

# **SPECIAL PROVISIONS**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
WEST O'AHU 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 ESTIMATE
  - 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

HART and the CONSULTANT are hereinafter collectively referred to as the "Parties" and either may be referred to individually as a "Party", all as governed by the context in which such words are used. 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 ("HRTP") is identified in the Final Environmental Impact Statement. It is described as a twenty (20) mile grade separated fixed guideway transit system between East Kapolei and Ala Moana. The CONSULTANT will provide architectural and engineering services for the design of three (3) transit stations of the Honolulu Rail Transit Project ("HRTP") comprising the West O'ahu Station Group: East Kapolei Station, University of Hawai'i West O'ahu Station, and Ho'opili Station, hereinafter 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 twelve (412) 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. Subject to the General Terms and Conditions, the compensation of the CONSULTANT shall be the amount stated in the Agreement and 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:

**“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.

**“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.

**“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 indicated 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 of payments.

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

**“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.

**“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.

**“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 local law, including City law, ordinance, 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.

**“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 shall provide the WBS that reflects its breakdown of the scope and associated code structure at NTP #1a.

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

**“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.

**“CONTRACT”** shall be replaced with the term **“Agreement”**.

**“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 the purposes of this Agreement, **“Contractor”** shall mean **“CONSULTANT”**.

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

**B. DESIGNATION OF PROJECT MANAGERS**

The Officer-in-Charge shall designate, in writing, 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 Officer-in-Charge.”

**G. LIQUIDATED DAMAGES**

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

**H. SAFETY AND SECURITY CERTIFICATION**

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

“**6.8 SAFETY AND SECURITY CERTIFICATION.**

- (a) The purpose of the safety and security certification is to ensure that:
  - 1. The design, construction, fabrication, installation, testing, and commissioning of all safety- and security-certifiable elements (civil, structural, and systems) have been evaluated for conformance with the safety and security design criteria and specifications requirements and to verify their readiness for operational use; and
  - 2. The rail system is operationally safe and secure for customers, employees, emergency responders, and the general public.
- (b) The objective is to achieve an acceptable level of risk through a systematic approach to safety hazard and security vulnerability management, design criteria adherence, specification and construction compliance, and testing and

commissioning verification.

(c) The CONSULTANT shall implement and successfully complete safety and security certification for all certifiable elements contained in the Agreement. Safety and security certification shall be conducted in accordance with the latest version of the Federal Transit Administration (FTA) Handbook for Transit Safety and Security Certification as tailored to the CONSULTANT's scope of work. HART has developed a Project Safety and Security Certification Plan (SSCP) based on FTA guidelines to describe how these activities will be implemented for the H RTP. The CONSULTANT's activities include, but are not limited to, the following:

1. Participate on 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 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 (LOTO), scaffolding and confined spaces.
- (d) The CONSULTANT shall ensure employees, subconsultants and/or subcontractors comply with applicable regulations and the Site-Specific Safety and Security Plan (SSSP) submitted by CONSULTANT for this project.
- (e) The CONSULTANT shall submit a Site-Specific Safety and

Security Plan (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 the SSR 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 CONSULTANTS commitment to providing a safe and healthful 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 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 thirty-seven (37) days upon receipt of NTP #1a, the CONSULTANT is required to breakdown the Work into milestones and submit the Baseline Design Schedule and 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

## **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 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 and FTA, 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 transferable 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  
WEST O'AHU STATION GROUP**

**SCOPE OF WORK**

## Table of Contents

<b>1)</b>	<b>Project Description .....</b>	<b>1</b>
i)	East Kapolei Station.....	1
ii)	UH West O'ahu Station .....	1
iii)	Ho'opili Station .....	2
iv)	Permitting.....	3
<b>2)</b>	<b>Overall Project Timeline .....</b>	<b>4</b>
	NTP#1a - Workshop, Design Schedule, and Schedule of Milestones .....	4
	NTP#1b - Revision to Preliminary Engineering.....	4
	NTP#2 - Interim Design .....	5
	NTP#3 - Final Design .....	6
	NTP#4 - Design Support during Bidding.....	6
	NTP#5 - Design Support during Construction.....	6
<b>3)</b>	<b>Team Organization.....</b>	<b>7</b>
<b>4)</b>	<b>Project Management.....</b>	<b>11</b>
<b>5)</b>	<b>Reference Documents .....</b>	<b>12</b>
	A. Conceptual Design Documents .....	12
	B. PE Reference Documents .....	12
	C. HHCTCP Standard Design Documents .....	13
	D. HHCTCP Standard Reports .....	13
	E. Additional Documents .....	13
<b>6)</b>	<b>Detailed Scope Activity Descriptions.....</b>	<b>15</b>
	Project Management Plan .....	15
	Site Safety and Security Plan .....	16
	Document Control.....	17
	Schedule Control.....	17
	Change Control .....	18
	Computer Aided Design and Drafting .....	19
	Project Closeout.....	20
	Quality Assurance Plan .....	20
	Ongoing Quality Assurance .....	21
	Project Demarcation Line (Program Interface) .....	22
	Environmental Compliance.....	23
	Design Workshop .....	25
	Prepare Baseline Project Schedule .....	26
	Prepare Schedule of Milestones.....	26
	Architecture: East Kapolei Station .....	27
	Architecture: UH West O'ahu Station .....	28
	Architecture: Ho'opili Station .....	29

Civil Engineering: East Kapolei Station .....	30
Civil Engineering: UH West O'ahu Station.....	32
Civil Engineering: Ho'opili Station.....	34
Permitting .....	36
Topographical Survey.....	37
Geotechnical Engineering .....	38
SHPD Archaeology and Architecture.....	40
Structural Engineering: East Kapolei Station .....	40
Structural Engineering: UH West O'ahu Station .....	41
Structural Engineering: Ho'opili Station .....	42
Mechanical Engineering, Fire Protection & Plumbing.....	43
Site Electrical Engineering.....	44
Station Electrical Engineering.....	45
Landscape Architecture.....	46
Station Signage .....	47
Interface Management.....	48
Estimate of Construction Quantities and Costs .....	49
Sustainability .....	50
Public Involvement .....	51
Quality Review of PE Deliverables .....	51
PE Submission Documents .....	52
Architecture: East Kapolei Station .....	53
Architecture: UH West O'ahu Station .....	54
Architecture: Ho'opili Station .....	55
Civil Engineering: East Kapolei Station .....	56
Civil Engineering: UH West O'ahu Station.....	57
Civil Engineering: Ho'opili Station.....	58
Permitting .....	59
Structural Engineering: East Kapolei Station .....	60
Structural Engineering: UH West O'ahu Station .....	61
Structural Engineering: Ho'opili Station .....	62
Mechanical Engineering / Fire Protection / Plumbing .....	63
Site Electrical Engineering.....	64
Station Electrical Engineering.....	65
Landscape Architecture.....	66
Station Signage .....	67
Interface Management.....	68
Estimate of Construction Quantities and Costs .....	69
Sustainability .....	69
Quality Review of ID Deliverables .....	70
ID Submission Documents .....	70
Architecture: East Kapolei Station .....	71
Architecture: UH West O'ahu Station .....	72
Architecture: Ho'opili Station .....	73
Civil Engineering: East Kapolei Station .....	74
Civil Engineering: UH West O'ahu Station.....	75
Civil Engineering: Ho'opili Station.....	76

West O'ahu Station Group

Permitting .....	77
Structural Engineering: East Kapolei Station .....	79
Structural Engineering: UH West O'ahu Station .....	80
Structural Engineering: Ho'opili Station .....	81
Mechanical Engineering / Fire Protection / Plumbing .....	82
Site Electrical Engineering.....	83
Station Electrical Engineering.....	84
Landscape Architecture.....	85
Station Signage.....	86
Interface Management.....	87
Quantity and Cost Estimates .....	88
Sustainability .....	88
Quality Review of FD Deliverables .....	89
FD Submission Documents .....	90
NTP#4 – Design Support during Bidding.....	91
NTP#5 – Design Support during Construction.....	92
<b>List of Acronyms.....</b>	<b>93</b>

## 1) Project Description

The West O'ahu Station Group (WOSG<sup>1</sup>) project involves designing three (3) new elevated transit stations: East Kapolei, UH West O'ahu, and Ho'opili. The design requirements of the three (3) stations are described in the "WOSG Station Module Configuration" sketches, dated January 17, 2012, and updated on March 9, 2012. The East Kapolei and UH West O'ahu Station designs will be compiled into a single construction contract package. The Ho'opili Station design, excluding the TPSS and Ancillary Module building, will be completed to the PE level only. Construction contract documents for the Ho'opili Station TPSS and Ancillary Module building and appurtenances will be included in the construction documents for the East Kapolei/UH West O'ahu Stations. The brief descriptions below provide a high-level overview of the work included in the project.

### i) East Kapolei Station

The elevated station Guideway structure and two hundred forty (240)-foot-long center platform and station will be located off-street on the Koko Head (east) side of Kualaka'i Parkway (North-South Road). The elevated center platform structure will straddle the East-West Road. An at-grade station entrance structure will be located immediately below the elevated platform on the east side of Kualaka'i Parkway.

A west entrance building and pedestrian bridge are not a part of this contract. However, connection of the pedestrian bridge to the station will be accommodated in the station design. The TCCR and other required ancillary and equipment rooms will be located on the station's Concourse level. The ground-level floor slab will be supported on deep foundations capable of withstanding loss of embankment due to scour. Escalator locations are indicated in the sketches and will be a part of the station construction. Escalator supports will be designed into the station structure. Future bus bays along Kualaka'i Parkway, a parking lot, utility relocations, and signage will be designed by others.

### ii) UH West O'ahu Station

The elevated station Guideway structure and two (2) two hundred forty (240)-foot-long side platforms will be located off-street on the Koko Head (east) side of Kualaka'i Parkway. The elevated side platform structure will straddle the future UH West O'ahu Campus Road extension. The west at-grade station entrance structure, which will be located on the future university campus, will be connected to the platform by a pedestrian bridge over Kualaka'i Parkway. The TCCR and other required ancillary and equipment rooms will be located in a separate structure on the ground level adjacent to the west entrance building. The escalator location indicated in the sketches will be a part of the station construction. Escalator supports will be designed into the station

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<sup>1</sup> For a complete list of definitions associated with the acronyms used in this document, please refer to the List of Acronyms provided at the end of the text. From this point forward, acronyms introduced in the text are defined only in the List of Acronyms and not within the text itself.

structure. The configuration and layout of the parcel for the west entry and ancillary buildings will be determined through coordination with University of Hawai'i West O'ahu Campus personnel.

A future east at-grade entrance will be connected to the station through a sloped pedestrian ramp and bridge crossing the Kalo'i drainage channel. Only the pedestrian bridge over Kalo'i Channel is to be carried in the design to the end of the NTP#1b phase.

Columns are proposed to support the pedestrian bridge over Kualaka'i Parkway and the future pedestrian bridge over Kalo'i Channel. The columns on the west side of the Guideway will be located within an electrical easement and will require coordination and agreement between HDOT and HECO. The columns supporting the pedestrian bridge over Kalo'i Channel will be capable of withstanding loss of embankment due to scour. Channel bank scour mitigation measures will be designed for the columns located on the bank of Kalo'i Channel in accordance with HDOT requirements.

The Guideway station, including the concourse and platform levels, will be fully designed. The design of the eastern portion of the station, including the east entrance ramp, landscaping, utilities, signage, park-and-ride surface parking lots, and bus transit center, is not included in this scope of work.

### **iii) Ho'opili Station**

The elevated station Guideway structure and two (2) two hundred forty (240)-foot-long side platforms will be located within a planned future transit-oriented development mixed-use area. The elevated side platforms will be accessed directly from the separate entrance structures. The entrance structures will be "mirror images" of each other, to the extent reasonable while meeting code and other requirements, and consistent with good design practice.

The TCCR and other required ancillary and equipment rooms will be located in a separate Ancillary Module adjacent to the mauka entrance building. The size of the building will be determined during the NTP#1b phase; it is expected to be approximately one thousand six hundred fifty (1,650) square feet. The TPSS will be a separate, self-contained unit and will not be enclosed in a building. The TPSS will sit on its own separate foundation.

Only the PE design of the station, including grading, entry buildings, pedestrian bridges, platform and canopy, gravel access road, utility infrastructure and landscaping, will be completed. If HART desires development of construction contract documents for this station, excluding the TPSS and Ancillary Module building, it will be considered extra work. Construction contract documents will be prepared for the Ancillary Module, TPSS and their attendant requirements (e.g. grading, drainage, maintenance vehicle access, train communications and control infrastructure, dry utility connections, etc.). These documents will be included with the East Kapolei and UH West O'ahu Station construction contract documents.

#### iv) Permitting

The CONSULTANT shall assist HART in the implementation of this project by providing support permitting services relating to the preparation and processing of required permits, approvals and agreements for which construction documents must comply in accordance with the requirements of all agencies having jurisdiction. All other permits and approvals necessary for construction are assumed to be the responsibility of the selected contractor.

The CONSULTANT will apply for and process all permits and agency approvals required for the project, with the following exceptions:

- Permit to Perform Work on State Highways for construction of the station will be completed by the contractor.
- Legal services relating to the acquisition of easements.
- Permits that are not required under legislation presently in place as of the date of this Agreement.
- Permits that are presently in place or are in current negotiations by HART that cover the WOSG Contract.
- Work to acquire variances for design including building heights, setbacks, and land uses.
- Underground Injection Control (UIC) Permit is not required by design.
- CWA Section 402 NPDES for hydrotesting is not anticipated to be required by the design.
- CWA Section 402 NPDES for dewatering is not anticipated to be required by the design.
- Major and Minor Conditional Use Permits.
- Preparation of a Supplemental Environmental Impact Statement or Environmental Assessment in accordance with National Environmental Policy Act rules and/or Hawai'i Revised Statutes, Chapter 343.
- Department of the Army Permits since Kalo'i Drainage Channel is outside the Army's jurisdiction.
- Community Noise Variance. If required, the application will be the responsibility of the selected contractor.

## 2) Overall Project Timeline

The work performed under this contract will be phased to allow development of the design to occur in accordance with FTA procedural requirements. The design phases will be initiated by an NTP issued by HART. Six (6) NTPs are anticipated in total. The work to be performed under the six (6) NTPs is described below.

### NTP#1a - Workshop, Design Schedule, and Schedule of Milestones

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

- Within thirty-seven (37) calendar days of receipt of NTP#1a, a draft Baseline Design Schedule and an SM, which will include all work for which CONSULTANT expects to be compensated, will be provided to HART. The thirty-seven (37)-day period includes an initial fifteen (15)-day mobilization period to enable key project team members to book, prepare and travel to Honolulu for the project, as well as to allow time for scheduling the three (3)-day project workshop.
- The SM will be organized by NTP and will serve as the basis for payment. CONSULTANT's Baseline Design Schedule must conform to the SM. Upon HART's review and providing comments to the draft Baseline Design Schedule submitted by Consultant, HART and CONSULTANT will reach agreement on the SM within ten (10) calendar days of Consultant's receipt of HART's comments. The SM format will follow the sample SM provided to the CONSULTANT in the RFQ solicitation. Upon HART's written approval of the SM, HART will issue NTP #1b.
- A three (3)-day Design Workshop will be included in NTP#1a.
- The right-of-entry permitting request process for field investigations will also be initiated during this phase.

### NTP#1b - Revision to Preliminary Engineering

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

- Commencing with NTP#1b, the current PE design will be revised to match the conceptual design sketches and drawings dated January 17, 2012, and updated March 9, 2012. Updated BOD reports will be provided, along with a contract specifications outline, and preliminary estimate of construction quantities and costs. Geotechnical investigation planning and permitting documents also will be prepared.
- 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.
- Design review meetings, led by the Chief Architect / Architectural Design Manager, will be held for all three (3) stations.

- The PE design will be prepared in accordance with the FEIS/ROD, applicable codes, regulations and design standards.
- The schedule for the design process will be as follows:
  - preparation of station design: ninety (90) days,
  - review of design by HART: thirty (30) days, and
  - incorporation of HART comments in the design: not to exceed thirty (30) days, starting concurrently with NTP#2.
- Field investigations for ground surveys, utility potholing, and geotechnical engineering will be conducted.
- Based on estimated permitting requirements and drilling timelines, the most optimistic schedule for completion of the three (3) draft geotechnical reports is expected to be around the end of the HART review period for NTP#1b (i.e., concurrent with the start of NTP#2). Based on the expected permitting requirements, an additional sixty (60) days is expected, putting the schedule for the draft geotechnical reports at NTP#2 plus sixty (60) days. Design of the stations will proceed on the basis of geotechnical information already available through HART and/or the WOFH Guideway Contractor, and preliminary guidance available from WOSG geotechnical activities.
- An ECP will be prepared to address how compliance and documentation related to the project's FEIS, ROD, and Section 106 PA will be achieved through design and construction. The ECP will be prepared and submitted to HART for review within thirty (30) days of receipt of NTP#1b. The ECP must be accepted by HART prior to submittal of the final revised preliminary design plans.

### **NTP#2 - Interim Design**

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

- ID drawings, detailed working drawings, specifications, and interim estimate of construction quantities and costs, will be prepared. Updated BOD reports will be completed.
- Design review meetings, led by the Chief Architect / Architectural Design Manager, will be held for all three (3) stations.
- Project standard details provided by HART will be incorporated into the design and contract-specific details will be provided as required. Materials will be selected in accordance with the reference documents listed in Section 5 of this document.
- The schedule for the design process will be as follows:
  - duration for station design: one hundred twenty (120) days,
  - review of design by HART: thirty (30) days, and
  - incorporation of HART comments: not to exceed thirty (30) days, starting concurrently with NTP#3.

- Draft and final geotechnical reports, although part of NTP#1b, will likely be completed midway through NTP#2 based on the expected time required for permitting and drilling activities.

### **NTP#3 - Final Design**

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

- FD documents and construction contract documents, including specifications, will be prepared. Final estimates of construction quantities and costs will be prepared. BOD reports will be updated.
- Design review meetings, led by the Chief Architect / Architectural Design Manager, will be held for all three (3) stations.
- Detailed construction contract documents will be prepared to permit accurate estimating of construction quantities and costs and expedite construction activities.
- The schedule for NTP#3 will be as follows:
  - preparation of camera-ready final station design documents to HART: forty-five (45) days,
  - review of final documents by HART: thirty (30) days, and
  - incorporation of review comments and preparation of final advertisement-ready construction documents: thirty (30) days.

### **NTP#4 - Design Support during Bidding**

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

- As requested, assistance will be provided to HART during the solicitation of the construction contract, including provision of technical design support for questions or RFIs posed by potential bidders.
- The duration of the activities performed under this NTP will be based on HART's advertisement and bidding schedule.

### **NTP#5 - Design Support during Construction**

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

- As requested, assistance will be provided to HART in resolving design issues that arise during construction.
- The duration of activities conducted under this NTP will be based on HART's approved construction schedule.

### 3) Team Organization

The Organization Chart (Figure 1), provided at the end of this section, summarizes the reporting relationship of the CONSULTANT to the HART Project Manager for the entire team, the relationship of each team member by discipline, and the sub-teams proposed for the design of each specific transit station. The organization of the teams by discipline is standard practice within URS and brings to HART the strongest and most experienced team members for this transit facility project. Figure 1 also identifies the locations of the offices where all URS employees named in the Organization Chart will be based for the project. All identified subconsultants are local to Honolulu. The activities to be conducted by key personnel and other senior team members identified in the Organization Chart are summarized below.

The CONSULTANT's Project Manager, Sue Sherman, will be located in Honolulu to focus full-time on the WOSG design. This will also facilitate the critical communication required with representatives of HART, with the members of the communities in which the three (3) stations will be located, and with all the other project stakeholders. Ms. Sherman will provide overall management of the project, and will be responsible for all aspects of scope, cost, schedule, quality and personnel management, as well as for providing interface management support. During the bidding and construction phases, she will be available through video conferencing and other electronic methods. Ms. Sherman's transit experience along with her local presence will allow her to serve as a secondary Interface Manager, providing a local contact point for interfaces, and supporting Ron Higbee, who will be the Interface Manager for the project.

In keeping with URS quality procedures, the CONSULTANT has appointed Principal-in-Charge Sunnie House to the project. Ms. House will provide high-level oversight and corporate commitment to the project.

Bill Stuckey has been appointed to the project as the Quality Assurance Manager. Mr. Stuckey will be responsible for managing and implementing the URS quality control processes, and meeting the HART Quality Plan requirements for this project. Raye Powell, of the URS Honolulu office, will implement the Health and Safety program for CONSULTANT services.

The CONSULTANT's design team will be led by Chief Architect/Architectural Design Manager Peter Styx, who will provide senior design and technical leadership to the CONSULTANT project team. Peter will be based in Honolulu during the NTP#1b stage of the project, providing hands-on leadership through the Design Workshop and PE, in order to establish the foundations for the design activities that will follow. After that, he will continue to provide ongoing direct design and technical leadership as the design progresses, and will be present in Honolulu during pre-identified intervals for critical design meetings and milestones. He is expected to be present in Honolulu approximately one (1) week in every six (6) weeks through the duration of the design process. When not on site, Mr. Styx will be actively leading the design of the project via telephone, conference calls, videoconferences, and visits to the design centers. In the event that a Senior Architect is required to

represent the team or participate in meetings when Peter Styx is not on site, Lorrin Matsunaga of Urban Works will serve as the local design lead representative.

Representatives in the CONSULTANT's Columbus office, under the direction of Peter Styx, will lead the overall programmatic process for the stations and will oversee the entire design production. Peter will work closely with Sue Sherman and other URS team members to produce the required deliverables. He has at his disposal the key staff listed in the Organization Chart. The CONSULTANT's Electrical and Mechanical Engineering Design Managers, David Bals and Brett Libbe, are located in the same office as Peter and have strong backgrounds in the design of transit stations.

Representatives in the CONSULTANT's San Diego Office, under the direction of Mark Holter, Lead Structural Engineer, will lead and coordinate the structural design activities. These individuals will work with Peter and other team members in preparing the structural design deliverables. David Marx, Manager of the Environmental Sciences Department in San Diego, will lead the environmental efforts associated with this contract. Sustainability activities have been assigned to Patricia Trauth of the San Diego office, who is the URS West Group Sustainability Coordinator.

Geotechnical work will be led by Larry Rapp of the Honolulu office.

The Civil Engineering design team will be led by Richard Speer of the Honolulu office. He will be supported by additional professionals from Honolulu as well as local subconsultants, SSFM International and Sato & Associates. SSFM will also be providing services in connection with permitting for the project.

PBR Hawai'i & Associates, Inc., under the leadership of Stan Duncan, will provide Landscape Architecture Design services for the project.

Urban Works, a local subconsultant, will provide assistance regarding the aesthetics of the stations, detail checking, and local building code information, as well as providing backup when the Chief Architect/Architectural Design Manager is not available and an architect is required to attend meetings with HART, stakeholders or authorities.

Notkin Hawai'i, Inc., a local subconsultant, also will provide detailed checking and local building code information.

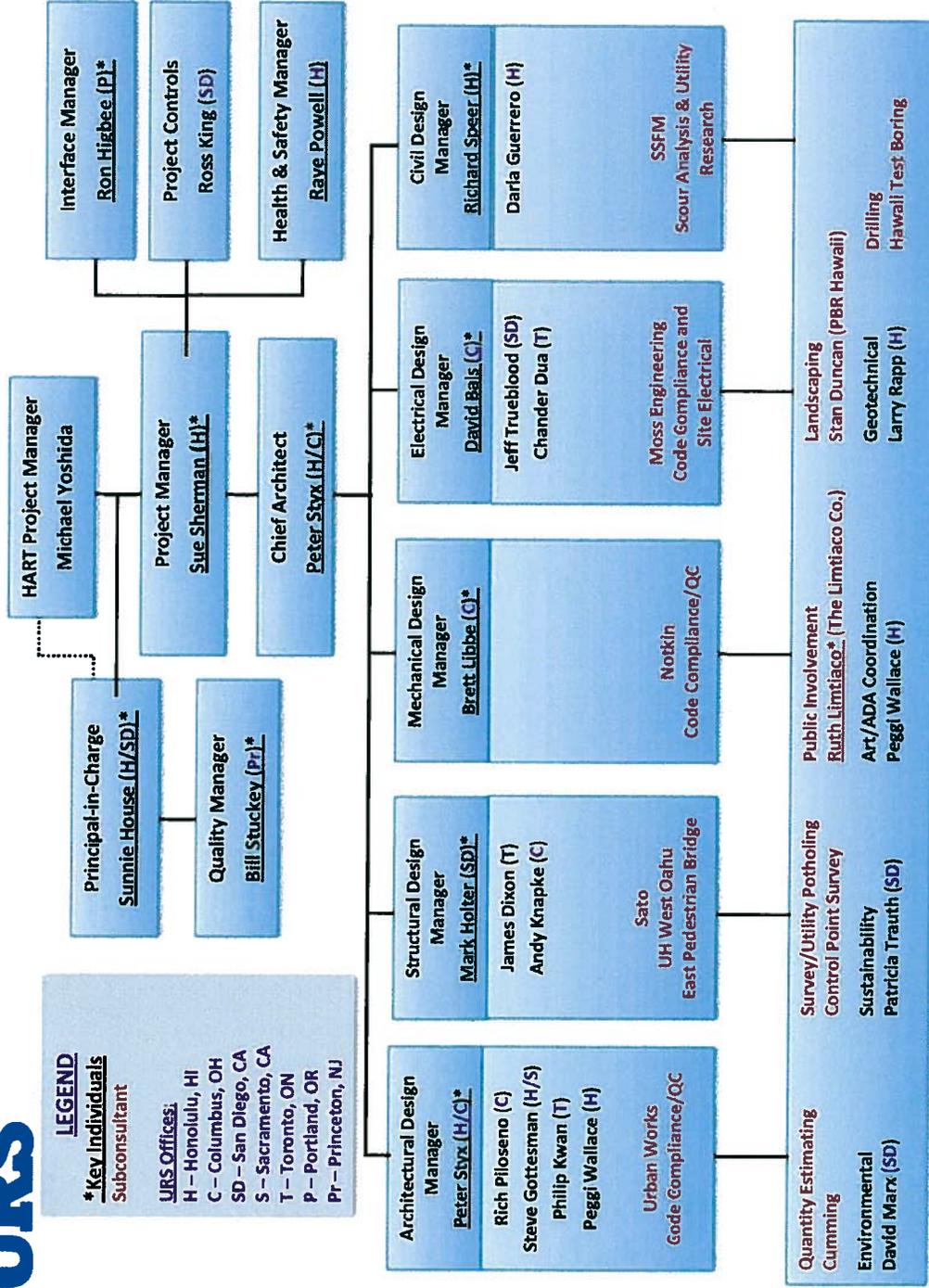
Personnel from Moss Engineering, the local electrical engineering subconsultant, will provide local code information, liaison with local electrical authorities, liaison with traction power design, exterior lighting personnel, and electrical design personnel, as well as coordinating with HECO for electrical power tie-ins. Detailed quality checking of the designs will be performed by the CONSULTANT's personnel.

The CONSULTANT will use a variety of technologies to enhance communication with the team and stakeholders, including e-mail, project-specific web sites and secure file transfer sites, telephone or

videoconferencing, and 3-D animation. The CONSULTANT's Project Manager will foster teamwork at all stages of the project to improve the team members' understanding of the project goals, objectives, roles, responsibilities and constraints; to clarify expectations, boost creativity, facilitate constructive criticism; and to encourage team member participation in decision making. All of the CONSULTANT's team members identified in this submission have access to high-definition videoconferencing equipment that provides the immediacy of face-to-face meetings among all participants without concern for geographical distances. This approach will allow the CONSULTANT to assemble and deploy the best qualified team for this assignment without regard to location, keeping travel costs to a minimum.



Figure 1: Organization Chart



**LEGEND**

\* Key Individuals  
Subconsultant

**URS Offices:**

- H – Honolulu, HI
- C – Columbus, OH
- SD – San Diego, CA
- S – Sacramento, CA
- T – Toronto, ON
- P – Portland, OR
- Pr – Princeton, NJ

#### **4) Project Management**

In order to effectively and efficiently manage a complex project such as this one, it is important that there be a project management team that is focused on the goal of completing the project on time and within budget. The Project Manager will be supported by a Project Scheduler experienced in the use of Primavera P6 for resource-loaded cost and schedule planning/management, as well as a Project Administrator/Document Control person. Project management activities are described in detail in the Project Management subsection of Section 6.

## 5) Reference Documents

This document has been prepared using the reference documents identified below, which have been provided to the CONSULTANT's project team. Only applicable portions of these reference documents will be incorporated into the work conducted under this contract. Any design features not identified in these documents or otherwise formally communicated to the CONSULTANT during the procurement process will not be included in the base scope of work for this assignment.

### A. Conceptual Design Documents

A-1. Architectural Outline Specifications (9/11/2009)

A-2. WOSG Station Module Configuration

- a. SB-1-East Kapolei Station Concept Sketches (1/17/2012, updated 3/09/2012)
- b. SB-2-UH West O'ahu Station Concept Sketches (1/17/2012, updated 3/09/2012)
- c. Ho'opili Station Module Configuration Concept Sketches (1/17/2012), Ho'opili Station Shift sketch (2/22/2012), and stair switchback concept sketch (3/08/2012)

### B. PE Reference Documents

#### **Project-wide Documents**

- B-1. *Project FEIS* (June, 2010) (including Appendices A-K)
- B-2. *Section 106 Programmatic Agreement* (1/18/2011), including *Record of Decision* (1/18/11) and Attachments A, B, C, and D
- B-3. *HHCTCP Design Language Pattern Book* (10/1/2008)
- B-4. *HHCTCP Hazardous Material Tech Report* (8/15/2008)
- B-5. *HHCTCP Primary Control Report* (3/1/2010, rev 6/25/10)
- B-6. *HHCTCP Signage & Wayfinding Systems Manual* (12/18/2009)
- B-7. *HHCTCP Systemwide Sustainability Report* (5/22/2009)
- B-8. *HHCTCP Noise and Vibration Technical Report* (10/1/2008)

#### **Contract-specific Documents**

- B-9. *HHCTCP Preliminary Drainage Report for WOFH2* (3/27/2009)
- B-10. HHCTCP West O'ahu Stations Schedule of Milestones (sample)
- B-11. HHCTCP West O'ahu Stations PE Estimate (3/9/2011)
- B-12. *HHCTCP WOFH Geotechnical Data Report* (3/27/2009)
- B-13. *HHCTCP WOFH Geotechnical Data Report Addendum 1* (5/15/2009)
- B-14. *HHCTCP WOFH Geotechnical Data Report Addendum 2* (9/18/2009)
- B-15. Ho'opili Construction Easement Details (03/08/2011) and Drawing (02/21/2011)
- B-16. Request for Qualifications Preliminary Engineering Drawings:
  - a. East Kapolei Station (9/25/2009)
    - Vol. 1 – Original Preliminary Engineering Drawings
    - Appendix A – Informative Drawings
  - b. UH West O'ahu Station (9/25/2009)

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<sup>2</sup> West O'ahu/Farrington Highway (WOFH)

Vol. 2 – Original Preliminary Engineering Drawings  
Appendix A – Informative Drawings

- c. Ho'opili Station (9/25/2009)

Vol. 3 – Original Preliminary Engineering Drawings  
Appendix A – Informative Drawings

- B-17. Revisions to Design (10/6/2011)  
a. WOSG Scope of Work Changes – October 6  
b. WOSG Sketches
- B-18. Basis of Design Report (12/3/2010)  
a. SB1-East Kapolei Station  
b. SB2-UH West O'ahu Station  
c. SB3-Ho'opili Station
- B-19. Station Civil Site Plans (3/22/2011)  
a. SB1-East Kapolei Station  
b. SB2-UH West O'ahu Station  
c. SB3-Ho'opili Station
- B-20. Preliminary Structural Design Calculations (6/7/2011)  
a. SB1-East Kapolei Station  
b. SB2-UH West O'ahu

### C. HHCTCP Standard Design Documents

- C-1. HHCTCP *Compendium of Design Criteria* (2/22/2010)  
C-2. HHCTCP Standard Specifications Vol. 1 (Division 1 not included) (10/30/2009)  
C-3. HHCTCP Standard Specifications Vol. 2 (Division 1 not included) (10/30/2009)  
C-4. RTD Directive Drawings (11/13/2009)  
C-5. RTD Plan Standards (10/16/2009)  
C-6. HHCTCP Project CADD Procedures (10/16/2009)  
C-7. RTD Standard Drawings (11/13/2009)

### D. HHCTCP Standard Reports

- D-1. *HHCTCP Bus Fleet Management Plan* (6/1/2010)  
D-2. *HHCTCP Project Management Plan* (3/1/2009, Rev 2/16/2010)  
D-3. *Updated HHCTCP Quality Management Plan* (1/11/11)  
D-4. *HHCTCP Real Estate Acquisition Management Plan* (10/15/2009, Rev 2/3/2011), including Appendices A and B  
D-5. *HHCTCP Safety and Security Management Plan* (5/12/2008) (Rev 1.0, 8/24/2009)  
D-6. *HHCTCP Safety and Security Certification Plan* (Rev 0.0, 2/23/2010)  
D-7. *HHCTCP Platform Structure Preliminary Design Report*  
D-8. *HHCTCP Construction Safety and Security Plan* (Rev. 1, 4/2/2011)

### E. Additional Documents

- E-1. *HHCTCP Value Engineering Study Final Report* (September 2010)  
E-2. Draft Contract Documents for the West O'ahu Station Group  
E-3. Hydrology maps, studies for areas tributary to the project sites  
E-4. *HHCTCP Draft Interface Control Manual* (October 21, 2009)  
E-5. Station Access and Modal Interface  
E-6. Hydraulic Model for the Kalo'i Drainage Canal  
E-7. As-Built Plans for Existing Roadway and Infrastructure in the vicinity of the stations

West O'ahu Station Group

- E-8. Reports, plans, and other pertinent documents for adjacent developments and projects
- E-9. Architectural Guide Specifications
- E-10. Draft Preliminary Hydraulic Assessment of 18 HHCTCP Stream Crossings and a Coastal Flood Zone (April 21, 2010)
- E-11. Technical Memo on Previous Subsurface Exploration and Foundation Construction in the HHCTCP Area – East Kapolei to Pearl Highlands (April 2009), including App. A, B-1, B-2, C-1, C-2, D, E, F, G, H, I, and J.[Reference document from GBR]
- E-12. Fixed Guideway Foundation Technical Memorandum, HHCTCP East Kapolei to Pearl Highlands, Ewa, Oahu, Hawai'i, April 30, 2009; Geolabs for PB Americas
- E-13. *HHCTCP WOFH Geotechnical Data Report, Area 1 (1/5/2011)*; S&W/YKE for HNTB
- E-14. *HHCTCP WOFH Geotechnical Data Report, Area 1, Addendum 1 (5/27/2011)* ; S&W/YKE for HNTB
- E-15. *HHCTCP Geotechnical Baseline Report, East Kapolei to Pearl Highlands, Revision 2.0, August 2009*; PB Americas.
- E-16. *HHCTCP Technical Memorandum on Subsurface Conditions, East Kapolei to Pearl Highlands, April 2009*; Geolabs for PB Americas.
- E-17. glNT files of sixty-nine (69) boring logs transmitted via 6000-10.WOFH.ZIP

City and County of Honolulu and HDOT Highways Division Standards were provided by reference only.

## 6) Detailed Scope Activity Descriptions

The activity description sheets on the following pages describe in detail and in part the work to be done by the CONSULTANT team under this Agreement.

ACTIVITY DESCRIPTION		
NTP#: <b>Project Management</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity: <b>Project Management Plan</b>	WBS Code / ID number: <b>20</b>	Revision No:
A. Activity Description:		
<ol style="list-style-type: none"> <li>1. Prepare the PMP for the WOSG design project, incorporating the relevant requirements of the provided HART PMP and CONSULTANT policies and procedures, including project organization, financial management, schedule management, communications management, and interfaces with other contracts under the H RTP program.</li> <li>2. Incorporate the Document Control plan, SSSP and Change Control plan into the PMP for distribution and management.</li> <li>3. Incorporate into the plan procedures for controlling and distributing the PMP to all team members on an ongoing basis.</li> <li>4. Distribute the PMP to project team members.</li> </ol>		
B. Assumptions:		
<ol style="list-style-type: none"> <li>1. PMP to be compliant with program requirements as outlined in the PMP for H RTP, and with CONSULTANT policies.</li> <li>2. PMP to include and make reference to the H RTP PMP.</li> <li>3. Changes to H RTP PMP to be communicated to WOSG design team on a timely basis.</li> <li>4. No significant material changes to H RTP PMP to be made during the course of the project.</li> <li>5. Transmittal of significant documents between CONSULTANT and HART and original signed hard copies of any contractual documents to be carried out through HART's CMS.</li> </ol>		
C. Inputs:		
<ol style="list-style-type: none"> <li>1. PMP document format provided by HART</li> <li>2. Ongoing changes to H RTP PMP from time to time</li> <li>3. CONSULTANT Project Management Policies and Procedures</li> <li>4. WOSG Project Agreement and supporting documentation</li> </ol>		
D. Deliverables:		
<ol style="list-style-type: none"> <li>1. PMP for WOSG design project</li> <li>2. Document distribution control plan for PMP</li> <li>3. Provision for incorporating changes to H RTP PMP, and for making other related updates to the WOSG PMP</li> <li>4. Monthly progress reports</li> </ol>		

**ACTIVITY DESCRIPTION**

NTP#:	<b>Field Safety Management</b>	Activity Responsibility: <b>Raye Powell</b>	Issue Date:
Activity:	<b>Site Safety and Security Plan</b>	WBS Code / ID number: <b>25</b>	Revision No:

## A. Activity Description:

1. Prepare the SSSP for the WOSG design project, incorporating the relevant requirements of the provided H RTP CSSP and CONSULTANT policies and procedures for all designer and sub-consultant field investigation or field-related activities.
2. Distribute the SSSP to project team members.

## B. Assumptions:

1. SSSP to be compliant with occupational safety and health regulatory requirements and with CONSULTANT policies.
2. SSSP to be compliant with *HHCTCP Construction Safety and Security Plan* (Rev.1, 4/2/11).
3. SSSP to include and make reference to the H RTP CSSP.
4. Changes to H RTP CSSP to be communicated to WOSG design team on a timely basis.
5. No significant material changes to H RTP CSSP to be made during the course of the project.
6. CONSULTANT's work not considered "Construction" as defined in the H RTP CSSP, and CONSULTANT's role not that of a "Contractor" as defined in the H RTP CSSP. Requirement for full-time presence of a Safety Professional on site does not apply to investigative field work, such as site surveying, potholing or drilling for geotechnical samples.
7. Transmittal of submittal documents between CONSULTANT and HART and original signed hard copies of any contractual documents to be carried out through HART's CMS.
8. Transmittal of safety and security related communications, including incident reports and observations between CONSULTANT and HART, to be carried out through the iSMS.

## C. Inputs:

1. SSSP document format provided by HART
2. Ongoing changes to H RTP CSSP from time to time
3. CONSULTANT Safety Policies and Procedures
4. WOSG Project Agreement and supporting documentation

## D. Deliverables:

1. SSSP for WOSG design project
2. Provision for incorporating changes to H RTP CSSP, and for making other related updates to the WOSG SSSP
3. Frequent safety communications via iSMS related to field activities
4. SSSP to be submitted thirty (30) days prior to field investigative work taking place on site

**ACTIVITY DESCRIPTION**

NTP#:	<b>Project Management</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity:	<b>Document Control</b>	WBS Code / ID number: <b>30</b>	Revision No:

## A. Activity Description:

1. Prepare a Document Control Plan for the project, meeting the requirements of the project PMP and the overall H RTP Document Control Plan.
2. Control ongoing creation, storage and transmittal of documents within the CONSULTANT project team in accordance with the project Document Control Plan.
3. Transmit project documents through HART's CMS, as specified in the Document Control Plan.
4. Prepare, maintain and distribute meeting records.

## B. Assumptions:

1. Project Document Control plan applies to all documents, including CADD files, native files for design calculations, .pdf's, etc.
2. Project Document Control plan provides guidance for handling internal CONSULTANT documents as well as documents shared with HART.
3. CONSULTANT team members from different offices will require seamless access to project files for collaboration.

## C. Inputs:

1. PMP for the WOSG design project, as amended from time to time
2. HART procedures for document control

## D. Deliverables:

1. Project Document Control Plan
2. Transmittal of files between CONSULTANT and HART in accordance with HART document control procedures
3. Internal CONSULTANT filing and document sharing in accordance with CONSULTANT document control procedures

**ACTIVITY DESCRIPTION**

NTP#:	<b>Project Management</b>	Activity Responsibility: <b>Ross King</b>	Issue Date:
Activity:	<b>Schedule Control</b>	WBS Code / ID number: <b>40</b>	Revision No:

## A. Activity Description:

1. Meet with project discipline leads on a monthly basis to review actual performance against schedule.
2. Prepare monthly schedule updates, reflecting actual schedule performance and identifying any delays.
3. Identify recovery plans for any identified delays.
4. Provide monthly schedule update in P6 format to HART for incorporation into the overall project schedule.
5. Make corresponding changes to SM if required.

## B. Assumptions:

1. Schedule to be provided in P6 format.

## C. Inputs:

1. PMP document provided by HART
2. Ongoing changes to H RTP PMP from time to time
3. P6 schedule prepared under Activity 112
4. Interface milestones

## D. Deliverables:

1. Monthly schedule updates
2. Monthly updates to SM

**ACTIVITY DESCRIPTION**

NTP#: <b>Project Management</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity: <b>Change Control</b>	WBS Code / ID number: <b>51</b>	Revision No:

## A. Activity Description:

1. Establish procedures for identifying requirements for proposals; provide proposals to HART when required, on a timely basis.
2. All proposals and responses to change directives are to be communicated to HART through HART's CMS.

## B. Assumptions:

1. Where scope changes are required under the contract, CONSULTANT to provide a request to HART on a timely basis.
2. HART may issue Change Directives from time to time.

## C. Inputs:

1. PMP for WOSG design assignment
2. Project Agreement, including detailed Scope of Services

## D. Deliverables:

1. Proposals
2. Responses to Change Directives

**ACTIVITY DESCRIPTION**

NTP#: <b>Project Management</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Computer Aided Design and Drafting</b>	WBS Code / ID number: <b>55</b>	Revision No:

**A. Activity Description:**

1. Station design teams will collaborate and use HART Plans Standards throughout design development and documentation.
2. A CADD Manager located in the Columbus office will be responsible for consistent compliance with CADD standards.
3. Naming conventions, title blocks, abbreviations, units, etc. will be implemented across all station teams for consistency with HART standards.

**B. Assumptions:**

1. CP-2 HHCTCP Master Alignment CADD Files are the basis of baseline designations for file naming conventions, stationing (baseline labeling) and design segment alignment data structure to be followed.
2. CP-3 HHCTCP Topographical CADD Standards provides base layer map schedule – with blocks for station underground utilities, street and grade conditions for Segment B stations.
3. CP-4 HHCTCP CADD sheet file templates for referenced border, block attributes, folder structure, page setups for plotting, dimension styles, designated library or "block" folders, and all other drafting conventions as mandated by HART to be followed.
4. CP-5 HHCTCP - HART standard drawings (signed and sealed) will be placed under separate cover from the Contract, filed and named per HART requirements. Standard Plans and details by other agencies will not be included in Contract package but referenced per CP-5.4.
5. Station architecture and structural design will be internally produced to utilize parametric design for coordination of design. Revit, AutoCAD, and Civil 3D will be CADD programs used by all CONSULTANT station design teams of all stations for improved interoffice and inter-disciplinary collaboration.
6. AutoCAD files will be provided in accordance with the Plans' Standards.

**C. Inputs:**

1. CONSULTANT Policies Procedures and Standards, as superseded by all HART Plan Standards – dated October 16, 2009 (as noted below by Section excerpts)
2. CP-1.1 System-wide Master Files that pertain to the WOSG (Segment B) as provided by HART
3. CP-1.2 Design Segment Specific Master Files – Segment B
4. CP-1.3 Transit Station Master Files – Segment B

**D. Deliverables:**

1. Internal CADD Standard Guidance Document for HART approval no later than NTP#1b review

**ACTIVITY DESCRIPTION**

NTP#:	<b>Project Management</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity:	<b>Project Closeout</b>	WBS Code / ID number: <b>60</b>	Revision No:
A. Activity Description:			
1. Complete Project Management and Document Control close-out activities at the conclusion of the project, as specified in the PMP and CONSULTANT Policies and Procedures.			
B. Assumptions:			
None			
C. Inputs:			
1. PMP for WOSG design assignment			
2. Project Agreement, including detailed Scope of Services			
3. CONSULTANT Policies and Procedures for document retention and storage			
D. Deliverables:			
1. Project documents required to be turned over to HART per Document Control Plan			

**ACTIVITY DESCRIPTION**

NTP#:	<b>Project Management</b>	Activity Responsibility: <b>Bill Stuckey</b>	Issue Date:
Activity:	<b>Quality Assurance Plan</b>	WBS Code / ID number: <b>80</b>	Revision No:
Activity Description:			
1. Prepare a Quality Assurance Plan for the project, incorporating the requirements of the H RTP <i>Quality Management Plan</i> , FTA <i>Quality Assurance and Quality Control Guidelines</i> (Essential Elements of a QA/QC System, as applicable) and CONSULTANT Quality Policy.			
2. Identify key quality team members, including Independent Technical Reviewer(s), detailed checkers and auditors.			
3. Verify the qualifications of the identified key quality team members.			
4. Distribute the Quality Assurance Plan to all project team members, including subconsultants.			
5. Provide training on the Quality Assurance Plan to all project team members.			
6. Verify that the PMP and schedule include sufficient time and resources for quality processes.			
7. Prepare a separate section of the Quality Assurance Plan for the geotechnical component of the project, to include laboratory and driller qualifications.			
Assumptions			
1. Quality Assurance Plan must be approved prior to any submittals being made in NTP#1b.			
2. One (1) or two (2) over-the-shoulder reviews of the Quality Assurance Plan may be used by the CONSULTANT to collaborate with HART in efficient preparation of a plan to meet project needs.			
Inputs			
1. H RTP <i>Quality Management Plan</i> , as updated from time to time			
2. FTA <i>Quality Assurance and Quality Control Guidelines</i> , February 2002			
3. CONSULTANT Quality Management policies and procedures			
Deliverables			
1. Draft and final Project Quality Assurance Plan for WOSG design assignment, including geotechnical engineering			

**ACTIVITY DESCRIPTION**

NTP#: <b>Project Management</b>	Activity Responsibility: <b>Bill Stuckey</b>	Issue Date:
Activity: <b>Ongoing Quality Assurance</b>	WBS Code / ID number: <b>90</b>	Revision No:

## A. Activity Description:

1. Perform ongoing QA/QC throughout design.
2. Conduct detail checking of work products prior to submission to HART.
3. Document quality processes.
4. Provide training to project staff on the Quality Assurance Plan and procedures, including training on updates as required.
5. Conduct project quality audits, as identified in the Quality Assurance Plan.
6. Identify and document Nonconformance and Corrective Action Requests; follow up to verify that corrections have been implemented.
7. Update the Quality Assurance Plan as required, at least annually.

## B. Assumptions:

1. Constructability review to be performed by HART.

## C. Inputs:

1. Project Quality Assurance Plan for WOSG design assignment, as updated from time to time

## D. Deliverables:

1. Ongoing documented quality detail checking of work product
2. Documented Independent Technical Reviews
3. Documented Project Reviews
4. Documented Inter-disciplinary and Inter-contract Coordination Reviews
5. Input to Constructability Reviews conducted by HART
6. Maintenance of Quality Records

**ACTIVITY DESCRIPTION**

NTP#: <b>Project Management</b>	Activity Responsibility: <b>Ron Higbee</b>	Issue Date:
Activity: <b>Project Demarcation Line (Program Interface)</b>	WBS Code / ID number: <b>100</b>	Revision No:

## A. Activity Description:

1. Develop Interface Management Plan.
2. Prepare Guideway section to graphically indicate demarcation line.
3. Determine the items to be supported by Guideway and provided under the station design effort.
4. Prepare updates to the Guideway section showing the demarcation line from time to time as further detail becomes available.
5. Circulate demarcation information to all concerned design team members, other design consultants and impacted stakeholders.
6. Develop draft Interface Management Tracking Matrix.

## B. Assumptions:

1. Guideway will be designed to support all connecting structures and appurtenances, such as pedestrian bridge, canopy, railings, etc.
2. Guideway DB team and CSC will coordinate their activities with CONSULTANT, and will assign Interface Managers to facilitate coordination with this contract.

## C. Inputs:

1. Sample Interface Management Plan to be provided by HART
2. Preliminary engineering drawings and Guideway design criteria
3. WOFH Guideway design documents
4. Structural and other design assumptions made by Guideway designer with respect to station impact on Guideway
5. *Draft Interface Control Manual*, dated October 2009

## D. Deliverables:

1. Draft and final Interface Management Plan
2. Response to Interface Management Plan review comments
3. Guideway Demarcation Section
4. List of items to be supported by the Guideway
5. Draft Interface Management Tracking Matrix

**ACTIVITY DESCRIPTION**

NTP#:	<b>Ongoing Activity</b>	Activity Responsibility:	<b>David Marx</b>	Issue Date:
Activity:	<b>Environmental Compliance</b>	WBS Code / ID number:	<b>105</b>	Revision No:

**A. Activity Description:**

1. Prepare an ECP to address how compliance and documentation related to the project's FEIS, ROD, and Section 106 PA will be achieved in design and construction. The ECP will also address environmental compliance for Requests for Change, field protocol, the design review process, and pertinent mitigation measures and permits specified in the project's FEIS, ROD or PA, or by HART.
2. Prepare and submit the ECP to HART for review within thirty (30) days of receipt of NTP#1b and before any field investigatory work begins. The ECP must be accepted by HART prior to submittal of final revised PE documents.
3. Prepare environmental constraint maps in GIS or CADD as directed by HART as part of the ECP.
4. Develop and implement a mitigation plan to follow the requirements for *Abutilon menziesii* as stipulated in the ROD Attachment D and the existing HDOT Habitat Conservation Plan for *Abutilon menziesii* at Kapolei.
5. Provide ongoing advice to the design team regarding environmental compliance requirements as described in this activity.
6. Assist in the environmental elements to secure approvals of the permitting process relating to this design contract, including but not limited to:
  - a. plan review,
  - b. engineering and site development permits (grading/trenching/stockpiling)
  - c. building permits,
  - d. flood hazard determination, and
  - e. historic site review.
7. Update BOD Report sections describing environmental compliance.
8. Review designs at the PE, ID and FD stages, to confirm the incorporation of pertinent mitigation measures and environmental compliance requirements. Immediately notify HART in writing of any variance required by the design to the mitigation measures and environmental compliance requirements. Prepare a technical memorandum to accompany each design submission to document the review methodology and findings.
9. Update the environmental constraint maps (in GIS or CADD as directed by HART) as the design progresses, if needed.

**B. Assumptions:**

1. HART will obtain the Certificate of Inclusion as specified in the Memorandum of Understanding between HART, HDOT and Department of Land and Natural Resources related to the Koolaula plant species *Abutilon menziesii* from HDOT.
2. CONSULTANT to apply for and process site development permits for pick-up by the construction contractor.
3. HART will pay any fees associated with all permit applications.
4. HART will complete any environmental documentation associated with the change in station footprints and any other changes not outlined in the approved FEIS/ROD. The documentation will satisfy all National Environmental Policy Act and Hawai'i Chapter 343 environmental compliance requirements.
5. Support for the preparation of NPDES permits is covered under stormwater management activities.

**C. Inputs:**

1. FEIS
2. Habitat Conservation Plan
3. ROD
4. Section 106 PA

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D. Deliverables:

1. ECP, including environmental constraints maps in GIS and/or CADD, with updates as required to reflect decisions made during the design progress
  2. Technical memorandum to accompany each design submission, describing mitigation measures included in the design and applicable to construction, and confirming environmental compliance
  3. Environmental components of completed permit applications and supporting materials for additional permits as required to obtain a Building Permit for the WOSG project
  4. Updated environmental compliance sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations
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**ACTIVITY DESCRIPTION**

NTP#:	<b>1a Prepare Schedule of Milestones</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity:	<b>Design Workshop</b>	WBS Code / ID number: <b>110</b>	Revision No:

## A. Activity Description:

1. Preparation Activities
  - a. Review reference documents.
  - b. Prepare agenda.
  - c. Finalize list of participants, secure venue, and invite participants.
  - d. Prepare presentation boards of existing materials, including the entire corridor, station site plans; building plans, sections, elevations and 3D images; and site photographs.
  - e. Prepare copies of BOD reports.
2. Workshop Activities
  - a. Participate in HART presentation of project description and background information and departmental input.
  - b. Visit station sites to review and understand site features and topography, and local context.
  - c. Visit other local facilities with HART representatives to understand local design considerations.
  - d. Review existing station designs.
  - e. Discuss the incorporation of the Signage and Wayfinding Systems Manual.
  - f. Explore the use of artwork in the station design.
3. Follow-up activities
  - a. Prepare meeting minutes and document design decisions/action items.
  - b. Prepare and submit Right-of-Entry Permit requests for field activities.

## B. Assumptions:

1. Key CONSULTANT and HART team members will participate for the full duration of the workshop.
2. Other stakeholders and team members will participate in the workshop as and when required.
3. Relevant documents will have been provided to the design team.
4. Agenda and process will have been agreed upon by HART.
5. Workshop location will accommodate all participants in a single room.
6. Workshop will be three (3) days in duration.
7. Workshop participants will include the following CONSULTANT Team members: Principal-in-Charge, Project Manager, Chief Architect/ Architectural Design Manager, Key station Architects, Lead Structural Engineer, Lead Electrical Engineer, Lead Mechanical Engineer, Lead Civil Engineer, Public Outreach Coordinator, Public Art Coordinator, plus Senior Architect from Urban Works.
8. HART to follow up with property owners and provide other support as required to obtain Right-of-Entry Permits.

## C. Inputs:

1. 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; Scope Revisions dated 10/06/2011, Station Module Configuration Conceptual Sketches dated 01/17/2012 and updated 03/09/2012, and images previously prepared
2. Design Language Pattern Book Task 16 – Final October 2008

## D. Deliverables:

1. Meeting minutes
2. Written Right-of-Entry requests for PE work

**ACTIVITY DESCRIPTION**

NTP#: <b>1a Prepare Schedule of Milestones</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity: <b>Prepare Baseline Project Schedule</b>	WBS Code / ID number: <b>112</b>	Revision No:

## A. Activity Description:

1. Prepare P6 schedule incorporating all identified work scope elements and milestones identified in project documentation, including identification of all documents requiring HART approval and review/approval durations.
2. Provide draft schedule to HART for review.
3. Incorporate HART comments into schedule and prepare final schedule.
4. Resource-load the schedule using approved project budget amounts.

## B. Assumptions:

1. Schedule to meet the milestone dates established by HART and detailed in the SM to be prepared by CONSULTANT under Activity 115.
2. Schedule to be prepared in P6 and resource-loaded to the WBS level.
3. Schedule to use the WBS structure established for the HRTP program.
4. Schedule to be incorporated into the HRTP program schedule.
5. P6 schedule to include no more than two hundred (200) activities.
6. PM time and effort to be based on the scheduled durations outlined in this document.
7. Delays beyond the control of the design team to be considered a change to the Project schedule.

## C. Inputs:

1. PMP document provided by HART
2. WBS numbering system as applicable to WOSG design assignment
3. Scope of Work prepared by CONSULTANT in accordance with HART documents
4. Program schedule milestones

## D. Deliverables:

1. Draft P6 schedule
2. Final P6 schedule
3. Final resource-loaded P6 schedule

**ACTIVITY DESCRIPTION**

NTP#: <b>1a Prepare Schedule of Milestones</b>	Activity Responsibility: <b>Sue Sherman</b>	Issue Date:
Activity: <b>Prepare Schedule of Milestones</b>	WBS Code / ID number: <b>115</b>	Revision No:

## A. Activity Description:

1. Prepare a draft SM based on the project design schedule, according to the sample SM provided by HART, for HART review.
2. Incorporate HART comments and submit a final SM for approval.
3. Provide updates to the SM if and when required to reflect any approved project schedule revisions.

## B. Assumptions:

1. The SM to form the basis of payment for the consultant contract.

## C. Inputs:

1. WOSG Project Agreement and supporting documentation, including detailed Scope of Work and fee
2. Sample SM provided by HART

## D. Deliverables:

1. Draft SM
2. Final SM

**ACTIVITY DESCRIPTION**

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity:	<b>Architecture: East Kapolei Station</b>	WBS Code / ID number: <b>150</b>	Revision No:

## A. Activity Description:

1. Collaborate with entire WOSG design team throughout phase.
2. Develop PE design of scope elements as revised in the concept sketches dated January 17, 2012 and updated March 9, 2012.
3. Coordinate with HART's Arts Team for placement and incorporation.
4. Incorporate comments from the Section 106 Consulting Parties as directed by HART.
5. Submit draft revised PE design to HART for review.
6. Prepare and submit final revised PE design.
7. Prepare visuals for public presentation.
8. Update the BOD Report to reflect changes made during this phase of the work.

## B. Assumptions:

1. All review entities to be identified by HART.
2. HART to provide 3-dimensional LiDAR-based topographic surface CADD files of PE Drawings.
3. All review comments to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the original PE drawings.
5. HART acceptance of ECP prepared under Activity 105 required prior to submission of final PE documents.

## C. Inputs:

1. Station Module Configuration Conceptual Sketches - dated January 17, 2012 and updated March 9, 2012
2. *Basis of Preliminary Design Report* dated 12/03/2010
3. Station Design Packages - Architectural Outline Specifications - dated 09/11/2009
4. PE Documents – dated 09/25/2009
5. BOD updates from other activities and disciplines
6. Input from Design Workshop
7. Revised space program
8. Standard specifications
9. *Compendium of Design Criteria*

## D. Deliverables:

1. Preliminary Room Data Sheets
2. (PE) Architectural design drawings for HART review to include both:
  - a. all elements included in the PE design
  - b. drawings depicting the initial construction under the WOSG contract as an operational standalone facility meeting required codes and standards
3. Updated (PE) Architectural design Outline Contract Specifications for HART review
4. Up to ten (10) visuals for public presentations
5. Updated BOD Report for East Kapolei Station to include all disciplines

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Architecture: UH West O'ahu Station</b>	WBS Code / ID number: <b>160</b>	Revision No:

## A. Activity Description:

1. Collaborate with entire WOSG design team throughout phase.
2. Work with HART and the UH West O'ahu to finalize location, configuration, and layout of west entrance building.
3. Develop PE design of scope revised by the concept sketches dated January 17, 2012 and updated March 9, 2012.
4. Coordinate with HART's Arts Team for placement and incorporation.
5. As directed by HART incorporate comments from the Section 106 Consulting Parties.
6. Submit draft revised PE design to HART for review.
7. Prepare and submit final revised PE design.
8. Prepare visuals for public presentation.
9. Update the BOD Report to reflect changes made during this phase of the work.

## B. Assumptions:

1. All review entities to be identified by HART. HART to provide 3-dimensional LiDAR-based topographic survey CADD files of PE drawings.
2. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the original PE drawings.
3. All review comments to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. The east pedestrian bridge abutment to be located outside HDOT ROW.
5. The initial configuration of the station, prior to completion of the east entrance building and pedestrian bridge, to meet applicable codes including requirements for emergency egress.
6. HART acceptance of ECP prepared under Activity 105 required prior to submission of final PE documents.

## C. Inputs:

1. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
2. *Basis of Preliminary Design Report* dated 12/03/2010
3. Station Design Packages - Architectural Outline Specifications – dated 09/11/2009
4. PE Documents – dated 09/25/2009
5. BOD updates from other activities and disciplines
6. Input from Design Workshop
7. Revised Space Program
8. Standard Specifications
9. *Compendium of Design Criteria*

## D. Deliverables:

1. Preliminary Room Data Sheets
2. (PE) Architectural design drawings for HART review to include both:
  - a. all elements included in the PE design
  - b. drawings depicting the initial construction under the WOSG contract as an operational standalone facility meeting required codes and standards
3. Updated (PE) Architectural design Outline Contract Specifications for HART review
4. Up to ten (10) visuals for public presentations
5. Updated BOD Report for UH West O'ahu Station to include all disciplines

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Architecture: Ho'opili Station</b>	WBS Code / ID number: <b>170</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Develop PE design of scope revised by the concept sketches dated January 17, 2012 and updated March 9, 2012.
3. Work with HART to identify location of TPSS and Ancillary Module.
4. Coordinate with HART's Arts Team for placement and incorporation.
5. Incorporate comments from the Section 106 Consulting Parties, as directed by HART.
6. Submit draft revised PE design to HART for review.
7. Prepare and submit final revised PE design.
8. Prepare visuals for public presentation.
9. Update the BOD Report to reflect changes made during this phase of the work.

**B. Assumptions:**

1. PE design to be based on construction of the station before development of the area surrounding the station occurs.
2. All review entities to be identified by HART.
3. HART to provide CADD files of PE Drawings.
4. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the original PE drawings.
5. All review comments to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
6. HART acceptance of ECP prepared under Activity 105 required prior to submission of final PE documents.

**C. Inputs:**

1. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
2. *Basis of Preliminary Design Report* dated 12/03/2010
3. Station Design Packages - Architectural Outline Specifications - dated 09/11/2009
4. PE Documents – dated 09/25/2009
5. BOD updates from other activities and disciplines
6. Input from Design Workshop
7. Revised Space Program
8. Standard Specifications
9. *Compendium of Design Criteria*

**D. Deliverables:**

1. Preliminary Room Data Sheets
2. (PE) Architectural design Drawings for HART review to include both:
  - a. all elements included in the PE design
  - b. drawings depicting the initial construction under the WOSG contract as an operational standalone facility meeting required codes and standards
3. Updated (PE) Architectural design Outline Contract Specifications for HART review
4. Up to ten (10) visuals for public presentations
5. Updated BOD Report for Ho'opili Station to include all disciplines

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>190</b>	Revision No:

## A. Activity Description:

1. Develop PE design of scope as revised in the concept sketches dated January 17, 2012 and updated March 9, 2012.
2. Confirm the water and sewer service connections to the existing or the planned future water and sewer systems for station facilities services, and coordinate with the architectural, mechanical and landscape design personnel.
3. Conduct site investigation of existing utilities, including potholing, to advance the design from the preliminary level.
4. Coordinate with the station architect regarding the location of downspouts and final points of connection.
5. Determine impacts of the encroachment of station support columns into the Kalo'i Drainage Channel by reviewing the hydraulic model provided by HART.
6. Coordinate with utility owners and prepare utility plans for all new utilities, including provision of the sleeves for those future utilities in the utility corridor underneath the station plaza and provision of concrete jacket to protect the existing utilities underneath the station plaza.
7. Perform hydrologic and hydraulic analyses for east station area only, including any off-site drainage areas tributary to those sites.
8. Perform channel scour analyses and design channel scour countermeasures, as necessary, in accordance with applicable revised project design criteria for all station support structures and building foundations that encroach into Kalo'i Drainage Channel ROW.
9. Analyze stormwater runoff quantities for the project area and develop BMPs to allow for treatment of stormwater run-off in the project area. Where possible, include natural water quality treatment LID BMPs in lieu of structural BMPs.
10. Prepare Draft Station Drainage Memorandum.
11. Coordinate with authorities having jurisdiction in terms of drainage water quantity and water quality requirements in the vicinity of the East Kapolei Station.
12. Determine station drainage connection points including canopy-to-platform drainage connections; and preliminary station-to-Guideway drainage connection details.
13. Coordinate station drainage details with WOFH Guideway DB Team through the Interface Management process.
14. Update Civil input to BOD Report.
15. Coordinate with CSC through the Interface Management process, and design the duct bank between interface pull boxes provided by Guideway DB Team and the TCCR.
16. Coordinate with Landscape Architect for hardscape design elements to be incorporated into the civil engineering design.

## B. Assumptions:

1. Design to be in accordance with the project design criteria, *HHCTCP Station Access and Modal Interface Report – Site Requirements in Station Area*, and concept sketches dated January 17, 2012 and updated March 9, 2012.
2. Park-and-ride facility or other intermodal facilities not to be designed for the station under this contract.
3. West Entrance Building not to be included. Site drainage for West Entrance Building or adjacent areas not to be investigated.
4. Site drainage for Station Entrance Building and adjacent areas to discharge to Kalo'i Drainage Channel.
5. WOFH Guideway drainage reports and plans to be provided with NTP#1b notification.
6. Hydrologic and hydraulic modeling and analysis for Kalo'i Drainage Channel to be provided by HART, and no additional hydraulic modeling to be required by the CONSULTANT.
7. Scour analysis to be performed for a 100-year and a 500-year storm event.
8. Existing traffic signals installed at the intersection of Kualaka'i Parkway with the East West Road not to be impacted by the station facility, and relocation or modifications not to be required.
9. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the original PE drawings.
10. Preliminary geotechnical guidance to be provided by NTP#1b + sixty (60) days by URS.
11. Development of plans to be contingent upon availability of current topographic mapping for the station area.
12. Potholing operations in this phase to be contingent upon obtaining approval of any permits required for this operation.

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C. Inputs:

1. HART standard specifications and details.
2. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
3. ROD mitigation requirements
4. HART input and direction
5. Hydraulic model for Kalo'i Drainage Channel provided by HART
6. As-builts for existing roadway facilities and utilities
7. Drawings showing planned future projects in the project area
8. Preliminary geotechnical memo by CONSULTANT
9. Watershed boundary maps, previous hydrologic drainage studies, FEMA Flood Insurance Rate Maps
10. Hardscape design guidelines and input to design, from Landscape Architect
11. WOFH Guideway Drainage BOD Report
12. WOFH Guideway Drainage Plans
13. *WOFH Guideway Scour Report, Kalo'i Drainage Channel*
14. Permitting requirements from Activity 215

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D. Deliverables:

1. PE design documents for the Entrance Building only, typically to include but not limited to:
    - a. utility plans
    - b. grading plans with site layout
    - c. drainage plans and profiles
    - d. post construction stormwater BMPs
  2. Draft Station Drainage Memorandum
  3. Draft and Final Channel Scour Analysis/Design Memorandum
  4. PE ROW Engineering maps
  5. Outline Contract Specifications
  6. Civil section of updated BOD Report for East Kapolei Station
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**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>200</b>	Revision No:

## A. Activity Description:

1. Develop PE design of scope as revised in the concept sketches dated January 17, 2012 and updated March 9, 2012.
2. Confirm the water and sewer service connections to the existing or the planned future water and sewer systems for station facilities services, and coordinate with the architectural, mechanical and landscape design personnel.
3. Conduct site investigation of existing utilities, including potholing, to advance the design from the preliminary level.
4. Coordinate with the station architect regarding the location of downspouts and final points of connection.
5. Determine impacts of the encroachment of station support columns into the Kalo'i Drainage Channel by reviewing the hydraulic model provided by HART.
6. Coordinate with utility owners and prepare utility plans for all new utilities, including provision of the sleeves for those future utilities in the utility corridor underneath the station plaza and provision of concrete jacket to protect the existing utilities underneath the station plaza.
7. Perform hydrologic and hydraulic analyses for the west station areas, including any off-site drainage areas tributary to those sites.
8. Perform channel scour analyses and design channel scour countermeasures, as necessary, in accordance with applicable project design criteria for all station support structures and building foundations that encroach into Kalo'i Drainage Channel ROW.
9. Analyze stormwater runoff quantities for the project area and develop BMPs to allow for treatment of stormwater run-off in the project area. Where possible, include natural water quality treatment LID BMPs in lieu of structural BMPs.
10. Prepare Draft Station Drainage Memorandum.
11. Coordinate with Authorities Having Jurisdiction in terms of drainage water quantity and water quality requirements in the vicinity of the UH West O'ahu Station.
12. Determine station drainage connection points including canopy-to-platform drainage connections, and preliminary station-to-Guideway drainage connection details.
13. Coordinate station drainage details with WOFH Guideway DB Team through the Interface Management process.
14. Update Civil input to BOD Report.
15. Coordinate with CSC through the Interface Management process, and design the duct bank between interface pull boxes provided by Guideway DB Team and the TCCR.
16. Coordinate with Landscape Architect for hardscape design elements to be incorporated into the civil engineering design.

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B. Assumptions:

1. Design to be in accordance with the project design criteria, *HHCTCP Station Access and Modal Interface Report – Site Requirements in Station Area*, and concept sketches dated January 17, 2012 and updated March 9, 2012.
2. The existing utilities within the station entrance sites will not be affected by the station design; therefore, relocation design not to be provided.
3. Park-and-ride facility or other intermodal facilities not to be designed for the station under this contract.
4. Site drainage for West Entrance Building and areas adjacent to West Entrance Building to connect to an existing catch basin on Kualaka'i Parkway.
5. WOFH Guideway drainage reports and plans to be provided with NTP#1b notification.
6. Water lateral up to the point of mechanical connection to be designed based on the final domestic fixture count and the final fire protection requirements. A standard 6-inch sewer lateral up to the ROW line may be further extended to the point of mechanical connection.
7. Hydrologic and hydraulic modeling and analyses for Kalo'i Drainage Channel to be provided by HART; no additional hydraulic modeling to be required by the CONSULTANT.
8. Scour analysis to be performed for a 100-year and a 500-year storm event.
9. Existing traffic signals installed at the intersection of Kualaka'i Parkway with the Campus Access Road not to be impacted by the station facility; no relocation or modifications to be required.
10. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the PE drawings.
11. Preliminary geotechnical guidance to be provided by NTP#1b + sixty (60) days.
12. Development of plans to be contingent upon availability of current topographic mapping for the station area.
13. Potholing operations in this phase to be contingent upon obtaining approval of any permits required for this operation.

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C. Inputs:

1. HART standard specifications and details
2. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
3. ROD mitigation requirements
4. HART input and direction
5. Hydraulic model for Kalo'i drainage channel provided by HART
6. As-builts for existing roadway facilities and utilities
7. Drawings showing planned future projects in the project area
8. As-builts or design package drawings for future East Campus Drive and access roads
9. Preliminary geotechnical memo by CONSULTANT
10. Watershed boundary maps, previous hydrologic drainage studies, FEMA Flood Insurance Rate Maps
11. Hardscape design guidelines and input to design from Landscape Architect
12. WOFH Guideway Drainage BOD Report
13. WOFH Guideway Drainage Plans
14. *WOFH Guideway Scour Report, Kalo'i Drainage Channel*
15. Permitting requirements from Activity 215

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D. Deliverables:

1. PE design documents, typically to include but not limited to:
    - a. utility plans
    - b. grading plans with site layout
    - c. drainage plans and profiles
    - d. post construction stormwater BMPs
  2. Draft Station Drainage Memorandum
  3. Draft and Final Channel Scour Analysis/Design Memorandum
  4. PE ROW Engineering maps
  5. Outline Contract Specifications
  6. Civil section of updated BOD Report for UH West O'ahu Station
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**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>210</b>	Revision No:

## Activity Description:

1. Develop PE design of scope revised in the concept sketches dated January 17, 2012 and updated March 9, 2012.
2. Confirm the water and sewer service connections to the existing or the planned future water and sewer systems for station facilities services and coordinate with the architectural, mechanical and landscape design personnel.
3. Coordinate with the station architect regarding the location of downspouts and final points of connection.
4. Perform hydrologic and hydraulic analyses for station area.
5. Evaluate drainage requirements for the project site and prepare Station Drainage Memorandum.
6. Prepare a grading plan. Determine the most practical point of discharge in coordination with the WOFH Guideway DB Team and the appropriate authority having jurisdiction.
7. Coordinate the water and sewer service connection requirements for planned future water and sewer systems for station facilities with HART, and incorporate into the architectural design.
8. Coordinate with utility owners and prepare preliminary utility plans for all required new utilities within the station site for future connection to local utilities.
9. Analyze stormwater runoff quantities for the project area and develop BMPs to allow for treatment of stormwater runoff in the project area. Where possible, include natural water quality treatment LID BMPs in lieu of structural BMPs.
10. Determine station drainage connection points including canopy-to-platform drainage connections, and preliminary station-to-Guideway drainage connection details.
11. Coordinate station drainage details with WOFH Guideway DB Team through the Interface Management process.
12. Prepare Draft Station Drainage Memorandum.
13. Coordinate with authorities having jurisdiction in terms of drainage water quantity and water quality requirements in the vicinity of the Ho'opili Station.
14. Update Civil input to BOD Report.
15. Coordinate with CSC through the Interface Management process, and design the duct bank between interface pull boxes provided by Guideway DB Team and the TCCR.
16. Coordinate with landscape architect for hardscape design elements to be incorporated into the civil engineering design.

## B. Assumptions:

1. PE design to be based on construction of the station before development of the area surrounding the station occurs.
2. Design to be in accordance with the project design criteria, *HHCTCP Station Access and Modal Interface Report – Site Requirements in Station Area*, and concept sketches dated January 17, 2012 and updated March 9, 2012.
3. WOFH Guideway Drainage reports and plans to be provided with NTP#1b notification.
4. Parking to be provided adjacent to the transit station for maintenance vehicles only. Park-and-ride lot not planned at this station.
5. Station utility services to be connected to future utilities in the vicinity of the proposed development. PE design to provide for points of connections to the future development infrastructure. All connections to be terminated at the property line. Locations for the connections to account for the possible extension of all utilities to allow station to function if the station is constructed prior to the proposed Ho'opili development. The nearest connection to be identified for water and sewer during PE design if the station is constructed before the development is constructed.
6. Irrigation water not to be required for the TPSS and Auxiliary Module or any other areas at this station.
7. Stormwater runoff will be drained utilizing sheet flow to green areas for TPSS and Auxiliary Module and associated parking.
8. Access roadways to be designed by others.
9. Revised plan deliverable, at a minimum, to include all applicable plan sets depicted in the PE drawings.
10. Preliminary geotechnical guidance to be provided by NTP#1b + sixty (60) days.
11. Development of plans to be contingent upon availability of current topographic mapping for the station area.

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C. Inputs:

1. Ho'opili Station Concept Sketches dated January 17, 2012 and updated March 9, 2012
2. HART standard specifications and details
3. ROD mitigation requirements
4. HART input and direction
5. Drawings showing planned future projects in the project area
6. Preliminary geotechnical memo by CONSULTANT
7. Watershed boundary maps, previous hydrologic drainage studies, FEMA Flood Insurance Rate Maps
8. Hardscape design guidelines and input to design from landscape architect
9. WOFH Guideway Drainage BOD Report
10. WOFH Guideway Drainage Plans
11. Permitting requirements from Activity 215

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D. Deliverables:

1. PE design documents, typically to include but not limited to:
    - a. civil site plans
    - b. grading plans with site layout
    - c. utility layout plans with assumed connection points to infrastructure
    - d. drainage plans, profiles
    - e. post construction stormwater BMPs
  2. Draft Station Drainage Memorandum
  3. PE ROW Engineering maps
  4. Outline Contract Specifications
  5. Civil section of updated BOD Report for Ho'opili Station
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**ACTIVITY DESCRIPTION**

<b>NTP#:</b> <b>1b Revision to Preliminary Engineering</b>	<b>Activity Responsibility:</b> <b>Richard Speer</b>	<b>Issue Date:</b>
<b>Activity:</b> <b>Permitting</b>	<b>WBS Code / ID number:</b> <b>215</b>	<b>Revision No:</b>

**A. Activity Description:**

1. Coordinate with the design team for design information and PE documents required for permit submissions under this phase of the work.
2. Prepare and submit Occupancy and Use of State Highway Permit related to the three (3) station sites and respond to comments as required to secure approval.
3. Prepare and submit Permit to Perform Work on State Highways related to the three (3) station sites and respond to comments as required to secure approval.

**B. Assumptions:**

1. Occupancy and Use of State Highway Permit to be applicable only to surveying activities.
2. Permit to Perform Work on State Highways will be required for geotechnical activities and potholing activities.
3. HART to pay any fees associated with permit applications.
4. HART to provide Hazardous Materials Technical Report covering the WOSG area in sufficient detail.
5. HART to provide Source Water Quality Assessment Report covering the WOSG area in sufficient detail.
6. No water quality testing is to be required.

**C. Inputs:**

1. Approved plans showing location of borings, traffic control, restoration, etc.
2. Bond payment by (drilling or potholing) subcontractor, for Permit to Perform Work on State Highways
3. ROD mitigation requirements
4. Station and Site PE documents as required for permitting activities
5. Location and number of geotechnical borings and potholing investigations
6. Durations and descriptions of geotechnical boring and potholing activities, and types of equipment to be utilized
7. Hazardous Materials Technical Report
8. Source Water Quality Assessment Report

**D. Deliverables:**

1. Approved Occupancy and Use of State Highway Permit
2. Approved Permit to Perform Work on State Highways
3. Approved Community Noise Permits for PE activities (geotechnical borings and potholing)
4. Other approved permits required to complete field testing activities under NTP#1b

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Alden Kajioka</b>	Issue Date:
Activity: <b>Topographical Survey</b>	WBS Code / ID number: <b>220</b>	Revision No:

## A. Activity Description:

1. Conduct a detailed topographic survey of all three (3) sites. Verify that horizontal and vertical controls conform to the requirements specified in the project design criteria.
2. Conduct the topographic survey for the wet utility connections.
3. Provide topographic details of existing roadways, utilities and other pertinent features for development of design drawings in one-inch-to-twenty-foot (1"-20') scale. Contours will be at one-foot (1') intervals.
4. Provide electronic plans in Civil 3D-compatible format.
5. Provide ROW acquisition mapping and support including modifying Tax Map Key maps.

## B. Assumptions:

1. All existing utilities to be reflected on the topographical survey, including depth.
2. Potholing to be conducted for some utility verification.
3. Staking and location of borings may be required.
4. All road and drainage ROWs to be reflected on the topographical survey.
5. Access to all sites to be provided to the topographical survey team.
6. Any permits required for this work to be in place prior to commencement of field work.
7. Coordination to be conducted with contractors working in the areas.
8. Topographic surveys to be tied into H RTP Primary Survey Control.
9. Field work to be subject to WOSG Safe Work Plan, including fire protection provisions.
10. No legal or topographical surveys are to be provided for utility easements.

## C. Inputs:

1. HART's LIDAR survey to be triangulated and provided in an AutoCAD-compatible format
2. Existing utility location plans
3. Land developer plans

## D. Deliverables:

1. Electronic 3D maps of each site, including point files and triangulated CADD files (DTM)
2. 2D planimetric features of each site

## ACTIVITY DESCRIPTION

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility:	<b>Larry Rapp</b>	Issue Date:
Activity:	<b>Geotechnical Engineering</b>	WBS Code / ID number:	<b>230</b>	Revision No:

### A. Activity Description:

1. Prepare preliminary geotechnical memo for WOSG stations.
2. Perform geotechnical field investigation to obtain subsurface information and design parameters. The following quantities and depths below existing grade of borings are anticipated:
  - a. **East Kapolei Station** (three (3)-level rectangular structure between rail lines, may be connected in future to pedestrian bridge): three (3) borings to eighty (80) feet.
  - b. **UH West O'ahu Station**, (Rectangular West Entrance Building, connected to pedestrian bridge crossing Kualaka'i Parkway to the Station, and then connecting the other side of the Station across the Kalo'i Drainage Channel to the small East entry): three (3) borings to one hundred twenty (120) feet and two (2) borings to sixty (60) feet (for bridge, deeper near channel, those at ends double for use at side of West Entrance building and east pedestrian ramp), and four (4) borings to thirty (30) feet (for West Entrance building and Ancillary Module building).
  - c. **Ho'opili Station** (there are two (2) sides, each with a stairwell/elevator, and each accessing column-supported gangways, plus an Ancillary Module and a TPSS: eight (8) borings (two (2) to thirty (30) feet and one (1) to fifty (50) feet on each side, one (1) to forty (40) feet at Ancillary module, and one (1) to ten (10) feet at the TPSS).
3. Perform laboratory testing of samples returned from field investigation. Depending on materials encountered, this would include moisture content, dry density, sieve analyses, plasticity indices, unconfined compression strength, consolidation, expansion index, chemical tests for corrosion potential, and triaxial tests for deep foundations.
4. Perform analyses and develop recommendations for design of the various structures.
5. Identify and document BMPs for drilling activities installed per requirements of NPDES permit.

### B. Assumptions:

1. Site geology consists primarily of older alluvium.
  - a. The proposed structures are square or rectangular shaped, entrance buildings at each station are one hundred twenty (120) to two hundred (200) feet long, and about thirty (30) to forty (40) feet wide.
  - b. Given the size of buildings and the anticipated geology, shallow foundations may be possible for the buildings, but deep foundations may be needed for the bridges and where long spans cross channels. These deep foundations may consist of drilled shafts or driven piles, depending on subsurface conditions encountered during the field investigation. However, to have some way of budgeting boring depths, it has been assumed that the deepest foundation would extend no more than forty (40) to fifty (50) feet below existing grade. In this way, the borings will extend about twenty (20) feet below the tip elevation of the foundation. Near the channel, the boring depths have been increased to allow for scour, thereby allowing for deeper foundations. For the buildings, borings are typically located on both ends of the building, as well as one (1) boring in the middle if the building is of sufficient length. Small, ancillary buildings (less than fifty (50) feet each side), such as bungalows, would have only one (1) boring. For the bridges and spans, borings would be placed in the area of primary columns. Where columns are proposed to be located within the channel, borings are proposed to be as close to the column location as practicable considering utility locations and safety. No borings are proposed within drainage channels.
2. Right-of-entry permits to private property to be in place prior to the start of field work.
3. Permits required for drilling activities to be prepared under Activity 215.
4. Any required approvals to be received prior to performing field investigations.

Key submittals requiring approval before the start of field investigations would be submitted for expedited review, that is fifteen (15)-day turnaround, and, exclusive of CONSULTANT's time to address HART's review comments, an additional fifteen (15) days for HART's verification that any and all comments have been adequately addressed as a prerequisite to HART's approval.
5. Thirty(30)-day turnaround for HART review of draft geotechnical data report and draft design report and an additional fifteen (15) days for HART's verification that any and all comments to be adequately addressed as a prerequisite to approval.
6. Geotechnical planning report will require a site visit (which requires site access) and is to be developed after the preliminary structural review (to fine tune boring locations) and review by HART.
7. CONSULTANT to use its internal equipment to tone for utilities during marking of boring locations. Potholing for utilities

West O'ahu Station Group

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also to be done under surveying task.

8. Hawai'i One Call to be notified after marking/staking of boring locations for utility clearance.
  9. No environmental contamination issues or protocols to be addressed during the investigation.
  10. Field work to be subject to WOSG SSSP including fire protection provisions.
  11. Draft geotechnical data report(s) and design reports to be completed no later than ninety (90) days after NTP#2 or ninety (90) days after drill rig site access is approved and provided to CONSULTANT, whichever is later.
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C. Inputs:

1. Available results of WOFH Guideway DB Team's geotechnical investigations
  2. Available geotechnical information from nearby projects, public records, and HART-provided reference information
  3. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
  4. Rough estimates of building loads
  5. Published geologic maps
  6. Preliminary site layout
  7. Existing utility layouts
  8. Project Quality Assurance Plan
  9. Project SSSP, including specific Geotechnical section
  10. Approved permits under Activity 215
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D. Deliverables:

1. Draft and final geotechnical planning reports which will include a Drilling and Sampling Plan – three (3) reports, one (1) for each station
  2. Memo describing preliminary geotechnical characterizations commensurate with this stage [NTP#1b] of the design.
  3. Memo describing any facility/structure requiring special attention
  4. Draft and final geotechnical data report(s) – three (3) reports, one (1) for each station
  5. Draft and final foundation design report(s) – three (3) reports, one (1) for each station. The reports will be prepared in accordance with design criteria requirements and recommendations will generally include the following:
    - a. Geotechnical characterizations
    - b. Identification of any facility/structure requiring special attention
    - c. Foundation type (such as shallow or deep foundations, and including the subsets of spread footings, mats, continuous footings, drilled piers, or driven piles if found appropriate)
    - d. Foundation design ( bearing or axial capacity, settlement)
    - e. Latest IBC seismic design parameters
    - f. Lateral earth pressures and resistance to lateral loads
    - g. Pavement design
    - h. Corrosion potential
    - i. Earthwork and site preparation
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**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>SHPD Archaeology and Architecture</b>	WBS Code / ID number: <b>251</b>	Revision No:
A. Activity Description:		
<ol style="list-style-type: none"> <li>1. Review reports.</li> <li>2. Meet with HART's archaeology firm as required.</li> <li>3. Meet with local/state/federal staff as required in coordination with HART.</li> <li>4. Adjust design to accommodate findings.</li> </ol>		
B. Assumptions:		
<ol style="list-style-type: none"> <li>1. HART will perform archaeological investigations and provide direction and recommendations to CONSULTANT.</li> </ol>		
C. Inputs:		
<ol style="list-style-type: none"> <li>1. Archaeological inventory survey report</li> <li>2. SHPD requirements</li> <li>3. Archaeological reports / architecture reports are not included in this contract</li> </ol>		
D. Deliverables:		
<ol style="list-style-type: none"> <li>1. Incorporate direction into the design documents as an additional service</li> <li>2. Provide plans for architectural review by SHPD and consulting parties</li> </ol>		

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>270</b>	Revision No:
A. Activity Description:		
<ol style="list-style-type: none"> <li>1. Revise current PE design and prepare drawings.</li> <li>2. Prepare code compliance review of PE design documents and identify major design issues, if necessary.</li> <li>3. Commence structural modeling of Station Entrance Building, Concourse, Canopy and Platform, and Ground Floor Foundation and Wall.</li> <li>4. Prepare preliminary load calculations.</li> <li>5. Coordinate with CSC and Guideway DB Team through the Interface Management process.</li> <li>6. Prepare Outline Specification.</li> <li>7. Update Structural section of the BOD Report.</li> </ol>		
B. Assumptions:		
<ol style="list-style-type: none"> <li>1. Revised architectural backgrounds to have been received.</li> <li>2. Preliminary geotechnical guidance to be received by NTP#1b + sixty (60) days.</li> <li>3. No sign bridges to be required.</li> <li>4. Ground floor slab of entrance building to be self-supporting so as to withstand scour.</li> </ol>		
C. Inputs:		
<ol style="list-style-type: none"> <li>1. PE documents.</li> <li>2. BOD Report</li> <li>3. Station module configuration conceptual sketches -- dated January 17, 2012 and updated March 9, 2012</li> <li>4. H RTP standard design documents and reports</li> <li>5. HART directive and standard drawings</li> </ol>		
D. Deliverables:		
<ol style="list-style-type: none"> <li>1. Conceptual structural framing and foundation plans, including identification of major member sizes and connection type</li> <li>2. Outline Contract Specifications</li> <li>3. Structural section of updated BOD Report for East Kapolei Station.</li> </ol>		

West O'ahu Station Group

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>280</b>	Revision No:

**A. Activity Description:**

1. Revise current PE design and prepare drawings.
2. Prepare code compliance review of PE design documents and identify major design issues, if necessary.
3. Commence structural modeling of West Entrance Building, Ancillary Module building, Concourse, Canopy and Platform and two (2) Pedestrian Bridges.
4. Prepare preliminary load calculations.
5. Coordinate with CSC and Guideway DB Team through the Interface Management process.
6. Prepare Outline Specification.
7. Update Structural section of BOD Report.

**B. Assumptions:**

1. Revised architectural backgrounds to have been received.
2. Preliminary geotechnical guidance to be received by NTP#1b + sixty (60) days.
3. No sign bridges to be required.
4. Clear-span to be required for pedestrian bridge over Kalo'i Channel, with no intermediate piers within channel. East abutment to be located outside HDOT ROW.

**C. Inputs:**

1. PE documents
2. BOD Report
3. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
4. HRTP standard design documents and reports
5. HART directive and standard drawings

**D. Deliverables:**

1. Conceptual structural framing and foundation plans, including identification of major member sizes and connection type
2. Outline Contract Specifications
3. Structural section of updated BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>290</b>	Revision No:

## A. Activity Description:

1. Revise current PE design and prepare drawings.
2. Prepare code compliance review of PE design documents and identify major design issues, if necessary.
3. Commence structural modeling of Makai Entrance Building, Mauka Entrance Building, Ancillary Module building, Canopy and Platform, and four (4) pedestrian bridges.
4. Prepare preliminary load calculations.
5. Coordinate with CSC and Guideway DB Team through the Interface Management process.
6. Prepare outline specification.
7. Update Structural section of BOD Report.

## B. Assumptions:

1. Revised architectural backgrounds to have been received.
2. Preliminary geotechnical guidance to be received by NTP#1b + sixty (60) days.
3. No sign bridges to be required.

## C. Inputs:

1. PE documents
2. Basis of design
3. Ho'opili Station Module sketches dated January 17, 2012 and updated March 9, 2012
4. H RTP standard design documents and reports
5. HART directive and standard drawings

## D. Deliverables:

1. Conceptual structural framing and foundation plans, including identification of major member sizes and connection type
2. Outline Contract Specifications
3. Structural section of updated BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Brett Libbe</b>	Issue Date:
Activity: <b>Mechanical Engineering, Fire Protection &amp; Plumbing</b>	WBS Code / ID number: <b>300</b>	Revision No:

**A. Activity Description:**

1. Obtain floor plan and section layouts from architectural team.
2. Select equipment and create cut sheets for review by HART and the architect.
3. Verify codes and standards applicable to the design.
4. Develop flow calculations and other calculations required for verifying service sizes of all main services.
5. Develop plumbing and HVAC plans, equipment schedules and room data sheets.
6. Update Mechanical sections of BOD reports.

**B. Assumptions:**

1. Requirements spelled out in the HART directives regarding plumbing and HVAC requirements to be followed. IBC, International Plumbing Code, International Mechanical Code, American Society of Heating, Refrigerating and Air Conditioning Engineers, and additional codes will be followed.
2. Rooms to be air conditioned in accordance with the *Compendium of Design Criteria*.
3. PE design to include:
  - a. stand-alone design for components included in WOSG construction package.
  - b. provision for equipment required to support identified future construction elements.
4. Where future additional equipment may be required, provision to be made for additional equipment when sizing mechanical rooms, piping, etc., in accordance with standard engineering practice.

**C. Inputs:**

1. Station module configuration conceptual sketches – dated January 17, 2012 and updated March 9, 2012
2. PE documents
3. BOD reports
4. HRTP standard design documents and reports
5. HART directive and standard drawings
6. Architectural backgrounds

**D. Deliverables:**

1. Calculations
2. Room data sheets
3. Equipment schedules & cut sheets
4. PE plumbing and HVAC plans
5. Outline Contract Specifications
6. Updated Mechanical sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Richard Moss</b>	Issue Date:
Activity: <b>Site Electrical Engineering</b>	WBS Code / ID number: <b>320</b>	Revision No:

## A. Activity Description:

1. Provide PE design for site electrical work including site lighting.
2. Interface with utility companies for medium- and low-voltage services to stations.
3. Communicate power needs to the station design electrical engineer.
4. Interface with the landscape architect to coordinate requirements for site lighting.
5. Update site Electrical sections of BOD reports.

## B. Assumptions:

1. CPTED principles to be followed for well-lit service parking areas.

## C. Inputs:

1. Station module configuration conceptual sketches – dated January 17, 2012 and updated March 9, 2012
2. Electrical service locations from utility company
3. HART lighting standards, including CPTED guidelines
4. Site background drawings

## D. Deliverables:

1. Electric utility service request letter
2. PE electrical construction documents including plans and Outline Contract Specifications
3. Updated site Electrical sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>David Bals</b>	Issue Date:
Activity:	<b>Station Electrical Engineering</b>	WBS Code / ID number: <b>330</b>	Revision No:

**A. Activity Description:**

1. Provide PE design of the lighting and power systems for the stations.
2. Route ducts and conduit provisions for signals and communications facilities in station and other facility areas.
3. Prepare outline electrical specifications.
4. Interface with site electrical engineering designer and other disciplines to understand power needs.
5. Develop specialized lighting design concepts for the stations in collaboration with the station architects.
6. Interface with the CSC through the Interface Management process to determine requirements for conduits and other components required to support the core systems.
7. Provide loads and designs for UPS requirements to the CSC through the Interface Management process for inclusion in the UPS system.
8. Update station Electrical sections of the BOD reports.
9. Prepare lightning protection study.
10. Include relocation of existing street lights and additional street lights necessitated by the station in the electrical design.

**B. Assumptions:**

1. Local utility to provide power to sites.
2. PE design to include:
  - a. stand-alone design for components included in WOSG construction package.
  - b. provision for equipment required to support identified future construction elements.
3. Equipment to be included in the WOSG package where it can be economically sized so as to accommodate both the WOSG construction elements and the future construction. Provision to be made for additional equipment when sizing electrical rooms, panels, etc., in accordance with standard engineering practice where future additional equipment may be required.

**C. Inputs:**

1. Station module configuration conceptual sketches – dated January 17, 2012 and updated March 9, 2012
2. Electrical service locations from utility company
3. HART electrical design standards
4. Architectural background drawings
5. Load requirements from site electrical designers and personnel from other disciplines

**D. Deliverables:**

1. PE electrical construction documents, including plans and Outline Contract Specifications
2. Electrical calculations
3. Lightning protection study
4. Updated Station Electrical sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Stan Duncan</b>	Issue Date:
Activity:	<b>Landscape Architecture</b>	WBS Code / ID number: <b>340</b>	Revision No:

## A. Activity Description:

1. Attend pertinent (landscape-related) design coordination meetings.
2. Coordinate the development of landscape and hardscape design with project architect, and mechanical and civil engineers.
3. Create landscape design concepts based on the PE design to meet project-required minimum standards.
4. Provide irrigation design as required to meet project-required minimum standards.
5. Prepare hardscape design intent documents to include input from client meetings, design directives and standards documents. Make all hardscape product selections and direct the civil engineers in the production of civil engineering drawings and specifications incorporating the hardscape items.
6. Update Landscape sections of the BOD reports.

## B. Assumptions:

1. Landscape architecture design to be based on the station module configuration conceptual sketches – dated January 17, 2012, and updated March 9, 2012.
2. Services to include landscape.
3. Landscape design to be based on Compendium of Design and previous work but respectful of limited construction budget.
4. Irrigation, including monitoring of irrigation system, to be part of the central control systems.
5. Hardscape to be included under civil engineering activities 190, 200 and 210 and not to be an excessive portion of the work, but may include textures, patterning and/or staining. Hardscape drawings generally to include primary walkway and plaza areas as well as any seating areas in and around the stations, and to include walkway and plaza finishes, landscape lighting (if required) and site furniture elements.
6. Public art to be incorporated only by indicating potential location on site plan. Design and/or detailing of public art not to be included in this activity.
7. East Kapolei
  - a. Limits are to the curb at the south and west thirty (30) feet north (using plan north) from the northernmost Guideway support and thirty (30) feet from the east building line.
8. UH West O'ahu
  - a. Limits at West Entrance Building are the curb and the property lines on the west (using plan north) and south.
  - b. No landscape/hardscape under the station.
  - c. No landscape/hardscape for the sloped east pedestrian bridge.
9. Ho'opili
  - a. For PE, limits are the station parcel boundaries.

## C. Inputs:

1. Station module configuration conceptual sketches – dated January 17, 2012 and updated March 9, 2012
2. HART project design policies and procedures
3. PE landscape concept design and standards
4. *Compendium of Design Criteria*

## D. Deliverables:

1. Landscape and irrigation PE design to meet project minimum requirements
2. Hardscape design intent document and design direction to civil engineers relating to hardscape design
3. Preliminary hardscape finish schedule
4. Outline Contract Specifications
5. Updated Landscape sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Station Signage</b>	WBS Code / ID number: <b>350</b>	Revision No:

## A. Activity Description:

1. Use the *Signage and Wayfinding Systems Manual* to understand requirements for signage locations and types.

## B. Assumptions:

1. All signage standards to have been developed and provided in a manual prepared by HART to accommodate identification, directional and information needs for platforms.
2. HART to provide manual indicating platform signage and wayfinding locations for the stations.
3. HART to provide manual indicating signage location and type of device.
4. Electronic message boards to be provided by others.

## C. Inputs:

1. *Project Signage and Wayfinding Systems Manual*
2. Outcomes of stakeholder meetings as required for architectural integration of site interpretive/archaeological signage and messaging
3. Criteria for electronic signage for train schedules and times provided by others

## D. Deliverables:

1. None

## ACTIVITY DESCRIPTION

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Ron Higbee / Sue Sherman</b>	Issue Date:
Activity: <b>Interface Management</b>	WBS Code / ID number: <b>360</b>	Revision No:

### A. Activity Description:

1. Develop *Passenger Station Interface Control Manual*.
2. Create list of stakeholders with HART's input.
3. Respond to and submit RFIDs through HART's CMS.
4. Hold stakeholder meetings, including an initial (kick-off) meeting.
5. Participate in monthly detailed interface resolution meetings.
6. Participate in bi-weekly interface coordination status meetings with the WOFH Guideway DB Team.
7. Participate in bi-weekly interface coordination status meetings with the CSC, and other affected interfacing contractors, such as elevator/escalator and station canopy contractors, as needed.
8. Distribute progress documents.
9. Participate in specific meetings for individual stakeholders as required for coordination.
10. Produce documents as specifically required by FTA.
11. Finalize and populate the Interface Management Tracking Matrix developed in Activity 100. Provide ongoing monitoring and updates of the matrix.
12. Update Interface Management sections of BOD reports.

### B. Assumptions:

1. Pertinent entities to be identified in consultation with HART.
2. Role and authority of each entity to be defined for CONSULTANT by HART.
3. Frequency of CONSULTANT attendance at interface coordination meetings to average four (4) times per month during the design phase.
4. Guideway DB Team and CSC to coordinate their activities with CONSULTANT, and to assign interface managers to facilitate coordination with this contract.

### C. Inputs:

1. Stakeholder and interface management parties list from HART
2. *Draft Interface Control Manual*, dated October 2009
3. Ongoing matrix review comments from HART
4. *WOSG Interface Management Plan* and draft Interface Management Tracking Matrix from Activity 100
5. Guideway Demarcation Section from Activity 100

### D. Deliverables:

1. Passenger Station Interface Control Manual
2. Stakeholder contact list
3. Regular updates to Interface Management Tracking Matrix
4. Meeting notes
5. Direction back to team
6. Updated Interface Management sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Andrew Tanton</b>	Issue Date:
Activity: <b>Estimate of Construction Quantities and Costs</b>	WBS Code / ID number: <b>380</b>	Revision No:
A. Activity Description: 1. Prepare an independent estimate of construction quantities and costs for the PE design.		
B. Assumptions: 1. HART to provide unit cost information and estimated construction start date. 2. Quantity estimate assumptions and approach to be coordinated with HART. 3. FFGA estimate and any updates to be provided by HART for comparison. 4. PE cost estimate to serve as the baseline estimate for the Project.		
C. Inputs: 1. Revised Preliminary Design documents 2. FFGA estimate, along with a list of assumptions made during its preparation		
D. Deliverables: 1. PE estimate of construction quantities and costs, escalated to year of expenditure 2. Quantity and cost variance report to HART-provided FFGA estimate		

## ACTIVITY DESCRIPTION

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Patricia Trauth</b>	Issue Date:
Activity: <b>Sustainability</b>	WBS Code / ID number: <b>390</b>	Revision No:

### A. Activity Description:

1. Collaborate with entire WOSG design team throughout phase.
2. Study EIS and other available documents to determine applicable strategies to implement sustainability at all three (3) WOSG stations.
3. Propose alternate sustainable technologies or construction practices to design team and HART.
4. Prepare draft LEED Checklist for each station.
5. Prepare draft Sustainability Report for each station.
6. Provide sustainable strategies to be highlighted in community presentations by each station design team.
7. Review each station design for implementation of approved sustainable strategies prior to community presentation.
8. Update Sustainability sections of BOD reports.

### B. Assumptions:

1. Sustainability to be considered a critical and integral part of WOSG design and construction.
2. Station teams to provide input to and accept direction from the Sustainability Report upon review and approval by HART.
3. Stations to aim to score the equivalent of LEED NC v3 Silver but projects will not be required to be registered with the GBCI or certified.

### C. Inputs:

1. HRTP Systemwide Sustainability Report
2. HRTP *Compendium of Design Criteria*, Chapter 26, Sustainability
3. Basis of Preliminary Design Report – dated 12/03/2010
4. Station Design Packages- Architectural Outline Specifications – dated 09/11/2009
5. Station Module Configuration Conceptual Sketches – dated January 17, 2012 and updated March 9, 2012
6. Standard Specifications
7. FEIS and ROD
8. Applicable Codes- per Honolulu.gov website; especially Chapter 32 Building Energy Conservation Code
9. *LEED NC v3 Reference Guide*

### D. Deliverables:

1. LEED Checklist and narrative for each station for HART review and comment
2. Support to station design teams for inclusion of sustainability in community presentations
3. Updated sustainability sections of BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility:	<b>Ruth Limtiaco</b>	Issue Date:
Activity:	<b>Public Involvement</b>	WBS Code / ID number:	<b>395</b>	Revision No:
A. Activity Description:				
<ol style="list-style-type: none"> <li>1. Participate in public involvement planning and presentations to be organized by others.</li> <li>2. Prepare presentation materials for use in public outreach sessions.</li> </ol>				
B. Assumptions:				
<ol style="list-style-type: none"> <li>1. CONSULTANT is not responsible for leading public outreach in connection with the stations.</li> <li>2. CONSULTANT will participate in up to three (3) public outreach meetings during this phase. Up to three (3) CONSULTANT team members will attend each of these meetings.</li> </ol>				
C. Inputs:				
<ol style="list-style-type: none"> <li>1. Public outreach plan prepared by others</li> <li>2. Images prepared by the Architectural Team</li> </ol>				
D. Deliverables:				
<ol style="list-style-type: none"> <li>1. Public outreach presentation materials</li> <li>2. Participation in public outreach sessions</li> </ol>				

**ACTIVITY DESCRIPTION**

NTP#:	<b>1b Revision to Preliminary Engineering</b>	Activity Responsibility:	<b>Bill Stuckey</b>	Issue Date:
Activity:	<b>Quality Review of PE Deliverables</b>	WBS Code / ID number:	<b>400</b>	Revision No:
A. Activity Description:				
<ol style="list-style-type: none"> <li>1. Perform detail checking of work products prior to submission to HART.</li> <li>2. Perform Independent Technical Review of work products prior to submission to HART.</li> <li>3. Perform Inter-disciplinary and Inter-Contract coordination review of work products prior to submission to HART.</li> <li>4. Checker(s) provide review comments to design team.</li> <li>5. Incorporate review comments into work products or discuss with reviewer to establish mitigation.</li> <li>6. Complete and file quality forms confirming review and incorporation of comments to reviewers' satisfaction.</li> </ol>				
B. Assumptions:				
<ol style="list-style-type: none"> <li>1. Adequate time for quality review to be incorporated into the project schedule.</li> </ol>				
C. Inputs:				
<ol style="list-style-type: none"> <li>1. Completed PE deliverables</li> <li>2. Project Quality Assurance Plan</li> </ol>				
D. Deliverables:				
<ol style="list-style-type: none"> <li>1. Reviewed PE deliverables inter-disciplinary and inter-contract incorporating quality review comments</li> <li>2. Documentation of quality assurance review</li> </ol>				

**ACTIVITY DESCRIPTION**

NTP#: <b>1b Revision to Preliminary Engineering</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>PE Submission Documents</b>	WBS Code / ID number: <b>410</b>	Revision No:
A. Activity Description:		
<ol style="list-style-type: none"><li>1. Assemble final PE deliverables, including incorporation of HART comments, into a comprehensive submittal package for NTP#1b.</li><li>2. Produce final electronic and hard copy deliverables in accordance with the contract requirements.</li></ol>		
B. Assumptions:		
<ol style="list-style-type: none"><li>1. Other direct printing costs associated with deliverables identified under this activity are included in the lump sum contract amount.</li></ol>		
C. Inputs:		
<ol style="list-style-type: none"><li>1. PE deliverables ready for printing, as produced under the various activities under NTP#1b</li></ol>		
D. Deliverables:		
<ol style="list-style-type: none"><li>1. Ten (10) copies of final PE documents</li><li>2. One (1) DVD containing original CADD files of final PE documents</li></ol>		

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Architecture: East Kapolei Station</b>	WBS Code / ID number: <b>420</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Coordinate with Guideway DB Team for station interface through the Interface Management process.
3. Prepare ID drawings; submit for HART review; develop sections and critical details.
4. Develop specifications.
5. Review for life-safety compliance.
6. Coordinate with HART's Arts Team for placement and incorporation.
7. Prepare and submit final ID drawings and specifications.
8. Prepare ADA Compliance Report.
9. Update the BOD Report.

**B. Assumptions:**

1. The revised PE design is accepted by HART through the submission review process, prior to NTP#2, and is to be adopted as the basis for ID.
2. Room and space requirements to be determined during NTP#1b.
3. HART to vet community input from public presentation for incorporation into ID.
4. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
5. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, are to be assembled into a single bid package.
6. CPTED principles are to be incorporated.
7. Elevator and escalator details shall be based on Standard and Directive Drawings and typical manufacturer details.
8. The West Entrance Building, and pedestrian bridge connecting West Entrance Building to station, are not to be included in this stage of the design. A knock-out panel is to be included in the Concourse wall at the future bridge connection point.
9. Only the identified design elements which form part of the final WOSG design package are to be included in this submission, as a standalone facility.

**C. Inputs:**

1. Approved NTP#1b documents
2. HART input during NTP#2 phase
3. Internal coordination and quality checks
4. Specification input prepared under Activities 430 and 440
5. BOD updates from other activities and disciplines
6. ID Construction Contract Documents prepared under Activities 430 and 440
7. Resolutions of HART review comments in NTP#1b phase
8. Final Guideway backgrounds

**D. Deliverables:**

1. ID Construction Contract Documents including Contract Specifications covering all three (3) stations for HART review
2. Code Review
3. Draft ADA Compliance Report
4. Updated BOD Report for East Kapolei Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Architecture: UH West O'ahu Station</b>	WBS Code / ID number: <b>430</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Coordinate with Guideway DB Team through the Interface Management process.
3. Prepare ID drawings; submit for HART review; develop sections and critical details.
4. Provide input to specifications being developed under Activity 420.
5. Review for life-safety compliance.
6. Coordinate with HART's Arts Team for placement and incorporation.
7. Prepare and submit final ID drawings and specifications.
8. Prepare ADA Compliance Report.
9. Update the BOD Report.

**B. Assumptions:**

1. The revised PE design is accepted by HART through the submittal review process, prior to NTP #2, and is adopted as the basis for ID.
2. Room and space requirements to be determined during NTP#1b.
3. HART to vet community input from public presentation for incorporation into ID.
4. CPTED principles are to be incorporated.
5. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be combined into a single bid package.
6. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
7. Elevator and escalator details shall be based on Standard and Directive Drawings and typical manufacturer details.
8. East Entrance building and pedestrian bridge over Kalo'i channel are not to be included at this stage of the design. A knock-out panel is to be provided in the Concourse wall at the future bridge connection point.
9. Only the identified design elements which form part of the final WOSG design package are to be included in this submission, as a standalone facility.

**C. Inputs:**

1. Approved NTP#1b documents
2. HART input during NTP#2 phase
3. BOD updates from other activities and disciplines
4. Internal Coordination and Quality Checks
5. Resolution of HART review comments in NTP#1b phase
6. Final Guideway backgrounds

**D. Deliverables:**

1. ID Construction Contract Documents for inclusion in ID package prepared under Activity 420
2. Code Review
3. Draft ADA Compliance Report
4. Updated BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#:	<b>2 Interim Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity:	<b>Architecture: Ho'opili Station</b>	WBS Code / ID number: <b>440</b>	Revision No:

## A. Activity Description:

1. Collaborate with entire WOSG design team throughout phase.
2. Coordinate with Guideway DB Team for Ancillary Module interface, through the Interface Management process.
3. Prepare TPSS and Ancillary Module ID drawings; submit for HART review; develop sections and critical details.
4. Prepare input to specifications being prepared under Activity 420.
5. Review for life-safety compliance.
6. Prepare and submit final ID.
7. Update the BOD Report.

## B. Assumptions:

1. The revised PE design is accepted by HART through the submittal review process, prior to NTP #2 and is adopted as the basis for ID.
2. Room and space requirements to be determined during NTP#1b.
3. HART will vet community input from public presentation for incorporation into ID.
4. CPTED principles are to be incorporated.
5. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be combined into a single bid package.
6. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
7. Elevator details shall be based on Standard and Directive Drawings and typical manufacturer details.
8. Station entry buildings, pedestrian bridges and platforms are not to be included at this stage of the design.
9. Only the identified design elements which form part of the final WOSG design package are to be included in this submission, as a standalone facility.

## C. Inputs:

1. Approved NTP#1b documents
2. HART input during NTP#2 phase
3. BOD updates from other activities and disciplines
4. Internal coordination and quality checks
5. Resolution of HART review comments in NTP#1b phase
6. Final Guideway backgrounds

## D. Deliverables:

1. ID Construction Contract Documents for HART review, for incorporation into ID contract package being prepared under Activity 420
2. Code Review
3. Updated BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>460</b>	Revision No:

**A. Activity Description:**

1. Prepare ID Civil Engineering Construction Documents.
2. Prepare construction BMPs for inclusion in NPDES permit application.
3. Update the Stormwater Management Memorandum covering the three (3) stations.
4. Reconcile surface features to underground utilities through further coordination with utility owners and additional field investigations and surveys, as required.
5. Coordinate with landscape architect.
6. Coordinate with architect, and structural, mechanical and electrical engineers.
7. Coordinate with Guideway DB Team through the Interface Management process.
8. Prepare Final Station Drainage Memorandum.
9. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. The revised PE to be accepted by HART through the submittal review process, prior to NTP #2, and is adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Pedestrian bridge connecting West Entrance Building to station not to be included.
5. Draft Geotechnical Report to be available no later than NTP#2+ sixty (60) days.

**C. Inputs:**

1. HART input during NTP#2 phase
2. Draft and final Geotechnical Report
3. Internal Coordination and Quality Checks
4. Resolution of HART review comments in NTP#1b phase
5. ID Construction Documents being prepared under Activities 470 and 480

**D. Deliverables:**

1. ID Civil Engineering Construction Documents covering all three (3) stations, typically including but not limited to:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans and profiles
  - e. utility plans and profiles
  - f. construction details
  - g. permanent BMP plans and details
  - h. construction BMP plans
  - i. maintenance of traffic control plans
  - j. ROW plan sheets
  - k. contract specifications
2. Final Station Stormwater Quality Memorandum for all three (3) stations
3. Final Station Drainage Memorandum
4. Estimate of cut and fill quantities
5. Updated Civil Site section of BOD Report for East Kapolei Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>470</b>	Revision No:

**A. Activity Description:**

1. Prepare ID Civil Engineering Construction Documents for inclusion in package being prepared under Activity 460.
2. Reconcile surface features to underground utilities through further coordination with utility owners and additional field investigations and surveys, as required.
3. Prepare construction BMPs for inclusion in NPDES permit application.
4. Coordinate with landscape architect.
5. Coordinate with architect, and structural, mechanical and electrical engineers.
6. Coordinate with Guideway DB Team through the Interface Management process.
7. Prepare Final Station Drainage Memorandum.
8. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. Revised PE design to be accepted by HART through the submission review process, prior to NTP #2 and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. East Entrance building and pedestrian bridge over Kalo'i channel not to be included at this stage of the design.
5. Draft Geotechnical Report to be available no later than NTP#2 + sixty (60) days.

**C. Inputs:**

1. HART input during NTP#2 phase
2. Draft and final Geotechnical Report
3. Internal coordination and quality checks
4. Resolution of HART review period in NTP#1b phase

**D. Deliverables:**

1. Input to ID Civil Engineering Construction Documents being assembled under Activity 460, typically including but not limited to:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans and profiles
  - e. utility plans and profiles
  - f. striping plans for parking lots
  - g. construction details
  - h. permanent BMP plans and details
  - i. construction BMP plans
  - j. maintenance of traffic control plans
  - k. ROW plan sheets
  - l. contract specifications
2. Input to Final Station Stormwater Quality Memorandum prepared under Activity 460
3. Input to Final Station Drainage Memorandum prepared under Activity 460
4. Estimate of cut and fill quantities
5. Updated Civil Site section of BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>480</b>	Revision No:

**A. Activity Description:**

1. Prepare ID Civil Engineering Construction Documents of the TPSS and Ancillary Module, and appurtenances, for inclusion in package being prepared under Activity 460.
2. Prepare construction BMPs for inclusion in NPDES permit application.
3. Reconcile surface features to underground utilities through further coordination with utility owners and additional field investigations and surveys, as required.
4. Coordinate with landscape architect.
5. Coordinate with architect, and structural, mechanical and electrical engineers.
6. Coordinate with Guideway DB Team through the Interface Management process.
7. Prepare Final Station Drainage Memorandum.
8. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. The revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Platform canopy and future escalators not to be included at this stage of the design.
5. Irrigation water not to be required for the TPSS and ancillary module.
6. Draft Geotechnical Report to be available no later than NTP#2 + sixty (60) days.

**C. Inputs:**

1. HART input during NTP#2 phase
2. Draft and Final Geotechnical Report
3. Internal coordination and quality checks
4. Resolution of HART review comments in NTP#1b phase

**D. Deliverables:**

1. Input to Interim Civil Engineering Construction Documents being assembled under Activity 460, typically including but not limited to:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans and profiles
  - e. construction details
  - f. permanent BMP plans and details
  - g. construction BMP plans
  - h. ROW plan sheets
  - i. contract specifications
2. Input to Final Station Stormwater Quality Memorandum prepared under Activity 460
3. Input to Final Station Drainage Memorandum prepared under Activity 460
4. Estimate of cut and fill quantities
5. Updated Civil Site section of BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Permitting</b>	WBS Code / ID number: <b>500</b>	Revision No:

**A. Activity Description:**

1. Prepare and submit NPDES General Permit Application (DOH CWB-NOI Form C) for stormwater associated with construction activities related to the three (3) station sites and respond to comments as required to secure approval.
2. Prepare and submit Community Noise Permit related to the three (3) station sites and respond to comments as required to secure approval.
3. Coordinate with the design team for design information and documents required for permit submissions under this phase of the work.

**B. Assumptions:**

1. The NPDES General Permit will be accepted by State of Hawaii Department of Health (DOH) and an Individual NPDES Permit will not be required.
2. East Kapolei and UH West O'ahu stations, along with Ho'opiil Station's TPSS and Ancillary Module, to be included in a single bid package.
3. A separate NPDES application will be prepared for each one of the three (3) stations.
4. HART to pay any fees associated with permit applications.
5. NPDES memoranda/reports for adjacent projects to be provided by HART for consistency in approach.
6. HART to provide Hazardous Materials Technical Report covering the WOSG area in sufficient detail.
7. HART to provide Source Water Quality Assessment Report covering the WOSG area in sufficient detail.
8. No water quality testing is to be required.
9. Deliverables under this activity are expected to lag other NTP#2 activities due to timing of input requirements.

**C. Inputs:**

1. NPDES General Permit Application
  - a. Project construction start and completion dates
  - b. Certifying person and owner information
  - c. Erosion control drawings and Best Management Plan (BMP) from civil design activities.
  - d. Location of discharge points into Receiving Waters and Receiving Drainage System
  - e. Existing pollution sources and land use history
  - f. Stormwater quantities (total from site and at each discharge point) and hydrologic calculations
  - g. Any relevant existing or pending permits or licenses
  - h. Contact information for person responsible for construction inspections
2. ROD mitigation requirements
3. Station and Site ID documents
4. Ongoing direction from HART on NPDES guidelines and decisions affecting the WOSG project
5. Relevant existing permits or permits obtained during this phase by other entities such as HART or the DB Team
6. Civil BMP design

**D. Deliverables:**

1. Completed NPDES General Permit Application (DOH CWB-NOI Form C)
2. Input into Final Station Stormwater Quality Memorandum

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>510</b>	Revision No:

**A. Activity Description:**

1. Coordinate design with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance design to a detailed working drawings and specifications level.
3. Continue with structural modeling.
4. Continue with calculations for all framing and lateral load systems.
5. Prepare details and drawing references.
6. Update the Structural section of the BOD Report.

**B. Assumptions:**

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and is adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Standard and directive documents to be utilized in the structural design of the station canopies. In addition, structural drawings and calculations for the canopy roof and support structure from the Farrington Station Group Project to be provided in electronic format, for modification as required for the design of this station.
5. Pedestrian bridge connecting West Entrance Building to station not to be included in this stage of the design.
6. Draft Geotechnical Report to be available no later than NTP#2 + sixty (60) days.

**C. Inputs:**

1. Approved NTP#1b documents
2. Comments from HART on approved documents
3. Initial comments from code officials
4. Architectural backgrounds
5. Draft and Final Geotechnical Report
6. Structural ID documents being prepared under Activities 520 and 530
7. Final Guideway backgrounds

**D. Deliverables:**

1. ID Construction Contract documents for all three (3) stations, to include member sizes and sections, depicted in the following typical documents:
  - a. roof framing plans and member sizes
  - b. floor framing plans and member sizes
  - c. foundation plans and types
  - d. platform and canopy structure
  - e. lateral system elevations
  - f. calculations
  - g. typical details
  - h. general structural notes
  - i. contract specifications
2. Updated Structural section of BOD Report for East Kapolei Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>520</b>	Revision No:

**A. Activity Description:**

1. Coordinate design with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance the design to a detailed working drawings and specifications level.
3. Continue with structural modeling.
4. Continue with calculations for all framing and lateral load systems.
5. Prepare details and drawing references.
6. Update the Structural section of the BOD Report

**B. Assumptions:**

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and to be adopted as basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Standard and directive documents to be utilized in the structural design of the station canopies. In addition, Structural drawings and calculations for the canopy roof and support structure from the Farrington Highway Station Group project to be provided in electronic format, for modification as required for to the design of this station.
5. The pedestrian bridge over Kualaka'i Parkway is to be included, but the pedestrian bridge over Kalo'i channel is not to be included at this stage of the design.
6. Draft Geotechnical Report to be available no later than NTP#2 + sixty (60) days.

**C. Inputs:**

1. Approved NTP#1b documents
2. Comments from HART on approved documents
3. Initial comments from code officials
4. Architectural backgrounds
5. Draft and final Geotechnical Report
6. Final Guideway backgrounds

**D. Deliverables:**

1. ID Construction Contract documents for inclusion with the ID package being prepared under Activity 510, to include member sizes and sections, depicted in the following typical documents:
  - a. roof framing plans and member sizes
  - b. floor framing plans and member sizes
  - c. foundation plans and types
  - d. pedestrian bridge elevations, plan and typical sections
  - e. platform and canopy structure
  - f. lateral system elevations
  - g. calculations
  - h. typical details
  - i. general structural notes
  - j. contract specifications
2. Updated Structural section of the BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>530</b>	Revision No:

**A. Activity Description:**

1. Coordinate design of the TPSS and Ancillary Module with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance the design to a detailed working drawings and specifications level.
3. Continue with structural modeling.
4. Continue with calculations for all framing and lateral load systems.
5. Begin detailing and drawing referencing.
6. Prepare details and drawing references.
7. Update the Structural section of the BOD Report.

**B. Assumptions:**

1. The revised PE design to be accepted by HART through the submittal review process, prior to NTP #2 and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Station entry buildings and platforms not to be included at this stage of the design.
5. Draft Geotechnical Report to be available no later than NTP#2 + sixty (60) days.

**C. Inputs:**

1. Approved NTP#1b documents
2. Comments from HART on approved documents
3. Initial comments from code officials
4. Architectural backgrounds
5. Draft and final Geotechnical Report
6. Final Guideway backgrounds

**D. Deliverables:**

1. ID construction contract documents for inclusion into the ID package being prepared under Activity 510, to include member sizes and sections, depicted in the following typical documents:
  - a. roof framing plans and member sizes
  - b. foundation plans and types
  - c. lateral system elevations
  - d. calculations
  - e. typical details
  - f. general structural notes
  - g. contract specifications
2. Updated Structural section of the BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Brett Libbe</b>	Issue Date:
Activity: <b>Mechanical Engineering / Fire Protection / Plumbing</b>	WBS Code / ID number: <b>540</b>	Revision No:

## A. Activity Description:

1. Develop ID HVAC and plumbing floor plan and section layouts in alignment with current updated plans from architectural Team, and utilizing current standards and practices determined earlier in design.
2. Complete flow calculations and other calculations for creating the final pipe, duct and equipment sizes and selections.
3. Continue development of plumbing and HVAC equipment schedules and room data sheets.
4. Update the Mechanical sections of the BOD reports.

## B. Assumptions:

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2 and to be adopted as the basis for ID.
2. Room and space requirements to be fully developed by architectural staff.
3. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
4. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
5. Only the identified design elements which form part of the final WOSG design package to be included in this submission.

## C. Inputs:

1. Approved NTP#1b documents as revised
2. Comments from HART on approved documents
3. Architectural backgrounds

## D. Deliverables:

1. More detailed calculations
2. Standard details
3. Expanded equipment schedules & cut sheets
4. Piping and ductwork plan development to pre-final quality
5. Contract Specifications
6. Updated Mechanical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Richard Moss</b>	Issue Date:
Activity: <b>Site Electrical Engineering</b>	WBS Code / ID number: <b>560</b>	Revision No:

**A. Activity Description:**

1. Prepare electrical ID drawings for site electrical work including site lighting.
2. Incorporate electrical standard details provided by HART and develop electrical details as required.
3. Include design of duct banks, vaults and wireways to accommodate core system elements to be designed by others.
4. Design conduit connecting the Ancillary Module at Ho'opili Station.
5. Update the site Electrical sections of the BOD reports.

**B. Assumptions:**

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Design of closed-circuit television conduit to the luminaire mounting poles for site surveillance not to be included in this scope.

**C. Inputs:**

1. Approved PE documents
2. Drawings and specifications depicting all core systems requiring duct banks, vaults and wireways.
3. Site background drawings

**D. Deliverables:**

1. Electric utility service request letter, Rev1
2. ID electrical construction documents
3. Updated site Electrical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>David Bals</b>	Issue Date:
Activity: <b>Station Electrical Engineering</b>	WBS Code / ID number: <b>570</b>	Revision No:

**A. Activity Description:**

1. Select electrical equipment, luminaires, switchgear, and panels, taking into consideration safety, durability, maintenance, sustainability and aesthetics.
2. Provide a schedule of electrical equipment and materials for use in preparing the estimate of construction quantities and costs.
3. Design lighting and power systems for the stations.
4. Design ducts and conduit provisions for signals and communications facilities in station and other facility areas.
5. Interface with site electrical engineering designer and other disciplines to update power needs.
6. Prepare electrical construction specifications.
7. Update the Station Electrical sections of the BOD reports.

**B. Assumptions:**

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.

**C. Inputs:**

1. Approved PE construction contract documents
2. Electrical service locations from utility company
3. HART electrical design standards
4. Architectural background drawings
5. Load requirements from site electrical designers and personnel from other disciplines
6. Final Guideway backgrounds

**D. Deliverables:**

1. ID Electrical Construction Contract Documents
2. Electrical calculations
3. Updated Station Electrical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

## ACTIVITY DESCRIPTION

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Stan Duncan</b>	Issue Date:
Activity: <b>Landscape Architecture</b>	WBS Code / ID number: <b>580</b>	Revision No:

### A. Activity Description:

1. Participate in landscape-related coordination meetings.
2. Prepare ID landscape planting, and irrigation documents and specifications to meet project minimum requirements.
3. Coordinate the development of landscape design with project architects, civil engineers and mechanical engineer.
4. Incorporate Guideway landscape design drawings and specifications into the package; coordinate specifications with those provided for the Guideway landscape design.
5. Update hardscape design intent documents if necessary for ID design. Update or verify hardscape product selections, if required, and direct the civil engineers in the production of civil engineering ID drawings and specifications incorporating the hardscape items.
6. Update the Landscape sections of the BOD reports.

### B. Assumptions:

1. Revised PE design to be accepted by HART through the submittal review process, prior to NTP #2, and to be adopted as the basis for ID.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Irrigation, including monitoring of irrigation system, to be part of the central control systems.
5. No landscape and irrigation design to be included with Ho'opili Station's TPSS and Ancillary Module.
6. Guideway landscape architecture drawings and specifications provided for incorporation into this contract to be stamped by others and to remain the responsibility of the original stamping professional.

### C. Inputs:

1. Approved revised PE documents
2. HART project design policies and procedures
3. Guideway landscape architecture drawings and specifications
4. *Compendium of Design Criteria*

### D. Deliverables:

1. ID Construction Contract documents including:
  - a. Hardscape finish plan
  - b. landscape planting
  - c. irrigation
  - d. site furniture
  - e. contract specifications
2. Hardscape guidance to civil engineers
3. Construction quantity estimates
4. Updated Landscape sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Station Signage</b>	WBS Code / ID number: <b>590</b>	Revision No:

**A. Activity Description:**

1. Use the *Signage and Wayfinding Systems Manual* to locate signage and types.
2. Refine on-site message schedules and mounting details.
3. Refine plans and design concepts for archaeological /interpretive signage opportunities on site and platform applications.
4. Refine signage development for interpretive area highlights.
5. Refine coordination requirements for cultural and historical interpretive signage with HART environmental group.
6. Provide TPSS and Ancillary Module building signage only at Ho'opili Station.
7. Update the Station Signage input to the BOD.

**B. Assumptions:**

1. Electronic message boards to be provided by others.

**C. Inputs:**

1. *Signage and Wayfinding Systems Manual*
2. Response and direction for criteria provided under NTP#1b for interpretive/archaeological signage opportunities from HART
3. Outcomes of stakeholder meetings as required for architectural integration of interpretive/archaeological signage and messaging

**D. Deliverables:**

1. Refined signage location plans and message schedule
2. Mounting details for signage and electronic messaging
3. ID location plan and contract documents for site-specific interpretive/archaeological storytelling
4. ID Contract Specifications
5. Updated Station Signage input to the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Ron Higbee/ Sue Sherman</b>	Issue Date:
Activity: <b>Interface Management</b>	WBS Code / ID number: <b>600</b>	Revision No:

**A. Activity Description:**

1. Identify interface issues for coordination. Respond to and submit RFIDs through HART's CMS.
2. Hold regularly scheduled monthly stakeholder meetings.
3. Participate in monthly detailed interface resolution meetings.
4. Participate in bi-weekly interface coordination status meetings with the WOFH Guideway DB Team.
5. Participate in bi-weekly interface coordination status meetings with the CSC, and other affected interfacing contractors, such as elevator/escalator and station canopy, as needed.
6. Participate in verification of ICD for interfacing partner submittals.
7. Distribute progress documents.
8. Participate in specific meetings for individual stakeholders as required for coordination.
9. Create documents as specifically required by FTA.
10. Maintain Interface Management Tracking Matrix. Provide ongoing monitoring and updates of the Matrix.

**B. Assumptions:**

1. Frequency of CONSULTANT attendance at interface coordination meetings to average four (4) times per month during the design phase.
2. Guideway DB Team and CSC to coordinate their activities with CONSULTANT, and to assign interface managers to facilitate coordination with this contract.

**C. Inputs:**

1. List of entities from HART
2. Ongoing coordination matrix review comments

**D. Deliverables:**

1. Responses to RFIDs
2. Meeting notes
3. Direction back to team
4. Provide documents required by FTA
5. Updated Interface Management Tracking Matrix

**ACTIVITY DESCRIPTION**

NTP#:	<b>2 Interim Design</b>	Activity Responsibility:	<b>Andrew Tanton</b>	Issue Date:
Activity:	<b>Estimate of Construction Quantities and Costs</b>	WBS Code / ID number:	<b>620</b>	Revision No:
A. Activity Description:				
<ol style="list-style-type: none"> <li>1. Prepare an estimate of construction quantities and costs for the ID, including assumptions.</li> <li>2. Incorporate the Guideway landscape architectural quantities provided by others, and coordinate unit costs.</li> <li>3. Revise cost estimate as necessary to reflect any redesign necessary to bring this cost estimate in line with PE baseline cost estimate established in Activity 380.</li> </ol>				
B. Assumptions:				
<ol style="list-style-type: none"> <li>1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.</li> </ol>				
C. Inputs:				
<ol style="list-style-type: none"> <li>1. ID documents, including specifications</li> <li>2. Estimate of Construction Quantities for Guideway landscape architectural design</li> <li>3. PE estimate</li> </ol>				
D. Deliverables:				
<ol style="list-style-type: none"> <li>1. Interim estimate of construction quantities and costs, escalated to year of expenditure</li> <li>2. Construction Quantity and Cost Variance Report to HART-provided FFGA estimate</li> <li>3. Cost reduction recommendations (if over budget)</li> </ol>				

**ACTIVITY DESCRIPTION**

NTP#:	<b>2 Interim Design</b>	Activity Responsibility:	<b>Patricia Trauth</b>	Issue Date:
Activity:	<b>Sustainability</b>	WBS Code / ID number:	<b>630</b>	Revision No:
A. Activity Description:				
<ol style="list-style-type: none"> <li>1. Collaborate with entire WOSG design team throughout phase.</li> <li>2. Update LEED checklist for each station.</li> <li>3. Prepare the Interim Sustainability Report for each station.</li> <li>4. Provide sustainable strategies to each station design team.</li> <li>5. Review each station design for implementation of approved sustainable strategies.</li> </ol>				
B. Assumptions:				
<ol style="list-style-type: none"> <li>1. Sustainability to be considered a critical and integral part of WOSG design and construction.</li> <li>2. Station teams to provide input to and accept direction from Sustainability Report upon review and approval by HART.</li> </ol>				
C. Inputs:				
<ol style="list-style-type: none"> <li>1. HART input during NTP#2 phase</li> <li>2. FEIS/ROD</li> <li>3. Applicable codes - per Honolulu.gov website; especially Chapter 32 Building Energy Conservation Code</li> <li>4. <i>LEED NCv3 Reference Guide</i></li> </ol>				
D. Deliverables:				
<ol style="list-style-type: none"> <li>1. LEED Checklist and narrative for each station for HART review and comment</li> <li>2. Support to Interface Management for inclusion of sustainability</li> </ol>				

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Bill Stuckey</b>	Issue Date:
Activity: <b>Quality Review of ID Deliverables</b>	WBS Code / ID number: <b>640</b>	Revision No:

- A. Activity Description:
1. Perform detail checking of work products prior to submission to HART.
  2. Perform Independent Technical Review of work products prior to submission to HART.
  3. Perform coordination review of work products prior to submission to HART.
  4. Provide review comments from checker(s) to design team.
  5. Incorporate review comments into work products or discuss with reviewer to establish mitigation.
  6. Complete and file quality forms confirming review and incorporation of comments to reviewers' satisfaction.
- 
- B. Assumptions:
1. Adequate time for quality review to be incorporated into the project schedule.
- 
- C. Inputs:
1. Completed ID deliverables
  2. Project Quality Assurance Plan
- 
- D. Deliverables:
1. Reviewed ID deliverables incorporating quality review comments
  2. Documentation of quality review

**ACTIVITY DESCRIPTION**

NTP#: <b>2 Interim Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>ID Submission Documents</b>	WBS Code / ID number: <b>650</b>	Revision No:

- A. Activity Description:
1. Assemble deliverables from all ID activities, incorporating HART comments, into a comprehensive submittal package.
  2. Produce electronic and hard copy versions of final deliverables in accordance with the contract requirements.
- 
- B. Assumptions:
1. Other direct printing costs associated with deliverables identified under this activity are included in the lump sum contract amount.
  2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
- 
- C. Inputs:
1. ID deliverables ready for printing, as produced under the various activities under NTP#2
- 
- D. Deliverables:
1. Ten (10) copies of final ID documents
  2. One (1) DVD containing original CADD files of final ID documents

**ACTIVITY DESCRIPTION**

NTP#:	<b>3 Final Design</b>	Activity Responsibility:	<b>Peter Styx</b>	Issue Date:
Activity:	<b>Architecture: East Kapolei Station</b>	WBS Code / ID number:	<b>660</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Complete construction and permit-ready drawings.
3. Prepare final specifications covering all three (3) stations.
4. Incorporate HART-provided Division 1 Standard Specifications into specifications.
5. Review for accessibility, security and wayfinding compliance.
6. Complete final coordination with HART's Arts Team for placement and incorporation.
7. Submit draft FD to HART for review.
8. Prepare and submit FD.
9. Assist HART in procuring plan approvals from all authorities having jurisdiction prior to contract award in preparation of building permits.
10. Update the BOD Report.

**B. Assumptions:**

1. HART to review and comment on design development through final design prior to permit issue.
2. Internal quality reviews to be completed and closed out prior to permit issue.
3. Design to accommodate elevators and escalators.
4. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
5. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
6. Elevator and escalator details shall be based on Standard and Directive Drawings and typical manufacturer details.
7. West Entrance Building, and Pedestrian Bridge connecting West Entrance Building to station not to be included in this stage of the design.

**C. Inputs:**

1. Approved NTP#2 documents
2. HART input during NTP#3 phase
3. Internal coordination and quality checks
4. Resolution of HART review comments
5. Final comments from archaeological and historic stakeholders received
6. BOD updates from other activities and disciplines
7. ID bid documents and input to specifications prepared under Activities 670 and 680
8. HART's front-end (bidding, contracting, insurance requirements, etc.)

**D. Deliverables:**

1. Stamped and signed FD construction contract documents
2. Stamped and signed contract drawings required for submittal to City and County Department of Planning and Permitting for review
3. Reconciliation of comments from Department of Planning and Permitting review
4. Stamped and signed contract drawings to all other authorities having jurisdiction for review
5. Reconciliation of comments from other authorities having jurisdiction
6. Minutes of comment resolution meeting for all disciplines
7. Updated BOD Report for East Kapolei Station

**ACTIVITY DESCRIPTION**

NTP#:	<b>3 Final Design</b>	Activity Responsibility:	<b>Peter Styx</b>	Issue Date:
Activity:	<b>Architecture: UH West O'ahu Station</b>	WBS Code / ID number:	<b>670</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Complete construction and permit-ready drawings.
3. Provide input to final specifications being prepared under Activity 660.
4. Review for accessibility, security and wayfinding compliance.
5. Complete final coordination with HART's Arts Team for placement and incorporation.
6. Submit draft FD to HART for review.
7. Prepare and submit FD.
8. Assist HART in procuring plan approvals from all authorities having jurisdiction prior to contract award in preparation of building permits.
9. Update the BOD Report.

**B. Assumptions:**

1. HART to review and comment on design development through final design prior to permit issue.
2. Internal quality reviews to be completed and closed out prior to permit issue.
3. Design to accommodate elevators and escalators.
4. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module to be included in a single bid package.
5. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
6. Elevator and escalator details shall be based on Standard and Directive Drawings and typical manufacturer details.
7. Pedestrian bridge over Kalo'i channel not to be included at this stage of the design.

**C. Inputs:**

1. Approved NTP#2 Documents
2. HART input during NTP#3 phase
3. Internal coordination and quality checks
4. Resolution of HART review comments
5. BOD updates from other activities and disciplines
6. Final comments from archaeological and historic stakeholders

**D. Deliverables:**

1. Stamped and signed FD construction contract documents for inclusion in package being prepared under Activity 660
2. Stamped and signed contract drawings required for submittal to City and County Department of Planning and Permitting for review
3. Reconciliation of comments from Department of Planning and Permitting review
4. Stamped and signed contract drawings to all other authorities having jurisdiction for review
5. Reconciliation of comments from other authorities having jurisdiction
6. Minutes of comment resolution meeting for all disciplines
7. Updated BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Architecture: Ho'opili Station</b>	WBS Code / ID number: <b>680</b>	Revision No:

**A. Activity Description:**

1. Collaborate with entire WOSG design team throughout phase.
2. Complete construction and permit-ready drawings for the TPSS and Ancillary Module.
3. Complete input to final specifications being prepared under Activity 660.
4. Review design for accessibility, security and signage compliance.
5. Submit draft FD to HART for review.
6. Prepare and submit FD.
7. Assist HART in procuring plan approvals from all jurisdictional authorities prior to contract award in preparation of building permits.
8. Update the BOD Report.

**B. Assumptions:**

1. HART to review and comment on design development through final design prior to permit issue.
2. Internal quality reviews to be completed and closed out prior to permit issue.
3. Design to accommodate elevators.
4. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module to be included in a single bid package.
5. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
6. Elevator details shall be based on Standard and Directive Drawings and typical manufacturer details.
7. Only the TPSS and Ancillary Module and appurtenances to be included at this stage of the design.

**C. Inputs:**

1. Approved NTP#2 documents
2. HART input during NTP#3 phase
3. Internal coordination and quality checks
4. Resolution of HART review comments
5. BOD updates from other activities and disciplines
6. Final comments from archaeological and historic stakeholders are received

**D. Deliverables:**

1. Stamped and signed FD construction contract documents for incorporation into package being prepared under Activity 660
2. Stamped and signed contract drawings required for submittal to City and County Department of Planning and Permitting for review
3. Reconciliation of comments from Department of Planning and Permitting review
4. Stamped and signed contract drawings to all other authorities having jurisdiction for review
5. Reconciliation of comments from other authorities having jurisdiction
6. Minutes of comment resolution meeting for all disciplines
7. Updated BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>700</b>	Revision No:

**A. Activity Description:**

1. Complete the civil engineering construction documents.
2. Submit and revise plans for agency approvals as required.
3. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. HART to review and comment on design development through final design prior to permit issue.
4. Internal quality reviews to be completed and closed out prior to permit issue.
5. West Entrance Building and Pedestrian Bridge connecting West Entrance Building to station not to be included in this stage of the design.
6. Construction BMPs, such as silt fences and truck wash-off areas, to be shown on civil plans for agency approval.
7. Prepared final Stormwater Management Memorandum for all three (3) stations.

**C. Inputs:**

1. HART input during NTP#3 phase
2. Internal coordination and quality checks
3. Construction documents being prepared under Activities 710 and 720
4. Stormwater Management Memorandum sections being prepared under Activities 710 and 720
5. Resolution of review comments

**D. Deliverables:**

1. Stamped and signed FD civil engineering construction documents covering all station locations, typically including but not limited to the following:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans, profiles, and details
  - e. utility plans and profiles
  - f. construction details
  - g. post construction BMP plans and details
  - h. construction BMP plans and details
  - i. maintenance of traffic plans
  - j. ROW plan sheets
  - k. contract specifications
2. Estimate of cut and fill quantities
3. Submission of all utility service requests
4. Updated Civil Site section of BOD for East Kapolei Station
5. Final Stormwater Management Memorandum for all three (3) stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>710</b>	Revision No:

**A. Activity Description:**

1. Provide input to complete civil engineering construction documents being prepared under Activity 700.
2. Submit and revise plans for agency approvals as required.
3. Update the section of the Stormwater Management Memorandum for UH West O'ahu Station.
4. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. HART to review and comment on design development through final design prior to permit issue.
4. Internal quality reviews to be completed and closed out prior to permit issue.
5. East Entrance building and pedestrian bridge over Kalo'i channel not to be included at this stage of the design.
6. Construction BMPs, such as silt fences and truck wash-off areas, to be shown on civil plans for agency approval.

**C. Inputs:**

1. HART input during NTP#3 phase
2. Internal coordination and quality checks
3. Resolution of review comments

**D. Deliverables:**

1. Stamped and signed FD civil engineering construction documents for inclusion in package being prepared under Activity 700, typically including but not limited to the following:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans, profiles, and details
  - e. utility plans and profiles
  - f. construction details
  - g. post construction BMP plans and details
  - h. construction BMP plans and details
  - i. maintenance of traffic plans
  - j. ROW plan sheets
  - k. contract specifications
2. Submission of all utility service requests
3. Updated section of Stormwater Management Memorandum for inclusion in report being prepared under Activity 700
4. Estimate of cut and fill quantities
5. Updated Civil Site section of BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Civil Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>720</b>	Revision No:

**A. Activity Description:**

1. Provide input to complete civil engineering construction documents being prepared under Activity 700.
2. Submit and revise plans for agency approvals as required.
3. Update the section of the Stormwater Management Memorandum for Ho'opili Station.
4. Update the Civil section of the BOD Report.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. HART to review and comment on design development through final design prior to permit issue.
4. Internal quality reviews to be completed and closed out prior to permit issue.
5. Station entry buildings and platforms not to be included at this stage of the design.
6. Construction BMPs to be, such as silt fences and truck wash-off areas, to be shown on civil plans for agency approval .

**C. Inputs:**

1. HART input during NTP#3 phase
2. Internal coordination and quality checks
3. Resolution of review comments

**D. Deliverables:**

1. Stamped and signed FD civil engineering construction documents for input to package being prepared under Activity 700, typically including but not limited to the following:
  - a. general construction notes
  - b. civil site plans
  - c. grading plans
  - d. drainage plans, profiles, and details
  - e. construction details
  - f. post construction BMP plans and details
  - g. construction BMP plans and details
  - h. ROW plan sheets
  - i. contract specifications
2. Estimate of cut and fill quantities.
3. Updated section of Stormwater Management Memorandum being prepared under Activity 700
4. Updated Civil sections of BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>Permitting</b>	WBS Code / ID number: <b>730</b>	Revision No:

## A. Activity Description:

1. Prepare and submit the following permits related to the three (3) station sites, and respond to comments as required to secure approval:
  - a. HDOT MS4 Storm Drain Connection
  - b. City MS4 Storm Drain Connection
  - c. UH MS4 Storm Drain Connection
  - d. Sewer Connection Permit
  - e. Flood Hazard District Compliance
  - f. State SUP
  - g. SCAP
  - h. Grading, grubbing, stockpiling, trenching permits
2. Coordinate with the design team design information and documents required for permit submissions under this phase of the work.

## B. Assumptions:

1. Permanent BMP approvals to be completed by designer through the plan review process and are not part of the scope of work for this activity.
2. Site Development Plan approvals to be completed by designer through standard plan review process outlined in other activities and will not be part of this activity.
3. Flood Hazard District Compliance to be limited to completion of the Floodway District Certification.
4. A single consolidated State SUP application to be accepted by the issuing agency to cover all project improvements within the State Agricultural District.
5. A single consolidated SCAP application to be accepted by the issuing agency to cover all project improvements within the applicable stream channel.
6. Permit to Perform Work on State Highways for construction of the station to be completed by the contractor.
7. Plans for construction will be approved through standard plan review process and are not to be part of this activity.
8. UIC permit applications are not to be required, because any dry wells installed under the project will be wider than they are deep.
9. BMP designs to be based on current construction permit requirements; if additional requirements are imposed as a result of the new construction permit regulations being implemented following the date of this agreement, associated changes are to be revised as a scope change.
3. HART to pay any fees associated with permit applications.
4. NPDES memoranda/reports for adjacent projects to be provided by HART for consistency in approach.
5. HART to provide Hazardous Materials Technical Report covering the WOSG area in sufficient detail.
6. HART to provide Source Water Quality Assessment Report covering the WOSG area in sufficient detail.
7. No water quality testing is to be required.
8. Permits associated with construction are to be submitted by the CONSULTANT for payment and pickup by the construction contractor.

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C. Inputs

1. State Storm Drain Connection information from civil design activities, including:
  - a. Brief description of connections(s) and/or discharge, including size, type of discharge, flow rate and Drainage Report
  - b. Description of permanent BMPs and written documents for future maintenance of the permanent BMPs from civil design activities
2. City Storm Drain Connection information from civil design activities, including:
  - a. Brief description of connections(s), including size, inflow type, flow rate and location.
  - b. Drainage plan showing locations of the drain connections
  - c. Permanent BMP plan, including maintenance schedule
  - d. Type of discharge and total estimated quantity or flow rates for storm water runoff, roof drains, and ground water seepage
3. Sewer Connection Application information from civil design activities, including:
  - a. category and quantity of waste water
  - b. new water meter size
  - c. connection description
  - d. description of existing structures on site
4. Floodway District Certification information from design activities, including:
  - a. elevation information featuring signature and stamp of designer
5. SUP information from design activities, including:
  - a. details on proposed uses, hours of operations, number of persons on site, and use of all structures
  - b. site plans showing all structures, easements, driveways and setbacks
  - c. landscape plans showing proposed landscaping
  - d. details on proposed structures including building heights, parking areas, grading, setbacks and buffering from adjoining parcels
  - e. infrastructure requirements for wastewater, potable water, drainage and flooding, and utilities
6. SCAP information from design activities, including:
  - a. details on proposed alteration to stream channel including types of materials, quantities, volumes of excavation and fill, disposal, construction methods, and liability during construction
  - b. topographic site plans and elevation plans
7. Grading, grubbing, stockpiling, trenching permits:
  - a. Erosion control calculations
  - b. Grading plan and quantities
  - c. Estimated start and completion dates of construction
8. Existing permits or permits obtained during this phase by other entities such as HART or the DB Team
9. ROD mitigation requirements
10. Direction from HART on NPDES guidelines and decisions in effect throughout the design of the project

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D. Deliverables:

1. Approved permit for State Storm Drain Connection
  2. Approved permit for City Storm Drain Connection
  3. Approved permit for UH Storm Drain Connection
  4. Approved permit for Sewer Connection Permit
  5. Approved Floodway District Certification
  6. Approved SUP
  7. Approved SCAP
  8. Approved Grading, Grubbing, Stockpiling, Trenching Permits
  9. Other approved permits as required per Section 1.iv
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**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: East Kapolei Station</b>	WBS Code / ID number: <b>750</b>	Revision No:

**A. Activity Description:**

1. Coordinate final design with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance design to a final, detailed construction drawings and specifications stage.
3. Finalize structural modeling.
4. Finalize calculations for all framing and lateral load systems.
5. Complete detailing and drawing referencing.
6. Attend any meetings required for design coordination.
7. Update the Structural section of the BOD Report.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. HART to approve the FD layout.
4. West Entrance Building and Pedestrian Bridge connecting West Entrance Building to station not to be included in this stage of the design.

**C. Inputs:**

1. Approved NTP#2 documents
2. Comments from HART on approved documents
3. Final comments from code officials
4. Final architectural backgrounds
5. FD construction contract documents prepared under Activities 760 and 770

**D. Deliverables:**

1. Signed and stamped FD construction contract documents covering all station locations, typically including but not limited to the following:
  - a. roof and floor framing plans and member sizes
  - b. foundation plans and member sizes
  - c. platform and canopy structure
  - d. lateral system elevations and member sizes
  - e. general structural notes and typical details
  - f. structural details
  - g. structural calculations
  - h. structural contract specifications
2. Updated Structural section of the BOD Report for East Kapolei Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: UH West O'ahu Station</b>	WBS Code / ID number: <b>760</b>	Revision No:

**A. Activity Description:**

1. Coordinate final design with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance design to a final, detailed construction drawings and specifications stage for inclusion in package being prepared under Activity 750.
3. Finalize structural modeling.
4. Finalize calculations for all framing and lateral load systems.
5. Complete detailing and drawing referencing.
6. Attend any meetings required for design coordination.
7. Update the Structural section of the BOD Report.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. HART to approve the FD layout.
4. The pedestrian bridge over Kualaka'i Parkway is to be included, but the East Entrance building and the pedestrian bridge over Kalo'i channel are not to be included at this stage of the design.

**C. Inputs:**

1. Approved NTP#2 documents
2. Comments from HART on approved documents
3. Final comments from code officials
4. Final architectural backgrounds

**D. Deliverables:**

1. Signed and stamped FD construction contract documents for input to package being prepared under Activity 750, typically including but not limited to the following:
  - a. roof and floor framing plans and member sizes
  - b. foundation plans and member sizes
  - c. platform and canopy structure
  - d. pedestrian bridge elevations, plan and typical sections
  - e. lateral system elevations and member sizes
  - f. general structural notes and typical details
  - g. structural details
  - h. structural calculations
  - i. structural contract specifications
2. Updated Structural section of the BOD Report for UH West O'ahu Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Mark Holter</b>	Issue Date:
Activity: <b>Structural Engineering: Ho'opili Station</b>	WBS Code / ID number: <b>770</b>	Revision No:

**A. Activity Description:**

1. Coordinate final design of the TPSS and Ancillary Module with architectural, civil, mechanical, electrical and plumbing drawings.
2. Advance design to a final, detailed construction drawings and specifications stage for inclusion in package being prepared under Activity 750.
3. Finalize structural modeling.
4. Finalize calculations for all framing and lateral load systems.
5. Complete detailing and drawing referencing.
6. Attend any meetings required for design coordination.
7. Update the Structural section of the BOD Report.

**B. Assumptions:**

1. HART to approve the FD layout.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
4. Station entry buildings, pedestrian bridges and platforms not to be included at this stage of the design.

**C. Inputs:**

1. Approved NTP#2 documents
2. Comments from HART on approved documents
3. Final comments from code officials
4. Final architectural backgrounds

**D. Deliverables:**

1. Signed and stamped FD construction contract documents for inclusion in package being prepared under Activity 750, typically including but not limited to the following:
  - a. roof framing plans and member sizes
  - b. foundation plans and member sizes
  - c. lateral system elevations and member sizes
  - d. general structural notes and typical details
  - e. structural details
  - f. structural calculations
  - g. structural contract specifications
2. Updated Structural section of the BOD Report for Ho'opili Station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Brett Libbe</b>	Issue Date:
Activity: <b>Mechanical Engineering / Fire Protection / Plumbing</b>	WBS Code / ID number: <b>780</b>	Revision No:

**A. Activity Description:**

1. Develop FD floor plan and section layouts in alignment with current updated plans from Architectural Team.
2. Complete final flow calculations and other calculations for creating the final pipe, duct and equipment sizes and selections.
3. Coordinate with the landscape architect and the civil engineer for water supply to irrigation systems.
4. Update the Mechanical sections of the BOD reports.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. Room and space requirements to be fully developed; final plan to be developed.

**C. Inputs:**

1. Approved NTP#2 documents
2. Comments from HART on approved documents
3. Final comments from code officials
4. Final architectural backgrounds

**D. Deliverables:**

1. Stamped and signed construction contract documents, typically including but not limited to the following:
  - a. plumbing floor and roof plans
  - b. mechanical equipment schedules
  - c. HVAC equipment and duct plans
  - d. fire hose standpipe plans
2. Final detailed calculations
3. Final equipment schedules & cut sheets
4. Updated Mechanical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>David Bals/ Richard Moss</b>	Issue Date:
Activity: <b>Site Electrical Engineering</b>	WBS Code / ID number: <b>800</b>	Revision No:

## A. Activity Description:

1. Interface with utility companies for medium- and low-voltage services to stations and TPSSs.
2. Complete FD Construction Contract Documents for site electrical work, including site lighting.
3. Include the design of duct banks, vaults and wireways for core system elements as designed by others.
4. Update the Site Electrical sections of the BOD reports.

## B. Assumptions:

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.

## C. Inputs:

1. ID construction contract documents for electrical design and review comments
2. FD background site drawings

## D. Deliverables:

1. Stamped and signed FD construction contract documents, typically including but not limited to the following:
  - a. power plans
  - b. electrical load calculations
  - c. one-line diagrams
  - d. schedules
2. PE electric utility service request letter
3. Site lighting, photometric calculations
4. Updated Site Electrical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>David Bals</b>	Issue Date:
Activity: <b>Station Electrical Engineering</b>	WBS Code / ID number: <b>810</b>	Revision No:

**A. Activity Description:**

1. Prepare FD electrical construction contract documents, design lighting and power systems for the station.
2. Prepare FD construction contract documents for ducts and conduit provisions for signals and communications facilities in the station and other facility areas, including:
  - a. closed-circuit television cameras,
  - b. public address systems,
  - c. passenger emergency telephones,
  - d. emergency/firefighter telephones,
  - e. intrusion detectors,
  - f. fire alarm system devices, and
  - g. fiber optic and multi-conductor telecommunications/data cabling.
3. Design emergency management panels for fire department use.
4. Update the Station Electrical sections of the BOD reports.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.

**C. Inputs:**

1. Approved NTP#2 documents
2. Comments from HART on approved documents
3. Final comments from code officials
4. Final architectural backgrounds

**D. Deliverables:**

1. Stamped and signed construction contract documents, typically including but not limited to the following:
  - a. power, lighting and signal plans
  - b. electrical load calculations
  - c. one-line diagrams
  - d. feeder riser diagrams
  - e. schedules
  - f. fire alarm devices
2. Updated Station Electrical sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Stan Duncan</b>	Issue Date:
Activity: <b>Landscape Architecture</b>	WBS Code / ID number: <b>820</b>	Revision No:

**A. Activity Description:**

1. Prepare FD construction contract documents for hardscape, planting and irrigation.
2. Coordinate with project architect, artist, civil, electrical and mechanical engineers.
3. Incorporate Guideway landscape FD drawings and specifications into the package; coordinate specifications with those provided for the Guideway landscape design.
4. Update the Landscape sections of the BOD reports.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. All review comments, including selection of design changes to bring estimated construction cost within PE baseline estimate, to be compiled and reconciled by HART and provided to CONSULTANT within allowed review period.
3. Landscape and irrigation design not to be included with Ho'opili Station's TPSS and Ancillary Module.
4. Irrigation, including monitoring of irrigation system, to be part of the central control systems.
5. Guideway landscape architecture drawings and specifications provided for incorporation into this contract to be stamped by others and to remain the responsibility of the original stamping professional.

**C. Inputs:**

1. ID landscape design and review comments
2. FD architectural and civil engineering design documents

**D. Deliverables:**

1. Stamped and signed FD construction contract documents, typically including but not limited to the following:
  - a. landscape planting plans
  - b. plant material schedule
  - c. irrigation plans
  - d. site furniture plans and details
2. Construction quantity estimates
3. Updated Landscape sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>Station Signage</b>	WBS Code / ID number: <b>830</b>	Revision No:

**A. Activity Description:**

1. Coordinate final attachments, conduit, electrical, illumination and engineering requirements based on specific trade requirements.
2. Prepare FD on-site message schedules.
3. Prepare FD plans and drawings for archeological /interpretive signage opportunities on site and platforms applications.
4. Produce FD map graphics for archeological interpretive signage.
5. Produce FD text, copy and/or storylines with Honolulu historians as required by the programmatic agreement.
6. Update the Station Signage sections of the BOD reports.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. Electronic message boards to be provided by others.

**C. Inputs:**

1. Review and approval of messaging for each station provided by HART
2. Approval of designs for interpretive/archeological signage opportunities from HART

**D. Deliverables:**

1. Stamped and signed FD construction contract documents, including:
  - a. interpretive/archeological FD drawings
  - b. final signage location plans and message schedules and mounting details
3. Updated Station Signage sections of the BOD reports for East Kapolei, UH West O'ahu and Ho'opili stations

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Ron Higbee / Sue Sherman</b>	Issue Date:
Activity: <b>Interface Management</b>	WBS Code / ID number: <b>840</b>	Revision No:

**A. Activity Description:**

1. Identify interface issues for coordination.
2. Respond to and submit RFIDs through HART's CMS.
3. Participate in final stakeholder meetings.
4. Participate in monthly detailed interface resolution meetings.
5. Participate in bi-weekly interface coordination status meetings with the WOFH Guideway DB Team.
6. Participate in bi-weekly interface coordination status meetings with the CSC, and other affected interfacing contractors, such as elevator/escalator and station canopy contractors, as needed.
7. Create ICD to accompany key submittals.
8. Create documents as specifically required by FTA.
9. Maintain Interface Management Tracking Matrix. Provide ongoing monitoring and updates of the matrix.

**B. Assumptions:**

1. Frequency of CONSULTANT attendance at interface coordination meetings to average four (4) times per month during the design phase.
2. Guideway DB Team and CSC to coordinate their activities with CONSULTANT, and to assign interface managers to facilitate coordination with this contract.

**C. Inputs:**

1. List of entities from HART
2. Ongoing coordination matrix review comments

**D. Deliverables:**

1. Responses to RFIDs
2. Meeting notes
3. Provide documents required by FTA
4. Updated Interface Management Tracking Matrix

**ACTIVITY DESCRIPTION**

NTP#:	<b>3 Final Design</b>	Activity Responsibility:	<b>Andrew Tanton</b>	Issue Date:
Activity:	<b>Quantity and Cost Estimates</b>	WBS Code / ID number:	<b>860</b>	Revision No:

## A. Activity Description:

1. Prepare an estimate of construction quantities and costs for the FD, including assumptions.
2. Incorporate Guideway landscape quantities and coordinate unit rates.
3. Revise cost estimate as necessary to reflect any redesign necessary to bring this cost estimate in line with PE baseline cost estimate established in Activity 380.

## B. Assumptions:

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.

## C. Inputs:

1. FD documents, including specifications

## D. Deliverables:

1. FD estimate of construction quantities and costs, escalated to year of expenditure
2. Construction Quantity and Cost Variance Report to HART-provided FFGA estimate
3. Consultant recommendations for each station (if over budget)

**ACTIVITY DESCRIPTION**

NTP#:	<b>3 Final Design</b>	Activity Responsibility:	<b>Patricia Trauth</b>	Issue Date:
Activity:	<b>Sustainability</b>	WBS Code / ID number:	<b>870</b>	Revision No:

## A. Activity Description:

1. Collaborate with entire WOSG design team throughout phase.
2. Update LEED checklist for each station.
3. Prepare Final Sustainability Report for each station.
4. Review each station design for implementation of approved sustainable strategies.

## B. Assumptions:

1. Sustainability to be considered a critical and integral part of WOSG design and construction.
2. Station designers to provide input to and accept direction from the Sustainability Report upon review and approval by HART.
3. CONSULTANT not to submit documentation to GBCI design review.

## C. Inputs:

1. HART input and direction gathered during NTP#3
2. FEIS/ROD
3. Applicable Codes - per Honolulu.gov website, especially Chapter 32 Building Energy Conservation Code
4. *LEED NCv3 Reference Guide*

## D. Deliverables:

1. Submit LEED checklist and narrative for each station

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Bill Stuckey</b>	Issue Date:
Activity: <b>Quality Review of FD Deliverables</b>	WBS Code / ID number: <b>880</b>	Revision No:

## A. Activity Description:

1. Perform detail checking of work products prior to submission to HART.
2. Perform Independent Technical Review of work products prior to submission to HART.
3. Perform coordination review of work products prior to submission to HART.
4. Provide review comments from checker(s) to design team.
5. Incorporate review comments into work products or discuss with reviewer to establish mitigation.
6. Complete and file quality forms confirming review and incorporation of comments to reviewers' satisfaction.

## B. Assumptions:

1. Adequate time for quality review to be incorporated into the project schedule.

## C. Inputs:

1. Completed FD deliverables
2. Project Quality Assurance Plan

## D. Deliverables:

1. Reviewed FD deliverables incorporating quality review comments
2. Documentation of quality review

**ACTIVITY DESCRIPTION**

NTP#: <b>3 Final Design</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>FD Submission Documents</b>	WBS Code / ID number: <b>890</b>	Revision No:

**A. Activity Description:**

1. Create sheet index.
2. Create specification section index.
3. Create deliverables list for hard-copy and electronic formats.
4. Prepare final construction documents and specifications.
5. Prepare final BOD reports in .pdf format.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. HART to provide approval.
3. Reviews and comments to be received from all key stakeholders, including all code officials.
4. Reviews and comments by authorities having jurisdiction to be coordinated and resolved by CONSULTANT.
5. All conflicting comments to be resolved by HART prior to distributing FD construction contract documents.
6. Printing costs associated with deliverables identified under this activity are included in the lump sum contract amount.

**C. Inputs:**

1. Construction documents
2. Quality reviews

**D. Deliverables:**

1. Minutes of comment disposition meeting for all disciplines
2. One (1) set of stamped, signed and dated design calculations in hard copy and .pdf files
3. One (1) set of stamped and signed FD construction contract drawings for all disciplines in hard copy (Mylar), an original CADD electronic copy (on DVD), and a .pdf copy (on DVD)
4. One (1) set of stamped and signed FD construction contract specifications for all disciplines in hard copy (paper), and a .pdf copy plus original CADD MS Word files (on DVD)
5. One (1) set of complete FD contract documents in native file formats (on DVD)
6. Final quantity and cost estimates
7. Building Code summary
8. FD materials and finishes presentation boards and photographs
9. ADA Accessibility Report.
10. Final BOD reports in .pdf format

**ACTIVITY DESCRIPTION**

NTP#: <b>4 – Design Support during Bidding</b>	Activity Responsibility: <b>Peter Styx</b>	Issue Date:
Activity: <b>NTP#4 – Design Support during Bidding</b>	WBS Code / ID number: <b>900</b>	Revision No:

**A. Activity Description:**

1. Respond to all RFIs requiring CONSULTANT input; obtain HART review and approval prior to posting.
2. Provide recommendations to HART in case of cost overruns as part of bid negotiations and contract award.
3. Participate in bidders' meetings arranged by others.

**B. Assumptions:**

1. This phase to be paid on a time-and-materials basis.
2. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
3. RFIs to be received by HART prior to CONSULTANT review, and determined whether RFI response is the purview of Agency, CONSULTANT or a combination of both.
4. This phase to include only one (1) bidders' meeting.
5. Bid period to be no more than eight (8) weeks in length.

**C. Inputs:**

1. RFIs needing response from CONSULTANT received from HART
2. Review of CONSULTANT responses by HART prior to posting for contractors
3. WOSG project agreement and supporting documentation

**D. Deliverables:**

1. Responses to contractor questions
2. Recommendations in the event of cost overruns, as required

**ACTIVITY DESCRIPTION**

NTP#: <b>5 – Design Support during Construction</b>	Activity Responsibility: <b>Richard Speer</b>	Issue Date:
Activity: <b>NTP#5 – Design Support during Construction</b>	WBS Code / ID number: <b>910</b>	Revision No:

**A. Activity Description:**

1. Assist HART/Contractor in building permitting certification process.
2. Process submittals and maintain a submittal log.
3. Process RFIs.
4. Respond to and support RFIDs.
5. Participate in interface resolution meetings either by phone or at the contractor's field office.
6. Attend weekly HART/contractor meetings.
7. Provide periodic site observations.
8. Review closeout documentation including O&M manuals and commissioning reports.
9. Produce record drawings from contractor "red-line" drawings in accordance with HART's plan standards.
10. Prepare changes to FD construction documents as directed by HART.

**B. Assumptions:**

1. East Kapolei and UH West O'ahu stations, along with Ho'opili Station's TPSS and Ancillary Module, to be included in a single bid package.
2. This phase to be paid on a time-and-materials basis.
3. Services not to include full-time site observations.
4. Periodic site observation by architect not to exceed one (1) visit per month.
5. The landscape architect and civil, structural, mechanical and electrical engineers to visit the site on an as-needed basis during active periods of construction for their respective disciplines for no more than six (6) site visits per discipline throughout the construction period.
6. During periodic site observation, the consultant will visit the site: (a) to become generally familiar with and to keep HART informed about the progress and the quality of the portion of the work completed, (b) to endeavor to guard HART against defects and deficiencies in the work, and (c) to determine in general if the work is being performed in a manner indicating that the work, when fully completed, will be in general accordance with the contract documents.
7. HART/contractor meetings to occur on a weekly basis for up to three (3) hours, to be attended by one (1) staff person; personnel from additional disciplines to be limited to a maximum of four (4) person-hours per meeting.
8. Participation in interface meetings to occur on a bi-weekly basis for up to one and one-half (1.5) hours per meeting.
9. Special inspections to be conducted by others.
10. Meeting minutes to be provided by others.
11. Testing to be performed by others.
12. Certificate of substantial completion to be provided by others.
13. Contract payment approval (for contractor's work) to be provided by others.
14. Punch list to be provided by others.

**C. Inputs:**

1. Permit documents
2. Approved FD (construction documents)
3. "Red-line" drawings prepared by contractor

**D. Deliverables:**

1. Reviewed submittals
2. Responses to written RFI's
3. Site visit reports
4. Comments from review of O&M manuals and commissioning reports
5. Contract documents reflecting design changes as requested by HART
6. Record drawings per plan standards and one (1) copy of the native CADD file on DVD.

## List of Acronyms

ADA – Americans with Disabilities Act of 1990

BMP – Best Management Practice

BOD – Basis of Design

CADD – Computer Aided Design and Drafting

CMS – Contract Management System (an Oracle Primavera software system)

CPTED – Crime Prevention Through Environmental Design

CSC – Core Systems Contractor

CSSP – (HRTP) Construction Safety and Security Plan

DB – Design-Build

DVD – Digital Video Disk

ECP – Environmental Compliance Plan

FD – Final Design (performed by the consultant under NTP#2 of this contract)

FEIS – Final Environmental Impact Statement

FEMA – Federal Emergency Management Agency

FFGA – Full Funding Grant Agreement

FTA – Federal Transit Administration

GBCI – Green Building Certification Institute

GIS – Geographic Information System

HART – Honolulu Authority for Rapid Transportation

HDOT – State of Hawai'i Department of Transportation

HECO – Hawaiian Electric Company

HHCTCP – Honolulu High-Capacity Transit Corridor Project (former acronym, now superseded by HRTP, used herein only as part of a document title)

HRTP – Honolulu Rail Transit Project

HVAC – Heating, Ventilation and Air Conditioning

IBC – International Building Code

ICD – Interface Control Document

ID – Interim Design (performed by the consultant under NTP#2 of this contract)

iSMS – RTD-designated safety document management system

LEED – Leadership in Energy and Environmental Design

LEED NCv3 – LEED New Construction version 3 (checklist)

LID – Low Impact Development

LiDAR – Light Detection And Ranging

NPDES – National Pollutant Discharge Elimination System

NTP – Notice to Proceed

O&M – Operations and Maintenance

P6 – (Primavera) P6 (scheduling software)

PA – Programmatic Agreement

PE – Preliminary Engineering (design performed by the consultant under NTP#1b of this contract)

PMP – Project Management Plan

QA – Quality Assurance

QC – Quality Control

RFI – Request for Information

RFID – Request For Interface Data  
ROD – Record of Decision  
ROW –Right-of-way  
RTD – Rapid Transit Division (former acronym, now superseded by HART, used herein only as part of a document title)  
SHPD – (Department of Land and Natural Resources) State Historic Preservation Division  
SM – Schedule of Milestones  
SSSP – Site Safety and Security Plan  
SUP – Special Use Permit  
SCAP – Stream Channel Alteration Permit  
TCCR – Train Control and Communications Room  
TPSS – Traction Power Substation  
UH – University of Hawai'i  
UPS – Uninterruptible Power Supply  
WBS – work breakdown structure  
WOFH – West O'ahu/Farrington Highway  
WOSG - West O'ahu Station Group

**SPECIAL PROVISIONS  
EXHIBIT 2A**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
WEST O'AHU STATION GROUP**

**CONTRACT COST ESTIMATE**

**EXHIBIT 2A  
CONTRACT COST ESTIMATE**

<u>Notice to Proceed</u>	<u>Cost</u>
1a: PREPARE SCHEDULE OF MILESTONES	\$326,420.19
1b: REVISION TO PRELIMINARY ENGINEERING (PE)	\$2,064,756.68
2: INTERIM DESIGN (ID)	\$2,203,220.85
3: FINAL DESIGN (FD)	\$978,182.11
4: DESIGN SUPPORT DURING BIDDING	\$55,725.80
5: DESIGN SUPPORT DURING CONSTRUCTION	<u>\$445,806.39</u>
Total Contract Amount	\$6,074,112.02
Allowance for Extra Work	<u>\$1,714,887.98</u>
Total Aggregate Amount	\$7,789,000.00

**SPECIAL PROVISIONS  
EXHIBIT 2B**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
WEST O'AHU STATION GROUP**

**COMPENSATION AND INVOICING**

## EXHIBIT 2B COMPENSATION AND INVOICING

1. Subject to the provisions set forth in this Agreement, 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. The amount to be paid to the CONSULTANT shall be computed as hereinafter set forth; provided that such payment shall not exceed the amount of SIX MILLION SEVENTY-FOUR THOUSAND ONE HUNDRED TWELVE AND 02/100 DOLLARS (\$6,074,112.02), which includes all costs and fees associated with this Agreement, subject only to authorized adjustments as specifically provided for in this Agreement. In the event the CONSULTANT incurs costs or fees in excess of the Total Contract Amount, adjusted as provided herein, the CONSULTANT shall pay such excess from its own funds and shall have no claim against HART for payment of such excess.

2. The CONSULTANT shall submit a proposed Schedule of Milestones within thirty-seven (37) 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**

APPROVED SCHEDULE OF MILESTONES\*

<u>Milestone</u>	<u>Amount</u>
NTP #1a Schedule of Milestones	\$326,420.19
NTP #1b Revision to Preliminary Engineering	\$2,064,756.68
NTP #2 Interim Design (ID)	\$2,203,220.85
NTP #3 Final Design (FD)	\$978,182.11
NTP #4 Design Support During Bidding	\$55,725.80
NTP #5 Design Support During Construction	<u>\$445,806.39</u>
Total Contract Amount	\$6,074,112.02
Allowance for Extra Work	<u>\$1,714,887.98</u>
Total Aggregate Amount	\$7,789,000.00

\*Upon issuance of NTP #1a, the CONSULTANT is to provide a Schedule of Milestones to HART within thirty-seven (37) days. 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.



Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to The Limtiaco Company

(Name of Subcontractor/Consultant)

to perform the following type of work:

Public Involvement.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$29,000.00.

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:**

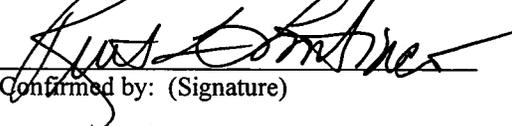
  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Ruth L. Limtiaco  
(Printed Name)

C.E.O.  
(Title)

May 30, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to Urban Works, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Code Compliance/ Architectural QC / backup Architect.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$74,809.98.

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)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

LORIN MATSUNAGA  
(Printed Name)

VICE PRESIDENT  
(Title)

May 30, 2012  
(Date)



Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to SSFM International, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Scour Analysis & Utility Research, Permitting.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$126,720.85.

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)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Lee T. Takushi  
(Printed Name)

Vice President  
(Title)

May 30, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to ControlPoint Surveying, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Topographic Survey/Utility Potholing.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$105,466.00.

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:**

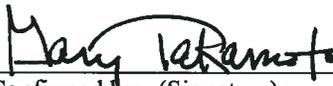
  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Gary Takamoto  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)



Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to PBR Hawaii & Associates, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Landscape Architecture.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$80,031.46.

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:**

G. Richard Speer  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

R. Stan Duncan  
Confirmed by: (Signature)

R. Stan Duncan  
(Printed Name)

Executive Vice President  
(Title)

May 30, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to Moss Engineering, Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

Electrical Code Compliance and Site Electrical.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$68,382.93.

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:**

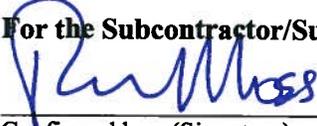
  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Richard M. Moss  
(Printed Name)

President  
(Title)

May 30, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to Notkin Hawaii Inc.  
(Name of Subcontractor/Consultant)

to perform the following type of work:

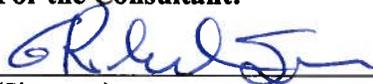
Mechanical/Plumbing/Fire Protection Code Compliance/QC.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$12,870.00.

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:**

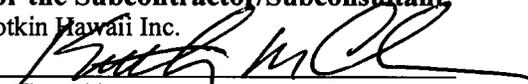
  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

Notkin Hawaii Inc.  
  
Confirmed by: (Signature)

Keith M. Chan  
(Printed Name)

Its President  
(Title)

May 31, 2012  
(Date)

Honolulu Rail Transit Project

**EXHIBIT 4**  
**LETTER OF SUBCONTRACT INTENT**

URS Corporation intends to subcontract Work for the  
West O'ahu Station Group Project to Cumming Corporation  
(Name of Subcontractor/Consultant)  
to perform the following type of work:

Quantity and Cost Estimating.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The minimum value of the Subcontract is \$107,138.42.

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:**

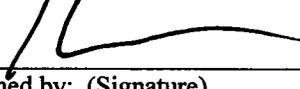
  
(Signature)

G. Richard Speer  
(Printed Name)

Vice President  
(Title)

May 31, 2012  
(Date)

**For the Subcontractor/Subconsultant:**

  
Confirmed by: (Signature)

Andrew Tanton  
(Printed Name)

Managing Director  
(Title)

May 30, 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, Afsaneh Sunnie House, Vice President, hereby  
(Name of Certifying Officer) (Title of Certifying Officer)

certify that URS Corporation:  
(Name of Contractor/Consultant)

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation by any Federal department or agency or from participation in City and County of Honolulu Project No. ROS-DTS-1000854;
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.

URS Corporation  
Name of Consultant

615 Pi'ikoi Street, Suite 900  
Street Address

Honolulu, Hawai'i 96814-3141

City, State, Zip

808-593-1116

Telephone Number

  
Signature of Certifying Officer

(Note: The above certification merely certifies that the Consultant and its subcontractors are not declared by the Federal Government or have not voluntarily declared themselves debarred, suspended, or declared ineligible from doing transactions with the Federal Government or any of its agencies.)

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
Lower Tier Covered Transactions**

- 1) The prospective lower tier participant (Subcontractor/Subconsultant) certifies, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in Contract No SC-14RT-1200116 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

Ruth L. Limtiaco  
Typed or Printed Name

The Limtiaco Company  
Company Name

May 31, 2012  
Date

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

  
\_\_\_\_\_  
Signed

LORRIN MATSUNAGA  
\_\_\_\_\_  
Typed or Printed Name

Urban Works, Inc.  
\_\_\_\_\_  
Company Name

5.30.12  
\_\_\_\_\_  
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-120016 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

Richard M. Sato

\_\_\_\_\_  
Typed or Printed Name

Sato & Associates, Inc.

\_\_\_\_\_  
Company Name

May 30, 2012

\_\_\_\_\_  
Date

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

  
\_\_\_\_\_  
Signed

Lee T. Takushi  
\_\_\_\_\_  
Typed or Printed Name

SSFM International, Inc.  
\_\_\_\_\_  
Company Name

May 30, 2012  
\_\_\_\_\_  
Date

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

  
\_\_\_\_\_  
Signed

Gary Takamoto  
\_\_\_\_\_  
Typed or Printed Name

ControlPoint Surveying, Inc.  
\_\_\_\_\_  
Company Name

May 31, 2012  
\_\_\_\_\_  
Date

Honolulu Rail Transit Project

---

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)



Signed

Francine S. Egdamin  
Typed or Printed Name

Hawaii Test Borings, Inc  
Company Name

May 30, 2012  
Date

**EXHIBIT 6**  
**CERTIFICATE REGARDING INELIGIBLE SUBCONTRACTORS**

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion  
Lower Tier Covered Transactions**

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- 2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation.

(60 FR 33042, 33064, June 26, 1995)

*R. Stan Duncan*

Signed

*R. Stan Duncan*

Typed or Printed Name

PBR Hawaii & Associates, Inc.

Company Name

*5/30/12*

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-1200116 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

Richard M. Moss  
\_\_\_\_\_  
Typed or Printed Name

Moss Engineering, Inc.  
\_\_\_\_\_  
Company Name

5/31/2012  
\_\_\_\_\_  
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-1200116 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 His President.

Keith M. Chan  
Typed or Printed Name

Notkin Hawaii Inc.  
Company Name

May 31, 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. 56-HRT-1200116 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



Andrew Tanton  
Typed or Printed Name

Cumming Corporation  
Company Name

Date

5/30/2012

**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, URS Corp., 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: URS Corporation

Signature: Afsaneh House

Print Name: Afsaneh Sunnie House

Title: Vice President

Date: 5/29/12

**NOTE: THE CONSULTANT IS REQUIRED PURSUANT TO FEDERAL LAW, TO INCLUDE THE ABOVE LANGUAGE IN SUBCONTRACTS OVER \$100,000 AND TO OBTAIN THIS LOBBYING CERTIFICATE FROM EACH SUBCONTRACTOR BEING PAID \$100,000 OR MORE UNDER THIS CONTRACT.**

**SPECIAL PROVISIONS  
EXHIBIT 8**

**HONOLULU RAIL TRANSIT PROJECT**

**STATION DESIGN CONSULTANT  
WEST O'AHU 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 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.

<b>Project Name:</b>		<b>Consultant Name:</b>	
<b>Contract No.:</b>	<b>Contract Amount (including amendments):</b>		
<b>Federal ID No.:</b> (OWP WE #, FTA Grant #, FHWA Project #)	\$		
<b>Period Covered By This Report:</b>	<b>Current</b> (Invoice # _____)	<b>Total to Date</b>	
<b>Total Invoice Amount</b>	(A) \$	(B) \$	
<b>Payment Requested:</b>	<b>DBE? (Yes/No) DBE Code (if "Yes")</b>	<b>Prior Amount*</b>	<b>Total Amount to Date*</b>
<b>Prime Consultant</b>		\$	\$
<b>Subcontractors (attach additional sheets as needed):</b>			
<b>Name:</b>			
<b>Type of Work:</b>		\$	\$
<b>Name:</b>			
<b>Type of Work:</b>		\$	\$
<b>Name:</b>			
<b>Type of Work:</b>		\$	\$
<b>Name:</b>			
<b>Type of Work:</b>		\$	\$
<b>TOTALS</b>		\$	(C) \$
<b>DBE Participation to Date (C/B)</b>			%

**\*Insert dollar amounts for DBEs only**

## ATTACHMENT 1.6 b) - FINAL REPORT OF DBE PARTICIPATION

This report must be submitted by the Consultant with the final invoice or request for payment under this contract.

Project Title: \_\_\_\_\_

Contractor Name: \_\_\_\_\_

Project No.: \_\_\_\_\_ Contract No.: \_\_\_\_\_

Period Covered by this Report: \_\_\_\_\_

Contract Amount (including amendments): \$ \_\_\_\_\_

Final Payment Amount: \$ \_\_\_\_\_ Invoice No.: \_\_\_\_\_

Total Payment to DBE: \$ \_\_\_\_\_

All Subcontractors (DBE and non-DBE) & DBE Suppliers or Manufacturers	Type of Service or Materials Provided	Subcontract Amount
Name Address Telephone No.		

Add additional sheets as necessary.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name & Title

**ATTACHMENT 1.6 b) - INSTRUCTIONS FOR COMPLETING THE  
FINAL REPORT OF DBE PARTICIPATION**

All subcontractors, suppliers and manufacturers should be listed on the FINAL REPORT OF DBE PARTICIPATION in the same order as listed in the proposal.

Project Title:	Self Explanatory
Project No.:	Self Explanatory
Period Covered by this Report:	Same period as invoice period
Consultant Name:	Self-Explanatory
Contractor No:	Self-Explanatory
Contract Amount (including amendments):	Less Mobilization, Force Account Items and Allowance Items Amendments should be listed separately with an explanation of how it was allocated to DBEs and non-DBEs
Invoice No.:	Self-Explanatory
Final Payment Amount:	Self-Explanatory
Total Payment to DBE	Total \$ amount paid to DBE