HONOLULU AUTHORITY for RAPID TRANSPORTATION

MINUTES

Finance Committee Meeting
Conference Room A, Kapolei Hale
1000 Uluohia Street, Kapolei, Hawaii
Thursday, June 28, 2012, 9:30 AM

PRESENT:	Don Horner Keslie Hui Ivan Lui-Kwan	Carrie Okinaga David Tanoue Robert "Bobby" Bunda
ALSO IN ATTENDANCE: (Sign-In Sheet and Staff)	Dan Grabauskas Gary Takeuchi Joyce Oliveira Jeanne Marian-Belding Andrea Tantoco Russell Honma Maurice Morita	Toru Hamayasu Diane Arakaki Phyllis Kurio Elizabeth Scanlon Cindy Matsushita
EXCUSED:	Glenn Okimoto	Wayne Yoshioka

I. Call to Order

At 9:32 A.M., the meeting of the Finance Committee was called to order by Committee Chair Don Horner.

II. Public Testimony

Mr. Horner called for public testimony. No testimony was offered.

III. Approval of May 3, 2012 Finance Committee Minutes

Mr. Horner called for the approval of the minutes of the May 3, 2012 Finance Committee Meeting. Board member Ivan Lui-Kwan moved for adoption, and Board member Keslie Hui seconded the motion. The minutes were unanimously approved.

IV. Business Plan for FY2013

Executive Director and CEO Daniel Grabauskas introduced the draft Business Plan for fiscal year 2013, attached herein as Attachment A. Mr. Horner and Board Chair Carrie

Okinaga suggested that perhaps the Business Plan should be referred to the committees for review. Mr. Horner confirmed with Board Administrator Cindy Matsushita that the Business Plan had been provided to the public.

Mr. Grabauskas thanked Ron Tober for helping to develop the Business Plan and Balanced Scorecard, which is attached as an appendix to the Business Plan. He agreed with the Chair's suggestion that the Business Plan be referred out to the various committees for evaluation and discussion of the areas under their purview. He stated that the Balanced Scorecard is preliminary, and encouraged Board members to provide their feedback on the metrics included therein. He stated that, after the Board submits its recommendations and comments, the Business Plan and Balanced Scorecard would be finalized.

Mr. Horner said that the opportunity to fine tune the Business Plan and Balanced Scorecard is critical, and Mr. Hui agreed. Mr. Horner pointed out that public comment should also be a part of the discussions surrounding the Business Plan. Mr. Horner called for deferral for further review, and all members agreed.

V. HART Budget FY2013

The next agenda item before the Committee was draft Resolution 2012-2 regarding the fiscal year 2013 operating and capital budgets, attached herein as Attachment B. Mr. Horner noted that the rail project has been in transition to HART, with the budget process in a formative mode. He reminded the public that the Finance Committee approved this budget several months ago on behalf of the Board, after it was discussed in a public meeting at which public comment was solicited through a public hearing in accordance with the Charter. The budget was then sent to the City Council for its review and input. Mr. Horner expressed his appreciation for the Council's hard work, and particularly for the Budget Committee Chair Ann Kobayashi's leadership. The budget was also submitted for review to the City Administration, and was reviewed further by the HART administration. The budget would now be submitted to the full Board for approval, after a public hearing. He stated that the only modifications planned in the budget are reductions, and asked Mr. Grabauskas to highlight those reductions.

Mr. Grabauskas introduced Transportation Planner Phyllis Kurio and HART's new Chief Financial Officer Diane Arakaki. At Mr. Horner's request, Ms. Arakaki briefly provided her background as an Oahu native and Kalani High School graduate. She has worked most recently with the metropolitan and land use planning agency in Portland, Oregon. She has also worked with the Oregon Department of Transportation, the Portland Development Commission, the City of Santa Monica, and the Port Authority of New Jersey. Mr. Horner asked how many years Ms. Arakaki has worked in and around public transportation. She stated approximately 20 to 25 years, mostly in the public sector. She expressed gratitude for the opportunity to participate in this momentous project in the state's history. Mr. Grabauskas also added that Ms. Arakaki holds a degree in public administration and a masters degree from the University of Southern California in intergovernmental finance. He expressed his delight in having her on board at HART.

Mr. Grabauskas advised that he has had further discussions with the City Council on reducing staff and the regular pay line item in the operating budget, which he recommends that the Board accept. Also, in keeping with the all-staff 5% pay reduction, Mr. Grabauskas has elected to have his own base pay reduced accordingly, and this is reflected in a further budget reduction.

Mr. Horner pointed out that therefore the HART operating budget proposed for approval by the full Board is even lower than what the City Council set forth in its budget measure. Mr. Horner also noted that the City Charter mandates HART to have management and control over monies made available to the authority, pursuant to RCH 17.108, and requires that the Board of Directors adopt the budgets that HART operates under (RCH 17.103.3(b)).

Mr. Grabauskas stated that the capital budget is unchanged from the previous version approved by the Finance Committee.

Board member Robert "Bobby" Bunda asked whether the City Council had formally approved the budget. Mr. Grabauskas replied that the Council voted on the recommendation for reduction of staff and the regular pay line item, as now reflected in the operational budget. Mr. Horner pointed out that all moneys in the budget had gone through the City Administration and City Council, with the goal of transparency for this public project. He stated that the Council is an important partner in this project, and he appreciates their diligence and hard work.

Mr. Grabauskas summarized that in addition to the $1.6 million reduction he previously proposed, he is proposing an additional reduction of $234,610. This latest decrease consists of the reduction of three staff positions in coordination with the Council's recommendations, plus Mr. Grabauskas' salary reduction.

Mr. Hui moved to accept the budgets as amended (and set forth in Resolution 2012-2), and Mr. Bunda seconded the motion. All being in favor, the motion carried unanimously to recommend passage of Resolution 2012-2 to the Board.

VI. Financial Update

Mr. Grabauskas then announced that as of that morning, HART has filed its draft Full Funding Grant Agreement (FFGA) submittal, attached as Attachment C. He thanked the staff for their hard work. In particular, he praised Elizabeth Scanlon and Phyllis Kurio for their efforts. He stated that two documents had been provided to the Federal Transit Administration (FTA). The first document is the submittal itself and eight attachments. The submittal will be reviewed and possibly changed at the highest levels of the FTA in the next 30 days. It will then go the Office of Management and Budget and the President for approximately another 30 days. At that point, FTA will provide its "Intent to Award" to Congress for a mandatory 60-day review period, during which it cannot be changed.

HART will then submit that final document to the City Council, requesting approval of an intergovernmental agreement resolution during Congress' review period.

Mr. Bunda asked if the Intent to Award would go to both houses of Congress, and Mr. Grabauskas confirmed that was his understanding. Mr. Grabauskas also stated that Congress would only review it, but make no changes to the final document during the 60-day review period. Mr. Horner emphasized the importance of timing, stating that the submission is with the FTA for 30 days in July, the Office of Management and Budget for 30 days in August, then with the Congress for 60 days in September and October. Mr. Grabauskas said the document then goes back to the FTA for signature, typically in close coordination with the Secretary of Transportation. The FFGA is expected to be awarded in November.

Mr. Grabauskas provided brief highlights of the Financial Plan, attached as Attachment D which is the second document transmitted to the FTA. He advised that a more detailed discussion of the Financial Plan would occur in the Board of Directors meeting. Overall project costs are down slightly by $11 million, and financing costs were down substantially. The matched project contingency is more than 15% of the total project costs. Fifty-three million dollars in Section 5307 monies have been removed from the plan, not to be used. Lastly, at the end of the project, approximately $193 million in GET revenues will be left over—significantly more than projected in the September 2011 Financial Plan.

Mr. Grabauskas introduced planner Elizabeth Scanlon, the principal staff person tasked with assembling the FFGA submittal. Ms. Scanlon most recently worked at the Utah Transit Authority, and stated that this was the fourth FFGA submittal she has worked on. Mr. Bunda asked if FFGA submissions are typically in this form. Ms. Scanlon stated that the submission is being made using a template provided by the FTA. Mr. Bunda asked if HART would have an opportunity to respond if the FTA decides to amend the document. Ms. Scanlon stated that since HART staff has worked very closely with the FTA on the submission, she is not expecting major changes.

Mr. Horner asked Ms. Scanlon whether it would be more accurate to say that the City is requesting $1.43 billion, as it had already received $120 million, and she agreed. She stated that the moneys will be drawn down in cycles, as the funds will be appropriated over a period of time. Mr. Horner asked if there was ever an approved FFGA that has not been fully funded, and Ms. Scanlon and Mr. Grabauskas both stated that there had not.

Ms. Okinaga asked how many other projects there are nationwide that are currently being allowed through the FFGA gates. Ms. Scanlon stated that although there were hundreds of projects in the New Starts pipeline, she was not aware of any currently at the FFGA level. Mr. Horner asked where the City was in the process. Mr. Grabauskas stated that the City is as close as you can get, and that HART has nothing further to do to secure federal funding. The President requested $250 million for the Honolulu transit project in his budget request, which is the highest in the nation for any project, as did the Senate. Although there is a competing proposal in the House of Representatives, Mr. Grabauskas

said he remains confident about the project. Mr. Horner recalled that U.S. Secretary of Transportation Ray LaHood stated that the Honolulu project is being done by the book.

Mr. Bunda asked what would happen if the Congress decided to appropriate less money to the Hawaii project than $250 million for the next fiscal year. Mr. Grabauskas stated HART would have to manage a different cash flow than projected, but said he remains confident that we would come very close to $250 million.

Mr. Hui moved to recommend approval of the FFGA submission to the Board of Directors, and Mr. Lui-Kwan seconded the motion. The motion passed unanimously.

VII. Executive Session

Mr. Horner inquired if there was any reason to enter into executive session, and there was none.

VIII. Adjournment

Having completed all Committee business, Mr. Horner adjourned the meeting of the Finance Committee at 10:09 A.M.

Respectfully Submitted,

Cindy Matsushita
Board Administrator

Approved:

Don Horner
Chair, Finance Committee

JUL - 5 2012
Date

ATTACHMENT A

HONOLULU AUTHORITY for RAPID TRANSPORTATION

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION

PRELIMINARY

BUSINESS PLAN
for
FY2013

June 28, 2012

Table of Contents

	Page Number
Introduction	**1**
HART Business Strategy	**2**
Mission	
Vision	
Goals	
Performance Metrics	
FY2013 Work Program	**5**
Agency Business Operations	
Honolulu Rail Transit Project Implementation	
Procurement Plan	
HART Organizational Development Strategy	**10**
Department of Transportation Services/Rapid Transit Division	
Federal Transit Administration Requirements	
HART Start-up Organization	
Future Organizational Development	
FY2013 Operating and Capital Budgets	**14**
Proposed FY2013 Operating Budget	
Proposed FY2013 Capital Budget	
Appendices	**17**
A – HART Balanced Scorecard	
B – HART Organizational Structure – Final Design/Construction Phase	
C – Project Background and Planning	

HART Business Plan

INTRODUCTION

This document provides a second year Business Plan for the Honolulu Authority for Rapid Transportation (HART) covering fiscal year 2013 (July 1, 2012, through June 30, 2013). It is designed to describe HART's business activities and resource allocations during the agency's second year of operations in accordance with its responsibility for building and ultimately operating the Honolulu Rail Transit Project, from East Kapolei in West Oahu to Ala Moana Center (HRTP).

The FY2013 HART Business Plan describes why HART exists as an organization, the goals and performance measures the agency has established, what it will seek to accomplish during the second year of operations, and how it will go about performing its responsibilities. The HART Board of Directors (BOD) will review and approve the FY2013 Business Plan in conjunction with its review and approval of a FY2013 Budget. In the future, it is envisioned that HART will prepare an annual Business Plan with a three-year moving timeframe. The annual Business Plan will provide a projection of key operating and financial information for the two years beyond the fiscal year which is the focal point of the Plan in order to provide a look-ahead for management planning and performance trend oversight purposes.

Summary of FY2012 Progress

FY2012 was HART's first year of existence. During the year, the HART BOD, staff, and consultant team made substantial progress toward achieving the vision of bring rapid transportation to Oahu. Shown below is a brief summary of what was accomplished during HART's first year:

- The HART BOD adopted a series of policies to guide agency activities including Board operating rules, a comprehensive Financial Policy, policies on ethics, procurement, change orders, Equal Employment Opportunity, and transparency as well as an Operating and Capital Budget and a Six-Year Capital Improvement Program.
- The BOD completed the recruitment of a permanent Executive Director/Chief Executive Officer (CEO), hiring Daniel Grabauskas, an experienced former CEO of the Massachusetts Bay Transportation Authority in Boston.
- Management developed and implemented a series of administrative policies and procedures to ensure that good business practices are being employed by HART.
- The agency received several key approvals from the Federal Transit Administration (FTA) for advancing the HRTP, including approval to enter Final Design and approval to begin construction on the first major components of the future rapid transit system.
- A procurement of a contractor for systems and vehicles as well as future operations of the rapid transit line was completed and the contract awarded following a thorough financial and technical vetting of the selected contractor.
- Continued Archaeological Inventory Survey work along the alignment with no *'iwi kupuna* discovered to date.
- Commenced construction in April 2012 in a portion of the West Oahu/Farrington Highway section with the drilling of the first of approximately fifty structural columns in a 2.5 mile section of the project.
- The first completed column, located in East Kapolei, was unveiled on June 8, 2012.

HART Business Strategy

Public transportation is a service business that utilizes both human and physical assets to deliver its product in the marketplace. A transit agency is in competition with the automobile to increase its share of the travel market. Success in achieving a greater market share requires that a transit agency have a clear and understandable strategy for how it will go about delivering its product to prospective consumers. As a public agency, HART's business strategy must not only be easily understandable to the agency's employees and contractors but must also be understandable to the general public.

This section of the FY2013 HART Business Plan describes the basic elements of the business strategy for the agency. These elements are described below and include statements on why the agency exists and what it is trying to achieve as well as a framework for how HART will go about accomplishing what the public has asked it to do. This framework includes Goals and a "Balanced Scorecard" (BSC) for measuring and tracking over time how well HART is doing its job. (Note: A later section of the FY2013 Business Plan describes the organizational development strategy HART is utilizing to achieve its Mission and Vision and accomplish the Goals the BOD has established.)

Mission Statement *(why the agency exists)*

HART's Mission is to plan, design, construct, operate and maintain Honolulu's high-capacity, fixed guideway rapid transit system.

Vision Statement *(what HART is trying to achieve)*

In accomplishing its Mission, HART will contribute to the quality of life on Oahu by:

- Mobility: Improving mobility for all residents, visitors, and businesses on Oahu particularly in the densely populated and congested corridor along the urbanized southern shore of the island.
- Reliability: Improving the reliability of travel in the corridor by offering a travel choice that will not be subject to at-grade level traffic congestion.
- Land Use: Supporting the City's land development policy by providing access to an area targeted for development of a new urban center and helping create transit-oriented development along the rail line.
- Equity: Providing people who are dependent on public transportation with an improved means of accessing economic and social opportunities and activities.
- Sustainability: Protecting the environment and lessening dependence on non-renewable fossil fuels.

(Note: The above Vision Statement is based in part on the Environmental Impact Statement prepared for the HRTP.)

Goals *(how HART will go about accomplishing the Vision and fulfilling the Mission)*

In order to accomplish its Mission and realize the benefits described in the Vision, HART must accomplish the following goals:

1. Project Delivery: Complete the Project on time and within budget while:

   - Ensuring the safety and security of the public, HART employees, and construction workers;
   - Minimizing the impacts on adjacent natural, cultural, and built environments and communities; and
   - Fulfilling environmental mitigation commitments.

2. Service Delivery: Ensure that the design and actual construction of the project will facilitate the delivery of safe, high quality, and cost-efficient service in the future.

3. Stewardship of Resources: Maintain public trust through the prudent and transparent use of financial, human, and environmental resources.

4. Livability: Support the creation of mixed use, pedestrian-friendly, compact development along the rail line.

5. Partnerships: Pursue partnerships with the private sector to create economic opportunities and generate income and cost savings for the rail transit system.

6. Agency Culture: Foster an organization that is open, accountable, inclusive, and delivers better than promised results.

Performance Metrics

Performance expectations and metrics flow out of the Vision and the Goals for the agency and are intended to help an organization measure its progress toward achieving the Vision and Goals. Performance metrics for HART will help the BOD and agency management, as well as the Authority's stakeholders and the general public, measure and evaluate the agency's progress and will aid in maintaining transparency on what HART is doing with taxpayer money. Management staff will compile and provide periodic reports to the BOD on the performance metrics. The information will also be reported to the City Council and the community in an annual report.

Performance metrics for HART have been incorporated into a BSC for the agency. The BSC establishes and will track over time metrics that measure performance in achieving the Goals which the BOD has established for the agency. The proposed HART BSC is shown in **Appendix A** to the Business Plan.

As shown in Appendix A, the HART BSC is structured to provide performance measures and metrics for each of the six Goals the BOD has approved. The BSC establishes the fiscal year targets or objectives for each measure. The BSC indicates whether a specific performance measure or metric is a "Lead" or "Lag" indicator[1]. Space is provided for HART management to

[1] A "lead" indicator implies that the item being measured is intended to drive or create an end result whereas a "lag" indicator is intended to simply measure the end result from a particular activity.

provide information on actual results or status for each of the performance measures and metrics delineated in the BSC during its periodic reports to the HART BOD.

In 2013 and for the next several years HART will be engaged in completing the design and construction of the HRTP. Actual operation of rail service will not occur until 2016. As such, the BSC shown in Appendix A is heavily oriented toward project implementation. The BSC does include some measures dealing with Service Delivery as it relates to the current project implementation stage of the project. Additional metrics will become meaningful when actual revenue service begins; illustrative examples of such metrics include:

- Ridership level

- Reliability measures including:
  - On-time departures/arrivals
  - Miles between mechanical failures
  - Elevator and escalator availability (% of time available during operating hours)
  - Fare collection equipment availability (% of time available during operating hours)

- Safety and Security measures including:
  - Accidents per 100,000 passengers
  - Security incidents per 100,000 passengers
  - Employee on-the-job injuries

- Financial measures including:
  - Operating Ratio
  - Cost per vehicle hour and vehicle mile
  - Cost per passenger
  - Accident Claims received/closed/outstanding

Given the current project implementation of HART's business activities, it is envisioned that HART management will provide quarterly updates of the HART BSC in reports to the BOD and the public. When actual revenue service begins on the rail line, monthly BSC reports will become relevant.

Using a BSC which ties to the Goals that HART has established will enable the agency to evaluate its progress on achieving the agency's Mission and Vision and to report to its stakeholders and to the community.

FY2013 Work Program

Agency Business Operations

HART came into existence July 1, 2011, and has functioned to date as a semi-autonomous agency of the City & County of Honolulu government. During FY2013, HART will continue to use various City business systems and administrative practices when conducting the agency's business activities (e.g. Department of Transportation Services [DTS] procedures and the City's accounting and payroll systems). In addition, HART will continue to receive services provided by other City Departments (e.g. Budget and Fiscal Services, Information Technology, Corporation Counsel, and Human Resources). Memoranda of Understanding (MOU) or Memoranda of Agreement (MOA) with the City Departments set forth the scope and terms of the services to be provided. This support from the City will enable the agency to continue to concentrate its resources to the implementation of the HRTP. During FY2013 and beyond, HART will evaluate the extent to which it should develop its own business systems.

HART will need to complete a number of steps during FY2013 to further develop the organizational capacity and capability to fulfill its Mission as described in the preceding section. Several of the actions that will be taken are designed to ensure that HART will be able to establish and maintain eligibility to receive federal funding for the HRTP. A preliminary listing of the tasks that will be undertaken in FY2013 is as follows:

- Continue to update BOD operating procedures and practices.
- Recruit key management, technical, and support staff.
- As required, adopt or modify BOD and HART policies guiding the agency business activities (e.g. financial policy and procurement policy).
- Continue to add and modify administrative procedures and practices that are specific to a transit agency in areas such as procurement and contract administration; safety and security; employee relations; and management reporting.
- Develop a management reporting system on key performance metrics.
- Prepare within the first six months of FY2013 a six-year capital improvement plan for the agency.
- Begin development of a brand identity for HART.
- Regularly update and communicate with stakeholders, including the Mayor and City Council, to ensure a flow of information regarding the progress of the Project.
- Continue the creation of an organizational structure and culture that will enable the fulfillment of the agency's Mission and Vision.

HRTP Project Implementation

Project Description:

The HRTP is a proposed 20-mile light metro rail line in an exclusive right-of-way with fully automatic (driverless) train operation. All of the alignment, with the exception of the access and egress from the Maintenance and Storage Facility and the Leeward Community College Station, is elevated above existing highways and arterial roadways. The rail line includes 21 stations from East Kapolei, in West Oahu, to Ala Moana Center. Initial service is scheduled to start in 2016 from the western end of the alignment at the East Kapolei Station to the Aloha Stadium Station with full service operations to Ala Moana Center starting in 2019. Full service is anticipated to

operate 20 hours per day, with 3-minute headways during peak periods and 6-minute headways in the midday. End-to-end travel time is estimated to be 42 minutes. Service will be provided by 2-car trains. Average weekday rail boardings in 2030 are projected to be about 116,000 passengers. A peak hour directional maximum load of about 8,000 passengers per hour is anticipated in 2030.

The rail line will serve the urbanized southern shore of Oahu, a narrow corridor between the Pacific Ocean and two mountain ranges. The rail line will serve key employment centers including Downtown Honolulu, Joint Base Pearl Harbor - Hickam, Honolulu International Airport, and Ala Moana Center. The area served by the rail line includes 'Ewa, a portion of Central Oahu, and the Primary Urban Center having a population of about 700,000 or approximately 80 percent of Oahu's total. About 40 percent of this population is in the Primary Urban Center area. These areas also include about 440,000 employment opportunities or about 88 percent of Oahu's total. Over 60 percent of this employment is in the Primary Urban Center area.

Appendix C provides a more detailed description of the Project along with background on the planning for the Project.

Project Status:

- Currently HRTP is in final design phase of project development. A Full Funding Grant Agreement (FFGA) with the FTA for $1.55 billion of New Starts funding is expected in the second quarter of FY2013. As part of the documentation required for the FFGA, the Project cost estimate has been updated to reflect the status of design and contracts awarded to date. The Financial Plan for the Project was revised to reflect the updated cost estimate and the latest projections for project funding sources. The Contract Packaging Plan, Master Project Schedule, and Risk Analysis have also been updated.

- Contracts for Program Management Support and General Engineering services are continuing. The HART Operating Budget provides funding for 142 positions for the Project.

- A contract has been awarded to the right-of-way consultant to assist HART staff with continuing property acquisition and relocation activities primarily for Airport and City Center sections.

- Environmental permitting and compliance work is continuing for all construction contracts.

- For the Design-Build (DB) contracts:
  - The West Oahu/Farrington Highway Guideway design is essentially complete. Utility relocations, shafts and columns are underway. At the end of FY2013 overall construction is scheduled to be 50% complete.
  - The Kamehameha Highway Guideway contract design will be completed by the end of FY2013 with construction scheduled to be 20% complete.
  - Supporting the guideway construction is the essential guideway deck section casting yard which will be operational in FY2013.
  - The Maintenance and Storage Facility design will be completed and construction is scheduled to be 50% complete at the end of FY2013.

- The Design-Build-Operate-Maintain (DBOM) Core Systems contract for train control, communications, operations and maintenance, and Revenue Vehicles is in the design phase and this effort will continue throughout FY2013 with contract completion at that time estimated at 15%.

- For the Design-Bid-Build (DBB) contracts:
  - The Airport Guideway and Utilities design is underway and will continue throughout FY2013.
  - The City Center Guideway and Utilities design will begin in August 2012 and continue throughout FY2013.
  - The Farrington Highway Station Group design is underway and will be completed in FY2013.
  - The West Oahu Station Group design has been initiated and will be substantially complete at the end FY2013.

Land Use Connection: Transit-Oriented Development

HART is the steward of a large-scale public investment, which includes important real property assets essential to HART's operation. These assets also contribute to the ongoing financial viability of the transit system. Federal, State, and regional policy direction to concentrate growth around transit further enhances the value of these assets. By promoting high quality, more intensive development on and near transit properties purchased or created by HART, the agency can increase ridership, support long-term system capacity and generate new revenues for transit. Also, such development creates attractive investment opportunities for the private sector and facilitates local economic development goals.

The State and City control the planning and permitting authority for most of the land along the 20-mile rail corridor. Coordination of these activities between the respective agencies is necessary to successfully leverage public and private investment in the corridor. Both the State and City are preparing station area plans and revisions to the land use regulatory requirements, which will provide the policy framework for private development.

The City's Department of Planning and Permitting (DPP) is responsible for developing transit-oriented development (TOD) neighborhood plans and zoning regulations for station TOD areas. HART planning staff will provide support to these planning efforts and will include coordination with various City and State agencies, special interest groups (e.g., disabled, elderly), and the private sector to resolve such issues as modal connectivity, station access, safety and security.

In addition to providing TOD planning support, HART planning staff will focus efforts on identifying opportunities for joint development (JD) near to or integrated with stations. This work will build upon TOD planning currently underway or planned. HART planning staff will provide advice, planning, urban design services, and targeted recommendations to the City in an effort to explore potential JD opportunities (transit agency owned land within an easy walk to transit) at various stations.

During FY2013, HART staff will actively pursue, develop, and execute MOUs or MOAs with public and/or private owners of land within a quarter-mile to a half-mile radius of each planned transit station. The MOUs / MOAs will call for coordination and transparency with our neighbors in creating common visions for development surrounding the transit stations, including affordable

and/or workforce housing and planned open urban areas. The City and/or DPP will be a critical partner in developing these visions, but need not be signatories to the MOUs and MOAs.

In this regard, HART will assist in the development of a program to implement a transit-oriented redevelopment district by working with the City (including City Council and DPP), related State entities (including the Hawaii Housing Finance and Development Corporation), and private developers for planning districts located in and around rail transit stations. The program would redevelop the surrounding area into a vibrant mixed-use neighborhood consisting of workforce and affordable housing, retail shopping locations, and other infrastructure improvements necessary to improve safety, promote healthy lifestyle habits such as walking and biking, and increase rail ridership.

Procurement Plan

Agency Business Operations

HART will conduct routine procurements for needed services, equipment, and supplies related to support the conduct of agency business operations utilizing City procedures and group discount opportunities.

Two information technology acquisitions will be undertaken in FY2013 to improve the efficiency of agency business operations:

- Creation of a project-wide network for the Contract Management System using new local servers housed in rented space at the DRFortress facility near the Honolulu Airport.
- Acquisition of AutoCAD® equipment.

Project Implementation

The current Contract Packaging Plan for the HRTP includes 49 separate contracts. Of these contracts, 18 were awarded and notices to proceed (NTP) were issued through the end of FY2012. The awarded contracts include three DB contracts and one DBOM contract, along with multiple smaller contracts. The total value of all contracts awarded to date is approximately $3.3 billion including the $823 million Operate & Maintain (O&M) portion of the DBOM contract. All of the awarded contracts are in various stages of implementation and will be subject to contract administration and oversight by HART staff and support consultants during FY2013.

During FY2013, the following HRTP contracts will be in procurement with key milestones in the FY2013 quarter (Q) shown:

Construction & Installation:		
MI-930	Elevators & Escalators Furnish & Maintain	Award 4Q
DBB-505	Airport Section Utilities Construction	Advertise 3Q
Final Design:		
FD-440	Airport Section Stations	Award & NTP 2Q
FD-530	City Center Section Guideway & Utilities	Award & NTP 1Q
FD-540	Dillingham Section Stations	Award & NTP 4Q
FD-545	Kaka'ako Section Stations	RFQ issued 2Q

Construction Engineering & Inspection Services:

MM-180	W. Oahu & Farrington Highway Stations	Award & NTP 2Q
MM-380	Kamehameha Highway Stations	RFQ issued 3Q
MM-500	Airport & City Center Utilities	Award & NTP 2Q

HDOT Consultant Services & Other Agreements:

MM- 945	On-Call Construction Contractor	RFQ issued 3Q

HART Organizational Development Strategy

Background

Planning and development of the HRTP was the responsibility of DTS for six years. HRTP was managed through DTS' Rapid Transit Division (RTD). DTS/RTD managed the completion of the required planning, economic, engineering, and environmental studies needed to advance the Project through the stages of the FTA's New Starts project development process including: analysis of alternatives; technology and alignment selection; conceptual and preliminary engineering (PE) work; the preparation of a Final Environmental Impact Statement (FEIS); and the development of a contracting strategy for actually constructing the Project.

Because of the uncertainty surrounding whether the City would receive the funding and approvals needed to advance the Project, the strategy DTS/RTD employed was to maintain a relatively small staff and hire consultants to provide the expertise necessary to perform various aspects of the required work. The City Project staff was supplemented by a Program Management Support Consultant (PMC) that has provided experienced and technically proficient personnel to fill key positions and roles in the Project organization. PMC provided services have included professional, technical, managerial and other support services to initiate and complete the PE/EIS phase of the Project and initiation of final design and construction. PMC personnel have functioned as staff embedded within the DTS/RTD assisting City employees in managing and overseeing the work.

In addition, DTS/RTD retained the services of a General Engineering Consultant (GEC) to undertake the planning, economic, engineering, and environmental work that was required to advance the Project through FTA's New Starts process. As part of this effort, the GEC conducted engineering and technical studies, including conceptual engineering, to support the preparation of the EIS, and PE work to support the City's request to advance to final design. The GEC assisted the DTS/RTD with preparing competitive procurement documents for the various DB contracts and the Core Systems DBOM contract.

The Project has passed the critical milestone of completing the FEIS and obtaining a Record of Decision (ROD) issued by the U.S. Department of Transportation in accordance with the National Environmental Policy Act (NEPA) and Hawaii State law. With the issuance of the ROD, FTA provided authority to begin property acquisition and undertake utility relocation work. As noted in the FY2013 Work Program section, DB contracts for initial phases of the Project have already been awarded and construction work has started on the initial phases. HART has now begun final design on other elements of the Project.

With the start-up of HART on July 1, 2011, RTD ceased to exist and the RTD staff, including the embedded PMC staff, was transitioned to become the core staff of HART. In addition, the GEC continued to perform its scope of work under the auspices of HART.

FTA Requirements

Because the HRTP will be funded in part with Federal dollars through the FTA, HART must demonstrate that it meets FTA requirements for grantees pursuing a major investment project like the HRTP. Principal among these requirements is that the grantee must exhibit the "technical capacity and capability to efficiently and effectively" carry out the project. The FTA conducts an assessment of a grantee's technical capacity and capability by looking at a number of things including the following:

- Organizational structure.
- Staff qualifications and experience.
- Roles, responsibilities, and interfaces among key project team members laid out in a responsibility matrix.
- Staffing plan showing labor distribution over the life of a project.
- Copies of various key procurement documents.
- Description of management processes and procedures including the division of decision-making authority between the BOD and management staff; financial and procurement policies and procedures; and community outreach and relations efforts.
- Resumes of project team members.

The above information is embodied in a Project Management Plan (PMP). The PMP is periodically updated as a project moves through the various stages of project development. The current PMP for the HRTP is in the process of being updated for the next project milestone, the Full Funding Grant Agreement (FFGA). With each successive update of the PMP, the expectations for the technical capacity and capability of the grantee increases. In other words, the grantee must demonstrate a growing capacity and capability to match the increasing scope, complexity, and magnitude of the work to be performed in the next project phase in order to receive FTA approval to proceed. HART is scheduled to be in position to receive an FFGA in the second quarter of FY2013 assuming everything is in order.

As a result, ensuring that HART will meet the FTA's technical capacity and capability requirements is a major factor in the formulation of the organizational development strategy embodied in the PMP and described herein.

HART Organization

Work on the Project is now in the final design phase of FTA's New Starts process. Work continues on property acquisitions and owner/tenant relocations and utility relocation. Limited construction work authorized by FTA through Letters of No Prejudice on design-build portions of the Project has begun.

The organizational approach embodied in the PMP for FFGA includes an expansion of staff to 142 positions and continues the role of the PMC as seconded staff within HART. **Appendix B** provides an organizational chart that depicts what the Authority's functional structure will look like as a semi-autonomous agency within the structure of the City and County of Honolulu. Also provided is a series of staff organization charts which shows the 142 positions that make up the proposed FY2012 HART staff. Of these positions, 30 or roughly 20% of them are expected to be PMC provided staff.

The GEC's role has evolved to reflect the start of final design and construction work. The GEC will oversee final design efforts and provide construction management and oversight services including resident engineering, office engineering, and inspection. This includes performing quality assurance inspections of all contractor activities; reviewing all contract document submittals including shop drawings and specifications; reviewing contractor invoices; reviewing requests for information; reviewing requests for change; conducting inspections, value engineering, and reviewing change order estimates. The GEC will provide Construction Engineering and Inspection services for HART's DB contracts.

The PMP calls for retaining the services of engineering design consultants (EDCs) to develop final detailed designs of the remaining Project elements that will be procured through open competitive bidding. This does not include the three DB contracts or the Core Systems and Vehicles contract since final design is a function within the scope of those contracts. This does include stations, the Airport and City Center guideway phases and various fixed facilities. Fixed facilities design includes the design of civil and structural facilities, trackwork, utilities, the Pearl Highlands parking structure and access ramps, landscaping and some systemwide elements. The GEC will oversee the final design work of the EDCs. The GEC also continues to provide technical studies and management support for implementation of the Section 106 Programmatic Agreement 2nd Mitigation Support for the ROD.

Future Organizational Development

At present and for the next three to four years, HART is a project development agency with no daily operating or service delivery responsibilities. This, of course, will change as the rail transit project gets completed and actual revenue service begins operating initially in 2016 with full service along the entire alignment starting in 2019. The staffing needs and business systems needs of the agency will evolve over time as the change from project development to operations and service delivery occurs. How well this transformation is accomplished will be important to the success of the agency in accomplishing its Mission and Vision. The strategy for managing this evolution is outlined below:

- Phase out use of PMC and build HART staff capability.
  - Identify those positions that HART will need long term for operations and the planning of extensions and seek to fill these positions with direct hires.
    - Examples: Deputy CEO, CFO, Chief Operating Officer, Chief Engineer, Internal Audit, Marketing, Planning; Property Management.
    - Use PMC to temporarily fill these roles when recruitment is unsuccessful or can't be completed in a timely fashion.
    - PMC employees will mentor and help train HART staff and new hires; this may require some overlapping of positions.
  - Retain the services of the City's Department of Human Resources to develop an organizational development plan for HART including phases of organizational development; a classification and compensation structure and recruitment and employee development strategies.
  - Current PMC contract expires in February 2015; the contract may need to be extended for an additional period depending on HART's success in staff recruitment.
  - GEC and EDCs will continue their roles/scope until the project construction; system integration and testing; and start-up work is completed.

- Develop internal business processes and systems that fit the needs of the transit system. Move away from using City processes and systems wherever it makes the most sense for HART to achieve its Mission, Vision, and Goals.

- Develop a seamless multi-modal (bus and rail) transit system.
  - Engage in joint planning with DTS and "TheBus" management (Oahu Transit Services) for reconfiguration of the bus system to complement rail.
  - Establish a joint bus-rail fare collection system (hardware and software) and a revenue processing set-up to reduce interface problems and achieve economy of scale cost savings.
  - Encourage DTS to update /improve the bus fare collection system prior to the start of rail operations.

- Future issues that will need to be addressed:
  - Programming of bus fare collection system improvements to interface with rail fare collection needs to be pursued in the very near future.
  - The process for setting fares between the HART BOD and City Council will need to be addressed.
  - Operating support from the City for the rapid transit operation will be required as delineated in the Financial Plan.
  - The possibility of extending the General Excise Tax (GET) surcharge to cover all transit system operating subsidy needs (bus and rail) may warrant exploration.
  - Development of operating policies and rules and the identification of any implications for project design and the operating and capital improvement budget.
  - Pursuing opportunities to make joint use of transit facilities and assets to generate income.

FY2013 Operating and Capital Budgets

HART staff prepared and submitted preliminary FY2013 Operating and Capital Budgets to the HART BOD Finance Committee in November 2011. On December 1, 2011, the HART Interim Executive Director transmitted the proposed FY2013 budgets to the Mayor and the City Council. This section of the FY2013 Business Plan describes in summary form the Operating and Capital Budgets. An original request was presented to the City Council Budget Committee on March 17th. The Operating Budget portion of this request was subsequently amended by the HART Finance Committee on May 3, 2012, based upon recommendations of the new Chief Executive Officer and re-submitted to City Council. The final version of the FY2013 Business Plan will reflect the final FY2013 Operating and Capital Budgets adopted by the HART BOD.

The total budget request for FY2013 approved by the HART BOD Finance Committee on May 3rd was as follows:

Operating Budget	$ 21,303,804
Capital Improvements	491,584,960
Total Expenditures	$512,888,764

Proposed FY2013 Operating Budget

The proposed FY2013 Operating Budget has three major expense categories: Personnel, Current Expenses, and Equipment/Software (unit cost of $5,000 or more and a useful service life of less than 5 years). The table below provides a breakdown of these three cost components for FY2013 and a comparison against the budgeted amounts for FY2012.

Expense Category	FY2012 Budget	FY2013 Budget
Personnel	$13,302,491	$13,206,293
Current Expenses	7,280,135	8,081,511
Equipment & Software	--	16,000
TOTALS	$20,582,626	$21,303,804

The Personnel category of the FY2013 Operating Budget includes funding for 142 positions. This compares to 136 positions authorized in the FY2012 Budget and 110 positions in 2011. As described in the Organizational Development Strategy section, the staffing level proposed is designed to ensure that HART has the technical capacity and capability to manage the implementation of the HRTP and meet the requirements of the FTA for managing major "New Starts" projects that are receiving FTA funding. The following chart provides a summary breakdown of the positions reflected in the proposed FY2013 Budget by major job category along with comparable information for the approved FY2012 Budget staffing plan:

Job Category	FY2012	FY2013
Executive Management	3	4
Engineering/Design/Construction Management	43	43
Project Control, Configuration and Real Estate	39	33
Budget, Finance and Procurement	--	15
Other Professional	19	19
Administration and Support	32	28
TOTALS	136	142

In FY2013, the office of the Executive Director/Chief Executive Officer will be established consistent with the Charter Amendment that created HART. In addition, the CFO will oversee a new division within HART that will initially include the budget, finance and procurement functions for the agency.

The following table provides a breakdown of the reimbursements to other City departments included in the proposed FY2013 Budget:

City Department/Purpose	Amount $
Corporate Counsel – Staff Salaries & Benefits	546,763
Corporate Counsel – Current Expenses	37,500
Design & Construction – Staff Salaries & Benefits	151,017
Budget & Financial Services – Staff Salaries & Benefits	61,946
CASE – General City overhead expense	1,089,569
TOTAL	**2,154,971**

Proposed FY2013 Capital Budget

The proposed FY2013 Capital Budget is made up primarily of expenses related to the design and construction of the HRTP consistent with the work planned for the year as described in the Work Program section of this Business Plan. The following table compares the FY2013 planned expenditures by project budget component against the FY2012 budget:

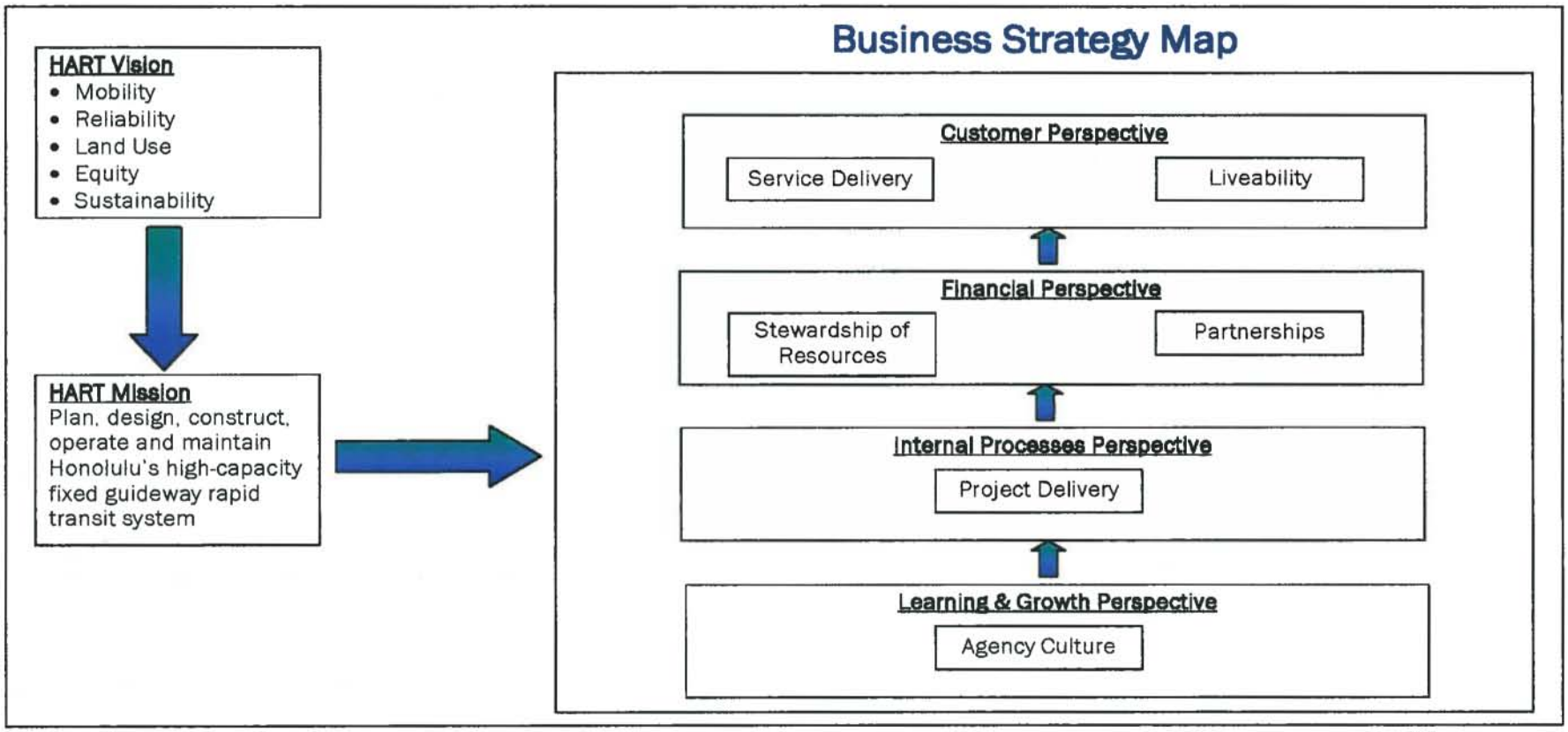
Capital Budget Elements	FY2012 Budget	FY2013 Request
Consultant Services	$ 41,188,800	$ 46,509,540
Design Services	91,541,904	72,673,230
Programmatic Agreement	2,850,000	100,000
Utility Relocation	7,454,710	17,342,190
Construction	127,843,243	211,402,500
Construction Mgmt./Inspection	7,301,000	50,647,920
Equipment	10,558,000	55,556,510
Land Acquisition	63,546,105	34,181,200
Relocation	2,352,518	3,171,870
TOTAL Capital Expenditures	**$ 354,636,280**	**$ 491,584,960**

While the purposes of most of the elements listed in the above table are self-explanatory, three of the budget elements shown in the above table are further described below:

- The Consultant Services expense category includes costs ($44 million) for various GEC work activities including planning activities (i.e. update of the Financial Plan and the O&M Plan); construction management and oversight of DB and DBOM contracts; and project management and support activities. It also includes costs ($10.4 million) for the PMC that is providing experienced personnel in various specialized and technical areas to augment agency staff. Finally, it also includes the costs ($8.9 million) of consultant services to conduct design reviews for Hawaii Department of Transportation and costs for management of the Project's Owner Controlled Insurance Program ($0.4 million) and Right-of-Way Support Consultant ($0.6 million).
- The Design Services line item is for final design services related to various DBB contracts including the station groups for West Oahu/Farrington Highway, Airport, and Kaka'ako; Airport Guideway; City Center Guideway; Quality Audit Expenses; and allocated contingency for the three DB contracts.
- The Programmatic Agreement category covers funding for the Kaka'ako section.

Appendix A

HART Balanced Scorecard



HART

BALANCED SCORECARD

Project Implementation/Pre-Revenue Operation

APPENDIX A
Q3 FY12
Data Date: March 31, 2012

	Goal	Current Quarter (Q3 FY12) Jan, Feb, Mar 2012				Inception to Date (YTD) October 2009 - March 2012				Comments and Legend
		Plan	Actual	Variance	Status	Plan	Actual	Variance	Status	
Customer Perspective	**SERVICE DELIVERY**									
	Platform Gates				○				○	To be determined - Projected for FY13
	Fare Collection System				○				○	To be determined - Projected for FY13
	Bus-Rail Integration Plan				○				○	To be determined - Projected for FY14
	HART Operating Organization Plan				○				○	To be determined - Projected for FY14
	HART Service Policy/Standards				○				○	To be determined - Projected for FY15
	LIVABILITY									
	HART TOD Policy				○				○	To be determined - Projected for FY13
Financial Perspective	**STEWARDSHIP OF RESOURCES**									
	Archaeological									
	Archaeological Finds	----	1	----	●	----	2	----	●	# Finds *(No iwi kupuna have been identified in the 2 archaeological finds to date.)*
	AIS Progress	20	20	-0-	●	165	165	-0-	●	# Archaeological Inventory Surveys Completed vs Planned *(WOFH and KHG Sections trenching completed; City Center: 20 trenches completed; Airport: 0 trenches completed.)*
	Historic									
	Traditional Cultural Properties (TCP)	----	0	----	●	----	0	----	●	# Affected Areas of Potential Effect *[No TCPs were identified within the project Area of Potential Effect for Honouliuli Ahupuaa (WOFH). Documentation was under SHPD review by the end of March.]*
	HPC and PA Consulting Party Meetings	2	2	-0-	●	10	10	-0-	●	# Quarterly Historic Preservation Committee (HPC) *[5 to date]* and Consulting Party Meetings *[5 to date]* conducted vs required
	Environmental									
	Permit Violations	----	0	----	●	----	0	----	●	# Permit Violations
	Mitigation Measures	----	208	----	●	----	208	----	●	# Mitigation Measures Implemented vs Measures (MMIDs) Identified in the Mitigation Monitoring Plan (MMP)
	Regulatory Actions	----	0	----	●	----	0	----	●	# Regulatory Actions Taken
	Operating Budget									
	Operating Expenditures	----	0	----	○	$20.58	$7.72	($12.86)	●	$M Actual Expenditures/Encumbrances vs FY2012 Annual Appropriations
	Staffing Level	136	116	(20)	●	136	116	(20)	●	# Full-Time Equivalents (FTEs) Actual vs Planned. *[The HART FY12 Operating Budget authorized 136 FTEs. As of March 31, HART had 116 FTEs (90 HART/City + 26 Consultant).]*
	Capital Budget									
	Capital Expenditures	----	0	----	○	$354.74	$213.31	($141.43)	●	$M Actual Expenditures/Encumbrances vs FY2012 Annual Appropriations
	Revenues									
	GET Surcharge Receipts	----	$49	----	●	$3,452	$730	($2,722)	●	$M GET Surcharge Receipts Received vs Total Projected in Sept 2011 Financial Plan (Total Revenues Includes $432.1M received to date + Beginning Cash Balance of $298M at entry into Prelim Engrg phase)
	Federal Grant Funds	----	$1	----	●	$1,798	$66	($1,732)	●	$M Actual FTA Funds Received *[5309 ($62M) + 5307 ($4)]* vs Total Projected in Sept 2011 Financial Plan *[5309 ($1,550M) + 5307 ($248M)]*
	PARTNERSHIPS									
	HART Joint Development Projects	----	1	----	●	----	1	----	●	# Joint Development Projects in Progress *(Discussions in progress with one interested party; currently exploring other public/private ventures.)*
	TOD Projects	----	1	----	●	----	1	----	●	# Transit-Oriented Development (TOD) Projects in Process of Development *(Department of Planning and Permitting (DPP) following up on 1 inquiry.)*

● On track or ahead of/better than plan. ● Immediate attention needed; Requires recovery/resolution.
○ Monitoring and needs attention. ○ No current target/activity to date. Action pending.

Page 1 of 4

HART

BALANCED SCORECARD

Project Implementation/Pre-Revenue Operation

APPENDIX A
Q3 FY12
Date Date: March 31, 2012

Goal	Current Quarter (Q3 FY12) Jan, Feb, Mar 2012				Inception to Date (YTD) October 2009 - March 2012				Comments and Legend
	Plan	Actual	Variance	Status	Plan	Actual	Variance	Status	
Internal Processes Perspective									
PROJECT DELIVERY - OVERALL									
Project Budget									
Committed	----	$8	----		$2,057	$2,057	-0-		$M Committed (Awarded Contracts + Approved Changes + Other 3rd Party Agreements) versus Project Budget (minus Contingencies and Financing)
	----	0.2%	----		41.6%	41.6%	----		% of Project Budget (as adjusted) Committed
Incurred	----	$63	----		$434	$434	-0-		$M Incurred (Expenditues + Requests Approved for Payment) vs Project Budget (minus Contingencies and Financing)
	----	1.3%	----		8.8%	8.8%	----		% of Project Budget (as adjusted) Incurred
Estimate at Completion (EAC) vs Project Budget	$5,122	$5,122	-0-		$5,122	$5,122	-0-		$M Estimate at Completion vs Total Project Budget (as submitted to the FTA for the FFGA)
Project Progress									
Overall Project Progress	3.1%	1.2%	(1.9%)		8.5%	8.5%	-0-		% Complete Actual vs Planned
Total Design Progress	25.9%	21.1%	(4.8%)		25.9%	21.1%	(4.8%)		% Complete Actual vs Planned
Total Construction Progress	----	0.0%	----		0.0%	0.0%	-0-		% Complete Actual vs Planned
Major Milestones									
FTA Approval of Entry Into Final Design	----	----	----		Oct 15 '11	Dec 29 '11	(75 days)		Actual vs Planned Date of Federal Transportation Administration (FTA) Approval for HART to enter the Final Design phase.
FTA LONP2	Feb 06 '12	Feb 06 '12	0 days		Feb 06 '12	Feb 06 '12	0 days		Actual vs Planned Date of FTA Letter of No Prejudice #2 authorizing Final Design/Construction actions.
FFGA Request to FTA	----	----	----		Jun 29 '12				Actual vs Planned Date of HART letter to the FTA requesting a Full Funding Grant Agreement (FFGA).
Start of Congressional Review	----	----	----		Aug 15 '12				Actual vs Planned Date start of Congressional Review of FFGA request.
FFGA Approval	----	----	----		Oct 15 '12				Actual vs Planned Date HART receives FTA approval of FFGA request.
Contingency									
Available Cost Contingency	$644	$644	-0-		$644	$644	-0-		Total Budgeted Contingency (Allocated + Unallocated) in $M - Basis: Risk and Contingency Management Plan (RCMP), Revision 3, June 2012
Drawdown from Starting Balance	----	-0-	-0-		----	-0-	-0-		Actual = Drawdown to Date ($M) and Variance = % from Available Contingency
Available Schedule Contingency	21	21	-0-		21	21	-0-		Total Buffer Float in Months - Basis: Risk and Contingency Management Plan (RCMP), Revision 3, June 2012
Drawdown from Starting Balance	----	-0-	-0-		----	-0-	-0-		Actual = Drawdown to Date (Months) and Variance = % from Starting Balance
PROJECT DELIVERY - SPECIFICS									
Contracting - Construction (DB, DBOM, Intall/Maintain, On-Call Construction)									
Contracts Awarded	0	0	-0-		4	4	-0-		# Actual vs Planned Contract Awards; *Remaining: 1 (one) Install/Maintenance Contract planned for FY13.*
Commitments this Quarter (Contract Values + Executed Changes)	----	93%	----		----	93%	----		% Committed vs Budgeted *($1,643M committed vs $1,772M)*
Contracts Completed	0	0	-0-		0	0	-0-		# Actual vs Planned Contract Completions
Contracting - Construction (DBB)									
Contracts Awarded	0	0	-0-		0	0	-0-		# Actual vs Planned Contract Awards; *Remaining: 11 (eleven) DBB Contracts and two (2) On-Call Construction Contracts; 1 (one) DBB Contracts and two (2) On-Call Contracts planned for FY13.*
Commitments (Contract Values + Executed Changes)	----	0%	----		----	0%	----		*No DBB Construction Contracts scheduled for execution until 4Q13/1Q14. (Budget = $1,297M)*
Contracts Completed	0	0	-0-		0	0	-0-		# Actual vs Planned Contract Completions
Contracting - Final Design Consultants									
Contracts Awarded	0	0	-0-		2	2	-0-		# Actual vs Planned Contract Awards
Commitments (Contract Values + Executed Changes/Amendments)	----	0%	----		----	27%	----		% $Committed vs $Budgeted *($45M committed vs $164M)*
Contracts Completed	0	0	-0-		0	0	-0-		# Actual vs Planned Contract Completions

On track or ahead of/better than plan.
Monitoring and needs attention.
Immediate attention needed; Requires recovery/resolution.
No current target/activity to date. Action pending.

Page 2 of 4

HART

BALANCED SCORECARD

Project Implementation/Pre-Revenue Operation

APPENDIX A
Q3 FY12
Date Date March 31, 2012

	Goal	Current Quarter (Q3 FY12) Jan, Feb, Mar 2012				Inception to Date (YTD) October 2009 - March 2012				Comments and Legend
		Plan	Actual	Variance	Status	Plan	Actual	Variance	Status	
Internal Processes Perspective (Continued)	**Contracting - Other Consultants**									
	Contracts Awarded	0	0	-0-	○	13	9	(4)	●	# Actual vs Planned Contract Awards; *Remaining: 4 (four) Other Consultant Agreements*
	Commitments (Contract Values + Executed Changes/Amendments)	----	0%	----	○	----	65%	----	●	% $Committed vs $Budgeted *($333M committed vs $513M)*
	Contracts Completed	2	2	-0-	●	2	2	-0-	●	*PMSC-1 and GEC-1 Agreements complete and being closed out*
	Change Orders and Claims									
	Change Orders Executed (# and $M)	----	0	----	●	----	4	----	○	# Executed Change Orders: 3 Construction, 1 Final Design
		----	$0.0	----	●	----	$19.1	----	○	$M of Executed Change Orders to date: $19 Construction, $0.1M Final Design
	Claims Filed	0	0	----	●	0	0	----	●	# Claims Filed
	Claims Resolved	0	0	----	●	0	0	----	●	# Claims Resolved
	Utility Agreements									
	Utility Agreements completed	26	21	(5)	○	26	21	(5)	○	# Agreements Completed vs Required. HECO signed WOFH utility agreement. 45 agreements planned to be signed as of end Q1 FY13.
	HDOT Agreements									
	HART-HDOT Agreements completed	13	3	(10)	○	13	3	(10)	○	# Agreements Completed vs Required. Remaining: 3 (three) of 4 Required Master Agreements; 3 (three) of 4 Required Joint Use and Occupancy Agreements.
	Real Estate/Right-of-Way (ROW)									
	Full Acquisitions	38	5	(33)	●	38	10	(28)	●	# Properties Ready for Construction vs Plan. 38 parcels needed (vs original FEIS plan of 40). 4 (four) relocations underway.
	Partial Acquisitions	133	3	(130)	●	133	6	(127)	●	
	Safety									
	Performance against Standard	4.3	0.24	(4.1)	●	4.3	0.24	(4.1)	●	Actual Rate (%) vs Hawaii 2010 TRIR (%). *[Incidence Rate = # of recordable injuries and illnesses occurring among a given # of full-time workers (usually 100) over a given period of time (usually 1 year); a Recordable Incident = a work-related injury or illness that results in: death, loss of consciousness, days away from work, restricted work activity or job transfer, or medical treatment beyond first aid. (29 CFR 1904)]*
	OSHA Reportable Injuries	----	1	----	●	----	3	----	●	# Actual Occupational Safety and Health Agency (OSHA) reportable injuries
	OSHA Violations	----	0	----	●	----	0	----	●	# Actual Occupational Safety and Health Agency (OSHA) violations
	Quality Assurance (QA)									
	QA Audits	4	4	-0-	●	8	8	-0-	●	# Completed vs Planned QA Audits of HART, GEC, Contractors and Suppliers
	Design NCRs	7	6	(1)	●	7	6	(1)	●	# Closed (Actual) vs Issued (Plan) Non-Conformance Reports (NCRs)
	Construction NCRs	----	----	----	●	----	----	----	●	# Closed (Actual) vs Issued (Plan) Non-Conformance Reports (NCRs)
	DBE/SBE Participation	3.8%	0.1%	(3.7%)	○	3.8%	0.1%	(3.7%)	○	% Actual vs Target Participation of Disadvantaged/Small Business Enterprises (DBE/SBE)
	Direct Jobs Created	----	----	----	○	----	----	----	○	# Direct Jobs Created: Projections and criteria to be developed
	Public Outreach									
	Public Meetings	----	37	----	●	----	645	----	●	# Public Meetings Conducted
	Presentations/Presence at Events	----	89	----	●	----	1,173	----	●	# Events with HART Participation
Professional Growth Perspective	**AGENCY CULTURE**									
	Staff Training and Career Development									
	Training Opportunities				○				○	Training opportunities provided vs Planned; Annual Training Plan to be Developed
	Employees Trained				○				○	# of Employees Receiving Training. Objective to be Established
	Internal Promotions									
	Internally-Filled Positions				○				○	# of Positions filled internally divided by the Total # of Positions to be filled; Objective to be Established
	PMSC/GEC Phase-Out									
	Positions Transitioned to HART				○				○	# Positions and Timing to be Transitioned from PMSC to HART in accordance with the Business Plan
	Employee Satisfaction									

Comments and Legend
● On track or ahead of/better than plan. ● Immediate attention needed, Requires recovery/resolution.
○ Monitoring and needs attention. ○ No current target/activity to date. Action pending.

Page 3 of 4

BALANCED SCORECARD

Project Implementation/Pre-Revenue Operation

APPENDIX A
Q3 FY12
Data Date: March 31, 2012

Goal	Current Quarter (Q3 FY12)				Inception to Date (YTD)				Comments and Legend
	Jan, Feb, Mar 2012				October 2009 - March 2012				On track or ahead of/better than plan. Immediate attention needed, Requires recovery/resolution. Monitoring and needs attention. No current target/activity to date. Action pending.
	Plan	Actual	Variance	Status	Plan	Actual	Variance	Status	
Surveys									Plan to be Developed

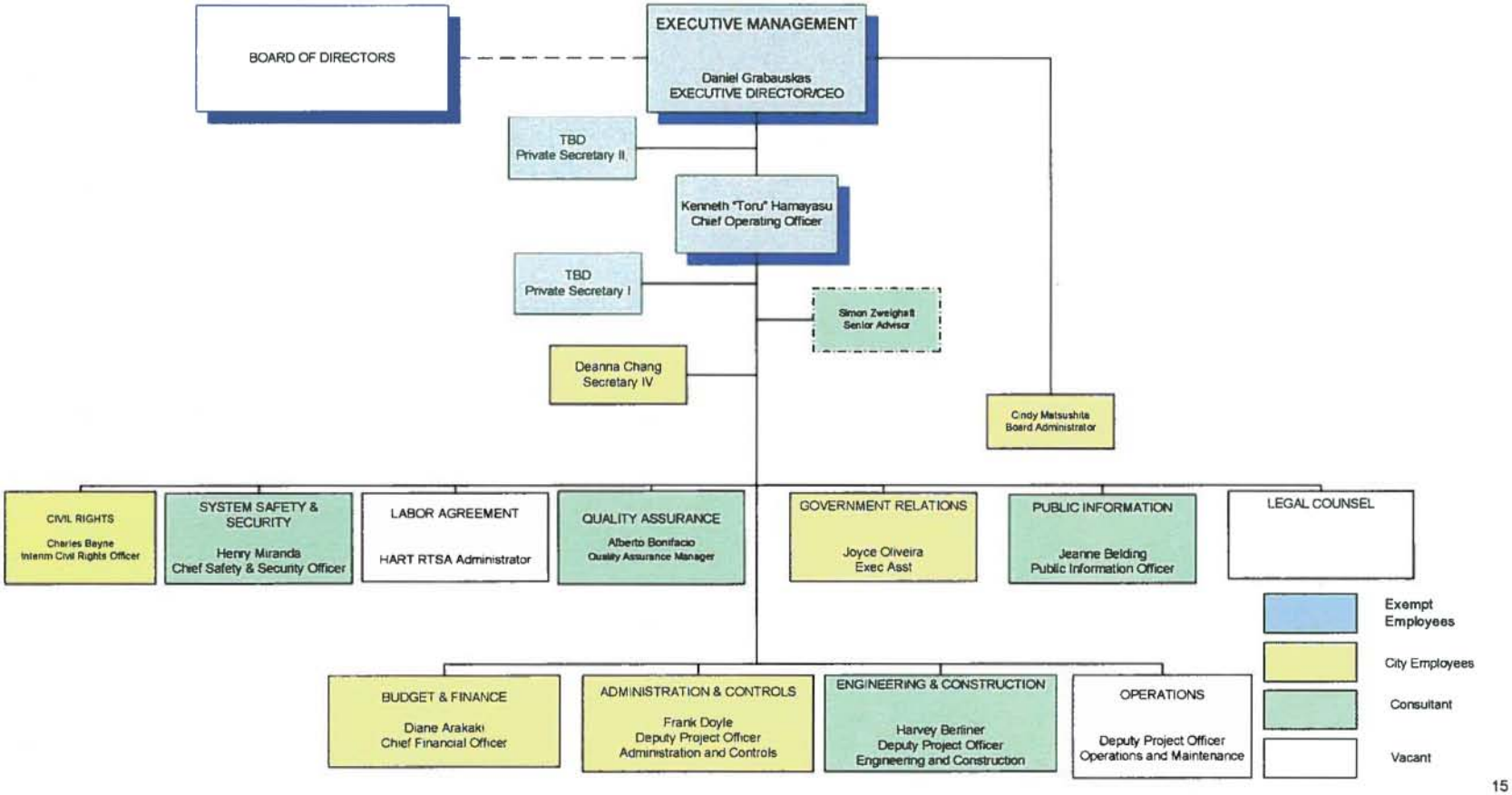
Page 4 of 4

Appendix B

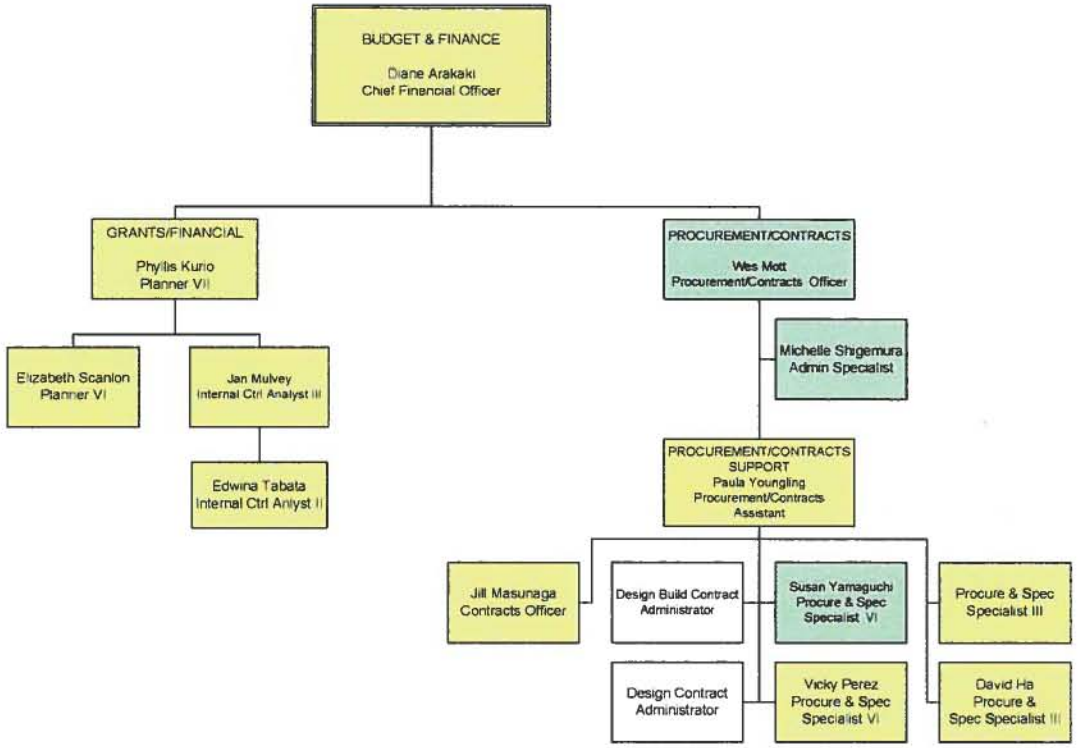
HART Organizational Structure – Final Design/Construction

Honolulu Authority for Rapid Transportation

6/26/2012

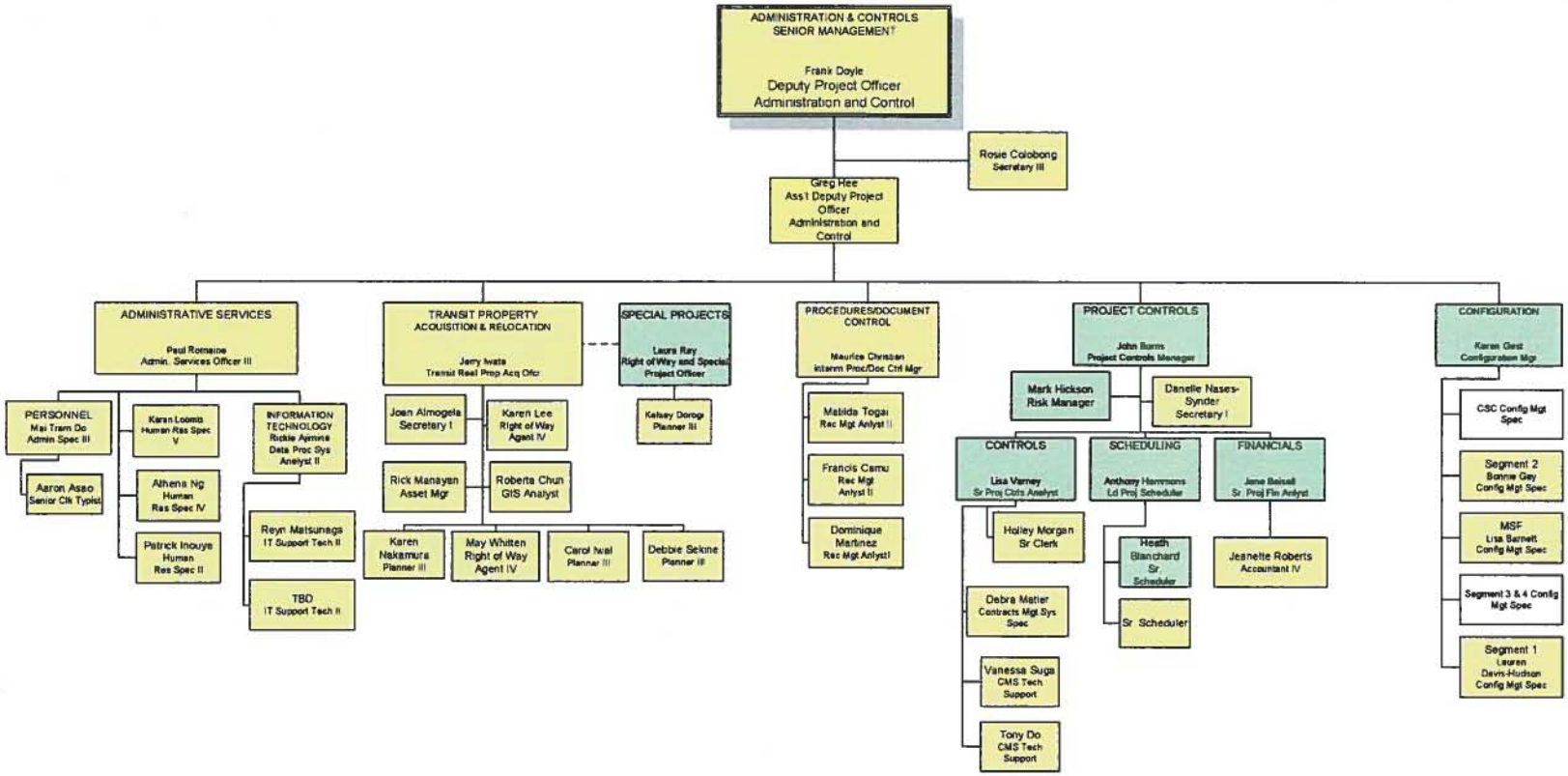


Honolulu Authority for Rapid Transportation
Budget and Finance



6/26/2012

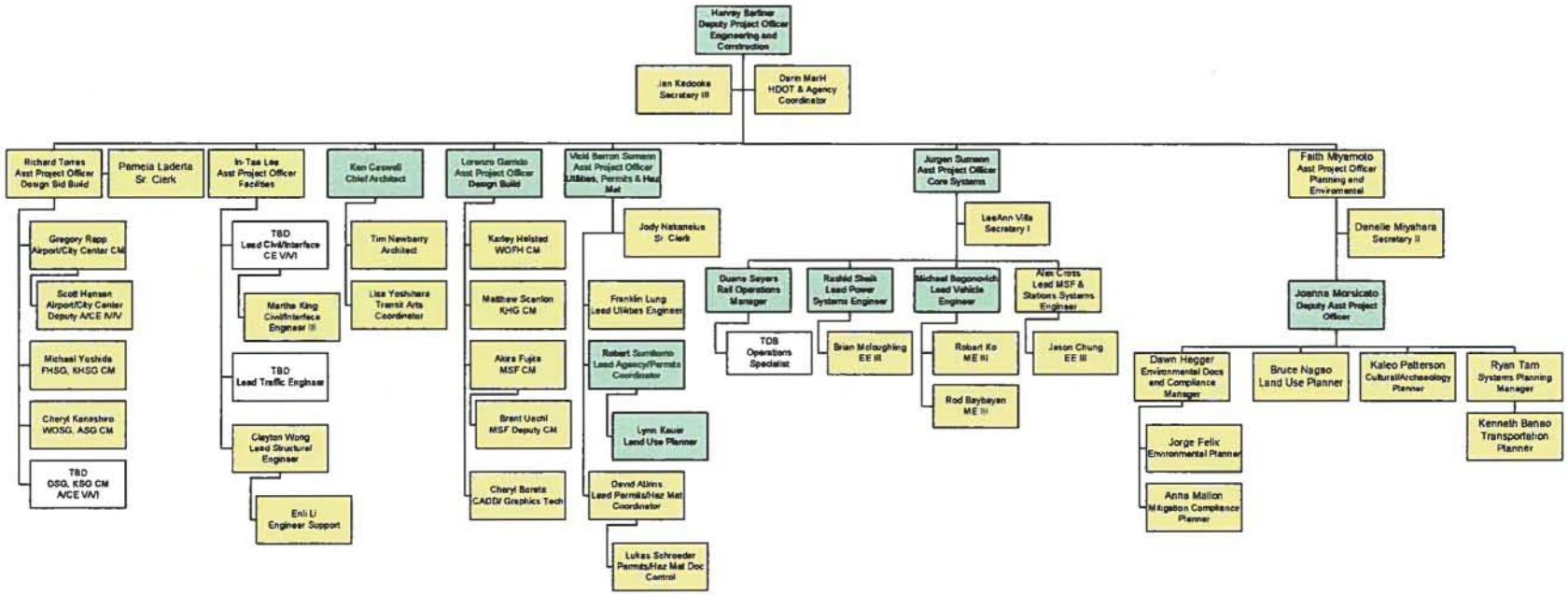
Honolulu Authority for Rapid Transportation
Administration and Control



17

Honolulu Authority for Rapid Transportation
Engineering and Construction

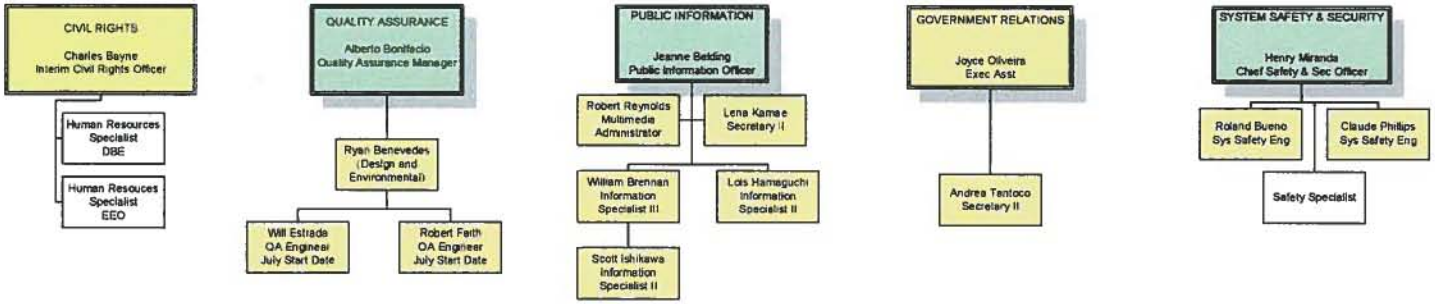
6/26/2012



18

6/26/2012

Honolulu Authority for Rapid Transportation
Civil Rights, Labor Relations, Quality
Assurance, Public Information, Government
Relations, and System Safety & Security



19

Appendix C

Project Background and Planning

The Alternatives Analysis (AA) for the Project was initiated in August 2005 and the *Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Report* was presented to the Honolulu City Council in November 2006. The purpose of the report was to provide the City Council with the information necessary to select a mode and general alignment for high-capacity transit service on Oahu. The report summarized the results of the AA that was conducted following the FTA's planning guidance. It also provided information on the costs, benefits, and impacts of four alternatives: No Build Alternative, Transportation System Management Alternative, Managed Lane Alternative, and Fixed Guideway Alternative.

During November and December 2006, public meetings were held on the AA. On December 22, 2006, the Honolulu City Council enacted Ordinance No. 07-001, which selected a fixed guideway alternative from Kapolei to the University of Hawai'i at Mānoa with a connection to Waikīkī as the Locally Preferred Alternative (LPA) for the Project. Ordinance 07-001 identified a specific alignment for the majority of the corridor but left options open in two locations. At the western end of the corridor, the LPA selection identified two alignments (described in the AA Report as Section I – Saratoga Avenue/North-South Road and Kamokila Boulevard/Farrington Highway), with the notation *"as determined by the city administration before or during preliminary engineering."* In the center of the corridor, the LPA selection also identified two alignments (described in the AA Report as Section III – Salt Lake Boulevard and Aolele Street), also with the notation *"as determined by the city administration before or during preliminary engineering."*

The LPA selection was made recognizing that currently-identified revenue sources, including revenues from the 0.5 percent county GET surcharge in place from January 1, 2007, through December 31, 2022, and a reasonable expectation of FTA New Starts funds, would not be sufficient to fund the capital cost of the LPA. Thus, a financially feasible project needed to be identified. On February 27, 2007, the Honolulu City Council initially selected a segment of the LPA from East Kapolei to Ala Moana Center, via Salt Lake Boulevard (Resolution 07-039, FD1(c)). However, on January 28, 2009, the Honolulu City Council, under Resolution 08-261, recommended replacing the Salt Lake portion of this initial alignment with a route that includes direct service to Pearl Harbor and the Airport. This section of the LPA, from East Kapolei to Ala Moana Center, which serves the Airport is referred to as "the Project" and is shown in **Figure 1** and described in Project Description, both following.

Figure 1: The Project

Project Description

Alignment

The Project is an approximately 20-mile portion of the LPA extending from East Kapolei in the west to Ala Moana Center in the east (**Figure 1**). The alignment is elevated, with the exception of 3,175 linear feet (0.6 mile) that is at-grade near the Leeward Community College Station.

The Project is planned to be delivered in four design and construction sections, as described below.

Section I – West Oahu/Farrington Highway: East Kapolei to Pearl Highlands

East Kapolei is the western terminus of the Project. The alignment begins at Kualakai Parkway (North-South Road) north of Kapolei Parkway. The alignment follows Kualakai Parkway in a northerly direction to the entrance to UH West Oahu where it turns east and continues south of Farrington Highway and then onto Farrington Highway and crosses Fort Weaver Road. The alignment is elevated along this length.

The alignment continues in a north-easterly direction following Farrington Highway in an elevated structure. Alongside Waipahu High School, the alignment descends to grade as it enters the Maintenance & Storage Facility (the former Navy Drum site). The alignment continues at grade to Leeward Community College and then returns to an elevated configuration to cross the H-1 Freeway. North of the Freeway, the alignment turns eastward along Kamehameha Highway.

Table 1: Section I Stations – East Kapolei to Pearl Highlands

Station No.	Name/Planned Location	Planned Station Type	Planned Station Features
1.	**East Kapolei:** Kualakai Parkway @ East – West Road	Center Platform Concourse	Park-and-Ride lot: 900 spaces
2.	**UH West Oahu:** Kualakai Parkway @ Campus Drive	Side Platform Concourse	Park-and- Ride lot: 1,000 spaces Major bus interface
3.	**Ho'opili:** Future minor east-west street approximately 300' south of Farrington Highway	Side Platform No concourse	
4.	**West Loch:** Farrington Highway @ Leoku Street	Side Platform Concourse	Major bus interface with Bus Transit Center
5.	**Waipahu Transit Center:** Farrington Highway @ Mokuola Street	Side Platform Concourse	Major bus interface with Bus Transit Center
6.	**Leeward Community College:** Leeward CC parking lot	Center Platform At grade	Community college interface Access from below platform circulation space

Section II – Kamehameha Highway: Pearl Highlands to Aloha Stadium (Airport)

The alignment continues in an elevated structure and continues in the median of Kamehameha Highway, crossing H-1 and continuing to where the Moanalua Freeway extension joins Kamehameha Highway at Aiea Stream. The route then crosses the westbound lane of Kamehameha Highway past a section with a pocket track and continues to the Aloha Stadium Station.

Section II includes three stations: Pearl Highlands, Pearlridge, and Aloha Stadium, and two park-and-ride lots.

Table 2: Section II Stations – Pearl Highlands to Aloha Stadium

Station No.	Name/Planned Location	Planned Station Type	Planned Station Features
7.	**Pearl Highlands:** Kamehameha Highway @ Kuala Street	Side Platform Concourse	Park-and-Ride multi-level structure: 1,600 spaces Major bus interface
8.	**Pearlridge:** Kamehameha Highway @ Kaonohi Street	Side Platform Concourse	Major bus interface to be provided in the future as a separate project when funds become available
9.	**Aloha Stadium:** Kamehameha Highway @ Salt Lake Boulevard	Side Platform No Concourse	Major bus interface Park-and-Ride lot: 600 spaces

Section III – Airport: Aloha Stadium to Middle Street Transit Center Station

Past Aloha Stadium Station, the elevated route reenters the median of Kamehameha Highway continuing to its intersection with Nimitz Highway. The route then runs along Nimitz Highway turning makai into Aolele Street. The route then follows Aolele Street (Koko Head) transitioning to Ualena Street and Waiwai Loop to reconnect to Nimitz Highway along the makai frontage road and continues to the Middle Street Transit Center, after crossing Nimitz Highway. Section III includes four stations: Pearl Harbor Naval Base, Honolulu International Airport, Lagoon Drive, and Middle Street Transit Center.

Even though the Middle Street Transit Center Station is planned to open at the same time as the Pearl Harbor, Honolulu International Airport, and Lagoon Drive Stations, it will be constructed in a different station construction contract which also includes the Kalihi and Kapālama Stations which are in Section IV. Thus the Middle Street Transit Center Station is included in **Table 3** below.

Table 3: Section III Stations – Airport

Station No.	Name/Planned Location	Planned Station Type	Planned Station Features
10.	**Pearl Harbor Naval Base:** Kamehameha Highway @ Radford Drive	Side Platform Concourse	
11.	**Honolulu International Airport:** Aolele Street @ Ala Auana Street	Side Platform No Concourse	Pedestrian walkways to Airport Terminal
12.	**Lagoon Drive:** Ualena Street @ Lagoon Drive	Side Platform No concourse	Two entrances
13.	**Middle Street Transit Center:** Dillingham Boulevard @ Middle Street	Side Platform Concourse	Major bus interface with Bus Transit Center Pedestrian Bridge to Transit Center

Section IV – City Center: Middle Street Transit Center Station to Ala Moana Center

The elevated alignment continues southeast following Dillingham Boulevard and crosses Kapālama Canal, leaving Dillingham Boulevard at Ka'aahi Street, and crosses Iwilei Road. After crossing Iwilei Road, the alignment follows Nimitz Highway to Halekauwila Street and continues southeast along Halekauwila Street past Ward Avenue, where it transitions onto Queen Street. At the end of Queen Street, the alignment crosses Waimanu Street and crosses over to Kona Street. The alignment then goes into Ala Moana Center and ends with a tail track along Kona Street.

Section IV includes eight stations: Kalihi, Kapālama, Iwilei, Chinatown, Downtown, Civic Center, Kaka'ako, and Ala Moana Center. There are no park-and-ride lots planned in this section.

The Middle Street Transit Center Station in Section III is planned to be constructed as part of a station construction package which also includes the Kalihi and Kapālama Stations, hence it is included in **Table 3**.

Table 4: Section IV Stations – City Center

Station No.	Name/Planned Location	Planned Station Type	Planned Station Features
14.	**Kalihi:** Dillingham Boulevard @ Mokauea Street	Side Platform Concourse	Two entrances
15.	**Kapālama:** Dillingham Boulevard @ Kokea Street	Side Platform No concourse	Two entrances
16.	**Iwilei:** Ka'aahi Street @ Dillingham Boulevard	Side Platform Concourse	
17.	**Chinatown:** Nimitz Highway @ Kekaulike Street	Side Platform Concourse	

Station No.	Name/Planned Location	Planned Station Type	Planned Station Features
18.	**Downtown:** Nimitz Highway @ Alakea Street	Side Platform Concourse	Two entrances
19.	**Civic Center:** Halekauwila Street @ South Street	Side Platform No Concourse	Two entrances
20.	**Kaka`ako:** Halekauwila Street @ Ward Avenue	Side Platform No Concourse	
21.	**Ala Moana Center:** Kona Street mauka of shopping center	Center/Side Platform Adjacent to shopping center	Major bus interface

System-wide Elements

The selected transit technology is electrically powered, industry-standard steel wheel on steel rail powered from a third-rail system. The selected vehicle is to be capable of a top speed greater than 50 mph. The vehicles will be fully automated and driverless although train attendants are anticipated to be on the train during an initial burn-in period to provide the possibility of manual intervention in response to malfunctions. The driverless option is possible because the fixed guideway will operate in exclusive right-of-way with no automobile or pedestrian crossings. The system is being designed so that vehicles from more than one supplier could operate on the guideway once they are integrated with the train control system. To this degree, it is intended to be a non-proprietary system.

The traction power distribution system consists of about 14 substations and main line track power distribution facilities. The substations are spaced at approximately one and one-half mile intervals along the alignment. The exact number of substations will be determined during final design.

Train signaling uses automatic train control and automatic train operations technology. The communications and security facilities include emergency phones, closed-circuit television, and public address and information display systems.

There will be 80 guideway vehicles to accommodate 6,280 passengers per hour per direction in the initial years of operations. Additional vehicles will be added to the fleet as passenger demands require in the future.

The Maintenance & Storage Facility will be constructed on 43 acres of land at the former Navy Drum site, makai of Farrington Highway to the west of Leeward Community College, to service and store the transit vehicles. Up to 150 vehicles may be accommodated at the Maintenance & Storage Facility.

Fare Collection

A unified fare structure is planned, which will be integrated with the City's existing bus system, TheBus. The HRTP is contemplated to be barrier-free. Fare vending machines are to be placed in all stations and continued use of standard fare boxes is assumed for TheBus. Fare collection for the fixed guideway system involves proof of payment procedures. Under the barrier-free concept, no gate or fare inspection points are to be installed at the stations. Part of the station including the platform is designated by signage and floor markings as a fare paid area. Persons

entering fare paid areas will need to have proof of having paid a valid fare. Fare inspectors will ride the system and randomly check to verify that passengers have valid tickets or transfers. Violators will be cited and fined as determined by future policies set by City ordinance. As of January 2012, studies have not been completed to determine whether the fare inspectors will be City Police, other City employees or contractor employees. These decisions will be made by the City at least 18 months prior to initial operations. Stations are also being designed so that fare gates may be installed in the future with little or no disruption if a different fare collection method is desired at any time after systems operations have begun. Conduits and cable raceways are planned to be installed in the system at this time to cover the possibility of future fare gates and related communications (including additional video monitoring, if deemed necessary).

The following assumptions were made for the fixed guideway system:

- Fares for the fixed guideway system will be consistent with the fare structure for TheBus. Pass products will work interchangeably on both modes and transfers between modes will be seamless and at no additional fare.
- Current City policy requires that the bus fares be adjusted so that the farebox recovery ratio does not fall below 27% or exceed 33%. It is assumed that future fare increases will be consistent with this policy.

Operating Plan

The HRTP is planned to operate in revenue service seven days a week. Weekday service will operate between 4 a.m. and midnight. Saturday service will run from 5 a.m. to midnight, and Sunday service will run from 6 a.m. to midnight. Vehicle headways in each direction will range from 3 minutes during peak periods to 10 minutes from 8 p.m. to midnight. A train will arrive in each direction at the station every 6 minutes during base periods. The system is planned to operate with multi-car vehicles at a maximum train length of 240 feet with each train able to carry a minimum of 300 passengers. The peak capacity in the opening year will be 6,280 passengers per hour per direction. The system will be expandable to allow for a 50% increase in capacity. For further information refer to the Project's Rail Operations and Maintenance Plan (RD-20).

Ridership Estimates

2030 travel forecasts for the Project anticipate about 116,000 daily transit boardings. In the initial year of full operations, the Project anticipates approximately 97,500 daily boardings.

ATTACHMENT B

Honolulu Authority for Rapid Transportation

RESOLUTION NO. 2012- 2

APPROVING OPERATING AND CAPITAL BUDGETS
FOR FISCAL YEAR 2013 ENDING JUNE 30, 2013

WHEREAS, the Honolulu Authority for Rapid Transportation (HART) has been established pursuant to Article XVII of the Revised Charter of the City and County of Honolulu 1973, as amended (Charter); and

WHEREAS, the Charter empowers the Authority to prepare annual operating and capital budgets for the fixed guideway transit project and for the Authority's operations; and

WHEREAS, it is in the public interest that the Authority have spending plans for both operating and capital expenses to ensure that expenditures are properly controlled and accounted for in the fiscal year 2013; and

WHEREAS, HART prepared both operating and capital budgets for fiscal year 2013; and

WHEREAS, the Board has reviewed said operating and capital budgets for the Authority; and

WHEREAS, the said operating and capital budgets are fully funded by the Transit Fund and do not utilize a General Fund appropriation from the City and County of Honolulu; and

WHEREAS, the Charter empowers the Board to review, modify as necessary, and adopt annual operating and capital budgets for the Authority;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of HART as follows:

1. Estimated revenues in the amount of $21,069,193 from the Transit Fund's Transit Operating Fund (#290) subsidiary fund account are hereby appropriated for the Operating Budget for the fiscal year July 1, 2012 to June 30, 2013 to cover the following expenditures:

$	12,971,682	Personnel
$	8,081,511	Current Expenses
$	16,000	Equipment

2. Estimated revenues in the amount of $491,584,960 from the following Transit Fund subsidiary fund accounts are hereby appropriated for the Capital Improvement Budget for the fiscal year July 1, 2012 to June 30, 2013:

$ 200,000,000	Transit Capital Fund (#690)
$ 291,584,960	Capital Improvement Bond Fund (#695)

3. The funds appropriated in the Capital Improvement Bond Fund shall not be encumbered or expended until a Full Funding Grant Agreement is fully executed.

4. Federal grant monies received as reimbursement for expenditures made from the Transit Capital Fund and/or the Capital Improvement Bond Fund appropriated in Section 2 above, are hereby appropriated for the fiscal year July 1, 2012 to June 30, 2013; provided that, the amounts authorized for appropriation from the expending fund shall be decreased by the amount of any such reimbursement.

5. The Executive Director is hereby authorized to conduct the administrative affairs of the Authority in accordance with the Authority's Financial Policies utilizing the Operating and Capital Improvement Budgets established herein.

6. The Finance Committee of the Board has reviewed the line item detail of the Operating and Capital Improvement Budgets established herein and made recommendations accordingly regarding said Budgets.

7. This Resolution shall take effect on July 1, 2012.

ADOPTED by the Board of the Honolulu Authority for Rapid Transportation on _____.

_____
Board Chair

ATTEST:

_____
Board Administrator

DRAFT

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION
OPERATING BUDGET FOR THE FISCAL YEAR ENDING 6/30/2013

Expense Category	FY2012 Budget	FY2013 Budget	CEO's Reduction Proposal to City Council	Adjusted FY2013 Budget	Additional Reductions	CEO's Recommended Budget
Personnel						
Total Full-time Equivalent Positions	**136**	**142**			**(3)**	**139**
Regular Pay	$ 9,302,490	$ 9,535,699	$ (300,000)	$ 9,235,699	$ (234,610)	$ 9,001,089
Overtime, Night Shift, Temp Assign Pay	$ 38,000	$ 53,000		$ 53,000		$ 53,000
Fringe Benefits (ERS, FICA, EUTF, Unemp, & Workers Comp)	$ 3,961,601	$ 4,045,044	$ (128,250)	$ 3,916,794		$ 3,916,794
Service Or Merit Awards	$ 400	$ 800		$ 800		$ 800
Personnel Expense Subtotal	**$ 13,302,491**	**$ 13,634,543**	**$ (428,250)**	**$ 13,206,293**	**$ (234,610)**	**$ 12,971,682**
			-3.14%		-1.78%	
Current Expenses						
Office & Computer Supplies	$ 78,000	$ 128,000		$ 128,000		$ 128,000
Meals and Food	$ 2,400	$ 2,700		$ 2,700		$ 2,700
Safety & Miscellaneous Supplies	$ 3,750	$ 5,900		$ 5,900		$ 5,900
Parts/Equip (Comm, Furn, Comp, A/V)	$ 204,000	$ 230,700		$ 230,700		$ 230,700
Legal Services		$ 1,202,354		$ 1,202,354		$ 1,202,354
Professional Services - Direct Reimbursement & CASE	$ 3,027,545	$ 2,154,971	$ (75,102)	$ 2,079,869		$ 2,079,869
Professional Services - Other (Audit, Accounting, Misc.)	$ 353,300	$ 364,400		$ 364,400		$ 364,400
Postage & Shipping	$ 6,000	$ 6,000		$ 6,000		$ 6,000
Telephone	$ 9,300	$ 21,600		$ 21,600		$ 21,600
Communication Services (Web Hosting & Webex Video Teleconf)	$ 88,160	$ 164,580		$ 164,580		$ 164,580
Relocation - New hires	$ 30,000	$ 30,000		$ 30,000		$ 30,000
Travel Expense - Out-Of-State (Staff & Board)	$ 82,475	$ 104,265	$ (21,790)	$ 82,475		$ 82,475
Advertising, Publication Of Notices, & Photo Services	$ 6,800	$ 10,100		$ 10,100		$ 10,100
Insurance on Equipment & General Liability	$ -	$ 8,000		$ 8,000		$ 8,000
Liability Insurance (Directors & Officers)	$ -	$ 53,000		$ 53,000		$ 53,000
Printing and Binding	$ 1,500	$ 1,500		$ 1,500		$ 1,500
Other Repairs to Buildings and Structures	$ -	$ 300,000		$ 300,000		$ 300,000
Repairs/Maintenance - Office Furniture & Equipment	$ 2,800	$ 2,800		$ 2,800		$ 2,800
Rentals (Office Equip, Office Space, Land, Other)	$ 1,830,355	$ 2,299,704		$ 2,299,704		$ 2,299,704
Fees (Memberships, Registration & Parking)	$ 53,750	$ 48,180		$ 48,180		$ 48,180
Computer Software Maint. Agreements	$ -	$ 39,649		$ 39,649		$ 39,649
Debt Service	$ -	$ 1,052,000	$ (1,052,000)	$ -		$ -
Other Fixed Charges (Stipend)	$ -	$ 1,000,000		$ 1,000,000		$ 1,000,000
Other Fixed Charges (Stipend & Debt Service)	$ 1,500,000	$ -	-	$ -		$ -
Current Expenses Subtotal	**$ 7,280,135**	**$ 9,230,403**	**$ (1,148,892)**	**$ 8,081,511**	**$ -**	**$ 8,081,511**
			-12.45%		0.00%	
Equipment & Software	$ -	**$ 16,000**	**$ -**	**$ 16,000**	**$ -**	**$ 16,000**
TOTAL	**$ 20,582,626**	**$ 22,880,946**	**$ (1,577,142)**	**$ 21,303,804**	**$ (234,610)**	**$ 21,069,193**
			-6.89%		-1.10%	

HONOLULU AUTHORITY FOR RAPID TRANSPORTATION
CAPITAL IMPROVEMENT BUDGET
FOR FISCAL YEAR ENDING 6/30/2013

		Planning	Design	Construction	Equipment	Inspection	Land	Relocation	TOTAL
Programmatic Agreement Requirement - Kako`o (SC-1200066)		$ 100,000							$ 100,000
Consultant Services									
SC-1100131	General Engineering Consultant	$ 7,348,000	$ 18,568,000			$ 18,084,000	$ -	$ -	$ 44,000,000
SC-1200042	Project Management Support Consultant		$ 10,370,710			$ -	$ -	$ -	$ 10,370,710
Various	HDOT Support Consultants + HDOT Oversight	$ 306,800	$ 8,583,530			$ -	$ -	$ -	$ 8,890,330
	Construction Engineering & Inspection Services					$ 32,563,920	$ -	$ -	$ 32,563,920
	Owner Controlled Insurance Program (OCIP) Management Services			$ 437,500		$ -	$ -	$ -	$ 437,500
RQS-1200835	Right-of-Way Support Consultant					$ -	$ 470,000	$ 125,000	$ 595,000
	Federal Government Liaison	$ 300,000							$ 300,000
	Subtotal - Consultant Services	$ 7,954,800	$ 37,522,240	$ 437,500	$ -	$ 50,647,920	$ 470,000	$ 125,000	$ 97,157,460
Design - Stations and Guideway									
CT-10H0137	West Oahu/Farrington Highway Guideway		$ 10,146,200						$ 10,146,200
CT-10A0449	Maintenance & Storage Facility		$ 7,296,190						$ 7,296,190
CT-1100195	Kamehameha Highway Guideway		$ 10,385,540						$ 10,385,540
	Kakaako Stations		$ 4,633,440						$ 4,633,440
	Airport Stations		$ 3,817,100						$ 3,817,100
	West Oahu/Farrington Highway Stations		$ 7,259,160						$ 7,259,160
	Airport Guideway		$ 29,079,000						$ 29,079,000
	Quality Audit Expenses		$ 56,600						$ 56,600
	Subtotal - Design		$ 72,673,230						$ 72,673,230
Utility Relocation			$ 3,000,420	$ 14,341,770					$ 17,342,190
Construction									
	OCIP Premium			$ 14,700,000					$ 14,700,000
	West Oahu Station Group			$ 76,014,630					$ 76,014,630
	Airport Guideway			$ 32,758,540					$ 32,758,540
	Kamehameha Highway Station Group			$ 71,729,330					$ 71,729,330
CT-10H0137	West Oahu/Farrington Highway Guideway			$ 14,000,000					$ 14,000,000
CT-10A0449	Maintenance & Storage Facility			$ 1,200,000					$ 1,200,000
RQS-1200772	Hazardous Materials Removal		$ 200,000	$ 800,000					$ 1,000,000
Subtotal - Construction		$ -	$ 200,000	$ 211,202,500	$ -	$ -	$ -	$ -	$ 211,402,500
Equipment - Railcars/Core Systems (CT-1200106)					$ 55,556,510				$ 55,556,510
Land Acquisition & Relocation							$ 34,181,200	$ 3,171,870	$ 37,353,070
		$ 8,054,800	**$ 113,395,890**	**$ 225,981,770**	**$ 55,556,510**	**$ 50,647,920**	**$ 34,651,200**	**$ 3,296,870**	**$ 491,584,960**

ATTACHMENT C

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION
WASHINGTON, D.C. 20590

FULL FUNDING GRANT AGREEMENT

INSERT ORGANIZATION NAME

HONOLULU RAIL TRANSIT PROJECT

FFGA- #INSERT
DRAFT Ver. 1

DRAFT

TABLE OF CONTENTS

		Page
Full Funding Grant Agreement		2
Full Funding Grant Agreement Terms and Conditions		4
Section 1	Definitions	5
Section 2	Purposes of Agreement	7
Section 3	Previous Federal Documents and Grants	7
Section 4	Obligation to Complete the Project	8
Section 5	Revenue Operations Date	8
Section 6	Net Project Cost	9
Section 7	Estimated Net Project Cost	9
Section 8	Limitations of the Federal Funding Commitment	10
Section 9	Federal Funding – Other Sources	10
Section 10	Local Financial Commitment – Capital Costs	11
Section 11	Authorization to Advance Project Without Prejudice	11
Section 12	Local Financial Commitment – Operating and Maintenance Costs	12
Section 13	Baseline Cost Estimate	12
Section 14	Baseline Schedule	13
Section 15	Project Management Oversight	13
Section 16	Environmental Protection	13
Section 17	Labor Protection	14
Section 18	Government Actions	14
Section 19	Remedies	14
Section 20	Contents of Agreement	15
Section 21	Simultaneous Creation of Agreement in Electronic Format	15
Section 22	Amendments to Agreement	16
Section 23	Attachments – Incorporation	16
Section 24	Notices	16
Section 25	Applicable Law	16
Section 26	Award and Execution of Agreement	17
Execution by Grantee		18
Affirmation of Grantee's Attorney		18

Attachments

Attachment 1	Scope of the Project
Attachment 1A	Project Map
Attachment 1B	Vicinity Map
Attachment 2	Project Description
Attachment 3	Baseline Cost Estimate
Attachment 3A	Project Budget
Attachment 4	Baseline Schedule
Attachment 5	Prior Grants and Related Documents
Attachment 6	Schedule of Federal Funds for the Project
Attachment 7	Measures to Mitigate Environmental Impacts
Attachment 8	Implementation of a "Before and After Study"

DRAFT

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

FULL FUNDING GRANT AGREEMENT
(FTA FFGA-XX, INSERT DATE, 2012)

On the date the authorized U.S. Department of Transportation, Federal Transit Administration (FTA) official signs this Full Funding Grant Agreement, the Government (FTA) has awarded Federal assistance in support of the Project described below. Upon Execution of this Full Funding Grant Agreement by the Grantee named below, the Grantee affirms this Award by the Government (FTA Award), and enters into this Full Funding Grant Agreement with FTA. The following documents are incorporated by reference and made part of this Full Funding Grant Agreement:

(1) "Federal Transit Administration Master Agreement," MA(18), October 1, 2011, [http://www.fta.dot.gov/documents/18-Master.pdf]; and
(2) The Certifications and Assurances applicable to the Project that the Grantee has selected and provided to FTA; and
(3) Any Award notification containing special conditions or requirements, if issued.

FTA AWARD

The Government (FTA) hereby awards a Full Funding Grant as follows:

Project Number(s): **INSERT**

Grantee: CITY AND COUNTY OF HONOLULU

Citation of Statutes Authorizing the Project: 49 U.S.C. §§ 5309(b), 5309(d)

Estimated Net Project Cost: $**INSERT**

Maximum FTA Amount Awarded [Including this Amendment]: $ **INSERT**

Amount of This FTA Award: $ **INSERT**

Maximum Federal New Starts Financial Contribution: $ **INSERT**

Maximum Percentages of FTA Participation: **INSERT** percent

Maximum Percentages of New Starts Participation: **INSERT** percent

DRAFT

Dates of U.S. Department of Labor Certifications of Transit Employee Protective Arrangements:

Original Project (or Amendment) Numbers	Certification Dates
INSERT	insert

Revenue Operations Date: **INSERT**

Project Description: The Honolulu Rail Transit Project (the Project) consists of design and construction of a 20-mile, grade-separated fixed rail system from East Kapolei to the Ala Moana Center in Honolulu, Hawaii. From East Kapolei the Project proceeds to the University of Hawaiʻi at West Oahu, then east to Pearl Harbor, the Honolulu International Airport, and ends at Kona Street adjacent to Ala Moana Center. The Project will operate in an exclusive right-of-way and will be grade separated (elevated) except for a 0.6-mile, at-grade section near Leeward Community College. The Project will be powered with third rail electrification.

For a more detailed description, see Attachments 1 and 2.

DRAFT

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL TRANSIT ADMINISTRATION

FULL FUNDING GRANT AGREEMENT TERMS AND CONDITIONS

THIS FEDERAL TRANSIT ADMINISTRATION FULL FUNDING GRANT AGREEMENT (Agreement) is entered into by the City and County of Honolulu (Grantee) and the United States of America, acting through the United States Department of Transportation, Federal Transit Administration (FTA or Government).

WHEREAS, the Grantee has determined through its local planning process that construction and/or acquisition of the Honolulu Rail Transit Project (hereafter, the "Project") will effectively and efficiently serve transportation needs of the Honolulu metropolitan area in Honolulu, Hawaii.

WHEREAS, the Grantee has developed a Financial Plan, as herein defined, using a combination of local, state, and Federal funds to finance the costs of the Project and, in accordance with its plan, has requested a Grant, as herein defined, of Federal financial assistance in the Project.

WHEREAS, the Government has not previously provided any capital new starts funds, capital fixed guideway modernization funds, formula funds, Surface Transportation Program (STIP) funds, or Congestion Mitigation/Air Quality (CMAQ) funds for development of the Project.

WHEREAS, the Government has determined to enter into this Agreement and to support final design and construction of the Project up to a Maximum Federal New Starts Financial Contribution of $ **INSERT** in capital new starts funds, subject to all the terms and conditions set forth in this Agreement.

WHEREAS, the Grantee has submitted its request for Federal assistance (the Application) and the Government has received and is relying upon the Grantee's assurances, certifications, and all other documents required as conditions precedent to a Grant of assistance by the Government for the Project; and, in its submissions, the Grantee has demonstrated justification for the Project, has demonstrated its financial, organizational, and technical capacity as is necessary to complete the Project within the maximum amount of Federal assistance set forth in this Agreement, and has demonstrated the capability to secure non-Federal funds as may be necessary for such completion.

WHEREAS, the Government has determined that the Project is based on the results of an alternatives analysis and preliminary engineering; is justified based on a comprehensive review of its mobility improvements, environmental benefits, cost effectiveness, and operating efficiencies; and is supported by an acceptable degree of local financial commitment, including evidence of stable and dependable financing sources to construct, maintain, and operate the Project.

WHEREAS, the Government and the Grantee have agreed that their respective duties and responsibilities as related to the completion of the Project shall be determined by and under the terms and conditions of this Agreement and have agreed that this Agreement shall be recognized as the sole understanding between the Government and the Grantee in consideration of the mutual promises as set forth in this Agreement.

DRAFT

THEREFORE, in consideration of the above and the parties' mutual promises as set forth in this Federal Transit Administration Full Funding Grant Agreement, the Grantee and the Government agree to the specific terms, conditions and provisions set forth in this entire Agreement including, in particular, the specific terms of the following Sections and Attachments:

SECTION 1. DEFINITIONS

"Agreement" means this Federal Transit Administration Full Funding Grant Agreement (FFGA) and consists of all parts and documents listed in Section 20 of this Agreement, "Contents of Agreement," and will include all future addenda, substitutions, modifications and amendments as and when legally executed and effective. (This definition supersedes the definition of "Grant Agreement" set forth in Section 1.j of the Federal Transit Administration Master Agreement (Master Agreement), incorporated by reference and made part of this Agreement.)

"Application" means those documents and written submissions filed by or on behalf of the Grantee pursuant to its request for Federal financial assistance for support of the Project and relied upon by the Government as satisfaction of the legal and policy requirements of Grant award. The Application includes all explanatory, supporting, or supplementary documents related to the Project that the Government relied upon in its determination to obligate and award Federal funds for the Project. (This definition is intended to supplement the definition "Application" set forth in Section 1.a of the Master Agreement, incorporated by reference and made part of this Agreement.)

"Baseline Cost Estimate" means the Application document described in Section 13 of this Agreement and set forth in Attachment 3. The requirements of the Baseline Cost Estimate are set forth in FTA Circular 5200.1A, "Full Funding Grant Agreement Guidance," as may be revised from time to time. The Baseline Cost Estimate reflects the total anticipated cost of the Project as of the Date of this Agreement.

"Complete the Project" means to accomplish all of the scope and activities of the Project as described in Attachment l, "Scope of the Project," and Attachment 2, "Project Description."

"Date of this Agreement" means the date the Government awards this Full Funding Grant Agreement.

"Estimated Net Project Cost" means the amount that is calculated by subtracting the cost that can reasonably be financed from the Grantee's revenue from the total anticipated cost of the Project as reflected in the "Baseline Cost Estimate," Attachment 3. The Estimated Net Project Cost is set forth in Section 7 of this Agreement.

"Financial Plan" means the plan accepted by the Government as part of the Application process describing the Grantee's financial condition and capability to Complete the Project and to maintain and operate the Project together with its existing transit system. It includes all explanatory, supporting and supplementary documents, commitments, and agreements accepted or approved by the Government.

"Government" means the United States of America, acting through the Federal Transit Administration of the United States Department of Transportation.

"Grantee" means the City and County of Honolulu.

DRAFT

"Grant(s)" means, in singular and plural forms, the obligation and award of Federal financial assistance by the Government pursuant to the laws codified at 49 U.S.C. Chapter 53.

"Local Share" means that portion of the Grantee's local financial commitment that is the Grantee's legally required share of the Net Project Cost.

"Master Agreement" means the standard terms and conditions applicable to recipients of Federal financial assistance from the Government. It is updated and published annually. It is incorporated by reference and made part of this Agreement and identified in Federal Fiscal Year 2011 by FTA Form MA(17)(October 1, 2010).

"Maximum Federal New Starts Financial Contribution" means the limit of Federal capital new starts financial participation in the Project. (The amount of the "Maximum Federal New Starts Financial Contribution" is set forth in Section 8 of this Agreement, "Limitations of the Federal Funding Commitment," and is only a portion of the total Federal financial contribution for the Project.)

"Maximum FTA Amount Awarded" means the total amount of Federal funds from all sources administered by FTA and awarded for the Project, regardless of source, and available to the Grantee. (This amount is set forth in the first page of this Agreement.)

"Net Project Cost" means the cost of the Project that cannot reasonably be financed from the Grantee's revenues.

"Project" means the transit/transportation improvements the Grantee has promised to implement as a condition of its Full Funding Grant. A description of the Project is set forth in Attachment 1, "Scope of the Project." Activities to carry out the project scope are set forth in Attachment 2, "Project Description."

"Project Costs" means all costs eligible for Federal financial participation under the terms of this Agreement and consistent with the cost principles set forth in Section 9 of the Master Agreement, "Payments."

"Recovery Plan" means a plan developed by the Grantee, and accepted by the Government, whereby the Grantee will take every reasonable measure to minimize any delay in achieving the baseline schedule set forth in Attachment 4 to this Agreement (the Baseline Schedule) and eliminate or otherwise mitigate [recover] any increase in the total project costs as currently estimated, as compared to the total project cost identified in Attachment 3 to this Agreement (the Baseline Cost Estimate).

"Revenue Operations Date" means the date certain upon which the Grantee shall commence revenue operations of the Project as defined in Section 5 of this Agreement.

SECTION 2. PURPOSES OF AGREEMENT

Pursuant to 49 U.S.C. § 5309, the purposes of this Agreement are to:

(a) provide Federal financial assistance to the Grantee in the form of this Full Funding Grant and possible future awards of financial assistance as contemplated under this Agreement, not to exceed the Maximum Federal New Starts Financial Contribution for the Project, as is and may

DRAFT

be awarded under this Agreement and the laws codified at 49 U.S.C. Chapter 53 for purposes that are consistent with those statutes, implementing regulations, and other applicable laws and regulations;

(b) describe the Project and set forth the mutual understandings, terms, conditions, rights and obligations of the parties related to implementing the Project, the future management and operation of the Project, and the manner in which Project real property and equipment will be used;

(c) establish the Maximum Federal New Starts Financial Contribution for the Project, and the manner in which all future Federal funds for the Project, if any, will be awarded and released to the Grantee;

(d) establish the Grantee's financial commitment to the Project including its obligation to fund the Local Share, its obligation to Complete the Project with a specified amount of Federal assistance, its obligation to achieve revenue operation of the Project by a specified date, its obligation to pay all costs necessary to Complete the Project that are in excess of the Estimated Net Project Cost and its obligation to finance the future maintenance and operational costs of the Project; and

(e) facilitate timely and efficient management of the Project.

SECTION 3. PREVIOUS FEDERAL DOCUMENTS AND GRANTS

(a) The Government's laws, policies and procedures require the completion of a project development process and environmental review prior to the Award and Execution of this Agreement. Prior Grants of Federal assistance awarded by the Government for this project development process are described in Attachment 5 to this Agreement. These Grants (and any other documents that are described in Attachment 5, including Letters of No Prejudice) are incorporated by reference and made part of this Agreement, except for the terms and conditions thereof specifically superseded by this Agreement. Further, in executing this Agreement, the Grantee assures that the certifications and assurances (made by the Grantee or on behalf of the Grantee or by a third party) upon which the Government relied in these prior actions were made to the Government in good faith and to the best of the Grantee's knowledge and belief, and that the Grantee has no present knowledge of facts or circumstances substantially affecting the continued validity of these certifications and assurances that the Grantee has not formally conveyed to the Government prior to the Government's Award of funding set forth in this Agreement.

(b) This Agreement does not discharge or rescind any of the terms, conditions, or obligations established under the documents set forth in Attachment 5 unless specifically stated otherwise herein. Further, the terms, conditions and obligations of this Agreement take precedence over the provisions of all prior agreements related to the Project between the Grantee and the Government and will be controlling for all actions related to the Project taken after the Date of this Agreement, unless specifically stated otherwise herein.

(c) No amendments will be sought or approved to increase the amount of funds in the prior Grants listed in Attachment 5 beyond the amounts described in this Agreement as available to the Project.

DRAFT

SECTION 4. OBLIGATION TO COMPLETE THE PROJECT

(a) The Government has no obligation to provide any financial assistance for the Project beyond the Maximum Federal New Starts Financial Contribution. If the total Federal funding provided under Section 8 of this Agreement, "Limitations of the Federal Funding Commitment," is insufficient to undertake revenue operations of the Project and the subsequent activities necessary to Complete the Project, the Grantee agrees to Complete the Project and accepts sole responsibility for the payment of any additional costs (overruns).

(b) If at any time during its efforts to Complete the Project the Grantee determines that the total project cost will exceed the Baseline Cost Estimate, the Grantee must immediately notify the Government of the amount of the difference and the reasons for the difference. Further, the Grantee must provide the Government with a Recovery Plan that demonstrates the Grantee is taking and will take every reasonable measure to eliminate [recover] the difference between the total project cost and the Baseline Cost Estimate. Insofar as any difference between the total project cost and the Baseline Cost Estimate cannot be eliminated [recovered], the Grantee must secure and provide such additional resources as are necessary to meet the additional costs and expeditiously Complete the Project without further financial assistance from the Federal capital new starts program. Further, in its Recovery Plan, the Grantee must identify the sources of funds it will draw upon to meet the additional costs and cover the difference between the total project cost and the Baseline Cost Estimate.

SECTION 5. REVENUE OPERATIONS DATE

(a) The Grantee agrees and promises to achieve revenue operations of the Project on or before **INSERT**, the Revenue Operations Date, in accordance with the terms and conditions of this Agreement.

(b) The Revenue Operations Date is a significant term of this Agreement. The Grantee's failure to achieve the operational functions of the Project on or before the Revenue Operations Date will constitute a breach of this Agreement. Upon the Grantee's request, the Government may determine at its sole discretion to waive a breach or an anticipatory breach of this Agreement and to extend the Revenue Operations Date if there is an unavoidable delay in achieving the operational goals of the Project resulting from an event or circumstance beyond the control of the Grantee, or if the Government determines that allowing the delay is in the best interest of the Government and the success of the Project. Requests by the Grantee for waiver of a breach or anticipatory breach of this Agreement and extension of the Revenue Operations Date for the reasons set forth herein shall be submitted promptly (with appropriate documentation) to the Government. In the exercise of its discretion to waive the breach and extend the Revenue Operations Date, the Government will take into consideration the actions and measures taken by the Grantee to ensure adherence to its promise to achieve the operational goals of the Project on or before the scheduled Revenue Operations Date.

(c) Delays in appropriations of funds from Congress shall not constitute a basis for extension of the Revenue Operations Date.

(d) The Government's consent to extend the Revenue Operations Date pursuant to Paragraph (b) of this Section 5 does not constitute a basis for additional Federal financial assistance beyond the Maximum Federal New Starts Financial Contribution.

DRAFT

SECTION 6. NET PROJECT COST

(a) This Grant is to assist in the payment of actual eligible costs within the scope of the Project under this Agreement, minus any amount that can reasonably be financed from revenues of the Grantee. If the funds awarded under this grant exceed the amount necessary to finance the Federal share, those excess funds are not available to the Grantee for payment of costs beyond the scope of this Project supported by this Grant.

(b) In accordance with 49 U.S.C. § 5309(h), a refund or reduction of the Grantee's Local Share of the Net Project Cost requires a refund to the Government of a proportional amount of the Federal financial assistance provided under this Agreement.

(c) The portion of the Net Project Cost that may be financed by the Government with capital new starts funds may not exceed the amount of the Maximum Federal New Starts Financial Contribution for this Project as stated in Section 8 of this Agreement, "Limitations of the Federal Funding Commitment."

(d) The Grantee acknowledges that Federal funds may be used only to reimburse eligible expenses for the Project. Should FTA determine that Federal funds have been used to reimburse any expenses that were ineligible for Federal reimbursement, FTA will direct the Grantee either to reimburse FTA with local funds not already committed to the Project or to reduce the total project costs by the amounts found to have been ineligible.

SECTION 7. ESTIMATED NET PROJECT COST

(a) The Government's determination to provide financial assistance for the Project is based, in significant part, upon the Grantee's estimated costs as set forth in the "Baseline Cost Estimate," Attachment 3 to this Agreement. The Estimated Net Project Cost reported in Attachment 3 is $ **INSERT**.

(b) The Estimated Net Project Cost financed with the Execution of this Agreement is limited by the amount of the Maximum FTA Amount Awarded. The amount of the Estimated Net Project Cost and the amount of the Maximum FTA Amount Awarded are stated in the first page of this Agreement. The amount reimbursable by the Government is limited to the lesser of either the amount of the Maximum FTA Amount Awarded or the maximum percentage of FTA participation permitted by Federal law and regulations. Additional funds will not be provided until a Grant amendment awarding additional funds and amending this Full Funding Grant Agreement is executed.

SECTION 8. LIMITATIONS OF THE FEDERAL FUNDING COMMITMENT

(a) The sources of Federal financial assistance for the Project are set forth in the "Project Budget," Attachment 3A. These funds are in addition to all previous Federal financial commitments to the development of the Project as set forth in the schedule of "Prior Grants and Related Documents," Attachment 5 of this Agreement. The Government is not obligating and awarding any Federal capital new starts funds for the Project with the Award and Execution of this Agreement.

(b)(l) With its Award set forth in this Agreement, the Government acknowledges its intent to provide Federal capital new starts assistance for the Project in an amount that will not exceed $

DRAFT

INSERT. The anticipated sources of Federal financial assistance in this amount are listed in Attachment 6 of this Agreement, "Schedule of Federal Funds for the Project." All Federal capital new starts funds obligated pursuant to this Paragraph will be subject to all the terms, conditions and obligations set forth in this Agreement. Accordingly it is expected that the award of additional funds will be processed through amendments to this Agreement.

(b)(2) The award by the Government of additional Federal capital new starts financial assistance to the Project under Paragraph (b)(1) of this Section 8 is subject to the following limitations:

(A) the availability of appropriated funds, and

(B) the Grantee's continued performance under the terms and conditions of this Agreement.

(c) The Maximum Federal New Starts Financial Contribution for this Project under the capital new starts category of funds is limited to $ **INSERT** which is the sum of the amounts set forth in Paragraphs (a) and (b)(l) of this Section.

SECTION 9. FEDERAL FUNDING -- OTHER SOURCES

The Maximum Federal New Starts Financial Contribution specified in Section 8(c) of this Agreement does not include funds other than from the capital new starts program under 49 U.S.C. Chapter 53. Should such other Federal funds be provided for the Project in addition to the Federal capital new starts funds set forth in Attachment 6 of this Agreement, the limitation on the Federal funding commitment set forth in Section 8 of this Agreement shall not apply to those funds. Accordingly, such additional funds shall be excluded from the calculation of Maximum Federal New Starts Financial Contribution. Funds awarded pursuant to this Section will be subject to all other terms, conditions and obligations set forth in the Agreement.

SECTION 10. LOCAL FINANCIAL COMMITMENT – CAPITAL COSTS

(a) As a condition of the Government's Award of this Full Funding Grant, the Grantee has developed and adopted a Financial Plan for financing all Project Costs necessary to complete the Project. In addition to the amount of Federal funds requested, the Financial Plan includes a statement identifying the State, local and private sources of funding and the amount of funds available for and committed to the Project from each such source. This Financial Plan, as accepted by the Government, with the supporting documentation (including formal funding agreements and commitments) is hereby incorporated by reference and made part of this Agreement.

(b) The Grantee hereby commits and certifies that it will provide funds in an amount sufficient, together with the Federal contribution (acknowledging the limitations as set forth in this Agreement), to assure timely and full payment of the Project Costs as necessary to complete the Project.

(c) The Grantee hereby commits and certifies that the Local Share portion of its financial commitment will be provided from funding sources other than: Federal funds (except as may otherwise be authorized by Federal statute); receipts from the use of Project facilities or equipment (except as may otherwise be authorized by Federal statute); or revenues of the public transit system in which such facilities or equipment are used.

DRAFT

(d) Given the Estimated Net Project Cost, as set forth in Section 7 of this Agreement, the Grantee's financial commitment to the Net Project Cost is estimated to total $ **INSERT**. This amount constitutes the Local Share needed to match the Maximum Federal New Starts Financial Contribution for the Project and Other Federal Sources. In the event that the actual Federal financial contribution for the Project is reduced or is increased, the funding percentage as set forth in this Agreement is changed, the portion of the Grantee's financial contribution for the Project that is identified as Local Share shall be adjusted accordingly.

(e) The Grantee agrees to notify the Government of any change in circumstances or commitments that adversely affect the Grantee's plan to fund the Project Costs necessary to Complete the Project as set forth in the Financial Plan. In its notification, the Grantee shall advise the Government of what actions it has taken or plans to take to ensure adequate funding resources and shall reaffirm its commitment to the Government as set forth in Paragraph (b) of this Section 10.

SECTION 11. AUTHORIZATION TO ADVANCE PROJECT WITHOUT PREJUDICE

The Grantee may incur costs or expend local funds for all phases of the Project as is reasonably necessary to advance the Project prior to an award of Federal funding assistance without prejudice to possible future Federal participation in or reimbursement of the Project Costs to the extent that such costs are incurred in accordance with all applicable Federal requirements and this Agreement. It is understood that the authority conferred on the Grantee to advance the Project without prejudice does not constitute a legal commitment by the Government to obligate and award Federal funds.

SECTION 12. LOCAL FINANCIAL COMMITMENT – OPERATING AND MAINTENANCE COSTS

(a) As a condition of the Government's Award of funding set forth in this Agreement, the Grantee has developed and adopted a Financial Plan to finance the future operation and maintenance of the Project that also takes into consideration the Grantee's continuing financial responsibilities to operate, maintain and reinvest in its existing transit system. This Financial Plan, as accepted by the Government, and the supporting documentation (including specific funding commitments) evidencing stable and dependable funding sources is an essential part of the Grantee's Application and is made part of this Agreement by incorporation of the Application.

(b) With the Execution of this Agreement, the Grantee assures that it has stable and dependable funding sources, sufficient in amount and in degree of commitment, to operate and maintain its entire mass transportation system at an adequate and efficient level of service, including the future operation and maintenance of the Project without additional Federal assistance beyond the amounts set forth in the Financial Plan. The foregoing assurance does not preclude the Grantee from altering service through contracts with private providers of mass transportation services.

(c) The Grantee will notify the Government of any change in circumstances or commitments that adversely affects the Grantee's plan to fund the maintenance and operating costs of the Project as set forth in the Financial Plan. In its notification, the Grantee will advise the Government of actions it has taken or plans to take to ensure adequate funding resources and will reaffirm to the Government its assurance as set forth in Paragraph (b) of this Section.

DRAFT

SECTION 13. BASELINE COST ESTIMATE

(a) In its Application, the Grantee submitted to the Government a Baseline Cost Estimate for the activities constituting the Project. The Baseline Cost Estimate is accepted by the Government and is set forth in Attachment 3 of this Agreement. The Baseline Cost Estimate is derived from cost estimates of the individual third party contracts and force account work that, in sum, constitute the Project; it reflects appropriate escalation and Project schedule dates.

(b) The Government intends to use the Baseline Cost Estimate to monitor the Grantee's compliance with certain terms and conditions of this Agreement. The Baseline Cost Estimate established in Attachment 3 serves as the measure of cost estimates as of the Date of this Agreement, and should not be amended or modified during the implementation of the Project.

(c) The Grantee will submit cost reports on the implementation of the Project as required by this Agreement and in a format consistent with the units set forth in the Baseline Cost Estimate so that the Government can, with reasonable diligence, reconcile the Grantee's reports with the Baseline Cost Estimate.

SECTION 14. BASELINE SCHEDULE

(a) In its Application, as approved, the Grantee submitted a Baseline Schedule for the Project that demonstrates how the Grantee intends to implement the Project and meet the Revenue Operation Date. This Baseline Schedule has been accepted by the Government and is Attachment 4 of this Agreement.

(b) The schedule for the Project may be modified from time to time at the discretion of the Grantee. However, the Baseline Schedule is not to be modified because it is to be used as a basis for comparing planned to actual project implementation. The Grantee will notify the Government when a Project schedule modification has the potential to change the Revenue Operations Date and describe the actions planned to recover the schedule. The Government's acquiescence in such notice will not be deemed approval by the Government of an extension of a Revenue Operations Date unless the Government expressly grants an extension in writing.

SECTION 15. PROJECT MANAGEMENT OVERSIGHT

The Project is a "Major Capital Project" as defined in FTA's Project Management Oversight regulations at 49 C.F.R. § 633.5. Accordingly, the Grantee agrees that all requirements and conditions set forth in the rule at 49 C.F.R. Part 633 apply to the Project activities. Noncompliance with any regulatory requirements shall constitute a breach of this Agreement, unless the Government formally waives the regulatory requirement.

SECTION 16. ENVIRONMENTAL PROTECTION

(a) As a condition precedent to this Agreement, the environmental impacts of the Project have been assessed as required by law. The results of that assessment and the adopted mitigation measures are described in the environmental documents identified in Attachment 7 of this Agreement. These documents together with related agreements and supporting documentation are incorporated by reference and made part of this Agreement. To assist the Government in monitoring the implementation of the adopted mitigation measures, these measures are specifically referenced in Attachment 7 of this Agreement. It is understood and agreed that the description referenced in Attachment 7 shall not supersede or in any way result in a

DRAFT

circumvention of the requirements set forth in the Government's environmental record for the Project.

(b) Certain terms and conditions of this Agreement as related to the Grantee's responsibility to ensure protection of the environment are set forth in Section 25 of the Master Agreement, "Environmental Requirements." Under Subsection 25.l, "Mitigation of Adverse Environmental Effects," the Grantee is required, among other actions, to undertake all environmental mitigation measures that are identified in environmental documents prepared for the Project. Accordingly, the Grantee understands that it shall not withdraw or substantially change any of the adopted mitigation measures as described in the Government's environmental record for the Project without the express written approval of the Government.

(c) This Section is intended only to supplement the provisions set forth in Section 25 of the Master Agreement, "Environmental Requirements."

SECTION 17. LABOR PROTECTION

The Grantee will carry out the Project in conformance with the terms and conditions determined by the Secretary of Labor to be fair and equitable to protect the interests of employees affected by the Project and meet the requirements of 49 U.S.C. § 5333(b) and U.S. Department of Labor (USDOL) Guidelines at 29 C.F.R. Part 215. These terms and conditions are identified in the letters of certification from USDOL on the dates set forth on the first pages of this Agreement. The Grantee will carry out the Project in compliance with the conditions stated in the USDOL certification letters. Those letters and any documents cited therein are incorporated by reference and made part of this Agreement.

SECTION 18. GOVERNMENT ACTIONS

(a) In all cases where the Government's review, approval or concurrence is required under the terms and conditions of this Agreement, the Government will provide its response within sixty (60) calendar days of receipt from the Grantee of all materials reasonably necessary for the formulation of the Government's response.

(b) If the Government determines that its position cannot be finalized within that sixty (60) day period, the Government will notify the Grantee, in writing, within thirty (30) days following receipt of the Grantee's submission that the Government's response will be delayed and advise the Grantee of the Government's anticipated time period for response.

(c) Whenever the Government's approval or concurrence is needed on any matter pertaining to or concerning this Agreement, the Government's approval or concurrence will not be unreasonably withheld.

SECTION 19. REMEDIES

(a) Substantial failure of the Grantee to Complete the Project in accordance with the Application and this Agreement will be a default of this Agreement. In the event of default, the Government will have all remedies at law and equity, including the right to specific performance without further Federal financial assistance, and the rights to termination or suspension as provided by Section 11 of the Master Agreement, "Right of the Federal Government to Terminate." The Grantee recognizes that in the event of default, the Government may demand all Federal funds provided to the Grantee for the Project be returned to the Government. Furthermore, a default

DRAFT

of this Agreement will be a factor considered before a decision is made with respect to the approval of future Grants requested by the Grantee.

(b) Under the provisions of Section 15 of this Agreement, “Project Management Oversight,” and under the terms and conditions of the Master Agreement, the Government will review performance by the Grantee to determine whether satisfactory progress is being made to Complete the Project. In the event that the Government determines that the Grantee is in breach of this Agreement, the Government may withhold its approvals of further funding and suspend drawdown of funds, under the provisions of Section 11 of the Master Agreement, "Right of the Federal Government to Terminate," until any necessary corrective action, which may be required by the Government, is accomplished. Any breach of this Agreement that is not corrected within a reasonable period of time will be a default of this Agreement. The Government in its discretion may permit the cost of such corrective action to be deemed a Project Cost, provided that such cost is an allowable cost under the requirements of Section 9.c of the Master Agreement, "Costs Reimbursed," and so long as it remains within the limits of the Maximum Federal New Starts Financial Contribution set forth in Section 8 of this Agreement, “Limitations of the Federal Funding Commitment.”

(c) In the event of a breach of this Agreement by the Grantee and before the Government takes action contemplated by this Section, the Government will provide the Grantee with ninety (90) days written notice that the Government considers that such a breach has occurred and will provide the Grantee a reasonable period of time to respond and to take necessary corrective action.

SECTION 20. CONTENTS OF AGREEMENT

This Full Funding Grant Agreement consists of the text of this Agreement, which includes the first pages setting forth significant characteristics of the Agreement (such as the maximum Federal funds obligated and awarded for expenditure on the Project and the funding ratio of Federal and local funds to be expended for the Project, and such other data), followed by the Terms and Conditions and the Attachments to the Agreement. The Agreement also includes the following documents incorporated by reference and made part of this Agreement: the "Federal Transit Administration Master Agreement," FTA Form MA (18) (October 1, 2011) as may be revised from time to time, the Application, the Government’s environmental record for the Project, related agreements, and prior Grant Agreements for the Project referenced in Attachment 5 of this Agreement. Should the Federal assistance award letter include special conditions for the Project, that letter is incorporated by reference and made part of this Agreement. Any inconsistency between the Application and the terms and conditions of this Full Funding Grant Agreement will be resolved according to the clear meaning of the provisions of this Agreement and Attachments hereto.

SECTION 21. SIMULTANEOUS CREATION OF AGREEMENT IN ELECTRONIC FORMAT

Simultaneous to the Award and Execution of this Agreement set forth in typewritten hard copy, the Agreement is being awarded and executed by electronic means through FTA’s electronic award and management system. To the extent any discrepancy may arise between the typewritten version and the electronic version of this Agreement, the typewritten version will prevail. Should any special conditions or requirements for the Project be added separately in the electronic version, those conditions or requirements are incorporated by reference and made part of this Agreement.

DRAFT

SECTION 22. AMENDMENTS TO AGREEMENT

Amendments to any of the documents referenced in Section 20, “Contents of Agreement,” will be made in accordance with the requirements and procedures set forth in FTA Circular 5010.1C, “FTA Project Management Guidelines” (October 1, 1998), as may be amended from time to time, and FTA Circular 5200.1A, "Full Funding Grant Agreement Guidance,” as may be amended from time to time.

SECTION 23. ATTACHMENTS -- INCORPORATION

Each and every Attachment to this Agreement is incorporated by reference and made part of this Agreement.

SECTION 24. NOTICES

Notices required by this Agreement will be addressed as follows:

As to the Government:

Leslie Rogers
Regional Administrator
Federal Transit Administration
201 Mission Street, Suite 1650
San Francisco, CA 94105

As to the Grantee:

NAME
TITLE
INSERT ORGANIZATION
INSERT ADDRESS LINE
INSERT ADDRESS LINE

SECTION 25. APPLICABLE LAW

If neither Federal statute nor Federal common law governs the interpretation of the provisions of this Agreement, the state law of the State of Hawaii will apply. This provision is intended only to supplement Section 2.c of the Master Agreement, "Application of Federal, State, and Local Laws and Regulations."

SECTION 26. AWARD AND EXECUTION OF AGREEMENT

There are several identical counterparts of this Agreement in typewritten hard copy; each counterpart is to be fully signed in writing by the parties and each counterpart is deemed to be an original having identical legal effect. When signed and dated by the authorized official of the Government, this instrument will constitute an Award that should be executed by the Grantee within ninety (90) days of the date of the Government's Award (FTA Award). The Government may withdraw its Award of financial assistance and obligation of funds if this Agreement is not executed within the ninety (90) day period. Upon full Execution of this Agreement by the Grantee, the effective date will be the date the Government awarded funding under this

DRAFT

Agreement as set forth below.

THE GOVERNMENT HEREBY AWARDS THIS FULL FUNDING GRANT THIS _____ DAY OF _____, 2012.

Signature:

_____

Peter Rogoff
Administrator
FEDERAL TRANSIT ADMINISTRATION

DRAFT

EXECUTION BY GRANTEE

The Grantee, by executing this Agreement, affirms this FTA Award; adopts and ratifies all statements, representations, warranties, covenants, and materials it has submitted to FTA; consents to this Award; and agrees to all terms and conditions set forth in this Agreement.

THE GRANTEE HEREBY EXECUTES THIS FULL FUNDING GRANT THIS _____ DAY OF _____, 2012.

Signature:

_____

Name
Title
INSERT ORGANIZATION

ATTESTED BY:

Signature:

_____

Name
Title
INSERT ORGANIZATION

AFFIRMATION OF GRANTEE'S ATTORNEY

As the undersigned Attorney for the Grantee, I affirm to the Grantee that I have examined this Agreement and the proceedings taken by the Grantee relating to it. As a result of this examination I hereby affirm to the Grantee the Execution of the Agreement by the Grantee is duly authorized under state and local law. In addition, I find that in all respects the Execution of this Agreement is due and proper and in accordance with applicable State and local law. Further, in my opinion, this Agreement constitutes a legal and binding obligation of the Grantee in accordance with the terms of the Agreement. Finally, I affirm to the Grantee that, to the best of my knowledge, there is no legislation or litigation pending or imminent that might adversely affect the full implementation of the Project in accordance with the terms thereof.

DATED _____ DAY OF _____, 2012.

AFFIRMED BY:

Signature: _____
INERT NAME
General Counsel
INSERT ORGANIZATION

DRAFT

DRAFT DOCUMENT

ATTACHMENT 1

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Scope of the Project

The Honolulu Rail Transit Project (the Project) consists of design and construction of a 20-mile, grade-separated fixed rail system from East Kapolei to the Ala Moana Center in Honolulu, Hawaii. From East Kapolei the Project proceeds to the University of Hawai‘i at West Oahu, then east to Pearl Harbor, the Honolulu International Airport, and ends at Kona Street adjacent to Ala Moana Center. The Project will operate in an exclusive right-of-way and will be elevated except for a 0.6-mile, at-grade section near Leeward Community College. The Project will be powered with third rail electrification.

The Project scope includes 80 light metro fully automated (driverless) rail vehicles and a Maintenance and Storage Facility (MSF) that will maintain and store the rail vehicles. The MSF site is a 44-acre parcel near Leeward Community College. The MSF includes four buildings, maintenance facilities, a vehicle wash area, storage track, a system control center, and employee parking. The MSF buildings will be designed to meet Leadership in Energy and Environmental Design silver certification requirements.

The Project includes 21 stations with passenger canopies, seating areas, and art work. All stations, except for the Leeward Community College Station, are elevated. Access will be provided to the platform level of all stations via stairways, escalators, or elevators or some combination of these. There are four park-and-ride facilities with 4,100 total spaces. One of the park-and-ride facilities will be a parking structure, which includes construction of an access ramp from the H-2 freeway into the parking structure.

The Revenue Service Date for the Project is January 31, 2020. Hours of operation in the opening year will be from 4:00 a.m. to midnight every day. Saturday service will run from 5 a.m. to midnight, and Sunday service will run from 6 a.m. to midnight. Initial vehicle headways in each direction will range from 3 minutes during peak periods to 10 minutes from 8 p.m. to midnight. A train will arrive in each direction at the station every 6 minutes during base periods. By 2030 the peak headway will be 2.4 minutes and the base headway will be 4.7 minutes. The 2030 evening headway will remain 10 minutes. Average weekday boardings are projected to be 98,000 in the opening year, and 116,300 in 2030.

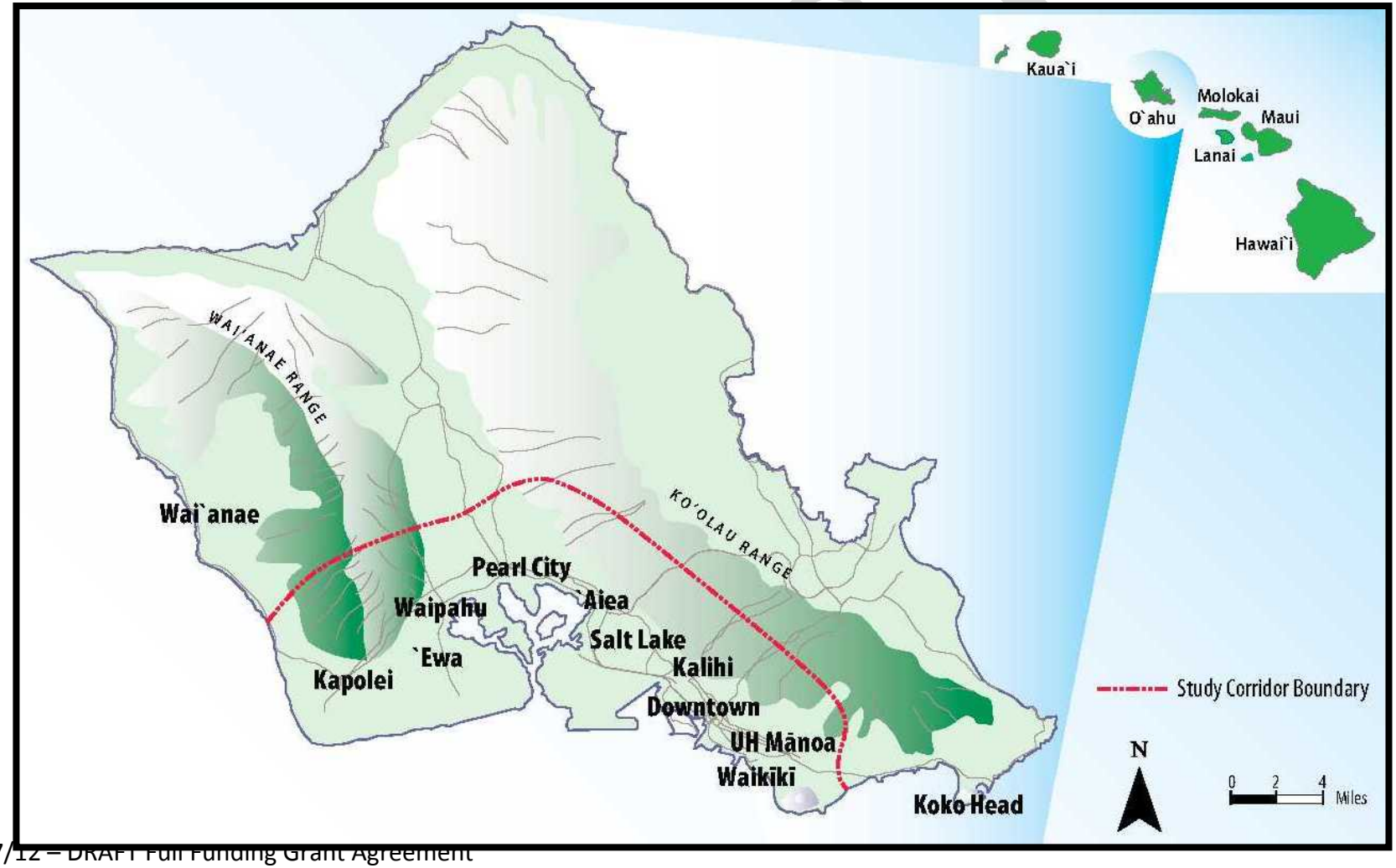
DRAFT

DRAFT DOCUMENT

Attachment 1A

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Project Vicinity Map



DRAFT DOCUMENT

Attachment 1B

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Project Location Map

ATTACHMENT 2

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Project Description

Narrative Description:
The Honolulu Rail Transit Project (the Project) consists of design and construction of a grade - separated, 20-mile fixed rail system with 21 stations, a maintenance and storage facility, and 80 light metro automated rail vehicles. The Project extends from East Kapolei to the Ala Moana Center in Honolulu, Hawaii.

Project Description by Standard Cost Category (SCC):
The following provides a description of the Project by Standard Cost Category (SCC). These SCCs are the basis for the Baseline Cost Estimate and for the Baseline Schedule contained in Attachment 3 and Attachment 4, respectively.

SCC Code 10 - Guideway and Track Elements
This SCC includes all elements of trackwork including: procurement, installation, stray current protection, and all structural work. This SCC also includes all civil work for the alignment, including roadway work necessary to construct the guideway. Trackwork includes but is not limited to the furnishing of all rails, ties, fasteners, ballast, concrete, turnouts, switches, and other special trackwork, spare materials, and all construction materials, labor, tools, and supplies.

SCC 10 includes the following applicable subcategories:

- SCC 10.04 – Guideway: Aerial structure. The Project consists of about 19.45 miles of elevated guideway. This subcategory includes excavation, drilling, and all work elements required for aerial guideway construction.

- SCC 10.08 – Guideway: Retained cut or fill. The Project includes approximately 0.6 miles that is on retained cut or fill near the Leeward Community College.

- SCC 10.09 – Track: Direct Fixation. This includes all work associated with all of the rails necessary for the Project. The Project includes direct fixation track for all 19.45 miles on the aerial Guideway and rail at the maintenance facility.

- SCC 10.11 – Track: Ballasted. This includes rails, ties and ballast. The Project includes tie and ballast track for the 0.6 miles of at-grade mainline guideway near Leeward Community College as well as at the maintenance facility.

- SCC 10.12 – Track: Special (switches, turnouts). This includes switches, turnouts, track crossovers, bumping posts and spares.

SCC Code 20 - Stations, Stops, Terminals, Intermodal Traffic & Operations
This SCC includes improvements associated with the construction of 21 new passenger stations and structured park and ride lots. All stations will be ADA compliant.

- SCC 20.01 At-grade station, stop, shelter, mall, terminal, platform. This SCC subcategory provides for the construction, purchase, and installation for elements for the at-grade station at Leeward Community College. Also associated with this SCC subcategory for the station are platforms, conduit installation, platform finishes, station canopies, required ramps and/or railings, fencing, signage and pavement markings, benches, and all other elements for the construction and safe operation of the rail transit stations.

- SCC 20.02 Aerial station, stop, shelter, mall, terminal, platform. This SCC subcategory provides for the construction, purchase, and installation for elements for the aerial stations for the Project. Also associated with this SCC subcategory for stations are platforms, conduit installation, platform finishes, station canopies, required ramps and/or railings, fencing, signage and pavement markings, benches, and all other elements for the construction and safe operation of rail transit stations. The stations are as follows:

  1) East Kapolei station
  2) University of Hawaii West Oahu station
  3) Ho`opili station
  4) West Loch station
  5) Waipahu Transit Center station
  6) Pearl Highlands station
  7) Pearlridge station
  8) Aloha Stadium station
  9) Pearl Harbor Naval Base stations
  10) Honolulu International Airport station
  11) Lagoon Drive station
  12) Middle Street Transit Center station
  13) Kalihi station
  14) Kapalama station
  15) Iwilei station
  16) Chinatown station
  17) Downtown station
  18) Civic Center station
  19) Kaka`ako station
  20) Ala Moana station

- SCC 20.06 Automobile parking multi-story structure. This category includes the construction of 1,600 structured park-and-ride spaces at the Pearl Highlands station.

DRAFT

- SCC 20.07 Elevators, escalators. This category includes the elevators and escalators needed for all stations and the park-and-ride structure.

SCC Code 30 – Support Facilities; Yards, Shops, Administration Buildings

This SCC includes design and construction of a Maintenance and Storage Facility (MSF) for the system. The MSF is located on a 44-acre parcel at the former Navy Drum site east of Farrington Highway between Waipahu High School and Leeward Community College on the south side of the alignment.

SCC 30 includes the following subcategories:

- SCC 30.02 Light maintenance facility. This category includes construction of the required maintenance facility, which will also house the wheel truing machine.

- SCC 30.03 Heavy maintenance facility. This category includes construction of the required maintenance facility and procurement of machinery for MSF for heavy overhaul maintenance work. This includes staff offices and welfare facilities; Operation Control Center; Vehicle heavy repair, service and inspection, and component change-out tracks; equipment maintenance support shops; and system central stores. This also includes the design and construction of the rail vehicle wash bay, which will be located in a separate building.

- SCC 30.04 Storage or Maintenance of Way Building. This category includes construction of the maintenance of way site as part of the MSF. This includes interior and exterior storage, and parking for maintenance of way vehicles.

- SCC 30.05 Yard and yard track. This category includes the installation of yard tracks, storage tracks and special trackwork at the MSF. This also includes crossings for rubber tired non-revenue vehicle circulation.

SCC Code 40 – Sitework and Special Conditions

This SCC includes all construction materials and labor for:

- SCC 40.01 - Demolition, clearing, and earthwork. This category includes demolition, clearing, earthwork including but not limited to concrete pavement and sidewalk removal, asphalt pavement removal, grubbing and stripping, ditch drainage improvement, embankment, foundation stabilization material, aggregate base course, and modification to existing sanitary sewer.

- SCC 40.02 - Site utilities and utility relocation. This category includes site utilities and utility relocation activities, including but not limited to, storm water drainage, sanitary sewer, culver placement and extensions, electrical, ductbank, fiber optics, communications, placement of water system service, and street lighting.

DRAFT

- SCC 40.03 Hazardous material, contaminated soil removal/mitigation, ground water treatments. This category includes hazardous material, contaminated soil removal, ground water treatment, and all other hazardous materials, contaminated media and treatments.

- SCC 40.04 Environmental mitigation measures including those measures for wetlands and noise. This category includes all required environmental mitigation work including noise, stormwater, historic and archeological.

- SCC 40.05 Site structures including retaining walls, sounds walls. This category includes retaining walls and parapet walls necessary for sound mitigation.

- SCC 40.06 Pedestrian/bike access and accommodation, landscaping. This category includes irrigation and landscaping at the stations, public art program, fencing, and bike facilities.

- SCC 40.07 Automobile, bus, van accessways including roads and parking lots. This category includes roadway improvements and construction of the park-and-ride facilities. The park-and-ride lots and parking are as follows:

Station	Approximate Number of Stalls To Be Built
East Kapolei	900
UH West Oahu	1,000
Aloha Stadium	600

- SCC 40.08 Temporary Facilities and Other Direct Costs During Construction. This includes permits, field offices, mobilization, quality control and material testing, maintenance of traffic, security, all temporary facilities, storm water pollution prevention measures, temporary access to mitigate construction impacts, payment/performance Bond, warranty bond, Contractor's Insurance (not covered by Owner Controlled Insurance Program), construction management and supervision, Safety Plan and Program administration, obligations during warranty period, construction survey and layout, public information, contractor's fee, and System Testing & Certification.

SCC Code 50 – Systems

This SCC provides for the purchase, installation, and construction of all train control, traction power, communications, and fare collections systems required for the Project.

SCC 50 includes the following subcategories:

- SCC 50.01 Train Control and signals. This category includes the purchase, installation and testing of the train control system including wiring, cabling, cases, and spare parts.

- SCC 50.02 Traffic signals, striping and pedestrian crossing controls. This category includes traffic signals at locations necessitated by roadway modifications for the guideway and by the changes in traffic pattern around stations.

- SCC 50.03 Traction power supply: substations. This category includes all components for the traction power system. Included is the purchase, installation, and testing of the traction power distribution system, approximately 14 traction power substations, poles, mounting brackets, feeder cables, spare parts and power supply.

- SCC 50.04 Traction power distribution: catenary and third rail. This category includes the purchase, installation, and testing for the system-wide third rail power system.

- SCC 50.05 Communications. This category includes the purchase, installation, and testing for the entire communication system, which will include the fiber option backbone, terminals, displays, computer control hardware and software, central control furnishings, variable message signs, spare parts, radios, public address system, telephone, alarms and provisions for closed circuit television system. It will also include required software, training, and operating manuals.

- SCC 50.06 Fare collection system and equipment. This category includes the purchase, installation and testing of the self-service fare collection equipment, including approximately 42 ticket vending machines (TVMs), spare parts, training and technical support. At least two TVMs will be located at each station entrance, and additional TVMs will be located at higher volume stations. Also included is the infrastructure for the addition of future fare gates.

- SCC 50.07 Central control. This category includes the purchase, installation and testing for all components needed for the new rail operations control center. This includes all necessary components for the automatic train control system that will include automatic train protection, automatic train operation and automatic train supervision subsystems and their means of communication.

SCC Code 60 - Right-of-way, Land, Existing Improvements

This SCC provides for the real property costs for the Project, specifically the temporary or permanent acquisition of or access to all real property required. Real property includes donated, leased, or purchased land, permanent surface and subsurface leases required; associated professional appraisal, acquisition and legal services; demolition; and any costs related to the exercise of eminent domain.

SCC 60 includes the following subcategories:

- SCC 60. 01 - Purchase or lease of real estate. This category includes costs of donated, leased, or purchased lands and associated acquisition, legal, appraisal services, and demolition.

- SCC 60.02 – Relocation of existing households and businesses. This category includes relocation costs and services for approximately 83 existing residential and business relocations.

SCC Code 70 - Vehicles

This SCC provides for the procurement of light metro automated rail vehicles.

- SCC 70.02 - Heavy rail. This category includes the design, manufacture, inspection, delivery, testing and commissioning of 80 new light metro rail vehicles. This category also includes training and associated equipment, as well as training for start-up and warranty provisions.

- SCC 70.06 - Non-revenue vehicles. This category includes procurement of all non-revenue vehicles needed for the project such as maintenance vehicles, high-rail vehicles, and other rail related equipment vehicles.

- SCC 70.07 – Spare parts. This category includes the spare parts, special tools, and manuals for the new light metro vehicles.

SCC Code 80 - Professional Services

This SCC includes all of the professional, technical and management services, intergovernmental agreements and related costs during the preliminary engineering, final design, construction, and start-up phases of the Project.

SCC 80 includes the following subcategories:

- SCC 80.01 - Preliminary Engineering. This category includes the professional services and project administration required to complete preliminary design, engineering and architectural services.

- SCC 80.02 - Final Design. This category includes further design, engineering, and architectural services; compilation of as-built documents; environmental mitigation services; specialty services such as safety and security analyses; value engineering; risk assessment; cost estimating and scheduling; and surveying.

- SCC 80.03 - Project Management for Design and Construction. This category includes the agency staff and professional service consultants providing project management and oversight to the entire project. This includes work performed by agency staff, including assembling information, conducting analyses, and preparing the Before and After Study.

- SCC 80.04 - Construction Administration and Management. This category includes the agency staff and professional service consultants contracted for construction inspection; field engineering; design support coordination; project scheduling and construction coordination; safety certification; change order processing; preparation of independent cost estimates; field verification and testing; systems integration and testing, and; other activities required in support of the Project.

DRAFT

- SCC 80.05 – Insurance. This provides for Owner-provided insurance to provide insurance coverage for project related activities. The insurance will provide the owner, contractor/sub-contractor, and consultant/sub-consultant with Worker's Compensation, Environmental Liability, Employers Liability, Commercial General Liability, Professional Liability, Builder's Risk, Excess Liability Coverage, and Railroad Protective Insurance. Some of these coverages may be consolidated further into an Owner Controlled Insurance Program.

- SCC 80.06 - Legal, Permits, Review Fees. This category includes the cost of legal and negotiation services for the project, the cost of permits, and required reviews by government agencies.

- SCC 80.07 - Surveys, Testing, Investigation, Inspection. This category includes the cost of environmental and hazardous material research and investigation, voluntary investigation and clean-up program support, contamination remediation oversight, construction testing, and vibration testing.

- SCC 80.08 - Start-up. This category includes the agency staff and professional service consultants providing support to begin revenue operations.

SCC Code 90 - Unallocated Contingency

This SCC represents the entire unallocated contingency for the Project. It provides a funding source to cover unknown but anticipated additional project execution costs and uncertainty due to risk factors such as unresolved design issues, market fluctuations, unanticipated site conditions and change orders. It also covers unforeseen expenses and variances between estimates and actual costs. Contingency will be managed over the life of the Project in accordance with the project Contingency Management Plan.

SCC Code 100 - Finance Charges

This SCC includes finance charges expected to be paid by the project sponsor/grantee prior to either the completion of the project or the fulfillment of the New Starts funding commitment, whichever occurs later in time. It also includes interim borrowing to Project cash flow and interest on bonds issues for local match net of interest earnings.

DRAFT

DRAFT DOCUMENT

ATTACHMENT 3

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Baseline Cost Estimate

Table 1 – BCE by Standard Cost Category

Applicable Line Items Only		YOE Dollars Total
10 GUIDEWAY & TRACK ELEMENTS (20.05 route miles)		**$1,275,328,962**
10.04	Guideway: Aerial structure	$1,175,328,184
10.08	Guideway: Retained cut or fill	$8,077,393
10.09	Track: Direct fixation	$86,332,027
10.11	Track: Ballasted	$3,550,634
10.12	Track: Special (switches, turnouts)	$2,040,724
20 STATIONS, STOPS, TERMINALS, INTERMODAL (21 stations)		$**506,165,689**
20.01	At-grade station, stop, shelter, mall, terminal, platform	$7,333,599
20.02	Aerial station, stop, shelter, mall, terminal, platform	$353,476,148
20.06	Automobile parking multi-story structure	$79,690,518
20.07	Elevators, escalators	$65,665,424
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		$**99,425,456**
30.02	Light Maintenance Facility	$8,161,279
30.03	Heavy Maintenance Facility	$40,906,889
30.04	Storage or Maintenance of Way Building	$8,382,270
30.05	Yard and Yard Track	$41,975,018
40 SITEWORK & SPECIAL CONDITIONS		$**1,103,867,264**
40.01	Demolition, Clearing, Earthwork	$34,695,802
40.02	Site Utilities, Utility Relocation	$350,694,801
40.03	Haz. mat'l, contam'd soil removal/mitigation, ground water treatments	$7,228,935
40.04	Environmental mitigation, e.g. wetlands, historic/archeologic, parks	$30,841,906
40.05	Site structures including retaining walls, sound walls	$8,637,582
40.06	Pedestrian / bike access and accommodation, landscaping	$48,262,816
40.07	Automobile, bus, van accessways including roads, parking lots	$212,536,181
40.08	Temporary Facilities and other indirect costs during construction	$410,969,241
50 SYSTEMS		$**247,460,781**
50.01	Train control and signals	$91,492,532
50.02	Traffic signals and crossing protection	$12,524,011
50.03	Traction power supply: substations	$32,873,934
50.04	Traction power distribution: catenary and third rail	$36,426,286
50.05	Communications	$59,889,234
50.06	Fare collection system and equipment	$10,221,753
50.07	Central Control	$4,033,031
Construction Subtotal (10 - 50)		$**3,232,248,152**
60 ROW, LAND, EXISTING IMPROVEMENTS		$**222,188,386**
60.01	Purchase or lease of real estate	$201,658,907
60.02	Relocation of existing households and businesses	$20,529,479
70 VEHICLES (80)		$**208,501,186**

DRAFT

Table 1 – BCE by Standard Cost Category

Applicable Line Items Only		YOE Dollars Total
70.02	Heavy Rail	$186,061,066
70.06	Non-revenue vehicles	$16,011,166
70.07	Spare parts	$6,428,954
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)		**$1,183,826,026**
80.01	Preliminary Engineering	$95,120,484
80.02	Final Design	$257,934,908
80.03	Project Management for Design and Construction	$385,825,694
80.04	Construction Administration & Management	$218,155,752
80.05	Professional Liability and other Non-Construction Insurance	$52,138,030
80.06	Legal; Permits; Review Fees by other agencies, cities, etc.	$76,135,125
80.07	Surveys, Testing, Investigation, Inspection	$24,955,327
80.08	Start up	$73,560,706
Subtotal (10 - 80)		**$4,846,763,750**
90 UNALLOCATED CONTINGENCY		**$101,871,170**
Subtotal (10 - 90)		**$4,948,634,920**
100 FINANCE CHARGES		**$173,058,243**
Total Project Cost (10 - 100)		**$5,121,693,163**

DRAFT

DRAFT DOCUMENT

ATTACHMENT 3

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Baseline Cost Estimate

Table 2 – Inflated Cost to Year of Expenditure

STANDARD COST CATEGORY DESCRIPTION	Base Year Dollars without Contingency	Base Year Dollars Allocated Contingency	Base Year Dollars TOTAL	Inflation Factor	YOE Dollars TOTAL
10 GUIDEWAY & TRACK ELEMENTS (20.05)	$955,496,569	$136,579,877	$1,092,076,446	1.1678	$1,275,328,962
20 STATIONS, STOPS, TERMINALS, INTERMODAL (21 station)	$351,187,519	$70,237,503	$421,425,022	1.2011	$506,165,689
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	$85,010,215	$6,326,082	$91,336,297	1.0886	$99,425,456
40 SITEWORK & SPECIAL CONDITIONS	$891,846,429	$108,839,062	$1,000,685,491	1.1031	$1,103,867,264
50 SYSTEMS	$188,203,803	$22,162,982	$210,366,785	1.1763	$247,460,781
60 ROW, LAND, EXISTING IMPROVEMENTS	$180,326,879	$22,430,533	$202,757,412	1.0958	$222,188,386
70 VEHICLES (80)	$159,603,422	$18,513,997	$178,117,419	1.1706	$208,501,186
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	$1,024,626,813	$85,752,595	$1,110,379,408	1.0661	$1,183,826,026
90 UNALLOCATED CONTINGENCY			$88,666,000	1.1489	$101,871,170
100 FINANCE CHARGES			$140,596,098	1.2309	$173,058,243
Total Project Cost (10 - 100)	$3,836,301,649	$470,842,631	$4,536,406,378	1.1290	$5,121,693,163

DRAFT

DRAFT DOCUMENT

ATTACHMENT 3

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Baseline Cost Estimate

Table 3 – BCE by Source of Funding

		Total Project Cost in YOE Dollars	Federal 5309 New Starts	Federal Other (Section 5307)	Federal Other (ARRA)	Local
10	GUIDEWAY & TRACK ELEMENTS (20.05 miles)	$1,275,328,962	$385,546,858	$54,095,024	$0	$835,687,080
20	STATIONS, STOPS, TERMINALS, INTERMODAL (21 stations)	$506,165,689	$153,019,807	$21,469,790	$0	$331,676,092
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	$99,425,456	$30,057,478	$4,217,282	$0	$65,150,696
40	SITEWORK & SPECIAL CONDITIONS	$1,103,867,264	$333,711,982	$46,822,214	$0	$723,333,068
50	SYSTEMS	$247,460,781	$74,810,288	$10,496,427	$0	$162,154,067
60	ROW, LAND, EXISTING IMPROVEMENTS	$222,188,386	$67,170,147	$9,424,459	$0	$145,593,779
70	VEHICLES (80)	$208,501,186	$63,032,347	$8,843,896	$0	$136,624,943
80	PROFESSIONAL SERVICES (applies to Cats. 10-50)	$1,183,826,026	$356,607,499	$50,213,787	$4,000,000	$773,004,740
90	UNALLOCATED CONTINGENCY	$101,871,170	$30,796,846	$4,321,021	$0	$66,753,303
100	FINANCE CHARGES	$173,058,243	$55,246,749	$0	$0	$117,811,493
Total Project Cost (10 - 100)		**$5,121,693,163**	**$1,550,000,000**	**$209,903,901**	**$4,000,000**	**$3,357,789,261**

Sources of Federal Funding and Matching Share Ratios	Costs Attributed to Source of Funds	All Federal Funds	Federal/Local Matching Ratio within Source	Local Funds
Federal 5309 New Starts	$4,855,313,286	$1,550,000,000	32/68	$3,305,313,286
Federal Other (Section 5307)	$262,379,877	$209,903,901	80/20	$52,475,975
Federal Other (ARRA)	$4,000,000	$4,000,000	100/0	0
Total	$5,121,693,163	$1,763,903,901		$3,357,789,261
Overall Federal Share of Project	34%			
New Starts Share of Project	30%			

DRAFT

DRAFT DOCUMENT

ATTACHMENT 3A

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Project Budget

Scope Code	Scope and Activity Line Item Descriptions	Qty	Total Federal %	Federal 5309 New Starts			Federal Other (Section 5307)		
				Federal	Local	Total	Federal	Local	Total
10	GUIDEWAY & TRACK ELEMENTS	20.05	34%	$385,546,858	$822,163,324	$1,207,710,182	$54,095,024	$13,523,756	$67,618,780
20	STATIONS, STOPS, TERMINALS, INTERMODAL	21	34%	$153,019,807	$326,308,645	$479,328,451	$21,469,790	$5,367,448	$26,837,238
30	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN. BLDGS.		34%	$30,057,478	$64,096,375	$94,153,853	$4,217,282	$1,054,321	$5,271,603
40	SITEWORK & SPECIAL CONDITIONS		34%	$333,711,982	$711,627,514	$1,045,339,496	$46,822,214	$11,705,554	$58,527,768
50	SYSTEMS		34%	$74,810,288	$159,529,960	$243,340,248	$10,496,427	$2,624,107	$13,120,533
60	ROW, LAND, EXISTING IMPROVEMENTS		34%	$67,170,147	$143,237,664	$210,407,812	$9,424,459	$2,356,115	$11,780,574
70	VEHICLES	80	34%	$63,032,347	$134,413,969	$197,446,316	$8,843,896	$2,210,974	$11,054,870
80	PROFESSIONAL SERVICES		35%	$356,607,499	$760,451,293	$1,117,058,792	$50,213,787	$12,553,447	$62,767,234
90	UNALLOCATED CONTINGENCY		34%	$30,796,846	$65,673,048	$96,469,894	$4,321,021	$1,080,255	$5,401,276
100	FINANCE CHARGES		32%	$55,246,749	$117,811,493	$173,058,243	$0	$0	$0
Total Project Cost (10 - 100)			34%	$1,550,000,000	$3,305,313,286	$4,855,313,286	$209,903,901	$52,475,975	$262,379,877

DRAFT

DRAFT DOCUMENT

ATTACHMENT 3A

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Project Budget (Continued)

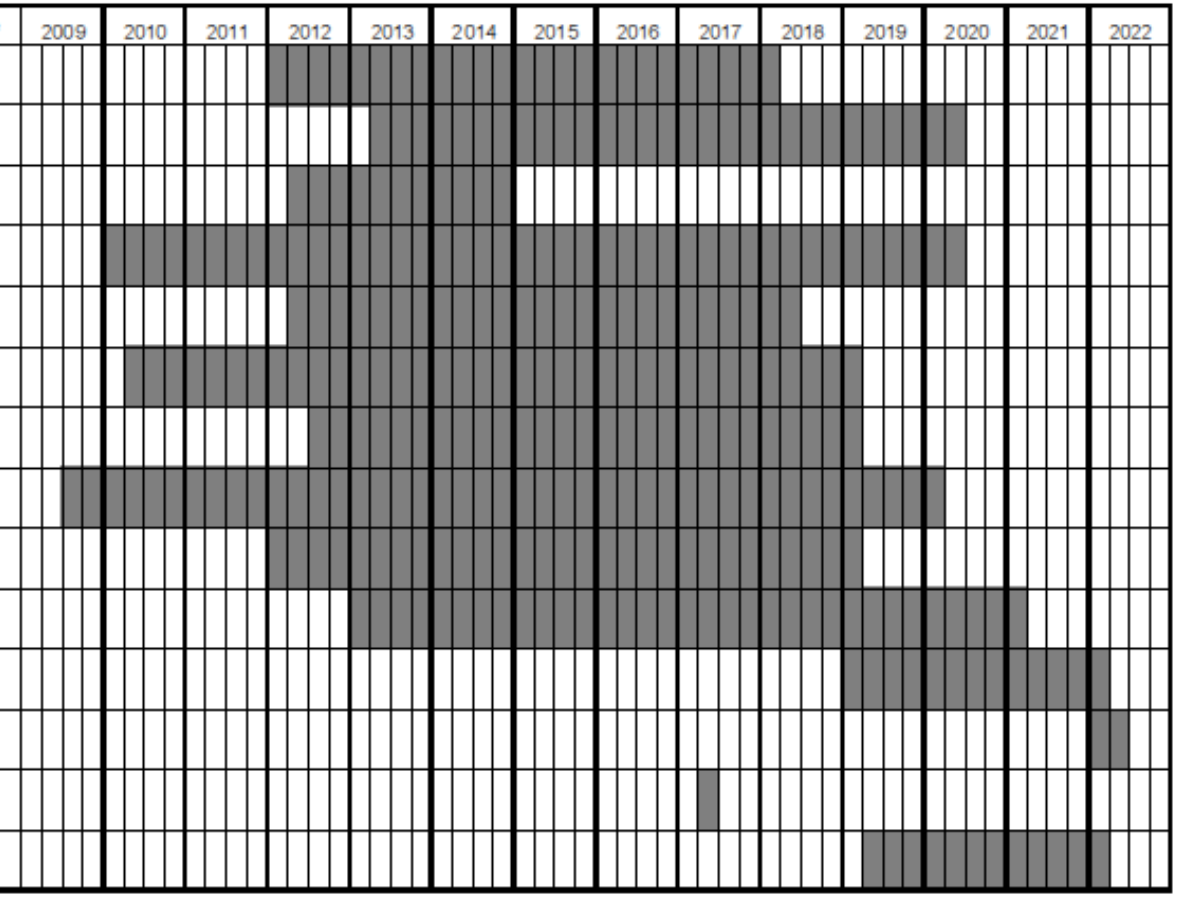
Scope Code	Scope and Activity Line Item Descriptions	Qty	Total Federal %	Federal Other (ARRA)			Total Project Cost in YOE Dollars		
				Federal	Local	Total	Federal	Local	Total
10	GUIDEWAY & TRACK ELEMENTS	20.05	34%	$0	$0	$0	$439,641,882	$835,687,080	$1,275,328,962
20	STATIONS, STOPS, TERMINALS, INTERMODAL	21	34%	$0	$0	$0	$174,489,597	$331,676,092	$506,165,689
30	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN. BLDGS.		34%	$0	$0	$0	$34,274,760	$65,150,696	$99,425,456
40	SITEWORK & SPECIAL CONDITIONS		34%	$0	$0	$0	$380,534,196	$723,333,068	$1,103,867,264
50	SYSTEMS		34%	$0	$0	$0	$85,306,714	$162,154,067	$247,460,781
60	ROW, LAND, EXISTING IMPROVEMENTS		34%	$0	$0	$0	$76,594,607	$145,593,779	$222,188,386
70	VEHICLES	80	34%	$0	$0	$0	$71,876,243	$136,624,943	$208,501,186
80	PROFESSIONAL SERVICES		35%	$4,000,000	$0	$4,000,000	$410,821,286	$773,004,740	$1,183,826,026
90	UNALLOCATED CONTINGENCY		34%	$0	$0	$0	$35,117,867	$66,753,303	$101,871,170
100	FINANCE CHARGES		32%	$0	$0	$0	$55,246,749	$117,811,493	$173,058,243
Total Project Cost (10 - 100)			34%	$4,000,000	$0	$4,000,000	$1,763,903,901	$3,357,789,261	$5,121,693,163

DRAFT

ATTACHMENT 4
City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Schedule

SCHEDULE	Start Date	End Date
10 GUIDEWAY & TRACK ELEMENTS (20.05 route miles)	01/01/12	04/01/18
20 STATIONS, STOPS, TERMINALS, INTERMODAL (21)	05/01/13	06/30/20
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	06/01/12	11/01/14
40 SITEWORK & SPECIAL CONDITIONS	01/01/10	06/30/20
50 SYSTEMS	06/01/12	06/30/18
60 ROW, LAND, EXISTING IMPROVEMENTS	03/15/10	03/31/19
70 VEHICLES (80)	07/01/12	03/31/19
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	10/16/09	06/30/20
90 UNALLOCATED CONTINGENCY	01/01/12	03/31/19
100 FINANCE CHARGES	01/01/13	03/31/21
Revenue Ops / Closeout of Project	01/31/20	01/31/22
Before and After Study: Two years post Rev Ops	02/01/22	06/30/22
Fulfillment of the New Starts funding commitment	06/30/17	06/30/17
Completion of project close-out, resolution of claims	04/01/19	01/31/22



DRAFT DOCUMENT

ATTACHMENT 5

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Prior Grants and Related Documents

Section I. Prior Grants (not included in the FFGA)

Grant Number	Obligation Date	Federal Amount	Funding Source	Purpose
None				

Section II. Related Documents

Milestone	Date
1. City ordinance adopting the LPA is enacted	January 6, 2007
2. Oahu 2030 Long Range Transportation Plan adopted	May 4, 2007
3. Notice of Intent for an EIS	March 15, 2007
4. Draft Environmental Impact Statement Issued	November 21, 2008
5. Approval of Entry into Preliminary Engineering	October 16, 2009
6. Final Environmental Impact Statement Issued	June 14, 2010
7. Issuance of environmental Record of Decision	January 18, 2011
8. Approval of Letter of No Prejudice for Final Design for West Oahu/Farrington Highway Guideway contract	May 24, 2011
9. Approval of Entry into Final Design	December 29, 2011
10. Approval of Letter of No Prejudice for early construction activities and the procurement of long-lead items	February 6, 2012
11. Approval of Letter of No Prejudice for activities related to pre-cast yard	May 17, 2012

Section III. FFGA Grant History (Grants Under the FFGA)

Grant Number	Obligation Date	Federal Amount	Funding Source	Purpose
H196X001	08/14/09	$ 4,000,000	ARRA	PE/ FEIS
HI-03-0047-00	09/23/10	$34,990,000	5309 New Starts	PE/ FEIS
HI-03-0047-01	07/01/11	$30,000,000	5309 New Starts	PE/ FEIS
HI-03-0047- 02	Pending	$55,000,000	5309 New Starts	PE/ FEIS

Subtotal PE/Environmental Analysis $ 123,990,000

Total FFGA Grants $ 123,990,000

DRAFT

ATTACHMENT 6

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Sections 3043(c)(214) and 3043(e)(3)(A) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Pub.L. 109-59, 119 Stat. 1144; Aug. 10, 2005) authorizes FTA to award Federal capital new starts funds for final design and construction of the Draper Light Rail Transit Project (the "Project"). In accordance with Federal transit law at 49 U.S.C. Chapter 53 and FTA Circular 5200.1A, Full Funding Grant Agreements Guidance (December 5, 2002), by the Execution of this Agreement the Government is limiting its commitment to provide new starts funding for the Project to those funds that have been or may be appropriated during the term of SAFETEA-LU and subsequent authorizations. The Government and the Grantee recognize, moreover, that the period of time necessary to Complete the Project may extend beyond SAFETEA-LU, as evidenced by Attachment 4 to this Agreement (Baseline Schedule).

Currently, the Government and the Grantee anticipate that the Federal capital new starts funds will be provided for the Project as follows:

Proposed Schedule of Federal Funds (Millions)

Federal Fiscal Year	ARRA Funds	Section 5309 New Starts Funds	Section 5307 Formula Funds
FY2011 and Prior	$4	$120	-
FY 2012	-	$200	-
FY 2013	-	$250	$33
FY 2014	-	$250	$34
FY 2015	-	$250	$35
FY 2016	-	$250	$35
FY 2017	-	$230	$36
FY 2018	-	-	$37
FY 2019	-	-	-
FY 2020	-	-	-
FY 2021	-	-	-
FY 2022	-	-	-
FY 2023	-	-	-
Total	$4	$1,550	$210

(1) Source of local funding is: local General Excise Tax revenues dedicated to the Project.
(2) Note: the financial plan assumes that FTA Section 5307 Formula apportionments between FY 2013 and FY 2018 will be used for Project capital costs. In other years, revenues from this program are assumed to be used towards preventative maintenance costs and ongoing capital needs.

DRAFT

ATTACHMENT 7

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Measures to Mitigate Environmental Impacts

The environmental record for the Project includes the following documents:

1. *Honolulu High-Capacity Transit Corridor Project(HHCTCP) Final Environmental Impact Statement/Section 4(f) Evaluation* signed by Federal Transit Administration (FTA) on June 14, 2010
2. Section 106 *Programmatic Agreement Among the US Department of Transportation FTA, the Hawaii State Historic Preservation Officer, the United States Navy, and the Advisory Council on Historic Preservation regarding the HHCTCP in the City and County of Honolulu, Hawaii* signed by FTA on January 11, 2011 and State Historic Preservation Officer on January 13, 2011
3. *Record of Decision on the HHCTCP in Metropolitan Honolulu, Hawaii by the Federal Transit Administration* (ROD) signed by FTA on January 18, 2011

The mitigation measures and other project features that reduce adverse impacts, to which FTA and City and County of Honolulu committed in the environmental record, may not be eliminated from the Project, except by FTA's written consent in accordance with applicable laws and regulations. City and County of Honolulu's Honolulu Authority for Rapid Transportation, transmitted to FTA the *Mitigation Monitoring Program (MMP) for Project Management Oversight of Environmental and Related Commitments in the Final Environmental Impact Statement (Final EIS), Record of Decision (ROD), and Section 106 Programmatic Agreement (PA)*, March 15, 2012. The MMP includes a table of 211 mitigation measures and a compliance monitoring manual. The purpose of the MMP is to facilitate monitoring the implementation of the mitigation measures during final design and construction. The MMP, and periodic revisions to update the implementation status of the mitigation measures, is incorporated herein by reference.

DRAFT

ATTACHMENT 8

City and County of Honolulu
Honolulu Rail Transit Project
Honolulu, Hawaii

Implementation of a "Before and After Study"

The City and County of Honolulu's Honolulu Authority for Rapid Transportation (HART) will assemble information and conduct analyses of pre- and post- project performance related to the Honolulu Rail Transit Project (the Project) in terms of its cost and impacts, evaluate the reliability of technical methods used during the planning and development of the Project, and identify potential useful improvements to those methods. Specifically, the study addresses the following requirements:

I. Required Information

HART will collect data and assemble information on six key characteristics of the Project and its associated transit services:

a. Physical Project Scope: the physical components of the Project, including environmental mitigation;
b. Service Levels: the operating characteristics of the rail system and bus service in the corridor, and in the overall system;
c. Capital Costs: total costs of construction, vehicles, engineering, management, testing, land acquisition, and other capital expenses;
d. Operation and Maintenance Costs: incremental operating/maintenance costs of the Project and the transit system; and
e. Ridership and Ridership Patterns: incremental ridership, origin/destination patterns of transit riders on the Project, wait and trip time for passengers, passenger surveys and incremental farebox revenues for the transit system, descriptions of surrounding conditions, assumptions made about those conditions and how they affect forecasts. For examples, conditions may include housing prices, traffic volumes, Transit Oriented Development, population, employment and inter-local agreements.
f. Revenues: farebox revenue forecasts and actual revenues.

II. Milestones

HART will assemble those data items that are available at a series of four key milestones in the development and operation of the Project:

a. Milestone 1 Planning and Project Development Predictions (November 2009): the predictions developed for the six characteristics of the Project that coincided with the Preliminary Engineering phase with data from the *Honolulu High-Capacity Transit Corridor Project Environmental Impact Statement/Section 4(f) Evaluation* and associated technical documents.
b. Milestone II Planning and Project Development Predictions Update (September 2011): included the update of predictions documented in Milestone I based on

changes at the conclusion of Preliminary Engineering and information in the Record of Decision.

c. Milestone III Before Conditions: will be submitted after the updated on-board survey is completed and during construction of Phase 1.

d. Milestone IV: The After/Actual Conditions: the actual outcomes for the six characteristics of the Project two years after the opening of the Project to revenue service and associated adjustments to other transit services in the corridor.

III. Plan for Data Assembly and Analysis

HART has prepared a detailed work plan that describes the technical activities and steps that will be taken to assemble the required information described above and conduct assessments of the actual results of the Project and the accuracy of predictions of those results. Milestone I and Milestone II reports have also been prepared. FTA has reviewed and approved the work plan and the milestone reports, which is incorporated by reference.

DRAFT

ATTACHMENT D

Honolulu Rail Transit Project

Final
Financial Plan for Full Funding Grant Agreement

June 2012

Prepared by:
City and County of Honolulu

Table of Contents

EXECUTIVE SUMMARY I
INTRODUCTION I
SUMMARY OF THE PROJECT FINANCIAL PLAN I
Project Capital Plan ..... *II*
Systemwide Capital Plan ..... *III*
Systemwide Operating Plan ..... *III*
Risks and Uncertainties ..... *IV*
KEY FINDINGS AND RESULTS IV
CHAPTER 1: INTRODUCTION 1-1
DESCRIPTION OF THE PROJECT SPONSOR AND FUNDING PARTNERS 1-1
Project Sponsor – City and County of Honolulu *1-1*
Funding Partners *1-2*
DESCRIPTION OF THE PROJECT 1-3
Objectives of the Project Sponsor *1-4*
Project Detail *1-4*
Integration with the Existing Bus System *1-6*
Project Timing *1-6*
Procurement and Project Delivery *1-6*
Regional Economic Conditions *1-7*
SUMMARY OF THE FINANCIAL PLAN 1-8
CHAPTER 2: CAPITAL PLAN 2-1
PROJECT CAPITAL COSTS 2-1
Capital Cost Estimating Methodology *2-2*
Contingencies *2-3*
Cost Escalation *2-3*
Project Capital Cost and Schedule *2-4*
SYSTEMWIDE AND ONGOING CAPITAL COST 2-4
CAPITAL FUNDING FOR THE PROJECT 2-7
Local GET Surcharge *2-7*
Federal Funding Sources *2-8*
FINANCING OF THE PROJECT 2-11
Project Cash Balance *2-12*
General Debt Structure and Debt Instruments *2-13*
SYSTEMWIDE CAPITAL FUNDING SOURCES 2-16
Federal Funds *2-16*
Local Capital Assistance for the Systemwide and Ongoing Project Capital Needs *2-19*
CHAPTER 3: OPERATING PLAN 3-1
OPERATING COSTS 3-1
Project O&M Costs *3-1*
TheBus O&M Costs *3-2*
TheHandi-Van O&M Costs *3-7*
Other O&M costs *3-8*
Systemwide O&M costs *3-8*
OPERATING REVENUES 3-9
Passenger Fares *3-9*
Federal Funds *3-12*

SYSTEMWIDE OPERATING PLAN 3-13
CITY CONTRIBUTION 3-13

CHAPTER 4: RISKS AND UNCERTAINTIES 4-1

CAPITAL PLAN 4-1
Capital Cost Risks *4-1*
Capital Revenue Risks *4-2*
Capital Plan Sensitivity Analyses *4-3*
OPERATING PLAN 4-5
Operating Cost Risks *4-5*
Operating Revenue Risks *4-5*
Operating Plan Sensitivity Analysis *4-6*
POTENTIAL MITIGATION STRATEGIES FOR THE CAPITAL AND OPERATING PLANS 4-6

ATTACHMENTS

ATTACHMENT A: SUMMARY CASH FLOWS – BASE CASE
ATTACHMENT B: SUMMARY CASH FLOWS – SENSITIVITY ANALYSES
ATTACHMENT C: HISTORICAL GET DATA
ATTACHMENT D: O&M COST ESCALATION ASSUMPTIONS
ATTACHMENT E: SCC WORKSHEET
ATTACHMENT F: LOCAL FINANCIAL COMMITMENT CHECKLIST
ATTACHMENT G: CHANGES TO FINANCIAL PLAN SINCE THE REQUEST TO ENTER FINAL DESIGN

List of Tables

Table ES-1, Project and Systemwide Sources and Uses of Funds, FY2010 - FY2030, YOE $millions..... II
Table 1-1, Summary of Major Project Development Milestones.....1-6
Table 1-2, Project Capital Cost Summary, FY2010–FY2030, YOE $millions.....1-8
Table 1-3, Project and Systemwide Sources and Uses of Funds, FY2010–FY2030, YOE $millions.....1-8
Table 2-1, Project Annual Capital Costs, Excluding Finance Charges, FY2010 – FY2020.....2-2
Table 2-2, List of Major Project Contracts 2-2
Table 2-3, Project Capital Costs by SCC, Excluding Finance Charges, FY2010 – FY2020.....2-3
Table 2-4, Annual Capital Expenditures by SCC, Excluding Finance Charges, FY2010 – FY2020, YOE $millions.....2-4
Table 2-5, Timing of Use of Section 5309 New Starts Revenues, YOE $millions 2-9
Table 2-6, Historical FTA Section 5307 and Section 5309 FGM Apportionments, 1996 – 2011, YOE $millions..... 2-10
Table 2-7, Summary of Federal and Non-Federal Project Capital Funding Sources 2-11
Table 2-8, Debt Proceeds, FY2010 – FY2030, YOE $millions..... 2-13
Table 2-9, FTA Sec. 5307 and 5309 FGM Apportionments and Impact of the Project, FY2010 – FY2030, YOE $millions 2-18
Table 3-1, Level of Service Variables and Unit Costs for O&M Costs Incurred Directly by HART 3-1
Table 3-2, TheBus Level of Service Variables and Unit Costs 3-4
Table 3-3, TheBus Unit O&M Cost Inflation Assumptions 3-6
Table 3-4, TheBus Fare Structure and History 3-11
Table 4-1. Summary of Stress Test Results for Capital Plan Sensitivity Scenario 1.....4-4

List of Figures

Figure 1-1, Project Location Map 1-5
Figure 2-1, Project Sources and Uses of Funds, YOE $millions.....2-1
Figure 2-2, Ongoing Capital Expenditures, FY2010 – FY2030, YOE $millions 2-6
Figure 2-3, Total Systemwide Capital Expenditures, FY2010 – FY2030, YOE $millions 2-6
Figure 2-4, Annual Net GET Surcharge Revenues, FY2007 - FY2023, YOE $millions 2-7
Figure 2-5, Project Capital Sources and Uses of Funds, FY2010 – FY2030, YOE $millions 2-12
Figure 2-6, Total Annual Debt Service, FY2010 – FY2030, YOE $millions 2-14
Figure 2-7, Total Annual Finance Charges, FY2010 – FY2030, YOE $millions..... 2-16
Figure 2-8, Use of Non-New Starts Federal Revenues, FY2010 – FY2030, YOE $millions..... 2-17
Figure 3-1, Project O&M Costs, FY2010 – FY2030, YOE $millions.....3-2
Figure 3-2, TheBus Peak Vehicles by Bus Type, FY2010 – FY2030 3-3
Figure 3-3, TheBus Revenue Vehicle Miles, FY2010 – FY2030.....3-3
Figure 3-4, TheBus Level of Service Variables by Object Class, FY2006 – FY2011 3-5
Figure 3-5, TheBus Total O&M Costs, FY2011 – FY2030, YOE $millions.....3-7
Figure 3-6, Total Systemwide O&M Costs, FY2010 – FY2030, YOE $millions.....3-8

Figure 3-7, Average Fare Grown at CPI-U vs. Periodic Increases, FY2011 – FY2030, YOE $ 3-9
Figure 3-8, Rail and Bus Farebox Recovery Ratio (FRR), FY2011 – FY2030 3-10
Figure 3-9, Historical and Forecasted Linked Trips for TheBus and the Project, FY2004 – FY2030, millions of Trips 3-12
Figure 3-10, Operating Costs and Revenues, FY2010 – FY2030, YOE $millions 3-13
Figure 3-11, Operating Revenues and City Contribution, FY2010 – FY2030 3-15

List of Acronyms

ARRA	American Recovery and Reinvestment Act of 2009
BLS	U.S. Bureau of Labor Statistics
CAGR	Compounded Annual Growth Rate
CARP	Capital Asset Replacement Program
CBO	Congressional Budget Office
CPI-U	Consumer Price Index All Urban Consumers
DBEDT	State of Hawai‘i Department of Business, Economic Development and Tourism
DBOM	Design-Build-Operate-Maintain
DTS	Department of Transportation Services, City and County of Honolulu
FD	Final Design
FFGA	Full Funding Grant Agreement
FGM	Fixed Guideway Modernization
FRR	Farebox Recovery Ratio
FTA	Federal Transit Administration, U.S. Department of Transportation
FY	Fiscal Year
GDP	Gross Domestic Product
GET	General Excise and Use Tax
GO	General Obligation
H-1	Interstate H-1, which runs through the Project corridor
H-2	Interstate H-2, which feeds into Interstate H-1
H-3	Interstate H-3, which feeds into Interstate H-1
HART	Honolulu Authority for Rapid Transportation, City and County of Honolulu
HOV	High Occupancy Vehicle
JARC	Job Access and Reverse Commute
LONP	Letter of No Prejudice
M	Millions
MSF	Maintenance and Storage Facility and Yard
O&M	Operations and Maintenance
ORTP	(2030) O‘ahu Regional Transportation Plan
OTS	O‘ahu Transit Services, Inc.
PE	Preliminary Engineering
PTD	Public Transit Division, Department of Transportation Services
RVH	Revenue Vehicle Hour
SCC	Standard Cost Category
TECP	Tax Exempt Commercial Paper
TIP	Transportation Improvement Program
YOE	Year of Expenditure

EXECUTIVE SUMMARY

INTRODUCTION

The Honolulu Rail Transit Project (the Project) is a 20.1 mile proposed rail transit system in Honolulu extending from East Kapolei in the west to Ala Moana Center in the east via the Honolulu International Airport. The Project is intended to provide a high-capacity, high-speed transit service in the highly congested east-west corridor; and to improve mobility, transit reliability, and service equity for over 68 percent of O‘ahu’s residents and over 83 percent of its workforce who live and work in the areas within and connecting to this corridor, and for its many visitors. Revenue service from East Kapolei to Aloha Stadium is expected to start in fiscal year (FY) 2016, and service to Ala Moana Center is expected to start in FY2019.

Planning, construction, operations, and maintenance of the Project are the responsibility of the Honolulu Authority for Rapid Transportation (HART) which functions as a semi-autonomous unit of the City and County of Honolulu’s (City) government. Fixed route bus (TheBus) and paratransit (TheHandi-Van) services continue to be provided through a management services contract with O‘ahu Transit Services, Inc. and overseen by the Department of Transportation Services’ Public Transit Division.

The Project will be fully integrated with TheBus operations, which will be reconfigured to add feeder bus service to provide increased frequency and more transfer opportunities between bus and rail. The new rail and enhanced TheBus service will provide additional travel options, increase service frequencies, expand the hours of operation, minimize wait times, reduce total travel times, improve service reliability, and enhance comfort and convenience for passengers, resulting in over 20 million hours of user benefits annually.

This financial plan was prepared to support the City’s submittal to the Federal Transit Administration (FTA) for Full Funding Grant Agreement (FFGA) approval for the Project. It is consistent with FTA’s *Guidance for Transit Financial Plans* issued in June, 2000, and subsequent guidance at New Starts workshops, as well as the *Guidelines and Standards for Assessing Local Financial Commitment*, issued by FTA in June, 2007, and the *Reporting Instructions for the Section 5309 New Starts Criteria*, issued in August 2011.

The financial plan provides a summary of the capital costs and funding sources associated with both the Project and the City’s ongoing capital needs for its existing public transportation system. It then describes the City’s plan to fund the operations and maintenance (O&M) costs associated with the Project, TheBus, and TheHandi-Van services. The last section presents the results of three sensitivity analyses and potential mitigation strategies.

SUMMARY OF THE PROJECT FINANCIAL PLAN

Table ES-1 summarizes the capital and operating sources and uses of funds for the Project, as well as for the entire transit system over the FY2010 – FY2030 period. This table shows that the financial plan is expected to be balanced for both capital and operating needs. The $193 million projected ending cash balance is assumed to be transferred to ongoing rail capital and operating needs. The following sections outline the key inputs and results of the financial plan.

Table ES-1, Project and Systemwide Sources and Uses of Funds, FY2010 - FY2030, YOE $millions

SOURCES OF FUNDS	YOE $M
Project Capital Sources of Funds	
Project Beginning Cash Balance	298
Net GET Surcharge Revenues	3,291
FTA Section 5309 New Starts Revenues	1,550
FTA Section 5307 Formula and ARRA Funds Used for the Project 1/	214
Interest Income	3
Transfer from Project Cash Balance to Ongoing Rail Capital and O&M Cost	(193)
Subtotal Project Capital Sources of Funds	$5,163
Ongoing Capital Sources of Funds	
FTA Section 5309 Fixed Guideway Modernization	80
FTA Section 5309 Bus Discretionary	116
FTA Section 5307 Formula Funds Used for Ongoing Capital Cost	499
FTA Section 5307 and 5309 Grants Carryover from Prior Years	50
American Recovery and Reinvestment Act	26
FTA Section 5316 (JARC) and 5317 (New Freedom)	0
Transfers to the State's Vanpool Program	(3)
Transfer from Project Cash Balance to Ongoing Rail Capital Cost	54
City General Obligation Bond Proceeds	404
Subtotal Ongoing Capital Sources of Funds	$1,225
TOTAL CAPITAL SOURCES OF FUNDS	$6,388
Operating Sources of Funds	
Fare Revenues (TheBus and Rail)	2,098
Fare Revenues (TheHandi-Van)	60
Subtotal Fare Revenues	$2,158
FTA Section 5307 Formula Funds Used for Preventative Maintenance	247
FTA Section 5316 (JARC) and 5317 (New Freedom)	20
Transfer from Project Cash Balance to Rail O&M Cost	140
City Operating Subsidy	5,871
TOTAL OPERATING SOURCES OF FUNDS	$8,436

USES OF FUNDS	YOE $M
Project Capital Uses of Funds	
Project Capital Cost	4,949
Subtotal Project Capital Cost	$4,949
Finance Charges	
Interest Payment on GO Bonds Issued for the Project	191
Interest Payment on Tax-Exempt Commercial Paper	10
GO Bond Issuance Cost	13
Subtotal Finance Charges	$215
Subtotal Project Capital Uses of Funds	$5,163
Ongoing Capital Uses of Funds	
Additional Railcar Acquisitions	35
Project Capital Asset Replacement Program	150
TheBus Vehicle Acqusitions	667
Other Capital Cost	235
TheHandi-Van Vehicle Acquisitions	138
Subtotal Ongoing Capital Uses of Funds	$1,225
TOTAL CAPITAL USES OF FUNDS	$6,388
Operating Uses of Funds	
TheBus O&M Costs	5,459
Rail O&M Costs	1,613
TheHandi-Van O&M Costs	1,310
Other O&M Costs	55
TOTAL OPERATING USES OF FUNDS	$8,436

1/ Includes $4M from American Recovery & Reinvestment Act of 2009

Note: totals may not add due to rounding

PROJECT CAPITAL PLAN

Project Capital Cost Estimate: The capital cost of the Project without finance charges is $4,949 million in year-of-expenditure (YOE) dollars. The Baseline Project Cost for the FFGA is $5,122 million in YOE dollars, and includes finance charges through FY2020. This capital cost estimate reflects advanced preliminary engineering, cost estimation methodologies, and actual contract bid prices. The Project cost through FY2023 totals $5,163 million in YOE dollars and includes all finance charges associated with the Project construction. The capital cost is substantiated by the use of refined “bottom-up” cost estimation, extensive risk assessment, input from FTA’s Project Management Oversight Contractor, and the fact that approximately 41 percent of the Project’s cost (without contingency) is reflective of contracts that have already been awarded for several major project components. The Baseline Project Cost also includes a variety of allocated and unallocated contingencies in the cost estimate to allow for potential unexpected expenses, which is common practice in major construction projects. The total Project contingency is about 15 percent of YOE cost without contingencies.

Local Funding: The dedicated local funding source for the implementation of the Project is an established one-half percent (0.5 percent) county surcharge on the State of Hawai‘i’s General Excise and Use Tax (GET). The GET Surcharge commenced on January 1, 2007 and, under current enabling legislation, will be levied through December 31, 2022. This source of revenue is to be used exclusively for the capital and/or O&M expenditures of the Project. The plan reflects actual receipts through FY2012, and then assumes that GET Surcharge revenues will grow at a rate of 5.04 percent in line with the long-term historical growth experienced by statewide GET revenues. Total revenues from the GET Surcharge are expected to total approximately $3.7 billion between FY2007 and FY2023. Based on collections

through March 31, 2012, the City has already received approximately 23 percent of the expected total, amounting to $860 million.

Federal Funding: The City is requesting a total of $1.55 billion in FTA New Starts funding, which is assumed to be expended through FY2017, with annual amounts of up to $250 million per year. The City has already received $120 million in appropriations between FY2008 and FY2011 from the New Starts program. This amount of New Starts funding is on par with several other projects that have received FFGAs in recent years, including the East Side Access and Second Avenue Subway projects in New York City, and the Dulles Corridor Metrorail Project in Northern Virginia. The assumed annual amount of New Starts funding is also not unprecedented since both the East Side Access and Second Avenue Subway projects received over $200 million in New Starts funds in Federal FY2010. Total New Starts funding requested for the Project amounts to 30.3 percent of the Project cost.

FTA Section 5307 Urbanized Area Formula funds will also fund portions of the Project between FY2014 and FY2019. In total, the Project is expected to utilize approximately $210 million in Section 5307 funds during the construction period, representing approximately 4 percent of the Project cost. .Going forward, the City and HART plan to review the Project's funding requirements each year and apply Section 5307 funds that are currently identified in this plan for use on Project construction to other City transit needs if doing so will not affect the integrity of the Project financial plan.

Project Financing: The debt financing plan for the Project has been developed with the goals of preserving the City's financial condition, minimizing finance charges, and providing for repayment solely from Project revenues by FY2023. In the years in which capital expenditures are greater than the funding available on a pay as you go basis, a mix of General Obligation (GO) bonds (backed by Project revenues) and short-term borrowing in the form of Tax-Exempt Commercial Paper (TECP), would be used to meet Project funding needs. The use of these debt instruments is also necessary for the Project to be completed in FY2019 as currently scheduled.

The City expects to utilize $100 million of its existing $450 million total TECP capacity on a 270-day revolving basis between FY2014 and FY2018. After FY2018, when the $100 million in TECP capacity is no longer needed to finance Project construction, the City would still have access to the entire $450 million in authorized TECP capacity.

SYSTEMWIDE CAPITAL PLAN

Ongoing Capital Needs: The capital plan includes ongoing costs to replace, rehabilitate, and maintain capital assets in a state of good repair as well as necessary expansion of the existing system to accommodate forecasted FY2030 demand levels. The City is committed to maintaining the existing transit system in a state of good repair. The City's planned bus fleet replacement schedule is expected to result in an average bus age of 7.5 years by FY2020, which corresponds to the first full year of operations of the Project. This is lower than TheBus' current average fleet age of 10.1 years.

Funding Sources: FTA Section 5307 Urbanized Area Formula program, FTA Section 5309 Fixed Guideway Modernization (FGM) program, and FTA Section 5309 Bus and Bus-Related Equipment and Facilities program will continue to provide assistance for ongoing capital expenditures for the existing transit system – with funding levels from the first two programs expected to increase after the Project is implemented. Starting in FY2020, Section 5307 funds will be available for systemwide capital needs as well as for preventive maintenance for TheBus.

SYSTEMWIDE OPERATING PLAN

O&M Costs: The O&M cost estimates for the Project reflect current economic conditions, as well as the terms of the Core Systems Contract. Rail O&M costs that are not covered under the Core Systems Contract (and thus provided directly by HART) include the projected costs of administrative and management personnel for the HART organization. TheBus O&M costs were developed using existing bus

operations as the baseline and anticipated service levels through FY2030. Finally, TheHandi-Van O&M costs were calculated by applying the FY2011 cost per rider to the projected ridership.

Operating Revenues: Several sources of funds will be used to support transit operations, including fare revenues and Federal funds for preventive maintenance activities, and transfers from the City's General and Highway funds. Consistent with current policy, the City will continue to increase fares periodically for transit operations to ensure that the farebox recovery ratio remains between 27 percent and 33 percent and keeps pace with inflation. The City will utilize Section 5307 Formula funds to pay for preventive maintenance activities for TheBus, with the exception of fiscal years 2014 through 2019, and will continue to receive funds from FTA Section 5316 (Job Access and Reverse Commute) and Section 5317 (New Freedom) programs to fund operations for projects serving low-income communities. Transit operations will be subsidized with local funds through transfers from the City's General and Highway funds.

RISKS AND UNCERTAINTIES

The financial plan discusses several potential risks to the cost and revenue assumptions, and presents strategies for mitigating these risks in the unlikely event that they would be needed. Three stress tests were analyzed using scenarios that are consistent with FTA's procedures for reviewing financial plans for an FFGA: a 10 percent increase in Project capital cost incurred after the FFGA; a lower growth rate for net GET Surcharge revenues; and an increase in the City's operating subsidy requirement.

The City has developed a risk and contingency management plan and is committed to enacting cost containment measures as a primary tool to maintain the Project's capital cost within the Baseline budget. If needed, the City also has various strategies to mitigate these downside risks using mechanisms that are currently in place, including additional debt capacity available to the City through the issuance of GO debt backed by excess Project revenues. As a last source of mitigation, the City could also utilize its existing TECP program for short-term financing needs. Other potential mitigating strategies that could be utilized by the City include value capture mechanisms, advertising and parking revenues, and extending the GET Surcharge revenues (although this would require legislative amendment).

KEY FINDINGS AND RESULTS

The City has the financial capacity to implement, operate, and maintain the Project, while maintaining the rest of its public transportation system in a state of good repair. The following summarizes key findings from the financial plan:

- With 70 percent of capital funding provided from non-New Starts sources, the City's financial commitment to the Project merits approval for a Full Funding Grant Agreement with FTA. The City is requesting only 30 percent Federal participation from the FTA New Starts program. Moreover, all of the local capital funding for the Project is fully committed through GET Surcharge revenues which can be used exclusively for Project ongoing capital or O&M expenditures.

- The City has enough financial capacity to fund the Project capital cost and cover unexpected cost overruns or revenue shortfalls. Based on the assumptions presented in this financial plan, the City is expected to have excess funding capacity. While the City has many options on how to utilize this excess capacity, the financial plan assumes that up to $139 million will be deposited in a Project reserve fund out of the first issuance of GO bonds in FY2014. These reserve funds would be maintained throughout the construction period and released in FY2023 to repay a portion of that year's debt service obligations. This structure is one of many options available to the City on how to use the excess funding capacity and does not constitute a legal requirement under current law. As such, the reserve funds could also be available to cover Project capital cost increases or revenue shortfalls during the construction period if needed.

The proposed debt structure also results in a Project cash balance that accrues to a total of $193 million by the end of FY2023. This balance will be first applied to the Project's ongoing capital needs, and then to its O&M needs, thus reducing the amount of City funds needed for ongoing capital needs and O&M costs.

- The City will receive additional Federal funds for capital and capital O&M needs as a result of the Project. The City is expected to receive approximately $103 million in additional Section 5307 Urbanized Area Formula funds and $27 million in additional Section 5309 FGM funds between FY2020 and FY2030 due to the implementation of the Project, based on the formula that FTA uses to apportion these funds. This $130 million in additional funds can be used to support systemwide needs.

- Rail provides the most cost-effective option for handling future transit demand. In part due to labor costs accounting for a smaller percentage of the Project's cost structure than TheBus, the Project will handle larger volumes of passengers at higher levels of productivity. In FY2030, the Project will move each passenger at a cost of $0.43 per mile, whereas TheBus will move each passenger at a cost of $0.80 per mile. Similarly, in FY2030 the rail system will recoup approximately 34 percent of its O&M costs from fare revenues, while TheBus will recoup approximately 26 percent. This illustrates the fact that, once fully implemented, the Project is expected to carry a larger load relative to its O&M cost than TheBus. The expected passenger fares for bus and rail will be consistent with current City policy.

- The costs to operate the City's transit system are still expected to be attributable mostly to TheBus operations, as the Project is expected to account for only about 23 percent of total O&M costs between FY2017 and FY2030. Historically, the City has been a strong supporter of transit, with 11 percent of City funds that are available for public transportation currently used to support the operations of TheBus and TheHandi-Van services. Including rail, the share of these funds used to support transit is expected to average 16 percent through FY2030.

- The City has a feasible, cost-effective, and prudent financial plan for implementing the Project. The City will continue to monitor Project activities and market conditions for potential financial risks to ensure that there is no impact to the City's General or Highway funds.

Chapter 1: INTRODUCTION

This report provides an updated financial plan for implementing and operating the approximately 20-mile rail transit project in Honolulu from East Kapolei to Ala Moana Center via the Honolulu International Airport (the Project), as well as operating and maintaining the existing public transportation system in a state of good repair. This version of the financial plan is a revision to the plan submitted in September 2011 for approval to advance the Project to the Final Design (FD) phase (see Attachment G for key changes to financial plan since the request to enter FD). It supports the City and County of Honolulu's (City's) submittal to the Federal Transit Administration (FTA) for Full Funding Grant Agreement (FFGA) approval. This financial plan meets FTA's requirements for a Project seeking an FFGA.

Unless otherwise noted, all amounts in this financial plan are presented on a City fiscal year (FY) basis, from July 1 to June 30. For example, FY2013 refers to the City's fiscal year starting on July 1, 2012 and ending on June 30, 2013. All dollar amounts shown, unless otherwise noted, are in millions of year-of-expenditure (YOE) dollars.

This financial plan consists of three main components that are presented in the following chapters. The first component is the capital plan, which outlines capital costs and presents revenues available for the Project, as well as for the rest of the public transportation system. The purpose of the capital plan is to demonstrate that the City has the financial capacity to implement the Project, while keeping its public transportation system in a state of good repair by replacing vehicles that have met their useful service life and addressing other ongoing capital needs.

The second component is the operating plan, which demonstrates the capacity of the City to operate and maintain the integrated transit system including the Project. The final component presents an analysis of risks and uncertainties, which is critical in assessing the potential risks inherent to some of the assumptions made in the financial plan. The final section also includes an analysis of mitigating strategies to address these risks, as well as sensitivity analyses to evaluate funding and financing options to overcome potential shortfalls.

DESCRIPTION OF THE PROJECT SPONSOR AND FUNDING PARTNERS

PROJECT SPONSOR – CITY AND COUNTY OF HONOLULU

The City is the Project sponsor and FTA grantee. The City is a body politic and corporate, as provided in Section 1-101 of the Revised Charter of the City and County of Honolulu 1973, as amended. The City's governmental structure consists of the Legislative Branch, the Executive Branch, and three other governmental units: The Board of Water Supply, the Department of the Prosecuting Attorney, and the Honolulu Authority for Rapid Transportation (HART).

The legislative power of the City is vested in and exercised by an elected nine-member City Council whose terms are staggered and limited to no more than two consecutive four-year terms. The executive power of the City is vested in and exercised by an elected Mayor, whose term is limited to no more than two consecutive full four-year terms.

The City is authorized under Chapter 51 of the Hawai‘i Revised Statutes to "acquire, condemn, purchase, lease, construct, extend, own, maintain, and operate mass transit systems, including, without being limited to, motor buses, street railroads, fixed rail facilities such as monorails or subways, whether surface, subsurface, or elevated, taxis, and other forms of transportation for hire for passengers and their personal baggage." This authority may be carried out either directly, jointly, or under contract with private parties. The City is the designated recipient of FTA Urbanized Area Formula Funds apportioned to the Honolulu and Kailua-Kāne‘ohe urbanized areas. Transit services are currently provided through a

management services contract with O‘ahu Transit Services, Inc. (OTS) and overseen by the City’s Department of Transportation Services’ (DTS) Public Transit Division (PTD).

Honolulu Authority for Rapid Transportation

On November 2, 2010, O‘ahu voters approved an amendment to the Charter of the City and County of Honolulu to create a semi-autonomous public transit authority responsible for the planning, construction, operation, maintenance, and expansion of the City’s fixed guideway mass transit system.

HART began operating on July 1, 2011 and assumed the duties and responsibilities of the DTS Rapid Transit Division for the Project. Accordingly, FY2012 is the first year of business activities for HART. The agency consists of a Board of Directors, Executive Director, and professional staff.

HART functions as a semi-autonomous unit of the City’s government. During FY2012 HART continues to use various City business systems and administrative practices in the conduct of the new authority’s business activities (e.g., City Department of Budget and Fiscal Services accounting and payroll systems). In addition, HART continues to receive services provided by other City departments. Memoranda of Understanding with the City departments set forth the scope and terms of the services to be provided. This support from the City has enabled HART to begin functioning relatively quickly and assume its responsibilities for undertaking the Project without any negative impact on its implementation. During FY2013 and beyond, HART will evaluate the extent to which it should develop its own business systems.

HART has completed a number of steps during its first year of operations in order to develop the organizational capability and capacity to fulfill its mission. Tasks that have been accomplished thus far in FY2012 include the following:

- Adopted Board of Directors rules, operating procedures and practices including a committee structure and meeting schedule.
- Adopted Board of Directors policies guiding agency business activities (e.g., financial policy and procurement policy).
- Developed administrative procedures and practices that are specific to a transit agency in areas such as procurement and contract administration; safety and security; employee relations; and management reporting.
- Developed a management reporting system on key performance metrics.
- Created an organizational structure that will enable fulfillment of the agency’s Mission and Vision.
- Hired an Executive Director and a Chief Financial Officer.

Department of Transportation Services – Public Transit Division

The DTS PTD will continue to be responsible for managing the City’s fixed route bus and paratransit services operated under contract by OTS. The City’s fixed route bus system is referred to as “TheBus,” and is currently the 23rd most utilized transit system in the U.S. Annual transit passenger miles per-capita in Honolulu are higher than in all other major U.S. cities, with the exception of New York City; and is the highest in all major cities without a fixed guideway transit system. TheBus serves the entire island of O‘ahu, including the estimated 950,000 residents and 100,000 visitors on the island on an average day. TheBus currently has 97 fixed routes and 4 deviation routes and provides approximately 74 million unlinked passenger trips each year. In 1997, OTS was assigned operating responsibility for the City’s paratransit services, referred to as the “TheHandi-Van.” With more than 13,000 eligible customers, TheHandi-Van currently provides over 940,000 unlinked passenger trips per year.

FUNDING PARTNERS

The financial analysis applies and assumes capital funding projections from two major funding partners: the City and FTA. The financial analysis applies several sources of operating funds, mainly consisting of passenger revenues, Federal formula grants for preventive maintenance activities, and subsidies from the

City’s General and Highway funds. Capital and operating funding sources are further described both below and in subsequent chapters of this report.

City and County of Honolulu

The dedicated local funding source for the implementation of the Project is an established one-half percent (0.5 percent) county surcharge on the State of Hawai‘i’s General Excise and Use Tax (GET). In 2005, the Hawai‘i State Legislature authorized the counties to adopt a maximum 0.5 percent GET Surcharge for public transportation projects. Following this authorization, the City enacted Ordinance No. 05-027 establishing the 0.5 percent GET Surcharge. The GET Surcharge commenced on January 1, 2007, and will be levied through December 31, 2022. The last installment of the Surcharge is to be received by HART in January 2023.

Business activities that take place on O‘ahu that are subject to the 4 percent GET rate (including retailing of goods and services, contracting, renting real property or tangible personal property, and interest income) are also subject to the GET Surcharge.

This source of revenue is to be exclusively used for the operating and/or capital expenditures of a fixed guideway system. The Hawai‘i Department of Taxation is responsible for collecting the GET Surcharge and remitting to the City the net amount after retaining 10 percent of the gross proceeds. The financial plan projects that revenues from the GET Surcharge will be approximately $3.7 billion (FY2007–FY2023). Based on collections through March 31, 2012, the City has already received approximately 23 percent of the expected total or $860 million.

Federal Transit Administration

Federal funding assistance from FTA is assumed in the financial plan for Project capital expenditures. The City is requesting a total of $1.55 billion in FTA New Starts funding to implement the Project. The City has already received $120 million in appropriations between FY2008 and FY2011 from the New Starts program. FTA Urbanized Area Formula funds and non-New Starts discretionary capital investment funds will also fund portions of the Project, as well as continue to provide assistance for preventive maintenance and ongoing capital expenditures for the entire transit system. In FY2010, the City was awarded $29 million in funds from the American Reinvestment and Recovery Act (ARRA), $4 million of which were applied to Preliminary Engineering (PE) costs for the Project, with the remainder being used in FY2010 and FY2011 for other capital needs.

DESCRIPTION OF THE PROJECT

The Project’s east-west corridor stretches across southern O‘ahu. The corridor is, at most, 4 miles wide because much of it is bounded by the Ko‘olau and Waianae Mountain Ranges in the north and the Pacific Ocean in the south. Between Pearl City and Aiea the corridor’s width is less than 1 mile.

Between Kapolei and the University of Hawai‘i at Mānoa, the corridor is highly congested with more than 60 percent of O‘ahu’s population residing in that area. The City and County of Honolulu General Plan (Honolulu General Plan, DPP 1997a) directs future population growth to the ‘Ewa and Primary Urban Center Development Plan areas and the Central O‘ahu Sustainable Communities Plan area. The largest increases in population and employment growth are expected to occur in the ‘Ewa, Waipahu, Downtown and Kaka‘ako Districts, which are all located in the corridor.

According to the 2000 census, Honolulu ranks as the fifth densest city among U.S. cities with a population greater than 500,000. Among those, Honolulu is the only one without a fixed guideway transit system.

Increasing traffic congestion has impacted the accessibility of the corridor, reduced mobility for people and goods, degraded transit performance, and increased travel costs. The longer travel times reduce the

attractiveness of new developments emerging in ‘Ewa-Kapolei. Average weekday peak-period speeds on Interstate Route H-1 (H-1 Freeway), which runs through the corridor with the H-2 and H-3 Freeways feeding into it, are currently less than 20 miles per hour in many places and will degrade further by FY2030. Travelers on O‘ahu’s roadways experienced 71,800 vehicle hours of delay, a measure of how much time is lost daily by travelers in traffic, on a typical weekday in FY2007. This is expected to increase to 104,700 hours by FY2030, assuming all planned improvements in the O‘ahu Regional Transportation Plan (ORTP) are implemented (excluding a fixed guideway system). With the implementation of the Project, the vehicle hours of delay would be reduced to 85,800 vehicle hours.

OBJECTIVES OF THE PROJECT SPONSOR

The City’s goal for the Project is to provide high-capacity, high-speed transit service in the congested east-west transportation corridor mentioned above, as specified in the ORTP. The Project is intended to provide faster, more reliable transportation in the corridor and to provide basic mobility in areas with diverse populations.

The following objectives were used to select the Project:

- Improve corridor mobility
- Encourage patterns of smart growth and support City land use policies for growth
- Improve transit service reliability
- Provide equitable transportation solutions for all people in the corridor

Implementation of the Project, in conjunction with other improvements in the ORTP, will moderate the growth of anticipated traffic congestion in the corridor, provide an alternative to private automobile use, and improve transit linkages to and within the corridor. The Project also supports the goals of the City’s General Plan and the ORTP by serving areas designated for urban growth.

PROJECT DETAIL

The Project, on which this financial plan is based, is a 20.1-mile rail transit system extending from East Kapolei in the west to the Ala Moana Center in the east and is shown on Figure 1-1. The alignment is elevated, with the exception of 0.6 miles that will be constructed at-grade. The alignment will include 21 stations.

The Project is planned to be delivered in four design and construction sections. The first section is the portion between East Kapolei and Pearl Highlands, and includes construction of the Maintenance Storage Facility and Yard (MSF). The second section will be constructed from Pearl Highlands to Aloha Stadium. The third section will be constructed from Aloha Stadium to Middle Street, and the final section will continue to the Ala Moana Center.

Engineering and design for the Project continues and limited construction work began in April 2012 following receipt of a Letter of No Prejudice (LONP) from FTA. In May 2012 HART also received authorization which covered the pre-cast yard for the guideway segments. Construction of the rest of the Project will be completed following an FFGA. Commencement of revenue service from East Kapolei to Aloha Stadium is proposed to start in FY2016, with the entire Project operating in FY2019. Full project closeout and completion is expected to take place in FY2020.

Cost estimates for the Project presented in this financial plan reflect a steel-wheel-on-steel rail automated technology, operating primarily on elevated guideway using high floor vehicles and a barrier-free fare collection system.

Figure 1-1, Project Location Map

INTEGRATION WITH THE EXISTING BUS SYSTEM

The Project will be fully integrated with TheBus operations, which will be reconfigured to add feeder bus service to provide increased frequency and more transfer opportunities between bus and rail.

The financial plan assumes fares will be the same for TheBus and the Project, with free transfers and passes allowed on both modes. Fare vending machines will be available at all rail stations, and standard fareboxes will continue to be used on all buses. More information regarding the fare structure and fare revenues can be found in Chapter 3.

PROJECT TIMING

The City initiated technical and engineering work in support of the National Environmental Policy Act in late 2007 and received FTA approval to proceed into PE on October 16, 2009. On January 18, 2011, FTA issued a Record of Decision for the Project and provided pre-award authority for right-of-way acquisition, utility relocation, and acquisition of rail vehicles. In May 2011 FTA issued an LONP for limited FD activities, and in February 2012 FTA issued a second LONP for limited Project construction. In May 2012, FTA provided additional authorization which covered the pre-cast yard for the guideway segments. A summary of the major Project development milestones is provided in Table 1-1. The Project schedule is subject to change as procurement and phasing decisions are finalized.

Table 1-1, Summary of Major Project Development Milestones

Milestone	Date
FTA Approves Entry into Preliminary Engineering	October 16, 2009
FTA Issues Record of Decision	January 18, 2011
City Submits LONP Request for Limited Final Design Activities	April 2011
FTA Approves Limited Final Design LONP	May 2011
City Requests Entry into Final Design	October 2011
FTA Provides Final Design Approval	December 2011
City Submits LONP Request for Limited Construction Activities	December 2011
FTA Approves Limited Construction LONP	February 2012
City Requests FFGA	June 2012
City and FTA Execute FFGA	October 2012
Open East Kapolei to Aloha Stadium	June 2016
Open East Kapolei to Ala Moana Center	March 2019

LONP = Letter of No Prejudice // FFGA = Full Funding Grant Agreement

PROCUREMENT AND PROJECT DELIVERY

The Project will be implemented using various contract types. The MSF and the guideway from the East Kapolei to Aloha Stadium will be constructed under multiple design-build agreements, where contractors will share in the risks of the Project, resulting in expected cost savings to the City. The guideway from Aloha Stadium to Ala Moana Center will be designed and constructed using the design-bid-build method. Elevators and escalators will be provided on a Manufacture, Install and Maintain basis.

The Core Systems Contract (systems and vehicles) was awarded in 2011 as a design-build-operate-maintain (DBOM) agreement, with the expectation that the operations and maintenance (O&M) component could be extended to 10 years beyond the completion of the full Project opening in FY2019. Consistent with the project development milestones, the following summarizes the O&M periods for the Core Systems Contract:

- Intermediate O&M Period– East Kapolei to Aloha Stadium – June 2016 to March 2019
- Full O&M Period – East Kapolei to Ala Moana Center – March 2019 to March 2024
- Optional O&M Period – East Kapolei to Ala Moana Center –March 2024 to March 2029

The cost estimates presented in this report were developed based on contract bid prices for the Core Systems Contract and construction contracts for the first phase of the Project. Additional information about the procurement and delivery strategy is provided in Chapter 2.

REGIONAL ECONOMIC CONDITIONS

Unlike a sales tax which is typically levied on retail activities only, the 0.5 percent GET Surcharge is levied on retail, services, contracting, theater, amusement parks, interest, commissions, hotels, all other rentals, and other uses.

The local economy has generally followed the trends of the nation as a whole in the recent months. Overall, the State of Hawai‘i Department of Business Economic Development and Tourism (DBEDT) estimates that the economic recovery began in 2010, as real gross State product increased 1.4 percent in 2010 and 1.2 percent in 2011. Further, DBEDT forecasts growth between 1.8 and 2.2 percent from 2012 to 2015.

Tourism plays an important role in Hawai‘i’s economy, and historical data shows there has been a strong correlation between GET collections and the number of visitors. The State of Hawai‘i Tourism Authority estimates that tourism spending accounts for 18.5 percent of the State’s economy, and tourism-related employment accounts for more than 152,000 jobs. The decline in tourism activity and spending in 2009 affected Hawai‘i. However, DBEDT has reported that visitor expenditures increased by 10.6 percent in 2010 and 15.4 percent in 2011, and are forecasted to increase by 6.4 percent in 2012. This recovery is expected to continue in the long-term and would lead to increases in GET Surcharge revenues.

Employment in Honolulu is heavily influenced by the construction and contracting sector, and military and military-related jobs. With the recent downturn in the housing market, residential and non-residential construction has slowed; however, the private residential and non-residential construction is expected to resume after housing prices stabilize through 2012. Furthermore, the infrastructure spending provisions of the Federal economic stimulus bill have started to take effect and will continue through 2012, increasing demand for construction-related labor, which could potentially increase tax receipts.

Another important area of Honolulu’s economy is the stability of military employment. Even though it has declined by more than 20 percent in the last 10 to 15 years, military employment has maintained a consistent presence with about 59,000 U.S. Department of Defense military and civilian personnel each year. Federal defense spending makes up approximately 10 percent of the total O‘ahu economy due to military and supporting civilian employment. The stability of this employment contributes to the overall economy, although Federal defense spending is not likely to contribute to growth in the coming years as much as expansion in private industry.

Together, all of these trends show that while Honolulu’s economy was recently in a downturn along with the rest of the country, signs of recovery began in 2010. According to DBEDT’s second quarter 2012 economic outlook, Hawai‘i’s economy is expected to continue positive growth for the rest of 2012 and into 2013. Given the dependence of the Project’s financial plan on GET Surcharge revenues, the local economic environment in Hawai‘i is very important. Additional details regarding projections of GET Surcharge revenues can be found later in this report.

SUMMARY OF THE FINANCIAL PLAN

Table 1-2 summarizes the capital cost of the Project with and without finance charges. The total capital cost including finance charges through FY2020 will be the amount included in an FFGA as the “Baseline Project Cost”, as is consistent with FTA guidelines for New Starts projects. The total capital cost with finance charges through FY2023 includes all finance charges associated with the Project construction.

Table 1-2, Project Capital Cost Summary, FY2010–FY2030, YOE $millions

	YOE $M
Project Capital Cost Excluding Unallocated Contingency and Finance Charges	$4,847
Unallocated Contingency	$102
Project Capital Cost Excluding Finance Charges	$4,949
Finance Charges through FY2020	$173
Baseline Project Capital Cost for FFGA	$5,122
Finance Charges from FY2021 to FY2023	$42
Total Project Capital Uses of Funds	$5,163

Note: Totals may not add due to rounding

Table 1-3 summarizes the capital and operating sources and uses of funds for the Project, as well as for the entire transit system. Sources and uses are based on the baseline assumptions as defined in the subsequent chapters of this report. The City is expected to balance sources and uses in aggregate over the FY2010 – FY2030 period.

Table 1-3, Project and Systemwide Sources and Uses of Funds, FY2010–FY2030, YOE $millions

SOURCES OF FUNDS	YOE $M
Project Capital Sources of Funds	
Project Beginning Cash Balance	298
Net GET Surcharge Revenues	3,291
FTA Section 5309 New Starts Revenues	1,550
FTA Section 5307 Formula and ARRA Funds Used for the Project 1/	214
Interest Income	3
Transfer from Project Cash Balance to Ongoing Rail Capital and O&M Cost	(193)
Subtotal Project Capital Sources of Funds	$5,163
Ongoing Capital Sources of Funds	
FTA Section 5309 Fixed Guideway Modernization	80
FTA Section 5309 Bus Discretionary	116
FTA Section 5307 Formula Funds Used for Ongoing Capital Cost	499
FTA Section 5307 and 5309 Grants Carryover from Prior Years	50
American Recovery and Reinvestment Act	26
FTA Section 5316 (JARC) and 5317 (New Freedom)	0
Transfers to the State's Vanpool Program	(3)
Transfer from Project Cash Balance to Ongoing Rail Capital Cost	54
City General Obligation Bond Proceeds	404
Subtotal Ongoing Capital Sources of Funds	$1,225
TOTAL CAPITAL SOURCES OF FUNDS	$6,388
Operating Sources of Funds	
Fare Revenues (TheBus and Rail)	2,098
Fare Revenues (TheHandi-Van)	60
Subtotal Fare Revenues	$2,158
FTA Section 5307 Formula Funds Used for Preventative Maintenance	247
FTA Section 5316 (JARC) and 5317 (New Freedom)	20
Transfer from Project Cash Balance to Rail O&M Cost	140
City Operating Subsidy	5,871
TOTAL OPERATING SOURCES OF FUNDS	$8,436

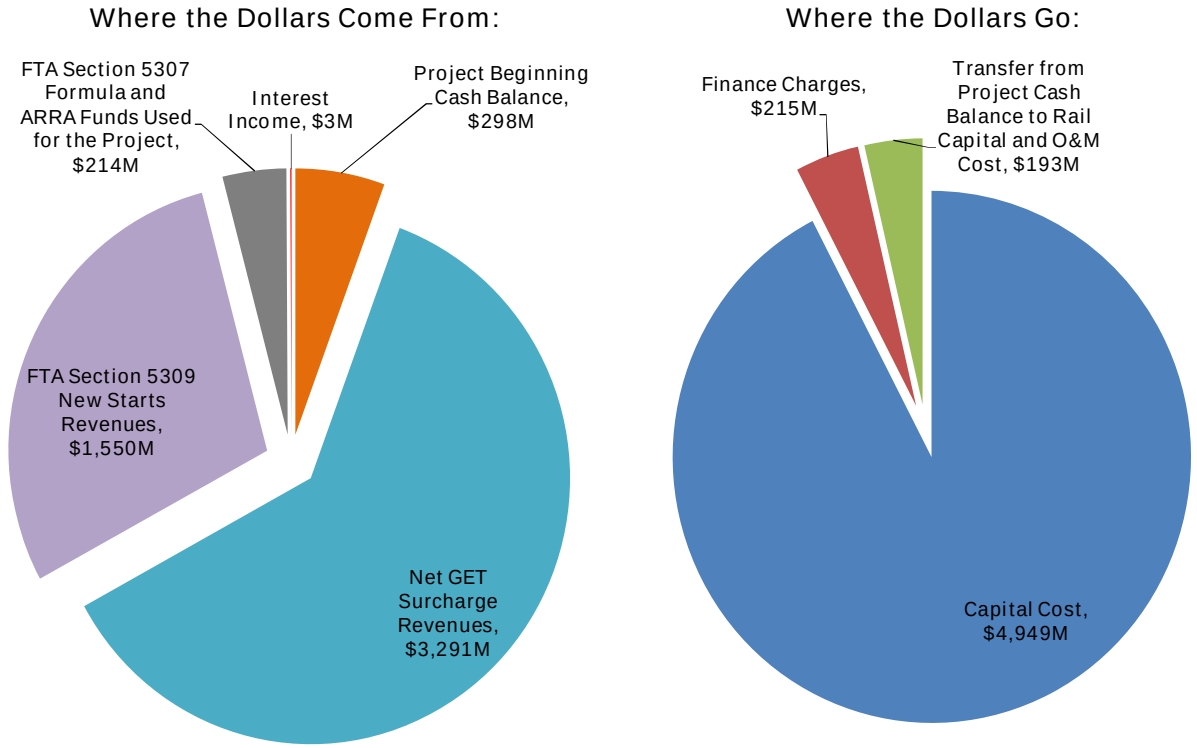
USES OF FUNDS	YOE $M
Project Capital Uses of Funds	
Project Capital Cost	4,949
Subtotal Project Capital Cost	$4,949
Finance Charges	
Interest Payment on GO Bonds Issued for the Project	191
Interest Payment on Tax-Exempt Commercial Paper	10
GO Bond Issuance Cost	13
Subtotal Finance Charges	$215
Subtotal Project Capital Uses of Funds	$5,163
Ongoing Capital Uses of Funds	
Additional Railcar Acquisitions	35
Project Capital Asset Replacement Program	150
TheBus Vehicle Acqusitions	667
Other Capital Cost	235
TheHandi-Van Vehicle Acquisitions	138
Subtotal Ongoing Capital Uses of Funds	$1,225
TOTAL CAPITAL USES OF FUNDS	$6,388
Operating Uses of Funds	
TheBus O&M Costs	5,459
Rail O&M Costs	1,613
TheHandi-Van O&M Costs	1,310
Other O&M Costs	55
TOTAL OPERATING USES OF FUNDS	$8,436

1/ Includes $4M from American Recovery & Reinvestment Act of 2009
Note: totals may not add due to rounding
GET= General Excise and Use Tax // O&M=Operating and Maintenance // GO= General Obligation // JARC=Job Access and Reverse Commute

Chapter 2: CAPITAL PLAN

This chapter describes the capital costs and funding sources associated with both the Project and the City's existing public transportation system. The purpose of the chapter is to demonstrate that there is an adequate level of funding for the capital costs associated with both the Project and the systemwide needs through FY2030. Figure 2-1 shows the Project sources and uses of funds in YOE dollars.

Figure 2-1, Project Sources and Uses of Funds, YOE $millions



Note: Totals may not add due to rounding
ARRA = American Recovery and Reinvestment Act // GET = General Excise and Use Tax

PROJECT CAPITAL COSTS

Table 2-1 presents the Project's annual capital costs excluding finance charges. The total capital cost for the Project is $4,396 million in 2012 dollars and $4,949 million in YOE dollars. These costs are inclusive of construction, professional services (such as engineering, design, and construction management), and contingency, but exclude finance charges that are detailed later in this chapter. Consistent with FTA guidelines for New Starts projects, the capital cost estimate does not include costs incurred for planning, environmental analysis, and conceptual engineering incurred prior to entry into PE on October 16, 2009.

Table 2-1, Project Annual Capital Costs, Excluding Finance Charges, FY2010 – FY2020

City Fiscal Year	Base Year 2012 $M	YOE $M
2010*	$79	$79
2011*	124	124
2012	365	366
2013	704	734
2014	778	858
2015	773	887
2016	626	733
2017	538	659
2018	356	443
2019	45	55
2020	9	12
Total	$4,396	$4,949

Note: Totals may not add due to rounding
* Actuals

CAPITAL COST ESTIMATING METHODOLOGY

The PE design level capital cost estimate is organized in the FTA Standard Cost Category (SCC) format, which includes the following components: guideway and track elements, stations, support facilities, sitework and special conditions, systems, right-of-way, vehicles, and professional services (including HART costs).

The Project incorporates multiple project delivery approaches, including design-bid-build, design-build, and DBOM contracts. The capital cost estimate takes into account the cost of design-build, DBOM, and station design contracts that have been executed or are in the award process. The cost estimates for the remaining project elements are based on PE and were estimated using a “bottom-up” approach. A summary of the major Project contracts is shown in Table 2-2.

Table 2-2, List of Major Project Contracts

Major Contract Breakdown	Contracting Method	Source of Estimate
West O‘ahu - Farrington Highway Guideway Design-Build Contract	Sealed Proposals (Best Value)	Used price of executed contract
Maintenance Storage Facility and Yard Design-Build Contract	Sealed Proposals (Best Value)	Used price of executed contract
Kamehameha Highway Guideway Design-Build Contract	Sealed Proposals (Best Value)	Used price of executed contract
Airport Utilities	Design-Bid-Build	PE design level cost estimate
City Center Utilities	Design-Bid-Build	PE design level cost estimate
Airport and City Center Guideways	Design-Bid-Build	PE design level cost estimate
Core Systems DBOM Contract (including vehicles)	Sealed Proposals (Best Value)	Used price of executed contract
Stations, parking garage, intermodal contracts	Design-Bid-Build	PE design level cost estimate
Elevators/Escalators design, manufacture, install, test, & maintain	Sealed Proposals	PE design level cost estimate
Professional Services	Qualifications or sealed proposals	PE design level cost estimate

DBOM = Design-Build-Operate-Maintain // PE = Preliminary Engineering

Included in the awarded costs are the contract values of three design-build contracts (the West O‘ahu-Farrington Highway Guideway, the Kamehameha Highway Guideway, and the MSF), and the Core Systems (including vehicles) DBOM contract.

Prices were de-escalated from YOE dollars to first quarter 2012 dollars and entered into the estimate. These contract values were then input as multiple lump-sum line item values over appropriate SCC

categories and escalated from first quarter 2012 dollars. As a final step, the base estimates for the remaining contracts were also escalated from first quarter 2012 dollars by adjusting for inflation on a commodity basis.

Labor rate tables have been developed using the 2010 Hawai‘i prevailing wage determination rates for various labor crafts which were then escalated to 2012 dollars. Material costs used are in 2012 dollars. Equipment costs are based on vendor quotations and industry standard publications. The estimate has been developed according to a work breakdown structure based on the FTA's SCC format for New Starts projects.

The total costs in 2012 and YOE dollars, by FTA SCC, are detailed in Table 2-3. Note that this table excludes finance charges and also excludes costs incurred prior to entry into PE. The largest cost item is for Guideway Construction and Track Work, which accounts for approximately 26 percent of total capital expenditures. Professional Services and Sitework and Special Conditions both account for more than 20 percent. All other cost items have a share of total capital cost of 10 percent or less.

Table 2-3, Project Capital Costs by SCC, Excluding Finance Charges, FY2010 – FY2020

FTA Standard Cost Category	Base Year 2012 $M	YOE $M	Share of Total YOE Capital Cost
10 Guideway Construction/Track Work	$1,092	$1,275	26%
20 Stations	421	506	10%
30 Yard, Shops and Support Facilities	91	99	2%
40 Sitework and Special Conditions	1,001	1,104	22%
50 Systems	210	247	5%
60 Right-of-Way	203	222	4%
70 Vehicles	178	209	4%
80 Professional Services	1,110	1,184	24%
90 Unallocated Contingency	89	102	2%
Total Project Cost (Excluding Finance Charges)	$4,396	$4,949	100%

Note: Totals may not add due to rounding

CONTINGENCIES

The cost estimates include a variety of contingencies to allow for potential additional expenses related to each cost category. The total contingency included in the Project cost estimate is approximately 15 percent of the total YOE cost without contingencies, or approximately $644 million in YOE dollars. Of the total $644 million in YOE dollars contingency amount, $542 million is allocated contingency and $102 million is unallocated contingency.

Allocated contingency is contingency that has been spread among the various cost categories to reflect relative levels of risk. It was determined that the nature of the construction process for constructing an elevated guideway with pre-cast construction techniques lowers the level of uncertainty for the Project cost. The allocation of contingency across cost categories also reflects where contracts have been awarded and have thus shifted risk from the City to the contractor. Unallocated contingency corresponds to contingency that has not been spread among the various cost categories. The financial plan assumes that the $102 million (in YOE dollars) will be fully expended.

COST ESCALATION

The escalation rates used for the capital cost estimate have not changed since the September 2011 financial plan, and are documented in *Honolulu High-Capacity Transit Corridor Project Cost Escalation Forecast, FY2011-2019 (2010)*. The forecasting methodology identifies key cost drivers and makes assumptions as to how these drivers affect costs over the forecast horizon. Some of these key drivers include: international and national market dynamics, local market dynamics, supply chain/transportation factors, and one-time events that temporally change the market structure.

Based on these categorizations, an escalation model was developed to calculate an escalation rate reflecting major underlying factor inputs. Projected rates of growth for each of the major cost inputs are weighted based on each of the input's estimated contribution to overall Project costs. The weighted sum of all the growth rates yields the component-weighted average escalation rate. In addition to the economic drivers that are inherent in each component, forecasts for transportation costs of each component and variations in contractor margins (which are a result of the level of contractor availability and competition) are factored into the analysis.

The individual weights are derived from a detailed local market analysis and an extensive research database that analyzes data from the past five years. The database includes research on highway and transit projects in New York, New Jersey, Florida, Hawai‘i, Louisiana, Ohio, and Washington.

PROJECT CAPITAL COST AND SCHEDULE

Table 2-4 provides a breakdown of total capital expenditures by year excluding finance charges. Capital expenditures are expected to peak in FY2015 with a total cost during that year of $887 million.

Table 2-4, Annual Capital Expenditures by SCC, Excluding Finance Charges, FY2010 – FY2020, YOE $millions

City Fiscal Year	2010*	2011*	2012	2013	2014	2015	2016	2017	2018	2019	2020	TOTAL
Guideway Construction/Track Work	-	-	$7	$175	$245	$292	$210	$217	$129	-	-	$1,275
Stations	-	-	-	5	70	92	99	138	93	7	3	$506
Yard, Shops, and Support Facilities	-	-	4	38	40	17	-	-	-	-	-	$99
Sitework and Special Conditions	35	31	157	183	187	185	105	109	86	17	8	$1,104
Systems	-	-	1	39	41	38	39	45	43	3	-	$247
Right-of-Way	3	10	23	38	40	42	43	23	-	-	-	$222
Vehicles	-	-	-	31	33	34	36	37	35	3	-	$209
Professional Services	41	83	174	225	202	170	128	78	57	26	1	$1,184
Unallocated Contingency	-	-	-	-	-	18	72	12	-	-	-	$102
Total Project Cost	$79	$124	$366	$734	$858	$887	$733	$659	$443	$55	$12	$4,949

Note: Totals may not add due to rounding
* Actuals

SYSTEMWIDE AND ONGOING CAPITAL COST

The capital plan includes ongoing costs to replace, rehabilitate and maintain capital assets in a state of good repair throughout the forecast period. It also includes necessary expansion of the existing transit system in order to accommodate forecasted FY2030 ridership demand levels.

Project Capital Asset Replacement Program: A Capital Asset Replacement Program (CARP) consisting of periodic overhaul, rehabilitation, refurbishment or replacement of major components, equipment, and facilities will be carried out for the Project elements included in the Core Systems Contract. The Core Systems Contract sets out a maximum level of CARP spending in FY2011 dollars for each year of the contract and includes a formula based on indices of labor costs and producer prices to escalate the maximum cost budget to YOE dollars. The financial plan conservatively assumes that this maximum amount of CARP spending would be required in each year. Eleven years of historical data from the U.S. Bureau of Labor Statistics were used to escalate CARP costs for the financial plan. It is assumed

that the costs in the last year of the Optional O&M Period will continue through the end of the forecast period. Total FY2019 to FY2030 CARP spending is anticipated to be $150 million in YOE dollars.

Additional Railcar Acquisitions: The purchase of ten additional railcars is expected to be needed to accommodate forecasted ridership in FY2025. The financial plan assumes that this delivery will be made over two years, with five railcars in FY2024 and the remaining five in FY2025. The total capital cost of the ten added cars is estimated at $35 million in YOE dollars.

TheBus and TheHandi-Van Vehicle Acquisitions: Most changes in the transit network will result from adjustments to existing bus routes in order to complement the Project. Some bus routes will be re-structured and shortened to become feeder routes while others will be shortened where the Project provides improved service. The bus capital costs reflect a gradual phase-out of the articulated hybrid bus fleet based on a City policy dated November 24, 2010. For more details on the bus acquisition schedule, refer to TheBus Fleet Management Plan (March 2012). TheBus acquisitions will result in an average bus age of 7.5 years by FY2020, the first full year of operations of the Project. This is lower than TheBus' current average fleet age of 10.1 years.

Other Capital Cost: Various facilities to accommodate ongoing operations are expected to be built and/or expanded simultaneously with aspects of the Project. The capital plan reflects expenditures for bus facilities programmed in the approved FY2011 - FY2014 Transportation Improvement Program (TIP) with some modifications to some project schedules based on input from the City's DTS. The TIP includes projects such as the design and construction of the Middle Street intermodal center, a maintenance facility for TheBus and TheHandi-Van operations in West O‘ahu, and transit security projects. It should be noted that DTS is currently reviewing the scope of the maintenance facility project to determine whether a smaller facility with an emphasis on fueling, washing, and vehicle storage would be more appropriate based on the future needs of TheBus and TheHandi-Van. A smaller facility would result in less capital cost than assumed in this financial plan.

The financial plan uses cost estimates from the TIP through FY2017, and then assumes that $5 million will be spent annually on TheBus and TheHandi-Van facilities, including transit security projects and small transit centers. Figure 2-2 presents the annual ongoing systemwide capital expenditure broken down by the components outlined above. Bus acquisition constitutes by far the single biggest ongoing capital expense. The following section will describe the sources of funds assumed in this financial plan to pay for these needs.

Figure 2-2, Ongoing Capital Expenditures, FY2010 – FY2030, YOE $millions

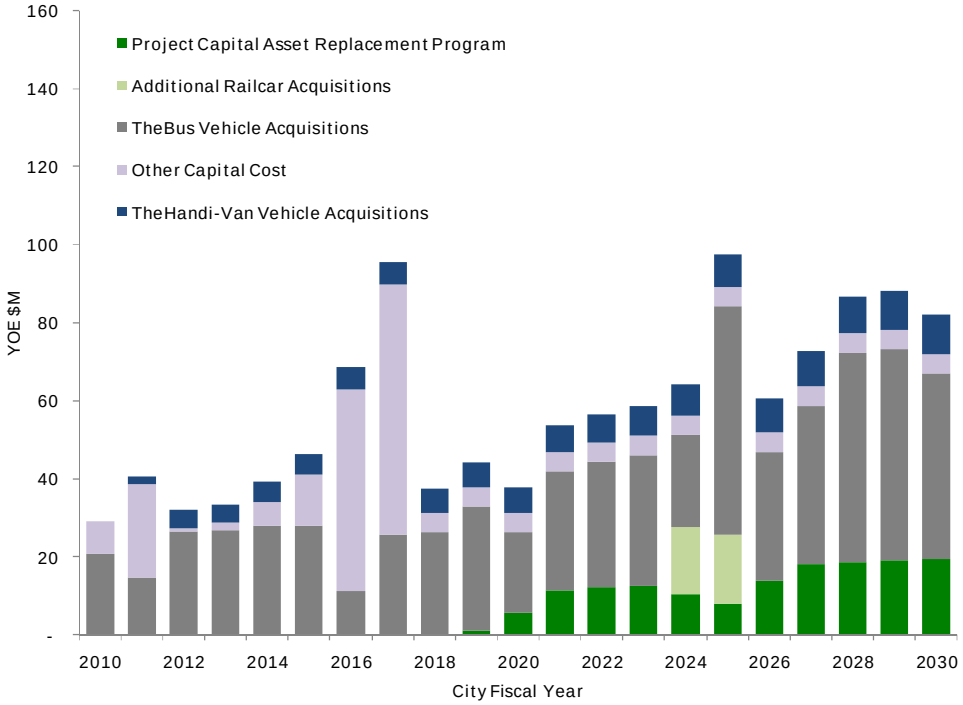
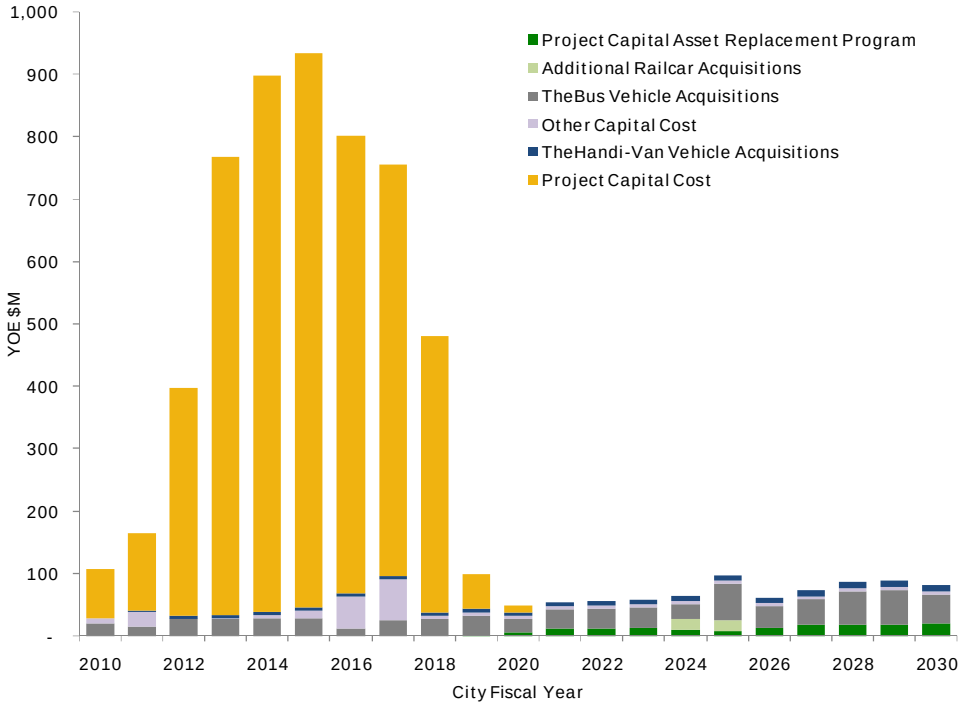


Figure 2-3 combines total capital costs for construction of the Project as well as additional ongoing capital expenditures necessary to keep the existing transit system in a state of good repair.

Figure 2-3, Total Systemwide Capital Expenditures, FY2010 – FY2030, YOE $millions



CAPITAL FUNDING FOR THE PROJECT

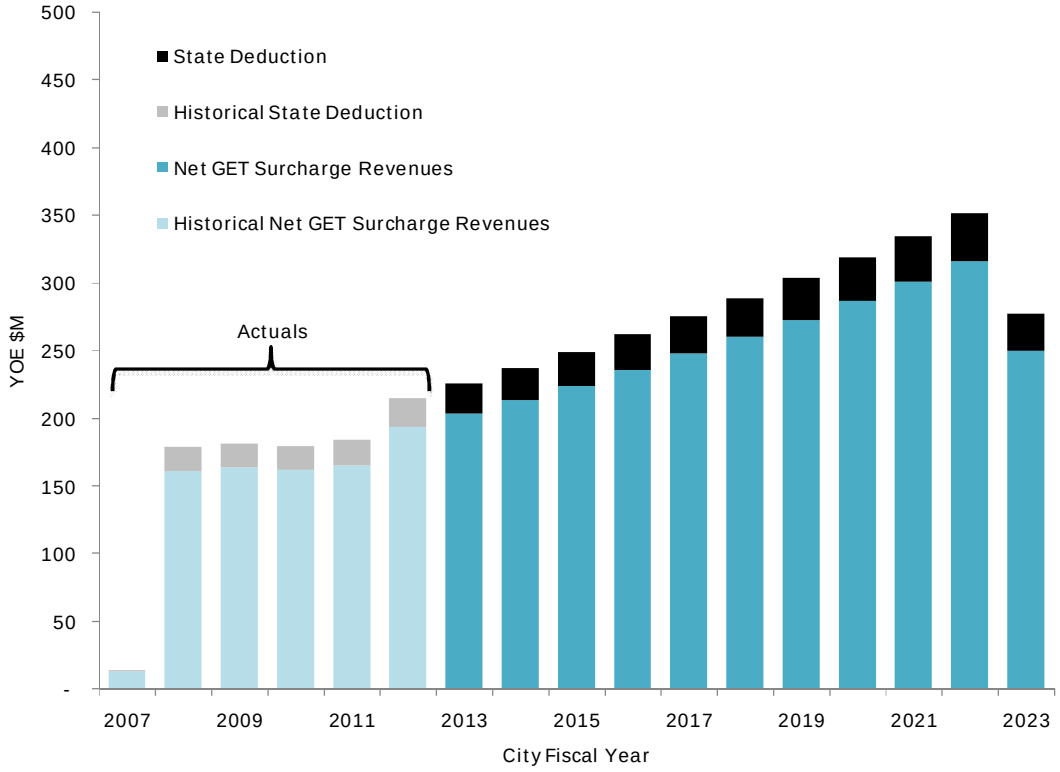
The Project is expected to be entirely funded by revenues from the dedicated GET Surcharge and Federal funds. As discussed in the section below, 100 percent of non-New Starts funding for the Project is committed.

LOCAL GET SURCHARGE

The local funding source for the Project is a dedicated one-half (0.5) percent county surcharge on the State of Hawai‘i’s GET. In 2005, the Hawai‘i State Legislature authorized counties to adopt a surcharge on the GET of 0.5-percent for public transportation projects. Following this authorization, the City and County of Honolulu enacted Ordinance No. 05-027 establishing a 0.5-percent GET county surcharge. This revenue is to be used exclusively for capital and/or operating expenditures of the Project. The GET Surcharge will be levied through December 31, 2022 (FY2023). The last installment of the GET Surcharge is to be received by HART in January 2023.

The net GET Surcharge revenues are projected to total $3,291 million from Q2 of FY2010 to FY2023. The total amount from inception of the GET Surcharge on January 1, 2007 through FY2023 is expected to equal $3,670 million. As of March 31, 2012, the City has already received approximately 23 percent of the estimated total amount or $860 million. Figure 2-4 presents the actual net GET Surcharge collections to date and expected net GET Surcharge revenues expected to be received by the City. Additional information about historic GET collections is included in Attachment C.

Figure 2-4, Annual Net GET Surcharge Revenues, FY2007 - FY2023, YOE $millions



GET = General Excise and Use Tax

The following provides a summary of the net GET Surcharge revenues expected to be received by the City between FY2013 and FY2023. It is important to note that given the current uncertainties in the

global and U.S. economies, this projection will be reviewed and refined over time, as more actual tax collection data are received and as the local, national, and global economic outlooks change.

Timing of GET Surcharge Collections: The financial plan presents the annual GET Surcharge amounts on a cash basis. This method accounts for the fact that the City does not receive its share of GET Surcharge revenues until the month after the end of each quarter. For example, revenue for April 1 through June 30 of 2010 was paid to the City in July 2010. This delay should be noted when comparing GET Surcharge revenue as reported by the State to data presented in the financial plan. Additionally, State of Hawai‘i Department of Taxation sometimes experiences delays in processing GET Surcharge returns, which can make quarterly year-over-year comparisons of historical GET Surcharge collections less meaningful.

Actual Receipts to Date: The City received $13 million in GET Surcharge revenues in FY2007. The first full fiscal year of GET Surcharge revenues was FY2008, with a total of $161 million in receipts. Despite the economic recession, FY2009 receipts were slightly higher than FY2008, totaling $164 million. This increase can be explained by the 23 percent growth in the first quarter of receipts counting towards FY2009 from the same quarter in FY2008, which offsets the negative growth of the subsequent three quarters. In FY2010, continued unfavorable economic conditions caused revenue to fall slightly to $162 million. Revenue then increased to $166 million in FY2011 and $194 million in FY2012.

GET Surcharge Forecast Methodology: The financial plan assumes that GET Surcharge revenues will grow in line with the long-term historical growth experienced by statewide GET revenues. The long-term compounded annual growth rate (CAGR) in statewide GET revenues (FY1981 to FY2010) of 5.04 percent has been used to forecast GET Surcharge revenues for FY2013 to FY2023. Historical annual statewide GET revenues for FY1981 to FY2011 are presented in Attachment C.

In FY2023, with receipt of the surcharge ending in the third quarter of FY2023, net GET Surcharge cash revenues are expected to total three quarters worth of tax collection, thus accounting for the lower total cash revenues in that fiscal year compared to FY2022.

As mentioned earlier, the growth rates assumed are subject to numerous risks and uncertainties, including the magnitude and timing of the economic recovery, future inflationary pressures, the strength of the U.S. dollar (especially relative to the East Asian currencies) and U.S. monetary policy. Chapter 4 presents a sensitivity analysis that examines the potential risk associated with decreased GET Surcharge growth rates.

FEDERAL FUNDING SOURCES

FTA Section 5309 New Starts (49 U.S.C. Section 5309)

As shown in Table 2-5, New Starts funding is assumed to provide a total of $1,550 million to the Project though FY2017, with annual amounts of up to $250 million per year. The table presents the City fiscal year in which the Federal appropriations are assumed to be made and when the funds will be used. The difference in timing reflects the assumed timing of Federal appropriations, the cumulative amount of eligible expenditures in the City fiscal year, and the fact that New Starts funds are expended on a reimbursable basis using the New Starts share for the Project.

The amount of New Starts funding being requested for the Project is on par with several other projects that have received FFGAs in recent years, including the East Side Access project in New York City ($2.6 billion, or 36 percent New Starts share), Second Avenue Subway project in New York City ($1.3 billion, or 27 percent New Starts share), and the Dulles Corridor Metrorail Project in Northern Virginia ($900 million, or 28 percent New Starts share). The annual amount of New Starts funding assumed in the financial plan is also not unprecedented, as both the East Side Access and Second Avenue Subway projects received over $200 million in New Starts funds in Federal FY2010.

The availability of future New Starts funding will depend on future actions by Congress to authorize and make annual appropriations for the program, as well as the nationwide competitive landscape for funding major transit capital investments.

Table 2-5, Timing of Use of Section 5309 New Starts Revenues, YOE $millions

City Fiscal Year	New Starts Appropriation (YOE $M)	Use of New Starts Revenues (YOE $M)
2008	$15	—
2009	$20	—
2010	$30	—
2011	$55	$21
2012	$200	$99
2013	$250	$258
2014	$250	$442
2015	$250	$250
2016	$250	$250
2017	$230	$230
TOTAL	$1,550	$1,550

Note: Totals may not add due to rounding

American Recovery and Reinvestment Act of 2009 Funding

The Project includes a minimal level of funding provided through stimulus monies received by the City. Specifically, the Project received $4 million in ARRA funding in FY2010 which was used to support PE activities.

FTA Section 5307 Formula Funds (49 USC Section 5307)

To supplement the GET Surcharge and New Starts funds mentioned above, the financial plan assumes that revenues from FTA's Section 5307 formula program will be used for the Project between FY2014 and FY2019. In total, it is expected that the Project will receive approximately $210 million from Section 5307 during the construction period, representing approximately 4 percent of total Project capital funding.

Section 5307 funds are apportioned by FTA on the basis of a formula specified in law. The statutory basis for Section 5307, as for New Starts, is assumed to be in force through continuing resolution until a new law is enacted to reauthorize surface transportation programs.

Activities eligible for Section 5307 funds include planning, engineering, design; capital investments in bus and bus-related activities, such as bus replacement and overhaul; capital investments in new and existing fixed guideway systems; and preventive maintenance. As such, Project-related expenses are eligible for Section 5307 funds.

The forecast of Section 5307 funds in the financial plan assumes that Honolulu will maintain a constant share of the total amount of the national Section 5307 program. Since the apportionment of Section 5307 funds are based in part on level of service variables, the implementation of the Project will cause the revenues to increase in FY2019, two years after the beginning of the Intermediate O&M Period. Similarly, an increase in Section 5307 revenues is expected to occur in FY2022, two years after the beginning of the Full O&M Period. Several zipper and high-occupancy vehicle (HOV) lane projects will increase Section 5307 funding if buses operate on these facilities, as these are considered fixed guideways by FTA. The schedule for these projects is assumed as follows, consistent with the ORTP:

- FY2022 – PM zipper lane on H-1 between the Ke‘ehi Interchange and the Kunia Interchange
- FY2025 – H-1 HOV lanes between the Waiawā Interchange and the Makakilo Interchange (one lane in each direction)

- FY2025 – HOV lanes on the Nimitz Flyover between the Ke‘ehi Interchange and Pacific Street (two lanes, reversible, operating inbound in the AM and outbound in the PM)

In other years, the financial plan assumes no significant change, but modest growth of funding of 2.50 percent per year. This represents a more conservative rate than the 5.38 percent annual growth rate experienced between 1996 and 2011. Information about historical Section 5307 funds is presented in Table 2-6, along with FTA Section 5309 fixed guideway modernization (FGM) funds (described in the following section of this report). More information on the forecast of Federal funds and the impact of the Project on those revenues is presented in the section on systemwide capital funding sources.

Table 2-6, Historical FTA Section 5307 and Section 5309 FGM Apportionments, 1996 – 2011, YOE $millions

Federal Fiscal Year	FTA Sec. 5307 Apportionments (YOE $M)	*Annual Growth Rate*	FTA Sec. 5309 FGM Apportionments (YOE $M)	*Annual Growth Rate*
1996	$16.02		$0.20	
1997	$16.47	*2.80%*	$0.27	*34.58%*
1998	$17.91	*8.75%*	$0.30	*11.34%*
1999	$20.08	*12.10%*	$0.53	*77.56%*
2000	$23.89	*18.98%*	$0.63	*18.68%*
2001	$22.80	*-4.55%*	$0.93	*47.83%*
2002	$24.58	*7.80%*	$1.05	*13.19%*
2003	$27.80	*13.08%*	$1.15	*9.44%*
2004	$26.39	*-5.07%*	$1.12	*-2.59%*
2005	$27.03	*2.43%*	$1.06	*-5.05%*
2006	$24.13	*-10.70%*	$1.25	*17.51%*
2007	$26.39	*9.33%*	$1.47	*17.77%*
2008	$29.00	*9.90%*	$2.00	*35.92%*
2009	$31.06	*7.11%*	$2.12	*6.31%*
2010	$31.33	*0.87%*	$2.01	*-5.19%*
2011	$35.14	*12.17%*	$1.95	*-3.19%*
1996-2011 Compounded Annual Growth Rate		5.38%		17.72%

Note: FTA Section 5307 apportionments include apportionments to the Kailua-Kāne‘ohe urbanized area
FGM = Fixed Guideway Modernization

Table 2-7 summarizes the Federal and non-Federal funding sources, as well as the level of commitment for each source based on FTA New Starts guidelines.

Table 2-7, Summary of Federal and Non-Federal Project Capital Funding Sources

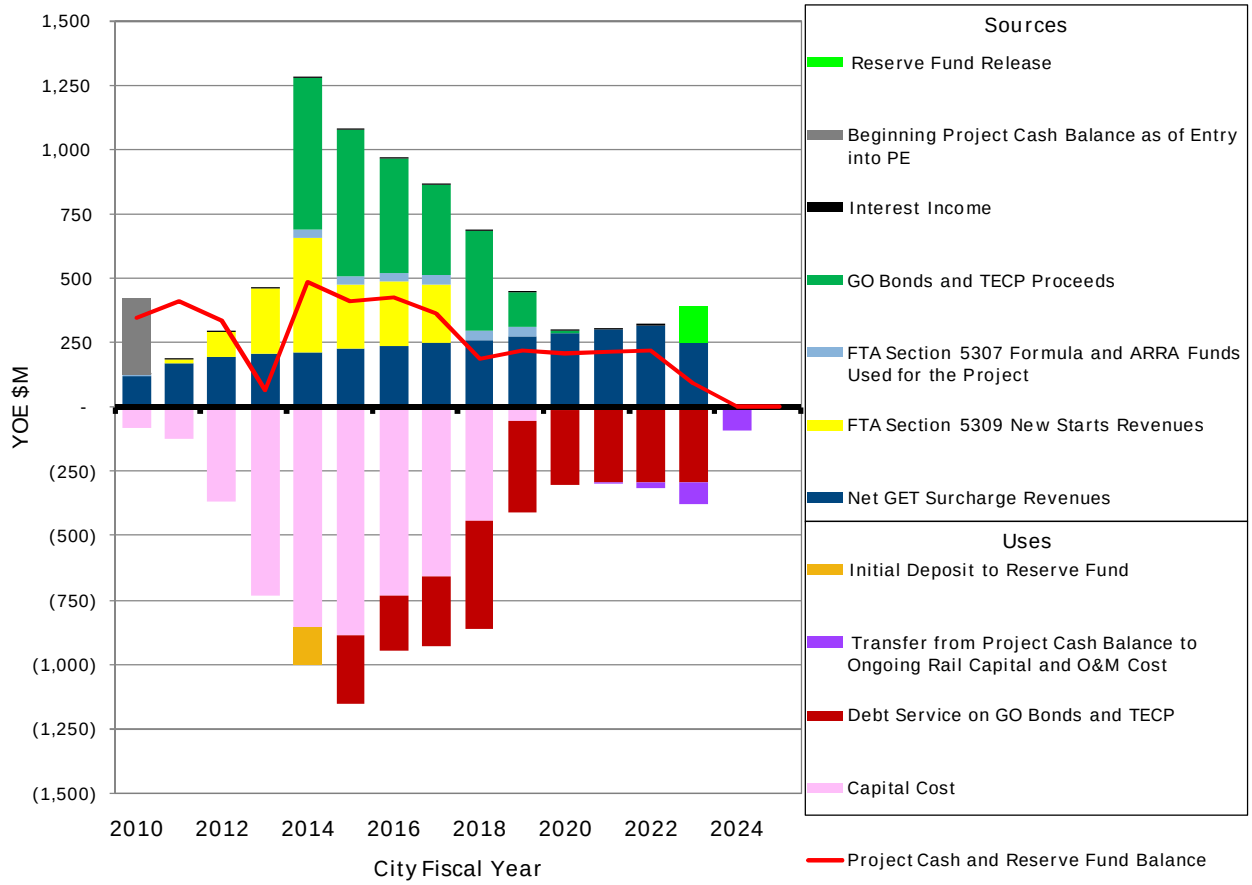
Sources of Funds	Funding Level (YOE $M)	Funding Share	Level of Commitment	Evidence of Commitment
Federal:				
FTA 5309 New Starts	$1,550	30.0%[1]	N/A	N/A
FTA 5307 Formula Funds Used for the Project	$210	4.1%	Committed	Statewide FY2011 - 2014 Transportation Improvement Program
American Recovery and Reinvestment Act Funds Used for the Project	$4	0.1%	Committed	FTA Grant HI-96-X001
Non Federal:				
General Excise and Use Tax 0.5% surcharge	$3,396[2]	65.8%	Committed and dedicated to the fixed guideway project	Enabling legislation: • State Act 247 • City and County of Honolulu Ordinance 05-027 Selection of a fixed guideway system as the Project
Interest Income	$3	0.1%	Committed	City & County of Honolulu Ordinance 06-37
Total Project Capital Sources of Funds	$5,163	100%		

Note: Totals may not add due to rounding
[1] Percentage used in FFGA is 30.3%, based on Project capital cost with finance charges through FY2020 of $5,122 million
[2] Includes $298 million in beginning cash balance and subtracts $193 million in ending cash balance transferred to ongoing Project capital and operating needs

FINANCING OF THE PROJECT

Figure 2-5 shows the Project capital sources and uses of funds, including debt service. In the years in which capital expenditures are greater than the funding available on a pay as you go basis, debt financing is needed. GET Surcharge revenue will continue to be generated after construction is completed, which provides the funding source for debt financing. Details on the proposed financing approach are provided in the following sections.

Figure 2-5, Project Capital Sources and Uses of Funds, FY2010 – FY2030, YOE $millions



PE = Preliminary Engineering // GO = General Obligation // TECP = Tax-Exempt Commercial Paper // ARRA = American Recovery and Reinvestment Act // GET = General Excise and Use Tax

PROJECT CASH BALANCE

The cash balance as of entry into PE in October 2009 was approximately $298 million. With the GET Surcharge projections and Federal revenue assumptions described above, the Project exhibits a positive cash balance through FY2013 without the need for debt financing, as GET Surcharge and other revenues will be used on a pay as you go basis.

As shown on Figure 2-5 above, the City has the capacity to maintain a positive cash balance throughout the construction period. While the City has many options on how to utilize this excess funding capacity, the financial plan assumes that funds would be deposited in a Project reserve fund out of the first issuance of General Obligation (GO) bonds in FY2014. The amount deposited in the Project reserve fund is $139 million, which was sized in order to maintain a positive cash balance in each year until FY2023. The financial plan assumes that the Project reserve fund would be released in FY2023 to repay a portion of that year's debt service obligations, although it could also be available to cover Project capital cost increases or revenue shortfalls during the construction period if needed, as discussed in the sensitivity analysis in chapter 4.

Once construction ends in FY2020, GET Surcharge revenues continue to increase gradually through FY2023 while debt service remains constant. This, combined with the fact that the Project reserve fund is used to repay a portion of the final year's debt service payment, results in a Project cash balance in those years accruing to a total of $193 million by the end of FY2023. The financial plan assumes that this cash

balance will be first applied to CARP and rail vehicle expenditures, and then to rail O&M cost; thereby freeing up Section 5307 revenues for preventive maintenance and ongoing capital expenditures after FY2020.

General Debt Structure and Debt Instruments

In years where GET Surcharge revenues and Federal funding are not by themselves sufficient to meet the cash flow requirement to cover Project capital expenditures, a mix of GO bonds (backed by Project revenues) and short-term borrowing in the form of Tax-Exempt Commercial Paper (TECP) would be used to meet Project funding needs. Table 2-8 shows the annual mix of TECP and GO bond proceeds issued to fund the construction of the Project. The financial plan assumes that all debt proceeds and related debt service costs will be paid off in full with Project revenues by the end of FY2023.

Table 2-8, Debt Proceeds, FY2010 – FY2030, YOE $millions

City Fiscal Year	2014	2015	2016	2017	2018	2019	2020	Total
General Obligation Bond Proceeds Excluding Issuance Costs	$492	$366	$345	$251	$188	$136	$7	$1,785
Proceeds from Tax-Exempt Commercial Paper (rolled over)	$100	$200	$100	$100	$200	—	—	$700
Total Bond Proceeds	$592	$566	$445	$351	$388	$136	$7	$2,485

Note: Totals may not add due to rounding
All debt proceeds and related debt service costs are scheduled to be paid off in full with Project revenues by the end of FY2023.

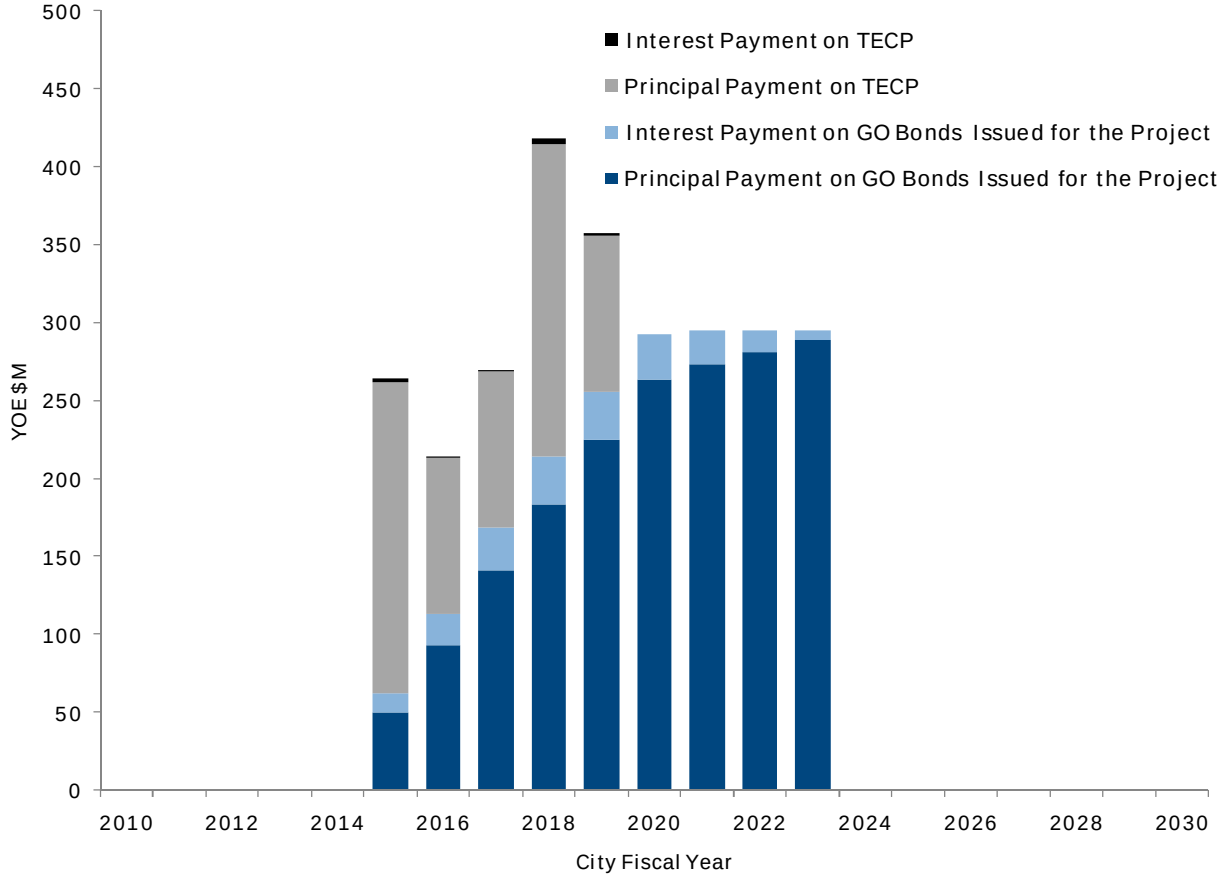
The two types of debt instruments included in the financial plan are summarized below.

Project General Obligation Bonds: Although the Project’s debt requirements will be solely repaid from GET Surcharge revenues, the Hawai‘i State Constitution requires that these bonds be classified as GO bonds. The financial plan assumes that Project GO bonds will be sized to account for project cash flow requirements and cost of issuance. As mentioned earlier, the first GO debt issuance in FY2014 also includes a deposit of $139 million to a Project reserve fund. The intent of such a fund is to maintain a cash reserve to be used to pay debt service if pledged revenues are insufficient to satisfy the debt service requirements, or to cover capital cost increases or revenue shortfalls during the construction period if needed. It should be noted that this structure is only one of many options available to the City on how to use the excess funding capacity and does not constitute a legal requirement under current law.

Consistent with the requirements of Chapter 47, Hawai‘i Revised Statutes and the State Constitution, a conventional mortgage-type amortization schedule with a level debt service repayment is assumed for each GO bond issue (as shown on Figure 2-6). The financial plan further assumes that all GO bonds issued for the Project will mature in the year when the GET Surcharge expires. As such, the maturity of each Project GO bond issue decreases over time since the GET Surcharge sunsets in FY2023.

Tax Exempt Commercial Paper: The Project will also utilize the City’s existing TECP program or other short-term construction financing that could provide a low-interest form of borrowing in which interest-only payments are made and the principal balance is repaid with available cash or rolled into Project GO bonds at the end of the 270-day maximum term. Until recently, the City had authorization to issue up to $350 million in TECP. On June 6, 2012 the City Council approved an additional $100 million in TECP capacity thus increasing the total authorized amount from $350 million to $450 million. The Project is expected to utilize $100 million of TECP between FY2014 and FY2018. The $200 million shown to be used in FY2015 and FY2018 in the capital plan cash flows result from two issuances of TECP in those years. Depending on the cash flow requirements of other projects in the City’s Capital Improvement Program, the Project could make use of additional TECP if needed to meet short-term cash flow needs.

Figure 2-6, Total Annual Debt Service, FY2010 – FY2030, YOE $millions



TECP = Tax-Exempt Commercial Paper // GO = General Obligation

Financing Costs and Maturity

Interest rate: The financial plan assumes interest rates on GO bonds of 2.50 percent for issues in FY2014 and FY2015 and 3.00 percent for issues beyond FY2015, consistent with the City's current AA+ rating. The interest rate assumption is increased after FY2015 to account for the possibility that market conditions become less favorable in the future. The interest rate on TECP financing is assumed to equal 1.50 percent for FY2014 and FY2015, and 2.00 percent beyond FY2015. The interest rates are consistent with current interest rates for debt instruments with similar maturities.

Issuance cost: Upfront costs associated with the issuance of Project GO bonds are assumed to equal 0.75 percent of gross proceeds. Issuance costs for TECP financing are assumed to be included in the TECP interest rate discussed above.

Maturity: All Project GO bonds have a final maturity in FY2023, corresponding to the last fiscal year of receipt of net GET Surcharge revenues.

Debt Capacity

The City's ability to issue debt is defined by legal limits included in the State's Constitution. Furthermore, the City has implemented policy guidelines that define appropriate levels of debt in relation to its funding base.

Legal Debt Limit: The State of Hawai‘i Constitution (Act VII, Section 12 and 13) requires any one county to have a total outstanding funded debt equal to no more than 15 percent of that county's total assessed value of real property for tax purposes. This test represents the primary legal restriction on the amount of debt that the City could issue. Based on current estimates there is significant debt capacity under the limit. As of February 2012, the City had $155.3 billion in net assessed value of real property, which represents $23.3 billion in total legal debt capacity. Of the total capacity, $21.1 billion was available for future use.

City Affordability Guidelines: The City has established affordability guidelines, as last amended by Resolution No. 06-222 in June 2010. These policies include the following:

- Debt service for GO bonds, including self-supported bonds and enterprise and special revenue funds, should not exceed 20 percent of the City's total operating budget.
- Debt service on direct debt, excluding self-supported bonds, should not exceed 20 percent of the General Fund revenues.
- Other guidelines include a limitation on the City's variable debt rate and debt refunding policy.

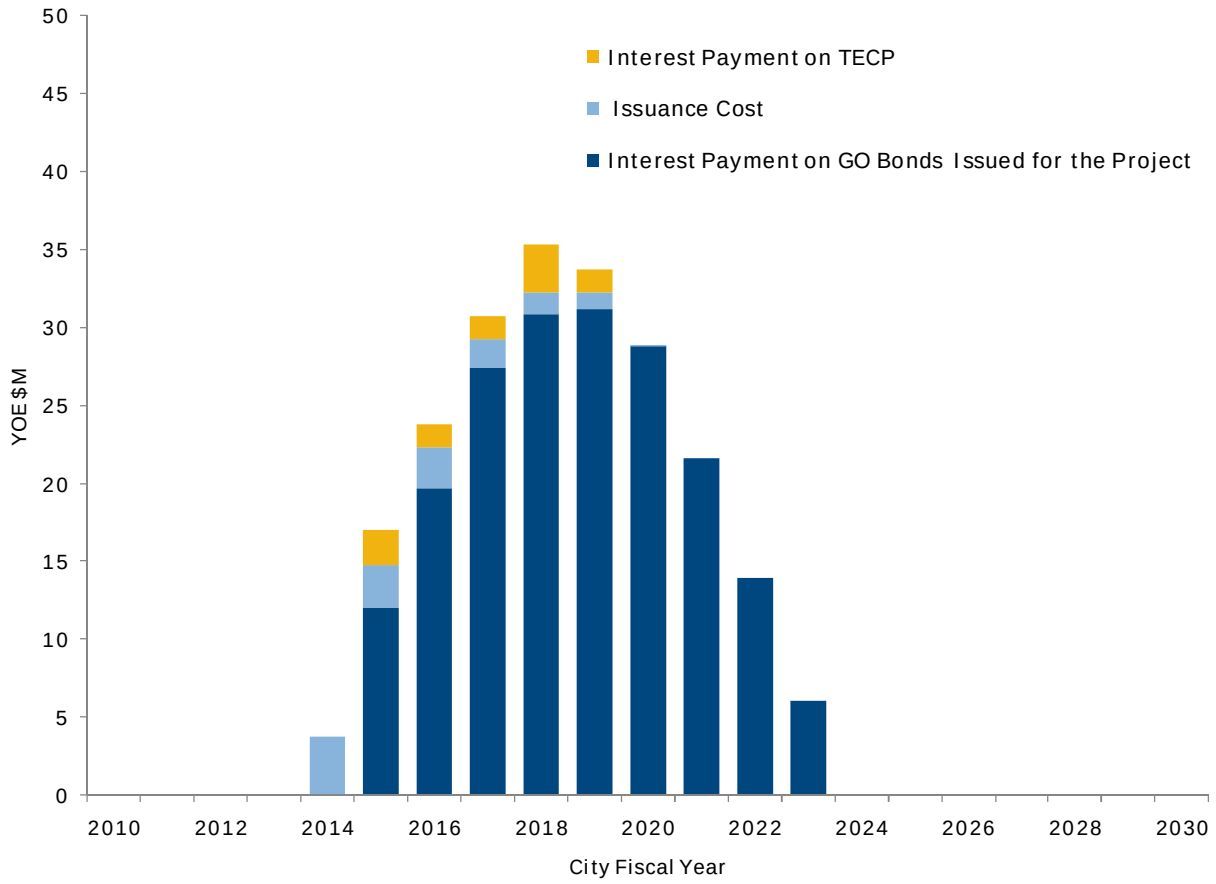
Assuming the City's affordability guidelines are applicable in future years, the limitations on future GO debt can be calculated based on growth assumptions in assessed property values, General Fund revenues, and the City's operating budget.

The resolution that adopted the affordability guidelines includes language stating that the guidelines "may be suspended for emergency purposes or because of unusual circumstances." In a letter dated October 26, 2011, the City's Department of Budget and Fiscal Services recommended, and the City's Managing Director concurred, that (1) issuing shorter than normal GO debt to fund the Project which would be repaid by GET Surcharge revenues was not contemplated at the time of Resolution No. 06-222; and (2) the affordability guidelines be suspended for the period of FY2014 to FY2023 due to unusual circumstances created by the Project's financing structure. The unusual circumstances relate to the Project having "self supported" short term GO debt, not included in the City operating budget, that is paid for by GET Surcharge revenues rather than the City's General Fund revenues.

Finance Charges

Based on the above assumptions, finance charges to be incurred for the Project are projected to total $173 million between FY 2014 and FY 2020; and $215 million between FY2014 and FY2023. As shown on Figure 2-7, the majority of finance charges correspond to interest payments on Project GO bonds.

Figure 2-7, Total Annual Finance Charges, FY2010 – FY2030, YOE $millions



TECP = Tax-Exempt Commercial Paper // GO = General Obligation

For detailed annual cash flows for the Project, refer to Attachment A.

SYSTEMWIDE CAPITAL FUNDING SOURCES

While the assumed New Starts funding, GET Surcharge revenues, and a portion of the FTA Section 5307 formula funds will be adequate to fund the Project capital costs, other sources of funds will continue to be relied upon to fund ongoing capital costs for the existing TheBus and TheHandi-Van systems. The following section discusses these Federal and local funding sources.

FEDERAL FUNDS

The three main sources of Federal funds for systemwide capital costs are as follows:

- FTA Urbanized Area Formula Program (49 U.S.C. Section 5307)
- FTA Capital Investment Grants (49 U.S.C. Section 5309) – FGM Program
- FTA Capital Investment Grants – Bus and Bus-Related Equipment and Facilities Program

The City should expect to see increases in the levels of funding from the first two of these sources once the Project is implemented, due to increases in the levels of transit service that are accounted for in the apportionment formula. The following sections detail the expected revenue from each source before and after the Project is in operation. As a general rule, the financial plan assumes that Congress will pass a new authorization and appropriate the authorized apportionment each year.

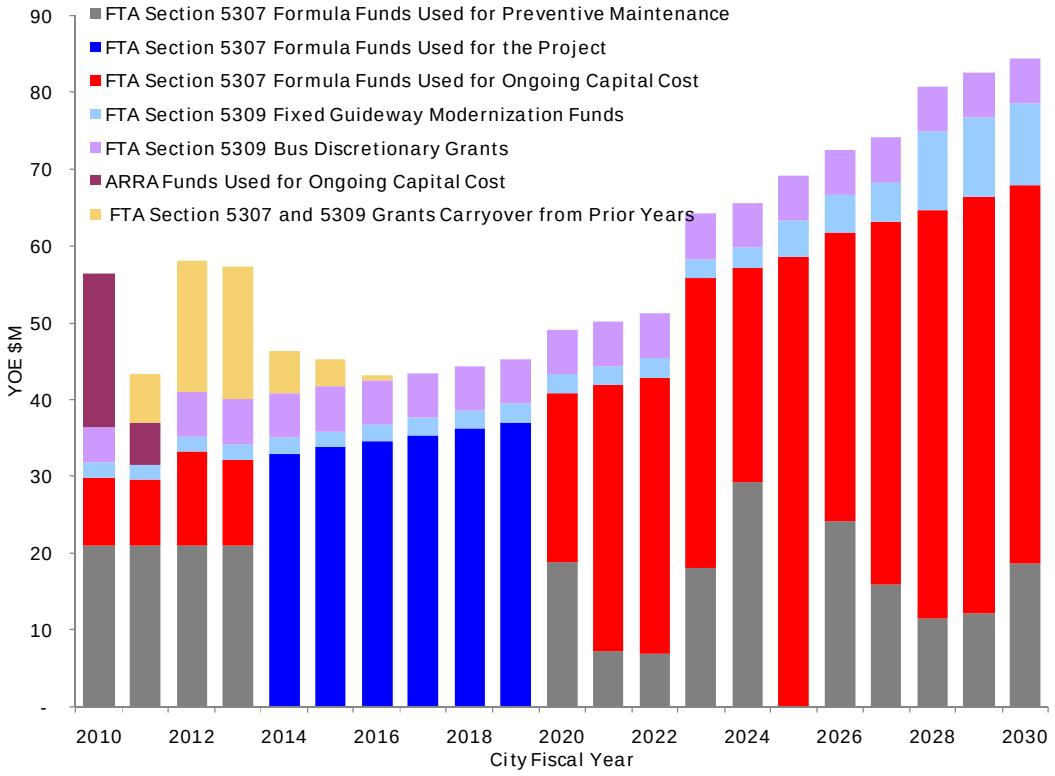
FTA Urbanized Area Formula Program (Section 5307)

Annual Section 5307 revenues are presented in the summary of non-New Starts Federal capital funding sources on Figure 2-8. Under Federal law, Section 5307 funds may be used for preventive maintenance, which is part of a transit system's operating budget. Section 5307 apportioned funds are used for the Project between FY2014 and FY2019, but will again be available for other transit uses starting in FY2020. As a general rule for the financial plan, Section 5307 funds are first applied to ongoing capital needs, with any surplus being transferred to preventive maintenance. Actual apportionments made by FTA were used for FY2011. The methodology used to forecast Section 5307 funds is described below.

In addition to the base growth rate mentioned above, Section 5307 revenues are further increased two years after the opening of the main segments of the Project in FY2017 and FY2020, based on the formula method that FTA uses to apportion these funds. Similar increases occur in FY2022 and FY2025 following the implementation of other projects in the region, consistent with the ORTP. The implementation of the Project is expected to generate an additional $103 million in Section 5307 funding through FY2030. Table 2-9 presents the annual forecast of 5307 revenues, and breaks out the funds expected to be received as a result of the Project implementation.

The financial plan also takes into account Section 5307 and Section 5309 Bus Capital funds received in years prior to FY2011 that are planned to be used between FY2011 and FY2016 for bus and paratransit acquisitions. These funds are expected to total $50 million.

Figure 2-8, Use of Non-New Starts Federal Revenues, FY2010 – FY2030, YOE $millions



ARRA = American Recovery and Reinvestment Act

Table 2-9, FTA Sec. 5307 and 5309 FGM Apportionments and Impact of the Project, FY2010 – FY2030, YOE $millions

	FTA Sec. 5307 Apportionments	Impact of the Project	Total FTA Sec. 5307 Apportionments	*Annual Growth Rate*	FTA Sec. 5309 FGM Apportionments	Impact of the Project	Total FTA Sec. 5309 FGM Apportionments	*Annual Growth Rate*
2010*	$29.76	---	$29.76		$2.12	---	$2.12	
2011*	$29.46	---	$29.46	-1.01%	$2.01	---	$2.01	-5.19%
2012**	$33.20	---	$33.20	12.69%	$1.95	---	$1.95	-3.19%
2013	$32.17	---	$32.17	-3.10%	$2.00	---	$2.00	2.50%
2014	$32.94	---	$32.94	2.41%	$2.05	---	$2.05	2.50%
2015	$33.73	---	$33.73	2.40%	$2.10	---	$2.10	2.50%
2016	$34.54	---	$34.54	2.40%	$2.15	---	$2.15	2.50%
2017	$35.37	---	$35.37	2.40%	$2.21	---	$2.21	2.50%
2018	$36.22	---	$36.22	2.40%	$2.26	---	$2.26	2.50%
2019	$37.09	---	$37.09	2.40%	$2.32	---	$2.32	2.50%
2020	$38.01	$2.86	$40.87	10.20%	$2.37	---	$2.37	2.50%
2021	$38.92	$2.93	$41.86	2.40%	$2.43	---	$2.43	2.50%
2022	$39.85	$3.01	$42.86	2.40%	$2.50	---	$2.50	2.50%
2023	$45.05	$10.72	$55.77	30.11%	$2.56	---	$2.56	2.50%
2024	$46.13	$10.99	$57.12	2.42%	$2.62	---	$2.62	2.50%
2025	$47.24	$11.26	$58.50	2.42%	$2.69	$2.10	$4.79	82.54%
2026	$50.03	$11.70	$61.73	5.52%	$2.75	$2.15	$4.91	2.50%
2027	$51.23	$11.99	$63.22	2.42%	$2.82	$2.20	$5.03	2.50%
2028	$52.45	$12.29	$64.75	2.42%	$3.62	$6.52	$10.15	101.78%
2029	$53.71	$12.60	$66.31	2.42%	$3.71	$6.68	$10.40	2.50%
2030	$55.00	$12.92	$67.91	2.41%	$3.81	$6.85	$10.66	2.50%
Total	$852.10	$103.28	$955.38		$53.06	$26.51	$79.57	

Note: Totals may not add due to rounding; Section 5307 funds are net of transfers to the State's Vanpool program
* Actuals
** Based on half year apportionment data

FTA Section 5309 Capital Investment Grants – Fixed Guideway Modernization Program

Similar to Section 5307 funds, Section 5309 FGM funds are apportioned using the Federal formula specified by law. Honolulu's apportionment is based on the amount of fixed guideway directional route miles and revenue vehicle miles on facilities in operation at least seven years. Forecast fixed guideway directional route miles play an important role in the formula for calculating Section 5309 FGM apportionments. In addition to the increase due to the Project, the HOV zipper lane and other HOV projects assumed to be introduced between FY2022 and FY2025 would increase the directional route miles. As with the Section 5307 funds, the Project will lead to an increase in the formula apportionment amount due to the increased amount of service on fixed guideway facilities. Of the total $53 million expected to be received by the City from FY2011 to FY2030, $27 million is expected to be generated from the implementation of the Project.

FTA Section 5309 Bus and Bus-Related Facilities Program (Bus Capital)

Bus Capital funds can be allocated at the discretion of the Secretary of the U.S. Department of Transportation. Eligible purposes for this funding source include: acquisition of buses for fleet and service expansion; bus maintenance and administrative facilities; transfer facilities; bus malls; transportation centers; intermodal terminals; park-and-ride stations; acquisition of replacement vehicles; bus rebuilds; bus preventive maintenance; passenger amenities, such as passenger shelters and bus stop signs; accessory and miscellaneous equipment, such as mobile radio units; supervisory vehicles; fareboxes; and computers, shop, and garage equipment. Since FY2011 FTA has allocated these funds through a State of Good repair program.

The discretionary nature of this program makes the level of funding difficult to predict. Based on Honolulu's success at receiving these funds in the past, this analysis assumes that Honolulu's Bus Capital allocations between FY2012 and FY2030 will be equal to the average of Honolulu's Bus Capital funding revenues from FY1996 to FY2011, which is about $6 million per year.

LOCAL CAPITAL ASSISTANCE FOR THE SYSTEMWIDE AND ONGOING PROJECT CAPITAL NEEDS

After FY2021, the City intends to apply $54 million (in YOE dollars) of the remaining $193 million (in YOE dollars) cash balance to CARP expenditures and the purchase of 10 additional railcars.

The City is required to match all FTA funding programs with at least 20 percent in local funds. This financial plan, therefore, assumes that at least 20 percent of each year's ongoing capital needs are matched at that level. With the Federal revenues described above, the City is sometimes required to contribute more funds to ensure that projected capital needs are met. Historically, the City has consistently done so through the issuance of GO bonds, and this financial plan assumes that it will continue to do so.

Chapter 3: OPERATING PLAN

This chapter describes the City's plan to fund the O&M costs associated with the Project and the overall transit system. The discussion begins with a summary of the O&M cost estimates and methodology and then presents the operating sources intended to fund these costs.

OPERATING COSTS

O&M cost estimates were developed for the Project, TheBus, and TheHandi-Van, and account for all costs associated with operating and maintaining these services, including labor, fringe benefits, materials and supplies, fuel, and electricity. This section describes the methodology and estimates used in the analysis.

PROJECT O&M COSTS

The O&M costs for the Project were developed using prices from the Core Systems Contract awarded in FY2011. Escalated O&M costs are provided for the Intermediate O&M Period. For the Full O&M Period and the Optional O&M Period, the Core Systems Contract provides O&M costs by year in 2011 dollars. The contract includes a formula based on indices published by the U.S. Bureau of Labor and Statistics (BLS) for labor costs, electricity prices, consumer prices, and producer prices to escalate the costs to YOE dollars.

For the financial plan, 11 years of historical data from BLS were used to escalate the O&M costs that are included in the Core Systems Contract. More details on the data used for inflating these costs and its application can be found in Table D-4 of Attachment D. It is assumed that the costs in the last year of the Optional O&M Period will continue through the end of the forecast period.

The remainder of the Project O&M services will be delivered directly by HART. These costs (excluding pass-through utility costs) account for approximately 19 percent of total Project O&M on average and include costs for guideway structure inspections and maintenance, security patrols (not including the MSF and Yard, which is covered by the Core Systems Contract), fare revenue collection and equipment servicing, fare inspection and enforcement, station maintenance (including escalators and elevators), and costs associated with staffing of administrative and management personnel, including overhead, for the HART organization. The financial plan assumes that the HART organization will include 86 full-time equivalent positions when the full O&M period begins in March 2019. During the intermediate O&M period (East Kapolei to Aloha Stadium), the size of the HART organization related to O&M is assumed to be smaller relative to the level of rail operations.

A resource build-up approach was used to determine the Project O&M costs that will be directly incurred by HART. This approach fully allocates O&M costs based on level of service variables. Table 3-1 summarizes the corresponding level of service variables and unit costs used for this purpose.

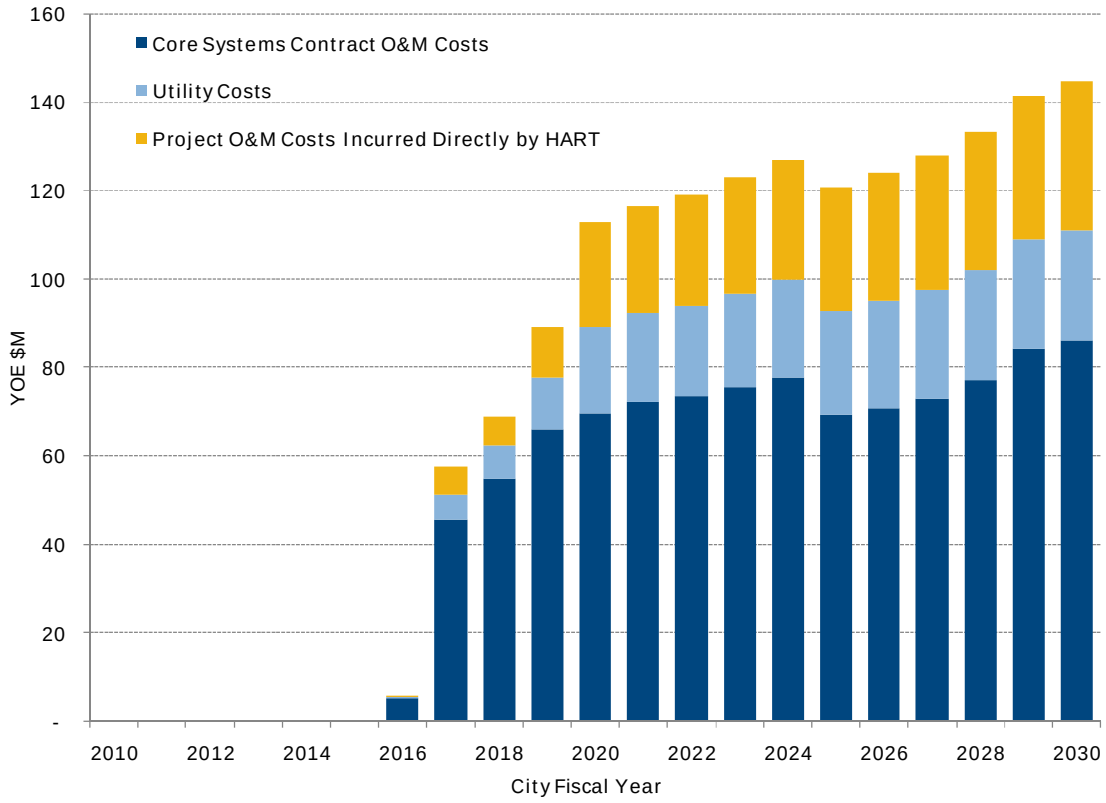
Table 3-1, Level of Service Variables and Unit Costs for O&M Costs Incurred Directly by HART

Cost Item	Resource Variable	Unit Costs (2012$)
Guideway structure inspections/maintenance	DRM	$46,598
Security patrols, not including MSF	DRM	$16,132
Fare revenue collection/equipment servicing	S	$115,864
Fare inspection/enforcement	S	$86,035
Station maintenance, including escalator/elevator	S	$98,682
HART staff and overhead	PV	$165,956

MSF = Maintenance Storage Facility and Yard // DRM= Directional Route Miles // S = Stations // PV = Peak Vehicles

Figure 3-1 shows the total O&M costs for the Project including the Core Systems Contract, HART, and utility costs (pass-through costs from the Core Systems Contract to HART).

Figure 3-1, Project O&M Costs, FY2010 – FY2030, YOE $millions



THEBUS O&M COSTS

TheBus O&M costs were developed using existing bus operations as the baseline as well as anticipated service levels through FY2030. TheBus O&M costing methodology uses a resource build-up approach that fully allocates O&M costs based on level of service variables. Each unit cost is broken down by object class which allows for applying different inflation rates to each object class. This approach is consistent with Section 4 of FTA's *Procedures and Technical Methods for Transit Project Planning*, *Draft Version 3 dated August 28, 2008*. More details on TheBus O&M cost model can be found in the *Memorandum on O&M Cost Models*, *dated May 2009*.

Level of Service

The City currently operates standard buses (including 29 foot, 30 foot, 35 foot, and 40 foot buses) and a mixture of articulated 60-foot diesel and hybrid buses. As described in Chapter 2, the City will replace its articulated hybrid buses with articulated clean diesel buses. The peak vehicle requirements and revenue vehicle miles for TheBus system are shown on Figure 3-2 and Figure 3-3, respectively. The financial plan assumes straight-line growth in bus level-of-service between FY2020 and FY2030.

Figure 3-2, TheBus Peak Vehicles by Bus Type, FY2010 – FY2030

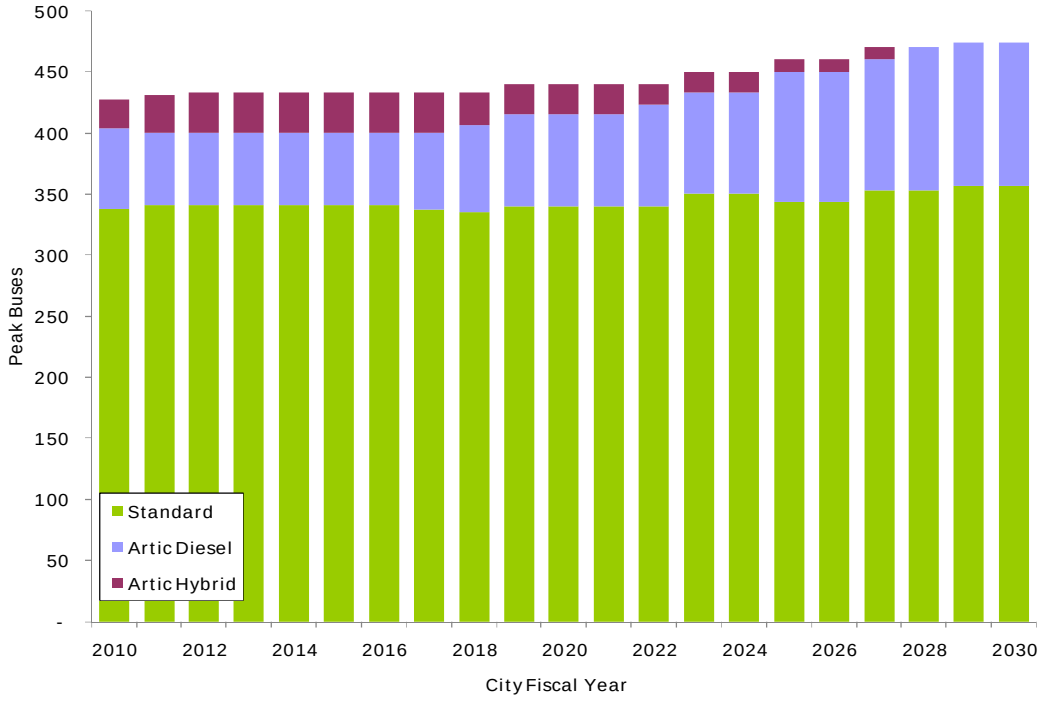
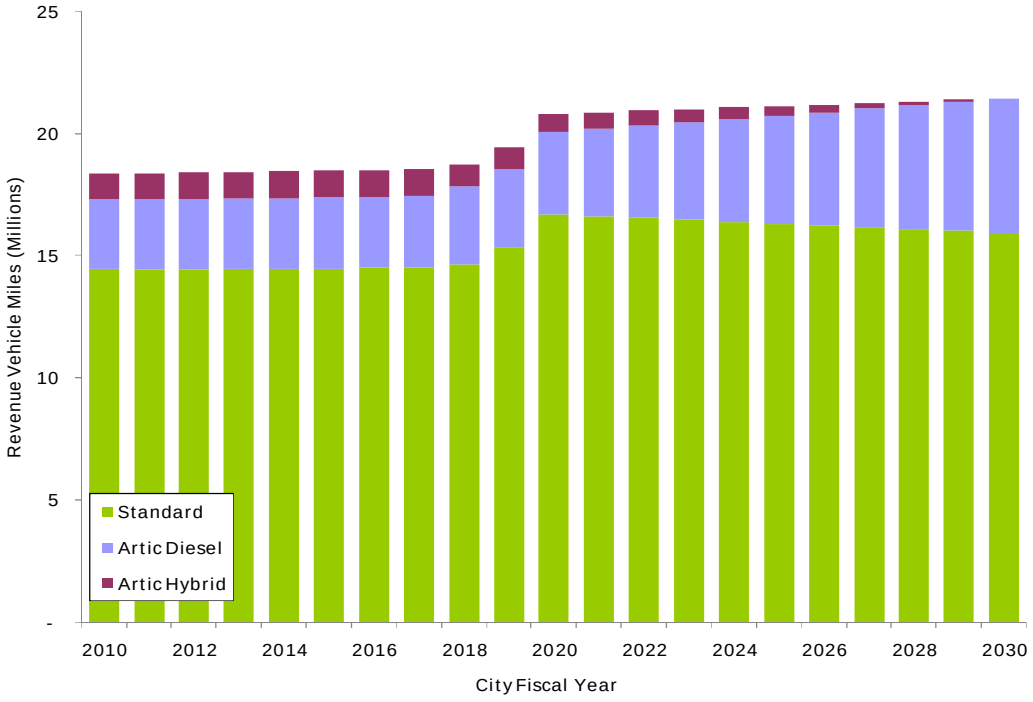


Figure 3-3, TheBus Revenue Vehicle Miles, FY2010 – FY2030



Unit Costs

An O&M cost allocation model was used to estimate O&M costs for each bus system component. The model identified nine level of service variables as shown in Table 3-2 and six object classes – including wages and salaries, health care, other benefits, materials and supplies, fuel and lubricants, and other costs. One level of service variable was assigned to each O&M expense line item, based on that item's sensitivity to given O&M cost drivers. Total costs were then summed for each level of service variable and divided by that variable's annual total amount to calculate unit costs, which were further broken down by object class. One more object class was added to this analysis to cover the general administrative and management expenses that DTS allocates to TheBus (including office equipment costs and other expenses associated with managing the contract with OTS. Total peak vehicles was also added as a level of service variable associated with DTS' contract administration expenses, as a proxy for the overall size of the operations. Table 3-2 summarizes the unit costs and the associated level of service in FY2020 and FY2030.

Table 3-2, TheBus Level of Service Variables and Unit Costs

Level of Service Variable	FY2020	FY2030	Unit Costs (2011$)
Revenue Vehicle Miles SB	16,675,869	15,920,221	$3.21
Revenue Vehicle Miles AD	3,353,942	5,505,873	$4.46
Revenue Vehicle Miles AH	767,844	-	$3.79
Revenue Vehicle Hours	1,577,552	1,659,823	$63.17
Peak Vehicles SB	340	357	$26,947
Peak Vehicles AD	75	117	$32,067
Peak Vehicles AH	25	-	$27,257
Total Peak Vehicles	440	474	$32,553
Maintenance Facilities	3	3	$930,706
Unlinked Passenger Trips	100,091,996	109,134,334	$0.096

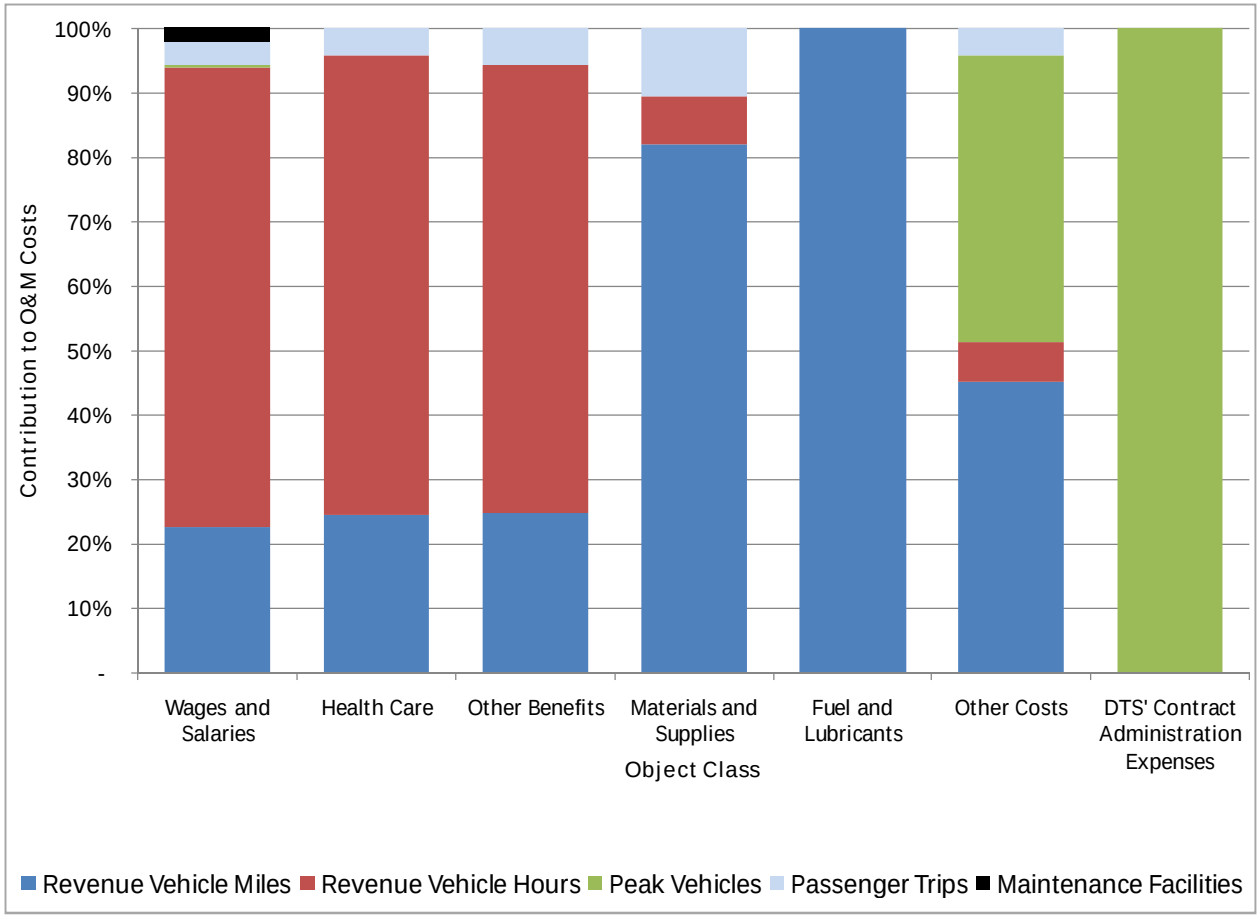
SB = Standard Bus // AD = Articulated Diesel // AH = Articulated Hybrid

Inflation

The unit costs developed and calculated in 2011 dollars were then inflated to YOE dollars. The actual operating expenses of the TheBus were first analyzed for the last five fiscal years (FY2006 to FY2011) to determine the principal driving level of service variable for each object class. Historical trends in the corresponding unit costs were then developed and compared to general inflation, as measured by the Honolulu Consumer Price Index (CPI-U) over the analysis period. The same spread was then applied to projected CPI-U inflation over the forecast period. This methodology and results are presented below.

As a first step, detailed actual cash-basis expenses were provided at the expense line item level. This allowed for assigning level of service variables to expenses in accordance with the O&M cost allocation model. Figure 3-4 depicts the average contribution of each level of service variable to total expenses by object class over the past five years. As shown, each object class has one principal explanatory level of service variable. Expenses associated with wages and salaries, health care, and other benefits, such as pensions, are driven by revenue vehicle hours; expenses associated with materials and supplies, fuel and lubricants, and other items are driven by revenue vehicle miles; DTS' contract administration expenses are driven by total peak vehicles.

Figure 3-4, TheBus Level of Service Variables by Object Class, FY2006 – FY2011



Historical trends were then established for unit O&M costs of each object class by its principal driving level of service variable (as presented in Table D-1 of Attachment D). The CAGRs were also calculated for each unit cost and compared to the CAGR of general inflation, as measured by the Honolulu CPI-U over the analysis period FY2006 - FY2011. Inflation assumptions by object class were established, as shown in Table 3-3, to define the relationship between the growth in unit cost for each object class and the growth in Honolulu's CPI-U forecasted for the next 20 years. From FY2012 through FY2015, this forecast is based on the quarterly outlook of key economic indicators from the DBEDT as of February 2012. The financial plan adjusts the projected growth from calendar year to fiscal year. The resulting growth rate in FY2015, equal to 2.50 percent, is then assumed to remain constant through FY2030. Inflation assumptions for each object class are as follows:

- Wages and Salaries are assumed to increase at 1.08 times the rate of general inflation.
- Health Care costs are assumed to grow at a faster rate, equal to 2.16 times the rate of general inflation.
- Other Benefits costs are assumed to grow at 2.08 times the rate of general inflation for FY2012 and FY2013. Starting in FY2014, these costs are assumed to grow at the same rate as wages and salaries. The higher historical rate for this object class is mainly a result of the higher pension costs; the Teamsters were successful in negotiating pension pay for TheBus operators comparable to pay negotiated by other organized labor (such as cement and United Parcel Service truck drivers). This high rate was negotiated in July 2008, prior to the recent economic downturn. The operating plan assumes future near-term negotiations will not be as favorable for

TheBus operators. As such, the higher rate is assumed to carry forward through FY2013 when the current contract is set to expire, but then grow at the lower rate of wages and salaries thereafter.

- Materials and supplies are assumed to grow at 1.43 times the rate of general inflation.
- Bus Fuel costs are increased based on the Energy Information Administration forecast for diesel fuel used in the transportation sector through FY2030, as published in its *2012 Annual Energy Outlook dated January 23, 2012*.
- Other Bus O&M costs and DTS' Contract Administration expenses are assumed to grow at the same rate as general inflation. This is a conservative assumption given that these costs have been growing at a lower rate historically.

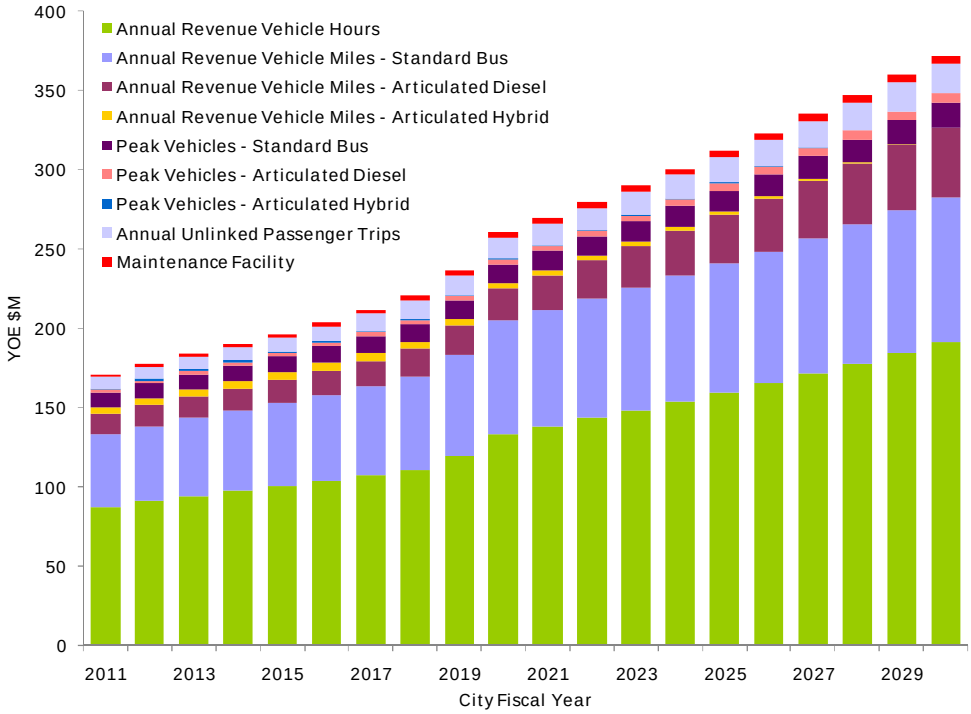
Table 3-3, TheBus Unit O&M Cost Inflation Assumptions

Object Class	Principal Explanatory Level of Service Variable	Actual FY2006-FY2011 Unit O&M Cost CAGR	Basis for Inflation of Unit O&M Cost in Financial Plan
Honolulu CPI-U		3.23%	
Wages and Salaries	RVH	3.50%	1.08 x CPI-U
Health Care	RVH	6.98%	2.16 x CPI-U
Other Benefits	RVH	6.71%	2.08 x CPI-U for FY2012 and FY2013; 1.08 x CPI-U thereafter
Materials and Supplies	RVM	4.60%	1.43 x CPI-U
Fuel and Lubricants	RVM	5.51%	EIA - 2012 Annual Energy Outlook Forecast for Diesel Fuel
Other Costs	RVM	1.78%	1.00 x CPI-U
DTS' Contract Administration	PV	-4.13%	1.00 x CPI-U

RVH = Revenue Vehicle Hour // RVM = Revenue Vehicle Mile // DTS = Department of Transportation Services // PV = Peak Vehicle // CPI-U = Consumer Price Index // EIA = Energy Information Administration

Inflated unit costs by object class were applied to level of service variable data taken from the transit service plan and forecast model output for the Project. Figure 3-5 shows the composition of total operating costs for TheBus system through FY2030, with the contribution to total cost of each level of service variable. As shown, revenue vehicle hours is the principal driving level of service variable for TheBus O&M costs. Table D-2 of Attachment D presents the transit operating measures of TheBus and compares historical growth rates to those assumed in the financial plan.

Figure 3-5, TheBus Total O&M Costs, FY2011 – FY2030, YOE $millions



THEHANDI-VAN O&M COSTS

TheHandi-Van is a paratransit service operating in tandem with TheBus and has been in operation since 1999. In FY2011, TheHandi-Van serviced more than 940,000 trips with an associated total O&M cost of approximately $34 million. The projected O&M costs for TheHandi-Van are based on the FY2011 cost per rider, equal to $36.32, applied to the projected ridership, and adjusted for inflation.

TheHandi-Van O&M costs have been increasing at a rapid rate for the past few years, mostly driven by passenger growth. In addition to providing public transportation service to the general public, TheHandi-Van has also been increasingly servicing various non-profit social service programs, generally administered or funded by the State of Hawai'i with Federal financial assistance through the Medicaid program. The nature of these latter trips is not necessarily correlated with the ageing population in Honolulu, but rather with the general resident population. As such, the financial plan assumes that TheHandi-Van ridership grows at an average rate, weighted 30 percent by the growth in general resident population in Honolulu and 70 percent by the growth in the resident population in Honolulu above 65 years old as forecasted by the DBEDT in its 2035 outlook dated August 2009 (see Table D-3 in Attachment D for historical and forecast resident population data). The resulting ridership is expected to grow at an average annual rate of 1.79 percent from FY2011 to FY2030.

Analysis of TheHandi-Van actual unit O&M cost per rider between FY2006 and FY2011 showed that unit cost increased at 1.61 times the rate of general inflation. The financial plan assumes this same relationship between the growth in unit O&M cost per rider and the growth in Honolulu's CPI-U forecasted for the next 20 years. It should be noted that the historical period used for this analysis experienced favorable negotiated wage increases with the Teamsters and significant investments by OTS to increase its workforce (particularly schedulers and dispatchers) in an effort to improve TheHandi-Van quality of service. DTS does not expect future near-term negotiations to be as favorable. DTS will also be collaborating with the social service programs to explore options for containing TheHandi-Van subscription service cost and enhancing its revenue.

Applying the projected ridership growth to the adjusted unit O&M cost yields an average annual growth rate for TheHandi-Van O&M costs of 5.96 percent per year.

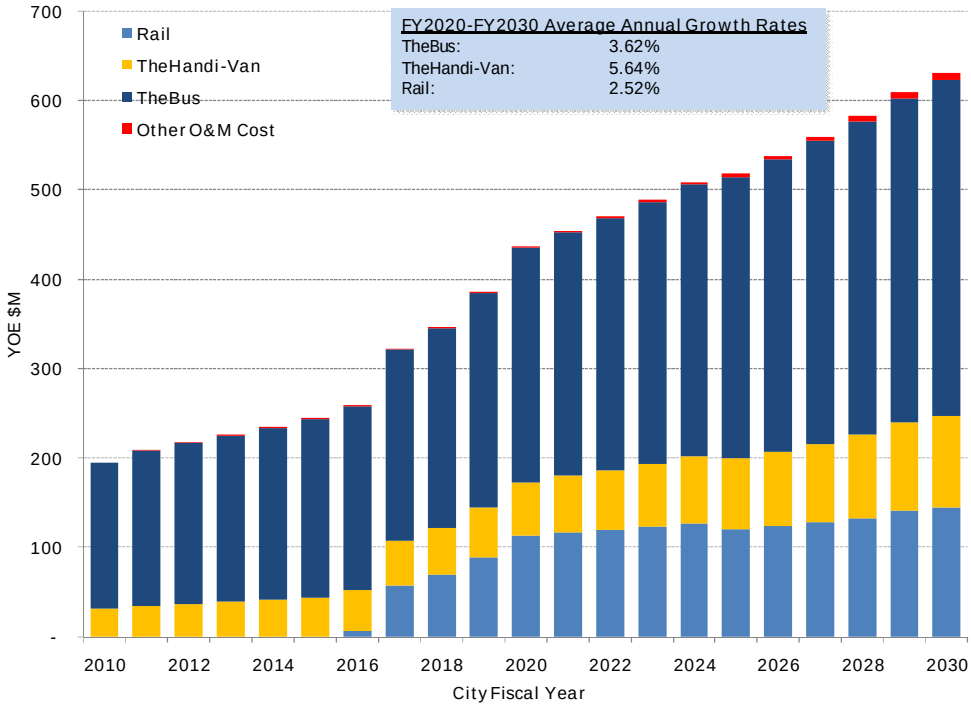
OTHER O&M COSTS

Other minor O&M costs are expected throughout the planning horizon. On average, these costs account for only $3 million per year and correspond to operating costs associated with establishing selected human service agencies as transportation providers to serve clients currently riding TheHandi-Van, and maintaining and expanding shuttle services for low-income persons working in Kapolei and Makakilo areas. Both of these efforts are included in the FY2011 – FY2014 Transportation Improvement Program.

SYSTEMWIDE O&M COSTS

Figure 3-6 illustrates the forecasted total annual O&M costs for the system broken down by mode. As seen on this figure, the O&M costs for TheBus and TheHandi-Van are increasing at a greater rate than the Project once fully implemented. TheHandi-Van is expected to grow at 5.64 percent on average per year between FY2020 and FY2030, TheBus at 3.62 percent, and the Project at 2.52 percent. The costs to operate the City's transit system are still expected to be attributable mostly to bus operations, as the Project is expected to account for about 23 percent of total O&M cost between FY2017 and FY2030.

Figure 3-6, Total Systemwide O&M Costs, FY2010 – FY2030, YOE $millions



Note: Project Core Systems O&M cost in FY2030 was extrapolated

OPERATING REVENUES

This section describes the sources of funds that the City intends to use to fund the O&M costs for the Project and the transit system as a whole. Operating revenues include passenger fares, while other revenues are comprised mainly of transfers from the City's General and Highway Funds and FTA Section 5307 formula funds.

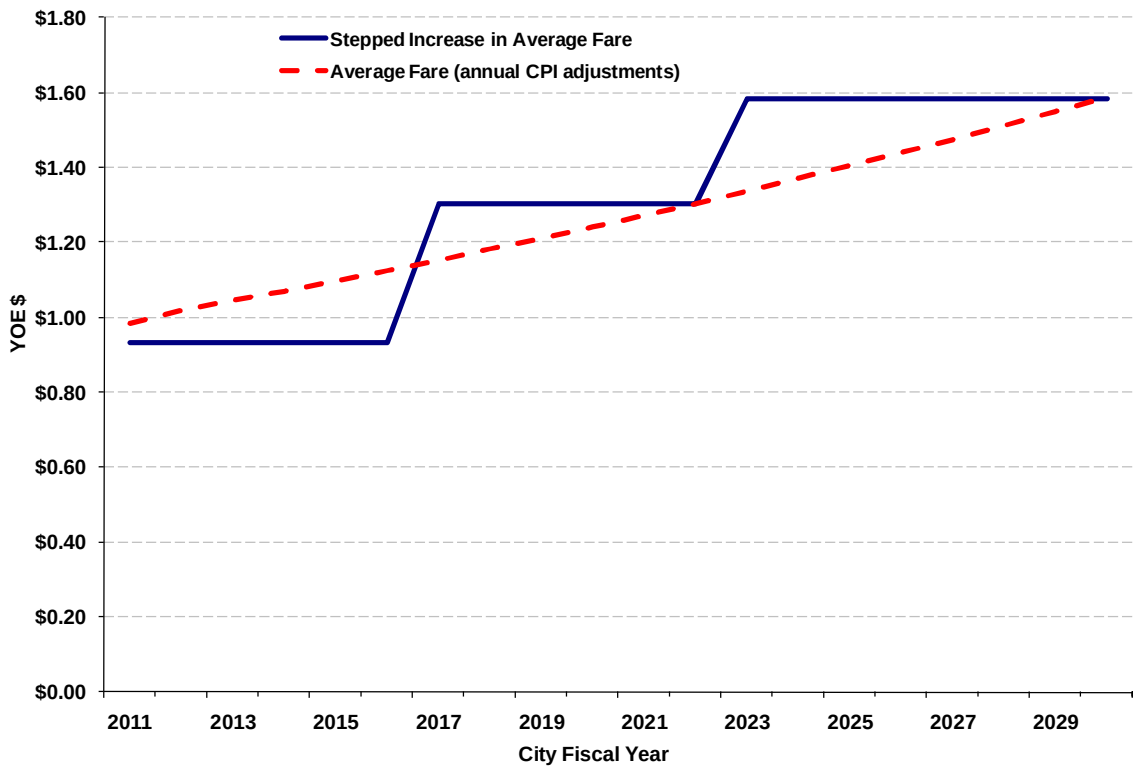
PASSENGER FARES

In FY2011, TheBus reported 73.8 million boardings, corresponding to about 55.5 million linked trips (taking transfers into account). On July 1, 2010 (beginning of FY2011), the City increased fares by approximately 12 percent on average. Accordingly, the FY2011 average fare per linked trip was $0.93.

A City resolution (00-29 CD1) stipulates that the farebox recovery ratio (FRR) for TheBus be maintained between 27 percent and 33 percent, which demonstrates a commitment of the City to keep operating costs and revenues growing at a comparable rate on average. This financial plan assumes that the same fare structure will be maintained for both TheBus and the Project, with free transfers assumed between both modes.

Figure 3-7 illustrates the assumed future fare increases that are used as the basis for the fare revenue forecast, as compared to a constantly increasing average fare, which is assumed implicitly in the travel demand model. Fares are increased such that the 2030 average fare matches the average fare assumed in the travel demand model in real terms.

Figure 3-7, Average Fare Grown at CPI-U vs. Periodic Increases, FY2011 – FY2030, YOE $

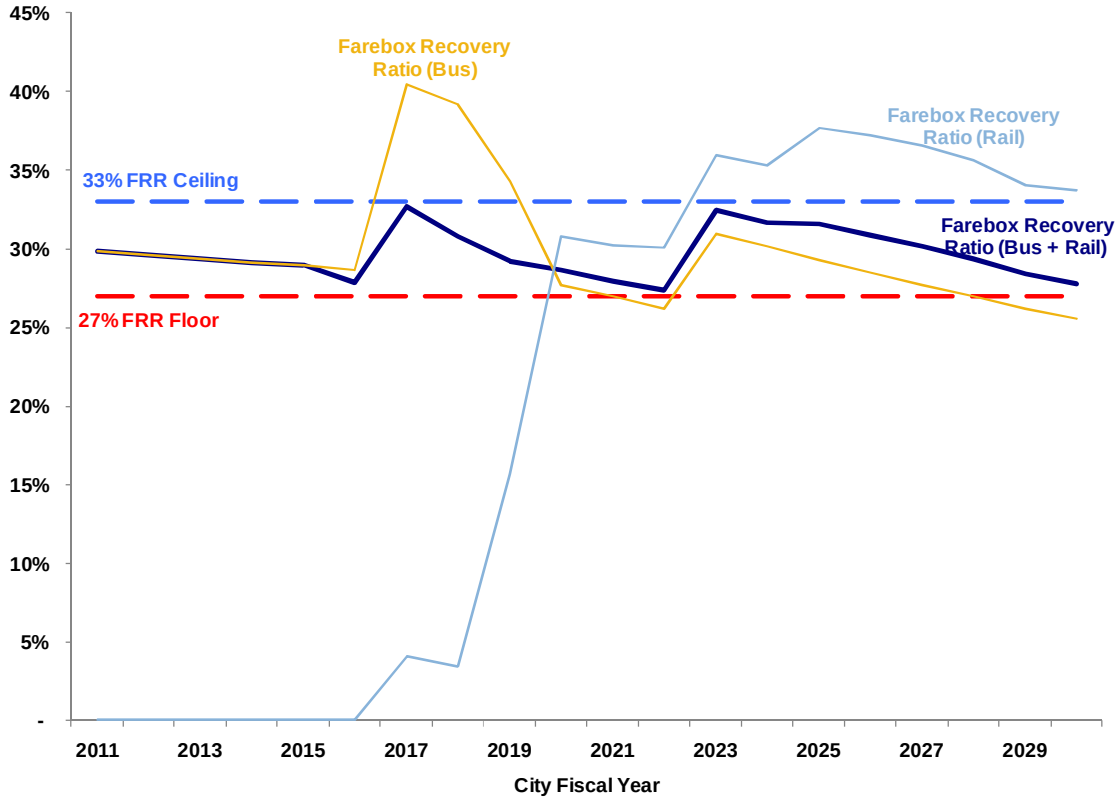


CPI -U= Consumer Price Index All Urban Consumers

The growth in average fare is assumed as a "step function" with increases of approximately $0.37 in FY2017 and $0.28 in FY2023. Figure 3-8 shows the FRR for TheBus and the Project combined, as well as for TheBus and the Project separately. Consistent with City policy, the combined FRR for bus and rail

remains between 27 percent and 33 percent through FY2030. This figure also demonstrates that, once fully implemented, the Project is expected to carry a larger load relative to its O&M cost than TheBus, as illustrated by the higher FRR for rail alone than for bus alone. In part, this reflects the fact that riders are expected to rely on rail for longer trips on average, and is also consistent with general industry benchmarks. The FRR by mode was obtained by proportioning total fare revenues between bus and rail - 50 percent based on boardings and 50 percent based on passenger miles. The breakdown of fare revenues by mode is presented in the operating plan cash flow in Appendix A.

Figure 3-8, Rail and Bus Farebox Recovery Ratio (FRR), FY2011 – FY2030



Note: TheBus and Project forecasted fare revenues as a percentage of TheBus and Project forecasted O&M costs
FRR = Farebox Recovery Ratio

The timing of the fare increases assumed in the financial plan is conservative compared to the City's past history. As illustrated in Table 3-4, the City has increased fares five times over the past 10 years.

Table 3-4, TheBus Fare Structure and History

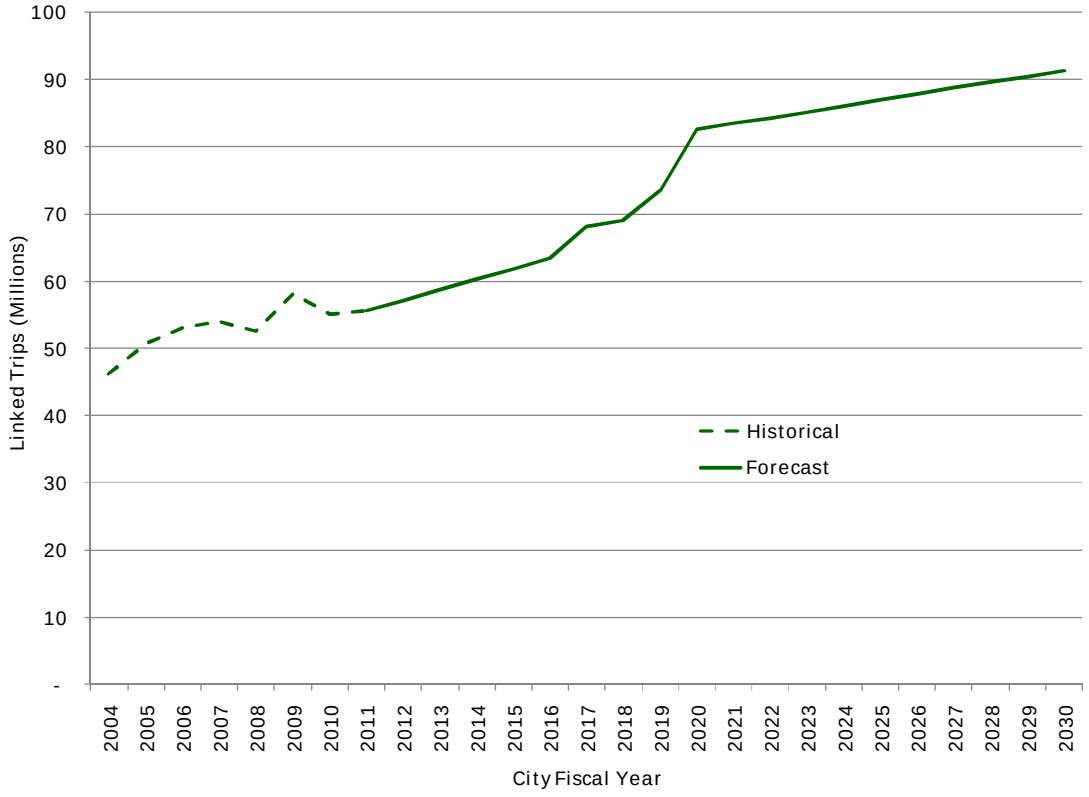
Effective Date	One-way Cash Fare		Monthly Pass	
	Adult	Youth	Adult	Youth
March 1, 1971	0.25	0.15	N/A	N/A
March 2, 1971	0.25	0.10	N/A	N/A
June 9, 1972	0.25, 0.50	0.10, 0.25	N/A	N/A
March 15, 1974	0.25	0.10	N/A	N/A
November 1, 1979	0.50	0.25	15.00	7.50
June 18, 1984	0.60	0.25	15.00	7.50
October 1, 1993	0.85	0.25	20.00	7.50
July 1, 1995	1.00	0.50	25.00	12.50
July 1, 2001	1.50	0.75	27.00	13.50
July 1, 2003	1.75	0.75	30.00	13.50
October 1, 2003	2.00	1.00	40.00	20.00
July 1, 2009	2.25	1.00	50.00	25.00
July 1, 2010	2.50	1.25	60.00	30.00

N/A = Not Applicable

Ridership estimates used in the financial plan were taken from the travel demand model. Approximately 280,000 linked trips per day are forecasted in 2030 for the bus and rail system combined. Significant ridership increases are observed in FY2017 and FY2020 corresponding to the first full years following opening of the Intermediate O&M Period and the Full O&M Period, respectively. Once the Project is operational, transfers between TheBus and the Project would also be free and seamless. These assumptions yield projected fare revenues for bus and rail of $145 million in FY2030. The assumed growth during the intermediate O&M period is based on a linear interpolation between the opening and forecast years. Growth prior to the Intermediate O&M Period is commensurate with projected growth in population and employment.

Figure 3-9 illustrates the City's forecasted linked trips, and shows an increase of 2.5 percent in FY2016 corresponding to one month of the first phase opening. Linked trips are expected to increase by 7.5 percent in FY2017 which is the first full year of the Intermediate O&M Period. In FY2019, linked trips are expected to increase by 6.5 percent, corresponding to the Project being open for the last four months of the fiscal year. FY2020 will be the first full operating year with linked trips expected to grow by 12.3 percent in that year.

Figure 3-9, Historical and Forecasted Linked Trips for TheBus and the Project, FY2004 – FY2030, millions of Trips



FEDERAL FUNDS

The City currently receives Federal funds through FTA's Section 5307 Urbanized Area Formula Program. As mentioned in the systemwide capital plan chapter of this financial plan, the majority of Section 5307 funds are applied first to ongoing capital needs with any surplus being used for preventive maintenance.

Once the Project is operational, the City is expected to receive additional Section 5307 funds based on the higher level of bus service and the addition of rail service. Beyond the Project construction period, the financial plan assumes that Section 5307 funds will be distributed first to fund the Project Capital Asset Replacement Program and ongoing systemwide capital expenditures; any remaining balance will then be used to fund preventive maintenance. Increased Section 5307 funding attributable to the full Project opening for revenue service does not become available until FY2022 because of the 2-year lag between the start of service and the National Transit Database report containing increased service data used by FTA to calculate the formula.

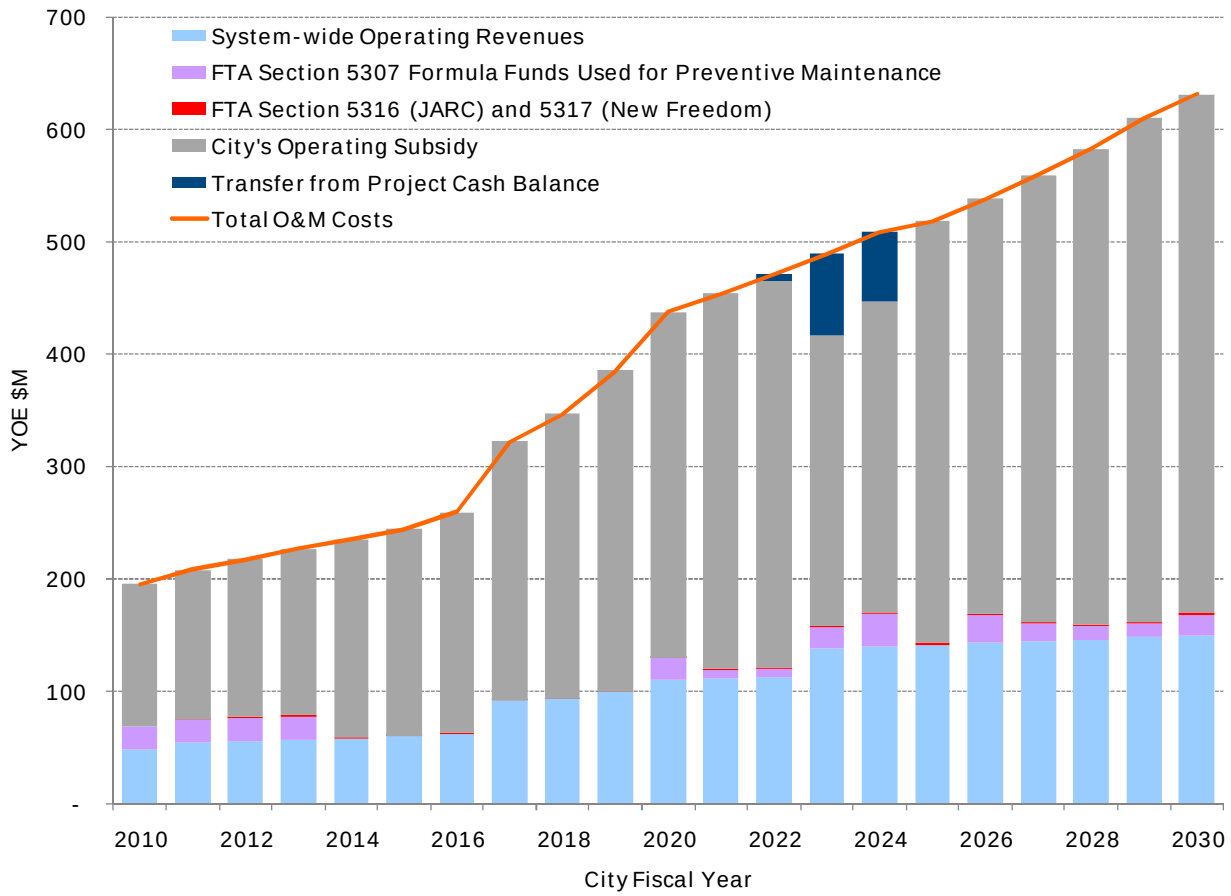
Over the long term, the City is expected to receive a cumulative amount of approximately $926 million from FY2011 through FY2030 from Section 5307 funds, including $103 million in additional funds generated from the implementation of the Project. Of the total Section 5307 funds, $490 million is anticipated to be used for ongoing transit capital needs and the remaining $226 million is assumed to be used for preventive maintenance.

The City is also expected to continue receiving funds from the FTA Section 5316 (Job Access Reverse Commute) and Section 5317 (New Freedom) programs to fund operations for projects serving low-income persons. The corresponding amount is projected to range from $1 to $2 million annually.

SYSTEMWIDE OPERATING PLAN

Given the assumptions in this financial plan, the Federal and local revenues are assumed to be sufficient to operate and maintain the Project while continuing the operation and maintenance of the existing bus and paratransit systems. This further assumes that the City will continue to support transit operations through transfers from its General and Highway Funds, as it has done in the past. Before the Project opens, between FY2010 and FY2015, the City is expected to subsidize on average 68 percent of TheBus and TheHandi-Van O&M costs. The average subsidy is expected to increase slightly, averaging 70 percent of total O&M costs between FY2016 and FY2030 once the Project opens, with an average FRR of 30 percent during that period (including bus, rail, and paratransit). Figure 3-10 shows the breakdown of operating revenues compared to total operating costs.

Figure 3-10, Operating Costs and Revenues, FY2010 – FY2030, YOE $millions



JARC = Job Access Reverse Commute

CITY CONTRIBUTION

The City's contribution to transit O&M expenses is funded using local revenues from the General and Highway Funds. The General Fund comprises most of its revenues from the following taxes:

- Real Property Tax – tax on real property based on assessed value; rates vary with property class.
- State Transient Accommodations Tax – 7.25 percent tax on a dwelling that is occupied for less than 180 consecutive days. The City has historically received a portion of these revenues.

- Public Service Company Tax – City receives 1.885 percent of all public service companies' gross income.

The Highway Fund comprises most of its revenues from the following taxes:

- Fuel Tax – a 16.5 cent per gallon tax on all fuel sold or used within the City's jurisdiction.
- Vehicle Weight Tax – a tax on the net weight of all passenger and non-commercial vehicles (5 cents per pound) and motor vehicles and non-passenger-carrying vehicles (5.5 cents per pound).
- Public Utility Franchise Tax – a 2.5 percent tax on all electric power and gas companies' gross sales receipts.

During the period from FY1994 to FY2011, revenues from these sources totaled $14.0 billion, of which approximately $1.5 billion (11 percent) went to transit.

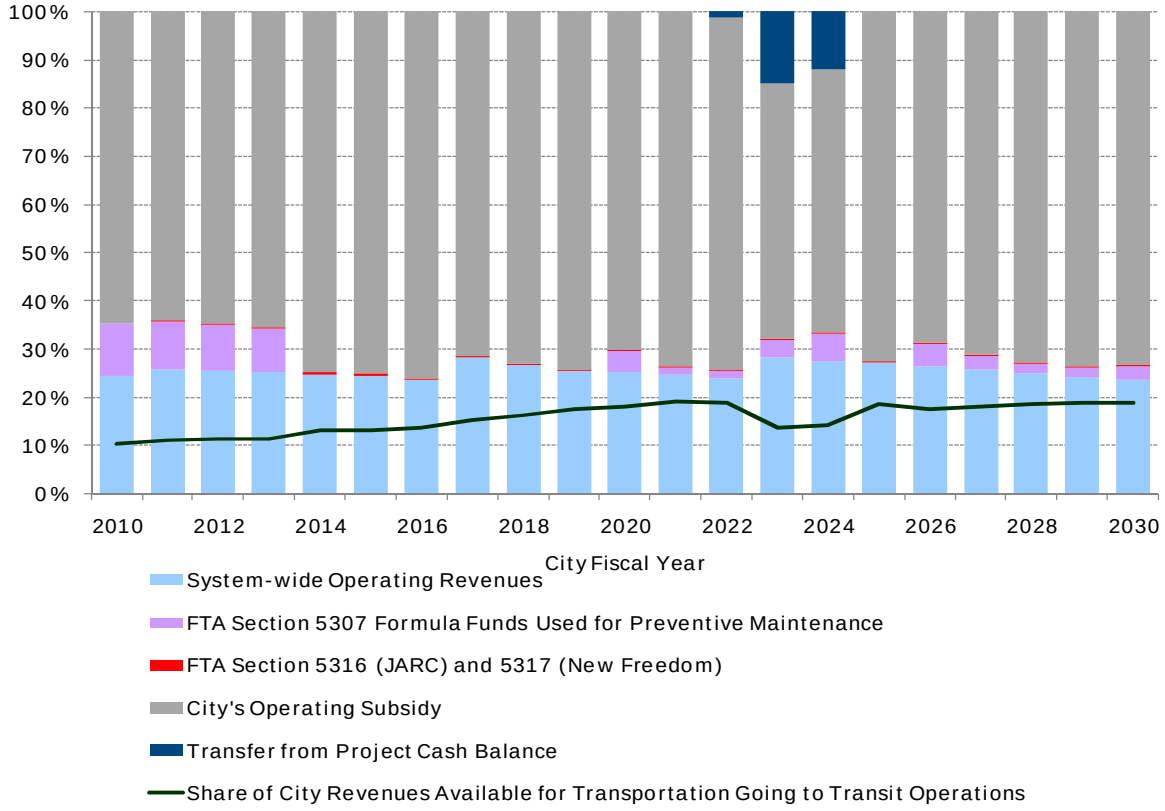
The financial plan forecasts the growth in these City Funds at an aggregate level and the resulting share that will be needed for transit operations. This forecast applies the aforementioned CPI-U inflation forecast in Honolulu as well as a real rate of growth equal to 1.30 percent, which is equal to the real growth experienced between FY1996 and FY2011.

Between FY2011 and FY2015, TheBus and TheHandi-Van services are expected to receive, on average, 12 percent of these funds' revenues. To meet the O&M funding requirements for the Project and planned bus system after FY2016, the City contribution is expected to average 17 percent through FY2030.

Increases in other transit revenue sources, such as advertising, or increases to the overall Section 5307 program could reduce the amounts required to be transferred from the City's General and Highway Funds. In addition, it should be noted that the implementation of the Project is expected to result in an additional $27 million and $103 million from Section 5309 FGM and Section 5307 funds respectively through FY2030, thereby increasing the amount of Section 5307 funds that can be used for preventive maintenance.

Figure 3-11 shows the breakdown of operating revenues and the City contribution as a percentage of City revenues available for public transportation, including the fund sources described above. In addition to the sources mentioned above, a total of $140 million from the Project's cash balance is expected to be transferred to fund rail O&M cost from FY2022 to FY2024 (see Chapter 2 for more details on the use of the Project's cash balance).

Figure 3-11, Operating Revenues and City Contribution, FY2010 – FY2030



Chapter 4: RISKS AND UNCERTAINTIES

The preceding chapters presented the financial plan with baseline assumptions for revenues and costs. This chapter discusses the risks and uncertainties around many of the key assumptions, and presents the results of several capital and operating stress tests. The detailed cash flows summarizing the results of the stress tests are included in Attachment B.

CAPITAL PLAN

CAPITAL COST RISKS

Risks and uncertainties related to the Project capital cost estimate are mostly related to inflationary and schedule risks as further described below. Market risks are reduced on already awarded contracts that make up 41 percent of the Project capital cost estimate in YOE dollars (without contingency). These include the design-build contracts awarded for the West O‘ahu-Farrington Highway Guideway; the Kamehameha Highway Guideway; the Maintenance Storage Facility and Yard; and the design-build portion of the Core Systems DBOM Contract. Additionally, other contract awards include engineering service agreements with utility companies for Sections I and II (partial); design of the Farrington Highway station group; and design of the Airport section guideway and utilities. The remainder of the capital cost not covered by these contracts reflects a “bottom-up” cost estimate.

Inflation

As described in Chapter 2, Project construction costs have been escalated using individual cost component rates which vary according to demand and supply at a global, regional, and local level. In general, commodity prices tend to be more sensitive to global economic pressures with some construction cost components being more volatile than others. Steel prices increased slightly in 2011, fueled mainly by increases in production capacity utilization. Other commodity components (concrete and other materials) might be subject to similar fluctuations in prices and could have similar impact of increasing Project costs.

The majority of labor contracts are due to be renegotiated in FY2013 and FY2018, at which point labor prices could increase or decrease based on the availability of labor and the level of construction activity. Furthermore, the escalation rates for labor might be somewhat different if a labor agreement is signed for the Project, since it would lock in labor contracts throughout the construction period.

The total contingency included in the Project cost estimate is approximately 15 percent of the total base-year cost without contingencies, or approximately $560 million in 2012 dollars or $644 million in YOE dollars. The level of contingency reflects some cushion for potential cost escalation, within a reasonable level of probability.

Project Schedule

As part of the Project’s ongoing risk management program and FTA’s risk assessment process, the City has identified several Project activities that pose potential risks to the critical path of the Project. As with many projects of similar scope and size, the most significant schedule risks involve the timing of design and construction NTP; permitting delays; delays in acquisition of right-of-way; and late delivery or acceptance of design submittals.

The Project’s master schedule has been developed in close coordination with FTA, and reflects input on the baseline assumption of executing an FFGA by October 2012. Any potential shift in the FFGA date beyond the expiration date of the LONP (issued in February 2012) could impact the Project construction schedule, although it is likely that the City would be able to implement schedule mitigation measures to reduce such an impact. The probability of risks associated with potential schedule delays has been

included in the Project’s risk register, and therefore is also reflected in the amount of contingency included in the Project budget.

Interest Rates and Municipal Market Uncertainties

As in any capital project requiring the issuance of debt, the Project is subject to uncertainty associated with fluctuations in interest rates. Variations in interest rates could affect the interest earned on cash balances and the interest paid on any outstanding debt, as well as the size of the debt requirements to finance the Project. Variations in interest rates could also influence the level of working capital and the ability to both operate existing service and undertake new initiatives.

Fluctuations in interest rates are influenced by a number of factors, including the credit rating of the bond issuer (the City) and other external factors that are not directly under the control of the City, such as market risks.

The financial plan assumes that the City will utilize GO bonds and short-term construction financing. Each of these tools are currently available to the City and have been structured in the financial plan to conform to provisions of the Hawai‘i Constitution. The interest rates assumed for each type of debt instrument are similar to the interest rates that are available for comparable maturities in today’s market. These rates were adjusted upward by 50 basis points for bonds issued between FY2016 and FY2019 to account for potential future interest rate increases.

Credit Rating

This financial plan assumes that Project-related debt will not impact the credit quality of the City because the forecasted Project revenues are sufficient to fund all Project-related debt service. The cost of borrowing could increase if the City’s credit rating were negatively impacted.

CAPITAL REVENUE RISKS

GET Surcharge Revenue

The primary source of non-Federal funding for the Project is the net GET Surcharge revenues. The amount of total GET Surcharge revenues depends on a variety of underlying economic factors outside of the City’s control that may result in a higher or lower collection rate than the one currently used in this financial plan. Nonetheless, several mitigating factors are important to consider for the outlook in GET Surcharge revenues:

- Inflation plays an important role in forecasting GET Surcharge revenues, as this source of funds is highly dependent on local prices. Higher general inflation in the post-construction years could increase GET Surcharge revenues without affecting Project capital costs.
- Unlike most sales taxes, the GET Surcharge has the benefit of being levied on a broad range of business activities including both goods and services. This diversification is usually seen positively by economists and the investment community and is usually associated with greater stability.

FTA Funding: Section 5307 Formula; Section 5309 New Starts, FGM, and Bus Capital

The Project assumes Federal funding participation through the Section 5307 Urbanized Area program; and Section 5309 New Starts, FGM, and Bus Capital programs. Federal legislation that authorizes these programs (Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users) was scheduled to expire at the end of September 2009, but has been extended until June 30, 2012. While these programs have been in place for many years, through several authorization cycles, there is a possibility that Congress will change direction in the next authorization cycle. Congress could increase or decrease the amount of funds available, impose new rules on project eligibility, and/or revise the criteria used to evaluate potential projects.

U.S. Department of Transportation's FY 2013 budget proposal includes increasing levels of funding available for transit projects; including $2.2 billion of funds for "Transit Expansion and Livable Communities" projects, which would include the New Starts program. While it is unlikely that these exact amounts will be enacted by Congress, the budget proposal signals a strong commitment from the Administration to the New Starts program.

The timing of New Starts funding is also subject to appropriation uncertainties. The total amount of the FTA contribution will be specified in an FFGA between FTA and the City. The FFGA will also identify the amounts to be made available each year, subject to annual appropriations legislation. History has shown that Congress ultimately honors and appropriates the full amount of New Starts funds awarded in an FFGA. Congress could extend the funding period for the Project by stretching out the annual appropriations. Any delay or significant decrease in the annual New Starts appropriation amounts could necessitate additional borrowing or schedule delays, potentially increasing the Project's capital cost.

In the event of delays in FFGA funds, the City could consider issuing debt that would be secured with FFGA revenues, referred to as grant anticipation notes. These notes would allow the City to leverage future FFGA revenues before they are appropriated, and any appropriation risk would be factored into the interest rate. This could help minimize the potential impacts of any delays in FFGA appropriations on the financial plan.

CAPITAL PLAN SENSITIVITY ANALYSES

Sensitivity analyses were run to assess the City's capacity to cover unexpected cost increases or revenue shortfalls. This section presents the results of a potential increase in Project capital cost, and a reduction in the growth rate in net GET Surcharge revenues.

The City has developed a risk management plan and is committed to enacting cost containment measures as a primary tool to maintain the Project's capital cost within the established budget. If needed, the City also has various strategies to mitigate these downside risks using mechanisms that are currently in place, including additional debt capacity available to the City through the issuance of GO debt backed by excess Project revenues. This would result in a reduction in the amount deposited to the Project reserve fund or earlier release of those funds. As a last source of mitigation, the City could also utilize its existing TECP program for short-term financing needs. Other potential mitigating strategies that could be utilized by the City include value capture mechanisms, advertising and parking revenues, and extending the GET Surcharge revenues (although this would require legislative amendment).

Scenario 1 – 10 Percent Project Capital Cost Overrun

This scenario illustrates the impact of a 10 percent overrun in the Project's capital cost (SCCs 10 – 90) starting in FY2014, over and above the 15 percent contingency of $644 million in YOE dollars that is already included in the base cost. The basis of this assumption is that any costs incurred through FY2013 are actual expenditures; or potential changes that are already known and have been accounted for in the contingency level of the Baseline Cost Estimate. The total capital cost impact of this scenario, including additional financing costs, is an additional $416 million in YOE dollars.

Under this scenario the City would still deposit $139 million from the FY2014 debt issuance in a Project reserve fund. Starting in FY2015, these reserve funds would be released to pay for 50 percent of the increase in Project capital cost each year. The City would also issue additional GO bonds on an annual basis from FY2014 to FY2020 to fund the remaining 50 percent of the increase in Project capital cost.

As in the Base Case, this scenario assumes that the City would use $100 million in the existing TECP capacity on a 270-day revolving basis for the years FY2014 to FY2018. During this period the City would still have access to an additional $350 million in TECP capacity that has already been authorized. After FY2018, when the $100 million in TECP capacity is no longer needed to finance Project construction, the City would have access to the $450 million in authorized TECP capacity.

Under this scenario the Project's cash flow would still exhibit a positive cash balance in each year until FY2020. From FY2021 through FY2023, the City would use its TECP capacity or other resources to fund approximately $223 million in outstanding debt service obligations. If TECP is used, the City would still have approximately $227 million of available TECP capacity out of the $450 million that is currently authorized. It is important to note that under this scenario the City would not need to access the TECP program until FY2021, which is well after the last year in which the City uses the $100 million on a revolving basis during the construction period. At the end of FY2023, the City would not transfer any GET Surcharge funds to rail O&M or ongoing capital needs.

Table 4-1 summarizes the results of this stress test scenario, including the amount of the projected cost increases that is absorbed by the Project reserve fund, and the amount that is absorbed by the TECP or other resources through FY2023.

Table 4-1. Summary of Stress Test Results for Capital Plan Sensitivity Scenario 1

Total Capital Cost Impact of Stress Test (including Financing)	$416M
Cost Increase Absorbed by Project Cash Balance and Reserve Fund	$193M
Cost Increase Absorbed by TECP/Other Resources	$223M

At this time, the City expects to use TECP capacity for any additional funding requirements generated by this stress test scenario. This scenario has a forecasted need for $223 million in TECP which is less than half the $450 million TECP program currently authorized by the City Council. GO bond funds are currently used to refund TECP. However, since the stress test scenario identifies that additional funding capacity would not be needed until at least FY2021, the City Department of Budget and Fiscal Services would work with HART to determine the most cost-effective option for funding the $223 million based on prevailing market conditions and the financing tools available to the City at that point in time. HART has committed to reimburse the General Fund for any outstanding principal, interest or issuance costs associated with the TECP. The detailed capital plan cash flow tables for this scenario are presented in Table B-1 of Attachment B.

Scenario 2 – Lower Net GET Surcharge Growth

The second stress test scenario examines the impact of a potential reduction in net GET Surcharge growth in future years. This scenario assumes that net GET Surcharge revenues will grow at a lower rate that correlates to a Congressional Budget Office (CBO) forecast for the U.S. gross domestic product (GDP). This scenario assumes a 4.3 percent annual growth in net GET Surcharge revenues, as opposed to 5.04 percent annual growth in the Base Case, which results in a reduction of net GET Surcharge revenues of $123 million between FY2013 and FY2023.

The reduced growth rate of 4.3 percent was derived by calculating the historical difference in growth between the State of Hawai‘i's (State's) 4 percent GET revenues and the U.S. GDP, and applying that difference to the CBO's forecast of U.S. GDP. The CAGR for the historical FY1981 to FY2010 revenues from the State's 4 percent GET is 5.04 percent. The FY1981 to FY2010 historical growth in U.S. GDP was derived from the Bureau of Economic Analysis, resulting in a CAGR of 5.6 percent. Finally, the CAGR was calculated for the FY2012 to FY2023 U.S. GDP forecast, using the CBO's Long-Term Budget Outlook dated June 2011. The resulting CAGR was 4.9 percent. The 4.3 percent growth rate was obtained by subtracting the difference between the CAGR for the U.S. GDP historical growth and the CAGR for the State's 4 percent GET revenues (approximately 0.6 percent) from the 4.9 percent CAGR for the forecast of U.S. GDP growth.

Based on this scenario, the City is still able to implement the Project while maintaining a positive cash balance in each year until FY2023. The City would mitigate the reduction in net GET Surcharge revenues by depositing a lower amount in the Project reserve fund equal to $41 million (compared to the $139 million deposit in the Base Case). The Project reserve fund would be released in FY2023 to repay a portion of that year's debt service obligations. The City would still transfer $86 million to rail O&M or ongoing capital needs from FY2021 to FY2023. There would be no need to utilize the City's TECP program under this scenario. The detailed capital plan cash flow tables for this scenario are presented in Table B-2 of Attachment B.

OPERATING PLAN

OPERATING COST RISKS

Core Systems Contract

As described in Chapter 3, about 80 percent of the Project's O&M cost will be covered by the Core Systems DBOM contract, including pass-through utility costs. The O&M agreement includes pricing for labor, materials, management and administration necessary to support the O&M of the Project. As such, the risks and uncertainties around unit prices and service plan are strongly mitigated by the presence of this contract through FY2029.

Cost Escalation: Health Care and Energy Prices

Inflation assumptions for O&M cost used in this financial plan are considered to be reasonably conservative. Rates were applied to each Project O&M cost category from the Core Systems Contract and each object class for TheBus and TheHandi-Van O&M costs. This level of disaggregation allowed for consideration of differences in the growth outlook for various cost items, such as health care or fuel prices, which are expected to increase faster than general inflation. Inflationary risks and uncertainties do remain, however, as the global and local supply/demand balance evolves. This is the case, for example, with energy costs in Honolulu, which are highly driven by oil prices and therefore, subject to its volatility.

OPERATING REVENUE RISKS

Fare Revenues-Ridership

Fare revenues are based on current demand forecasts for ridership and a continuation of current fare levels in real terms, which could both change due to a number of short-term and long-term factors such as:

- The state of the economy
- The local job market
- Population growth
- Traffic congestion on roads and main highways
- Fuel prices
- Land use and development plans

While the existing travel demand forecast has made some assumptions with regard to each of these variables, there are uncertainties surrounding the timing and extent of each.

The operating revenues included in the financial plan assume periodic fare increases that would maintain a FRR for TheBus and rail between 27 percent and 33 percent, in accordance with the City's current policy. However, the FRR would not be met if fares are not increased as shown in the financial plan.

The fare revenue forecast has not taken into account any temporary ridership decreases that could result from the fare increases based on previous experience demonstrating the relative inelasticity of the City's transit demand with respect to fares. Furthermore, the fare increases have been sized to increase the average fare at approximately the same rate as general price inflation, but on a less frequent basis. Accordingly, the fare increases should have a minimal effect on ridership. However, any reduction in ridership as a result of the fare increases could lead to a lower FRR.

OPERATING PLAN SENSITIVITY ANALYSIS

The risks and uncertainties outlined above could lead to a higher level of O&M subsidy required to operate and maintain the City's public transportation system. This section presents the results of a sensitivity analysis consisting of two combined downside scenarios, as further detailed below:

1) Higher TheBus Operating Subsidy

   The CAGR in TheBus operating subsidy (as measured by TheBus O&M cost minus TheBus fare revenues) per Revenue Vehicle Hour (RVH) was revised upward between FY2011 and FY2030, from the 3.5 percent calculated in the Base Case to 3.8 percent. The latter CAGR corresponds to the historical growth in TheBus subsidy per RVH experienced between FY2006 and FY2011. This downside scenario assumes that TheBus operating subsidy increases but bus fare revenues and Federal funding levels used for O&M remain unchanged from the Base Case. Under this scenario, the absolute total additional operating subsidy for TheBus would increase by $135 million between FY2011 and FY2030.

2) Higher TheHandi-Van Service Levels

   TheHandi-Van service levels are driven directly by ridership growth. For this scenario, the annual growth rate in TheHandi-Van ridership was revised upward by assuming that 100 percent of the growth in ridership would be driven by the projected growth in population above 65 years old, as opposed to the lower share of 70 percent assumed in the Base Case. This results in TheHandi-Van ridership growing at a CAGR of 2.33 percent between FY2011 and FY2030 instead of the 1.79 percent assumed in the Base Case. It should be noted that this scenario would lead to a small increase in TheHandi-Van fare revenues, thereby keeping the TheHandi-Van's FRR the same. However, the absolute total additional amount of TheHandi-Van subsidy would still increase by $82 million between FY2011 and FY2030.

The combination of these two scenarios would result in a slight increase in average subsidy between FY2011 and FY2030 from 15.6 percent to 16.1 percent, expressed as a percentage of forecasted General and Highway Fund revenues. In absolute terms, this represents an increase of about $28 million in FY2030, corresponding to about 4 percent of FY2030 O&M costs. The detailed operating plan cash flow tables for this scenario are presented in Table B-3 of Attachment B. The following section presents several options available to the City that could be used to mitigate this downside risk.

POTENTIAL MITIGATION STRATEGIES FOR THE CAPITAL AND OPERATING PLANS

The City has various other funding opportunities that are available to add financial capacity if needed. These consist of potential future revenue-generating strategies and are not included in this financial plan as part of the Project cash flows.

Extension of GET Surcharge Revenues

Assuming the 5.04 percent annual growth rate assumed in the Base Case, an additional year of GET Surcharge revenues would generate approximately $345 million in YOE dollars. However, extending the GET Surcharge beyond December 31, 2022 would require a State legislative amendment as well as

approval from the City Council. These funds could generate additional financial capacity for the Project capital plan, and could also be used for ongoing rail capital needs or operating subsidies.

Value Capture

The Project will improve access to and spur development at several of the station areas within the City. There are many ways that the City can benefit from this expected development through ‘value capture’ mechanisms. These options would generate additional Project funding, which could be used to offset any increase in capital costs or decrease in available GET Surcharge revenues, or to reduce the City’s contribution to O&M costs for the Project.

Advertising and Other Non-fare Operating Revenues

Expanding the advertising program could generate significantly more than the approximately $100,000 received by the City for bus advertisements. With the introduction of rail service, not only will there be an ability to advertise within each railcar, but the stations will also present potential advertising locations for local businesses. Based on 2011 National Transit Database data, Honolulu receives approximately $0.001 per boarding in advertising revenues, while similar larger-sized systems receive advertising revenues that are 10 to 100 times greater, after adjusting for ridership. Other miscellaneous operating revenue opportunities include the lease of right-of-way for telecommunications or the naming of stations. These funds could offset the City’s contribution to O&M costs.

Parking Revenues

Demand for park-and-ride stations is strong in Honolulu, and charging even a nominal amount for daily parking could generate a significant amount of revenue. Collected parking funds could be used for capital and/or operating expenses, as parking surcharges could be used to offset the construction costs of the parking garages, or revenues could be used to offset operating costs of the garages including garage attendants and security personnel.

Improvement in Service Efficiencies in TheBus, TheHandi-Van, and Rail Operations

The addition of the Project to the existing transit network will likely result in some overlap of service between bus and rail. While some bus service and route modifications are planned as the Project is implemented, there is a possibility to further reduce redundancies in the bus service as rail ridership grows. This would have an impact on ongoing bus fleet replacement cycles, which can lead to reductions in both capital and O&M costs.

Productivity on TheHandi-Van system, as measured by the number of unlinked trips per RVH, decreased every year between FY2006 and FY2010 at a CAGR of -1.86 percent. However, the paratransit system experienced its first productivity gain in six years in FY2011, with riders per RVH increasing by 3.30 percent. The Base Case financial plan does not include any productivity gains beyond the one already captured in the FY2011 estimates. However, should the trend in productivity gains continue, growth in TheHandi-Van O&M cost could be further contained to mitigate a greater increase in ridership.

Attachment A: Summary Cash Flows – Base Case

Table A-1, Capital Plan Cash Flows

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Project Funding Sources																							
Net GET Surcharge Revenues	YOE $M	3,291	121	166	194	203	214	224	236	247	260	273	287	301	316	249	-	-	-	-	-	-	-
FTA Section 5309 New Starts Revenues	YOE $M	1,550	-	21	99	258	442	250	250	230	-	-	-	-	-	-	-	-	-	-	-	-	-
FTA Section 5307 Formula Funds Used for the Project	YOE $M	210	-	-	-	-	33	34	35	35	36	37	-	-	-	-	-	-	-	-	-	-	-
ARRA Funds Used for the Project	YOE $M	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Obligation (GO) Bond Proceeds (net of issuance cost and deposit to reserve fund)	YOE $M	1,645	-	-	-	-	353	366	345	251	188	136	7	-	-	-	-	-	-	-	-	-	-
Proceeds from Tax Exempt Commercial Paper (TECP)	YOE $M	700	-	-	-	-	100	200	100	100	200	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-
Interest Income	YOE $M	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-
Additional Funds	YOE $M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Project Sources of Funds	YOE $M	7,543	125	187	293	462	1,141	1,074	965	864	684	446	294	301	316	390	0	-	-	-	-	-	-
Project Capital Costs																							
Total Capital Cost	YOE $M	4,949	79	124	366	734	858	887	733	659	443	55	12	-	-	-	-	-	-	-	-	-	-
Debt Service and Transfers																							
Principal Payment on GO Bonds Issued for the Project	YOE $M	1,798	-	-	-	-	-	50	93	141	184	224	263	273	281	289	-	-	-	-	-	-	-
Interest Payment on GO Bonds Issued for the Project	YOE $M	191	-	-	-	-	-	12	20	27	31	31	29	22	14	6	-	-	-	-	-	-	-
Principal Payment on TECP	YOE $M	700	-	-	-	-	-	200	100	100	200	100	-	-	-	-	-	-	-	-	-	-	-
Interest Payment on TECP	YOE $M	10	-	-	-	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-	-
Transfer from Project Cash Balance to Ongoing Rail Capital and O&M Cost	YOE $M	193	-	-	-	-	-	-	-	-	-	-	-	1	18	85	89	-	-	-	-	-	-
Total Project Uses of Funds	YOE $M	7,841	79	124	366	734	858	1,151	947	929	861	412	304	296	313	380	89	-	-	-	-	-	-
Total Finance Charges	YOE $M	215	-	-	-	-	4	17	24	31	35	34	29	22	14	6	-	-	-	-	-	-	-
FFGA Eligible Finance Charges	YOE $M	173	-	-	-	-	4	17	24	31	35	34	29	-	-	-	-	-	-	-	-	-	-
Project Cash Balance																							
Beginning Project Cash Balance*	YOE $M		298	344	408	335	63	346	269	287	222	46	80	70	75	79	89	-	-	-	-	-	-
Additions (deletions) to Cash	YOE $M	(298)	46	63	(73)	(272)	284	(77)	18	(65)	(176)	34	(10)	5	4	10	(89)	-	-	-	-	-	-
Ending Project Cash Balance	YOE $M		344	408	335	63	346	269	287	222	46	80	70	75	79	89	-	-	-	-	-	-	-
Reserve Fund Balance																							
Beginning Reserve Fund Balance	YOE $M		-	-	-	-	-	139	139	139	140	140	140	140	140	140	-	-	-	-	-	-	-
Initial Deposit to Reserve Fund**	YOE $M	139	-	-	-	-	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income on Reserve Fund	YOE $M	1	-	-	-	-	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	140	-	-	-	-	-	-	-	-	-	-	-	-	-	140	-	-	-	-	-	-	-
Ending Reserve Fund Balance	YOE $M		-	-	-	-	139	139	139	140	140	140	140	140	140	-	-	-	-	-	-	-	-

** : beginning balance shown in FY2010 equal to the Transit Fund Balance as of 10/16/2009 (start of PE)*
*** : initial deposit to reserve fund represents the amount deposited from the FY2014 bond issuance to a Project reserve.*
The financial plan assumes that the City would use this fund to repay a portion of the final year's debt service obligations, although it could also be available to cover Project capital cost increases or revenue shortfalls, if needed.

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Funding Sources for On-going System-wide Capital Cost																							
Federal Assistance for On-going Capital Cost																							
FTA Section 5309 Fixed Guideway Modernization Funds	YOE $M	80	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	5	5	5	10	10	11
FTA Section 5309 Bus Discretionary Grants	YOE $M	116	4	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
FTA Section 5307 Formula Funds Used for Ongoing Capital Cost	YOE $M	499	9	8	12	11	-	-	-	-	-	-	22	35	36	38	28	58	38	47	53	54	49
FTA Section 5307 and 5309 Grants Carryover from Prior Years	YOE $M	50	-	6	17	17	5	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARRA Funds Used for Ongoing Capital Cost	YOE $M	26	20	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FTA Section 5316 (JARC) and 5317 (New Freedom)	YOE $M	0	-	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transfers to the State's Vanpool Program	YOE $M	(3)	(1)	(2)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Federal Assistance for Ongoing Capital Cost	YOE $M	768	34	20	37	36	13	12	9	8	8	8	30	43	44	46	36	69	48	58	69	70	66
On-going City Capital Funding																							
Transfer from Project Cash Balance to Ongoing Rail Capital	YOE $M	54	-	-	-	-	-	-	-	-	-	-	-	1	12	12	28	-	-	-	-	-	-
City General Obligation Bond Proceeds	YOE $M	404	6	9	9	7	8	29	60	87	29	36	8	10	-	0	-	28	12	15	17	18	16
Total On-going City Capital Funding	YOE $M	457	6	9	9	7	8	29	60	87	29	36	8	11	12	12	28	28	12	15	17	18	16
Total Funding Sources for Ongoing Capital Cost	YOE $M	1,225	40	30	46	43	21	40	68	96	37	44	38	54	57	59	64	98	61	73	87	88	82
On-going Capital Costs																							
Additional Railcar Acquisitions	YOE $M	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	18	-	-	-	-	-
Rail Capital Asset Replacement Program (CARP)	YOE $M	150	-	-	-	-	-	-	-	-	-	1	6	11	12	12	10	8	14	18	18	19	19
Bus Acquisitions	YOE $M	667	21	15	26	27	28	28	11	26	26	32	21	30	32	34	24	59	33	41	54	54	47
Other Capital Cost	YOE $M	235	8	24	1	2	6	13	52	64	5	5	5	5	5	5	5	5	5	5	5	5	5
Handi-Van Acquisitions	YOE $M	138	-	2	5	5	5	5	6	6	6	6	7	7	7	8	8	8	9	9	9	10	10
Total On-going Capital Cost	YOE $M	1,225	29	41	32	34	39	46	68	96	37	44	38	54	57	59	64	98	61	73	87	88	82

Table A-2, Operating Plan Cash Flows

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Revenues																							
Fare Revenues (Bus)	YOE $M	1,601	46	52	53	55	56	58	59	86	88	82	73	73	74	91	91	92	93	94	94	95	96
Fare Revenues (Rail)	YOE $M	497	-	-	-	-	-	-	-	2	2	14	35	35	36	44	45	46	46	47	47	48	49
Fare Revenues (Handi-Van)	YOE $M	60	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4
Total Fare Revenues	YOE $M	2,158	48	54	55	57	58	60	61	91	93	99	110	112	113	138	140	141	143	144	146	147	149
Federal Operating Assistance																							
FTA Section 5307 Formula Funds Used for Preventative Maintenance	YOE $M	247	21	21	21	21	-	-	-	-	-	-	19	7	7	18	29	-	24	16	11	12	19
FTA Section 5316 (JARC) and 5317 (New Freedom)	YOE $M	20	-	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Total Federal Operating Assistance	YOE $M	267	21	22	22	21	1	1	1	1	1	1	20	8	8	19	30	1	25	17	13	14	20
Local Operating Assistance																							
Transfer from Project Cash Balance to Rail O&M Cost	YOE $M	140	-	-	-	-	-	-	-	-	-	-	-	-	6	72	62	-	-	-	-	-	-
City Operating Subsidy	YOE $M	5,871	127	133	140	148	176	183	197	230	253	286	307	334	344	259	277	376	370	398	424	449	462
Total Local Operating Assistance	YOE $M	6,011	127	133	140	148	176	183	197	230	253	286	307	334	350	332	339	376	370	398	424	449	462
Total Operating Revenues	YOE $M	8,436	195	208	217	226	235	244	259	322	346	386	437	454	471	489	509	518	538	559	582	610	631
Operations and Maintenance (O&M) Costs																							
TheBus O&M Costs	YOE $M	5,459	163	173	180	186	192	199	206	214	223	239	263	272	283	293	304	315	326	338	350	363	375
Rail O&M Cost	YOE $M	1,613	-	-	-	-	-	-	6	58	69	89	113	117	119	123	127	121	124	128	133	141	145
TheHandi-Van O&M Costs	YOE $M	1,310	32	34	37	39	42	44	47	50	53	56	59	63	67	71	75	79	83	88	93	98	103
Other O&M Cost	YOE $M	55	-	0	1	1	1	1	1	1	1	1	2	2	2	3	3	4	4	5	6	7	8
Total O&M Costs	YOE $M	8,436	195	208	217	226	235	244	259	322	346	386	437	454	471	489	509	518	538	559	582	610	631
Farebox Recovery Ratio (Bus and Rail)*			28%	30%	30%	29%	29%	29%	28%	33%	31%	29%	29%	28%	27%	32%	32%	32%	31%	30%	29%	28%	28%
Farebox Recovery Ratio (Bus)			28%	30%	30%	29%	29%	29%	29%	40%	39%	34%	28%	27%	26%	31%	30%	29%	29%	28%	27%	26%	26%
Farebox Recovery Ratio (Rail)									-	4%	3%	16%	31%	30%	30%	36%	35%	38%	37%	37%	36%	34%	34%

** : Fare revenues are proportioned between bus and rail, 50% by boardings by mode and 50% by passenger-miles by mode*

Attachment B: Summary Cash Flows – Sensitivity Analyses

Table B-1, Sensitivity Analysis – Scenario 1: Ten Percent Increase in Project Capital Cost Starting in FY2014, Project Capital Plan Cash Flow

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Project Funding Sources																							
Net GET Surcharge Revenues	YOE $M	3,291	121	166	194	203	214	224	236	247	260	273	287	301	316	249	-	-	-	-	-	-	-
FTA Section 5309 New Starts Revenues	YOE $M	1,550	-	21	99	258	442	250	250	230	-	-	-	-	-	-	-	-	-	-	-	-	-
FTA Section 5307 Formula Funds Used for the Project	YOE $M	210	-	-	-	-	33	34	35	35	36	37	-	-	-	-	-	-	-	-	-	-	-
ARRA Funds Used for the Project	YOE $M	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Obligation (GO) Bond Proceeds (net of issuance cost and deposit to reserve fund)	YOE $M	2,131	-	-	-	-	469	424	409	319	250	201	60	-	-	-	-	-	-	-	-	-	-
Proceeds from Tax Exempt Commercial Paper (TECP)	YOE $M	700	-	-	-	-	100	200	100	100	200	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	139	-	-	-	-	-	44	37	33	22	3	1	-	-	-	-	-	-	-	-	-	-
Interest Income	YOE $M	2	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-
Additional Funds	YOE $M	223	-	-	-	-	-	-	-	-	-	-	-	85	77	61	-	-	-	-	-	-	-
Total Project Sources of Funds	YOE $M	8,251	125	187	293	462	1,257	1,177	1,066	965	768	514	347	386	394	311	-	-	-	-	-	-	-
Project Capital Costs																							
Total Capital Cost	YOE $M	5,313	79	124	366	734	943	976	806	725	487	60	13	-	-	-	-	-	-	-	-	-	-
Debt Service and Transfers																							
Principal Payment on GO Bonds Issued for the Project	YOE $M	2,287	-	-	-	-	-	62	112	169	223	276	332	361	371	382	-	-	-	-	-	-	-
Interest Payment on GO Bonds Issued for the Project	YOE $M	239	-	-	-	-	-	15	24	33	37	38	36	29	19	8	-	-	-	-	-	-	-
Principal Payment on TECP	YOE $M	700	-	-	-	-	-	200	100	100	200	100	-	-	-	-	-	-	-	-	-	-	-
Interest Payment on TECP	YOE $M	10	-	-	-	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-	-
Transfer from Project Cash Balance to Ongoing Rail Capital and O&M Cost	YOE $M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Project Uses of Funds	YOE $M	8,549	79	124	366	734	943	1,255	1,043	1,028	951	477	382	390	390	390	-	-	-	-	-	-	-
Total Finance Charges	YOE $M	266	-	-	-	-	5	20	28	37	42	41	37	29	19	8	-	-	-	-	-	-	-
FFGA Eligible Finance Charges	YOE $M	210	-	-	-	-	5	20	28	37	42	41	37	-	-	-	-	-	-	-	-	-	-
Project Cash Balance																							
Beginning Project Cash Balance*	YOE $M		298	344	408	335	63	377	299	322	259	77	114	79	75	79	-	-	-	-	-	-	-
Additions (deletions) to Cash	YOE $M	(298)	46	63	(73)	(272)	314	(78)	23	(63)	(182)	37	(35)	(4)	4	(79)	-	-	-	-	-	-	-
Ending Project Cash Balance	YOE $M		344	408	335	63	377	299	322	259	77	114	79	75	79	-	-	-	-	-	-	-	-
Reserve Fund Balance																							
Beginning Reserve Fund Balance	YOE $M		-	-	-	-	-	139	95	58	26	3	1	-	-	-	-	-	-	-	-	-	-
Initial Deposit to Reserve Fund**	YOE $M	139	-	-	-	-	139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income on Reserve Fund	YOE $M	0	-	-	-	-	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	139	-	-	-	-	-	44	37	33	22	3	1	-	-	-	-	-	-	-	-	-	-
Ending Reserve Fund Balance	YOE $M		-	-	-	-	139	95	58	26	3	1	-	-	-	-	-	-	-	-	-	-	-

** : beginning balance shown in FY2010 equal to the Transit Fund Balance as of 10/16/2009 (start of PE)*
*** : initial deposit to reserve fund represents the amount deposited from the FY2014 bond issuance to a Project reserve.*
The financial plan assumes that the City would use this fund to repay a portion of the final year's debt service obligations, although it could also be available to cover Project capital cost increases or revenue shortfalls, if needed.

Table B-2, Sensitivity Analysis – Scenario 2: Lower Growth in Net GET Surcharge Revenues (4.3% instead of 5.0%), Project Capital Plan Cash Flow

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Project Funding Sources																							
Net GET Surcharge Revenues	YOE $M	3,168	121	166	194	202	211	220	229	239	249	260	271	283	295	231	-	-	-	-	-	-	-
FTA Section 5309 New Starts Revenues	YOE $M	1,550	-	21	99	258	442	250	250	230	-	-	-	-	-	-	-	-	-	-	-	-	-
FTA Section 5307 Formula Funds Used for the Project	YOE $M	210	-	-	-	-	33	34	35	35	36	37	-	-	-	-	-	-	-	-	-	-	-
ARRA Funds Used for the Project	YOE $M	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Obligation (GO) Bond Proceeds (net of issuance cost and deposit to reserve fund)	YOE $M	1,616	-	-	-	-	353	359	339	246	181	134	4	-	-	-	-	-	-	-	-	-	-
Proceeds from Tax Exempt Commercial Paper (TECP)	YOE $M	700	-	-	-	-	100	200	100	100	200	-	-	-	-	-	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	41	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-
Interest Income	YOE $M	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-
Additional Funds	YOE $M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Project Sources of Funds	YOE $M	7,291	125	187	293	460	1,139	1,062	952	850	666	431	276	283	295	272	-	-	-	-	-	-	-
Project Capital Costs																							
Total Capital Cost	YOE $M	4,949	79	124	366	734	858	887	733	659	443	55	12	-	-	-	-	-	-	-	-	-	-
Debt Service and Transfers																							
Principal Payment on GO Bonds Issued for the Project	YOE $M	1,669	-	-	-	-	-	40	82	129	171	210	248	256	263	271	-	-	-	-	-	-	-
Interest Payment on GO Bonds Issued for the Project	YOE $M	176	-	-	-	-	-	10	17	25	29	29	27	20	13	6	-	-	-	-	-	-	-
Principal Payment on TECP	YOE $M	700	-	-	-	-	-	200	100	100	200	100	-	-	-	-	-	-	-	-	-	-	-
Interest Payment on TECP	YOE $M	10	-	-	-	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-	-
Transfer from Project Cash Balance to Ongoing Rail Capital and O&M Cost	YOE $M	86	-	-	-	-	-	-	-	-	-	-	-	1	15	69	-	-	-	-	-	-	-
Total Project Uses of Funds	YOE $M	7,589	79	124	366	734	858	1,139	934	915	845	395	287	278	292	345	-	-	-	-	-	-	-
Total Finance Charges	YOE $M	199	-	-	-	-	3	15	21	28	33	32	27	20	13	6	-	-	-	-	-	-	-
FFGA Eligible Finance Charges	YOE $M	160	-	-	-	-	3	15	21	28	33	32	27	-	-	-	-	-	-	-	-	-	-
Project Cash Balance																							
Beginning Project Cash Balance*	YOE $M		298	344	408	335	62	343	266	284	220	41	76	65	70	74	-	-	-	-	-	-	-
Additions (deletions) to Cash	YOE $M	(298)	46	63	(73)	(273)	281	(77)	18	(65)	(179)	36	(11)	5	3	(74)	-	-	-	-	-	-	-
Ending Project Cash Balance	YOE $M		344	408	335	62	343	266	284	220	41	76	65	70	74	-	-	-	-	-	-	-	-
Reserve Fund Balance																							
Beginning Reserve Fund Balance	YOE $M		-	-	-	-	-	41	41	41	41	41	41	41	41	41	-	-	-	-	-	-	-
Initial Deposit to Reserve Fund**	YOE $M	41	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest Income on Reserve Fund	YOE $M	0	-	-	-	-	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-
Reserve Fund Release	YOE $M	41	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-
Ending Reserve Fund Balance	YOE $M		-	-	-	-	41	41	41	41	41	41	41	41	41	-	-	-	-	-	-	-	-

** : beginning balance shown in FY2010 equal to the Transit Fund Balance as of 10/16/2009 (start of PE)*

*** : initial deposit to reserve fund represents the amount deposited from the FY2014 bond issuance to a Project reserve.*

The financial plan assumes that the City would use this fund to repay a portion of the final year's debt service obligations, although it could also be available to cover Project capital cost increases or revenue shortfalls, if needed.

Table B-3, Sensitivity Analysis – Scenario 3: Higher Operating Subsidy Requirement, Operating Plan Cash Flow

City Fiscal Year	Units	Total	2010 Actual	2011 Actual	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Operating Revenues																							
Fare Revenues (Bus)	YOE $M	1,601	46	52	53	55	56	58	59	86	88	82	73	73	74	91	91	92	93	94	94	95	96
Fare Revenues (Rail)	YOE $M	497	-	-	-	-	-	-	-	2	2	14	35	35	36	44	45	46	46	47	47	48	49
Fare Revenues (Handi-Van)	YOE $M	64	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	5
Total Fare Revenues	YOE $M	2,161	48	54	55	57	58	60	61	91	93	99	111	112	113	138	140	141	143	145	146	148	149
Federal Operating Assistance																							
FTA Section 5307 Formula Funds Used for Preventative Maintenance	YOE $M	247	21	21	21	21	-	-	-	-	-	-	19	7	7	18	29	-	24	16	11	12	19
FTA Section 5316 (JARC) and 5317 (New Freedom)	YOE $M	20	-	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2
Total Federal Operating Assistance	YOE $M	267	21	22	22	21	1	1	1	1	1	1	20	8	8	19	30	1	25	17	13	14	20
Local Operating Assistance																							
Transfer from Project Cash Balance to Rail O&M Cost	YOE $M	140	-	-	-	-	-	-	-	-	-	-	-	-	6	72	62	-	-	-	-	-	-
City Operating Subsidy	YOE $M	6,088	127	133	141	149	178	186	201	234	258	293	316	344	356	272	292	392	388	418	447	474	490
Total Local Operating Assistance	YOE $M	6,228	127	133	141	149	178	186	201	234	258	293	316	344	361	345	353	392	388	418	447	474	490
Total Operating Revenues	YOE $M	8,656	195	208	218	227	237	247	263	327	352	392	446	464	483	502	524	535	557	580	606	636	660
Operations and Maintenance (O&M) Costs																							
TheBus O&M Costs	YOE $M	5,593	163	173	180	187	194	201	208	216	226	243	269	279	290	301	313	325	337	351	365	379	393
Rail O&M Cost	YOE $M	1,613	-	-	-	-	-	-	6	58	69	89	113	117	119	123	127	121	124	128	133	141	145
TheHandi-Van O&M Costs	YOE $M	1,395	32	34	37	40	42	45	48	51	55	59	63	67	71	76	81	86	91	96	102	108	113
Other O&M Cost	YOE $M	55	-	0	1	1	1	1	1	1	1	1	2	2	2	3	3	4	4	5	6	7	8
Total O&M Costs	YOE $M	8,656	195	208	218	227	237	247	263	327	352	392	446	464	483	502	524	535	557	580	606	636	660
Farebox Recovery Ratio (Bus and Rail)*			28%	30%	30%	29%	29%	29%	28%	32%	30%	29%	28%	27%	27%	32%	31%	31%	30%	29%	29%	28%	27%
Farebox Recovery Ratio (Bus)			28%	30%	30%	29%	29%	29%	28%	40%	39%	34%	27%	26%	26%	30%	29%	28%	28%	27%	26%	25%	24%
Farebox Recovery Ratio (Rail)									-	4%	3%	16%	31%	30%	30%	36%	35%	38%	37%	37%	36%	34%	34%

** : Fare revenues are proportioned between bus and rail, 50% by boardings by mode and 50% by passenger-miles by mode*

Attachment C: Historical GET Data

Table C-1, Historical 4.00% Statewide GET Revenues Since 1981

City Fiscal Year	GET 4.00% Revenues	Annual Growth Rates	City Fiscal Year	GET 4.00% Revenues	Annual Growth Rates
1981	$515,952,541		1996	$1,306,485,667	4.31%
1982	$542,253,113	5.10%	1997	$1,342,627,310	2.77%
1983	$562,797,732	3.79%	1998	$1,318,387,286	-1.81%
1984	$607,987,568	8.03%	1999	$1,326,629,646	0.63%
1985	$644,712,809	6.04%	2000	$1,407,794,620	6.12%
1986	$707,930,438	9.81%	2001	$1,484,880,213	5.48%
1987	$781,662,134	10.42%	2002	$1,477,916,046	-0.47%
1988	$845,785,351	8.20%	2003	$1,615,351,758	9.30%
1989	$936,226,844	10.69%	2004	$1,710,913,530	5.92%
1990	$1,056,199,616	12.81%	2005	$1,950,030,632	13.98%
1991	$1,170,615,754	10.83%	2006	$2,224,511,711	14.08%
1992	$1,208,723,624	3.26%	2007	$2,380,677,790	7.02%
1993	$1,210,512,109	0.15%	2008	$2,379,880,665	-0.03%
1994	$1,230,387,345	1.64%	2009	$2,251,546,329	-5.39%
1995	$1,252,463,263	1.79%	2010	$2,147,251,742	-4.63%
			2011	$2,294,595,989	6.86%
				1981 to 2010 CAGR	5.04%*

*Rate used in financial plan to forecast GET Surcharge revenues.
GET = General Excise and Use Tax // CAGR = Compounded Annual Growth Rate

Attachment D: O&M Cost Escalation Assumptions

Table D-1, Historical Trend of TheBus Unit O&M Costs by Object Class and Principal Explanatory Level of Service Variable

Unit O&M Cost	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	Actual FY2006-FY2011 Unit O&M Cost CAGR
Wages and Salaries per RVH	$54.34	$55.30	$56.36	$57.84	$60.34	$61.64	$65.67	
		1.8%	1.9%	2.6%	4.3%	2.2%	6.5%	3.5%
Health Care per RVH	$7.39	$8.01	$9.10	$9.51	$9.39	$10.11	$11.22	
		8.4%	13.6%	4.5%	-1.2%	7.6%	11.0%	7.0%
Other Benefits per RVH	$7.86	$8.36	$8.87	$9.28	$10.38	$10.87	$11.57	
		6.3%	6.1%	4.6%	11.9%	4.8%	6.4%	6.7%
Materials and Supplies per RVM	$0.11	$0.14	$0.13	$0.15	$0.18	$0.16	$0.17	
		20.4%	-4.3%	14.7%	21.9%	-11.2%	5.4%	4.6%
Fuel and Lubricants per RVM	$0.65	$0.80	$0.78	$1.04	$0.89	$0.88	$1.05	
		22.6%	-2.0%	32.6%	-14.4%	-1.0%	18.8%	5.5%
Other Costs per RVM	$1.11	$1.33	$1.30	$1.42	$1.47	$1.50	$1.46	
		20.1%	-2.4%	8.7%	3.7%	2.1%	-2.8%	1.8%
DTS' Contract Administration per PV	$3,745	$6,030	$4,485	$6,144	$6,092	$5,715	$4,883	
		61.0%	-25.6%	37.0%	-0.8%	-6.2%	-14.6%	-4.1%

RVH = Revenue Vehicle Hour // RVM = Revenue Vehicle Mile // DTS = Department of Transportation Services // PV = Peak Vehicle // CAGR = Compounded Annual Growth Rate

Table D-2, Transit Operating Measures for TheBus

Level of Service Variable	Actual FY2006-FY2011 Historical Growth Rate	Forecast FY2011-FY2030 Growth Rate
TheBus O&M Cost per Revenue Vehicle Hour (RVH) [1]	4.30%	3.30%
TheBus O&M Cost per Revenue Vehicle Mile [2]	3.32%	2.96%
TheBus O&M Cost per Peak Vehicle [3]	-4.13%	2.55%
Total TheBus O&M Cost per RVH	3.85%	3.15%
Fare Revenue per RVH	3.94%	2.30%
Total Subsidy per RVH [4]	3.80%	3.47%

1/ Includes costs associated with salaries and wages, health care and other benefits

2/ Includes costs associated with materials and supplies, fuel and lubricants and other items

3/ Includes costs associated with Department of Transportation Services' contract administration

4/ Total subsidy is calculated as the difference between O&M cost and fare revenue; historical O&M cost is based on cash-basis information provided by Department of Transportation Services

Table D-3, Honolulu Actual and Forecasted Resident Population

	Honolulu County Total Resident Population	Compounded Annual Growth Rate	Honolulu County Resident Population Over 65 Years Old	Compounded Annual Growth Rate
1980[1]	764,600	--	56,282	--
1990[1]	838,534	0.93%	91,788	5.01%
2000[1]	875,054	0.43%	118,306	2.57%
2005[1]	899,673	0.56%	127,692	1.54%
2010	911,833	0.27%	145,148	2.60%
2015	941,824	0.65%	165,988	2.72%
2020	969,462	0.58%	189,347	2.67%
2025	994,610	0.51%	213,784	2.46%
2030	1,017,565	0.46%	234,502	1.87%
2035	1,038,316	0.40%	248,215	1.14%

1/ Actuals per Revised Estimates from US Census Bureau (release date May 2009)
Source: DBEDT 2035 Series Report (Revised), Table A.13

Table D-4, O&M Inflation Costs Applied to Project CARP and Core Systems O&M Costs

	Hourly Earnings – Transportation and Utilities Industry[1]	Hourly Earnings – Services to Buildings and Dwellings Industry[2]	Street, Subway and Rapid Transit PPI[3]	Line Haul Railroads PPI[4]	Average of PPI Indices
2001	N/A	N/A	N/A	N/A	N/A
2002	3.55%	3.16%	0.18%	2.26%	1.15%
2003	6.92%	3.16%	-0.83%	1.72%	0.37%
2004	3.13%	1.91%	-0.23%	2.63%	1.14%
2005	-6.45%	2.17%	2.60%	6.98%	4.72%
2006	0.03%	2.72%	2.27%	11.23%	6.70%
2007	2.98%	2.87%	2.52%	4.83%	3.71%
2008	2.61%	4.50%	1.86%	8.36%	5.25%
2009	7.26%	3.15%	2.24%	2.99%	2.64%
2010	0.40%	0.51%	3.45%	-0.84%	1.14%
2011	1.43%	0.99%	0.81%	6.53%	3.83%
2001-2011 CAGR	2.12%	2.51%	1.48%	4.61%	3.05%
Application in Financial Plan	O&M Labor Costs	CARP Labor Costs	CARP Subcontract Costs	CARP Subcontract Costs	O&M Materials Costs and CARP Materials and Special Equip. Costs

1/ BLS, Hourly Earnings for Production Employees, Transportation and Utilities Industry, Honolulu, SMU15261804000000001
2/ BLS, Hourly Earnings for Buildings and Dwellings Industry, U.S., CEU6056170008
3/ BLS, Producer Price Index, Street, Subway and Rapid Transit, U.S.,PCU3365103365105
4/ BLS, Producer Price Index, Line Haul Railroads, U.S., PCU482111482111
Note: CARP subcontract costs escalated using 50% average PPI of 'Line Haul Railroads', and 'Street Subway, Trolley and Rapid Transit', and 50% BLS Honolulu, Hourly Earnings, Production Employees, Transportation and Utilities
CARP = Capital Asset Replacement Program // BLS = Bureau of Labor Statistics

Attachment E: SCC Worksheet

MAIN WORKSHEET-BUILD ALTERNATIVE (Rev.14, August 5, 2011)

City and County of Honolulu - Honolulu Authority for Rapid Transportation — Today's Date: **June 13, 2012**

Honolulu Rail Transit Project, East Kapolei to Ala Moana Center — Yr of Base Year $: 2012

FFGA — Yr of Revenue Ops: 2019

	Quantity	Base Year Dollars w/o Contingency (X000)	Base Year Dollars Allocated Contingency (X000)	Base Year Dollars TOTAL (X000)	Base Year Dollars Unit Cost (X000)	Base Year Dollars Percentage of Construction Cost	Base Year Dollars Percentage of Total Project Cost	YOE Dollars Total (X000)
10 GUIDEWAY & TRACK ELEMENTS (route miles)	**20.05**	955,497	136,580	**1,092,076**	**$54,459**	**39%**	**24%**	**1,275,329**
10.01 Guideway: At-grade exclusive right-of-way		0	0	0				0
10.02 Guideway: At-grade semi-exclusive (allows cross-traffic)		0	0	0				0
10.03 Guideway: At-grade in mixed traffic			0	0				0
10.04 Guideway: Aerial structure	19.45	873,608	129,364	1,002,973	$51,562			1,175,328
10.05 Guideway: Built-up fill		0	0	0				0
10.06 Guideway: Underground cut & cover		0	0	0				0
10.07 Guideway: Underground tunnel		0	0	0				0
10.08 Guideway: Retained cut or fill	0.60	6,926	540	7,466	$12,416			8,077
10.09 Track: Direct fixation		70,630	6,163	76,793				86,332
10.10 Track: Embedded		0	0	0				0
10.11 Track: Ballasted		2,903	226	3,130				3,551
10.12 Track: Special (switches, turnouts)		1,429	286	1,715				2,041
10.13 Track: Vibration and noise dampening		0	0	0				0
20 STATIONS, STOPS, TERMINALS, INTERMODAL (number)	**21**	351,188	70,238	**421,425**	**$20,068**	**15%**	**9%**	**506,166**
20.01 At-grade station, stop, shelter, mall, terminal, platform	1	5,525	1,105	6,630	$6,630			7,334
20.02 Aerial station, stop, shelter, mall, terminal, platform	20	244,862	48,972	293,835	$14,692			353,476
20.03 Underground station, stop, shelter, mall, terminal, platform		0	0	0				0
20.04 Other stations, landings, terminals: Intermodal, ferry, trolley, etc.		0	0	0				0
20.05 Joint development		0	0	0				0
20.06 Automobile parking multi-story structure		53,637	10,727	64,364				79,691
20.07 Elevators, escalators		47,164	9,433	56,596				65,665
30 SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	20.05	85,010	6,326	**91,336**	**$4,555**	**3%**	**2%**	**99,425**
30.01 Administration Building: Office, sales, storage, revenue counting		0	0	0				0
30.02 Light Maintenance Facility		6,970	523	7,493				8,161
30.03 Heavy Maintenance Facility		35,033	2,578	37,611				40,907
30.04 Storage or Maintenance of Way Building		7,159	537	7,696				8,382
30.05 Yard and Yard Track		35,848	2,689	38,537				41,975
40 SITEWORK & SPECIAL CONDITIONS	20.05	891,846	108,839	**1,000,685**	**$49,902**	**36%**	**22%**	**1,103,867**
40.01 Demolition, Clearing, Earthwork		26,927	4,192	31,118				34,696
40.02 Site Utilities, Utility Relocation		274,431	46,301	320,732				350,695
40.03 Haz. mat'l, contam'd soil removal/mitigation, ground water treatments		6,107	585	6,692				7,229
40.04 Environmental mitigation, e.g. wetlands, historic/archeologic, parks		24,421	3,422	27,843				30,842
40.05 Site structures including retaining walls, sound walls		7,439	593	8,033				8,638
40.06 Pedestrian / bike access and accommodation, landscaping		34,699	6,035	40,733				48,263
40.07 Automobile, bus, van accessways including roads, parking lots		156,253	25,699	181,952				212,536
40.08 Temporary Facilities and other indirect costs during construction		361,569	22,013	383,582				410,969
50 SYSTEMS	20.05	188,204	22,163	**210,367**	**$10,491**	**7%**	**5%**	**247,461**
50.01 Train control and signals		70,594	8,189	78,783				91,493
50.02 Traffic signals and crossing protection		8,414	1,661	10,075				12,524
50.03 Traction power supply: substations		24,761	2,827	27,588				32,874
50.04 Traction power distribution: catenary and third rail		28,811	3,061	31,872				36,426
50.05 Communications		44,946	5,186	50,132				59,889
50.06 Fare collection system and equipment		7,657	888	8,545				10,222
50.07 Central Control		3,021	350	3,372				4,033
Construction Subtotal (10 - 50)	20.05	2,471,745	344,146	**2,815,890**	**$140,422**	**100%**	**62%**	**3,232,248**
60 ROW, LAND, EXISTING IMPROVEMENTS	20.05	180,327	22,431	**202,757**	**$10,111**		**4%**	**222,188**
60.01 Purchase or lease of real estate		164,016	20,181	184,196				201,659
60.02 Relocation of existing households and businesses		16,311	2,250	18,561				20,529
70 VEHICLES (number)	**80**	159,603	18,514	**178,117**	**$2,226**		**4%**	**208,501**
70.01 Light Rail		0	0	0				0
70.02 Heavy Rail	80	142,794	16,564	159,358	$1,992			186,061
70.03 Commuter Rail		0	0	0				0
70.04 Bus		0	0	0				0
70.05 Other		0	0	0				0
70.06 Non-revenue vehicles		11,994	1,391	13,385				16,011
70.07 Spare parts		4,816	559	5,375				6,429
80 PROFESSIONAL SERVICES (applies to Cats. 10-50)	20.05	1,024,627	85,753	**1,110,379**	**$55,372**	**39%**	**24%**	**1,183,826**
80.01 Preliminary Engineering		93,009	1,015	94,024				95,120
80.02 Final Design		218,749	28,305	247,054				257,935
80.03 Project Management for Design and Construction		351,899	18,069	369,969				385,826
80.04 Construction Administration & Management		184,367	16,575	200,941				218,156
80.05 Professional Liability and other Non-Construction Insurance		39,921	4,786	44,708				52,138
80.06 Legal; Permits; Review Fees by other agencies, cities, etc.		60,324	7,605	67,929				76,135
80.07 Surveys, Testing, Investigation, Inspection		20,258	2,971	23,229				24,955
80.08 Start up		56,100	6,426	62,526				73,561
Subtotal (10 - 80)	20.05	3,836,302	470,843	**4,307,144**	**$214,788**		**95%**	**4,846,764**
90 UNALLOCATED CONTINGENCY				88,666			**2%**	**101,871**
Subtotal (10 - 90)	20.05			**4,395,810**	**$219,209**		**97%**	**4,948,635**
100 FINANCE CHARGES				**140,596**			**3%**	**173,058**
Total Project Cost (10 - 100)	20.05			**4,536,406**	**$226,220**		**100%**	**5,121,693**
Allocated Contingency as % of Base Yr Dollars w/o Contingency				12.27%				
Unallocated Contingency as % of Base Yr Dollars w/o Contingency				2.31%				
Total Contingency as % of Base Yr Dollars w/o Contingency				14.58%				
Unallocated Contingency as % of Subtotal (10 - 80)				2.06%				
YOE Construction Cost per Mile (X000)								$161,185
YOE Total Project Cost per Mile Not Including Vehicles (X000)								$245,010
YOE Total Project Cost per Mile (X000)								$255,407

Attachment F: Local Financial Commitment Checklist

GRANTEE FINANCIAL SUBMITTAL	Included (check one)		Reason Why Information Has Not Been Provided
	Yes	No	
20-year cash flow statement (in year of expenditure dollars) including capital and operating financial plans (provided both electronically and in hardcopy). The cash flow statement should clearly show revenues and expenses for the project separated from those for the remainder of the transit system.	X		
Detailed written description/discussion of all assumptions used in the financial plan including: Federal/State/local/debt proceeds funding assumptions Average fare assumption Average weekday ridership assumptions Debt coverage requirements/assumptions Assumptions used in the calculation of operating expenses for each mode (i.e. -- vehicle miles, vehicle hours of service provided, etc.)	X		
Project Description and New Starts Project Finance Template	X		
Capital cost estimate for the proposed project (in year of expenditure dollars) in the FTA standardized cost category worksheet format	X		
Sensitivity Analysis (spreadsheet calculations as well as narrative summary)	X		
Supporting Documentation Including:			
Background information and description of the New Starts fixed guideway project, including project status		X	Previously provided to FTA
Historical revenue and expense data (minimum of 5 years required, more than 5 years appreciated)	X		
Commitment letters, contracts, agreements, legislative referendums or other documents demonstrating local share commitment of non-Federal funding partners		X	Previously provided to FTA
Enacting legislative documents for tax referenda		X	Previously provided to FTA
Joint development agreements, or description and supporting documentation of other innovative financing techniques, if applicable		X	Previously provided to FTA
Annual Operating and Capital Budgets for the past 3 years		X	Previously provided to FTA
Audited Financial Statements and Compliance Reports for the past 3 years		X	Previously provided to FTA
Annual Reports/Comprehensive Annual Financial Reports (CAFR) for the past 3 years		X	Previously provided to FTA
Background information and description of the transit agency, including organizational structure and grantee enabling legislation		X	Previously provided to FTA
TIP, STIP and Short Range Transit Plan (SRTP), if available (please provide only relevant pages of these documents)		X	Previously provided to FTA
Regional Long Range Transportation Plan (please provide only relevant pages)		X	Previously provided to FTA
Sponsoring Agency’s Capital Improvement Program Document		X	Previously provided to FTA
Bus and Rail Fleet Management Plans including fleet replacement schedules		X	Previously provided to FTA
Latest bonding prospectus/credit facility documents (credit lines, commercial paper, etc.)		X	Previously provided to FTA
Local development, demographic and economic studies used in preparing the financial plan, plus documentation supporting efficiency or productivity gain assumptions		X	Previously provided to FTA
Other materials (if any), please describe:			

Attachment G: Changes to Financial Plan since the Request to Enter Final Design

The prior version of the financial plan was submitted to FTA in September 2011 as part of the City's request to enter the Final Design (FD) phase of project development. This version of the financial plan has been revised to reflect the current project status, costs, and revenue forecasts that have been input into a quarterly cash flow model. The financial plan also reflects a financing structure based on current market conditions. Finally, the plan reflects changes to respond to comments from FTA, local officials and the public on the previous financial plan.

The following list summarizes the most significant changes to the financial plan since it was submitted in September 2011. Assumptions are described in more detail in Chapters 2 and 3.

Capital Cost: The capital cost estimate reflects advanced preliminary engineering, cost estimation methodologies, and actual contract bid prices. The total capital cost before financing is $4.949 billion in YOE dollars. Approximately $1.9 billion, or 41 percent of the capital cost in YOE dollars (without contingency), is based on actual contracts awarded through June 2012, including the West O‘ahu-Farrington Highway Guideway Design-Build Contract; the Kamehameha Highway Guideway Design-Build Contract; the MSF Design-Build Contract; and the Core Systems Design-Build-Operate-Maintain Contract. Additionally, other contract awards include engineering service agreements with utility companies for Sections I and II (partial); design of the Farrington Highway station group; and design of the Airport section guideway and utilities. The remainder of the capital cost not covered by these contracts reflects a "bottom-up" cost estimate.

Capital Revenues: The forecast of GET Surcharge revenues, which is the main source of non-Federal revenue for the Project, has been revised to reflect actual collections through March 2012. GET Surcharge revenues are expected to grow at a constant rate of roughly 5 percent per year, which is in line with long-term historical growth of statewide GET revenues. This growth rate is unchanged from the September 2011 financial plan; however the total amount of GET Surcharge revenues between Q2 of FY2010 and FY2023 has increased from $3.2 billion to $3.3 billion in this financial plan based on the inclusion of recent actual collections.

The financial plan also includes a revised forecast for FTA Section 5307 revenues. The amount of Section 5307 funding being used for the Project has been reduced from $244 million to $210 million, and does not include any Section 5307 revenues going to the Project until FY2014. The forecasted Section 5307 amounts have also been revised slightly downward to reflect a discontinuation of the State's vanpool program, elimination of the second intermediate Project opening, and a one-year lag between the time when funds are apportioned by FTA and the time of disbursement.

The forecast for Section 5309 Bus and Bus Facilities Funds, which is used to support bus capital expenditures, has been revised to reflect funds that were allocated to the City in FY2011. The forecast is still based on City average historical receipts of Section 5309 Bus Discretionary funding.

Operating Plan: O&M cost estimates for the Project reflect the terms of the Core Systems Contract. Rail O&M costs that fall outside the Core Systems Contract (and are thus incurred directly by HART) were calculated separately using FTA's resource build-up approach, which applies unit cost elements to key level of service variables. These costs have been revised upward to reflect the full complement of HART staff that will oversee the O&M of the Project. Additionally, the rail O&M costs have increased due to the inclusion of additional utility costs and updated escalation rates.

TheBus O&M costs have been revised to reflect the City's FY2011 actual costs. Refined inflation assumptions were also applied to TheBus O&M costs and TheHandi-Van O&M costs for each object class, including wages & salaries, health care, other benefits, materials and supplies, fuel, and other costs. These growth rates are comparable to growth rates experienced during the FY2006 to FY2011 period.

This has caused the O&M costs for both TheBus and TheHandi-Van to increase as compared to the September 2011 financial plan.

Cash Flow/Financing: The financing structure is based on debt structure that consists of GO bonds issued by the City and $100 million of short-term tax-exempt commercial paper that would be rolled over on a 270-day basis. The financial plan no longer assumes that the City would issue Grant Anticipation Notes or Bond Anticipation Notes. The financing assumptions have been changed to reflect lower interest rates that are more consistent with current and expected market conditions.

Based on revised assumptions summarized above, and described in more detail in the following sections, the financial plan is expected to result in excess funding capacity. While the City has several options available on how to use these funds, this financial plan assumes that the excess funding capacity would be deposited in a Project reserve fund out of the first debt issuance of GO bonds in FY2014. This reserve fund would be maintained throughout the construction period and used to repay a portion of the final year's debt service obligations, although it could also be available to cover Project capital cost increases or revenue shortfalls if needed.

Risks and Uncertainties: This section addresses a more thorough knowledge of the Project's capital cost risks that has been gained as the Project's design and procurements progress, and input from the FTA risk assessment process. A series of sensitivity scenarios were produced to develop strategies to overcome the following: a 10 percent overrun for Project capital costs incurred after the FFGA; lower than anticipated growth in net GET Surcharge revenues; and an increase in the City's operating subsidy. The financial plan presents mitigation strategies that may be employed by the City to address these Project risks.