

CITY AND COUNTY OF HONOLULU

**HONOLULU HIGH-CAPACITY TRANSIT
CORRIDOR PROJECT**

**AIRPORT SEGMENT GUIDEWAY AND
UTILITIES**

PROFESSIONAL SERVICES CONTRACT

REQUEST FOR QUALIFICATIONS

NO. RQS-DTS-1100916

QUESTIONS RELATING TO THIS SOLICITATION, CONTACT:

**RAPID TRANSIT DIVISION
1099 ALAKEA STREET, SUITE 1700
HONOLULU, HAWAI'I 96813
TRANSITMAILBOX@HONOLULU.GOV**

**NOTICE OF REQUEST FOR QUALIFICATIONS
FOR
AIRPORT SEGMENT GUIDEWAY AND UTILITIES
HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT
PROFESSIONAL SERVICES CONTRACT
REQUEST FOR QUALIFICATIONS NO. RQS-DTS-1100916
CITY AND COUNTY OF HONOLULU**

LETTERS OF INTEREST AND STATEMENTS OF QUALIFICATIONS responding to this Request for Qualifications (RFQ) will be accepted up to 2:00 p.m. Hawai'i Standard Time (HST) on March 7, 2011, to Mr. Toru Hamayasu, Chief, Rapid Transit Division, Department of Transportation Services, 1099 Alakea Street, Suite 1700, Honolulu, Hawai'i, 96813.

A Pre-Submittal Conference is scheduled to be held from 1:30 p.m. to 3:00 p.m. HST on February 10, 2011, at the Maui Room, Neal S. Blaisdell Center, 777 Ward Avenue, Honolulu, Hawai'i 96814. All interested Offerors are encouraged to attend; however, attendance is not mandatory.

Because portions of the work in the Airport Segment Guideway and Utilities Contract may be funded with Federal assistance, the selected Offeror is expected to comply with applicable Federal Transit Administration (FTA) terms and conditions.



WENDY K. IMAMURA
Purchasing Administrator
For Director of Budget and Fiscal Services
City and County of Honolulu

NOTICE TO CONSULTANTS REQUEST FOR PROFESSIONAL SERVICES

The City and County of Honolulu Department of Transportation Services, Rapid Transit Division, plans to contract for professional services for architectural and engineering services necessary for the design and preparation of final construction plans, detailed specifications and other contract documents for the Airport Segment Guideway and Utilities Contract for the Honolulu High-Capacity Transit Corridor Project (HHCTCP).

The successful firm must be licensed to do business in the State of Hawai'i at the time of Contract award. The Contract will be supervised and overseen by the City and County of Honolulu Department of Transportation Services' Rapid Transit Division (RTD). The City intends to seek New Starts funding assistance from the United States Department of Transportation, Federal Transit Administration (FTA) and must comply with the statutory, regulatory, and administrative requirements for New Starts projects, including FTA third-party contracting requirements.

HHCTCP BACKGROUND

Purpose

The purpose of the HHCTCP is to provide high-capacity rapid transit in the congested east-west transportation corridor between Kapolei and the University of Hawai'i at Mānoa (UH Mānoa). This corridor includes the majority of housing and employment on O'ahu. The north-south width of the corridor is a maximum of four (4) miles, as much of the corridor is constrained by the Ko'olau and Wai'anae Mountain Ranges to the north and the Pacific Ocean to the south.

The HHCTCP: East Kapolei to Ala Moana Center via the Airport

The HHCTCP is identified in the Final Environmental Impact Statement (FEIS) as the Airport Alignment. It will include the design, construction and operation of a 20 mile grade-separated fixed guideway transit system between East Kapolei and Ala Moana Center. All parts of the guideway will be elevated, except near Leeward Community College, where it will be at-grade in an exclusive right-of-way. The system will incorporate steel wheel on steel rail technology. The HHCTCP includes twenty-one (21) stations, the Maintenance and Storage Facility (MSF), and seventy-six (76) light metro vehicles and associated core systems.

Planned Extensions

In addition to the HHCTCP, the Locally Preferred Alternative (LPA) includes four (4) planned extensions connecting the HHCTCP to West Kapolei, UH Mānoa, Waikīkī, and Salt Lake. The extensions would receive separate detailed environmental review. If funding is identified in the future, engineering design and environmental analysis of the extensions and the appropriate alternatives analysis will be undertaken. The HHCTCP, as evaluated in the FEIS, has logical termini and independent utility from any extensions that may be constructed in the future.

The FEIS and additional information on the HHCTCP can be found at: <http://honolulustransit.org>.

Status of FTA Programmatic Requirements

- October 2006: Completion of an Alternatives Analysis.
- December 2006: The Fixed Guideway Alternative was selected as the LPA by the Honolulu City Council.
- March 2007: FTA publishes a Notice of Intent to prepare an Environmental Impact Statement in the Federal Register.
- November 2008: The Draft Environmental Impact Statement (DEIS) was released for public comment.
- February 2009: The public comment period ended.
- October 2009: FTA authorizes the HHCTCP to enter New Starts Preliminary Engineering phase.
- September 2010: The FEIS was submitted to the State of Hawai'i Governor's Office for review.
- December 2010: The FEIS was signed by Governor Abercrombie.
- January 2011: The Record of Decision (ROD) is expected to be issued by the FTA.
- March 2011: A Letter of No-Prejudice is expected to be issued by the FTA.

PROJECT DELIVERY AND CURRENT PROCUREMENT EFFORTS

Guideway and Stations

The HHCTCP's guideway and stations are planned to be constructed starting from the western terminus of East Kapolei in sections:

- Section I - West O'ahu/Farrington Highway: East Kapolei Station to Pearl Highlands Station;
- Section II - Kamehameha Highway: Pearl Highlands Station to Aloha Stadium Station;
- Section III - Airport: Aloha Stadium Station to Lagoon Drive Station; and
- Section IV - City Center: Lagoon Drive Station to Ala Moana Center Station.

The City has entered into a design-build (DB) contract for the West O'ahu/Farrington Highway guideway. The City is in the process of procuring a Design-Builder for the Kamehameha Highway guideway.

All station groups will be implemented through the procurement of individual design firms, under professional services contracts, who will prepare design documents for individual construction packages to be procured using the design-bid-build (DBB) method. The City has entered into a professional services contract for the design of the first three (3) stations comprising the Farrington Highway Station Group.

Core Systems

The Core Systems will be constructed under a design-build-operate-maintain (DBOM) contract. The major subsystems and other end-products to be acquired under the contract over the eight (8) year period include the revenue vehicles, train control, traction power facilities, fare collection, and manufactured products required for operation and maintenance of the system. The City is in the process of procuring the Core Systems DBOM contractor.

Maintenance and Storage Facility (MSF)

The MSF will be constructed under a DB contract. The MSF Design-Builder is responsible for completing design; site work; construction of various maintenance buildings; and purchasing, storing, and distribution of rail, special trackwork, switch machines, contact rail and appurtenances for the entire HHCTCP. The City has selected the DB contractor for the MSF.

SCOPE OF WORK (Work)

An indicative listing of tasks relating to the Work for this RFQ is attached hereto as Appendix A. A final determination of levels of effort, work, scope, responsibilities and schedule will be negotiated with the selected Offeror pursuant to Hawai'i Revised Statutes (HRS) §103D-304(h) (Supp. 2010).

TERM OF CONTRACT

The term of this Professional Services Contract will be negotiated with the selected Offeror. The Contract may be subject to multiple notices-to-proceed (NTPs) which will authorize portions of the Work under the Contract to commence. Tentative phased design in accordance with FTA procedural requirements and contract durations consistent with current existing schedule constraints are included in Appendix A.

PRE-SUBMITTAL CONFERENCE

A Pre-Submittal Conference to respond to questions from persons interested in submitting statements of qualifications will be held. Although attendance is not mandatory, all interested Offerors are encouraged to attend and pre-registration is not required. Advance questions may be emailed to: transitmailbox@honolulu.gov. Additional questions may be addressed during the Pre-Submittal Conference, however, information will be considered unofficial until issued in writing via addenda.

Date of Conference: February 10, 2011
Time of Conference: 1:30 p.m. – 3:00 p.m. HST
Place of Conference: Neal S. Blaisdell Center, Maui Room
777 Ward Avenue
Honolulu, Hawai'i 96814

SUBMITTAL MATERIALS REQUIREMENTS

1. Letter of interest. The letter of interest must include contact information (name, title, name of firm, mailing address, phone number, and e-mail address) for the authorized representative(s) of the firm(s) signing the letter of interest. Please ensure that contact information is up-to-date because should RTD need to contact you regarding your submittal materials it will be through the contact person named in the letter of interest. In the case of a team approach, the letter of interest must indicate whether the team members intend to form a partnership, joint venture, or other legal structure. Signing of the letter of interest attests that the information provided therein is current and factual.

2. Information on the firm. (In the case of a proposed partnership or joint venture, submit information for each firm.)
 - A. Name of the firm, the year the firm was established under the current name, the principal place of business, and location of all its offices.
 - B. Former firm names. Indicate any other previous names for the firm during the last five (5) years and the year the name change was effective.
 - C. Type of ownership or legal structure of the firm (sole proprietor, partnership, corporation, joint venture, etc.).
 - D. The annual revenues and average number of employees over the past five (5) years.
 - E. The names and phone numbers of a maximum of five (5) clients who may be contacted, including at least two (2) for whom services were rendered during the past 12 months, preferably for services similar to those required for the Airport Segment Guideway and Utilities Contract.
 - F. A statement as to whether the firm, its principals or key employees presently, or in the past, are, or have been, involved in any debarment or suspension proceedings.
 - G. A statement identifying any contract involving the firm that was terminated for default within the past three (3) years.
 - H. Provide a list of example projects which best illustrate the firm's relevant qualifications for this assignment. The list must not exceed ten (10) recent projects that include major projects undertaken and completed within the past five (5) years. Provide the following information for each project listed:
 - 1) Title and location of the project;
 - 2) Project owner and owner's project number;
 - 3) Primary role of the firm;
 - 4) Brief description of the work;
 - 5) Period of performance (start and end dates);
 - 6) Final contract value;
 - 7) Percent of work completed by the firm under the contract;
 - 8) Identify any project claims and litigation involving your firm (if none, so state); and
 - 9) Did the project involve federal funds (yes or no).
 - I. Any promotional or descriptive literature which the firm desires to submit.
3. Key individuals.
 - A. Identify the persons who will be assigned to the key positions listed below:
 - 1) Project Manager
 - 2) Design Manager
 - 3) Quality Assurance Manager
 - 4) Lead Structural Engineer
 - 5) Lead Trackwork Engineer
 - 6) Lead Geotechnical Engineer
 - 7) Lead Utilities Engineer
 - 8) Lead Civil Engineer

- 9) Lead Maintenance of Traffic Engineer
 - 10) Interface Manager (person who interfaces with other contractors/contracts)
 - 11) Public Involvement Liaison
- B. Provide resumes for the persons identified above and for any other individuals deemed to have a major role in providing the services. The resumes must include:
- 1) Total years of experience and number of years with the current firm;
 - 2) Education [highest relevant academic degree(s) and specialization for each degree];
 - 3) Current professional registration (registration number, state, and discipline). The name on the professional registration must match the name in Section 3.A, above;
 - 4) Work experience on up to five (5) relevant projects. Include a brief description of the project (scope, size, cost, etc), the person's specific role on the project, the year the person's work on the project was completed, and the person's employer for the project; and
 - 5) Names, titles, and contact information for a maximum of three (3) references.
- C. Other related information:
- 1) Identification and roles of each subconsultant firm proposed to work on the Contract (this section must not exceed two (2) pages);
 - 2) An organization chart of the proposed Professional Services team which includes the key individuals identified in Section 3.A, above;
 - 3) Demonstrated capability to undertake the financial responsibilities associated with a Professional Services Contract;
 - 4) A narrative on the unique approach Offeror will undertake to accomplish the work;
 - 5) Any other pertinent information that should be considered in the evaluation of the firm's qualifications (this section must not exceed five (5) pages).

Should any of the list or page limitations referenced above be exceeded, any SUBMITTAL MATERIALS beyond the limitation will not be considered.

In accordance with Hawai'i Administrative Rules (HAR) §3-122-63(b), the statements of qualifications and related information submitted by the Offerors (SUBMITTAL MATERIALS), except those portions for which a written request for confidentiality has been made per HAR §3-122-58, will be open to public inspection upon posting of the award of this Contract. Offerors shall designate in writing those portions of their SUBMITTAL MATERIALS that contain trade secrets, proprietary, or confidential commercial and financial information that are to remain confidential, subject to HAR §3-122-58. The specific proprietary information, trade secrets, or confidential commercial and financial information must be clearly identified as such. Material designated as confidential must be readily separable from the SUBMITTAL MATERIALS to facilitate inspection of the non-confidential portion of the SUBMITTAL MATERIALS. Designation of the entire SUBMITTAL MATERIALS as confidential will not be acceptable and shall be invalid.

SELECTION

The City will evaluate SUBMITTAL MATERIALS according to the criteria identified below. The criteria are listed in descending order of importance.

Evaluation Criteria

1. Experience and professional qualifications relevant to the Airport Segment Guideway and Utilities Contract;
2. Past performance on projects of similar scope for public agencies or private industry, including corrective actions and other responses to notices of deficiencies;
3. Project approach;
4. Capacity to accomplish the work in the required time; and
5. The proposed means, methods and approach to providing the requisite Professional Services in entirety.

DEADLINE

An **original and seven (7) copies** of the SUBMITTAL MATERIALS packet shall be submitted not later than March 7, 2011, 2:00 p.m. HST to:

Mr. Toru Hamayasu, Chief
Rapid Transit Division
RQS-DTS-1100916
Department of Transportation Services
1099 Alakea Street, Suite 1700
Honolulu, Hawai'i 96813

Submittals by facsimiles are not acceptable. The Contract for Professional Services for the Airport Segment Guideway and Utilities Contract will only be awarded to an Offeror that demonstrates the ability to provide all of the services required for the Airport Segment Guideway and Utilities Contract. SUBMITTAL MATERIALS received for only part of the required services will be considered non-responsive to this notice.

Any inquiry regarding the services required should be directed in writing to Mr. Hamayasu, Rapid Transit Division, Department of Transportation Services, at the address above, or to the Transit Mailbox at the following e-mail address: transitmailbox@honolulu.gov.

Honolulu High-Capacity Transit Corridor Project (HHCTCP)

Airport Segment Guideway and Utilities

Professional Services Contract

RQS-DTS-1100916

Appendix A

Scope of Services

January 2011

01 AIRPORT SEGMENT GUIDEWAY AND UTILITIES DESCRIPTION

The Airport Segment Guideway and Utilities Contract for the HHCTCP is a 5.2 mile, grade-separated fixed guideway transit system. The Airport Segment Guideway and Utilities design starts just past the Aloha Stadium Station along the south side of Kamehameha Highway, continues to Nimitz Highway and turns south along Aolele Street toward the Honolulu International Airport terminal. It then follows Aolele Street east to Ualena Street and Waiwai Loop east to reconnect to Nimitz Highway near Moanalua Stream and continues on to terminate past the Middle Street Transit Center .

Four (4) stations are located along the route: Pearl Harbor Naval Station, Airport Station, Lagoon Drive Station, and the Middle Street Transit Center Station. The designs of these stations are part of the Airport Stations Group (ASG) and Dillingham Stations Group (DSG) and are not part of the scope of work for this contract.

The Airport Segment Guideway and Utilities design will require the widening of portions of Kamehameha Highway and other streets to accommodate the guideway columns, provide bus stops, improve sidewalks and medians, revise traffic signals, address environmental mitigation commitments in design and construction, permits, and other related improvements. The HHCTCP will also include the installation of guideway lighting, miscellaneous electrical/mechanical wayside equipment, switch machines, sound barrier walls, running rails and insulated third rail (contact rail).

Numerous utilities along the proposed alignment require relocation to allow for the guideway construction. There are both public and private utilities including, but not limited to power, sewer, water, and cable.

02 PHASED DESIGN AND DURATION OF CONTRACT

The work in this Contract will be phased to allow development of the design to occur in accordance with Federal Transit Administration (FTA) procedural requirements. The design phases will be initiated by a Notice to Proceed (NTP) issued by the CITY. A total of six (6) NTPs are anticipated:

NTP #1a - PREPARE SCHEDULE OF MILESTONES

- Provide the CITY within ten (10) days of receipt of NTP #1a with a Schedule of Milestones (SM) that includes all work for which the CONSULTANT expects to be compensated. The SM is to be organized by NTP and will serve as the basis for payment. The CONSULTANT's Baseline Design Schedule must be conformed to the SM. The CITY and the CONSULTANT shall reach agreement on the proposed SM at which time the CITY will approve the SM.

NTP #1b - REVISIONS TO PRELIMINARY ENGINEERING (PE)

- Commencing with NTP #1b, revise current PE design and drawings to incorporate the approved station Value Engineering (VE) recommendations and other CITY preferences.
- Prepare and convene community presentation(s) featuring the graphic layout of the stations [a maximum of two (2) presentations].
- Ensure compliance of PE design with applicable codes, regulations and design standards.
 - Duration for Airport Segment Guideway and Utilities design: one hundred (100) days.
 - CITY Review: thirty (30) days.

NTP #2 - INTERIM DESIGN (ID)

- Commence ID drawings and detailed working drawings and specifications.
- Incorporate HHCTCP standard details provided by the CITY and develop Airport Segment Guideway and Utilities design - specific details as required; provide consistent material selection that considers pedestrian safety, durability, maintenance, sustainability, and aesthetics relating to the transit environment.
 - Duration for Airport Segment Guideway and Utilities design: one hundred seventy (170) days.
 - CITY Review: thirty (30) days.

NTP #3 - FINAL DESIGN (FD)

- Commence FD and preparation of construction contract documents.
- Provide detailed construction contract documents to permit accurate cost estimating and expedite construction activities.
- The NTP #3 duration assumes the following: sixty (60) days for Airport Segment Guideway design and thirty (30) days for Airport Segment Utilities design from NTP #3 for submittal of camera-ready final documents to the CITY; thirty (30) days for CITY review; and thirty (30) days for the CONSULTANT to incorporate review comments and prepare final advertisement-ready ("ad-ready") construction documents.

NTP #4 - DESIGN SUPPORT DURING BIDDING

- As requested, assist the CITY in the construction solicitation process.
- Duration TBD.

NTP #5 - DESIGN SUPPORT DURING CONSTRUCTION

- As requested, assist the CITY in resolving design issues during construction.
- Duration TBD.

03 SCOPE OF WORK

The Airport Segment Guideway and Utilities Contract scope of work includes the design and preparation of final construction plans, detailed specifications and cost estimates as described. Separate bid documents will be prepared for the final submittal, one (1) for the Airport Segment Guideway and one (1) for the Airport Segment Utilities. The design work will be based upon the existing PE Design documents, and the CITY's Standard Documents. All plans will be done in accordance with the plan standards and CADD procedures. All work will be done under the supervision of professional engineers licensed by the State of Hawai'i Department of Commerce and Consumer Affairs.

The following documents will be provided to the selected firm and will be utilized in preparation of the design:

- PE Drawings
 - Airport Segment Guideway and Utilities
 - Pearl Harbor Naval Station
 - Airport Station
 - Lagoon Drive Station
 - Middle Street Transit Center Station
- Rapid Transit Division (RTD) Standard Documents
 - Standard and Directive Drawings
 - Compendium of Design Criteria
 - Plans Standards and Project CADD Procedures
 - Standard Specifications
- Systemwide Sustainability Report
- Airport Segment Guideway and Utilities Drainage Report
- Geotechnical Data Report and associated technical memorandum
- RTD Interface Control Manual
- RTD Quality Management Plan
- Contract Management System (CMS) Requirements
- Final Environmental Impact Statement
- Record of Decision with the attached Section 106 of the National Historic Preservation Act (hereinafter, Section 106) Programmatic Agreement (PA)

- Utilities Agreements (examples from other projects provided)

Specific tasks include:

03.01 Project Management and Administration

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

The CONSULTANT is required to follow the RTD Quality Management Plan (QMP) and shall establish a Quality Assurance Plan (QAP) for the Airport Segment Guideway and Utilities Contract which meets the requirements of the FTA Quality Assurance/Quality Control (QA/QC) Guidelines and shall be reviewed and approved by the CITY prior to its use.

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

03.02 Design Workshop

Commence design with two (2)-day workshops to review segment concepts previously completed and, if necessary, update PE Design based on CITY input. Participants shall include CONSULTANT's Project Manager, Design Manager, Structural Manager, Environmental Compliance Manager, CITY Engineering Staff, GEC staff, United States Navy, State of Hawai'i Department of Transportation (HDOT) Highways and Airports Divisions, Hawaiian Electric Company (HECO) and the Federal Aviation Administration (FAA).

03.03 Interface and Coordination with Others

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

- Core Systems Contract (CSC) – Interface with the CSC for the communications and control, traction electrification, train control and signaling, passenger vehicle and fare vending systems. Guideway design will include the embedded conduits and other embedded components, blockouts, structural supports and mountings, and other enclosures and finishes as needed.
- ASG and DSG Contracts – Interface with the ASG and DSG Contracts in the station areas. The design of the guideway superstructure, columns and foundations, station platform support structures and concourse support structures within the limit of the guideway structure is part of this scope of work. Also, any roadway, drainage and other features in the station areas are part of this scope of work.

- Elevators and Escalators Contracts – In conjunction with the interface with the ASG and DSG contracts, additional coordination will be required with the elevators and escalators contract during the furnishing, installation and testing of the station elevator and escalator equipment.
- Systemwide Landscaping Design – Interface with the design consultant for proposed permanent irrigation and landscaping along the HHCTCP alignment in median areas occurring under and adjacent to the guideway and other selected areas.
- Systemwide Signage Design – Interface with this designer who will furnish construction drawings for HHCTCP signing, along the guideway, on streets and intersections under or adjacent to the guideway and signage for identification, directional or restrictive purposes at or approaching all stations and facility sites, for inclusion in the Airport Segment Guideway and Utilities Contract.
- HDOT – Because of the guideway alignment’s location on or proximity to Kamehameha Highway, the H-1 freeway and the Honolulu International Airport, close coordination with HDOT Highways Division and HDOT Airports Division will be required.
- U.S. Departments of Navy and Air Force - The guideway alignment encroaches onto property under the jurisdiction of the U.S. Navy between Valkenburgh and Elliott Streets. The guideway also crosses over access ramps servicing Pearl Harbor Naval Base and Hickam Air Force Base. Coordination design and construction staging plan traffic impacts with the U.S. Navy and the U.S. Air Force.
- FAA – Because of the guideway alignment, the Airport Station and Lagoon Drive Station’s support structure’s close proximity to the Honolulu International Airport and its surrounding infrastructure, close coordination with FAA will be required during design progression.
- Public and Private Utilities – Coordinate points of service, utility relocation, sizing and connection points, etc.
- Public and Private Property owners and businesses – Coordinate design and construction staging plan traffic impacts with adjacent or affected property owners and businesses.
- Section 106 Consulting Parties to the Section 106 PA.

03.04 Topographic Survey

Provide additional topographic survey as required to supplement the CITY provided topographic survey and controls. Prepare site controls and property right-of-way plans to identify additional right-of-way or easements required.

03.05 Civil Design

Design and develop civil plans showing alignment data, street or roadway restoration details, trackwork, grading, drainage and paving plans, and details for roadway and other facility sites (excluding the station areas), right-of-way plans, demolition plans (including tree removal), roadway and intersection signing and striping plans, and prepare Hydrology and drainage reports as necessary.

03.06 Structural Design

Perform Load and Resistance Factor Design (LRFD) structural analysis and design and develop structural plans showing foundations, substructure, superstructure and structural details for the guideway and all station support structures. Scour/hydraulic analysis will also be required at the guideway stream crossings. Coordinate with the ASG and DSG designers and evaluate requirements to protect adjacent buildings or existing structures that may be affected by the guideway or station support construction.

03.07 Geotechnical Exploration and Design

Geotechnical exploration will be conducted for all guideway and site improvements within the guideway right-of-way and for the station support foundations. Geotechnical explorations for supports outside the station areas are not included in this scope of work. Coordination with the ASG and DSG designers for that information will be required to the extent practicable. Geotechnical data from previous investigations for the guideway prepared by the CITY and from other readily available soils reports for other projects in the vicinity will be used to plan the exploration program. Geotechnical Design will encompass LRFD design and will include non-redundant shafts of six (6) foot diameter or greater.

03.08 Architectural Design

Develop aesthetic treatment of selected guideway columns in the vicinity of the stations. An aesthetic design concept report shall be prepared to permit discussion of the ideas with the CITY prior to initiating design.

03.09 Utility Design

Design and develop composite utilities rearrangement plans, utility relocation and service plans, profiles, and details within the Airport Segment Guideway and Utilities Contract. Perform additional pothole investigations as needed.

03.10 Traffic Signal Design

Design and develop traffic signal plans for one (1) new intersection and seven (7) existing intersections required by the guideway construction. The new intersection is at Ualena Street/Lagoon Drive and the seven (7) existing intersections are along Kamehameha Highway at various locations.

03.11 Electrical Design

Design and develop electrical plans for street lighting, traffic signals, and power distribution, and coordinate with the ASG and DSG designers for the design of the Traction Power Sub-Stations (TPSS) located at the four (4) stations along the Airport Segment Guideway.

03.12 Intelligent Transportation Systems (ITS) Design

Design and develop ITS plans for Closed Circuit Television Cameras (CCTV) and License Plate Recognition (LPR) devices at selected intersections along the alignment. Interconnection with the CITY's CCTV system will be required. Also, travel time information gathered from LPR devices will be connected to HDOT's Travel Information System.

03.13 Environmental

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

03.14 Maintenance of Traffic (MOT) Plans

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

03.15 Public Involvement

Support and participate in community workshops or meetings hosted by the CITY to present guideway FD and features to the community. Provide illustrative materials such as plans and other pertinent documents to help convey information to the public.

03.16 Cost Estimates

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

03.17 Specifications

At each submittal, prepare outline and/or detailed specifications, depending on the design completeness for the submittal.

03.18 Design Support during Bidding (NTP #4)

For the Airport Segment Guideway and Utilities Contract bidding periods, provide support for the bidding process, prepare addenda if necessary, and assist the CITY in evaluating bids received.

03.19 Design Support during Construction (NTP #5)

Two (2) construction contracts, one (1) for the guideway and one (1) for utilities, will be advertised for all of the work designed under this scope of work. The construction periods are to be determined. The construction periods will overlap, with the guideway construction lagging behind the utilities construction by approximately six (6) months. Upon issuance of NTP #5, the CONSULTANT will provide design support during the construction phase including, but not limited to, shop drawing review and approval, material samples review and approval, responding to contractor Requests for Information, periodic inspections, development of punchlists, and preparation of as-built drawings based on mark-ups from the contractor(s). Construction Management is not included in this scope of work.