

**Request for Proposal
Scope of Work Information**

Project Title

Transportation Corridor Study – Hamakua Coast

Purpose and Background

The State of Hawaii, Department of Transportation (HDOT) is interested in a study that assists its mission in the preservation, operations and safety of this regionally significant highway. The HDOT proposes to develop a transportation corridor study for the State Route No. 19, Hawaii Belt Road from mileposts two to fifty-two, Wailuku Bridge to Mud Lane, respectively. This highway is along the north-east side on the island of Hawaii, known as the Hamakua Coast.

This segment of the belt system, in general, operates as a two-lane principal arterial on the National Highway System with a posted design speed between 45 to 55 MPH. The highway cross-section provides an undivided highway with two 12' lanes with 4-8' shoulders. The majority of the highway terrain is "rolling" with segments of "mountainous" in the areas of the three horseshoe turns in the North Hilo district. The AADT within this segment varies between 6,000 and 16,000 with higher AADT's at or near the urban areas of Hilo and Waimea.

Additionally, there are over fifty bridges along this segment of highway with several roadway and pedestrian overpasses. Many of the bridges have limited shoulder width.

Traffic accident data over three years has identified the majority traffic accidents along this fifty-mile stretch of highway are vehicular with few bicycle and pedestrian accidents. And, this segment of highway contains over a third of the highest rates of non-intersection accidents for the island. Note this information is under the protection of 23 USC 402(k) and 409.

These fifty miles of highway provide for the primary regional transportation connection between the districts of South Hilo, North Hilo, Hamakua and South Kohala. This connection is important in that fifty percent of the island's population reside within these districts, and that fifty percent of the trips on the island originate or end within these districts. Further, this highway is the primary regional connection for the island's major economic centers of Hilo with Kona with the majority of freight movement between the east and west sides of the island is carried on this route. These regional and sub-regional surface connections are vital in supporting the economic linkages of commuter, freight and tourist trips. For these reasons, it is vital this corridor is maintained.

Besides its regional transportation importance this highway also serves as a community road in providing local trips for vehicles, bicyclist and pedestrians. The estimated local vehicular trips by district are 79% for South Hilo, 23% for North Hilo, 49% for Hamakua and 68% for South Kohala. The HDOT's complete streets policy will be considered for these local modal transportation trips.

South Hilo is the County seat and the only metropolitan area on the island where primary industrial, commercial and distribution activities occur on the island. Approximately 33 percent of the island's population (~48,000 population) resides in this district. Sugar was one of the largest industries in South Hilo, which has changed to the commercial growing of ornamental

plants as the largest agricultural product in the district. The South Hilo communities along the belt road are Wainaku, Papaikou, Pepeekeo and Hakalau.

North Hilo's major population and community/ service center is Laupahoehoe. Sugar had been the major agriculture industry for this district, which has now changed to other agriculture and cattle. The population has been declining and is currently about 1,700. The North Hilo communities along the belt road are Ninole and Laupahoehoe.

Hamakua's primary industry had been sugar operations until 1994 when the operations closed. Although, the sugar industry ended the population of this district has been slowly growing. This continuing growth is primarily due to the major resort activities in South Kohala and the continuing settlement of the rural homestead areas. The population is approximately 6,000. Honokaa is the major commercial and residential center for this district. The primary economic activities are cattle, macadamia nuts and other agriculture crops. The communities along the belt road are Paauilo and Honokaa.

South Kohala has had a significant increase in growth, primarily due to the increased tourism activities. The population is approximately 13,300. The primary economic activities aside from tourism is cattle ranching, agriculture, public and private education, and scientific research associated with the Mauna Kea observatories. South Kohala also houses the second deep-draft commercial harbor on the island, which provides for commercial harbor, recreational and sport fishing activities.

This fifty-mile segment of belt road has been subject to the effects of flooding. High rainfall, steep slopes and deep valley terrain have contributed to the flooding. Additionally, being along the coastline the belt road has been susceptible to hurricanes and tsunamis.

Historically, the belt system has been connected to the development of Hawaii's whaling and sugarcane industries. Additionally, there are many Hawaiian historic properties tied to pre- and post-contact activities and culture along this corridor. The majority of the fifty bridges along this belt highway may be historic.

Due to the unique geology and climate there exists endangered indigenous flora and fauna in the region.

The HDOT seeks in this study the development and prioritization of preservation, operation and safety improvements that balance the regional transport of people, goods and services with local community activities of vehicles, bicyclists and pedestrians.

Additionally, the study shall identify the socio-economic and environmental effects due to proposed highway improvements, and propose measures in minimizing socio-economic and environmental impacts.

General Requirements

A. Scope of Services

The HDOT seeks consultant services to develop a transportation corridor study for State Route No. 19, Hawaii Belt Road from mileposts two to fifty-two that supports the preservation, operations and safety of this regionally significant highway, while integrating socio-economic and environmental criteria.

1. Land use and regional-community report will be developed that analyzes existing land uses, regional and community visions and goals, and socio-economic issues, as it relates to

transportation. Transportation deficiencies, known impacts and potential mitigation should be included.

2. Asset preservation report shall provide the highway inventory of the corridor. The inventory shall include but not limited to the travel lanes, shoulders, bridges, culverts, embankments, slopes, shoreline, highway lighting, utilities, at-grade and grade-separated crossings, accesses, major signing, guardrails, bicycle and pedestrian facilities, transit facilities, and utilities.

Pertinent highway assets shall include its conditions, life cycle, improvements and estimated cost to preserve. The improvements shall be aligned with federal and state regulations, policies and plans.

3. Traffic congestion report to be prepared for existing traffic volumes for both vehicles and trucks to determine congestion and operational issues. The report shall include transportation improvements that considers both regional and local transportation benefits; and that can be completed in the short-term and mid-term. The improvements shall be aligned with federal and state regulations, policies and plans.
4. Traffic safety analysis report for all modes of transportation. The report shall include transportation improvements that considers both regional and local transportation operations. The improvements shall be aligned with federal and state regulations, policies and plans.
5. Environmental report shall include the following components:
 - a. Historical – Historical and archeological resources, and cultural resources identification and significance on the highway and along the corridor. The report shall also propose strategies and methods to preserve the historic properties within the highway right-of-way while preserving the infrastructure, and to maintain and improve operations and safety, which are the proposed transportation improvements.
 - b. Biological – Flora and fauna that are threatened and endangered on the highway and along the corridor. The report shall also propose strategies and methods to preserve the biology for the proposed transportation improvements.
 - c. Noise – Noise study report shall assess the existing noise levels along the highway corridor to provide a baseline for strategies and methods to minimize transportation noise due to the proposed improvements.
 - d. In considering the transportation improvements needed to preserve and safely operate these fifty miles of highway the consultant shall also propose and develop non-project specific and/or programmatic strategies to minimize the impacts to historical properties and biological resources.
6. A corridor GIS map shall be developed, at the minimum, identifying the geographic features; topography; right-of-way; roadway features/ inventory; utilities; historical resources; biological resources/ habitat; noise contours; land use district, county zoning, SMA and CZM areas; and high water and climate change elevations.
7. A corridor report shall be developed to identify plausible transportation improvements that consider items 1 to 5 above. Criteria shall be used to assist in providing the purpose, comparison and prioritization of the improvements.

The recommended improvements should provide reasonable detail including but not limited to, plan view and cross-section concepts, description of existing and proposed work, drainage and utility work, traffic control, right-of-way acquisition, and estimated construction costs. Each improvement shall include a matrix of socio-economic, and environmental impacts and proposed mitigation to minimize impacts.

8. Work plan

B. Proposer Qualifications

The proposer shall demonstrate its project team qualifications and provide a list of similar projects worked on and successfully completed; and guarantee the support of a qualified and dedicated manager and project team for the entire project. See the Guidelines for Preparing Consultant Proposals for Highways Division Project for more information.

Proposer Qualifications include previous experience and familiarity with:

- Federal, State and county environmental and highway/roadway design regulations, standards, and its processes.
- Development, management and delivery of said work or similar.
- Best practices.

C. Project Phasing

The project may be phased by the Scope of Services items 1 through 7.

D. Project Approach

This section provides an overview on the method the Scope of Services will be developed and completed. It is not intended to be a complete or comprehensive of all tasks, methods and processes, and should be expanded upon in the proposal as deemed appropriate.

- All work shall be reviewed and approved by the HDOT and be in full compliance with current Federal and State regulations and policies. Further, all work and conduct of work shall be consistent with HDOT's policies, procedures and protocols.
- An initial meeting shall be held to discuss and clarify expectations for the project and to go over the concept, approach, and work plan.
- The work plan shall also identify all tasks, subtasks, deliverable and schedule to complete the project. Cost estimates shall be provided for all tasks and deliverables.
- The work plan shall be utilized for directing and managing the development of project scope, and for managing the Project Time.
- Routine and periodic in person meetings are to be performed with the HDOT project team. The proposer shall have the ability to meet at the HDOT Main Office, the HDOT Highways Division Kapolei Office and the HDOT Highways Division Hawaii District Office.

E. Reports and Submittals

- The work shall include a work plan.

- The work shall include the preparation and submittal to the HDOT of a draft task or subtask report for review and approval prior to the completion and submittal of the final report. All reports, products and technical papers shall include the appropriate supporting documentation, and submitted as complete.
- All documents shall be provided to the HDOT in both electronic and hard copy. The number of copies will be determined by the HDOT project manager.

F. Quality Assurance and Quality Control

The consultant shall utilize Quality Assurance and Quality Control procedures to ensure completeness, accuracy, and quality of all work efforts and submittals made as part of this project.

G. Project Time

The project shall be completed within eighteen (18) months from the contract Notice to Proceed.