally appeared Anil Verma  
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Handwritten Signature]  
Signature of Notary Public

Place Notary Seal and/or Stamp Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**

Title or Type of Document: Agreement for Professional Services

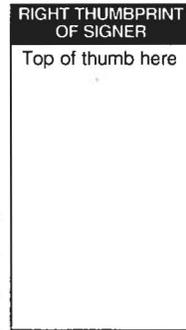
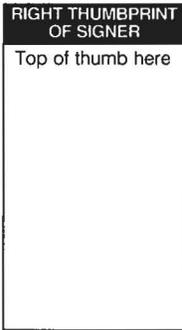
Document Date: 11/2/2012 Number of Pages: 4

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_ Signer's Name: \_\_\_\_\_

- Corporate Officer — Title(s): \_\_\_\_\_  Corporate Officer — Title(s): \_\_\_\_\_
- Individual  Individual
- Partner —  Limited  General  Partner —  Limited  General
- Attorney in Fact  Attorney in Fact
- Trustee  Trustee
- Guardian or Conservator  Guardian or Conservator
- Other: \_\_\_\_\_  Other: \_\_\_\_\_



Signer Is Representing: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_

BOARD RESOLUTION OF THE  
BOARD OF DIRECTORS OF  
ANIL VERMA ASSOCIATES, INC.

Held

OCTOBER 30, 2012

A meeting of the Board of Directors of AVA, Inc. was held on October 30, 2012, at 2:00 p.m., at the principal office of the corporation at 444 S. Flower Street, Suite 1688, Los Angeles, California, for the purpose of authorizing Anil Verma, President and Director of Anil Verma Associates, Inc., to sign contracts and other pertinent documents related to the following contract:

**Honolulu Rail Transit Project (H RTP), Contract No. SC-HRT-1200111 -  
Kamehameha Highway Station Group Contract**

RESOLVED that Mr. Anil Verma is hereby authorized to sign the above mentioned documents on behalf of Anil Verma Associates, Inc. and fully execute the services referenced by the contract documents, to the best of his ability.

President / Treasurer / Sole Director      Anil Verma

Secretary      Nandini Verma

There being no further business to come before the meeting, upon a motion duly made and carried, the meeting was adjourned.

  
Secretary

  
Chairman

# **SPECIAL PROVISIONS**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

## **SPECIAL PROVISIONS TABLE OF CONTENTS**

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- VIII. FEDERAL CLAUSES
- IX. ASSIGNMENT
- X. HEADINGS; GENDER; NUMBER
- XI. REFERENCES TO THE CITY AND COUNTY OF HONOLULU

### LIST OF SPECIAL PROVISIONS EXHIBITS

- EXHIBIT 1 - SCOPE OF WORK
- EXHIBIT 2 - A. CONTRACT COST
  - B. COMPENSATION AND INVOICING
  - B-1 PROJECT PAYMENT SCHEDULE
- EXHIBIT 3 - CERTIFICATION REGARDING CONFLICT OF INTEREST
- EXHIBIT 4 - LETTER OF SUBCONTRACT INTENT
- EXHIBIT 5 - CERTIFICATE REGARDING INELIGIBLE CONTRACTORS
- EXHIBIT 6 - CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS
- EXHIBIT 7 - CERTIFICATION REGARDING LOBBYING
- EXHIBIT 8 - FEDERAL REQUIREMENTS
  - 1. Attachment 1.6a) - DBE Participation Report
  - 2. Attachment 1.6b) - Final Report of DBE Participation and Instructions for completion of the Final Report of DBE Participation

These Special Provisions and the General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu dated 08/2000 (“General Terms and Conditions”) shall apply to, and are incorporated by reference into the Agreement, except as modified by reference herein. All defined terms in the Agreement shall have the same meaning as in these Special Provisions.

## **I. PROJECT**

The Honolulu Rail Transit Project (“H RTP”) is described in the Final Environmental Impact Statement as a twenty (20) mile grade separated fixed guideway transit system between East Kapolei and Ala Moana. The CONSULTANT will provide architectural and engineering services for the design of three (3) transit stations of the Honolulu Rail Transit Project (“H RTP”) comprising the Kamehameha Highway Station Group: Pearl Highlands Station, Pearlridge Station, and Aloha Stadium Station, herein referred to as the “PROJECT”.

## **II. SERVICES**

CONSULTANT’s responsibilities under this Agreement include providing services set forth in the Scope of Work attached hereto and incorporated herein as Exhibit 1.

## **III. TIME**

Work under this Agreement shall be completed under multiple and overlapping Notices to Proceed (“NTPs”). Work under NTP #1a, NTP #1b, NTP #2 and NTP #3 shall be completed within four hundred forty (440) calendar days from issuance of NTP #1a. The duration for performance of Work under issuance of NTP #4 and NTP #5 shall be determined at the discretion of HART.

## **IV. LIQUIDATED DAMAGES**

Liquidated damages are not applicable to this Agreement.

## **V. INSURANCE REQUIREMENTS**

See Paragraph 4.3., Insurance, of the General Terms and Conditions as modified by Section VII (D) below.

## **VI. COMPENSATION AND INVOICING**

A. Compensation to the CONSULTANT under this Agreement shall not exceed the amount stated in the Agreement. Upon completion and acceptance by HART of the mutually-agreed upon Schedule of Milestones, payment shall be made in accordance with Exhibits 2B and 2B-1, attached hereto and incorporated herein, inclusive of all taxes.

B. Final acceptance of the Work contracted for herein and payment therefore shall not excuse the CONSULTANT from any liability for defects in performance of the Work which may subsequently appear.

**VII. MODIFICATIONS TO THE GENERAL TERMS AND CONDITIONS FOR CONTRACTS FOR PROFESSIONAL SERVICES FOR THE CITY AND COUNTY OF HONOLULU (08/2000)**

The General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu (08/2000) shall apply to, and are incorporated by reference into this Agreement, except as modified herein.

**A. DEFINITIONS**

The following definitions are added to the General Terms and Conditions:

**“AIRPORT ALIGNMENT”** means the approximately twenty (20)-mile minimum operable segment of the Locally Preferred Alternative identified by Honolulu City Council Resolution No. 08-261.

**“BASELINE DESIGN SCHEDULE”** means the time-scaled and cost-loaded critical path network, updated monthly in accordance with the Agreement and depicting the Price Items and subordinate activities and their respective prices (distributed over time), durations, sequences, and interrelationships that represent the CONSULTANT’s Work plans, work breakdown structure (“WBS”) for designing and completing the PROJECT and the cost of all Work to be performed under the Agreement, distributed over the duration of the Agreement.

**“C.F.R.”** means the Code of Federal Regulations.

**“CHIEF PROCUREMENT OFFICER”** shall mean and refer to the HART Executive Director and CEO or designee.

**“CONFORMANCE CHECKLIST”** is the formal checklist used by the Project team to verify design criteria and construction specification conformance for each certifiable element in accordance with the H RTP Safety and Security Management Plan dated June 1, 2011.

**“FEDERAL GOVERNMENT”** means the United States of America and any executive department or agency thereof.

**“FTA”** means the Federal Transit Administration, United States Department of Transportation. The Federal Transit Administration is the current designation for the former Urban Mass Transportation Administration. Any reference in any law, map, regulation, document, paper, or other record of the United States to the Urban Mass Transportation Administration or its acronym UMTA is deemed a reference to the Federal Transit Administration.

**“FULL FUNDING GRANT AGREEMENT (“FFGA”)** means the designated means for the FTA to provide New Starts funds to projects with a Federal share of \$25 million or more. An FFGA establishes the terms and conditions for Federal financial participation in a New Starts project; defines the project; sets the maximum amount of Federal New Starts funding for a project; covers the period of time for completion of the project; and facilitates efficient management of the

project in accordance with applicable Federal statutes, regulations, and policy.

**“HART”** means the Honolulu Authority for Rapid Transportation. The acronym **“HART”** shall be substituted for the **“City and County of Honolulu,” “CITY,” “Rapid Transit Division,”** and **“RTD”** wherever those terms appear in the General Terms and Conditions, unless the context clearly indicates otherwise, and except in Section 4.1.1 of the General Terms and Conditions, where **“City”** shall mean **“City and HART.”**

**“MILESTONE”** means a defined step toward the completion of Work in the Schedule of Milestones. The Schedule of Milestones, once achieved, shall serve as the basis for payment.

**“PAY ITEM”** means a component of the Schedule of Milestones for which the CONSULTANT provides a Pay Item Value for all Work included in a schedule milestone. A Pay Item may be activities, deliverables or a series of interrelated items as identified in the Schedule of Milestones and corresponding with activities from the CONSULTANT’s Baseline Design Schedule.

**“PAY ITEM VALUE”** means that value allocated by the CONSULTANT to a Pay Item that represents the dollar value to be achieved or achieved upon the completion of a schedule milestone as indicated in the Schedule of Milestones and the CONSULTANT’s Baseline Design Schedule.

**“PMOC”** means the FTA’s Project Management Oversight Contractor.

**“PMSC”** means InfraConsult LLC, the HART Project Management Services Consultant or any successor entity.

**“PROJECT”** means Work performed as set forth in the Agreement, including furnishing all services, labor, materials, supplies, equipment and other incidentals reasonably necessary for the successful completion of the Work contemplated under the Agreement.

**“SCHEDULE OF MILESTONES”** means a table of scheduled milestones, organized by NTP, which specifies Pay Items, Pay Item descriptions, Pay Item Values, planned or actual achievement dates and serves as a basis for payment.

**“SCHEDULE OF MILESTONES PAY ITEM”** means a series of activities contained in a Pay Item that depicts the associated Work leading to the payment milestone and shall contain unique coding to facilitate progress reporting of the Schedule of Milestones.

**“STANDARD”** or **“REQUIREMENT”** means any provision of any Federal, State, or City law, code, rule, regulation, guideline, directive, order, circular, agreement, practice, policy, notice, plan, statement, or other standard or requirement, and any amendment or revision thereto made in the future, including any mandatory provision, term, condition, clause, representation, certification, assurance or other statement required thereunder.

**“SUBCONSULTANT”** means any subcontractor or subconsultant who enters into an agreement with the CONSULTANT or Consultant’s subcontractors at any

tier to perform a portion of the Work for the CONSULTANT.

“**U.S.C.**” means the United States Code.

“**U.S. DOT**” means the United States Department of Transportation, including its operating administrations.

“**WORK**” in addition to the definition described in the Agreement for Professional Services, paragraph 1, means all of the design, engineering, administration, testing, inspection and other duties and services; the furnishing of all labor, deliverables, materials, supplies, and equipment, as required by the Agreement, including all efforts and design services required during the construction phase of the PROJECT stations to successfully complete the scope of work covered under this Agreement. In certain cases, the term is also used to mean the products of the Work.

“**WORK BREAKDOWN STRUCTURE**” (“**WBS**”) means a hierarchal breakdown of the Scope of Work into components. HART will provide the WBS that reflects its breakdown of the scope and associated code structure in NTP #1a.

The following definitions in the General Terms and Conditions are modified as follows:

“**CITY AND COUNTY OF HONOLULU**”, “**CITY**”, shall be replaced by “**HART**” whenever those terms appear unless the context specifically indicates otherwise, and General Terms and Conditions Section 4.1.1, where reference to “**City**” shall mean “**City and HART**.”

“**CONSULTANT**” OR “**CONTRACTOR**” means any corporation, partnership, individual, sole proprietorship, joint stock company, joint venture, or other private legal entity engaged by HART to perform the Work under this Agreement. For purposes of this Agreement, “**Contractor**” shall mean “**CONSULTANT**”.

“**DIRECTOR**” or “**DIRECTOR OF BUDGET AND FISCAL SERVICES**” shall be replaced by HART’s Executive Director and CEO or the Director’s duly authorized representative or assignee, unless the context specifically indicates otherwise.

“**OFFICER-IN-CHARGE**” means the HART Executive Director and CEO or designee.

#### **B. DESIGNATION OF PROJECT MANAGERS**

The Officer-in-Charge will designate a key representative to coordinate the Work under this Agreement, to coordinate work under other HART contracts with the Work under this Agreement, and to act as the liaison between HART and the CONSULTANT in order to assist in expediting the resolution of questions or controversies, the making of HART decisions, and the review and approval by HART of documents, progress reports, requests, and other matters as required.

The CONSULTANT shall, subject to written approval from HART, designate a key representative, who shall maintain close and frequent communications with HART’s

key representative and be authorized to act on behalf of the CONSULTANT. Any change in the CONSULTANT's key representative will be made by request, in writing, to be approved by HART. The CONSULTANT's key representative shall be experienced and qualified in the type of work involved and shall be directly responsible for the prosecution of the Work under this Agreement.

The Parties to this Agreement will make all reasonable efforts to retain the same key representative in order to maintain continuity of effort and control.

**C. RESERVED**

**D. INSURANCE**

Section 4.3.2, paragraph 5 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“5. Be provided by insurers authorized to provide insurance in the State of Hawaii, and with a current Best’s rating of not less than A- or otherwise as approved by HART;”

Section 4.3.3, paragraph 3 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“3. Certificates shall show the Certificate Holder as the Honolulu Authority for Rapid Transportation, and be delivered to the Executive Director and CEO, 1099 Alakea Street, Suite 1700, Honolulu, Hawai‘i 96813. Certificates shall name the Honolulu Authority for Rapid Transportation and the City and County of Honolulu as additional insureds.”

**E. MODIFICATIONS**

Section 5.1.1 (c) of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

“(c) *Within thirty (30) days* after receipt of a written change order, unless the period is extended by the Officer-in-Charge in writing, the CONSULTANT shall respond with a claim for an adjustment. The requirement for a timely written response cannot be waived and shall be a condition precedent to the assertion of a claim.”

Section 5.2 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

**“5.2 PRICE ADJUSTMENT.**

(a) Any adjustment in contract price pursuant to a clause in the contract shall be made in one or more of the following ways:

1. By agreement on a fixed price adjustment before commencement of the pertinent performance;

2. By unit prices specified in the contract or subsequently agreed upon before commencement of the pertinent performance;
  3. By the costs attributable to the events or situations under such clauses with adjustment of profit or fee, all as specified in the contract or subsequently agreed upon before commencement of the pertinent performance;
  4. In any other manner as the parties may mutually agree before commencement of the pertinent performance; or
  5. In the absence of agreement between the parties, the provisions of section 103D-501(b)(5), HRS, shall apply.
- (b) Submission of costs or pricing data. The CONSULTANT shall be required to submit cost or pricing data if any adjustment in contract price is subject to the provisions of section 103D-312, HRS. The submission of any cost or pricing data shall be made subject to the provisions of subchapter 15, chapter 3-122. A fully executed change order or other document permitting billing for the adjustment in price under any method listed in paragraph (a)(1) through (a)(4) above shall be issued within ten days after agreement on the method of adjustment.

#### **F. DELAY**

Section 6.2 of the General Terms and Conditions is hereby deleted in its entirety and replaced with the following:

**“6.2 DELAY.** If any excusable delay occurs, it shall be dealt with in accordance with subsection 9.2.3, Excuse for nonperformance or delayed performance. No extension of time however, shall be granted unless the written application therefore stating in detail the cause or causes of delay is filed by the CONSULTANT with the Officer-in-Charge *within thirty (30) days* after the commencement of the delay. No such extension shall be deemed a waiver of the right of the Officer-in-Charge to require the completion of services under the contract within the time required herein as so extended by the specific terms of such extension or extensions, nor a waiver of right to terminate the contract for any other or additional delay not covered by the specific terms of such extension or extensions. The number of days of each extension of time shall be determined by the Chief Procurement Officer upon the recommendation of the Project Manager.”

#### **G. LIQUIDATED DAMAGES**

Section 6.6 of the General Terms and Conditions, entitled "LIQUIDATED DAMAGES", is hereby deleted in its entirety.

## **H. SAFETY AND SECURITY CERTIFICATION**

A new Section 6.8 of the General Terms and Conditions, entitled "SAFETY AND SECURITY CERTIFICATION ", is hereby inserted.

### **"6.8 SAFETY AND SECURITY CERTIFICATION.**

- (a) The purpose of the safety and security certification is to ensure that:
  - 1. The design, construction, fabrication, installation, testing, and commissioning of all safety- and security-certifiable elements (civil, structural, and systems) have been evaluated for conformance with the safety and security design criteria and specifications requirements and to verify their readiness for operational use; and
  - 2. The rail system is operationally safe and secure for customers, employees, emergency responders, and the general public.
- (b) The objective is to achieve an acceptable level of risk through a systematic approach to safety hazard and security vulnerability management, design criteria adherence, specification and construction compliance, and testing and commissioning verification.
- (c) The CONSULTANT shall implement and successfully complete safety and security certification for all certifiable elements contained in the Agreement. Safety and security certification shall be conducted in accordance with the latest version of the Federal Transit Administration (FTA) Handbook for Transit Safety and Security Certification as tailored to the CONSULTANT's scope of work. HART has developed a Project Safety and Security Certification Plan (SSCP) based on FTA guidelines to describe how these activities will be implemented for the H RTP. The CONSULTANT's activities include, but are not limited to, the following:
  - 1. Participate in safety and security committees and working groups established by HART to perform safety and security certification activities as requested.
  - 2. Demonstrate within its schedule the integration

and completion of safety and security certification activities, including the development and completion of Conformance Checklists.

3. Develop and support the development of safety and security analyses for safety and security certifiable elements as needed.
  4. Support the resolution of identified safety hazards and security vulnerabilities identified through safety and security analyses.
  5. Submit completed and signed Conformance Checklists to HART for review and acceptance.
  6. Submit supporting verification documentation to demonstrate that the design has incorporated and complies with safety and security design criteria and requirements provided in the contract documents.
  7. Submit required documents using HART's document management system for safety and security certification.
  8. Identify on its organization chart the representative assigned to manage and facilitate the CONSULTANT's implementation of the safety and security certification process.
- (d) The safety and security certification process for each certifiable element is not complete until Conformance Checklists that are completed, signed, and submitted by the CONSULTANT have been reviewed and accepted by HART. Additional requirements for safety and security certification are detailed in the Project SSCP. The CONSULTANT shall refer to Engineering Data for a copy of the Project SSCP."

## **I. FIELD SAFETY AND SECURITY**

A new Section 6.9 of the General Terms and Conditions, entitled "FIELD SAFETY AND SECURITY", is hereby inserted.

### **"6.9 FIELD SAFETY AND SECURITY**

- (a) The CONSULTANT is responsible for initiating and maintaining a safety and health program that complies with applicable local, state and federal occupational safety and health regulations, including but not limited to the Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations Subtitle 8, Division

of Occupational Safety and Health Part 3, Construction Standards.

- (b) The CONSULTANT shall be familiar with the Honolulu Rail Transit Project Construction Safety and Security Plan (CSSP) current revision and comply with applicable sections, such as, but not limited to visitor control, public access, first aid/emergency response, safe work practices, personal protective equipment and safety and security reporting requirements. All personnel who have a need to access field locations must attend the HART Safety and Environmental Orientation.
- (c) The CONSULTANT shall designate at least one person as the Safety and Security Representative (this may be a collateral duty position and/or prime sub-consultant designee) to be on-site any time field activities are taking place and is responsible to ensure the proper implementation of the Site-Specific Safety and Security Plan (SSSP). The Safety and Security Representative shall have completed the OSHA 10 Hour Construction Safety Outreach Program or equivalent and be a competent person for applicable subject matter including, but not limited to, fall protection, excavation and trenching, the control of hazardous energy (Lock Out Tag Out (LOTO) Procedure), scaffolding and confined spaces.
- (d) The CONSULTANT shall ensure employees, subconsultants and/or subcontractors comply with applicable regulations and the SSSP submitted by CONSULTANT for this project.
- (e) The CONSULTANT shall submit an SSSP, which shall address field work-related hazards and mitigation measures. This plan shall take into account all work, including any activities subcontracted. This plan must be compatible with the CONSULTANT's overall safety and health program and be submitted to the HART Safety and Security Manager for review and acceptance 30 days prior to field work taking place. The SSSP shall at minimum contain the following information:
  - 1. Title, signature and phone number of the Plan Preparer (this person must be a qualified person), Company Officer and Safety and Security Representative (SSR).
  - 2. Background information: CONSULTANT name, Contract name and number, Description of work to be performed (with attention to field related work).
  - 3. Responsibilities and Lines of Authority. Include a statement of the Prime CONSULTANT's ultimate responsibility for the implementation of the SSSP. Identification and accountability of subconsultants, subcontractors and personnel responsible for safety at all levels. Provide to

HART to review SSR's qualifications and letter of designation assigning the authority to carry out safety and security responsibilities. HART will review the qualifications for acceptance.

4. Safety Policy Statement detailing the CONSULTANT'S commitment to providing a safe and healthy workplace for all employees.
5. Training. Provide a statement requiring completion of the HART Safety and Environmental Orientation for all personnel prior to accessing field work locations. List end user, competent or qualified person training requirements, as applicable.
6. List procedures for field site inspections and documentation. Include the assignment of this responsibility, frequency and documentation method.
7. List procedures for complying with applicable portions of the CSSP.
8. Emergency Planning. Describe emergency plan and means to ensure employees are not permitted to work alone and to ensure an effective means of emergency communication is provided, readily available and in working condition.
9. Describe method of providing drinking water, toilet and washing facilities.
10. First Aid and CPR training. Describe methods to ensure and provide copies of at least two employees on site who are qualified/certified to administer first aid and CPR and provision of first aid kit (type/size).
11. Personal Protective Equipment. At minimum, but not be limited to all personnel, including visitors, on work site locations associated with the PROJECT shall wear the following minimum PPE:
  - i) Head protection complying with ANSI Z89.1-2009 and ANSI Z89.2-2009 shall be worn at all times when on the work site.
  - ii) High visibility, retro-reflective clothing (class 2 or 3) complying with ANSI/ISEA 107, 23 CFR Part 634, MUTCD 6E-3, and 29 CFR 1926.201(a) shall be worn at all times within the traffic work zone.
  - iii) Eye protection complying with ANSI Z87.1-

2003 shall be worn at all times on when on the work site.

- iv) Foot protection complying with ASTM F2413-05 or ANZI Z41-1999 shall be worn at all times when on the work site. Work boots are the preferred type of protective footwear. No tennis-type shoes are permitted.
  - v) Hearing protection with a Noise Reduction Rating (NRR) appropriate for the exposure shall be worn by personnel exposed to noise levels in excess of the 29 CFR 1926.101 Table D-2 Permissible Exposure Limit (PEL). When in the field, personnel must have hearing protection readily available for use.
12. Hazardous substances. Describe when any hazardous substances are to be procured, used, stored or disposed. Provide a hazard communication program and describe how Material Safety Data Sheets (MSDSs) will be made readily available for review. Employees shall have received training in hazardous substances being used and emergency equipment (such as eye wash) shall be readily available at the work area.
13. Describe how traffic control will be accomplished in accordance with the Department of Transportation Manual for Uniform Traffic Control Devices (current edition).
14. Control of Hazardous Energy (Lockout/Tagout). Describe procedures to ensure adequate control of energy before an employee performs any inspection, servicing or maintenance on any equipment where the unexpected energizing or startup of the equipment could occur.”

## **J. PAYMENT**

Section 8.2 of the General Terms and Conditions, entitled “PROGRESS PAYMENT”, is hereby deleted in its entirety and replaced with the following:

### **“8.2 PAYMENT**

- (a) Payments to the CONSULTANT for Work satisfactorily performed will be made according to the mutually-agreed Schedule of Milestones:
  - 1. Scope of Payment. The CONSULTANT shall receive and accept compensation provided for in the Agreement as full

payment for performing all Work under the Agreement in a complete and acceptable manner and for all risk, loss, damage, or expense of whatever character arising out of the nature of the Work or the prosecution thereof.

2. Payment Concept. Payment will be calculated using the Schedule of Milestones ("SM") Pay Item table.
3. Payment does not imply acceptance of the Work. The granting of any payment by HART, or the receipt thereof by CONSULTANT, shall in no way imply acceptance of the Work. Such Work, equipment, components or workmanship that do not conform to the requirements of this Agreement may be rejected by HART and in such case must be replaced by CONSULTANT without delay.

(b) Payment will be based on the SM.

Within forty (40) days upon receipt of NTP #1a, the CONSULTANT is required to breakdown the Work into milestones and submit the SM for approval and acceptance by HART. The SM is intended to provide linkage between the Baseline Design Schedule and the PROJECT Work Breakdown Structure ("WBS") provided by HART. The SM is to be organized by NTP and itemized by Pay Items. The CONSULTANT is to be paid upon satisfactory completion of SM Pay Item(s).

1. Pay Item measurement and payment shall be based on lump sum values assigned to all SM Pay Items. Completion of Milestones is the basis for payment.
2. Request for Monthly Payment. The CONSULTANT shall submit monthly pay requests using Contract Management System procedures for HART to review. The request shall consist of the SM Pay Items for the current month and cumulative to date. An updated SM, Baseline Design Schedule, and a progress narrative addressing, at a minimum, areas of concern shall be included with each pay request.

(c) HART's obligation to make timely payment and the statutory interest that accrues to any late unpaid balance shall be according to HRS § 103-10."

#### **K. RETAINAGE**

Section 8.5 of the General Terms and Conditions, entitled "RETAINAGE", is hereby deleted in its entirety.

#### **L. PROMPT PAYMENT BY CONTACTORS TO SUBCONTRACTORS**

Section 8.6 of the General Terms and Conditions, entitled "PROMPT PAYMENT TO SUBCONTRACTORS," is hereby deleted in its entirety and replaced with the following:

**"8.6 PROMPT PAYMENT BY CONTRACTORS TO SUBCONTRACTORS**

- (a) Generally. Any money paid to a contractor shall be disbursed to subcontractors within ten (10) days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes on which the procurement agency has withheld payment.
- (b) Final Payment. Upon final payment to the contractor, full payment to the subcontractor, including retainage, shall be made within ten (10) days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract. The final payment request shall be properly documented as required under HAR § 3-125-23 (4).
- (c) Penalties. The contractor may be subject to a penalty of one and one-half (1 ½) percent per month on the outstanding amounts due that were not timely paid to the subcontractor and if subcontractor satisfied the conditions set forth in HAR § 3-125-23

**VIII. FEDERAL CLAUSES**

**FEDERAL FUNDING, INCORPORATION OF FTA TERMS, AND CHANGES TO FEDERAL REQUIREMENTS**

This Agreement includes, in part, certain standard terms and conditions required by the FTA, whether or not expressly set forth in the Agreement provisions. All provisions required by the FTA, as set forth in FTA Circular 4220.1F, as amended, will be incorporated by reference. Anything to the contrary notwithstanding, all FTA mandated terms and conditions will be deemed to control in the event of a conflict with other provisions contained in the Agreement. The CONSULTANT shall not perform any act, fail to perform any act, or refuse to comply with any HART requests which would cause HART to be in violation of FTA terms and conditions. This Agreement will be subject to any financial assistance agreement between HART/City and the FTA and all laws, regulations, guidelines, and provisions of the financial assistance agreement will apply to the Agreement and will be incorporated by reference as if fully set forth therein.

The CONSULTANT shall at all times comply with all applicable Federal Government laws and regulations, including without limitation FTA regulations, policies, procedures and

directives, including those listed directly or by reference in Applicable Grant Agreements between HART/City and FTA relating to HRTP, as they may be amended or promulgated from time to time during the term of the Agreement (collectively, "Federal Requirements"). These Federal Requirements may change and the changed Federal Requirements will apply to this Agreement as required unless the Federal Government determines otherwise. The CONSULTANT's failure to comply with the Federal Requirements shall constitute a material breach of the Agreement.

The Federal Requirements are contained in Exhibit 8, attached hereto and incorporated by reference.

**IX. ASSIGNMENT**

CONSULTANT agrees that CONSULTANT shall not transfer or assign this Agreement in whole or in part, except by an instrument, in writing, approved by HART.

**X. HEADINGS; GENDER; NUMBER**

The titles of headings of Sections, Subsection and Paragraphs are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

All words used in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

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**SPECIAL PROVISIONS  
EXHIBIT 1**

**HONOLULU RAIL TRANSIT PROJECT  
STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

**SCOPE OF WORK**

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## 01 KAMEHAMEHA HIGHWAY STATION GROUP (KHSG) DESCRIPTION

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NOTE: Scope of Work based on information provided by HART at time of negotiation.

Pearl Highlands Station: The elevated station structure and two hundred forty (240)-foot long side-platforms are located on the triangular property bounded by Kamehameha Highway, Farrington Highway, and the H-1/H-2 interchange in the vicinity of Kuala Street at the western limits of Pearl City. The station is part of a complex of facilities that include a rail station, bus transit center (NIC) and parking structure (NIC) that is to be constructed in two (2) phases. The first phase consists of the station entrance structure, platforms, and a bus stop and kiss-and-ride on the shoulder of eastbound Kamehameha Highway. Other pedestrian improvements include a pedestrian crossing at the Kamehameha Highway/Kuala Street intersection, sidewalks, stairs and ramps. The design of these items as indicated on the drawings received from HART on the CD dated July 13, 2012 is included in this scope of work. The design of the bus transit center and parking structure are not included.

The station and station entrance are located in the Waiawa Stream flood plain and is supported above the design flood elevation by columns and the guideway structure. The station entrance is located directly below the platforms at "ground" level and is elevated above the flood plain. It includes the Train Control and Communications Room and other required ancillary and equipment rooms. The station entrance connects to the "platform" level via stairs, escalators, and elevators. The site design requires finish grading, scour analysis, and no-rise mitigation for the station columns but does not include landscaping or hydraulic design.

H-2 Ramps: The KHSG's scope of work does not include the design of Ramp H2R1, but will include the design of Ramp H2R2. Ramp H2R2 will connect In-Bound Farrington Highway to In-Bound Kamehameha Highway and provide access to the bus stop and kiss-and-ride that will be included in the first phase of the Pearl Highlands Station construction. This at-grade ramp will follow the existing loop ramp from In-Bound Farrington Highway to Out-Bound H-2. After separating from Farrington Highway and before merging with H-2, the ramp will diverge and tie into Kamehameha Highway west of an existing bridge over Waiawa Stream. The KHSG scope of work for Ramp H2R2 includes the design of interim improvements at the Waihona Street/Kamehameha Highway intersection. Permanent roadway improvements at the Waihona Street/Kamehameha Highway intersection east of the Waiawa Stream Bridge will be constructed in a future contract and is not part of KHSG's scope of work.

Pearlridge Station: Per the drawings received from HART on the CD dated July 13, 2012 and the supplementary sketches received for Pearlridge Station (Sketches AR003-AR005 dated 3/9/12), the elevated concourse structure and two (2) two hundred forty (240)-foot long side-platforms are located in the median of Kamehameha Highway just west of the intersection at Kaonohi Street. The Pearlridge Station scope of work also includes the platform structure spanning the thirty (30)-foot wide concourse bridge. At-grade station entrance structures are located on either side of Kamehameha Highway. A Traction Power Substation (TPSS) and a separate Ancillary Building housing the Train Control and Communications Room and other required equipment rooms are located on the parcel containing the makai entrance building. The station entrance structures are connected to the platforms by an elevated pedestrian walkway which straddles Kamehameha Highway at the concourse level. The site design includes site landscaping, construction of both TPSS and station ancillary facilities, driveways, and site drainage. Utility service shall be connected at an interface point coordinated with the guideway design-build contractor. Escalators shall be included – one (1) at each station building from the ground level to the concourse level.

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Aloha Stadium Station: Per the drawings received from HART on the CD dated July 13, 2012 and the supplementary sketches received for Aloha Stadium Station (Sketches AR101-AR103 dated 3/9/12), the two (2) elevated two hundred forty (240)-foot long side-platforms are located within the existing Kamehameha Parking Lot at Aloha Stadium. The elevated side platforms are accessed directly from the at-grade entrance structures via stairs, elevators, and escalators. A single station entrance will be provided to serve Aloha Stadium and the adjacent park-and-ride lot/bus transit center. The Train Control and Communications Room and other required ancillary and equipment rooms are housed in a separate building at ground level. The site design includes a public plaza, the park-and-ride facility, bus transit center, and landscaping of the station site.

## **02 PHASED DESIGN AND DURATION OF CONTRACT**

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The work in this contract will be phased to allow development of the design to occur in accordance with Federal Transit Administration (FTA) and CITY procedural requirements. The design phases will be initiated by a Notice-to-Proceed (NTP) issued by HART. A total of six (6) NTPs are anticipated. **All durations in the scope of work are calendar days unless specifically noted otherwise.**

### **A. NTP #1a – WORKSHOP, DESIGN SCHEDULE, AND SCHEDULE OF MILESTONES (SM)**

1. Provide HART within ten (10) working days of receipt of NTP #1a with a Schedule of Milestones (SM) and a draft Baseline Design Schedule that includes all Work for which CONSULTANT expects to be compensated. The SM is to be organized by NTP and will serve as the basis for payment. CONSULTANT'S Baseline Design Schedule must be conformed to the SM. HART and CONSULTANT shall reach agreement on the proposed SM at which time HART will approve the SM and issue NTP #1b. The SM format shall follow the sample SM provided to CONSULTANT.
2. Environmental Compliance Plan (ECP) must be submitted for this phase within thirty (30) days of receipt of NTP or thirty (30) days prior to start of Survey or Geotechnical Work.
3. A one (1) day site visit with the HART, GEC and CONSULTANT Team (to be accomplished during the three (3)-day Design Workshop below).
4. Five (5) days of Architectural Design Charrette will also be included in NTP# 1a.
5. Three (3) days of Design Workshop is to be included in NTP# 1a.
6. The right of entry request process for field investigations will also be initiated during this phase. The right of entry request format shall be done by submitting CONSULTANT information, on a form provided by HART, within thirty (30) days after receipt of NTP.
7. NTP# 1a will have duration of forty (40) days or less after receipt of NTP# 1a.
8. Duration for HART Review: ten (10) days after receipt of CONSULTANT'S NTP #1a submittal package.
9. Survey.
10. Geotechnical work plans.
11. Environmental.

### **B. NTP #1b - REVISION TO PRELIMINARY ENGINEERING (PE)**

1. Commencing with NTP #1b, revise current PE design and drawings to incorporate:
  - a) PE designs based on module concept design drawings provided on the July 13, 2012 CD from HART plus supplementary sketches (3/9/12).

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- b) Pedestrian Bridge designs for Pearlridge Station.
  2. Prepare presentation materials, including concept diagrams, plans, elevations, sections, perspective renderings, charts, and PowerPoint slides, and other appropriate information for one (1) community presentation per station, displaying the layout and features of the stations.
  3. Prepare egress calculations and means of egress diagrams.
  4. Confirm compliance of PE design with the Final Environmental Impact Statement (FEIS)/ Record of Decision (ROD), applicable codes, regulations and design standards.
    - a) Duration for station and Ramp H2R2 design: eighty (80) days
    - b) Duration for HART Review: thirty (30) days after receipt of CONSULTANT'S NTP #1b submittal package.
    - c) Duration for CONSULTANT response to HART comments not to exceed thirty (30) days after receipt of comments from HART, and to start concurrently with NTP #2.
    - d) Hydraulic, no-rise mitigation approvals/permits are by HART.
  5. All three (3) Stations and H2R2 Ramp submittals may be submitted as separate packages but will occur within the same timeframe for NTP #1b.
  6. Prepare cost estimate based on NTP #1b Submission, including contingency, risk, and escalation.

**C. NTP #2 - INTERIM DESIGN (ID)**

1. Commence detailed working drawings and specifications.
2. Incorporate Project standard drawings, details, and specifications and develop Project-specific drawings, details, and specifications as required; provide consistent material selection that considers pedestrian safety, durability, maintenance, sustainability and aesthetics relating to the transit environment.
  - a) Duration for station and H2R2 Ramp design: one hundred (100) days.
  - b) Duration for HART Review: thirty (30) days after receipt of CONSULTANT'S NTP #2 submittal package.
  - c) Duration for CONSULTANT response to HART comments not to exceed thirty (30) days after receipt of comments from HART and to start concurrently with NTP #3.
3. All three (3) Stations and H2R2 Ramp submittals may be submitted as separate packages but will occur within the same timeframe for NTP #2.

**D. NTP #3 - FINAL DESIGN (FD)**

1. Commence FD and preparation of construction contract documents.
2. Provide complete construction contract documents necessary to advertise and procure a construction contract.
  - a) Duration for station and Ramp H2R2 camera-ready final documents (Pre-Final Documents): forty-five (45) days
  - b) Duration for HART Review: thirty (30) days after receipt of CONSULTANT'S NTP #3 submittal package.
  - c) Duration for CONSULTANT to incorporate HART final review comments and prepare final advertisement-ready ("ad-ready" = signed & sealed for permit use) construction document thirty (30) after receipt of comments from HART.

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3. NTP #3 will be concurrent with receipt of HART's NTP #2 review comments.

**E. NTP #4 - DESIGN SUPPORT DURING BIDDING**

1. Within the available NTP #4 Allowance, assist HART during the solicitation of the construction contract including provision of technical design support for questions or RFI'S posed by potential bidders and preparation of any required addenda.
2. Duration is four (4) months.

**F. NTP #5 - DESIGN SUPPORT DURING CONSTRUCTION**

1. Within the available NTP #5 Allowance, assist HART by providing Construction Phase Services (CPS) (final scope TBD).
2. Duration is two (2) years.
3. NTP #5 will be concurrent with the award of a construction contract.

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**03 TEAM ORGANIZATIONAL STRUCTURE**

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See attached Organizational Chart

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**04 PROJECT MANAGEMENT APPROACH**

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MANAGEMENT APPROACH:

The project management goal is to implement and execute the KHSG assignment in an effective and efficient manner with an emphasis on Safety & Security, Quality, Budget and Schedule. This project will receive the direct attention of the Principal-in-Charge, who will ensure that the CONSULTANT'S office policies and procedures are followed. This is a fixed-price contract and therefore management of scope and design effort need to be carefully managed. In addition, the Design Leads will oversee the adequacy of the technical solutions

Maris Peika, the CONSULTANT'S Project Manager (PM), is responsible for the overall management of the Contract and will serve as the primary point of contact with HART. The PM will develop a Project Management Plan and a Project Work Plan (The Project Guide) at the very outset of the assignment which will define deliverables, code compliance, quality, user/client satisfaction, budget control and schedule control necessary to effectively manage all aspects of the project.

The Management Plan includes the following:

- A. **Communication / Coordination** – The PM is the sole point of contact and direct link between HART and the Design Team. The PM is responsible for the day-to-day contact for the client with respect to specific task issues and problems. The PM also directs the assigned staff in the performance of all activities and coordinates contact with all other entities with an interest in the task. This protocol for communication shall be followed, particularly while performing field survey work where communication is kept to a minimum with folks on-site who may be a stakeholder in the project but are not project participants with decision-making authority.

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- B. **Schedule / Budget Control** – Upon notification to proceed, a Work Plan will be developed by the PM based upon the accepted cost proposal. Each task and sub task will be defined, staff will be assigned and total hours will be allocated to each sub task.

The PM will also create a baseline schedule, using Primavera Software. This schedule will be updated monthly as the work progresses to assess and identify activities that require additional resources, or may be started early. The schedule will be provided to HART for their review in a monthly Progress Report.

- C. **Sufficient and Appropriate Staffing** The Principal-in-Charge will ensure that appropriate levels of staffing are maintained throughout the duration of the project.

#### DESIGNING TO BUDGET

It is the responsibility of the CONSULTANT to design the Project so that the estimate of construction cost will not exceed the Construction Budget. It is in the best interest of the public, and the intent of HART, that the entire Project designed by the CONSULTANT, be constructed within the funds allocated in the Construction Budget.

Along with the construction documents, the CONSULTANT shall submit in writing to HART an estimate of construction cost. The CONSULTANT shall keep HART informed of any adjustments to previous estimates of construction cost necessitated by changes in scope, requirements, or market conditions. All estimates for construction cost prepared by the CONSULTANT shall contain such provisions for inflation or deflation as may be reasonably anticipated within the construction industry. The inflation or deflation factor shall be applied based upon the anticipated start date of construction or other date as identified by HART. Construction cost shall also assume twenty percent (20%) contingency added to the total construction cost estimate.

The CONSULTANT shall evaluate updated construction cost estimates at each milestone submittal and compare them to the Project's Construction Budget. Estimates of construction cost shall be provided in the format provided by HART. In the event the Project cannot be designed within the Construction Budget without disregarding sound principles of design or if the CONSULTANT is requested by any person, agency, or public body to make any changes in design involving quality or quantity which will increase the cost of the work to an amount which is in excess of the Construction Budget limitation set forth herein, the CONSULTANT will give written notice at once and, in any event, within seven (7) days to HART. In the absence of an amendment to the design contract, the CONSULTANT will not design work at the request of any person, agency, or public body for which the estimated cost will be in excess of the amount set forth below as the Construction Budget. If these estimates identify that Project costs are trending to exceed the budget, the CONSULTANT will recommend changes to project elements to bring costs back in line with the Construction Budget.

Should the CONSULTANT'S Final Estimate of Construction Cost exceed the Construction Budget identified by HART, the CONSULTANT shall immediately give written notice to HART, who will either revise the budget to increase the Construction Budget or direct the CONSULTANT, without additional compensation, to revise the construction documents as necessary (and agreed to by HART) to comply with the Construction Budget for cost of the work. The CONSULTANT'S modifications shall be limited to the CONSULTANT'S responsibility under this Scope of Work.

The "Construction Budget" stated for this Project is:

- A. The amount of the appropriation budgeted for construction of the Project and represents the maximum amount HART is authorized to spend for construction of the Project.

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- B. A limitation imposed on the CONSULTANT as to the amount of money allocated for the construction of this Project.

## 05 REFERENCE DOCUMENTS

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The following documents have been received from HART on DVD and will be utilized in preparation of the design:

### A. PRELIMINARY ENGINEERING DOCUMENTS

#### 1. PE Reference Documents

- a) SV-340-SD1-PearlridgeStation.pdf (12/18/2009)
- b) SV-340-SJ1-AlohaStadiumStation.pdf (12/18/2009)
- c) SV340-SC4-PearlHighlands-Markups-1110007.pdf (10/30/2011)
- d) SV-230-H2Ramps-091120.pdf (11/20/2009)
- e) SV-245-SC4-Pearl Highlands Station.pdf (10/20/2009)
- f) SV-340-SD1-Pearlridge Station-Markups.pdf (7/13/2012)
- g) SV-340-SD1-PearlridgeStation-DwgIndex.xls

#### 2. Station Module Concept Drawings

- a) KHSG-Station Module Concept-DwgIndex.xls (3/9/2012)
- b) SC4-Pearl Highlands-Station Module Concept.pdf (3/9/2012)
- c) SD1-Pearlridge-Station Module Concept.pdf (3/9/2012)
- d) SJ1-AlohaStadium-Station Module Concept.pdf (3/9/2012)

#### 3. Architectural Outline Specifications

- a) HHCTCP-StationDesignContracts-OutlineSpecifications.pdf (9/11/2009)

#### 4. Basis of Design Reports

- a) HHCTCP-BasisOfDesignReport-KamehamehaStations-SD1-Pearlridge.pdf (12/3/2010)
- b) HHCTCP-BasisOfDesign Report-KamehamehaStations-SJ1-Aloha Stadium.pdf (12/3/2010)
- c) BODPearlHighlandsStation and Ramp H2R2.pdf (10/27/2011)

#### 5. Drainage Reports

- a) HHCTCP-AirportGuideway&Utilities-PreliminaryDrainageReport.pdf (FEB 2010)
- b) HHCTCP-KamehamehaGuideway&Utilities-PreliminaryDrainageReport.pdf (FEB 2010)
- c) Preliminary Drainage Report WOFH March 27 2009.pdf
- d) Adv Floodplain Eval for Pearl Highlands Stat and P&R Fac Waiawa Stream 9-2-10.pdf
- e) No Rise Analysis for Pearl Highlands Station and Park and Ride Facility Waiawa Stream 9-3-10.pdf
- f) No Rise Analysis for HHCTCP Guideway Columns – Waiawa Stream 9-7-10.pdf

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- g) Pearl Highlands Station and Park-and-Ride Facility, Deliverable 1: Preliminary Hydraulic Design Report Technical Memorandum. (Final Draft Oct 5, 2011)
  - h) HHCTCP-PreliminaryHydraulicAssessment-StreamCrossings.pdf (4/21/10)
  - 6. HHCTCP-GuidewayValueEngineeringReport.pdf (4/1/2011)
  - 7. HHCTCP-StationValueEngineeringReport\_(KHSO Elements Only).pdf (10/1/2010)

#### **B. H RTP BASELINE DOCUMENTS**

- 1. HHCTCP-CompendiumofDesignCriteria.pdf (2/22/2010)
- 2. HHCTCP-StandardSpecifications-Vol1-(09-09-2010).pdf (9/9/2010)
- 3. HHCTCP-StandardSpecifications-Vol2-(09-09-2010).pdf (9/9/2010)
- 4. RTD-DirectiveDrawings.pdf (11/13/2009)
- 5. RTD-PlansStandards.pdf (10/16/2009)
- 6. RTD-ProjectCADDProcedures.pdf (10/16/2009)
- 7. RTD-StandardDrawings.pdf (11/13/2009)

#### **C. PROJECT-WIDE DOCUMENTS**

- 1. HHCTCP-BusFleetManagementPlan.pdf (7/17/2012)
- 2. HHCTCP-DesignLanguagePatternBook.pdf (10/1/2008)
- 3. HHCTCP-DraftInterfaceControlManual.pdf (10/21/2009)
- 4. HHCTCP-HazardousMaterialTechnicalReport.pdf (8/15/2008)
- 5. HHCTCP-PrimaryControlReport.pdf (6/25/10)
- 6. HHCTCP-ProjectManagementPlan.pdf (7/17/2012)
- 7. HART-QualityManagementPlan.pdf (3/5/2012)
- 8. HHCTCP-QualityPlan.pdf (9/22/2009)
- 9. HHCTCP-Construction Safety & Security Plan.pdf (4/2/2011)
- 10. Real Estate Acquisition Management Plan, Rev. 5 (6/1/2012)
- 11. HART-Safety&SecurityCertificationPlan.pdf (5/9/2012)
- 12. HART-Safety&SecurityManagementPlan.pdf (5/9/2012)
- 13. HHCTCP-Signage&WayfindingSystemsManual.pdf (12/18/2009)
- 14. HHCTCP-SystemwideSustainabilityReport.pdf (5/22/2009)
- 15. Interface Mgt Plan Rev0 063011.pdf
- 16. Mitigation Monitoring Plan, Rev. 0.pdf (7/17/2012)

#### **D. ENVIRONMENTAL DOCUMENTS**

- 1. 6.2.07 Noise and Vibration.pdf (10/01/2008)
- 2. Attachment A ROD - Mitigation Monitoring Program.pdf (3/15/12)

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3. Attachment B ROD - Final Programmatic Agreement (PA)
    - a) Attachment B ROD - Final PA Attachment 1 Part 1 correspondence.pdf
    - b) Attachment B ROD - Final PA Attachment 1 Part 2 Historic Resources Parcel Maps-key-12.pdf
    - c) Attachment B ROD - Final PA Attachment 1 Part 3 Historic Resources Parcel Maps-13-25.pdf
    - d) Attachment B ROD - Final PA Attachment 1 Part 4 Historic Resources Parcel Maps-26-35.pdf
    - e) Attachment B ROD - Final PA Attachment 2.pdf
    - f) Attachment B ROD - FINAL PA Jan 2011 signed.pdf
  4. Attachment C ROD - Comments on FEIS and Responses.pdf
  5. Attachment D ROD.pdf
  6. Final Programmatic Agreement.pdf
  7. ROD and transmittal ltr (signed) dated Jan 18 2011.pdf
  8. Draft H RTP - Environmental Hazard Management Plan (4/13/2012)

#### E. GEOTECHNICAL DOCUMENTS

1. Electronic Reference Data
  - a) 6000-20-KamehamehaHwySegment.gpj
  - b) HHCTCP-1991\_B4thruB18(DBSegment).gpj
  - c) KamehamehaHwyCPTData.xls
  - d) Terms of Acceptance-Electronic Data.pdf
2. Engineering Data
  - a) KHG GeotechnicalDataReport.pdf (2/16/2010)
  - b) KHG GeotechnicalDataReport\_Addendum.pdf (5/7/2010)
3. Reference Data
  - a) AppB1\_3860-30.North-South Road Ph 1B.gs2.pdf
  - b) KHG\_GeotechnicalBaselineReport {Rev. 1.1} .pdf (5/7/2010)
  - c) KHG\_TM\_SubSfcCond {GBR-ref}.pdf (3/1/2010)
  - d) KHG\_TM-PrevProjects {GBR-ref}.pdf (3/1/2010)
  - e) KHG-FdnTechMemo {Geolabs}.pdf (2/26/2010)

#### 06 ACTIVITY SHEETS

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The following section includes Activity Sheets containing the following:

- Activity Description
- Assumptions
- Inputs

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- Deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Project Management</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

## 1. DESIGN SCHEDULE

- a) CONSULTANT will prepare a design schedule using Primavera's P6, (Version 7) for each design discipline, indicating all project milestones for each design phase. CONSULTANT will incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones. HART will provide CONSULTANT with all base formats and available transit project data within two (2) days of NTP #1a.
- b) The project Design Schedule will identify critical path issues for this design contract and will provide the means to confirm design and review timetable, e.g. the schedule. The schedule of submittals identified in the Scope of Work will be incorporated into the Design Schedule and will provide a time-sensitive description of the expectations for performance.
- c) The design schedule for NTP #1a shall be forty (40) days or less.

## 2. DEVELOP CMS MANAGEMENT PLAN

## 3. DEVELOP PROJECT GUIDE/WORK PLAN CONSISTENT WITH THE HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT (HHCTCP) PMP

## 4. SITE VISITS AND WORKSHOPS (A/E DISCIPLINES AS AGREED TO BETWEEN HART AND THE CONSULTANT)

- a) Attend single day three (3) Station Site Visit with HART (to be accomplished during the three (3)-day Design Workshop below).
- b) Attend Architectural Design Charrette with HART Architecture Team (five (5) Days) (Architects only).
- c) Attend three (3)-day Design Workshop.
- d) Workshop to include CONSULTANT'S design team members, HART staff, and GEC staff.
- e) Arrangements for the workshop, including venue and audio-visual equipment to be coordinated by CONSULTANT.
- f) HART & CONSULTANT to develop agenda for the workshop based on Architectural workshop, Site Visits, Community, History, Cultural, and Architectural research.
- g) Contribute to PowerPoint Presentation on KHSG Design Goals/Challenges/Initial Concepts.
- h) CONSULTANT team shall attend HART Safety and Environmental training/orientation.
- i) CONSULTANT shall comply with Project Safety and Security Management Plan (SSMP) and Safety and Security Certification Plan (SSCP) as mandated by FTA. CONSULTANT shall identify and track certifiable elements and certifiable items, participate on HART safety and security committees, and provide Design sign-off on all certifiable items by responsible engineer/architect.

## 5. RESPOND TO HART COMMENTS

**B. Schedule of Milestones**

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1. Prepare Project Schedule of Milestones (SM) that includes all work for which the CONSULTANT Team expects to be compensated. The SM is to be organized by NTP and will serve as the basis for payment.

**C. Assumptions**

1. HART to provide updated/current documentation in advance of site visits and workshop.
2. All activities during NTP #1a will take place during a period of forty (40) days or less.
3. HART to provide format for right-of-entry request forms.
4. Hydraulic findings to be presented at workshop.
5. HART review and approval/comment on Schedule and SM initial submittals will take 10 (ten) days.
6. Maximum of thirty (30)-days for outside agency reviews and that the reviews would be concurrent with design work for the next phase as applicable.

**D. Inputs**

1. 'KMSG Reference Materials'
2. HART CD dated July 13, 2012

**E. Deliverables**

1. PowerPoint Presentation
2. Project Design Schedule in Primavera P6 format
3. SM
4. Right-of-Entry Requests
5. Project Guide/Work Plan
6. Meeting notes for three (3)-day & five (5)-day workshops
7. CMS Management Plan

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>All Stations Environmental</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Prepare and update the Environmental Compliance Plan (ECP) throughout the development of the design:
  - a) The ECP will detail the project's environmental objectives and targets for design with the goal of executing the work in an environmentally-sound manner in compliance with all federal, state, and local laws; regulations; permit conditions; and commitments recorded in the FEIS, ROD, FAA ROD, and PA.
  - b) The ECP will outline procedures and protocols for achieving environmental compliance, including environmental controls, training, monitoring, description of environmental team meetings, and documentation of compliance during design and subsequent construction phases.
  - c) The ECP will describe the roles and responsibilities and reporting relationships for both the CONSULTANT and HART environmental staff, including how coordination will occur.
  - d) The ECP will detail protocols and reviews that occur during the design phase.
  - e) The ECP will contain a list of potentially required environmental permits, waivers, and approvals.
  - f) The ECP will list regulatory agencies with an interest in the project and describe reporting requirements and provide points of contact.
  - g) The ECP will establish and describe a record system.
  - h) The ECP will establish a procedure to ensure that environmental compliance objectives are carried forward through the bidding and construction phases, including ensuring that all environmental compliance conditions are incorporated into the contract special provisions.
  - i) ECP will outline a process for achieving environmental compliance for any proposed design changes.
2. Environmental Compliance Reviews during Design:
  - a) Environmental compliance staff will collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, and Section 106 PA requirements are adequately incorporated into the Station designs.
  - b) Environmental compliance reviews will be conducted as per the procedures established in the ECP.
3. Attend design team coordination, review, and interface meetings as needed.

**B. Assumptions**

1. The ECP will not consider Health and Safety requirements.
2. The ECP will incorporate mitigation provisions detailed in the MMP (March 2012), FEIS, ROD, and PA.
3. The ECP will be a living document and will be updated with commitments identified in any permits received for the project. Two (2) updates are assumed: 1) During NTP #2, and 2) During NTP #3.
4. Environmental Compliance Reviews will occur prior to submittal of PE, ID, and FD plan sets.
5. HART/GEC will prepare and submit NPDES and Section 404 NWP applications/notifications.
6. Environmental Review documentation will be necessary for any design change from the PE design that has potential to impact any resource in the FEIS. This may include changes in ROW needs, temporary easements in protected properties, or changes to the design. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.

**C. Inputs**

1. FEIS

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2. Habitat Conservation Plan
  3. ROD and attachments
  4. Section 106 PA
  5. Interim Grading plan for Waiawa Stream flood plain improvements by WOFH or from HART
  6. Approved ROE
  7. HART CD dated July 13, 2012

**D. Deliverables**

1. Preliminary Draft (Rev. A) ECP Submittal
2. Baseline (Rev. 0) ECP Submittal
3. Environmental Compliance Review Tracking Document for PE design

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Permitting</b>	WBS-Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. Attend design team coordination, review, and interface meetings as needed.

**B. Assumptions**

1. None.

**C. Inputs**

1. Data, plans, engineering drawings and other project details for inclusion into permit applications and/or clearances
2. Archaeological Inventory Survey results
3. PE Drawings
4. Site-Specific BMP Plan (to be developed with design team)

**D. Deliverables**

1. None

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Safety and Security Certification</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Demonstrate within the project schedule the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklists.
2. Periodic "Safety & Security Certification Task Force" meetings, as requested by CONSULTANT.
3. Identify a representative assigned to manage and implement the safety and certification process. Provide resume/qualifications.

**B. Assumptions**

1. None.

**C. Inputs**

1. HART - Safety and Security Management Plan
2. HART - Safety and Security Certification Plan
3. FTA Handbook for Transit Safety and Security Certification (November 2002)

**D. Deliverables**

1. Schedule of Safety and Security Certification Activities
2. Meeting notes from the safety and security certification activities meetings
3. Qualifications of Design Safety and Security Certification Manager

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Project Management</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description****1. DESIGN COORDINATION MEETINGS**

- a) Progress Meetings will be held with HART on a bi-weekly schedule or fewer as mutually agreed upon. The agenda for these meetings will include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and as applicable resolutions proposed. Each meeting will include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review will be provided at least two (2) working days in advance of the meeting. Meeting minutes will be distributed within five (5) days of the meeting and will include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes will be prepared by the CONSULTANT and will represent a continuous record of the preliminary engineering design and an on-going confirmation of the design schedule.
- b) The CONSULTANT will hold supplementary meetings with appropriate team members. These meetings will act as work sessions to focus on specific areas of the project that require attention or design issues that require resolution. Appropriate meetings will be held with the various approving City & State agencies and Utility Companies to assist in the review process. It is critical that the review process includes a one-time review by all agencies and utilities and an expedited review period.

**2. DESIGN SCHEDULE MONITORING AND CONTROL**

- a) The CONSULTANT will prepare a design schedule using Primavera's P6, (Version 7) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT will incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones. HART will provide the CONSULTANT with the base formats and all applicable transit project data as needed for coordination.
- b) The project Design Schedule will identify critical path issues for this design contract and will provide the means to confirm design and review timetable, e.g. the schedule. The schedule of submittals identified in the Scope of Work will be incorporated into the Design Schedule and will provide a time-sensitive description of the expectations for performance. The contract proposes a design schedule consisting of NTP #1b with a duration of eighty (80) days.

**3. PREPARE UPDATED SCHEDULE OF MILESTONES**

- a) Prepare Project SM that includes all work for which the CONSULTANT Team expects to be compensated. The SM is organized by NTP and will serve as the basis for payment.

**4. PRIMAVERA LICENSING & TRAINING**

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- a) The CONSULTANT will maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
5. SUB-CONSULTANT MANAGEMENT & COORDINATION
- a) The CONSULTANT will hold coordination meetings or conference calls (weekly) to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues will be identified in the agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's PM will periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.
6. DOCUMENT CONTROLS
- a) Non-CADD project correspondence and other documentation will be controlled using HART's CMS.
  - b) The CONSULTANT will utilize the CADD production guidelines established by the HART to standardize the development and production of design drawings, aid in the use, retrieval, exchange and modification of design drawings, and communicate information to HART and other stakeholders. Standards include sheet organization, and conventions for line weight, layer and level naming, symbols, and filing. The CONSULTANT will use CMS for CADD drawing submittals. AutoCAD has been established as the project CADD platform.
  - c) The CONSULTANT will utilize a Project CADD Coordinator to review protocols and resolve problems as they may occur, and to enforce a uniform application of these guidelines.
7. MONTHLY PROGRESS REPORTING AND INVOICING
- a) Monthly Progress Reports
    - i. Progress reports will be submitted monthly and will include identification of design progress, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution, work performed in the preceding time period and work anticipated in the next time period. In addition, the reports will document any design issues that may impact the design schedule or the construction budget, and specifically suggest methods of proactive resolution of such issues within a period no longer than thirty (30) business days.
    - ii. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.
  - b) Monthly Invoices
    - i. Invoices will be submitted monthly following the WBS format specified by HART. It is understood that invoice amounts will be based on the SM. All invoicing will be via HART's CMS system; the content and format will be defined and provided by HART.
8. REVISION TO PE SUBMITTAL
- a) The Project/Design Manager is responsible for coordinating and consolidating the PE submittal elements. These include, but are not limited to, all required reports, estimates of construction costs, drawings, contract technical specifications, and design calculations to be submitted as one package unless otherwise agreed to by HART.

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9. COMMENTS MATRIX AND RESPONSES

- a) HART will review and provide comment on the PE submittal. Submittal review comments will be provided to the CONSULTANT no later than thirty (30) days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT will respond to the comments within fourteen (14) days and also indicate a course of action to be taken. The PM is responsible for consolidating and proofing all comment responses for the disciplines and submitting to HART as one (1) response package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT will incorporate the comments in the submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated with the Interim Design submission. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviation request has been specifically requested in writing by the CONSULTANT and approved in writing by HART.

10. TRAINING

- a) The CONSULTANT's project scheduler will attend all necessary training required at the outset of the project as required by HART, including Primavera CMS and other project-wide software.

11. PROJECT CONTROLS AND ADMINISTRATION

- a) Administrative support for CMS, Interface meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. will be provided.
- b) A Project Controller will be responsible for financial monitoring & control reporting, invoicing and accounting.

**B. Assumptions**

- 1. HART has provided the CONSULTANT with the most updated/current project documentation.
- 2. All activities during NTP #1b will take place during a period not to exceed eighty (80) days.
- 3. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.
- 4. NTP #2 for the next phase will be provided at the end of the HART review & comment period (not to exceed thirty (30) days from the NTP #1b submission date. The CONSULTANT may submit a claim for any additional labor, overhead, project controls and administrative costs resulting from delay in the release of these phases caused by HART and shall include appropriate documentation of these costs.
- 5. Liquidated damages have been deleted from this contract.
- 6. HART shall review and return project schedule and SM submissions approved or with comments within two (2) working days.
- 7. Minor revisions to SM will not require a contract amendment.

**C. Inputs**

- 1. 'KHSR Reference Materials'
- 2. HART CD dated July 13, 2012

**D. Deliverables**

- 1. Meeting Agendas & Minutes
- 2. Design Schedule (Primavera P6)
- 3. Updated SM (as necessary)

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4. Monthly Progress Reports
  5. Monthly Invoices

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Interface Management</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop Passenger Stations Interface Control Manual.
2. Develop KHSG Passenger Stations Interface Matrix identifying interfaces with affected contracts.
3. Participate in bi-weekly internal design team meetings to identify and discuss potential interfaces.
4. Participate in bi-weekly interface definition meetings with the West-Oahu/Farrington Highway Guideway Design-Build Contractor (WOFH) and the Kamehameha Highway Guideway Design-Build Contractor (KHG).
5. Participate in bi-weekly interface definition meetings with the Core Systems Contractor (CSC).
6. Participate in bi-weekly interface management status meetings with "other interfacing parties" including Elevators & Escalators Contractor, Systemwide Landscaping Design, Station Canopy Design, Station Signage Design.
7. Participate in monthly detailed Interface Resolution Meetings.
8. Respond to Requests for Interface Data (RFIDs).
9. Generate RFIDs.
10. Confirm interfacing partner ICDs.

**B. Assumptions**

1. Internal design team meetings are assumed to be bi-weekly and one hour in duration.
2. Interface definition meetings are intended to identify, update, monitor and close RFID and coordinate ICDs, and are assumed to be two (2)-hours in length.
  - a) Interface definition meetings for WOFH/Kamehameha Highway Station Group (KHSG) and KHG/KHSG will be combined into one (1) two (2)-hour meeting since the guideway design and construction Contractors are the same.
  - b) Interface definition meetings with the CSC will be one (1)-hour in length, bi-weekly.
  - c) Interface Management status meetings for the other interfacing parties (as defined above) will be combined into one (1) two (2) -hour meeting since the scope for the interfaces are less complex than the guideway and core systems interfaces.
3. Detailed Interface Resolution Meetings are intended to provide additional clarification and details regarding certain interfaces. These are assumed to be two (2)-hours in length with a monthly frequency for all interfacing parties.
4. Oracle Primavera's Contract Management System will be used to create, respond to, and track the interfaces and log meeting notes.
5. Time required for all RFID responses shall not exceed thirty (30) days.
6. Structure and format of KHSG Passenger Interface Control Manual and Interface Matrix will be based upon that in the HHCTCP Draft Interface Control Manual.

**C. Inputs**

1. HHCTCP Draft Interface Control Manual (10/21/2009)
2. HHCTCP Interface Management Plan (8/29/2011)

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3. Pre-defined Interface Management distribution lists for Interfacing Parties
  4. RFID responses generated by the KHSG Interim Final Designer. As the Interim KHSG Final Designer, HART has been interfacing with adjacent Contractors/Designers prior to KHSG Consultant selection. CONSULTANT will be responsible for designing the stations within the limitations of the Interim KHSG Final Designer's RFID responses to the extent possible.

**D. Deliverables**

1. KHSG Passenger Station Interface Control Manual (Draft and Final)
2. Meeting notes from the bi-weekly Interface Management Status Meetings with Other Interfacing Parties
3. Meeting notes from the monthly detailed Interface Resolution Meetings with other Interfacing Parties
4. RFIDs
5. Responses to RFIDs
6. KHSG Passenger Stations Interface Matrix
7. Confirmation of Interfacing Partner ICDs

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	<b>AVA</b>	Issue Date:	<b>September 11, 2012</b>
Activity:	<b>All Stations Quality Assurance and Control</b>	WBS Code / ID number:		Revision No:	<b>A</b>

**A. Activity Description**

1. Develop KHSG Project Quality Assurance Plan.
2. Participate in bi-weekly "Quality Task-Force" meetings.
3. Perform Quality Control Checking of Pearl Highlands Station design package.
4. Perform Quality Control Checking of Pearridge Station design package.
5. Perform Quality Control Checking of Aloha Stadium Station design package.
6. Perform Quality Control Checking of H2R2 Ramp design package.
7. Conduct internal quality assurance audit of the Pearl Highlands Station quality control activities.
8. Conduct internal quality assurance audit of the Pearridge Station quality control activities.
9. Conduct internal quality assurance audit of the Aloha Stadium Station quality control activities.
10. Conduct internal quality assurance audit of the H2R2 Ramp quality control activities.
11. Participate in HART quality assurance audits

**B. Assumptions**

1. Quality Task Force meetings are assumed to be bi-weekly and one hour in duration via conference call with bi-monthly meeting on island.
2. "Design Package" is defined as the drawings, specifications, calculations, basis of design report, quantity and cost estimates that together comprise the final submittal of each NTP (NTP #1b through NTP# 3).
3. Quality Control of 'formal' intermediate submittals are included in the individual design discipline work scope, but not for informal 'in-progress' submissions.
4. Internal quality assurance audits will be based on compliance to the HART-accepted QAP.
5. Reports will be prepared for all internal QA Audits and be made available to HART.
6. HART quality assurance audits are assumed but not limited to one on-site audit at the CONSULTANT's office in Honolulu, one remote audit in the CONSULTANT'S office on the mainland and two audits at on-island subconsultants (one audit each) for a total of four assumed quality assurance audits per NTP (NTP #1b through NTP #3).

**C. Inputs**

1. HRTP Quality Management Plan (3/5/12)
2. FTA Quality Assurance/Quality Control (QA/QC) Guidelines
3. HART-accepted QAP

**D. Deliverables**

1. KHSG Project Quality Assurance Plan
2. Meeting notes from the bi-weekly Quality Task-Force meetings
3. Quality Control Certificate of Compliance – Pearl Highlands Station design package

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4. Quality Control Certificate of Compliance – Pearlridge Station design package
  5. Quality Control Certificate of Compliance – Aloha Stadium Station design package
  6. Quality Control Certificate of Compliance – H2R2 Ramp design package
  7. Quality Audit Reports

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Environmental</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Environmental Compliance Reviews during Design:
  - a) Environmental compliance staff will collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, FAA ROD, and PA requirements are adequately incorporated into the Station designs.
  - b) Environmental compliance reviews will be conducted as per the procedures established in the ECP.
2. Attend design team coordination, review, and interface meetings as needed.
3. Update ECP with permit conditions from permits received during NTP #1a

**B. Assumptions**

1. Environmental Compliance Reviews will occur prior to submittal of PE, ID, and FD plan sets.
2. HART will prepare and submit NPDES and Section 404 NWP applications/notifications.
3. Environmental Review documentation will be necessary for any design change from the PE design that has potential to impact any resource in the FEIS. This may include changes in ROW needs, temporary easements in protected properties, or changes to the design. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.
4. The ECP will be a living document and will be updated with commitments identified in any permits received for the project. Three (3) updates are assumed: 1) At the end of NTP #1b, 2) At the end of NTP #2, and 3) At the end of NTP #3.

**C. Inputs**

1. FEIS
2. ROD and all attachments
3. Section 106 Programmatic Agreement
4. Final Grading plan for Waiawa Stream floodplain improvements by WOFH or from HART
5. 'KHSR Reference Materials', including Hydrology Report
6. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
7. NTP #1a Submission.

**D. Deliverables**

1. Technical memo to accompany the design submission, describing mitigation measures included in the design and confirming Environmental compliance.
2. Environmental Compliance Plan checklist
3. Environmental Compliance Review Tracking Document for PE design

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**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>All Stations Permitting</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Attend design team coordination, review, and interface meetings as needed
2. Permitting for Pre-Construction Activities (e.g., geotechnical investigation)
  - a) CONSULTANT will assist HART with preparing NPDES and Section 404 NWP applications/notifications

**B. Assumptions**

1. CONSULTANT assumes that 1) existing information and studies prepared for the FEIS, ROD, Mitigation Monitoring Program, Programmatic Agreement and 2) design documents prepared as part of this specific SOW will satisfy the permit application and clearance requirements.
2. CONSULTANT will submit electronic versions of draft and final permit applications/notifications to HART for review.
3. HART will provide review comments within thirty (30) days of submittal.
4. HART will establish any necessary utility engineering and/or construction agreements.
5. Construction Contractor will be responsible for NPDES Form F (hydrotesting) and NPDES Form G (dewatering) and associated MS4 approvals.
6. The ECP will be a living document and will be updated with commitments identified in any permits received for the project. Three (3) updates are assumed: 1) At the end of NTP #1b, 2) At the end of NTP #2, and 3) At the end of NTP #3.
7. CONSULTANT assumes HART is responsible for obtaining the following permits/approvals:  
REQUIRED FOR GEOTECHNICAL INVESTIGATION:
  - a) Noise Permit
  - b) Noise Variance
  - c) NPDES Form C (CONSULTANT to provide site-specific BMP plans)
  - d) MS4 Approvals

**C. Inputs**

1. CONSULTANT will furnish data, plans, engineering drawings and other project details for inclusion into permit applications and/or clearances.
2. Archaeological Inventory Survey results.
3. PE Drawings
4. Site-Specific BMP Plan (to be developed with design team)

**D. Deliverables**

1. Draft Permit/Clearance Applications Environmental Compliance Plan checklist
2. Final Permit/Clearance Applications

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Cost Estimate</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Review revised PE designs.
2. Prepare cost estimate for the year of expenditure based on PE submittal documents for architectural, structural, mechanical and electrical components.
3. Coordinate and incorporate estimates provided by the responsible consultants for civil, landscape, environmental and special equipment/systems components (if applicable).
4. Include on-costs such as contractors general conditions, overhead and profit, taxes, etc. as appropriate for the scope of work.
5. Attend meetings as needed.
6. Reconcile estimate after review by the CONSULTANT and HART.

**B. Assumptions**

1. HART will facilitate meetings and/or video conference meetings to review cost.

**C. Inputs**

1. Coordination and guidance from the HART/GEC relating to Station estimate format
2. HART discussions on cost estimate

**D. Deliverables**

1. Preliminary estimate for NTP #1b provided in excel spreadsheet
2. Documentation of meetings or discussions on cost

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Safety and Security Certification</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Demonstrate within the project schedule the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklists.
2. Periodic "Safety & Security Certification Task Force" meetings, as requested by CONSULTANT.
3. Identify a representative assigned to manage and implement the safety and certification process. Provide resume/qualifications.
4. Review and revise the initial Certifiable Elements List (CEL) and Certifiable Elements List (CIL), provided by HART, based on Consultant's knowledge of required certifiable elements and items. Submit CEL and CIL to HART for review and acceptance by its Safety and Security Review Committee (SSRC).
5. Participate on safety and security committees and working groups established by HART.
6. Participate in HART Safety and Security Certification Audits.
7. Institute a process to identify and resolve safety hazards and security vulnerabilities for incorporation into design.

**B. Assumptions**

1. HART will provide PE-Phase Conformance Checklist forms and initial CEL and CIL.
2. Safety and Security Certification Audits will be performed by HART annually.
3. HART and GEC Safety and Security Engineers will provide over-the-shoulder reviews and guidance throughout the contract.
4. Consultant will periodically confer with HART/ demonstrate its certification progress and conformance verification.
5. HART's Safety Certification Data Management System (SCDMS) will be utilized for the revisions of the initial CEL and CIL.

**C. Inputs**

1. HART - Safety and Security Management Plan
2. HART - Safety and Security Certification Plan
3. FTA Handbook for Transit Safety and Security Certification (November 2002)
4. PE-Phase Conformance Checklist forms and initial CEL and CIL. developed by HART

**D. Deliverables**

1. Schedule of Safety and Security Certification Activities
2. Meeting notes from the safety and security certification activities meetings
3. Qualifications of Design Safety and Security Certification Manager
4. Safety and Security Conformance Checklist for Final Design

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Project Management – Interim Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description****1. DESIGN COORDINATION MEETINGS**

- a) Progress Meetings will be held with the HART on a mutually agreed as needed basis. The agenda for these meetings will include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and as applicable resolutions proposed. Each meeting will include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and the HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review will be provided at least two (2) working days in advance of the meeting. Meeting minutes will be distributed within five (5) days of the meeting and will include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes will be prepared by the CONSULTANT and will represent a continuous record of the interim design and an on-going confirmation of the design schedule.
- b) The CONSULTANT will hold supplementary meetings with appropriate team members to focus on specific areas of the project that require attention or design issues that require resolution.

**2. DESIGN COST MONITORING AND CONTROL**

- a) The CONSULTANT will monitor design budget weekly using Primavera (Contract Manager and P6). HART will provide the CONSULTANT with all program control requirements, detailed schedules from interfacing contracts, rail budget proposal list and cost data, baseline schedule format, invoicing formats, and the base format for the project work plan that is consistent with the HART Primavera requirements within two (2) days of NTP #2. The CONSULTANT will maintain one copy of Primavera Contract Manager and P6 Scheduling hours have been limited based on the above assumptions.
- b) Cost monitoring output, earned value, will follow the HART Work Breakdown Structure (WBS) for compliance with HART's payment terms.

**3. DESIGN SCHEDULE MONITORING AND CONTROL**

- a) The CONSULTANT will update design schedule using Primavera's P6, (Version 7) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT will incorporate HART's WBS and HART-dictated coding schemes on all schedule activities and milestones.
- b) A maximum of thirty (30)-days for outside agency reviews is assumed and that the reviews would be concurrent with design work for the next phase as applicable.

**4. PREPARE UPDATED SM**

- a) Update Project SM, if necessary, to include all work for which the CONSULTANT Team expects to be compensated.

**5. SUB-CONSULTANT MANAGEMENT & COORDINATION**

- a) The CONSULTANT will hold coordination meetings or conference calls (as needed) to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work

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effort and schedules. Specific design issues will be identified in the agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's Project Manager and QA/QC Manager will periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.

6. MONTHLY PROGRESS REPORTING AND INVOICING

a) Monthly Progress Reports

i. Progress reports will be submitted monthly and will include identification of design progress, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution, work performed in the preceding time period and work anticipated in the next time period.

b) Monthly Invoices

i. Invoices will be submitted monthly following the WBS format specified by the HART. It is understood that invoice amounts will be based on the SM. All invoicing will be via HART's CMS system, the content and format will be defined and provided by HART.

7. PROJECT CONTROLS AND ADMINISTRATION

a) Administrative support for CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. will be provided.

b) A Project Controller will be responsible for financial monitoring & control reporting, invoicing and accounting.

8. INTERIM DESIGN (ID) SUBMITTAL

a) The Project/Design Manager is responsible for coordinating and consolidating the ID submittal elements. These include, but are not limited to, all required reports, estimates of construction costs, drawings, contract technical specifications, and design calculations to be submitted as one package unless otherwise agreed to by HART.

9. COMMENTS MATRIX AND RESPONSES

a) HART will review and provide comment on the ID submittal. Submittal review comments will be provided to the CONSULTANT no later than thirty (30) days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT will respond to the comments within fourteen (14) days and also indicate a course of action to be taken. The Project Manager is responsible for consolidating and proofing all comment responses for the disciplines and submitting to HART as one response package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT will incorporate the comments in the submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated with the Final Design submission. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviations has been specifically requested in writing by the CONSULTANT and approved in writing by HART.

**B. Assumptions**

1. All activities during NTP #2 will take place during a period not to exceed one hundred (100) days.
2. CONSULTANT will be authorized to proceed with NTP#3 after HART's thirty (30)-day review of the NTP#2 submittal. The CONSULTANT may submit a claim for any additional labor, overhead, project controls and administrative costs resulting from delay in the release of these phases caused by HART.

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3. All documentation, reporting, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.

**C. Inputs**

1. 'KHSG Reference Materials'
2. HART CD dated July 13, 2012

**D. Deliverables**

1. Meeting Agendas & Minutes
2. Updated Design Schedule (Primavera P6)
3. Monthly Progress Reports
4. Monthly Invoices
5. Comments Matrix and Responses

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #2</b>	Activity Responsibility:	<b>AVA</b>	Issue Date:	<b>September 11, 2012</b>
Activity:	<b>All Stations Interface Management</b>	WBS Code / ID number:		Revision No:	<b>A</b>

**A. Activity Description**

1. Participate in bi-weekly internal design team meetings to identify and discuss potential interfaces.
2. Participate in bi-weekly interface definition meetings with the WOFH Guideway Design-Build Contractor and the KHG Design-Build Contractor.
3. Participate in bi-weekly interface definition meetings with the CSC.
4. Participate in bi-weekly interface management status meetings with "other interfacing parties" including Elevators & Escalators Contractor, Systemwide Landscaping Design, Station Canopy Design, Station Signage Design.
5. Participate in monthly detailed Interface Resolution Meetings.
6. Respond to RFIDs. Update interface matrix identifying interfaces with affected contracts.
7. Develop and submit RFIDs.
8. Confirm Interfacing Partner ICDs)

**B. Assumptions**

1. Internal design team meetings are assumed to be bi-weekly and one (1) hour in duration.
2. Interface definition meetings are intended to identify, update, monitor and close RFID, and coordinate ICDs, and are assumed to be two (2)-hours in length.
  - a) Interface definition meetings for WOFH/ KHSG and KHG/KHSG will be combined into one (1) two (2)-hour meeting since the guideway design and construction Contractors are the same.
  - b) Interface definition meetings with the CSC will be one-hour in length, bi-weekly.
  - c) Interface Management status meetings for the other interfacing parties (as defined above) will be combined into one (1) two (2)-hour meeting since the scope for the interfaces are less complex than the guideway and core systems interfaces.
3. Detailed Interface Resolution Meetings are intended to provide additional clarification and details regarding certain interfaces. These are assumed to be two (2)-hours in length with a monthly frequency for all interfacing parties.
4. Oracle Primavera Contract Management System will be used to create, respond to, and track the interfaces and log meeting notes.
5. Time required for all RFID responses shall not exceed thirty (30) days.
6. Structure and format of the Interface Matrix will be based upon that in the HHCTCP Draft Interface Control Manual.

**C. Inputs**

1. HHCTCP Draft Interface Control Manual (10/21/2009)
2. HHCTCP Interface Management Plan (8/29/2011)
3. Pre-defined Interface Management distribution lists for Interfacing Parties

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4. RFID responses generated by the KHSG Interim Final Designer. As the Interim KHSG Final Designer, HART has been interfacing with adjacent Contractors/Designers prior to KHSG Consultant selection. CONSULTANT will be responsible for designing the stations within the limitations of the Interim KHSG Final Designer's RFID responses to the extent possible.

**D. Deliverables**

1. Meeting notes from the bi-weekly Interface Management Status Meetings with Other Interfacing Parties
2. Meeting notes from the monthly detailed Interface Resolution Meetings with other Interfacing Parties
3. Updated KHSG Passenger Stations Interface Matrix
4. RFIDs
5. Responses to RFIDs
6. Confirmation of Interfacing Partner ICDs.

ACTIVITY DESCRIPTION		
NTP#:	NTP #2	Activity Responsibility: AVA
Activity:	All Stations Quality Assurance and Control	Issue Date: September 11, 2012
		Revision No: A

**A. Activity Description**

1. Participate in monthly "Quality Task-Force" meetings.
2. Perform Quality Control Checking of Pearl Highlands Station design package.
3. Perform Quality Control Checking of Pearlridge Station design package.
4. Perform Quality Control Checking of Aloha Stadium Station design package.
5. Perform Quality Control Checking of H2R2 Ramp design package.
6. Conduct internal quality assurance audit of the Pearl Highlands Station quality control activities.
7. Conduct internal quality assurance audit of the Pearlridge Station quality control activities.
8. Conduct internal quality assurance audit of the Aloha Stadium Station quality control activities.
9. Conduct internal quality assurance audit of the H2R2 Ramp quality control activities.
10. Participate in HART quality assurance audits.

**B. Assumptions**

1. Quality Task Force meetings are assumed to be monthly and one hour in duration via conference call with bi-monthly on island meetings.
2. "Design Package" is defined as the drawings, specifications, calculations, basis of design report, quantity and cost estimates that together comprise the final submittal of each NTP (NTP #1b through NTP #3).
3. Quality Control of 'formal' intermediate submittals are included in the individual design discipline work scope, but not for informal 'in-progress' submissions.
4. Internal quality assurance audits will be based on compliance to the HART-accepted QAP.
5. Reports will be prepared for all internal QA Audits and be made available to HART.
6. HART quality assurance audits are assumed but not limited to one on-site audit at the CONSULTANT'S office in Honolulu, one (1) remote audit in the CONSULTANT'S office on the mainland and two (2) audits at on-island subconsultants (one (1) audit each) for a total of four (4) assumed quality assurance audits per NTP (NTP #1b through NTP #3).

**C. Inputs**

1. H RTP Quality Management Plan (3/5/2012)
2. FTA Quality Assurance/Quality Control (QA/QC) Guidelines
3. HART-accepted QAP

**D. Deliverables**

1. Meeting notes from the monthly Quality Task-Force meetings
2. Quality Control Certificate of Compliance – Pearl Highlands Station design package
3. Quality Control Certificate of Compliance – Pearlridge Station design package
4. Quality Control Certificate of Compliance – Aloha Stadium Station design package
5. Quality Control Certificate of Compliance – H2R2 Ramp design package

6. Quality Audit Reports

ACTIVITY DESCRIPTION			
NTP#:	NTP #2	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	All Stations Environmental	WBS Code / ID number:	Revision No: A

**A. Activity Description**

1. Environmental Compliance Reviews during Design:
  - a) Environmental compliance staff will collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, FAA ROD, and PA requirements are adequately incorporated into the Station designs.
  - b) Environmental compliance reviews will be conducted as per the procedures established in the ECP.
2. Update ECP with permit conditions from permits received during NTP #1b.
3. Attend design team coordination, review, and interface meetings as needed.

**B. Assumptions**

1. The ECP will be a living document and will be updated with commitments identified in any permits received for the project. Three (3) updates are assumed: 1) at the end of NTP #1b, 2) at the end of NTP #2, and 3) at the end of NTP #3.
2. Environmental Compliance Reviews will occur prior to submittal of PE, ID, and FD plan sets.
3. CONSULTANT will prepare the Site-Specific BMP Plan for submittal with the NPDES notification(s).
4. Draft and Final versions of permit applications/notifications will be provided to HART for review prior to submittal to the regulatory agencies.  
Environmental Review documentation will be necessary for any design change from the PE design that has potential to impact any resource in the FEIS. This may include changes in ROW needs, temporary easements in protected properties, or changes to the guideway and ancillary features. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.

**C. Inputs**

1. FEIS
2. ROD and all attachments
3. Section 106 Programmatic Agreement
4. Final Grading plan for Waiawa Stream floodplain improvements by WOFH or from HART
5. 'KHSR Reference Materials', including Hydrology Report
6. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
7. NTP #1b Submission

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**D. Deliverables**

1. Updated ECP (Rev. 1)
2. Environmental Compliance Review Tracking Document for ID submittal

ACTIVITY DESCRIPTION			
NTP#:	NTP #2	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	All Stations Permitting	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. Attend design team coordination, review, and interface meetings as needed.

**B. Assumptions**

1. None.

**C. Inputs**

1. None.

**D. Deliverables**

1. None.

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Cost Estimate</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. Review Interim Design Documents.
2. Prepare cost estimate for the year of expenditure based on Interim Design submittal documents for architectural, structural, mechanical and electrical components.
3. Coordinate and incorporate estimates provided by the responsible consultants for civil, landscape, environmental and special equipment/systems components (if applicable).
4. Include on-costs such as contractors general conditions, overhead and profit, taxes, etc. as appropriate for the scope of work.
5. Attend meetings as needed (eight (8) hours total allowed).
6. Reconcile estimate after review by the CONSULTANT and HART.
7. Review NTP #2 Design Documents.

**B. Assumptions**

1. HART will facilitate meetings and/or video conference meetings to review cost.
2. NTP #2 Duration is one hundred (100) Days.

**C. Inputs**

1. Coordination and guidance from the HART relating to Station estimate format
2. HART discussions on cost estimate

**D. Deliverables**

1. Preliminary interim estimate provided in excel spreadsheet
2. Preliminary estimate for NTP #2 provided in excel spreadsheet
3. Documentation of meetings or discussions on cost

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Project Management</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description****1. DESIGN COORDINATION MEETINGS**

- a) Progress Meetings will be held with the HART on a mutually agreed as-needed basis. The agenda for these meetings will include a review of work performed during the previous period; work planned in the current period, identified or anticipated issues and as applicable resolutions proposed. Each meeting will include a written agenda, a specific purpose statement identifying elements on the schedule that must be resolved, and the key individuals from both the CONSULTANT and HART who should attend so that key issues can receive timely resolution. Copies (electronic) of all drawings, reports, renderings or displays that are required for review will be provided at least two (2) working days in advance of the meeting. Meeting minutes will be distributed within five (5) days of the meeting and will include the party responsible for the performance of key activities or resolution of outstanding concerns, and a date required for such response. Minutes will be prepared by the CONSULTANT and will represent a continuous record of the final design and an on-going confirmation of the design schedule.
- b) The CONSULTANT will hold supplementary meetings with appropriate team members to focus on specific areas of the project that require attention or design issues that require resolution.

**2. DESIGN COST MONITORING AND CONTROL**

- a) The CONSULTANT will monitor design budget weekly using Primavera (Contract Manager and P6). The CONSULTANT will maintain one (1) copy of Primavera Contract Manager and P6.
- b) Cost monitoring output, earned value, will follow the HART Work Breakdown Structure (WBS) for compliance with HART's payment terms.

**3. DESIGN SCHEDULE MONITORING AND CONTROL**

- a) The CONSULTANT will update design schedule using Primavera's P6, (Version 7) for each design discipline, milestone submissions, meetings, presentations and review durations for each design phase. The CONSULTANT will incorporate HART's WBS and HART dictated coding schemes on all schedule activities and milestones.

**4. SUB-CONSULTANT MANAGEMENT & COORDINATION**

- a) The CONSULTANT will hold coordination meetings or conference calls as mutually agreed to be needed to review the responses to inquiries or comments from HART, disseminate information from HART and to discuss work effort and schedules. Specific design issues will be identified in the agenda so that appropriate team members can be prepared to discuss and coordinate work, resolve outstanding problems and anticipate problematic design issues. The CONSULTANT's Project Manager and QAQC Manager will periodically visit the offices of team members to monitor the dedicated participation of appropriate staff and to verify that Quality Control protocols are being followed.

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5. MONTHLY PROGRESS REPORTING AND INVOICING

a) Monthly Progress Reports

- i. Progress reports will be submitted monthly and will include identification of design progress, meetings attended, site visits, presentations, design issues that have arisen or are anticipated and their proposed resolution, work performed in the preceding time period and work anticipated in the next time period.
- ii. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.

b) Monthly Invoices

- i. Invoices will be submitted monthly following the WBS format specified by HART. It is understood that invoice amounts will be based on the SM. All invoicing will be via HART's CMS system, the content and format will be defined and provided by HART.

6. PROJECT CONTROLS AND ADMINISTRATION

- a) Administrative support CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. will be provided.
- b) A Project Controller will be responsible for financial monitoring & control reporting, invoicing and accounting.

7. FINAL DESIGN (FD) and "AD-READY" SUBMITTAL

- a) The PM is responsible for coordinating and consolidating the FD and Ad-Ready submittal elements. These include, but are not limited to, all required reports, estimates of construction costs, drawings, contract special provisions, and design calculations to be submitted as one package unless otherwise agreed to by HART.

8. COMMENTS MATRIX AND RESPONSES

- a) HART will review and provide comment on the FD submittal. Submittal review comments will be provided to the CONSULTANT no later than thirty (30) days after receipt of the submittal by HART. After receipt of the comments, the CONSULTANT will respond to the comments within fourteen (14) days and also indicate a course of action to be taken. The PM is responsible for consolidating and proofing all comment responses for the disciplines and submitting to HART as one (1) response package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT will incorporate the comments in the submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated with the Ad-Ready submission. Regardless of whether a comment has or has not been provided, the CONSULTANT is not authorized to deviate from HART's Design Criteria unless a deviations has been specifically requested in writing by the CONSULTANT and approved in writing by HART.

**B. Assumptions**

1. All activities during NTP #3 will take place during a period not to exceed one hundred five (105) days. Design activities shall not exceed forty-five (45) days. HART's review period will be thirty (30) days following receipt of the NTP #3 submission. The CONSULTANT shall revise the construction documents and submit the Ad-Ready construction documents to HART for bid advertisement within thirty (30) days of receipt of HART's comments.

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2. NTP #3 will be provided at the end of the NTP #2 HART review & comment period (not to exceed thirty (30) days from the NTP #2 submission date). The CONSULTANT may submit a claim for any additional labor, overhead, project controls and administrative costs resulting from delay in the release of these phases caused by HART and shall include appropriate documentation of these costs.
  3. Quality Control of 'formal' submittals are included in the individual design discipline work scope, but not for informal 'in-progress' submissions. It is understood that the imposition of liquidated damages has been deleted from this contract.
  4. All documentation, reporting, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.

**C. Inputs**

1. 'KHSG Reference Materials'
2. HART CD dated July 13, 2012

**D. Deliverables**

1. FD construction contract documents
2. Comments Matrix and Responses
3. Final Basis of Design Report
4. One Ad-Ready hard copy of final drawings and one electronic copy on CD
5. One Ad-Ready hard copy of contract special provisions and one electronic copy on CD
6. Meeting Agendas & Minutes
7. Updated Design Schedule (Primavera P6)
8. Monthly Progress Reports
9. Monthly Invoices

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Interface Management</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Participate in bi-weekly internal design team meetings to identify and discuss potential interfaces.
2. Participate in bi-weekly interface definition meetings with the WOFH Guideway Design-Build Contractor and the KHG Design-Build Contractor.
3. Participate in bi-weekly interface definition meetings with the CSC.
4. Participate in bi-weekly interface management status meetings with "other interfacing parties" including Elevators & Escalators Contractor, Systemwide Landscaping Design, Station Canopy Design, Station Signage Design.
5. Participate in monthly detailed Interface Resolution Meetings.
6. Respond to RFIDs.
7. Develop and generate RFIDs.
8. Updated and submit Interface Matrix.
9. Develop and submit KHSO ICDs.
10. Confirm Interfacing Partner ICDs.

**B. Assumptions**

1. Internal design team meetings are assumed to be bi-weekly and one (1) hour in duration.
2. Interface Management definition are intended to identify, update, monitor and close RFID, and coordinate ICDs and are assumed to be two (2)-hours in length.
  - a) Interface definition meetings for WOFH/KHSO and KHG/KHSO will be combined into one (1) two (2)-hour meeting since the guideway design and construction Contractors are the same.
  - b) Interface definition meetings with the CSC will be one (1)-hour in length, bi-weekly.
  - c) Interface Management status meetings for the other interfacing parties (as defined above) will be combined into one (1) two (2)-hour meeting since the scope for the interfaces are less complex than the guideway and core systems interfaces.
3. Detailed Interface Resolution Meetings are intended to provide additional clarification and details regarding certain interfaces. These are assumed to be two (2)-hours in length with a monthly frequency for all interfacing parties.
4. Oracle Primavera Contract Management System will be used to create, respond to, and track the interfaces and log meeting notes.
5. Time required for all RFID responses shall not exceed thirty (30) days.
6. Structure and format of the Interface Matrix will be based upon that in the HHCTCP Draft Interface Control Manual.
7. Structure and format of Interface Control Document will be based upon that used to date by the WOFH and KHG design/build contractors.

**C. Inputs**

1. HHCTCP Draft Interface Control Manual (10/21/2009)

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2. HHCTCP Interface Management Plan (8/29/2011)
  3. Pre-defined Interface Management distribution lists for each interfacing contract pair.
  4. RFID responses generated by the KHSG Interim Final Designer. As the Interim KHSG Final Designer, HART has been interfacing with adjacent Contractors/Designers prior to KHSG Consultant selection. CONSULTANT will be responsible for designing the stations within the limitations of the Interim KHSG Final Designer's RFID responses to the extent possible.

**D. Deliverables**

1. Meeting notes from the bi-weekly Interface Management Status Meetings with other Interfacing Parties
2. Meeting notes from the monthly detailed Interface Resolution Meetings with other Interfacing Parties
3. Updated KHSG Passenger Stations Interface Matrix
4. RFIDs
5. Responses to RFIDs.
6. Confirmation of Interfacing Partner ICDs.
7. KHSG ICDs

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Quality Assurance and Control</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Participate in monthly "Quality Task-Force" meetings.
2. Perform Quality Control Checking of Pearl Highlands Station design package.
3. Perform Quality Control Checking of Pearlridge Station design package.
4. Perform Quality Control Checking of Aloha Stadium Station design package.
5. Perform Quality Control Checking of H2R2 Ramp design package.
6. Conduct internal quality assurance audit of the Pearl Highlands Station quality control activities.
7. Conduct internal quality assurance audit of the Pearlridge Station quality control activities.
8. Conduct internal quality assurance audit of the Aloha Stadium Station quality control activities.
9. Conduct internal quality assurance audit of the H2R2 Ramp quality control activities.
10. Participate in HART quality assurance audits.

**B. Assumptions**

1. Quality Task Force meetings are assumed to be monthly and one (1) hour in duration.
2. "Design Package" is defined as the drawings, specifications, calculations, basis of design report and quantity estimates that together comprise the final submittal of each NTP (NTP #1b through NTP #3).
3. 'Formal' Quality Control of submittals are included in the individual design discipline work scope, but not for 'informal' 'in-progress' submissions.
4. Internal quality assurance audits will be based on compliance to the HART-accepted QAP.
5. Reports will be prepared for all internal QA Audits and be made available to HART.
6. HART quality assurance audits are assumed but not limited to one (1) on-site audit at the CONSULTANT'S office in Honolulu, one (1) remote audit in the CONSULTANT'S office on the mainland and two (2) audits at on-island subconsultants (one audit each) for a total of four (4) assumed quality assurance audits per NTP (NTP #1b through NTP #3).

**C. Inputs**

1. H RTP Quality Management Plan (3/5/2012)
2. FTA Quality Assurance/Quality Control (QA/QC) Guidelines
3. HART-accepted QAP

**D. Deliverables**

1. Meeting notes from the monthly Quality Task-Force meetings
2. Quality Control Certificate of Compliance – Pearl Highlands Station design package
3. Quality Control Certificate of Compliance – Pearlridge Station design package
4. Quality Control Certificate of Compliance – Aloha Stadium Station design package
5. Quality Control Certificate of Compliance – Ramp H2R2 design package

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6. Quality Audit Reports

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Environmental</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Environmental Compliance Reviews during Design:
  - a) Environmental compliance staff will collaborate with the design team to ensure that all environmental permit conditions, FEIS, ROD, FAA ROD, and PA requirements are adequately incorporated into the Station designs.
  - b) Environmental compliance reviews will be conducted as per the procedures established in the ECP.
2. Update ECP with permit conditions from permits received during NTP #2.
3. Attend design team coordination, review, and interface meetings as needed.

**B. Assumptions**

1. The ECP will be a living document and will be updated with commitments identified in any permits received for the project. Three (3) updates are assumed: 1) at the end of NTP #1b, 2) at the end of NTP #2, and 3) at the end of NTP #3.
2. Environmental Compliance Reviews will occur prior to submittal of PE, ID, and FD plan sets.
3. CONSULTANT shall prepare the Site-Specific BMP Plan for submittal with the NPDES notification(s).
4. Draft and Final versions of permit applications/notifications will be provided to HART for review prior to submittal to the regulatory agencies.
5. Environmental Review documentation will be necessary for any design change from the PE design that has potential to impact any resource in the FEIS. This may include changes in ROW needs, temporary easements in protected properties, or changes to the design. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.

**C. Inputs**

1. FEIS Statement
2. ROD and all attachments
3. Section 106 Programmatic Agreement
4. Final Grading Plan for Waiawa Stream floodplain improvements by WOFH or from HART
5. Permits as received
6. ID/FD drawings

**D. Deliverables**

1. Updated ECP (Rev. 2)
2. Environmental Compliance Review Tracking Document for FD submittal
3. Final ECP for incorporation into the construction contract documents

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>All Stations Permitting</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Environmental Permitting for Construction Activities
  - a. CONSULTANT will prepare and submit NPDES Construction Storm water notification (NOI-C)
2. CONSULTANT to prepare applications for the following permits and clearances for the construction contract:  
UTILITY RELOCATION:
  - a) NPDES Form C
  - b) MS4 Approvals
  - c) City and County of Honolulu Street Usage Permit
  - d) DOT Highway Usage PermitPERMANENT CONSTRUCTION:
  - a) NPDES Form C
  - b) MS4 Approvals
  - c) Flood Hazard District Compliance
  - d) Coordination for construction to cross or enter State Energy Corridor
  - e) Sewer Connections
  - f) Storm Drain Connections
  - g) Land Use Permits
  - h) One-time DPP plan review
  - i) Notice of Construction or Alteration of Impacts to the Airport and FAA Facilities
  - j) City and County of Honolulu Street Usage Permit
  - k) DOT Highway Usage Permit
  - l) City Grading, grubbing, stockpiling, trenching (including permits for lay down yards)
  - m) Landscaping Plans affecting HDOT roadways
  - n) City Building Permit
    - i. Department of Planning and Permitting for Buildings, Electrical, Plumbing and Sidewalk
    - ii. HECO for building Electrical service
    - iii. Fire Department- HFD- for fire suppression systems
    - iv. Telecom for non-Core System communications

**B. Assumptions**

1. CONSULTANT assumes that: 1) existing information and studies prepared for the FEIS, ROD, Mitigation Monitoring Program, Programmatic Agreement, and 2) design documents prepared as part of this specific SOW will satisfy the permit application and clearance requirements.
2. CONSULTANT will submit electronic versions of draft and final permit applications/notifications to HART/GEC for review.
3. HART will provide review comments within thirty (30) days of submittal.
4. HART will establish any necessary utility engineering and/or construction agreements.

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5. Construction Contractor will be responsible for NPDES Form F (hydrotesting) and NPDES Form G (dewatering) and associated MS4 approvals.
  6. CONSULTANT assumes HART is responsible for obtaining the following permits/approvals:  
REQUIRED FOR PERMANENT CONSTRUCTION:
    - a) Special Management Area
    - b) Stream Channel Alteration Permit
    - c) Section 9 Rivers and Harbors Act clearance
    - d) CZM for FFGA
    - e) Section 404 of the Clean Water Act and associated Section 401 and Coastal Zone Management Federal Consistency Determination (CONSULTANT to provide supporting information)
    - f) Use and Occupancy Agreement (CONSULTANT to provide supporting information)

**C. Inputs**

1. Data, plans, engineering drawings and other project details for inclusion into permit applications and/or clearances
2. Archaeological Inventory Survey results
3. PE Drawings
4. ID Drawings
5. Site-Specific BMP Plan (to be developed with design team)

**D. Deliverables**

1. Draft Permit/Clearance Applications Environmental Compliance Review Tracking Document for FD submittal
2. Final Permit/Clearance Applications

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Cost Estimate</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Review FD Documents.
2. Prepare cost estimate for the year of expenditure based on FD submittal documents for architectural, structural, mechanical and electrical components.
3. Coordinate and incorporate estimates provided by the responsible consultants for civil, landscape, environmental and special equipment/systems components (if applicable).
4. Include on-costs such as contractors general conditions, overhead and profit, taxes, etc. as appropriate for the scope of work.
5. Attend meetings as needed (eight (8) hours total allowed).
6. Reconcile estimate after review by the CONSULTANT and HART.

**B. Assumptions**

1. HART will facilitate meetings and/or video conference meetings to review cost.

**C. Inputs**

1. Coordination and guidance from the HART relating to Station estimate format
2. HART discussions on cost estimate

**D. Deliverables**

1. Final Estimate of Construction Cost provided in Excel spreadsheet
2. Documentation of meetings or discussions on cost

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>All Stations Safety and Security Certification</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Demonstrate within the project schedule the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklists.
2. Periodic "Safety & Security Certification Task Force" meetings, as requested by CONSULTANT.
3. Identify a representative assigned to manage and implement the safety and certification process. Provide resume/qualifications.
4. Review and revise the initial CEL and CIL, provided by HART, based on Consultant's knowledge of required certifiable elements and items. Submit CEL and CIL to HART for review and acceptance by its Safety and Security Review Committee (SSRC).
5. Attend safety and security committees and working groups established by HART.
6. Participate in HART Safety and Security Certification Audits.
7. Institute a process to identify and resolve safety hazards and security vulnerabilities for incorporation into design.
8. Submit the signed Conformance Checklist(s) for acceptance by the SSRC upon completion of design verification.
9. Submit supporting verification documentation to demonstrate that the design has incorporated and complies with safety and security design criteria and requirements provided in the technical specifications and contract documents. Alternately the CONSULTANT can identify previously submitted documentation for verification.

**B. Assumptions**

1. HART will provide PE-Phase Conformance Checklist forms and initial CEL and CIL.
2. Safety and Security Certification Audits will be performed by HART annually.
3. HART and GEC Safety and Security Engineers will provide over-the-shoulder reviews and guidance throughout the contract.
4. Consultant will periodically confer with HART/ demonstrate its certification progress and conformance verification.
5. HART's Safety Certification Data Management System (SCDMS) will be utilized for the revisions of the initial CEL and CIL, verification of the final design and will allow the Consultant to electronically link design conformance documentation from Primavera's CMS or other locations.

**C. Inputs**

1. HART - Safety and Security Management Plan
2. HART - Safety and Security Certification Plan
3. FTA Handbook for Transit Safety and Security Certification (November 2002)
4. PE-Phase Conformance Checklist forms and initial CEL and CIL. developed by HART

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#### **D. Deliverables**

1. Schedule of safety and security certification activities
2. Meeting notes from the safety and security certification activities meetings
3. Qualifications of Design Safety and Security Certification Manager
4. Safety and Security Conformance Checklist for Final Design
5. Completed and signed Safety and Security Conformance Checklist
6. Supporting documentation for verification

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #4</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Design Support During Bidding (All 3 Stations and H2R2 Ramp)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description****1. BID SUPPORT**

- a) Provide engineering support during bidding to include response to questions, preparation of addenda and support HART in the evaluation of the general format of the bids. This work shall include the following work items up to the available allowance.
  - i. Attendance at Pre-Bid Conference and Site Tour.
  - ii. Assistance in preparation of the HART response to bidders' questions and preparation of addenda.
  - iii. Preparation and issuance of mark-ups of documents requiring revisions.
    - a. Prepare & provide materials.
    - b. Prepare & make presentation (1).
    - c. Provide support to presentation (1).
  - iv. Technical Management and Support
    - a. Provide technical support staff to supplement HART Project teams. The CONSULTANT will hold meetings or conference calls as needed to review the contractor responses to inquiries or comments from HART and to discuss Bid Support work effort and schedules.
  - v. COST MONITORING AND CONTROL
    - a. The CONSULTANT will monitor the design budget weekly using Primavera (Contract Manager and P6).
    - b. Cost monitoring output, will follow the HART Work Breakdown Structure (WBS) for compliance with HART's payment terms.
  - vi. PREPARE UPDATED SM
    - a. Update Project SM, if necessary, to include all work for which the CONSULTANT Team expects to be compensated.

**2. DOCUMENT CONTROLS**

- a) Non-CADD project correspondence and other documentation will be controlled using Contract Manager in accordance with HART's "Farrington Highway Station Group Design; Proposed Design Responsibilities for City Hosted System" document received with the May 5, 2010 letter (RT5/10-364977).

**3. MONTHLY PROGRESS REPORTING AND INVOICING**

- a) Monthly Progress Reports
  - i. Progress reports will be submitted monthly and will include identification of Bid Support Services provided.
- b) Monthly Invoices
  - i. Invoices will be submitted monthly following the WBS format specified by the HART. Invoicing method TBD.

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#### 4. PROJECT CONTROLS AND ADMINISTRATION

- a) Administrative support CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. will be provided.
- b) A Project Controller will be responsible for financial monitoring & control reporting, invoicing and accounting.

#### **B. Assumptions**

1. Printing of Contract Drawings is by HART.
2. Bid Phase Support Phase not to exceed four (4) months.
3. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from the CONSULTANT.
4. It is understood that the imposition of liquidated damages has been deleted from this contract.
5. Payment Schedule will permit monthly invoicing to capture all work performed during the preceding month.
6. Preparation & issuance of conformed documents is not included in this scope.

#### **C. Inputs**

1. KHSG Final Design
2. HART CD dated July 13, 2012

#### **D. Deliverables**

1. Responses to Contractor Inquiries
2. Preparation of addenda.
3. Responses to RFIs
4. Meeting Agendas & Minutes
5. Updated Schedule of Milestones or other Payment Mechanism TBD
6. Monthly Progress Reports
7. Monthly Invoices

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #5</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Design Support During Construction (All three (3) Stations and H2R2 Ramp)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Work shall be CPS Services (Final Scope TBD) based upon the available NTP #5 allowance. Work under this NTP may include the following:
  - a) SHOP DRAWING/SUBMITTAL REVIEW.
  - b) The consultant shall respond to shop drawings/submittals, when requested by HART. Quantity TBD based on the available fee and scope definition of 'Limited CPS services' and available fee noted above.
2. REQUEST FOR INFORMATION (RFI)
  - a) Answer RFI's for the project and maintain a RFI log. Quantity of RFIs TBD based on the available fee and scope definition of 'Limited CPS services' and available fee.
3. INTERFACE MANAGEMENT
  - a) Respond to and support Requests for Interface Data (RFIDs) when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
  - b) Participate in Interface Resolution Meetings either by phone or at the Contractor field office, when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
4. PROJECT MEETINGS
  - a) The CONSULTANT'S representative shall attend meetings at the HART or Contractor field office to discuss project issues/status, when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
5. FIELD VISITS
  - a) Field visits to observe construction progress when requested by HART. QTY TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
6. UNFORSEEN CONDITIONS
  - a) Develop designs, sketches and details as necessary to appropriately address unforeseen site conditions, when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
7. VALUE ENGINEERING
  - a) Evaluate for concurrence Value Engineering Proposals initiated by the Contractor, when requested by HART, when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.
8. CHANGE ORDERS
  - a) Review change orders initiated by the contractor when requested by HART. Quantity TBD based on the available fee and final CPS scope of work for 'Limited CPS Services'.

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9. PREPARATION OF AS BUILT DRAWINGS

- a) Based on the available fee and final CPS scope of work for 'Limited CPS Services', prepare consolidated As-Built Station Drawings for each station that accurately reflect the final conditions. It is expected that the Contractor will provide As-Built drawings for incorporation by the CONSULTANT into the consolidated As-Built drawings.

10. SUB-CONSULTANT MANAGEMENT & COORDINATION

- a) When necessary, and based on the available fee and final CPS scope of work for 'Limited CPS Services', the CONSULTANT will hold meetings or conference calls or as needed to review the contractor RFI's, RFID's, and Submittals, and to discuss Construction Support work effort and schedules.

11. DOCUMENT CONTROLS

- a) Non-CADD project correspondence and other documentation will be controlled using Contract Management System.

12. MONTHLY PROGRESS REPORTING AND INVOICING

- a) Monthly Progress Reports
  - i. Progress reports will be submitted monthly and will include identification of construction phase support services provided, meetings attended, site visits, submittals, RFI's, and other work performed in the preceding time period.
- b) Monthly Invoices
  - i. Invoices will be submitted monthly following the WBS format specified by HART. All invoicing will be via HART's CMS system, the content and format will be defined and provided by HART.

13. PROJECT CONTROLS AND ADMINISTRATION

- a) Administrative support, CMS Interface for meetings, coordinating schedules, word processing, data entry, project filing and other clerical activities such as note taking, photocopying, mailing preparation, etc. will be provided.
- b) A Project Controller will be responsible for financial monitoring & control reporting, invoicing and accounting.

**B. Assumptions**

1. The CONSULTANT shall perform CPS related work at the request of HART only.
2. HART will manage the Submittal and RFI logs, as well as the distribution and transmission of Submittals and RFI's to/from all necessary parties.
3. Payment will be based upon timecard submissions for work performed at the request of HART for services performed on a monthly basis.
4. Two (2) year construction duration.
5. All documentation, reporting, auditing, etc. as required by the FTA will be performed by HART with input from CONSULTANT.
6. It is understood that the imposition of liquidated damages has been deleted from this contract.
7. Contractor will provide As-Built drawings to CONSULTANT for incorporation into a consolidated 'As-Built Drawing Set'.
8. HART shall review and return SM / Payment Schedule submissions approved or with comments within two (2) business days.
9. Punch List by CE&I consultant.

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10. Each contractor is responsible for verification/survey of the As-Built data/drawings it provides to the CONSULTANT for incorporation into the Consolidated As-Builts.
  11. Meeting agendas and meeting minutes are by the CE&I consultant.

**C. Inputs**

1. KHSG FD

**D. Deliverables (Per Activity A Descriptions)**

1. Response to Contractor Shop Drawing/Submittals
2. Response to Contractor RFI's
3. Response to Contractor RFID's
4. SM/Payment Schedule
5. Monthly Progress Reports
6. Monthly Invoices
7. Preparation of As-Built Drawings

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**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearl Highlands Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. Prepare and submit ROE requests.
2. Review of topographic data, project controls, boundary data, and maps provided by HART.
3. Conduct boundary study to identify and to obtain supplemental boundary data (if needed to supplement HART-provided data) needed to establish property boundary.
4. Conduct ground survey of Pearl Highlands Station site including Kamehameha Highway, and Waiawa Stream bank, as necessary, to supplement topographic data provided to the team by HART. Verify that horizontal and vertical controls conform to the requirements specified in the project design criteria.
5. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
6. Perform QA/QC per QAP.
7. Incorporate supplemental surveys into PE topographic files using HART CADD Standards.
8. Review and provide responses to HART comments on submittal.
9. Attend design team coordination meetings.

**B. Assumptions**

1. Complete ground survey of Waiawa Stream and Kamehameha Highway is not required.
2. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during PE. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
3. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate system, North American Datum 1983, HARN (PAC00).
4. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
5. Toning of underground utilities and verification of utility location & depths by potholing is not included.
6. Surveyor will attend up to five (5) design team coordination meetings.
7. Ground survey to verify current Waiawa Stream cross-sections shown in the HART Hydraulic Report is not included.
8. Construction stakeout will not be required.
9. Hazardous material abatement work is NIC.

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**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, ground-based topographic survey (including Waiawa Stream), available boundary data, parcel maps, ROW mapping, and project control information within the areas of the proposed transit stations
2. KHSG Reference Materials
3. HART CD dated July 13, 2012

**D. Deliverables**

1. ROE Request
2. Topographic survey base file in AutoCAD format
3. Responses to HART comments entered into CMS
4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	NTP #1a	Activity Responsibility:	Issue Date: September 11, 2012
Activity:	Pearl Highlands Station Geotechnical Design	WBS Code / ID number: -	Revision No: A

**A. Activity Description:**

1. A project manager or principal from Geolabs, Inc. will participate in the specified three (3) day Design Workshop for the project to discuss geotechnical related design issues that may arise during the workshop.
2. Readily available information on subsurface and geologic conditions at and near the site will be researched and reviewed.
3. Descriptions of the geotechnical field exploration planned at the Pearl Highlands Station and a preliminary boring location plan will be prepared and submitted for ROE request. The preliminary boring plan will be prepared based on available station PE drawings. HART's Request for ROE form will be completed and submitted.
4. An all-inclusive, draft Geotechnical Planning Report (GPR) will be prepared to describe the geotechnical engineering and foundation design approach that will be used to develop geotechnical recommendations for the KHSG project [e.g. Pearl Highlands, Pearlridge, and Aloha Stadium Station sites and the H2R2 Ramp].
5. A draft Geotechnical [Field] Investigation Work Plan (GIWP) will be prepared. The GIWP will address geotechnical investigations (field and laboratory) required for Pearl Highlands Station. At CONSULTANT'S discretion the GIWP may be all inclusive (i.e. include all three (3) Stations and the H2R2 Ramp). The GIWP shall include pertinent elements from the draft H RTP Environmental Hazard Evaluation/ Environmental Hazard Management Plan (EHMP).
6. A draft Site-Specific Best Management Practices (BMP) plan will be prepared based on the site conditions anticipated at the Pearl Highlands Station site as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
7. A draft Geotechnical Health and Safety Plan (GHASP) will be prepared to govern geotechnical field activities for all three stations and ramp
8. A draft Geotechnical Quality Plan (GQP) will be prepared to govern the geotechnical field work, laboratory testing, and design for all three stations and ramp.
9. Project-wide Drilling Subcontract Qualifications, Laboratory Accreditation(s), and Sample Storage shall be submitted prior to the start of field investigation activities.
10. Consultation will be provided regarding the preliminary geotechnical feedback.
11. Attend design team coordination meetings. Attend a design review meeting with HART, and if needed, an interface meeting with the WOFH designers.

**B. Assumptions**

1. HART will provide ROE form and support data requirements no later than seven (7) days after NTP #1a. Concurrently CONSULTANT will identify which areas of the work, if any, fall outside of the project right-of-way or temporary easements and that would require a ROE.
2. The required geotechnical plans and work-related submittals will include all three (3) stations and the H2R2 Ramp. Preparing separate plans and associated submittals for each station and the H2R2 Ramp is not included.
3. Drafts of the all-inclusive GHASP, GQP and associated prerequisite submittals will be provided within twenty-one (21) days of NTP #1a. Submittals will be approved by HART within twenty-one (21) days, which includes

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one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the twenty-one (21) days.

4. Drafts of the GPR and GIWP(s) shall be submitted within thirty (30) days of NTP #1a. The GPR and GIWP will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
5. The BMP plan will be limited to the immediate work area at each boring site.
6. ROE requests, as required for prosecution of the geotechnical investigations, will be provided to HART no later than twenty-one (21) days after NTP #1a. HART will procure ROE within thirty (30) days of receipt of CONSULTANT-completed ROE form and supporting documents.
7. Available geotechnical investigations data for the Pearl Highlands Station area (within one thousand (1,000) feet approximately) from both the WOFH and KHG fixed guideway design-build contracts will be provided to CONSULTANT at the start of NTP #1a. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
8. Subsurface materials and ground water at the Pearl Highlands sites are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
9. Level D personal protective equipment (PPE) for field personnel.
10. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
11. Not included: Preparing a storm water pollution prevention plan (SWPPP), applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
12. Not included: Developing, implementing, and maintaining a BMP plan for the entire Pearl Highlands station site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
13. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
14. No hydraulic design or interface with the hydraulic consultant is required for this station other than for the station building work currently in scope.
15. Pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements that affect the design will be provided by HART and HART's H&H consultant at the start of NTP #1a.
16. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe or other similarly-sized equipment suitable for localized grading. Extensive grading (more than fifty (50) cubic yards) that would, per ROH 14-13 require a grading permit, is not required.
17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site is not included.
18. The site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting, if any is required to provide access for the drill rig access or set up, will first be coordinated with HART.
19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
20. The site is clear of unexploded ordnance (UXO).
21. Management of Investigation Derived Wastes (IDW) if any during NTP #1a will be as assumed under NTP #1b.
22. Checking on as-built conditions of existing building and structure foundations is not included.
23. A seismic risk assessment and site-specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.
24. HART will facilitate meetings and/or video conference meetings with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.

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**C. Inputs**

1. 'KHSR Reference Materials'
2. Available and pertinent geotechnical data, i.e. investigations data and drilled shaft load test reports, from both the WOFH and KHG fixed guideway design-build contracts
3. Pertinent geotechnical information from HDOT as-built drawings of existing structures in the vicinity of the proposed station
4. HART CD dated July 13, 2012
5. Draft HRTS Environmental Hazard Mgmt Plan (4/13/2012)

**D. Deliverables**

1. Completed request for ROE, including any Preliminary Boring Location Plan and attendant summary/description of the work
2. Draft GPR (project-wide)
3. Draft GIWP (project-wide or, at CONSULTANT's discretion, site-specific)
4. Geotechnical Health and Safety Plan (project-wide)
5. Geotechnical Quality Plan (project-wide)
6. Drilling Subcontract Qualifications (project- wide)
7. Laboratory Accreditation(s) (project- wide)
8. Sample Storage Plan (project- wide)

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. Complete ground survey of Pearl Highlands Station site, as necessary, to supplement topographic data provided to the team by HART.
2. Conduct field and office work necessary to establish property boundary.
3. Compile and submit draft property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
5. Perform QA/QC per QAP.
6. Incorporate supplemental surveys and draft property boundary into PE topographic files using HART CADD Standards.
7. Review and provide responses to HART comments on submittal.
8. Attend design team coordination meetings.

**B. Assumptions**

1. Complete ground survey of Waiawa Stream and Kamehameha Highway is not required.
2. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during PE. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
3. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate system, North American Datum 1983, HARN (PAC00).
4. Right of entry into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
5. Toning of underground utilities and verification of utility location & depths by potholing is not included.
6. Surveyor will attend up to five (5) design team coordination meetings.
7. Ground survey to verify current Waiawa Stream cross-sections shown in the HART Hydraulic Report is not required.
8. Construction stakeout will not be required.
9. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, ground-based topographic survey (including Waiawa Stream), available boundary data, parcel maps, ROW mapping, and project control information within the areas of the proposed transit stations
2. KHSR Reference Materials
3. HART CD dated July 13, 2012

**D. Deliverables**

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1. Topographic survey base file in AutoCAD format
  2. Draft property boundary study
  3. Responses to HART comments entered into CMS
  4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Revise Basis of Design Report based on March 9, 2012 conceptual design sketches.
3. Review and refine PE designs, including concept site layout, concept grading, and concept utilities.
4. Review and recommend location of station utilities and electrical transformers, including introductory meeting with HECO.
5. Perform QA/QC per QAP.
6. Coordinate with architect and landscape architect, as well as surveyor and geotechnical engineer.
7. Coordinate with HART regarding ongoing Waiawa Stream flood hazard assessment, no-rise analyses/no-rise mitigation, hydraulic modeling, and stream lateral migration and scour studies. Conduct coordination meetings with HART's hydraulic/hydrology (H&H) consultant as needed to gain an understanding of, and to facilitate incorporation of facility design criteria recommended in the various studies conducted by HART's H&H consultant.
8. Coordinate with WOFH Design-Build Contractor regarding ongoing WOFH guideway design/construction that may affect Pearl Highlands Station design, particularly issues related to pier/foundation scour analyses and design.
9. Review reports and hydraulic data provided by HART's H&H consultant to verify that they can be used for the station foundation scour analysis.
10. Prepare and submit Preliminary Scour Report that outlines conceptual scour analyses and designs that incorporate various inputs from HART, such as Final Hydraulic Design Criteria Report and other relevant H&H data; and no-rise mitigation grading plan.
11. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the Pearl Highlands Station.
12. Review HART Programmatic Agreement Environmental Compliance Plan.
13. Review and provide responses to HART comments for submittals.
14. Attend design team coordination meetings and interface management meetings as needed.
15. Review Pearl Highlands Traffic Assessment prepared by HART and incorporate interim intersection layouts at the Waiawa Street/Kamehameha Highway and Kuala Street/Kamehameha Highway intersections.

**B. Assumptions**

1. The CONSULTANT shall revise designs as necessary, based on outcome of three (3)-day & five (5)-day workshops.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings, basis of design and standard specifications will be provided by HART within two (2) days of NTP #1b.
3. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Attend review meetings with HART that require civil engineering participation. The need for civil engineering participation will be determined by the CONSULTANT'S project manager. No civil participation in public/community meetings

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5. Attendance at up to five (5) interface management meetings as needed.
  6. HART will provide approved Waiawa Stream H&H data generated by the various studies conducted by its H&H consultant. HART will provide the Waiawa Stream channel cross-sections, channel topographic survey, one- and two-dimensional hydraulic models used in the studies, survey control data, existing conditions, final channel improvement data, and Final Hydraulic Design Criteria Report.
  7. HART's Final Hydraulic Design Criteria Report will provide final Station design constraints related to Waiawa Stream hydraulic design and for establishing Station finish floor elevations and low chord elevations for structural support members to comply with the City and County of Honolulu Department of Planning and Permitting (DPP) and FEMA flood hazard district regulatory requirements. The Final Hydraulic Design Criteria Report by HART's H&H consultant will be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs have been coordinated with HART's H&H consultant.
  8. HART will facilitate video conference meetings with HART's H&H consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
  9. HART will be responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit. CONSULTANT shall be responsible for working closely with HART's and HART's H&H Consultant to develop Station Design that will satisfy flood hazard district regulatory and applicable permitting requirements.
  10. Planning, design, or coordination work for the parking garage, bus center, or other site improvements are not included in this scope of work.
  11. The CONSULTANT will not be responsible for the hydraulic design and flood improvement for Waiawa Stream. All designs provided by HART will be reviewed and approved by the City and County, and other agencies having jurisdiction and no modifications will be required by the CONSULTANT to revise the designs specifically for work occurring in the Waiawa Stream floodplain.
  12. Approved ROE will be provided within thirty (30) days of receipt of ROE request/ application.
  13. Grading/grubbing permit application for access to site for geotechnical work is by others,
  14. Hazardous material abatement work is NIC.

### **C. Inputs**

1. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
2. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. H&H models for existing & final development conditions, channel cross-sections and elevations, DPP/FEMA no rise analysis and certification, Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit will be provided
4. Topographic survey, Primary Control Data and National Geodetic Survey (NGS) elevation bench mark, right of way and boundary data, easement data, subdivision maps, land court maps, and real property acquisition information
5. KHSG Reference Materials
6. HART CD dated July 13, 2012

### **D. Deliverables**

1. Revised PE drawings
2. Basis of Design (civil sections)
3. Specification sections (table of contents only)
4. Environmental Compliance Plan checklist

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5. QA/QC Documentation
  6. Preliminary Scour Report

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearl Highlands Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop Preliminary Design based on station module conceptual design drawings contained on the July 13<sup>th</sup> CD from HART.
2. Perform preliminary structural analysis for station. Confirm preliminary location, size, and quantity of foundation for station support.
3. Coordinate with other design disciplines.
4. Perform QA/QC per QAP.
5. Revise Basis of Design Report.
6. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the Pearl Highlands Station.
7. Coordinate with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to train control and communications rooms.
8. Coordinate with Core Systems Contractor and design the platform to sustain loads associated with platform screen gates, including buffeting by passage of trains and hurricanes of Category 4.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Attend design team coordination meetings and interface meetings as needed.
11. Coordinate with WOFH Guideway Design Build.
12. Review and provide responses to CITY comments for submittals.
13. Review and adhere to RFIs, RFIDs, and RFCs that has already been issued. Notify HART if KHSG is not able to comply or adhere to information already provided to other Contracts.

**B. Assumptions**

1. Foundation designs depicted on the July 13<sup>th</sup> CD from HART are sufficient and correct and have been approved by the GEC's Hydrology Consultant.
2. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design (NIC)
3. Attendance at interface management meetings as needed.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP1b.
5. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
7. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
8. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
9. Hazardous material abatement work is NIC.

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10. Attend QA/QC, Health & Safety Training and other training as required by HART. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance and for obtaining Clean Water Act Section 404 and 401 permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit.

**C. Inputs**

1. HART shall provide PE documents and drilled shaft locations and sizes for Station support
2. HART H&H Final Hydraulic Design Criteria Report
3. KHSG Reference Materials
4. Source files from HART (AutoCAD, Word, Excel) provided within two (2) days of NTP #1b
5. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design
6. Preliminary geotechnical site characterizations/recommendations.
7. HART CD dated July 13, 2012

**D. Deliverables**

1. Revised PE Structural drawings to show structural layout with dimensions and major elements' section properties and dimensions
2. Structural Basis of Design
3. Contract Specifications (Table of Contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearl Highlands Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Complete and submit the final Geotechnical Planning Report (GPR) for the KHSG project.
2. Complete and submit the final Geotechnical [Field] Investigation Work Plan (GIWP). At CONSULTANT's discretion the GIWP will be all-inclusive for all three stations and the H2R2 Ramp or Pearl Highlands Station specific GIWP.
3. Complete and submit the final Site-Specific Best Management Practices (BMP). The BMP plan will be prepared based on the site conditions anticipated at the Pearl Highlands Station as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
4. Finalize as necessary (if not finalized by end of NTP #1a) the Geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan.
5. Preliminary geotechnical engineering analysis will be performed based on available geotechnical data and geotechnical engineer's interpretations.
6. A technical memorandum will be prepared to summarize the preliminary earthwork and foundation support recommendations for the Pearl Highlands Station.
7. Procure State and City permit(s) to perform the geotechnical field exploration within government right-of-ways. These permits are limited to HDOT Permit for the Occupancy & Use of State Highway Right-of-Way (DOT 4-689) and Permit to Perform Work Upon State Highways (DOT 4-222), as applicable.
8. Field clear test boring locations by field staking/markings proposes boring locations and checking for underground utilities conflicts by reviewing available utility plans, checking with the Hawaii One Call Center (HOCC), performing field toning, and as may be necessary using Ground Penetrating Radar, and potholing or hand excavations.
9. Subsurface exploration at the Pearl Highlands Station Entrance Building will be explored by up to three (3) test borings, varying in depth from about fifty (50) to seventy-five (75) feet below existing grades and totaling up to one hundred seventy-five (175) feet.
10. Laboratory testing will be performed on select soil samples and rock cores obtained from the borings to determine index, physical and engineering properties.
11. Detailed engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining walls, and pavements.
12. A draft Geotechnical Data Report (GDR) will be prepared to document the field data and laboratory test result of the Pearl Highlands Station geotechnical investigation.
13. A draft Geotechnical Recommendations Report (GRR) will be prepared for the Pearl Highlands Station that will include interpretations of the field and laboratory test data. The GRR will include earthwork recommendations, e.g. site preparation/grading and pavement design requirements, and geotechnical designs for the proposed station, e.g. foundation types and support capacity, lateral earth pressures [retaining walls and below grade structures]. Additionally, the GRR will include subsurface characterizations specific to hydraulics/scour considerations for affected station improvements.
14. Consultation will be provided to the CONSULTANT regarding the geotechnical findings and recommendations, and geotechnical related design issues.

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15. Review of geotechnical related sections of the PE plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
  16. Attend and participate in a design team coordination meeting and conference calls, as needed.

**B. Assumptions**

1. The GPR and GIWP, whether all inclusive or station-specific, will be finalized by CONSULTANT and Approved by HART no later than thirty (30) days-after NTP #1b.
2. Geotechnical prerequisite submittals (e.g. the geotechnical Health and Safety Plan (GHASP), GQP, Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan) will be finalized by CONSULTANT and Approved by HART no later than fourteen (14) days after NTP #1b.
3. The BMP plan will be limited to the immediate work area at each boring site.
4. Any required ROE will be provided by HART no later than fourteen (14) days after NTP #1b.
5. State and City permit(s) required to perform the geotechnical field exploration in public right of way will have been procured no later than thirty (30) days after NTP #1b.
6. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe. Extensive grading to provide access trails for the drill rig is not included.
7. Per the Revised Ordinances of Honolulu (ROH 14-13.5), grading for borings access will be less than fifty (50) cubic yards and as such exempt from site-specific grading permit requirement.
8. Subsurface materials and ground water at the Pearl Highlands Station site are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
9. Level D Personal Protective Equipment (PPE) for field personnel. However, field screening will be in accordance with the Programmatic EHMP.
10. If hazardous or contaminated material is encountered, the material shall be managed in accordance with the Environmental Compliance Plan (ECP) and as amended by the Environmental Hazards Management Plan (EHMP).
11. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
12. Not included: Preparing a storm water pollution prevention plan (SWPPP) and applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
13. Not included: Developing, implementing, and maintaining a BMP plan for the entire Pearl Highlands station site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
14. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
15. No hydrology design or interface with the hydrology consultant is required for this station other than for the station building work currently in scope.
16. Pertinent hydraulic design criteria /DPP/FEMA flood hazard district regulatory requirements that affect the station's design will have been provided by HART and HART's H&H consultant at the start of NTP #1a.
17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site are not included.
18. The Station site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting to provide access for the drill rig will be coordinated with HART.
19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.

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20. The CONSULTANT will be allowed to temporarily store fifty-five (55) gallon drums of investigation derived wastes (IDW) [soil cuttings and drilling fluids] at the Station site until IDW material is profiled in accordance with ECP/EHMP requirements. Once profiled the IDW will be taken to an appropriate on-island landfill and/or treatment facility. Off-island disposal of this material at a mainland U.S. facility or other off-island facility is not included.
  21. Checking as-built condition(s) of existing building(s) and structure(s) foundations is not included.
  22. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.
  23. Consultant will complete utility conflict clearances as soon as practicable but no later than forty-five (45) after NTP #1b.
  24. Consultant will initiate geotechnical investigations no later than sixty (60) days before the end of NTP #1b.
  25. A draft GDR of the Pearl Highlands Station geotechnical investigation will be submitted within sixty (60) days of initiating field explorations but no later than the completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp.
  26. A draft GRR for the Pearl Highlands Station improvements will be submitted to HART no later than completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one (1) including all three (3) stations and the H2R2 ramp.
  27. GDR and GRR review periods and finalization will be completed in NTP #2.
  28. CONSULTANT will provide electronic files to HART at the completion of its Quality process for the field and laboratory investigations.
  29. HART will facilitate meetings and/or video conference meetings with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.

#### **C. Inputs**

1. 'KHSR Reference Materials'
2. KHSR Contract Documents

#### **D. Deliverables**

1. Final GPR [project-wide]
2. Final GIWP [project-wide]
3. As necessary, finalized geotechnical prerequisite submittals [e.g. the geotechnical Health and Safety Plan (GHASP), GQP, Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan]
4. Draft and final site specific BMP plan for the Pearl Highlands Station site boring locations
5. Technical memorandum with preliminary recommendations for the Pearl Highlands Station
6. Geotechnical Fieldwork Progress Report
7. Draft GDR [Station specific or project-wide, at CONSULTANT's discretion]
8. Draft GRR [Station specific or project-wide, at CONSULTANT's discretion]
9. Electronic files (DWG) of boring logs and classification charts and gINT files of the logs

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design documents based on the schematic drawings received from HART on the CD dated July 13, 2012.
2. Confirm compliance of PE design with FEIS/ROD, and all applicable codes, regulations and design standards.
3. CONSULTANT will provide plan drawings identifying the limits of the proposed station work and impacts to private property.
4. CONSULTANT will work with the HART selected artist(s) to integrate artwork into the design of the stations and station site to identify location and placement. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities.
5. Coordinate design, detailing, and incorporation of the art work.
6. Coordinate with Core Systems Contractor on location and mounting of systems elements, including communications interface cabinets, telephones, speakers, variable-message signs, access control and intrusion detection devices, platform screen gates (PSGs), fare vending machines, and fare gates.
7. Coordinate with Core Systems Contractor on location and routing of conduit between TCCR and systems elements throughout station facility.
8. Coordinate treatment of end-of-platform barrier to integrate with PSGs.
9. Provide presentation materials to HART in support of one (1) public presentation.
10. Revise Basis of Design Report.
11. Perform QA/QC per QAP.

**B. Assumptions**

1. All activities during NTP #1b will take place during a period not to exceed forty (40) days.
2. The drawings dated March 9, 2012 have been coordinated with HART's Hydrology & Hydraulics (H&H) consultant for conformance with Hydraulics report requirements.
3. HART is responsible for compliance with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements.
4. Source files (AutoCAD, word, excel) for all drawings, basis of design, and graphic standards will be provided within two (2) days of NTP #1b.
5. No hydrology design or interface with the hydrology consultant is required for this station other than for the station building work currently in the scope.
6. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect architectural design of Station facility.
7. CONSULTANT shall coordinate with City agencies.
8. Hazardous material abatement work is NIC.
9. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs have been coordinated with HART's H&H consultant.

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**C. Inputs**

1. 'KMSG Reference Materials'
2. Source files from HART (AutoCAD, word, excel)
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/ application
4. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
5. HART H&H Final Hydraulic Design Criteria Report
6. HART CD dated July 13, 2012

**D. Deliverables**

1. Proposed PE Submission
2. Proposed Outline Specifications (Table of Contents only)
3. Draft Basis of Design Manual
4. Draft Code Compliance Checklist
5. One (1) Community Presentation
6. Draft ADA Compliance Report
7. Draft Environmental Compliance Plan checklist
8. Draft Egress calculations and diagrams
9. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Review mechanical directive drawings and specifications and accepted value engineering recommendations
  - a) Review information from Core Systems Contractor.
  - b) Review current site plans and utility connection points from Guideway Design-Build Contractor.
3. Prepare preliminary design drawings and calculations for air conditioning, ventilation, plumbing, sanitary drainage, storm drainage, and fire protection systems.
4. Review and update PE basis of design.
5. Perform QA/QC per QAP.
6. Review and provide responses to HART comments for submittals.
7. Attend design team coordination meetings and interface meetings as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.

**B. Assumptions**

1. Attendance at interface management meetings as needed.
2. Source files (AutoCAD, word, excel) for PE drawings, basis of design, and quantity estimate template available at onset of this phase.
3. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Mechanical design will comply with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements.
5. ROE into private properties will be provided by HART within thirty (30) days of receipt of request/application.
6. Hazardous material abatement work is NIC.

**C. Inputs**

1. KHSG Reference Materials
2. Working Documents for the Guideway Segment
3. Coordination information from the Core Systems Contractor
4. HART Baseline Documents
5. Project-Wide Documents
6. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
7. The latest KHG PE design submittals (both pdf and AutoCAD) including drawings and basis of design
8. Approved Right of Entry will be obtained within thirty (30) days of NTP #1b
9. The latest KH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design

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10. HART CD dated January 24, 2012 and supplementary sketches received for Pearl Highlands Station (Sketches AR101-AR104 dated March 9, 2012)

**D. Deliverables**

1. Preliminary mechanical design plans
2. Input to basis of design report
3. High-level draft quantity takeoff for mechanical utilities shown on the PE plans
4. Contract Specifications (Table of Contents only)
5. Preliminary Mechanical Calculations for all systems
6. Environmental Compliance Plan checklist
7. QA/QC documentation

**ACTIVITY DESCRIPTION**

NTP#:	NTP #1b	Activity Responsibility:	Issue Date: September 11, 2012
Activity:	Pearl Highlands Station Electrical Design	WBS Code / ID number:	Revision No: A

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Review and update PE plans and basis of design to incorporate January 2012 conceptual design sketches.
3. Current site plans and utility connection points from WOFH Design-Build Contractor.
4. Submit Hawaiian Electric Company utility service requests.
5. Perform preliminary design of duct bank from Train Control and Communications interface manhole/pullbox to Train Control and Communications Room (TCCR).
6. Attend Projectwise and QAP training.
7. Respond to HART comments.
8. Perform QA/QC per QAP.
9. Revise Basis of Design Report.
10. Review and recommend location of station electrical transformer, including introductory meeting with HECO.
11. Participate as needed in interface management meetings.
12. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
13. Review and provide responses to HART comments for submittals.
14. Attend design team coordination meetings and interface meetings as needed.
15. Field visit/walk-through of the Waiawa Stream Corridor in the vicinity of the H2R2 Ramp.

**B. Assumptions**

1. Electrical Design is limited to only the Station sites and limited work within the Right-of-way as identified on the PE drawings.
2. Attendance at up to five (5) interface management meetings as needed.
3. Approved Right-of-Entry will be obtained within thirty (30) days of request/application submittal.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. HECO and HART have executed Engineering Services/Utility Construction Agreements.
7. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. KHSG Reference Documents
3. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
4. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design
5. HART CD dated July 13, 2012

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**D. Deliverables**

1. PE plans
2. Contract Specifications (Table of Contents only)
3. Input to basis of design report
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Provide input and review of conceptual site layout to the design team for traffic related issues.
3. Perform QA/QC per QAP.

**B. Assumptions**

1. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b
3. Approved Right of Entry will be obtained within thirty (30) days of receipt of ROE request/ application.

**C. Inputs**

1. 'KHSG Reference Materials'
2. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
3. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
4. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
5. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
6. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
7. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
8. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
9. HART CD dated July 13, 2012

**D. Deliverables**

1. N/A

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Conduct supplemental ground survey to pick up locations of geotechnical borings.
2. Provide additional ground survey to pick up additional topographic information as needed.
3. Compile and submit final property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Set property boundary corner monuments.
5. Incorporate supplemental surveys and final property boundary into NTP #1b topographic base file in AutoCAD format.
6. Perform QA/QC per QAP.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Incorporate comments from the PE revisions.
9. Prepare a comments matrix and response for the interim design.

**B. Assumptions**

1. Fieldwork for additional survey to be limited to one (1) crew-day.
2. Toning of underground utilities is not required.
3. Flood Hazard levels will be certified and provided to CONSULTANT for inclusion on topographic survey map.
4. Flood levels provided by HART will be referenced to National Geodetic Datum. Control ties will be provided to the CONSULTANT.

**C. Inputs**

1. Geotechnical boring location sketch (for reference)
2. Designer to indicate additional ground survey item(s) needed
3. KHSG Reference Materials
4. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Updated topographic base file in AutoCAD format
2. Final property boundary study
3. Interim Design Comments Matrix and Response
4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend interface management meetings, as needed.
8. Review compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. CONSULTANT shall prepare deconstruction/demolition drawings and specifications for the properties impacted by station related work. Hazardous material abatement work related to this is currently NIC. Standard specifications and Guide Specifications provided by the HART will be reviewed and edited for project-specific requirements. CONSULTANT will create new specifications sections where required.
11. Continue to coordinate with HART regarding Waiawa Stream flood hazard assessments, no-rise analyses/no-rise mitigation, hydraulic modeling, and stream lateral mitigation and scour studies. Include up to one (1) meeting or video conferences with HART's H&H consultant to continue to facilitate incorporation of mitigative measures.
12. Continue to coordinate with WOFH Design-Build Contractor regarding ongoing WOFH guideway design/construction that may affect Pearl Highlands Station design, particularly issues related to pier/foundation scour analyses and design.
13. Perform scour analyses for every pier within the station footprint (excludes bus transit center and parking structure piers) and design scour/stream instability countermeasures. Incorporate review comments from Preliminary Scour Report Review and include results of scour analyses and scour/stream instability countermeasure design in Pre-Final Scour Report.
14. Revise limits of Right-of-Way need lines, as necessary, to accommodate station facilities.

**B. Assumptions**

1. Civil engineer will attend up to ten (10) design team coordination meetings and five (5) interface management meetings. Review meetings with HART will not require civil engineering participation.
2. No civil participation in public/community meetings.
3. Existing roadway and stream drainage systems have the capacity for any additional drainage developed from the Pearl Highlands Station.
4. Signing and striping to be per HART Design Criteria.
5. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
6. Permit application fees are excluded.

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7. Permit applications will be submitted for:
    - a) DPP Site Development Division Review.
    - b) Grading/Grubbing (as needed).
    - c) CCH Street Usage Permit.
    - d) Drain Connection Permit, to include MS4 approval.
    - e) Sewer Connection Permit.
    - f) Department of Health: NOI for NPDES stormwater during construction.
    - g) DCAB: Site Plan Review.
    - h) HDOT: Construction within a State Highway Permit and for work within the State Energy Corridor (if required).
  8. Contractor or HART will pull actual permits.
  9. HART will provide Final Waiawa Stream hydraulic report and will review the CONSULTANT's scour analyses for compliance with the recommendations of the HART-provided hydraulic report. If HART-prescribed hydraulic design constraints do not result in a workable design solution, HART will collaborate with CONSULTANT to develop alternate design solutions that conform to DPP and FEMA flood hazard regulatory requirements and incorporate scour and stream instability countermeasures acceptable to the agencies having jurisdiction.
  10. HART will facilitate one (1) video conference meeting with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
  11. HART will be responsible for performing Waiawa Stream floodway analysis, providing FEMA/DPP flood hazard certifications, establishing required facility design flood elevations, preparing and processing applicable permits related to work in and adjacent to Waiawa Stream (U.S. Army Corps of Engineers/DLNR/State of Hawaii Department of Health).
  12. Hazardous material abatement work is NIC.
  13. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs will be coordinated with HART's H&H consultant.

#### **C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART comments on the PE submittal
3. 'KHSR Reference Materials'
4. Geotechnical engineer's recommendations on subsurface soils characteristics pertinent to scour analyses.
5. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design

#### **D. Deliverables**

1. Pearl Highlands Station Interim Civil Design Drawings and Specifications
2. Revised Pearl Highlands Station Drainage Report
3. Pre-Final Scour Report
4. Interim Design Comments Matrix and Response
5. Revised Basis of Design (civil sections)
6. Environmental Compliance Plan checklist
7. Preliminary Station foundation scour analysis
8. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b submission.
2. Design development and implementation of the construction contract drawings.
3. Coordinate with WOFH Guideway Design Build Contractor.
4. Develop contract special provisions.
5. Perform QA/QC per QAP.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Incorporate comments from the preliminary engineering revisions.
9. The State, City and Project standard details will be incorporated and project specific details developed as needed.
10. Revise Basis of Design based on interim design documents.
11. Prepare a comments matrix and response for the interim design.
12. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.

**B. Assumptions**

1. Foundation designs depicted on the July 13<sup>th</sup> CD from HART are sufficient and correct and have been approved by the GEC's Hydrology Consultant.
2. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design Criteria (NIC).
3. Survey and preliminary geotechnical report will be available prior to start of NTP #2.
4. Attendance at interface management meetings as needed.
5. Source files (AutoCAD, topographic survey, Word, Excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b
6. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
7. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
8. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
9. Hazardous material abatement work is NIC.

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10. Prefinal geotechnical recommendations are provided at the start of this phase.
  11. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit.

**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission.
4. Preliminary geotechnical recommendations

**D. Deliverables**

1. Interim Design Comments Matrix and Response
2. Revised Basis of Design (structural sections)
3. QA/QC Checklist/Documentation
4. Environmental Compliance Plan checklist
5. Pearl Highlands Station Interim Design Drawings and pdf format with all disciplines
6. Special Provisions in Word format

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Finalize Pearl Highlands Station-specific or all-inclusive GDR.
2. Finalize Pearl Highlands Station-specific or all-inclusive GRR.
3. Consultation regarding geotechnical related design issues.
4. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
5. Attend and participate in a design team coordination meeting and conference calls, as needed.

**B. Assumptions**

1. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one including all three stations and the H2R2 ramp. GDR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
2. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one (1) including all three (3) stations and the H2R2 ramp. GRR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
3. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. HART review comments to DRAFT GDR [NTP #1b]
2. HART review comments to DRAFT GRR [NTP #1b]
3. 'KHSB Reference Materials'
4. KHSB Contract Documents

**D. Deliverables**

1. Final GDR
2. Final GRR
3. Electronic files (DWG) of boring logs and classification charts and gINT files of the logs

ACTIVITY DESCRIPTION		
NTP#: <b>NTP #2</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE submission.
3. Design development and implementation of the construction contract drawings.
4. Revise Basis of Design based on interim design documents.
5. Prepare a comments matrix and response for the interim design.
6. Attend design team coordination meetings and interface meetings.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. CONSULTANT will work with the HART selected artist(s) to integrate artwork into the design of the stations and station site. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities and to incorporate the artwork into the design construction documents.
9. HART Standard Specifications and Guide Specifications provided to CONSULTANT will be reviewed and edited for project specific requirements.
10. Prepare an ADA accessibility report indicating the accessible routes and features of each station that indicate how ADA accessibility guidelines were utilized.
  - a) Follow ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).
  - b) Provide curb ramps at intersections that meet the applicable City and County of Honolulu standards for curb ramps.
  - c) Coordinate with HART the requirements of the State Disability Communication Access Board.
11. The CONSULTANT will be responsible for signage design and layout drawings, schedule, and attachment using the HART Signage and Wayfinding Systems Manual.
12. Prepare Renderings, a 3-D flyover, and supporting visual documentation, including landscaping and plaza design, for each station in support of the public outreach process community presentation.
13. Design and coordinate station canopies to provide necessary equipment, fixtures, etc., that require concealed power and communication conduit lines.
14. Consultant to incorporate the art work in the contract construction documents.
15. Coordinate design, detailing, and attachment of the art work.
16. Perform QA/QC Reviews per approved QAP.

**B. Assumptions**

1. No participation in public/community meetings.
2. Multi-modal access (pedestrians, bicycles, vehicles, buses, handi-vans, taxis, private shuttles, and private tour buses) will be considered in the layout of the station area.
3. Contractor or HART will pull actual permits.
4. Hazardous material abatement work is NIC.
5. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs have been coordinated with HART's H&H consultant.

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**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission

**D. Deliverables**

1. Interim Architectural Construction Contract Documents
  - a) Interim Design Contract Drawings
  - b) Interim Design Specifications and Special Provisions (specific to this station only)
2. Interim Design Station Visualizations for one (1) public presentation.
3. Interim Design Code Compliance Checklist
4. Interim Design Constructability Review Documents
5. Interim Accessibility Report
6. Updated Egress diagrams and calculations
7. QA/QC Checklist/Documentation
8. Interim Design Comments Matrix and Response
9. Revised Basis of Design
10. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. Coordinate equipment locations, weight and electrical rating with various consultants.
11. Coordinate and review available water pressure with civil for fire protection standpipe systems.

**B. Assumptions**

1. Mechanical engineer will attend up to ten (10) design team coordination meetings.
2. No mechanical participation in public/community meetings.
3. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART/GEC comments on the PE submittal
3. 'KHSR Reference Materials'
4. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design
5. The latest KHG Section design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Pearl Highlands Station Interim Mechanical Design drawings and specifications with all disciplines compiled in one (1) document
2. Interim Design comments matrix and response
3. Revised Basis of Design (mechanical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Interim mechanical design calculations for all systems

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE submission.
3. Design development of the construction contract drawings.
4. Revise Basis of Design based on interim design documents.
5. Prepare a comments matrix and response for the interim design.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Perform QA/QC per QAP.
9. Standard specifications and guide specifications provided by HART will be reviewed and edited for project specific requirements.
10. Prepare Kamehameha Highway Station Group Interim Design plans and specifications for the following:
  - a) Electrical and communication site plans.
  - b) Electrical and communications utility relocation, new electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans for Pearl Highlands Station.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Site lighting plan including lighting for artwork and signage.
11. Prepare lightning protection analysis.

**B. Assumptions**

1. Electrical and communications utility relocations and new service connections are required beyond station site as shown on PE drawings, i.e. utility work will extend into roadway ROW.
2. Electrical engineer will attend up to ten (10) design team coordination meetings.
3. No electrical participation in public/community meetings.
4. Load requirements for the station emergency lighting UPS shall be supplied to the CSC by the station designer.
5. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
6. Load requirements for the TCC UPS shall be determined by CSC.
7. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
8. HECO and HART have executed Engineering Service/Utility Construction Agreements.
9. Hazardous material abatement work is NIC.

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**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART/GEC comments on the PE submittal
3. 'KHSG' Reference Materials
4. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Pearl Highlands Interim electrical design drawings and specifications with all disciplines compiled into one (1) document
2. Interim Design Comments Matrix and Response
3. Revised Basis of Design (electrical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Lightning Protection Analysis
7. Lighting calculations per CDC Ch. 20
8. Power distribution calculations per CDC Ch. 20

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Prepare Preliminary Maintenance of Traffic (PMOT) report and plans in accordance with State DOT's Transportation Management Guidelines and Work Zone Safety and Mobility Process, dated October 3, 2007 for the Pearl Highlands Station.
8. Attend design team coordination meetings and interface meetings, as needed.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Perform QA/QC per QAP.
11. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.
12. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
13. Provide coordination with the West Oahu Farrington Highway Guideway Design-Build Contractor (WOFH D/B), Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).

**B. Assumptions**

1. PMOT plan preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction and operations.
2. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.

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**C. Inputs**

1. KHSG Reference Materials
2. HART Comments on the PE submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
5. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
6. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
7. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
8. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Pearl Highlands Station Interim Traffic Control drawings and specifications with all disciplines compiled in one (1) document
2. Preliminary Maintenance of Traffic Report
3. Interim Design Comments matrix and response
4. Basis of Design (traffic sections)
5. Environmental Compliance Plan Checklist
6. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the NTP #2 submission.
2. Complete the final civil design and ad-ready construction contract drawings.
3. Revise Basis of Design based on Final design documents.
4. Prepare a comments matrix and response for the Final design.
5. Prepare the final drainage report for the Pearl Highlands Station.
6. Attend design team coordination meetings and interface management meetings as needed.
7. Perform QA/QC review per QAP.
8. Incorporate comments from the final design submittal and complete the final ad- ready construction contract drawings.
9. Prepare Final Scour Report that incorporates review comments from Pre-Final Scour Report Review and includes final scour analyses and scour/stream instability countermeasure designs.
10. Prepare the Notice of Intent (NOI) for stormwater runoff during construction application to revise current HART systemwide NPDES permit.
11. Prepare the City and County of Honolulu Grading Permit Application.
12. Prepare the permit application to Work in the State Highway Right-of-Way.
13. Prepare the Drainage Connection Permit application and Sewer Connection Permit applications, including form for MS4 approval.
14. Provide support for the preparation of presentation materials for a community presentation.

**B. Assumptions**

1. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
2. Signing and striping to be per HART Design Criteria.
3. Permit applications will be prepared. Contractor to pull actual permits.
4. Civil engineer will attend up to two (2) design team coordination meetings and two (2) interface management meetings.
5. HART will be responsible for performing final Waiawa Stream floodway analysis, providing FEMA/DPP flood hazard certifications, establishing required facility design flood elevations, preparing and processing applicable permits related to work in and adjacent to Waiawa Stream (U.S. Army Corps of Engineers/DLNR/State of Hawaii Department of Health).
6. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs will be coordinated with HART's H&H consultant.
7. Hazardous material abatement work is NIC.

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**C. Inputs**

1. HART comments from the Interim engineering submittal
2. NTP #2 submission and HART review comments
3. 'KHSR Reference Materials', including Hydrology Report
4. The latest WOFH Guideway Design Documents (both pdf and AutoCad) including drawings and basis of design

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions with all disciplines compiled in one (1) document
2. Revised Basis of Design (civil sections)
3. Ad-ready Station Construction Contract Drawings
4. Station Drainage Report
5. Final Design Comments Matrix and Response
6. NOI for NPDES Stormwater Runoff during construction
7. Grading Permit application
8. Application for permit to Work in State Highway Right-of-Way
9. QA/QC Checklist/Documentation
10. Environmental Compliance Plan checklist
11. Final Scour Report

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Complete the final structural design and final design construction contract drawings.
3. Incorporate comments from the final design submission and complete the final advertisement-ready construction contract drawings.
4. Complete detailed structural analysis.
5. Prepare final Special Provisions review and markups.
6. Revise Basis of Design.
7. Attend design team coordination meetings and interface meetings as needed.
8. Coordinate with Core Systems Contractor.
9. Coordinate with WOFH Guideway Design Build Contractor.
10. QA/QC review per QAP.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and make all payments.
2. Geotechnical report is completed prior to NTP #3.
3. WOFH Design is fixed prior to NTP #2 submission.
4. Foundation designs depicted on the July 13<sup>th</sup> CD from HART are sufficient and correct and have been coordinated with HART's Hydrology Consultant.
5. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design Criteria (NIC).
6. Attendance at interface management meetings as needed.
7. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
8. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
9. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
10. Hazardous material abatement work is NIC.
11. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit.

**C. Inputs**

1. NTP #2 submission and HART review comments
2. 'KHSR Reference Materials'
3. The latest WOFH Guideway Design documents

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**D. Deliverables**

1. Station Final Design Drawings and Special Provisions with all disciplines compiled in one (1) document
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Structural calculations
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Consultation regarding geotechnical related design issues.
2. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
3. Attend and participate in a design team coordination meeting and conference calls, as needed.

**B. Assumptions**

1. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSG Reference Materials'
2. KHSG Contract Documents

**D. Deliverables**

1. N/A

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design submission.
2. Complete the final design construction contract documents.
3. Incorporate comments from the final design submission and complete the final advertisement-ready construction contract documents.
4. Finalize Basis of Design.
5. Attend design team coordination meetings and interface meetings as needed.
6. Coordinate with Core Systems Contractor.
7. Upon completion of the Final Design, CONSULTANT will create a 1/8"=1'-0" physical scale model of one (1) KHSG station selected by HART. Eight weeks lead time is needed for production of the model. A durable wood base with Plexiglas cover, custom, protective shipping case with casters will also be provided to allow for the HART to transport the model.
8. CONSULTANT shall finalize the contract construction specifications and design special provisions.
9. The CONSULTANT will be responsible for signage design and layout drawings, schedule, and attachment using the HART Signage and Wayfinding Systems Manual.
10. Consultant to incorporate the art work in the construction contract documents.
11. Coordinate design, detailing and attachment of the art work.
12. QA/QC per QAP.

**B. Assumptions**

1. CONSULTANT shall obtain plan approval, and submit building permit applications. Contractor is responsible for pulling permits and making all payments
2. All activities during NTP #3 will take place during a period not to exceed forty-five (45) days
3. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART review comments
2. 'KHSG Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Station Final Design Construction Contract Documents
  - a) Construction Contract Drawings,
  - b) Construction Contract Specifications and Special Provisions
2. Final Basis of Design

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3. Ad-Ready Station Construction Contract Documents
  4. Final Design Comments Matrix and Response
  5. Final Sustainability Report
  6. Final Code Compliance diagrams and calculations
  7. Final Accessibility Report
  8. Final station visualizations
  9. Physical model of one (1) station
  10. QA/QC Documentation
  11. Environmental Compliance Plan Checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Calculate final cooling loads and ventilation loads.
2. Coordinate equipment locations, weight and electrical rating with various consultants.
3. Coordinate and review available water pressure with civil for fire protection standpipe systems.
4. Update mechanical basis for design.
5. Prepare mechanical drawings, quantity estimate and specifications.
6. Incorporate comments from the Interim Design.
7. Complete the final mechanical design and camera-ready construction contract drawings.
8. Provide support for the preparation of any presentation materials for a community presentation.
9. Incorporate comments from the final design and complete the final advertisement-ready construction contract drawings.
10. QA/QC review per QAP
11. Revise Basis of Design
12. Attend design team coordination meetings and interface meetings as needed.
13. Coordinate with Core Systems Contractor.
14. Assist in processing plans for agency approval.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. Final Documents for the Guideway Segment
2. Final Coordination information from the Core Systems Contractor
3. NTP 2 submission and HART submission comments
4. 'KHSR Reference Materials'
5. HART comments on the interim design submittal

**D. Deliverables**

1. Final Mechanical engineering drawings.
2. Final Special Provisions.
3. Mechanical basis for design.
4. Station Final Design Drawings and Special Provisions
5. Ad-Ready Station Construction Contract Drawings
6. Final Design Comments Matrix and Response
7. QAQC Checklist/Documentation

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8. Environmental Compliance Plan checklist
  9. Final mechanical design calculations for all systems.

ACTIVITY DESCRIPTION		
NTP#:	<b>NTP #3</b>	Activity Responsibility:
Activity:	<b>Pearl Highlands Station Electrical Design</b>	WBS Code / ID number:
		Issue Date: <b>September 11, 2012</b>
		Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Prepare Pearl Highlands Final Design plans and specifications for the following:
  - a) Electrical and communication site plans.
  - b) Electrical and communications utility relocation, new electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans and profiles for Pearl Highlands Station.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Street Lighting Plan.
3. Complete the final design and ad-ready construction contract drawings.
4. Assist in processing plans for agency approval.
5. Revise Basis of Design.
6. Attend design team coordination meetings and interface meetings as needed.
7. Coordinate with Core Systems Contractor.
8. QA/QC review per QAP.

**B. Assumptions**

1. HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
2. Load requirements for the emergency lighting UPS shall be supplied to the CSC by the station designer.
3. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
4. Load requirements for the TCC UPS shall be determined by CSC.
5. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
6. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
7. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSR Reference Materials'
3. Final WOFH Guideway Design Documents

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4. Final coordination information from the Core Systems Contractor
  5. HART comments on the interim design submittal
  6. Utility owners' review comments

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Hawaiian Electric Company service proposal
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan Checklist

ACTIVITY DESCRIPTION		
NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearl Highlands Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim engineering revisions.
2. Complete the final traffic design and ad-ready construction contract drawings.
3. Revise Basis of Design based on comments on the Interim design documents.
4. Prepare a comments matrix and response for final design.
5. Prepare Traffic Control and Detour Plans (TCP) in accordance with State DOT's Hawaii Standard Specifications (HSS) Section 645 and the MUTCD for the Pearl Highlands Station.
6. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
7. Provide coordination with the West Oahu Farrington Highway Guideway Design-Build Contractor (WOFH D/B), Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).
8. QA/QC review per QAP.

**B. Assumptions**

1. TCP plans preparation is predicated on the assumption that the Station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. KHSG Reference Materials
2. HART Comments on the Interim engineering submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2004
5. American Association of State Highway and Transportation Officials, Roadside Design Guide, 2006.
6. State of Hawaii, Department of Transportation, Highways Division, Hawaii Standard Specifications for Road and Bridge Construction, 2005
7. State of Hawaii, Department of Transportation, Highways Division, Design Branch, Standard Plans, 2008
8. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
9. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
10. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009

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**D. Deliverables**

1. Station Final Design Traffic Control and Detour Construction Plans and Special Provisions with all disciplines combined in one document
2. Station Ad-Ready Traffic Control and Detour Construction Contract Documents
3. Basis of Design (traffic sections)
4. Final Design comments matrix and response
5. Environmental Compliance Plan Checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Prepare and submit ROE requests.
2. Review of topographic data, project controls, boundary surveys and maps provided by HART.
3. Conduct ground survey of H2R2 Ramp site to supplement topographic data provided to the team by HART. Verify that horizontal and vertical controls conform to the requirements specified in the project design criteria.
4. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
5. Incorporate supplemental surveys into preliminary engineering topographic files using HART CAD Standards.
6. Perform QA/QC per QAP.
7. Perform ground survey of up to six (6) critical cross sections along Waiawa Stream floodplain.
8. Review and provide responses to HART comments on submittal.
9. Attend design team coordination meetings.

**B. Assumptions**

1. Complete ground survey of Waiawa Stream and Kamehameha Highway is not required.
2. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during preliminary engineering. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
4. Boundary study is included in Pearl Highlands Station Topographic Survey NTP #1a, #1b, and #2.
5. Toning of underground utilities and verification of utility location and depths by potholing is not included.
6. Surveyor will attend up to five (5) design team coordination meetings.
7. Construction stakeout will not be required.
8. Hazardous material abatement work is NIC.

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**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, ground-based topographic survey (including Waiawa Stream), available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. All KHSG Reference Materials
3. HART CD dated July 13, 2012

**D. Deliverables**

1. ROE Request
2. Topographic survey base file in AutoCAD format
3. Responses to HART comments entered into CMS
4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>H2R2 Ramp Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. A project manager or principal from Geolabs will participate in the specified three (3) day Design Workshop for the project to discuss geotechnical related design issues that may arise during the workshop.
2. Readily available information on subsurface and geologic conditions at and near the site will be researched and reviewed.
3. Descriptions of the geotechnical field exploration planned at the H2R2 Ramp and a preliminary boring location plan will be prepared and submitted for ROE request. The preliminary boring plan will be prepared based on available H2R2 Ramp PE drawings. HART's Request for ROE form will be completed and submitted.
4. An all-inclusive, draft Geotechnical Planning Report (GPR) will be prepared to describe the geotechnical engineering and foundation design approach that will be used to develop geotechnical recommendations for the KHSG project (e.g. Pearl Highlands, Pearlridge, and Aloha Stadium Station sites and the H2R2 Ramp).
5. A draft Geotechnical [Field] Investigation Work Plan (GIWP) will be prepared. The GIWP will address geotechnical investigations [field and laboratory] required for H2R2 Ramp. At contractor's discretion the GIWP may be all inclusive, that is all three (3) stations and the H2R2 Ramp. The GIWP shall include pertinent elements from the draft HRTPE Environmental Hazard Evaluation/ Environmental Hazard Management Plan.
6. A draft Site-Specific Best Management Practices (BMP) plan will be prepared based on the site conditions anticipated at the H2R2 Ramp site as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
7. A draft Geotechnical Health and Safety Plan (GHASP) will be prepared to govern geotechnical field activities for all three (3) stations and ramp.
8. A draft Geotechnical Quality Plan (GQP) will be prepared to govern the geotechnical field work, laboratory testing, and design for all three (3) stations and ramp.
9. Project-wide Drilling Subcontract Qualifications, Laboratory Accreditation(s), and Sample Storage shall be submitted prior to the start of field investigation activities.
10. Consultation will be provided regarding the preliminary geotechnical feedback.
11. Attend design team coordination meetings. Attend a design review meeting with HART, and if needed, an interface meeting with the WOFH designers.

**B. Assumptions**

1. HART ROE form and support data requirements will be provided no later than seven (7) days after NTP #1a. Concurrently Contractor will identify which areas of the work, if any fall outside of the project right of way or temporary easements and that would require a ROE.
2. The required geotechnical plans and work-related submittals will include all three (3) stations and the H2R2 Ramp. Preparing a separate plans and associated submittals for each station and the H2R2 Ramp is not included.
3. Drafts of the all-inclusive GHASP, GQP and associated prerequisite submittals will be provided within twenty-one (21) calendar days of NTP #1a. Submittals will be approved by HART within twenty-one (21) calendar

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days, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the twenty-one (21) days.

4. Drafts of the GPR and GIWP(s) shall be submitted within thirty (30) calendar days of NTP #1a. The GPR and GIWP will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
5. The BMP measures will be limited to the immediate work area at each boring site.
6. Right of entry, as required for prosecution of the geotechnical investigations will be provided to HART no later than twenty-one (21) calendar days after NTP #1a. HART will procure ROE within thirty (30) days of receipt of CONSULTANT-completed ROE form and supporting documents.
7. Available geotechnical investigations data for the H2R2 ramp area (within one thousand (1,000) feet approximately) from the WOFH guideway design-build contract will be provided to CONSULTANT at the start of NTP #1a. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
8. Subsurface materials and ground water at the H2R2 ramp site are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
9. Level D Personal Protective Equipment (PPE) for field personnel.
10. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
11. Not included: Preparing a storm water pollution prevention plan (SWPPP) applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
12. Not Included: Developing, implementing, and maintaining a BMP plan along the route of the H2R2 Ramp.
13. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
14. Not Included: Consultation regarding the existing Waiawa Stream Bridge and Farrington Highway overcrossing, including assessing repairs, retrofits, and/or seismic upgrades that may be needed to the bridge and overcrossing for the H2R2 ramp.
15. The boring sites are readily accessible to a truck mounted or track mounted drill rig. For boring sites that are not readily accessible, access trails will be made with a backhoe or other similarly-sized equipment suitable for localized grading. Extensive grading, that is more than fifty (50) cubic yards that would per ROH 14-13 require a grading permit, is not included.
16. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site is not included.
17. The site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting if required for drill rig access will be coordinated through HART after first weighing whether it is feasible to shift the planned location without compromising investigation needs.
18. The CONSULTANT will be allowed to temporarily remove sections of existing chain link fence along the top of the embankment slope along the H2 freeway on-ramp located near the alignment of the new ramp to provide work areas for select borings. Constructing work platforms on the slope is not included.
19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
20. The site is clear of unexploded ordinance (UXO).
21. Management of Investigation derived wastes (IDW) if any during NTP #1a will be as assumed under NTP #1b.
22. Checking on as-built conditions of existing overcrossing, bridge, and retaining wall foundations is not included.
23. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity measurements are not included.

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**C. Inputs**

1. 'KHSR Reference Materials'
2. Available and pertinent geotechnical investigations data from the WOFH fixed guideway design-build contract
3. Pertinent geotechnical information from HDOT as-built drawings of existing structures and the Waiawa Stream Bridge in the vicinity of the proposed ramp
4. HART CD dated July 13, 2012
5. Draft HRTS-Environmental Hazard Mgmt Plan (4/13/2012)

**D. Deliverables**

1. Completed request for ROE, including any Preliminary Boring Location Plan and attendant summary/description of the work
2. See NTP #1a, Pearl Highlands Station for project-wide geotechnical deliverables

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Conduct ground survey of H2R2 Ramp site to supplement topographic data provided to the team by HART.
2. Verify visible utilities within the project sites.
3. Incorporate supplemental surveys and draft property boundary into PE topographic files using HART CAD Standards.
4. Perform QA/QC per QAP.
5. Review and provide responses to HART comments on submittal.
6. Attend design team coordination meetings.

**B. Assumptions**

1. Complete ground survey of Waiawa Stream and Kamehameha Highway is not required.
2. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during preliminary engineering. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
4. Boundary study is included in Pearl Highlands Station Topographic Survey NTP #1a, #1b, and #2.
5. Toning of underground utilities and verification of utility location and depths by potholing is not included.
6. Surveyor will attend up to five (5) design team coordination meetings.
7. Construction stakeout will not be required.
8. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, ground-based topographic survey (including Waiawa Stream), available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. All KHSG Reference Materials
3. HART CD dated July 13, 2012

**D. Deliverables**

1. Topographic survey base file in AutoCAD format
2. Responses to HART comments entered into CMS
3. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Ramp H2R2 Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Revise Basis of Design based on November 2009 drawings.
3. Review and refine PE designs concept ramp H2R2 geometrics, concept grading, and concept utilities.
4. Perform QA/QC per QAP.
5. Coordinate with HART regarding ongoing Waiawa Stream flood hazard assessment, no-rise analyses/no-rise mitigation, hydraulic modeling, and stream lateral migration and scour studies. Conduct coordination meetings with HART's hydraulic/hydrology (H&H) consultant as needed to gain an understanding of, and to facilitate incorporation of facility design criteria recommended in the various studies conducted by HART's H&H consultant. Meeting to be in conjunction with the Pearl Highlands Station meetings.
6. Review reports and hydraulic data provided by HART's H&H consultant to verify that they are applicable to Ramp H2R2 designs.
7. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the Ramp H2R2.
8. If Ramp H2R2 facilities are subject to Waiawa Stream lateral migration and/or scour, prepare and submit Preliminary Scour Report that outlines conceptual scour analyses and designs that incorporate various inputs from HART, such as Final Hydraulic Design Criteria Report and other relevant H&H data; and no-rise mitigation grading plan.
9. Participate as needed in interface management meeting.
10. Review compliance with HART Programmatic Agreement Environmental Compliance Plan.
11. Review and provide responses to HART comments for submittals.
12. Attend design team coordination meetings.
13. Coordinate with HART regarding the installation flood early warning system to alert motorists of Waiawa Stream flooding.

**B. Assumptions**

1. Current designs are compliant with city/state code, city agency, hydrology, and flood requirements.
2. Source files (AutoCAD, topographic survey, Word, Excel) for PE drawings, basis of design and standard specifications will be provided by HART within two (2) days of NTP #1b.
3. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Approved Right of Entry will be provided within thirty (30) days of receipt of ROE request/application.
5. Attend review meetings with HART that require civil engineering participation. The need for civil engineering participation will be determined by the CONSULTANT'S project manager. No civil participation in public/community meetings.
6. Attendance at up to one (1) interface management meeting as needed.
7. HART will provide approved Waiawa Stream H&H data generated by the various studies conducted by its H&H consultant. HART will provide the Waiawa Stream channel cross-sections, channel topographic survey, one- and two-dimensional hydraulic models used in the studies, survey control data, existing conditions, final channel improvement data and Final Hydraulic Design Criteria Report.

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8. HART will facilitate meetings and/or video conference meetings with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
  9. All designs provided by HART will be reviewed and approved by the City and County, and other agencies having jurisdiction and no modifications will be required by the CONSULTANT to revise the designs specifically for work occurring in the Waiawa Stream floodplain.
  10. Autoturn modeling is not included.
  11. The Final Hydraulic Design Criteria Report by HART's H&H consultant will be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs have been coordinated with HART's H&H consultant.
  12. Hazardous material abatement work is NIC.

**C. Inputs**

1. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
2. The latest WOFH final design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. H&H models for existing and final development conditions, channel cross-sections and elevations, DPP/FEMA no-rise analysis and certification, Clean Water Act Section 404 and 401 permits, and State DLNR Stream Channel Alteration permit
4. Topographic Survey, Primary Control Data and National Geodetic Survey Elevation bench mark, right of way and boundary data, easement data, subdivision maps, land court maps, and real property acquisition information will be provided
5. KHSG Reference Materials
6. Available HDOT as-builts for previous projects within the work site limits including existing Kamehameha Highway and Bridge
7. HART CD dated July 13, 2012

**D. Deliverables**

1. Revised PE drawings
2. Basis of Design (civil sections)
3. Specification sections (table of contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. If necessary, Preliminary Scour Report

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop Preliminary Design based on station module conceptual design drawings contained on the July 13<sup>th</sup> CD from HART.
2. Perform preliminary structural analysis for H2R2 ramp structure. Provide input on slope scour protection system (by others).
3. Coordinate with other design disciplines.
4. Perform QA/QC per QAP.
5. Participate in interface management meetings.
6. Participate in design team coordination meetings.
7. Revise Basis of Design Report.
8. Coordinate with WOFH Guideway Design Build and Core Systems Contractor.
9. Review and adhere to RFIs, RFIDs, and RFCs that has already been issued. Notify HART if KHSG is not able to comply or adhere to information already provided to other Contracts.
10. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the H2R2 ramp.
11. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
12. Review and provide responses to HART comments for submittals.

**B. Assumptions**

1. Current designs are compliant with city/state code, city agency, hydrology, and flood requirements.
2. Structural will attend all HART and CONSULTANT team meetings as required.
3. Foundation designs depicted on the July 13<sup>th</sup> CD from HART are sufficient and correct and have been approved by the GEC's Hydrology Consultant.
4. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design (NIC).
5. Attendance at interface management meetings as needed.
6. Source files (AutoCAD, topographic survey, Word, Excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
7. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
8. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
9. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
10. Hazardous material abatement work is NIC.
11. Attend QA/QC, Health & Safety Training and other training as required by HART.

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12. Prefinal geotechnical recommendations are provided at the start of this phase.
  13. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit prior to completion of NTP #1b.
  14. Modification of the existing "in bound" Kamehameha Highway Bridge is not included.
  15. Analysis of the structural condition of the existing Kamehameha Highway Bridge is not included.
  16. No planning, design, or coordination work will be required for the H2R1 Ramp or other site constructions not included in this scope of work.
  17. Preparation of plans, details and specification for slope scour protection system is not included in this scope of work.
  18. No planning, design or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.

### **C. Inputs**

1. KHSG Reference Materials
2. Available HDOT as-built for previous projects within the work site limits
3. Source files from HART (AutoCAD, word, excel)
4. Approved ROE will be obtained within thirty (30) days of NTP#1b
5. WOFH final design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
6. HART CD dated July 13, 2012
7. HART H&H Final Hydraulic Design Criteria Report.

### **D. Deliverables**

1. Revised PE Structural drawings to show structural layout with dimensions and major elements' section properties and dimensions
2. Structural Basis of Design
3. Contract Specifications (Table of Contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>H2R2 Ramp Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Complete and submit the final Geotechnical Planning Report (GPR) for the KHSR project.
2. Complete and submit the final Geotechnical [Field] Investigation Work Plan (GIWP). At CONSULTANT's discretion the GIWP will be all-inclusive for all three stations and the H2R2 Ramp or H2R2 Ramp-specific GIWP.
3. Complete and submit the draft and final Site-Specific Best Management Practices (BMP). The BMP plan will be prepared based on the site conditions anticipated at the H2R2 Ramp as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
4. Finalize as necessary (if not finalized by end of NTP #1a) the Geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan.
5. Preliminary geotechnical engineering analysis will be performed based on available geotechnical data and geotechnical engineer's interpretations.
6. A technical memorandum addressing earthwork considerations and structure designs will be prepared to summarize the preliminary recommendations for the H2R2 Ramp.
7. Procure State and City permit(s) to perform the geotechnical field exploration within government right-of-ways. These permits are limited to HDOT Permit for the Occupancy & Use of State Highway Right-of-Way (DOT 4-689) and Permit to Perform Work Upon State Highways (DOT 4-222) as applicable. The boring location plan for the H2R2 Ramp will be finalized for the Geotechnical Planning Report (GPR) and Geotechnical Field Investigation Work Plan (GFIWP).
8. Field clear test boring locations by field staking/markings proposes boring locations and checking for underground utilities conflicts by reviewing available utility plans, checking with the Hawaii One Call Center (HOCC), performing field toning, and as may be necessary using Ground Penetrating Radar, and potholing or hand excavations.
9. Subsurface exploration for the H2R2 Ramp will be explored by performing four (4) borings, each to depths of fifteen (15) to fifty (50) feet below existing grades and totaling up to one hundred forty (140) feet.
10. Laboratory testing will be performed on select soil samples and rock cores, if any, obtained from the borings to determine index, physical and engineering properties.
11. Detailed engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining walls, and pavements.
12. A draft Geotechnical Data Report (GDR) will be prepared that will include the field data and laboratory test results for the H2R2 ramp geotechnical investigation.
13. A draft Geotechnical Recommendations Report (GRR) will be prepared for the H2R2 Ramp that will include interpretations of the field and laboratory test data. The GRR will include comments and recommendations for site preparation and grading, including cuts and fills, foundation support, retaining walls, and pavements for the H2R2 ramp.
14. Consultation will be provided to the CONSULTANT regarding the geotechnical findings and recommendations, and geotechnical related design issues.
15. Review of geotechnical related sections of the PE plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
16. Attend and participate in a design team coordination meeting and conference calls as needed.

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## B. Assumptions

1. The GPR and GIWP, whether all inclusive or station-specific, will be finalized by CONSULTANT and Approved by HART no later than thirty (30) days after NTP #1b.
2. Geotechnical prerequisite submittals (e.g. the geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan) will be finalized by CONSULTANT and Approved by HART no later than fourteen (14) days after NTP #1b.
3. The BMP measures will be limited to the immediate work area at each boring site.
4. Any required ROE will be provided by HART no later than fourteen (14) days after receipt of ROE request/application.
5. State and City permit(s) required to perform the geotechnical field exploration in public right of way will have been procured no later than thirteen (30) days after NTP #1b.
6. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe. Extensive grading to provide access trails for the drill rig is not included.
7. Per the Revised Ordinances of Honolulu [ROH 14-13.5], grading for borings access will be less than fifty (50) cubic yards and as such exempt from site-specific grading permit requirement.
8. Subsurface materials and ground water at the H2R2 ramp site are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
9. Level D Personal Protective Equipment (PPE) for field personnel. However, field screening will be in accordance with the Programmatic Environmental Hazards Management Plan (EHMP).
10. Hazardous or contaminated material is encountered, the material shall be managed in accordance with the Environmental Compliance Plan (ECP) and as amended by the EHMP.
11. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
12. Not included: Preparing a storm water pollution prevention plan (SWPPP) and applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
13. Not Included: Developing, implementing, and maintaining a BMP plan along the route of the H2R2 Ramp site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
14. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
15. No hydrology design or interface with the hydrology consultant is required for H2R2 Ramp improvements.
16. Not included: Consultation regarding the existing Waiawa Stream Bridge and Farrington Highway overcrossing, including assessing repairs, retrofits, and/or seismic upgrades that may be needed to the bridge and overcrossing for the H2R2 ramp.
17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site are not included.
18. The H2R2 Ramp site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting to provide access for the drill rig will be coordinated with HART.
19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
20. The site is clear of unexploded ordnance (UXO).
21. The CONSULTANT will be allowed to temporarily remove sections of existing chain link fence along the top of the embankment slope along the H2 freeway on-ramp located near the alignment of the new ramp to provide work areas for select borings. Constructing work platforms on the slope is not included.

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22. The CONSULTANT will be allowed to temporarily store fifty-five (55) gallon drums of investigation derived wastes (IDW) (soil cuttings and drilling fluids) at the site until IDW is profiled in accordance with ECP/EHMP requirements. Once profiled the IDW will be taken to an appropriate on island landfill and/or on-island treatment facility. Off-island disposal of this material at a mainland U.S. facility or other off-island facility is not included.
  23. Checking as-built conditions of existing overcrossing, bridge(s), and retaining wall foundations is not included.
  24. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity measurements are not included.
  25. Consultant will complete utility conflict clearances as soon as practicable but no later than forty-five (45) after NTP #1b.
  26. A draft Geotechnical Data Report (GDR) of the H2R2 Ramp geotechnical investigation will be submitted within sixty (60) days of initiating field explorations but no later than the completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp.
  27. A draft Geotechnical Recommendations Report (GRR) for H2R2 Ramp improvements will submitted to HART no later than completion of NTP #1b. The CONSULTANT at its discretion may elect to submit ramp-specific GRR or one (1) including all three (3) stations and the H2R2 ramp.
  28. GDR and GRR review periods and finalization will be completed in NTP #2.
  29. CONSULTANT will provide electronic files to HART at the completion of its Quality process for the field and laboratory investigations.

**C. Inputs**

1. 'KHSO Reference Materials'
2. KHSO Contract Documents

**D. Deliverables**

1. See NTP #1b, Pearl Highlands Station for project-wide geotechnical deliverables
2. Draft and final site specific BMP plan for the H2R2 Ramp boring locations
3. Technical memorandum with preliminary recommendations for the H2R2 Ramp
4. Geotechnical Fieldwork Progress Report
5. Draft GDR [Ramp-specific specific or project-wide, at CONSULTANT's discretion]
6. Draft GRR [Ramp-specific specific or project-wide, at CONSULTANT's discretion]

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Provide PE plans and basis of design to incorporate accepted value engineering recommendations as of July 2012.
3. Conceptual street lighting layout for H2R2 ramp.
4. Attend Projectwise and QAP training.
5. Respond to HART comments.
6. Perform QA/QC per QAP.
7. Revise Basis of Design Report.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Review and provide responses to HART comments for submittals.
10. Attend design team coordination meetings and interface meetings as needed.
11. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the Pearl Highlands Station.

**B. Assumptions**

1. Existing electrical improvements are adequate for service connections for the street lights.
2. Communication improvements will not be required for the H2R2 ramp.
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application.
4. Source files (AutoCAD, topographic survey, Word, Excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. Hazardous material abatement work is NIC.

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**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. KHSG Reference Documents
3. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
5. HART CD dated July 13, 2012

**D. Deliverables**

1. PE plans
2. Contract Specifications (Table of Contents only)
3. Input to basis of design report
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Provide input and review of conceptual ramp layout to the design team for traffic related issues.
3. Perform QA/QC per QAP.

**B. Assumptions**

1. Additional traffic studies or analysis are not part of this scope of work and will be considered as additional work.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/ application.

**C. Inputs**

1. 'KHSG Reference Materials'
2. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
3. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
4. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
5. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
6. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
7. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
8. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
9. HART CD dated July 13, 2012

**D. Deliverables**

1. N/A

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Conduct supplemental ground survey to pick up locations of geotechnical borings.
2. Provide additional ground survey to pick up additional topographic information as needed.
3. Incorporate supplemental surveys and final property boundary into NTP #1b topographic base file in AutoCAD format.
4. Perform QA/QC per QAP.
5. Incorporate comments from the PE revisions.
6. Prepare a comments matrix and response for the interim design.

**B. Assumptions**

1. Fieldwork for additional survey to be limited to one (1) crew-day.
2. Boundary study is included in Pearl Highlands Station Topographic Survey NTP #1a, #1b, and #2.
3. Toning of underground utilities is not required.
4. Flood Hazard levels will be certified and provided to CONSULTANT for inclusion on topographic survey map.
5. Flood levels provided by HART will be referenced to National Geodetic Datum. Control ties will be provided to the CONSULTANT.

**C. Inputs**

1. Geotechnical boring location sketch (for reference)
2. Designer to indicate additional ground survey item(s) needed
3. 'KHSR Reference Materials', including Hydraulics Report
4. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Updated topographic base file in AutoCAD format
2. Interim Design Comments Matrix and Response
3. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the preliminary engineering revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Prepare the pre-final drainage report (non-floodway area) for the H2R2 Ramp area only.
8. If Ramp H2R2R facilities are subject to Waiawa Stream lateral migration and/or scour, perform scour analyses as needed. Prepare and submit Pre-Final Scour Report that incorporates review comments from Preliminary Scour Report Review and includes results of scour analyses and scour/stream instability countermeasure design in Pre-Final Scour Report.
9. Attend interface management meetings, as needed.
10. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
11. Perform QA/QC per QAP.
12. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.
13. CONSULTANT shall prepare deconstruction/demolition drawings and specifications for the properties impacted by the H2R2 ramp related work. Hazardous material abatement work is currently NIC. Standard specifications and Guide Specifications provided by HART will be reviewed and edited for project-specific requirements. CONSULTANT will create new specifications sections where required.
14. If necessary, continue to coordinate with HART regarding ongoing Waiawa Stream flood hazard assessment, no-rise analyses/no-rise mitigation, hydraulic modeling, and stream lateral migration and scour studies. Conduct coordination meetings with HART's hydraulic/hydrology (H&H) consultant as needed to gain an understanding of, and to facilitate incorporation of facility design criteria recommended in the various studies conducted by HART's H&H consultant. Meetings to be in conjunction with Pearl Highlands Station meetings.

**B. Assumptions**

1. Civil engineer will attend up to two (2) interface management meetings. Review meetings with HART will not require civil engineering participation.
2. No civil participation in public/community meetings.
3. Existing drainage system has the capacity for any additional drainage developed from the H2R2 Ramp.
4. Signing and striping to be per HDOT Design Criteria.
5. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
6. Current designs are compliant with city/state code, city agency, hydrology, and flood requirements.

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7. HART will provide approved Waiawa Stream H&H data generated by the various studies conducted by its H&H consultant. HART will provide the Waiawa Stream channel cross-sections, channel topographic survey, one- and two-dimensional hydraulic models used in the studies, survey control data, existing conditions, final channel improvement data and Final Hydraulic Design Criteria Report.
  8. HART will facilitate one (1) video conference meeting with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
  9. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs have been coordinated with HART's H&H consultant.

**C. Inputs**

1. HART/GEC comments on the PE submittal
2. 'KHSR Reference Materials'
3. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. H2R2 Ramp Interim Civil Design Drawings and Specifications Revised H2R2 Ramp Drainage Report
2. If necessary, Pre-Final Scour Report
3. Interim Design Comments Matrix and Response
4. Revised Basis of Design (civil sections)
5. Environmental Compliance Plan checklist
6. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>H2R2 Ramp Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop Preliminary Design based on station module conceptual design drawings contained on CD from HART.
2. Develop contract Special Provisions.
3. Perform QA/QC per QAP.
4. Attend design team coordination meetings and interface meetings, as needed.
5. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
6. Incorporate comments from the PE revisions.
7. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
8. Revise Basis of Design based on interim design documents.
9. Prepare a comments matrix and response for the interim design.
10. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.
11. Coordinate with WOFH Guideway Design Build Contractor

**B. Assumptions**

1. Prefinal geotechnical recommendations are provided at the start of this phase.
2. HART will facilitate meetings and/or video conference meetings with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
3. Foundation designs depicted on the Jan. 24<sup>th</sup> CD from HART are sufficient and correct and have been approved by the GEC's Hydrology Consultant.
4. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design (NIC).
5. Survey and preliminary geotechnical report will be available prior to start of NTP #2.
6. Attendance at interface management meetings as needed.
7. Source files (AutoCAD, topographic survey, Word, Excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
8. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
9. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
10. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
11. Hazardous material abatement work is NIC.
12. Attend QA/QC, Health & Safety Training and other training as requested by HART.

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13. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit.
  14. Preparation of plans, details, and specifications for slope scour protection system is not included in this scope of work.
  15. HART will indemnify Consultant from liability resulting from stream flooding.
  16. WOFH Design is fixed prior to NTP #2 submission.

**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. Preliminary geotechnical technical recommendations
4. NTP #1b Submission

**D. Deliverables**

1. Interim Design Comments Matrix and Response
2. Revised Basis of Design (structural sections)
3. QAQC Checklist/Documentation
4. Environmental Compliance Plan checklist
5. H2R2 Ramp Interim Design Drawings, Specifications and pdf format, with all disciplines
6. Special Provisions in Word format

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Finalize Pearl Highlands Station-specific or all-inclusive Geotechnical Data Report (GDR).
2. Finalize Pearl Highlands Station-specific or all-inclusive Geotechnical Recommendations Report (GRR).
3. Consultation regarding geotechnical related design issues.
4. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
5. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp. GDR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
2. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one (1) including all three (3) stations and the H2R2 ramp. GRR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
3. The geotechnical engineer will attend up to one (1) design coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSR Reference Materials'
2. KHSR Contract Documents
3. HART review comments to DRAFT GDR [NTP #1b]
4. HART review comments to DRAFT GRR [NTP #1b]

**D. Deliverables**

1. Final GDR
2. Final GRR
3. Electronic files (DWG) of boring logs and classification charts and gINT files of the logs.

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Interim design: H2R2 Ramp street lighting plan.
3. Incorporate comments from the PE submission.
4. Design development of the construction contract drawings.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. Standard specifications and guide specifications provided by HART will be reviewed and edited for project specific requirements.

**B. Assumptions**

1. Street lighting to be designed according to State DOT Standards.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART comments on the PE submittal
2. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. Hawaiian Electric Company comments
4. 'KHSR Reference Materials'

**D. Deliverables**

1. H2R2 Ramp Interim Design Drawings, and Special Provisions.
2. Interim Design Comments Matrix and Response
3. Revised Basis of Design (electrical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Lighting calculations

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Prepare Preliminary Maintenance of Traffic (PMOT) report and plans in accordance with State DOT's Transportation Management Guidelines and Work Zone Safety and Mobility Process, dated October 3, 2007 for the H2R2 Ramp.
3. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
4. Provide coordination with the West Oahu Farrington Highway Guideway Design-Build Contractor (WOFH D/B), and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).
5. Perform QA/QC Reviews per approved QAP.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Incorporate comments from the PE revisions.
9. Design development and implementation of the construction contract drawings.
10. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
11. Revise Basis of Design based on interim design documents.
12. Prepare a comments matrix and response for the interim design.
13. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.

**B. Assumptions**

1. PMOT plan preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
3. HART will facilitate meetings and/or video conference meetings with CITY's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.

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### **C. Inputs**

1. HART Baseline Documents
2. Project-Wide Documents
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
5. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
6. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
7. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
8. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
9. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
10. 'KHSR Reference Materials', including Hydrology Report
11. The latest WOFH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
12. NTP #1b Submission

### **D. Deliverables**

1. Preliminary Maintenance of Traffic Report
2. Interim Design Traffic Control Plans
3. Environmental Compliance Plan Checklist
4. Interim Design Comments Matrix and Response
5. Revised Basis of Design
6. Specifications in Word format

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the NTP #2 submission.
2. Complete the final civil design and ad-ready construction contract drawings.
3. Prepare the final advertisement-ready construction contract drawings.
4. Prepare the final drainage report for the H2R2 Ramp area only.
5. If Ramp H2R2 facilities are subject to Waiawa Stream lateral migration and/or scour, perform final scour analyses as needed. Prepare and submit Final Scour Report that incorporates review comments from Pre-Final Scour Report Review and includes results of final scour analyses and scour/stream instability countermeasure design.
6. Prepare the Notice of Intent (NOI) for stormwater runoff during construction application to revise current HART systemwide NPDES permit.
7. Prepare the City and County of Honolulu Grading Permit Application.
8. Prepare the permit application to Work in the State Highway Right-of-Way.
9. Prepare the Drainage Connection Permit application.
10. CONSULTANT will create new specifications sections where required.
11. Revise Basis of Design based on Final design documents.
12. Attend design team coordination meetings and interface management meetings as needed.
13. Perform QA/QC review per QAP.
14. Prepare a comments matrix and response for the Final design.
15. Provide support for the preparation of presentation materials for a community presentation.

**B. Assumptions**

1. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
2. Signing and striping to be per HART Design Criteria.
3. Permit applications will be prepared. Contractor to pull actual permits.
4. Civil engineer will attend up to one (1) interface management meeting HART to provide final Waiawa Stream floodway analysis, certifications for flood levels, FEMA certification, Corps permit and State DLNR stream channel alteration permits.
5. HART will be responsible for performing Waiawa Stream floodway analysis, providing FEMA/DPP flood hazard certifications, establishing required facility design flood elevations, preparing and processing applicable permits related to work in and adjacent to Waiawa Stream (U.S. Army Corps of Engineers/DLNR/State of Hawaii Department of Health).
6. HART to provide complete copy of systemwide NPDES permit with attachments prior to start of NTP3. HART/GEC to process NOI for approval and pay for all permit and processing fees.
7. The Final Hydraulic Design Criteria Report by HART's H&H consultant shall be based on the station concepts provided in the HART CD dated July 13, 2012, and these designs will be coordinated with HART's H&H consultant.

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8. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART comments from the Interim engineering submittal
2. NTP #2 submission and HART review comments
3. 'KHSR Reference Materials', including Hydrology Report
4. The latest WOFH Guideway Design Documents
5. HART systemwide NPDES permit

**D. Deliverables**

1. Final Design Drawings and specifications Revised Basis of Design (civil sections)
2. Ad-Ready Construction Contract Drawings
3. Ramp Drainage Report
4. If necessary, Final Scour Report
5. Final Design Comments Matrix and Response
6. NOI for NPDES stormwater runoff during construction
7. Grading Permit application
8. Application for Permit to Work in State Highway Right-of-Way
9. QA/QC Checklist/Documentation
10. Environmental Compliance Plan checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Complete the final structural design and final design construction contract drawings.
3. Incorporate comments from the final design submission and complete the final advertisement-ready construction contract drawings.
4. Complete detailed structural analysis.
5. Prepare final special provisions review and markups.
6. Revise Basis of Design.
7. Attend design team coordination meetings and interface meetings as needed.
8. Coordinate with Core Systems Contractor.
9. QA/QC review per QAP.
10. Coordinate with WOFH Guideway Contractor.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and make all payments.
2. Geotechnical report is completed prior to NTP #3.
3. WOFH Design is fixed prior to NTP #2 submission.
4. Foundation designs depicted on the July 13<sup>th</sup> CD from HART are sufficient and correct and have been coordinated with the HART's Hydrology Consultant.
5. Structural design complies with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design Criteria (NIC).
6. Attendance at interface management meetings as needed.
7. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
8. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
9. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
10. Hazardous material abatement work is NIC.
11. Attend QA/QC, Health & Safety Training and other training as required by HART.
12. HART is responsible for and for overseeing the Station facility design for Waiawa Stream flood hazard district regulatory compliance, and for obtaining Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit prior to completion of NTP #1b.

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**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. The latest WOFH Guideway Design Documents

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions with all disciplines compiled in one document
2. Basis of Design
3. Ad-Ready Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Structural calculations
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Consultation regarding geotechnical related design issues.
2. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
3. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The geotechnical engineer will attend up to one (1) design coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSO Reference Materials'
2. KHSO Contract Documents

**D. Deliverables**

1. N/A

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design submission.
2. Prepare H2R2 Ramp Final plans and specifications for the following:
  - a) Electrical and communication site plans for guide and variable message signs, if necessary.
  - b) Electrical and communications and new electrical service connection plans and Street Lighting Plan.
3. Complete the final design and camera-ready construction contract drawings.
4. Revise Basis of Design.
5. Attend design team coordination meetings and interface meetings as needed.
6. QA/QC review per QAP.

**B. Assumptions**

1. HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement
2. Street lighting to be designed according to State DOT Standards.
3. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
4. Utility owners' review comments
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KMSG Reference Materials'
3. Final WOFH Guideway Design Documents
4. Final coordination information from the Core Systems Contractor
5. HART/GEC comments on the interim design submittal
6. Utility owners' review comments

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Hawaiian Electric Company service proposal
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>H2R2 Ramp Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim engineering revisions.
2. Complete the final traffic design and ad-ready construction contract drawings.
3. Revise Basis of Design based on comments on the Interim design documents.
4. Prepare a comments matrix and response for final design.
5. Prepare Traffic Control and Detour Plans (TCP) in accordance with State DOT's Hawaii Standard Specifications (HSS) Section 645, the MUTCD for the H2R2 Ramp and the strategies set forth in the Transportation Management Plan (TMP).
6. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
7. Provide coordination with the West Oahu Farrington Highway Guideway Design-Build Contractor (WOFH D/B), and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).

**B. Assumptions**

1. TCP plans preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own site specific detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. KHSR reference materials
2. HART Comments on the Interim engineering submittal
3. FEIS for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2004
5. American Association of State Highway and Transportation Officials, Roadside Design Guide, 2006
6. State of Hawaii, Department of Transportation, Highways Division, Hawaii Standard Specifications for Road and Bridge Construction, 2005
7. State of Hawaii, Department of Transportation, Highways Division, Design Branch, Standard Plans, 2008
8. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
9. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
10. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2003

**D. Deliverables**

1. Station FD Traffic Control and Detour Construction Plans and Special Provisions with all disciplines combined in one document
2. Station Ad-Ready Traffic Control and Detour Construction Contract Documents

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3. Basis of Design (traffic sections)
  4. FD comments matrix and response
  5. ECP Checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Prepare and submit ROE requests.
2. Review topographic data project controls, boundary surveys and maps provided by HART.
3. Conduct boundary study to identify and to obtain supplemental boundary data (if needed to supplement HART-provided data) needed to establish property boundary.
4. Conduct ground surveys of Pearlridge Station sites to supplement topographic data provided to the team by HART. Verify that horizontal and vertical controls conform to the requirements specified in the project design criteria.
5. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
6. Perform QA/QC per QAP.
7. Incorporate supplemental surveys into PE topographic files using HART CAD Standards.
8. Review and provide responses to HART comments on submittal.
9. Attend design team coordination meetings.

**B. Assumptions**

1. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during PE. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
2. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate System, North American Datum 1983, HARN (PAC00).
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
4. Toning of underground utilities is not required.
5. Surveyor will attend up to five (5) design team coordination meetings
6. Construction stakeout will not be required.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. KHSG Reference Materials
3. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. ROE Request
2. Topographic survey base file in AutoCAD Format
3. Responses to HART comments entered into CMS

4. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#:	NTP #1a	Activity Responsibility:
Activity:	Pearlridge Station Geotechnical	WBS Code / ID number:
		Issue Date: September 11, 2012
		Revision No: A

**A. Activity Description**

1. A project manager or principal from Geolabs will participate in the specified three (3) day Design Workshop for the project to discuss geotechnical related design issues that may arise during the workshop.
2. Readily available information on subsurface and geologic conditions at and near the site will be researched and reviewed.
3. Descriptions of the geotechnical field exploration planned at the Pearlridge Station and a preliminary boring location plan will be prepared and submitted for ROE request. The preliminary boring plan will be prepared based on available station PE drawings. HART's Request for ROE form will be completed and submitted.
4. An all-inclusive, draft Geotechnical Planning Report (GPR) will be prepared to describe the geotechnical engineering and foundation design approach that will be used to develop geotechnical recommendations for the KHSG project (e.g. Pearl Highlands, Pearlridge, and Aloha Stadium Station sites and the H2R2 Ramp).
5. A draft Geotechnical [Field] Investigation Work Plan (GIWP) will be prepared. The GIWP will address geotechnical investigations [field and laboratory] required for Pearl Highlands Station. At contractor's discretion the GIWP may be all inclusive, that is all three (3) Stations and the H2R2 Ramp. The GIWP shall include pertinent elements from the draft H RTP Environmental Hazard Evaluation/ Environmental Hazard Management Plan.
6. A draft Site-Specific Best Management Practices (BMP) plan will be prepared based on the site conditions anticipated at the Pearl Highlands Station site as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
7. A draft Geotechnical Health and Safety Plan (GHASP) will be prepared to govern geotechnical field activities for all three stations and ramp.
8. A draft Geotechnical Quality Plan (GQP) will be prepared to govern the geotechnical field work, laboratory testing, and design for all three stations and ramp.
9. Project-wide Drilling Subcontract Qualifications, Laboratory Accreditation(s), and Sample Storage shall be submitted prior to the start of field investigation activities.
10. Consultation will be provided regarding the preliminary geotechnical feedback.
11. Attend design team coordination meetings. Attend a design review meeting with HART, and if needed, an interface meeting with the KHG designers.

**B. Assumptions**

1. HART ROE form and support data requirements will be provided no later than seven (7) days after NTP #1a. Concurrently CONSULTANT will identify which areas of the work, if any fall outside of the project right of way or temporary easements and that would require a ROE.
2. The required geotechnical plans and work-related submittals will include all three (3) stations and the H2R2 Ramp. Preparing a separate plans and associated submittals for each station and the H2R2 Ramp is not included.

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3. Drafts of the all-inclusive GHASP, GQP and associated prerequisite submittals will be provided within twenty-one (21) days of NTP #1a. Submittals will be approved by HART within twenty-one (21) days, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the twenty-one (21) days.
  4. Drafts of the GPR and GIWP(s) shall be submitted within thirty (30) days of NTP #1a. The GPR and GIWP will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
  5. The BMP plan will be limited to the immediate work area at each boring site.
  6. ROE, as required for prosecution of the geotechnical investigations, will be provided to HART no later than twenty-one (21) days after NTP #1a. HART will procure ROE within thirty (30) days of receipt of CONSULTANT-completed ROE form and supporting documents.
  7. Available geotechnical investigations data for the PearlrIDGE Station area (within one thousand (1,000) feet approximately) from the KHG fixed guideway design-build contract will be provided to CONSULTANT at the start of NTP #1a. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
  8. Subsurface materials and ground water at the PearlrIDGE Station sites are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
  9. Level D of Personal Protective Equipment (PPE) for field personnel.
  10. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
  11. Not included: Preparing a storm water pollution prevention plan (SWPPP), applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
  12. Not included: Developing, implementing, and maintaining a BMP plan for the entire PearlrIDGE Station site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
  13. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
  14. No hydrology design or interface with the hydrology consultant is required for this station other than for the station building work currently in scope.
  15. Pertinent hydraulic design criteria /DPP/FEMA flood hazard district regulatory requirements that affect the design will be provided by HART and HART's H&H consultant at the start of NTP #1a.
  16. Sites are accessible to truck mounted drill rigs.
  17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site is not included.
  18. The site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting, if any is required, to provide access for the drill rig access or set up will first be coordinated with HART.
  19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
  20. The site is clear of unexploded ordnance (UXO).
  21. Management of Investigation derived wastes (IDW) if any during NTP #1a will be as assumed under NTP #1b.
  22. Checking on as-built conditions of existing building and structure foundations is not included.
  23. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.

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**C. Inputs**

1. 'KMSG Reference Materials'
2. Available and pertinent geotechnical data, i.e. investigations data and drilled shaft load test reports, from the Kamehameha Highway fixed guideway design-build contract
3. Pertinent geotechnical information from HDOT and existing building as-built drawings in the vicinity of the proposed station
4. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches dated March 09, 2012)
5. Draft HRTP-Environmental Hazard Mgmt Plan (4/13/2012)

**D. Deliverables**

1. Final Pearlridge Station proposed boring location plan Completed request for ROE, including any Preliminary Boring Location Plan and attendant summary/ description of the work
2. See Pearl Highlands NTP #1a for other project-wide Deliverable

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Complete ground surveys of Pearlridge Station sites to supplement topographic data provided to the team by HART.
2. Conduct field and office work necessary to establish property boundary.
3. Compile and submit draft property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
5. Perform QA/QC per QAP.
6. Incorporate supplemental surveys and draft property boundary into PE topographic files using HART CAD Standards.
7. Review and provide responses to HART comments on submittal.
8. Attend design team coordination meetings

**B. Assumptions**

1. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during PE. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
2. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate System, North American Datum 1983, HARN (PAC00).
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
4. Toning of underground utilities is not required.
5. Surveyor will attend up to five (5) design team coordination meetings.
6. Construction stakeout will not be required.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. KHSR Reference Materials
3. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches AR002-AR004 dated March 09, 2012)

**D. Deliverables**

1. Topographic survey base file in AutoCAD Format
2. Draft property boundary study
3. Responses to HART comments entered into CMS
4. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearlridge Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Revise Basis of Design.
3. Review and refine PE designs, including concept site layout, preliminary Autoturn modeling, concept grading, and concept utilities.
4. Review and recommend location of station utilities and electrical transformer, including introductory meeting with HECO.
5. Perform QA/QC per QAP.
6. Coordinate with architect and landscape architect, as well as surveyor and geotechnical engineer.
7. Participate as needed in interface management meetings.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Review and provide responses to HART comments for submittals.
10. Attend design team coordination meetings.

**B. Assumptions**

1. Current designs are compliant with City & State codes.
2. Approved ROE will be obtained within thirty (30) days of NTP #1b. ROE requests/coordination prepared by others.
3. Revisions based on outcome of three (3)-day and five (5)-day workshops.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings, basis of design and hydraulic studies will be provided by HART within two (2) days of NTP #1b.
5. Water, sewer, drainage, etc. utility service connections are required beyond station site as shown on PE drawings, (i.e. utility work is to be extended into roadway ROW as needed).
6. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
7. Weekly review meetings with HART require only minimal civil engineering participation.
8. Civil engineer will attend up to ten (10) design team coordination meetings.
9. No civil participation in public/community meetings.
10. Attendance at up to five (5) interface management meetings as needed.
11. Hazardous material abatement work is NIC.

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**C. Inputs**

1. Source files from HART (AutoCAD, Word, Excel) provided within two (2) days of NTP #1b
2. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. H&H models for existing & final development conditions, channel cross-sections and elevations, DPP/FEMA no rise analysis and certification, Clean Water Act Section 404 and 401 Permits and State Department of Land and Natural Resources (DLNR) Stream Channel Alteration Permit
4. Topographic survey, Primary control Data, National Geodetic Survey (NGS) elevation benchmark, right-of-way and boundary data, easement data, subdivision maps, land court maps, and real property acquisition information
5. KHSG Reference Materials
6. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. Revised PE drawings
2. Basis of Design (civil sections)
3. Specification sections (table of contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#:	<b>NTP #1b</b>	Activity Responsibility:
Activity:	<b>Pearlridge Station Structural Design</b>	WBS Code / ID number:
		Issue Date: <b>September 11, 2012</b>
		Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on the combination of PE drawings and conceptual design drawings contained on the July 13, 2012 HART CD.
2. Perform preliminary structural analysis for station and ancillary building. Confirm preliminary location, size, and quantity of foundation for station support.
3. Coordinate with other design disciplines.
4. Coordinate with KHG Guideway Design Build Contractor.
5. Perform QA/QC per QAP.
6. Revise Basis of Design Report.
7. Validate and revise existing structural design for foundations and pedestrian bridges per July 13, 2012 designs.
8. Attend design team coordination meetings and interface meetings as needed.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Develop the design of the thirty (30) ft platform girder segment above the concourse level. Coordinate with Core Systems Contractor and design the duct banks between the interface pull boxes provided by the Guideway Contractors to the Train Control and Communications room.
11. Coordinate with Core Systems Contractor and design the platform to sustain loads associated with platform screen gates, including buffeting by passage of trains and hurricanes of Category 4.
12. Review and adhere to RFIs, RFIDs, and RFCs that has already been issued. Notify HART if KHSG is not able to comply or adhere to information already provided to other Contracts.
13. Review and provide responses to HART comments for submittals.

**B. Assumptions**

1. Pedestrian bridges will be redesigned per new modular concept design direction.
2. Structural design will comply with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design Criteria (NIC).
3. Approved Right of Entry will be obtained within thirty (30) days of NTP #1b.
4. Attendance at interface management meeting, as needed.
5. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
6. Hazardous material abatement work is NIC.
7. Attend QA/QC, Health & Safety Training and other training as requested by HART.
8. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.

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9. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.

**C. Inputs**

1. HART shall provide PE documents and drilled shaft locations and sizes for Station support
2. HART H&H Final Hydraulic Design Criteria Report
3. KHSR Reference Materials
4. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
5. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
6. Preliminary geotechnical site characterizations/recommendations
7. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. Revised PE Structural drawings to show structural layout with dimensions and major elements' section properties and dimensions
2. Structural Basis of Design
3. Contract Specifications (Table of Contents only)
4. QA/QC Documentation
5. Environmental Compliance Plan Checklist

**ACTIVITY DESCRIPTION**

NTP#:	NTP #1b	Activity Responsibility:	Issue Date: September 11, 2012
Activity:	Pearlridge Station Geotechnical Design	WBS Code / ID number:	Revision No: A

**A. Activity Description**

1. Complete and submit the final Geotechnical [Field] Investigation Work Plan (GIWP). At CONSULTANT's discretion the GIWP may be all-inclusive for all three (3) stations and the H2R2 Ramp or Pearlridge Highlands Station-specific.
2. Complete and submit the final Site-Specific Best Management Practices (BMP). The BMP plan will be prepared based on the site conditions anticipated at the Pearlridge Station as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
3. Preliminary geotechnical engineering analysis will be performed based on available geotechnical data and geotechnical engineer's interpretations.
4. A technical memorandum will be prepared to summarize the preliminary earthwork and foundation support recommendations for the Pearlridge Station.
5. Procure State and City permit(s) to perform the geotechnical field exploration within government right-of-ways. These permits are limited to HDOT Permit for the Occupancy & Use of State Highway Right-of-Way (DOT 4-689) and Permit to Perform Work Upon State Highways (DOT 4-222), as applicable.
6. Field-clear test boring locations by field staking/marketing proposed boring locations and checking for underground utilities conflicts by reviewing available utility plans, checking with the Hawaii One Call Center (HOCC), performing field toning, and as may be necessary, using Ground Penetrating Radar, and potholing or hand excavations.
7. Subsurface exploration at the Pearlridge Station (Mauka and Makai) will be explored by performing the following test borings:
  - a) Mauka side Entrance Building: One (1) test boring to a depth of about seventy-five (75) feet below existing grades.
  - b) Makai Site:
    - i. Entrance Building: One (1) boring to a depth of about seventy-five (75) feet below existing grades.
    - ii. Train Control and Communications Room Building / TPSS Building: Two (2) borings, varying in depth from twenty-five (25) feet to thirty-five (35) feet and totaling up to sixty (60) feet.
8. Laboratory testing will be performed on select soil samples and rock cores obtained from the borings to determine index, physical and engineering properties.
9. Detailed engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining walls or below grade elements, and pavements.
10. A draft Geotechnical Data Report (GDR) will be prepared to document the field data and laboratory test result of the Pearlridge Station geotechnical investigation.
11. A draft Geotechnical Recommendations Report (GRR) will be prepared for the Pearlridge Station that will include interpretations of the field and laboratory test data. The GRR will include earthwork recommendations, e.g. site preparation/grading and pavement design requirements, and geotechnical designs for the proposed station, e.g. foundation types and support capacity, lateral earth pressures (retaining walls and below grade structures).
12. Consultation will be provided to the CONSULTANT regarding the geotechnical findings and recommendations, and geotechnical related design issues.

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13. Review of geotechnical related sections of the preliminary engineering plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
  14. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The GIWP, whether all inclusive or station-specific, will be finalized by CONSULTANT and Approved by HART no later than thirty (30) days after NTP #1b.
2. The BMP plan will be limited to the immediate work area at each boring site.
3. Any required ROE will be provided by HART no later than fourteen (14) days after NTP #1b.
4. State and City permit(s) required to perform the geotechnical field exploration in public right of way will be procured no later than thirty (30) days after NTP #1b.
5. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe. Extensive grading to provide access trails for the drill rig is not required.
6. Grading for borings access will be less than fifty (50) cubic yards and as such exempt from site-specific grading permit requirement per the Revised Ordinances of Honolulu [ROH 14-13.5].
7. Subsurface materials and ground water at the Pearlridge Station site are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
8. Level D personal protective equipment (PPE) for field personnel. However, field screening will be in accordance with the draft H RTP Environmental Hazard Management Plan (EHMP).
9. If hazardous or contaminated material is encountered, the material shall be managed in accordance with the Environmental Compliance Plan (ECP) and as amended by the EHMP.
10. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
11. Not included: Preparing a storm water pollution prevention plan (SWPPP) and applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
12. Not included: Developing, implementing, and maintaining a BMP plan for the entire Pearlridge station site.
13. No planning, design, or coordination work will be required for other site constructions not included in this scope of work.
14. No hydrology design or interface with the hydrology consultant is required for this station.
15. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site are not included.
16. The Station site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting to provide access for the drill rig will be coordinated with HART.
17. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
18. The site is clear of unexploded ordnance (UXO).
19. The CONSULTANT will be allowed to temporarily store fifty-five (55) gallon drums of investigation derived wastes (IDW) [soil cuttings and drilling fluids] at the Station site until IDW material is profiled in accordance with ECP/EHMP requirements. Once profiled the IDW will be taken to an appropriate on-island landfill and/or treatment facility. Off-island disposal of this material at a mainland U.S. facility or other off-island facility is not included.
20. Checking as-built condition(s) of existing building(s) and structure(s) foundations is not included.
21. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.
22. Consultant will complete utility conflict clearances as soon as practicable but no later than forty-five (45) after NTP #1b.
23. Consultant will initiate geotechnical investigations no later than sixty (60) days before the end of NTP #1b.

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24. A draft Geotechnical Data Report (GDR) of the Pearlridge Station geotechnical investigation will be submitted within sixty (60) days of initiating field explorations but no later than the completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp.
  25. A draft Geotechnical Recommendations Report (GRR) for the Pearlridge Station improvements shall be submitted to HART no later than completion of NTP #1b. The CONSULTANT, at its discretion, may elect to submit Station-specific GRR or one (1) including all three (3) stations and the H2R2 ramp.
  26. GDR and GRR review periods and finalization will be completed in NTP #2.
  27. CONSULTANT will provide electronic files to HART at the completion of its Quality process for the field and laboratory investigations.
  28. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSB Reference Materials'
2. KHSB Contract Documents

**D. Deliverables**

1. See Pearl Highlands NTP #1b for project-wide Deliverables
2. Draft and final site-specific BMP plan for the Pearlridge Station boring locations
3. Technical memorandum with preliminary recommendations for the Pearlridge Station
4. Geotechnical Fieldwork Progress Report
5. Draft GDR (Ramp-specific specific or project-wide, at CONSULTANT's discretion)
6. Draft GRR (Ramp-specific specific or project-wide, at CONSULTANT's discretion)
7. Electronic files (dwg) of boring logs and classification charts and gINT files of the logs

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. The conceptual design sketches provided by HART on July 13, 2012 will act as design guidelines to reflect the scope of work, programmatic and functional requirements, provide a basis for cost estimating, and allow an understanding of the project. The CONSULTANT shall update station design concepts and PE design drawings as follows:
  - a) Design improvements shall be proposed by the CONSULTANT.
  - b) Design concepts shall be consistent with the goals of the Design Language Pattern Book.
  - c) Prepare illustrative materials representative of the project including rendered plans, sections and elevation drawings, three-dimensional renderings.
  - d) Confirm compliance of preliminary engineering design with FEIS/ROD, and all applicable codes, regulations and design standards.
  - e) Coordinate with Core Systems Contractor on location and mounting of systems elements, including communications interface cabinets, telephones, speakers, variable-message signs, access control and intrusion detection devices, platform screen gates (PSGs), fare vending machines, and fare gates.
  - f) Coordinate with Core Systems Contractor on location and routing of conduit between TCCR and systems elements throughout station facility.
  - g) Coordinate treatment of end-of-platform barrier to integrate with PSGs.
  - h) Provide presentation materials to HART in support of one (1) public presentation.
  - i) Revise Basis of Design Report.
  - j) Consultant will work with the HART selected artist(s) to integrate artwork into the design of the stations and station site. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities and to incorporate the artwork into the design construction documents.
  - k) Perform QA/QC per QAP.

**B. Assumptions**

1. All activities during NTP #1b will take place during a period not to exceed forty (40) days.
2. The drawings dated July 13, 2012; September 2011; and September 2009, have been approved by NHC for conformance with Hydrology report requirements.
3. Architectural design will be reviewed and approved by NHC with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements.

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4. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect architectural design of Station facility.

**C. Inputs**

1. 'KHSG Reference Materials'
2. Source files from HART (AutoCAD, word, excel)
3. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
4. HART CD dated July 13, 2012 and supplementary sketches received for Pearlrige Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. Proposed PE Submission
2. Proposed Outline Specifications
3. Proposed Basis of Design Manual
4. Code Compliance Checklist
5. One (1) Community Presentation
6. ADA Compliance Report
7. Environmental Compliance Plan checklist
8. Egress calculations and diagrams
9. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Prepare presentation materials including Revision to PE Drawings indicating tree massing, intensively landscaped areas (entry and areas immediately adjacent to structures, intermediate landscaping and transition areas, as well as indications of entry features) and functional walkways.
3. Attend design team coordination meetings and interface meetings as needed.
4. Review conformance with State/City Street and highway design guidelines as it pertains to landscaping.
5. Collaborate with Design Team in incorporating user recommendations/comments.
6. Prepare technical responses to comments received during review period.
7. Assess & document existing vegetation to be preserved, relocated, and removed.
8. Revise Basis of Design Report.
9. Perform QA/QC per QAP.
10. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
11. Review and provide responses to HART comments for submittal.

**B. Assumptions**

1. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
2. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application.
3. Landscape design is limited to station site and does not include the Kamehameha Highway median nor street trees within ROW.
4. Attendance at presentations to government agencies or public hearings is not included in the scope of services.
5. Hazardous material abatement work is NIC.

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**C. Inputs**

1. KHSG Reference Materials
2. HART CD dated July 13, 2012 and supplementary sketches received for Pearlrige Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. Colored Schematic Landscape Plan.
2. Plant Palette and landscape images to further convey the intent of the design.
3. Revised PE drawings
4. Update Basis of Design
5. Environmental Compliance Plan Checklist
6. Contract Specifications (Table of Contents only)
7. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Review mechanical directive drawings, specifications and accepted value engineering recommendations
  - a) Review information from Core Systems Contractor.
  - b) Review current site plans and utility connection points from Guideway Design-Build Contractor.
3. Prepare preliminary design drawings and calculations for air conditioning, ventilation, plumbing, sanitary drainage, storm drainage, and fire protection systems.
4. Review and update PE basis of design.
5. Perform QA/QC per QAP.
6. Review and provide responses to HART comments for submittals.
7. Attend Projectwise and QA/QC Training.
8. Attend design team coordination meetings and interface meetings as needed.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.

**B. Assumptions**

1. Attendance at interface management meetings as needed.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Mechanical design will comply with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements.
5. ROE into private properties will be provided by HART within thirty (30) days of receipt of NTP #1b.
6. Hazardous material abatement work is NIC.

**C. Inputs**

1. KHSG Reference Materials
2. Working Documents for the Guideway Segment
3. Coordination information from the Core Systems Contractor
4. HART Baseline Documents
5. Project-Wide Documents
6. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
7. The latest KHG PE design submittals (both pdf and AutoCAD) including drawings and basis of design

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8. Approved ROE will be obtained within thirty (30) days of NTP #1b
  9. The latest KH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
  10. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches AR002-AR004 dated March 09, 2012)

**D. Deliverables**

1. Preliminary mechanical design plans
2. Input to basis of design report
3. High-level draft quantity takeoff for mechanical utilities shown on the PE plans
4. Contract Specifications (Table of Contents only)
5. Preliminary Mechanical Calculations for all systems
6. Environmental Compliance Plan checklist
7. QA/QC documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Develop preliminary design of TPSS including duct banks to power source and to guideway.
3. Current site plans and utility connection points from KHG Design-Build Contractor.
4. Submit Hawaiian Electric Company utility service requests.
5. Perform preliminary design of duct bank from Train Control and Communications interface manhole/pullbox to Train Control and Communications Room (TCCR).
6. Attend Projectwise and QAP training.
7. Perform QA/QC per QAP.
8. Revise Basis of Design Report.
9. Review and recommend location of station electrical transformer, including introductory meeting with HECO.
10. Participate in interface management meetings.
11. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
12. Review and provide responses to HART comments for submittals.
13. Attend design team coordination meetings and interface meetings as needed.

**B. Assumptions**

1. Electrical Design is limited to only the Station sites.
2. Attendance at up to five (5) interface management meetings as needed.
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. KHSG Reference Documents
3. Source files from HART
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
5. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. PE plans
2. Contract Specifications (Table of Contents only)
3. Input to basis of design report
4. Environmental Compliance Plan checklist

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5. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Provide input and review of conceptual site layout to the design team for traffic related issues.
3. Perform QA/QC per QAP.

**B. Assumptions**

1. Additional traffic studies or analysis are not part of this scope of work.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Approved Right of Entry will be obtained within thirty (30) days of receipt of ROE request/ application.
4. No MOT work will be performed for NTP #1a.
5. No attendance at the three (3)-day and five (5)-day workshop.
6. No meetings for NTP #1b.

**C. Inputs**

1. 'KHSR Reference Materials'
2. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
3. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
4. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
5. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
6. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
7. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
8. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
9. HART CD dated July 13, 2012 and supplementary sketches received for Pearlridge Station (Sketches AR002-AR004 dated March 09, 2012)

**D. Deliverables**

1. N/A

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Conduct supplemental ground survey to pick up locations of geotechnical borings.
2. Provide additional ground survey to pick up additional topographic information as needed.
3. Compile and submit final property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Set property boundary corner monuments.
5. Incorporate supplemental surveys and final property boundary into NTP #1b topographic base file in AutoCAD format.
6. Perform QA/QC Per QAP.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Incorporate comments from the PE revisions.
9. Prepare a comments matrix and response for the interim design.

**B. Assumptions**

1. Fieldwork for additional survey to be limited to one crew-day.
2. Toning of underground utilities is not required.

**C. Inputs**

1. Geotechnical boring location sketch (for reference)
2. Designer to indicate additional ground survey item(s) needed
3. 'KHSR Reference Materials'
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Updated topographic base file in AutoCAD format
2. Final property boundary study
3. Interim Design comments Matrix and Response
4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE submission.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Prepare the pre-final drainage report for the Pearlridge Station.
8. Attend design team coordination meetings and interface meetings, as needed.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Perform QA/QC per QAP.
11. CONSULTANT shall prepare deconstruction/demolition drawings and specifications for the properties impacted by station related work. Hazardous material abatement work related to this is currently NIC. Standard specifications and Guide Specifications provided by the HART will be reviewed and edited for project-specific requirements. CONSULTANT will create new specifications sections where required.

**B. Assumptions**

1. Civil engineer will attend up to ten (10) design team coordination meetings and five (5) interface meetings. Review meetings with HART require only minimal civil engineering participation.
2. No civil participation in public/community meetings.
3. Existing roadway and stream drainage systems have the capacity for any additional drainage developed from the Pearlridge Station.
4. Signing and striping to be per HART Design Criteria.
5. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within HART right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
6. Multi-modal access (pedestrians, bicycles, vehicles, buses, handi-vans, taxis, private shuttles, and private tour buses) will be considered in the layout of the station area.
7. Permit application fees are excluded.
8. Permit applications will be submitted for:
  - a) DPP Site Development Division Review
  - b) Grading/Grubbing (as needed)
  - c) CCH Street Usage Permit
  - d) Drain Connection Permit, to include MS4 approval
  - e) Sewer Connection Permit
  - f) Department of Health: NOI for NPDES stormwater during construction
  - g) DCAB: Site Plan Review

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- h) HDOT: Construction within a State Highway Permit
  - 9. Contractor or HART will pull actual permits.
  - 10. Hazardous material abatement work is NIC.

**C. Inputs**

- 1. Coordination information from the Core Systems Contractor
- 2. HART/GEC comments on the PE submittal
- 3. 'KMSG Reference Materials'
- 4. Geotechnical engineer's recommendations on subsurface soils characteristics pertinent to scour analyses
- 5. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

- 1. Pearlridge Station Interim Civil Design Drawings and Specifications with all disciplines compiled in one document
- 2. Revised Pearlridge Station Drainage Report
- 3. Interim Design Comments Matrix and Response
- 4. Revised Basis of Design (civil sections)
- 5. Environmental Compliance Plan checklist
- 6. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Structural Design</b>	WBS Code / ID number:	Revision No.: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Design development and implementation of the construction contract drawings.
3. Coordinate with KHG Guideway Design Build Contractor.
4. Develop contract special provisions.
5. Perform QA/QC per QAP.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Incorporate comments from the PE revisions.
9. The State, City and Project standard details will be incorporated and project specific details developed as needed.
10. Revise Basis of Design based on interim design documents.
11. Prepare a comments matrix and response for the interim design.
12. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.

**B. Assumptions**

1. The overall design has been set at the start of this phase.
2. Survey and preliminary geotechnical report will be available prior to start of NTP #2.
3. Prefinal geotechnical recommendations are provided at the start of this phase.
4. KHG Design is fixed prior to NTP #2 submission.
5. Hazardous material abatement work is NIC.
6. Attend QA/QC, Health & Safety Training and other training as requested by HART.
7. Attendance at interface management meetings as needed.
8. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of the Station facility.

**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission
4. Preliminary geotechnical recommendations

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**D. Deliverables**

1. Interim Design Comments Matrix and Response
2. Revised Basis of Design (structural sections)
3. QA/QC Checklist/Documentation
4. Pearlridge Station Interim Design Drawings and pdf formats with all disciplines
5. Environmental Compliance Plan Checklist
6. Special Provisions in Word format.

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Finalize Pearl Highlands Station-specific or all-inclusive Geotechnical Data Report (GDR).
2. Finalize Pearl Highlands Station-specific or all-inclusive Geotechnical Recommendations Report (GRR).
3. Consultation regarding geotechnical related design issues.
4. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
5. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one including all three stations and the H2R2 ramp. GDR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
2. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one including all three stations and the H2R2 ramp. GRR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
3. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSG Reference Materials'
2. KHSG Contract Documents
3. HART review comments to DRAFT GDR [NTP1b]
4. HART review comments to DRAFT GRR [NTP1b]

**D. Deliverables**

1. Final GDR
2. Final GRR
3. Electronic files (DWG) of boring logs and classification charts and gINT files of the logs

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Prepare Renderings, a 3-D flyover, and supporting visual documentation, including landscaping and plaza design, for each station in support of the public outreach process community presentation (1).
2. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. CONSULTANT shall include deconstruction/demolition Works in the Contract drawings and Contract specifications for the properties impacted by station related work. Hazardous material abatement work related to this is currently NIC.
3. CONSULTANT will work with the HART selected artist(s) to integrate artwork into the design of the stations and station site. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities and to incorporate the artwork into the design construction documents.
4. Prepare an ADA accessibility report indicating the accessible routes and features of each station that indicate how ADA accessibility guidelines were utilized.
  - a) Follow ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).
  - b) Provide curb ramps at intersections that meet the applicable City and County of Honolulu standards for curb ramps.
  - c) Coordinate with HART the requirements of State Disability Communication Access Board.
5. Design and coordinate station canopies to provide necessary equipment, fixtures, etc., that require concealed power and communication conduit lines.
6. CONSULTANT shall assemble and consolidate Contract Specifications in CSI 2004 Masterformat:
  - a) HART Standard Specifications and Guide Specifications provided to CONSULTANT will be reviewed and edited for project specific requirements.
  - b) CONSULTANT will prepare new specification sections where required.
7. The CONSULTANT will be responsible for signage design and layout drawings, schedule, attachment and other requirements using the HART Signage and Wayfinding Systems Manual.
8. Perform QA/QC Reviews per approved QA/QC Plan.
9. Attend design team coordination meetings and interface meetings, as needed.
10. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
11. Incorporate comments from the NTP #1b submission.
12. Design development and implementation of the construction contract drawings.
13. Revise Basis of Design on interim design documents.
14. Prepare a comments matrix and response for the interim design.
15. Consultant to incorporate the art work in the contract construction documents.
16. Coordinate design, detailing and attachment of the art work.

**B. Assumptions**

1. All activities during NTP #2 will take place during a period not to exceed one hundred (100) days.

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**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
3. NTP # 1b Submission

**D. Deliverables**

1. Interim Architectural Construction Contract Documents
  - a) Interim Construction Contract Drawings
  - b) Interim Construction Contract Specifications and Special Provisions (specific to this station only)
2. Interim Design Code Compliance Checklist
3. Interim Design Station Visualizations
4. Interim Design Constructability Review Documents
5. Interim Accessibility Report
6. Updated Egress diagrams and calculations
7. QA/QC Checklist/Documentation
8. Interim Design Comments Matrix and Response
9. Revised Basis of Design
10. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design, Quantity estimates based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. CONSULTANT shall prepare deconstruction/demolition drawings and specifications for the properties impacted by H2R2 ramp related work. Hazardous material abatement work related to this is currently NIC. Standard specifications and Guide Specifications provided by the HART will be reviewed and edited for project specific requirements. CONSULTANT will create new specifications sections where required.

**B. Assumptions**

1. Landscape Architecture for the Station will be coordinated with the adjacent System-wide landscape architecture designed by others.
2. Landscape architect will attend up to ten (10) design team coordination meetings.
3. Attendances at public hearings or presentations to the City or other government agencies are not included.
4. Landscape outdoor lighting will be coordinated with and provided by Electrical Engineer.
5. Irrigation points of connection will be coordinated with and provided by Civil Engineer.
6. Power sources for irrigation controllers will be coordinated with and provided by Electrical Engineer.
7. Study/analyze landscaping and irrigation demand with regards to LEED Water Efficiency credits.
8. Provide support in preparation of technical responses to comments received during review period.
9. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART comments on the preliminary submittal
2. KHSG Reference Materials'
3. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
4. System-wide landscape architecture design

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**D. Deliverables**

1. Station Interim Design Drawings and Special Provisions with all disciplines compiled in one (1) document
2. Pearlridge Interim Design Comments Matrix and Response
3. Revised Basis of Design
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Landscape documents to include:
  - a) Landscape Site Plan
  - b) Landscape Planting Plan
  - c) Landscape Irrigation Plan
  - d) Plant List, Notes and Details
  - e) Irrigation Legend, Notes and Details

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. Coordinate equipment locations, weight and electrical rating with various consultants.
11. Coordinate and review available water pressure with civil for fire protection standpipe systems.

**B. Assumptions**

1. HART/GEC will provide the necessary coordination information and/or direction should the award of the Core Systems Contract be delayed after NTP #2.
2. Mechanical engineer will attend up to ten (10) design team coordination meetings.
3. No mechanical participation in public/community meetings.
4. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART/GEC comments on the PE submittal
3. KHSG Reference Materials'
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
5. The latest KH Section Guideway & Utilities design submittals (both pdf and AutoCAD) including drawings and basis of design

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**D. Deliverables**

1. Pearlridge Station Interim Mechanical Design drawings and specifications with all disciplines compiled in one (1) document
2. Interim Design comments matrix and response
3. Revised Basis of Design (mechanical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Interim mechanical design calculations for all systems

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearlridge Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE submission.
3. Design development and implementation of the construction contract drawings.
4. Revise Basis of Design based on interim design documents.
5. Prepare a comments matrix and response for the interim design.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Perform QA/QC per QAP.
9. Standard specifications and guide specifications provided by HART will be reviewed and edited for project specific requirements.
10. Prepare Kamehameha Highway Station Group Interim Design plans and specifications for the following:
  - a) Electrical and communication site plans including TPSS and connections to KHG infrastructure provisions.
  - b) Electrical and communications utility relocation, new electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans for Pearlridge Station.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Site lighting plan including lighting for artwork and signage.
11. Prepare lightning protection analysis.

**B. Assumptions**

1. HART/GEC will provide the necessary coordination information and/or direction should the award of the Core Systems Contract be delayed until after NTP #2.
2. Electrical engineer will attend up to ten (10) design team coordination meetings.
3. No electrical participation in public/community meetings.
4. Load requirements for the emergency lighting UPS shall be supplied to the CSC by the station designer.
5. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
6. Load requirements for the TCC UPS shall be determined by CSC.
7. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
8. Hazardous material abatement work is NIC.

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**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART/GEC comments on the preliminary engineering submittal
3. 'KHSG' Reference Materials
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Pearlridge Interim electrical design drawings and specifications with all disciplines compiled into one document
2. Interim Design Comments Matrix and Response
3. Revised Basis of Design (electrical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Lightning Protection Analysis
7. Lighting calculations per CDC Ch. 20
8. Power distribution calculations per CDC Ch. 20

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Prepare Preliminary Maintenance of Traffic (PMOT) report and plans in accordance with State DOT's Transportation Management Guidelines and Work Zone Safety and Mobility Process, dated October 3, 2007 for the Pearlridge Station.
3. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
4. Provide coordination with the Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).
5. Perform QA/QC Reviews per approved QA/QC Plan.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Incorporate comments from the preliminary engineering revisions.
9. Design development and implementation of the construction contract drawings.
10. Revise Basis of Design on interim design documents.
11. Prepare a comments matrix and response for the interim design.
12. Coordinate with HDOT and determine acceptable lane closure periods and prepare detailed traffic control/detour plans for installation of the pedestrian bridge and station structure/platform.

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**B. Assumptions**

1. PMOT plan preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
3. Minimal attendance at HART, Interface Meetings, or internal Design Meetings.

**C. Inputs**

1. KHSO reference materials
2. HART comments on the PE submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
5. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
6. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
7. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
8. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
9. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
10. KHSO Reference Materials', including Hydrology Report
11. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
12. NTP #1b Submission

**D. Deliverables**

1. Preliminary Maintenance of Traffic Report
2. Interim Design Traffic Control Plans
3. Environmental Compliance Plan Checklist
4. Station Interim Design Drawings, Special Provisions, and pdf format, with all disciplines
5. Interim Design Comments Matrix and Response
6. Revised Basis of Design
7. Special Provisions in Word format
8. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the NTP #2 submission.
2. Complete the final civil design and ad-ready construction contract drawings.
3. Revise Basis of Design based on Final design documents.
4. Prepare a comments matrix and response for the Final Design.
5. Prepare the final drainage report for the Pearlridge Station.
6. Attend design team coordination meetings and interface meetings as needed.
7. Perform QA/QC review per QAP.
8. Incorporate comments from the final design submittal and complete the final ad-ready construction contract drawings.
9. Prepare the Notice of Intent (NOI) for stormwater runoff during construction application to revise current HART Systemwide NPDES permit.
10. Prepare the City and County of Honolulu Grading Permit Application.
11. Prepare the permit application to Work in the State Highway Right-of-Way.
12. Prepare the Drainage Connection Permit and Sewer Connection Permit applications, including form for MS4 approval.
13. Provide support for the preparation of presentation materials for a community presentation.

**B. Assumptions**

1. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
2. Signing and striping to be per HART Design Criteria.
3. Permit applications will be prepared. Contractor to pull actual permits.
4. Civil engineer will attend up to two (2) design team coordination meetings and two (2) interface meetings.
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART comments from the Interim engineering submittal
2. NTP #2 submission and HART review comments
3. 'KHSR Reference Materials'
4. The latest KHG Guideway Design Documents (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Station Final Design Drawings and Specifications with all disciplines compiled in one (1) document
2. Basis of Design (civil sections)
3. Ad-Ready Station Construction Contract Drawings

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4. Station Drainage Report
  5. Final Design Comments Matrix and Response
  6. NOI for NPDES Stormwater Runoff during construction
  7. Grading Permit application
  8. Application for Permit to Work in State Highway Right-of-Way
  9. QA/QC Checklist/Documentation
  10. Environmental Compliance Plan checklist

ACTIVITY DESCRIPTION			
NTP#:	<b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Pearlridge Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Complete the final structural design and final design construction contract drawings.
3. Incorporate comments from the final design submission and complete the final advertisement-ready construction contract drawings.
4. Complete detailed structural analysis.
5. Prepare final special provisions review and markups.
6. Revise Basis of Design.
7. Attend design team coordination meetings and interface meetings as needed.
8. Coordinate KHSG work with that of the Core Systems Contractor.
9. Coordinate with KHG Guideway Design Build Contractor.
10. QA/QC review per QAP.

**B. Assumptions**

1. Geotechnical report is completed prior to NTP #3.
2. KHG Designs are fixed prior to NTP #2 submission.
3. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and make all payments.
4. Hazardous material abatement work is NIC.
5. Attendance at interface management meetings as needed.
6. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of the Station facility.
7. Attend QA/QC, Health & Safety Training and other training as requested by HART.

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**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions with all disciplines compiled in one (1) document
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Structural calculations
6. QA/QC Checklist/Documentation
7. Environment Compliance Plan Checklist

<b>ACTIVITY DESCRIPTION</b>		
NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Geotechnical Design</b>	WBS Code / ID number: -	Revision No: <b>A</b>

**A. Activity Description**

1. Consultation regarding geotechnical related design issues.
2. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
3. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSO Reference Materials'
2. KHSO Contract Documents

**D. Deliverables**

1. N/A

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design submission.
2. Complete the final design and construction contract documents.
3. Incorporate comments from the final design and complete the final advertisement-ready construction contract documents.
4. Finalize Basis of Design.
5. Attend design team coordination meetings and interface meetings as needed.
6. Coordinate with Core Systems Contractor.
7. Upon completion of the Final Design, CONSULTANT will create a 1/8"=1'-0" physical scale model of one (1) KHSG station selected by HART. Eight weeks lead time is needed for production of the model. A durable wood base with Plexiglas cover, custom, protective shipping case with casters will also be provided to allow for the HART to transport the model.
8. CONSULTANT shall include deconstruction/demolition Works in the Contract drawings and Contract specifications for the properties impacted by station related work. Hazardous material abatement work related to this is currently NIC.
9. CONSULTANT shall finalize the contract construction specifications and design special provisions.
10. The CONSULTANT will be responsible for signage design and layout drawings, schedule, attachment using the HART Signage and Wayfinding Systems Manual.
11. Consultant to incorporate the art work in the contract construction documents.
12. Coordinate design, detailing and attachment of the art work.
13. Perform QA/QC per QAP.

**B. Assumptions**

1. CONSULTANT shall obtain plan approval, and submit building permit applications. Contractor is responsible for pulling permits and making all payments.
2. All activities during NTP #3 will take place during a period not to exceed forty-five (45) days.

**C. Inputs**

1. NTP # 2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Camera-Ready Station Final Construction Contract Documents
  - a) Construction Contract Drawings
  - b) Construction Contract Specifications and Special Provisions

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2. Final Basis of Design
  3. Ad-Ready Station Construction Contract Documents
  4. Final Design Comments Matrix and Response
  5. Final Accessibility Report
  6. Final station visualizations
  7. Physical model of one (1) station
  8. QA/QC Documentation
  9. Environmental Compliance Plan checklist
  10. Final Code Compliance Report and Drawings including Egress diagrams and calculations

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Finalize design and prepare planting and irrigation plans, Special Provisions, opinions of probable costs and basis of design.
2. Incorporate comments from the Interim Design.
3. Complete the final design construction contract drawings.
4. Provide support for the preparation of any presentation materials for a community presentation.
5. Incorporate comments from the final design and complete the final advertisement-ready construction contract documents.
6. Revise Basis of Design
7. Attend design team coordination meetings and interface meetings as needed.
8. Coordinate with Core Systems Contractor.
9. QA/QC review per QAP.

**B. Assumptions**

1. Attendances at public hearings or presentations to the City or other government agencies are not included within our scope.
2. Landscape outdoor lighting will be coordinated with and provided by Electrical Engineer.
3. The preparation of construction documents for hardscapes (i.e. walks/paving, non-retaining walls, outdoor furniture and outdoor lighting) are provided by other disciplines.
4. Permit applications will be prepared by the CONSULTANT. Contactor to pull actual permits and pay all fees.
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSR Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Station Final Design Drawings, Special Provisions, in pdf format, with all disciplines compiled in one (1) document
2. Basis of Design
3. Ad-Ready Station Construction Contract Documents
4. Final Design Comments Matrix and Response
5. Opinions of Probable Landscape Costs and Irrigation Water Demand to maintain project at full development
6. QA/QC Checklist/Documentation

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7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Calculate final cooling loads and ventilation loads.
2. Coordinate equipment locations, weight and electrical rating with various consultants.
3. Coordinate and review available water pressure with civil for fire protection standpipe systems.
4. Update mechanical basis for design.
5. Prepare mechanical drawings, quantity estimate and specifications.
6. Incorporate comments from the Interim Design.
7. Complete the final design and camera-ready construction contract drawings.
8. Provide support for the preparation of any presentation materials for a community presentation.
9. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract drawings.
10. QA/QC review per QAP.
11. Revise Basis of Design.
12. Attend design team coordination meetings and interface meetings as needed.
13. Coordinate with Core Systems Contractor.
14. Assist in processing plans for agency approval.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. Final Documents for the Guideway Segment
2. Final Coordination information from the Core Systems Contractor
3. NTP #2 submission and HART submission comments
4. 'KHSG Reference Materials'
5. HART comments on the interim design submittal

**D. Deliverables**

1. Final Mechanical engineering drawings
2. Final Specifications
3. Mechanical basis for design
4. Station Final Design Drawings and Special Provisions

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5. Ad-Ready Station Construction Contract Documents
  6. Final Design Comments Matrix and Response
  7. QA/QC Checklist/Documentation
  8. Environmental Compliance Plan checklist
  9. Final mechanical design calculations for all systems

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Prepare Kamehameha Highway Station Group Final Design plans and specifications for the following:
  - a) Electrical and communication site plans.
  - b) Electrical utility relocation, new electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans and profiles for Pearlridge Station.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Site Lighting Plan.
  - g) Traction Power Substation site preparation including ground grid design.
3. Complete the final design and camera-ready construction contract drawings.
4. Assist in processing plans for agency approval.
5. Revise Basis of Design.
6. Attend design team coordination meetings and interface meetings as needed.
7. Coordinate with Core Systems Contractor.
8. QA/QC review per QAP.

**B. Assumptions**

1. HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
2. Load requirements for the emergency lighting UPS shall be supplied to the CSC by the station designer.
3. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
4. Load requirements for the TCC UPS shall be determined by CSC.
5. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
6. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
7. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. Final KHG Guideway Design Documents
4. Final coordination information from the Core Systems Contractor
5. HART/GEC comments on the interim design submittal

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6. Utility owners' review comments

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions
2. Basis of Design
3. Ad-Ready Station Construction Contract Documents
4. Final Design Comments Matrix and Response
5. Hawaiian Electric Company service proposal
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan Checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Pearlridge Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim engineering submission.
2. Complete the final traffic design and ad-ready construction contract drawings.
3. Revise Basis of Design based on comments on the Interim design documents.
4. Prepare a comments matrix and response for final design.
5. Prepare Traffic Control and Detour Plans (TCP) in accordance with State DOT's Hawaii Standard Specifications (HSS) Section 645 and the MUTCD for the Pearlridge Station.
6. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
7. Provide coordination with the Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).
8. Coordinate with HDOT and determine acceptable lane closure periods and prepare detailed traffic control/detour plans for installation of the pedestrian bridge and station structure/platform.

**B. Assumptions**

1. TCP plans preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Additional traffic studies or analysis are not part of this scope of work.
3. Minimal attendance at HART, Interface Meetings, or internal Design Meetings.

**C. Inputs**

1. KHSG reference materials
2. HART comments in the Interim engineering submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2004
5. American Association of State Highway and Transportation Officials, Roadside Design Guide, 2006.
6. State of Hawaii, Department of Transportation, Highways Division, Hawaii Standard Specifications for Road and Bridge Construction, 2005
7. State of Hawaii, Department of Transportation, Highways Division, Design Branch, Standard Plans, 2008
8. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
9. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
10. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009

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**D. Deliverables**

1. Station Final Design Traffic Control and Detour Construction Plans and Special Provisions with all disciplines combined in one (1) document
2. Station Ad-Ready Traffic Control and Detour Construction Contract Documents
3. Basis of Design (traffic sections)
4. Final Design comments matrix and response
5. Environmental Compliance Plan Checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1a</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Prepare and submit ROE requests.
2. Review of topographic data, project controls, boundary data, and maps provided by HART.
3. Conduct boundary study to identify and to obtain supplemental boundary data (if needed to supplement HART-provided data) needed to establish property boundary.
4. Conduct ground surveys of Aloha Stadium Station site to supplement topographic data provided to the team by HART. Verify that horizontal and vertical controls conform to the requirements specified in the project design criteria.
5. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
6. Perform QA/QC per QAP.
7. Incorporate supplemental surveys into PE topographic files using HART CADD Standards.
8. Review and provide responses to HART comments on submittal.
9. Attend design team coordination meetings.

**B. Assumptions**

1. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during preliminary engineering. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
2. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate system, North American Datum 1983, HARN (PAC00).
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
4. Toning of underground utilities is not required.
5. Surveyor will attend up to five (5) design team coordination meetings.
6. Construction stakeout will not be required.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. KHSG Reference Materials
3. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

**D. Deliverables**

1. ROE Request
2. Topographic survey base file in AutoCAD Format
3. Responses to HART comments entered into CMS

4. QA/QC Documentation

ACTIVITY DESCRIPTION		
NTP#:	<b>NTP #1a</b>	Activity Responsibility:
Activity:	<b>Aloha Stadium Station Geotechnical Design</b>	Issue Date: <b>September 11, 2012</b>
		Revision No: <b>A</b>

**A. Activity Description**

1. A project manager or principal from Geolabs will participate in the specified three (3) day Design Workshop for the project to discuss geotechnical related design issues that may arise during the workshop.
2. Readily available information on subsurface and geologic conditions at and near the site will be researched and reviewed.
3. Descriptions of the geotechnical field exploration planned at the Aloha Stadium Station and a preliminary boring location plan will be prepared and submitted for ROE request. The preliminary boring plan will be prepared based on available station PE drawings. HART's Request for ROE form will be completed and submitted.
4. An all-inclusive, draft Geotechnical Planning Report (GPR) will be prepared to describe the geotechnical engineering and foundation design approach that will be used to develop geotechnical recommendations for the KHSG project [e.g. Pearl Highlands, Pearlridge, and Aloha Stadium Station sites and the H2R2 Ramp].
5. A draft Geotechnical [Field] Investigation Work Plan (GIWP) will be prepared. The GIWP will address geotechnical investigations [field and laboratory] required for Aloha Stadium Station. At contractor's discretion the GIWP may be all inclusive, that is all three (3) Stations and the H2R2 Ramp. The GIWP shall include pertinent elements from the draft HRTP Environmental Hazard Evaluation/ Environmental Hazard Management Plan.
6. A draft Site-Specific Best Management Practices (BMP) plan will be prepared based on the site conditions anticipated at the Aloha Stadium Station site as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring.
7. A draft Geotechnical Health and Safety Plan (GHASP) will be prepared to govern geotechnical field activities for all three stations and ramp.
8. A draft Geotechnical Quality Plan (GQP) will be prepared to govern the geotechnical field work, laboratory testing, and design for all three (3) stations and ramp.
9. Project-wide Drilling Subcontract Qualifications, Laboratory Accreditation(s), and Sample Storage shall be submitted prior to the start of field investigation activities.
10. Consultation will be provided regarding the preliminary geotechnical feedback.
11. Subsurface exploration at the Aloha Stadium Station and park-and-ride lot / bus transit center will be explored by performing the following test borings:
  - a) Station:
    - i. Station Building: Two (2) test borings, each to a depth of about sixty-five (65) to seventy-five (75) feet below existing grades and totaling up to one hundred forty (140) feet
  - b) Park-and-ride / Bus Transit Center:
    - i. Parking Lot: Four (4) borings, each to a depth of about ten (10) feet and totaling up to forty (40) feet
12. Attend design team coordination meetings. Attend a design review meeting with HART, and if needed, an interface meeting with the KHG designers.

**B. Assumptions**

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1. HART ROE form and support data requirements will be provided no later than seven (7) days after NTP #1a. Concurrently CONSULTANT will identify which areas of the work, if any fall outside of the project right of way or temporary easements and that would require a ROE.
  2. The required geotechnical plans and work-related submittals will include all three (3) stations and the H2R2 Ramp. Preparing a separate plans and associated submittals for each station and the H2R2 Ramp is not included.
  3. Drafts of the all-inclusive GHASP, GQP and associated prerequisite submittals will be provided within twenty-one (21) days of NTP #1a. Submittals will be approved by HART within twenty-one (21) days, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the twenty-one (21) days.
  4. Drafts of the GPR and GIWP(s) shall be submitted within thirty (30) days of NTP #1a. The GPR and GIWP will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
  5. The BMP plan will be limited to the immediate work area at each boring site.
  6. Right of entry request, as required for prosecution of the geotechnical investigations, will be provided to HART no later than twenty-one (21) days after NTP #1a. HART will procure ROE within thirty (30) days of receipt of CONSULTANT-completed ROE form and supporting documents.
  7. Available geotechnical investigations data for the Aloha Stadium Station area [within one thousand (1,000) feet approximately] from both the WOFH and KHG fixed guideway design-build contracts will be provided to CONSULTANT at the start of NTP #1a. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
  8. Subsurface materials and ground water at the Aloha Stadium sites are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
  9. Level D of Personal Protective Equipment (PPE) for field personnel.
  10. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
  11. Not included: Preparing a storm water pollution prevention plan (SWPPP), applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
  12. Not included: Developing, implementing, and maintaining a BMP plan for the entire Aloha Stadium station site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
  13. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
  14. No hydrology design or interface with the hydrology consultant is required for this station other than for the station building work currently in scope.
  15. Pertinent hydraulic design criteria /DPP/FEMA flood hazard district regulatory requirements that affect the design will be provided by HART and HART's H&H consultant at the start of NTP #1a.
  16. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe or other similarly-sized equipment suitable for localized grading. Extensive grading, that is more than fifty (50) cubic yards that would per ROH 14-13 require a grading permit, is not included.
  17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site is not included.
  18. The site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting, if any is required; to provide access for the drill rig access or set up will first be coordinated with HART.

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19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
  20. The site is clear of unexploded ordnance (UXO).
  21. Management of Investigation derived wastes (IDW) if any during NTP #1a will be as assumed under NTP #1b.
  22. Checking on as-built conditions of existing building and structure foundations is not included.
  23. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.
  24. HART will facilitate meetings and/or video conference meetings with HART's hydraulics consultant in a timely manner to avoid delay in providing necessary feedback and avoid impacting the project design schedule.
  25. The existing highway sign that is Makai of the station, and that spans over Kamehameha Highway will remain in its current location.
  26. There is no KHSG work scope related to aerial equipment/towers/lines in the vicinity of this station nor any conflicts with same.
  27. The 3/9/12 Aloha Station Design sketches AR101-AR103 are not in conflict with the existing Kamehameha Highway sign noted above and no station redesign work will be required as a result.

**C. Inputs**

1. 'KHSG Reference Materials'
2. Available and pertinent geotechnical data, i.e. investigations data and drilled shaft load test reports, from the KHG fixed guideway design-build contract Available Kamehameha Highway guideway geotechnical investigations and drilled shaft load test reports and load testing data
3. Pertinent geotechnical information from HDOT as built drawings of existing structures in the vicinity of the proposed station
4. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

**D. Deliverables**

1. Completed request for ROE, including any Preliminary Boring Location Plan and attendant summary/description of the work
2. See Pearl Highlands Station NTP #1a for project-wide deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Complete ground surveys of the Aloha Stadium Station site to supplement topographic data provided to the team by HART.
2. Conduct field and office work necessary to establish property boundary.
3. Compile and submit draft property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Verify visible utilities within the project sites. Incorporate utility locations obtained by the geotechnical investigation work.
5. Perform QA/QC per QAP.
6. Incorporate supplemental surveys and draft property boundary into PE topographic files using HART CAD Standards.
7. Review and provide responses to HART comments on submittal.
8. Attend design team coordination meetings

**B. Assumptions**

1. Ground surveys will utilize Honolulu Rail Transit Project Primary Control monuments, as described in HHCTCP Primary Control Report (6/25/10), established during preliminary engineering. CONSULTANT will perform a check of survey controls to confirm field conditions match the given reference points.
2. Surveys shall be referenced to Hawaii Zone 3 State Plane Coordinate System, North American Datum 1983, HARN (PAC00).
3. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/ application.
4. Toning of underground utilities is not required.
5. Surveyor will attend up to five (5) design team coordination meetings.
6. Construction stakeout will not be required.

**C. Inputs**

1. HART will provide CADD files of previous aerial LiDAR-based topographic survey, available boundary survey, parcel maps, ROW mapping and project control information within the areas of the proposed transit stations
2. KHSG Reference Materials
3. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 09, 2012)

**D. Deliverables**

1. Topographic survey base file in AutoCAD Format
2. Draft property boundary study
3. Responses to HART comments entered into CMS
4. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Aloha Stadium Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Revise Basis of Design.
3. Review and refine PE designs, including concept site layout, preliminary Autoturn modeling, concept grading, concept utilities, parking lot, and transit center.
4. Perform QA/QC per QAP.
5. Review and recommend location of station utilities and electrical transformer, including introductory meeting with HECO.
6. Coordinate with architect and landscape architect, as well as surveyor and geotechnical engineer.
7. Participate as needed in interface management meetings.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Review and provide responses to HART comments for submittals.
10. Attend design team coordination meetings.

**B. Assumptions**

1. Current documents are compliant with City and State codes.
2. Approved ROE will be obtained within thirty (30) days of NTP #1b. ROE requests/coordination prepared by others.
3. Revisions based on outcome of three (3)-day and five (5)-day workshops.
4. Source files (AutoCAD, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. Consultant shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. Water, sewer, drainage, etc. utility service connections are required beyond station site as shown on PE drawings, (i.e. utility work is to be extended into roadway ROW as needed).
7. Weekly review meetings with HART require only minimal civil engineering participation.
8. Civil engineer will attend up to ten (10) design team coordination meetings.
9. No civil participation in public/community meetings.
10. Attendance at up to five (5) interface management meetings as needed.
11. Hazardous material abatement work is NIC.

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12. The existing highway sign that is Makai of the station, and that spans over Kamehameha Highway will remain in its current location.
  13. There is no KHSG work scope related to aerial equipment/towers/lines in the vicinity of this station or any conflicts with same.
  14. The Aloha Station Design sketches AR101-AR103 are not in conflict with the existing Kamehameha Highway sign noted above and no station redesign work will be required as a result.

**C. Inputs**

1. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
2. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
3. Topographic survey, Primary Control Data and National Geodetic Survey (NGS) elevation bench mark, right of way and boundary data, easement data, subdivision maps, land court maps, and real property acquisition information
4. KHSG Reference Materials
5. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

**D. Deliverables**

1. Revised PE drawings
2. Basis of Design (civil sections)
3. Special Provision sections (table of contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Aloha Stadium Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on the combination of the PE drawings and conceptual design drawings contained on the January 24, 2012 HART CD.
2. Revise current conceptual design and drawings to incorporate the revisions depicted on HART CD dated January 24, 2012.
3. Perform preliminary structural analysis for station including ancillary building. Confirm preliminary location, size, and quantity of foundation needed for station support.
4. Coordinate with other design disciplines.
5. Coordinate with KHG Guideway Design Build Contractor.
6. Perform QA/QC per QAP.
7. Revise Basis of Design Report.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Attend design team coordination meetings and interface meetings as needed.
10. Coordinate with Core Systems Contractor and design the duct banks between the interface pull boxes provided by the Guideway Contractors to the Train Control and Communications room.
11. Coordinate with Core Systems Contractor and design the platform to sustain loads associated with platform screen gates, including buffeting by passage of trains and hurricanes of Category 4.
12. Review and provide responses to HART comments for submittals.
13. Review and adhere to RFIs, RFIDs, and RFCs that has already been issued. Notify HART if KHSG is not able to comply or adhere to information already provided to other Contracts.

**B. Assumptions**

1. Structural design will comply with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements. Hydraulic Design Criteria (NIC).
2. Approved ROE will be obtained within thirty (30) days of NTP #1b.
3. Attendance at interface management meetings as needed.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. The CONSULTANT shall provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. No hydrology design or interface with the hydrology consultant is required for this station other than for the station work currently in the scope.
7. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of Station facility.
8. Hazardous material abatement work is NIC.
9. Attend QA/QC, Health & Safety Training and other training as requested by HART.

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**C. Inputs**

1. HART shall provide PE documents and drilled shaft locations and sizes for Station support
2. HART H&H Final Hydraulic Design Criteria Report
3. KHSR Reference Materials
4. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
5. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
6. Preliminary geotechnical site characterizations/recommendations
7. HART CD dated January 24, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches AR101-AR103 dated March 9, 2012)

**D. Deliverables**

1. Revised PE Structural drawings to show structural layout with dimensions and major elements' section properties and dimensions
2. Structural Basis of Design
3. Contract Specifications (Table of Contents only)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Aloha Stadium Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Complete and submit the final Geotechnical Planning Report (GPR) for the KHSG project.
2. Complete and submit the final Geotechnical [Field] Investigation Work Plan (GIWP) At CONSULTANT's discretion the GIWP will be all-inclusive for all three (3) stations and the H2R2 Ramp or Pearl Highlands Station specific GIWP.
3. Complete and submit the final Site-Specific Best Management Practices (BMP). The BMP plan will be prepared based on the site conditions anticipated at the Aloha Stadium Station as indicated in the PE drawings. The BMP will be limited to measures planned within the work area of each boring
4. Finalize as necessary [if not finalized by end of NTP #1a] the all-inclusive, geotechnical prerequisites, that is the geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan.
5. Preliminary geotechnical engineering analysis will be performed based on available geotechnical data and geotechnical engineer's interpretations.
6. A technical memorandum will be prepared to summarize the preliminary earthwork and foundation support recommendations for the Aloha Stadium Station.
7. Procure State and City permit(s) to perform the geotechnical field exploration within government right-of-ways. These permits are limited to HDOT Permit for the Occupancy & Use of State Highway Right-of-Way (DOT 4-689) and Permit to Perform Work Upon State Highways (DOT 4-222), as applicable.
8. Field clear test boring locations by field staking/markings proposes boring locations and checking for underground utilities conflicts by reviewing available utility plans, checking with the Hawaii One Call Center (HOCC), performing field toning, and as may be necessary using Ground Penetrating Radar, and potholing or hand excavations.
9. Subsurface exploration at the Aloha Stadium Station and park-and-ride lot / bus transit center will be explored by performing the following test borings:
  - a) Station Building: Two (2) test borings, each to a depth of about sixty-five (65) to seventy-five (75) feet below existing grades and totaling up to one hundred forty (140) feet
  - b) Park-and-ride / Bus Transit Center/Parking Lot: four (4) borings, each to a depth of about ten (10) feet and totaling up to forty (40) feet.
10. Laboratory testing will be performed on select soil samples and rock cores obtained from the borings to determine index, physical and engineering properties.
11. Detailed engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining walls, and pavements.
12. A draft Geotechnical Data Report (GDR) will be prepared to document the field data and laboratory test result of the Aloha Stadium Station geotechnical investigation.
13. A draft Geotechnical Recommendations Report (GRR) will be prepared for the Aloha Stadium Station that will include interpretations of the field and laboratory test data. The GRR will include earthwork recommendations, e.g. site preparation/grading and pavement design requirements, and geotechnical designs for the proposed

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station, e.g. foundation types and support capacity, lateral earth pressures [retaining walls and below grade structures]. Additionally, the GRR will include subsurface characterizations specific to hydraulics/scour considerations for affected station improvements.

14. Consultation will be provided to the CONSULTANT regarding the geotechnical findings and recommendations, and geotechnical related design issues.
15. Review of geotechnical related sections of the PE plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
16. Attend and participate in a design team coordination meeting and conference calls, as needed.

## **B. Assumptions**

1. The GPR and GIWP, whether all inclusive or station-specific, will be finalized by CONSULTANT and Approved by HART no later than thirty (30) days after NTP #1b.
2. Geotechnical prerequisite submittals [e.g. the geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan] will be finalized by CONSULTANT and Approved by HART no later than fourteen (14) days after NTP #1b.
3. The BMP plan will be limited to the immediate work area at each boring site.
4. Any required ROE will be provided by HART no later than thirty (30) days after receipt of ROE request/application.
5. State and City permit(s) required to perform the geotechnical field exploration in public right of way will have been procured no later than thirty (30) days after NTP #1b.
6. The majority of the boring sites are accessible to truck mounted drill rigs. For boring sites that are not readily accessible, access trails will be made with a backhoe. Extensive grading to provide access trails for the drill rig is not included.
7. Per the Revised Ordinances of Honolulu [ROH 14-13.5], grading for borings access will be less than fifty (50) cubic yards and as such exempt from site-specific grading permit requirement.
8. Subsurface materials and ground water at the Aloha Stadium Station site are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
9. Level D personal protective equipment (PPE) for field personnel. However, field screening will be in accordance with the Programmatic Environmental Hazards Management Plan (EHMP).
10. If hazardous or contaminated material is encountered, the material shall be managed in accordance with the Environmental Compliance Plan (ECP) and as amended by the EHMP.
11. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
12. Not included: Preparing a storm water pollution prevention plan (SWPPP) and applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
13. Not included: Developing, implementing, and maintaining a BMP plan for the entire Aloha Stadium station site, along the route of the H2R1 Ramp, and for the fixed guideway improvements, parking structure, and Bus Transit Center.
14. No planning, design, or coordination work will be required for the parking garage, bus center, or other site constructions not included in this scope of work.
15. No hydrology design or interface with the hydrology consultant is required for this station other than for the station building work currently in scope.
16. Pertinent hydraulic design criteria /DPP/FEMA flood hazard district regulatory requirements that affect the station's design will have been provided by HART and HART's H&H consultant at the start of NTP #1a.
17. BMP devices will be limited to the immediate boring work area. Providing and maintaining BMP devices for the site are not included.
18. The Station site does not contain any protected plants, insects, or artifacts and vegetation. Tree cutting to

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provide access for the drill rig will be coordinated with HART.

19. Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
20. The site is clear of unexploded ordnance (UXO).
21. The CONSULTANT will be allowed to temporarily store fifty-five (55) gallon drums of investigation derived wastes (IDW) [soil cuttings and drilling fluids] at the Station site until IDW material is profiled in accordance with ECP/EHMP requirements. Once profiled the IDW will be taken to an appropriate on-island landfill and/or treatment facility. Off-island disposal of this material at a mainland U.S. facility or other off-island facility is not included.
22. Checking as-built condition(s) of existing building(s) and structure(s) foundations is not included.
23. A seismic risk assessment and site specific response analysis, such as probabilistic seismic hazard analysis (PSHA) and in-place shear wave velocity testing are not included.
24. Consultant will complete utility conflict clearances as soon as practicable but no later than forty-five (45) days after NTP #1b.
25. Consultant will initiate geotechnical investigations no later than sixty (60) days before the end of NTP #1b.
26. A draft Geotechnical Data Report (GDR) of the Aloha Stadium Station geotechnical investigation will be submitted within sixty (60) days of initiating field explorations but no later than the completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp.
27. A draft Geotechnical Recommendations Report (GRR) for the Aloha Stadium Station improvements will be submitted to HART no later than completion of NTP #1b. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one (1) including all three stations and the H2R2 ramp.
28. GDR and GRR review periods and finalization will be completed in NTP #2.
29. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

#### **C. Inputs**

1. 'KHSG Reference Materials'
2. KHSG Contract Documents

#### **D. Deliverables**

1. As necessary, finalized geotechnical prerequisite submittals [e.g. the geotechnical Health and Safety Plan (GHASP), Geotechnical Quality Plan (GQP), Drilling Contractor Qualifications, Laboratory Accreditations/Certifications, and Sample Storage Plan]
2. See Pearl Highlands NTP #1b for project wide deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop updated thirty percent (30%) design documents based on the schematic drawings received from HART on the CD dated July 13, 2012.
2. Confirm compliance of PE design with FEIS/ROD, and all applicable codes, regulations and design standards.
3. CONSULTANT will provide plan drawings identifying the limits of the proposed station work and impacts to private property.
4. CONSULTANT will work with the HART selected artist(s) to integrate artwork into the design of the stations and station site to identify location and placement. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities.
5. Coordinate design, detailing, and attachment of the art work.
6. Coordinate with Core Systems Contractor on location and mounting of systems elements, including communications interface cabinets, telephones, speakers, variable-message signs, access control and intrusion detection devices, platform screen gates (SGs), fare vending machines, and fare gates.
7. Coordinate with Core Systems Contractor on location and routing of conduit between TCCR and systems elements throughout station facility.
8. Coordinate treatment of end-of-platform barrier to integrate with PSGs.
9. Provide presentation materials to HART in support of one (1) public presentation.
10. Revised Basis of Design Report.
11. Perform QA/QC per QAP.

**B. Assumptions**

1. All activities during NTP 1b will take place during a period not to exceed forty (40) days.
2. Source files (AutoCAD, word, excel) for all drawings, basis of design, and graphic standards will be provided within two (2) days of NTP #1b.
3. HART will act as the coordinator with all reviewing agencies.
4. Hazardous material abatement work is NIC.

**C. Inputs**

1. 'KHSR Reference Materials'
2. Source files from HART (AutoCAD, word, excel)
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application
4. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
5. HART H&H Final Hydraulic Design Criteria Report
6. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

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**D. Deliverables**

1. Proposed PE Submission
2. Proposed Outline Specifications (Table of Contents only)
3. Draft Basis of Design Manual
4. Draft Code Compliance Checklist
5. One (1) Community Presentation
6. Draft ADA Compliance Report
7. Draft Environmental Compliance Plan checklist
8. Draft Egress calculations and diagrams
9. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Prepare presentation materials including Revision to PE Drawings indicating revegetation of disturbed areas, tree massing, intensively landscaped areas (areas immediately adjacent to structures, intermediate landscaping and transition areas) and functional walkways.
3. Attend design team coordination meetings and interface meetings as needed.
4. Review conformance with State/City Street and highway design guidelines as it pertains to landscaping.
5. Collaborate with Design Team in incorporating user recommendations/comments.
6. Prepare technical responses to comments received during review period.
7. Assess & document existing vegetation to be preserved, relocated, and removed.
8. Revise Basis of Design Report.
9. Perform QA/QC per QAP.
10. Field visit/walk-through of the Waiawa Stream corridor in the vicinity of the Pearl Highlands Station.
11. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
12. Review and provide responses to HART comments for submittals.

**B. Assumptions**

1. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
2. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application.
3. Landscape Design is limited to the Aloha Station Area, Bus Center, and Streetscaping associated with the revised parking lot & site design.
4. Attendance at presentations to government agencies or public hearings is not included in the scope of services.
5. Hazardous material abatement work is NIC.

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**C. Inputs**

1. KHSO Reference Materials
2. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

**D. Deliverables**

1. Colored Schematic Landscape Plan
2. Plant Palette and landscape images to further convey the intent of the design
3. Revised PE drawings
4. Update Basis of Design
5. Environmental Compliance Plan Checklist
6. Contract Specifications (Table of Contents only)
7. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Review mechanical directive drawings and specifications and accepted value engineering recommendations
  - a) Review information from Core Systems Contractor.
  - b) Review current site plans and utility connection points from Guideway Design-Build Contractor.
3. Prepare preliminary design drawings and calculations for air conditioning, ventilation, plumbing, sanitary drainage, storm drainage, and fire protection systems.
4. Review and update PE basis of design.
5. Perform QA/QC per QAP.
6. Review and provide responses to HART comments for submittals.
7. Attend design team coordination meetings and interface meetings as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.

**B. Assumptions**

1. Attendance at interface management meetings as needed.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Mechanical design will comply with pertinent hydraulic design criteria/DPP/FEMA flood hazard district regulatory requirements.
5. ROE into private properties will be provided by HART within thirty (30) days of receipt of ROE request/application.
6. Hazardous material abatement work is NIC.

**C. Inputs**

1. KHSG Reference Materials
2. Working Documents for the Guideway Segment
3. Coordination information from the Core Systems Contractor
4. HART Baseline Documents
5. Project-Wide Documents
6. The latest KHG PE design submittals (both pdf and AutoCAD) including drawings and basis of design
7. The latest KH design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design

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8. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

**D. Deliverables**

1. Preliminary mechanical design plans
2. Input to basis of design report
3. High-level draft quantity takeoff for mechanical utilities shown on the PE plans
4. Contract Specifications (Table of Contents Only)
5. Preliminary Mechanical Calculations for all systems
6. Environmental Compliance Plan checklist
7. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity:	<b>Aloha Stadium Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop PE design based on conceptual design drawings contained on the July 13, 2012 HART CD.
2. Current site plans and utility connection points from KHG Design-Build Contractor.
3. Submit Hawaiian Electric Company utility service requests.
4. Perform preliminary design of duct bank from Train Control and Communications interface manhole/pullbox to Train Control and Communications Room (TCCR).
5. Perform QA/QC per QAP.
6. Revise Basis of Design Report.
7. Review and recommend location of station electrical transformer, including introductory meeting with HECO.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Review and provide responses to HART comments for submittals.
10. Attend design team coordination meetings and interface meetings as needed.

**B. Assumptions**

1. Electrical Design is limited to only the Station sites.
2. Attendance at up to five (5) interface management meetings as needed.
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/application.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
5. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
6. HECO and HART execute Engineering Service/Utility Construction Agreements.
7. Hazardous material abatement work is NIC.
8. The existing highway sign that is Makai of the station, and that spans over Kamehameha Highway will remain in its current location.
9. There is no KHSG work scope related to aerial equipment/towers/lines in the vicinity of this station or any conflicts with same.
10. The 3/9/12 Aloha Station Design sketches AR101-AR103 are not in conflict with the existing Kamehameha Highway sign noted above and no station redesign work will be required as a result.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. KHSG Reference Documents
3. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
5. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches dated March 9, 2012)

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**D. Deliverables**

1. PE plans
2. Contract Special Provisions (Table of Contents only)
3. Input to basis of design report
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Provide input and review of conceptual site layout to the design team for traffic related issues.
2. Perform QA/QC per QAP.

**B. Assumptions**

1. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Approved ROE will be obtained within thirty (30) days of receipt of ROE request/ application.
4. No MOT work will be performed for NTP #1a.
5. No attendance at the three (3)-day and five (5)-day workshop.
6. No meetings for NTP #1b.
7. The existing highway sign that is Makai of the station, and that spans over Kamehameha Highway will remain in its current location.

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8. There is no KHSB work scope related to aerial equipment/towers/lines in the vicinity of this station nor any conflicts with same.
  9. The 3/9/12 Aloha Station Design sketches AR101-AR103 are not in conflict with the existing Kamehameha Highway sign noted above and no station redesign work will be required as a result.

**C. Inputs**

1. 'KHSB Reference Materials Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
2. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
3. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
4. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
5. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
6. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
7. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
8. HART CD dated July 13, 2012 and supplementary sketches received for Aloha Stadium Station (Sketches AR101-AR103 dated March 9, 2012)

**D. Deliverables**

1. N/A

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Topographic Survey</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Conduct supplemental ground survey to pick up locations of geotechnical borings.
2. Provide additional ground survey to pick up additional topographic information as needed.
3. Compile and submit final property boundary study, including boundary map and documentation necessary to support establishment of property boundary.
4. Set property boundary corner monuments.
5. Incorporate supplemental surveys and final property boundary into NTP #1b topographic base file in AutoCAD format.
6. Perform QA/QC per QAP.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Incorporate comments from the preliminary engineering revisions.
9. Prepare a comments matrix and response for the interim design.

**B. Assumptions**

1. Fieldwork for additional survey to be limited to one crew-day.
2. Toning of underground utilities is not required.
3. Hazardous material abatement work is NIC.

**C. Inputs**

1. Geotechnical boring location sketch (for reference)
2. Designer to indicate additional ground survey item(s) needed
3. 'KHSG Reference Materials'
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Updated topographic base file in AutoCAD format.
2. Final property boundary study.
3. Interim Design comments Matrix and Response
4. QA/QC Documentation

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific details developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Prepare the pre-final drainage report for the Aloha Stadium Station including bus transit and park-and-ride facilities.
8. Attend design team coordination meetings and interface meetings, as needed.
9. Review compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Perform QA/QC per QAP.
11. CONSULTANT shall prepare deconstruction/demolition drawings and specifications for the properties impacted by station related work. Hazardous material abatement work related to this is currently NIC. Standard specifications and Guide Specifications provided by the HART will be reviewed and edited for project-specific requirements. CONSULTANT will create new specifications sections where required.

**B. Assumptions**

1. Civil engineer will attend up to ten (10) design team coordination meetings and five (5) interface meetings. Review meetings with HART require only minimal civil engineering participation.
2. No civil participation in public/community meetings.
3. Existing roadway and stream drainage systems have the capacity for any additional drainage developed from the Aloha Stadium Station and parking lot.
4. Signing and striping to be per HART Design Criteria.
5. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within HART right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
6. Multi-modal access (pedestrians, bicycles, vehicles, buses, handi-vans, taxis, private shuttles, and private tour buses) will be considered in the layout of the station area.
7. Permit application fees are excluded.
8. Permit applications will be submitted for:
  - a) DPP Site Development Division Review.
  - b) Grading/Grubbing (as needed).
  - c) CCH Street Usage Permit.
  - d) Drain Connection Permit, to include MS4 approval.
  - e) Sewer Connection Permit.
  - f) Department of Health: NOI for NPDES stormwater during construction.

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- g) DCAB: Site Plan Review.
  - h) HDOT: Construction within a State Highway Permit and for work within the State Energy Corridor (if required).
  - 9. Contractor or HART will pull actual permits.
  - 10. Hazardous material abatement work is NIC.

**C. Inputs**

- 1. Coordination information from the Core Systems Contractor
- 2. HART comments on the PE submittal
- 3. 'KHSG Reference Materials'
- 4. Geotechnical engineer's recommendations on subsurface soils characteristics pertinent to grading and pavement design
- 5. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

- 1. Aloha Stadium Station Interim Civil Design Drawings and Specifications with all disciplines compiled in one document
- 2. Revised Aloha Stadium Station Drainage Report
- 3. Interim Design Comments Matrix and Response
- 4. Revised Basis of Design (civil sections)
- 5. Environmental Compliance Plan checklist
- 6. QA/QC Documentation
- 7. Approved grading/grubbing permit for geotechnical work

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Design development and implementation of the construction contract drawings.
3. Coordinate with KHG Guideway Design Build Contractor.
4. Develop contract Special Provisions.
5. Perform QA/QC per QAP.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Incorporate comments from the PE revisions.
9. The State, City and Project standard details will be incorporated and project specific details developed as needed.
10. Revise Basis of Design based on interim design documents.
11. Prepare a comments matrix and response for the interim design.
12. CONSULTANT will perform a high-level constructability review of the Interim Design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the construction contractor.

**B. Assumptions**

1. The overall design has been set at the start of this phase.
2. Prefinal geotechnical recommendations are provided at the start of this phase.
3. KHG Design is fixed prior to NTP #2 submission.
4. Survey and preliminary geotechnical report will be available prior to start of NTP #2.
5. Attendance at interface management meetings as needed.
6. Hazardous material abatement work is NIC.
7. Attend QA/QC, Health & Safety Training and other training as requested by HART.
8. The existing highway sign that is Makai of the station, and that spans over Kamehameha Highway will remain in its current location.
9. There is no KHSG work scope related to aerial equipment/towers/lines in the vicinity of this station or any conflicts with same.
10. The 3/9/12 Aloha Station Design sketches AR101-AR103 are not in conflict with the existing Kamehameha Highway sign noted above and no station redesign work will be required as a result.

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**C. Inputs**

1. 'KHSG Reference Materials'
2. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission
4. Preliminary geotechnical recommendations

**D. Deliverables**

1. Interim Design Comments Matrix and Response
2. Revised Basis of Design (structural sections)
3. QA/QC Checklist/Documentation
4. Aloha Stadium Station Interim Design Drawings and pdf formats with all disciplines
5. Environmental Compliance Plan checklist
6. Special Provisions in Word format

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**ACTIVITY DESCRIPTION**

NTP#:	NTP #2	Activity Responsibility:	Issue Date: September 11, 2012
Activity:	Aloha Stadium Station Geotechnical Design	WBS Code / ID number:	Revision No: A

**A. Activity Description**

1. Finalize Aloha Stadium Station-specific or all-inclusive Geotechnical Data Report (GDR).
2. Finalize Aloha Stadium Station-specific or all-inclusive Geotechnical Recommendations Report (GRR).
3. Consultation regarding geotechnical related design issues.
4. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
5. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The CONSULTANT at its discretion may elect to submit Station-specific GDR or one (1) including all three (3) stations and the H2R2 ramp. GDR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
2. The CONSULTANT at its discretion may elect to submit Station-specific GRR or one (1) including all three (3) stations and the H2R2 ramp. GRR will be approved by HART within forty-five (45) days of the drafts' submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
3. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. HART review comments to DRAFT GDR [NTP #1b]
2. HART review comments to DRAFT GRR [NTP #1b]
3. 'KHSG Reference Materials'
4. KHSG Contract Documents

**D. Deliverables**

1. Final GDR
2. Final GRR
3. Electronic files (DWG) of boring logs and classification charts and gINT files of the logs

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Architectural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the PE submission.
2. Design development and implementation of the construction contract documents.
3. Revise Basis of Design based on interim design documents.
4. Prepare a comments matrix and response for the interim design.
5. Attend design team coordination meetings and interface meetings, as needed.
6. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
7. CONSULTANT will work with the HART selected artist(s) to integrate art work into the design of the stations and station site. CONSULTANT will work with the Transit Arts Administrator and the HART Chief Architect during the design process to identify art opportunities and to incorporate the artwork into the design construction documents.
8. Consultant to incorporate the art work into the design construction documents.
9. Prepare Renderings, a 3-D flyover, and supporting visual documentation, including landscaping and plaza design, for each station in support of the public outreach process community presentation.
10. HART Standard Specifications and Guide Specifications provided to CONSULTANT will be reviewed and edited for project specific requirements.
11. Prepare an ADA accessibility report indicating the accessible routes and features of each station that indicate how ADA accessibility guidelines were utilized.
  - a) Follow ADA Accessibility Guidelines for Buildings and Facilities (ADAAG).
  - b) Provide curb ramps at intersections that meet the applicable City and County of Honolulu standards for curb ramps.
  - c) Coordinate with HART the requirements of State Disability Communication Access Board.
12. The CONSULTANT will be responsible for Signage design and layout drawings, schedule, attachment and other requirements using the HART Signage and Wayfinding Systems Manual.
13. Design and coordinate station canopies to provide necessary equipment, fixtures, etc., that requires concealed power and communication conduit lines.
14. Consultant to incorporate the art work in the contract construction documents.
15. Coordinate design, detailing and attachment of the art work.
16. Perform QA/QC Reviews per approved QA/QC Plan.

**B. Assumptions:**

1. No participation in public/community meetings.
2. Contractor or HART will pull actual permits.
3. Hazardous material abatement work is NIC.

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**C. Inputs:**

1. 'KHSR Reference Materials'
2. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission

**D. Deliverables:**

1. Interim Architectural Construction Contract Documents
  - a) Interim Construction Contract Drawings
  - b) Interim Construction Contract Specifications and Design Special Provisions (specific to this station only)
2. Interim Design Station Visualizations for one (1) public presentation
3. Interim Design Code Compliance Checklist
4. Interim Accessibility Report
5. Updated Egress diagrams and calculations
6. QA/QC Checklist/Documentation
7. Interim Design Comments Matrix and Response
8. Revised Basis of Design
9. Environmental Compliance Plan checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design, Quantity estimates based on interim design documents.
6. Study/analyze landscaping and irrigation demand with regards to LEED Water Efficiency credits.
7. Provide support in preparation of technical responses to comments received during review period.
8. Prepare a comments matrix and response for the interim design.
9. Attend design team coordination meetings and interface meetings, as needed.
10. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan
11. Perform QA/QC per QAP.

**B. Assumptions**

1. Landscape architect will attend up to ten (10) design team coordination meetings.
2. Attendances at public hearings or presentations to the City or other government agencies are not included within our scope.
3. Landscape outdoor lighting will be coordinated with and provided by Electrical Engineer
4. Irrigation points of connection will be coordinated with and provided by Civil Engineer.
5. Power sources for irrigation controllers will be coordinated with and provided by Electrical Engineer.
6. Hazardous material abatement work is NIC.

**C. Inputs**

1. 'KHSR Reference Materials', including Hydrology Report
2. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
3. NTP #1b Submission

**D. Deliverables**

1. Station Interim Design Drawings and Specifications with all disciplines compiled in one (1) document
2. Interim Design Comments Matrix and Response
3. Revised Basis of Design
4. Environmental Compliance Plan checklist
5. QA/QC Documentation

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6. Landscape documents to include:
- a) Landscape Site Plan
  - b) Landscape Planting Plan
  - c) Landscape Irrigation Plan
  - d) Plant List, Notes and Details
  - e) Irrigation Legend, Notes and Details
  - f) Landscape Planting and Irrigation Specifications

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design based on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Attend design team coordination meetings and interface meetings, as needed.
8. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
9. Perform QA/QC per QAP.
10. Coordinate equipment locations, weight and electrical rating with various consultants.
11. Coordinate and review available water pressure with civil for fire protection standpipe systems.

**B. Assumptions**

1. Mechanical engineer will attend up to ten (10) design team coordination meetings.
2. No mechanical participation in public/community meetings.
3. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART comments on the PE submittal
3. 'KHSG Reference Materials'
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Aloha Stadium Station Interim Mechanical Design drawings and Special Provisions with all disciplines compiled in one document
2. Interim Design comments matrix and response
3. Revised Basis of Design (mechanical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Interim mechanical design calculations for all systems

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE submission.
3. Design development and implementation of the construction contract drawings.
4. Revise Basis of Design based on interim design documents.
5. Prepare a comments matrix and response for the interim design.
6. Attend design team coordination meetings and interface meetings, as needed.
7. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
8. Perform QA/QC per QAP.
9. Standard specifications and guide specifications provided by HART will be reviewed and edited for project specific requirements.
10. Prepare Kamehameha Highway Station Group Interim Design plans and specifications for the following:
  - a) Electrical and communication site plans.
  - b) Electrical and communications utility relocation, new electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans for Aloha Stadium Station.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Aloha Stadium Station Park-and-Ride Facility Parking Lot Lighting Plan.
11. Prepare lightning protection analysis.

**B. Assumptions**

1. Electrical engineer will attend up to ten (10) design team coordination meetings.
2. No electrical participation in public/community meetings.
3. Load requirements for the emergency lighting UPS shall be supplied to the CSC by the station designer.
4. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
5. Load requirements for the TCC UPS shall be determined by CSC.
6. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
7. HECO and HART execute Engineering Services/Utility Construction Agreements.
8. Hazardous material abatement work is NIC.

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**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART comments on the PE submittal
3. 'KHSG' Reference Materials
4. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Aloha Stadium Interim electrical design drawings and specifications with all disciplines compiled into one document
2. Interim Design Comments Matrix and Response
3. Revised Basis of Design (electrical sections)
4. Environmental Compliance Plan checklist
5. QA/QC Documentation
6. Lightning Protection Analysis
7. Lighting calculations per CDC Ch. 20.
8. Power distribution calculations per CDC Ch. 20.

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #2</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Develop design drawings based upon NTP #1b Submission.
2. Incorporate comments from the PE revisions.
3. Design development and implementation of the construction contract drawings.
4. The State, City and Project standard details will be incorporated and project specific detail developed as needed.
5. Revise Basis of Design on interim design documents.
6. Prepare a comments matrix and response for the interim design.
7. Prepare Preliminary Maintenance of Traffic (PMOT) report and plans in accordance with State DOT's Transportation Management Guidelines and Work Zone Safety and Mobility Process, dated October 3, 2007 for the Aloha Stadium Station.
8. Attend design team coordination meetings and interface meetings, as needed.
9. Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
10. Perform QA/QC Reviews per QAP.
11. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
12. Provide coordination with the Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).

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**B. Assumptions**

1. PMOT plan preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
3. Detailed traffic control plans will not be provided for the construction of the pedestrian bridge and station structure/platform.
4. Minimal attendance at HART, Interface Meetings, or internal Design Meetings.

**C. Inputs**

1. KHSG reference materials
2. HART comments on the PE submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. State of Hawaii, Department of Transportation, Highways Division, Transportation Management Plan Guidelines, October 3, 2007
5. State of Hawaii, Department of Transportation, Highways Division, Work Zone Safety and Mobility Process, October 3, 2007
6. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
7. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
8. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009
9. State of Hawaii, Department of Transportation, Highways Division, Traffic Count Data
10. 'KHSG Reference Materials', including Hydrology Report
11. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and basis of design
12. NTP #1b Submission

**D. Deliverables**

1. Preliminary Maintenance of Traffic Report Interim Design Traffic Control Plans
2. Environmental Compliance Plan Checklist
3. Station Interim Design Drawings, and Specifications
4. Interim Design Comments Matrix and Response
5. Revised Basis of Design
6. Special Provisions in Word format

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the NTP #2 submittal.
2. Complete the final civil design and ad-ready construction contract drawings.
3. Revise Basis of Design based on Final design documents.
4. Prepare a comments matrix and responsive for the Final design.
5. Prepare the final drainage report for the Aloha Stadium Station.
6. Attend design team coordination meetings and interface meetings as needed.
7. Perform QA/QC review per QAP.
8. Incorporate comments from the final design submittal and complete the final ad-ready construction contract drawings.
9. Prepare the Notice of Intent (NOI) for storm water runoff during construction application to revise current HART Systemwide NPDES permit.
10. Prepare the City and County of Honolulu Grading Permit Application.
11. Prepare the permit application to Work in the State Highway Right-of-Way and for work in the State Energy Corridor (if required).
12. Prepare the Drainage Connection Permit and Sewer Connection Permit applications, including form for MS4 approval.
13. Provide support for the preparation of presentation materials for a community presentation.

**B. Assumptions**

1. Civil design will follow the design standards, standard specifications and standard details of the City and County of Honolulu for work within the City right-of-way and design standards, standard specifications and standard details of the State Department of Transportation for work within the State right-of-way.
2. Signing and striping to be per HART Design Criteria.
3. Permit applications will be prepared. Contractor to pull actual permits.
4. Civil engineer will attend up to two (2) design team coordination meetings and two (2) interface meetings
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. HART comments from the Interim engineering submittal
2. NTP #2 submission and HART review comments
3. 'KHSR Reference Materials'
4. The latest KSG Guideway Design Documents (both pdf and AutoCAD) including drawings and basis of design

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions with all disciplines compiled in one (1) document
2. Basis of Design (civil sections)

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3. Ad-Ready Station Construction Contract Documents
  4. Station Drainage Report
  5. Final Design Comments Matrix and Response
  6. NOI for NPDES Stormwater Runoff during construction
  7. Grading Permit application
  8. Application for Permit to Work in State Highway Right-of-Way
  9. QA/QC Checklist/Documentation
  10. Environmental Compliance Plan checklist

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design.
2. Complete the final structural design and final design construction contract drawings.
3. Incorporate comments from final design submission and complete the final advertisement-ready construction contract drawings.
4. Complete detailed structural analysis.
5. Prepare final special provisions review and markups.
6. Attend design team coordination meetings and interface meetings as needed.
7. Coordinate with Core Systems Contractor.
8. Revise Basis of Design.
9. Coordinate with KHG Guideway Design Build.
10. QA/QC review per QAP.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and make all payments.
2. Geotechnical report is completed prior to NTP #3.
3. KHG Designs are fixed prior to NTP #2 submittal.
4. Hazardous material abatement work is NIC.
5. HART's H&H consultant to determine pertinent hydraulic design criteria/flood hazard district regulatory requirements that would affect structural design of the Station facility.
6. Attend QA/QC, Health & Safety Training and other training as required by HART.
7. Attendance at interface management meetings as needed.

**C. Inputs**

1. NTP #2 submission and HART review comments
2. 'KHSR Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Station Final Design Drawings and special provisions with all disciplines compiled in one (1) document
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Structural calculations

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6. QA/QC Checklist/Documentation
  7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Consultation regarding geotechnical related design issues.
2. Review of geotechnical related sections of the final plans and specifications to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.
3. Attend and participate in a design team coordination meeting and conference calls as needed.

**B. Assumptions**

1. The geotechnical engineer will attend up to one (1) design team coordination meeting and/or provide consultation up to eight (8) hours.

**C. Inputs**

1. 'KHSR Reference Materials'
2. KHSR Contract Documents

**D. Deliverables**

1. N/A

**ACTIVITY DESCRIPTION**

NTP#:	<b>NTP #3</b>	Activity Responsibility:	<b>AVA</b>	Issue Date:	<b>September 11, 2012</b>
Activity:	<b>Aloha Stadium Station Architectural Design</b>	WBS Code / ID number:		Revision No:	<b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design submission.
2. Complete the final design and camera-ready construction contract documents.
3. Incorporate comments from the camera-ready final design and complete the final advertisement-ready construction contract documents.
4. Finalize Basis of Design.
5. Attend design team coordination meetings and interface meetings as needed.
6. Coordinate with Core Systems Contractor.
7. Upon completion of the Final Design, CONSULTANT will create a 1/8"=1'-0" physical scale model of one (1) KHSG station selected by HART. Eight (8) weeks lead time is needed for production of the model. A durable wood base with Plexiglas cover, custom, protective shipping case with casters will also be provided to allow for the HART to transport the model.
8. CONSULTANT shall finalize the construction contract specifications and design special provisions.
9. The CONSULTANT will be responsible for signage design and layout drawings, schedule, attachment using the HART Signage and Wayfinding Systems Manual.
10. Consultant to incorporate the art work in the contract construction documents.
11. Coordinate design, detailing and attachment of the art work.
12. QA/QC per QAP

**E. Assumptions**

1. Permit applications will be prepared by the CONSULTANT. Contractor to pull actual permits and pay all fees.
2. All activities during NTP #3 will take place during a period not to exceed forty-five (45) days
3. Hazardous material abatement work is NIC.

**F. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. The latest KHG Guideway Design Documents

**G. Deliverables**

1. Station Final Design Construction Contract Documents
  - a) Construction Contract Drawings,
  - b) Construction Contract Specifications and Special Provisions
2. Final Basis of Design
3. Ad-Ready Station Construction Contract Documents
4. Final Design Comments Matrix and Response
5. Final Sustainability Report
6. Final Accessibility Report

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7. Final station visualizations
  8. Physical model of one (1) station
  9. QA/QC Documentation
  10. Environmental Compliance Plan checklist
  11. Final Code Compliance Report and Drawings including Egress diagrams and calculations

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Station Landscape Architecture</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Finalize design and prepare planting and irrigation plans, specifications, opinions of probable costs and basis of design.
2. Incorporate comments from the Interim Design.
3. Complete the final design construction contract drawings.
4. Provide support for the preparation of any presentation materials for a community presentation.
5. Incorporate comments from the final design and complete the final advertisement-ready construction contract drawings.
6. Revise Basis of Design.
7. Attend design team coordination meetings and interface meetings as needed.
8. Coordinate with Core Systems Contractor.
9. QA/QC review per QAP.

**B. Assumptions**

1. Attendances at public hearings or presentations to the City or other government agencies are not included within our scope.
2. Landscape outdoor lighting will be coordinated with and provided by Electrical Engineer.
3. The preparation of construction documents for hardscapes (i.e. walks/paving, non-retaining walls, outdoor furniture and outdoor lighting) are provided by other disciplines.
4. Permit applications will be prepared by the CONSULTANT. Contactor to pull actual permits and pay all fees.
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KHSG Reference Materials'
3. The latest KHG Guideway Design Documents

**D. Deliverables**

1. Station Final Design Drawings, Special Provisions, and pdf format, with all disciplines compiled in one document
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Opinions of Probable Landscape Costs and Irrigation Water Demand to maintain project at full development
6. QA/QC Checklist/Documentation

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7. Environmental Compliance Plan checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Calculate final cooling loads and ventilation loads.
2. Coordinate equipment locations, weight and electrical rating with various consultants.
3. Coordinate and review available water pressure with civil for fire protection standpipe systems.
4. Update mechanical basis for design.
5. Prepare mechanical drawings, quantity estimate and specifications.
6. Incorporate comments from the Interim Design.
7. Complete the final design construction contract drawings.
8. Provide support for the preparation of any presentation materials for a community presentation.
9. Incorporate comments from the final design submittal and complete the final advertisement-ready construction contract drawings.
10. QA/QC review per QAP.
11. Revise Basis of Design.
12. Attend design team coordination meetings and interface meetings as needed.
13. Coordinate with Core Systems Contractor.
14. Assist in processing plans for agency approval.

**B. Assumptions**

1. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
2. Hazardous material abatement work is NIC.

**C. Inputs**

1. Final Documents for the Guideway Segment
2. Final Coordination information from the Core Systems Contractor
3. NTP 2 submission and HART submission comments
4. 'KHSR Reference Materials'
5. HART comments on the interim design submittal

**D. Deliverables**

1. Final Mechanical engineering drawings
2. Final Special Provisions
3. Mechanical basis for design
4. Station Final Design Drawings and Special Provisions
5. Ad-Ready Station Construction Contract Drawings

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6. Final Design Comments Matrix and Response
  7. QA/QC Checklist/Documentation
  8. Environmental Compliance Plan checklist
  9. Final mechanical design calculations for all systems

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Electrical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim Design submission.
2. Prepare Kamehameha Highway Station Group Final Design plans and specifications for the following:
  - a) Electrical and communication site plans.
  - b) Electrical and communications utility relocation, electrical service connection, and pay phone connection (from the existing HTI connection point to a pullbox within station entrance plaza) plans and profiles. Station power, emergency power and lighting plans.
  - c) Station power, emergency power and lighting plans.
  - d) Station Core System Contract communication conduit provisioning plans.
  - e) Station single-line diagrams.
  - f) Site Lighting and Park and Ride Facility Parking Lot Lighting Plans.
3. Complete the final design and ad-ready construction contract drawings.
4. Assist in processing plans for agency approval.
5. Revise Basis of Design.
6. Attend design team coordination meetings and interface meetings as needed.
7. Coordinate design with Core Systems Contractor as needed.
8. QA/QC review per QAP.

**B. Assumptions**

1. HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
2. Load requirements for the emergency lighting UPS shall be supplied to the CSC by the station designer.
3. Emergency lighting UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
4. Load requirements for the TCC UPS shall be determined by CSC.
5. TCC UPS shall be sized and provided by CSC. CSC shall provide product data to station designer.
6. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
7. Hazardous material abatement work is NIC.

**C. Inputs**

1. NTP #2 submission and HART submission comments
2. 'KMSG Reference Materials'
3. Final KHG Guideway Design Documents
4. Final coordination information from the Core Systems Contractor

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5. HART comments on the interim design submittal
  6. Utility owners' review comments

**D. Deliverables**

1. Station Final Design Drawings and Special Provisions
2. Basis of Design
3. Ad-Ready Station Construction Contract Drawings
4. Final Design Comments Matrix and Response
5. Hawaiian Electric Company service proposal
6. QA/QC Checklist/Documentation
7. Environmental Compliance Plan Checklist

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**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Aloha Stadium Station Maintenance of Traffic (MOT)</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description**

1. Incorporate comments from the Interim engineering revisions.
2. Complete the final traffic design and ad-ready construction contract drawings.
3. Revise Basis of Design based on comments on the Interim design documents.
4. Prepare a comments matrix and response for final design.
5. Prepare Traffic Control and Detour Plans (TCP) in accordance with State DOT's Hawaii Standard Specifications (HSS) Section 645 and the MUTCD for the Aloha Stadium Station.
6. Include viable strategies for temporary traffic control and detour plans as required by the State DOT or CCH Traffic Review Branch approval process.
7. Provide coordination with the Kamehameha Highway Guideway Design-Build Contractor (KHG D/B) and State HDOT, CCH Traffic Review Branch and CCH Department of Transportation Services for any disruptions to roadways, emergency, local, pedestrian, safe routes to schools, bus routes, traffic signal systems, City's CCTV systems and Intelligent Transportation Systems (ITS).

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**B. Assumptions**

1. TCP plans preparation is predicated on the assumption that the station Contractor will ultimately be responsible for their own detailed traffic control plans commensurate with their proposed means and methods of construction, and operations.
2. Additional traffic studies or analysis are not part of this scope of work and will be considered as extra.
3. Detailed traffic control plans will not be provided for the construction of the pedestrian bridge and station structure/platform.
4. Minimal attendance at HART, Interface Meetings, or internal Design Meetings.

**C. Inputs**

1. KHSG reference materials
2. HART comments in the Interim engineering submittal
3. Final Environmental Impact Statement for the Honolulu High-Capacity Transit Corridor Project, June 2010
4. American Association of State Highway and Transportation Officials, A Policy on Geometric Design of Highways and Streets, 2004
5. American Association of State Highway and Transportation Officials, Roadside Design Guide, 2006.
6. State of Hawaii, Department of Transportation, Highways Division, Hawaii Standard Specifications for Road and Bridge Construction, 2005
7. State of Hawaii, Department of Transportation, Highways Division, Design Branch, Standard Plans, 2008
8. HART, Compendium of Design Criteria, Chapter 7 Traffic, February 22, 2010
9. HART, Compendium of Design Criteria, Chapter 6 Civil, February 22, 2010
10. Federal Highways Administration, Manual on Uniform Traffic Control Devices for Streets and Highways, 2009

**D. Deliverables**

1. Station Final Design Traffic Control and Detour Construction Plans and Special Provisions with all disciplines combined in one (1) document
2. Station Ad-Ready Traffic Control and Detour Construction Contract Documents
3. Basis of Design (traffic sections)
4. Final Design comments matrix and response
5. Environmental Compliance Plan Checklist

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**07 BACK-UP OPERATIONS AND CONTROL CENTER (BOCC)**

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A Back-up Operations and Control Center shall be developed at the Pearlridge Station site's makai entry building parcel. The BOCC will be housed within the Train Control and Communications Room (TCCR) building (see Pearlridge Station, Ground Level Plan, Option 2 – Rev sketch). The TCCR building shall be expanded in size from one thousand two hundred fifty (1,250) SF to approximately two hundred seven hundred twenty (2,720) SF to accommodate a UPS room, TCCR and BOCC Technical Room, and the BOCC Operations room. The CONSULTANT shall coordinate the room size and equipment layout with the Core Systems Contractor through the RFID process. A mechanical equipment yard is located on the west side of the TCCR building to contain the Variable Refrigerant Flow (VRF) ductless air conditioning equipment for the TCCR building. The TCCR and BOCC Technical Room contains two (2) work spaces for use during maintenance and testing of the equipment. The TCCR and BOCC Technical Room shall not be designed as habitable work stations. The BOCC Operations room shall be outfitted as an office space with accommodations, including lighting, power, data, and communications infrastructure, for four (4) work stations. Note: data and communications cabling to be provided and installed by others.

Two (2) parking areas are required on the east and west sides of the parcel. The west driveway is relocated to the west property line to access nine (9) parking stalls from Kamehameha Highway. The east driveway accesses three (3) stalls along the east property line while providing service vehicle access to the TPSS. The plaza extends over the east driveway and must be able to support vehicular loads. The TPSS, switch gear, and station transformer is re-arranged in the southeast corner of the parcel. The west parking area consists of nine (9) parking stalls. Parking stalls shall be designated for staff use only.

Fencing and gates are required to cordon the ancillary facilities from the makai entry building. The mechanical equipment yard is also fenced.

**08 REFERENCE DOCUMENTS**

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The following documents have been received from HART on DVD and will be utilized in preparation of the design:

**F. PRELIMINARY ENGINEERING DOCUMENTS**

1. PE Reference Documents
  - h) SD1-H03-AR002.Opt.2.Rev.3.dwg (8/6/12)

**09 ACTIVITY SHEETS**

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The following section includes Activity Sheets containing the following:

- Activity Description
- Assumptions
- Inputs
- Deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility: <b>SSFm</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Civil Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. NTP #1b
  - a) Review and revise PE design, including concept site layout, concept grading, concept utilities, incorporation of approved VE recommendations and other HART preferences.
  - b) Revise Basis of Design.
  - c) Quantity estimates based on concept layout.
  - d) Coordinate with other design disciplines.
  - e) Coordinate with KHG Guideway Design Build Contractor and Core Systems Contractor.
  - f) Perform QA/QC per QAP.
  - g) Attend design coordination meetings and interface meetings as needed.
  - h) Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
  - i) Review and provide responses to HART comments for submittals.
2. NTP #2
  - a) Develop drawings based on NTP #1b Submission and further design development and implementation of the construction contract drawings.
  - b) Incorporate comments from NTP #1b Submission.
  - c) Revise Basis of Design Report based on NTP #1b Submission.
  - d) Quantity estimates based on concept layout.
  - e) Coordinate with other design disciplines.
  - f) Coordinate with KHG Guideway Design Build Contractor and Core Systems Contractor.
  - g) Perform QA/QC per QAP.
  - h) Attend design coordination meetings and interface meetings as needed.
  - i) Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
  - j) Review and provide responses to HART comments for NTP #1b Submission.
3. NTP #3
  - a) Develop drawings based on NTP #2 Submission and further design development and implementation of the construction contract drawings.
  - b) Incorporate comments from NTP #2 Submission.
  - c) Revise Basis of Design Report based on NTP #2 Submission.
  - d) Quantity estimates based on concept layout.
  - e) Coordinate with other design disciplines.
  - f) Coordinate with KHG Guideway Design Build Contractor and Core Systems Contractor.
  - g) Perform QA/QC per QAP.
  - h) Attend design coordination meetings and interface meetings as needed.
  - i) Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
  - j) Review and provide responses to HART comments for NTP #2 Submission.

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**B. Assumptions**

1. Current designs are compliant with City & State codes.
2. Approved ROE will be obtained within thirty (30) days of NTP #1b. ROE requests/coordination prepared by others.
3. Revisions based on outcome of three (3)-day and five (5)-day workshops.
4. Source files (AutoCAD, topographic survey, word, excel) for PE drawings, basis of design and hydraulic studies will be provided by HART within two (2) days of NTP #1b.

**C. Inputs**

1. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
2. Topographic survey, Primary control Data, National Geodetic Survey (NGS) elevation benchmark, right-of-way and boundary data, easement data, subdivision maps, land court maps, and real property acquisition information
3. HART CD dated August 16, 2012 and supplementary sketch received for Pearlridge Station (Sketch AR002 dated August 06, 2012)
4. KHSG Reference Materials
5. HART Baseline Documents
6. Project-Wide Documents
7. The latest KHG design submittals for the guideway (both pdf and AutoCAD) including drawings and Basis of Design
8. NTP #1b and NTP #2 Submissions

**D. Deliverables**

1. NTP #1b
  - a) See Pearlridge Station Civil Design NTP #1b for Deliverables
2. NTP #2
  - a) See Pearlridge Station Civil Design NTP #2 for Deliverables
3. NTP #3
  - a) See Pearlridge Station Civil Design NTP #3 for Deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility: <b>SSFm</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Structural Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. NTP #1b
  - a) Perform structural analysis for Backup OCC. Confirm preliminary location, size and quantity of foundation.
  - b) Coordinate with other design disciplines.
  - c) Coordinate with KHG Guideway Design Build Contractor.
  - d) Perform QA/QC per QAP.
  - e) Revise Basis of Design Report.
  - f) Attend design coordination meetings and interface meetings as needed.
  - g) Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
  - h) Coordinate with Core Systems Contractor and design the slab/foundation to adequately support equipment.
  - i) Review and provide responses to HART comments for submittals.
2. NTP #2
  - a) Develop drawings based upon NTP #1b Submission.
  - b) Design development and implementation of the construction contract drawings.
  - c) Coordinate with KHG Guideway Design Build Contractor.
  - d) Perform QA/QC per QAP.
  - e) Revise Basis of Design Report.
  - f) Attend design coordination meetings and interface meetings as needed.
  - g) Review and confirm compliance with HART Programmatic Agreement Environmental Compliance Plan.
  - h) Coordinate with Core Systems Contractor and design the slab/foundation to adequately support equipment.
  - i) Revise Basis of Design Report based on interim design documents. Prepare comments matrix and response for the interim design.
  - j) CONSULTANT will perform a high-level constructability review of the Interim design to identify design elements that may need to be modified to improve constructability. Construction means, methods and construction job site safety will remain the responsibility of the Construction Contractor.
3. NTP #3
  - a) Incorporate comment from the Interim Design.
  - b) Complete the final structural design and construction contract drawings.
  - c) Incorporate comments from final design submission and complete the final advertisement-ready construction contract drawings.
  - d) Complete detailed structural analysis.
  - e) Prepare final special provisions review and markups.
  - f) Revise Basis of Design.
  - g) Attend design coordination meetings and interface meetings as needed.
  - h) Coordinate with KHG Guideway Design Build Contractor.
  - i) Perform QA/QC per QAP.
  - j) Coordinate KHSG work with that of the Core Systems Contractor.

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**B. Assumptions**

1. The overall design has been set at the start of NTP #2.
2. Survey and preliminary geotechnical report will be available prior to start of NTP #2.
3. Prefinal geotechnical recommendations are provided at the start of NTP #2..
4. KHG Design is fixed prior to NTP #2 submission.
5. Hazardous material abatement work is NIC.
6. Attend QA/QC, Health & Safety Training and other training as required by HART.
7. Attendance at interface management meetings as needed.
8. Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and make all payments.

**C. Inputs**

1. Preliminary geotechnical site characterizations/recommendations
2. 'KHSG Reference Materials'
3. The latest KHG design submittals (both pdf and AutoCAD) including drawings and basis of design
4. NTP #1b and #2 Submissions

**D. Deliverables**

1. NTP #1b
  - a) See NTP #1b Pearlridge Station Structural Design for deliverables
2. NTP #2
  - a) See NTP #2 Pearlridge Station Structural Design for deliverables
3. NTP #3
  - a) See NTP #3 Pearlridge Station Structural Design for deliverable

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility:	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Geotechnical Design</b>	WBS Code / ID number:	Revision No: <b>A</b>

**A. Activity Description:**

1. NTP #1b
  - a) Subsurface exploration at the Pearlridge Station (Makai) Back-up OCC will be explored by:
    - i. Increasing test borings footage [shown under NTP #1b Pearlridge Station Geotechnical Activity A.7.b.ii] by forty (40) feet total such that revised work scope is two (2) borings totaling one hundred (100).
    - ii. Adding two (2) borings, ten (10)-ft deep each for design of associated pavement and driveways.
2. NTP #2
  - a) Finalize Geotechnical Data Report with the BOCC data.
  - b) Finalize the Geotechnical Recommendations Report with driveway and parking area pavement recommendations.
3. NTP #3
  - a) No activity anticipated.

**B. Assumptions**

1. HART will provide ROE form and support data requirements no later than seven (7) days after NTP #1a. Concurrently CONSULTANT will identify which areas of the work, if any, fall outside of the project right-of-way or temporary easements and that would require a ROE.
2. The required geotechnical plans and work-related submittals will include all three stations and the H2R2 Ramp. Preparing a separate plans and associated submittals for each station and the H2R2 Ramp is not included.
3. Drafts of the GIWP(s) shall be submitted within thirty (30) calendar days of NTP #1a. The GIWP will be approved by HART within forty-five (45) days of the draft's submittal, which includes one (1) comment disposition meeting to address HART's review comments and verification of the finalized submittals. Time spent by CONSULTANT in responding and addressing HART comments shall be exclusive of the forty-five (45) days.
4. The BMP plan will be limited to the immediate work area at each boring site.
5. ROE, as required for prosecution of the geotechnical investigations, will be provided to HART no later than twenty-one (21) calendar days after NTP #1a. HART will procure ROE within thirty (30) days of receipt of CONSULTANT-completed ROE form and supporting documents.
6. Available geotechnical investigations data for the Pearlridge Station area (within one thousand (1,000) feet approximately) from the KHG fixed guideway design-build contract will be provided to CONSULTANT at the start of NTP #1a. Data that becomes available after work plans are finalized will be incorporated to the extent practicable.
7. Subsurface materials and ground water at the Pearlridge Station sites are non-hazardous, non-toxic, and free of asbestos, PCBs, radioactive materials, and hydrocarbon contamination.
8. Level D personal protective equipment (PPE) for field personnel.
9. The Geotechnical engineer will attend up to two (2) design team coordination meetings.
10. Not included: Preparing a storm water pollution prevention plan (SWPPP), applying for and obtaining a National Pollutant Discharge Elimination System (NPDES) permit, Notice-of-Intent (NOI), and noise permit.
11. Not included: Developing, implementing, and maintaining a BMP plan for the entire Pearlridge Station site.
12. No planning, design, or coordination work will be required for the parking garage, bus center, or other site

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constructions not included in this scope of work.

**C. Inputs**

1. 'KHSG Reference Materials'
2. KHSG Contract Documents
3. HART review comments to DRAFT GDR [NTP1b]
4. HART review comments to DRAFT GRR [NTP1b]

**D. Deliverables**

1. NTP #1b
  - a) See NTP #1b Pearlridge Station Geotechnical Design for deliverables
2. NTP #2
  - a) See NTP #2 Pearlridge Station Geotechnical Design for deliverables
3. NTP #3
  - a) N/A

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility: <b>AVA</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Architectural Design</b>	WBS Code / ID number:	Revision No: <b>B</b>

**A. Activity Description:**

1. NTP #1b
  - a) Provide a preliminary architectural design for a one-story building consisting of a concrete slab on grade, CMU walls, exterior metal doors and hardware, and a low-sloped built-up bituminous roof, rigid roofing insulation, flashing, metal coping, metal scuppers, downspouts and splash blocks.
  - b) Identify the locations of the VRF interior units.
2. NTP #2
  - a) Provide an interim architectural design to include Drawings to be used for construction and Specifications.
  - b) Define the locations, products and required installation requirements necessary for the through-wall air-conditioning units and coordinate with other HVAC work with the Mechanical and Electrical Engineer.
  - c) Define all electrical products including interior and exterior lighting fixtures, security components, by identifying locations, specifications and installation details as required. Coordinate with the Electrical and Securities Engineers.
3. NTP #3
  - a) Provide Final Architectural Construction Drawings and Specifications to include all components for construction. Provide Door and Finish Schedules. Include construction details for installation of doors, door hardware, roofing system, scuppers and downspouts, light fixtures and security cameras.
  - b) Finalize coordination of deliverables with the Civil, Mechanical, Electrical, Core Systems Engineers.

**B. Assumptions**

1. UPS and TCCR/BOCC Technical room will be finished with a concrete floor and painted interior concrete block walls.
2. The BOCC Operations Center will be finished as an office space with a resilient tile floor, suspended acoustical ceiling and smooth, painted drywall covered walls. BOCC Operations Center shall accommodate four (4) work stations.

**C. Inputs**

7. KHSB Reference Materials
8. HART CD dated August 16, 2012 and supplementary sketch received for Pearlridge Station (Sketch AR002 dated August 06, 2012)

**D. Deliverables**

1. NTP #1b
  - a) See NTP #1b Pearlridge Station Architectural Design for deliverables
2. NTP #2
  - a) See NTP #2 Pearlridge Station Architectural Design for deliverables
3. NTP #3
  - a) See NTP #3 Pearlridge Station Architectural Design for deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility: <b>MEH</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Mechanical Engineering</b>	WBS Code / ID number:	Revision No: <b>B</b>

**A. Activity Description:**

1. NTP #1b
  - a) Prepare preliminary design drawings and calculations for air conditioning, ventilation, plumbing, sanitary drainage, and storm drainage. Air conditioning to be Variable Refrigerant Flow (VRF) ductless system.
  - b) Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.
2. NTP #2
  - a) Develop design drawings based upon NTP #1b Submission.
  - b) Incorporate comments from the PE revisions.
  - c) Design development and implementation of the construction contract drawings.
  - d) Coordinate equipment locations, weight and electrical rating with various consultants.
3. NTP #3
  - a) Calculate final cooling loads and ventilation loads.
  - b) Coordinate equipment locations, weight and electrical rating with various consultants.
  - c) Coordinate and review available water pressure with civil for fire protection standpipe systems.
  - d) Coordinate with Core Systems Contractor.

**B. Assumptions**

1. Attendance at interface management meetings as needed.
2. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
3. Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
4. Right of entry into private properties will be provided by HART within thirty (30) days of receipt of NTP #1b.
5. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. HART/GEC comments on the PE and interim design submittals
3. KHSG Reference Materials
4. HART CD dated August 16, 2012 and supplementary sketch received for Pearlridge Station (Sketch AR002 dated August 06, 2012)

**D. Deliverables**

1. NTP #1b
  - a) See NTP #1b Pearlridge Station Mechanical Engineering for deliverables
2. NTP #2
  - a) See NTP #2 Pearlridge Station Mechanical Engineering for deliverables

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3. NTP #3

- a) See NTP #3 Pearlridge Station Mechanical Engineering for deliverables

**ACTIVITY DESCRIPTION**

NTP#: <b>NTP #1b, #2 and #3</b>	Activity Responsibility: <b>Electech</b>	Issue Date: <b>September 11, 2012</b>
Activity: <b>Back-up OCC Electrical Design</b>	WBS Code / ID number:	Revision No: <b>B</b>

**A. Activity Description:**

1. NTP #1b
  - a) Add Back-up OCC electrical requirements to Pearlridge Station.
  - b) Perform preliminary design of the TCCR & BOCC Technical Room and the BOCC Operations Room.
2. NTP #2
  - a) Develop design drawings based upon NTP #1b Submission.
  - b) Incorporate comments from the PE submission.
3. NTP #3
  - a) Incorporate comments from the Interim Design.
  - b) Complete the final design for the BOCC Operations Room and BOCC Technical Room.

**B. Assumptions**

1. Lighting design for the BOCC Operations room shall conform to office space requirements.
2. Electrical power design shall accommodate four (4) work stations in the BOCC Operations room.
3. Data and communications, fire detection, and intrusion detection cabling shall be provided and installed by the Core Systems Contractor.
4. Electrical Design is limited to only the Station sites.
5. Approved ROE will be obtained within thirty (30) days of NTP #1b.
6. Source files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design will be provided by HART within two (2) days of NTP #1b.
7. Hazardous material abatement work is NIC.

**C. Inputs**

1. Coordination information from the Core Systems Contractor
2. KHSR Reference Documents
3. Source files from HART (AutoCAD, word, excel) provided within two (2) days of NTP #1b
4. The latest WOFH design submittals (both pdf and AutoCAD) including drawings and basis of design
5. HART CD dated August 16, 2012 and supplementary sketch received for Pearlridge Station (Sketch AR002 dated August 06, 2012)

**D. Deliverables**

1. NTP #1b
  - a) See NTP #1b Pearlridge Station Electrical Design for deliverables
2. NTP #2
  - a) See NTP #2 Pearlridge Station Electrical Design for deliverables
3. NTP #3
  - a) See NTP #3 Pearlridge Station Electrical Design for deliverables

**SPECIAL PROVISIONS  
EXHIBIT 2A**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

**CONTRACT COST**

**EXHIBIT 2A  
CONTRACT COST**

<u>Notice to Proceed</u>	<u>Cost</u>
1a: PREPARE SCHEDULE OF MILESTONES	\$491,104.00
1b: REVISION TO PRELIMINARY ENGINEERING (PE)	\$2,533,421.00
2: INTERIM DESIGN (ID)	\$2,860,226.00
3: FINAL DESIGN (FD)	\$1,913,030.00
4: DESIGN SUPPORT DURING BIDDING	\$77,979.00
5: DESIGN SUPPORT DURING CONSTRUCTION	<u>\$623,822.00</u>
Total Contract Amount	\$8,499,582.00
Allowance for Extra Work	<u>\$203,010.00</u>
Total Aggregate Amount	\$8,702,592.00

**SPECIAL PROVISIONS  
EXHIBIT 2B**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

**COMPENSATION AND INVOICING**

## EXHIBIT 2B COMPENSATION AND INVOICING

1. The CONSULTANT will be paid periodically by HART for authorized and satisfactorily completed Work under this Agreement based on an approved Schedule of Milestones. Such payment shall be full compensation for Work performed, for all supervision, labor, supplies, materials, equipment or use thereof, taxes, and for all other necessary incidentals.

2. The CONSULTANT shall submit a proposed Schedule of Milestones within forty (40) working days after receipt of NTP #1a. The Schedule of Milestones is to be organized by NTP and will identify the Scope of Work ("SOW") activity code, describe the activity, specify the associated fixed-price amount and specify the estimated completion date. The CONSULTANT's Baseline Design Schedule must be conformed to the Schedule of Milestones. HART and the CONSULTANT shall reach agreement on the proposed Schedule of Milestones at which time HART will approve the Schedule of Milestones. HART's approved Schedule of Milestones shall be added to the Agreement by contract amendment and become part of the Agreement by amending Exhibit 2B-1 to these Special Provisions. In no event shall compensation exceed the amounts listed in the Schedule of Milestones or the Total Contract Amount.

3. **Payment Schedule.** Upon completion of Milestones for which NTP has been issued, the CONSULTANT shall submit to HART invoices for payment for Project Work completed based on the mutually-agreed Schedule of Milestones. Within thirty (30) days of receipt of invoice, and upon approval of the work satisfactorily completed and amount billed, HART will pay the invoice as approved. At no time shall the total cumulative amount paid for the Project Work exceed the Total Contract Amount. **The CONSULTANT shall notify HART in writing no later than ten (10) days after expending seventy five percent (75%) of the Total Contract Amount.**

**EXHIBIT 2B-1  
PROJECT PAYMENT SCHEDULE**

	<u>Amount</u>
NTP #1a Schedule of Milestones	\$491,104.00
NTP #1b Revision to Preliminary Engineering	\$2,533,421.00
NTP #2 Interim Design (ID)	\$2,860,226.00
NTP #3 Final Design (FD)	\$1,913,030.00
NTP #4 Design Support During Bidding	\$77,979.00
NTP #5 Design Support During Construction	<u>\$623,822.00</u>
Total Contract Amount	\$8,499,582.00
Allowance for Extra Work	<u>\$203,010.00</u>
Total Aggregate Amount	\$8,702,592.00

\*Upon issuance of NTP #1a, the CONSULTANT is to provide a Schedule of Milestones to HART within forty (40) days, which are to be organized by the NTPs provided above, and which shall specify Pay Items, Pay Item descriptions, Pay Item Values, and planned or actual achievement dates. HART's approved Schedule of Milestones shall be added to the Agreement by contract amendment and become part of the Agreement by amending this Exhibit 2B-1. Payment to Consultant shall be based on satisfactory completion of a milestone in accordance with the approved Schedule of Milestones and NTPs and shall not exceed the amounts provided above for completion of each NTP.

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of Anil Verma Associates, Inc., I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.



\_\_\_\_\_  
(Signature of Authorized Official)

**Anil Verma**

\_\_\_\_\_  
(Print Name)

**October 26, 2012**

\_\_\_\_\_  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

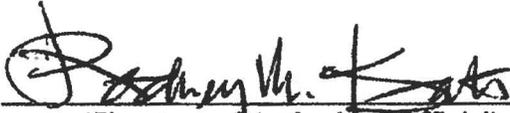
“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of KYA Design Group, Inc., I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.

  
\_\_\_\_\_  
(Signature of Authorized Official)

Rodney M. Kato

\_\_\_\_\_  
(Print Name)

October 30, 2012

\_\_\_\_\_  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of SSFM International, Inc., I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.



\_\_\_\_\_  
(Signature of Authorized Official)

Lee T. Takushi

\_\_\_\_\_  
(Print Name)

October 29, 2012

\_\_\_\_\_  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

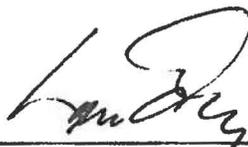
“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of Mechanical Engineers of Hawaii Corporation, I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.



\_\_\_\_\_  
(Signature of Authorized Official)

Louis T. Cheng

\_\_\_\_\_  
(Print Name)

10/27/2012

\_\_\_\_\_  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

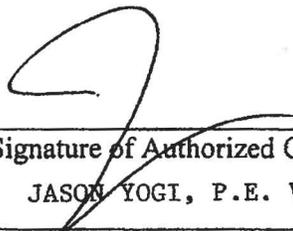
“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of ELECTECH HAWAII, INC., I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.

  
\_\_\_\_\_  
(Signature of Authorized Official)

JASON YOGI, P.E. Vice President

\_\_\_\_\_  
(Print Name)

October 30, 2012

\_\_\_\_\_  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of GEOLABS INC., I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.

Clayton S. Mimura  
(Signature of Authorized Official)

CLAYTON S. MIMURA  
(Print Name)

10/29/12  
(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of PBR HAWAII, I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.

R. Stan Duncan

(Signature of Authorized Official)

R. Stan Duncan

(Print Name)

10/29/12

(Date)

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of \_\_\_\_\_ ControlPoint Surveying, Inc. \_\_\_\_\_, I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed ~~on the attached sheet~~ below. \*



\_\_\_\_\_  
(Signature of Authorized Official)

\_\_\_\_\_  
Yue-Hong Yeh  
(Print Name)

\_\_\_\_\_  
October 29, 2012  
(Date)

\* PB Americas, Inc. C&C of Honolulu High Capacity Transit Corridor Project.  
Previous preliminary design contract and on-going final design contract.

**EXHIBIT 3**  
**CERTIFICATION REGARDING CONFLICT OF INTEREST**

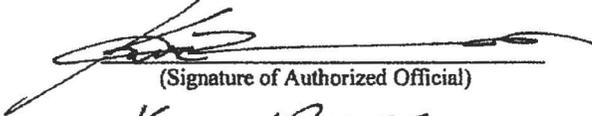
“Organizational conflict of interest” means that, because of other activities or relationships with other persons or firms, a Consultant (including its principal participants, directors, proposed consultants or subcontractors) would be unable or potentially unable to render impartial, technically sound assistance or advice to the Honolulu Authority for Rapid Transportation; or the Consultant’s objectivity in performing the Work would or might be otherwise impaired.

On behalf of Keene Nunes, I certify that:  
(Named Consultant)

(Check one)

The Consultant does not have any relationships with any firms or individuals that are or appear to be an organizational conflict of interest.

The Consultant has had the following relationships with the specific firm(s)/individual(s), identified on the attached sheet, which may be determined to be an organizational conflict of interest. I understand that based on the information I have provided, the City may exclude the Offeror from further consideration and may withdraw its selection if the real or apparent organizational conflict of interest cannot be avoided or mitigated. I further certify that the degree and extent of the relationship of the Consultant with these named firm(s)/individual(s) have been fully disclosed on the attached sheet.

  
(Signature of Authorized Official)  
Keene Nunes  
(Print Name)  
10/50/2012  
(Date)

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to \_\_\_\_\_  
(Name of Subcontractor/Consultant)

to perform the following type of work:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

The minimum value of the Subcontract is \_\_\_\_\_.

The Subcontractor/Consultant \_\_\_\_\_ is \_\_\_\_\_ is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_. Include a name and telephone  
number for certifying entity \_\_\_\_\_.

**For the Consultant:**

**For the Subcontractor/Subconsultant:**

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
Confirmed by: (Signature)

Anil Verma  
(Printed Name)

\_\_\_\_\_  
(Printed Name)

President  
(Title)

\_\_\_\_\_  
(Title)

October 26, 2012  
(Date)

\_\_\_\_\_  
(Date)

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

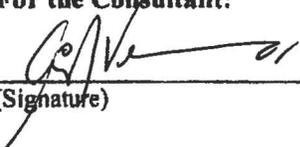
Anil Verma Associates, Inc. \_\_\_\_\_ intends to subcontract Work for the  
Kamehameha Highway Station Group Project to KYA Design Group, Inc.  
\_\_\_\_\_  
(Name of Subcontractor/Consultant)

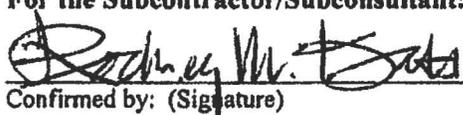
to perform the following type of work:  
Architectural services/activities involving the Kamehameha Highway Station design.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

The minimum value of the Subcontract is \$606,308.68.

The Subcontractor/Consultant \_\_\_\_\_ is  is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_. Include a name and telephone  
number for certifying entity \_\_\_\_\_.

**For the Consultant:**  
  
\_\_\_\_\_  
(Signature)  
Anil Verma, AIA  
\_\_\_\_\_  
(Printed Name)  
President  
\_\_\_\_\_  
(Title)  
October 31, 2012  
\_\_\_\_\_  
(Date)

**For the Subcontractor/Subconsultant:**  
  
\_\_\_\_\_  
Confirmed by: (Signature)  
Rodney M. Kato  
\_\_\_\_\_  
(Printed Name)  
President  
\_\_\_\_\_  
(Title)  
October 30, 2012  
\_\_\_\_\_  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to SSFM International, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

**Civil Engineering and Maintenance of Traffic for the Pearl Highlands Station, Pearlridge  
Station, Aloha Stadium Station and H2R2 Ramp.**  
**Structural Engineering for the Pearlridge Station, Aloha Stadium Station and H2R2  
Ramp.**

The minimum value of the Subcontract is \$1,194,135.55.

The Subcontractor/Consultant \_\_\_\_\_ is  is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_. Include a name and telephone  
number for certifying entity \_\_\_\_\_.

**For the Consultant:**

  
\_\_\_\_\_  
(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
\_\_\_\_\_  
Confirmed by: (Signature)

Lee T. Takushi  
(Printed Name)

Vice President  
(Title)

October 29, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to Mechanical Engineers of Hawaii Corporation  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Mechanical Engineering

Fire Protection Engineering

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$357,567.00.

The Subcontractor/Consultant \_\_\_\_\_ is XX is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_. Include a name and telephone  
number for certifying entity \_\_\_\_\_.

**For the Consultant:**

(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

Confirmed by: (Signature)

Louis T. Cheng  
(Printed Name)

President  
(Title)

10/27/2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to ELECTECH HAWAII, INC.  
(Name of Subcontractor/Consultant)  
to perform the following type of work:

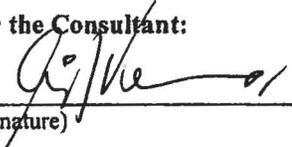
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$558,003.97.

The Subcontractor/Consultant  is  is not a certified DBE firm.

If certified, indicate certifying entity: State of Hawaii Dept. of Transportation. Include a name and telephone  
number for certifying entity Terry Kim - Phone (808) 587-2024

**For the Consultant:**

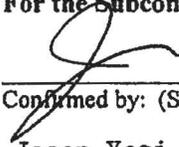
  
(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Jason Yogi, P.E.  
(Printed Name)

Vice-President  
(Title)

October 30, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to GEOLABS INC.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

GEOTECHNICAL ENGINEERING

The minimum value of the Subcontract is \$3,223,270.

The Subcontractor/Consultant \_\_\_\_\_ is  is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_ . Include a name and telephone  
number for certifying entity \_\_\_\_\_.

For the Consultant:

(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

For the Subcontractor/Subconsultant:

Confirmed by: (Signature)

CLAYTON S. MIMURA  
(Printed Name)

PRESIDENT  
(Title)

10/29/12  
(Date)

Kamehameha Highway Station Group

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to PER Hawaii  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Preparation of Landscape Architectural plans, details & specifications  
for the Pearlridge Station & Aloha Stadium Transit Stations.  
work to include; landscape plans, planting plans & irrigation plans for  
both stations.

The minimum value of the Subcontract is \$703,172.00

The Subcontractor/Consultant \_\_\_\_\_ is  is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_ Include a name and telephone  
number for certifying entity \_\_\_\_\_

For the Consultant:

(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

For the Subcontractor/Subconsultant:

Confirmed by: (Signature)

R. Stan Duncan  
(Printed Name)

Executive Vice President  
(Title)

10/29/12  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to ControlPoint Surveying, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

land surveying services

The minimum value of the Subcontract is \$199,705.87.

The Subcontractor/Consultant \_\_\_\_\_ is x is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_. Include a name and telephone  
number for certifying entity \_\_\_\_\_.

**For the Consultant:**

  
\_\_\_\_\_  
(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
\_\_\_\_\_  
Confirmed by: (Signature)

Yue-Hong Yeh  
(Printed Name)

President  
(Title)

October 29, 2012  
(Date)

Kamehameha Highway Station Group

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

Anil Verma Associates, Inc. intends to subcontract Work for the  
Kamehameha Highway Station Group Project to Keone Nunes  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Provide reports on 3 (three) station site concerning  
the cultural significance of the sites.  
Participate in 30 day long meetings concerning the  
station sites.

The minimum value of the Subcontract is \$9,000.00

The Subcontractor/Consultant \_\_\_\_\_ is \_\_\_\_\_ is not a certified DBE firm.

If certified, indicate certifying entity: \_\_\_\_\_ Include a name and telephone  
number for certifying entity \_\_\_\_\_

For the Consultant:

(Signature)

Anil Verma  
(Printed Name)

President  
(Title)

October 26, 2012  
(Date)

For the Subcontractor/Subconsultant:

(Signature)

Keone Nunes  
(Printed Name)

CEO - Ka'anani'au  
(Title)

10/30/2012  
(Date)

Kamehameha Highway Station Group

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Anil Verma, President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that Anil Verma Associates, Inc.;  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

**Anil Verma Associates, Inc.**

Name of Consultant

**444 So. Flower St., Suite 1688**

Street Address

**Los Angeles, CA 90071**

City, State, Zip

**(213) 624-6908**

Telephone Number

Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

Kamehameha Highway Station Group

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Rodney M. Kato, President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that KYA Design Group, Inc.;  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

KYA Design Group, Inc.

Name of Consultant

934 Pumehana Street

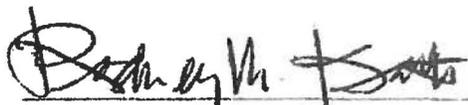
Street Address

Honolulu, HI 96826

City, State, Zip

808-949-7770

Telephone Number

  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Lee T. Takushi, Vice President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that SSFM International, Inc.:  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

SSFM International, Inc.

Name of Consultant

501 Sumner Street, Suite 620

Street Address

Honolulu, Hawaii, 96817

City, State, Zip

808-531-1308

Telephone Number

  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

Kamehameha Highway Station Group

Honolulu Rail Transit Project

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Louis T. Cheng, President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that Mechanical Engineers of Hawaii Corporation  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

Mechanical Engineers of Hawaii Corporation

Name of Consultant

50 S. Beretania St., Suite C-208A

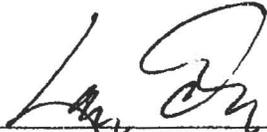
Street Address

Honolulu, HI, 96813

City, State, Zip

808-521-8981

Telephone Number

  
\_\_\_\_\_  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

Kamehameha Highway Station Group

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Jason Yogi, Vice President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that ELECTECH HAWAII, INC.;  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

ELECTECH HAWAII, INC.

Name of Consultant

1100 Ward Avenue, Suite 750

Street Address

Honolulu, HI 96814

City, State, Zip

(808) 522-1866

Telephone Number

  
\_\_\_\_\_  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

Kamehameha Highway Station Group

Honolulu Rail Transit Project

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, CLAYTON S. MIMUKA, PRESIDENT, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that GEOLABS INC.  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

GEOLABS INC  
Name of Consultant

2006 KALIHI ST.  
Street Address

HONOLULU, HI 96819  
City, State, Zip

(808) 8415064  
Telephone Number

Clayton S. Mimuka  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, R. Stan Demco, Executive Vice President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that PBR Hawaii :  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

R. Stan Demco  
Signature of Certifying Officer

PBR Hawaii  
Name of Consultant  
1001 Bishop St. Suite 650  
Street Address  
Honolulu, Hawaii 96813  
City, State, Zip  
(808) 521-5631  
Telephone Number

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

Honolulu Rail Transit Project

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Yue-Hong Yeh, President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that ControlPoint Surveying, Inc. :  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in Paragraph 2 of this certification; and
4. Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If any Principal Participant is unable to certify to any of the statements in this certification, such prospective Principal Participant shall attach an explanation to this certification.

I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

  
\_\_\_\_\_  
Signature of Certifying Officer

ControlPoint Surveying, Inc.  
Name of Consultant  
1150 South King Street, Suite 1200  
Street Address  
Honolulu, HI 96814  
City, State, Zip  
(808) 591-2022  
Telephone Number

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

**EXHIBIT 5**  
**CERTIFICATE REGARDING INELIGIBLE CONTRACTORS**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER  
INELIGIBILITY AND VOLUNTARY EXCLUSION FROM TRANSACTIONS  
FINANCED IN PART BY THE U.S. GOVERNMENT**

I, Keone Nunes, CEO, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that Keone Nunes :  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in Honolulu Authority for Rapid Transportation Project No. SC-HRT-1200111 ;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
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I hereby certify and affirm the truthfulness and accuracy of the above statement, and I understand that the provisions of 31 United States Code (U.S.C.) §3801 et seq., (Administrative Remedies for False Claims and Statements) are applicable hereto.

Keone Nunes  
Name of Consultant  
871134 Olmehoe St  
Street Address  
Wai'anae HI 96792  
City, State, Zip  
808 216 2594  
Telephone Number

  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
Lower Tier Covered Transactions**

- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Contract No. SC-HRT-1200111 by any federal department or agency.
- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

\_\_\_\_\_  
Signed

Anil Verma, AIA, President

\_\_\_\_\_  
Typed or Printed Name

Anil Verma Associates, Inc.

\_\_\_\_\_  
Company Name

October 26, 2012

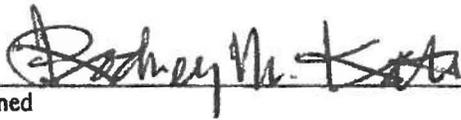
\_\_\_\_\_  
Date

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(60 FR 33042, 33064, June 26, 1995)



Signed

Rodney M. Kato

Typed or Printed Name

KYA Design Group, Inc.

Company Name

October 30, 2012

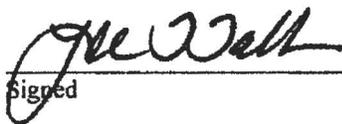
Date

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(60 FR 33042, 33064, June 26, 1995)

  
Signed

Lee T. Takushi  
Typed or Printed Name

SSFM International, Inc.  
Company Name

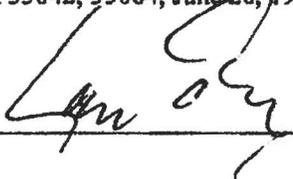
October 29, 2012  
Date

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(60 FR 33042, 33064, June 26, 1995)

  
\_\_\_\_\_  
Signed

Louis T. Cheng  
\_\_\_\_\_  
Typed or Printed Name

Mechanical Engineers of Hawaii Corporation  
\_\_\_\_\_  
Company Name

10/27/2012  
\_\_\_\_\_  
Date

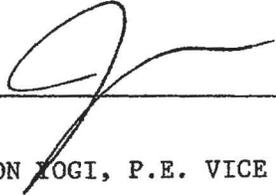
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(60 FR 33042, 33064, June 26, 1995)

Signed



---

JASON YOGI, P.E. VICE PRESIDENT

Typed or Printed Name

---

ELECTECH HAWAII, INC.

Company Name

---

OCTOBER 30, 2012

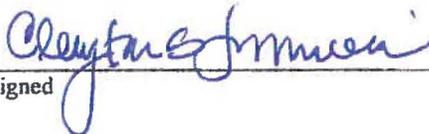
Date

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(60 FR 33042, 33064, June 26, 1995)

  
Signed

CLAYTON S. MIMURA  
Typed or Printed Name

GEOLABS INC.  
Company Name

10/29/12  
Date

Honolulu Rail Transit Project

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
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(60 FR 33042, 33064, June 26, 1995)

*R. Stan Duncan*

Signed

*R. Stan Duncan*

Typed or Printed Name

*PBR Hawaii*

Company Name

*10/29/12*

Date

Kamehameha Highway Station Group

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

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(60 FR 33042, 33064, June 26, 1995)



Signed \_\_\_\_\_

Yue-Hong Yeh

Typed or Printed Name

ControlPoint Surveying, Inc.

Company Name

October 29, 2012

Date

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

  
Signed

Keone Munes  
Typed or Printed Name

Ka'ōhānāi'au  
Company Name

10/30/2012  
Date

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned,** to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

**Anil Verma Associates, Inc.**

The CONSULTANT, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: Anil Verma Associates, Inc.  
Signature:   
Print Name: Anil Verma  
Title: President  
Date: October 26, 2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Honolulu Rail Transit Project

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

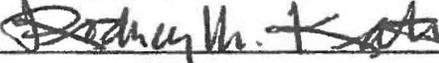
The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.**
- (2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, KYA Design Group, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: KYA Design Group, Inc.  
Signature:   
Print Name: Rodney M. Kato  
Title: President  
Date: October 30, 2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned,** to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].

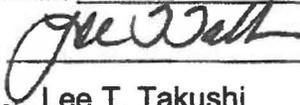
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The CONSULTANT, SSFM International, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: SSFM International, Inc.

Signature: 

Print Name: Lee T. Takushi

Title: Vice President

Date: October 29, 2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Honolulu Rail Transit Project

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

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(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

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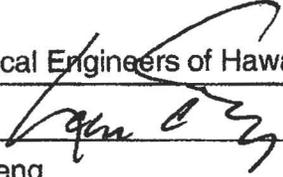
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The CONSULTANT, MEH, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: Mechanical Engineers of Hawaii Corporation (MEH)

Signature: 

Print Name: Louis T. Cheng

Title: President

Date: 10/27/2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Kamehameha Highway Station Group

**EXHIBIT 7**

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Electech

The CONSULTANT, Hawaii, Inc, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: ELECTECH HAWAII, INC.  
Signature: \_\_\_\_\_  
Print Name: JASON YOGI, P.E.  
Title: VICE PRESIDENT  
Date: OCTOBER 30, 2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Honolulu Rail Transit Project

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned,** to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.
- (2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, GEOLABS, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: GEOLABS INC  
Signature: Clayton S. Mimura  
Print Name: CLAYTON S. MIMURA  
Title: PRESIDENT  
Date: 10/29/12

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Kamehameha Highway Station Group

Honolulu Rail Transit Project

**EXHIBIT 7**

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- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

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[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, PKR HAWAII, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: PKR HAWAII  
Signature: R. Stan Duncan  
Print Name: R. Stan Duncan  
Title: Executive Vice President  
Date: 10/29/12

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Honolulu Rail Transit Project

**EXHIBIT 7**

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(1) **No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned,** to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) **If any funds other than Federal appropriated funds have been paid or will be paid** to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].

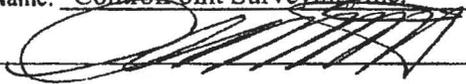
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This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: ControlPoint Surveying, Inc.

Signature: 

Print Name: Yue-Hong Yeh

Title: President

Date: October 29, 2012

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

Kamehameha Highway Station Group

**EXHIBIT 7**

**CERTIFICATION REGARDING LOBBYING**

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions [as amended by "Government-wide Guidance for New Restrictions on Lobbying," 61 Federal Regulations 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)].

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[Note: Pursuant to 31 U.S.C. §1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each expenditure or failure.]

The CONSULTANT, Keone Nunes, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the CONSULTANT understands and agrees that the provisions of 31 U.S.C. §3801, et seq., apply to this certification and disclosure, if any.

Company Name: Ka'ananiian  
Signature: [Handwritten Signature]  
Print Name: Keone Nunes  
Title: CEO  
Date: 10/30/2011

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

**SPECIAL PROVISIONS  
EXHIBIT 8**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

**FEDERAL REQUIREMENTS**

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## **FEDERAL REQUIREMENTS**

### **1.0 GENERAL**

The CONSULTANT understands that Federal laws, regulations, policies, and related administrative practices applicable to this Agreement on the date signed may be modified from time to time. The CONSULTANT agrees that the most recent of such Federal requirements will govern the administration of the Agreement at any particular point in time, except if HART issues a written determination otherwise. To achieve compliance with changing Federal requirements, the CONSULTANT agrees to include notice in each subcontract that Federal requirements may change and that the changed requirements will apply to the subcontract as required.

#### **1.1 No Government Obligation to Third Parties**

(a) HART and the CONSULTANT acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Agreement, absent the express written consent by the Federal Government, the Federal Government is not a party to this Agreement and shall not be subject to any obligations or liabilities to HART, the CONSULTANT, or any other party (whether or not a party to that Agreement) pertaining to any matter resulting from the underlying Agreement.

(b) The CONSULTANT agrees to include the above clause in each subcontract. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

#### **1.2 Program Fraud and False or Fraudulent Statements and Related Acts**

(a) The CONSULTANT acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 *et seq.* and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying Agreement, the CONSULTANT certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying Agreement or the FTA assisted project for which this Agreement work is being performed. In addition to other penalties that may be applicable, the CONSULTANT further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the CONSULTANT to the extent the Federal Government deems appropriate.

(b) The CONSULTANT also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a Agreement connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. Chapter 53, the Federal Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the CONSULTANT, to the extent the Federal Government deems appropriate.

(c) The CONSULTANT shall include the above two clauses in each subcontract. It is further agreed that the clauses shall not be modified, except to identify the subcontractor who will be subject to the provisions.

#### **1.3 Access to Records and Reports**

(a) The CONSULTANT shall provide HART, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the CONSULTANT which are directly pertinent to this Agreement for the purposes of making

audits, examinations, excerpts and transcriptions. The CONSULTANT shall, pursuant to 49 C.F.R. § 633.17, provide the FTA Administrator or his authorized representatives, including any Project Management Oversight Contractor, access to the CONSULTANT's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. § 5302(a)(l), which is receiving federal financial assistance through the programs described at 49 U.S.C. §§ 5307, 5309 or 5311.

(b) The CONSULTANT shall permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(c) The CONSULTANT shall maintain all books, records, accounts and reports required under this Agreement for a period of not less than three years after the date of termination or expiration of this Agreement, except in the event of litigation or settlement of claims arising from the performance of this Agreement, in which case the CONSULTANT shall maintain the same until HART, the FTA Administrator, the Comptroller General of the United States, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

#### **1.4 Federal Changes**

The CONSULTANT shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between HART and the FTA, as they may be amended or promulgated from time to time during the term of this Agreement. The CONSULTANT's failure to so comply shall constitute a material breach of this Agreement.

#### **1.5 Civil Rights Requirements**

The CONSULTANT shall comply with the following requirements and include the following requirements in each subcontract, modified only if necessary to identify the affected parties:

(a) Nondiscrimination. In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the CONSULTANT shall not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the CONSULTANT shall comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.

(b) Equal Employment Opportunity. The following equal employment opportunity requirements apply to the underlying Agreement:

(1) Race, Color, Creed, National Origin, Sex. In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the CONSULTANT shall comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Agreement Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The CONSULTANT shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other

forms of compensation; and selection for training, including apprenticeship. In addition, the CONSULTANT shall comply with any implementing requirements FTA may issue.

(2) Age. In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the CONSULTANT shall refrain from discrimination against present and prospective employees for reason of age. In addition, the CONSULTANT shall comply with any implementing requirements FTA may issue.

(3) Disabilities. In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the CONSULTANT shall comply with the requirements of the U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the CONSULTANT shall comply with any implementing requirements FTA may issue.

(4) Access for Individuals with Disabilities. The CONSULTANT shall comply with 49 U.S.C. § 5301(d), which states the Federal policy that elderly individuals and individuals with disabilities have the same right as other individuals to use public transportation services and facilities, and that special efforts shall be made in planning and designing those services and facilities to implement transportation accessibility rights for elderly individuals and individuals with disabilities.

#### **1.6 Disadvantaged Business Enterprises (DBE)**

(a) DBE Assurances. The CONSULTANT and its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The CONSULTANT shall carry out applicable requirements of 49 C.F.R. Part 26 in the award and administration of U.S. DOT-assisted Agreements. Failure by the CONSULTANT to carry out these requirements is a material breach of this Agreement, which may result in termination of this Agreement or such other remedy, as HART deems appropriate.

The above paragraph shall be included in each subcontract the CONSULTANT signs with a subcontractor.

(b) Prompt Payment. The CONSULTANT shall pay all subcontractors (DBEs and non-DBEs) for satisfactory performance of their subcontracts no later than ten (10) days from receipt of payment by HART. Full and prompt payment by the CONSULTANT to all subcontractors shall include retainage, if applicable.

(c) DBE Goal. HART has established a race neutral overall DBE goal of 3.83% for fiscal year 2010. Although HART has not established a DBE Agreement goal for this Project, DBE firms and small businesses shall have an equal opportunity to participate in the Agreement. The CONSULTANT shall adhere to the following requirements:

(1) Take affirmative steps to use as many of the race-neutral means of achieving DBE participation identified at 49 C.F.R. 26.51(b) as practicable to afford opportunities to DBEs to participate in the Agreement. A race-neutral measure is one that is, or can be, used to assist all small businesses.

(2) A DBE firm must perform a commercially useful function, i.e., must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work; and

(3) A DBE firm must be certified by the Hawai'i State Department of Transportation before its participation is reportable under paragraph (d) below;

(d) Reports to HART. The CONSULTANT shall report its DBE participation obtained through race-neutral means throughout the period of performance. The CONSULTANT shall submit the "DBE PARTICIPATION REPORT" reflecting payments made by the CONSULTANT to DBE subcontractors. Payments to the CONSULTANT will not be processed if the DBE PARTICIPATION REPORT is not properly completed and attached. The DBE PARTICIPATION REPORT shall be prepared in the format set forth in ATTACHMENT\_1.6 a) to this Exhibit.

(e) Records. On request, the CONSULTANT shall make available for inspection, and assure that its subcontractors make available for inspection:

(1) Records of prompt payments made in accordance with Section 1.6(b), above;

(2) The names and addresses of DBE subcontractors, vendors, and suppliers under this Agreement;

(3) The dollar amount and nature of work of each DBE subcontractor;

(4) The social/economic disadvantaged category of the DBE firms, i.e. Black American, Hispanic American, Native American, Subcontinent Asian American, Asian Pacific American, Non-Minority Women, or Other; and

(5) Other related materials and information.

(f) The CONSULTANT shall promptly notify HART, whenever a DBE subcontractor performing work related to this Agreement is terminated or fails to complete its work. The CONSULTANT shall also promptly notify HART of a DBE subcontractor's inability or unwillingness to perform and provide reasonable documentation.

### **1.7 Government-Wide Debarment and Suspension (Non-procurement)**

(a) This Agreement is a covered transaction for purposes of 2 C.F.R. 180.220(b) and 2 C.F.R. 1200.220. As such, the CONSULTANT is required to verify that none of the CONSULTANT, its principals, as defined at 2 C.F.R. 180.995, or affiliates, as defined at 2 C.F.R. 180.905, are excluded or disqualified as defined at 2 C.F.R. 180.940 and 2 C.F.R. 180.935.

(b) The CONSULTANT is required to comply with 2 C.F.R. 180 Subpart C, as supplemented by 2 C.F.R. 1200 Subpart C, and must include the requirement to comply with 2 C.F.R. 180, Subpart C, as supplemented by 2 C.F.R. 1200 Subpart C, in any lower tier covered transaction equal to or exceeding \$25,000 it enters into. By signing the Agreement, the CONSULTANT certifies as follows:

The certification in this clause is a material representation of fact relied upon by HART. If it is later determined that the CONSULTANT knowingly rendered an erroneous certification, in addition to remedies available to HART, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The CONSULTANT agrees to comply with the requirements of 2 C.F.R. 180, Subpart C, as supplemented by 2 C.F.R. Subpart C, throughout the Agreement period. The CONSULTANT further agrees to include a provision requiring such compliance in its lower tier covered transactions equal to or exceeding \$25,000.

## **1.8 Lobbying**

The "CERTIFICATION REGARDING LOBBYING," as executed by the CONSULTANT in Exhibit 7 of the Special Provisions is incorporated herein by reference. The CONSULTANT and its subcontractors at every tier shall comply with U.S. DOT regulations, "New Restrictions on Lobbying," 49 C.F.R. Part 20, modified as necessary by 31 U.S.C. § 1352, which requires that no Federal appropriated funds shall be used to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal Agreement, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal Agreement, grant, or award covered by 31 U.S.C. § 1352. Such disclosures are forwarded from tier to tier up to HART.

## **1.9 Clean Air Requirements**

(a) The CONSULTANT shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The CONSULTANT shall report each violation to HART and understands and agrees that HART will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.

(b) The CONSULTANT shall include the above clause in each subcontract exceeding \$100,000.

## **1.10 Clean Water Requirements**

(a) The CONSULTANT shall comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 et seq. The CONSULTANT shall report each violation to HART and understands and agrees that HART will, in turn, report each violation as required to FTA and the appropriate EPA Regional Office.

(b) The CONSULTANT shall include the above clause in each subcontract exceeding \$100,000.

## **1.11 Fly America Requirements**

(a) The CONSULTANT shall comply with 49 U.S.C. § 40118 (the "Fly America Act") in accordance with the General Services Administration's regulations at 41 C.F.R. Parts 301-10, which provide that HART and sub-recipients of Federal funds and their consultants are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The CONSULTANT shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements.

(b) The CONSULTANT shall include the requirements of this section in all subcontracts that may involve international air transportation.

## **1.12 Energy Conservation Requirements**

(a) The CONSULTANT shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

(b) The CONSULTANT shall include the above clause in each subcontract at every tier. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to the provisions.

### **1.13 Recycled Products**

The CONSULTANT agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act as amended (42 U.S.C. § 6962), including but not limited to the regulatory provisions of 40 C.F.R. Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 C.F.R. Part 247.

### **1.14 ADA Access**

The CONSULTANT shall comply with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 *et seq.*, which requires that accessible facilities and services be made available to individuals with disabilities; and with the Architectural Barriers Act of 1968, as amended, 42 U.S.C. §§ 4151 *et seq.*, which requires that buildings and public accommodations be accessible to individuals with disabilities, and any subsequent amendments to these laws. In addition, the CONSULTANT agrees to comply with all applicable implementing Federal regulations and directives and any subsequent amendments thereto.

### **1.15 Seismic Safety**

The CONSULTANT shall ensure that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in the U.S. Department of Transportation's Seismic Safety Regulations (49 C.F.R. Part 41) and shall certify to compliance to the extent required by the regulation. The CONSULTANT also agrees to ensure that all work performed under this Agreement including work performed by a subcontractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the Project.

### **1.16 Text Messaging While Driving**

In accordance with Executive Order No. 13513, Federal Leadership on Reducing Text Messaging While Driving, October 1, 2009, 23 U.S.C.A. § 402 note, and DOT Order 3902.10, Text Messaging While Driving, December 30, 2009, the CONSULTANT is encouraged to comply with the terms of the following:

(a) Definitions.

(1) "Driving" means operating a motor vehicle on a roadway, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise. "Driving" does not include being in your vehicle (with or without the motor running) in a location off the roadway where it is safe and legal to remain stationary.

(2) "Text Messaging" means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include the use of a cell phone or other electronic device for the limited purpose of entering a telephone number to make an outgoing call or answer an incoming call, unless the practice is prohibited by State or local law.

(b) Safety. The CONSULTANT is encouraged to:

(1) Adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers including policies to ban text messaging while driving:

(i) CONSULTANT-owned or CONSULTANT-rented vehicles or Government-owned, leased or rented vehicles;

(ii) Privately-owned vehicles when on official Project related business or when performing any work for or on behalf of the Project; or

(iii) Any vehicle, on or off duty, and using an employer supplied electronic device.

(2) Conduct workplace safety initiatives in a manner commensurate with the CONSULTANT's size, such as:

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with text messaging while driving.

(3) Include this Special Provision in its subagreements with its subrecipients and third party contracts and also encourage its subrecipients, lessees, and third party contractors to comply with the terms of this Special Provision and include this clause in each subagreement, lease, and subcontract at each tier financed with Federal assistance provided by the Federal Government.

### **1.17 Sensitive Security Information**

The CONSULTANT, as a third party contractor must protect, and take measures to ensure that its subcontractors at each tier protect, "sensitive security information" made available during the administration of a third party contract or subcontract to ensure compliance with 49 U.S.C. Section 40119(b) and implementing DOT regulations, "Protection of Sensitive Security Information," 49 CFR Part 15, and with 49 U.S.C. Section 114(r) and implementing Department of Homeland Security regulations, "Protection of Sensitive Security Information", 49 CFR Part 1520.

### **1.18 Incorporation of FTA Terms**

(a) The Special Provisions include, in part, certain Standard Terms and Conditions required by the U.S. DOT, whether or not expressly set forth in the preceding provisions. All contractual provisions required by the U.S. DOT, as set forth in FTA Circular 4220.1F are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The CONSULTANT shall not perform any act, fail to perform any act, or refuse to comply with any HART requests which would cause HART to be in violation of the FTA terms and conditions.

(b) The CONSULTANT shall include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

## ATTACHMENT 1.6 a) – DBE PARTICIPATION REPORT

<b>DBE PARTICIPATION REPORT</b> This report shall be submitted with each invoice as a condition of payment under this Contract.				
<b>Project Name:</b>				
<b>Contract No:</b>		<b>Consultant Name:</b>		
<b>Federal ID No.:</b> (OWP WE #, FTA Grant #, FHWA Project #)		<b>Contract Amount (including amendments):</b>		<b>\$</b>
<b>Period Covered By This Report:</b>	<b>Current</b> (Invoice # _____)		<b>Total to Date</b>	
<b>Total Invoice Amount</b>	(A) \$		(B) \$	
<b>Payment Requested:</b>	<b>DBE?</b> (Yes/No) <b>DBE Code</b> (if "Yes")	<b>Prior Amount*</b>	<b>Current Amount*</b>	<b>Total Amount to Date*</b>
<b>Prime Consultant</b>		\$	\$	\$
<b>Subcontractors (attach additional sheets as needed):</b>				
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
<b>TOTALS</b>		\$	\$	(C) \$
<b>DBE Participation to Date (C/B)</b>		%		

***\*Insert dollar amounts for DBEs only***

## ATTACHMENT 1.6 b) - FINAL REPORT OF DBE PARTICIPATION

This report must be submitted by the Consultant with the final invoice or request for payment under this contract.

Project Title: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Project No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_

Period Covered by this Report: \_\_\_\_\_

Contract Amount (including amendments): \$ \_\_\_\_\_

Final Payment Amount: \$ \_\_\_\_\_ Invoice No.: \_\_\_\_\_

Total Payment to DBE: \$ \_\_\_\_\_

All Subcontractors (DBE and non-DBE) & DBE Suppliers or Manufacturers	Type of Service or Materials Provided	Subcontract Amount
Name Address Telephone No.		

Add additional sheets as necessary.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name & Title

**ATTACHMENT 1.6 b) - INSTRUCTIONS FOR COMPLETING THE  
FINAL REPORT OF DBE PARTICIPATION**

All subcontractors, suppliers and manufacturers should be listed on the FINAL REPORT OF DBE PARTICIPATION in the same order as listed in the proposal.

Project Title:	Self Explanatory
Project No.:	Self Explanatory
Period Covered by this Report:	Same period as invoice period
Consultant Name:	Self-Explanatory
Contractor No:	Self-Explanatory
Contract Amount (including amendments):	Less Mobilization, Force Account Items and Allowance Items Amendments should be listed separately with an explanation of how it was allocated to DBEs and non-DBEs
Invoice No.:	Self-Explanatory
Final Payment Amount:	Self-Explanatory
Total Payment to DBE	Total \$ amount paid to DBE

**GENERAL TERMS AND CONDITIONS FOR CONTRACTS  
FOR PROFESSIONAL SERVICES FOR THE CITY AND  
COUNTY OF HONOLULU (8/2000)**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
KAMEHAMEHA HIGHWAY STATION GROUP**

(8/00)

**GENERAL TERMS AND CONDITIONS  
FOR CONTRACTS FOR PROFESSIONAL SERVICES  
FOR THE  
CITY AND COUNTY OF HONOLULU**

**SECTION 1 - DEFINITIONS; GENERAL PROVISIONS**

**1.1 DEFINITIONS.** Terms as used in these General Terms and Conditions and the contract, unless the context requires otherwise, shall have the following meaning:

"Amendment" means modification.

"Change order" means a written order signed by the officer-in-charge and approved by the Director of Budget and Fiscal Services, directing the contractor to make changes which the changes clause of the contract authorizes the officer-in-charge to order without the consent of the contractor.

"City" means the City and County of Honolulu, State of Hawaii.

"Contract" means the written agreement between the City and the successful contractor.

"Contractor" or "consultant" means the person having a contract with the City.

"Day" means calendar day unless otherwise specified.

"Design and plans" means any and all designs, plans, construction drawings, specifications, cost estimates, work schedules, proposals, studies, reports and other items.

"Designee" means a person appointed by the Director of Budget and Fiscal Services or the officer-in-charge to act on his/her behalf with delegated authority.

"Director of Budget and Fiscal Services" means the chief procurement officer of the executive branch of the City and County of Honolulu, or the director's designee.

"General terms and conditions" means these General Terms and Conditions for Contracts for Professional Services for the City and County of Honolulu.

"HRS" means the Hawaii Revised Statutes of the State of Hawaii.

"Modification" means any written alteration in specifications, delivery point, rate of delivery, period of performance, price, quantity, or other provisions of the contract accomplished by mutual action of the parties to the contract.

"Notice to proceed" means the written document indicating the official commencement date of services.

"Officer-in-charge" means the head of the department or a designee of the officer-in-charge for which services are being rendered.

"Professional services" means those services within the scope of the practice of architecture, landscape architecture, professional engineering, land surveying, real property appraisal, law, medicine, accounting, dentistry, or any other practice defined as professional pursuant to section 415A-2, HRS, or the professional and scientific occupation series contained in the United States Office of Personnel Management's Qualifications Standards Handbook.

"Qualified list method" means the method of source selection for professional services under HRS 103D-304.

## **1.2 GENERAL PROVISIONS**

**1.2.1** Nondisclosure of designated trade secrets or proprietary information. A person shall request in writing nondisclosure of designated trade secrets or other proprietary data to be confidential. *Such data shall accompany the proposal, be clearly labeled as confidential, and shall be readily separable from other data in order to facilitate eventual public inspection of the nonconfidential portion of the data.* [3-122-46, HAR]

**1.2.2** Independent price determination. By submitting an offer or price, the person certifies that the price submitted for the contract was independently arrived at without collusion. [3-122-192, HAR]

**1.2.3** No reimbursement. The City shall not provide any reimbursement for the cost of developing or presenting proposals in response to the request for proposal. Failure to include the requested information may have a negative impact on the evaluation of the offeror's proposal.

**1.2.4** Cancellation of solicitation. Solicitations may be canceled in whole or in part when in the best interest of the agency. [3-122-95, HAR]

**1.2.5** Determination of contractual terms and conditions. The Director of Budget and Fiscal Services is authorized to determine the contractual provisions, terms, and conditions of solicitations and contracts, provided such provisions, terms, and conditions are not contrary to statutory or Chapter 91, HRS, administrative rule requirements governing the procurement. [3-122-7, HAR]

**1.2.6** Any notice required or permitted by the provisions hereunder or under the contract to be given by a party to any other party, shall be written and either shall be delivered personally or mailed postage prepaid by certified mail, return receipt requested, to each other party at the address and to the person designated by each party in the contract. No other method of notice shall be effective. If notice is given by mail, it shall be effective one business day following the date it is mailed. If notice is hand delivered, it shall be effective upon receipt. Any change of address of either of the parties shall be effective upon receipt of written notice of such change by the other party.

**1.2.7** If any term, condition, provision, covenant or agreement of the terms hereunder or under the contract or the application thereof to any person or circumstance is rendered or held invalid, illegal or unenforceable under the laws of the State of Hawaii or the United States of America, such part of the terms hereunder or under the contract as shall have been rendered or held to be invalid, illegal or unenforceable shall not affect the validity of the terms hereunder or under the contract as a whole or the remainder of the terms hereunder or under the contract and the application of such part to other persons and circumstances, but shall be given effect and enforced without such part to the greatest extent permitted by applicable law.

1.2.8 The provisions of this document and the contract shall be interpreted in accordance with the laws of the State of Hawaii as those laws are construed and amended from time to time.

1.2.9 The titles of headings of sections, subsections and paragraphs are intended for convenience of reference and shall not be considered as having any bearing on their interpretation.

1.2.10 All words used in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. All words used in any gender shall extend to and include all genders.

1.2.11 Managed Competition Review. All contracts executed on or after July 20, 1998 which will extend beyond June 30, 2001 (including contracts which have initial terms ending before June 30, 2001, with options to extend beyond June 30, 2001) will be subject to the Managed Competition Review, as defined below.

During its term, the contract shall be subject to a single review by the City pursuant to the managed process for public-private competition to be developed under Part III, Section 6 of Act 230, Session Laws of Hawaii 1998. It is the understanding of the parties that, as a result of the managed process review, the Agreement may be terminated by the City, renegotiated by mutual agreement of the parties, or continued in its current form. Any termination pursuant to this Section shall be deemed a termination for convenience.

1.2.12 Cooperation. The contractor shall cooperate and coordinate with other contractors who may be employed by the City on the same or related projects of the City, and to the extent possible, shall avoid interference therewith, and shall cooperate with the other contractors so as to avoid unnecessary delay or hindrance in the performance of their respective contracts. Any difference or conflict which may arise between the contractor and the other contractors of the City shall be resolved by the officer-in-charge, whose decision shall be final and binding.

1.2.13 Confidentiality. When dealing with the news media, the contractor is expected to be circumspect and to treat all matters falling within the scope of the contract with the utmost confidentiality. The contractor shall consult with and/or obtain the consent of the officer-in-charge prior to having conversations with or giving public interviews to the news media or any other members of the public.

## **SECTION 2 - HAWAII ADMINISTRATIVE RULES (HAR)**

The Public Procurement Code (HRS Chapter 103D) and the Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, State of Hawaii (HAR), govern the procurement of goods and services and are by reference incorporated herein and made a part of the request for proposals and contract documents.

Wherever "chief procurement officer" appears in the HAR, for the Board of Water Supply (BWS), it shall mean the Manager and Chief Engineer of the BWS, for all others it shall mean the Director of Budget and Fiscal Services.

Wherever "head of the purchasing agency" and "procurement officer" appear in the HAR, both shall mean the officer-in-charge, or their authorized designees. For all agencies except the Board of Water Supply, the officer-in-charge shall have authority to act as specified herein.

Sections of the HAR are provided in whole or in part in these general terms and conditions for convenience only and the applicable section numbers are indicated in brackets. These provisions are not intended to relieve the contractor from the responsibility of familiarizing themselves with the HAR relating to this contract. Should any provision of these general terms and conditions be found to be inconsistent with the HAR, the provision in the HAR shall take precedent.

### SECTION 3 - AWARD AND EXECUTION OF CONTRACT

**3.1 AWARD OF CONTRACT.** The contractor, upon being selected to render the services for the project, will be notified of its commission by the officer-in-charge. Said notice shall not be construed to be authorization to proceed with the performance of services under the contract.

#### **3.2 EXECUTION OF CONTRACT**

**3.2.1** If the contractor is an individual, or partnership, the contractor shall cause the contract to be signed before a notary public duly acknowledged. If the contractor is a corporation, or if the joint venture is made up of two or more corporations, the contractor shall cause the contract to be signed and sealed before a notary public who shall acknowledge the person(s) signing, their titles, and shall affix thereto their corporate resolution, or other instrument vesting such officer with authority to sign the contract on their behalf.

**3.2.2** If performance and payment bonds are required in the solicitation or contract, such documents shall be executed in the same manner above.

**3.2.3** The signed contract, bonds, if any bonds are required, shall be returned together with evidence of insurance coverages as may be required, to the officer-in-charge for further processing, within ten days after notification of award.

**3.3 CONTRACT NOT BINDING UNLESS PROPERLY EXECUTED AND APPROPRIATION AVAILABLE.** The contract shall not be binding or of any force and effect without an endorsement by the Director of Budget and Fiscal Services that there is an appropriation or balance of an appropriation over and above all outstanding contracts sufficient to cover the amount required by the contract.

**3.3.1** Exceptions to the certification of funds required above are:

- (1) If a contract is a multi-term contract pursuant to section 3-122-149, HAR, the Director of Budget and Fiscal Services shall only be required to certify that there is an appropriation or balance of an appropriation over and above all outstanding contracts that is sufficient to cover the amount required to be paid under the contract during the current fiscal year or remaining portion of the current fiscal year of the first term of the multi-term contract. Payment and performance obligations for succeeding fiscal periods shall be subject to the availability and appropriation of funds therefore from sources which are identified in writing;
- (2) If the contract is one under which the total amount to be paid to the contractor cannot be accurately estimated at the time the contract is to be awarded; and

- (3) If there is no direct expenditure of public funds from the City to the contractor.
- (4) Certification of a portion of the total funds required for a contract may be permitted when an immediate solicitation will result in significantly more favorable contract terms and conditions to the City than a solicitation made at a later date; provided that certification for partial funding shall be permitted only if the Director of Budget and Fiscal Services states in the certificate that the availability of funds in excess of the amount certified as available shall be contingent upon future appropriations or special fund revenues. All contracts partially funded shall be enforceable only to the extent to which funds have been certified as available.

3.3.2 Contracts involving federal funds. Unless otherwise specified in the solicitation, for any contract supplemented by federal funds or receiving one hundred per cent federal funds, payment shall be made upon receipt of federal funds. The obligation of the City shall extend only to that portion of funds certified to and payable out of City funds. [3-122-102; 3-122-103, HAR]

**3.4 COMMENCEMENT OF WORK.** Work shall not commence until a contract has been executed and availability of funds certified by the Director of Budget and Fiscal Services, and the officer-in-charge has issued a written notice to proceed or the executed contract specifies the official commencement for services to begin.

## **SECTION 4 - LEGAL RELATIONS AND RESPONSIBILITY**

### **4.1 INDEPENDENT CONTRACTOR**

4.1.1 The contractor shall perform the work as an independent contractor and shall indemnify and hold harmless the City, its departments, and all of their officers, employees or agents, from any and all deaths, injuries, losses and damages to persons or property, and any and all claims, demands, suits, action and liability therefor including reasonable attorney fees and cost of defense, caused by error, omissions or negligence in the performance of the contract by the contractor or the contractor's subcontractors, agents and employees and this requirement shall survive the termination of contract..

The contractor is an independent contractor and shall not be deemed to be an agent, servant, representative or employee of the City. The contract shall not be construed to create a partnership or joint venture between the City and the contractor.

4.1.2 Laws, regulations. The contractor shall keep itself fully informed of all laws, ordinances, codes, rules and regulations, governmental general and development plans, setback limitations, rights-of-way, and all changes thereto, which in any manner affect the contract and the performance thereof. The contractor shall comply with all such laws, ordinances, codes, rules and regulations, governmental general and development plans, setback limitations, rights-of-way, including the giving of all notices necessary and incident to the proper and lawful prosecution of the work, and all changes thereto. If any discrepancy or inconsistency is discovered between the contract and any such law, ordinance, code, rule, regulation, design standard, design criterion, governmental general and development plans, setback limitation, rights-of-way, the contractor shall forthwith report the same in writing to the officer-in-charge.

### **4.2 COPYRIGHT OR PATENT**

4.2.1 If the contractor is required or desires to use any design, device, material or process covered by letters of patent or copyright, the right for such use shall be procured by the contractor from the patentee or owner. The contractor shall indemnify and hold harmless the City and its departments, from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or copyright in connection with the work to be performed under the contract, and shall indemnify the City and its departments, and all of their officers, employees or agents, for any costs, expenses and damages which it may be obliged to pay by reason of any such infringement at any time during the prosecution or after the completion of the work.

4.2.2 The City shall have an unrestricted, royalty-free, nonexclusive and irrevocable license to reproduce, publish, translate or otherwise use and to authorize others to publish and use all materials obtained or produced in connection with the work hereunder which may be copyrighted by the contractor prior to the completion of the contract.

### 4.3 INSURANCE

4.3.1 Unless otherwise specified in contract documents, the contractor shall procure or cause to be procured and maintain (as provided herein), at no cost to the City, during the life of this contract and any extensions thereof, all insurance to cover the operations under this contract, that may be required under the laws, ordinances or regulations of any governmental authority, including but not limited to the coverages below. The contractor shall either include all tiers of subcontractors, if any, under the policies required under paragraphs 2 through 4, to the extent permitted by law, or shall require all subcontractors to maintain coverages described in paragraphs 1 through 4.

1. Workers Compensation and Employers Liability Insurance. Contractor shall maintain workers compensation and employers liability insurance. Workers compensation coverage shall be in accordance with State statutes. Employers liability coverage shall provide limits of not less than \$100,000 each accident for bodily injury by accident or \$100,000 each employee, \$100,000 aggregate, for bodily injury by disease.
2. Commercial General and Umbrella Liability Insurance . Contractor shall maintain commercial general liability (CGL) and if necessary commercial umbrella insurance with a limit of not less than \$1,000,000 each occurrence, and general aggregate. CGL insurance shall be written on ISO occurrence form, CG 00 01 (or a substitute form providing equivalent coverage), and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). The City shall be included as an additional insured under the CGL, using ISO additional insured endorsement CG 20 10 (or equivalent), and under the commercial umbrella, if any. The policy(ies) shall contain a waiver of subrogation in favor of the City.
3. Business Automobile and Umbrella Liability Insurance . Contractor shall maintain business auto liability (including no-fault coverage) and if necessary, commercial umbrella liability insurance with a limit of not less than \$1,000,000 each accident. Such insurance shall cover liability arising out of any auto (including owned, hired, and non-owned autos) used by contractor in the performance of this contract. Business auto coverage shall be written on ISO form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage.

4. Professional Liability Insurance . The contractor shall maintain professional liability insurance with limits of not less than \$1,000,000 per claim/annual aggregate, covering the contractor, the contractor's employees or agents for liability arising out of errors, omissions, or negligence in the performance of professional services under the contract. Such insurance shall remain in full force and effect continuously for the period of design and construction of the work, and for a period of 1 year following substantial completion of construction, provided that such coverage is reasonably available at commercially affordable premiums, as mutually determined and agreed.

**4.3.2** The insurance specified above shall:

1. Provide that such insurance is primary coverage with respect to all insureds for claims arising from contractor's negligent acts and/or omissions or misconduct; and that any insurance (or self-insurance) carried by the City shall be excess and non-contributing;
2. Contain a standard Cross Liability endorsement providing that the insurance applies separately to each insured, applicable to policies specified in 4.3.1.2 and 4.3.1.3 above;
3. Not be terminated, canceled, not renewed or substantially changed without THIRTY (30) DAYS prior written notice to the City, except for non-payment of premium;
4. Except for Professional Liability insurance required in 4.3.1.4 above, be written on an "Occurrence" form of policy, unless otherwise specifically approved by the City.
5. Be provided by insurers authorized to do business in the State of Hawaii, and with a current Best's rating of not less than A-, or otherwise as approved by the City;

**4.3.3** Certificate of insurance:

1. The contractor will provide and thereafter maintain current and renewal certificates of insurance, prepared by a duly authorized agent, or if requested, copies of the policies, evidencing the insurance in effect at all times during the term of this contract as required herein to the City.
2. Certificates shall clearly identify the project by name and/or contract number.
3. Certificates shall show the Certificate Holder as the City and County of Honolulu, and be delivered to the Director of Budget and Fiscal Services, 530 South King Street, Honolulu, Hawaii 96813.

## **SECTION 5 - MODIFICATIONS**

**5.1 MODIFICATIONS OF CONTRACTS.** The City may at any time make such modifications in the contract, and the services, designs and plans, or studies prepared by the contractor as the officer-in-charge deems necessary and advisable. Such modifications shall be made by a supplemental agreement in writing or by a written order of the Director of Budget and Fiscal Services; provided that modifications by such a written order shall be limited to modifications in the scope of

services and in the designs, plans and studies; and provided further that modifications involving no reduction or increase in compensation of the contractor may be made by written order of the officer-in-charge.

**5.1.1 Change order.** (a) The officer-in-charge, with the approval of the Director of Budget and Fiscal Services, may at any time, and without notice to any surety, unilaterally, order of the contractor:

- (1) Changes in the work within the scope of the contract; and
- (2) Changes in the time of performance of the contract that do not alter the scope of the contract work.

(b) If any change order increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under the contract, an adjustment shall be made and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined, where applicable, in accordance with subsection 5.2, Price adjustment, or as negotiated. Failure of the parties to agree to an adjustment shall not excuse the contractor from proceeding with the contract as changed, provided that the officer-in-charge promptly and duly makes the provisional adjustments in payment or time for the direct costs of the work as the City deems reasonable. The right of the contractor to dispute the contract price or time or both shall not be waived by its performing the work, provided however, that it follows the written notice requirements for disputes and claims established by the contract or these provisions.

(c) *Within ten days* after receipt of a written change order, unless the period is extended by the officer-in-charge in writing, the contractor shall respond with a claim for an adjustment. The requirement for a timely written response cannot be waived and shall be a condition precedent to the assertion of a claim.

(d) Claim barred after final payment. No claim by the contractor for an adjustment hereunder shall be allowed if written response is not given prior to final payment under the contract.

(e) Claims not barred. In the absence of a change order, nothing in this subsection shall be deemed to restrict the contractor's right to pursue a claim under the contract or for breach of contract. [3-125-2, HAR]

**5.1.2 Modifications.** (a) By written order, the officer-in-charge, with the approval of the Director of Budget and Fiscal Services, may at any time, and without notice to any surety, subject to mutual agreement of the parties to the contract and all appropriate adjustments, make modifications within the general scope of the contract to include any one or more of the following:

- (1) Drawings, designs, or specifications, for the goods to be furnished;
- (2) Method of shipment or packing;
- (3) Place of delivery;
- (4) Description of services to be performed;
- (5) Time of performance (i.e., hours of the day, days of the week, etc.);

- (6) Place of performance of the services; or
- (7) Other provisions of the contract accomplished by mutual action of the parties to the contract.

(b) If any modification increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under the contract, an adjustment shall be made and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined, where applicable, in accordance with subsection 5.2, Price adjustment or as negotiated.

(c) Claim barred after final payment. No claim by the contractor for an adjustment hereunder shall be allowed if written agreement of modification is not made prior to final payment under the contract.

(d) Claims not barred. In the absence of a contract modification, nothing in this subsection shall restrict the contractor's right to pursue a claim arising under the contract or for breach of contract. [3-125-3, HAR]

**5.1.3** Variations in definite quantities. Upon the agreement of the parties, the quantity of goods or services or both specified in the contract may be increased by a maximum of ten percent provided the unit prices will remain the same except for any price adjustments otherwise applicable and the officer-in-charge makes a written determination that such an increase will either be more economical than awarding another contract or that it would not be practical to award another contract. [3-125-8, HAR]

**5.1.4** Order to stop work. (a) The officer-in-charge may, with the approval of the Director of Budget and Fiscal Services, by written order to the contractor, at any time, and without notice to any surety, require the contractor to stop all or any part of the work called for by the contract. ***This order shall be for a specified period not exceeding sixty days*** after the order is delivered to the contractor, unless the parties agree to any further period. Any order shall be identified specifically as a stop work order issued pursuant to this subsection. Upon receipt of an order, the contractor shall forthwith comply with its terms and take all reasonable steps to minimize the occurrence of costs allocable to the work covered by the order during the period of work stoppage. Before the stop work order expires, or within any further period to which the parties shall have agreed, the officer-in-charge, with the approval of the Director of Budget and Fiscal Services, shall either:

- (1) Cancel the stop work order, or
- (2) Terminate the work covered by the order as provided in subsection 9.2, Termination for default, or subsection 9.3, Termination for convenience.

(b) Cancellation or expiration of the order. If a stop work order issued under this subsection is canceled at any time during the period specified in the order, or if the period of the order or any extension thereof expires, the contractor shall have the right to resume work. An appropriate adjustment shall be made in the delivery schedule or contract price, or both, and the contract shall be modified in writing accordingly, if:

- (1) The stop work order results in an increase in the time required for, or in the contractor's cost properly allocable to, the performance of any part of the contract; and

- (2) The contractor asserts a claim for such an adjustment *within thirty days* after the end of the period of work stoppage; provided that, if the officer-in-charge decides that the facts justify such action, any claim asserted may be received and acted upon at any time prior to final payment under the contract.

(c) Termination of stopped work. If a stop work order is not canceled and the work covered by the order is terminated for default or convenience, the reasonable costs resulting from the stop work order shall be allowable by adjustment or otherwise.

(d) Adjustment of price. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with subsection 5.2, Price adjustment. [3-125-6, HAR]

**5.2 PRICE ADJUSTMENT.** Any adjustment in contract price pursuant to a clause in the contract shall be made in one or more of the following ways:

- (1) By agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
- (2) By unit prices specified in the contract or subsequently agreed upon;
- (3) By the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as specified in the contract or subsequently agreed upon;
- (4) In such other manner as the parties may mutually agree; or
- (5) In the absence of agreement between the parties, by a unilateral determination by the Director of Budget and Fiscal Services upon the recommendation of the officer-in-charge of the costs attributable to the event or situation covered by the clause, plus appropriate profit or fee, all as computed by the officer-in-charge in accordance with generally accepted accounting principles and applicable sections of chapters 3-123 and 3-126, HAR.
- (6) The contractor shall provide cost or pricing data for any price adjustments subject to the provisions of chapter 3-122, subchapter 15, HAR. [3-125-12, HAR]

### **5.3 NOVATION OR CHANGE OF NAME**

**5.3.1** No assignment. No contract is transferable, or otherwise assignable, without the written consent of the Director of Budget and Fiscal Services.

**5.3.2** Recognition of a successor in interest; assignment. When in the best interest of the City, a successor in interest may be recognized in an assignment agreement in which the transferor, the transferee and the City shall agree that:

- (1) The transferee assumes all of the transferor's obligations;
- (2) The transferor remains liable for all obligations under the contract but waives all rights under the contract as against the City; and

- (3) The transferor shall continue to furnish, and the transferee shall also furnish, all required bonds.

**5.3.3** Change of name. When a contractor requests to change the name in which it holds a contract with the City, the Director of Budget and Fiscal Services shall, upon receipt of a document indicating such change of name (for example an amendment to the articles of incorporation of the corporation), enter into an agreement with the requesting contractor to effect such a change of name. The agreement changing the name shall specifically indicate that no other terms and conditions of the contract are thereby changed. [3-125-14, HAR]

**5.4 CLAIMS BASED ON THE OFFICER-IN-CHARGE'S ACTIONS OR OMISSIONS.**

(a) If any action or omission on the part of an officer-in-charge or designee of such officer, requiring performance changes within the scope of the contract constitutes the basis for a claim by the contractor for additional compensation, damages, or an extension of time for completion, the contractor shall continue with performance of the contract in compliance with the directions or orders of such officials, but by so doing, the contractor shall not be deemed to have prejudiced any claim for additional compensation, damages, or an extension of time for completion; provided:

- (1) The contractor shall have given written notice to the officer-in-charge;
  - (A) *Prior to the commencement* of the work involved, if at that time the contractor knows of the occurrence of the action or omission;
  - (B) *Within thirty days after* the contractor knows of the occurrence of the action or omission, if the contractor did not have knowledge prior to the commencement of the work; or
  - (C) Within further time as may be allowed by the officer-in-charge in writing.
- (2) This notice shall state that the contractor regards the act or omission as a reason which may entitle the contractor to additional compensation, damages, or an extension of time. The officer-in-charge or designee of such officer, upon receipt of the notice may rescind the action, remedy the omission, or take other steps as may be deemed advisable in the discretion of the officer-in-charge or designee of such officer;
- (3) The notice required by paragraph (1) describes as clearly as practicable, at the time, the reasons why the contractor believes that additional compensation, damages, or an extension of time may be remedies to which the contractor is entitled; and
- (4) The contractor maintains and, upon request, makes available to the officer-in-charge within a reasonable time, detailed records to the extent practicable, of the claimed additional costs or basis for an extension of time in connection with the changes.

(b) Nothing herein contained, however, shall excuse the contractor from compliance with any rules of law precluding any City officers and any contractors from acting in collusion or bad faith in issuing or performing change orders which are clearly not within the scope of the contract.

(c) Any adjustment in the contract price made pursuant to this clause shall be determined in accordance with subsection 5.2, Price adjustment. [3-125-15, HAR]

**SECTION 6 - PERFORMANCE OF CONTRACT**

**6.1 TIME.** Time is of the essence of the contract. Performance of the services under the contract shall be commenced on the date designated in the notice to proceed or in the contract and the services as required in the contract shall be completed within the number of days or on the date specified.

**6.2 DELAY.** If any excusable delay occurs, it shall be dealt with in accordance with subsection 9.2.3, Excuse for nonperformance or delayed performance. No extension of time however, shall be granted unless the written application therefor stating in detail the cause or causes of delay is filed by the contractor with the officer-in-charge *within fifteen days* after the commencement of the delay. No such extension shall be deemed a waiver of the right of the officer-in-charge to require the completion of services under the contract within the time required herein as so extended by the specific terms of such extension or extensions, nor a waiver of right to terminate the contract for any other or additional delay not covered by the specific terms of such extension or extensions. The number of days of each extension of time shall be determined by the Director of Budget and Fiscal Services upon the recommendation of the officer-in-charge.

**6.3 EXTENSION OF TIME ON CONTRACTS.** If a contract has exhausted its provision for extension(s) of time of performance, or if the contract does not include a provision for extension(s) of time of performance, the contract may be extended upon approval of the Director of Budget and Fiscal Services, provided:

- (1) The period of each extension is for one hundred eighty calendar days or less;
- (2) The officer-in-charge makes a written determination that it is not practical to award another contract at the time of the expiration of the contract for reasons to include but be limited to the following:
  - (A) A new contract cannot be executed by the time the contract expires; or
  - (B) The need for the good or service is short term;
- (3) All parties agree to the extension of time of performance; and
- (4) The price or conditions of the contract remain the same as the original contract, or as amended per the contract; or if not the same or as amended, they are fair and reasonable.  
[3-122-3, HAR]

**6.4 PROSECUTION OF THE WORK.** The contractor shall be available upon reasonable demand to discuss the progress of the services being performed under the contract. The contractor shall also remain available through any applicable alternative means of contact, such as pager or cellular phone, in the event of an emergency or other event that necessitates immediate communication with the contractor. All questions arising during the performance of the contract which must be resolved by the officer-in-charge shall be brought to the officer-in-charge's immediate attention.

The contractor shall direct its work to relate appropriately to, and in accordance with, established principles, practices and standards for such work. The contractor shall direct its work to relate appropriately to, and in accordance with, established engineering, planning and/or architectural design principles and practices for good exterior appearance, and the natural and man-made environment.

The contractor shall furnish sufficient technical supervision and administrative personnel to insure the proper performance of the services under the contract.

The contractor shall be responsible for the accuracy of all computations and completeness of all studies, designs and plans.

All notes, deliverables, plans, specifications, calculations, field notes, and other data produced in the performance of the contract shall be the property of the City.

The officer-in-charge shall have access, at all reasonable times, to all notes, designs, drawings, tracings or other technical data pertaining to the services being performed under the contract for the purpose of inspection and making copies of them. Upon completion of the services under the contract, any or all of such notes, studies, designs, drawings, tracings or other technical data shall be delivered and surrendered to the officer-in-charge on demand, provided that copies of notes, studies and other technical data may be delivered and surrendered instead of the originals.

**6.5 AUTHORITY OF THE OFFICER-IN-CHARGE AND DIRECTOR OF BUDGET AND FISCAL SERVICES.** The decisions of the officer-in-charge shall be final and binding upon parties unless the same is fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith or is not supported by substantial evidence, provided that decisions on questions or disputes relating to the acceptance of the services performed under the contract, suspension or termination of the contract, extension of time, reduction or increase in the compensation of the contractor and payment shall become final and binding upon all parties only upon approval of the Director of Budget and Fiscal Services, and provided further that nothing herein shall be construed as making final and binding any decision of the officer-in-charge and/or Director of Budget and Fiscal Services on a question of law. Pending final decision of any dispute or question, the contractor shall proceed diligently with the performance of services under the contract in accordance with the decision of the officer-in-charge and/or Director of Budget and Fiscal Services.

**6.6 LIQUIDATED DAMAGES.** The amount of damage to the City as a result of failure to complete performance of specified services under the contract within the time fixed or any extension thereof, exclusive of overhead expenses, being certain but difficult, if not impossible to ascertain, the contractor agrees to pay the sum stated in the contract as liquidated damages, and not by way of penalty, for every calendar day of delay until the services are completed and accepted, or a reasonable time has expired for completion and acceptance of the services remaining to be performed.

When the contractor is given notice of delay or nonperformance as specified in subsection 9.2, Termination for default, and fails to cure in the time it is agreed specified, the contractor shall pay to the City the amount specified in the contract per calendar day from the date set for cure until either the officer-in-charge reasonably obtains similar goods or services if the contractor is terminated for default, or until the contractor provides the goods or services if the contractor is not terminated for default. To the extent that the contractor's delay or nonperformance is excused under 9.2.3, Excuse for nonperformance or delayed performance of the termination for default clause, liquidated damages shall not be due the City. The contractor remains liable for damages caused other than by delay. [3-125-19, HAR]

**6.7 SUBCONTRACTING.** The contractor shall not subcontract all or any part of the services under the contract without the prior written consent of the officer-in-charge. Any consent by the officer-in-charge to subcontract or otherwise dispose of any portion of the contract shall not be construed to relieve the contractor of any responsibility for the performance of the contract.

## **SECTION 7 - SERVICES TO BE PERFORMED BY THE CITY**

**7.1 COOPERATION BY THE CITY.** The City shall, without cost to the contractor, through the officer-in-charge, cooperate fully with the contractor and will promptly place at the disposal of the contractor all available pertinent information which the City may have in its possession. The officer-in-charge will certify to the accuracy of certain information in writing whenever it is possible to do so. The officer-in-charge does not represent that other information not certified as accurate is so and takes no responsibility therefor, and the contractor shall rely on such information at the contractor's own risk.

**7.2 REVIEW BY THE OFFICER-IN-CHARGE.** The officer-in-charge shall review all submittals and other work and data required to be made by the contractor and reject or approve such submittals in their entirety or approve the same subject to such deletions, additions and revisions as the officer-in-charge may deem necessary and proper. In submittals specified in the special provisions, all items not required by the contractor to be deleted, added, or revised after review by the contractor and not defective by reason or error, omissions or negligence on the part of the contractor, his subcontractor, agents or employees shall be deemed to have been approved.

## **SECTION 8 - COMPENSATION**

**8.1 COMPENSATION.** The contractor shall be paid the amount stated in the contract or the amount determined in accordance with the special provisions, whichever is lower, as full compensation for the performance of the services under the contract.

**8.2 PROGRESS PAYMENT.** The contractor's compensation shall be paid as set forth in the contract.

**8.3 ACCEPTANCE AND FINAL PAYMENT.** The officer-in-charge shall approve and accept completion of the contract upon the satisfactory fulfillment of the terms of the contract and receipt of a certificate from the State Director of Taxation and the Internal Revenue Service, as provided in section 103-53, HRS, relating to prerequisite for final settlement of contracts, provided that final payment will be made upon approval of the Director of Budget and Fiscal Services. The tax clearances required at final settlement of a contract shall be on an original certificate or certified copy and valid for a period of 6 months from the later date stamped on the form, provided that the contractor does not delay in obtaining clearance from both agencies.

**8.3.1** In the event equipment is provided under the contract, which received prior approval from the Director of Budget and Fiscal Services, the contractor shall also provide a written list of equipment installed or provided, listing the description, make, model, serial number, cost, and location of the equipment or room number in which the equipment is located.

For purposes of this subsection, "equipment" means any item such as a water heater that can be removed with a hand tool, or like an air conditioner, is capable of being moved or transferred to another location and is accessible to tagging with an identification number.

**8.3.2** Acceptance by the contractor of the final payment shall constitute payment in full for all services performed under the contract.

**8.4 AUTHORITY TO WITHHOLD MONEY DUE OR PAYABLE.** The officer-in-charge may withhold such amounts from the money due or to become payable under the contract to the contractor, or any assignee under subsection 5.3, Novation or change of name, as may be necessary to protect the City against liability or to satisfy the obligations of the contractor to the City, State Department of Taxation, Internal Revenue Service, and to employees, subcontractors and material suppliers who have performed labor or furnished material and equipment under the contract and may make such payments from such amounts as may be necessary to discharge such obligations and protect the City.

**8.5 RETAINAGE.** In accordance with HRS 103-32.1, the officer-in-charge may determine the need for retainage of a portion of the monthly payments to the contractor or payments made upon completion of phases of the contract to insure the proper performance of the contract; provided that the sum withheld shall not exceed five per cent of the amount due the contractor and that after fifty per cent of the contract is completed and progress is satisfactory, no additional sum shall be withheld; provided further that if progress is not satisfactory, the officer-in-charge may continue to withhold as retainage, sums not exceeding five per cent of the amount due the contractor.

For federally funded contracts, the amount of retainage shall be the amount allowed by federal regulations.

**8.6 PROMPT PAYMENT TO SUBCONTRACTORS.**

- (1) Any money, other than retainage, paid to a contractor shall be dispersed to subcontractors within ten days after receipt of the money in accordance with the terms of the subcontract; provided that the subcontractor has met all the terms and conditions of the subcontract and there are no bona fide disputes; and
- (2) Upon final payment to the contractor, full payment to the subcontractor, including retainage, shall be made within ten days after receipt of the money; provided that there are no bona fide disputes over the subcontractor's performance under the subcontract. [3-125-23, HAR]

**8.7 PAYMENT FOR REIMBURSABLE EXPENSES.**

Payment requests for all reimbursable expenses shall be accompanied and supported by receipted invoices for all charges. The City must approve of all reimbursable expenses in writing. Payment for reimbursable items shall be made for allowable costs in accordance with the Hawaii Administrative Rules, Title 3, Department of Accounting and General Services, Chapter 3-122, Subchapter 15, cost or pricing data, and Chapter 3-123, cost principles.

Reimbursable amounts stated in the contract shall not be exceeded without a contract amendment. Any balance remaining from the reimbursable expense funds at the completion of the Agreement shall revert to the City.

**SECTION 9 - TERMINATION OF CONTRACTS**

**9.1 RIGHT OF THE CITY TO TERMINATE.** The City shall have the right to suspend performance of the services under the contract or terminate the contract in whole or in part at any time by written notice to the contractor. If the termination is for reasons other than default of the contractor as provided in subsection 9.2, the contractor shall be compensated in accordance with subsection 9.3, Termination for convenience.

**9.2 TERMINATION FOR DEFAULT.** If the contractor refuses or fails to perform any of the provisions of the contract with such diligence as will ensure its completion within the time specified in the contract, or any extension thereof, otherwise fails to timely satisfy the contract provisions, or commits any other substantial breach of the contract, the officer-in-charge may notify the contractor in writing of the delay or nonperformance, and *if not cured in ten days* or any longer time specified in writing by the officer-in-charge, the officer-in-charge may, with the approval of the Director of Budget and Fiscal Services, terminate the contractor's right to proceed with the contract or a part of the contract as to which there has been delay or other breach of contract. In the event of termination in whole or in part, the Director of Budget and Fiscal Services may procure similar goods or services in a manner and upon terms deemed appropriate by the Director of Budget and Fiscal Services. The contractor shall continue performance of the contract to the extent it is not terminated and shall be liable for excess costs incurred in procuring similar goods or services.

Notwithstanding the above, in the event the contract is terminated, in whole or in part, by the City as the result of a default by the contractor, the City may secure, on any terms and in any manner that the City deems appropriate, supplies, materials, equipment and/or services similar to those required under the work terminated. The contractor shall be liable to the City for any excess costs for such similar supplies, materials, equipment and/or services, and the City may withhold and apply any monies due or to become due to the contractor under the contract for the completion of the work and/or for the payment of an additional contractor or contractors. This provision shall survive the termination of the contract. In case an additional contract or contracts let after such termination for default are let in an amount or amounts in excess of the amount remaining available for the contract in the hands of the City, free from all claims by laborers or material providers for work performed or materials furnished for the contract prior to the termination for default or any deductions authorized by the terms hereunder or the contract in favor of the City, then the contractor shall deposit, within ten (10) days from the receipt of each notice of any such reletting, to the credit of the City, solely for the prosecution and completion of the work, a sum of money equal to such excess; and in case the City desires to complete the work in any other manner than by contract, then the contractor shall deposit within ten (10) days from the receipt of each notice of the final completion of the work, to the credit of the City, the amount of any excess cost occasioned by such completion over the amount available under the contract in the hands of the City, free from all claims or deductions as aforesaid, all without prejudice to any other or additional rights or remedies the City may have against the contractor under the terms hereunder or the contract or under any applicable law, statute, ordinance, rule, regulation or other standard or requirement.

**9.2.1 Contractor's duties.** Notwithstanding termination of the contract and subject to any directions from the Director of Budget and Fiscal Services or the officer-in-charge, the contractor shall take timely and necessary action to protect and preserve property in the possession of the contractor in which the City has an interest.

**9.2.2 Compensation.** Payment for completed goods delivered and accepted by the City shall be at the contract price. Payment for the protection and preservation of property shall be in an amount agreed upon by the contractor and the officer-in-charge; if the parties fail to agree, the Director of Budget and Fiscal Services, upon recommendation of the officer-in-charge, shall set an amount subject

to the contractor's rights under chapter 3-126, HAR. The City may withhold from amounts due the contractor as the Director of Budget and Fiscal Services deems to be necessary to protect the City against loss because of outstanding liens or claims of former lien holders and to reimburse the City for the excess costs incurred in procuring similar goods and services.

**9.2.3 Excuse for nonperformance or delayed performance.** Except with respect to defaults of subcontractors, the contractor shall not be in default by reason of any failure in performance of the contract in accordance with its terms, if the contractor has notified the officer-in-charge *within fifteen days* after the cause of the delay and the failure arises out of causes including but not limited to: acts of God; acts of the public enemy; acts of the City and any other governmental body in its sovereign or contractual capacity; fires; floods; epidemics; quarantine restrictions; strikes or other labor disputes; freight embargoes; or unusually severe weather. If the failure to perform is caused by the failure of a subcontractor to perform or to make progress, and if the failure arises out of causes similar to those set forth above, the contractor shall not be deemed to be in default, unless the goods or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the contractor to meet the contract requirements.

Upon request of the contractor, the officer-in-charge shall ascertain the facts and extent of the failure, and, if the officer-in-charge determines that any failure to perform was occasioned by any one or more of the excusable causes, and that, but for the excusable cause, the contractor's progress and performance would have met the terms of the contract, the completion date or delivery schedule shall be revised accordingly, subject to the rights of the City under subsection 9.3, Termination for convenience. As used in this paragraph, the term "subcontractor" means subcontractor or subconsultant at any tier.

**9.2.4 Additional rights and remedies.** The rights and remedies provided in this clause are in addition to any other rights and remedies provided by law. [3-125-17, HAR]

**9.3 TERMINATION FOR CONVENIENCE.** The Director of Budget and Fiscal Services may, upon recommendation of the officer-in-charge, when the interests of the City so require, terminate the contract in whole or in part, for the convenience of the City. The Director of Budget and Fiscal Services shall give written notice of the termination to the contractor specifying the part of the contract terminated and when termination becomes effective.

**9.3.1 Contractor's obligations.** The contractor shall incur no further obligations in connection with the terminated work and on the dates set in the notice of termination the contractor will stop work to the extent specified. The contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work subject to the City's approval. The contractor may be directed to assign the contractor's right, title, and interest under terminated orders or subcontracts to the City. The contractor must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.

**9.3.2 Right to goods.**

- (1) The contractor may be required to transfer title and deliver to the City in the manner and to the extent directed by the officer-in-charge or the Director of Budget and Fiscal Services: any completed goods; and the partially completed goods and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights, hereinafter

called "manufacturing material," as the contractor has specifically produced or specially acquired for the performance of the terminated part of the contract.

- (2) The contractor shall, upon direction of the officer-in-charge, protect and preserve property in the possession of the contractor in which the City has an interest. If the officer-in-charge does not exercise this right, the contractor shall use the contractor's best efforts to sell such goods and manufacturing materials. Use of this section in no way implies that the City has breached the contract by exercise of the termination for convenience clause.

### 9.3.3 Compensation

- (1) The contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data to the extent required by subchapter 15, chapter 3-122, HAR, bearing on such claim. If the contractor fails to file a termination claim *within one year* from the effective date of termination, payment may be made to the contractor, if at all, in accordance with paragraph (3) below.
- (2) A settlement may be agreed to by both parties provided the contractor has filed a termination claim supported by cost or pricing data to the extent required by subchapter 15, chapter 3-122, HAR, and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the City, the proceeds of any sales of goods and manufacturing materials under paragraph 9.3.2, Right to goods, and the contract price of the work not terminated.
- (3) Absent complete agreement under paragraph (2), the contractor shall be paid the following amounts, provided payments agreed to under paragraph (2) shall not duplicate payments under this paragraph for the following:
  - (A) Contract prices for goods or services accepted under the contract;
  - (B) Costs incurred in preparing to perform and performing the terminated portion of the work plus a five percent markup on actual direct costs on such portion of the work, the markup shall not include anticipatory profit or consequential damages, less amounts paid or to be paid for accepted goods or services; provided that if it appears that the contractor would have sustained a loss if the entire contract would have been completed, no markup shall be allowed or included and the amount of compensation shall be reduced to reflect the anticipated rate of loss;
  - (C) Subject to the prior approval of the Director of Budget and Fiscal Services the costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to paragraph 9.3.1, contractor's obligations. Subcontractors shall be entitled to a markup of no more than ten percent on direct costs incurred to the date of termination. These costs must not include costs paid in accordance with subparagraph (3)(B).
  - (D) The total sum to be paid the contractor under this paragraph shall not exceed the total contract price reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under subsection 9.3.2, Right to goods, and the contract price of work not terminated.

- (4) Cost claimed, agreed to, or established under paragraphs (2) and (3) shall be in accordance with Chapter 3-123, HAR. [3-125-21, HAR]

## **SECTION 10 - DISPUTES ON CONTRACT AND BREACH OF CONTRACT CONTROVERSIES.**

**10.1 FINAL DECISION.** (a) When a controversy cannot be resolved by mutual agreement between the officer-in-charge and the contractor, the Director of Budget and Fiscal Services shall, upon recommendation by the officer-in-charge, after written request by the contractor for a final decision, promptly issue a written decision.

(b) Any such decision shall be final and conclusive, unless fraudulent, or unless the contractor brings an action seeking judicial review of the decision in a circuit court of this State *within the six months* from the date of receipt of the decision.

**10.1.1** The Director of Budget and Fiscal Services shall issue a written decision within the following time limitations:

- (1) For claims not exceeding fifty thousand dollars: *ninety calendar days* after receipt of the claim.
- (2) For claims exceeding fifty thousand dollars: *ninety calendar days* after receipt of the claim; provided that if a decision is not issued within ninety calendar days, the Director of Budget and Fiscal Services shall notify the contractor of the time within which a decision will be made.

If the Director of Budget and Fiscal Services fails to issue a decision on a claim not exceeding fifty thousand dollars within ninety calendar days after receipt, or does not issue a decision within the time promised for a claim in excess of fifty thousand dollars, the contractor may proceed as if an adverse decision had been received.

**10.2 PAYMENT.** The amount determined payable pursuant to the decision, less any portion already paid, normally should be paid without awaiting contractor action concerning appeal. Such payments shall be without prejudice to the rights of either party and where such payments are required to be returned by a subsequent decision, interest on such payments shall be paid at the statutory rate from the date of payment.

**10.3 CLAIMS AGAINST THE CONTRACTOR.** All controversies involving claims asserted by the City against a contractor which cannot be resolved by mutual agreement shall be the subject of a decision by the Director of Budget and Fiscal Services, upon recommendation by the officer-in-charge. [3-126-29, HAR]

**10.4 CONTINUED PERFORMANCE OF THE CONTRACT.** The contractor shall comply with any decision of the Director of Budget and Fiscal Services and proceed diligently with performance of the contract pending final resolution by a circuit court of this State of any controversy arising under, or by virtue of, the contract, except where there has been a material breach of contract by the City; provided that in any event the contractor shall proceed diligently with the performance of the contract where the Director of Budget and Fiscal Services has made a written determination that

continuation of work under the contract is essential to the public health and safety. [3-126-28, 3-126-29, 3-126-31, HAR]

**10.5 REMEDIES.** Any dispute arising under or out of the contract is subject to chapter 3-126, HAR. The procedures and remedies provided for shall be the exclusive means available for persons aggrieved in connection with the solicitation or award of a contract, a suspension or debarment proceeding, or in connection with a contract controversy, to resolve their claims or differences. The contested case proceedings set out in chapter 91, HRS, shall not apply to protested solicitations and awards, debarments or suspensions, or the resolution of contract controversies. [HRS 103D-704]

## **SECTION 11 - COST OR PRICING DATA**

**11.1 COST OR PRICING DATA.** Pursuant to chapter 3-122, subchapter 15, HAR, cost or pricing data may be required as determined by the officer-in-charge or by chapter 3-122, subchapter 15, HAR, along with the certification of current cost or pricing data, substantially in the form attached hereto as Exhibit "A".

**11.1.1** Cost and pricing data means all facts as of the date of price agreement that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental, and are therefore verifiable. While they do not indicate the accuracy of a prospective contractor's judgment about future costs or projections, they do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all facts that can reasonably be expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred. They also include such factors as:

- (1) Vendor quotations;
- (2) Nonrecurring costs;
- (3) Information on changes in production methods and in production or purchasing volume;
- (4) Data supporting projections of business prospects and objectives and related operations costs;
- (5) Unit cost trends such as those associated with labor efficiency;
- (6) Make or buy decisions;
- (7) Labor union contract negotiations; and
- (8) Information on management decisions that could have a significant bearing on costs.

**11.1.2** When cost or pricing data are required, they shall be submitted to the officer-in-charge prior to beginning price negotiations at any reasonable time and in any reasonable manner prescribed by the officer-in-charge. Such data shall either be actually submitted or specifically identified in writing. The contractor is required to keep such submission current until the negotiations are concluded.

The contractor shall provide written certification as soon as practicable after agreement is reached on price that the cost or pricing data submitted are accurate, complete, and current as of the date of reaching agreement on price.

**11.1.3** If a prospective contractor refuses to supply the required data, the Director of Budget and Fiscal Services, upon recommendation of the officer-in-charge, shall determine in writing whether to disqualify the noncomplying contractor, to defer award pending further investigation, or to enter into the contract. If, after award, a contractor refuses to supply the required data, the officer-in-charge shall determine in writing whether to further investigate the price adjustment, not to allow any price adjustment, or to set the amount of the price adjustment, subject to the contractor's rights under chapter 3-126, HAR.

The certificate of cost or pricing data is not to be construed as a representation as to the accuracy of the contractor's judgment on the estimated portion of future costs or projections. It does, however, constitute a representation as to the accuracy of the data upon which the contractor's judgment is based.

The exercise of an option at the price established in the initial negotiation in which certified cost or pricing data were used does not require recertification or further submission of data.

**11.1.4** If certified cost or pricing data are subsequently found to have been inaccurate, incomplete, or not current as of the date stated in the certificate, the City is entitled to an adjustment of the contract price, including profit or fee, to exclude any significant sum by which the price, including profit or fee, was increased because of the defective data. It is presumed that overstated cost or pricing data increased the contract price in the amount of the defect plus related overhead and profit or fee. Therefore, unless there is a clear indication that the defective data were not used or relied upon, the price should be reduced in such amount.

In determining the amount of a downward adjustment, the contractor shall be entitled to an offsetting adjustment of any understated cost or pricing data submitted in support of price negotiations for the same pricing action up to the amount of the City's claims for overstated cost or pricing data arising out of the same pricing action.

**11.1.5** If the contractor and the officer-in-charge cannot agree as to the existence of defective cost or pricing data or amount of adjustment due to defective cost or pricing data, the officer-in-charge shall set an amount in accordance with provisions of this section and the contractor may appeal this decision as a contract controversy under chapter 3-126, HAR.

## **SECTION 12 - SEXUAL HARASSMENT POLICY**

**12.1 GENERAL.** The contractor must comply with Revised Ordinances of Honolulu (ROH) section 1-18, on sexual harassment. The contractor shall have and enforce a policy prohibiting sexual harassment. The contractor's sexual harassment policy must set forth the same or greater protection than those contained or required by the ordinance. Section 1-18, ROH is on file and available for viewing in the Purchasing Division. Contractors needing a copy must pick up the copy from the Office of the City Clerk, Room 203, City Hall, 530 South King Street, Honolulu, Hawaii.

**12.1.1** The ordinance is applicable to the employer's business and includes:

- (1) Prohibitions against an officer's or employee's sexual harassment of the following:
  - (a) Another officer or employee of the employer;
  - (b) An individual under consideration for employment with the employer; or
  - (c) An individual doing business with the employer;
- (2) A provision prohibiting a management or supervisory officer or employee from knowingly permitting a subordinate officer or employee to engage in the sexual harassment prohibited under paragraph (1) above;
- (3) A prohibition against retaliation towards an officer, employee, or individual who has complained of sexual harassment, conducted an investigation of a complaint, or acted as a witness during an investigation of a complaint;
- (4) A prohibition against a malicious false complaint of sexual harassment by an officer, employee, or individual;
- (5) Provisions allowing an officer, employee, or individual to make a sexual harassment complaint to an appropriate management, supervisory, or personnel officer or employee;
- (6) Procedures for investigating a sexual harassment complaint in an unbiased, fair, and discreet manner with appropriate safeguards to maintain confidentiality and protection from embarrassment;
- (7) A provision requiring the use of the "reasonable person of the same gender standard," to determine if sexual harassment has occurred. Under the standard, sexual harassment shall be deemed to have occurred if the alleged offender's conduct would be considered sexual harassment from the perspective of a reasonable person of the same gender as the alleged victim. If the alleged victim is a woman, the "reasonable person of the same gender standard" shall be equivalent to and may be called the "reasonable woman standard;"
- (8) Disciplinary actions which may be imposed on an officer or employee who committed a prohibited act; and
- (9) For an employer with at least five employees, a provision requiring the annual viewing of a video on the sexual harassment policy by each management or supervisory officer or employee.

**12.2 POLICY TERM.** The policy required under this section shall be in effect for at least the duration of the contractor's contract with the City.

**12.3 PLEDGE AND ACCEPTANCE.** The action of the contractor signing the contract shall constitute the contractor's pledge and acceptance of the provisions for the sexual harassment policy as required by section 1-18, HRS.

## CERTIFICATE OF CURRENT COST OR PRICING DATA

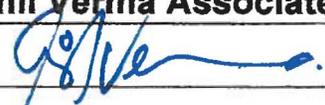
This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \* **Kamehameha Highway**

### Station Group

are accurate, complete, and current as of \*\* **November 2, 2012**  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: **Anil Verma Associates, Inc.**

Signature: 

**Anil Verma, AIA, President**

(Print name & title of person signing)

Date of execution\*\*\*: **November 2, 2012**

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
- \*\* The date should be a mutually determined date prior to but as close to the date when price negotiations were concluded and the price was agreed to as possible.
- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)

*please see attached Jurat*

# CALIFORNIA JURAT WITH AFFIANT STATEMENT

- See Attached Document (Notary to cross out lines 1-6 below)  
 See Statement Below (Lines 1-5 to be completed only by document signer[s], *not* Notary)

\_\_\_\_\_  
Signature of Document Signer No. 1

\_\_\_\_\_  
Signature of Document Signer No. 2 (if any)

State of California

County of Los Angeles

Subscribed and sworn to (~~or affirmed~~) before me on this

02 day of November, 2012, by  
Date Month Year

(1) Anil Verma,  
Name of Signer

proved to me on the basis of satisfactory evidence to be the person who appeared before me (.) (.)

(and

(2) \_\_\_\_\_,  
Name of Signer

proved to me on the basis of satisfactory evidence to be the person who appeared before me.)

Signature [Signature]  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Further Description of Any Attached Document

Title or Type of Document: Certificate of Current Cost or Pricing Data

Document Date: 11/02/2012 Number of Pages: 1

Signer(s) Other Than Named Above: none

RIGHT THUMBPRINT OF SIGNER #1  
Top of thumb here

RIGHT THUMBPRINT OF SIGNER #2  
Top of thumb here

### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific

identification in writing to the officer-in-charge in support of \* Kamelauncha Highway Station group

are accurate, complete, and current as of \*\* 10/30/2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: Ka'gnavian

Signature: [Handwritten Signature]  
John Keane Nunes CEO  
(Print name & title of person signing)

Date of execution\*\*\*: 10/30/2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.)
- \*\* The date should be a mutually determined date prior to but as close to the date when price negotiations were concluded and the price was agreed to as possible.
- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)



STATE OF HAWAII )  
 ) SS:  
CITY AND COUNTY OF HONOLULU )

On OCTOBER 30 2012, JOHN E NINES personally  
appeared before me,

\_\_\_\_\_ who is personally known to me  
Y whose identity I verified on the basis of HAWAII DRIVER LICENSE

to be the signer of the attached 1 page CERTIFICATE OF CURRENT COST dated 08/05/2012 OR PRICING DATA  
in the First Circuit of the State of Hawaii and he or she  
acknowledged that he/she signed it.



A handwritten signature in cursive script, appearing to read "Anne M. Robb".

\_\_\_\_\_  
Anne M Robb  
Notary Public, State of Hawaii  
My Commission Expires: 08/05/2013

**CERTIFICATE OF CURRENT COST OR PRICING DATA**

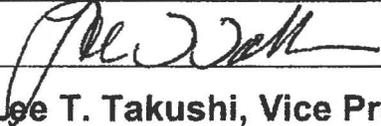
This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \*Kamehameha Highway

Station Group

are accurate, complete, and current as of \*\* September 11th, 2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: SSFM International, Inc.

Signature: 

Lee T. Takushi, Vice President

(Print name & title of person signing)

Date of execution\*\*\*: September 11th, 2012

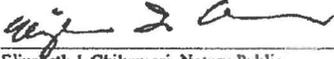
- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
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- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)

STATE OF HAWAII )  
 ) SS  
CITY AND COUNTY OF HONOLULU )

Subscribed and sworn to before me on 11th day day of September

20 12 by Lee T. Takushi

  
Elizabeth I. Chikamori, Notary Public  
State of Hawaii  
My commission expires: 06/04/2012



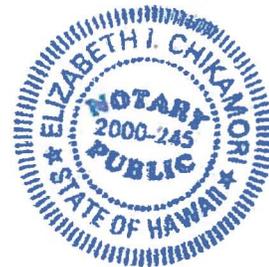
**NOTARY CERTIFICATE** (Hawaii Administrative Rules §5-11-8)

Document Identification or Description: Certificate of  
Current Cost or Pricing Data, Lee T. Takushi/  
SSFM

Doc. Date: 9/11/12 No. of Pages: 1 Jurisdiction: First Circuit

*Elizabeth I. Chikamori* 9/11/12  
Signature of Notary Date of Certificate

Elizabeth I. Chikamori  
Printed Name of Notary



### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \*Kamehameha Highway

Station Group

are accurate, complete, and current as of \*\* September 11th, 2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

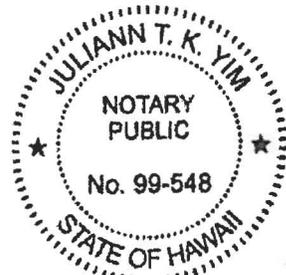
Firm: Mechanical Engineers of Hawaii Corp.

Signature: [Handwritten Signature]  
LOUIS CHENG, PRESIDENT  
(Print name & title of person signing)

Date of execution\*\*\*: September 11th, 2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
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- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)

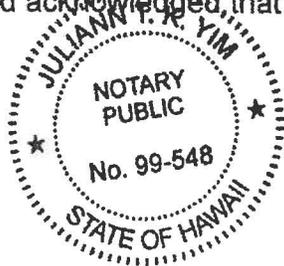


[Handwritten Signature]  
JULIANN T. K. YIM  
com. exp. NOV. 14, 2015

STATE OF HAWAII )  
 )  
CITY AND COUNTY OF HONOLULU )

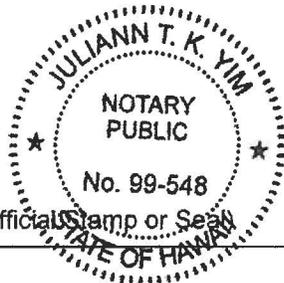
SS:

On this 13 day of September, 2012 before me personally appeared LOUIS T. L. Cheng, to me known to be the person(s) described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.



  
\_\_\_\_\_  
Juliann T. K. Yim, Notary Public  
State of Hawaii, First Judicial Circuit  
My Commission Expires: 11/14/2015

This is attached to: Certificate of Current Cost or Pricing Data

<b>NOTARY CERTIFICATE (Hawaii Administrative Rules 5-11-8)</b>	
Document Identification or Description:	<u>Certificate of Current Cost or Pricing Data</u>
Document Date:	<u>9/11/2012</u>
No. of Pages:	<u>1</u>
Signature of Notary Public	<u>9/13/12</u>
<u>JULIANN T. K. YIM</u>	Date
Printed Name of Notary Public, First Circuit	
 (Official Stamp or Seal)	

### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \* HHCTCP, Kamehameha Station Group RQS-DTS-407417

are accurate, complete, and current as of \*\* 10-30-2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: Electech Hawaii, Inc.

Signature: \_\_\_\_\_

Jason Yogi, P.E. Vice President  
(Print name & title of person signing)

Date of execution\*\*\*: 10/30/2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
- \*\* The date should be a mutually determined date prior to but as close to the date when price negotiations were concluded and the price was agreed to as possible.
- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)  
Subscribed and sworn to before me this  
30th day of October, 2012.

Lisa N. Kogachi  
Lisa N. Kogachi  
Notary Public, State of Hawaii  
My Commission Expires: 04/20/2015

Doc. Date: 10/30/12 # Pages 1  
Notary Name: Lisa N. Kogachi First Circuit  
Doc. Description: Certificate of Current Cost or Pricing Data  
Lisa N. Kogachi 10/30/12  
Notary Signature Date



### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \*Kamehameha Highway Station Group

are accurate, complete, and current as of \*\* September 11th, 2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: Geolabs, Inc.

Signature: *Clayton S. Mimura*  
Clayton S. Mimura, P.E. - President  
(Print name & title of person signing)

Date of execution\*\*\*: September 11th, 2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
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(This document shall be signed, sealed, and notarized.)

Doc. Date: 9/11/12 # Pages: 1 + attachment  
 Lola Loui-Mishima First Circuit  
 Doc. Description Certificate of  
Current Cost or  
Pricing Data  
*Lola Loui-Mishima* 9/11/12  
 Notary Signature Date  
**NOTARY CERTIFICATION**

STATE OF HAWAII )  
 ) SS:  
CITY AND COUNTY OF HONOLULU )

On this 12th day of September, 2012, before me personally appeared Clayton S. Mimura, to me known to be the person described in and who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

**Witness my hand and seal.**

  
\_\_\_\_\_  
Name of Notary: Lola Loui-Mishima,  
Notary Public, First Judicial Circuit,  
State of Hawaii

My commission expires: June 14, 2016

### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in-charge in support of \*Kamehameha Highway

Station Group

are accurate, complete, and current as of \*\* September 11th, 2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: PER HAWAII  
Signature: R. Stan Duncan  
R. Stan Duncan  
(Print name & title of person signing)

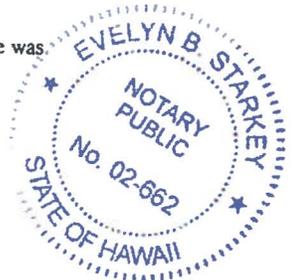
Date of execution\*\*\*: September 11th, 2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.).
- \*\* The date should be a mutually determined date prior to but as close to the date when price negotiations were concluded and the price was agreed to as possible.
- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)

State of Hawaii  
City & County of Honolulu Yes

Subscribed and sworn to before me  
on 11th day of Sept, 2012  
Evelyn B. Starkey  
Notary Public, First Judicial Circuit  
State of Hawaii  
My commission expires 12/29/2014



GENERAL TERMS AND CONDITIONS  
(8/2000)

Doc. Date: 9/11/12 # Pages 3  
EVELYN B. STARKEY First Circuit  
Doc. Description: Certificate of Current Cost or Pricing Data  
Evelyn B. Starkey 9/11/12  
Notary Signature Date

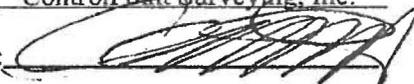
## CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122 122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific identification in writing to the officer-in charge in support of \* Kamehameha Highway Station Group Project \_\_\_\_\_

are accurate, complete, and current as of \*\* October 29, 2012 .  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: ControlPoint Surveying, Inc.

Signature: 

Yue-Hong Yeh, President  
(Print name & title of person signing)

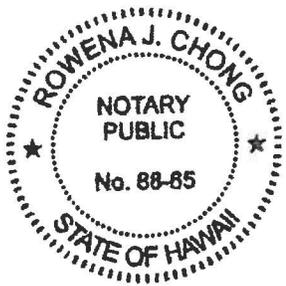
Date of execution\*\*\*: October 29, 2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.)
- \*\* The date should be a mutually determined date prior to but as close to the date when price negotiations were concluded and the price was agreed to as possible.
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(This document shall be signed, sealed, and notarized.)

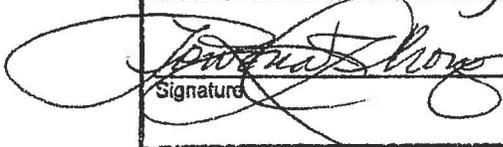
STATE OF HAWAII )  
 ) SS.  
CITY AND COUNTY OF HONOLULU )

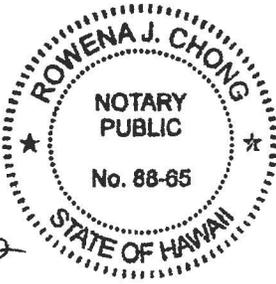
On this 29<sup>th</sup> day of October 2012, before me Rowena J. Chong,  
the undersigned Notary Public, personally appeared Yue-Hong Yeh, to me  
personally known, to be the person who executed the within instrument as President on  
behalf of ControlPoint Surveying, Inc., the corporation therein named, and acknowledged  
to me that the corporation executed it.



  
Rowena J. Chong  
Notary Public, State of Hawaii

My commission expires: February 1, 2016

Document Date: <u>Oct. 29, 2012</u>	# Pages: <u>2</u>
Name: ROWENA J. CHONG	_____ Circuit
Doc. Description: <u>Certificate of</u> <u>Current Cost or Pricing Data</u>	
 Signature	<u>Oct. 29, 2012</u> Date



### CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data as defined in section 3-122-122, HAR, and submitted pursuant to section 3-122-125, HAR; either actually or by specific

identification in writing to the officer-in-charge in support of \* Kamehameha Highway Station group

are accurate, complete, and current as of \*\* 10/30/2012  
(Month, day, year)

This certification includes the cost or pricing data supporting any advance agreement(s) between the offeror and the City which are part of the proposal.

Firm: Ka'anani

Signature: [Handwritten Signature]

John Keane Nunes CEO  
(Print name & title of person signing)

Date of execution\*\*\*: 10/30/2012

- \* Describe the project and reference (i.e. project name, +PCD No., field change, change order number, etc.)
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- \*\*\* Date of execution should be as soon after the date when price negotiations were concluded and the contract price was agreed to as practical.

(This document shall be signed, sealed, and notarized.)

NOTARY CERTIFICATE ON NEXT PAGE



STATE OF HAWAII )  
 ) SS:  
CITY AND COUNTY OF HONOLULU )

On DECEMBER 30 2012, JOHN E NUNES personally  
appeared before me,

\_\_\_\_\_ who is personally known to me  
✓ whose identity I verified on the basis of HAWAII DRIVER LICENSE

to be the signer of the attached 1 page CERTIFICATE OF CURRENT COST dated NOVEMBER 2012  
in the First Circuit of the State of Hawaii and he or she  
acknowledged that he/she signed it. OR PRICING DATA



A handwritten signature in cursive script, appearing to read "Anne M. Robb".

\_\_\_\_\_  
Anne M Robb  
Notary Public, State of Hawaii  
My Commission Expires: 08/05/2013