

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT FOR PROFESSIONAL SERVICES dated NOV 07 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 AECOM TECHNICAL SERVICES, INC. a corporation, whose principal place of business and mailing address is 1001 Bishop Street, Suite 1600, Honolulu, Hawai'i 96813, 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 four (4) transit stations of the Honolulu Rail Transit Project ("HRTP") comprising the Airport Station Group: Pearl Harbor Naval Station, Airport Station, Lagoon Drive Station, and Middle Street Transit 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 for the various items of the Work as hereinafter set forth.

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 RFQ-HRT-499915;

all of which are collectively referred to as the “Contract Documents,” “Agreement,” or “Contract,” are attached hereto and incorporated herein, and are listed in 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, 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 NINE MILLION NINE HUNDRED FORTY-NINE THOUSAND FIVE HUNDRED EIGHTY-ONE AND 00/100 DOLLARS (\$9,949,581.00) (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 TWENTY-SEVEN THOUSAND SEVEN HUNDRED EIGHT-FOUR AND 00/100 DOLLARS (\$227,784.00) 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 TEN MILLION ONE HUNDRED SEVENTY-SEVEN THOUSAND THREE HUNDRED SIXTY-FIVE AND 00/100 DOLLARS (\$10,177,365.00) (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 four (4) transit stations of the Honolulu Rail Transit Project comprising the Airport Station Group: Pearl Harbor Naval Station, Airport Station, Lagoon Drive Station, and Middle Street Transit Station

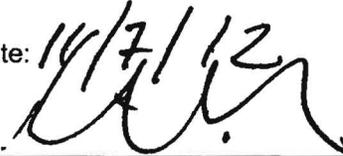
\$10,177,365.00

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-1300022
FUND Transit Fund (690)
ACCOUNT NO. 690/7790-13 = \$10,177,365.00 (4064)

HONOLULU, HAWAII

Date:



Executive Director and CEO

Honolulu Authority for Rapid Transportation

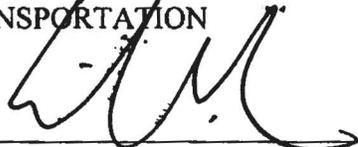
*Original
via 10/29/12*

Rudolph Mina
District Manager
AECOM Technical Services, Inc.
1001 Bishop Street, Suite 1600
Honolulu, Hawai'i 96813

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 agent of HART and CONSULTANT.

HONOLULU AUTHORITY FOR RAPID
TRANSPORTATION


By: Daniel A. Grabauskas
Executive Director and CEO

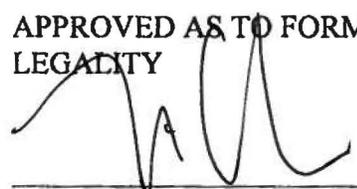
NOV 07 2012

AECOM TECHNICAL SERVICES, INC.


By: Rudolph Mina
Its: District General Manager

Address:
1001 Bishop Street
Suite 1600, ASB Tower
Honolulu, HI 96813

APPROVED AS TO FORM AND
LEGALITY


Deputy Corporation Counsel

Attach Notary Page



AECOM Technical Services, Inc.
3995 Via Oro Avenue
Long Beach, CA 90810
T 562.420.2933 F 562.420.2915 www.aecom.com

AECOM TECHNICAL SERVICES, INC.

CERTIFICATE OF ASSISTANT SECRETARY

The undersigned, David W. Huchel, hereby certifies that he is now and at all times relevant hereto has been the duly elected and acting Assistant Secretary of AECOM Technical Services, Inc., a California corporation, and that the Board of Directors, by resolution dated January 1, 2010, has authorized Rudolph Mina, District General Manager, to execute various written agreements and instruments, including Airport Station Group Contract Documents by and between the Honolulu Authority for Rapid Transportation and AECOM Technical Services, Inc. on behalf of the corporation or its divisions.

The undersigned does further certify that the foregoing resolution has not been revoked, amended or modified, and is in full force and effect as of the date hereof.

IN WITNESS WHEREOF, the undersigned has executed this Certificate of Secretary and has affixed the corporate seal of this corporation this 17th day of October, 2012.

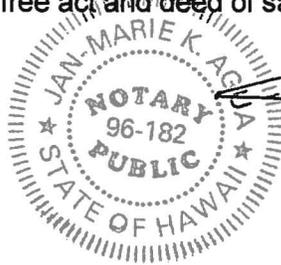
AECOM TECHNICAL SERVICES, INC.

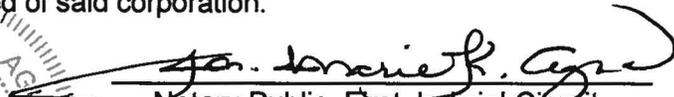
By: 
David W. Huchel, Assistant Secretary

(CORPORATE SEAL)

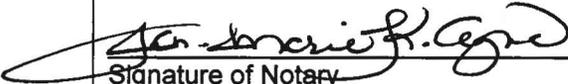
STATE OF HAWAII)
) ss.
CITY AND COUNTY OF HONOLULU)

On this 16th day of October, 2012 before me appeared, Rudolph Mina personally known to me, who, being by me duly sworn, did say that he/she is the District General Manager of AECOM Technical Services, Inc., and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said Rudolph Mina acknowledged said instrument to be the free act and deed of said corporation.




Notary Public, First Judicial Circuit
State of Hawaii

My Commission Expires: May 13, 2016

NOTARY CERTIFICATE (Hawaii Administrative Rules §5-11-8)	
Document Identification or Description: <u>Honolulu Rail Transit</u>	
<u>Project – Airport Station Group Contract</u>	
Doc. Date: <u>no date at time of notary</u>	No. of Pages: <u>268</u> <u>209</u>
Jurisdiction: <u>First Circuit</u>	
 Signature of Notary	<u>October 16, 2012</u> Date of Certificate
<u>Jan-Marie K. Agua</u> Printed Name of Notary	 (Official Stamp or Seal)

SPECIAL PROVISIONS

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT STATION GROUP**

SPECIAL PROVISIONS TABLE OF CONTENTS

- I. PROJECT
- II. SERVICES
- III. TIME
- IV. LIQUIDATED DAMAGES
- V. INSURANCE REQUIREMENTS
- VI. COMPENSATION AND INVOICING
- VII. MODIFICATIONS TO THE GENERAL TERMS AND CONDITIONS FOR CONTRACTS FOR PROFESSIONAL SERVICES FOR THE CITY AND COUNTY OF HONOLULU (08/2000)
- 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 ("HRTTP") 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 four (4) transit stations of the Honolulu Rail Transit Project ("HRTTP") comprising the Airport Station Group: Pearl Harbor Naval Station, Airport Station, Lagoon Drive Station, and Middle Street Transit 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.

“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.

“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 HRTP. 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 the 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.

XI. REFERENCES TO THE CITY AND COUNTY OF HONOLULU

The acronym "HART" shall be substituted for "City and County of Honolulu", "CITY", "Rapid Transit Division", and "RTD" wherever those terms appear in the Request for Qualifications and Contract Documents inclusive of all Addendums, unless the context clearly indicates otherwise.

**SPECIAL PROVISIONS
EXHIBIT 1**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT STATION GROUP**

SCOPE OF WORK

Table of Contents

Table of Contents ii

Project Purpose and Description..... 1

Approach to Estimates of Construction Cost 3

Design Packages and Duration of Contract..... 4

 NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM) 5

 NTP #1b – Revisions to Preliminary Engineering (PE) 5

 NTP #2 – Interim Design (ID) 5

 NTP #3 – Final Design (FD) 6

 NTP #4 – Design Support During Bidding 6

 NTP #5 – Design Support During Construction 6

Project Team 6

Scope of Work 10

 Reference Documents 10

 PRELIMINARY ENGINEERING DOCUMENTS..... 10

 BASELINE DOCUMENTS 10

 PROJECT-WIDE DOCUMENTS 11

 ENVIRONMENTAL DOCUMENTS 11

 GEOTECHNICAL DOCUMENTS 11

APPENDIX A 13

 TASK 04.01 - Project Management 14

 Project Management Plan..... 15

 Design Management 16

 Baseline Project Design Schedule..... 19

 Schedule of Milestones (SM)..... 20

 Quality Assurance and Management 21

 Site Safety and Security Plan 22

 Safety and Security Certification 23

 TASK 04.02 - Design Workshop 24

 Design Workshop – (SM) 25

TASK 04.03 – Environmental	26
Environmental – (SM).....	27
Environmental – (PE).....	28
Environmental – (ID).....	29
Environmental – (FD).....	30
TASK 04.04 – Permits	31
Permits	32
TASK 04.05 - Interface Coordination and Management	34
Interface Coordination and Management	35
TASK 04.06 - Cost Estimating.....	37
Estimate of Construction Cost – (SM)	38
Estimate of Construction Cost – (PE)	39
Estimate of Construction Cost – (ID).....	40
Estimate of Construction Cost – (FD)	41
TASK 04.07 - Geotechnical Exploration and Design	42
Pearl Harbor Naval Base Station – (PE).....	43
Pearl Harbor Naval Base Station – (ID).....	45
Pearl Harbor Naval Base Station – (FD).....	47
Honolulu International Airport Station – (PE).....	48
Honolulu International Airport Station – (ID).....	50
Honolulu International Airport Station – (FD).....	52
Lagoon Drive Station – (PE).....	53
Lagoon Drive Station – (ID).....	55
Lagoon Drive Station – (FD).....	57
Middle Street Station – (PE).....	58
Middle Street Station – (ID).....	60
Middle Street Station – (FD).....	62
TASK 04.08 – Topographic Survey	63
Pearl Harbor Naval Base Station – (PE)	64
Pearl Harbor Naval Base Station – (ID).....	65
Honolulu International Airport Station – (PE).....	66
Honolulu International Airport Station – (ID).....	67

Airport Station Group

Lagoon Drive Station – (PE)	68
Lagoon Drive Station – (ID).....	69
Middle Street Station – (PE)	70
Middle Street Station – (ID).....	71
TASK 04.09 - Civil Design	72
Pearl Harbor Naval Base Station – (PE)	73
Pearl Harbor Naval Base Station – (ID).....	75
Pearl Harbor Naval Base Station – (FD).....	77
Honolulu International Airport Station – (PE).....	78
Honolulu International Airport Station – (ID).....	80
Honolulu International Airport Station – (FD).....	82
Lagoon Drive Station – (PE)	83
Lagoon Drive Station – (ID).....	85
Lagoon Drive Station – (FD).....	87
Middle Street Station – (PE)	88
Middle Street Station – (ID).....	90
Middle Street Station – (FD).....	92
TASK 04.10 - Structural Design	93
Pearl Harbor Naval Base Station – (PE)	94
Pearl Harbor Naval Base Station – (ID).....	95
Pearl Harbor Naval Base Station – (FD).....	96
Honolulu International Airport Station – (PE)	97
Honolulu International Airport Station – (ID).....	98
Honolulu International Airport Station – (FD).....	99
Lagoon Drive Station – (PE)	100
Lagoon Drive Station – (ID).....	101
Lagoon Drive Station – (FD).....	102
Middle Street Station – (PE)	103
Middle Street Station – (ID).....	104
Middle Street Station – (FD).....	105
TASK 04.11 - Architectural Design	106
ASG Directive Drawings – (PE).....	107

Airport Station Group

ASG Directive Drawings – (ID)	108
ASG Directive Drawings – (FD)	109
Pearl Harbor Naval Base Station – (PE)	110
Pearl Harbor Naval Base Station – (ID).....	111
Pearl Harbor Naval Base Station – (FD).....	113
Honolulu International Airport Station – (PE).....	114
Honolulu International Airport Station – (ID).....	115
Honolulu International Airport Station – (FD).....	117
Lagoon Drive Station – (PE)	118
Lagoon Drive Station – (ID).....	119
Lagoon Drive Station – (FD).....	121
Middle Street Station – (PE)	122
Middle Street Station – (ID).....	124
Middle Street Station – (FD).....	126
TASK 04.12 – Mechanical & Electrical Design	127
Mechanical Design – Pearl Harbor Naval Base Station – (PE)	128
Mechanical Design – Pearl Harbor Naval Base Station – (ID).....	129
Mechanical Design – Pearl Harbor Naval Base Station – (FD).....	130
Mechanical Design – Honolulu International Airport Station – (PE).....	131
Mechanical Design – Honolulu International Airport Station – (ID)	132
Mechanical Design – Honolulu International Airport Station – (FD).....	133
Mechanical Design – Lagoon Drive Station – (PE)	134
Mechanical Design – Lagoon Drive Station – (ID)	135
Mechanical Design – Lagoon Drive Station – (FD).....	136
Mechanical Design – Middle Street Station – (PE)	137
Mechanical Design – Middle Street Station – (ID).....	138
Mechanical Design – Middle Street Station – (FD).....	139
Electrical Design – Pearl Harbor Naval Base Station – (PE)	140
Electrical Design – Pearl Harbor Naval Base Station – (ID).....	141
Electrical Design – Pearl Harbor Naval Base Station – (FD).....	142
Electrical Design – Honolulu International Airport Station – (PE).....	143
Electrical Design – Honolulu International Airport Station – (ID)	144

Airport Station Group

Electrical Design – Honolulu International Airport Station – (FD).....	145
Electrical Design – Lagoon Drive Station – (PE).....	146
Electrical Design – Lagoon Drive Station – (ID)	147
Electrical Design – Lagoon Drive Station – (FD).....	148
Electrical Design – Middle Street Station – (PE).....	149
Electrical Design – Middle Street Station – (ID)	150
Electrical Design – Middle Street Station – (FD).....	151
TASK 04.13 - Maintenance of Traffic (MOT) Plans	152
Pearl Harbor Naval Base Station – (PE)	153
Pearl Harbor Naval Base Station – (ID).....	154
Pearl Harbor Naval Base Station – (FD).....	155
Honolulu International Airport Station – (PE).....	156
Honolulu International Airport Station – (ID).....	157
Honolulu International Airport Station – (FD).....	158
Lagoon Drive Station – (PE)	159
Lagoon Drive Station – (ID).....	160
Lagoon Drive Station – (FD).....	161
Middle Street Station – (PE).....	162
Middle Street Station – (ID).....	163
Middle Street Station – (FD).....	164
TASK 04.14 – Station Landscape Architecture	165
Pearl Harbor Naval Base Station – (PE)	166
Pearl Harbor Naval Base Station – (ID).....	167
Pearl Harbor Naval Base Station – (FD).....	168
Honolulu International Airport Station – (PE).....	169
Honolulu International Airport Station – (ID).....	170
Honolulu International Airport Station – (FD).....	171
Lagoon Drive Station – (PE)	172
Lagoon Drive Station – (ID).....	173
Lagoon Drive Station – (FD).....	174
Middle Street Station – (PE).....	175
Middle Street Station – (ID).....	176

Airport Station Group

Middle Street Station – (FD).....	177
TASK 04.15 – Specifications.....	178
Specifications – (PE)	179
Specifications – (ID).....	180
Specifications – (FD)	181
TASK 04.16 - Design Support during Bidding (NTP #4).....	182
Design Support during Bidding.....	183
TASK 04.17 - Design Support during Construction (NTP #5).....	184
Design Support during Construction	185
TASK 04.18 - Public Involvement.....	187
Public Involvement – (SM)	188
Public Involvement – (PE).....	189
Public Involvement – (ID)	190
Public Involvement – (FD)	192

All defined terms in the Agreement and the Special Provisions shall have the same meaning in this Exhibit 1.

Project Purpose and Description

The CONSULTANT will provide architectural and engineering services necessary for the design and preparation of final construction plans, detailed specifications and other contract documents for the Airport Station Group ("ASG") Contract for the Honolulu Authority for Rapid Transportation ("HART").

A description of the Scope of Work (SOW) to be performed under this Agreement and deliverables is set forth in this Exhibit 1.

This Scope of Work and accompanying budget/fee estimate assumes that the ASG Design Schedule will not require significant revisions due to the schedules of interfacing contracts such as the Airport Section Guideway and Utilities Contract ("Guideway"), the Maintenance and Storage Facility Design-Build Contract, and the Core Systems Design-Build-Operate-Maintain Contract ("Core Systems Contract", or "CSC"). If changes to the durations or sequencing of the design work due to interfaces with other contracts are required, HART will consider adjustment to the ASG Contract duration stated herein.

The Airport Station Group consists of four (4) elevated Stations at the following general locations: Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive, and Middle Street. The general description of the Stations is as follows:

Pearl Harbor Naval Base Station: The elevated Station guideway structure and 240-foot long side platforms are located in the median of Kamehameha Highway just east of the Radford Drive/Makalapa Road intersection. Canopies are provided to shelter a part of each platform. A single entry building and separate Ancillary Structure and Systems Site #25 (to be designed by others) are located on the parcel to be acquired by HART from the U.S. Navy at the northeast corner of the intersection. The Ancillary Structure is a single story building housing the Train Control and Communications Room (TCCR)/Uninterruptible Power Supply (UPS) and Mechanical Room. The Systems Site #25 is located to the rear of the parcel with service vehicle access provided via a driveway (included in this scope of work) connecting to Kamehameha Highway. The Station entry building provides a single ground-level connection to the Station platforms from the mauka side of Kamehameha Highway. No connection to the Navy's sewer system is allowed and there is no City sewer system available in the neighborhood. Include an on-site holding tank with pumping service in the scope of this station to support waste water from the station facilities. The Navy does allow the water service connecting to a non-Navy facility through the establishment of a Utility Sales Agreement (USA) with the Navy. Accommodations for installation of Ticket Vending Machines (TVM) and fare gates (including conduit for power and data), vertical circulation elements (stairs and an elevator), a restroom, janitor storage room, elevator equipment room, trash room and the electrical room shall be made in the entry building. Accommodations for an escalator shall be made on the mauka side of the building. The entry building connects to the Station platforms via a concourse-level and platform-level pedestrian bridges. Stairs are provided to connect between the platform and the concourse on each side of the guideway. An elevator is also provided between the eastbound platform and concourse. The TVMs, fare gates, and escalator are not included in this contract. Visual barriers will be included to screen the public's view of facilities as required by the Navy.

Honolulu International Airport Station: The elevated guideway Station is located between the lei stands and parking toll stations just makai of Ala Onaona Street within the airport complex. The single entry building is located directly

beneath the 240-foot long side platforms. Canopies are provided to shelter a part of each platform. Entry to the Station is via the ground floor on the west side of the entry building through a fare gate module that has provisions (including conduit for power and data) for future installation of TVMs and fare gates. The entry building contains vertical circulation elements (stairs and elevators; no escalators), elevator machine rooms, trash room, mechanical room, a restroom, staff room, janitor storage room, electrical room and a TCCR/UPS room. Adjacent to the entry building is a Systems Site #27 (to be designed by others), which includes a TPSS ancillary building that has driveway access from Ala Onaona Street and is surrounded by a masonry wall fence. TPSS foundation, access driveway and coordination of conduit infrastructure are included in this scope of work. Ticket vending machines, fare gates, TPSS, and Ala Onaona Street realignment are not included in this contract.

Lagoon Drive Station: The Lagoon Drive Station is an elevated Station with 240-foot long side platforms located in the median of Waiwai Loop just east of Lagoon Drive. Two (2) entry buildings are located on either side of the guideway at the west end of the Station and provide direct access to the platforms. No concourse is provided in order to meet Station height restrictions due to the airport's runway protection zone. The entry buildings are mirrored about the guideway centerline and are oriented to provide entry from the west. The buildings' fare gate modules contain provisions (including conduit for power and data) for future installation of TVMs and fare gates. The entry buildings also contain the vertical circulation elements (stairs and elevators but no provisions for escalators), janitor storage room, electrical closet, trash room, and elevator equipment room. The entry building on the mauka side of the guideway also contains a restroom. Pedestrian bridges connect the entry buildings directly to the Station platforms. Canopies are provided to shelter a part of each platform. Emergency egress stairs are provided near the eastern end of both platforms and offer ground-level exits to Waiwai Loop.

The makai entry building parcel contains a small kiss-and-ride lot with provisions for Handi-van parking. The mauka entry building parcel contains an Ancillary Structure with driveway access from Lagoon Drive and houses the electrical room, TCCR/UPS room, and a mechanical room. The transformer that provides power to the Station is located adjacent to the Ancillary Structure. Ticket vending machines, fare gates, and TPSS, are not included in this contract.

Middle Street Station: The elevated Station is located across from the Middle Street Bus Transit Center on the makai side of Kamehameha Highway and directly above Kalihi Stream. Canopies are provided to shelter a part of each side platform. Both platforms are accessed via a concourse and entry building on the mauka side of Kamehameha Highway. Normal access to the two (2) side platforms is provided via stairs and elevators from the concourse located approximately in the middle of the platforms. The concourse crosses Kamehameha Highway and terminates on the Koko Head side of Kalihi Stream, where the concourse foundation and columns could be constructed outside of the stream bank. The elevator between the concourse and the makai-side platform is located at the end of the concourse. This elevator could be later modified to extend to the ground level, should there be a need to construct an entry building on the makai side of Kamehameha Highway.

The Station entry building is located on the Middle Street Bus Transit Center parcel at the west end of the platform and contains stairs, escalator, and an elevator along with the elevator machine room. The entry building connects to both platforms via a concourse-level pedestrian bridge that also contains the fare gate module and its future provisions (including conduit for power and data) for ticket vending machines (TVMs) and fare gates. Other facilities housed at the concourse level include elevator machine rooms, a restroom, electrical room, janitor closet and a trash room. Access to the platform is provided via stairs and elevators.

In addition, the Station's development includes two (2) ancillary facilities; both structures are situated on the Ewa-side of Kalihi Stream, makai of Kamehameha Highway. One (1) contains the TCCR/UPS room along with mechanical and electrical rooms and the second is Systems Site #19 (to be designed by others), which includes a TPSS ancillary building along with switchgear for the TPSS, and transformer for Station power. TPSS foundation, access driveway and coordination of conduit infrastructure are included in this scope of work. An all weather access driveway is required to access the Systems Site. TCCR building foundations and Systems ductline infrastructure connecting to the guideway columns are included in this scope of work. TVMs, fare gates, escalator, TPSS, switchgear, and transformer are not included in this contract.

The mauka side access [located at the Middle Street Bus Transit Center] and the site for the ancillary facilities [makai side of Kamehameha Highway] lie within FEMA flood hazard zones. The geological conditions of this estuarine area are known to be soft and compressible. Excepting very lightly loaded improvements and structures the prevailing soft ground is not suitable for any significant loadings. As such any permanent facilities will either need to be designed for several inches of settlement or mitigate the settlement by design.

Approach to Estimates of Construction Cost

It is in the best interest of the public, and the intent of HART, that the Project designed by the CONSULTANT, be constructed within the funds allocated in the Construction Budget. The CONSULTANT will provide Estimates of Construction Cost as described below.

The Construction Budget is:

- a. The amount of the appropriation budgeted for the construction contract package for this scope of work.
- b. Represents the maximum amount HART is authorized to spend for construction of this scope of work.
- c. Defined as the "Construction Budget".

Preparation of Estimates of Construction Cost:

All Estimates of Construction Cost shall be provided in the format to be provided by HART. The CONSULTANT will evaluate updated Estimates of Construction Cost at each milestone submittal and compare them to project Construction Budget. In the event the project cannot be designed within the Construction Budget, without disregarding sound principles of design or in the event 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, 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 in writing, the CONSULTANT will not design work at the request of any person, agency, or public body in which the estimated cost will be in excess of the amount of the Construction Budget. The CONSULTANT will recommend changes to project elements to bring costs back in line with the Construction Budget.

In addition to the Construction Documents, the CONSULTANT shall submit in writing to HART a Final 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 of 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.

Design to Construction Budget:

It shall be the responsibility of the CONSULTANT to design the Project so that the Estimate of Construction Cost will not exceed 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. The CONSULTANT, without additional compensation, shall revise the Construction Documents as necessary (and agreed to by HART) to comply with the Construction Budget for Cost of the Work. The CONSULTANTs modifications shall be limited to the CONSULTANT's responsibility under this Scope of Work.

Approach to Submittal Documents and Final Construction Contract Documents

The submittals (Interim Design and Final Design) and final Construction Contract documents developed by the CONSULTANT shall be of an appropriate layout, scale and clarity in order to convey the information for review by HART and construction by the CONTRACTOR. In particular, all station and ancillary building plans, elevations and sections shall include:

- a. Architectural floor and RCP plans of sufficient scale to indicate all room dimensions and notes in appropriate text size
- b. All corresponding discipline floor plans to match architectural scale
- c. Sheet layout of all corresponding discipline plans to have same match lines
- d. Architectural building elevations to match scale of floor plans

The CONSULTANT shall submit six (6) half-size hard paper copies of each PE, ID and FD progress and milestone submittal for review by HART.

Design Packages and Duration of Contract

NTP #1a (40 days)	Review (10 days)	NTP #1b (90 days)	Review (30 days)	NTP #2 (120 days)	Review (30 days)	NTP #3 (60 days)	Review (30 days)	RFC (30 days)
----------------------	---------------------	----------------------	---------------------	----------------------	---------------------	---------------------	---------------------	------------------

The work in this ASG Contract will be phased to allow development of the design to occur in accordance with Federal Transit Administration (FTA) procedural requirements. The design phases will be initiated by a Notice to Proceed (NTP) issued by HART. The duration of "days" outlined in this SOW shall mean calendar days unless otherwise noted. A total of six (6) NTPs are anticipated, as follow:

- NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM)
- NTP #1b – Revisions to Preliminary Engineering (PE)
- NTP #2 – Interim Design (ID)
- NTP #3 – Final Design (FD)
- NTP #4 – Design Support During Bidding
- NTP #5 – Design Support During Construction

Note that CONSULTANT will proceed with due diligence to meet the Design Schedule/Durations described below. However, CONSULTANT is not responsible for delays caused by Outside Agencies (e.g. Utility Companies).

The following description of the phases of work is as submitted to the CONSULTANT by HART, and reviewed by CONSULTANT.

NTP #1a – Workshop, Design Schedule and Schedule of Milestones (SM)

The work to be performed under this NTP will consist of the following activities:

- Provide HART within ten (10) working days of receipt of NTP #1a with a DRAFT Detailed Design Schedule and SM that includes all work for which the CONSULTANT expects to be compensated and a FINAL SM to HART by the conclusion of NTP#1a. The intent of the DRAFT Baseline Design Schedule and SM is to establish the logic of the schedule and milestones for HART's review and concurrence prior to establishing the fully loaded SM. The SM is to be organized by NTP and will serve as the basis for payment. The CONSULTANT's Baseline Design Schedule must conform to the SM and include all review times required by HART. The CONSULTANT shall update the Baseline Design Schedule on a monthly basis. HART and the CONSULTANT shall reach agreement on the proposed Baseline Design Schedule and SM at which time HART will approve the SM and issue NTP #1b. The SM format shall follow the sample SM provided to the CONSULTANT.
- A 3-day Design Workshop is included in this phase, as well as the initiation of the Right of Entry permitting request process for field investigations such as geotechnical work and topographic surveying.
- The right of entry permitting request process for field investigations will be initiated during this phase. The right of entry request format shall be done by submitting CONSULTANT information as directed by HART.
- Duration of NTP #1a is forty (40) days.
- HART review: ten (10) days.

NTP #1b – Revisions to Preliminary Engineering (PE)

The work to be performed under this NTP will consist of the following activities:

- Commencing with agreement on NTP #1a, CONSULTANT will revise the current drawings to a PE level.
- Periodic Design review meetings, led by the Project/Design Manager, will be held for all four (4) stations.
- Presentation materials, including plans, sections, perspective renderings, charts, PowerPoint slides and other appropriate information, will be prepared for a community presentation. The materials will include displays of the layout and features of the stations.
- Perform cost estimation to ensure the design is within budget.
- Ensure compliance of PE design with FEIS/ROD, applicable codes, regulations and design standards.
- Duration for ASG PE design: ninety (90) days.
- HART review: thirty (30) days.
- Incorporation of HART comments: Not to exceed thirty (30) days, and to start concurrently with NTP#2.

NTP #2 – Interim Design (ID)

The work to be performed under this NTP will consist of the following activities:

- Commence ID drawings, detailed working drawings and specifications.
- Periodic Design review meetings, led by the Project/Design Manager, will be held for all four (4) stations.
- Incorporate Project standard details provided by HART and develop Project specific details as required; provide consistent material selection that considers pedestrian safety, durability, maintenance, sustainability, and aesthetics relating to the transit environment.
- Perform cost analysis to ensure that the design is within budget.
- Duration for ASG Interim Design: one hundred twenty (120) days.

- HART review: thirty (30) days.
- Incorporation of HART Comments: Not to exceed thirty (30) days, and to start concurrently with NTP #3.

NTP #3 – Final Design (FD)

The work to be performed under this NTP will consist of the following activities:

- Commence FD and preparation of construction contract documents.
- Provide detailed construction contract documents to permit accurate cost estimating and expedite construction activities.
- Periodic Design review meetings, led by the Project/Design Manager, will be held for all four (4) stations.
- The duration of NTP #3, prior to submittal of draft camera-ready final documents to HART assumes the following:
 - Final Design: sixty (60) days.
 - Thirty (30) days for HART review.
 - Thirty (30) days for the CONSULTANT to incorporate review comments and prepare final advertisement-ready ("ad-ready") construction documents suitable for obtaining building permit(s).
- Prepare presentation materials, including plans, rendering elevations, PowerPoint slides, and other appropriate information indicating the features of the FD for a community presentation.

NTP #4 – Design Support During Bidding

The work to be performed under this NTP will consist of the following activities:

- Assist HART in the solicitation of the construction contract including provisions of technical design support for questions or RFI's posed by potential bidders.
- Duration is based on HART's advertisement and bidding schedule.
- Fees and expenses are to be included in the fee proposal.

NTP #5 – Design Support During Construction

The work to be performed under this NTP will consist of the following activities:

- Assist HART in resolving design issues during construction.
- Duration is based on HART's approved construction schedule.
- Fees and expenses are to be included in the fee proposal.

Project Team

The CONSULTANT will be organized to provide a structure that will seamlessly integrate with HART. The team is populated with personnel with direct relevant experience in transit system design, with a particular emphasis on the unique requirements of this project: modular architecture, local geotechnical and civil expertise, as well as community outreach and coordination and design system integration.

CONSULTANT has a dedicated transit project office located at 1003 Bishop Street, in downtown Honolulu. In addition the CONSULTANT's Honolulu Corporate office is located at 1001 Bishop Street. Both offices are conveniently located across the street from HART office and have the facilities to house all project coordination meetings with HART and other program staff. The project office will be the work location for the following Key Personnel:

1. Project Manager/ Design Manager – Kyle Williams
2. Interface Manager – Bart Kane

Project Director, Rudy Mina will be located at AECOM's Honolulu Corporate office at 1001 Bishop Street, adjacent to the dedicated project office. Chief Civil Engineer, Diane Kodama, will also be located in the AECOM Honolulu office; Chief Architect, James Stone, will be located at Group 70's Honolulu office; and Chief Structural Engineer, Ken Hayashida, will be located at Kai Hawai'i Honolulu office.

Other project design staff will be located in AECOM's Honolulu office and specific subconsultant offices located in Hawaii, while others will be located on the Mainland. Work performed on the Mainland will be limited to architectural production in other AECOM offices on the West Coast. Some interface coordination reviews may be conducted from our staff's other offices in order to perform these reviews in the most efficient manner. As necessary, task designers will travel to or temporarily relocate to Hawaii to ensure coordination and communication.

All subconsultants' offices are located in Oahu, Hawaii, within close proximity of both the CONSULTANT project office, as well as HART's office.

The attached (Chart 1) is an updated organization chart identifying the location of all Project Team Leaders.

Kyle Williams, the Project Manager/ Design Manager, will be the single point of contact for the AECOM team and will represent the team for all technical and contractual matters. Kyle will be located full time in Honolulu in the dedicated project office for the duration of the design.

James Mulhearn, Project Controls, will be responsible for providing oversight and maintaining the Schedule of Milestones (SM), contract management, progress reporting, overseeing document control, and managing the administrative and support staff. James is located in Honolulu in the dedicated project office.

Courtney Gonzalez, the Quality Assurance Manager, will be responsible for the development of the Quality Assurance Plan and conducting quality audits (AECOM and subconsultants). During the execution of the project, Courtney will be stationed out of the AECOM Oakland office, and will travel to Hawaii as necessary to ensure Quality Assurance. Courtney will report directly to **Rudy Mina**, the Principal in Charge.

James Stone, the Chief Architect, will oversee all architectural activities including Station design, structural design, mechanical design, and lighting and interior electrical design. James will be located in Group 70's Honolulu office. The majority of this design effort will be performed out of the project office: Group 70 will be responsible for the Pearl Harbor Naval Base Station; KYA Design Group will be responsible for the Honolulu International Airport Station; WCIT Architecture will be responsible for Lagoon Drive Station; and AECOM will be responsible for the Middle Street Transit Center.

Diane Kodama, the Chief Civil Engineer, will oversee the various civil disciplines including site design, electrical design, geotechnical, utilities, traffic, and landscaping. Diane is currently assigned to the AECOM Honolulu office. This design effort will be performed in several offices, outside of the project office: Site design and utility relocation will be performed by AECOM in the Honolulu office. Electrical design support will be performed by Ronald N.S. Ho & Associates, led by **Steven Sakai**. Their office is located within three (3) miles of the project office. Traffic engineering will be performed by Wilson Okamoto Corp.'s **Pete Pascua**. Their office is located within three (3) miles of the project office.

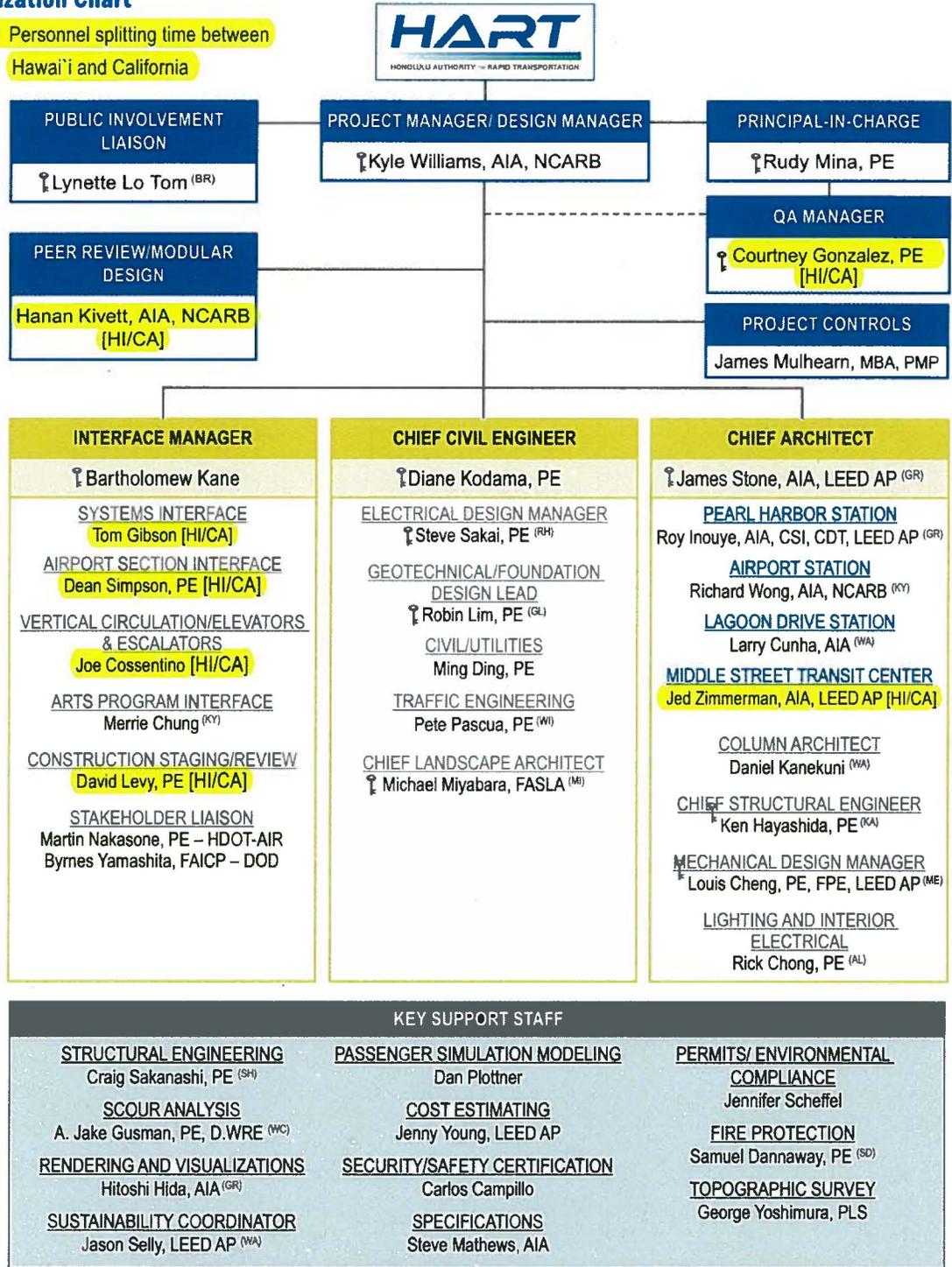
Bart Kane, the Design Interface Manager, will be responsible for the coordination of the various design teams and stakeholders. On island presence is critical for this activity. Bart will be on island periodically, and a local Interface Coordinator will be located full time in Honolulu in the project office.

Ken Hayashida, the Chief Structural Engineer, will be responsible for the coordination of the structural design teams. Ken will be located in the Kai Hawai'i Honolulu office.

Outreach will be performed by Bright Light Marketing Group's **Lynette Lo Tom**. Bright Light Marketing Group is located in Honolulu across the street from the HART office and in the same building complex as the project office. Bright Light Marketing Group has a thorough knowledge of local issues key to the success of the project.

Organization Chart

[HI/CA] Personnel splitting time between
Hawai'i and California



- LEGEND** All personnel are AECOM except as noted:
- AL Albert Chong Associates Inc.
 - BR Brightlight Marketing
 - GL GEOLABS
 - GR Group 70 International, Inc.
 - KA Kai Hawai'i
 - KY KYA Design Group
 - ME Mechanical Engineers of Hawai'i Corp
 - MI Miyabara Associates, LLC
 - RH Ron NS Ho and Associates
 - SD S.S. Dannaway Associates, Inc.
 - SH Shigemura, Lau, Sakanashi, Higuchi & Associates, Inc.
 - WA WCIT Architecture
 - WC West Consultants
 - WI Wilson Okamoto
 - 🔑 Key Personnel
 - Major Subconsultant

Chart 1

Scope of Work

The activity description sheets (Appendix A), describe the work to be performed by the CONSULTANT team under this design assignment.

The ASG Scope of Work includes the design and preparation of PE, Interim, and Final construction plans, detailed specifications, design calculations, reports, and cost estimates as described. The design work will be based upon the existing drawings, and the HART's Standard and Directive Documents and the Module Concept Documents. The Module Concept Documents shall supersede the preliminary engineering drawings provided by HART. All drawings will be prepared in accordance with the Plans Standards and CADD procedures. All work will be performed under the supervision of professional architects and engineers licensed by the State of Hawai'i Department of Commerce and Consumer Affairs.

Reference Documents

The following documents (provided by HART on DVD) will be utilized in preparation of the design:

PRELIMINARY ENGINEERING DOCUMENTS

1. PE Reference Documents
 - a. PE Drawings
 - SV440-SJ3-PearlHarborNavalBase-100202.pdf
 - SV440-SJ4-HonoluluIntAirport-100224.pdf
 - SV440-SJ5-LagoonDrive-101217.pdf
 - SV540-SE3-MiddleStreet-100225.pdf
 - b. Station Module Concept Drawings
 - SJ3-Pearl Harbor-Station Module Concept.pdf (3/9/2012)
 - SJ4-Honolulu International Airport-Station Module Concept.pdf (3/9/2012)
 - SJ5-Lagoon-Station Module Concept.pdf (3/9/2012)
 - SE3-Middle Street-Station Module Concept.pdf (3/9/2012)
2. Architectural Outline Specifications
 - a. HHCTCP-StationDesignContracts-OutlineSpecifications.pdf (9/11/2009)
3. PE Basis of Design Reports
 - a. HHCTCP-BasisOfDesignReport-AirportStations-SJ3-Pearl Harbor.pdf (12/3/2010)
 - b. HHCTCP-BasisOfDesignReport-AirportStations-SJ4-Airport.pdf (12/3/2010)
 - c. HHCTCP-BasisOfDesignReport-AirportStations-SJ5-Lagoon Drive.pdf (12/17/2010)
 - d. HHCTCP-BasisOfDesignReport-DillinghamStations-SE3-MiddleSt.pdf (12/3/2010)
4. Drainage Reports
 - a. HHCTCP Airport Guideway & Utilities Preliminary Drainage Report.pdf (February 2010)
 - b. PreliminaryHydraulicAssessment_HHCTCPStreamCrossings_Draft_4-21-10.pdf
5. HHCTCP-Guideway Value Engineering Report.pdf (April 2011)
6. HHCTCP-Station Value Engineering Report (ASG Elements Only).pdf (September 2010)

BASELINE DOCUMENTS

1. HHCTCP-CompendiumofDesignCriteria.pdf (2/22/2010)
2. HHCTCP-StandardSpecifications-Vol. 1.pdf (Division 1 not included) (9/9/2010)
3. HHCTCP-Standard Specifications-Vol. 2.pdf (Division 1 not included) (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)

PROJECT-WIDE DOCUMENTS

1. Real Estate Acquisition Management Plan
 - a. - RAMP FINAL Rev4-020311.pdf
 - b. RAMP FINAL Rev4-APP A-020311.pdf
 - c. RAMP FINAL Rev4-APP B-020311.pdf
2. HART-QualityManagementPlan-Rev1.pdf (3/5/2012)
3. HART-Safety&SecurityCertificationPlan.pdf (5/9/2012)
4. HART-Safety&SecurityManagementPlan.pdf (5/9/2012)
5. HHCTCP-BusFleetManagementPlan.pdf (June 2010)
6. HHCTCP-ConstructionSafety&SecurityPlan.pdf (4/2/2011)
7. HHCTCP-DesignLanguagePatternBook.pdf (October 2008)
8. HHCTCP-DraftInterfaceControlManual.pdf (10/21/2009)
9. HHCTCP-HazardousMaterialTechnicalReport.pdf (8/15/2008)
10. HHCTCP-InterfaceManagementPlan.pdf (8/29/2011)
11. HHCTCP-PrimaryControlReport.pdf (6/25/10)
12. HHCTCP-ProjectManagementPlan.pdf March 2011)
13. HHCTCP-QualityPlan.pdf (9/22/2009)
14. HHCTCP-Signage&WayfindingSystemsManual.pdf (12/18/2009)
15. HHCTCP-SystemwideSustainabilityReport.pdf (5/22/2009)

ENVIRONMENTAL DOCUMENTS

1. 6.2.07_Noise& Vibration.pdf (10/1/2008)
2. Attachment A ROD - Mitigation Monitoring Program.pdf (January 2011)
3. Attachment B ROD - Final PA
 - a. Attachment B ROD - Final PA Attachment 1 Part 1 correspondence.pdf (January 2011)
 - b. Attachment B ROD - Final PA Attachment 1 Part 2 Historic Resources Parcel Maps-key-12.pdf (6/18/2008)
 - c. Attachment B ROD - Final PA Attachment 1 Part 3 Historic Resources Parcel Maps-13-25.pdf (6/18/2008)
 - d. Attachment B ROD - Final PA Attachment 1 Part 4 Historic Resources Parcel Maps-26-35.pdf (2/4/2010, 6/18/2008)
 - e. Attachment B ROD - Final PA Attachment 2.pdf (January 2011)
 - f. Attachment B ROD - FINAL PA Jan 2011 signed.pdf (January 2011)
4. Attachment C ROD - Comments on FEIS and Responses.pdf (January 2011)
5. Attachment D ROD.pdf (January 2011)
6. Final Programmatic Agreement.pdf (January 2011)
7. ROD and transmittal ltr (signed) dated Jan 18 2011.pdf
8. Hazardous Materials Inventory Technical Report (Jan. 2008)
9. Programmatic EHE/EHMP

GEOTECHNICAL DOCUMENTS

1. Airport Section

- a. AirportSegment.FdnTechMemo.FinalVersion.pdf
- b. GeotechnicalDataReport.AirportSegment.FinalVersion.pdf
2. Historical Geolabs Project Studies
 - a. Geolabs{1991forHRT}.pdf
 - b. Geolabs1990ReconWork_PlanView_east.pdf
 - c. Geolabs1990ReconWork_PlanView_west.pdf
 - d. Geolabs1990ReconWork_PlanView{east and west}.tif
 - e. GeotechReconnaissanceRpt_Geolabs {31Aug90}.pdf
3. Middle Street Station
 - a. CityCenter.FdnTechMemo.FinalVersion.pdf (2/26/2010)
 - b. FinalVersion.GeotechnicalDataReport.CityCenter.pdf (2/26/2010)
4. Reference Geotechnical reports
 - a. FerrelThesis_small.pdf (August 1976)
 - b. 6000-10.DrilledShaftConcreteUsageSummary.pdf (3/28/2009)
 - c. 6000-10.DrivenPileFoundationSummary.pdf (3/24/2009)
 - d. References-Past PB Projects
 - KeehiInterchange
 - Keehi Interchange - Soils Information - 11-5-75.pdf
 - Keehi Interchange Foundation Report Puuloa Road to Ahua Street - 5-76.pdf
 - Keehi Interchange IH1185 DynamicMeasurements_PileDriving10_77.pdf
 - Keehi Interchange Pile Testing.pdf
 - Keehi Intrchg Test Plans – 1976.pdf
 - Keehi Intrchg Test Spec – 1976.pdf
 - PB - Keehi Interchange-Structural Foundation Report Part II 9-73.pdf
 - PB - Keehi Interchange-Structural Foundation Report Part III 10-73.pdf
 - SRI_Keehi Interchange IH1185Field Testing Report PDA Driving _10_77.pdf

APPENDIX A

TASK and SUBTASK DESCRIPTION

TASK 04.01 - Project Management

Provide management and administration resources for day-to-day oversight of the design of the Airport Station Group (ASG) Contract including preparation of a Project Management Plan (PMP), hosting and recording coordination meetings, design cost monitoring and control, design schedule monitoring and control, subconsultant management and coordination, document control, monthly progress reporting and invoicing, and quality management and assurance. Regular interfacing and coordination with both HART and the General Engineering Consultant (GEC) will be required.

CONSULTANT will conform to the HART Quality Management Plan (QMP) and establish a Quality Assurance Plan (QAP) for the ASG Contract. CONSULTANT'S plan will meet the requirements of the FTA Quality Assurance/Quality Control (QA/QC) Guidelines and be reviewed and approved by HART prior to its use.

Prepare design schedule and provide updates to HART using Primavera P6. Non-CADD project correspondence and other documentation shall be controlled using Primavera Contract Management System (CMS). The HART's web-based file collaboration tool SharePoint shall be used for CADD drawings.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Project Management Plan	Task No. / Sub Task No. 04.01 / 01	Revision No: Conformed

A) Activity Description:

- 1) Develop a Project Management Plan (PMP) consistent with the Honolulu High-Capacity Transit Corridor Project (HHCTCP) PMP.
- 2) The following will be included in the PMP:
 - a) Project Management Overview
 - b) Management organization, approach and responsibilities
 - c) Design Management
 - i) Additional detail provided herein
 - d) Baseline Design Schedule and Schedule of Milestones
 - i) Additional detail provided herein
 - e) Financial Management
 - f) Document Management
 - g) Change Management
 - h) Project Closeout
 - i) Quality Control and Quality Assurance Plan (QA/QC)
 - i) Additional detail provided herein
 - j) Safety and Security Management Plan
 - i) Additional detail provided herein

B) Assumptions:

- 1) Provisions for changes to the HHCTCP PMP are identified within the plan; notification of changes will be given to the CONSULTANT
- 2) The Draft Project Management Plan will be issued early within NTP 1b

C) Inputs:

- 1) HHCTCP PMP format to be provided by HART
- 2) CONSULTANT internal PMP procedures to be incorporated into the plan that are not at variance with the HHCTCP PMP

D) Deliverables:

- 1) Draft Project Management Plan
- 2) Final Project Management Plan
- 3) Monthly and Quarterly Progress Reports

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a, 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Design Management	Task No. / Sub Task No. 04.01 / 02	Revision No: Conformed

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 interim 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 onetime review by all agencies and utilities and an expedited review period.
 - c) PM/ Design Manager will be the point of contact and will coordinate and communicate with HART regarding technical issues.
 - d) PM/ Design Manager will meet weekly with the Design Team Leaders.
- 2) Comments Matrix and Responses
 - a. HART shall review and provide comments on the PE, ID and FD submittals. 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/Design Manager is responsible for consolidating and proofing all comment responses from the disciplines and submitting to HART as one package. All comments shall be resolved in a joint meeting between the CONSULTANT and HART. The CONSULTANT will incorporate the comments into the submittal documents and submit a final Comments Matrix confirming that the comments have been incorporated. 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 has been specifically requested in writing by the CONSULTANT and approved in writing by HART.
- 3) PE, ID and FD Submittals
 - a) The Project/Design Manager is responsible for coordinating and consolidating the PE, ID and FD submittal elements from all the required disciplines. These include (but not limited to) all required reports, estimates of construction costs, contract drawings, contract specifications and design calculations to be submitted as one package unless otherwise scheduled or agreed to by HART. In the case of the Final Design Submittal, the PM/DM is responsible for consolidating, coordinating and packaging the signed and sealed final Construction Contract Documents (drawings, specifications, general and special conditions) from all disciplines into 'Camera-Ready' and 'Ad-Ready' packages. Throughout this Scope of Work document, references to Final Design documents, or similar language, shall mean Construction Contract Documents as defined in this Activity.
- 4) 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.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a, 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Design Management	Task No. / Sub Task No. 04.01 / 02	Revision No.: Conformed

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.
- 5) Schedule Update
 - a) Prepare Project Schedule of Milestones (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.
 - b) The SM will be submitted consistent with HART's Contract Management System (CMS)
- 6) Primavera Licensing
 - a) The CONSULTANT will maintain one program license agreement for Oracle's Primavera P6 and Contract Manager.
- 7) 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 Project 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.
- 8) Document Controls
 - a) Non-CADD project correspondence and other documentation will be controlled using 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 (version to be determined by CONSULTANT and HART) 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.
- 9) 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 the HART with input from the CONSULTANT
 - 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

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a, 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Design Management	Task No. / Sub Task No. 04.01 / 02	Revision No: Conformed

format will be defined and provided 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 the HART, including Primavera 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.
- b) Project Controller responsible for financial monitoring and control reporting, invoicing and accounting.

B) Assumptions:

- 1) No deliverable or milestones are associated with Design Management activities; rather the effort is distributed over the duration of the Activity.
- 2) Transmittal of contractual documents between CONSULTANT and HART and original signed hard copies of any contractual documents to be transmitted as per HART's CMS.

C) Inputs:

- 1) PMP for ASG project
- 2) HHCTCP – CADD Procedures dated October 16th, 2009 and future updates
- 3) HHCTCP – Plans Standards; dated October 16th, 2009 and future updates

D) Deliverables:

- 1) Management activities are based off the PMP and the effort is distributed over the duration of the Activity.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a – Workshop, Design Schedule & Schedule of Milestones	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Baseline Project Design Schedule	Task No. / Sub Task No. 04.01 / 03	Revision No: Conformed

A) Activity Description:

- 1) Prepare a Design Schedule in Primavera P6 to establish the schedule for the design activities and interface points of the ASG Contract baseline.
- 2) Submit the Draft Design Schedule for HART review.
- 3) Modify the schedule based on HART's comments.
- 4) Submit the final resource-loaded Design Schedule using approved project budget amounts to HART.

B) Assumptions:

- 1) The SM will form the basis for payment for all work the CONSULTANT expects to be compensated.
- 2) The activities identified in this Scope of Work, as modified and agreed to by HART, will be the basis for the Design Schedule and SM.
- 3) Four (4) basic NTPs will be issued by HART:
 - a) NTP 1a – Workshop, Design Schedule & Schedule of Milestones
 - b) NTP 1b – Preliminary Engineering
 - c) NTP 2 –Interim Design
 - d) NTP 3 –Final Design
- 4) The design schedule will not include NTP 4 or NTP 5.
- 5) The Final Design Schedule and SM will be issued prior to the start of NTP 1b.

C) Inputs:

- 1) PMP document provided by HART
- 2) WBS numbering system as applicable to ASG design assignment (or as assigned by HART)
- 3) Schedule found in the Honolulu Authority for Rapid Transportation Project ASG Professional Service Contract Request for Qualifications
- 4) Program schedule milestones

D) Deliverables:

- 1) Draft P6 Design Schedule
- 2) Final P6 Design Schedule

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a - Workshop, Design Schedule & Schedule of Milestones	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Schedule of Milestones (SM)	Task No. / Sub Task No. 04.01 / 04	Revision No: Conformed

A) Activity Description:

- 1) Prepare a Design Schedule in Primavera P6 to establish the schedule for the design activities and interface points of the ASG Contract baseline.
- 2) Prepare a Draft SM based on the baseline design schedule.
- 3) Submit the SM for HART review.
- 4) Modify the SM based on HART's comments and based on information from the design schedule.
- 5) Submit the final cost loaded SM to HART.

B) Assumptions:

- 1) The SM will form the basis for payment for all work the CONSULTANT expects to be compensated.
- 2) The activities identified in this Scope of Work, as modified and agreed to by HART, will be the basis for the SM.
- 3) Four (4) basic NTPs will be issued by HART:
 - a) NTP 1a – Workshop, Design Schedule & Schedule of Milestones
 - b) NTP 1b – Preliminary Engineering
 - c) NTP 2 –Interim Design
 - d) NTP 3 –Final Design
- 4) The Final Design Schedule and SM will be issued prior to the start of NTP 1b.

C) Inputs:

- 1) SM format provided by HART
- 2) Schedule found in the Honolulu Authority for Rapid Transportation Project ASG Professional Service Contract Request for Qualifications
- 3) WBS Codes and activities as assigned by HART

D) Deliverables:

- 1) Draft SM
- 2) Final SM

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a, 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Quality Assurance and Management	Task No. / Sub Task No. 04.01 / 05	Revision No: Conformed

A) Activity Description:

- 1) Quality Assurance and Management support during the design phase of the Project NTP 1a, 1b, 2, and 3. Quality Assurance and Management for NTP 4 and NTP 5 are under a separate Activity.
- 2) This task item is associated with the development, maintenance, training, and enforcement of the Quality Assurance Plan (QAP). The QAP will be developed to meet the requirements described in HART's Quality Management Plan (QMP).
- 3) CONSULTANT will review and approve the QAP submitted by any subconsultant who opts to use their own QAP rather than adopting CONSULTANT's QAP. These QAP's will be submitted to HART for their final review and approval. See item 4) under "Assumptions.
- 4) All submittals must undergo a Quality Control (QC) review. This review will be documented as described in the QAP. As part of the Plan, all major milestone submittals will be reviewed by Quality Assurance Personnel to ensure the proper QC procedures have been followed.
- 5) As part of the QAP, each Discipline will be required to submit QA/QC documentation in the form of a Checklist for each deliverable.

B) Assumptions:

- 1) All submittals will undergo the QC processes as dictated by the QAP.
- 2) Quality Assurance Personnel will be independent of the design process.
- 3) With the exception of the QAP, no deliverable or milestones are associated with Quality Assurance and Management; rather the effort is distributed over the duration of the Activity.
- 4) CONSULTANT's Geotechnical sub-consultants will be required to develop a Geotechnical QAP (GQAP) that addresses field work, lab work, and any other geotechnical-specific work that is not addressed in the CONSULTANT QAP. CONSULTANT will review and approve the GQAP for submittal to HART for their final review and approval. Geotechnical work will be governed by the combination of the CONSULTANT QAP and the GQAP.
- 5) Task includes Management (scheduling and assignment) of the Quality Control Personnel.

C) Inputs:

- 1) HART's QMP

D) Deliverables:

- 1) QAP
- 2) Geotechnical QAP
- 3) Quality Assurance Review – Preliminary Engineering
- 4) Quality Assurance Review – Interim Design
- 5) Quality Assurance Review – Final Design

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Site Safety and Security Plan	Task No. / Sub Task No. 04.01 / 06	Revision No: Conformed

A) Activity Description:

- 1) Development of a Site Safety and Security Plan (SSSP) to implement and maintain 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.
- 2) Submit a SSSP which shall address field work-related hazards and mitigation measures for all field work (including sub-consultants) related hazards and mitigation measures. This plan shall take into account all work, including any activities subcontracted.
- 3) This plan will interface with the CONSULTANT overall safety and health program and be submitted to the HART Safety and Security Manager for review and acceptance thirty (30) days prior to field work taking place.

B) Assumptions:

- 1) SSSP to be compliant with regulatory, CSSP and with CONSULTANT policies.
- 2) The SSSP will be issued with the start of NTP 1b.
- 3) The CONSULTANT is responsible for employee and sub-consultant compliance with applicable regulations and the SSSP.
- 4) Transmittal of Safety and Security observations and incidents between the CONSULTANT and the HART is to be carried out through the Integrated Safety Management System (ISMS). HART to provide access to this internet based system.

C) Inputs:

- 1) CONSULTANT Company Safety and Health Manual
- 2) Honolulu High-Capacity Transit Corridor Construction Safety and Security Plan (CSSP)
- 3) Various State and Federal occupational safety and health regulations
- 4) Hawaii Administrative Rules, Title 12, Department of Labor and Industrial Relations Subtitle 8, Division of Occupational Safety and Health Part 3

D) Deliverables:

- 1) Draft SSSP
- 2) Final SSSP

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a, 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Project Management Safety and Security Certification	Task No. / Sub Task No. 04.01 / 07	Revision No: Conformed

A) Activity Description:

- 1) Demonstrate for each NTP, within the project schedule, the integration and completion of safety and security certification activities, including the development and completion of Conformance Checklist.
- 2) Facilitate and participate in "Safety & Security Certification Task Force" meetings as necessary. Schedule meetings, prepare agenda, and prepare meeting minutes.
- 3) Identify the representative assigned to manage and facilitate the Designer's implementation of the safety and security certification process.
- 4) Develop and support the development of safety and security analyses for safety and security certifiable elements as needed.
- 5) Support the resolution of identified safety hazards and security vulnerabilities identified through safety and security analyses.
- 6) Participate on safety and security committees and working groups established by HART to perform safety and security certification activities as requested.
- 7) Participate in HART Safety and Security Certification Audits.
- 8) Develop and submit for acceptance by the HART Safety and Security Review Committee the Safety and Security Conformance Checklist.
- 9) Support the closure of all identified safety hazards and security vulnerabilities.
- 10) Submit completed and signed Safety and Security Conformance Checklist to HART for review and acceptance.
- 11) 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.

B) Assumptions:

- 1) Safety and Security Certification Task Force meetings are on an as needed basis, at the request of the Designer.
- 2) HART will provide PE-Phase Safety and Security Conformance Checklist.
- 3) Safety and Security Certification Audits will be performed by HART annually.

C) Inputs:

- 1) HHCTCP- Safety and Security Management Plan, Rev. 3 (5/9/2012)
- 2) HHCTCP- Safety and Security Certification Plan, Rev. 2 (5/9/2012)
- 3) FTA Handbook for Transit Safety and Security Certification (November 2002)
- 4) PE-Phase Safety and Security Conformance Checklist developed by HART

D) Deliverables:

- 1) Schedule of Safety and Security Certification Activities
- 2) Meeting minutes from the Safety and Security Certification Task Force 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

TASK 04.02 - Design Workshop

Commence design with a 3-day Airport Station Group design workshop to review Station design concepts previously completed, and, if necessary update the design based on HART input. Participants shall include CONSULTANT's Project/Design Manager, Architectural and Structural Managers, HART Staff and GEC staff.

The Design Workshop shall occur within NTP #1a.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a – Workshop, Design Schedule & Schedule of Milestones	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Design Workshop – (SM)	Task No. / Sub Task No. 04.02 / 01	Revision No: Conformed

A) Activity Description:

- 1) CONSULTANT will hold a three (3) day design workshop.
 - a) CONSULTANT to secure the venue for the workshop.
 - b) CONSULTANT to organize and hold the workshop.
- 2) Prior to the Workshop, CONSULTANT will:
 - a) Review reference documents.
 - b) Prepare the Workshop agenda and modify per HART's comments.
 - c) Prepare presentation boards of existing materials, including the entire corridor, station site plans, building plans, sections, elevations and 3D images and site photos.
 - d) Review the status of design for the Airport Guideway (AGW) Contract and report any known and potential interface issues.
- 3) The proposed Workshop agenda is as identified below:
 - a) HART to provide a summary review of the current status of the Station designs and issues associated with each Station.
 - b) The Stations will be reviewed in general to identify the design intent for items that will have continuity and items that will be variable.
 - c) The Stations will be reviewed individually and discussed in regards to the unique aspect of each. Particularly, areas that are desired to reflect the neighborhood or historic character of each Station will be discussed.
- 4) Key stakeholders participating shall include:
 - a) CONSULTANT's Project Manager/Design Manager, Architectural Managers, and Structural Manager, HART staff, GEC staff, other stakeholders or staff as identified by HART.
- 5) Follow-up activities will include:
 - a) Prepare meeting minutes and document design decision/action items.

B) Assumptions:

- 1) Prior to workshop, HART staff will update CONSULTANT regarding ongoing stakeholder discussions and outstanding issues.
- 2) Key CONSULTANT and HART team members will participate for the full duration of the workshop.
- 3) Agenda and process will have been agreed upon by HART.
- 4) Workshop will be three (3) days in duration.

C) Inputs:

- 1) Preliminary Station Value Engineering Study Report prepared by Value Management Strategies, Inc., dated April 2011
- 2) All previous documents, including PE drawings dated 09/25/2009, BOD Report dated 12/03/2010, HHCTCP Standard Design documents and reports, HART Directive and Standard drawings, Station Module Configuration Conceptual Sketches dated 01/17/2012 and updated 03/09/2012. An additional update was received for Middle Street Station, dated July 13, 2012
- 3) Design Language Pattern Book Task 16 – Final October 2008

D) Deliverables:

- 1) Design Workshop meeting minutes with exhibits presented or developed during the workshop.

TASK 04.03 – Environmental

Prepare an Environmental Compliance Plan (ECP) that addresses how compliance and documentation will be achieved in design and construction, including the design review process to address pertinent mitigation measures and permits specified in the HART's Final Environmental Impact Statement (FEIS), the Record of Decision (ROD), and the Section 106 Programmatic Agreement (PA). The CONSULTANT will prepare environmental constraint maps as directed by HART as part of the ECP. Prepare application(s) for pertinent environmental permits and related design plans that reflect achievement of environmental compliance. The CONSULTANT will update the ECP, as needed, when new or modified mitigation or environmental compliance conditions are developed during the term of the Contract. The CONSULTANT will be responsible for preparing additional environmental documents, in compliance with the National Environmental Policy Act (NEPA) and State of Hawai'i Chapter 343 for all environmental clearances specified by permit conditions, as required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a - Workshop, Design Schedule and Schedule of Milestones	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Environmental – (SM)	Task No. / Sub Task No. 04.03 / 01	Revision No: Conformed

A) Activity Description:

- 1) Initiate the right-of-entry (ROE) process for field investigations for all disciplines at the same time. The ROE request will be for a duration as to allow access for all disciplines to complete their work.
- 2) Attend design team coordination, review, and interface meetings as needed.
- 3) Prepare and update the Environmental Compliance Plan (ECP) throughout the development of the design and geotechnical investigation:
 - 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 and geotechnical investigation phases.
 - 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.

B) Assumptions:

- 1) CONSULTANT will provide Tax Map Key (TMK) data to HART for all parcels where ROE is required for preconstruction and permitting activities. CONSULTANT will assist with obtaining other information as defined by, and requested by, HART, and will review applications for completeness.
- 2) HART will secure ROE where required forty-five (45) days after the request for ROE is made.
- 3) The ECP will not consider Health and Safety requirements.
- 4) The ECP will incorporate mitigation provisions detailed in the FEIS, FAA ROD, ROD, and PA.
- 5) 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) PE Drawings
- 2) FEIS
- 3) ROD
- 4) FAA ROD
- 5) Section 106 PA

D) Deliverables:

- 1) TMK List
- 2) Preliminary Draft (Rev. A) ECP Submittal
- 3) Baseline (Rev. 0) ECP Submittal

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b - Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Environmental - (PE)	Task No. / Sub Task No. 04.03 / 02	Revision No: Conformed

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 1b.
- 4) Provide input to HART to assist with NPDES and Section 404 NWP (Nationwide Permit) applications and notifications as requested. CONSULTANT will review applications for completeness prior to submittal.

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 guideway and ancillary features. 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 (2) At the end of NTP 3.

C) Inputs:

- 1) FEIS
- 2) ROD
- 3) FAA ROD
- 4) PA
- 5) Meetings with Designers
- 6) Permits (as received)

D) Deliverables:

- 1) Environmental Compliance Review Tracking Document for PE design

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Environmental – (ID)	Task No. / Sub Task No. 04.03 / 03	Revision No: Conformed

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 updates are assumed: (1) At the end of NTP 1b, (2) At the end of NTP 2, and (2) At the end of NTP 3.
- 2) Environmental Compliance Reviews will occur prior to submittal of PE, ID, and FD plan sets.
- 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 guideway and ancillary features. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.

C) Inputs:

- 1) ID Drawings
- 2) FEIS
- 3) ROD
- 4) FAA ROD
- 5) PA
- 6) Permits (as received)

D) Deliverables:

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

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 - Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Environmental – (FD)	Task No. / Sub Task No. 04.03 / 04	Revision No: Conformed

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 updates are assumed: (1) At the end of NTP 1b, (2) At the end of NTP 2, and (2) 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.
- 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 guideway and ancillary features. CONSULTANT will be responsible for determining the appropriate level of review in consultation with HART.

C) Inputs:

- 1) ID/FD Drawings
- 2) FEIS
- 3) ROD
- 4) FAA ROD
- 5) PA
- 6) Permits (as received)

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

TASK 04.04 – Permits

The CONSULTANT shall prepare all applicable permit applications, obtain permits as necessary and comply with all permits conditions related to this scope of work, including but not limited to, field activities by the CONSULTANT, and construction and field activities to be performed by the construction contractor, as suitable. This may include, but is not limited to, building permits, stockpiling, grading, etc. The CONSULTANT shall be responsible to input all permits obtained into CMS and report the compliance to the conditions.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a,1b,2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Permits	Task No. / Sub Task No. 04.04 / 01	Revision No: Conformed

A) Activity Description:

1) CONSULTANT to prepare applications for the following permits and clearances as necessary:

UTILITY RELOCATION

- a) NPDES Form C, F and G as necessary
- b) Identify and obtain appropriate MS4 Approvals
- c) City and County of Honolulu Street Usage Permit
- d) DOT Highway Usage Permit

PERMANENT CONSTRUCTION

- a) NPDES Form C, F and G as necessary
- b) Identify and obtain appropriate 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) Noise Permit as necessary
- k) Noise Variance as necessary
- l) City and County of Honolulu Street Usage Permit
- m) DOT Highway Usage Permit
- n) City Grading, grubbing, stockpiling, trenching (including permits for lay down yards)
- o) Landscaping Plans affecting HDOT roadways
- p) 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) Telcom for non-Core System communications

B) Assumptions:

- 1) CONSULTANT assumes that existing information and studies prepared for the FEIS, ROD, Mitigation Monitoring Program, Programmatic Agreement and the 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) CONSULTANT assumes HART is responsible for obtaining the following permits/approvals:

REQUIRED FOR GEOTECHNICAL INVESTIGATION:

- a) Noise Permit

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a,1b,2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Permits	Task No. / Sub Task No. 04.04 / 01	Revision No: Conformed

- b) Noise Variance
- c) NPDES Form C (CONSULTANT to provide site-specific BMP plans)
- d) MS4 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) 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) ID Drawings
- 5) Site-Specific BMP Plan (to be developed with design team)

D) Deliverables:

- 1) Draft Permit/Clearance Applications
- 2) Final Permit/Clearance Applications

TASK 04.05 - Interface Coordination and Management

Extensive and continual interface and design coordination with other Contracts or entities is essential for the ASG Contract. This interface includes, but is not limited to:

- Core Systems Contract (CSC) - Interface with the CSC for the communications and control, traction electrification, train control and signaling, platform edge doors/gates, and fare vending systems and device locations. Station design will include conduits and other components, block outs, structural supports and mountings and other rough-ins, enclosures and finishes as needed. Final installation of some of these systems may occur in the future after Station construction is complete.
- Airport Guideway (AGW) Contract – Interface with the AGW Contract in the Station areas. The design of the guideway superstructure, columns and foundations, certain Station platform supports structures and concourse support structures within the limit of the guideway structure is part of the AGW scope of work and not a part of this contract except for coordination. Site grading, roadway, drainage and other site features within the Station areas are part of this scope of work.
- Elevators and Escalators Contracts – Coordination will be required with the Elevators and Escalators Contract during the furnishing, installation and testing of the Station elevator and escalator equipment. HART furnished Standards and Directive Drawings will provide dimensions for hoist ways and floor openings, elevator and escalator equipment criteria such that it is not contemplated that ASG will require a separate vertical transportation consultant. HART will furnish and install all elevators and escalators in a separate contract that will be in force prior to start of construction of the ASG facilities.
- Systemwide Landscape Design – Interface with the GEC landscape design consultant for proposed permanent irrigation and landscaping along the Project alignment in median areas occurring under and adjacent to the guideway and adjacent to the Stations.
- Station Signage Design – Interface with the GEC signage designer for sign face and message. The CONSULTANT will be responsible for incorporating signs, attachment, conduit, lighting, and other requirements for locations indicated by the HART Signage and Wayfinding Systems Manual.
- Public and Private Utilities – Coordinate points of service, utility relocation, sizing and connections points, etc.
- Public and Private Property owners and businesses – Coordinate design and construction staging plan traffic impacts with adjacent or affected property owners and businesses.
- Section 106 Consulting Parties to the Section 106 PA.
- HART has been interfacing with adjacent Contractors/Designers prior to ASG Consultant being selected. The Consultant will be responsible for designing the stations within the limitations of HART response to the interface questions (RFIDs) to the extent possible.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Interface Coordination and Management	Task No. / Sub Task No. 04.05 / 01	Revision No: Conformed

A) Activity Description:

Provide interface and coordination in conformance with the Interface Management Plan. CONSULTANT will interface and coordinate with HART contractors and designers and other stakeholders, including:

- 1) Interface and coordination with other HART Consultants and Contractors:
 - a) Coordinate with HART regarding work by others with the various stakeholders and other systemwide issues.
 - b) Interface with the Core Systems Contractor for the communication and control, traction power electrification, train control and signaling, platform edge doors/gates, fare vending systems, devices locations and other systems as required. Interface with Core Systems Contractor for requirements for embedded conduits and other embedded components, block outs, structural supports and mountings and other rough-ins, and other enclosures and finishes as needed.
 - c) Interface with the AGW contract design team in the four (4) Station areas.
 - d) Interface with Elevators and Escalators Contract for the furnishing, installation and testing of the Station elevator and escalator equipment by the Elevators and Escalators Contractor. HART furnished Standards and Directive Drawings will provide dimensions for hoist ways and floor openings, elevator and escalator equipment criteria. Furnishing and installation of all elevators and escalators will be by a separate HART Contractor.
 - e) Systemwide Landscaping Design - Interface with HART's designer for proposed permanent irrigation and landscaping in adjacent to the Stations.
 - f) Station Signage Design - Interface with the HART signage designer for sign face and message. The CONSULTANT will be responsible for incorporating signs, attachment, conduit, lighting, and other requirements for locations indicated by the HART Signage and Wayfinding Systems Manual for inclusion in this contract.
- 2) Coordinate with Government Agencies:

Coordination of Station design with:

 - a) U.S. Navy
 - b) U.S. Air Force
 - c) State of Hawaii, Department of Transportation, Highways Division
 - d) State of Hawaii, Department of Transportation, Airports Division
 - e) Federal Aviation Administration (FAA)
 - f) Honolulu Department of Transportation Services
 - g) Department of Planning and Permitting
 - h) City and County of Honolulu
 - i) Others
- 3) Coordinate with Public and Private Utilities:

Coordination for points of service, utility relocation, sizing and connection points, etc., with various utility owners, including (note that technical day-to-day coordination will be covered in task 0900):

 - a) Hawaiian Electric Company (HECO)
 - b) City and County of Honolulu (Dept. of Planning & Permitting, Dept. of Environmental Services, Dept. of Design & Construction, and Dept. of Transportation Services)
 - c) Board of Water Supply
 - d) State of Hawaii Department of Transportation - Highways Division
 - e) Network Enterprise Center
 - f) Naval Computer and Telecommunications Master Station
- 4) Coordinate with Public and Private Property Owners and Businesses:
 - a) Coordinate design and construction staging plan traffic impacts with adjacent or affected property owners and businesses.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b, 2, 3	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Interface Coordination and Management	Task No. / Sub Task No. 04.05 / 01	Revision No: Conformed

- b) Coordinate Stations with other known projects along the segment, including, but not limited to:
 - i) Honolulu International Airport Modernization Plan (including proposed Mauka Interisland Terminal Expansion and proposed Consolidated Rent-A-Car Facility).
- 5) Follow Environmental and Public Involvement tasks to coordinate project compliance with Section 106 of the National Historic Preservation Act.
- 6) For all Phases, attend review and interface meetings as needed.
- 7) Develop, submit, and update Interface Matrix identifying interfaces with affected contracts.
- 8) Develop Passenger Station Interface Control Manual.
- 9) Generate and respond to RFIDs.
- 10) Confirm interfacing partner ICDs.

B) Assumptions:

- 1) Core Systems design, AGW contract design, and Systemwide Landscaping design is by others. All electrical, communication, and systems conduits from Guideway to Stations and systems sites will be provided by Guideway designers; wiring and cable connections will be by others. CONSULTANT will be responsible for interfacing and coordinating with Core Systems Contractor for systems conduit/cable routing in station areas.
- 2) Station Signage Design- The CONSULTANT will be responsible for incorporating signs, attachment, conduit, lighting, and other requirements for locations indicated by the HART Signage and Wayfinding Systems Manual.
- 3) Timely responses to reviews/comments from third parties. We are assuming a thirty (30)-day review period for all formal submittals.
- 4) Oracle Primavera Contract Management System (CMS) will be used to track interfaces and log interface meeting notes.
- 5) All property owner and business communications is by HART.
- 6) All communication regarding Section 106 issues will be made through HART (i.e., CONSULTANT will have no direct contact with State Historic Preservation).

C) Inputs:

- 1) Airport Section approved Interface Management Plan
- 2) HHCTCP-DraftInterfaceControlManual.pdf (10/21/2009)HHCTCP Interface Management Plan (8/29/2011)
- 3) Preliminary Engineering drawings
- 4) Basis of Preliminary Design Report
- 5) Interim and Final Core Systems designs/plans
- 6) Interim and Final Guideway and Utilities designs/plans
- 7) Interim and Final Elevators and Escalators designs/plans
- 8) Systemwide Landscape Design criteria and concepts
- 9) FEIS
- 10) ROD
- 11) Section 106 PA
- 12) RFID responses generated by the ASG Interim Final Designer

D) Deliverables:

- 1) Draft and final ASG Passenger Station Interface Control Manual
- 2) Update the ASG Passenger Station Interface Control Manual
- 3) Passenger Station Interface Matrix
- 4) Generation of and response to RFIDs
- 5) Generation of Interface Control Documents (ICDs)
- 6) Confirmation of interfacing partner ICDs

TASK 04.06 - Cost Estimating

At each submittal, prepare material quantity take-offs and a construction cost estimate to assess the design's adherence to HART's budget. Adjust the design as necessary to maintain compliance with the budget. Format for material quantity take-offs will be provided by HART.

HART will provide the initial unit cost information; subsequent cost estimating will be based on unit cost development and updated by the CONSULTANT.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1a – Workshop, Design Schedule & Schedule of Milestones	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Estimate of Construction Cost – (SM)	Task No. / Sub Task No. 04.06 / 01	Revision No: Conformed

A) Activity Description:

- 1) Prepare a Construction Cost Budget Validation of the current HART Construction Budget.
- 2) Reconcile the Budget Validation cost estimate with the current HART Construction Budget.

B) Assumptions:

- 1) The reconciled Construction Cost Budget will be the basis to which the CONSULTANT will design the Project, and the basis for the updated Estimates of Construction for the subsequent phases of design.

C) Inputs:

- 1) Detailed Estimate of Construction Cost report from HART
- 2) Supporting documentation for the construction cost estimate from HART

D) Deliverables:

- 1) Budget Validation Engineering Estimate of Construction Costs Submittal
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b - Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Estimate of Construction Cost – (PE)	Task No. / Sub Task No. 04.06 / 02	Revision No: Conformed

A) Activity Description:

- 1) Prepare a PE estimate of construction cost based on building areas, Updated PE documents, concept drawings or sketches, and site information. The cost opinion will be prepared in the system format to prepare for design stage cost management and can be converted to the format provided by HART.
- 2) Reconcile the PE estimate of construction cost with opinions of cost provided by a 3rd Party, if any.
- 3) Align the PE estimate of construction cost with HART's project Construction Budget. Alert the design team if the estimate of construction cost is in excess of project Construction Budget.
- 4) Develop cost savings recommendations for all building systems.
- 5) Coordination with the design team, and their assistance with the estimate of construction, will include a review of the design by the cost estimator and the design team to ensure the Stations is constructible.
- 6) Provide a single revision to the opinion of construction cost to incorporate review comments from the Design team and/or HART.
- 7) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Assumes all four (4) Stations will be bid as a single construction contract and therefore a single cost report will be produced for all four (4) Stations.
- 2) Excludes formal Cost Control Report, Risk and VE workshops.
- 3) Cost reports will include Construction hard cost and quantities only, excluding project cost such as Design and Management fees, FF&E, Art Design and Installations, Owner's Insurance and Contingency, Land, Legal, Finance and Start-Up.

C) Inputs:

- 1) Revised Preliminary Design documents
- 2) Project Work Plan
- 3) QAP

D) Deliverables:

- 1) Preliminary Engineering Estimate of Construction Costs Submittal

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 07/10/2012
Activity: Estimate of Construction Cost – (ID)	Task No. / Sub Task No. 04.06 / 03	Revision No: Conformed

A) Activity Description:

- 1) Prepare an Interim Design estimate of construction cost near the end of Interim Design stage. The cost opinion will be prepared in the format provided by HART.
- 2) Reconcile the Interim Design estimate of construction cost with opinions of cost provided by a 3rd Party, if any.
- 3) Align the Interim Design estimate of construction cost with HART's project Construction Budget. Alert the design team if estimate of construction cost is in excess of project Construction Budget.
- 4) If necessary, develop cost savings recommendations for all building systems.
- 5) Provide a single revision to the opinion of estimate of construction cost to incorporate review comments from the Design team and/or Owner.
- 6) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Format for the Interim Design submittal material quantity takes-offs and cost estimating will be provided by HART.
- 2) Excludes formal Cost Control Report, Risk and VE workshops.
- 3) Cost reports will include Construction hard cost only, excluding project cost such as Design and Management fees, FF&E, Art Design and Installations, Owner's Insurance and Contingency, Land, Legal, Finance and Start-Up.

C) Inputs:

- 1) Project Work Plan
- 2) QAP

D) Deliverables:

- 1) Interim Design Estimate of Construction Cost Submittal

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 - Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Estimate of Construction Cost – (FD)	Task No. / Sub Task No. 04.06 / 04	Revision No: Conformed

A) Activity Description:

- 1) Prepare an estimate of construction cost near the end of Final Design stage. The cost opinion will be prepared in the format provided by HART.
- 2) Reconcile the Final Design estimate of construction cost with opinions of cost provided by a third party, if any.
- 3) Provide cost study for potential additive or deductive alternates as identified by the Design Team.
- 4) Provide a single revision to the opinion of the estimate of construction cost to incorporate review comments from the Design team and/or Owner.
- 5) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Work excludes formal Cost Control Report, Constructability Reviews, Risk and VE workshops.
- 2) Cost reports will include for Construction hard cost only. Report excludes project costs such as Design and Management fees, FF&E, Art Design and Installations, Owner's Insurance and Contingency, Land, Legal, Finance and Start-Up.

C) Inputs:

- 1) Project Work Plan
- 2) QAP

D) Deliverable:

- 1) Final Design Estimate of Construction Cost Submittal

TASK 04.07 - Geotechnical Exploration and Design

Geotechnical exploration will be conducted for all site improvements within Station sites. Coordination with the AGW guideway designers for geotechnical information will be required to the extent practicable. Geotechnical data from previous investigations for the guideway prepared by HART and from other readily available soils reports for other projects in the immediate vicinity have been provided to plan the explorations program. Acquisition of permits and providing traffic control to perform geotechnical investigations is included in this scope of work.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.07 / 01	Revision No: Conformed

A) Activity Description:

- 1) Readily available information on subsurface and geologic conditions at and/or near the site will be researched and reviewed.
- 2) The geotechnical design approach that will be used to develop geotechnical recommendations for the Pearl Harbor Naval Base Station will be incorporated into a Geotechnical Planning Report (GPR) that will include all four Stations within the Airport Station Group (ASG) project.
- 3) A proposed boring location plan will be developed and incorporated into the Geotechnical Investigation Work Plan (GIWP) that will include all four Stations within the ASG.
- 4) Site Specific Best Management Practices (BMP) plans will be prepared based on the site conditions anticipated at the Pearl Harbor Naval Base Station site. The BMP will be limited to measures planned within the work area of each boring.
- 5) Preliminary geotechnical analysis will be performed based on the available geotechnical data, and preliminary recommendations will be developed for site preparation and grading, and foundation support for the Pearl Harbor Naval Base Station.
- 6) A technical memorandum will be prepared to summarize the preliminary foundation recommendations for the Pearl Harbor Naval Base Station.
- 7) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 8) Attend design team coordination, review and interface meetings, as needed.
- 9) Obtain State, City and/or Department of the Navy permits to perform the geotechnical field exploration within government right-of-ways.

B) Assumptions:

- 1) The GPR, GIWP, and Site Safety Plan (SSP) will include all four (4) Stations. Preparing a separate GPR, GIWP, and/or SSP for each Station is not included.
- 2) Initial drafts of GPR and GWP will be provided to HART not more than sixty (60) days after NTP 1b.
- 3) The GPR, GIWP, SSP, and associated submittals will be approved by HART within forty-five (45) days of the draft 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 will be exclusive of the forty-five (45) days.
- 4) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 5) Only Modified Level D of personal protective equipment (PPE) is required for field personnel.
- 6) HART will be 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 for all Pre-Construction Activities for the CONSULTANT.
- 7) Not included: Developing and implementing a BMP plan for the entire Pearl Harbor Naval Base Station site.

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT and/or NAVFAC as built drawings of existing structures and improvements in the vicinity of the proposed Station

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.07 / 01	Revision No: Conformed

D) Deliverables:

- 1) Draft and final GPR (for all four (4) Stations within the ASG)
- 2) Draft and final GIWP (for all four (4) Stations within the ASG)
- 3) Draft and final SSP (for all four (4) Stations within the ASG)
- 4) Draft and final Quality Plan (for all four (4) Stations within the ASG)
- 5) Drilling Contractor Qualifications (for all four (4) Stations within the ASG)
- 6) Laboratory Contractor Qualifications (for all four (4) Stations within the ASG)
- 7) Technical memorandum with preliminary recommendations for the Pearl Harbor Naval Base Station

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical - Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.07 / 02	Revision No: Conformed

A) Activity Description:

- 1) HDOT, City and NAVFAC permits for test boring located within State, City, and Navy right-of-ways and/or properties will be completed and obtained, as applicable.
- 2) Test boring locations will be staked-out and checked for underground utilities by reviewing available utility plans, checking with the Hawaii One Call Center, and performing field toning using geophysical methods, as needed.
- 3) Subsurface exploration at the Pearl Harbor Naval Base Station will be explored by performing four (4) borings @ fifty (50) feet each = two hundred (200) feet total.
- 4) Laboratory testing will be performed on selected soil samples and rock cores obtained from the borings to determine engineering properties.
- 5) Engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining structures, and pavements.
- 6) A stand alone Geotechnical Data Report (GDR) will be prepared that will include the field data and laboratory test results for the Pearl Harbor Naval Base Station.
- 7) A stand alone Geotechnical Engineering Report (GER) will be prepared for the Pearl Harbor Naval Base Station that will include interpretations of the field and laboratory test data. The GER will include discussions and recommendations for site preparation and grading, foundation support, retaining structures, and pavements for the Pearl Harbor Naval Base Station.
- 8) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 9) Attend design team coordination meetings. Attend a design review meeting with HART, and select interface meetings, if needed.
- 10) Geotechnical related sections of ID submittal plans and specifications will be reviewed to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.

B) Assumptions:

- 1) The boring sites are accessible to truck-mounted drill rigs without the need for mechanized trail clearing and/or grading efforts.
- 2) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 3) Only Modified Level D of personal protective equipment (PPE) is required for field personnel.
- 4) Monitoring during geotechnical investigations per the Field Screening Plan.
- 5) Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
- 6) The site is clear of unexploded ordinance (UXO).
- 7) Checking on as-built conditions of existing building and structure foundations is not included.
- 8) A seismic risk analysis and site specific response analysis including seismic shear wave velocity measurements are not included.
- 9) CONSULTANT will provide electronic gINT (geotechnical INTEgrator) files to HART at the completion of its Quality process for the field and laboratory investigations.
- 10) The GDR and GER submittals will be approved by HART within forty-five (45) days of the draft submittal. Time spent by the CONSULTANT in responding and addressing HART comments shall be exclusive the forty-five (45) days.
- 11) Boring logs placed on Construction Drawings will not be required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.07 / 02	Revision No: Conformed

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT and/or NAVFAC as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GDR
- 2) Draft and final GER
- 3) gINT files of the logs

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
----------------------------------	--	----------------------------------

Activity: Geotechnical Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.07 / 03	Revision No: Conformed
--	--	----------------------------------

A) Activity Description:

- 1) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 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 design team coordination meetings and conference calls, as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) ASG Reference Materials
- 2) ASG Contract Documents

D) Deliverables:

- 1) N/A

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b - Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.07 / 04	Revision No: Conformed

A) Activity Description:

- 1) Readily available information on subsurface and geologic conditions at and/or near the site will be researched and reviewed.
- 2) The geotechnical design approach that will be used to develop geotechnical recommendations for the Honolulu International Airport Station will be incorporated into a GPR that will include all four Stations within the ASG project.
- 3) A proposed boring location plan will be developed and incorporated into the GIWP that will include all four Stations within the ASG.
- 4) Site Specific BMP plans will be prepared based on the site conditions anticipated at the Honolulu International Airport Station site. The BMP will be limited to measures planned within the work area of each boring.
- 5) Preliminary geotechnical analysis will be performed based on the available geotechnical data, and preliminary recommendations will be developed for site preparation and grading, and foundation support for the Honolulu International Airport Station.
- 6) A technical memorandum will be prepared to summarize the preliminary foundation recommendations for the Honolulu International Airport Station.
- 7) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 8) Attend design team coordination, review and interface meetings as needed.
- 9) Obtain State and City permits to perform the geotechnical field exploration within government right-of-ways.

B) Assumptions:

- 1) The GPR, GIWP, and SSP will include all four (4) Stations. Preparing a separate GPR, GIWP, and/or SSP for each Station is not included.
- 2) Initial drafts of GPR and GIWP will be provided to HART not more than sixty (60) days after NTP 1b.
- 3) The GPR, GIWP, SSP, and associated submittals will be approved by HART within forty-five (45) days of the draft submittal, which includes a 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 will be exclusive of the forty-five (45) days.
- 4) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 5) Only Modified Level D of PPE is required for field personnel.
- 6) HART will be preparing a SWPPP and applying for and obtaining a NPDES permit, NOI, and noise permit for all Pre-Construction Activities for the CONSULTANT.
- 7) Not included: Developing and implementing a BMP plan for the entire Honolulu International Airport Station site.

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GPR (for all four (4) Stations within the ASG)
- 2) Draft and final GIWP (for all four (4) Stations within the ASG)
- 3) Draft and final SSP (for all four (4) Stations within the ASG)
- 4) Draft and final Quality Plan (for all four (4) Stations within the ASG)

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b - Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Honolulu International Airport Station -- (PE)	Task No. / Sub Task No. 04.07 / 04	Revision No: Conformed
5) Drilling Contractor Qualifications (for all four (4) Stations within the ASG)		
6) Laboratory Contractor Qualifications (for all four (4) Stations within the ASG)		
7) Technical memorandum with preliminary recommendations for the Honolulu International Airport Station		

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.07 / 05	Revision No: Conformed

A) Activity Description:

- 1) HDOT and City permits for test boring located within State and City right-of-ways and/or properties will be completed and obtained, as applicable.
- 2) Test boring locations will be staked-out and checked for underground utilities by reviewing available utility plans, checking with the Hawaii One Call Center, and performing field toning using geophysical methods, as needed.
- 3) Subsurface exploration at the Honolulu International Airport Station will be explored by performing four (4) borings @ sixty (60) feet each = two hundred forty (240) feet total.
- 4) Laboratory testing will be performed on selected soil samples and rock cores obtained from the borings to determine engineering properties.
- 5) Engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining structures, and pavements.
- 6) A stand alone GDR will be prepared that will include the field data and laboratory test results for the Honolulu International Airport Station.
- 7) A stand alone GER will be prepared for the Honolulu International Airport Station that will include interpretations of the field and laboratory test data. The GER will include discussions and recommendations for site preparation and grading, foundation support, retaining structures, and pavements for the Honolulu International Airport Station.
- 8) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 9) Attend design team coordination, review and interface meetings as needed.
- 10) Geotechnical related sections of ID submittal plans and specifications will be reviewed to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.

B) Assumptions:

- 1) The boring sites are accessible to truck-mounted drill rigs without the need for mechanized trail clearing and/or grading efforts.
- 2) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 3) Only Modified Level D of PPE is required for field personnel.
- 4) Monitoring during geotechnical investigations per the Field Screening Plan.
- 5) Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
- 6) The site is clear of unexploded ordinance (UXO).
- 7) Checking on as-built conditions of existing building and structure foundations is not included.
- 8) A seismic risk analysis and site specific response analysis including seismic shear wave velocity measurements are not included.
- 9) CONSULTANT will provide electronic gINT (geotechnical INTegrator) files to HART at the completion of its Quality process for the field and laboratory investigations.
- 10) The GDR and GER submittals will be approved by HART within forty-five (45) days of the draft submittal. Time spent by the CONSULTANT in responding and addressing HART comments shall be exclusive the forty-five (45) days.
- 11) Boring logs placed on Construction Drawings will not be required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Honolulu International Airport Station - (ID)	Task No. / Sub Task No. 04.07 / 05	Revision No: Conformed

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GDR
- 2) Draft and final GER
- 3) gINT files of the logs

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.07 / 06	Revision No: Conformed

A) Activity Description:

- 1) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 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 design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) None.

C) Inputs:

- 1) ASG Reference Materials
- 2) ASG Contract Documents

D) Deliverables:

- 1) N/A

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.07 / 07	Revision No: Conformed

A) Activity Description:

- 1) Readily available information on subsurface and geologic conditions at and/or near the site will be researched and reviewed.
- 2) The geotechnical design approach that will be used to develop geotechnical recommendations for the Lagoon Drive Station will be incorporated into a GPR that will include all four Stations within for the ASG project.
- 3) A proposed boring location plan will be developed and incorporated into the GIWP that will include all four Stations within the ASG.
- 4) Site Specific BMP plans will be prepared based on the site conditions anticipated at the Lagoon Drive Station site. The BMP will be limited to measures planned within the work area of each boring.
- 5) Preliminary geotechnical analysis will be performed based on the available geotechnical data, and preliminary recommendations will be developed for site preparation and grading, and foundation support for the Lagoon Drive Station.
- 6) A technical memorandum will be prepared to summarize the preliminary foundation recommendations for the Lagoon Drive Station.
- 7) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 8) Attend design team coordination meetings, review and interface meetings as needed.
- 9) Obtain State and City permits to perform the geotechnical field exploration within government right-of-ways.

B) Assumptions:

- 1) The GPR, GIWP, and SSP will include all four (4) Stations. Preparing a separate GPR, GIWP, and/or SSP for each Station is not included.
- 2) Initial drafts of GPR and GIWP will be provided to HART not more than sixty (60) days after NTP 1b.
- 3) The GPR, GIWP, SSP, and associated submittals will be approved by HART within forty-five (45) days of the draft submittal, which includes a 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 will be exclusive of the forty-five (45) days.
- 4) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 5) Only Modified Level D of PPE is required for field personnel.
- 6) HART will be preparing a SWPPP and applying for and obtaining a NPDES permit, NOI, and noise permit for all Pre-Construction Activities for the CONSULTANT.
- 7) Not included: Developing and implementing a BMP plan for the entire Lagoon Drive Station site.

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT as built drawings of existing structures and improvements in the vicinity of the proposed Station

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.07 / 07	Revision No: Conformed

D) Deliverables:

- 1) Draft and final GPR (for all four (4) Stations within the ASG)
- 2) Draft and final GIWP (for all four (4) Stations within the ASG)
- 3) Draft and final SSP (for all four (4) Stations within the ASG)
- 4) Draft and final Quality Plan (for all four (4) Stations within the ASG)
- 5) Drilling Contractor Qualifications (for all four (4) Stations within the ASG)
- 6) Laboratory Contractor Qualifications (for all four (4) Stations within the ASG)
- 7) Technical memorandum with preliminary recommendations for the Lagoon Drive Station

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.07 / 08	Revision No: Conformed

A) Activity Description:

- 1) HDOT and City permits for test boring located within State and City right-of-ways and/or properties will be completed and obtained, as applicable.
- 2) Test boring locations will be staked-out and checked for underground utilities by reviewing available utility plans, checking with the Hawaii One Call Center, and performing field toning using geophysical methods, as needed.
- 3) Subsurface exploration at the Lagoon Drive Station will be explored by performing five (5) borings @ sixty (60) feet each = three hundred (300) feet total and one (1) boring @ ten (10) feet for the parking area.
- 4) Laboratory testing will be performed on selected soil samples and rock cores obtained from the borings to determine engineering properties.
- 5) Engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining structures, and pavements.
- 6) A stand alone GDR will be prepared that will include the field data and laboratory test results for the Lagoon Drive Station.
- 7) A stand alone GER will be prepared for the Lagoon Drive Station that will include interpretations of the field and laboratory test data. The GER will include discussions and recommendations for site preparation and grading, foundation support, retaining structures, and pavements for the Lagoon Drive Station.
- 8) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 9) Attend design team coordination meetings. Attend a design review meeting with HART, and select interface meetings, if needed.
- 10) Geotechnical related sections of ID submittal plans and specifications will be reviewed to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.

B) Assumptions:

- 1) The boring sites are accessible to truck-mounted drill rigs without the need for mechanized trail clearing and/or grading efforts.
- 2) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 3) Only Modified Level D of PPE is required for field personnel.
- 4) Monitoring during geotechnical investigations per the Field Screening Plan.
- 5) Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
- 6) The site is clear of UXO.
- 7) Checking on as-built conditions of existing building and structure foundations is not included.
- 8) A seismic risk analysis and site specific response analysis including seismic shear wave velocity measurements are not included.
- 9) CONSULTANT will provide electronic gINT (geotechnical INTEgrator) files to HART at the completion of its Quality process for the field and laboratory investigations.
- 10) The GDR and GER submittals will be approved by HART within forty-five (45) days of the draft submittal. Time spent by the CONSULTANT in responding and addressing HART comments shall be exclusive the forty-five (45) days.
- 11) Boring logs placed on Construction Drawings will not be required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.07 / 08	Revision No: Conformed

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT and/or City as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GDR
- 2) Draft and final GER
- 3) gINT files of the logs

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.07 / 09	Revision No: Conformed

A) Activity Description:

- 1) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 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 design team coordination meetings and conference calls, as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) ASG Reference Materials
- 2) ASG Contract Documents

D) Deliverables:

- 1) N/A

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Middle Street Station – (PE)	Task No. / Sub Task No. 04.07 / 10	Revision No: Conformed

A) Activity Description:

- 1) Readily available information on subsurface and geologic conditions at and/or near the site will be researched and reviewed.
- 2) The geotechnical design approach that will be used to develop geotechnical recommendations for the Middle Street Station will be incorporated into a GPR that will include all four Stations within the ASG project.
- 3) A proposed boring location plan will be developed and incorporated into the GIWP that will include all four (4) Stations within the ASG.
- 4) Site Specific BMP plans will be prepared based on the site conditions anticipated at the Middle Street Station site. The BMP will be limited to measures planned within the work area of each boring.
- 5) Preliminary geotechnical analysis will be performed based on the available geotechnical data, and preliminary recommendations will be developed for site preparation and grading, and foundation support for the Middle Street Station.
- 6) A technical memorandum will be prepared to summarize the preliminary foundation recommendations for the Middle Street Station.
- 7) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 8) Attend design team coordination meetings, review and interface meetings as needed.
- 9) Obtain State, City and/or Department of the Navy permits to perform the geotechnical field exploration within government right-of-ways.

B) Assumptions:

- 1) The GPR, GIWP, and SSP will include all four Stations. Preparing a separate GPR, GIWP, and/or SSP for each Station is not included.
- 2) Initial drafts of GPR and GIWP will be provided to HART not more than sixty (60) days after NTP 1b.
- 3) The GPR, GIWP, SSP, and associated submittals will be approved by HART within forty-five (45) days of the draft submittal, which includes a 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 will be exclusive of the forty-five (45) days.
- 4) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 5) Only Modified Level D of PPE is required for field personnel.
- 6) Attend design team coordination, review and interface meetings as needed.
- 7) HART will be preparing a SWPPP and applying for and obtaining a NPDES permit, NOI, and noise permit for all Pre-Construction Activities for the CONSULTANT.
- 8) Not included: Developing and implementing a BMP plan for the entire Middle Street Station site.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Middle Street Station – (PE)	Task No. / Sub Task No. 04.07 / 10	Revision No: Conformed

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT and/or City as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GPR (for all four (4) Stations within the ASG)
- 2) Draft and final GIWP (for all four (4) Stations within the ASG)
- 3) Draft and final SSP (for all four (4) Stations within the ASG)
- 4) Draft and final Quality Plan (for all four (4) Stations within the ASG)
- 5) Drilling Contractor Qualifications (for all four (4) Stations within the ASG)
- 6) Laboratory Contractor Qualifications (for all four (4) Stations within the ASG)
- 7) Technical memorandum with preliminary recommendations for the Middle Street Station

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Middle Street Station – (ID)	Task No. / Sub Task No. 04.07 / 11	Revision No: Conformed

A) Activity Description:

- 1) HDOT and City permits for test boring located within State and City right-of-ways and/or properties will be completed and obtained, as applicable.
- 2) Test boring locations will be staked-out and checked for underground utilities by reviewing available utility plans, checking with the Hawaii One Call Center, and performing field toning using geophysical methods, as needed.
- 3) Subsurface exploration at the Middle Street Station will be explored by performing two (2) borings at two hundred fifty (250) feet and one (1) boring at one hundred (100) feet for a total of six hundred (600) lineal feet of exploration.
- 4) Laboratory testing will be performed on selected soil samples and rock cores obtained from the borings to determine engineering properties.
- 5) Engineering analysis will be performed and recommendations will be developed for site preparation and grading, foundation support, retaining structures, and pavements.
- 6) A stand alone GDR will be prepared that will include the field data and laboratory test results for the Middle Street Station.
- 7) A stand alone GER will be prepared for the Middle Street Station that will include interpretations of the field and laboratory test data. The GER will include discussions and recommendations for site preparation and grading, foundation support, retaining structures, and pavements for the Middle Street Station.
- 8) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 9) Attend design team coordination meetings. Attend a design review meeting with HART, and select interface meetings, if needed.
- 10) Geotechnical related sections of ID submittal plans and specifications will be reviewed to check that the intent of the geotechnical recommendations have been properly reflected in the contract documents.

B) Assumptions:

- 1) The boring sites are accessible to truck-mounted drill rigs without the need for mechanized trail clearing and/or grading efforts.
- 2) Subsurface materials and groundwater at the ASG sites are non-hazardous, non-toxic, and free of asbestos, PCBs, and hydrocarbon contamination.
- 3) Only Modified Level D of PPE is required for field personnel.
- 4) Monitoring during geotechnical investigations per the Field Screening Plan.
- 5) Archaeological monitoring to be provided by HART at no cost to CONSULTANT.
- 6) The site is clear of UXO.
- 7) Checking on as-built conditions of existing building and structure foundations is not included.
- 8) A seismic risk analysis and site specific response analysis including seismic shear wave velocity measurements are not included.
- 9) CONSULTANT will provide electronic gINT (geotechnical INTEgrator) files to HART at the completion of its Quality process for the field and laboratory investigations.
- 10) The GDR and GER submittals will be approved by HART within forty-five (45) days of the draft submittal. Time spent by the CONSULTANT in responding and addressing HART comments shall be exclusive the forty-five (45) days.
- 11) Boring logs placed on Construction Drawings will not be required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Middle Street Station – (ID)	Task No. / Sub Task No. 04.07 / 11	Revision No: Conformed

C) Inputs:

- 1) ASG Reference Materials
- 2) Available Airport Section Guideway & Utilities Contract geotechnical investigations
- 3) Pertinent geotechnical information from HDOT and/or City as built drawings of existing structures and improvements in the vicinity of the proposed Station

D) Deliverables:

- 1) Draft and final GDR
- 2) Draft and final GER
- 3) gINT files of the logs

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Geolabs, Inc.	Issue Date: 09/05/2012
Activity: Geotechnical Middle Street Station – (FD)	Task No. / Sub Task No. 04.07 / 12	Revision No: Conformed

A) Activity Description:

- 1) Consultation will be provided to the CONSULTANT's design engineers regarding the geotechnical findings and recommendations, and geotechnical related design and construction considerations.
- 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 design team coordination meetings and conference calls, as needed.

B) Assumptions:

- 1) None.

C) Inputs:

- 1) ASG Reference Materials
- 2) ASG Contract Documents.

D) Deliverables:

- 1) N/A

TASK 04.08 – Topographic Survey

Provide additional topographic survey, as required, to verify and supplement the HART provided topographic survey and controls. Prepare site controls and property Right-of-Way (ROW) plans to identify additional right-of-way or easements required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.08 / 01	Revision No: Conformed

A) Activity Description:

- 1) Recover project Primary Survey Controls, and set additional survey controls as required.
- 2) Verify that horizontal and vertical controls conform to requirements specified in the Project Design Criteria.
- 3) Meetings/reviews.
- 4) Research survey data, boundaries, and utilities.
- 5) Perform boundary survey for station site; establish and stake boundary corners.
- 6) Perform additional topographic/utilities location surveying as needed for Station, utilities, and MOT design.
- 7) Geotechnical survey support – stake proposed boring locations as directed, and record coordinates and elevations at boring locations.
- 8) Locate toning lines and add to topographic survey/utilities location survey.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Topographic surveys will be tied into H RTP Primary Survey Controls.
- 2) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor.
- 2) H RTP Reference Documents.
- 3) Topographic survey limits for Station surveys to be provided to surveyors at NTP1b by AGW.
- 4) Proposed Geotechnical boring locations to be provided by AGW to surveyors two (2) weeks prior to staking.
- 5) Utilities toning schedule, marks will be provided to surveyors by AGW three (3) weeks prior to delivery date for the updated topographic survey.
- 6) Guideway locations provided by AGW.

D) Deliverables:

- 1) Topographic/Utilities survey for each of the proposed Station locations at an appropriate scale
- 2) Coordinate and Elevation List for proposed boring locations
- 3) Topographic/Utilities survey update to included utilities toning marks

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.08 / 02	Revision No: Conformed

A) Activity Description:

- 1) Meetings/reviews.
- 2) Research survey data, boundaries, construction easements, ROW information.
- 3) Office calculations, drafting of ROW/construction easement maps.
- 4) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Surveyors will be provided data/maps of takings/partial takings, for construction easement mapping preparation.
- 2) CONSULTANT will provide the configuration/ mapping for ROW/ construction easements; based on design input from CONSULTANT, HART will provide parcel/subdivision maps and process subdivision approvals with DPP/Land Court as needed.

C) Inputs:

- 1) HART will provide data/maps/descriptions for permanent takings/partial takings/easements. CONSULTANT will provide data/maps/descriptions required for temporary/construction easements.
- 2) ROE into subject and neighboring parcels will be coordinated with HART.

D) Deliverables:

- 1) ROW Maps.
- 2) Construction Easement Maps and Descriptions.
- 3) Parcel Staking.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.08 / 03	Revision No: Conformed

A) Activity Description:

- 1) Recover project Primary Survey Controls, and set additional survey controls as required.
- 2) Verify that horizontal and vertical controls conform to requirements specified in the Project Design Criteria.
- 3) Meetings/reviews.
- 4) Research survey data, boundaries, and utilities.
- 5) Perform boundary survey for station site; establish and stake boundary corners.
- 6) Perform additional topographic/utilities location surveying as needed for Station, utilities, and MOT design.
- 7) Geotechnical survey support – stake proposed boring locations as directed, and record coordinates and elevations at boring locations.
- 8) Locate toning lines and add to topographic survey/utilities location survey.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Topographic surveys will be tied into H RTP Primary Survey Controls.
- 2) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor.
- 2) H RTP Reference Documents.
- 3) Topographic survey limits for Station surveys to be provided to surveyors at NTP1b by AGW.
- 4) Proposed Geotechnical boring locations to be provided by AGW to surveyors two (2) weeks prior to staking.
- 5) Utilities toning schedule, marks will be provided to surveyors by AGW three (3) weeks prior to delivery date for the updated topographic survey.
- 6) Guideway locations provided by AGW.

D) Deliverables:

- 1) Topographic/Utilities survey for each of the proposed Station locations at an appropriate scale
- 2) Coordinate and Elevation List for proposed boring locations
- 3) Topographic/Utilities survey update to included utilities toning marks

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Honolulu International Airport Station - (ID)	Task No. / Sub Task No. 04.08 / 04	Revision No: Conformed

A) Activity Description:

- 1) Meetings/reviews.
- 2) Research survey data, boundaries, construction easements, ROW information.
- 3) Office calculations, drafting of ROW/Parcel/construction easement maps.
- 4) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Surveyors will be provided data/maps of takings/partial takings, for construction easement mapping preparation.
- 2) CONSULTANT will provide the mapping for construction easements; HART will pursue subdivision approvals with DPP/Land Court as needed.

C) Inputs:

- 1) Direction from HART concerning data/maps of takings/partial takings/construction easements
- 2) Contact info regarding ROE into subject and neighboring parcels

D) Deliverables:

- 1) ROW maps and descriptions
- 2) Construction Easement Maps.
- 3) Parcel Staking.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.08 / 05	Revision No: Conformed

A) Activity Description:

- 1) Recover project Primary Survey Controls, and set additional survey controls as required.
- 2) Verify that horizontal and vertical controls conform to requirements specified in the Project Design Criteria.
- 3) Meetings/reviews.
- 4) Research survey data, boundaries, and utilities.
- 5) Perform boundary survey for station site; establish and stake boundary corners.
- 6) Perform additional topographic/utilities location surveying as needed for Station, utilities, and MOT design.
- 7) Geotechnical survey support – stake proposed boring locations as directed, and record coordinates and elevations at boring locations.
- 8) Locate toning lines and add to topographic survey/utilities location survey.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Topographic surveys will be tied into H RTP Primary Survey Controls.
- 2) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor.
- 2) H RTP Reference Documents.
- 3) Topographic survey limits for Station surveys to be provided to surveyors at NTP1b by AGW.
- 4) Proposed Geotechnical boring locations to be provided by AGW to surveyors two (2) weeks prior to staking.
- 5) Utilities toning schedule, marks will be provided to surveyors by AGW three (3) weeks prior to delivery date for the updated topographic survey.
- 6) Guideway locations provided by AGW.

D) Deliverables:

- 1) Topographic/Utilities survey for each of the proposed Station locations at an appropriate scale
- 2) Coordinate and Elevation List for proposed boring locations
- 3) Topographic/Utilities survey update to included utilities toning marks

ACTIVITY DESCRIPTION **Form SOW 01**

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.08 / 06	Revision No: Conformed

- A) Activity Description:**
- 1) Meetings/reviews.
 - 2) Research survey data, boundaries, construction easements, ROW information.
 - 3) Office calculations, drafting of ROW/Parcel/construction easement maps.
 - 4) Attend design team coordination, review and interface meetings as needed.
-
- B) Assumptions:**
- 1) Surveyors will be provided data/maps of takings/partial takings, for construction easement mapping preparation.
 - 2) CONSULTANT will provide the mapping for construction easements; HART will pursue subdivision approvals with DPP/Land Court as needed.
-
- C) Inputs:**
- 1) Direction from HART concerning data/maps of takings/partial takings/construction easements
 - 2) ROE into subject and neighboring parcels
-
- D) Deliverables:**
- 1) ROW maps and descriptions
 - 2) Construction Easement Maps.
 - 3) Parcel Staking.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
---	--	----------------------------------

Activity: Topographic Survey Middle Street Station – (PE)	Task No. / Sub Task No. 04.08 / 07	Revision No: Conformed
--	--	----------------------------------

A) Activity Description:

- 1) Recover project Primary Survey Controls, and set additional survey controls as required.
- 2) Verify that horizontal and vertical controls conform to requirements specified in the Project Design Criteria.
- 3) Meetings/reviews.
- 4) Research survey data, boundaries, and utilities.
- 5) Perform boundary survey for station site; establish and stake boundary corners.
- 6) Perform additional topographic/utilities location surveying as needed for Station, utilities, and MOT design.
- 7) Geotechnical survey support – stake proposed boring locations as directed, and record coordinates and elevations at boring locations.
- 8) Locate toning lines and add to topographic survey/utilities location survey.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Topographic surveys will be tied into H RTP Primary Survey Controls.
- 2) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor.
- 2) H RTP Reference Documents.
- 3) Topographic survey limits for Station surveys to be provided to surveyors at NTP1b by AGW.
- 4) Proposed Geotechnical boring locations to be provided by AGW to surveyors two (2) weeks prior to staking.
- 5) Utilities toning schedule, marks will be provided to surveyors by AGW three (3) weeks prior to delivery date for the updated topographic survey.
- 6) Guideway locations provided by AGW.

D) Deliverables:

- 1) Topographic/Utilities survey for each of the proposed Station locations at an appropriate scale.
- 2) Coordinate and Elevation List for proposed boring locations
- 3) Topographic/Utilities survey update to included utilities toning marks

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Topographic Survey Middle Street Station – (ID)	Task No. / Sub Task No. 04.08 / 08	Revision No: Conformed

A) Activity Description:

- 1) Meetings/reviews.
- 2) Research survey data, boundaries, construction easements, ROW information.
- 3) Office calculations, drafting of ROW/Parcel/construction easement maps.
- 4) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Surveyors will be provided data/maps of takings/partial takings, for construction easement mapping preparation.
- 2) CONSULTANT will provide the mapping for construction easements; HART will pursue subdivision approvals with DPP/Land Court as needed.

C) Inputs:

- 1) Direction from HART concerning data/maps of takings/partial takings/construction easements
- 2) Contact info regarding ROE into subject and neighboring parcels

D) Deliverables:

- 1) ROW maps and descriptions
- 2) Construction Easement Maps.
- 3) Parcel Staking.

TASK 04.09 - Civil Design

Design and develop civil plans showing ramp, street or roadway restoration details, grading, drainage and paving plans, plazas, and details for the Station areas, utility installations or relocations, plans indicating additional right-of-way or easements, as necessary, demolition plans (including tree removal), and prepare hydrology and drainage reports as necessary.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.09 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review and begin update of plans and Basis of Design Report from HART Preliminary Engineering (PE) Documents.
- 2) Review and update PE plans and Basis of Design Report to incorporate March 2012 conceptual design sketches with respect to Station footprint and site requirements.
- 3) Interface with the Airport Guideway (AGW) Contract in the Station areas. Confirm interface location with respect to site grading, roadway, drainage, utilities and other site features within the Station areas' scope of work, inclusive of demolition.
- 4) Request additional as-built plan/mapping information from respective utility companies, HDOT, City, NAVFAC, NCTAMS and NEC not obtained by AGW.
- 5) Review the PE Utility Plan drawings and coordinate locations for sub-surface investigation to locate civil utility lines and electrical and communications duct lines.
- 6) Research available plans, including electronic files compiled for the PE drawing set, to verify utility locations indicated on the PE Utilities Plan drawings.
- 7) Tabulate depth information gleaned from sub-surface investigation for use with civil utility and duct line profiles.
- 8) Conduct site visits at all proposed Station locations and note any changes in conditions since the PE conditions and any underground impacts.
- 9) Analyze and evaluate impacts of any new structures impacting flood zones for Flood Hazard District Compliance.
- 10) Delineate and define additional topographic survey requirements.
- 11) The CONSULTANT will update the utility plans from the PE drawing set based on the information obtained thru as-built research, sub-surface investigation, and initial design coordination.
- 12) Develop preliminary design of site geometrics and develop conceptual grading for the Station, inclusive of sections through site based on information gathered above and in coordination with ASG design team.
- 13) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 14) Coordinate relocation of the existing utilities impacted within Station site with electrical, communication, gas, fire protection, systems and irrigation requirements along with the Station structural footprint.
- 15) Verify and update PE drainage report for the site. Ensure compliance with City and State drainage standards, as applicable. Include conceptual drainage details and conceptual permanent BMP reports.
- 16) Assist with the cost estimate.
- 17) Prepare a permit checklist requirement and verify with HART, City, State, and Federal agencies.
- 18) Perform QA/QC per QAP.
- 19) Attend design team coordination, review and interface meetings as needed.
- 20) Coordinate and design an on-site holding tank with pumping service within the station site to support (sufficiently store and periodically remove) waste water from the station facilities.

B) Assumptions:

- 1) Site Civil and Utilities Design is limited to only the Station sites.
- 2) Attend design team coordination, review and interface meetings as needed.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP1b.
- 4) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
- 5) The PE indicates that additional runoff quantities due to the project are minimal with respect to the overall drainage basin. CONSULTANT assumes that design of drainage improvements will be limited to elements within or adjacent to the project area, and that downstream improvements to the overall drainage system will not be required.
- 6) The CONSULTANT will work with the utility owners and HART to follow the guiding principle of minimizing utility

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.09 / 01	Revision No: Conformed

relocations wherever possible.

- 7) Incorporation of any proposed utility betterments will be subject to the approval of HART. Any fees associated with the design of these betterments will be negotiated directly with the requesting utility company.
- 8) Relocations designs will be based on approved adjustments to the Station footprint and ancillary structures.
- 9) Overhead utility lines requiring removal/relocation due to conflict with the track alignment will be removed by their respective owners.
- 10) It is understood that HART will be processing the Utility Construction Agreements and Use and Occupancy Agreements for State rights-of-ways, but the CONSULTANT will provide data for input.

C) Inputs:

- 1) Coordination information and updates from the Guideway group
- 2) H RTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report

D) Deliverables:

- 1) Updated PE drawings
- 2) Contract Specifications (Table of Contents only)
- 3) Draft Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.09 / 02	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings ID set.
- 3) The State, City and Project standard details will be incorporated and project specific details developed as needed.
- 4) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 5) Prepare a comments matrix and response for the ID.
- 6) Prepare deconstruction/demolition drawings and specifications for properties impacted by Station related work. Hazardous material abatement work related to this currently NIC.
- 7) Incorporate additional topographic survey and information to base.
- 8) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 9) Coordinate site utilities with electrical, communication, gas, fire protection, systems and irrigation requirements.
- 10) Prepare ASG Station specific ID plans and specifications for the following:
 - a) Site Plan and Geometrics
 - b) Site Demolition Plan
 - c) Utility Demolition and Relocation Plan
 - d) Grading Plans and Sections
 - e) Roadway Plans & Profiles
 - f) Parking Plan & Sections
 - g) Potable Water Plans & Profiles
 - h) Sewer Plans & Profiles
 - i) Storm Drain Plans & Profiles
 - j) Site Signage and Striping Plans
 - k) Details
- 11) Assist with the cost estimate.
- 12) Perform QA/QC per QAP.
- 13) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) The utility transmission lines to the Station site will be adequately sized by the PE and Guideway group.

C) Inputs:

- 1) HART comments on the PE submittal.
- 2) H RTP Reference Materials.
- 3) The latest ASG grading and utility plans adjacent to the Station sites, both pdf and AutoCAD, including drawings and Basis of Design Report.
- 4) Review by City and County (C&C) Dept. of Planning and Permitting, C&C Dept. of Design and Construction and C&C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.09 / 02	Revision No: Conformed

D) Deliverables:

- 1) ID Plans and Specifications
 - 2) ID Comments Matrix and Response
 - 3) Revised Basis of Design Report
 - 4) Revised Drainage Report
 - 5) Water and Sewer Hydraulic Calculations
 - 6) QA/QC Documentation
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.09 / 03	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the Interim Design review.
- 2) Design development and implementation of the construction contract drawings FD set.
- 3) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 4) Prepare a comments matrix and response for the FD.
- 5) Complete the FD and camera-ready construction contract drawings.
- 6) Assist in processing plans for agency approval.
- 7) Assist with the cost estimate.
- 8) Perform QA/QC per QAP.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
- 2) Permit applications will be prepared by CONSULTANT. Securing the permit and payment is as defined in the 'Permits' Activity chart.

C) Inputs:

- 1) HART comments on ID submittal
- 2) H RTP Reference Materials
- 3) Final coordination information from HART, City, State DOT, NAVFAC, AGW
- 4) Review by C & C Dept. of Planning and Permitting, C & C Dept. of Design and Construction and C& C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions

D) Deliverables:

- 1) Station Camera-Ready FD Drawings, Specifications, Basis of Design Report, Drainage Report, Water and Sewer Calculations
- 2) Ad-Ready Station Construction Contract Drawings
- 3) Final Design Comments Matrix and Response
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.09 / 04	Revision No: Conformed

A) Activity Description:

- 1) Review and begin update of plans and Basis of Design Report from HART PE Documents.
- 2) Review and update PE plans and Basis of Design Report to incorporate March 2012 conceptual design sketches with respect to Station footprint and site requirements.
- 3) Interface with the AGW Contract in the Station areas. Confirm interface location with respect to site grading, roadway, drainage, utilities and other site features within the Station areas' scope of work, inclusive of demolition.
- 4) Request additional as-built plan/mapping information from respective utility companies, HDOT, City, NCTAMS and NEC not obtained by AGW.
- 5) Review the PE Utility Plan drawings and coordinate locations for sub-surface investigation to locate civil utility lines and electrical and communications duct lines.
- 6) Research available plans, including electronic files compiled for the PE drawing set, to verify utility locations indicated on the PE Utility Plan drawings.
- 7) Tabulate depth information gleaned from sub-surface investigation for use with civil utility and duct line profiles.
- 8) Conduct site visits at all proposed Station locations and note any changes in conditions since the PE conditions and any underground impacts.
- 9) Analyze and evaluate impacts of any new structures impacting flood zones for Flood Hazard District Compliance.
- 10) Delineate and define additional topographic survey requirements.
- 11) The CONSULTANT will update the utility plans from the PE drawing set based on the information obtained thru as-built research, sub-surface investigation, and initial design coordination.
- 12) Develop preliminary design of site geometrics and develop conceptual grading for the Station, inclusive of sections through site based on information gathered above and in coordination with ASG design team.
- 13) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 14) Coordinate relocation of the existing utilities impacted within Station site with electrical, communication, gas, fire protection, systems and irrigation requirements along with the Station structural footprint.
- 15) Verify and update PE drainage report for the site. Ensure compliance with City and State drainage standards, as applicable. Include conceptual drainage details and conceptual permanent BMP reports.
- 16) Prepare a permit checklist requirement and verify with HART, City, State, and Federal agencies.
- 17) Assist with cost estimate.
- 18) Perform QA/QC per QAP.
- 19) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Site Civil and Utilities Design is limited to only the Station sites.
- 2) Attend design team coordination, review and interface meetings as needed.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP1b.
- 4) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
- 5) The PE indicates that additional runoff quantities due to the project are minimal with respect to the overall drainage basin. CONSULTANT assumes that design of drainage improvements will be limited to elements within or adjacent to the project area, and that downstream improvements to the overall drainage system will not be required.
- 6) The CONSULTANT will work with the utility owners and HART to follow the guiding principle of minimizing utility relocations wherever possible.
- 7) Incorporation of any proposed utility betterments will be subject to the approval of HART. Any fees associated with the design of these betterments will be negotiated directly with the requesting utility company.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.09 / 04	Revision No: Conformed

- 8) Relocations designs will be based on approved adjustments to the Station footprint and ancillary structures.
- 9) Overhead utility lines requiring removal/relocation due to conflict with the track alignment will be removed by their respective owners.
- 10) It is understood that HART will be processing the Utility Construction Agreements and Use and Occupancy Agreements for State rights-of-ways, but the CONSULTANT will provide data for input.

C) Inputs:

- 1) Coordination information and updates from the Guideway group
- 2) H RTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report

D) Deliverables:

- 1) Updated PE drawings
 - 2) Contract Specifications (Table of Contents only)
 - 3) Draft Basis of Design Report
 - 4) QA/QC Documentation
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.09 / 05	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings ID set.
- 3) The State, City and Project standard details will be incorporated and project specific details developed as needed.
- 4) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 5) Prepare a comments matrix and response for the ID.
- 6) Prepare deconstruction/demolition drawings and specifications for properties impacted by Station related work. Hazardous material abatement work related to this currently NIC.
- 7) Incorporate additional topographic survey and information to base.
- 8) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 9) Coordinate site utilities with electrical, communication, gas, fire protection, systems and irrigation requirements.
- 10) Prepare ASG Station specific ID plans and specifications for the following:
 - a) Site Plan and Geometrics
 - b) Site Demolition Plan
 - c) Utility Demolition and Relocation Plan
 - d) Grading Plans and Sections
 - e) Roadway Plans & Profiles
 - f) Parking Plan & Sections
 - g) Potable Water Plans & Profiles
 - h) Sewer Plans & Profiles
 - i) Storm Drain Plans & Profiles
 - j) Site Signage and Striping Plans
 - k) Details
- 11) Assist with cost estimate.
- 12) Perform QA/QC per QAP.
- 13) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) The utility transmission lines to the Station site will be adequately sized by the PE and Guideway group.

C) Inputs:

- 1) HART comments on the PE submittal.
- 2) H RTP Reference Materials.
- 3) The latest ASG grading and utility plans adjacent to the Station sites, both pdf and AutoCAD, including drawings and Basis of Design Report.
- 4) Review by C&C Dept. of Planning and Permitting, C&C Dept. of Design and Construction and C&C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.09 / 05	Revision No: Conformed

D) Deliverables:

- 1) ID Plans and Specifications
 - 2) ID Comments Matrix and Response
 - 3) Revised Basis of Design Report
 - 4) Revised Drainage Report
 - 5) Water and Sewer Hydraulic Calculations
 - 6) QA/QC Documentation
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.09 / 06	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Design development and implementation of the construction contract drawings FD set.
- 3) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 4) Prepare a comments matrix and response for the FD.
- 5) Complete the FD and camera-ready construction contract drawings.
- 6) Assist in processing plans for agency approval.
- 7) Assist with cost estimate.
- 8) Perform QA/QC per QAP.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
- 2) Permit applications will be prepared by CONSULTANT. Securing the permit and payment is as defined in the 'Permits' Activity chart.

C) Inputs:

- 1) HART comments on ID submittal
- 2) H RTP Reference Materials
- 3) Final coordination information from HART, City, State DOT, AGW
- 4) Review by C & C Dept. of Planning and Permitting, C & C Dept. of Design and Construction and C& C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions

D) Deliverables:

- 1) Station Camera-Ready FD Drawings, Specifications, Basis of Design Report, Drainage Report, Water and Sewer Calculations
- 2) Ad-Ready Station Construction Contract Drawings
- 3) FD Comments Matrix and Response
- 4) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.09 / 07	Revision No: Conformed

A) Activity Description:

- 1) Review and begin update of plans and Basis of Design Report from HART PE Documents.
- 2) Review and update PE plans and Basis of Design Report to incorporate March 2012 conceptual design sketches with respect to Station footprint and site requirements.
- 3) Interface with the AGW Contract in the Station areas. Confirm interface location with respect to site grading, roadway, drainage, utilities and other site features within the Station areas' scope of work, inclusive of demolition.
- 4) Request additional as-built plan/mapping information from respective utility companies, HDOT, City, NCTAMS and NEC not obtained by AGW.
- 5) Review the PE Utility Plan drawings and coordinate locations for sub-surface investigation to locate civil utility lines and electrical and communications duct lines.
- 6) Research available plans, including electronic files compiled for the PE drawing set, to verify utility locations indicated on the PE Utility Plan drawings.
- 7) Tabulate depth information gleaned from sub-surface investigation for use with civil utility and duct line profiles.
- 8) Conduct site visits at all proposed Station locations and note any changes in conditions since the PE conditions and any underground impacts.
- 9) Analyze and evaluate impacts of any new structures impacting flood zones for Flood Hazard District Compliance.
- 10) Delineate and define additional topographic survey requirements.
- 11) The CONSULTANT will update the utility plans from the PE drawing set based on the information obtained thru as-built research, sub-surface investigation, and initial design coordination.
- 12) Develop preliminary design of site geometrics and develop conceptual grading for the Station, inclusive of sections through site based on information gathered above and in coordination with ASG design team.
- 13) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 14) Coordinate relocation of the existing utilities impacted within Station site with electrical, communication, gas, fire protection, systems and irrigation requirements along with the Station structural footprint.
- 15) Verify and update PE drainage report for the site. Ensure compliance with City and State drainage standards, as applicable. Include conceptual drainage details and conceptual permanent BMP reports.
- 16) Prepare a permit checklist requirement and verify with HART, City, State, and Federal agencies.
- 17) Assist with cost estimate.
- 18) Perform QA/QC per QAP.
- 19) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Site Civil and Utilities Design is limited to only the Station sites.
- 2) Attend design team coordination, review and interface meetings as needed.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.
- 4) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
- 5) The PE indicates that additional runoff quantities due to the project are minimal with respect to the overall drainage basin. CONSULTANT assumes that design of drainage improvements will be limited to elements within or adjacent to the project area, and that downstream improvements to the overall drainage system will not be required.
- 6) The CONSULTANT will work with the utility owners and HART to follow the guiding principle of minimizing utility relocations wherever possible.
- 7) Incorporation of any proposed utility betterments will be subject to the approval of HART. Any fees associated with the design of these betterments will be negotiated directly with the requesting utility company.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.09 / 07	Revision No: Conformed

- 8) Relocations designs will be based on approved adjustments to the Station footprint and ancillary structures.
- 9) Overhead utility lines requiring removal/relocation due to conflict with the track alignment will be removed by their respective owners.
- 10) It is understood that HART will be processing the Utility Construction Agreements and Use and Occupancy Agreements for State rights-of-ways, but the CONSULTANT will provide data for input.

C) Inputs:

- 1) Coordination information and updates from the Guideway group
- 2) H RTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Updated PE drawings
- 2) Contract Specifications (Table of Contents only)
- 3) Draft Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.09 / 08	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings ID set.
- 3) The State, City and Project standard details will be incorporated and project specific details developed as needed.
- 4) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 5) Prepare a comments matrix and response for the ID.
- 6) Prepare deconstruction/demolition drawings and specifications for properties impacted by Station related work. Hazardous material abatement work related to this currently NIC.
- 7) Incorporate additional topographic survey and information to base.
- 8) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 9) Coordinate site utilities with electrical, communication, gas, fire protection, systems and irrigation requirements.
- 10) Prepare ASG Station specific ID plans and specifications for the following:
 - a) Site Plan and Geometrics
 - b) Site Demolition Plan
 - c) Utility Demolition and Relocation Plan
 - d) Grading Plans and Sections
 - e) Roadway Plans & Profiles
 - f) Parking Plan & Sections
 - g) Potable Water Plans & Profiles
 - h) Sewer Plans & Profiles
 - i) Storm Drain Plans & Profiles
 - j) Site Signage and Striping Plans
 - k) Details
- 11) Assist with cost estimate.
- 12) Perform QA/QC per QAP.
- 13) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) The utility transmission lines to the Station site will be adequately sized by the PE and Guideway group.

C) Inputs:

- 1) HART comments on the PE submittal.
- 2) H RTP Reference Materials.
- 3) The latest ASG grading and utility plans adjacent to the Station sites, both pdf and AutoCAD, including drawings and Basis of Design Report.
- 4) Review by C&C Dept. of Planning and Permitting, C&C Dept. of Design and Construction and C&C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.09 / 08	Revision No: Conformed

D) Deliverables:

- 1) ID Plans and Specifications
 - 2) ID Comments Matrix and Response
 - 3) Revised Basis of Design Report
 - 4) Revised Drainage Report
 - 5) Water and Sewer Hydraulic Calculations
 - 6) QA/QC Documentation
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.09 / 09	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Design development and implementation of the construction contract drawings FD set.
- 3) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 4) Prepare a comments matrix and response for the FD.
- 5) Complete the FD and camera-ready construction contract drawings.
- 6) Assist in processing plans for agency approval.
- 7) Assist with cost estimate.
- 8) Perform QA/QC per QAP.
- 9) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
- 2) Permit applications will be prepared by CONSULTANT. Securing the permit and payment is as defined in the 'Permits' Activity chart.

C) Inputs:

- 1) HART comments on ID submittal
- 2) H RTP Reference Materials
- 3) Final coordination information from HART, City, State DOT, AGW
- 4) Review by C & C Dept. of Planning and Permitting, C & C Dept. of Design and Construction and C& C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions

D) Deliverables:

- 1) Station Camera-Ready FD Drawings, Specifications, Basis of Design Report, Drainage Report, Water and Sewer Calculations
- 2) Ad-Ready Station Construction Contract Drawings
- 3) FD Comments Matrix and Response
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Middle Street Station – (PE)	Task No. / Sub Task No. 04.09 / 10	Revision No: Conformed

A) Activity Description:

- 1) Review and begin update of plans and basis of design from HART PE Documents.
- 2) Review and update PE plans and Basis of Design Report to incorporate applicable March 2012 conceptual design sketches and July 2012 concept design sketches with respect to Station footprint and site requirements.
- 3) Interface with the AGW Contract in the Station areas. Confirm interface location with respect to site grading, roadway, drainage, utilities and other site features within the Station areas' scope of work, inclusive of demolition.
- 4) Request additional as-built plan/mapping information from respective utility companies, HDOT, City, NCTAMS and NEC not obtained by AGW.
- 5) Review the PE Utility Plan drawings and coordinate locations for sub-surface investigation to locate civil utility lines and electrical and communications duct lines.
- 6) Research available plans, including electronic files compiled for the PE drawing set, to verify utility locations indicated on the PE Utility Plan drawings.
- 7) Tabulate depth information gleaned from sub-surface investigation for use with civil utility and duct line profiles.
- 8) Conduct site visits at all proposed Station locations and note any changes in conditions since the PE conditions and any underground impacts.
- 9) Analyze and evaluate impacts of any new structures impacting flood zones for Flood Hazard District Compliance. If necessary, design flood hazard mitigation/flood proofing necessary to comply with DPP/FEMA regulatory requirements.
- 10) Delineate and define additional topographic survey requirements.
- 11) The CONSULTANT will update the utility plans from the PE drawing set based on the information obtained thru as-built research, sub-surface investigation, and initial design coordination.
- 12) Develop preliminary design of site geometrics and develop conceptual grading for the Station, inclusive of sections through site based on information gathered above and in coordination with ASG design team.
- 13) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 14) Coordinate relocation of the existing utilities impacted within Station site with electrical, communication, gas, fire protection, systems and irrigation requirements along with the Station structural footprint.
- 15) Verify and update PE drainage report for the site. Ensure compliance with City and State drainage standards, as applicable. Include conceptual drainage details and conceptual permanent BMP reports.
- 16) Assist with cost estimate.
- 17) Prepare a permit checklist requirement and verify with HART, City, State and Federal agencies.
- 18) Perform QA/QC per QAP.
- 19) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) Site Civil and Utilities Design is limited to only the Station sites.
- 2) Attend design team coordination, review and interface meetings as needed..
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.
- 4) Provide at a minimum those drawing sheets which are included in the PE drawings, to similar level of detail.
- 5) The PE indicates that additional runoff quantities due to the project are minimal with respect to the overall drainage basin. CONSULTANT assumes that design of drainage improvements will be limited to elements within or adjacent to the project area, and that downstream improvements to the overall drainage system will not be required.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Middle Street Station – (PE)	Task No. / Sub Task No. 04.09 / 10	Revision No: Conformed

- 6) The CONSULTANT will work with the utility owners and HART to follow the guiding principle of minimizing utility relocations wherever possible.
- 7) Incorporation of any proposed utility betterments will be subject to the approval of HART. Any fees associated with the design of these betterments will be negotiated directly with the requesting utility company.
- 8) Relocations designs will be based on approved adjustments to the Station footprint and ancillary structures.
- 9) Overhead utility lines requiring removal/relocation due to conflict with the track alignment will be removed by their respective owners.
- 10) It is understood that HART will be processing the Utility Construction Agreements and Use and Occupancy Agreements for State rights-of-ways, but the CONSULTANT will provide data for input.

C) Inputs:

- 1) Coordination information and updates from the Guideway group
- 2) H RTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Updated PE drawings
- 2) Contract Specifications (Table of Contents only)
- 3) Draft Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Middle Street Station – (ID)	Task No. / Sub Task No. 04.09 / 11	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings ID set.
- 3) The State, City and Project standard details will be incorporated and project specific details developed as needed.
- 4) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 5) Prepare a comments matrix and response for the ID.
- 6) Prepare deconstruction/demolition drawings and specifications for properties impacted by Station related work. Hazardous material abatement work related to this currently NIC.
- 7) Incorporate additional topographic survey and information to base.
- 8) Coordinate final grade requirements with building and landscape architects, and check site distance.
- 9) Coordinate site utilities with electrical, communication, gas, fire protection, systems and irrigation requirements.
- 10) Prepare ASG Station specific ID plans and specifications for the following:
 - a) Site Plan and Geometrics
 - b) Site Demolition Plan
 - c) Utility Demolition and Relocation Plan
 - d) Grading Plans and Sections
 - e) Roadway Plans & Profiles
 - f) Parking Plan & Sections
 - g) Potable Water Plans & Profiles
 - h) Sewer Plans & Profiles
 - i) Storm Drain Plans & Profiles
 - j) Site Signage and Striping Plans
 - k) Details
- 11) Assist with cost estimate.
- 12) Perform QA/QC per QAP.
- 13) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) The utility transmission lines to the Station site will be adequately sized by the PE and Guideway group.

C) Inputs:

- 1) HART comments on the PE submittal.
- 2) H RTP Reference Materials.
- 3) The latest ASG grading and utility plans adjacent to the Station sites, both pdf and AutoCAD, including drawings and Basis of Design Report.
- 4) Review by C & C Dept. of Planning and Permitting, C & C Dept. of Design and Construction and C& C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Middle Street Station – (ID)	Task No. / Sub Task No. 04.09 / 11	Revision No: Conformed

D) Deliverables:

- 1) ID Plans and Specifications
 - 2) ID Comments Matrix and Response
 - 3) Revised Basis of Design Report
 - 4) Revised Drainage Report
 - 5) Water and Sewer Hydraulic Calculations
 - 6) QA/QC Documentation
-

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Civil Design Middle Street Station – (FD)	Task No. / Sub Task No. 04.09 / 12	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Design development and implementation of the construction contract drawings FD set.
- 3) Revise Basis of Design Report and Drainage Report based on comments and update with current design.
- 4) Prepare a comments matrix and response for the FD.
- 5) If required by DPP/FEMA Flood Hazard District regulations prepare and submit compliance certifications.
- 6) Complete the FD and camera-ready construction contract drawings.
- 7) Assist in processing plans for agency approval.
- 8) Assist with cost estimate.
- 9) Perform QA/QC per QAP.
- 10) Attend design team coordination, review and interface meetings as needed.

B) Assumptions:

- 1) HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
- 2) Permit applications will be prepared by CONSULTANT. Securing the permit and payment is as defined in the 'Permits' Activity chart.

C) Inputs:

- 1) HART comments on ID submittal
- 2) H RTP Reference Materials
- 3) Final coordination information from HART, City, State DOT, AGW
- 4) Review by C & C Dept. of Planning and Permitting, C & C Dept. of Design and Construction and C& C Dept. of Transportation Services and State of Hawaii Department of Transportation for work within their respective jurisdictions

D) Deliverables:

- 1) Station Camera-Ready FD Drawings, Specifications, Basis of Design Report, Drainage Report, Water and Sewer Calculations
- 2) Ad-Ready Station Construction Contract Drawings
- 3) Final Design Comments Matrix and Response
- 4) QA/QC Documentation

TASK 04.10 - Structural Design

Perform structural analysis and design and develop structural plans showing foundations, substructure, superstructure and structural details for all Station support structures. Coordinate Station structure designs (including elevator and escalator pits) to incorporate flood protection. Coordinate with AGW designers and evaluate requirements to protect adjacent buildings or existing structures that may be affected by the Station construction.

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 1b – Revisions to Preliminary Engineering	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.10 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review and update Basis of Design and Design Criteria to incorporate any design changes or design reference updates.
- 2) Coordinate preliminary design documents with HART, GEC & Core Systems Interface, and Public & Private Utility/ Property Owner input.
- 3) Preliminary Study and Optimization with use of project design directives applicable for platform structure and canopy support.
- 4) Structural Analysis and Design of concourse and review of Guideway structure:
 - a) Preliminary design to confirm platform, foundation size and locations for concourse support.
 - b) Confirm design directive assumptions for canopy support structure components.
 - c) Preliminary structural design verification of concourse structure sizing and configuration.
 - d) Preliminary structural design verification of pedestrian bridge major member sizing and arrangement, and locations of end slip connections at expansion joint locations.
 - e) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
- 5) Study of preliminary design documents and optimization of Station ancillary structures:
 - a) Review and verify structural gravity and lateral load resisting systems of entry structures for completeness and optimization, including future escalator supports.
 - b) Provide preliminary coordination/feedback for site structures (water, wastewater, drainage, lights, and retaining walls) and landscape design.
 - c) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - d) Develop preliminary design drawings for Ancillary Building.
- 6) Review design requirements and create a list of applicable standard specifications that apply to Station and identify project specific specifications needed for this Station's design package.
- 7) Perform QA/QC per QAP.
- 8) Incorporate HART review comments into PE documents.
- 9) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Project standard details, design directives and standard specifications will be provided for reference and use.
- 2) Electronic files will be made available for basis of design, design criteria and preliminary drawings.

C) Inputs:

- 1) H RTP Reference Documents provided
- 2) Electronic editable files from HART provided within two (2) days of NPT1b for basis of design and design criteria
- 3) The latest preliminary drawings and modular drawings and latest Guideway Section design submittal documents in both PDF and AutoCAD format

D) Deliverables:

- 1) Updated PE drawings
- 2) Table of Contents for Contract specifications (Table of Contents only)
- 3) Structural elements of Basis of Design report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.10 / 02	Revision No: Conformed

A) Activity Description:

- 1) Check Basis of Design & Design Criteria based on PE design documents and revise accordingly.
- 2) Perform structural analysis and design of Guideway supported structure:
 - a) Designing all connections and secondary elements. Develop design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Incorporate HART review comments from preliminary design review, in addition the structural drawings will be check against the design calculations for coordination and that applicable project standard details have been used in the design drawings.
 - c) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 3) Perform structural analysis and design of Station and Ancillary structures:
 - a) Develop the design of all connections and secondary elements, including consideration for loading from the future escalator. Design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Perform structural design and provide structural drawings detailing items for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
 - c) Incorporate HART review comments from preliminary design review in the structural drawings, in addition verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directives.
- 4) Coordinate use of project standard specifications and prepare project specific specifications.
- 5) Perform QA/QC per QAP.
- 6) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and Basis of Design

D) Deliverables:

- 1) Interim Design level drawings
- 2) Revised Basis of Design (structural sections)
- 3) Project specific specifications and standard details listed
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.10 / 03	Revision No: Conformed

A) Activity Description:

- 1) Finalize structural analysis and design of guideway supported structures including all connections and secondary elements.
- 2) Incorporate HART review comments from ID reviews, in addition, the structural drawings will be checked against the final design calculations for coordination.
- 3) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 4) Finalize structural analysis and design of Station and Ancillary structures, including all connections and secondary elements, including consideration for loading from the future escalator.
- 5) Perform final design coordination of structural design items for site structures (water, wastewater, drainage, lights, retaining walls and landscaping).
- 6) Incorporate HART review comments from interim and then final design reviews into the structural drawings, in addition, verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directive drawings.
- 7) Finalize project standard specifications list, markups and project specific specifications sections.
- 8) Perform QA/QC per QAP.
- 9) Verify findings of independent review of the guideway-supported structure and the Station structures have been incorporated into the design documents.
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the Interim Design submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and basis of design

D) Deliverables:

- 1) FD construction documents
- 2) Final Basis of Design (structural sections)
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 1b – Revisions to Preliminary Engineering	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.10 / 04	Revision No: Conformed

A) Activity Description:

- 1) Review and update Basis of Design and Design Criteria to incorporate any design changes or design reference updates.
- 2) Coordinate preliminary design documents with HART, GEC & Core Systems Interface, and Public & Private Utility/ Property Owner input.
- 3) Preliminary Study and Optimization with use of project design directives applicable for platform structure and canopy support.
- 4) Structural Analysis and Design of platform and review of Guideway structure:
 - a) Preliminary design to confirm foundation size and locations for platform support.
 - b) Confirm design directive assumptions for canopy support structure components.
 - c) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
- 5) Study of preliminary design documents and optimization of Station ancillary structures:
 - a) Review and verify structural gravity and lateral load resisting systems of entry structures for completeness and optimization, including future escalator supports.
 - b) Provide preliminary coordination/feedback for site structures (water, wastewater, drainage, lights, and retaining walls) and landscape design.
 - c) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - d) Develop preliminary design drawings for Ancillary Building.
- 6) Review design requirements and create a list of applicable standard specifications that apply to Station and identify project specific specifications needed for this Station's design package.
- 7) Perform QA/QC per QAP.
- 8) Incorporate HART review comments into PE documents.
- 9) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Project standard details, design directives and standard specifications will be provided for reference and use.
- 2) Electronic files will be made available for basis of design, design criteria and preliminary drawings.

C) Inputs:

- 1) H RTP Reference Documents provided
- 2) Electronic editable files from HART provided within two (2) days of NPT1b for basis of design and design criteria
- 3) The latest preliminary drawings and modular drawings and latest Guideway Section design submittal documents in both PDF and AutoCAD format

D) Deliverables:

- 1) Updated PE drawings
- 2) Table of Contents for Contract specifications (Table of Contents only)
- 3) Structural elements of Basis of Design report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.10 / 05	Revision No: Conformed

A) Activity Description:

- 1) Check Basis of Design & Design Criteria based on PE design documents and revise accordingly.
- 2) Perform structural analysis and design of Guideway supported structure:
 - a) Designing all connections and secondary elements. Develop design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Incorporate HART review comments from preliminary design review, in addition the structural drawings will be check against the design calculations for coordination and that applicable project standard details have been used in the design drawings.
 - c) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 3) Perform structural analysis and design of Station and Ancillary structures:
 - a) Develop the design of all connections and secondary elements, including consideration for loading from the future escalator. Design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Perform structural design and provide structural drawings detailing items for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
 - c) Incorporate HART review comments from preliminary design review in the structural drawings, in addition verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directives.
- 4) Coordinate use of project standard specifications and prepare project specific specifications.
- 5) Perform QA/QC per QAP.
- 6) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and Basis of Design

D) Deliverables:

- 1) Interim Design level drawings
- 2) Revised Basis of Design (structural sections)
- 3) Project specific specifications and standard details listed
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.10 / 06	Revision No: Conformed

A) Activity Description:

- 1) Finalize structural analysis and design of guideway supported structures including all connections and secondary elements.
- 2) Incorporate HART review comments from ID reviews, in addition, the structural drawings will be checked against the final design calculations for coordination.
- 3) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 4) Finalize structural analysis and design of Station and Ancillary structures, including all connections and secondary elements, including consideration for loading from the future escalator.
- 5) Perform final design coordination of structural design items for site structures (water, wastewater, drainage, lights, retaining walls) and landscaping.
- 6) Incorporate HART review comments from interim and then final design reviews into the structural drawings, in addition, verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directive drawings.
- 7) Finalize project standard specifications list, markups and project specific specifications sections.
- 8) Perform QA/QC per QAP.
- 9) Verify findings of independent review of the guideway-supported structure and the Station structures have been incorporated into the design documents.
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the ID submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and basis of design

D) Deliverables:

- 1) FD construction documents
- 2) Final Basis of Design (structural sections)
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 1b – Revisions to Preliminary Engineering	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.10 / 07	Revision No: Conformed

A) Activity Description:

- 1) Review and update Basis of Design and Design Criteria to incorporate any design changes or design reference updates.
- 2) Coordinate preliminary design documents with HART, GEC & Core Systems Interface, and Public & Private Utility/ Property Owner input.
- 3) Preliminary Study and Optimization with use of project design directives applicable for platform structure and canopy support.
- 4) Structural Analysis and Design of Platform access structure and review of Guideway structure:
 - a) Preliminary design to confirm foundation size and locations for platform support.
 - b) Confirm design directive assumptions for canopy support structure components.
 - c) Preliminary structural design verification of elevated walkway major member sizing and arrangement, and locations of end slip connections at expansion joint locations.
 - d) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
- 5) Study of preliminary design documents and optimization of Station ancillary structures:
 - a) Review and verify structural gravity and lateral load resisting systems of entry structures for completeness and optimization, including future escalator supports.
 - b) Provide preliminary coordination/feedback for site structures (water, wastewater, drainage, lights, and retaining walls) and landscape design.
 - c) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - d) Develop preliminary design drawings for Ancillary Building.
- 6) Review design requirements and create a list of applicable standard specifications that apply to Station and identify project specific specifications needed for this Station's design package.
- 7) Perform QA/QC per QAP.
- 8) Incorporate HART review comments into PE documents.
- 9) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Project standard details, design directives and standard specifications will be provided for reference and use.
- 2) Electronic files will be made available for basis of design, design criteria and preliminary drawings.

C) Inputs:

- 1) H RTP Reference Documents provided
- 2) Electronic editable files from HART provided within two (2) days of NPT1b for basis of design and design criteria
- 3) The latest preliminary drawings and modular drawings and latest Guideway Section design submittal documents in both PDF and AutoCAD format

D) Deliverables:

- 1) Updated PE drawings
- 2) Table of Contents for Contract specifications (Table of Contents only)
- 3) Structural elements of Basis of Design report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.10 / 08	Revision No: Conformed

A) Activity Description:

- 1) Check Basis of Design & Design Criteria based on PE design documents and revise accordingly.
- 2) Perform structural analysis and design of Guideway supported structure:
 - a) Designing all connections and secondary elements. Develop design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Incorporate HART review comments from preliminary design review, in addition the structural drawings will be check against the design calculations for coordination and that applicable project standard details have been used in the design drawings.
 - c) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 3) Perform structural analysis and design of Station and Ancillary structures:
 - a) Develop the design of all connections and secondary elements, including consideration for loading from the future escalator. Design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Perform structural design and provide structural drawings detailing items for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
 - c) Incorporate HART review comments from preliminary design review in the structural drawings, in addition verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directives.
- 4) Coordinate use of project standard specifications and prepare project specific specifications.
- 5) Perform QA/QC per QAP.
- 6) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and Basis of Design

D) Deliverables:

- 1) ID level drawings
- 2) Revised Basis of Design (structural sections)
- 3) Project specific specifications and standard details listed
- 5) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.10 / 09	Revision No: Conformed

A) Activity Description:

- 1) Finalize structural analysis and design of guideway supported structures including all connections and secondary elements.
- 2) Incorporate HART review comments from ID review; in addition, the structural drawings will be checked against the final design calculations for coordination.
- 3) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 4) Finalize structural analysis and design of Station and Ancillary structures, including all connections and secondary elements, including consideration for loading from the future escalator.
- 5) Perform final design coordination of structural design items for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
- 6) Incorporate HART review comments from interim and then final design reviews into the structural drawings, in addition, verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directive drawings.
- 7) Finalize project standard specifications list, markups and project specific specifications sections.
- 8) Perform QA/QC per QAP.
- 9) Verify findings of independent review of the guideway-supported structure and the Station structures have been incorporated into the design documents.
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the ID submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and basis of design

D) Deliverables:

- 1) FD construction documents
- 2) Final Basis of Design (structural sections)
- 3) Final project specific specifications and standard details list
- 5) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP# 1b – Revisions to Preliminary Engineering	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Middle Street Station – (PE)	Task No. / Sub Task No. 04.10 / 10	Revision No: Conformed

A) Activity Description:

- 1) Review and update Basis of Design and Design Criteria to incorporate any design changes or design reference updates.
- 2) Coordinate preliminary design documents with HART, GEC & Core Systems Interface, and Public & Private Utility/ Property Owner input.
- 3) Preliminary Study and Optimization with use of project design directives applicable for platform structure and canopy support.
- 4) Structural Analysis and Design of concourse and review of Guideway structure:
 - a) Preliminary design to confirm platform, foundation size and locations for concourse support.
 - b) Confirm design directive assumptions for canopy support structure components.
 - c) Preliminary structural design verification of the concourse structure sizing and configuration.
 - d) Preliminary structural design verification of pedestrian bridge major member sizing and arrangement, and locations of end slip connections at expansion joint locations.
 - e) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
- 5) Study of preliminary design documents and optimization of Station ancillary structures:
 - a) Review and verify structural gravity and lateral load resisting systems of entry structures for completeness and optimization, including future escalator supports.
 - b) Provide preliminary coordination/feedback for site structures (water, wastewater, drainage, lights, and retaining walls) and landscape design.
 - c) Develop and revise structural design drawings in CAD to incorporate all coordination-based and design refinement revisions to preliminary drawings.
 - d) Develop preliminary design drawings for Ancillary Building.
- 6) Review design requirements and create a list of applicable standard specifications that apply to Station and identify project specific specifications needed for this Station's design package.
- 7) Perform QA/QC per QAP.
- 8) Incorporate HART review comments into PE documents.
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Project standard details, design directives and standard specifications will be provided for reference and use.
- 2) Electronic files will be made available for basis of design, design criteria and preliminary drawings.

C) Inputs:

- 1) H RTP Reference Documents provided
- 2) Electronic editable files from HART provided within two (2) days of NPT1b for basis of design and design criteria
- 3) The latest preliminary drawings and modular drawings and latest Guideway Section design submittal documents in both PDF and AutoCAD format

D) Deliverables:

- 1) Updated PE drawings
- 2) Table of Contents for Contract specifications (Table of Contents only)
- 3) Structural elements of Basis of Design report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Middle Street Station – (ID)	Task No. / Sub Task No. 04.10 / 11	Revision No: Conformed

A) Activity Description:

- 1) Check Basis of Design & Design Criteria based on PE design documents and revise accordingly.
- 2) Perform structural analysis and design of Guideway supported structure:
 - a) Designing all connections and secondary elements. Develop design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Incorporate HART review comments from preliminary design review, in addition the structural drawings will be check against the design calculations for coordination and that applicable project standard details have been used in the design drawings.
 - c) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 3) Perform structural analysis and design of Station and Ancillary structures:
 - a) Develop the design of all connections and secondary elements, including consideration for loading from the future escalator. Design concepts for connections and arranging elements will be developed and reviewed for consistency with applicable design directives.
 - b) Perform structural design and provide structural drawings detailing items for site structures (water, wastewater, drainage, lights, and retaining walls) and landscaping.
 - c) Incorporate HART review comments from preliminary design review in the structural drawings, in addition verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directives.
- 4) Coordinate use of project standard specifications and prepare project specific specifications.
- 5) Perform QA/QC per QAP.
- 6) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and Basis of Design

D) Deliverables:

- 1) ID level drawings
- 2) Revised Basis of Design (structural sections)
- 3) Project specific specifications and standard details listed
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Kai Hawai'i/ SLSH	Issue Date: 09/05/2012
Activity: Structural Engineering Middle Street Station – (FD)	Task No. / Sub Task No. 04.10 / 12	Revision No: Conformed

A) Activity Description:

- 1) Finalize structural analysis and design of guideway supported structures including all connections and secondary elements.
- 2) Incorporate HART review comments from ID reviews, in addition, the structural drawings will be checked against the final design calculations for coordination.
- 3) Check for material consistency in project-specific details with project standard details and design directives throughout drawings.
- 4) Finalize structural analysis and design of Station and Ancillary structures, including all connections and secondary elements, including consideration for loading from the future escalator.
- 5) Perform final design coordination of structural design items for site structures (water, wastewater, drainage, lights, retaining walls) and landscaping.
- 6) Incorporate HART review comments from interim and then final design reviews into the structural drawings, in addition, verify the incorporation of applicable project standard details and design directives are included and that specified materials are consistent with project standard details and design directive drawings.
- 7) Finalize project standard specifications list, markups and project specific specifications sections.
- 8) Perform QA/QC per QAP.
- 9) Verify findings of independent review of the guideway-supported structure and the Station structures have been incorporated into the design documents.
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) HART comments on the ID submittal
- 2) The latest Guideway Section design submittals in both PDF and AutoCAD, including drawings and basis of design

D) Deliverables:

- 1) FD construction documents
- 2) Final Basis of Design (structural sections)
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation

TASK 04.11 - Architectural Design

Develop the architectural design and aesthetic treatment of each of the Stations consistent with the Design Language Pattern Book, Landscaping, Outline Specifications, Code checklist, BOD and Visuals. The design will include site planning for the Stations and adjacent systems elements, entry structures design, bridges, boarding platforms, canopies, vertical circulation, pedestrian plazas, walks, bus transit centers, shelters, park-and-ride facilities and drives. The CONSULTANT will develop an Accessibility Compliance Report addressing relevant subject areas identified in the provisions of the Americans with Disabilities Act (ADA) and summarize how these requirements are met by the PE.

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design ASG Directive Drawings – (PE)	Task No. / Sub Task No. 04.11 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review the applicable HHCTCP Baseline RTD Directive Drawings dated 11/13/2009.
- 2) Update and modify the applicable RTD Directive Drawings dated 11/13/2009 to be consistent with the Station Module Concepts to be incorporated as final design documents.
- 3) Review and confirm compliance of PE Design with FEIS/ROD, applicable codes, regulations and design standards.
- 4) Perform QA/QC per QAP.
- 5) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Editable 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) Provide at a minimum those drawing sheets which define the passenger Station platform and canopy components and details.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) Baseline RTD Directive Drawings and specifications
- 3) Editable files from HART
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report

D) Deliverables:

- 1) Provide a preliminary listing of Directive Drawings anticipated to be incorporated as Construction Contract Documents.
- 2) Architectural elements - Plans, elevations and sections developed to a PE level, including (but not limited to):
 - a) Platform Plan
 - b) Platform Sections and Elevations
 - c) Canopy Roof Plan
 - d) Canopy Reflected Ceiling Plan
 - e) Canopy Sections and Elevations
- 3) Table of Contents of Specifications (associated with Directive Drawings)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design ASG Directive Drawings – (ID)	Task No. / Sub Task No. 04.11 / 02	Revision No: Conformed

A) Activity Description:

- 1) Develop PE Directive Drawings to ID level of completion.
- 2) Incorporate comments from the PE review.
- 3) Design development and implementation of the modular passenger platform and canopy directive construction contract drawings.
- 4) Update Basis of Design to ID level of completion.
- 5) Prepare a comments matrix and response for the ID.
- 6) Perform QA/QC per QAP.
- 7) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction associated with the modular platform components and canopy component approvals

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Updated Coordination information from the AGW Design, Core Systems Contractor
- 3) HART provided Standard System Specification for products and materials
- 4) The latest Guideway Section design submittals including drawings and Basis of Design

D) Deliverables:

- 1) Architectural elements - Plans, elevations, sections and details developed to ID level, including (but not limited to):
 - a) Platform slab and topping and joint details
 - b) Guardrail details
 - c) Curb details
 - d) Tactile Tile details
 - e) Drain details
 - f) Block-out details for platform component systems
 - g) Canopy details
 - h) Canopy support details for component systems
- 2) Building primary material board-electronic format
- 3) Interim Design Comments Matrix and Response (associated with Directive Drawings)
- 4) Update Basis of Design Report (architectural directive information pertaining to the platform and canopy sections)
- 5) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 - Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design ASG Directive Drawings – (FD)	Task No. / Sub Task No. 04.11 / 03	Revision No: Conformed

A) Activity Description:

- 1) Design to FD level for issuance as construction documents.
- 2) Incorporate comments from the ID submittal.
- 3) Prepare Station Platform and Canopy FD plans and specifications for the following:
 - a) Typical modular side platform plans, sections, elevations, details.
 - b) Typical modular side canopy plan, reflected ceiling plan, sections, elevations and details.
- 4) Incorporate final HART comments and complete the final design and camera-ready construction contract drawings.
- 5) Assist in submittal and processing plans for agency approval of building permit.
- 6) Assist in update of final cost estimate.
- 7) Revise/Complete Basis of Design Report.
- 8) Coordinate with Core Systems Contractor and Airport Station Guideway design group
- 9) QA/QC review per QAP.
- 10) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will prepare and process Utility Construction Agreement document and Use-and-Occupancy Agreement.
- 2) Permit applications will be prepared by CONSULTANT. The Contractor to obtain the actual permits and pay all fees.
- 3) All review comments have been incorporated and accepted.
- 4) QA/QC finalized.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Final Airport Station Guideway Section Design Documents
- 3) Final coordination information from the Core Systems Contractor
- 4) HART comments on the interim design submittal

D) Deliverables:

- 1) Final Basis of Design document
- 2) Directive Drawings issued as Station Camera-Ready (signed and sealed) Construction Contract Drawings and Specifications
- 3) CADD/electronic files per HART Contract requirements
- 4) Final Design Comments Matrix and Response
- 5) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Group 70 International	Issue Date: 09/05/2012
Activity: Architectural Design Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.11 / 04	Revision No: Conformed

A) Activity Description:

- 1) Review and update to PE level the Pearl Harbor Station Module Concept, dated March 9, 2012 to a design level similar to the previous PE design defined in the original PE Drawings, dated January 15, 2010. Include development and integration of RTD Directive Drawings dated 11/13/09 Preliminary engineering plans.
- 2) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 3) Coordinate consulting engineering and landscape preliminary design drawings.
- 4) Coordinate with Civil Engineering and Landscape Architecture regarding the update of site plans, utilities, landscape, and site features.
- 5) Perform QA/QC per QAP.
- 6) Revise/update Basis of Design Report.
- 7) Attend design team coordination meetings and interface meetings as needed.
- 8) Coordinate Station art incorporation by Artist and /or HART Art Consultant.

B) Assumptions:

- 1) The entrance building is the primary architectural element to be defined.
- 2) The RTD Directive Drawings, to include platform, canopy and other modular elements, dated November 13, 2009 will be updated and incorporated for system wide consistency.
- 3) Editable 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.
- 4) Assist in confirmation of historic preservation, environmental and/or other site constraints meetings.

C) Inputs:

- 1) H RTP Reference Documents
- 2) Editable files from HART (AutoCAD, Word, Excel) provided within two (2) days of NTP 1b
- 3) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report HHCTCP Standard Specifications as updated from 09/09/2010 provided with initial reference materials

D) Deliverables:

- 1) Plans, elevations and section developed to PE level including, but not limited to:
 - a) Site Plan
 - b) Ground Floor Plan (including TCCR/UPS ancillary building)
 - c) Concourse Level Plan
 - d) Platform Level Plan
 - e) Roof Plans
 - f) Elevations, all four (4) sides
 - g) Building Sections, two (2)
- 2) Integrate updated RTD Directive Drawings and Standard drawings as applicable
- 3) Updated Basis of Design (Code checklist, ADA, summary of areas & narratives)
- 4) Table of Contents of Specifications
- 5) Egress diagrams and calculations
- 6) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Group 70 International	Issue Date: 09/05/2012
Activity: Architectural Design Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.11 / 05	Revision No: Conformed

A) Activity Description:

- 1) Develop PE to ID level of completion.
- 2) Incorporate Baseline drawings from initial reference materials provided:
 - a) HHCTCP Compendium of Design Criteria.pdf (2/22/2010)
 - b) HHCTCP Standard Specifications Vol. 1.pdf (9/9/2010)
 - c) HHCTCP Standard Specifications Vol. 2.pdf (9/9/2010)
 - d) RTD Directive Drawings.pdf (11/13/2009)
 - e) RTD Plans Standards.pdf (10/16/2009)
- 3) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 4) Update Basis of Design Report to Interim Design level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Attend design team coordination meetings and interface meetings with Core Systems, Guideway, Interface and Geotechnical, as needed.
- 7) Coordinate consulting engineering and landscape preliminary design drawings.
- 8) Assist in preparation of cost estimate.
- 9) Provide material and product information.
- 10) Perform QA/QC per QAP.
- 11) Attend two (2) Public Involvement meetings, and assist with presentation materials.
- 12) Prepare Station Group Interim Design plans, specifications and incorporation of RTD Directive Drawings.
- 13) Develop Art incorporation by Artist and HART Art Consultant team to include drawings and specifications as contract documents.
- 14) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide information and/or confirmation from stakeholders and agencies to proceed with design.
- 2) Updated RTD Directive Drawings will be provided by HART.

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Updated Coordination information from the Airport Guideway Design, Core Systems Contractor
- 3) HART provided Standard System Specification for products and materials
- 4) Updated Geotechnical report

D) Deliverables:

- 1) Plans, elevations and sections developed to Interim Design level including, but not limited to:
 - a) Door, window and louver schedules
 - b) Finish schedules
 - c) Typical construction design details
 - d) Door/window details
 - e) Partition/wall types/schedules
- 2) Outline specifications
- 3) Primary material board-electronic format and actual material samples
- 4) Interim Design Comments Matrix and Response

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: Group 70 International	Issue Date: 09/05/2012
Activity: Architectural Design Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.11 / 05	Revision No: Conformed
5) Update Basis of Design Report		
6) Updated colored landscape and site plan, architectural floor plans and a conceptual perspective rendering for public meetings		
7) Updated Egress diagrams and calculations		
8) QA/QC Documentation		

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: Group 70 International	Issue Date: 09/05/2012
Activity: Architectural Design Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.11 / 06	Revision No: Conformed

A) Activity Description:

- 1) Design effort and deliverables to FD level in preparation of issuance of bid and permit contract documents.
- 2) Incorporate comments from the Interim Design submittal to HART.
- 3) Prepare Station Group FD plans for final HART review.
- 4) Coordinate final specifications preparation.
- 5) Incorporate final HART comments and complete the final design and camera-ready construction contract documents.
- 6) Assist in submittal and processing plans for agency approval of building permit.
- 7) Assist in update of final cost estimate.
- 8) Revise/complete Basis of Design.
- 9) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 10) QA/QC review per QAP.
- 11) Attend two (2) Public Involvement meeting, and assist with presentation materials.
- 12) Finalize Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.
- 13) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) All four (4) Stations are part of one (1) bid package.
- 2) Permit applications will be prepared by CONSULTANT. The Contractor will obtain the actual permits and pay all fees.
- 3) All review comments have been incorporated and accepted.
- 4) QA/QC finalized.

C) Inputs:

- 1) Updated HART Reference Materials
- 2) HART comments on the ID
- 3) Final Guideway Section Design Documents
- 4) Final coordination information from the Core Systems Contractor

D) Deliverables:

- 1) Signed and sealed final Construction Contract documents, including specifications
- 2) Final Basis of Design document
- 3) Colored landscape and site plan, architectural floor plans and a perspective rendering for public meetings
- 4) Station Camera-Ready Final Construction Contract documents
- 5) CADD/electronic files
- 6) 'Ad-Ready' Station Construction Contract Documents
- 7) Final Design Comments Matrix and Response
- 8) Final QA/QC Documentation
- 9) Final Code Compliance diagrams and calculations

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b - Revisions to Preliminary Engineering	Activity Responsibility: KYA Design Group	Issue Date: 09/05/2012
Activity: Architectural Design Honolulu International Airport Station - (PE)	Task No. / Sub Task No. 04.11 / 07	Revision No: Conformed

A) Activity Description:

- 1) Review and update to PE level the Airport Station Module Concept, dated March 9, 2012, to a design level similar to the previous PE design defined in the original PE Drawings, dated January 15, 2010. Include development and integration of RTD Directive Drawings dated 11/13/09 PE plans.
- 2) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 3) Coordinate consulting engineering and landscape preliminary design drawings.
- 4) Coordinate with Civil Engineering and Landscape Architecture regarding the update of site plans, utilities, landscape, and site features.
- 5) Perform QA/QC per QAP.
- 6) Revise/update Basis of Design Report.
- 7) Attend design team coordination meetings and interface meetings as needed.
- 8) Schedule and attend Stations specific stakeholder interface meeting.
- 9) Coordinate Station art incorporation by Artist and /or HART Art Consultant.

B) Assumptions:

- 1) The entrance building is the primary architectural element to be defined.
- 2) The RTD Directive Drawings, to include platform, canopy and other modular elements, dated November 13, 2009 will be updated and incorporated for system wide consistency.
- 3) Editable 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.
- 4) Assist in confirmation of historic preservation, environmental and/or other site constraints meetings.
- 5) Assist in confirmation of DOT-Airport's program for Hawaii's Sense of Place.
- 6) Assist in DOT-Airport's design review meetings for the Airport Station.

C) Inputs:

- 4) H RTP Reference Documents
- 5) Editable files from HART (AutoCAD, Word, Excel) provided within two (2) days of NTP 1b
- 6) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report
- 7) HHCTCP Standard Specifications as updated from 09/09/2010 provided with initial reference materials

D) Deliverables:

- 1) Plans, elevations and section developed to PE level including, but not limited to:
 - a) Site Plan
 - b) Ground Floor Plan (including TCCR/UPS ancillary building)
 - c) Platform Level Plan
 - d) Roof Plans
 - e) Elevations, all four (4) sides
 - f) Building Sections, two (2)
- 2) Integrate updated RTD Directive Drawings and Standard drawings as applicable
- 3) Updated Basis of Design (Code checklist, ADA, summary of areas & narratives)
- 4) Table of Contents of Specifications
- 5) Egress diagrams and calculations
- 6) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: KYA Design Group	Issue Date: 09/05/2012
Activity: Architectural Design Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.11 / 08	Revision No: Conformed

A) Activity Description:

- 1) Develop PE to ID level of completion.
- 2) Incorporate Baseline drawings from initial reference materials provided:
 - a) HHCTCP Compendium of Design Criteria.pdf (2/22/2010)
 - b) HHCTCP Standard Specifications Vol. 1.pdf (9/9/2010)
 - c) HHCTCP Standard Specifications Vol. 2.pdf (9/9/2010)
 - d) RTD Directive Drawings.pdf (11/13/2009)
 - e) RTD Plans Standards.pdf (10/16/2009)
- 3) Coordinate with Core Systems Contractor and AGW design group.
- 4) Update Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Attend design team coordination meetings and interface meetings with Core Systems, Guideway, Interface and Geotechnical, as needed.
- 7) Coordinate consulting engineering and landscape preliminary design drawings.
- 8) Assist in preparation of cost estimate.
- 9) Provide material and product information.
- 10) Perform QA/QC per QAP.
- 11) Attend two (2) Public Involvement meetings, and assist with presentation materials.
- 12) Prepare Station Group Interim Design plans, specifications and incorporation of RTD Directive Drawings.
- 13) Develop Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.

B) Assumptions:

- 1) HART will provide information and/or confirmation from stakeholders and agencies to proceed with design.
- 2) Updated RTD Directive Drawings will be provided by HART.

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Updated Coordination information from the AGW Design, Core Systems Contractor
- 3) HART provided Standard System Specification for products and materials
- 4) Updated Geotechnical report

D) Deliverables:

- 1) Plans, elevations and section developed to ID level including, but not limited to:
 - a) Door, window and louver schedules
 - b) Finish schedules
 - c) Typical construction design details
 - d) Door/window details
 - e) Partition/wall types/schedules
- 2) Outline specifications
- 3) Primary material board-electronic format and actual material samples
- 4) ID Comments Matrix and Response
- 5) Update Basis of Design Report
- 6) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 - Interim Design	Activity Responsibility: KYA Design Group	Issue Date: 09/05/2012
Activity: Architectural Design Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.11 / 08	Revision No: Conformed
7) Updated colored landscape and site plan, architectural floor plans and a conceptual perspective rendering for public meetings		
8) Updated Egress diagrams and calculations		

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 - Final Design	Activity Responsibility: KYA Design Group	Issue Date: 09/05/2012
Activity: Architectural Design Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.11 / 09	Revision No: Conformed

A) Activity Description:

- 1) Design effort and deliverables to FD level in preparation of issuance of construction contract documents.
- 2) Incorporate comments from the ID submittal to HART.
- 3) Prepare Station Group FD plans for final HART review.
- 4) Coordinate final specifications preparation.
- 5) Incorporate final HART comments and complete the final design and camera-ready construction contract documents.
- 6) Assist in submittal and processing plans for agency approval of building permit.
- 7) Assist in update of final cost estimate.
- 8) Revise/complete Basis of Design.
- 9) Attend two (2) Public Involvement meetings, and assist with presentation materials.
- 10) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 11) QA/QC review per QAP.
- 12) Finalize Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.
- 13) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) All four (4) Stations are part of one (1) bid package.
- 2) Permit applications will be prepared by CONSULTANT. The Contractor will obtain the actual permits and pay all fees.
- 3) All review comments have been incorporated and accepted.
- 4) QA/QC finalized.

C) Inputs:

- 1) Updated HART Reference Materials
- 2) HART comments on the ID submittal
- 3) Final Guideway Section Design Documents
- 4) Final coordination information from the Core Systems Contractor

D) Deliverables:

- 1) Signed and sealed final Construction Contract documents, including specifications
- 2) Final Basis of Design document
- 3) Station Camera-Ready Final Construction Contract documents
- 4) CADD/electronic files
- 5) 'Ad-Ready' Station Construction Contract Documents
- 6) FD Comments Matrix and Response
- 7) Colored landscape and site plan, architectural floor plans and a perspective rendering for public meetings
- 8) Final QA/QC Documentation
- 9) Final Code Compliance diagrams and calculations

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: WCIT Architecture	Issue Date: 09/05/2012
Activity: Architectural Design Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.11 / 10	Revision No: Conformed

A) Activity Description:

- 1) Review and update to PE level the Lagoon Station Module Concept, dated March 9, 2012, to a design level similar to the previous PE design defined in the original PE Drawings, dated December 17, 2010. Include development and integration of RTD Directive Drawings dated 11/13/09 Preliminary engineering plans.
- 2) Coordinate with Core Systems Contractor and AGW design group.
- 3) Prepare an exhibit to show the relationship of the Station to the Honolulu International Airport (HIA) Runway Protection Zone (RPZ)
- 4) Coordinate with Civil Engineering and Landscape Architecture regarding the update of site plans, utilities, landscape, and site features.
- 5) Perform QA/QC per QAP.
- 6) Revise/update Basis of Design Report.
- 7) Coordinate Station art incorporation by Artist and /or HART Art Consultant.
- 8) Attend design team coordination, review and Interface meetings as needed.

B) Assumptions:

- 1) The entrance building is the primary architectural element to be defined.
- 2) The RTD Directive Drawings, to include platform, canopy and other modular elements, dated November 13, 2009 will be updated and incorporated for system wide consistency.
- 3) Editable 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.
- 4) Assist in confirmation of historic preservation, environmental and/or other site constraint meetings.
- 5) There will not be a requirement for a concourse level because of height restrictions.
- 6) That there is not any future provision for escalators at Lagoon Station.

C) Inputs:

- 1) HRTP Reference Documents
- 2) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 3) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report
- 4) HHCTCP Standard Specifications as updated from 09/09/2010 provided with initial reference materials

D) Deliverables:

- 1) Plans, elevations and sections developed to PE level including, but not limited to:
 - a) Site Plan
 - b) Ground Floor Plan (including TCCR/UPS ancillary building)
 - c) Platform Level Plan
 - d) Roof Plans
 - e) Elevations, all four (4) sides
 - f) Building Sections, two (2)
- 2) Integrate updated RTD Directive Drawings and Standard drawings as applicable
- 3) Updated Basis of Design (Code checklist, ADA, summary of areas & narratives)
- 4) Table of Contents of Specifications
- 5) Egress diagrams and calculations
- 6) Station/ HIA RPZ Exhibit
- 7) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: WCIT Architecture	Issue Date: 09/05/2012
Activity: Architectural Design Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.11 / 11	Revision No: Conformed

A) Activity Description:

- 1) Develop PE to ID level of completion.
- 2) Incorporate Baseline drawings from initial reference materials provided:
 - a) HHCTCP Compendium of Design Criteria.pdf (2/22/2010)
 - b) HHCTCP Standard Specifications Vol. 1.pdf (9/9/2010)
 - c) HHCTCP Standard Specifications Vol. 2.pdf (9/9/2010)
 - d) RTD Directive Drawings.pdf (11/13/2009)
 - e) RTD Plans Standards.pdf (10/16/2009)
- 3) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 4) Update Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the ID.
- 6) Attend design team coordination meetings and interface meetings with Core Systems, Guideway, Interface and Geotechnical, as needed.
- 7) Coordinate consulting engineering and landscape preliminary design drawings.
- 8) Assist in preparation of cost estimate.
- 9) Provide material and product information.
- 10) Perform QA/QC per QAP.
- 11) Attend two (2) Public Involvement meetings, assist with presentation materials.
- 12) Prepare Station Group Interim Design plans, specifications and incorporation of RTD Directive Drawings.
- 13) Develop Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.
- 14) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide information and/or confirmation from stakeholders and agencies to proceed with design.
- 2) Updated RTD Directive Drawings will be provided by HART.

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Updated Coordination information from the AGW Design, Core Systems Contractor
- 3) HART provided Standard System Specification for products and materials
- 4) Updated Geotechnical report

D) Deliverables:

- 1) Plans, elevations and section developed to ID level including, but not limited to:
 - a) Door, window and louver schedules
 - b) Finish schedules
 - c) Typical construction design details
 - d) Door/window details
 - e) Partition/wall types/schedules
- 2) Outline specifications
- 3) Primary material board-electronic format and actual material samples

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: WCIT Architecture	Issue Date: 09/05/2012
------------------------------------	--	----------------------------------

Activity: Architectural Design Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.11 / 11	Revision No: Conformed
---	--	----------------------------------

- 4) ID Comments Matrix and Response
- 5) Update Basis of Design Report
- 6) QA/QC Documentation
- 7) Updated colored landscape and site plan, architectural floor plans and a conceptual perspective rendering for public meetings
- 8) Updated Egress diagrams and calculations

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: WCIT Architecture	Issue Date: 09/05/2012
Activity: Architectural Design Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.11 / 12	Revision No: Conformed

A) Activity Description:

- 1) Design effort and deliverables to FD level in preparation of issuance of bid and construction contract documents.
- 2) Incorporate comments from the ID submittal to HART.
- 3) Prepare Station Group Final Design plans for final HART review.
- 4) Coordinate final specifications preparation.
- 5) Incorporate final HART comments and complete the final design and camera-ready construction contract documents.
- 6) Assist in submittal and processing plans for agency approval of building permit.
- 7) Assist in update of final cost estimate.
- 8) Revise/complete Basis of Design.
- 9) Attend two (2) Public Involvement meeting, assist with presentation materials.
- 10) Coordinate with Core Systems Contractor and AGW design group.
- 11) QA/QC review per QAP.
- 12) Finalize Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.
- 13) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) All four (4) Stations are part of one (1) bid package.
- 2) Permit applications will be prepared by CONSULTANT. The Contractor will obtain the actual permits and pay all fees.
- 3) All review comments have been incorporated and accepted.
- 4) QA/QC finalized.

C) Inputs:

- 1) Updated HART Reference Materials
- 2) HART comments on the ID submittal
- 3) Final Guideway Section Design Documents
- 4) Final coordination information from the Core Systems Contractor

D) Deliverables:

- 1) Signed and sealed final Construction Contract documents, including specifications
- 2) Final Basis of Design document
- 3) Presentation materials for a community meeting
- 4) Station Camera-Ready Final Construction Contract documents
- 5) CADD/electronic files.
- 6) 'Ad-Ready' Station Construction Contract Documents
- 7) Colored landscape and site plan, architectural floor plans and a perspective rendering for public meetings
- 8) FD Comments Matrix and Response
- 9) Final QA/QC Documentation
- 10) Final Code Compliance diagrams and calculations

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design Middle Street Station – (PE)	Task No. / Sub Task No. 04.11 / 13	Revision No: Conformed

A) Activity Description:

- 1) Review and update to PE level the Middle Street Station Module Concept, dated July 13, 2012, to a design level similar to the previous PE design defined in the original PE Drawings, dated January 15, 2010. Include development and integration of RTD Directive Drawings dated 11/13/09 PE plans.
- 2) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 3) Coordinate consulting engineering and landscape preliminary design drawings.
- 4) Coordinate with Civil Engineering and Landscape Architecture regarding the update of site plans, utilities, landscape, and site features.
- 5) Perform QA/QC per QAP.
- 6) Revise/update Basis of Design Report.
- 7) Attend design team coordination meetings and interface meetings as needed.
- 8) Coordinate Station art incorporation by Artist and/or HART Art Consultant.

B) Assumptions:

- 1) The entrance access points and the elevated pedestrian walkway are the primary architectural elements to be defined.
- 2) The RTD Directive Drawings, to include platform, canopy and other modular elements, dated November 13, 2009 will be updated and incorporated for system wide consistency.
- 3) Editable 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.
- 4) Assist in confirmation of historic preservation, environmental and/or other site constraints meetings.
- 5) Interface with the Middle Street Intermodal Center Parking and Operations for the proposed new recessed bus loading area within the westbound direction.
- 6) Interface with the Middle Street Intermodal Center to determine the location of the proposed twenty (20) bike racks and to coordinate with the Station access point.
- 7) Coordinate with the HART to review the plans for the proposed one thousand (1,000) stall park-and-ride facility adjacent to the existing Middle Street Transit Center.
- 8) Coordinate with HDOT regarding clearances above and adjacent to Kamehameha Highway.
- 9) Coordinate with HART regarding the Station Ancillary Building (with a Train Control and Communications Room) and HECO regarding transformer and switchgear requirements.
- 10) Coordinate with the Corps of Engineers, if required, regarding the support and clearance issues associated with the Kalihi Stream and the necessary preliminary site work at the systems site.
- 11) Coordinate with HART to determine passenger platform loading and ridership projections to validate the number of entrance/exit stairs, stair widths necessary for NFPA 130 compliance, number of elevators, escalator and required queuing space for elevators.
- 12) Coordinate with HART regarding accessory area program space; i.e. trash room, janitor closet
- 13) Coordinate with HART regarding the program requirements, clearance envelope requirements associated with the elevated pedestrian walkway.
- 14) Coordinate with HART regarding the design parameters associated with the motifs, small-scale design elements, and community based comments particular to this Station location.
- 15) Coordinate with HART to determine the status regarding a second entrance to the Middle Street Transit Center.
- 16) Coordinate with HART regarding the environmental fill that addresses the specific soil conditions.
- 17) Coordinate with the City Zoning Department regarding various zoning variances which may include minimum lot dimensions and sizes, yard and height setbacks, and maximum lot coverage.
- 18) Coordinate with HART regarding Station building roof drainage, downspouts and connection to the roadway drainage

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design Middle Street Station – (PE)	Task No. / Sub Task No. 04.11 / 13	Revision No: Conformed

system.

- 19) Close coordination with the Department of Health, hazardous materials that are contained by compacted soil and a geomembrane barrier so as to limit the Station footprint accordingly.
- 20) Close coordination with the RTD's LiDAR survey, utilities and potholing to identify the potential conflicts with the concourse pedestrian bridge and the associated utility relocation designs.

C) Inputs:

- 1) H RTP Reference Documents
- 2) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 3) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report
- 4) HHCTCP Standard Specifications as updated from 09/09/2010 provided with initial reference materials

D) Deliverables:

- 1) Plans, elevations and section developed to PE level including, but not limited to:
 - a) Site Plan
 - b) Ground Floor Plan (including TCCR/UPS ancillary building)
 - c) Concourse Level Plan
 - d) Platform Level Plan
 - e) Roof Plans
 - f) Elevations, all four (4) sides
 - g) Building Sections, two (2)
- 2) Integrate updated RTD Directive Drawings and Standard drawings as applicable
- 3) Updated Basis of Design (Code checklist, ADA, summary of areas & narratives)
- 4) Table of Contents of Specifications
- 5) Egress diagrams and calculations
- 6) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design Middle Street Station – (ID)	Task No. / Sub Task No. 04.11 / 14	Revision No: Conformed

A) Activity Description:

- 1) Develop PE to ID level of completion.
- 2) Incorporate Baseline drawings from initial reference materials provided:
 - a) HHCTCP Compendium of Design Criteria.pdf (2/22/2010)
 - b) HHCTCP Standard Specifications Vol. 1.pdf (9/9/2010)
 - c) HHCTCP Standard Specifications Vol. 2.pdf (9/9/2010)
 - d) RTD Directive Drawings.pdf (11/13/2009)
 - e) RTD Plans Standards.pdf (10/16/2009)
- 3) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 4) Update Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Attend design team coordination meetings and interface meetings with Core Systems, Guideway, Interface and Geotechnical, as needed.
- 7) Coordinate consulting engineering and landscape preliminary design drawings.
- 8) Assist in preparation of cost estimate.
- 9) Provide material and product information.
- 10) Perform QA/QC per QAP.
- 11) Attend two (2) Public Involvement meetings, assist with presentation materials.
- 12) Prepare Station Group ID plans, specifications and incorporation of RTD Directive Drawings.
- 13) Develop Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.

B) Assumptions:

- 1) HART will provide information and/or confirmation from stakeholders and agencies to proceed with design.
- 2) Updated RTD Directive Drawings will be provided by HART.

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Updated Coordination information from the AGW Design, Core Systems Contractor
- 3) HART provided Standard System Specification for products and materials
- 4) Updated Geotechnical report

D) Deliverables:

- 1) Plans, elevations and section developed to ID level including, but not limited to:
 - a) Door, window and louver schedules
 - b) Finish schedules
 - c) Typical construction design details
 - d) Door/window details
 - e) Partition/wall types/schedules
 - f) Roof details
- 2) Outline specifications
- 3) Primary material board-electronic format and actual material samples
- 4) ID Comments Matrix and Response

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design Middle Street Station – (ID)	Task No. / Sub Task No. 04.11 / 14	Revision No: Conformed

- 5) Update Basis of Design Report
- 6) QA/QC Documentation
- 7) Updated colored landscape and site plan, architectural floor plans and a conceptual perspective rendering for public meetings
- 8) Updated Egress diagrams and calculations

ACTIVITY DESCRIPTION

Form SOW 01

NTP#: 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Architectural Design Middle Street Station – (FD)	Task No. / Sub Task No. 04.11 / 15	Revision No: Conformed

A) Activity Description:

- 1) Design effort and deliverables to FD level in preparation of issuance of bid and permit contract documents.
- 2) Incorporate comments from the ID submittal to HART.
- 3) Prepare Station Group FD plans for final HART review.
- 4) Incorporate final HART comments and complete the final design and camera-ready construction contract documents.
- 5) Assist in submittal and processing plans for agency approval of building permit.
- 6) Assist in update of final cost estimate.
- 7) Revise/complete Basis of Design.
- 8) Attend two (2) Public Involvement meeting, assist with presentation materials.
- 9) Coordinate with Core Systems Contractor and Airport Station Guideway design group.
- 10) QA/QC review per QAP.
- 11) Finalize Art incorporation by Artist and HART Art Consultant to include drawings and specifications as contract documents.
- 12) Attend design team coordination and interface meetings as needed.

B) Assumptions:

- 1) All four (4) Stations are part of one bid package.
- 2) Permit applications will be prepared by CONSULTANT. The Contractor will obtain the actual permits and pay all fees.
- 3) All review comments have been incorporated and accepted.
- 4) QA/QC finalized.

C) Inputs:

- 1) Updated HART Reference Materials
- 2) HART comments on the ID submittal
- 3) Final Guideway Section Design Documents
- 4) Final coordination information from the Core Systems Contractor

D) Deliverables:

- 1) Signed and sealed final Construction Contract documents
- 2) Final Basis of Design document
- 3) Presentation materials for a community meeting
- 4) Station Camera-Ready Final Construction Contract documents
- 5) CADD/electronic files
- 6) 'Ad-Ready' Station Construction Contract Documents
- 7) FD Comments Matrix and Response
- 8) Colored landscape and site plan, architectural floor plans and a perspective rendering for public meetings
- 9) Final QA/QC Documentation
- 10) Final Code Compliance diagrams and calculations

TASK 04.12 – Mechanical & Electrical Design

Design and develop electrical plans for Station and site lighting, power distribution, and data and communications cabling. Design air conditions systems and ventilations systems for spaces requiring climate control.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.12 / 01	Revision No: Conformed

A) Activity Description:

- 1) Develop PE design level documents of air conditioning systems and ventilation systems for spaces requiring climate control, plumbing, sanitary drainage, storm drainage, and fire protection systems.
- 2) Perform QA/QC per QAP.
- 3) Revise/ update Basis of Design Report.
- 4) Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.
- 5) Review and provide responses to HART comments for submittals.
- 6) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Mechanical Design is limited to only the Station sites.
- 2) Editable files (AutoCAD, 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.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HRTTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE level plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation
- 5) Preliminary mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.12 / 02	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE revisions.
- 2) Develop PE documents to ID level of completion.
- 3) State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 4) Revise the Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station Group ID plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 8) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the award of the CSC be delayed until after NTP 2.
- 2) No mechanical participation in public/community meetings is required.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) HRTTP Reference Materials
- 4) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) ID level mechanical design drawings and specifications with all disciplines compiled into one document
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (mechanical sections)
- 4) QA/QC Documentation
- 5) ID level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.12 / 03	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Specific Station Group FD plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 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) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
- 2) No mechanical participation in public/community presentations.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) 'H RTP Reference Materials'
- 3) Final AGW Section Design Documents
- 4) Final coordination information from the Core Systems Contractor
- 5) HART comments on the ID submittal
- 6) Station Core System Contractor will confirm all heat producing equipment/system heat load in British thermal units per hour (BtuH)

D) Deliverables:

- 1) FD drawings
- 2) Final Basis of Design
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation
- 5) FD level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.12 / 04	Revision No: Conformed

A) Activity Description:

- 1) Develop PE design level documents of air conditioning systems and ventilation systems for spaces requiring climate control, plumbing, sanitary drainage, storm drainage, and fire protection systems.
- 2) Perform QA/QC per QAP.
- 3) Revise/ update Basis of Design Report.
- 4) Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.
- 5) Review and provide responses to HART comments for submittals.
- 6) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Mechanical Design is limited to only the Station sites.
- 2) Editable files (AutoCAD, 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.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HRTF Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE level plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation
- 5) Preliminary mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.12 / 05	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE revisions.
- 2) Develop PE documents to ID level of completion.
- 3) State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 4) Revise the Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station Group ID plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 8) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the award of the CSC be delayed until after NTP 2.
- 2) No mechanical participation in public/community meetings is required.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) HRTF Reference Materials
- 4) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) ID level mechanical design drawings and specifications with all disciplines compiled into one document
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (mechanical sections)
- 4) QA/QC Documentation
- 5) ID level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.12 / 06	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Specific Station Group FD plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 3) Complete the final design and camera-ready construction contract drawings.
- 4) Assist in processing plans for agency approval.
- 5) Revise Basis of Design Report.
- 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) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
- 2) No mechanical participation in public/community presentations.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) 'H RTP Reference Materials'
- 3) Final AGW Section Design Documents
- 4) Final coordination information from the Core Systems Contractor
- 5) HART comments on the interim design submittal
- 6) Station Core System Contractor will confirm all heat producing equipment/system heat load in BtuH

D) Deliverables:

- 1) FD drawings
- 2) Final Basis of Design
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation
- 5) FD level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.12 / 07	Revision No: Conformed

A) Activity Description:

- 1) Develop PE design level documents of air conditioning systems and ventilation systems for spaces requiring climate control, plumbing, sanitary drainage, storm drainage, and fire protection systems.
- 2) Perform QA/QC per QAP.
- 3) Revise/ update Basis of Design Report.
- 4) Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.
- 5) Review and provide responses to HART comments for submittals.
- 6) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Mechanical Design is limited to only the Station sites.
- 2) Editable files (AutoCAD, 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.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HRTF Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE level plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation
- 5) Preliminary mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.12 / 08	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE revisions.
- 2) Develop PE documents to ID level of completion.
- 3) State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 4) Revise the Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station Group Interim Design plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 8) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the award of the CSC be delayed until after NTP 2.
- 2) No mechanical participation in public/community meetings is required.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) H RTP Reference Materials
- 4) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) ID level mechanical design drawings and specifications with all disciplines compiled into one document
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (mechanical sections)
- 4) QA/QC Documentation
- 5) ID level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.12 / 09	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Specific Station Group FD plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 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) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
- 2) No mechanical participation in public/community presentations.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) 'H RTP Reference Materials'
- 3) Final AGW Section Design Documents
- 4) Final coordination information from the Core Systems Contractor
- 5) HART comments on the interim design submittal
- 6) Station Core System Contractor will confirm all heat producing equipment/system heat load in BtuH

D) Deliverables:

- 1) FD drawings
- 2) Final Basis of Design
- 3) Final project specific specifications and standard details list
- 4) QAQC Documentation
- 5) FD level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Middle Street Station – (PE)	Task No. / Sub Task No. 04.12 / 10	Revision No: Conformed

A) Activity Description:

- 1) Develop PE design level documents of air conditioning systems and ventilation systems for spaces requiring climate control, plumbing, sanitary drainage, storm drainage, and fire protection systems.
- 2) Perform QA/QC per QAP.
- 3) Revise/ update Basis of Design Report.
- 4) Coordinate with Core System Contractor and Electrical Engineer for air conditioning and ventilation requirements.
- 5) Review and provide responses to HART comments for submittals.
- 6) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Mechanical Design is limited to only the Station sites.
- 2) Editable files (AutoCAD, 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.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) H RTP Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE level plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation
- 5) Preliminary mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Middle Street Station – (ID)	Task No. / Sub Task No. 04.12 / 11	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE revisions.
- 2) Develop PE documents to ID level of completion.
- 3) State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 4) Revise the Basis of Design Report to ID level of completion.
- 5) Prepare a comments matrix and response for the interim design.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station Group ID plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 8) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the award of the CSC be delayed until after NTP 2.
- 2) No mechanical participation in public/community meetings is required.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) H RTP Reference Materials
- 4) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) ID level mechanical design drawings and specifications with all disciplines compiled into one document
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (mechanical sections)
- 4) QA/QC Documentation
- 5) ID level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Mechanical Engineers of Hawai'i Corp	Issue Date: 09/05/2012
Activity: Mechanical Design – Middle Street Station – (FD)	Task No. / Sub Task No. 04.12 / 12	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Specific Station Group FD plans and specifications for the following:
 - a) Air conditioning and ventilation system plans for spaces that require climate control
 - b) Plumbing and sanitary drainage systems plans and piping isometric diagrams for toilet rooms, elevator pits and floor drains, etc.
 - c) Roof drainage plans and downspouts
 - d) Guideway drainage plans at Stations
 - e) Fire suppression (fire standpipe system, fire extinguishers) plans
 - f) Fire alarm plan related to fire suppression and mechanical systems
- 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) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.
- 2) No mechanical participation in public/community presentations.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) 'H RTP Reference Materials'
- 3) Final AGW Section Design Documents
- 4) Final coordination information from the Core Systems Contractor
- 5) HART comments on the interim design submittal
- 6) Station Core System Contractor will confirm all heat producing equipment/system heat load in BtuH

D) Deliverables:

- 1) FD drawings
- 2) Final Basis of Design
- 3) Final project specific specifications and standard details list
- 4) QA/QC Documentation
- 5) FD level mechanical design calculations for all systems

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.12 / 13	Revision No: Conformed

A) Activity Description:

- 1) Develop PE level design based on the March 2012 conceptual design sketches.
- 2) Develop PE level design of conduit and routing from the TPSS to the Core System source.
- 3) Coordinate site plans and utility connection points with the AGW Section Designer.
- 4) Coordinate with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to train control and communications rooms (TCCR).
- 5) Submit Hawaiian Electric Company utility service requests.
- 6) Perform QA/QC per QAP.
- 7) Revise/ update the Basis of Design Report.
- 8) Review and recommend a location of the Station electrical transformer, including introductory meeting with HECO.
- 9) Review and provide responses to HART comments on 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) Editable 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) The generator receptacle will be sized to accommodate the systems required by the H RTP Compendium of Design Criteria to be connected to emergency power. HART has indicated elevators are not required to operate under emergency egress conditions.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) ASG Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.12 / 14	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings.
- 3) The State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 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) Perform QA/QC per QAP.
- 8) Prepare ID level plans and specifications for the following:
 - a) Electric and communication site plans and profiles including electrical/communications relocations, electric service connection, pay phone connection (from the interface connection point at station site boundary to a pullbox within station entrance plaza), and Core System electrical/communication provisions
 - b) Station power, emergency power and lighting plans.
 - c) Station single-line diagrams
- 9) Site lighting plan.
- 10) Prepare lightning protection analysis.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the execution of the Utility Engineering Services Agreement be delayed until after NTP 2.
- 2) No electrical participation in public/community meetings is required.
- 3) The uninterruptable power supply (UPS) unit for the emergency egress lighting will be sized to accommodate the lighted exit signage and interior and exterior emergency lights.
- 4) HECO and HART execute Engineering Services/Utility Construction Agreements.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the Preliminary Engineering submittal
- 3) ASG Reference Materials
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Station Interim Design level electrical design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (electrical sections)
- 4) QA/QC Documentation
- 5) Lightning Protection Analysis
- 6) Photovoltaic System feasibility Study
- 7) Lighting calculations that demonstrate compliance with Compendium of Design (CDC) Ch 20 requirements.
- 8) Power design calculations described in CDC Ch 20.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.12 / 15	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Station Group FD level plans and specifications for the following:
 - a) Electrical and communications site plans and profiles including electrical/communications relocations, electric service connection, and Core Systems electrical/communication
 - b) Station power, emergency power and lighting plans
 - c) Station single-line diagrams
 - d) Site Lighting Plan
- 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) The UPS unit for the Station will be sized to accommodate the Station emergency loads.
- 3) The generator receptacle will be sized to accommodate the systems required to be connected to emergency power.
- 4) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) ASG Reference Materials
- 3) Final AGW Design Documents
- 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) Camera-Ready Final Design Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) Hawaiian Electric Company service proposal
- 6) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.12 / 16	Revision No: Conformed

A) Activity Description:

- 1) Develop PE level design based on the March 2012 conceptual design sketches.
- 2) Develop PE level design of conduit and routing from the TPSS to the Core System source.
- 3) Coordinate site plans and utility connection points with the AGW Section Designer.
- 4) Coordinate with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to TCCR.
- 5) Submit Hawaiian Electric Company utility service requests.
- 6) Perform QA/QC per QAP.
- 7) Revise/ update the Basis of Design Report.
- 8) Review and recommend a location of the Station electrical transformer, including introductory meeting with HECO.
- 9) Review and provide responses to HART comments on 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) Editable 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) The generator receptacle will be sized to accommodate the systems required by the HRTP Compendium of Design Criteria to be connected to emergency power. HART has indicated elevators are not required to operate under emergency egress conditions.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) ASG Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.12 / 17	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings.
- 3) The State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 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) Perform QA/QC per QAP.
- 8) CONSULTANT shall prepare deconstruction/demolition drawings and specifications for properties impacted by Station related work. Hazardous material abatement work related to this currently Not-In-Contract (NIC). Standard specifications and guide specifications provided by HART will be reviewed and edited for project specific requirements.
- 9) Prepare Interim Design level plans and specifications for the following:
 - a) Electric and communication site plans and profiles including electrical/communications relocations, electric service connection, pay phone connection (from the interface connection point at station site boundary to a pullbox within station entrance plaza), and Core System electrical/communication provisions
 - b) Station power, emergency power and lighting plans.
 - c) Station single-line diagrams
- 10) Site lighting plan.
- 11) Prepare lightning protection analysis.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the execution of the Utility Engineering Services Agreement be delayed until after NTP 2.
- 2) No electrical participation in public/community meetings is required.
- 3) The UPS unit for the emergency egress lighting will be sized to accommodate the lighted exit signage and interior and exterior emergency lights.
- 4) HECO and HART execute Engineering Services/Utility Construction Agreements.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the Preliminary Engineering submittal
- 3) ASG Reference Materials
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Station ID level electrical design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design Report (electrical sections)
- 4) QA/QC Documentation
- 5) Lightning Protection Analysis
- 6) Photovoltaic System feasibility Study
- 7) Lighting calculations that demonstrate compliance with CDC Ch 20 requirements.
- 8) Power design calculations described in CDC Ch 20.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.12 / 18	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Station Group FD level plans and specifications for the following:
 - a) Electrical and communications site plans and profiles including electrical/communications relocations, electric service connection, and Core Systems electrical/communication
 - b) Station power, emergency power and lighting plans
 - c) Station single-line diagrams
 - d) Site Lighting Plan
 - e) Traction Power Substation site preparation plans 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) The UPS unit for the Station will be sized to accommodate the Station emergency loads.
- 3) The generator receptacle will be sized to accommodate the systems required to be connected to emergency power.
- 4) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) ASG Reference Materials
- 3) Final AGW Design Documents
- 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) Camera-Ready Final Design Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) Hawaiian Electric Company service proposal
- 6) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.12 / 19	Revision No: Conformed

A) Activity Description:

- 1) Develop PE level design based on the March 2012 conceptual design sketches.
- 2) Coordinate site plans and utility connection points with the AGW Section Designer.
- 3) Coordinate with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to TCCR.
- 4) Submit Hawaiian Electric Company utility service requests.
- 5) Perform QA/QC per QAP.
- 6) Revise/ update the Basis of Design Report.
- 7) Review and recommend a location of the Station electrical transformer, including introductory meeting with HECO.
- 8) Review and provide responses to HART comments on submittals.
- 9) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Electrical Design is limited to only the Station sites.
- 2) Editable 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) The generator receptacle will be sized to accommodate the systems required by the H RTP Compendium of Design Criteria to be connected to emergency power. HART has indicated elevators are not required to operate under emergency egress conditions.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) ASG Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.12 / 20	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings.
- 3) The State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 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) Perform QA/QC per QAP.
- 8) Prepare ID level plans and specifications for the following:
 - a) Electric and communication site plans and profiles including electrical/communications relocations, electric service connection, pay phone connection (from the interface connection point at station site boundary to a pullbox within station entrance plaza), and Core System electrical/communication provisions
 - b) Station power, emergency power and lighting plans.
 - c) Station single-line diagrams
- 9) Site lighting plan.
- 10) Prepare lightning protection analysis.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the execution of the Utility Engineering Services Agreement be delayed until after NTP 2.
- 2) No electrical participation in public/community meetings is required.
- 3) The UPS unit for the emergency egress lighting will be sized to accommodate the lighted exit signage and interior and exterior emergency lights.
- 4) HECO and HART execute Engineering Services/Utility Construction Agreements.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) ASG Reference Materials
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Station ID level electrical design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (electrical sections)
- 4) QA/QC Documentation
- 5) Lightning Protection Analysis
- 6) Photovoltaic System feasibility Study
- 7) Lighting calculations that demonstrate compliance with CDC Ch 20 requirements.
- 8) Power design calculations described in CDC Ch 20.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.12 / 21	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Station Group FD level plans and specifications for the following:
 - a) Electrical and communications site plans and profiles including electrical/communications relocations, electric service connection, and Core Systems electrical/communication
 - b) Station power, emergency power and lighting plans
 - c) Station single-line diagrams
 - d) Site Lighting Plan
- 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) The UPS unit for the Station will be sized to accommodate the Station emergency loads.
- 3) The generator receptacle will be sized to accommodate the systems required to be connected to emergency power.
- 4) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) ASG Reference Materials
- 3) Final AGW Design Documents
- 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) Camera-Ready Final Design Drawings and Specifications
- 2) Basis of Design report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) Hawaiian Electric Company service proposal
- 6) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Middle Street Station – (PE)	Task No. / Sub Task No. 04.12 / 22	Revision No: Conformed

A) Activity Description:

- 1) Develop PE level design based on the March 2012 conceptual design sketches.
- 2) Power Substation site preparation plans including ground grid design
- 3) Coordinate site plans and utility connection points with the AGW Section Designer.
- 4) Coordinate with Core Systems Contractor and design the duct bank between interface pull boxes provided by guideway contractors to TCCR.
- 5) Submit Hawaiian Electric Company utility service requests.
- 6) Perform QA/QC per QAP.
- 7) Revise/ update the Basis of Design Report.
- 8) Review and recommend a location of the Station electrical transformer, including introductory meeting with HECO.
- 9) Review and provide responses to HART comments on 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) Editable 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) The generator receptacle will be sized to accommodate the systems required by the H RTP Compendium of Design Criteria to be connected to emergency power. HART has indicated elevators are not required to operate under emergency egress conditions.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) ASG Reference Documents
- 3) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) PE plans
- 2) Contract Specifications (Table of Contents only)
- 3) Input to Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Middle Street Station – (ID)	Task No. / Sub Task No. 04.12 / 23	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Design development and implementation of the construction contract drawings.
- 3) The State, City and Project standard details will be incorporated and project specific detail developed as needed.
- 4) Revise Basis of Design based on interim design documents.
- 5) Prepare a comments matrix and response for the ID.
- 6) Attend design team coordination meetings and interface meetings, as needed.
- 7) Perform QA/QC per QAP.
- 8) Prepare ID level plans and specifications for the following:
 - a) Electric and communication site plans and profiles including electrical/communications relocations, electric service connection, pay phone connection (from the interface connection point at station site boundary to a pullbox within station entrance plaza), and Core System electrical/communication provisions
 - b) Station power, emergency power and lighting plans.
 - c) Station single-line diagrams
- 9) Site lighting plan.
- 10) Prepare lightning protection analysis.

B) Assumptions:

- 1) HART will provide the necessary coordination information and/or direction should the execution of the Utility Engineering Services Agreement be delayed until after NTP 2.
- 2) No electrical participation in public/community meetings is required.
- 3) The UPS unit for the emergency egress lighting will be sized to accommodate the lighted exit signage and interior and exterior emergency lights.
- 4) HECO and HART execute Engineering Services/Utility Construction Agreements.

C) Inputs:

- 1) Coordination information from the Core Systems Contractor
- 2) HART comments on the PE submittal
- 3) ASG Reference Materials
- 4) The latest Airport Section design submittals (both pdf and AutoCAD) including drawings and basis of design

D) Deliverables:

- 1) Station ID level electrical design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design (electrical sections)
- 4) QA/QC Documentation
- 5) Lightning Protection Analysis
- 6) Photovoltaic System feasibility Study
- 7) Lighting calculations that demonstrate compliance with CDC Ch 20 requirements.
- 8) Power design calculations described in CDC Ch 20.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: RNSHA/ASCCA	Issue Date: 09/05/2012
Activity: Electrical Design – Middle Street Station – (FD)	Task No. / Sub Task No. 04.12 / 24	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID.
- 2) Prepare Station Group Final Design level plans and specifications for the following:
 - a) Electrical and communications site plans and profiles including electrical/communications relocations, electric service connection, and Core System electrical/communication
 - b) Station power, emergency power and lighting plans
 - c) Station single-line diagrams
 - d) Site Lighting Plan
 - e) Traction Power Substation site preparation plans 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) The UPS unit for the Station will be sized to accommodate the Station emergency loads.
- 3) The generator receptacle will be sized to accommodate the systems required to be connected to emergency power.
- 4) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all fees.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) ASG Reference Materials
- 3) Final AGW Design Documents
- 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) Camera-Ready FD Drawings and Specifications
- 2) Basis of Design report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) Hawaiian Electric Company service proposal
- 6) QA/QC Checklist/Documentation

TASK 04.13 - Maintenance of Traffic (MOT) Plans

Develop a Traffic Management Plan and construction staging drawings to maximize the area available for construction, minimize traffic disruption for both vehicular and pedestrian movement and maximize accessibility to adjacent properties and businesses. Prepare MOT drawings for construction and identify where permits are required for access.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.13 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review PE plans and Basis of Design report.
- 2) Develop plans to PE level of design.
- 3) Respond to HART comments as applicable.
- 4) Perform QA/QC per QAP as applicable.
- 5) Revise Basis of Design Report.
- 6) Review and provide responses to HART comments for submittals.
- 7) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Maintenance of Traffic (MOT) Plan Design is limited to areas pertaining to Station sites and immediate vicinity, and associated construction activities.
- 2) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.

C) Inputs:

- 1) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 2) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.
- 3) Project construction phasing and work zone requirements

D) Deliverables:

- 1) PE plans
- 2) Basis of Design Report
- 3) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.13 / 02	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) State, City and Project standard details and standards will be incorporated and project specific detail developed as needed.
- 3) Revise Basis of Design report based on ID documents.
- 4) Prepare a comments matrix and response for the ID.
- 5) Attend design team coordination meetings and interface meetings, as needed.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station Interim Design level MOT plans and specifications. The MOT plans shall incorporate lane closures necessary for demolition and/or site work preparation, erection of concourse, accommodations for utility connections, placement of station platform components, construction area staging, and other construction activities requiring roadway lane closures.

B) Assumptions:

- 1) Design shall incorporate guidelines contained in the latest Manual on Uniform Traffic Control Devices (MUTCD).

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.

D) Deliverables:

- 1) Interim MOT design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Basis of Design Report (MOT sections)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.13 / 03	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare MOT Station Group FD level plans and specifications.
- 3) Complete the final design and camera-ready construction contract drawings.
- 4) Assist in processing plans for agency approval.
- 5) Revise Basis of Design Report.
- 6) Attend design team coordination meetings and interface meetings as needed.
- 7) QA/QC review per QAP.

B) Assumptions:

- 1) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all necessary permit fees.
- 2) Construction work zone requirements, construction phasing and sequence, and other construction activities affecting MOT design will be confirmed by the design team.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Final Guideway Section Design Documents
- 3) HART comments on the ID submittal
- 4) Work zone requirements, construction phasing and sequence, work flow and other construction activities affecting MOT design

D) Deliverables:

- 1) Station Camera-Ready FD Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.13 / 04	Revision No: Conformed

A) Activity Description:

- 1) Review PE plans and Basis of Design Report.
- 2) Develop plans to PE level of design.
- 3) Respond to HART comments as applicable.
- 4) Perform QA/QC per QAP as applicable.
- 5) Revise Basis of Design Report.
- 6) Review and provide responses to HART comments for submittals.
- 7) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) MOT Plan Design is limited to areas pertaining to Station sites and immediate vicinity, and associated construction activities.
- 2) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.

C) Inputs:

- 1) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 2) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report
- 3) Project construction phasing and work zone requirements

D) Deliverables:

- 1) PE plans
- 2) Basis of Design Report
- 3) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.13 / 05	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) State, City and Project standard details and standards will be incorporated and project specific detail developed as needed.
- 3) Revise Basis of Design Report based on ID documents.
- 4) Prepare a comments matrix and response for the ID.
- 5) Attend design team coordination meetings and interface meetings, as needed.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station ID level MOT plans and specifications. The MOT plans shall incorporate lane closures necessary for demolition and/or site work preparation, erection of concourse, accommodations for utility connections, placement of station platform components, construction area staging, and other construction activities requiring roadway lane closures.

B) Assumptions:

- 1) Design shall incorporate guidelines contained in the latest Manual on Uniform Traffic Control Devices (MUTCD).

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.

D) Deliverables:

- 1) Interim MOT Design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Basis of Design Report (MOT sections)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.13 / 06	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare MOT Station Group FD level plans and specifications.
- 3) Complete the FD and camera-ready construction contract drawings.
- 4) Assist in processing plans for agency approval.
- 5) Revise Basis of Design Report.
- 6) Attend design team coordination meetings and interface meetings as needed.
- 7) QA/QC review per QAP.

B) Assumptions:

- 1) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all necessary permit fees.
- 2) Construction work zone requirements, construction phasing and sequence, and other construction activities affecting MOT design will be confirmed by the design team.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Final Guideway Section Design Documents
- 3) HART comments on the ID submittal
- 4) Work zone requirements, construction phasing and sequence, work flow and other construction activities affecting MOT design

D) Deliverables:

- 1) Station Camera-Ready FD Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.13 / 07	Revision No: Conformed

A) Activity Description:

- 1) Review FD plans and Basis of Design Report.
- 2) Develop plans to FD level of design.
- 3) Respond to HART comments as applicable.
- 4) Perform QA/QC per QAP as applicable.
- 5) Revise Basis of Design Report.
- 6) Review and provide responses to HART comments for submittals.
- 7) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) MOT Plan Design is limited to areas pertaining to Station sites and immediate vicinity, and associated construction activities.
- 2) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.

C) Inputs:

- 1) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 2) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.
- 3) Project construction phasing and work zone requirements

D) Deliverables:

- 1) PE plans
- 2) Basis of Design Report
- 3) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.13 / 08	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) State, City and Project standard details and standards will be incorporated and project specific detail developed as needed.
- 3) Revise Basis of Design Report based on ID documents.
- 4) Prepare a comments matrix and response for the ID.
- 5) Attend design team coordination meetings and interface meetings, as needed.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station ID level MOT plans and specifications. The MOT plans shall incorporate lane closures necessary for demolition and/or site work preparation, erection of concourse, accommodations for utility connections, placement of station platform components, construction area staging, and other construction activities requiring roadway lane closures.

B) Assumptions:

- 1) Design shall incorporate guidelines contained in the latest Manual on Uniform Traffic Control Devices (MUTCD).

C) Inputs:

- 1) HART comments on the PE submittal
- 2) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.

D) Deliverables:

- 1) Interim MOT design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Basis of Design Report (MOT sections)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.13 / 09	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare MOT Station Group FD level plans and specifications.
- 3) Complete the final design and camera-ready construction contract drawings.
- 4) Assist in processing plans for agency approval.
- 5) Revise Basis of Design Report.
- 6) Attend design team coordination meetings and interface meetings as needed.
- 7) QA/QC review per QAP.

B) Assumptions:

- 1) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all necessary permit fees.
- 2) Construction work zone requirements, construction phasing and sequence, and other construction activities affecting MOT design will be confirmed by the design team.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Final Guideway Section Design Documents
- 3) HART comments on the ID submittal
- 4) Work zone requirements, construction phasing and sequence, work flow and other construction activities affecting MOT design

D) Deliverables:

- 1) Station Camera-Ready FD Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) QA/QC Checklist/Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Middle Street Station – (PE)	Task No. / Sub Task No. 04.13 / 10	Revision No: Conformed

A) Activity Description:

- 1) Review PE plans and Basis of Design Report.
- 2) Develop plans to PE level of design.
- 3) Respond to HART comments as applicable.
- 4) Perform QA/QC per QAP as applicable.
- 5) Revise Basis of Design Report.
- 6) Review and provide responses to HART comments for submittals.
- 7) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) MOT Plan Design is limited to areas pertaining to Station sites and immediate vicinity, and associated construction activities.
- 2) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and Basis of Design Report will be provided by HART within two (2) days of NTP 1b.

C) Inputs:

- 1) Editable files from HART (AutoCAD, word, excel) provided within two (2) days of NTP 1b
- 2) The latest PE design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.
- 3) Project construction phasing and work zone requirements

D) Deliverables:

- 1) PE plans
- 2) Basis of Design Report
- 3) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Middle Street Station – (ID)	Task No. / Sub Task No. 04.13 / 11	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE revisions.
- 2) State, City and Project standard details and standards will be incorporated and project specific detail developed as needed.
- 3) Revise Basis of Design Report based on ID documents.
- 4) Prepare a comments matrix and response for the ID.
- 5) Attend design team coordination meetings and interface meetings, as needed.
- 6) Perform QA/QC per QAP.
- 7) Prepare Station ID level MOT plans and specifications. The MOT plans shall incorporate lane closures necessary for demolition and/or site work preparation, erection of concourse, accommodations for utility connections, placement of station platform components, construction area staging, and other construction activities requiring roadway lane closures.

B) Assumptions:

- 1) Design shall incorporate guidelines contained in the latest MUTCD.

C) Inputs:

- 1) HART comments on the PE submittal.
- 2) The latest Guideway Section design submittals (both pdf and AutoCAD) including drawings and Basis of Design Report.

D) Deliverables:

- 1) Interim MOT Design drawings and specifications
- 2) ID Comments Matrix and Response
- 3) Revised Basis of Design Report (MOT sections)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Wilson Okamoto Corporation	Issue Date: 09/05/2012
Activity: Maintenance of Traffic Middle Street Station – (FD)	Task No. / Sub Task No. 04.13 / 12	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare MOT Station Group FD level plans and specifications.
- 3) Complete the final design and camera-ready construction contract drawings.
- 4) Assist in processing plans for agency approval.
- 5) Revise Basis of Design Report.
- 6) Attend design team coordination meetings and interface meetings as needed.
- 7) QA/QC review per QAP.

B) Assumptions:

- 1) Permit applications will be prepared by CONSULTANT. Contractor to pull actual permits and pay all necessary permit fees.
- 2) Construction work zone requirements, construction phasing and sequence, and other construction activities affecting MOT design will be confirmed by the design team.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Final Guideway Section Design Documents
- 3) HART comments on the ID submittal
- 4) Work zone requirements, construction phasing and sequence, work flow and other construction activities affecting MOT design

D) Deliverables:

- 1) Station Camera-Ready FD Drawings and Specifications
- 2) Basis of Design Report
- 3) Ad-Ready Station Construction Contract Drawings
- 4) FD Comments Matrix and Response
- 5) QA/QC Checklist/Documentation

TASK 04.14 – Station Landscape Architecture

Develop landscape architecture design for Station plazas, on-site walkways, and parking in the station areas. The landscape plan will include service and decorative paving, plant materials, irrigation, and related control. The landscape aesthetic concepts should be coordinated with architectural design and be consistent with the Design Language Pattern Book and Compendium of Design Criteria.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Pearl Harbor Naval Base Station – (PE)	Task No. / Sub Task No. 04.14 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review Schematic Landscape Architectural Plans and Basis of Design Report.
- 2) Conduct Site Investigation relative to Station improvements.
- 3) Obtain relevant plans and documents for adjacent or surrounding community improvements.
- 4) Prepare Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation and plantings.
- 5) Revise and update Basis of Design Report to incorporate updated planning and design concepts.
- 6) Coordinate all work with related disciplines and team members.
- 7) Confirm all improvements are in conformance to applicable codes, ordinances, and design standards.
- 8) Submit to HART for review and comment.
- 9) Respond to HART comments.
- 10) Attend design team coordination meetings and interface meetings as needed.
- 11) Perform QA/QC per QAP

B) Assumptions:

- 1) Landscape Architecture for the Station will be coordinated with the adjacent System-wide landscape architecture, designed by others.
- 2) Irrigation and controllers (equipment to match) for the Station Areas will be included in the Station work. Irrigation work will be coordinated with System-wide landscape irrigation.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design shall be provided by HART.
- 4) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 2.

C) Inputs:

- 1) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design.
- 2) Additional Reference Documents as applicable
- 3) Additional editable files from HART (AutoCAD, word, excel)
- 4) Coordination information from team members

D) Deliverables:

- 1) PE level Landscape Architectural Plans
- 2) Update Basis of Design Report
- 3) Technical Specifications (Table of Contents only)
- 4) QA/QC documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Pearl Harbor Naval Base Station – (ID)	Task No. / Sub Task No. 04.14 / 02	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from PE review.
- 2) Prepare ID Development Drawings and Documents.
- 3) Incorporate HART, State, City and Project standard details into project specific details as needed.
- 4) Revise Basis of Design based on ID documents.
- 5) Review cost estimates.
- 6) Submit ID documents for review and comment.
- 7) Respond to comments and update ID documents accordingly.
- 8) Attend design team coordination meetings and interface meetings, as needed.
- 9) Coordinate all work with related disciplines and team members.
- 10) Prepare Station Group ID plans and specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Landscape Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 11) Perform QA/QC per QAP

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 3.

C) Inputs:

- 1) Coordination information from team members
- 2) HART comments on the PE submittal
- 3) Additional input from HART

D) Deliverables:

- 1) Landscape Architectural ID level Plans
- 2) Draft Technical Specifications
- 3) Update Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Pearl Harbor Naval Base Station – (FD)	Task No. / Sub Task No. 04.14 / 03	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from ID review.
- 2) Prepare Honolulu International Airport Station Group Final Landscape Architectural Design Plans and Specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 3) Submit FD documents for review and comment.
- 4) Respond to comments and update FD documents accordingly.
- 5) Coordinate all work with related disciplines and team members.
- 6) Assist in processing plans for agency approval.
- 7) Provide input to Final Basis of Design Report.
- 8) Review Final Cost Estimates.
- 9) Perform QA/QC per QAP
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Final Plans, Drawings and Documents shall be considered Contract Documents for Construction.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Additional HART comments and reference materials

D) Deliverables:

- 1) Final Landscape Architectural Design Drawings
- 2) Final Technical Specifications
- 3) Final Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Honolulu International Airport Station – (PE)	Task No. / Sub Task No. 04.14 / 04	Revision No: Conformed

A) Activity Description:

- 1) Review Schematic Landscape Architectural Plans and Basis of Design Report.
- 2) Conduct Site Investigation relative to Station improvements.
- 3) Obtain relevant plans and documents for adjacent or surrounding community improvements.
- 4) Prepare Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation and plantings.
- 5) Revise and update Basis of Design Report to incorporate updated planning and design concepts.
- 6) Coordinate all work with related disciplines and team members.
- 7) Confirm all improvements are in conformance to applicable codes, ordinances, and design standards.
- 8) Submit to HART for review and comment.
- 9) Respond to HART comments.
- 10) Perform QA/QC per QAP
- 11) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Landscape Architecture for the Station will be coordinated with the adjacent System-wide landscape architecture, designed by others.
- 2) Irrigation for the Station and controllers (equipment to match) will be included in the Station work. Irrigation work will be coordinated with System-wide landscape irrigation.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design shall be provided by HART.
- 4) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 2.

C) Inputs:

- 1) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design.
- 2) Additional Reference Documents as applicable
- 3) Additional editable files from HART (AutoCAD, word, excel)
- 4) Coordination information from team members

D) Deliverables:

- 1) PE level Landscape Architectural Plans
- 2) Update Basis of Design Report
- 3) Technical Specifications (Table of Contents only)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Honolulu International Airport Station – (ID)	Task No. / Sub Task No. 04.14 / 05	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Prepare ID Development Drawings and Documents.
- 3) Incorporate HART, State, City and Project standard details into project specific details as needed.
- 4) Revise Basis of Design based on ID documents.
- 5) Review cost estimates.
- 6) Submit ID documents for review and comment.
- 7) Respond to comments and update ID documents accordingly.
- 8) Attend design team coordination meetings and interface meetings, as needed.
- 9) Coordinate all work with related disciplines and team members.
- 10) Prepare Station Group ID plans and specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Landscape Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 12) Perform QA/QC per QAP

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 3.

C) Inputs:

- 1) Coordination information from team members
- 2) HART comments on the PE submittal
- 3) Additional input from HART

D) Deliverables:

- 1) Landscape Architectural ID level Plans
- 2) Draft Technical Specifications
- 3) Update Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Honolulu International Airport Station – (FD)	Task No. / Sub Task No. 04.14 / 06	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare Honolulu International ASG Final Landscape Architectural Design Plans and Specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 3) Submit FD documents for review and comment.
- 4) Respond to comments and update FD documents accordingly.
- 5) Coordinate all work with related disciplines and team members.
- 6) Assist in processing plans for agency approval.
- 7) Provide input to Final Basis of Design Report.
- 8) Review Final Cost Estimates.
- 9) Perform QA/QC per QAP
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Final Plans, Drawings and Documents shall be considered Contract Documents for Construction.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Additional HART comments and reference materials

D) Deliverables:

- 1) Final Landscape Architectural Design Drawings
- 2) Final Technical Specifications
- 3) Final Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Lagoon Drive Station – (PE)	Task No. / Sub Task No. 04.14 / 07	Revision No: Conformed

A) Activity Description:

- 1) Review Schematic Landscape Architectural Plans and Basis of Design Report.
- 2) Conduct Site Investigation relative to Station improvements.
- 3) Obtain relevant plans and documents for adjacent or surrounding community improvements.
- 4) Prepare Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation and plantings.
- 5) Revise and update Basis of Design Report to incorporate updated planning and design concepts.
- 6) Coordinate all work with related disciplines and team members.
- 7) Confirm all improvements are in conformance to applicable codes, ordinances, and design standards.
- 8) Submit to HART for review and comment.
- 9) Respond to HART comments.
- 10) Perform QA/QC per QAP
- 11) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Landscape Architecture for the Station will be coordinated with the adjacent System-wide landscape architecture, designed by others.
- 2) Irrigation for the Station and controllers (equipment to match) will be included in the Station work. Irrigation work will be coordinated with System-wide landscape irrigation.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design shall be provided by HART.
- 4) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 2.

C) Inputs:

- 1) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design.
- 2) Additional Reference Documents as applicable
- 3) Additional editable files from HART (AutoCAD, word, excel)
- 4) Coordination information from team members

D) Deliverables:

- 1) PE level Landscape Architectural Plans
- 2) Update Basis of Design Report
- 3) Technical Specifications (Table of Contents only)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Lagoon Drive Station – (ID)	Task No. / Sub Task No. 04.14 / 08	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Prepare ID Development Drawings and Documents.
- 3) Incorporate HART, State, City and Project standard details into project specific details as needed.
- 4) Revise Basis of Design based on ID documents.
- 5) Review cost estimates.
- 6) Submit ID documents for review and comment.
- 7) Respond to comments and update ID documents accordingly.
- 8) Attend design team coordination meetings and interface meetings, as needed.
- 9) Coordinate all work with related disciplines and team members.
- 10) Prepare Station Group ID plans and specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Landscape Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 11) Perform QA/QC per QAP

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 3.

C) Inputs:

- 1) Coordination information from team members
- 2) HART comments on the PE submittal
- 3) Additional input from HART

D) Deliverables:

- 1) Landscape Architectural ID level Plans
- 2) Draft Technical Specifications
- 3) Update Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Lagoon Drive Station – (FD)	Task No. / Sub Task No. 04.14 / 09	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare Honolulu International ASG Final Landscape Architectural Design Plans and Specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 3) Submit FD documents for review and comment.
- 4) Respond to comments and update FD documents accordingly.
- 5) Coordinate all work with related disciplines and team members.
- 6) Assist in processing plans for agency approval.
- 7) Provide input to Final Basis of Design Report.
- 8) Review Final Cost Estimates.
- 9) Perform QA/QC per QAP
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Final Plans, Drawings and Documents shall be considered Contract Documents for Construction.

C) Inputs:

- 1) HART comments on the ID submittal
- 2) Additional HART comments and reference materials

D) Deliverables:

- 1) Final Landscape Architectural Design Drawings
- 2) Final Technical Specifications
- 3) Final Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Middle Street Station – (PE)	Task No. / Sub Task No. 04.14 / 10	Revision No: Conformed

A) Activity Description:

- 1) Review Schematic Landscape Architectural Plans and Basis of Design Report.
- 2) Conduct Site Investigation relative to Station improvements.
- 3) Obtain relevant plans and documents for adjacent or surrounding community improvements.
- 4) Prepare Preliminary Landscape Architectural Plans to incorporate updated planning and design concepts, including site furnishings, hardscape, irrigation and plantings.
- 5) Revise and update Basis of Design Report to incorporate updated planning and design concepts.
- 6) Coordinate all work with related disciplines and team members.
- 7) Confirm all improvements are in conformance to applicable codes, ordinances, and design standards.
- 8) Submit to HART for review and comment.
- 9) Respond to HART comments.
- 10) Perform QA/QC per QAP
- 11) Attend design team coordination meetings and interface meetings as needed.

B) Assumptions:

- 1) Landscape Architecture for the Station will be coordinated with the adjacent System-wide landscape architecture, designed by others.
- 2) Irrigation for the Station and controllers (equipment to match) will be included in the Station work. Irrigation work will be coordinated with System-wide landscape irrigation.
- 3) Editable files (AutoCAD, topographic survey, word, excel) for PE drawings and basis of design shall be provided by HART.
- 4) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 2.

C) Inputs:

- 1) The latest PE design submittals (both pdf and AutoCAD) including drawings and basis of design.
- 2) Additional Reference Documents as applicable
- 3) Additional editable files from HART (AutoCAD, word, excel)
- 4) Coordination information from team members

D) Deliverables:

- 1) PE level Landscape Architectural Plans
- 2) Update Basis of Design Report
- 3) Technical Specifications (Table of Contents only)
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Middle Street Station – (ID)	Task No. / Sub Task No. 04.14 / 11	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review.
- 2) Prepare ID Development Drawings and Documents.
- 3) Incorporate HART, State, City and Project standard details into project specific details as needed.
- 4) Revise Basis of Design based on ID documents.
- 5) Review cost estimates.
- 6) Submit ID documents for review and comment.
- 7) Respond to comments and update ID documents accordingly.
- 8) Attend design team coordination meetings and interface meetings, as needed.
- 9) Coordinate all work with related disciplines and team members.
- 10) Prepare Station Group ID plans and specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Landscape Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 11) Perform QA/QC per QAP

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Preliminary Landscape Architectural Drawings and Documents shall be of sufficient detail to proceed to NTP 3.

C) Inputs:

- 1) Coordination information from team members
- 2) HART comments on the PE submittal
- 3) Additional input from HART

D) Deliverables:

- 1) Landscape Architectural ID level Plans
- 2) Draft Technical Specifications
- 3) Update Basis of Design Report
- 4) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Miyabara Associates, LLC	Issue Date: 09/05/2012
Activity: Station Landscape Architecture Middle Street Station – (FD)	Task No. / Sub Task No. 04.14 / 12	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review.
- 2) Prepare Honolulu International ASG Final Landscape Architectural Design Plans and Specifications for the following:
 - a) Exterior Non-Vehicular Paving and Hardscape
 - b) Irrigation Systems
 - c) New Plantings
 - d) Site Furnishings
- 3) Submit FD documents for review and comment.
- 4) Respond to comments and update FD documents accordingly.
- 5) Coordinate all work with related disciplines and team members.
- 6) Assist in processing plans for agency approval.
- 7) Provide input to Final Basis of Design Report.
- 8) Review Final Cost Estimates.
- 9) Perform QA/QC per QAP
- 10) Attend design team coordination, review, and interface meetings as needed.

B) Assumptions:

- 1) Limitations listed under Assumptions for NTP 1b shall apply.
- 2) Final Plans, Drawings and Documents shall be considered Contract Documents for Construction.

C) Inputs:

- 1) HART comments on the PE submittal
- 2) Additional HART comments and reference materials

D) Deliverables:

- 1) Final Landscape Architectural Design Drawings
- 2) Final Technical Specifications
- 3) Final Basis of Design Report
- 4) QA/QC Documentation

TASK 04.15 – Specifications

At each submittal, prepare detailed specifications, depending on the design completeness appropriate for the submittal.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1b – Revisions to Preliminary Engineering	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Specifications – (PE)	Task No. / Sub Task No. 04.15 / 01	Revision No: Conformed

A) Activity Description:

- 1) Review Station Drawing packages; identify & tabulate changes in Materials, Finishes & Equipment.
- 2) Develop 'Table of Contents' specification packages to correspond with each Station drawing package (four (4) sets).
- 3) Participate in Design Coordination efforts with the four (4) Station Design teams.
- 4) Formatting and Word Processing by dedicated team.
- 5) QA/QC review per QAP.

B) Assumptions:

- 1) One (1) set of Specification documents will be provided, incorporating any unique Station design elements, at each milestone.
- 2) The CSI Master Format system will be used for production of Station specification packages.
- 3) Specifications will be responsible for organizing the specifications of all disciplines contributing to Stations design packages [e.g. Architectural/Structural/MEP/etc.].
- 4) Specifications will not include Systems Equipment procurement.

C) Inputs:

- 1) Project Work Plan
- 2) QAP
- 3) HHCTCP Standard Specifications

D) Deliverables:

- 1) PE level Specifications
- 2) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Specifications – (ID)	Task No. / Sub Task No. 04.15 / 02	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the PE review
- 2) Review Station Drawing packages and establish changes in materials, finishes & equipment.
- 3) Document status of selected materials from previous milestone submission.
- 4) Develop 'outline' specifications, corresponding with each Station drawing package (four (4) sets).
- 5) Write new specifications sections necessary to adequately convey Station design when absent from HHCTCP Standard Specifications.
- 6) Participate in Design Coordination efforts with the four (4) Station Design teams.
- 7) Formatting and Word Processing by dedicated team.
- 8) QA/QC review per QAP.

B) Assumptions:

- 1) One (1) set of Specification documents will be provided, incorporating any unique Station design elements, at each milestone.
- 2) The CSI Master Format system will be used for production of Station specification packages.
- 3) Specifications will be responsible for organizing the specifications of all disciplines contributing to Stations design packages [e.g. Architectural/Structural/MEP/etc.].
- 4) Specifications will not include Systems Equipment procurement.

C) Inputs:

- 1) Project Work Plan
- 2) QAP
- 3) HHCTCP Standard Specifications
- 4) HART comments on the PE submittal

D) Deliverables:

- 1) ID level Specifications
- 2) QA/QC Documentation

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Specifications – (FD)	Task No. / Sub Task No. 04.15 / 03	Revision No: Conformed

A) Activity Description:

- 1) Incorporate comments from the ID review
- 2) Review Station Drawing packages; establish changes in materials, finishes & equipment. Document status of selected materials from previous submittal.
- 3) Develop full specification sections corresponding with each Station drawing package.
- 4) Write new full specifications sections necessary to convey Station design when necessary.
- 5) Participate in design coordination efforts with the four (4) Station design teams.
- 6) Final formatting and word processing of each Specification.
- 7) QA/QC review per QAP.

B) Assumptions:

- 1) Four (4) standalone Specification documents will be provided, corresponding to each Station's design package, at each milestone.
- 2) The CSI Master Format system will be used for production of Station specification packages.
- 3) Specifications will be responsible for organizing the specifications of all disciplines contributing to Stations design packages [e.g. Architectural/Structural/MEP/etc.].
- 4) Specifications will not include Systems Equipment procurement.

C) Inputs:

- 1) Project Work Plan
- 2) QAP
- 3) HHCTCP Standard Specifications
- 4) HART comments on the Interim Design submittal

D) Deliverables:

- 1) Draft FD Submittal
- 2) FD Submittal for construction documents
- 3) QA/QC Documentation

TASK 04.16 - Design Support during Bidding (NTP #4)

The CONSULTANT shall provide support for the bidding period during HART's solicitation of the ASG Construction Contract and may be requested to assist HART in the evaluation process.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 4	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Design Support during Bidding	Task No. / Sub Task No. 04.16 / 01	Revision No: Conformed

A) Activity Description:

- 1) Management and administration, and design support during Design Support during Bidding (NTP 4).
- 2) Attendance all Pre-Bid Conferences.
- 3) As requested, assist HART in the construction solicitation process.
- 4) As requested, assist HART during the solicitation of the construction contract including provision of technical design support for questions or RFI's posed by potential bidders.
- 5) Prepare Addendum documents as requested by HART.
- 6) Review bids as requested
- 7) Answer RFI's as requested

B) Assumptions:

- 1) A nominal fee will be provided as an allowance for services during Bidding. Fees will be paid on a time and material basis, and an amendment will be issued for NTP 4.

C) Inputs:

- 1) FD Bid Packages

D) Deliverables:

- 1) Response to RFI's
- 2) Preparation of Addendum

TASK 04.17 - Design Support during Construction (NTP #5)

HART will conduct a single solicitation for construction of all four (4) Stations designed under this scope of work. The construction periods are to be determined. The construction periods may overlap with the AGW guideway construction which is anticipated to be completed by 2017. Upon issuance of NTP #5, the CONSULTANT will provide design support during the construction phase include, but not limited to, shop drawing review and approval, material samples review and approval, responding to contractor RFIs, periodic inspections, development of punch lists, and preparation of as-build drawings based on mark-ups from the contractor(s). Construction Management is not included in this scope of work.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 5	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Design Support during Construction	Task No. / Sub Task No. 04.17 / 01	Revision No: Conformed

A) Activity Description:

- 1) Management and Administration support during Design Support During Construction (DSDC):
 - a) Attendance and participation as required in meetings with HART and or the Contractor for design support and management.
 - b) Coordinate and communicate with HART via Contract Management System (CMS)
 - c) Document Control.
 - d) Management of subconsultants.
 - e) Periodic site visits.
 - f) Support directives from CE&I contractor
- 2) Shop Drawing Review:
 - a) All Disciplines: shop drawings to ensure conformance to the design documents.
- 3) As-Built Drawings:
 - a) All Disciplines: Development of as-built drawings from Contractor red line drawings.
- 4) Request for Information and Additional Services :
 - a) All Disciplines: Respond to queries from the Contractor associated with the discipline
- 5) Other Support Activities:
 - a) Review of Contractor initiated Change Orders, including:
 - b) Technical review and analysis
 - c) Quantity review
 - d) Cost review
- 6) Respond to Contractor Non-Conformance Reports, including:
 - a) Technical review and analysis of as-built condition
 - b) Possible redesign to accommodate as-built conditions
 - c) Development of replacement design
- 7) Periodic Site Inspection.
- 8) Material Samples Review and Approval.
- 9) Punch list Development.

B) Assumptions:

- 1) A nominal fee will be provided for budgeting purposes. Final cost will be paid on a time and material basis, and an amendment will be issued for NTP 5.
- 2) With regard to task tracking and budgeting, no deliverable or milestones are associated with NTP 5; rather the effort is distributed over the duration of time associated with NTP 5.
- 3) Construction Management to be provided by others.

C) Inputs:

- 4) "Red-line" as-built drawings provided by Contractor
- 5) Shop drawings provided by Contractor

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 5	Activity Responsibility: AECOM	Issue Date: 09/05/2012
Activity: Design Support during Construction	Task No. / Sub Task No. 04.17 / 01	Revision No: Conformed

D) Deliverables:

- 1) Meeting Minutes/Management Reporting
- 2) Reviewed Shop Drawings
- 3) As-Built Drawings
- 4) Respond to Requests for Information
- 5) Provide Change Order Evaluation
- 6) Respond to Contractor Non-Conformance Reports

TASK 04.18 - Public Involvement

Support and participate in community presentations or meetings hosted by HART to present Station designs. Provide illustrative material such as plans and perspective drawings and other pertinent documents to help convey information to the public. A maximum of four (4) meetings is to be included. At each community presentation or meeting, all four (4) Stations will be presented.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 1a – Workshop, Design Schedule and Schedule of Milestones	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (SM)	Task No. / Sub Task No. 04.18 / 01	Revision No: Conformed

A) Activity Description:

- 1) Attend the three (3)-day Design Workshop.
- 2) Assist with the gathering of informational materials for the Workshop.
- 3) Attend design team coordination, review and Interface meetings as needed.

B) Assumptions:

- 1) None

C) Inputs:

- 1) Media and community relations materials
- 2) Existing Station plans

D) Deliverables:

- 1) Public Involvement Support

ACTIVITY DESCRIPTION

Form SOW 01

NTP # 1b – Revisions to Preliminary Engineering	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (PE)	Task No. / Sub Task No. 04.18 / 02	Revision No: Conformed

A) Activity Description:

- 1) The CONSULTANT will meet and coordinate with HART Public Involvement representatives to provide information and relevant updates as requested by HART.
- 2) Prepare for HART meetings – The CONSULTANT will prepare agenda, minutes and debrief after HART meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners.
- 3) Meeting with Public Organizations – The CONSULTANT will meet with public organizations, as directed by HART. CONSULTANT will provide materials for these meetings as directed and support HART with logistics as needed. The CONSULTANT will also provide follow-up response or action when needed.
- 4) Assist with general public involvement:
 - a) Participate in internal coordinating meetings with CONSULTANT and HART communication's staff, when appropriate;
 - b) Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and
 - c) Assist with support with public involvement, as needed.
- 5) Attend design team coordination, review and Interface meetings as needed.

B) Assumptions:

- 1) HART meetings – six (6) hours per HART meeting. Assume two (2) hours to prepare for meeting, attend two (2)-hour meeting, and two (2) hours to write minutes/debrief after meeting. Attend one (1) meeting each month. Maximum of four (4) meetings for NTP 1b.
- 2) Meeting with Public Organizations – ten (10) hours of meetings each month. The CONSULTANT will instigate meetings. The CONSULTANT will respond to requests for meetings.
- 3) News release – The CONSULTANT will prepare drafts for the HART to approve and to distribute. One (1) news release every two (2) months. Maximum of two (2) news releases for NTP 1b.
- 4) Informational materials – five (5) hours a month. The CONSULATANT will prepare drafts for HART approval.

C) Inputs:

- 1) Media and community relations materials
- 2) Preliminary designs from each of the four (4) architecture firms

D) Deliverables:

- 1) Public Involvement Support

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (ID)	Task No. / Sub Task No. 04.18 / 03	Revision No: Conformed

A) Activity Description:

- 1) Prepare for the four (4) community presentations.
 - a) Two (2) community presentations will be held during ID
 - b) Two (2) community presentations will be held during FD.
- 2) The CONSULTANT will attend and meet with HART Public Involvement representatives to provide information and relevant updates as requested by HART.
- 3) Prepare for HART meetings – The CONSULTANT will prepare agenda, minutes and debrief after HART meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners.
- 4) Meeting with Neighborhood Boards – The CONSULTANT will attend Neighborhood Board meetings and present or speak at Neighborhood Board meetings when requested to do so by HART.
- 5) Prep for Neighborhood Board meetings - The CONSULTANT will write minutes/debrief after the Neighborhood Board meetings as requested. Follow up on items related to the CONSULTANT's work for Neighborhood Board meetings when applicable.
- 6) Meeting with Public Organizations - The CONSULTANT will meet with public organizations, as directed by HART. CONSULTANT will provide materials for these meetings as directed and support HART with logistics as needed. The CONSULTANT will also provide follow-up responses or action when needed.
- 7) Coordinate collection of presentation materials, including plans, rendered elevations, PowerPoint slides and other appropriate information indicating the features of the Interim Design for a community presentation.
- 8) Provide informational materials on the Stations ID and features, subject to HART's approval.
 - a) Provide support to HART as needed for two (2) community meetings on the Station design for each of the four (4) Stations:
 - i) Coordinate location – logistics;
 - ii) Capture questions from audience; follow up responses; and
 - iii) Possible advertising for community meetings.
 - b) Assist with general public involvement:
 - i) Participate in internal coordinating meetings with CONSULTANT and HART communication's staff, when appropriate;
 - ii) Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and
 - iii) Assist with support with public involvement, as needed.
- 9) Attend two (2) community presentations on the Station designs.
- 10) Attend design team coordination meetings, review and Interface meetings as needed.

B) Assumptions:

- 1) HART meetings – six (6) hours per HART meeting. Assume two (2) hours to prepare for meeting, attend two (2)-hour meeting, and write minutes/debrief after meeting. Maximum of five (5) meetings for NTP 2.
- 2) Neighborhood board meetings – seven (7) hours for each neighborhood board meeting, two (2) hours to prepare for each meeting, three (3) hours to attend each meeting, and two (2) hours to write minutes/debrief for each meeting. Attend two (2) neighborhood meetings each month, Aliamanu/Salt Lake and Kalihi-Palama.
- 3) Meeting with Public Organizations – Twenty (20) hours of meetings each month. The CONSULTANT will instigate meetings with HART's direction to do so.
- 4) News release – The CONSULTANT will prepare drafts for the HART to approve and distribute. Assume one (1) news release every two (2) months. Maximum of three (3) news releases for NTP 2.
- 5) Informational materials – five (5) hours a month. The CONSULTANT will prepare drafts for HART to approve, print and distribute.
- 6) Community presentations on Station designs – seventeen (17) hours for each presentation; one (1) hour to set up,

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 2 – Interim Design	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (ID)	Task No. / Sub Task No. 04.18 / 03	Revision No: Conformed

attend three (3)-hour community presentation, one (1) hour to break down, two (2) hours to write minutes/debrief, and ten (10) hours to respond to questions generated during the community presentation for each presentation.

- 7) HART will pay all expenses for each of the community presentations to include, but not limited to, advertising, venue expenses, security/HPD, parking, audio visual and technical support, signage, refreshments and supplies.

C) Inputs:

- 1) Media and community relations materials
- 2) Preliminary designs from each of the four (4) architecture firms

D) Deliverables:

- 1) Public Involvement Support

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (FD)	Task No. / Sub Task No. 04.18 / 04	Revision No: Conformed

A) Activity Description:

- 1) The CONSULTANT will attend and meet with HART Public Involvement representatives to provide information and relevant updates as requested by HART.
- 2) Prepare for HART meetings - The CONSULTANT will prepare agenda, minutes and debrief after HART meetings as directed. Follow up on requests, coordinate with team members (internal) and external partners.
- 3) Meeting with Neighborhood Boards – The CONSULTANT will attend Neighborhood Board meetings and present or speak at Neighborhood Board meetings when requested to do so by HART.
- 4) Prep for Neighborhood Board meetings – The CONSULTANT will write minutes/debrief after the Neighborhood Board meetings as requested. Follow up on items related to the CONSULTANT's work for Neighborhood Board meetings when applicable.
- 5) Meeting with Public Organizations – The CONSULTANT will meet with public organizations, as directed by HART. CONSULTANT will provide materials for these meetings as directed and support HART with logistics as needed. The CONSULTANT will also provide follow-up response or action when needed.
- 6) Coordinate collection of presentation materials, including plans, rendered elevations, PowerPoint slides and other appropriate information indicating the features of the FD for a community presentation.
- 7) Provide informational materials on the Stations Final design and features, subject to HART's approval.
 - a) Provide support to HART as needed for two (2) community meetings on the Station design for each of the four (4) Stations:
 - i) Coordinate location – logistics;
 - ii) Capture questions from audience; follow up responses; and
 - iii) Possible advertising for community meetings.
 - b) Assist with general public involvement:
 - i) Participate in internal coordinating meetings with CONSULTANT and HART communication's staff, when appropriate;
 - ii) Assist where appropriate in the review and comment of news releases, fact sheets, and other communication materials; and
 - iii) Assist with support with public involvement, as needed.
- 8) Attend two (2) community presentations on the Station designs.
- 9) Attend design team coordination meetings, review and Interface meetings as needed.

B) Assumptions:

- 1) HART meetings – six (6) hours per HART meeting; two (2) hours to prepare for meeting, attend two (2)-hour meeting, and two (2) hours to write minutes/debrief after meeting. Maximum of four (4) meetings for NTP 3.
- 2) Neighborhood board meetings – seven (7) hours for each neighborhood board meeting; two (2). Assume two (2) hours to prepare for each meeting, three (3) hours to attend each meeting, and two (2) hours to write minutes/debrief for each meeting. Two (2) neighborhood meetings each month (Aliamanu/Salt Lake and Kahili-Palama). CONSULTANT will attend meetings only as directed. Maximum of two (2) meetings per month, total of eight (8) meetings for NTP 3.
- 3) Meeting with Public Organizations – Twenty (20) hours of meetings each month. The CONSULTANT will instigate meetings with HART's direction to do so.
- 4) News releases – CONSULTANT will prepare drafts for the HART to approve and distribute. One (1) news release every two (2) months. Maximum of two (2) news releases for NTP 3.
- 5) Informational materials – five (5) hours a month. The CONSULTANT will prepare drafts for HART to approve, print and distribute.
- 6) Community Presentations on Station Designs – seventeen (17) hours for each presentation; one (1) hour to set up, attend three (3)-hour community presentation and meeting, one (1) hour to break down and two (2) hours to write minutes/debrief and ten (10) hours to respond to questions generated during the community presentation.

ACTIVITY DESCRIPTION

Form SOW 01

NTP #: 3 – Final Design	Activity Responsibility: Bright Light Marketing	Issue Date: 09/05/2012
Activity: Public Involvement – (FD)	Task No. / Sub Task No. 04.18 / 04	Revision No: Conformed

- 7) HART will pay all expenses for each of the community presentations to include, but not limited to, advertising, venue expenses, security/HPD, parking, audio visual and technical support, signage, refreshments and supplies.

C) Inputs:

- 1) Media and community relations materials
- 2) Preliminary designs from each of the four (4) architecture firms

D) Deliverables:

- 1) Public Involvement Support

**SPECIAL PROVISIONS
EXHIBIT 2A**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT STATION GROUP**

CONTRACT COST

**EXHIBIT 2A
CONTRACT COST**

<u>Notice to Proceed</u>	<u>Cost</u>
1a: PREPARE SCHEDULE OF MILESTONES	\$276,035.00
1b: REVISION TO PRELIMINARY ENGINEERING (PE)	\$2,602,508.00
2: INTERIM DESIGN (ID)	\$3,626,123.00
3: FINAL DESIGN (FD)	\$2,623,356.00
4: DESIGN SUPPORT DURING BIDDING	\$91,284.00
5: DESIGN SUPPORT DURING CONSTRUCTION	<u>\$730,275.00</u>
Total Contract Amount	\$9,949,581.00
Allowance for Extra Work	<u>\$227,784.00</u>
Total Aggregate Amount	\$10,177,365.00

**SPECIAL PROVISIONS
EXHIBIT 2B**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT 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	\$276,035.00
NTP #1b Revision to Preliminary Engineering	\$2,602,508.00
NTP #2 Interim Design (ID)	\$3,626,123.00
NTP #3 Final Design (FD)	\$2,623,356.00
NTP #4 Design Support During Bidding	\$91,284.00
NTP #5 Design Support During Construction	<u>\$730,275.00</u>
Total Contract Amount	\$9,949,581.00
Allowance for Extra Work	<u>\$227,784.00</u>
Total Aggregate Amount	\$10,177,365.00

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 AECOM Technical Services, 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)

Rudolph Mina

(Print Name)

October 16, 2012

(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to Albert Chong Associates, Inc.

(Name of Subcontractor/Consultant)

to perform the following type of work:

Electrical Engineering (power and lighting) and lighting design (interior and exterior) of the
buildings/stations.

_____.

The minimum value of the Subcontract is \$219,694.

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:

W -
(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 16, 2012
(Date)

For the Subcontractor/Subconsultant:

Albert Chong
Confirmed by: (Signature)

Albert "Rick" Chong
(Printed Name)

VP
(Title)

10/15/2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to Miyabara Associates LLC
(Name of Subcontractor/Consultant)

to perform the following type of work:
Landscape Architectural Services

The minimum value of the Subcontract is \$ 117,470.

The Subcontractor/Consultant X is _____ is not a certified DBE firm.

If certified, indicate certifying entity: State of Hawaii - DOT. Include a name and telephone
number for certifying entity Melanie Martin (808) 587-2023.

For the Consultant:

[Signature]
(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 17, 2012
(Date)

For the Subcontractor/Subconsultant:

[Signature]
Confirmed by: (Signature)

Michael T. Miyabara
(Printed Name)

Principal
(Title)

10/16/12
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to KYA Design Group _____
(Name of Subcontractor/Consultant)

to perform the following type of work:

architectural services/activities involving the Honolulu International Airport Station design.

_____.

The minimum value of the Subcontract is \$ 443,255 _____.

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]
(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 17, 2012
(Date)

For the Subcontractor/Subconsultant:

[Signature]
Confirmed by: (Signature)

Carol M. Torigoe
(Printed Name)

Managing Principal/CEO
(Title)

October 16, 2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to WCIT Architecture _____
(Name of Subcontractor/Consultant)

to perform the following type of work:

Architectural design services for the Lagoon Drive Station.

The minimum value of the Subcontract is \$ 442,978 _____.

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:

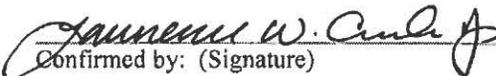

(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 16, 2012
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Lawrence W. Cunha Jr.
(Printed Name)

Vice President & Principal
(Title)

10/15/12
(Date)

Honolulu Rail Transit Project

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to KAI Hawaii, Inc.

(Name of Subcontractor/Consultant)

to perform the following type of work:

Structural Engineering

_____.

The minimum value of the Subcontract is \$ 962,041.

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)

Rudolph Mina

(Printed Name)

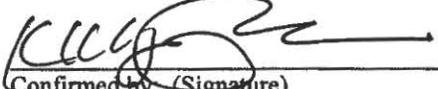
District General Manager

(Title)

October 16, 2012

(Date)

For the Subcontractor/Subconsultant:



Confirmed by: (Signature)

Ken K. Hayashida

(Printed Name)

President

(Title)

October 16, 2012

(Date)

Honolulu Rail Transit Project

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to Bright Light Marketing Group, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Public Involvement

The minimum value of the Subcontract is \$ 147,787.

The Subcontractor/Consultant is ~~is not~~ a certified DBE firm.

If certified, indicate certifying entity: State of Hawaii DOT. Include a name and telephone
number for certifying entity Melanie M. Martin (808) 587-2024
Eloise V. Lewis

For the Consultant:

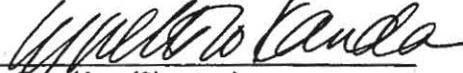

(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Lynette Lo Kanda
(Printed Name) DBA Lynette Lo Tom

President
(Title)

16 October 2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. intends to subcontract Work for the
Airport Station Group Project to Group 70 International Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Architectural Design of Pearl Harbor Station, provide
with other station designers and AECOM provided M/S/E/P+
consultants. Services through Construction Drawings.
HART to provide modular approved design for development

The minimum value of the Subcontract is \$ 541,681.

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:

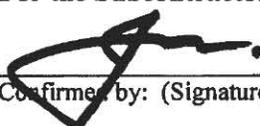
(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 16, 2012
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

James Stone
(Printed Name)

Principal
(Title)

10-15-2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. intends to subcontract Work for the
Airport Station Group Project to Shigemura, Lau, Sakanashi, Higuchi & Associates
(Name of Subcontractor/Consultant)

to perform the following type of work:

Structural engineering for four Stations, in cooperation with KAI Hawaii.

The minimum value of the Subcontract is \$ 438,147.

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:

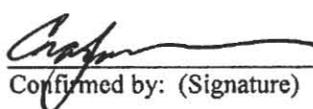

(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 19, 2012
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Craig Sakanashi
(Printed Name)

Vice-President
(Title)

October 16, 2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport 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 \$255,243.

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)

Rudolph Mina

(Printed Name)

(Title)

District General Manager

(Title)

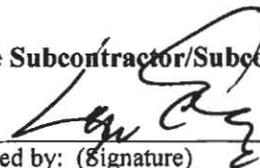
(Title)

October 18, 2012

(Date)

(Date)

For the Subcontractor/Subconsultant:



Confirmed by: (Signature)

Louis T. Cheng

(Printed Name)

(Printed Name)

President

(Title)

(Title)

10/17/2012

(Date)

(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to Geolabs, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Geotechnical Exploration and Design

The minimum value of the Subcontract is \$ 481,381.

The Subcontractor/Consultant _____ is XX is not a certified DBE firm.

If certified, indicate certifying entity: Not Applicable. Include a name and telephone
number for certifying entity Not Applicable.

For the Consultant:


(Signature)

Rudolph Mina
(Printed Name)

District General Manager
(Title)

October 18, 2012
(Date)

For the Subcontractor/Subconsultant:


Confirmed by: (Signature)

Robin M. Lim
(Printed Name)

Vice President
(Title)

October 17, 2012
(Date)

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. intends to subcontract Work for the
Airport Station Group Project to Ronald N.S. Ho & Associates, Inc.
(Name of Subcontractor/Consultant)

to perform the following type of work:

Electrical engineering design of the site utilities including electrical and telecommunications systems, electrical and telecommunications distribution to the stations, telecommunications system within the stations, and exterior lighting systems around the stations. Services during bidding and services during construction are not included.

The minimum value of the Subcontract is \$ 302,844.

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)

Rudolph Mina

(Printed Name)

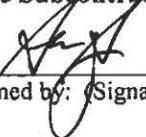
District General Manager

(Title)

October 19, 2012

(Date)

For the Subcontractor/Subconsultant:



Confirmed by: (Signature)

Sean K. Sugai

(Printed Name)

President

(Title)

October 18, 2012

(Date)

Honolulu Rail Transit Project

EXHIBIT 4
LETTER OF SUBCONTRACT INTENT

AECOM Technical Services, Inc. _____ intends to subcontract Work for the
Airport Station Group Project to Wilson Okamoto Corporation
(Name of Subcontractor/Consultant)

to perform the following type of work:
Preparation of Traffic Control Plans

The minimum value of the Subcontract is \$ 174,600

The Subcontractor/Consultant _____ is not is not a certified DBE firm.

If certified, indicate certifying entity: N/A. Include a name and telephone
number for certifying entity N/A.

For the Consultant:



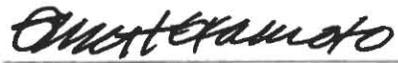
(Signature)

Rudolph
n Rudolf Mina
(Printed Name)

District General Manager
(Title)

October 26, 2012
(Date)

For the Subcontractor/Subconsultant:



Confirmed by: (Signature)

Gary T. Okamoto
(Printed Name)

President
(Title)

October 24, 2012
(Date)

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, Rudolph Mina, District General Manager, hereby
(Name of Certifying Officer) (Title of Certifying Officer)

certify that AECOM Technical Services, 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-1300022 ;
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

AECOM Technical Services, Inc.
Name of Consultant
1001 Bishop Street, Suite 1600
Street Address
Honolulu, HI 96813
City, State, Zip
808.521.3051
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 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-1300022 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



Sean K. Sugai

Typed or Printed Name

Ronald N. S. Ho & Associates, Inc.

Company Name

October 17, 2012

Date

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-1300022 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

Robin M. Lim

Typed or Printed Name

Geolabs, Inc.

Company Name

October 17, 2012

Date

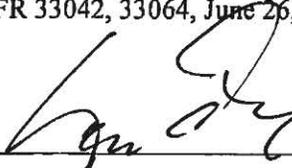
EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**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-1300022 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

Louis T. Cheng

Typed or Printed Name

Mechanical Engineers of Hawaii Corporation

Company Name

10/17/2012

Date

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-1300022 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

Albert "Rick" Chong

Typed or Printed Name

Albert Chong Associates, Inc.

Company Name

10/15/2012

Date

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-1300022 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

Michael T. Miyabara
Typed or Printed Name

Miyabara Associates LLC
Company Name

10/16/12
Date

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-1300022 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)

Carol M. Torigoe
Signed

Carol M. Torigoe
Typed or Printed Name

KYA Design Group
Company Name

October 16, 2012
Date

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-13000022 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 _____

Gary T. Okamoto, President

Typed or Printed Name _____

Wilson Okamoto Corporation

Company Name _____

October 24, 2012

Date _____

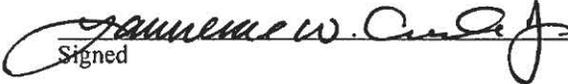
EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**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-1300022 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 _____

Lawrence W. Cunha Jr.

Typed or Printed Name

WCIT Architecture

Company Name

10/15/12

Date

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-1300022 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

Ken K. Hayashida

Typed or Printed Name

KAI Hawaii, Inc.

Company Name

October 16, 2012

Date

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-1300022 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

Lynette Lo Kanda
Typed or Printed Name DBA Lynette Lo Tom

Bright Light Marketing Group, Inc.
Company Name

16 October 2012
Date

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-1300022 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

James Stone

Typed or Printed Name

Group 70 International Inc.

Company Name

10-15-2012

Date

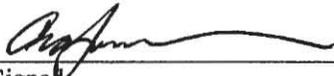
EXHIBIT 6
CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS

**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-1300022 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

Craig Sakanashi

Typed or Printed Name

Shigemura Lau Sakanashi Higuch & Associates Inc.
Company Name

October 15, 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.]

The CONSULTANT, AECOM Technical Services, 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: AECOM Technical Services, Inc.
Signature: 
Print Name: Rudolph Mina
Title: District General Manager
Date: October 16, 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.

**SPECIAL PROVISIONS
EXHIBIT 8**

HONOLULU RAIL TRANSIT PROJECT

**STATION DESIGN CONSULTANT
AIRPORT STATION GROUP**

FEDERAL REQUIREMENTS

Table Of Contents

1.0 General..... - 3 -

1.1 NO GOVERNMENT OBLIGATION TO THIRD PARTIES..... - 3 -

1.2 PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS - 3 -

1.3 ACCESS TO RECORDS AND REPORTS - 3 -

1.4 FEDERAL CHANGES..... - 4 -

1.5 CIVIL RIGHTS REQUIREMENTS..... - 4 -

1.6 DISADVANTAGED BUSINESS ENTERPRISES (DBE)..... - 5 -

1.7 GOVERNMENT-WIDE DEBARMENT AND SUSPENSION (NON-PROCUREMENT) . - 6 -

1.8 LOBBYING..... - 7 -

1.9 CLEAN AIR REQUIREMENTS..... - 7 -

1.10 CLEAN WATER REQUIREMENTS - 7 -

1.11 FLY AMERICA REQUIREMENTS..... - 7 -

1.12 ENERGY CONSERVATION REQUIREMENTS..... - 7 -

1.13 RECYCLED PRODUCTS - 8 -

1.14 ADA ACCESS..... - 8 -

1.15 SEISMIC SAFETY..... - 8 -

1.16 TEXT MESSAGING WHILE DRIVING..... - 8 -

1.17 SENSITIVE SECURITY INFORMATION - 9 -

1.18 INCORPORATION OF FTA TERMS..... - 9 -

Attachment 1.6 a) - DBE PARTICIPATION REPORT.....-10 -

Attachment 1.6 b) - FINAL REPORT DBE PARTICIPATION-11 -

INSTRUCTIONS FOR COMPLETION OF THE FINAL REPORT OF DBE PARTICIPATION.....-12 -

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)(1), 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

DBE PARTICIPATION REPORT

This report shall be submitted with each invoice as a condition of payment under this Contract.

Project Name:				
Contract No:		Consultant Name:		
Federal ID No.: (OWP WE #, FTA Grant #, FHWA Project #)		Contract Amount (including amendments):		\$
Period Covered By This Report:	Current (Invoice # _____)		Total to Date	
Total Invoice Amount	(A) \$		(B) \$	
Payment Requested:	DBE? (Yes/No) DBE Code (if "Yes")	Prior Amount*	Current Amount*	Total Amount to Date*
Prime Consultant		\$	\$	\$
Subcontractors (attach additional sheets as needed):				
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
Name: Type of Work:		\$	\$	\$
TOTALS		\$	\$	(C) \$
DBE Participation to Date (C/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
AIRPORT STATION GROUP**

**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 * Honolulu Rail Transit Project - Airport Station Group Contract

are accurate, complete, and current as of ** October 16, 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: AECOM Technical Services, Inc.

Signature: 

Rudolph Mina, District General Manager
(Print name & title of person signing)

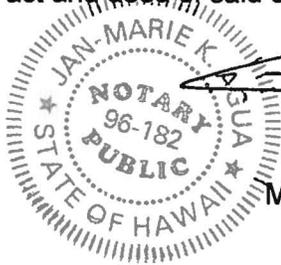
Date of execution***: October 16, 2012

- * 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 this 16th day of October, 2012 before me appeared, Rudolph Mina personally known to me, who, being by me duly sworn, did say that he/she is the District General Manager of AECOM Technical Services, Inc., and that said instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors, and said Rudolph Mina acknowledged said instrument to be the free act and deed of said corporation.



Jan-Marie K. Agua
Notary Public, First Judicial Circuit
State of Hawaii

My Commission Expires: May 13, 2016

NOTARY CERTIFICATE (Hawaii Administrative Rules §5-11-8)	
Document Identification or Description: <u>Honolulu Rail Transit</u>	
<u>Project – Airport Station Group Contract - Certificate of Current</u>	
<u>Cost or Pricing Data</u>	
Doc. Date: <u>no date at time of notary</u>	No. of Pages: <u>1</u> Jurisdiction: <u>First Circuit</u>
<u>Jan-Marie K. Agua</u> Signature of Notary	<u>October 16, 2012</u> Date of Certificate
<u>Jan-Marie K. Agua</u> Printed Name of Notary	 (Official Stamp or Seal)