

Project Management Plan and Quality Control Plan Honolulu High-Capacity Transit Corridor Project

February 9, 2007

**Prepared for:
City and County of Honolulu**

**Prepared by:
Parsons Brinckerhoff Quade & Douglas, Inc.**

EXECUTIVE SUMMARY

PREFACE

The City and County of Honolulu (City), in cooperation with the Federal Transit Administration (FTA) is undertaking the preparation of an Alternatives Analysis and Draft Environmental Impact Statement (AA and DEIS) for alternative transit improvements for the Honolulu High-Capacity Transit Corridor in Honolulu, Hawai‘i. The DEIS is being prepared in conformance with 40 CFR Part 1500-1508, Council on Environmental Quality, Regulation for Implementing the Procedural Requirements of the National Environmental Policy Act of 1969 as amended; 49 CFR Part 611, Federal Transit Administration, Major Capital Investment Projects; and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act - A Legacy for Users (SAFETEA-LU). In addition, the document will fulfill the requirements of Hawai‘i Revised Statute 343 (HRS 343) which governs the assessment of environmental impacts of major projects.

PROJECT DESCRIPTION

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved mobility for persons traveling in the highly congested east-west corridor between Kapolei and the University of Hawai‘i at Mānoa (UH Mānoa), confined by the Wai‘anae and Ko‘olau mountain ranges to the north, and the ocean to the south. The project would provide faster, more reliable public transportation services in the corridor than those services currently operating in mixed-flow traffic. The project would also provide an alternative to private automobile travel and would additionally improve linkages between Kapolei, Honolulu’s urban center, UH Mānoa, Waikīkī, and the urban area in between. In conjunction with other improvements included in the O‘ahu Regional Transportation Plan, implementation of the project would moderate anticipated traffic congestion in the corridor. The project also would support the goals of the O‘ahu General Plan and the O‘ahu Regional Transportation Plan by serving areas designated for urban growth.

Alternatives proposed for study in the AA are:

- No Build Alternative (transportation projects included in official planning documents, excluding the proposed High-Capacity Transit Corridor Project)
- Transportation System Management (TSM) Alternative
- Managed Lane Alternative (including high-occupancy toll lanes)
- Fixed-Guideway Alternative (including evaluation of several alignment alternatives)

These alternatives will be refined and expanded in response to community input and technical analyses as the project progresses.

STUDY APPROACH

The Honolulu High-Capacity Transit Corridor (HHCTC) AA and DEIS will comprehensively examine and comparatively evaluate all of the alternatives using a broad set of criteria. These criteria include: environmental concerns, ridership forecasts, engineering, capital, operating and maintenance costs, economic and cost-effectiveness considerations, traffic impacts, and opportunities for transit oriented development. How well each alternative does or does not help achieve local goals and objectives will play a major role in the selection of a Locally Preferred Alternative at the conclusion of the study. Public input will be provided throughout the course of the project by community groups, the general public, agency staff, and elected officials through a strong public participation program.

PURPOSE OF THIS DOCUMENT

The HHCTC AA and DEIS have been subdivided into a number of individual tasks and sub-tasks. As these are carried out, a number of documents, such as this one, will be produced for the purpose of providing early information to FTA and others interested in the project's procedures and findings. This will facilitate the interchange of information and provide the basis for comment on the project, both internally among participants and among those not directly involved with the project but with an interest in the area of public transportation.

Consequently, the material contained in the deliverables should be considered as work in progress. The deliverables are subject to revision as comments are received and responded to by project staff; they also may be superseded as a result of subsequent activities. Ultimately, the final documentation for the project will be contained in an Alternatives Analysis, Draft Environmental Impact Statement; and later, a Final Environmental Impact Statement.

PROJECT SCHEDULE

The HHCTC AA and DEIS is an 18-month effort culminating in spring 2007. The Alternatives Analysis will be completed by November 2006 for the selection of a Locally Preferred Alternative (LPA) by the Honolulu City Council before January 1, 2007. The project will then be approved by the O'ahu Metropolitan Planning Organization (OMPO) as an amendment to its financially constrained long-range Metropolitan Transportation Plan. The DEIS will be completed and sent to the FTA for approval in 2007, following the selection of the LPA. It is currently anticipated that the Draft Environmental Impact Statement will be available for public review in 2007. A public hearing to take testimony and comments on the draft will follow the public release.

SUBSEQUENT STEPS

After selection of an LPA, FTA approvals to proceed will be sought, including authorization to initiate preliminary engineering and completion of the Final Environmental Impact Statement.

TABLE OF CONTENTS

1.0 INTRODUCTION.....	1
1.1 PURPOSE OF THE PROJECT MANAGEMENT/QUALITY CONTROL PLAN	1
1.2 PROJECT OVERVIEW	1
2.0 ORGANIZATION.....	5
2.1 ORGANIZATION PLAN	5
2.2 ROLES AND RESPONSIBILITIES	7
3.0 WORK PROGRAM	9
3.1 STATEMENT OF WORK.....	9
3.2 STUDY SCHEULE	9
3.3 STAFF MEETINGS	9
3.4 DELIVERABLES.....	9
3.5 DECISION PROCESS.....	13
3.6 PROTOCOL	13
3.7 OTHER MANAGEMENT GUIDES	14

APPENDIX A – SCOPE OF WORK

APPENDIX B – KEY TEAM MEMBER DIRECTORY

APPENDIX C – PROJECT CONTROL

APPENDIX D – PROJECT SCHEDULE

APPENDIX E – PROJECT QUALITY CONTROL PLAN

1.0 INTRODUCTION

1.1 PURPOSE OF THE PROJECT MANAGEMENT PLAN/QUALITY CONTROL PLAN

The purpose of the Project Management Plan/Project Quality Control Plan is to assist the client and the consulting team by defining a procedural framework of management and control of the services provided in the contract. The Project Management Plan/Project Quality Control Plan:

- Presents the operating procedures linking the City and County of Honolulu Department of Transportation Services (DTS), Parsons Brinckerhoff Quade & Douglas, Inc. (PB) and the subconsultants (collectively known as the Honolulu High-Capacity Transit Corridor Project Team).
- Assigns roles and responsibilities to both the subconsultant firms and individuals at PB in performing and managing the work program.
- Defines the project assignments.
- Defines the deliverable products to be prepared.
- Provides the production schedule for the project deliverables.
- Defines the communication channels between DTS, PB and its subconsultants.

Any significant changes to the Project Management Plan must be approved by the Project Manager (PM), Mark Scheibe.

1.2 PROJECT OVERVIEW

1.2.1 PROJECT DESCRIPTION

The purpose of the Honolulu High-Capacity Transit Corridor Project is to provide improved mobility for persons traveling in the highly congested east-west transportation corridor between Kapolei and the University of Hawai'i at Mānoa (UH Mānoa), confined by the Wai'anae and Ko'olau Mountain Ranges to the north and the Pacific Ocean to the south. The project would provide faster, more reliable public transportation services in the corridor than those currently operating in mixed-flow traffic. The project would also provide an alternative to private automobile travel and improve linkages between Kapolei, the urban core, UH Mānoa, Waikīkī, and the urban areas in between. Implementation of the project, in conjunction with other improvements included in the O'ahu Regional Transportation Plan (ORTP), would moderate anticipated traffic congestion in the corridor. The project also supports the goals of the O'ahu General Plan and the ORTP by serving areas designated for urban growth.

Investment is required to improve the efficiency of the corridor's transportation infrastructure. A more efficient transportation system in the corridor will enhance mobility, reduce travel time and improve the quality of life for O'ahu's residents and visitors. The purpose of the HHCTC Alternatives Analysis and Draft Environmental Impact Statement (AA and DEIS) is to examine candidate investments that would improve the efficiency of the transportation system in O'ahu's

primary transportation corridor, and the connections between the corridor and the rest of the island. In order to advance this program, the work will be structured in accordance with the scope of services shown in Appendix A.

1.2.2 ALTERNATIVES ANALYSIS AND DRAFT ENVIRONMENTAL IMPACT STATEMENT

The AA and DEIS will consist of identifying, evaluating and recommending significant transportation improvements in the corridor (see Figure 1-1), the area from Kapolei to the University of Honolulu at Mānoa, based on:

- Previous transportation studies done in the corridor;
- An identification of technology and alignment options;
- Travel and ridership forecasting;
- Conceptual-level estimates for capital, operational, and maintenance costs, and financial analyses; and
- Environmental, social and economic considerations.

The DEIS will also serve as a National Environmental Policy Act (NEPA) and State Environmental Impact Statement (EIS) for the proposed Project. Therefore, the DEIS will be prepared in cooperation with appropriate federal and state transportation, resource and environmental agencies.

The major activities of the AA and DEIS include:

- Defining the Corridor Study's purposes and needs;
- Developing the Corridor alternatives, which involves conceptual engineering, technology assessments and alternatives screening;
- Developing and applying the AA evaluation process and criteria;
- Initiating and continuing public involvement throughout the study; and
- Conducting environmental scoping, which would include two meetings, one intended for agencies and the other intended for the general public, and direct mailing soliciting input for the AA and DEIS process (e.g., mail out of project's EIS Preparation Notice);
- Conducting detailed transportation, financial and environmental analyses of the alternatives considered to be good candidates for implementation;
- Responding to agency and public comments on the Draft AA and Draft EIS; and
- Preparing a Federal Transit Administration Section 5309 New Starts application for future federal funding.

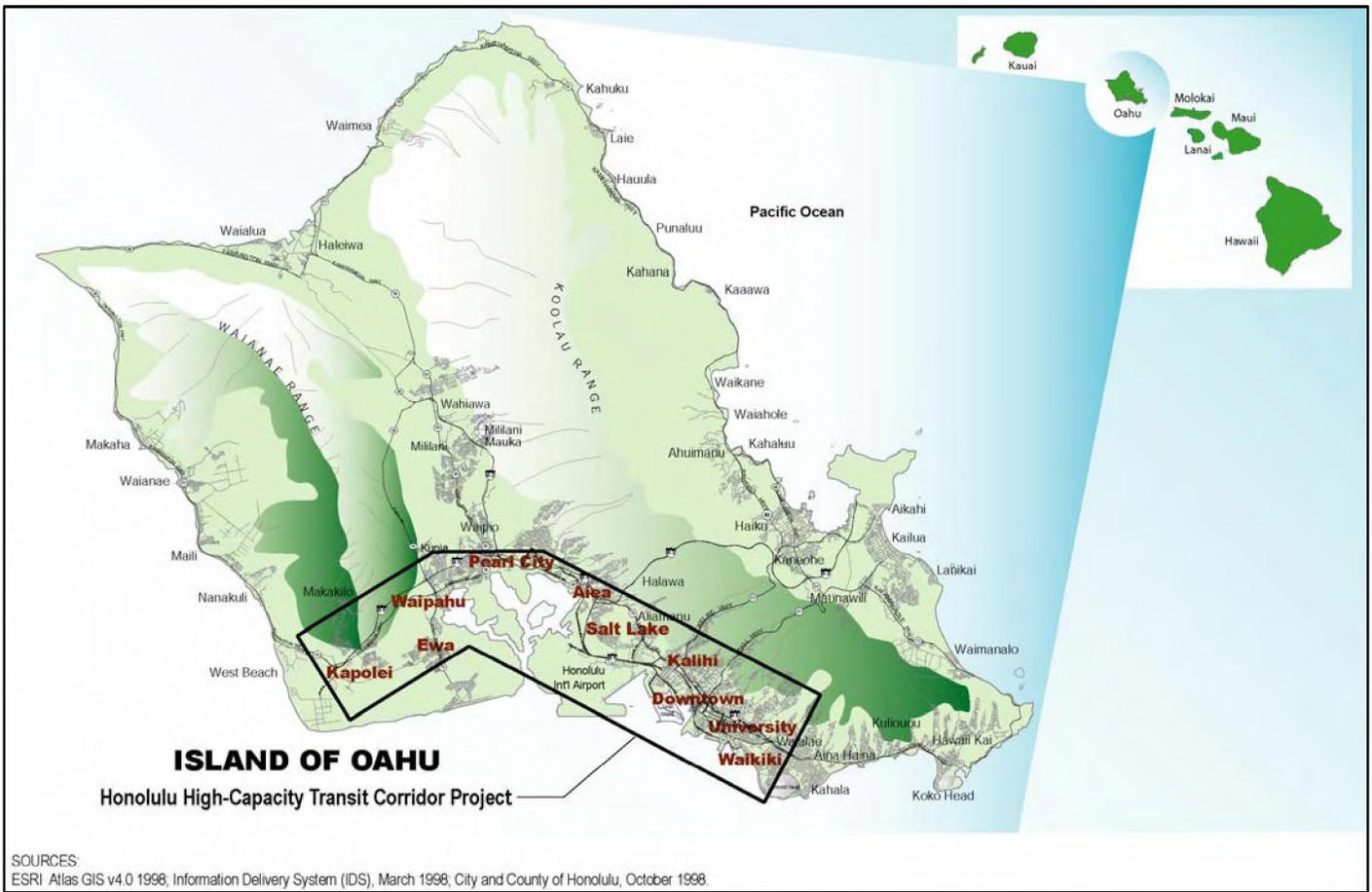


FIGURE 1-1: Honolulu High-Capacity Transit Corridor

1.2.3 Contract Summary

Client: City and County of Honolulu
Department of Transportation Services
650 South King Street
Honolulu, Hawai'i 96813

Agreement Name: High-Capacity Transit Corridor Project
Contract Number: F54306

Contact: Melvin Kaku, Director
PH: (808) 523-4125 FX: (808) 523-4730

Project Manager: Toru Hamayasu
PH: (808) 527-6978 FX: (808) 527-6987

Notice-to-Proceed: August 29, 2005

Completion: On or before August 19, 2007

PB Agreement Number: 16434A

Contract Type: Lump Sum

2.0 ORGANIZATION

2.1 ORGANIZATION PLAN

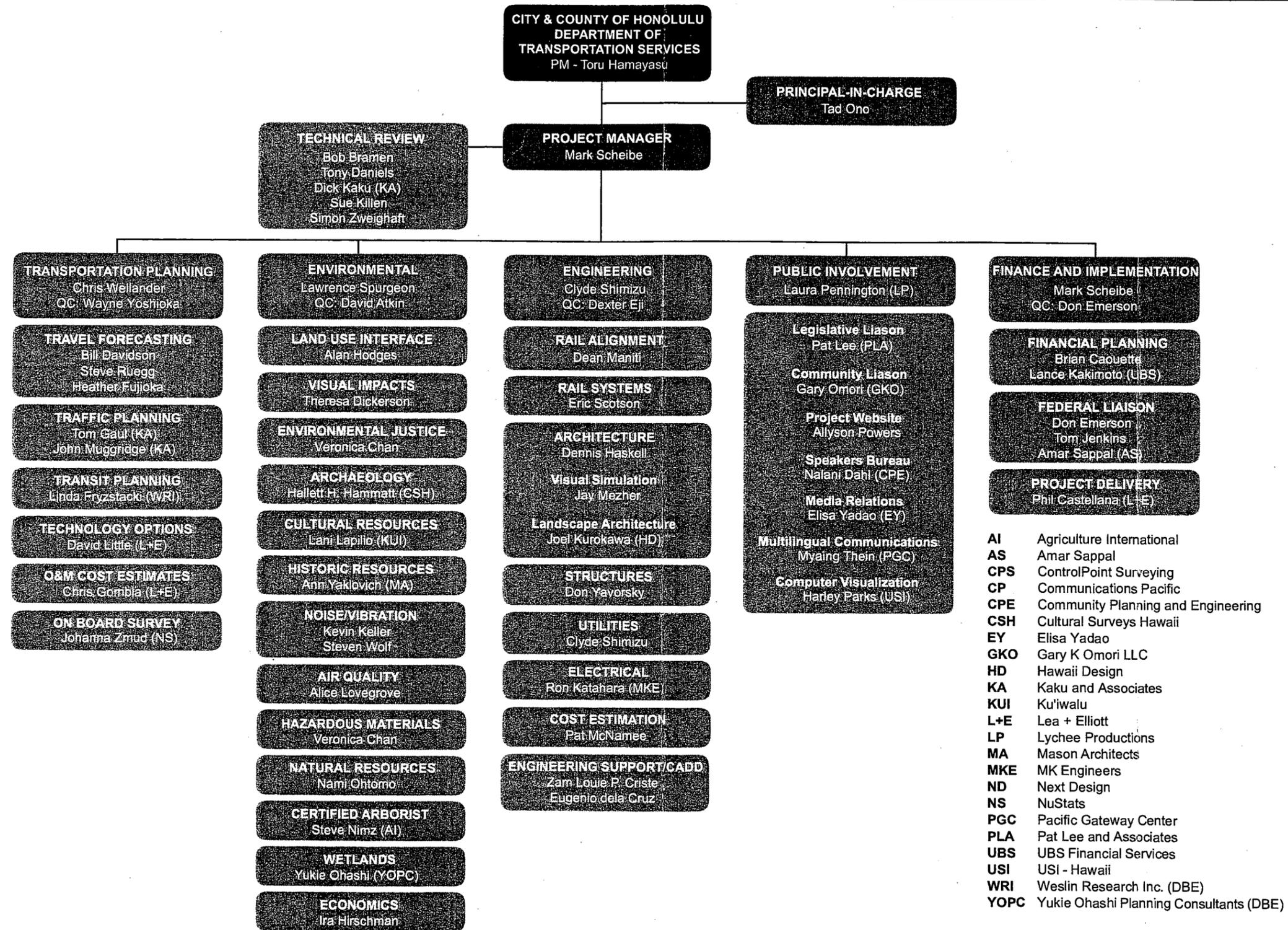
The Project Manager (PM) is responsible for the coordination of all tasks within the HHCTC Project Team, between team members and DTS, and with other agencies. The PM is responsible for all written communications with the client and for the notification of schedule requirements such as monitoring task progress and schedule and scope changes. The PM also is responsible for monitoring the quality control plan, and the production and review of all deliverables. The PM will be in charge of developing a progress report for the client and presenting a relevant account of the project's advancement monthly.

Because the project is being developed as a team effort, a detailed organizational chart has been developed and is provided in Figure 2-1. The organization of the study defines a clear line of control, beginning with the client (DTS), and passing through the PM to individual team members. The project encompasses the following major areas:

- Transportation Planning
- Environmental Analysis
- Engineering and Design
- Public Involvement
- Finance and Implementation

For each task, a task leader is identified to assist the PM in the successful completion of the task. Each of these task leaders identified in Figure 2-1 is responsible, as directed by the PM, for communications with the DTS, associated agencies and other team members to successfully complete the individual tasks. Copies of phone conversation memos and meeting minutes will be circulated within the team, as appropriate, with a copy specifically going to the PM and project file. The PM will be responsible for keeping the client informed of pertinent information as it is developed within each task. The PM will assure that PB standards for technical quality are met. A team contact list and directory is included as Appendix B.

The project will be managed within PB's Honolulu office. Project files will be maintained at the Honolulu office in the order designated in the file index shown in Appendix C.



Project Team Organization Chart

Figure 2-1

2.2 ROLES AND RESPONSIBILITIES

This multidisciplinary study will require the combined effort of many consulting firms (Honolulu High-Capacity Transit Corridor Project Team) working as a team with DTS. These firms are:

- Parsons Brinckerhoff Quade & Douglas, Inc.
- PB Consult Inc.
- Agricultural International
- Amar Sappal
- Community Planning and Engineering, Inc.
- ControlPoint Surveying, Inc.
- Cultural Surveys Hawai‘i
- Donald Durkee
- Elisa Yadao
- Gary K. Omori LLC
- Hawai‘i Design Associates
- KAI Hawai‘i, Inc.
- Kaku Associates, Inc.
- Ku‘iwalu
- Lea+Elliott
- Lychee Productions
- Lyon Associates, Inc.
- Mason Architects, Inc.
- MK Engineers, Ltd.
- Next Design LLC
- NuStats
- Pacific Gateway Center
- Pat Lee and Associates, Inc.
- UBS Financial Services
- USI Hawai‘i, Inc.
- Weslin Research, Inc.
- Yukie Ohashi Planning Consultants

The scope of work for the team is presented in Appendix A. The major project tasks are assigned to the various task managers as listed in Table 2-1. Technical staff that would support the task managers have been identified in Figure 2-1, the Project Organization Chart and may be modified as the need arises.

TABLE 2-1
TASK ASSIGNMENTS

Task Description	Task Leaders	Budget
Task 1: Project Management	Mark Scheibe	\$1,657,000
Task 2: Coordination with Agencies	Mark Scheibe	\$1,355,000
Task 3: Public Involvement	Lawrence Spurgeon	\$1,160,500
Task 4: Process Initiation, including Purpose & Need, study goals and objectives, an initial set of alternatives, and evaluation methods	Chris Wellander	\$129,000
Task 5: AA Initiation Memo/FTA Start Up Package	Chris Wellander	\$29,000
Task 6: Alternatives Screening	Chris Wellander	\$333,000
Task 7: Alternatives Analysis	Lawrence Spurgeon	\$2,615,000
Task 8: Financial Analysis	Mark Scheibe	\$586,000
Task 9: Conceptual Design	Clyde Shimizu	\$894,000
Task 10: Refine and Update Methodologies	Chris Wellander	\$525,500
Task 11: Locally Preferred Alternative	Chris Wellander	\$32,000
Task 12: Application to Enter PE	Chris Wellander	\$414,000
Task 13: Government Relations	Mark Scheibe	\$200,000

3.0 WORK PROGRAM

3.1 STATEMENT OF WORK

The Scope of Work for the Honolulu High-Capacity Transit Corridor Project (see Appendix A) specifies the tasks necessary to fulfill the federal requirements for the Alternatives Analysis (AA) and the FHWA/FTA Metropolitan Planning Regulations and other contractual requirements. The tasks led by the task leaders were identified in Table 2-1 and included cost budgets for each task. Staff assigned to the AA and DEIS will receive direction from the Task Leader before initiating work.

3.2 STUDY SCHEDULE

The Notice-to-Proceed (NTP) for the Honolulu High-Capacity Transit Corridor Project was received on August 29, 2005 and the study is expected to be completed in June 2007. The schedule is shown in Appendix D.

3.3 STAFF MEETINGS

Regular meetings in Honolulu will be hosted by the PM with Task Leaders and Subconsultant Managers at two to four week intervals. Telephone conference calls will also occur on Monday mornings with “core” team members and other team members, as warranted. Each Task Leader will conduct technical staff meetings as needed to provide direction and update local staff and subconsultants on relevant activities.

3.4 DELIVERABLES

Products for the AA are included in Appendix A but are also listed below.

- Task 1: Project Management
- Draft Project Management Plan
 - Final Project Management Plan
 - Draft Quality Control Plan
 - Final Quality Control Plan
 - Monthly Progress Reports
- Task 2: Coordination with Agencies
- Monthly Coordination Progress Reports
 - Computer Visualizations
 - Technical Memoranda
- Task 3: Public Involvement
- Draft Public Involvement Plan
 - Final Public involvement Plan

- Monthly Public Involvement Progress Reports
- Community Update Meeting Summary Reports

Task 4: Process Initiation

- Draft Purpose and Need Statement
- Final Purpose and Need Statement
- Draft Process Initiation Summary Memo
- Final Process initiation Summary Memo

Task 5: AA Initiation Memo/FTA Start-up Package

- AA Initiation Memo
- Start-up Package for FTA

Task 6: Alternatives Screening

- Draft Technology Options Memo
- Final Technology Options Memo
- Draft Alternatives Screening Memo
- Final Alternatives Screening Memo

Task 7: Alternatives Analysis

- Draft Notice of Intent and EISPN
- Final Notice of Intent and EISPN
- Draft AA Annotated Outline
- Final AA Annotated Outline
- Conceptual Alternatives Memorandum
- Agency Scoping Meeting Materials
- Public Scoping Meeting Materials
- Draft Scoping Report
- Final Scoping Report
- Detailed Definition of Alternatives Memorandum
- Draft Environmental Methodology Report
- Final Environmental Methodology report
- Draft Affected Environment/Environmental Baseline Report
- Final Affected environment/Environmental Baseline Report
- Train Operations Analysis of Waikīkī Branch and UH Mānoa Branch
- Bus Operations and Maintenance Facility Requirements Memo
- Station Area Alternative Access and Egress Modes Memo
- Bus Service Development and Operating Policies Memo
- Draft Travel Demand Forecasting Results
- Final Travel Demand Forecasting Results
- Draft Transportation Impacts Results Report
- Final Transportation Impacts Results Report
- Draft Alternatives Evaluation Results Report
- Final Alternatives Evaluation Results Report

- Draft Air Quality Technical Report
- Final Air Quality Technical Report
- Draft Noise and Vibration Technical Report
- Final Noise and Vibration Technical Report
- Draft Hazardous Materials Technical Report
- Final Hazardous Materials Technical Report
- Draft Water Resources Technical Report
- Final Water Resources Technical Report
- Draft Cultural Resources Technical Report
- Final Cultural Resources Technical Report
- Draft Historic and Archeological Technical Report
- Final Historic and Archeological Technical Report
- Draft Natural Resources Technical Report
- Final Natural Resources Technical Report
- Draft Energy Technical Report
- Final Energy Technical Report
- Draft Land Use Plans and Policies Technical Report
- Final Land Use Plans and Policies Technical Report
- Draft Environmental Justice/Social Impacts Technical Report
- Final Environmental Justice/Social Impacts Technical Report
- Draft Economics Technical Report
- Final Economics Technical Report
- Draft Visual Impacts Technical Report
- Final Visual Impacts Technical Report
- Preliminary Draft Alternatives Analysis Report
- Draft Alternatives Analysis Report
- Alternatives Analysis Report

Task 8: Financial Analysis

- Draft Funding Options Analysis
- Final Funding Options Analysis
- Draft Evaluation of Project Delivery Options
- Final Evaluation of Project Delivery Options
- Draft O&M Costing Memorandum
- Final O&M Costing Memorandum
- Draft Capital Costing Memorandum
- Final Capital Costing Memorandum
- Draft Financial Feasibility Report
- Final Financial Feasibility Report
- Draft Financial Plan
- Final Financial Plan

Task 9: Conceptual Design

- Draft Design Criteria

- Final Design Criteria
- Draft Alignment Plan and Profile
- Final Alignment Plan and Profile
- Draft Maintenance and Storage Facility General Layout and Location Plans
- Final Maintenance and Storage Facility General Layout and Location Plans
- Draft Typical Structural Details
- Final Typical Structural Details
- Draft Technical Memorandum on Roadway Modifications
- Final Technical Memorandum on Roadway Modifications
- Draft Technical Memorandum on Utility Relocations
- Final Technical Memorandum on Utility Relocations
- Draft Station Conceptual Plans
- Final Station Conceptual Plans
- Draft Technical Memorandum on Right-of-Way Needs
- Final Technical Memorandum on Right-of-Way Needs
- Draft Tunnels and Underground Stations Technical Report
- Tunnels and Underground Stations Technical Report

- Task 10: Refine and Update Methodologies
- Draft On-Board Survey Design
 - Final On-Board Survey Design
 - Draft On-Board Survey Results
 - Final On-Board Survey Results
 - Draft Model User's Guide Updates and Revisions
 - Final Model User's Guide Updates and Revisions
 - Draft Model Re-Calibration and Validation Report
 - Final Model Re-Calibration and Validation Report

- Task 11: Locally Preferred Alternative
- Draft Locally Preferred Alternatives Report
 - Final Locally Preferred Alternatives Report

- Task 12: Application to Enter Preliminary Engineering (PE)
- Draft Revised Notice of Intent
 - Final Revised Notice of Intent
 - Agency Scoping Meeting Materials
 - Public Scoping Meeting Materials
 - Draft Agency Coordination Plan and Schedule
 - Final Agency Coordination Plan and Schedule
 - Draft NEPA Scoping Report
 - Final NEPA Scoping Report
 - Draft LPA Travel Forecasts
 - Final LPA Travel Forecasts
 - Draft Final Definition of Alternatives Report

- Final Final Definition of Alternatives Report
- Draft LPA Cost Estimate
- Final LPA Cost Estimate
- Section 5309 New Starts Report Submittal
- Draft PMP
- Application to Enter PE
- Review and Approval Memorandum for FTA

Task 13: Government Relations

- Quarterly Government Relations Progress Reports

All deliverables will be circulated among the appropriate members of the Project Team prior to submittal to DTS. **Prior to submittal of any draft or final document by a subconsultant, such document shall be reviewed five days in advance of submittal by the Task Leader (unless other arrangements are approved by the PM) and subject to appropriate quality control.** Each subconsultant is responsible for the accuracy and quality of his/her own work.

All deliverables will be transmitted under the signature of the PM, Mark Scheibe, or his designee. It is anticipated that DTS will review the deliverable and make comments within two weeks following submittal.

3.5 PROJECT DEVELOPMENT AND DECISION PROCESS

DTS staff will, in all cases, direct the project development process and will make all major decisions regarding the execution and direction of the project. The PB Project Manager will provide information and counsel to DTS as needed and will ensure that the project tasks are executed in accordance with the direction provided by DTS. Final approval of products and/or deliverables is the responsibility of DTS.

3.6 PROTOCOL

A standard protocol will be observed to ensure maximum coordination: to provide information to the Project Team in a timely fashion, and to facilitate the management and execution of the project. Several of these protocols have been highlighted throughout this plan, but are summarized here for convenient reference.

Any calls from the media will be referred to the DTS PM (Toru Hamayasu) through the consultant PM.

All submittals to DTS must be reviewed according to the project QA/QC plan and passed through the PB PM for release approval at least 2 days before the due date.

Meetings and conversations will be documented (forms are provided in Appendix C) and submitted to the PM.

All documents MUST adhere to the style guide that will be prepared specifically for this project and copied on ProjectSolve to facilitate production of final deliverables.

All requests for information, data, etc. will be made through the consultant PM.

All data received or collected directly must be copied and transmitted to the PM for general availability. Regular submittal of reports and deliverables by subconsultants will be made into the appropriate team function folder on ProjectSolve. ProjectSolve will track the revisions and maintain the latest updates to all major reports and deliverables

It is the Task Manager's responsibility to distribute information to key technical staff. ProjectSolve will be available to the Task Managers for their use in coordinating their technical staff.

ALL project staff submitting expense reports MUST make legible copies of those reports and backup.

3.7 OTHER MANAGEMENT GUIDES

A Project Quality Control Plan has been developed for this study and is attached as Appendix E and is available on ProjectSolve. Each subconsultant is responsible for the accuracy of its own work, but shall at a minimum, adhere to the Project Quality Control Plan or submit its own quality control plan to the Project Manager, Mark Scheibe, for approval.

In order to achieve the quality goals, all project deliverables will be checked by the reviewers listed in Table E.4-1 in Appendix E and will receive quality reviews before being released to anyone outside the Project Team. Subconsultants are required to perform similar reviews before submittal of documents to PB for further processing. Quality Assurance/Quality Control (QA/QC) will be a scheduled and budgeted event within the development of each deliverable. In addition to normal, ongoing routine checking and review, milestone and final reviews of reports, estimates and plans will be conducted to ensure consistent quality and accuracy.

APPENDIX A – SCOPE OF WORK

SCOPE OF SERVICES

1.0 PROJECT MANAGEMENT

Project Management Plan

The CONSULTANT shall prepare a Project Management Plan (PMP) that will identify each task and subtask, the schedule for each deliverable, the budget for each subtask, and the person responsible for completing that task so that each task leader and each member of the team understands what is expected. The plan will also contain an overall schedule and milestone chart which will be reviewed each week by the project manager and the task leaders. Weekly coordination meetings will be held with DTS staff as well. The best times and opportunities for public outreach and involvement to present information and obtain regular feedback will be identified in the plan.

Detailed Scheduling Coordination and Monitoring

The CONSULTANT shall develop a Critical Path Method project schedule using scheduling software, such as Microsoft Project, that will indicate tasks, durations, due dates, deliverables, and most importantly, milestone decision points and critical path activities. Major tasks and reviews will be tracked to this master schedule. The CONSULTANT shall work side-by-side with DTS staff to update and modify the schedule weekly as the project progresses.

Continuous Team and Client Communication

Regular weekly meetings will also be held with the client as a means of keeping DTS management informed of project activities. Agendas and meeting minutes will be prepared by the CONSULTANT for every meeting and distributed to all attendees and other key project personnel. All meeting agendas will include a final item in which attendees will be asked for progress feedback. Additionally, the Project Manager (PM), or other staff as required, will always be available for impromptu meetings.

To facilitate the timely distribution, sharing and coordination of project information among team members, the CONSULTANT shall use ProjectSolve, a secure Internet-based proprietary software program to communicate and manage technical and administrative aspects of the project with the DTS project manager and any designated DTS staff. ProjectSolve will be used for a variety of management functions, including the following: to assign and track tasks; to keep common team calendars; and to automatically inform team members of any additions, deletions, or other changes in project substance, site development, or schedule items.

Quality Control Plan

A Quality Control (QC) Plan is required by PB company policy for all projects to ensure that deliverables submitted to the CITY are independently reviewed by key senior staff with specific and relevant expertise in the appropriate project areas. This plan for the AA/DEIS will be developed by the PM and distributed to all project staff.

Monthly Management Progress Report

The CONSULTANT shall prepare a monthly progress report describing project management activities and issues.

Task 1 Deliverables

1.1	Draft	Project Management Plan (5 copies)
1.1	Final	Project Management Plan (10 copies + CD)
1.2	Draft	Quality Control Plan (5 copies)
1.2	Final	Quality Control Plan (10 copies + CD)
1.3.1		Initial Schedule (1 copy)
1.3.2		Monthly Management Progress Report (1 copy)
1.3.3		Monthly Management Progress Report (1 copy)
1.3.4		Monthly Management Progress Report (1 copy)
1.3.5		Monthly Management Progress Report (1 copy)
1.3.6		Monthly Management Progress Report (1 copy)
1.3.7		Monthly Management Progress Report (1 copy)
1.3.8		Monthly Management Progress Report (1 copy)
1.3.9		Monthly Management Progress Report (1 copy)
1.3.10		Monthly Management Progress Report (1 copy)
1.3.11		Monthly Management Progress Report (1 copy)
1.3.12		Monthly Management Progress Report (1 copy)
1.3.13		Monthly Management Progress Report (1 copy)
1.3.14		Monthly Management Progress Report (1 copy)
1.3.15		Monthly Management Progress Report (1 copy)
1.3.16		Monthly Management Progress Report (1 copy)
1.3.17		Monthly Management Progress Report (1 copy)
1.3.18		Monthly Management Progress Report (1 copy)
1.3.19		Monthly Management Progress Report (1 copy)
1.3.20		Monthly Management Progress Report (1 copy)
1.3.21		Monthly Management Progress Report (1 copy)
1.3.22		Monthly Management Progress Report (1 copy)

2.0 COORDINATION WITH AGENCIES

Open and responsive communication with public agencies and government officials, including elected members of the City Council and the State Legislature will be directed by DTS staff.

Coordination with FTA

The CONSULTANT, along with DTS staff, will meet at least quarterly with FTA Region IX representatives, either in person or via conference call, to keep agency staff fully apprised of the progress of the project. If needed, CONSULTANT staff and DTS staff can also meet and talk with FTA Headquarters staff in Washington, DC.

~~The CONSULTANT shall prepare the FY 2008 Section 5309 New Starts Report for submittal to FTA.~~

Coordination with Other Government Agencies

The CONSULTANT shall maintain close coordination with a range of government agencies (e.g., Aloha Stadium, Hawaii DOT, HCDA, etc.). Coordination may be formal (e.g., Intergovernmental Task Force) or informal. Methods of effectively coordinating with other agencies will be established at the outset of the project in discussions with DTS.

In addition, the project may involve actions by federal agencies additional to FTA (e.g., FHWA), and State and County agencies additional to the CITY (e.g., Hawaii DOT). The initial intent is for the NEPA and Chapter 343 responsibilities of these other agencies to be satisfied by having them be “cooperating agencies” on the AA to be produced through this project and future DEIS ~~to be produced through this project~~. Agencies that would have NEPA and Chapter 343 obligations as a result of project implementation would be invited to participate as cooperating agencies.

In addition, other agencies will need to issue permits and other approvals for project implementation. At the outset of the project, the Project Management Team will identify specific staff members with agencies responsible for project reviews and approvals. These agencies will likely include the Hawaii Department of Land & Natural Resources, the Hawaii Department of Transportation, Federal Highway Administration, US Fish and Wildlife Service, Army Corps of Engineers, and US Environmental Protection Agency. Frequent communication will occur with these agencies via personal meetings, briefings, testimony, email, telephone, and other appropriate forms as requested by the CITY.

Support DTS Staff

The CONSULTANT shall support the CITY in providing briefings to public agencies, the City Council and other governmental entities. The CONSULTANT shall also support the CITY by drafting project-related correspondence, preparing technical memoranda and issue papers, and producing graphics for meetings and other forums, including those technical memoranda from a legal perspective related to FTA grant program requirements as they affect or are affected by FTA’s statutory, regulatory, and administrative requirements related to New Starts and environmental impact statements. Also, the CONSULTANT shall produce up to four computer visualizations.

Monthly Coordination Progress Report

The CONSULTANT shall prepare a monthly progress report describing project coordination and DTS support activities and issues.

Task 2 Deliverables

- 2.0.1 Monthly Coordination Progress Report (1 copy)
- 2.0.2 Monthly Coordination Progress Report (1 copy)
- 2.0.3 Monthly Coordination Progress Report (1 copy)
- 2.0.4 Monthly Coordination Progress Report (1 copy)
- 2.0.5 Monthly Coordination Progress Report (1 copy)
- 2.0.6 Monthly Coordination Progress Report (1 copy)
- 2.0.7 Monthly Coordination Progress Report (1 copy)
- 2.0.8 Monthly Coordination Progress Report (1 copy)
- 2.0.9 Monthly Coordination Progress Report (1 copy)
- 2.0.10 Monthly Coordination Progress Report (1 copy)
- 2.0.11 Monthly Coordination Progress Report (1 copy)
- 2.0.12 Monthly Coordination Progress Report (1 copy)
- 2.0.13 Monthly Coordination Progress Report (1 copy)
- 2.0.14 Monthly Coordination Progress Report (1 copy)
- 2.0.15 Monthly Coordination Progress Report (1 copy)
- 2.0.16 Monthly Coordination Progress Report (1 copy)
- 2.0.17 Monthly Coordination Progress Report (1 copy)
- 2.0.18 Monthly Coordination Progress Report (1 copy)
- 2.0.19 Monthly Coordination Progress Report (1 copy)
- 2.0.20 Monthly Coordination Progress Report (1 copy)
- 2.0.21 Monthly Coordination Progress Report (1 copy)
- ~~2.1~~ ~~FY 2008 Section 5309 New Starts Report Submittal (5 copies + CD)~~
- 2.2.1 Computer Visualization (CD)
- 2.2.2 Computer Visualization (CD)
- 2.2.3 Computer Visualization (CD)
- 2.2.4 Computer Visualization (CD)
- 2.3.1 Technical Memorandum #1 (2 copies + CD)
- 2.3.2 Technical Memorandum #2 (2 copies + CD)
- 2.3.3 Technical Memorandum #3 (2 copies + CD)
- 2.3.4 Technical Memorandum #4 (2 copies + CD)
- 2.3.5 Technical Memorandum #5 (2 copies + CD)
- 2.3.6 Technical Memorandum #6 (2 copies + CD)
- 2.3.7 Technical Memorandum #7 (2 copies + CD)
- 2.3.8 Technical Memorandum #8 (2 copies + CD)
- 2.3.9 Technical Memorandum #9 (2 copies + CD)

2.3.10	Technical Memorandum #10 (2 copies + CD)
2.3.11	Technical Memorandum #11 (2 copies + CD)
2.3.12	Technical Memorandum #12 (2 copies + CD)
2.4.1	Technical Memorandum #13 (2 copies + CD)
2.4.2	Technical Memorandum #14 (2 copies + CD)
2.4.3	Technical Memorandum #15 (2 copies + CD)
2.4.4	Technical Memorandum #16 (2 copies + CD)

3.0 PUBLIC INVOLVEMENT

Public participation and outreach will include:

- Identifying the various publics potentially most interested in/affected by the study and developing a plan for including them in every major planning step;
- Making special efforts to elicit the participation of environmental justice populations;
- Planning and implementing a transit symposium;
- Educating all publics and keeping them up-to-date about study progress;
- Addressing all concerns;
- Building on DTS's public participation programs from previous corridor projects;
- Planning publicity efforts in cooperation with the CITY; and
- Utilizing community groups, neighborhood associations and other existing resources within the corridor.

~~The approach has six key innovative features:~~

- ~~1. Client/participating agency leadership and involvement in all aspects of the program. A design charrette, which will be a daylong brainstorming/strategy meeting between the public involvement team, DTS, and other key stakeholders to develop the public involvement program, will be held after community input is received.~~
- ~~2. Personal community leader interviews.~~
- ~~3. Design the program with the people who will be participating.~~
- ~~4. Development of six to 10 programs tailored for the key publics.~~
- ~~5. Use of a wide range of innovative techniques and strategies.~~
- ~~6. Responsiveness and follow-up. Every comment will be documented. Every question will be answered.~~

Public Involvement Plan

The CONSULTANT shall prepare a Public Involvement Plan (PIP) outlining the specific community relations and outreach strategies for the Alternatives Analysis (AA). This report will consist of the approach to engaging and informing the public during the alternatives analysis

and environmental review process. The program will identify target publics, develop goals for the participation of each, and then design strategies for accomplishing these goals.

Particular attention will be paid to reaching groups that are traditionally underserved and underrepresented in the public involvement process, the low-income and minority populations that are often referred to as “environmental justice” populations. Materials will be prepared in the major languages of Oahu and translators will be available upon request at the meetings. Information will be distributed through cultural organizations, ethnic associations, housing associations and community development groups ~~such as Empower Oahu, the Kalihi-Palama-Chinatown Community Initiating Group, and similar groups in other areas of the island.~~

To reach all audiences, various printed and visual materials will be used to convey information about the project, and the public will be provided with a number of ways to provide input such as written comment forms, oral testimony, discussions with project staff, a project hotline, and an interactive project website, among others.

Community Update Meetings

The CONSULTANT shall arrange for, staff, and make presentations at a series of Community Update Meetings at various locations in the corridor and elsewhere on Oahu. The CONSULTANT shall prepare a brief summary report for each meeting, identifying the location, approximate attendance, and a printed copy of the PowerPoint presentation used.

Project Website

The CONSULTANT shall develop an interactive Internet project website that will provide the community with information of interest, including fact sheets, alignment data, public meeting schedules, and project renderings/photos. In addition, the website will allow individuals to email comments, respond to project questionnaires, and link to other websites relevant to the project.

Public Comment Management

The CONSULTANT shall maintain a database of all public and agency comments received concerning the Alternatives Analysis and ~~DEIS~~ using a Web-based data tracking program called PBCommentSense. In general, the CONSULTANT shall respond to comments received via telephone, email or in writing within five business days once received by the CONSULTANT. Comments will be categorized by topic area (e.g., alignment issues, ridership, environmental, etc.) for ease of retrieval and Team analysis.

Monthly Public Involvement Progress Report

The CONSULTANT shall prepare a monthly progress report describing public involvement activities and issues.

Task 3 Deliverables

3.1	Draft	Public Involvement Plan (5 copies)
3.1	Final	Public Involvement Plan (10 copies + CD)
3.2.1		Monthly Public Involvement Progress Report (1 copy)
3.2.2		Monthly Public Involvement Progress Report (1 copy)
3.2.3		Monthly Public Involvement Progress Report (1 copy)
3.2.4		Monthly Public Involvement Progress Report (1 copy)
3.2.5		Monthly Public Involvement Progress Report (1 copy)
3.2.6		Monthly Public Involvement Progress Report (1 copy)
3.2.7		Monthly Public Involvement Progress Report (1 copy)
3.2.8		Monthly Public Involvement Progress Report (1 copy)
3.2.9		Monthly Public Involvement Progress Report (1 copy)
3.2.10		Monthly Public Involvement Progress Report (1 copy)
3.2.11		Monthly Public Involvement Progress Report (1 copy)
3.2.12		Monthly Public Involvement Progress Report (1 copy)
3.2.13		Monthly Public Involvement Progress Report (1 copy)
3.2.14		Monthly Public Involvement Progress Report (1 copy)
3.2.15		Monthly Public Involvement Progress Report (1 copy)
3.2.16		Monthly Public Involvement Progress Report (1 copy)
3.2.17		Monthly Public Involvement Progress Report (1 copy)
3.2.18		Monthly Public Involvement Progress Report (1 copy)
3.2.19		Monthly Public Involvement Progress Report (1 copy)
3.2.20		Monthly Public Involvement Progress Report (1 copy)
3.2.21		Monthly Public Involvement Progress Report (1 copy)
<u>3.3.1</u>		<u>Community Update Meeting 1 Summary Report</u>
<u>3.3.2</u>		<u>Community Update Meeting 2 Summary Report</u>
<u>3.3.3</u>		<u>Community Update Meeting 3 Summary Report</u>
<u>3.3.4</u>		<u>Community Update Meeting 4 Summary Report</u>
<u>3.3.5</u>		<u>Community Update Meeting 5 Summary Report</u>
<u>3.3.6</u>		<u>Community Update Meeting 6 Summary Report</u>
<u>3.3.7</u>		<u>Community Update Meeting 7 Summary Report</u>
<u>3.3.8</u>		<u>Community Update Meeting 8 Summary Report</u>
<u>3.3.9</u>		<u>Community Update Meeting 9 Summary Report</u>
<u>3.3.10</u>		<u>Community Update Meeting 10 Summary Report</u>
<u>3.3.11</u>		<u>Community Update Meeting 11 Summary Report</u>

4.0 PROCESS INITIATION

Under this task, the CONSULTANT shall initiate the critical tasks of drafting the project's purpose and need, defining the study goals and objectives, and identifying a list of conceptual

transportation alternatives for subsequent screening and evaluation. For six technical areas, the CONSULTANT shall also prepare individual methodology reports specifying the technical approach for conducting the alternatives analysis.

Prepare Purpose and Need

A draft Purpose and Need Statement will be developed that establishes the problems that must be addressed in the study; serves as the basis for the development of project goals, objectives, and evaluation measures; and provides a framework for determining which alternatives should be considered as reasonable options in the corridor. A primary source of information for identifying specific corridor problems and establishing the goals and objectives for improvement will be the Oahu Regional Transportation Plan and Public Scoping.

Establish Goals and Objectives

Consistent with FTA guidance and good planning practice, goals and objectives will be developed to support evaluation measures in several categories, including:

- Effectiveness – the extent to which alternatives solve the stated transportation problems in the corridor;
- Impacts – the extent to which the alternatives impact, positively or negatively, nearby natural resources and neighborhoods, air quality, the adjacent transportation network and facilities, land use, the local economy, etc.;
- Cost Effectiveness – the extent to which the costs of the alternatives are commensurate with their benefits;
- Financial Feasibility – the extent that funds required to build and operate the alternatives are likely to be available; and
- Equity – that is, the costs and benefits of the alternatives are distributed fairly across different populations.

Using this guidance, the CONSULTANT shall prepare a set of project goals and objectives using information from the Oahu Regional Transportation Plan, Public Scoping, and from the CITY.

Create Initial Set of Alternatives

The CONSULTANT shall define an initial set of conceptual alternatives considering the goals and objectives. These alternatives will be drawn from the CONSULTANT's work on the Oahu Regional Transportation Plan and on previous transit planning efforts in the corridor. The initial alternatives will be developed based on the CONSULTANT's understanding of engineering constraints and expectations of the public, the CITY, and cooperating agencies. The initial conceptual alternatives will include fixed-guideway alignments spanning the length of the study area from Kapolei to the University of Hawaii at Manoa, integrated with restructured and improved bus services throughout Oahu. Other conceptual alternatives will include bus-based

high capacity transit services utilizing high occupancy vehicle (HOV) and/or “zipper” lanes on highway facilities, possibly supplemented with exclusive bus facilities in some locations. Conceptual alternatives with lower capital costs, such as providing expanded bus service on existing facilities, will be considered.

Non-transit alternatives will also be examined to see if they meet the purpose and need for transportation improvements in the corridor. These alternatives may include such proposals as a two-way HOT-lane viaduct along the H-1 right-of-way, a ferry system from Leeward to town, and proposals for roadways across Pearl Harbor.

Develop Evaluation Methods

The CONSULTANT shall prepare a document summarizing the methodology used in the screening and alternatives definition process, and the methodologies proposed for use in evaluating the alternatives. The reports will address six specific areas, including social, economic, environmental and equity impacts; capital costing; O&M costing; travel demand forecasting; financial analysis; and evaluation of alternatives.

Task 4 Deliverables

4.0	Draft	Purpose and Need Statement (5 copies)
4.0	Final	Purpose and Need Statement (5 copies + CD)
4.1	Draft	Work Plan for FTA Review (3 copies)
4.1	Final	Work Plan for FTA Review (5 copies + CD)
4.2	Draft	Process Initiation Summary Memo (3 copies)
4.2	Final	Process Initiation Summary Memo (5 copies + CD)

5.0 AA INITIATION MEMO/FTA START-UP PACKAGE

The materials developed during Task 4 will provide the basis for FTA participation in the Alternatives Analysis. A successful new start request relies on FTA understanding and being engaged in the project. Their early participation will help the CITY identify and address issues early in the AA process, ensure that the information developed meets their expectations, and develop an understanding of the project to support later advancement of the project into preliminary engineering. To initiate this process, the CONSULTANT shall prepare an AA Initiation Memo for agency review and approval.

Draft FTA Start-up Package

The CONSULTANT shall prepare an FTA Start-up Package consisting of three elements:

- A description of the study area, transportation problems, and needs;
- Identification of study goals, objectives, and preliminary evaluation measures; and

- A description of the conceptual alternatives.

Each of the elements will be fully documented and presented in a draft written report for submittal to the CITY for review and comment. Following the receipt of comments, a revised version of the document will be submitted to FTA for its review. It is anticipated that five copies of the report will be submitted to FTA.

~~Respond to FTA Comments and Requests~~

~~Following the receipt of comments from FTA, the CONSULTANT shall revise and produce a final version of the Start-up Package. If additional technical information is requested, the CONSULTANT shall provide this information as well. The completion of this initial deliverable to FTA will provide the agency with a clear understanding of the project and its intended purpose.~~

Task 5 Deliverables

- 5.1 AA Initiation Memo (5 copies + CD)
- 5.2 Start-up Package to FTA (5 copies + CD)
- ~~5.3 Revised Start-up Package in Response to FTA Comments (5 copies + CD)~~

6.0 ALTERNATIVES SCREENING

6.1 Technology Options Evaluation

One activity in the initial alternatives screening phase will be a survey and assessment of transit technologies to determine those most appropriate for application to Honolulu. Transit technologies providing high-capacity line-haul services and complementary feeder and local services will be investigated. For line-haul service, the technology search will start comprehensively to fully address public concerns and interest. The assessment will address the suitability of the scale and cost of the various technologies in relation to the context of various Oahu locations. The assessment also will compare the capacity and operating characteristics of the technologies to the needs of the Corridor. The initial assessment of the suitability of the various technologies will be documented in a technical paper.

6.2 Screen Initial Alternatives

The CONSULTANT shall undertake a screening of the preliminary alternative design concepts for a major transportation investment in the corridor, ending with a smaller set of alternatives, to be presented in the scoping process. The screening process will examine key elements of the initial set of conceptual alternatives, including engineering constraints, public and agency acceptance, estimated capital and operating costs, travel demand, cost-effectiveness, and critical environmental issues.

Travel forecasts will be prepared for the various conceptual alternatives or, where possible, forecasts prepared for the ORTP update will be utilized.

For the conceptual alternatives, engineering constraints will be identified to determine if right-of-way, geometry and other physical limitations exist along an alignment that might limit or potentially prevent the location and operation of improvements such as trackway, signals, stations, or other structures.

Environmental constraints also will be identified that could limit or potentially prevent the construction and operation of project improvements. This might include the presence of sensitive wildlife habitat, wetlands, endangered or threatened species, historic or parkland resources, sensitive noise receptors, or other environmental factors.

Alternatives which are found to have serious flaws or do not appear to be competitive in comparison to the other alternatives will be deleted and the reasons for their elimination noted. The set of alternatives that pass this screening phase will be a smaller number of alternatives, each representing a reasonable, feasible approach to addressing the defined purpose and need.

Task 6 Deliverables

6.1	Draft	Technology Options Memo (5 copies)
6.1	Final	Technology Options Memo (10 copies + CD)
6.2	Draft	Alternatives Screening Memo (5 copies)
6.2	Final	Alternatives Screening Memo (10 copies + CD)

7.0 ALTERNATIVES ANALYSIS/ AND ENVIRONMENTAL TECHNICAL STUDIES/DEIS (NEPA AND (HRS CHAPTER 343)

The purpose of this task is to conduct the environmental analyses, prepare the technical reports, and produce a document satisfying multiple purposes, including but not limited to:

- CITY analysis for Locally Preferred Alternative (LPA) selection
- FTA programming-planning purposes (AA/~~DEIS~~), leading to permission to enter the PE/~~FEIS~~ phase;
- Compliance with the National Environmental Policy Act (NEPA);
- Compliance with HRS Chapter 343 (Hawaii EIS Law);
- Compliance with Section 106, National Historic Preservation Act, and HRS Chapter 6E;
- Compliance with Section 7, Endangered Species Act, and HRS Chapter 195D;
- Compliance with Title VI, Civil Rights Act, and the Executive Order on Environmental Justice;
- Compliance with the Sole Source Aquifer provisions of the Safe Drinking Water Act;
- Compliance with the Memorandum of Understanding integrating the NEPA and Section 404 processes;
- Compliance with Hawaii's Act 50 requiring consideration of cultural impacts;
- Compliance with Section 4(f) of the U.S. DOT Act;

- Compliance with Executive Orders on floodplains and wetlands; and
- Compliance with other environmental requirements customarily addressed in the environmental planning phase;

~~It is intended that one document will be used to satisfy the multiple environmental planning requirements. At a minimum, the document should integrate the NEPA and Chapter 343 processes.~~

This task will consist of several significant steps which are outlined below.

7.1 Notice of Intent (NOI) and Environmental Impact Statement Preparation Notice (EISPN)(NEPA and Chapter 343)

The CONSULTANT shall prepare a Notice of Intent (NOI), as required under NEPA, for publication in the Federal Register, and an EISPN for publication in OEQC's Environmental Notice. The CONSULTANT shall prepare draft NOI and EISPN, submit them to the CITY for review and comment, and produce final versions for submittal to FTA and OEQC. Preparation of the NOI and EISPN will occur in coordination with planning for project scoping. Comments received during scoping will be summarized in the Scoping Report.

7.2 Prepare AA/DEIS Annotated Outline

Prior to beginning work on the AA/DEIS, the CONSULTANT shall prepare and submit to the CITY for review and approval an annotated outline that will clearly describe the organizational structure of the future document. Specific chapters will address, for example, Purpose and Need, Alternatives Considered, Transportation and Circulation, Evaluation of Alternatives, Coordination and Consultation, References, and List of Preparers. It is intended that the document will be designed to satisfy the requirements of NEPA, Chapter 343, Section 4(f), and other federal, State and County environmental planning requirements.

7.3 Project Scoping

The Scoping phase will provide a foundation for initiating the AA and for later preparing the DEIS. Key activities to be conducted in preparation for the Scoping Meetings include conducting a review of existing plans, updating data and preparing goals, objectives and evaluation criteria.

A conceptual alternatives memorandum will be prepared, describing the alternatives to be presented at the scoping meetings.

Meeting materials will be prepared for the scoping meetings, including boards displaying the initial goals and objectives; the criteria to be used to evaluate the alternatives; mounted photographs and descriptions of technologies; and schematic line drawings of the screened list of alternatives on an existing base map.

Results of the scoping meetings will be documented in a Scoping Report. In accordance with Chapter 343 requirements, all substantive comments received in response to the EISPN shall be responded to in writing

Following the scoping process, the alternatives to be carried forward in the [DEIS-Alternative Analysis](#) will be documented in an [AA/DEIS/Alternatives Analysis Detailed Definition of Alternatives Memorandum Report](#).

7.4 Environmental Methodology Report

A report will be prepared documenting the methodologies to be used to assess environmental, social and economic impacts.

7.5 Affected Environment/Environmental Baseline Report

The Affected Environment/Environmental Baseline Report shall document the baseline conditions of the environmental study areas prior to the implementation of a proposed action. The Affected Environment/Environmental Baseline Report shall include the following resource categories:

- Land Use, Demographics and Economic Activity
- Visual and Aesthetics
- Air Quality
- Noise and Vibration
- Biological Resources and Ecosystems
- [Traffic](#)
- Cultural Resources
- Parklands and Open Space; [Section 4\(f\)](#)
- Hazardous Materials
- Utilities
- Energy
- Public Safety
- Right-of-Way Acquisitions/Relocations
- Environmental Justice
- Water Quality/Water Resources
- Community Impacts
- Construction Impacts
- Cumulative and Secondary Impacts

7.6 Supplemental Technical Analysis

Up to four supplemental technical studies not already described in Sections 7.7 and 7.8 of this scope will be completed, culminating in technical memoranda summarizing the analysis and findings. [The technical studies shall include:](#)

- [Train Operations Analysis of Waikiki Branch and UH Manoa Branch](#)
- [Bus Operations and Maintenance Facility Requirements](#)
- [Station Area Alternative Access and Egress Modes](#)
- [Bus Service Development and Operating Policies](#)

7.7 Alternatives Analysis/Transportation Evaluation

In this task the CONSULTANT shall assess the impacts to the existing and future transit and roadway system, and identify mitigation strategies if appropriate. The results will be clearly documented in a Results Report following FTA requirements.

Transit Impacts

Travel demand forecasts will be prepared to estimate transit patronage and station volumes for each alternative. Operating projections will include annual train revenue miles, train revenue hours, vehicle revenue miles, vehicle revenue hours, and average train length. The CONSULTANT shall also determine the peak fleet requirements. Average fares and projected fare box revenue will be estimated for each alternative.

Where necessary, mitigation measures will be developed for associated transit impacts.

Traffic Impacts

Future traffic volumes will be estimated for each of the alternatives at the study locations. These volumes will be utilized to project future roadway operating conditions. The following types of traffic impacts will be analyzed:

- Segment-based analysis. For the freeway and major street systems, daily and peak hour traffic volume projections will be utilized to illustrate the differences between the alternatives.
- ~~Intersection-based analysis. For some alternatives, evaluation of levels of service at key intersections will be required.~~
- Local access. Throughout the Corridor, the proposed alternatives may impact access to properties. The CONSULTANT shall address the access implications resulting from the project, such as driveway closures or turn restrictions. Additional impacts include the potential diversion of traffic to adjacent streets and neighborhoods.

~~For each type of impact related to the above analysis, recommended transportation mitigations will be developed. The recommended mitigations will take into account the feasibility of potential improvements such as right-of-way acquisition, traffic signal coordination and optimization, and grade-separated travel ways.~~

Station Access

~~In the vicinity of park-and-ride stations, drive-to-transit trips may result in local intersection impacts. These intersections will be analyzed and compared to the level of service standards of the local jurisdictions. Station access evaluation will qualitatively evaluate ingress and egress locations along existing streets and potential circulation impacts the level of access and egress to stations within each fixed guideway alternative option.~~

Impacts to other access modes will also be assessed such as bicycle and pedestrian circulation. Bicycle and pedestrian circulation evaluations will focus on providing the optimal condition of a seamless and safe route for non-motorized modes accessing each station.

The traffic impacts will be based on the parking demand/supply analysis as described below. Where necessary, mitigation measures will be developed.

Parking

The construction of new transit stations will require an assessment of parking needs. If adequate parking supply is not available to users, the transit system may lose attractiveness and overall passenger demand. In addition, another impact may be transit related parking demand “spilling over” to the adjacent streets and neighborhoods.

The results of transportation impact assessment and recommended mitigation strategies will be clearly documented in a Results Report following FTA guidance. The transportation impacts results report will summarize the -traffic operations analyses, station areas evaluation, and parking assessment for each alternative.

Evaluation

Based on the evaluation methodology developed in Task 4 and the completion of various technical analyses, data and evaluation measures will be arrayed in a matrix format by alternative. This technical evaluation of the alternatives will be conducted to show trade-offs among alternatives and to assist in the selection of a preferred alternative.

7.8 Environmental Technical Studies [to Support Alternatives Analysis](#)

Air Quality. The analysis will include an evaluation of the existing conditions within the study corridor: description of the air basin, current air pollution levels and trends, and the region’s compliance with state and federal standards. The assessment will address both project and local level changes in air quality. Changes in project-level emissions for the No-Build and other alternatives will be estimated from changes in travel activity (vehicle miles traveled).

Noise and Vibration. Noise and vibration impacts of transportation projects are the most commonly raised issues by the general public. Potential noise sources vary by alternative, but generally are related to rail cars moving along line segments, especially as they pass through switches or at-grade crossings where warning devices must be sounded; noise at stations, parking facilities, and maintenance facilities; and possibly parking facility noise. Vibration impacts from such alternatives are usually not substantial. Noise levels vary depending on motive source (less for electrified systems, higher for diesel engines), car design and rail conditions, and a variety of other factors.

A noise-monitoring program will be developed and implemented to establish the base line for current noise conditions. The noise and vibration analysis will include monitoring of existing noise and vibration conditions at representative sites throughout the corridor. Long-term (24-

hour) noise measurements will be conducted at up to 20 receiver locations, supplemented by short-term (30 minute) noise measurements at up to 20 additional receiver locations.

Noise projections for each of the alternatives will be developed for the sensitive receptors locations based on the assumptions listed above. General mitigation opportunities will be discussed, but not evaluated in detail for the Alternatives Analysis. Noise mitigation measures will be evaluated for all sensitive receptors where the projected noise levels exceed the FTA noise impact criteria. Projections of noise from the other noise sources defined above will be developed for each of the candidate alternatives.

Vibration propagation conditions in the corridor will be characterized through discussion of typical vibration levels. Ground-borne vibration projections will also be developed for all sensitive receptors. The projections will be based on measurements of vibration forces generated by similar transit equipment and typical building responses to ground vibration. Vibration mitigation measures will be evaluated for all receptors where the final projections indicate that vibration levels would exceed the FTA impact threshold. The effectiveness of the mitigation measures will be based on available information regarding vibration control measures in use on existing rail lines and mathematical and computer models of ground-borne vibration.

Hazardous Materials. Environmental databases compiled by regulatory agencies will be reviewed to update known hazardous waste treatment, storage, and disposal facilities (TSD), hazardous waste generators, sites that store petroleum products, and contaminated sites. Among those databases to be reviewed are: Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) CERCLIS database; National Priorities List (NPL); Resource Conservation and Recovery Act (RCRA) listings; State CERCLA, State Priority List (SPL); Solid Waste Information System (SWIS) listings; Leaking Underground Storage Tanks (LUST) listings; and Underground Storage Tanks (UST) listings.

Sites identified in these databases will be evaluated based on the established American Society for Testing and Materials (ASTM) search criteria (to account for potential contaminant migration underground) and will be located and observed in the field from public access areas. Additional sites within approximately 1000 feet from the project corridor that appear to present a potential hazard will also be identified. ~~Sites identified in these databases that are located within 1,000 feet of the project corridor (to account for potential contaminant migration underground) will be located and observed in the field from public access areas. Additional sites that appear in the field to present a potential hazard will also be identified.~~

Potential impacts related to hazardous materials/wastes will be identified qualitatively. Mitigation measures, such as avoidance, remediation, containment, and/or other alternatives will be recommended. Qualitative statements, based on existing information, will be made about the possibility of acquiring additional project ROW with possible contamination issues. Project alternatives will be compared in terms of their expected level of involvement with hazardous materials issues.

Water Resources. This includes several subtopics:

Wetlands. Wetland delineations in the study area corridors will be prepared in accordance with U.S. Army Corps of Engineers criteria. This methodology requires positive evidence of hydrophytic vegetation, hydric soils, and wetlands hydrology. Impacts to potential wetland areas will be determined for each project alternative. Acres of disturbed wetlands will be tabulated for each alternative. Observations of the functions and values of affected wetlands will be made.

Water quality. Surface water resources and ground water elevations in the project area will be identified. Areas of potential conflict with the project alternatives will be delineated and evaluated. Impacts will be assessed based on existing water quality, number of acres disturbed during construction, depth to ground water, and total acres of impervious surfaces required for each alternative. Comparative matrices will be prepared to present quantitative results for each alternative. Mitigation measures to reduce impacts will be proposed.

~~**Floodplains.** Since protection of floodplains and floodways is required by Executive Order 11988, Floodplain Management; U.S. DOT Order 5650.2, Flood Management and Protection; FHPM 6-7-3-2; and 23 CFR 650, existing floodways and floodplain limits within the study area will be identified using Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) and other existing data. Potential impacts to floodplains and floodways, such as changes to the floodplain elevations and changes to areas subject to flooding, will be identified for each alternative. If necessary, reasonable and feasible measures to minimize floodplain impacts will be proposed.~~

Cultural Resources. The assessment of potential impacts to archeological and historical resources will document the impacts of the proposed alternatives to the project's study area. An "Area of Potential Effect" (APE) will not be defined until after selection of the LPA. Direct and indirect impacts (referred to by the SHPO as "effects") will be evaluated and described. This impact analysis will be closely correlated with the visual and noise/vibration impact studies. Coordination necessary to address historic resources eligible for the National and Hawaii Registers would be provided on behalf of FTA. The assessment will meet Hawaii Act 50 requirements.

The assessment of potential impacts to cultural resources will follow the methodologies described in OEQC's "Guidelines for Assessing Cultural Impacts." In addition, the process for cultural resource identification, evaluation and consultation will meet FTA's legal responsibilities under Section 106 of the National Historic Preservation Act.

Appropriate mitigation measures, if required to lessen the effects (impacts) of the project on cultural resources, will be developed in consultation with the SHPD, other involved agencies and stakeholders.

Historic and Archeology. A document will be prepared that assesses the "effects" of the project on archeological and historic properties and it will be submitted to the SHPO for concurrence. Acting on behalf of FTA, and subject to their ongoing approval, Section 106

consultation with DLNR's State Historic Preservation Division (SHPD) and the State Historic Preservation Officer (SHPO) would be initiated early on. SHPD cooperation is needed in defining certain key components and processes to assure that the Section 106 process advances smoothly ~~during the EIS phase of the project and in parallel with the proposed schedule. The major steps of the Section 106 process that would be reported in this section include (a) definition of an Area of Potential Effect associated with the footprint of each alternative, within which (b) listed, eligible and potentially eligible resources will be surveyed. Listing and eligibility refer to both the National Register of Historic Places (NRHP) and the Hawaii Register. The survey would include capture of data on known archeological and historic properties from State and local databases, and field work as necessary. The results of the survey and recommendations about NRHP eligibility would be submitted for SHPD concurrence, so that the menu of properties for which potential impacts must be assessed is defined. Subsequently, the potential impacts of each alternative to the historic properties would be conducted in accordance with federal and State criteria. If the SHPD approves, the eligibility and effects tasks can be combined in a single document. Where adverse effects are shown per the federal criteria, mitigation measures would be recommended to remove the adverse finding.~~

Appropriate mitigation measures, if required to lessen the effects (impacts) of the project on archeological and historic properties will be developed in consultation with the SHPD, other involved agencies and stakeholders.

Natural Resources. Prior to conducting any field surveys, a literature survey will be performed to determine whether there are any existing records for rare, threatened or endangered or candidate species, or habitat within or near the vicinity of the alignment alternatives. This review will include consulting with the U.S. Fish and Wildlife Service (USFWS) and the Hawaii Department of Land & Natural Resources throughout the consultation process.

Biologists familiar with the resources associated with the project vicinity will survey and describe the habitat types along the alignment alternatives. The presence of common and sensitive biological resources will be documented, and the habitat's potential for indicating presence of sensitive species will be evaluated. This field survey will focus primarily on determining the presence/absence of any listed or threatened federal or state sensitive plant and animal species, and presence of sensitive habitats along the project alignment.

The results of the biological analysis will be documented in a Natural Resources Technical Report. The study will include a summary of findings and conclusions; describe the study methodology; describe the environmental setting; discuss important biological resources in the project area; cite in-depth studies for special laws; assess potential project and cumulative impacts; provide mitigation measures; document agency coordination; cite references and personal contacts; and provide appendices.

Using the information above, the consequences of each of the final alternatives would be assessed. In areas where construction crosses an area of important habitat, the number of acres of habitat destruction will be calculated for each alternative. Comparison of the alternatives would be based on 1) the number of acres of habitat disturbed/destroyed, and 2) the relative importance of the affected habitat.

Special emphasis would be placed on the presence of threatened and endangered species. Mitigation measures, if required, would be coordinated with the resource agencies listed above.

To evaluate prime and unique farmlands, existing land use and GIS data will be collected from the resource agencies. The limits of construction will be defined for each alternative and the number of acres of farmland lost to project construction will be calculated and the results tabulated for each alternative. Secondary impacts will be addressed separately.

Since protection of floodplains and floodways is required by Executive Order 11988, Floodplain Management; U.S. DOT Order 5650.2, Flood Management and Protection; FHPM-6-7-3-2; and 23 CFR 650, existing floodways and floodplain limits within the study area will be identified using Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) and other existing data. Potential impacts to floodplains and floodways, such as changes to the floodplain elevations and changes to areas subject to flooding, will be identified for each alternative. If necessary, reasonable and feasible measures to minimize floodplain impacts will be proposed.

Energy. The calculation of annual vehicle miles traveled (VMT) for autos and buses and annual operating miles for transit vehicles will be summarized from the modeling work conducted for the project and (for transit alternatives) the operations plan. Direct energy will be estimated for the design year using the following factors: rail vehicle type; roadway vehicle mix; annual VMT for cars, trucks, buses, and rail vehicles; fuel consumption rates by vehicle type; use of gasoline and diesel fuels; and anticipated improvements in vehicle fuel efficiency for the year 2020 gasoline and diesel powered fleet.

Indirect energy effects involve the one-time, non-recoverable energy costs associated with construction of roadway, railway, and transportation-related facilities. ~~Indirect effects will be estimated based on the magnitude of the project. The analysis of potential energy impacts will be documented in the Impacts section of the DEIS.~~ If necessary, mitigation will also be included.

Land Use Plans and Policies. The land use analysis will address both positive and negative land use impacts. Positive impacts include changes in accessibility and ultimately land value provided by improved transit service. This will occur primarily in the form of additional development potentials and transit oriented development (TOD) at identified station locations. The analysis will also identify any incompatibilities with adjacent and surrounding land uses and comprehensive plans.

Environmental Justice and Social Impacts. This includes several subtopics:

Environmental Justice. The analysis will comply with Executive Order 12898 and DOT Order 5610.2 on Environmental Justice (EJ). The EJ methodology consists of two integrated parts. The first is outreach to, and involvement of, minority and low-income populations. Those activities that focus specifically on the minority and low-income population are briefly summarized here.

The second part is a determination of whether disproportionately high and adverse impacts fall on the minority or low-income segments of the population. If so, the response may take several forms.

The Public Involvement Plan will incorporate activities that have been found in the past to be effective at reaching segments of the population that typically do not participate. These techniques include direct contacts with minority group or religious leaders, small-group meetings in homes in the affected area, translation and interpretation in several languages as appropriate, and notices/information placed in the minority press. The CONSULTANT shall also specifically address EJ and solicit input at the public scoping meetings. The intent is to (1) encourage the minority and low-income population to articulate real or perceived issues that should be addressed before they become complaints, and (2) provide opportunities for meaningful involvement in the choice among alternatives, locations of features, or designs throughout the project.

The first step is to document race and income status of those in the impacted zones using Census data. The EJ demographic information will be shared with those preparing input to satisfy the FTA Section 5309 New Starts Criteria to avoid duplication of effort.

The extent to which high and adverse impacts fall disproportionately on minority and low-income populations will be determined for each alternative. This analysis will address both the issues that were raised during the outreach program and any impacts determined to be significant ~~during development of the DEIS~~. The final step is to determine which high and adverse impacts, if any, exceed the threshold of disproportionality for any alternative. Other factors that may be taken into account include design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas.

Community Impacts. After the defining the conceptual alignments for each of the alternatives, the CONSULTANT shall define neighborhood boundaries, public service areas and known formal and informal pedestrian pathways based on interviews with local planning officials and other stakeholders. Other issues will be determined by stakeholder interviews and through public open houses and informal meetings.

Potential neighborhood fragmentation impacts will be identified. In areas where neighborhood fragmentation or barriers become a public issue, mitigation workshops will be conducted to address solutions. It is anticipated that many of these issues can be combined in neighborhood workshops where more than one impact issue is addressed. As mentioned above, other community impacts will be addressed under noise, transportation, safety, relocation, land use, parks, and socioeconomic impacts.

Right-of-Way and Relocations. This section would identify the number of property acquisitions needed for each of the proposed alternatives. Typically, depending on the alternative, property would be needed for stations, parking, trackwork, maintenance facilities and/or ancillary structures. Among the impacts that would be estimated are the numbers of properties, households, or employees that would be affected.

The impact analyses will be based on the limits of construction estimated for each alternative. The alternatives evaluation will include a tabular comparison of the number of potential property acquisitions (residences and businesses) for each alternative.

Services and Utilities Impacts. The intent of this section is to assess the impacts of the proposed alternatives on existing service providers and utilities. Existing service providers will be tabulated. Maps of existing utilities will be collected from public (water, sewer, storm sewer) and private (gas, electric, fiber optic, telephone, cable) entities. Additionally, the CONSULTANT shall query the existing utilities regarding the availability of service for the proposed alternatives.

The impact analyses will compare the alternatives on the basis of their potential impacts on existing services and utilities. The availability of existing service providers and utilities to service each alternative will also be recorded. Mitigation recommendations will be made, and are anticipated to include relocation of utilities and/or encasement.

Economics. The study will use current applicable information and data to describe the existing economic conditions in the project area (number and type of businesses, employment, property values, and tax base.) The impacts of the project, including construction-period economic impacts, temporary and long-term changes in traffic and associated shopping patterns, loss of businesses and jobs as a result of Right-of-Way acquisition, construction and long-term employment, and business growth, will be described. Measures to mitigate economic activity or employment impacts (mitigation measures are not typically identified for property value or tax revenue impacts) will be identified.

Visual and Aesthetics. The study area will be characterized in terms of the built environment, and its historical and cultural significance, scenic features, vegetation, landforms, and open spaces. The visual inventory prepared during the alternatives screening task will provide the basis for this description. The character of the site area will be photographically documented for public presentation. An assessment of the study area's visual quality will be made based on the visual character inventory.

~~Section 4(f). The Draft Section 4(f) Evaluation would follow an FTA-accepted template for methodically (a) enumerating the properties subject to Section 4(f), (b) reporting detailed information about potential impacts, and (c) defining whether three definitions of "use" apply to each resource. If one of the three categories of use is shown to apply, (d) a thorough documentation must be presented of avoidance alternatives, why such alternatives are not feasible, and mitigation measures. The initial intent is to incorporate the Draft Section 4(f) evaluation into the DEIS.~~

~~The applicability of Section 6(f) of the Land and Water Conservation Fund Act (LWCF) to the potentially affected parks in the study area will be included in this section. Section 6(f) requires the concurrence of the Secretary of Interior to convert any parks acquired or developed with LWCF monies from their intended use by a federal project.~~

7.9 ~~Preliminary Draft EIS~~Draft AA and Responses to EISPN Comments

This task focuses on producing the ~~DEIS Alternatives Analysis~~ for public review ~~and City Council Action,~~ and also includes the preparation of DEIS sections not described in earlier tasks. ~~In accordance with Chapter 343 requirements, all substantive comments received in response to the EISPN shall be responded to in writing and reproductions of both comment and response letters shall be included in the DEIS.~~

In addition, CITY comments on the earlier ~~DEIS task~~ deliverables (Purpose and Need, Alternatives Considered, Affected Environment, and Environmental Consequences) will be incorporated into the Task 7 work effort.

~~Prepare Administrative Review DEIS~~Preliminary Draft Alternatives Analysis Report

The CONSULTANT shall prepare ~~the~~ Administrative Review DEIS Preliminary Draft Alternatives Analysis Report. This effort will include: 1) incorporating comments from the Purpose and Need, Alternatives Considered, Affected Environment, and Environmental Consequences sections delivered under previous tasks, and 2) preparing other ancillary sections to complete the draft (e.g., environmental commitments, consultation and coordination, irreversible and ir retrievable commitments of resources, list of preparers, references, etc.). ~~The administrative review DEIS will also include the following analysis:~~

~~**Cumulative Impacts.** This task will address the potential cumulative impacts to the environment that could be associated with implementation of any of the proposed alternatives in concert with any ongoing or planned actions in the study area. Cumulative impacts result from incremental impacts of the project added to past, present or reasonably foreseeable future actions. These include:~~

- ~~•Other DTS projects as listed in the Five Year Transportation Improvement Program (TIP), 20 Year Plan and/or previous transportation plans~~
- ~~•Projects listed in the Hawaii Statewide Transportation Improvement Program (STIP) within the general study area~~
- ~~•Projects listed in the City and County of Honolulu Capital Improvement Program (CIP)~~
- ~~•Any other projects being sponsored by State and Federal agencies~~

~~The analysis will include the timing and duration of these identified actions and how the impacts of these projects compound the impacts associated with the proposed alternatives.~~

~~**Secondary Impacts.** Secondary impacts will include the indirect impacts associated with implementation of the alternatives. Implementation of major transportation projects can be anticipated to have indirect economic impacts, such as on land values and commerce. Furthermore, this section will need to address induced land use changes associated with the provision of transportation in areas without current service. The extent to which induced land use changes affect other environmental resources (such as wildlife habitat) will also be assessed for each alternative.~~

~~In this section, the potential for indirect/secondary impacts, cumulative impacts and induced growth would be discussed. Also identified would be the unavoidable adverse impacts after mitigation, the relationship between short term use of the environment and maintenance of long term productivity, and the irreversible and irretrievable commitment of resources. Indirect impacts include those that would occur outside of the study area as a result of implementing a transportation improvement, or impacts that result from interrelationships between different resource systems in the environment. A qualitative evaluation of indirect/secondary impact would be prepared to cover each of the environmental topics listed above. Projects that have the potential for cumulative impacts relative to the proposed alternatives would be identified, and a qualitative assessment prepared to cover each of the environmental topics listed above.~~

~~**Construction-Related Impacts.** The impact analyses will be based on defining the limits of construction for each of the transit alternatives. Acres disturbed during construction will be identified separately for each alternative and for each of the environmental disciplines.~~

~~Both direct and indirect impacts will be assessed for each alternative. Direct impacts will cover issues such as the potential for temporary air and noise pollution, dust, and other impacts within the immediate construction right of way. Indirect impacts will include traffic congestion, limitations of access to local businesses, closure of local streets, etc. The magnitude of impact will be quantified by calculation of the acres of disturbance by land use type and habitat type. The duration of construction will be estimated by CONSULTANT construction experts and precedent on past local projects.~~

~~Measures for addressing each of the concerns above and others disclosed through the public process will be incorporated into the conceptual design.~~

Prepare Second ~~Administrative Review DEIS~~Draft Alternatives Analysis Report

The CONSULTANT shall address comments from the CITY and prepare the second ~~Administrative Review DEIS~~Draft Alternatives Analysis Report for distribution to cooperating agencies.

Prepare and Submit Final ~~Alternatives Analysis DEIS~~Document Report

The CONSULTANT shall prepare the final ~~DEIS~~Alternatives Analysis Report based on comments received from the CITY on the ~~Second Administrative Review DEIS~~Draft AA Report. One additional meeting with the CITY is assumed to be necessary to review comments on the ~~Second Administrative Review Draft AA Report DEIS~~.

~~Prepare and File Notices of Availability (NEPA and Chapter 343)~~

~~The CONSULTANT shall assemble a DEIS distribution list using contact information obtained during the public involvement process (Task 3) and standard distribution practices. The CONSULTANT shall prepare a Notice of Availability pursuant to NEPA, and a Notice of Availability pursuant to HRS Chapter 343, and will deliver fifty bound copies and up to 100 CDs of the DEIS to the CITY. Appendices to the DEIS will only be provided in CD format.~~

7.10 ~~DEIS AA Report Distribution and Preparation for Public Hearing~~

~~Pursuant to the distribution list developed, the CONSULTANT shall distribute the [DEISAA Report](#). Three hundred Fifty copies of the document will be provided for public and agency distribution. As described in Task 7.11 below, the CONSULTANT shall hold an informational open house and support the hearing held by the City Council.~~

~~The CONSULTANT also shall prepare a draft Notice of Public Hearing notificaiton. It is assumed that this notice can be prepared and reviewed via e-mail, and no additional meetings are necessary. The CONSULTANT shall then prepare a final Notice of Public Hearing incorporating review comments from the CITY for the CITY to issue.~~

~~The CONSULTANT shall prepare appropriate handouts for the DEIS Public Hearing.~~

7.11 ~~Attend Public Hearing and Respond to DEIS Comments~~

~~The CONSULTANT shall conduct one Informational Open House and AA/DEIS Public Hearing in a format coordinated with the CITY. Up to three public involvement, two project management and five technical staff members from the CONSULTANT team shall attend the hearing. The CONSULTANT shall provide court reporter services.~~

~~This task also includes the important process of responding to comments on the DEIS. The number of comments submitted is expected to be large, and the CONSULTANT will develop a formal comment-tracking database for this task. This database would catalogue comments by letter number, comment number, commenter, and subject, and would facilitate lumping comments by common theme and assigning responsibility among the CONSULTANT team for responding. The development of this database will occur during the 45-day public review period for the DEIS, and populating the database with all of the comment letters is expected to take about one week following completion of the review period.~~

~~Three additional meetings with the CITY are assumed to be necessary to review comments and discuss appropriate responses. Comments are assumed to be lumped into common categories, and a response will be prepared for each category. It is assumed that 100 individual responses will be required and will serve as the basis for future preparation of an FEIS.~~

Task 7 Deliverables

7.1	Draft	Notice of Intent and EISPN (3 copies)
7.1	Final	Notice of Intent and EISPN (10 copies + CD)
7.2	Draft	Alternatives Analysis/DEIS Annotated Outline (3 copies)
7.2	Final	Alternatives Analysis/DEIS Annotated Outline (10 copies + CD)
7.3.1		Conceptual Alternatives Memorandum (10 copies + CD)
7.3.2		Agency Scoping Meeting Materials (30 copies)
7.3.3		Public Scoping Meeting Materials (500 copies)
7.3.4	Draft	Scoping Report (3 copies)

7.3.4	Final	Scoping Report (10 copies + CD)
7.3.5		AA/DEIS Detailed Definition of Alternatives Memorandum (10 copies + CD)
7.4	Draft	Environmental Methodology Report (3 copies)
7.4	Final	Environmental Methodology Report (10 copies + CD)
7.5	Draft	Affected Environment/Environmental Baseline Report (3 copies)
7.5	Final	Affected Environment/Environmental Baseline Report (10 copies + CD)
7.6.1		Supplemental Technical Analysis Memo 1 Trains Operations Analysis of Waikiki Branch and Manoa Branch Memo (5 copies)
7.6.2		Supplemental Technical Analysis Memo 2 Bus Operations and Maintenance Facility Requirements Memo (5 copies)
7.6.3		Supplemental Technical Analysis Memo 3 Station Area Alternative Access and Egress Modes Memo (5 copies)
7.6.4		Supplemental Technical Analysis Memo 4 Bus Service Development and Operating Policies Memo (5 copies)
7.7.1	Draft	Travel Demand Forecasting Results (3 copies)
7.7.1	Final	Travel Demand Forecasting Results (10 copies + CD)
7.7.2	Draft	Transportation Impacts Results (3 copies)
7.7.2	Final	Transportation Impacts Results (10 copies + CD)
7.7.3	Draft	Alternatives Evaluation Results Report (3 copies)
7.7.3	Final	Alternatives Evaluation Results Report (10 copies + CD)
7.8.1	Draft	Air Quality Technical Report (3 copies)
7.8.1	Final	Air Quality Technical Report (10 copies + CD)
7.8.2	Draft	Noise and Vibration Technical Report (5 copies)
7.8.2	Final	Noise and Vibration Technical Report (10 copies + CD)
7.8.3	Draft	Hazardous Materials Technical Report (3 copies)
7.8.3	Final	Hazardous Materials Technical Report (10 copies + CD)
7.8.4	Draft	Water Resources Technical Report (3 copies)
7.8.4	Final	Water Resources Technical Report (10 copies + CD)
7.8.5	Draft	Cultural Resources Technical Report (3 copies)
7.8.5	Final	Cultural Resources Technical Report (10 copies + CD)
7.8.6	Draft	Historic and Archeological Technical Report (3 copies)
7.8.6	Final	Historic and Archeological Technical Report (10 copies + CD)
7.8.7	Draft	Natural Resources Technical Report (3 copies)
7.8.7	Final	Natural Resources Technical Report (10 copies + CD)
7.8.8	Draft	Energy Technical Report (3 copies)
7.8.8	Final	Energy Technical Report (10 copies + CD)
7.8.9	Draft	Land Use Plans and Policies Technical Report (3 copies)
7.8.9	Final	Land Use Plans and Policies Technical Report (10 copies + CD)
7.8.10	Draft	Environmental Justice/Social Impacts Technical Report (5 copies)
7.8.10	Final	Environmental Justice/Social Impacts Technical Report (10 copies + CD)

7.8.11	Draft	Economics Technical Report (3 copies)
7.8.11	Final	Economics Technical Report (10 copies + CD)
7.8.12	Draft	Visual Impacts Technical Report (3 copies)
7.8.12	Final	Visual Impacts Technical Report (10 copies + CD)
7.8.13	Draft	Section 4(f) Technical Report (3 copies)
7.8.13	Final	Section 4(f) Technical Report (10 copies + CD)
7.9.1		Preliminary Draft EIS for DTS/FTA Review (3 copies)
7.9.2		Preliminary Draft EIS Issued to Cooperating Agencies (25 copies + 25 CDs)
7.10		Draft EIS (NEPA and Chapter 343) (50 copies + 100 CDs)
7.11.1		EIS Hearing Materials (500 copies)
7.11.2		Summary of Comments and Responses (5 copies)
7.12.1		Preliminary Draft Alternatives Analysis Report (3 copies)
7.12.2		Draft Alternatives Analysis Report (3 copies)
7.12.3		Alternatives Analysis Report (50 copies + 100 CDs)

8.0 FINANCIAL ANALYSIS

The financial task is first and foremost the preparation of a disclosure document. The overriding objective is to reveal to all participating agencies and decision-makers the financial consequences and implications of the project, and to begin to set forth one or more potential funding scenarios.

8.1 Funding Options Analysis

The CONSULTANT shall assemble the following information and provide it to decision-makers for the AA/DEIS:

- The total cost and subsidy requirements of the project, on a cash flow basis, including both capital and operating funding.
- Estimates of potential federal funding.
- Estimates of potential state and local funding available to the project, assuming no new sources or no increases in existing sources -- i.e., a baseline forecast of funding availability.
- Estimates of remaining "unfunded gaps", if any.

Identifying and evaluating sources of capital funding for project construction will examine, at a minimum, existing and potential funding sources including:

- Use of developer mitigation fees,
- Use of tax increment financing (TIF) or other revenues generated by redevelopment,
- Revenue generated as a result of joint public/private development around station sites,

- Assessment of potential private sector and innovative funding sources and methods (e.g., state infrastructure bank and other credit enhancement programs, tapered local match, joint development, special benefit districts, or tax increment financing, direct private sector contributions, alternative procurement methods, cross-border leasing, Certificates-of-Participation, etc.),
- Assessment of potential for use of flexible federal funds, including STP, CMAQ and NHS,
- State funding through the STIP, and
- New Starts and bus discretionary funding available under the federal Section 5309 program.

Potential new sources will be identified based on some type of "reality screening", and in close collaboration with the agencies involved.

Evaluation may include such elements as:

- Impact on tax rates
- Impact on state and local tax burdens
- Relative increase in local or state expenditure requirements
- Stability of the source
- Capacity for future growth in revenues
- Equity
- Political, legal and institutional feasibility

Funding scenarios, including potential new sources, may be constructed and analyzed. Funding scenarios would combine sources in such a way as to fully fund the project. This task is fairly straightforward, in that it uses the results of previous tasks to combine various sources into one or more financing packages. The objective in developing packages would be to find a balance between the various competing funding objectives, and to provide decision-makers with a range of choices.

8.2 ~~Evaluate Transit-Oriented Development (TOD) Opportunities~~

~~Transit-oriented development (i.e., higher density residential, commercial and office land use) in close proximity to transit stations has been demonstrated as an effective means of increasing public transit use. Following the identification of study alternatives, the CONSULTANT shall conduct a market analysis of up to four representative stations located in the study corridor.~~

~~The purpose of conducting a station area analysis is to maximize the opportunities for station area development in the selection and design of transit alternatives for the corridor, which will enhance the competitiveness of this project for FTA approval and funding, maximize opportunities for joint development and private sector financing for implementation of the transit improvements, and ensure that development around stations is consistent with the local community's vision of their community.~~

~~The purpose of the analysis will be to determine the type and intensity of transit-oriented development that could occur on transit district property, if available, and on private property immediately adjacent (e.g., with ¼-mile) to the stations. For TOD development on the station site, a revenue analysis will be performed to determine if lease income can be generated to help defray annual O&M costs of maintaining the individual stations. Other opportunities for value capture will also be identified. Information from this analysis will also be helpful in preparing a New Starts request for FTA.~~

8.3 Evaluate Project Delivery Options

During this task, the CONSULTANT shall identify and evaluate several different project delivery options, including design/build. The CONSULTANT shall meet with the CITY to identify the range of delivery options. It is assumed that the level of evaluation will be commensurate with the conceptual level of design and cost information developed during the study.

8.4 Operations and Maintenance Costing

Operating and maintenance (O&M) costs will be estimated for each alternative major transportation investment in the corridor. O&M cost models will be used to estimate the ongoing costs of all facilities and services provided for each alternative, labor costs for operators in revenue service, costs of labor and parts for maintenance of vehicles, overhead costs for supervision, management, and marketing; and other appropriate cost categories. The O&M cost models will be based on models previously developed by the CONSULTANT for Honolulu and will be validated against recent Honolulu O&M cost experience.

8.5 Capital Costing

The capital costs of implementing each alternative major transportation investment in the corridor will be estimated based on the conceptual engineering analyses and incorporating the costs of needed mitigation measures. The CONSULTANT shall use an approach to the estimation of capital costs that follows generally accepted methods for costing alternatives during conceptual engineering. These rely on the development of per-linear-foot costs for typical cross-sections; quantity take-offs from each plan drawing; lump-sum costs for special items; real-estate costs; and add-on costs for contingencies, engineering and management, insurance, and agreements. The CONSULTANT shall use a computer spreadsheet program to calculate the estimates. The spreadsheets will allow easy review and update of the estimates in progress, and allow efficient and accurate aggregation of the results for summary tables.

Specific risks identified in the cost estimating process shall be documented. These may include scope risks, at locations where changes in scope may be anticipated; physical “unknowns” risks, particularly in the case of geotechnical conditions; and unit cost risks, such as volatility in costs of materials such as steel.

8.6 ~~Supplemental Financial Analysis~~ Financial Feasibility Analysis

Following development of the capital and operating cost and operating revenue estimates for each of the alternatives, a financial feasibility analysis will be performed. This will consist of two

elements. First, CONSULTANT will establish a framework for evaluating feasibility of the project alternatives along three dimensions:

- 1) The capacity of the funding sources to pay for capital costs of the project itself;
- 2) The capacity of remaining revenues to cover any planned ongoing capital needs of the transit system outside the project;
- 3) The capacity of operating and non-operating revenues, including those from local and federal sources, to support the ongoing operating expenses of the transit system including the incremental costs of operating and maintaining the project;

The costs of each project alternative will be assessed against the three elements above and will be determined either financial feasible or financially infeasible. The determination of capacity of the revenues sources will be established in principal in the Funding Options Analysis above, but may vary from alternative to alternative as some projects by there nature will be eligible for revenue sources which others are not.
~~Up to two additional financial analyses will be undertaken as required.~~

8.7 Financial Plan

~~Following development of the operating revenue estimates~~selection of a Locally Preferred Alternative, a financial analysisFinancial Plan for the LPA will be prepared, consistent with FTA guidance. The Financial Plan will include three primary elements, a capital plan, and operating plan and a cash flow analysis. The capital plan will describe the strategy for funding construction of the LPA along with meeting other transit capital needs over a 20-year period. The operating plan will demonstrate the capability of Honolulu to operate and maintain the proposed LPA while providing existing levels of transit service elsewhere in the system. This will consist of two elements. First, a detailedThe cash flow model analysis (using an Excel spreadsheet format) will be developed showing projected annual operating (and capital) revenues and expenditures for a 20-year period, or through 2025, preferably in constant, rather than inflated, dollars. As such, this task forms the starting point for the financial pro-forma. Capital and operating funding streams will be represented separately, and become more important if a phased approach to implementing the alternative is taken. The cash flow will rely on the revenue estimates and projected operating (and capital) costs developed earlier in the study. Second, dDue to the uncertainty in forecasting revenues and costs, the CONSULTANT shall conduct a sensitivity analysis to determine how the financial analysis is affected if certain variables prove either too optimistic or pessimistic from the assumptions used in the financial capacity-feasibility analysis. These variables could include inflation, farebox revenue, construction schedule, the cost of borrowing capital, and the availability of other forms of revenue. Based on this analysis, the CONSULTANT shall recommend an operating revenue strategy that is financially sound and will enable the CITY to operate and maintain service in the corridor.

~~Operating funding for transit alternatives should include the following basic information:~~

- ~~•Net yearly operating expenditures (net of all increases and reductions in service)~~
- ~~•Net change in annual transit trips (across all modes and competing services)~~

- Average fare, per year
- Net yearly passenger revenues
- Net yearly non-passenger operating funding (advertising, charter service, etc.)
- Net yearly operating subsidy

~~For analysis purposes, the average fare, and the resulting passenger revenues will be consistent with the fare assumptions used in the regional forecasting model. Later on, it may be desirable to consider the financial impact of alternative fare structures and levels, but when this is done, the patronage forecast should also be revised accordingly.~~

Task 8 Deliverables

- | | | |
|----------------|------------------|--|
| 8.1 | Draft | Funding Options Analysis (3 copies) |
| 8.1 | Final | Funding Options Analysis (10 copies + CD) |
| 8.2 | Draft | Evaluation of Transit Oriented Development Opportunities (3 copies) |
| 8.2 | Final | Evaluation of Transit Oriented Development Opportunities (10 copies + CD) |
| 8.3 | Draft | Evaluation of Project Delivery Options (3 copies) |
| 8.3 | Final | Evaluation of Project Delivery Options (10 copies + CD) |
| 8.4 | Draft | O & M Costing Memorandum (3 copies) |
| 8.4 | Final | O & M Costing Memorandum (10 copies + CD) |
| 8.5 | Draft | Capital Costing Memorandum (3 copies) |
| 8.5 | Final | Capital Costing Memorandum (10 copies + CD) |
| 8.6.1 | | Supplemental Financial Analysis Memo 1 <u>Draft Financial Feasibility Report</u> (5 copies) |
| 8.6.2 | | Supplemental Financial Analysis Memo 2 <u>Financial Feasibility Report</u> (5 copies) |
| 8.7 | Draft | <u>LPA</u> Financial Plan (3 copies) |
| 8.7 | Final | <u>LPA</u> Financial Plan (10 copies + CD) |

9.0 CONCEPTUAL DESIGN

9.1 Establish Design Criteria

At the outset of the project, the CONSULTANT shall perform a field review. This review will have several purposes including: verifying the accuracy of existing aerial photos to be used initially until new aerials are flown; identifying safety and operating problems; identifying right-of-way constraints and opportunities; identifying major utility locations; and identifying horizontal and vertical geometric constraints in the corridor.

The CONSULTANT shall develop project design criteria to provide uniform designs that meets appropriate standards and levels of service for the project elements throughout the various

project phases. The approved criteria will be updated to include any new technology identified, and form the basis of design.

9.2 Layout Project Alignments and Profiles

Conceptual level geometric controls and details will be developed for each alternative, in accordance with the project design criteria. Plan and profiles will be shown on the base maps developed on the aerial photography obtained by the CONSULTANT. Profiles for mainline, ramps and intersecting streets will be developed in conjunction with each alternative. The horizontal and vertical geometries will be developed to a level such that critical horizontal and vertical clearances can be identified where necessary.

The general alignment of the alternatives shall be mapped on aerial maps at a scale of 1" = 200'. The plans will show topographical features, horizontal and profile guideway geometry, the type of structures to be built ~~(such as traction power sub-stations or other facilities), existing utilities, and~~ accurate right-of-way limits, ~~and station types and locations and facility layouts, and modifications to adjacent streets.~~ Conceptual sketch plans at a scale of 1"=2000' will be prepared to indicate potential locations for ~~prototypical~~ stations, maintenance and other ancillary facilities, park-and-ride facilities, and/or transfer points.

The alignment plans shall identify needed modifications to existing roadways such as access ramps to and from aerial transit structures.

~~Some of these may be atypical, like a terminal station, but it is expected that most can be covered by a set of prototypical or conceptual design drawings. The sketch plans will show, for example, station platform configuration, park-and-ride areas, bus loading and layover facilities, and pedestrian circulation. The layout plan will cover sufficient area to show clearly the relationship of the station to the surrounding community. The level of detail of the physical definition of the alternatives will be sufficient to support planning level decisions regarding alignment. Design details that are not required for these planning level decisions will not be developed in this study.~~

Assessment of Existing Conditions

~~At the outset of the project, the CONSULTANT shall perform a field review. This review will have several purposes, including: verifying the accuracy of existing aerial photos to be used initially until new aerals are flown; existing plans; identifying safety and operating problems; identifying right-of-way constraints and opportunities; identifying major utility locations; assessing the adequacy of drainage; assessing the condition of drainage structures and identifying horizontal and vertical geometric problems of structures in the corridor.~~

~~The existing roadway cross-section will also be evaluated throughout the corridor. The features to be evaluated include cross slopes, side slopes, ditches, clear zones, shoulders, and pavement adequacy.~~

~~A summary of findings regarding the existing conditions will be documented and utilized as part of the evaluation framework and methodology report.~~

~~Develop Horizontal and Vertical Geometries~~

~~Conceptual level geometric controls and details will be developed for each alternative, in accordance with the project design criteria. Plan and profiles will be shown on the base maps developed on the aerial photography obtained by the CONSULTANT. Profiles for mainline, ramps and intersecting streets will be developed in conjunction with each alternative. The horizontal and vertical geometries will be developed to a level such that critical horizontal and vertical clearances can be identified where necessary.~~

~~Develop Typical Sections~~

~~Typical cross sections will be prepared for alignment segments where conditions are considered to be "typical" and atypical sections within the right-of-way for "special" conditions.~~

~~Preliminary Geotechnical and Seismic Investigation~~

~~The CONSULTANT shall provide a preliminary geotechnical overview of the alignment. This will include providing information regarding soils and geologic conditions along the alignment and discussing how these conditions may affect engineering design and construction in the Corridor. The work will rely mainly on geologic reference material (e.g., publications, soil surveys, and geologic maps), engineering studies performed in the region, and investigations previously performed in the project area. The CONSULTANT shall supplement this information with selected field investigation.~~

9.3 Locate Maintenance and Storage Facility

The CONSULTANT shall prepare a report identifying and evaluating potential locations for a transit maintenance and storage facility general layouts for a Maintenance and Storage Facility at various potential locations. The layouts will be based on the number of vehicles needed for the Fixed Guideway alternative and will be used to determine the necessary size and shape of the property needed to accommodate the facility.

9.4 Typical Structural Details

The CONSULTANT shall conceptually design typical aerial structures needed to support transit facilities for various technologies including buses, rail vehicles, magnetic levitation vehicles, and rubber-tired monorail. The design will consider post-tensioned segmental girders, precast-prestressed box girders, and cast-in-place post-tensioned girders as construction options. Recommendations will be provided for typical structural details and span configurations.

Cross sections will be prepared showing the location of typical structures along alignment segments where conditions are considered to be "typical" within the right-of-way.

9.5 Roadway Modifications

The CONSULTANT shall identify needed modifications to existing roadways, including changes in channelization and access management.

9.6 Identify Utility Relocations

The CONSULTANT shall perform a preliminary utility investigation covering the entire length of the corridor. As part of this work, the CONSULTANT shall contact the various private utility agencies/companies to inform them of the project alternatives and to initiate continued coordination. Information developed during the Honolulu Rapid Transit Program and that obtained from agency coordination will be used to assess impacts to private (electric, fiber optic, telephone, cable) utilities. The impact analysis will compare the alternatives on the basis of their potential utility relocation costs. ~~provide local utility companies with a copy of the proposed alternatives identified, obtain maps of their as-built facilities and identify any proposed new utilities. The CONSULTANT shall identify where potential conflicts may exist between these facilities and the proposed construction (and permanent operation).~~

~~This information will be plotted on the rectified orthophotography for a preliminary assessment of which existing utility lines must be relocated and the cost attributable to the project.~~

9.7 Develop Station Concepts

The CONSULTANT shall develop a concept design for each station type (at-grade, open cut, aerial/retained fill) along with general functional elements (platforms, weather protection, pedestrian circulation). The appropriate station type will be identified for each station location and concept design drawings will be prepared. ~~In concert with utility review, the CONSULTANT shall develop circulation patterns at each site for all vehicle types. Based on ridership projections and station needs, park-and-ride facilities will be sized. Unusual or uncommon features that affect physical implementation will be identified, and unresolved issues documented.~~

Some of the station types shown in the alignment plan and profile drawings may be atypical, like a terminal station, but it is expected that most would be covered by the prototypical station concepts. The sketch plans will show, for example, station platform configuration, park-and-ride areas, bus loading and layover facilities, and pedestrian circulation. The layout plan will cover sufficient area to show clearly the relationship of the station to the surrounding community. The level of detail of the physical definition of the alternatives will be sufficient to support planning level decisions regarding alignment. Design details that are not required for these planning level decisions will not be developed in this study.

9.8 Determine Right-of-way Needs

The CONSULTANT shall identify right-of-way needs resulting from the proposed transit facilities, including line, stations and maintenance facilities.

The number of private property acquisitions that the City and County of Honolulu would need to purchase would be determine for each of the proposed alternatives. Typically, depending on the alternative, property would be needed for stations, parking, ancillary structures, and along roadways that need to be widened. Among the impacts that would be estimated are the numbers of properties, households, or employees that would be affected.

The impact analyses will be based on the limits of construction estimated for each alternative. The alternatives evaluation will include a tabular comparison of the number of potential property acquisitions (residences and businesses) for each alternative.

An estimate of right-of-way costs will be prepared based on the tax assessed value of full-take parcels and an estimate of partial-take parcels.

9.9 — Assess Construction Impacts

~~The CONSULTANT shall identify conceptual construction phasing schemes in order to identify possible impacts that may occur during construction.~~

9.10 — Develop Preliminary Electrical, Mechanical and ITS Plans

~~The CONSULTANT shall develop preliminary electrical, mechanical and ITS plans for each of the build alternatives for the purpose of developing a reasonable cost estimate. As such, the CONSULTANT shall identify the relevant system elements and prepare cost estimates.~~

9.11 Tunnels and Underground Stations Technical Report Supplemental Design Evaluations

The Downtown Honolulu area includes the Chinatown and Capitol Special Design Districts that have cultural, historical, and environmentally sensitive areas. Tunnels, as compared to an elevated fixed guideway, have less long-term environmental impacts. The CONSULTANT shall prepare a technical report documenting the design of the following four (4) tunnels that are part of the Fixed Guideway Alternative:

- Beretania Street Tunnel
- Waimanu Street Tunnel
- Kawaiahao Street Tunnel
- King Street Tunnel

The report shall include a description of various tunnel construction methods and current technology. Up to two additional design evaluations will be undertaken as required.

Task 9 Deliverables

9.1	Draft	Design Criteria (5 copies)
9.1	Final	Design Criteria (10 copies + CD)
9.2	Draft	Alignment Plan and Profiles (5 copies)
9.2	Final	Alignment Plan and Profiles (10 copies + CD)
9.3	Draft	Technical Memorandum on Maintenance and Storage Facility <u>General Layout and Location Plans</u> (5 copies)
9.3	Final	Technical Memorandum on Maintenance and Storage Facility <u>General Layout and Location Plans</u> (10 copies + CD)
9.4	Draft	Typical Structural Details (5 copies)

9.4	Final	Typical Structural Details (10 copies + CD)
9.5	Draft	Technical Memorandum on Roadway Modifications (5 copies)
9.5	Final	Technical Memorandum on Roadway Modifications (10 copies + CD)
9.6	Draft	Technical Memorandum on Utility Relocations (5 copies)
9.6	Final	Technical Memorandum on Utility Relocations (10 copies + CD)
9.7	Draft	Station Conceptual Plans (5 copies)
9.7	Final	Station Conceptual Plans (10 copies + CD)
9.8	Draft	Technical Memorandum on Right-of-Way Needs (5 copies)
9.8	Final	Technical Memorandum on Right-of-Way Needs (10 copies + CD)
9.9	Draft	Technical Memorandum on Construction Impacts (5 copies)
9.9	Final	Technical Memorandum on Construction Impacts (10 copies + CD)
9.10	Draft	Preliminary Electrical, Mechanical and ITS Plans (5 copies)
9.10	Final	Preliminary Electrical, Mechanical and ITS Plans (10 copies + CD)
9.11.1		<u>Supplemental Design Evaluation Memo 4-Draft Tunnels and Underground Stations Technical Report (5-3 copies)</u>
9.11.2		<u>Supplemental Design Evaluation Memo 2-Tunnels and Underground Stations Technical Report (5-10 copies + CD)</u>

10.0 REFINE AND UPDATE METHODOLOGIES

The technical methodologies used in the Alternatives Analysis will be reviewed with FTA beginning with FTA's review of the work program in the process initiation phase. More detailed documentation of the analysis methodologies and results will be shared with FTA throughout the Alternative Analysis process. FTA's reviews may identify improvements in the technical methodologies that would be appropriate to implement either during the course of the Alternatives Analysis or in advance of beginning Preliminary Engineering.

10.1 Perform On-Board Survey

The CONSULTANT shall undertake a transit on-board survey during Alternatives Analysis in order to have an updated model ready prior to entering into preliminary engineering.

10.2 Mode Choice Model Update

Following completion of the on-board survey and selection of the LPA, the CONSULTANT shall re-calibrate and validate the mode choice model, examining both transit outputs and highway outputs. The revised model will be presented to FTA for their review and comment. Model Update documentation will be prepared including Model User's Guide Updates and Revisions and a Model Re-Calibration and Validation Report.

~~10.3 Other~~

~~Up to two additional methodological updates will be undertaken as required.~~

Task 10 Deliverables

10.1	Draft	On-Board Survey Design (5 copies)
10.1	Final	On-Board Survey Design (10 copies + CD)
10.2	Draft	On-Board Survey Results (5 copies)
10.2	Final	On-Board Survey Results (10 copies + CD)
10.3	Draft	Model Update Documentation <u>Model User's Guide Updates and Revisions</u> (5 copies)
10.3	Final	Model Update Documentation <u>Model User's Guide Updates and Revisions</u> (10 copies + CD)
10.4.1		Supplemental Methodology Refinement Memo 1 (5 copies)
10.4.2		Supplemental Methodology Refinement Memo 2 (5 copies)
10.5	Draft	<u>Model Re-Calibration and Validation Report (5 copies)</u>
10.5	Final	<u>Model Re-Calibration and Validation Report (10 copies + CD)</u>

11.0 LOCALLY PREFERRED ALTERNATIVE

11.1 Locally Preferred Alternative Report

~~The alternatives analysis process culminates in the selection of a locally preferred alternative. The CONSULTANT shall work with the CITY to prepare a position paper on a preferred alternative, based on comments received during the public review period and evaluation of alternatives conducted during preparation of the AA/DEIS document. The evaluation will use the criteria established during process initiation. At the CITY's initiative, the position paper will be submitted to the City Council to assist the Council in its selection of a preferred alternative. Following City Council action, the City will propose to the OMPO Policy Committee the inclusion of the preferred alternative in the Oahu Regional Transportation Plan.~~

11.2 ~~Support Inclusion of Projects in Oahu RTP~~

Upon approval of an LPA, the CONSULTANT shall prepare a Locally Preferred Alternative Report and assist the City in preparing a memorandum to be sent to OMPO supporting its ratification and inclusion of the LPA in the TIP and Oahu Regional Transportation Plan. ~~This analysis will be documented in the Locally Preferred Alternative Report.~~

Task 11 Deliverables

11.1	Draft	Locally Preferred Alternative Report (5 copies)
11.1	Final	Locally Preferred Alternative Report (10 copies + CD)
11.2		Memorandum Supporting Inclusion in ORTP (5 copies)

12.0 APPLICATION TO ENTER PE

~~The purpose of this task is to identify the financial, organizational, environmental and administrative procedures which must be implemented after the AA/DEIS process in order to advance the project to the PE/FEIS phase of the FTA project development process.~~ Once the LPA is selected by the City Council and endorsed by OMPO, the next step is to advance the project to the Preliminary Engineering (PE)/~~Final~~ Environmental Impact Statement (FEIS) phase of the FTA project development process. This requires submitting the New Starts evaluation of project justification and local financial commitment to FTA. At that point, it is also necessary to request FTA's approval to enter into the PE phase of project development.

Various technical and procedural tasks need to be completed to prepare the materials for submittal to FTA.

NEPA Scoping

The CONSULTANT shall prepare a Notice of Intent (NOI) to prepare an Environmental Impact Statement for the LPA, as required under NEPA, for publication in the Federal Register. The CONSULTANT shall prepare draft NOI, submit it to the CITY for review and comment, and produce a final version for submittal to FTA. Preparation of the NOI will occur in coordination with planning for project scoping. Public and agency scoping meetings will be conducted. Results of the scoping meetings will be documented in a Scoping Report.

Agency Coordination Plan and Schedule

Consistent with the requirements of SAFETEA-LU Section 6002, the CONSULTANT shall prepare an Agency Coordination Plan and Schedule.

LPA Travel Forecasts

Using the update mode choice model prepared in Task 10.2 the CONSULTANT shall prepare revised travel forecasts for the No Build Alternative, the TSM Alternative and the LPA. These forecasts shall be reviewed with FTA and will serve as the basis for requesting FTA concurrence in establishing the New Starts Baseline Alternative. The alternatives, as revised, shall be documented in a Final Definition of Alternatives report.

LPA Cost Estimate

The CONSULTANT shall prepare capital and O&M cost estimates for the No Build Alternative, the New Starts Baseline Alternative and the LPA for use in the Section 5309 New Starts Report submittal.

Section 5309 New Starts Report Submittal

The CONSULTANT shall prepare a New Starts Report for submittal to FTA, including the following items:

Reporting Item
Project Background
Project Description Worksheet
Making the Case Document
Project Maps
Project Site Map
Vicinity Map
Travel Forecasts
Summit Software Reports and Maps
Summary "roll-up" report
Summary reports for each trip purpose (i.e. HBW, HBO, NHB, etc.)
Trip length frequency reports and row and column sum reports for each trip purpose
Map of district boundaries and names that includes project alignment and station locations
Two thematic maps for each trip purpose (productions and attractions) and for total user benefits across all trip purposes
UBQC Worksheet
Annualization Factor Justification
O&M Costs
Summary of O&M Cost Productivities
Capital Costs
Standard Cost Categories Worksheets
Main Worksheet
Allocated Contingency
Inflation Calculation to YOY
Project Schedule
Funding Sources by Category
Funding Sources by Year
BUILD Annualized Cost
BASELINE Annualized Cost
Certification of Technical Methods and Planning Assumptions
Mobility Improvements
Transportation System User Benefits per Passenger Mile Worksheet
Low Income Households Worksheet
Employment Worksheet
Environmental Benefits
Environmental Benefits (Change in Emissions and Energy Consumption) Worksheet
Current Regional Air Quality Designation

Operating Efficiencies
Change in Operating Cost per Passenger Mile Worksheet
Cost Effectiveness
BUILD Annualized Cost SCC Worksheet
BASELINE Annualized Cost SCC Worksheet
Cost Effectiveness Worksheet – User Benefits
Cost Effectiveness Worksheet - Incremental Cost per Incremental Rider
Other Factors
Other Factors, as appropriate
Transit Supportive Existing Land Use and Future Patterns
Supplemental Land Use Information Worksheet
Quantitative Land Use Information Worksheet
Additional Supporting Land Use Documentation
Local Financial Commitment
Project Finance Worksheet
Checklist for Financial Submittals
Project Finance Plan
Additional Supporting Financial Documentation

Project Management Plan (PMP)

At the initiation of the preliminary engineering phase of the project, FTA will require that Honolulu develop a Project Management Plan (PMP). The CONSULTANT shall assist the CITY in preparing the PMP. The PMP is a dynamic management tool which is intended to describe how subsequent phases of project development – preliminary engineering, final design, construction, and start-up – will be managed by the lead local agency, in accordance with FTA’s *Final Rule on Project Management Oversight (49 CFR 633) Project Management Oversight Program Operating Guidance*. FTA acknowledges that not all elements of the PMP can be comprehensively addressed at the pre-PE stage of development. By the completion of alternatives analysis, however, the PMP should, at a minimum, focus on how the next stage – preliminary engineering – of project development will be managed, and address the other required elements in a general way, commensurate with the stage of development. Similarly, FTA’s expectations for, and review of, the PMP prior to the project advancing into PE will be commensurate with the project’s very early stage of development. The PMP will guide the subsequent PE and final design effort, and will become increasingly detailed as the project develops.

Preliminary Engineering/FEIS Issues

The AA/DEIS will identify a number of environmental and engineering issues, some of which will not be fully resolved in the AA/DEIS and will require further analysis in the PE/FEIS stage. The CONSULTANT shall prepare a memorandum that will identify the issues requiring further

analysis and provide a discussion of each issue and how it might be addressed in the PE/FEIS. ~~A Gantt chart will be prepared that shows the steps and schedule for the PE/FEIS phase.~~

~~Inclusion of the PE/FEIS in OMPO Programs~~

~~FTA requires that the PE/FEIS work be included in the metropolitan planning organization's Overall Work Program as a demonstration that it is part of the regional transportation planning process. At the conclusion of the AA/DEIS, a cost estimate for conducting the PE/FEIS phase, the anticipated revenue sources for the study, along with a description of the study, will be developed. This document will then be submitted with a request to include the document in the OMPO Overall Work Program (OWP).~~

~~FTA also requires that the PE/FEIS work be included in the Transportation Improvement Program. The CONSULTANT shall facilitate the inclusion of the PE/FEIS work into the OMPO OWP and the TIP.~~

Prepare Application to Enter PE

During the study, a checklist of FTA criteria and required support documentation to enter PE will be developed in consultation with the CITY's project manager. The checklist will be used to prepare the appropriate support documentation for FTA. The CONSULTANT shall prepare a draft letter, for the CITY's project manager, requesting that the project be permitted to enter the PE/FEIS phase. This letter, prepared for submittal to the FTA Administrator, will be backed by support documentation demonstrating that all requirements have been met to enter the PE/FEIS phase.

Prepare Review and Approval Memorandum for FTA

In consultation with FTA staff, the CONSULTANT shall prepare a draft project approval memorandum for FTA to expedite agency review and approval of the project so it can quickly proceed into the PE/FEIS project development phase.

Task 12 Deliverables

<u>12.0.1</u>	<u>Draft</u>	<u>Revised Notice of Intent (3 copies)</u>
<u>12.0.1</u>	<u>Final</u>	<u>Revised Notice of Intent (10 copies + CD)</u>
<u>12.0.2</u>		<u>Agency Scoping Meeting Materials (30 copies)</u>
<u>12.0.3</u>		<u>Public Scoping Meeting Materials (300 copies)</u>
<u>12.0.4</u>	<u>Draft</u>	<u>Agency Coordination Plan and Schedule (3 copies)</u>
<u>12.0.4</u>	<u>Final</u>	<u>Agency Coordination Plan and Schedule (10 copies + CD)</u>
<u>12.0.5</u>	<u>Draft</u>	<u>Scoping Report (3 copies)</u>
<u>12.0.5</u>	<u>Final</u>	<u>Scoping Report (10 copies + CD)</u>
<u>12.0.6</u>	<u>Draft</u>	<u>LPA Travel Forecasts (3 copies)</u>
<u>12.0.6</u>	<u>Final</u>	<u>LPA Travel Forecasts (10 copies + CD)</u>
<u>12.0.7</u>	<u>Draft</u>	<u>Final Definition of Alternatives Report (3 copies)</u>
<u>12.0.7</u>	<u>Final</u>	<u>Final Definition of Alternatives Report (10 copies + CD)</u>

<u>12.0.8</u>	<u>Draft</u>	<u>LPA Cost Estimate (3 copies)</u>
<u>12.0.8</u>	<u>Final</u>	<u>LPA Cost Estimate (10 copies + CD)</u>
12.1		Section 5309 New Starts Report Submittal (5 copies + CD)
12.2		Draft PMP (5 copies + CD)
12.3		Application to Enter PE (5 copies + CD)
12.4		Review and Approval Memorandum for FTA (5 copies + CD)

13.0 GOVERNMENT RELATIONS

The CONSULTANT shall provide staff resources to facilitate communications with federal government elected officials and staff.

Quarterly Government Relations Progress Report

The CONSULTANT shall prepare a quarterly progress report describing government relations activities and issues.

Task 13 Deliverables

13.1	Quarterly Government Relations Progress Report (1 copy)
13.2	Quarterly Government Relations Progress Report (1 copy)
13.3	Quarterly Government Relations Progress Report (1 copy)
13.4	Quarterly Government Relations Progress Report (1 copy)
13.5	Quarterly Government Relations Progress Report (1 copy)
13.6	Quarterly Government Relations Progress Report (1 copy)
13.7	Quarterly Government Relations Progress Report (1 copy)
13.8	Quarterly Government Relations Progress Report (1 copy)

APPENDIX B – KEY TEAM MEMBER DIRECTORY

Name & Title	Address	Phone	Fax	Email
Mark Scheibe, Project Manager	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2227	(808) 528-2368	Scheibe@pbworld.com
Tad Ono, Principal-in- Charge	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-7094	(808) 528-2368	Ono@pbworld.com
GB Arrington, Transit Oriented Development	Parsons Brinckerhoff 400 SW Sixth, Suite 802 Portland, OR 97204	(503) 274-2298	(503) 274-1412	Arrington@pbworld.com
David Atkin, Environmental Planning	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2205	(808) 528-2368	Atkin@pbworld.com
Brent Baker, Financial Planning	Parsons Brinckerhoff 999 Third Avenue, Suite 2200 Seattle, WA 98104	(206) 382-5284	(206) 382-5222	Bakerb@pbworld.com
Andrea Barry, Visual Simulations	Parsons Brinckerhoff 999 Third Avenue, Suite 2200 Seattle, WA 98104	(206) 382-8316	(206) 382-5222	Barry@pbworld.com
Bob Bramen, Technical Review	Parsons Brinckerhoff 444 South Flower Street, Suite 3700 Los Angeles, CA 90071	(213) 362-9470	(213) 362-9480	Bramen@pbworld.com
Brian Caouette, Financial Planning	Parsons Brinckerhoff 1401 K Street, NW, Suite 300 Washington, DC 20005	(202) 661-5324		Caouette@pbworld.com
Veronica Chan, Hazardous Materials	Parsons Brinckerhoff 505 South Main Street, Suite 900 Orange, CA 92868	(714) 973-4880	(714) 973-4918	ChanV@pbworld.com
Bill Chen, Structures	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2214	(808) 528-2368	Chen@pbworld.com
Zam Criste, Engineering Support/CADD	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2234	(808) 528-2368	Criste@pbworld.com
Tony Daniels, Technical Review	Parsons Brinckerhoff 303 Second Street, Suite 700 North San Francisco, CA 94107-1317	(415) 243-4634	(415) 957-0239	Daniels@pbworld.com

Name & Title	Address	Phone	Fax	Email
Bill Davidson, Travel Forecasting	Parsons Brinckerhoff 303 Second Street, Suite 700 North San Francisco, CA 94107-1317	(415) 243-4601	(415) 243-9501	Davidson@pbworld. com
Theresa Dickerson, Visual Impacts	Parsons Brinckerhoff 505 South Main Street, Suite 900 Orange, CA 92868	(714) 973-4880	(714) 973-4918	DickersonT@pbworld. com
Dexter Eji, Engineering	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	808-566-2241	(808) 528-2368	Eji@pbworld.com
Don Emerson, Federal Liaison	Parsons Brinckerhoff Spring Park Technology Center 465 Spring Park Place Herndon, VA 20170	(703) 742-5408	(703) 742-5800	Emerson@pbworld. com
David Franck, Financial Planning	Parsons Brinckerhoff 1401 K Street, NW, Suite 300 Washington, DC 20005	(202) 661 9273		Franck@pbworld.com
Heather Fujioka, Travel Forecasting	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(503) 417-9362	(808) 528-2368	Fujioka@pbworld.com
Bill Hansmire, Tunnel Structures	Parsons Brinckerhoff 535 Griswold Street Buhl Building, Suite 1525 Detroit, MI 48226	(313) 963-3912		Hansmire@pbworld. com
Dennis Haskell, Architecture	Parsons Brinckerhoff 999 Third Avenue, Suite 2200 Seattle, WA 98104	(206) 382-5274	(206) 382-5222	Haskell@pbworld.com
Ira Hirschman, Economics	Parsons Brinckerhoff Five Penn Plaza, 17th Floor New York, NY 10001	(212) 613-8805	(212) 613-8802	Hirschman@pbworld. com
Allan Hodges, Land Use Interface	Parsons Brinckerhoff 75 Arlington Street, 9th Floor Boston, MA 02116	(617) 960-4890	(617) 482-8487	Hodges@pbworld.com
Kevin Keller, Noise/Vibration	Parsons Brinckerhoff 505 South Main Street, Suite 900 Orange, CA 92868	(714) 973-4880	(714) 973-4918	KellerK@pbworld.com
Susan Killen, Technical Review	Parsons Brinckerhoff 999 Third Avenue, Suite 2200 Seattle, WA 98104	(206) 382-5268	(206) 382-5222	Killen@pbworld.com
Alice Lovegrove, Air Quality	Parsons Brinckerhoff One Penn Plaza New York, NY 10119	(212) 465-5374	(212) 465-5096	Lovegrove@pbworld. com

Name & Title	Address	Phone	Fax	Email
Dean Maniti, Alignment	Parsons Brinckerhoff 3101 North First Street San Jose, CA 95134	(408) 232-8660	(408) 232-8674	Maniti@pbowlrd.com
Pat McNamee, Cost Estimating	Parsons Brinckerhoff 303 Second Street, Suite 700 North San Francisco, CA 94107-1317	(415) 243-4705		Mcnamee@pbworld.com
Jay Mezher, Visual Simulations	Parsons Brinckerhoff 999 Third Avenue, Suite 2200 Seattle, WA 98104	206-382-5267		Mezher@pbworld.com
Jaime Saavedra, Rail Alignment	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2244	(808) 528-2368	Saavedra@pbworld.com
Clyde Shimizu, Engineering	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2210	(808) 528-2368	Shimizu@pbworld.com
Eric Scotson, Rail Systems	Parsons Brinckerhoff 303 Second Street, Suite 700 North San Francisco, CA 94107-1317	(415) 243-4776	(415) 243-9501	Scotson@pbworld.com
Lawrence Spurgeon, Environmental Planning	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2226	(808) 528-2368	Spurgeon@pbworld.com
Steven Wolf, Noise/Vibration	Parsons Brinckerhoff 505 South Main Street, Suite 900 Orange, CA 92868	(714) 973-4880	(714) 973-4918	WolfS@pbworld.com
Dan Yavorksy, Structural Engineering	Parsons Brinckerhoff 444 South Flower Street, Suite 3700 Los Angeles, CA 90071	(213) 362-9470		yavorksy@pbworld.com
Wayne Yoshioka, Transportation Planning	Parsons Brinckerhoff 1001 Bishop Street, Suite 2400 American Savings Bank Tower Honolulu, HI 96813	(808) 566-2218	(808) 528-2368	YoshiokaW@pbworld.com
Agricultural International (Certified Arborist)				
Steve Nimz, Certified Arborist	Agricultural International Post Office Box 10026 Honolulu, HI 96816	(808) 737-1284	(808) 732-4433	glttinc@hawaii.rr.com
Amar Sappal (Federal Liaison)				
Amar Sappal	995 Kaahue Street Honolulu, HI 96825	(808) 383-9241	(808) 395-9062	sappal@gmail.com

Name & Title	Address	Phone	Fax	Email
Community Planning and Engineering, Inc. (Public Involvement)				
Joe Pickard	Community Planning and Engineering 1100 Alakea St., Sixth Floor Honolulu, Hawaii 96813	(808) 521-7491	(808) 526-2476	jpickard@cpe-hawaii.com
Vicki Gaynor	Community Planning and Engineering 1100 Alakea St., Sixth Floor Honolulu, Hawaii 96813	(808) 521-7491	(808) 526-2476	vgaynor@cpe-hawaii.com
Nālani Dahl	Community Planning and Engineering 1100 Alakea St., Sixth Floor Honolulu, Hawaii 96813	(808) 521-7491	(808) 526-2476	ndahl@cpe-hawaii.com
ControlPoint Surveying, Inc. (Surveying)				
Ed Yeh, Surveying	ControlPoint Surveying, Inc. 1150 S. King St., Suite 102 Honolulu, HI	(808) 591-2022	(808) 591-8333	eyeh@controlpointsurveying.com
Cultural Surveys Hawai'i (Archeology)				
Hallett Hammatt, Archeology	Cultural Surveys Hawai'i Post Office Box 1114 Kailua, HI 96734	(808) 262-9972	(808) 262-4950	hhammatt@culturalsurveys.com
Donald Durkee (FTA Requirements)				
Donald Durkee, FTA Requirements	Donald Durkee, 3908 Morrison Street, NW Washington, DC 20015			donalddurkee@sprintmail.com
Elisa Yadao (Public Involvement)				
Elisa Yadao, Public Involvement	Elisa Yadao, 14 Hinalo Place Honolulu, HI 96817	(808) 595-7449	(808) 595-3342	sistu@lava.net
Gary K Omori (Community Liaison)				
Gary Omori, Community Liaison	Gary K. Omori, LLC 92-1936 Hapaki Street Aiea, HI 96701-1639	(808) 484-0736	(808) 487-5521	arakimataemon@aol.com
Hawai'i Design Associates (Landscape Architecture)				
Joel Kurokawa, Landscape Architecture	Hawai'i Design Associates 1916 Young Street, Suite 101 Honolulu, Hawaii 96826	(808) 942-7061	(808) 944-8741	
Mel Kuraoka	Hawai'i Design Associates 1916 Young Street, Suite 101 Honolulu, Hawaii 96826			

Name & Title	Address	Phone	Fax	Email
KAI Hawai'i (Public Involvement)				
Ken Hayashida	KAI Hawai'i 31 North Pauahi Street 2nd Floor Honolulu, HI 96817	(808) 533-2210		ken@kaihawaii.com
Kaku Associates (Traffic Planning)				
Dick Kaku, Technical Review	Fehr & Peers/Kaku Associates. 201 Santa Monica Blvd, Suite 200 Santa Monica, CA 90401	(310) 458-9916	(310) 394-7663	D.Kaku@ fehrandpeers.com
Tom Gaul, Traffic Planning	Fehr & Peers/Kaku Associates 201 Santa Monica Blvd, Suite 200 Santa Monica, CA 90401	(310) 458-9916	(310) 394-7663	T.Gaul@ fehrandpeers.com
John Muggridge, Traffic Planning	Fehr & Peers/Kaku Associates 201 Santa Monica Blvd, Suite 200 Santa Monica, CA 90401	(310) 458-9916	(310) 394-7663	J.Muggridge@ fehrandpeers.com
Ku'iwalu (Cultural Resources)				
Dawn Chang	Ku'iwalu Pauahi Tower, 27th Floor 1001 Bishop Street Honolulu, HI 96813	(808) 539-3580	(808) 539-3581	dnschang@kuiwalu. com
Lea+Elliott (Transit Systems)				
Phil Castellana, Project Delivery	Lea+Elliott 14325 Willard Road, Suite 200 Chantilly, Virginia 20151-2110	(703) 968-7883	(703) 968-7888	pcastell@leaelliott.com
David Little, Technology Options	Lea+Elliott 14325 Willard Road, Suite 200 Chantilly, Virginia 20151-2110	(703) 968-7883	(703) 968-7888	ddlittle@leaelliott.com
Chris Gambla, O&M Cost Estimates	Lea+Elliott 1325 Nagel Court West Chicago, Illinois 60185	(630) 562-9407	(630) 562-9408	cgambla@leaelliott. com
Lychee Productions (Public Involvement)				
Laura Pennington, Public Involvement	Lychee Productions P.O. Box 61202 Honolulu, HI 96839	(808) 387-3827		lycheeproductions@ hawaii.rr.com

Name & Title	Address	Phone	Fax	Email
Lyon Associates (Public Involvement)				
Jim Lyon, Public Involvement	Lyon Associates, Inc. 841 Bishop Street, Suite 2006 Honolulu, HI 96813	(808) 536-6621	(808) 523-1738	jim@lyonassociates.com
Mason Architects (Historic Resources)				
Glen Mason	Mason Architects 119 Merchant Street, Suite 501 Honolulu, HI 96813	(808) 536-0556	(808) 526-0577	gm@masonarch.com
Ann Yaklovich, Historic Resources	Mason Architects 119 Merchant Street, Suite 501 Honolulu, HI 96813	(808) 536-0556	(808) 526-0577	ay@masonarch.com
MK Engineers, Ltd. (Electrical)				
Ron Katahara, Electrical	MK Engineers, Ltd. 286 Kalihi Street Honolulu, HI 96819	(808) 848-8622	(808) 848-5574	ron@mkhawaii.com
Next Design LLC (Architecture)				
Stanford Lee, Architecture	Next Design LLC 1132 Bishop Street, Suite 111 Honolulu, Hawaii 96813	(808) 440-2780	(808) 440-2790	slee@nextdesignllc.com
NuStats (On-Board Survey)				
Johanna Zmud, On-Board Survey	NuStats 3006 Bee Caves Road, Suite A300 Austin, TX 78746	(512) 306-9065 ext. 2225	(512) 306-9077	jzmud@nustats.com
Pacific Gateway Center (Public Involvement)				
Myaing Thein, Public Involvement	Pacific Gateway Center 1286 Queen Emma Street Honolulu, HI 96813	(808) 845-3918	(808) 842-1962	pgcmyaing@hotmail.com
Pat Lee & Associates (Public Involvement)				
Pat Lee, Public Involvement	Pat Lee & Associates, LLC 45-248 A Pahikaua Place, Kaneohe, HI 96744	(808) 247-2889	(808) 247-2889	Patlee@hawaii.rr.com
UBS Financial Services (Financial Planning)				
Lance Kakimoto, Financial Planning	UBS Financial Services 733 Bishop Street, Suite 1600 Honolulu, HI 96813	(808) 526-6971	(808) 521-2798	Lance.kakimoto@usb.com

Name & Title	Address	Phone	Fax	Email
USI-Hawai'i, Inc.				
Harley Parks, Visual Simulation	USI-Hawai'i, Inc. Pauahi Tower, Suite 822 1001 Bishop Street Honolulu, HI 96813	(808) 537-2214	(808) 537-2215	harley.parks@ usi-hawaii.com
Weslin Research, Inc. (Transit Planning)				
Linda Fryzstacki, Transit Planning	Weslin Research, Inc. 92-1112-2 Olani Street Kapolei, HI 96707	(808) 678-9450	(808) 678-9539	Fryzstacki@aol.com
Williams & Jensen (Government Relations)				
Denis Dwyer, Government Relations	Williams & Jensen, P.C. 1155 21st Street, NW Washington, DC 20036	(202) 973-5909	(202) 659-5249	djdwyer@wms-jen.com
Yukie Ohashi Planning Consultants (Wetlands)				
Yukie Ohashi, Wetlands	Yukie Ohashi Planning Post Office Box 786 Volcano, HI 96785	(808) 985-2222	(808) 985-9131	yohashi@verizon.net

APPENDIX C – PROJECT CONTROL

C.1 BUDGET

Budgets have been developed for each team member and are included in each subconsultant's Subcontract Agreement. The amount authorized in each subconsultant's Subcontract Agreement will be used as the basis for invoicing.

C.2 PROJECT TRACKING

Project tracking will be accomplished based on project data provided through PB's management information system. The system produces labor and expense data every two weeks. The labor, expense and project tracking (Level 3) reports will be provided to each Task Leader for review and comment. These tracking reports will enable them to manage their individual budgets.

C.3 EXPENSE REPORTS, INVOICING AND SCHEDULE

Ms. Jovie Yoshioka, PB Project Administrator, has been assigned to this project to provide administrative assistance and accounting services (phone number is (808) 566-2207). To facilitate the data/backup gathering process, **all PB staff submitting expense reports MUST make legible copies of those reports and backup and send them to Ms. Yoshioka at the Honolulu office of PB. Any questions related to subconsultant invoicing or payments should be directed to Ms. Yoshioka.**

Subconsultants will be responsible for administering their own tasks. Monthly progress reports will be supplied to PB by each subconsultant, as designated in the Subcontract Agreement.

Task Leaders will be responsible for tracking progress and expenses for each of their tasks. The PM will ultimately be responsible for keeping track of all project tasks and reporting progress and problems to the DTS Project Manager, Mr. Toru Hamayasu.

C.4 PAYMENT PROCEDURES

The terms of payment and billing requirements for subconsultants are detailed in each subconsultant's Subcontract Agreement.

C.5 PROGRESS REPORT REQUIREMENTS

The monthly progress reports, in a form approved by DTS, will be outlined in written and graphical form by task and subtask for the various phases and in sufficient detail so that the progress of the work can be easily evaluated. A sample of the client-approved Monthly Progress Report is shown in Figure C.1-1 and will be available on ProjectSolve. **Subconsultants must submit their progress reports, if required, in this format.**

Task Leaders must also submit progress in the same format the week following the end of the four-week period.

C.6 INVOICE REQUIREMENTS

Invoices for lump sum subcontracts shall be prepared upon written acceptance by PB of project deliverables or assigned portions of project deliverables.

For agreed rate subcontracts and contracts where direct expenses are to be reimbursed by PB, submit monthly billings in accordance with the Subcontract Agreement. A report of the breakdown by task also must accompany the invoice. Use the invoice format as shown in Figures C.1-2A, C.1-2B, and C.1-2C.

C.7 PROJECT FILING

All project files will be centralized and maintained at PB at the Honolulu office. Subconsultants will submit documents for filing, retaining copies as necessary. Files will be available for review by the client upon request. In addition, PB will provide a copy of important team communications. The file list is shown in Figure C-1.3 and on ProjectSolve.

C.8 COMMUNICATIONS AND DOCUMENTATION

All written communications (e.g., reports, memoranda, email, faxes, etc.) with the Department of Transportation Services (DTS) will go through the Project Manager (PM), Mr. Richard Page, or the Deputy Project Manager, Mr. Mark Scheibe. Notes shall be taken of verbal communication with the client and forwarded to the PM. All written communications regarding the Project will be handled according to the following Document Control Procedures:

- All written communications will be filed in accordance with the Project File Index.
- Meetings will be documented with summary minutes copied to the project files and the PM.
- All correspondence to DTS from the PB Project Team shall be directed through the PM, or as approved by the PM.
- Any communications with the public or press shall be from DTS only, unless specifically directly by them. Further, any communications between DTS, FTA, State DOT and other federal and state agencies shall be from DTS only, unless specifically directed by them.

FIGURE C.1-1 – SAMPLE MONTHLY PROGRESS REPORT FORMAT



Date

Mr. Mark Scheibe
Project Manager
Parsons Brinckerhoff Quade & Douglas, Inc.
American Savings Bank Tower
1001 Bishop St., Suite 2400
Honolulu, Hawaii 96813

SUBJECT: Progress Report #____ for Honolulu High Capacity Transit Corridor Project
Contract No. -----
PBQD Reference No. 16434A

Dear Mr. Scheibe:

This letter provides you with our # progress report for the project. It covers activities between ____ and _____.

Activities this Period (example)

Task 2 – Public Participation.

- We continued to receive 24 Hour Telephone Response Line calls.
- We continued to respond to telephone calls, as appropriate, by distributing information, answering questions and taking comments.
- We continued to maintain comments on a database.

Task 4 – Alternatives Development/Preliminary Engineering

- We presented the alignments to the counties' staff and await comments.
- We printed and distributed more than 2,000 newsletters 30 days prior to the public meetings.

Discussion

Please do not hesitate to call if you have questions or comments.

Sincerely,

Project Manager

Attachment:
Table – Status of Authorized Deliverables

FIGURE C.1-2A
SAMPLE AGREED RATES CONTRACT INVOICE

American Savings Bank Tower
1001 Bishop Street, Suite 2400
Honolulu, Hawaii 96813

Attention: Jovie Yoshioka

SUBJECT: Contract No. ----
Honolulu High Capacity Transit Corridor Project
Progress Billing No. 1

For professional engineering services provided for the subject project, per the contract dated October 22, 2005. This invoice covers expenses through December 12, 2005.

Amount Earned to Date	\$244,297.62	
Previous Billed	\$0.00	
TOTAL AMOUNT DUE THIS INVOICE		\$244,297.62
Less: Retainage (5%)		\$12,214.88
AMOUNT DUE THIS INVOICE		\$232,082.74

A detailed breakdown is attached.

I certify that this bill is correct and just, that payment thereof has not been received and services were rendered pursuant to our agreement.

Name
Project Manager
RMU/fjy

**FIGURE C1-2B
SAMPLE AGREED RATES CONTRACT INVOICE**

**16434A - Honolulu High Capacity Transit Corridor Project
As of 12-Dec-2005
Invoice No. 16434A-1**

	Inception to end of last period		This Period		Total to-date		
	Actual Hours	Actual Amount	Actual Hours	Actual Amount	Actual Hours	Actual Amount	
PS&E							
Category 1	Principal	3.0	416.58	8.0	1,110.88	11.0	1,527.46
Category 2	Project Manager	118.0	14,209.56	300.0	37,209.00	418.0	51,418.56
Category 3	Senior Supervising Engineer	-	0.00	16.0	2,011.20	16.0	2,011.20
Category 4	Senior Civil Engineer	9.0	994.59	-	0.00	9.0	994.59
Category 5	Civil Engineer	-	0.00	-	0.00	-	0.00
Category 6	Junior Civil Engineer	232.5	17,300.33	591.0	45,294.24	823.5	62,594.57
Category 7	Assistant Civil Engineer	-	0.00	-	0.00	-	0.00
Category 8	Technician	-	0.00	42.5	1,884.03	42.5	1,884.03
Category 9	Senior Structural Engineer	-	0.00	-	0.00	-	0.00
Category 10	Assistant Structural Engineer	-	0.00	2.0	114.64	2.0	114.64
Category 11	Senior Supervising Planner	-	0.00	-	0.00	-	0.00
Category 12	Senior Planner	15.0	1,174.65	-	0.00	15.0	1,174.65
Category 13	Planner	-	0.00	-	0.00	-	0.00
Category 14	Assistant Planner	-	0.00	-	0.00	-	0.00
Category 15	Senior Draftsperson/Graphics	43.0	2,212.78	42.0	2,395.66	85.0	4,608.44
Category 16	Draftsperson/Graphics	80.5	4,142.53	204.5	9,547.84	285.0	13,690.37
Category 17	Project Administrator	-	0.00	8.5	748.94	8.5	748.94
Category 18	Typist (Word Processing/Clerical)	-	0.00	-	0.00	-	0.00
Direct Expenses							4,522.83
GE Tax							6,052.79
PB Total Invoice		501.0	40,451.02	1,214.5	100,316.43	1,715.5	151,343.07
Subconsultants:							
Subconsultant 1							10,734.34
Subconsultant 2							40,308.55
Subconsultant 3							31,856.35
Subconsultant 4							10,055.31
Total Invoice Due							244,297.62

**FIGURE C1-2C
SAMPLE AGREED RATES CONTRACT INVOICE**

As of 12-Dec-2005

Invoice No. 16434A-1

	Period Ending:	Inception to end of last period		This period		Total to-date		
		Hours	Amount	Hours	Amount	Total Hours	Labor	
Labor								
	Hrly Rate @ 8/05							
	Hrly Rate @ 8/06							
<u>Category 1</u>	<u>Principal</u>							
A	\$ 138.86	\$ 138.86	3.0	416.58	8.0	1,110.88	11.0	1,527.46
			<u>3.0</u>	<u>416.58</u>	<u>8.0</u>	<u>1,110.88</u>	<u>11.0</u>	<u>1,527.46</u>
<u>Category 2</u>	<u>Project Manager</u>							
B	\$ 120.42	\$ 124.03	118.0	14,209.56	300.0	37,209.00	418.0	51,418.56
			-	0.00	-	0.00	-	-
			<u>118.0</u>	<u>14,209.56</u>	<u>300.0</u>	<u>37,209.00</u>	<u>418.0</u>	<u>51,418.56</u>
	<u>Category 3</u>							
C	\$ 122.04	\$ 125.70	-	0.00	-	0.00	-	-
			-	0.00	-	0.00	-	-
			<u>-</u>	<u>0.00</u>	<u>16.0</u>	<u>2,011.20</u>	<u>16.0</u>	<u>2,011.20</u>
<u>Category 4</u>	<u>Senior Civil Engineer</u>							
D	\$ 110.51	\$ 113.83	9.0	994.59	-	0.00	9.0	994.59
			<u>9.0</u>	<u>994.59</u>	<u>-</u>	<u>0.00</u>	<u>9.0</u>	<u>994.59</u>
<u>Category 5</u>	<u>Civil Engineer</u>							
E	\$95.10	\$97.96	-	0.00	-	0.00	-	-
			-	0.00	-	0.00	-	-
<u>Category 6</u>	<u>Junior Civil Engineer</u>							
F	\$ 74.41	\$ 76.64	21.5	1,599.82	180.5	13,833.52	202.0	15,433.34
			<u>232.5</u>	<u>17,300.33</u>	<u>591.0</u>	<u>45,294.24</u>	<u>823.5</u>	<u>62,594.57</u>
	<u>Category 7</u>							
G	\$ 58.63	\$ 60.39	-	0.00	-	0.00	-	-
			-	0.00	-	0.00	-	-
<u>Category 8</u>	<u>Technician</u>							
H	\$ 43.04	\$ 44.33	-	0.00	42.5	1,884.03	42.5	1,884.03
			-	0.00	42.5	1,884.03	42.5	1,884.03
	<u>Category 9</u>							
I	\$122.21	\$124.85	-	0.00	-	0.00	-	-
			-	0.00	-	0.00	-	-
	<u>Category 10</u>							
J	\$ 55.65	\$ 57.32	-	0.00	2.0	114.64	2.0	114.64
			-	0.00	2.0	114.64	2.0	114.64
	<u>Category 11</u>							
K	\$ 138.86	\$ 138.86	-	0.00	-	0.00	-	-
			-	0.00	-	0.00	-	-
<u>Category 12</u>	<u>Senior Planner</u>							
L	4 78.31	\$ 80.12	15.0	1,174.65	-	0.00	15.0	1,174.65

As of 12-Dec-2005

Invoice No. 16434A-1

		Inception to end of last period	This period		Total to-date		
		15.0	1,174.65	-	0.00	15.0	1,174.65

Category 13 Planner
M \$ 66.28 \$68.27

		-	0.00	-	0.00	-	-
		-	0.00	-	0.00	-	-

Direct Expenses

Travel
Courier/Postage
Reproduction

Subconsultants

Subconsultant 1
Subconsultant 2

**FIGURE C.1-3 – FILE FORMAT
PROJECT LISTING #16434A**

- 0.00 **PROJECT INDEX**

- 1.00 **PROJECT MANAGEMENT**
 - 1.1 PROJECT MANAGEMENT PLAN
 - 1.2 QUALITY CONTROL PLAN
 - 1.3 PROJECT MANAGEMENT ADMINISTRATION
 - 1.3.1 SCHEDULING
 - 1.3.2 PROJECT MEETINGS AND DIRECTION
 - 1.3.3 PROJECT FILE ADMIN
 - 1.3.4 PROGRESS TRACKING AND BILLING
 - 1.4 QUALITY CONTROL
 - 1.5 CLOSE-OUT
 - 1.6 PRE-CONTRACT PROPOSAL
 - 1.7 TP FORMS
 - 1.8 CONTRACT
 - 1.9 SUBCONTRACTS
 - 1.9.1 PB CONSULT
 - 1.9.3 AG INT
 - 1.9.6 CSH
 - 1.9.8 G. OMORI
 - 1.9.9 KAKU
 - 1.9.10 KU' IWALU
 - 1.9.11 LEA+ELLIOTT
 - 1.9.13 MASON
 - 1.9.14 MK
 - 1.9.15 NUSTATS
 - 1.9.16 PAC GATEWAY
 - 1.9.17 PAT LEE
 - 1.9.21 WRI
 - 1.9.22 W&J – DWYER
 - 1.9.23 USI
 - 1.9.24 Y. OHASHI
 - 1.9.25 AMAR SAPPAL
 - 1.9.26 COMMUNITY PLANNING
 - 1.9.27 CONTROLPOINT
 - 1.9.28 HAWAII DESIGN
 - 1.9.29 NEXT DESIGN
 - 1.9.30 LYCHEE PRODUCTIONS
 - 1.9.31 ELISA YADAO
 - 1.9.32 LYON ASSOCIATES
 - 1.9.33 KAI HAWAII
 - 1.9.34 DON DURKEE

- 2.00 **AGENCY COORDINATION**
 - 2.01 FTA
 - 2.02 COORDINATION WITH OTHER GOVERNMENT AGENCIES
 - 2.03 DTS SUPPORT

- 3.00 **PUBLIC INVOLVEMENT**
 - 3.01 PUBLIC INVOLVEMENT PLAN
 - 3.02 PROJECT OPEN HOUSE
 - 3.03 OTHER PUBLIC MEETINGS
 - 3.04 SPEAKERS BUREAU
 - 3.05 NEWSLETTERS
 - 3.06 WEBSITE
 - 3.07 COMMENT MANAGEMENT

- 4.00 **PROCESS INITIATION**
 - 4.01 DRAFT DTS AA PROCESS WORK PLAN
 - 4.02 PURPOSE AND NEED
 - 4.03 EXISTING CONDITIONS
 - 4.04 METHODOLOGY
 - 4.05 INITIAL SET OF ALTERNATIVES
 - 4.06 EVALUATION METHODS

- 5.00 **FTA START-UP PACKAGE**
 - 5.01 DRAFT START-UP PACKAGE
 - 5.02 START-UP PACKAGE TO FTA
 - 5.03 RESPONSES TO COMMENTS

- 6.00 **ALTERNATIVES SCREENING**
 - 6.01 TRAVEL FORECASTING
 - 6.02 TECHNOLOGY OPTIONS
 - 6.03 ENGINEERING CONSTRAINTS
 - 6.04 ENVIRONMENTAL CONSTRAINTS
 - 6.05 PRELIMINARY ESTIMATES
 - 6.06 ALTERNATIVES SCREENING

- 7.00 **ALTERNATIVES ANALYSIS**
 - 7.01 NOI
 - 7.02 ANNOTATED OUTLINE
 - 7.03 PROJECT SCOPING
 - 7.04 METHODOLOGY REPORT
 - 7.05 BASELINE REPORT
 - 7.06 SUPPLEMENTAL TECH ANALYSIS
 - 7.07 AA/TRANSPORTATION EVALUATION
 - 7.07.1 CONCEPTUAL OPTIONS
 - 7.07.2 LAND USE ANALYSIS
 - 7.07.3 AA ALTERNATIVES
 - 7.07.4 TRAVEL DEMAND FORECASTING
 - 7.07.5 SERVICE PLANNING
 - 7.07.6 TRANSPORTATION IMPACTS
 - 7.07.7 OPERATIONS PLANNING
 - 7.07.8 EVALUATION RESULTS REPORT
 - 7.08 ENVIRONMENTAL DISCIPLINE STUDIES
 - 7.08.1 AIR QUALITY
 - 7.08.2 NOISE AND VIBRATION
 - 7.08.3 HAZARDOUS MATERIALS
 - 7.08.4 WATER RESOURCES
 - 7.08.5 CULTURAL RESOURCES

	7.08.6	NATURAL RESOURCES
	7.08.7	ENERGY
	7.08.8	LAND USE
	7.08.9	ENVIRONMENTAL JUSTICE
	7.08.10	ECONOMICS
	7.08.11	VISUAL IMPACTS
7.09		PRELIMINARY DRAFT AA
7.10		AA REPORT
8.00		FINANCIAL ANALYSIS
	8.01	FUNDING OPTIONS
	8.03	PROJECT DELIVERY OPTIONS
	8.04	O&M COST
	8.05	CAPITAL COST
	8.06	SUPPLEMENTAL FINANCIAL ANALYSIS
	8.07	FINANCIAL PLAN
9.0		CONCEPTUAL DESIGN
	9.01	DESIGN CRITERIA
	9.02	ALIGNMENT
	9.03	O&M FACILITIES
	9.04	TYPICAL STRUCTURAL DETAILS
	9.05	LANE CONFIGURATION
	9.06	UTILITY RELOCATIONS
	9.07	STATION CONCEPTS
	9.08	R/W NEEDS
	9.11	TUNNELS AND UNDERGROUND STATIONS
10.0		METHODOLOGIES
	10.01	ON-BOARD SURVEY
	10.02	MODE CHOICE
11.0		LOCALLY PREFERRED ALTERNATIVE
	11.01	LPA REPORT
12.0		APPLICATION TO ENTER PE
	12.01	APPLICATION
	12.02	MEMORANDUM FOR FTA
	12.03	SCOPING
	12.04	TRAVEL FORECASTS
	12.05	COST ESTIMATES
13.0		GOVERNMENT RELATIONS
14.0		CORRESPONDENCE
	14.01	PB CONSULT
	14.03	AG INT
	14.06	CSH
	14.08	G. OMORI
	14.09	KAKU

- 14.10 KU' IWALU
- 14.11 LEA+ELLIOTT
- 14.13 MASON
- 14.14 MK
- 14.15 NUSTATS
- 14.16 PAC GATEWAY
- 14.17 PAT LEE
- 14.21 WRI
- 14.22 W&J – DWYER
- 14.23 USI
- 14.24 Y. OHASHI
- 14.25 AMAR SAPPAL
- 14.26 COMMUNITY PLANNING
- 14.27 CONTROLPOINT
- 14.28 HAWAII DESIGN
- 14.29 NEXT DESIGN
- 14.30 LYCHEE PRODUCTIONS
- 14.31 ELISA YADAO
- 14.32 LYON ASSOCIATES
- 14.33 KAI HAWAII
- 14.34 DON DURKEE

15.0 DELIVERABLES

- 15.01 TASK 1 DELIVERABLES
 - 15.01.1 DRAFT & FINAL PMP
 - 15.01.2 DRAFT & FINAL QC PLAN
 - 15.01.3 INITIAL SCHEDULE
 - 15.01.4 MONTHLY PROGRESS REPORTS
- 15.02 TASK 2 DELIVERABLES
 - 15.02.1 MONTHLY COORDINATION REPORTS
 - 15.02.3 COMPUTER VISUALIZATION CD'S
 - 15.02.4 TECHNICAL MEMORANDA
- 15.03 TASK 3 DELIVERABLES
 - 15.03.1 PI PLAN
 - 15.03.2 MONTHLY PI PROGRESS REPORTS
 - 15.03.3 COMMUNITY UPDATE MEETING SUMMARY REPORTS
- 15.04 TASK 4 PROCESS INITIATION
 - 15.04.1 DRAFT & FINAL P&N STATEMENT
 - 15.04.3 DRAFT & FINAL PROCESS INITIATION MEMO
- 15.05 TASK 5 FTA START-UP PACKAGE
 - 15.05.1 AA INITIATION MEMO
 - 15.05.2 FTA START-UP PACKAGE
- 15.06 TASK 6 ALTERNATIVES SCREENING
 - 15.06.1 DRAFT & FINAL TECHNOLOGY OPTIONS MEMO
 - 15.06.2 DRAFT & FINAL ALTERNATIVES SCREENING MEMO
- 15.07 TASK 7 AA
 - 15.07.1 DRAFT AND FINAL NOI AND EISPN
 - 15.07.2 DRAFT AND FINAL AA ANNOTATED OUTLINE
 - 15.07.3 CONCEPTUAL ALTERNATIVES MEMO
 - 15.07.4 AGENCY SCOPING MEETING MATERIALS
 - 15.07.5 PUBLIC SCOPING MEETING MATERIALS
 - 15.07.6 DRAFT AND FINAL SCOPING REPORT
 - 15.07.7 DETAILED DEFINITION OF ALTERNATIVES MEMO
 - 15.07.8 DRAFT & FINAL ENV. METHODOLOGY REPORT
 - 15.07.9 DRAFT & FINAL ENV. BASELINE REPORT

- 15.07.10 SUPPLEMENTAL TECHNICAL ANALYSIS MEMOS
- 15.07.11 DRAFT & FINAL TRAVEL DEMAND FORECASTING
- 15.07.12 DRAFT & FINAL TRANS. IMPACT RESULTS
- 15.07.13 DRAFT & FINAL ALT. EVALUATION RESULTS
- 15.07.14 DRAFT & FINAL AIR QUALITY TECH. REPORT
- 15.07.15 DRAFT & FINAL NOISE AND VIBRATION TECH. REPORT
- 15.07.16 DRAFT & FINAL HAZARDOUS MATERIALS TECH. REPORT
- 15.07.17 DRAFT & FINAL WATER RESOURCES TECH. REPORT
- 15.07.18 DRAFT & FINAL CULTURAL RESOURCES TECH. REPORT
- 15.07.19 DRAFT & FINAL HISTORIC AND ARCH. TECH. REPORT
- 15.07.20 DRAFT & FINAL NATURAL RESOURCES TECH. REPORT
- 15.07.21 DRAFT & FINAL ENERGY TECH. REPORT
- 15.07.22 DRAFT & FINAL LAND USE P & P TECH. REPORT
- 15.07.23 DRAFT & FINAL EJ/SOCIAL IMPACTS TECH. REPORT
- 15.07.24 DRAFT & FINAL ECONOMICS TECH. REPORT
- 15.07.25 DRAFT & FINAL VISUAL IMPACTS TECH. REPORT
- 15.07.32 PRELIMINARY DRAFT, DRAFT & FINAL AA REPORT
- 15.08 FINANCIAL ANALYSIS
 - 15.08.1 DRAFT & FINAL FUNDING OPTIONS ANALYSIS
 - 15.08.3 DRAFT & FINAL EVAL. OF PROJECT DELIVERY OPTIONS
 - 15.08.4 DRAFT & FINAL O&M COSTING MEMO
 - 15.08.5 DRAFT & FINAL CAPITAL COSTING MEMO
 - 15.08.6 DRAFT & FINAL FINANCIAL FEASIBILITY REPORT
 - 15.08.7 DRAFT & FINAL FINANCIAL PLAN
- 15.09 CONCEPTUAL DESIGN
 - 15.09.1 DRAFT & FINAL DESIGN CRITERIA
 - 15.09.2 DRAFT & FINAL ALIGNMENT PLAN AND PROFILES
 - 15.09.3 DRAFT & FINAL TECH MEMO ON M&S FACILITY LOCATION
 - 15.09.4 DRAFT & FINAL STRUCTURAL DETAILS
 - 15.09.5 DRAFT & FINAL TECH. MEMO ON ROADWAY MODIFICATIONS
 - 15.09.6 DRAFT & FINAL TECH. MEMO ON UTILITY RELOCATIONS
 - 15.09.7 DRAFT & FINAL STATION CONCEPTUAL PLANS
 - 15.09.8 DRAFT & FINAL TECH. MEMO ON ROW NEEDS
 - 15.09.11 TUNNELS & UNDERGROUND STATIONS TECH REPORT
- 15.10 REFINE AND UPDATE METHODOLOGIES
 - 15.10.1 DRAFT & FINAL ON-BOARD SURVEY DESIGN
 - 15.10.2 DRAFT & FINAL ON-BOARD SURVEY RESULTS
 - 15.10.3 DRAFT & FINAL MODEL USER'S GUIDE UPDATES & REVISIONS
 - 15.10.5 MODEL RECALIBRATION & VALIDATION REPORT
- 15.11 SELECT LOCALLY PREFERRED ALTERNATIVE
 - 15.11.1 LOCALLY PREFERRED ALTERNATIVE REPORT
- 15.12 APPLICATION TO ENTER PE
 - 15.12.1 SECTION 5309 NEW STARTS REPORT
 - 15.12.2 DRAFT PMP
 - 15.12.3 APPLICATION TO ENTER PE
 - 15.12.4 REVIEW AND APPROVAL MEMO
 - 15.12.5 REVISED NOTICE OF INTENT
 - 15.12.6 AGENCY SCOPING MEETING MATERIALS
 - 15.12.7 PUBLIC SCOPING MEETING MATERIALS
 - 15.12.8 AGENCY COORDINATION PLAN & SCHEDULE
 - 15.12.9 SCOPING REPORT
 - 15.12.10 TRAVEL FORECASTS
 - 15.12.11 FINAL DEFINITION OF ALTERNATIVES REPORT
 - 15.12.12 COST ESTIMATE
- 15.13 GOVERNMENT RELATIONS
 - 15.13.1 QUARTERLY GR PROGRESS REPORTS

Honolulu High Capacity Transit Corridor Project

Meeting Minutes

Date: _____ **Location:** _____

Subject: _____

Attendees: _____

Summary: _____

Action Required: _____

Distribution _____ **By:** _____
File _____
M. Scheibe, PB _____

APPENDIX D – SCHEDULE

APPENDIX E – PROJECT QUALITY CONTROL PLAN

E.1 SCOPE

The primary purpose of the Consultant Scope of Work for the Honolulu High-Capacity Transportation Corridor Project AA and DEIS is to provide the necessary transportation, financial, and land use technical analysis, stakeholder and public outreach, and framing of issues and trade-offs to support the selection by the City and County of Honolulu of a Locally Preferred Alternative in the corridor. The AA and DEIS is also designed to fulfill the Federal requirements for an alternatives analysis under the FHWA/FTA Metropolitan Planning Regulations, particularly for potential federal capital funding of any project that may emerge from the AA and DEIS. While a National Environmental Policy Act (NEPA) Final environmental impact statement (FEIS) will not be completed until preliminary engineering of the selected alternative, the AA and DEIS will initiate the NEPA scoping process, including publication of a Notice of Intent (NOI) in the Federal Register. The AA and DEIS environmental analysis, conducted as an integral part of the AA, is intended to support eventual fulfillment of the NEPA requirements for a federally funded project, or one requiring a federal action, that may emerge from this Alternatives Analysis.

The contractual basis for these corridor-planning activities is a series of work authorizations identifying a set of 13 related tasks and budgets for accomplishing the Alternatives Analysis. Several of the tasks define aspects of the AA and DEIS that are important to the scope-of-work and budget, such as the number of alternatives to be developed and evaluated, the land use and development feasibility analysis, and the impact the project will have on the natural and man-made environment.

The PM will define and oversee technical guidance for the Project Team in such areas as design criteria and standards for the alternatives: capital, operating, and maintenance cost estimating, and evaluation. The PM will also provide guidance on corridor land use and development tasks such as documentation of existing land use patterns, corridor and station area growth projections, determination of Transit-oriented Design (TOD) opportunities and urban design goals for transit-related development. Other types of guidance materials and standards may also be provided. The Project Team will participate with the City and County of Honolulu Department of Transportation Services (DTS) staff in coordination activities. This includes attending regular coordination meetings with City staff and other public agencies, attending public meetings in the other corridors, consulting with the City and County of Honolulu affected by the scope of the AA/DEIS, and conducting other activities as directed by DTS staff.

E.2 RESPONSIBILITIES FOR QUALITY CONTROL

The PM has the primary responsibility for ensuring quality control and, specifically, the implementation of the Project Quality Control Procedures. Assigned staff is individually responsible for controlling the quality of services within their area of performance expertise (see Section 2.2 for project roles and responsibilities). The following shows the specific quality control responsibilities within PB prior to submittal of any documentation to DTS.

Project Manager	Mark Scheibe (PB)
Principal-In-Charge (PIC)	Tad Ono (PB)
Planning/Alternatives Development	Chris Wellander (PB)
Environmental Analysis	Lawrence Spurgeon (PB)
Conceptual Engineering	Clyde Shimizu (PB)
Finance and Implementation	Mark Scheibe (PB)
Public Involvement	Lawrence Spurgeon (PB)

E.3 SCHEDULE FOR REVIEW

Internal quality review will be conducted prior to submittal of each draft and final deliverable. **All preliminary documents must be submitted to the assigned QC reviewer five days prior to scheduled delivery date. Two days before the delivery date, the PM will review selected deliverables and approve them for release.** A tentative schedule showing approximate time frames for the work tasks and subsequent deliverables is in Table E.4-1. Review of both the draft and final forms of all deliverables will conform to this plan.

E.4 PROCEDURE FOR REVIEW

The Task Manager responsible for the product will disseminate all material by task to the appropriate reviewer (see Table E.4-1) 5 days before the scheduled delivery date. Written review comments will be returned to the Task Lead in the form of redlined reports with written comments or computer generated edits in “tracking” mode. The recommended method for controlling this process is through the use of version tracking in ProjectSolve. If another method is used, the Task Lead will ensure the QC’s hard copies are physically maintained and the Project Quality Controller will ensure that a hard copy of the review certification is kept in the PB deliverables files.

The redlined report will then be sent back to the author via the Task Leader for necessary adjustments. If any issues remain, a phone conference or meeting will be set to discuss the items of interest.

When the Task Lead is satisfied with the changes, the product will be eligible for review and approval for release by the PM. The PM will be scheduled to approve major deliverables and may review other deliverables and products as needed. The deliverables that will be approved by the PM are annotated in Table E.4-1.

Any senior member of the Project Team may be eligible to be a QC reviewer. If a person has been a primary author or has made significant written contributions to a product, that person may not review that product. The goal is to have a senior technical expert who has a clear perspective review products applicable to his or her expertise. If a Task Leader has not been a major author for a product, he or she may be assigned as the QC for that product.

E.5 STANDARDS OF PRACTICE

Report format and grammar will be governed by the Style Guide that will be prepared specifically for this project and by current standards of the English language.

E.6 DELIVERABLES

Deliverables for the Project consist of a series of products, reports, and technical memoranda to be completed at various stages of the project. The reports are typically due at completion of the task for which they are written. Deliverables and other elements will be prepared by staff exercising reasonable care and professional competence. As a minimum, the deliverables and other documents to be furnished will be of a quality acceptable to the DTS Project Manager. The complete list of deliverables can be found in the Project Management Plan (see Section 3.4).

E.7 PROJECT TRACKING - COST SCHEDULE

The Project Manager, Mark Scheibe is responsible for monitoring the project cost and schedule. The Project Administrator, Jovie Yoshioka, has been assigned to the project to provide administrative assistance and accounting services and will support Mark Scheibe and the task leaders.

Project progress and status reports will be produced internally on a monthly schedule. Subconsultants will be responsible for administering their own tasks. Monthly progress reports will be supplied to DTS.

Task managers will be responsible for tracking each of their tasks. They will be provided copies of the PBIS Level 3 and labor and expense reports. The PM will ultimately be responsible for keeping track of all project tasks and reporting progress and problems to the client.

E.8 FILING LIST AND INFORMATION

Project files will be maintained by Parsons Brinckerhoff at its Honolulu office. Files will be available for review by the client upon request. In addition, the client will be copied on all significant Study Team communications.

E.9 INDEPENDENT PROJECT REVIEW

At the 30 percent complete point of the project an Independent Project Review (IPR) Team will be established. The purpose of the IPR team is to provide constructive and helpful review of the Study as a service to the PM to improve the performance of the project. An IPR is a "help-you" type review as opposed to a "caught-you" type of audit. The team will consist of 2-3 members selected by the Principal-In-Charge (PIC), Tad Ono, with the concurrence of the PM. The IPR Team will conduct their review by teleconference after a careful review of the Study. (PB staff: please refer to PMFORM TP-14.)

E.10 CLOSE-OUT PLAN

At the 30 percent complete point of the project the PM will complete the Close-Out Plan Checklist. (PB staff: please refer to PMFORM TP-15). The purpose of the closeout planning early in the project is to focus the efforts of the project team and the client toward the timely and successful conclusion of the project. Early on in the project the definitions, systems, and understandings must be put in place for the successful conclusion of early tasks. The incremental successful completion of tasks throughout the project will smooth the way to a timely project conclusion.

The PM and PIC will complete the closeout checklist at approximately the 85 percent physical complete point of the project. (PB staff: please refer to PMFORM TP-17.) The purpose is to review the timely and incremental closeout of the project according to plan, and to avoid project schedule overruns.

When all services on the project are completed, the PM will complete the technical and financial closeout for the project. (PB staff: please refer to PMFORM TP-18).

**Table E.4-1
QA/QC RESPONSIBILITIES**

Task and Products			Date	Lead	Reviewer	PM Approval
Task 1	Project Management					
1.1	Draft	Project Management Plan	9/2/05	BP	MS	✓
1.1	Final	Project Management Plan	2/9/07	BP	MS	✓
1.2	Draft	Quality Control Plan	9/2/05	BP	MS	✓
1.2	Final	Quality Control Plan	2/9/07	BP	MS	✓
1.3.1		Initial Schedule	9/2/05	LS	MS	✓
1.3.2		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.3		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.4		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.5		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.6		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.7		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.8		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.9		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.10		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.11		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.12		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.13		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.14		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.15		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.16		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.17		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.18		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.19		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.20		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.21		Monthly Management Progress Report	Monthly	LS	MS	✓
1.3.22		Monthly Management Progress Report	Monthly	LS	MS	✓
Task 2	Coordination with Agencies and Governmental Entities					
2.0.1		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.2		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.3		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.4		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.5		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.6		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.7		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.8		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.9		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.10		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.11		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.12		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.13		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.14		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.15		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.16		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.17		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.18		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.19		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.20		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.0.21		Monthly Coordination Progress Report	Monthly	LS	MS	✓
2.2.1		Computer Visualization	12/13/05	HP	CS	✓
2.2.2		Computer Visualization	12/13/05	HP	CS	✓
2.2.3		Computer Visualization	12/13/05	HP	CS	✓
2.2.4		Computer Visualization	12/13/05	HP	CS	✓
2.3.1		Technical Memorandum #1	TBD	DD	MS	✓
2.3.2		Technical Memorandum #2	TBD	DD	MS	✓
2.3.3		Technical Memorandum #3	TBD	DD	MS	✓
2.3.4		Technical Memorandum #4	TBD	DD	MS	✓

**Table E.4-1
QA/QC RESPONSIBILITIES**

Task and Products			Date	Lead	Reviewer	PM Approval
2.3.5		Technical Memorandum #5	TBD	DD	MS	✓
2.3.6		Technical Memorandum #6	TBD	DD	MS	✓
2.3.7		Technical Memorandum #7	TBD	DD	MS	✓
2.3.8		Technical Memorandum #8	TBD	DD	MS	✓
2.3.9		Technical Memorandum #9	TBD	DD	MS	✓
2.3.10		Technical Memorandum #10	TBD	DD	MS	✓
2.3.11		Technical Memorandum #11	TBD	DD	MS	✓
2.3.12		Technical Memorandum #12	TBD	DD	MS	✓
2.4.1		Technical Memorandum #13	TBD	DD	MS	✓
2.4.2		Technical Memorandum #14	TBD	DD	MS	✓
2.4.3		Technical Memorandum #15	TBD	DD	MS	✓
2.4.4		Technical Memorandum #16	TBD	DD	MS	✓
Task 3 Public Involvement						
3.1	Draft	Public Involvement Plan	10/18/05	LS	RP	✓
3.1	Final	Public Involvement Plan	7/5/06	LP	MS	✓
3.2.1		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.2		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.3		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.4		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.5		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.6		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.7		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.8		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.9		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.10		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.11		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.12		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.13		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.14		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.15		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.16		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.17		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.18		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.19		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.20		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.2.21		Monthly Public Involvement Progress Report	Monthly	LP	MS	✓
3.3.1		Community Update Meeting 1 Summary Report	2/27/05	LP	MS	✓
3.3.2		Community Update Meeting 2 Summary Report	2/27/05	LP	MS	✓
3.3.3		Community Update Meeting 3 Summary Report	2/27/05	LP	MS	✓
3.3.4		Community Update Meeting 4 Summary Report	2/27/05	LP	MS	✓
3.3.5		Community Update Meeting 5 Summary Report	2/27/05	LP	MS	✓
3.3.6		Community Update Meeting 6 Summary Report	2/27/05	LP	MS	✓
3.3.7		Community Update Meeting 7 Summary Report	2/27/05	LP	MS	✓
3.3.8		Community Update Meeting 8 Summary Report	2/27/05	LP	MS	✓
3.3.9		Community Update Meeting 9 Summary Report	2/27/05	LP	MS	✓
3.3.10		Community Update Meeting 10 Summary Report	2/27/05	LP	MS	✓
3.3.11		Community Update Meeting 11 Summary Report	2/27/05	LP	MS	✓
Task 4 Process Initiation						
4.0	Draft	Purpose and Need Statement	9/23/05	BP	MS	✓
4.0	Final	Purpose and Need Statement	1/23/06	LS	MS	✓
4.2	Draft	Process Initiation Summary Memo	5/15/06	CW	MS	✓
4.2	Final	Process Initiation Summary Memo	2/27/06	CW	MS	✓
Task 5 FTA Start-Up Package						
5.1		AA Initiation Memo	6/7/05	MS	RP	✓
5.2		Start-up Package to FTA	2/7/06	BP	MS	✓

**Table E.4-1
QA/QC RESPONSIBILITIES**

Task and Products			Date	Lead	Reviewer	PM Approval
Task 6 Alternatives Screening						
6.1	Draft	Technology Options Memo	1/13/06	DL	BP	✓
6.1	Final	Technology Options Memo	2/10/06	DL	CW	✓
6.2	Draft	Alternatives Screening Memo	3/17/06	BP	CW	✓
6.2	Final	Alternatives Screening Memo	9/25/06	CW	LS	✓
Task 7 Alternatives Analysis						
7.1	Draft	Notice of Intent and EISPN	11/15/05	LS	DA	✓
7.1	Final	Notice of Intent and EISPN	12/6/05	LS	DA	✓
7.2	Draft	AA Annotated Outline	10/18/05	LS	MS	✓
7.2	Final	AA Annotated Outline	4/4/06	LS	DE	optional
7.3.1		Conceptual Alternatives Memorandum	2/28/06	LS	CW	✓
7.3.2		Agency Scoping Meeting Materials	12/13/05	LS	DA	optional
7.3.3		Public Scoping Meeting Materials	12/14/05	LS	DA	optional
7.3.4	Draft	Scoping Report	1/18/06	LS	DA	optional
7.3.4	Final	Scoping Report	2/6/06	LS	DA	optional
7.3.5		Detailed Definition of Alternatives Memorandum	9/25/06	CW	DE	optional
7.4	Draft	Environmental Methodology Report	2/21/06	LS	DA	optional
7.4	Final	Environmental Methodology Report	4/21/06	LS	DA	optional
7.5	Draft	Affected Environment/Environmental Baseline Report	4/14/06	LS	DA	optional
7.5	Final	Affected Environment/Environmental Baseline Report	2/27/07	LS	DA	optional
7.6.1		Train Operations Analysis of Walkīkī Branch and UH Mānoa Branch	2/27/07	DL	CW	optional
7.6.2		Bus Operations and Maintenance Facility Requirements Memo	2/27/07	LF	CW	optional
7.6.3		Station Area Alternative Access and Egress Modes Memo	2/27/07	LF	CW	optional
7.6.4		Bus Service Development and Operating Policies Memo	2/27/07	LF	CW	optional
7.7.1	Draft	Travel Demand Forecasting Results	11/17/06	HF	BD	optional
7.7.1	Final	Travel Demand Forecasting Results	2/27/07	HF	BD	optional
7.7.2	Draft	Transportation Impacts Results	11/3/06	TG	CW	optional
7.7.2	Final	Transportation Impacts Results	2/27/07	TG	CW	optional
7.7.3	Draft	Alternatives Evaluation Results Report	11/15/06	CW	DE	optional
7.7.3	Final	Alternatives Evaluation Results Report	2/27/07	CW	DE	optional
7.8.1	Draft	Air Quality Technical Report	8/21/06	AL	LS	optional
7.8.1	Final	Air Quality Technical Report	1/13/07	AL	LS	optional
7.8.2	Draft	Noise and Vibration Technical Report	10/6/06	KK	LS	optional
7.8.2	Final	Noise and Vibration Technical Report	2/27/07	KK	LS	optional
7.8.3	Draft	Hazardous Materials Technical Report	8/16/06	VC	DA	optional
7.8.3	Final	Hazardous Materials Technical Report	2/27/07	VC	DA	optional
7.8.4	Draft	Water Resources Technical Report	7/21/06	JR	LS/DA	optional
7.8.4	Final	Water Resources Technical Report	2/13/07	JR	LS/DA	optional
7.8.5	Draft	Cultural Resources Technical Report	8/4/06	LL	DA	optional
7.8.5	Final	Cultural Resources Technical Report	2/27/07	LL	DA	optional
7.8.6	Draft	Historic and Archeological Technical Report	9/5/06	HH	DA	optional
7.8.6	Final	Historic and Archeological Technical Report	2/27/07	HH	DA	optional
7.8.7	Draft	Natural Resources Technical Report	7/28/06	LS	DA	optional
7.8.7	Final	Natural Resources Technical Report	2/27/07	LS	DA	optional
7.8.8	Draft	Energy Technical Report	7/21/06	LS	DA	optional
7.8.8	Final	Energy Technical Report	2/13/07	LS	DA	optional
7.8.9	Draft	Land Use Plans and Policies Technical Report	7/14/06	AH	DA	optional
7.8.9	Final	Land Use Plans and Policies Technical Report	2/13/07	AH	DA	optional
7.8.10	Draft	Environmental Justice/Social Impacts Technical Report	11/20/06	VC	LS	optional
7.8.10	Final	Environmental Justice/Social Impacts Technical Report	2/27/07	VC	LS	optional
7.8.11	Draft	Economics Technical Report	11/3/06	IH	DA	optional
7.8.11	Final	Economics Technical Report	2/27/07	IH	DA	optional
7.8.12	Draft	Visual Impacts Technical Report	11/17/06	TD	LS	optional
7.8.12	Final	Visual Impacts Technical Report	2/27/07	TD	LS	optional
7.12.1		Preliminary Draft Alternatives Analysis Report	9/29/06	LS	DE	✓
7.12.2		Draft Alternatives Analysis Report	10/17/06	LS	DE	✓
7.12.3		Alternatives Analysis Report	11/1/06	LS	DE	✓

**Table E.4-1
QA/QC RESPONSIBILITIES**

Task and Products			Date	Lead	Reviewer	PM Approval
Task 8						
Financial Analysis						
8.1	Draft	Funding Options Analysis	8/7/06	BC	DE	✓
8.1	Final	Funding Options Analysis	10/20/06	BC	DE	✓
8.3	Draft	Evaluation of Project Delivery Options	8/1/06	PC	MS	✓
8.3	Final	Evaluation of Project Delivery Options	11/2/06	PC	MS	✓
8.4	Draft	O & M Costing Memorandum	10/20/06	CG	CW	✓
8.4	Final	O & M Costing Memorandum	2/27/07	CG	CW	✓
8.5	Draft	Capital Costing Memorandum	10/16/06	PM	CS	✓
8.5	Final	Capital Costing Memorandum	10/30/06	PM	CS	✓
8.6.1		Draft Financial Feasibility Analysis	11/3/06	BC	DE	✓
8.6.2		Final Financial Feasibility Analysis	12/1/06	BC	DE	✓
8.7	Draft	Financial Plan	3/5/07	BC	DE	✓
8.7	Final	Financial Plan	4/23/07	BC	DE	✓
Task 9						
Conceptual Design						
9.1	Draft	Design Criteria	2/27/06	DM	CS	optional
9.1	Final	Design Criteria	3/27/06	DM	CS	optional
9.2	Draft	Alignment Plan and Profiles	7/11/06	CS	DM	optional
9.2	Final	Alignment Plan and Profiles	1/22/07	CS	DM	✓
9.3	Draft	Maintenance and Storage Facility General Layout and Location Plans	2/13/07	DM	CS	optional
9.3	Final	Maintenance and Storage Facility General Layout and Location Plans	3/27/07	DM	CS	optional
9.4	Draft	Typical Structural Details	9/12/06	DY	CS	optional
9.4	Final	Typical Structural Details	2/27/07	DY	CS	✓
9.5	Draft	Technical Memorandum on Roadway Modifications	2/27/07	TG	CW	optional
9.5	Final	Technical Memorandum on Roadway Modifications	3/27/07	TG	CW	optional
9.6	Draft	Technical Memorandum on Utility Relocations	12/18/06	CS	Deji	optional
9.6	Final	Technical Memorandum on Utility Relocations	2/27/07	CS	Deji	optional
9.7	Draft	Station Conceptual Plans	7/14/06	DH	CS	optional
9.7	Final	Station Conceptual Plans	1/22/07	DH	CS	✓
9.8	Draft	Technical Memorandum on Right-of-Way Needs	9/25/06	CS	DEji	optional
9.8	Final	Technical Memorandum on Right-of-Way Needs	2/27/07	CS	DEji	optional
9.11.1	Draft	Tunnels and Underground Stations Technical Report	2/27/07	BH	CS	optional
9.11.2	Final	Tunnels and Underground Stations Technical Report	3/27/07	BH	CS	optional
Task 10						
Refine and Update Methodologies						
10.1	Draft	On-Board Survey Design	10/21/05	JZ	BD	optional
10.1	Final	On-Board Survey Design	2/7/06	JZ	MS	✓
10.2	Draft	On-Board Survey Results	4/21/06	JZ	BD	optional
10.2	Final	On-Board Survey Results	12/1/06	JZ	BD	optional
10.3	Draft	Model User's Guide Updates and Revisions	5/18/07	HF	BD	optional
10.3	Final	Model User's Guide Updates and Revisions	6/15/07	HF	BD	optional
10.5	Draft	Model Re-Calibration and Validation Report	5/18/07	HF	BD	optional
10.5	Final	Model Re-Calibration and Validation Report	6/15/07	HF	BD	optional
Task 11						
Select Locally Preferred Alternative						
11.1	Draft	Locally Preferred Alternative Report	3/13/07	CW	DE	✓
11.1	Final	Locally Preferred Alternative Report	4/10/07	CW	DE	✓
Task 12						
Application to Enter PE						
12.0.1	Draft	Revised Notice of Intent	2/10/07	LS	DA	optional
12.0.1	Final	Revised Notice of Intent	3/2/07	LS	DA	optional
12.0.2		Agency Scoping Meeting Materials	3/16/07	LS	DA	optional
12.0.3		Public Scoping Meeting Materials	3/16/07	LS	DA	optional
12.0.4	Draft	Agency Coordination Plan and Schedule	3/30/07	LS	DA	optional
12.0.4	Final	Agency Coordination Plan and Schedule	4/20/07	LS	DA	optional
12.0.5	Draft	NEPA Scoping Report	4/20/07	LS	DA	optional
12.0.5	Final	NEPA Scoping Report	4/27/07	LS	DA	optional
12.0.6	Draft	New Start Travel Forecasts	4/16/07	HF	BD	optional
12.0.6	Final	New Start Travel Forecasts	4/27/07	HF	BD	optional
12.0.7	Draft	Final Definition of Alternatives Report	3/16/07	CW	MS	✓
12.0.7	Final	Final Definition of Alternatives Report	4/16/07	CW	MS	✓

**Table E.4-1
QA/QC RESPONSIBILITIES**

Task and Products			Date	Lead	Reviewer	PM Approval
12.0.8	Draft	New Start Cost Estimate	2/23/07	CG/PM	MS	✓
12.0.8	Final	New Start Cost Estimate	4/27/07	CG/PM	MS	✓
12.1		Section 5309 New Starts Report Submittal	4/27/07	CW	DE	✓
12.2		Draft PMP	4/27/07	CW	DE	✓
12.3		Application to Enter PE	4/27/07	CW	DE	✓
12.4		Review and Approval Memo for FTA	4/27/07	CW	DE	✓
Task 13 Government Relations						
13.1		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.2		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.3		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.4		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.5		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.6		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.7		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓
13.8		Quarterly Government Relations Progress Report	Quarterly	DD	MS	✓

Abbreviations:

AH	Alan Hodges
AL	Alice Lovegrove
BC	Brian Caouette
BD	Bill Davidson
BH	Bill Hansmire
BP	Bryan Porter
CG	Chris Gambala
CS	Clyde Shimizu
CW	Chris Wellander
DA	David Atkin
DD	Denis Dwyer
DE	Don Emerson
DEji	Dexter Eji
DH	Dennis Haskell
DL	David Little
DM	Dean Maniti
DY	Dan Yavorsky
HF	Heather Fujjoka
HH	Hal Hammatt
HP	Harley Pennington
IH	Ira Hirschman
JR	Jan Reichelderfer
JZ	Johanna Zmud
KK	Kevin Keller
LL	Lani Lapilio
LP	Laura Pennington
LS	Lawrence Spurgeon
MS	Mark Schelbe
PC	Phil Castellana
PM	Pat McNamee
TD	Teresa Dickerson
TG	Tom Gaul
VC	Veronica Chan