FERRY BOAT PROGRAM
DISCRETIONARY GRANTS FOR FY2012

APPLICATION SUBMISSION

Submission Requirements

Applicants shall submit an electronic copy of the application which will include the relevant SF-424 form (http://www.fhwa.dot.gov/discretionary/sf424.pdf) and a Project Narrative Statement (described in detail below) via email to the appropriate FHWA Division Office. The official application of record will be the document submitted to the FHWA Division Office.

Project Narrative

The following points describe the minimum content which will be required in the Project Narrative element of the application. If an application does not address each of these requirements to FHWA's satisfaction, the application may be considered incomplete and removed from consideration for award. The Project Narrative should not exceed five (5) pages, excluding attachments.

I. Identifier Information:

1) State: (This should match item #14 in the SF-424)
Massachusetts

2) Descrip!ive Title of Applicant's Project: (This should match item #15 on the SF-424)
BOSTON INNER HARBOR FERRY INVESTMENT

3) Congressional District Information: (U.S. Congressional membership - not the State legislature)

a) U.S. Congressional Representative(s): (Name(s) and District Number(s))

b) U.S. Senators: (Names)

II. Geographic Location: Provide a brief descrip!ion of the project location:

1) County: (County, Parish, Borough)
City of Boston (East Boston, South Boston, Charlestown) Suffolk County

2) Name of Ferry Route, Service Termini, Ports and Water Crossing:

South Boston Waterfront District (Fan Pier/Court House terminals) to East Boston Lewis Mall Terminal and Charlestown Navy Yard Pier 3 terminal

3) Car and Passenger or Passenger Only Service:

Passenger Only Service

III. Objectives and need for assistance:

1) Provide a brief descrip!ion of the proposed work: (Narrative)

The purpose of this project is to expand the capacity and improve the quality of water transportation infrastructure within the City of Boston's Inner Harbor.

The City of Boston intends to purchase two inner harbor passenger water transportation vessels to initiate new ferry service between the East Boston, South Boston and the Charlestown waterfront districts. Each vessel will have a capacity of 64 passengers, be ADA accessible, and have restrooms.

Inner harbor passenger water transportation plays a central role in the revitalization of Boston Harbor. In 2000, the City completed the Boston Inner Harbor Passenger Water Transportation Plan, an action plan to address Boston's dramatic waterfront development implementation and surging demand for water transportation. The Plan provides guidance for locations and design of water transportation terminals. The plan also develops a network of routes, building off of the Harbor's current services.

While the City of Boston has benefitted from highway infrastructure investments in the last 15 years, new developments under construction and the City's policy objectives to reduce greenhouse gases through restrictive parking programs will place more demand on our public transit system. Currently, these waterfront neighborhoods have a peak hour transportation mode split of 50% auto, 27% transit, and 23% walk. Meeting the 27% transit share (which continues to grow) cannot be accommodated without additional capacity. The projected shortfall in transit capacity will challenge the City without either changes in commuter behavior or new transit options including cost effective water transportation.

East Boston and Charlestown are isolated from Boston's Downtown Waterfront and the emerging South Boston Waterfront Innovation District by Boston Harbor. The main means of access to these neighborhoods is via bridges or tunnels that are close to capacity. The projected developments in each neighborhood, East Boston (2.5 million square feet of housing), Charlestown Navy Yard (1 million Square feet of mix use/biomedical) and the South Boston Waterfront (19 million square feet of mix use/research and development) are relying on added transit capacity. Furthermore, adding cost effective capacity sooner may provide additional momentum for this growth.

2) Confirm it is not feasible to build a bridge, tunnel, combination thereof, or other normal highway structure in lieu of the use of such ferry (23 U.S.C. § 129(c)(1)): (Y/N)

Building bridges, tunnels or a combination thereof, or other normal highway structures in lieu of the proposed ferry route is not physically possible. Alternative infrastructure would be cost prohibitive, limited by lack of public rights of way, geographical distance, and navigational restrictions in these densely built neighborhoods of Boston.

3) Confirm the operation of the ferry is on a route classified as a public road within the State and which has not been designated as a route on the Interstate System. Projects eligible include both ferry boats carrying cars and passengers and ferry boats carrying passengers only: (Y/N and provide route number/descrip!ion, functional class, and if on a National Highway System route)

Yes. The proposed water transit route is from the South Boston Waterfront district to East Boston and from the South Boston Waterfront District to Charlestown. The alternate route for the East Boston service is Interstate Highway 90. The alternate route to Charlestown is Interstate Highway 90 to I93. Alternate indirect routing on the state run public transit service (Massachusetts Bay Transit Authority) requires multiple transfers on the Silver, Red, Orange and Green lines.

4) Confirm that the ferry boat or ferry terminal facility to be funded will be publicly owned or operated or majority publicly owned. (Owned; Operated; or Majority Publicly Owned and Name of Public Entity)

The Project Proponent is the Boston Redevelopment Authority (BRA), the planning and economic development agency for the City of Boston. The BRA is the public agency responsible for planning and managing Boston's response to the region's need for water transportation facilities in Boston Harbor.

The proposed ferries will be owned by the BRA and managed through a competitively bid contract with a private ferry operator comparable to the MBTA's water transportation and commuter rail programs.

The BRA has effectively managed over 6.2 million dollars in water transportation infrastructure investments. The BRA also owns and manages the City's three largest water transportation terminals.

5) Confirm that the operating authority and the amount of fares charged for passage on such ferry is under the control of the State or other public entity, and all revenues derived are applied to actual and necessary costs of operation, maintenance and repair, debt service, negotiated management fees, and, in the case of a privately operated toll ferry, for a reasonable rate of return? (Y/N; Public Entity)

Fares and schedules will be set by the BRA and managed through a competitively bid contract with a private ferry operator comparable to the MBTA's water transportation and commuter rail programs. All revenues will be applied to actual and necessary costs of operation, maintenance and repair, debt service, and negotiated management fees.

6) Confirm that the ferry is operated only within a State (including the islands which comprise the State of Hawaii and the islands which comprise any territory of the United States) or between adjoining States or between a point in a State and a point in the Dominion of Canada. Also confirm that no part of the ferry operation is in any foreign or international waters, except as permitted under 23 U.S.C. § 129(c) (5)? (Y/N)

The ferries will only be operated in waters of the Commonwealth of Massachusetts and the United States Coastal Zone.

7) Describe how the ferry service provides for critical access to areas not well-served by other modes of surface transportation: (narrative)

While the water transit terminals are within a one to five mile range to the next nearest crossing of the water body, the dense urban areas means the capacities of these crossings are constrained which limits access to these waterfront neighborhoods.

While the City of Boston has benefitted from highway infrastructure investments in the last 15 years, new developments under construction and the City's policy objectives to reduce greenhouse gases through restrictive parking programs will place more demand on our public transit system. Currently these waterfront neighborhoods have a peak hour transportation mode split of 50% auto, 27% transit, and 23% walk. Meeting the 27% transit share (which continues to grow) cannot be accommodated without additional capacity. The projected shortfall in transit capacity will challenge the City without either changes in commuter behavior or new transit options including cost effective water transportation.

East Boston and Charlestown are isolated from Boston's Downtown Waterfront and the emerging South Boston Waterfront Innovation District by Boston Harbor. The main means of access to these neighborhoods is via bridges or tunnels that are close to capacity. The projected developments in each neighborhood, East Boston (2.5 million square feet of housing), Charlestown Navy Yard (1 million Square feet of mix use/biomedical) and the South Boston Waterfront (19 million square feet of mix use/research and development) are relying on added transit capacity. Furthermore, adding cost effective capacity sooner may provide additional momentum for this growth.

The ferry terminals in South Boston, East Boston and Charlestown are within a five minute walking distance to land based public transportation providing multi-modal connections.

The proposed year-round ferry service is primarily for commuter use but also will provide access for hospitals, schools, leisure and recreation.

8) Annual number of vehicles and/or pedestrians carried: (annual number vehicles, pedestrians and/or total passengers; and narrative)

The ridership forecasting methodology predicts that the South Boston – Charlestown Navy Yard service would attract 500 one-way trips on an average weekday in 2012. With an annualization factor of 240 weekdays per year, the estimate is 120,000 one-way trips in 2012. Assuming, the ferry operator deemed weekend service and increased special events services to be viable, we estimate the number of one-way trips in 2012 would be about 140,000. Based on the projected growth in the federally approved Central Transportation Planning Staff's (CTPS) regional transportation model, the potential ferry ridership is projected to grow by about one percent per year after 2012.

The East Boston service is forecast to attract the most riders. The CTPS model's trip estimates between East Boston and South Boston are much higher than for the other locations with an estimated 220,000 one-way trips per weekday in 2012.

9) Amount of FBD funds requested: ($)

We are requesting $1,280,000 (80% of total project cost) to purchase two ferries.

10) Total project cost: ($)

Total costs to purchase the ferries is 1,600,000.

11) Other funds committed to the project and source of funds: ($ and source)

The City of Boston and Commonwealth of Massachusetts have invested over three million dollars for the water transportation terminals at all three locations. The City of Boston and Commonwealth of Massachusetts will also invest staff and management resources for the new ferry service.

12) Explain how the funding will provide for expeditious completion of project: (Narrative)

The vessels can be fabricated within eight months of order. Fabrication will produce 20-30 full-time skilled labor jobs.

13) Will the applicant accept a lesser award and still meet the project milestones outlined in the application (Start Date and Completion Date) or advance a significant part of the project? (Y/N)

No.

Project Summary 2012

SB-2012-MA-57013: **Essex Coastal Scenic Byway Visitor Center Kiosk System**

State Submission Date
Dec 14, 2011

Division Submission Date
not submitted

State Priority
0

This application must be completed online at http://www.bywaysonline.org/grants/, and submitted electronically and in printed form.

Application Checklist

The following statements are for informative purposes. Please read and check each statement.

- I understand that this is a reimbursement program - funds are not available up-front.
- I have reviewed and responded to the Complete Application statements as outlined in the Grants Guidance.
- I have been in touch with the State scenic byway coordinator and have responded to recommendations or requirements of the State.
- I have verified with the State byway coordinator that this proposed project can receive authorization to proceed from the State and FHWA division before the end of the fiscal year for which the application is made.

Project Category

Which category best describes the location of this project?

- ○ Project that is associated with a highway that has been designated as a National Scenic Byway, All-American Road, or one of America's Byways.
- ● Project along a State or Indian tribe scenic byway that is carried out to make the byway eligible for designation as a National Scenic Byway, an All-American Road, or one of America's Byways.
- ○ Project that is associated with the development of a State or Indian tribe scenic byway program.
- ○ Project along a State or Indian tribe scenic byway.

Choose from the following categories of eligible work the type that best fits your project.

- ○ Byway Programs
- ○ Corridor Management
- ○ Safety Improvements
- ● Byway Facilities
- ○ Access to Recreation
- ○ Resource Protection
- ○ Interpretive Information
- ○ Marketing

Is this application a resubmission of an unfunded project from a previous year?

- ○ Yes
- ● No

Project Location

State(s) involved in project:

Massachusetts

Indicate the byway's regional location within the State. Reference prominent landmarks such as parallel major highways, natural features, counties, or large cities, that makes the byway(s) easy to locate in a road atlas.

The Essex Coastal Scenic Byway follows an 85-mile route along the coastline north of Boston, Mass. and links 13 communties from Lynn to Newburyport.

Briefly describe the project's location(s) on the byway using references to route numbers, byway gateway communities, project location communities and landmarks so any reviewer can identify the project sites.

Kiosks will be installed at existing visitor centers in 7 of the 13 byway communities (Lynn, Marblehead, Salem, Gloucester, Rockport, Ipswich, and Newburyport). The eighth kiosk will be nearby at an off-byway state visitor center on I-95 in Salisbury.

Associated Byways

State	Byway Name
MA	Essex Coastal Scenic Byway

Is this project consistent with the Corridor Management Plan(s) for the byway(s) involved?

- Yes
- No / CMP not available

Congressional Districts

State	District	Representative (at time of application)
MA	6	Tierney, John F.

Abstract

Project Description

Complete the sentence "This project will..." before adding remaining information.

This project will entail the planning, design, fabrication, and installation of outdoor interpretative kiosks at eight existing visitor centers on the 85-mile Essex Coastal Scenic Byway. The kiosk facilities will provide byway travelers with core information about the regional byway and the local host communities. In all, over 600,000 travelers stop at the visitor centers annually.

A high priority recommendation of the March 2011 CMP and the nascent byway’s second infrastructure project, the kiosk system will further establish the byway’s brand identity. The kiosks are a key component of the visitor readiness package that will support designation of the route as a National Scenic Byway.

Byway Benefits

Complete the sentence "This project benefits the byway traveler by..." before adding remaining information.

This project benefits the byway traveler by providing key interpretive information in a recognizable format that is welcoming, attractive, and easy to understand. Placed in locations where travelers go to find information, the kiosks will complement information provided by visitor center personnel and will be available when the centers are closed.

Introducing travelers to the byway's nationally significant historic and national resources benefits them by providing a context for experiencing the byway story of man's nearly 400-year interaction with the land and sea. It helps them discover new stories to learn, new places to explore, and new activities in which to particip

Narrative

Project Summary

Completely describe all the major elements of your proposed project in a concise but complete summary.

BYWAY ORGANIZATION

In its capacity as byway coordinator for the Essex Coastal Scenic Byway, the Essex National Heritage Commission (Essex Heritage) will administer and manage the project on behalf of the byway's member communities and numerous stakeholders. To ensure success, the project will be planned and executed in close cooperation with the Massachusetts Department of Transportation (MassDOT), visitor center operators, local officials, and an ad hoc project committee established by the byway's steering committee.

Designated by the U.S. Congress in 1996 as the management entity of the Essex National Heritage Area, the mission of Essex Heritage is to preserve and promote the historic, natural, and cultural resources of the Area. By fostering broad-based community support for its heritage mission, Essex Heritage has become a powerful force in the development of the region's heritage resources. Bringing together partners as diverse as chambers of commerce, historical and environmental organizations, economic development agencies, and private businesses, Essex Heritage provides a framework for promoting economic growth that respects and preserves the region's nationally significant resources while fostering an ethos of pride and accomplishment.

PROJECT NARRATIVE

The Essex Coastal Scenic Byway Visitor Center Kiosk System will entail the planning, design, fabrication, and installation of outdoor kiosks at eight existing visitor information centers located along the 85-mile, 13-community Essex Coastal Scenic Byway. The comprehensive system of kiosk facilities will provide byway travelers with fundamental interpretive information about the regional byway and the local host communities.

In addition, as the byway's second infrastructure enhancement project (the first is a FFY 2011 NSBP grant-funded directional signage project), the kiosk facilities system will further establish a recognizable, regional, on-route brand identity for the byway. The project will also add another key component to the visitor readiness package that will support designation of the route as a National Scenic Byway.

The goal of the project is to enhance the visitor experience by providing byway travelers interpretive information in a standardized format that is welcoming, attractive, and easy to understand. Placed in locations where people expect to find travel information (i.e., visitor centers), the kiosks will complement other information provided by visitor center personnel and, importantly, will function when the visitor information centers are closed (after hours or during the off-season).

Conceived and scoped with input from the byway's steering committee, the project is a high priority recommendation of the byway's corridor management plan (completed March 2011). Throughout the corridor management planning process the need and importance of further engaging the region's existing visitor information centers in the byway's interpretative outreach was repeatedly identified and stressed by local officials, planners, heritage sites, and residents.

New interpretive kiosk facilities are proposed for the following existing visitor centers (listed in south to north order):

Community / Visitor Center Name / Visitor Center Operator

1) Lynn / Lynn Museum & Lynn Heritage State Park / Lynn Museum and Historical Society

2) Marblehead / Marblehead Information Booth / Marblehead Chamber of Commerce

3) Salem / Regional Visitor Center / National Park Service

4) Gloucester / Stage Fort Park Welcoming Center / City of Gloucester

5) Rockport / Rockport Information Center / Cape Ann Chamber of Commerce

6) Ipswich / Ipswich Visitor Center / Town of Ipswich

7) Newburyport / Custom House Maritime Museum / Newburyport Maritime Society

8) Salisbury / Maria Miles Visitor Center / North of Boston Visitor and Convention Bureau

With the except of the Marblehead Information Booth and the Rockport Information Center, all visitor information centers listed have a long standing affiliation with the Essex National Heritage Commission. For nearly 15 years Essex Heritage has supported a network of ten “satellite” visitor centers, five of which are located directly on the scenic byway - Lynn, Salem, Gloucester, Ipswich, and Newburyport. (Although not located directly on the byway the Salisbury visitor center is an Essex Heritage-affiliated facility) In exchange for a modest annual operating grant from Essex Heritage the affiliated visitor centers promote the historic, cultural, and natural resources of the entire Essex National Heritage Area region (500 sq. mi, 34 cities and towns) to travelers and residents alike. The visitor centers are typically housed in historic buildings operated by either a nonprofit and public entity. Heritage area awareness activities take the form of direct visitor interaction between traveler and front line visitor center staff and volunteers, on-site display of heritage area collateral material (primarily maps and activity guides), banners, photos, and in one case a video clip. As byway-related material is developed it will be disseminated in the visitor centers as well.

The state’s busiest tourism services facility, the Maria Miles Visitor Center is located on Interstate 95 approximately five miles from the byway’s northern gateway community of Newburyport. The 12-year old facility is owned by MassDOT and managed by the nonprofit North of Boston Visitor and Convention Bureau, one the state’s 16 designated regional tourism councils.

The Rockport Information Center is housed in a modern structure located directly on the byway.

Travelers learn about the existence and purpose of the Essex Heritage-affiliated visitor centers in several ways, most notably from an integrated system of signs on the region’s major arterial highways, including Interstate 95, that direct the traveling public to the visitor center locations. The visitor centers are also promoted on the web pages of the byway initiative (www.coastalbyway.org), the heritage commission (www.essexheritage.org), and the visitor centers themselves.

Inspired by the region and informed by a well-managed creative process, the kiosk system will be developed in accordance with the standards and practices of the heritage interpretation and exhibition design professions.

The primary objective of the system will be to stimulate travelers into further exploring and directly engaging with the byway region’s extensive and outstanding heritage resources and visitor services. Additionally conceptualized as a means of further establishing and perpetuating the byway’s story and brand, the eight proposed kiosks will be created using a unified design and interpretative philosophy—one that presents the regional byway story as the context in which to experience local communities.

During the early planning stage of the project considerable time will be devoted to researching and further defining the local historical, natural, and cultural links to the byway story of man’s nearly 400-year interaction with the land and sea in the byway communities.

Likewise, the project development team will pay significant attention to identifying the natural and manmade imagery that evokes the byway's numerous coastal settings. It is expected that this process will inform subsequent decisions relating to both the design and interpretative aspects of the project.

As a group the kiosks will share the same recognizable principle structural form and dimensions (approximately 7' tall x 5' wide and incorporating panels). Envisioned as visually distinctive, three-dimensional communicative objects, the kiosks will be as inviting as they are informative. The no-tech, low maintenance kiosks will be constructed with high quality, durable, weather resistant materials (i.e., phenolic panels).

In addition, as a means of enabling travelers to better understand the connections between the byway story and local places, individual kiosks will also incorporate design and interpretative elements that reflect the host locale. For example, one kiosk may reference the local community's maritime heritage while another in a different community's may reference its industrial past. Both references have strong ties to the byway story.

Though the exact form and content will be determined during the interpretive and design planning phase, each kiosk will display information about the scenic byway and the local host community and/or host organization as determined appropriate. The interpretive information will take the form of custom written text, found material such as photographs, and commissioned artwork such as maps and display graphics. Additionally, information will direct travelers to web-based resources such as the byway website (a mobile version of the byway's website will debut in early 2012 and a smart phone application is in development). All kiosks will display the Essex Coastal Scenic Byway logo unveiled in April 2011.

Although its final composition will be determined via the consultant procurement process, the project team necessary to develop and execute the kiosk project consists of the following personnel: exhibit developer (lead consultant), exhibit designer, graphic designer, researcher, and writer. A second procurement process would be result in hiring of a small firm (three to five employees) to fabricate and install the kiosk system. A senior staff member from Essex Heritage will manage and administer to the overall project. In all, the project would create as many as 11 short time, temporary jobs.

PROJECT PLAN

Following the establishment of a funding agreement with MassDOT, the kiosk project will advance as three clearly defined phases: Exhibit Planning; Exhibit Design & Production; and Exhibit Fabrication & Installation. Each of the principle phases has several sub-tasks as detailed below and in the Work Plan section of this grant application.

PHASE I – Exhibit Planning

Task 1A: Convene Kiosk Project Committee.

The initial task will begin with the scenic byway steering committee appointing an ad hoc committee to advise and assist Essex Heritage staff with the management of the kiosk project. The committee will include representatives of the eight visitor centers at which the kiosks will be installed as well as others conversant with exhibit planning and design.

Task 1B: Procure Project Consultant.

Central to the successful implementation of the grant project will be procurement of a qualified exhibition development consultant. Serving as Essex Heritage's representative and the leader of the consultant team, the project consultant will assist by 1) executing the project scope of work for planning, designing, and producing the kiosks, 2) obtaining state and local permits 3) preparing specifications and bid documents, 4) overseeing fabrication of the kiosk's standard fixtures and custom elements, and 5) overseeing installation of the kiosks at the individual visitor center locations. Essex Heritage will work with MassDOT and the ad hoc kiosk project committee to manage the procurement process, including issuance of a request for proposals, proposal review and selection, and contract negotiation.

Task 1C: Interpretive and Design Planning.

This task will entail the project consultant engaging Essex Heritage and the visitor center representatives (ad hoc kiosk committee), individually and as a group, in a collaborative creative development process resulting in the preparation of a comprehensive plan for designing and producing the eight exhibit kiosks, including determination of overall and specific

interpretative and design objectives, deliverables, and project timeline. It is anticipated that this task will require the organization of numerous conference calls, meetings, and site visits.

Interpretative planning tasks will include 1) developing communication objectives, experiential objectives, and interpretive goals, 2) researching interpretive resources such as texts, maps, images, and illustrations, 3) compiling an inventory of preferred, found and commissioned artwork; 4) and drafting exhibit text.

Design planning tasks will include 1) confirming exact locations for exhibit kiosks, 2) identifying local regulatory requirements (approvals and permits), 3) developing conceptual design options for the kiosk structure and fixture elements, 4) and developing graphic design options for kiosk's "look and feel."

PHASE 2 – Exhibit Design & Production

Task 2A: Design & Production.

Following consensus approval of the comprehensive plan by Essex Heritage and ad hoc kiosk committee, the consultant will work to finalize development of the kiosks' design, interpretative text, and graphic design elements.

Concurrent with exhibit design and production the project consultant will prepare specifications & open bid documents for the third and final phase of the project: exhibit fabrication and installation.

The exhibit design tasks will include 1) finalizing design for all elements of the kiosks, 2) generating construction drawings (elevations, sections, and details), and 3) confirming costs.

The interpretative text tasks will include preparing final text for the exhibit.

The exhibit design tasks will include 1) developing graphic design layouts, 2) producing commissioned artwork (maps and images), and preparing final "camera ready" graphic files.

The specification and bid package documents will include a project manual, specifications, schedules, and other bid documents, all in accordance with generally accepted standards and practices.

Task 2B: Procure Fabrication and Installation Contractor.

Following creation of bid documents a qualified contractor will be procured to perform all the services relating to both the fabrication and installation of the interpretative exhibit kiosks. With input from the ad hoc kiosk committee and lead project consultant, Essex Heritage will be primarily responsible for managing the procurement process, including issuance of a request for proposals, proposal review and selection, and contract negotiation.

PHASE 3 – Exhibit Fabrication & Installation

Task 3A: Fabricate Exhibit Kiosks.

Following the successful negotiation of a contract with Essex Heritage, the qualified contractor will manufacture and assemble the exhibits' primary fixtures and any custom sculptural elements in accordance with specifications prepared by the project consultant.

Task 3B: Install Exhibit Kiosks.

Following the satisfactory completion of all pre-installation fabrication requirements, the contractor will coordinate the installation and final assembly of the exhibit kiosks at all eight visitor center locations in accordance with specifications prepared by the project consultant.

Related tasks include 1) completing all final punch list items, 2) resolving any and all fabrication or installation-related warranty claims, and 3) providing visitor center operators with kiosk maintenance training.

Benefit to Byway Traveler

Describe how the proposed project will benefit a byway traveler, add to their travel experience or fulfill an important objective of your CMP.

The Essex Coastal Scenic Byway Visitor Center Kiosk System will benefit the byway traveler by:

1) Placing the interpretative information at visitor centers, a location where people expect to find travel information, and thus reduce the need to search for information;

2) Providing access to information at times when visitor information centers are closed, after hours or during the off-season;

3) Presenting information in a standardized format that is welcoming, attractive, and easy to understand;

4) Offering information which complements others forms of information provided at the visitor centers;

5) Conveying the knowledge that they are on a well-define, well-marked route;

6) Assisting travelers in locating and navigating the byway.

The Essex Coastal Scenic Byway Visitor Center Kiosk System will add to the byway traveler's experience by:

1) Providing travelers with useful interpretative information about the byway, its story, and that of the community hosting the kiosk;

2) Introducing travelers to the broad and diverse spectrum of nationally significant historic, natural, and scenic resources that tell the byway's story of man's nearly 400-year interaction with the land and sea;

3) Showing travelers how to discover new stories to learn about, new places to explore, and new activities in which to participate.

The Essex Coastal Scenic Byway Visitor Center Kiosk System will help fulfill an important objective of the corridor management plan by:

1) Providing a consistent, integrated, and attractive method of communicating information directly to byway travelers;

2) Enhancing the future directional signage system to ensure visual consistency of the byway brand;

3) Conveying a positive message about the value, purpose, and integrity of the byway and its management.

Prior Projects

Describe any relationship between this project and previously funded National Scenic Byways Program grant projects. In addition, discuss how the proposed work relates to any multi-year work plan byway leaders have developed.

Essex Heritage is the recipient of three National Scenic Byway Discretionary Grants. Grants received in 2005 and 2007 were utilized for preparation of a single corridor management plan for two now consolidated byways (known as the Essex Coastal Scenic Byway), which was completed in March 2011. As previously noted, the CMP identifies informational "exhibits" at the byway visitor centers as a high priority and recommends creating them during the first years of the byway's development.

The interpretative kiosks project complements two other high priority recommendations of the CMP: the installation of directional signage along the entire 85-mile byway route (a FFY 2011 NSBP grant-funded project) and creation of a

byway logo (completed April 2010). Together with the kiosk project, both are envisioned as key elements of the strategic branding of the byway.

In addition to these FHWA-funded projects, Essex Heritage utilized federal Department of Interior funding in the past to create a unified signage system for the 500 square-mile Essex National Heritage Area (ENHA). The system includes signage on Interstate and state highways directing travelers to ten Essex National Heritage Area-affiliated visitor centers, five of which are located on the scenic byway.

Project Coordinator

Please provide contact information for a person responsible for this project.

Name: Bill Steelman

Title: Director of Heritage Development

Organization: Essex National Heritage Commission

Address: 220 Essex Street, Suite 41
Salem , MA 01970

Phone: 978-740-0444

Fax: 978-740-6473

E-mail: bills@essexheritage.org

Work Plan

Milestone/ Task	Start Date	Duration	Responsible Party	Justification
Establish funding agreement with State	AAD*			
Task 1A: Convene Kiosk Project Committee	AAD + 1 month*	1 month	Bill Steelman, Essex National Heritage Commission	The scenic byway steering committee will appoint an ad hoc committee to advise and assist Essex Heritage staff with the management of the kiosk project. The committee will include representatives of the eight visitor center locations at which the kiosks will be installed as well as others known to be conversant with exhibit planning and design.
Task 1B: Procure Project Consultant	AAD + 2 months*	2 months	Bill Steelman, Essex National Heritage Commission	Central to the successful implementation of the grant project will be procurement of a qualified exhibition planning and design consultant. Serving as Essex Heritage's representative and the project's clerk of the works, the lead project consultant will assist with 1) development of the project's overall direction and scope, 2) obtaining state and local permits 3) preparing specifications and bid documents, 4) overseeing fabrication of the kiosk's superstructure and exhibit panels, and 5) overseeing installation of the kiosks at the individual visitor center locations. Essex Heritage will work with MassDOT and the ad hoc kiosk project committee to manage the procurement process, including issuance of a request for proposals, proposal review and selection, and contract negotiation.
Task 1C: Interpretive and Design Planning	AAD + 4 months*	4 months	Bill Steelman, Essex National Heritage Commission	Consultant engages all parties in creative development process resulting in a plan for producing kiosks, including interpretative and design objectives, deliverables, and project timeline. Interpretative planning tasks 1) developing communication objectives, experiential objectives, and interpretive goals, 2) researching interpretive resources such as texts, maps, images, and illustrations, 3) compiling an inventory of preferred, found and commissioned artwork; 4) and drafting exhibit text. Design planning tasks 1) confirming exact locations for exhibit kiosks, 2) identifying local regulatory approvals and permits, 3) developing conceptual design options for the kiosk structure and fixture elements, 4) and developing graphic design options for kiosk's "look and feel."

Milestone/ Task	Start Date	Duration	Responsible Party	Justification
Task 2A: Design & Production	AAD + 8 months*	6 months	Bill Steelman, Essex National Heritage Commision	Upon consensus approval of plan, consultant finalizes development of the kiosks' design, interpretative text, and graphic design elements. Consultant prepares specifications & bid documents for solicitation of contractor to fabricate and install exhibit kiosks. The exhibit design tasks 1) finalizing design for all elements of the kiosks, 2) generating construction drawings (elevations, sections, details), 3) and confirming costs. The interpretative text tasks include preparing final text for the exhibit. The graphic design tasks 1) developing graphic design layouts, 2) producing commissioned artwork (maps and images), and preparing final "camera ready" graphic files. Contractor bid documents include a project manual, specifications, schedules, and other bid documents.
Task 2B: Procure Fabrication and Installation Contractor	AAD + 14 months*	2 months	Bill Steelman, Essex National Heritaeg Commission	Following creation of bid documents a qualified contractor will be procured to perform all the services relating to both the fabrication and installation of the interpretative exhibit kiosks. With input from the ad hoc kiosk committee and lead project consultant, Essex Heritage will be primarily responsible for 1) the creation and distribution of a Request for Proposals, 2) defining and managing the proposal review process, and subsequent contract negotiations.
Task 3A: Fabricate Exhibit Kiosks	AAD + 16 months*	2 months	Bill Steelman, Essex National Heritage Commission	Following the successful negotiation of a contract with Essex Heritage, the qualified contractor will manufacture and assemble the exhibits' primary fixtures and any custom sculptural elements in accordance with specifications prepared by the project consultant.
Task 3B: Install Exhibit Kiosks	AAD + 18 months*	2 months	Bill Steelman, Essex National Heritage Commission	Following the satisfactory completion of all pre-installation fabrication requirements, the contractor will coordinate the installation and final assembly of the exhibit kiosks at all eight visitor center locations in accordance with specifications prepared by the project consultant. Related tasks include 1) completing all final punch list items, 2) resolving any and all fabrication or installation-related warranty claims, and 3) providing visitor center operators with kiosk maintenance training.

* AAD = Actual Award Date (estimated to be May 01, 2012)

Budget

Cost Breakdown

#	Description	Total Cost	Requested	Match
1.	Planning	52,000	41,600	10,400
2.	Design	35,000	28,000	7,000
3.	Production	66,000	52,800	13,200
4.	Fabrication & Installation	217,000	173,600	43,400
Total		**$370,000**	**$296,000**	**$74,000**

Matching Funds

Source	Type	Description	Amount
MassDOT	Cash		74,000
Total			**$74,000**

Funding Allocation

Do the byways involved in the project cross any Federal Lands? (Check all that apply)

- ○ Bureau of Indian Affairs
- ○ Bureau of Land Management
- ○ Fish and Wildlife Service
- ○ National Park Service
- ○ USDA Forest Service

If this project is selected for funding, please indicate your preference for carrying out the project (check one):

- ● FHWA allocates the funds for the project to the State DOT
- ○ FHWA allocates the funds for the project to one of the Federal Land Management agencies marked above (provide contact information below)
- ○ FHWA allocates the funds for the project to an Indian tribe or tribal government (provide contact information below)

If funding should be allocated to a Federal land management agency or Indian tribal organization, please provide contact information for that organization:

Name:
Title:
Organization:
Address:
Phone:
Fax:
E-mail:

Attachments

Use this as a checklist to verify that all attachments are provided with your printed application.

□ **Essex Coastal Scenic Byway Application Cover Letter**

The cover letter serves to briefly introduce the project to the state scenic byway coordinator and Federal Highway Administration reviewers.

Digital version: Essex Coastal Scenic Byway_coverletter.pdf (111.7 KB)

□ **Essex Coastal Scenic Byway Letters of Support**

The letters demonstrates the project's strong support from U.S. Congressman John Tierney, state legislators representing the byway communities in which the visitor centers are located, and the visitor center operators themselves.

Digital version: Essex Coastal Scenic Byway Letters of Support.pdf (1.7 MB)

□ **Essex Coastal Scenic Byway Visitor Center Photos & Map**

The photographs depict the visitor centers at which the interpretative kiosks will be placed. The map shows the approximate locations and geographic distribution of the eight visitor centers relative to the byway, the byway communities, the Essex National Heritage Area, and northeastern Massachusetts.

Digital version: Essex Coastal Scenic Byway Visitor Center Photos and Map.pdf (3.3 MB)

□ **Essex Coastal Scenic Byway Map**

The map shows the route and configuration of the 85-mile byway in the context of the 13 host communities and the greater northeast Massachusetts region.

Digital version: Essex Coastal Scenic Byway Map_Mar2011.pdf (559.7 KB)

□ **Essex Coastal Scenic Byway Brochure**

The brochure provides an overview of the Essex Coastal Scenic Byway, its imagery, benefits, management, and continued development.

Digital version: Essex Coastal Scenic Byway Brochure_Nov11.pdf (3.0 MB)

Signatures

Application Completeness

I certify that this application is complete and correct, and is eligible for National Scenic Byways funding. (This should be completed by the State's scenic byways coordinator.)

Please print name:	Title:
Signature:	Date:

Matching Funds Certification

I certify that the matching funds for this project are available for use at the time of application.

Please print name: David J. Mohler	Title: Executive Director, MassDOT Office of Transportation Planning
Signature:	Date:

Ferry Boat Discretionary Grant Program FY 2012

I. Identifier Information

a. State: City of Lynn, Essex County. Greater Metro North Boston, Massachusetts

b. Descriptive Title of Applicant's Project: Blossom Street Waterfront Facility – Phase III

c. Congressional District Information: MA-06
   - The Honorable John Tierney, Massachusetts Sixth Congressional District

d. U.S. Senators: The Honorable John Kerry; The Honorable Scott Brown

II. **Geographic Location** Provide a Brief description of the project location:

a. County: Essex County, City of Lynn, Massachusetts

b. Name of Ferry Route, Service Termini, Ports and Water Crossing: Ferry Service from Blossom Street waterfront facility, Lynn, MA to Fan Pier waterfront facility, Boston, MA

c. Car and Passenger or Passenger Only Service: Passenger Service Only

III. **Objectives and need for assistance**

a. Provide a brief description of the proposed work: (Narrative)

The City of Lynn, through its Economic Development and Industrial Corporation, is performing substantial improvements to the Blossom Street Waterfront Facility. This facility is badly deteriorated and is currently under-utilized. The project is currently entering Phase II of three phases. This funding request is for Phase III **only** and if awarded, will bring the project to 100 percent completion.

The on-going site improvement to date has promoted increased recreational use of the existing boat ramp and has stimulated increased commercial vessel usage. The completed work will enable additional marine activity, including but not limited to, the transfer of heavy cargo across the bulkhead and will ultimately result in the operation of a year-round passenger vessel operation. EDIC/Lynn is committed to the future construction of the docking facility to comply with the ADA and to link with the surrounding properties as a Harborwalk is built. The completed ADA berthing facility will accommodate the mooring of two vessels 70 to 80 feet in length and will include the construction of a wave attenuation fence which will help protect the facility in the years to come. The following provides additional detail of the ongoing project.

This project has been separated into three construction Phases:

Phase I (Completed and funded via Commonwealth of Massachusetts)
All of the upland improvements were completed including: demolition of existing building, asphalt of parking lot, reconstruction of existing public boat ramp and drainage improvements including installation of catch basin, manholes and associated piping to collect storm water.

Phase II (Funded via the Commonwealth of Massachusetts)

Phase II work is ongoing at this time and is anticipated to be completed May of 2012. Phase II work is to primarily expand the existing bulkhead from 60' to 150'.

Phase III

The final Phase of the project will consist of the development of ADA accessible float system for passenger vessels, improvements to the site including lighting and security surveillance and the east of the bulkhead will require dredging within the intertidal area to provide adequate berthing.

b. Confirm it is not feasible to build a bridge, tunnel, combination thereof, or other normal highway structure in lieu of the use of such ferry (23 U.S.C. § 129(c)(1)): (y/n)

Yes, such construction is not feasible. The specific route encompasses 10 miles over open water with no bridge/tunnel feasible alternative. Service provides an alternate route to allow ridership to travel between Boston's Central Business District to the City of Lynn without need of a vehicle.

c. Confirm the operation of the ferry is on a route classified as a public road within the State and which has not been designated as a route on the Interstate System. Projects eligible include both ferry boats carrying cars and passengers and ferry boats carrying passengers only: (y/n and provide route number/description, functional class, and if on a National Highway System route)

Yes, the Lynn Ferry, a passenger-only service will operate as a passenger service running parallel to Rt. 1A, an aging State Roadway, which now is operating at full capacity. Rt. 1A contains numerous failing intersections between Lynn and Boston.

d. Confirm that the ferry boat or ferry terminal facility to be funded will be publicly owned or operated or majority publicly owned. (Owned; Operated; or Majority Publicly Owned, and Name of Public Entity)

List the public entity that owns or operates or is majority public owner of the ferry or ferry terminal facility.

The term "publicly owned" means that the title for the boat or terminal must be vested in a Federal, State, county, town, or township, Indian tribe, municipal or other local government or instrumentality. The term "publicly operated" means that a public entity operates the boat or terminal. The term "majority publicly owned" means that more than 50 percent of the ownership is vested in a public entity. If so, does it provide substantial public benefits?

EDIC Lynn, a public entity, will own the multi-use facility which will be managed either directly by the City or through establishment of a port authority or some other public management entity. EDIC plans to explore ownership of a ferry vessel and may contract with a private ferry operator to manage day-to-day ferry service and vessel maintenance.

e. Confirm that the operating authority and the amount of fares charged for passage on such ferry is under the control of the State or other public entity, and all revenues derived are applied to actual and necessary costs of operation, maintenance and repair, debt service, negotiated management fees, and, in the case of a privately operated toll ferry, for a reasonable rate of return? (y/n; Public Entity)

Yes, EDIC Lynn is the controlling public entity and responsible fiscal agent and will ensure a Ferry operation managed in accordance with Federal, State and local fiscal requirements.

f. Confirm that the ferry is operated only within a State (including the islands which comprise the State of Hawaii and the islands which comprise any territory of the United States) or between adjoining States or between a point in a State and a pint in the Dominion of Canada. Also confirm that no part of the ferry operation is in any foreign or international waters, except as permitted under 23 U.S.C. § 129(c)(5)? (y/n)

Yes, the proposed Ferry operation only impacts the Commonwealth of Massachusetts and does not operate in foreign or international waters.

g. Describe how the ferry service provides for critical access to areas not well-served by other modes of surface transportation: (narrative)
Provide the distance in miles to the next nearest crossing of the water body from each terminal. Describe how the project is meant to improve or maintain the critical access and potential impacts of closure of the ferry. Describe the purposes that passengers use the ferry, i.e. access to schools, hospital, businesses, commuters, leisure, recreation access, etc. Describe the schedule of the service. i.e., is the service year round or seasonal? What days of the week does the service run?

The Blossom Street Waterfront Facility is located approximately 8 miles from the Fan Pier Waterfront Facility. To the North of Lynn, the City of Salem currently operates a season Ferry Service. To our South, the town of Winthrop operates a commuter Ferry Service. The EDIC Lynn Ferry Service will be an annual service which will provided expanded transportation options to the residents of the City

of Lynn as well as the surrounding Metro North and North Shore Communities. The Ferry will operate 6 times a day 7 days a week.

h. Annual number of vehicles and/or pedestrians carried: (annual number of vehicles, pedestrians and/or total passengers; and narrative)

Provide the number of vehicles and/or pedestrians that were carried in the most recent year available. For new service or increased capacity, also provide the anticipated annual volume after completion of the project. Bicycles should be considered pedestrian traffic. Total number of annual passengers should also be provided, if available.

The project annual ridership total for year one operation is anticipated to be 24,000 passengers

i. Amount of FBD funds requested: ($)

Provide the amount requested to meet the schedule provided.

In accordance with 23 U.S.C. § 147, the Federal share of the costs for most projects eligible under this program in the States is 80 percent. The maximum share for U.S. territories is 100% in accordance with 23 U.S.C. § 120(h).

EDIC Lynn is requesting 80 percent of the project completion cost of Phase III amounting to $2,145,000

j. Total project cost: ($)

Provide the total cost of the project. Include only costs that would be eligible for ferry boat funding.

Indicate the estimated future funding needs for the project, including anticipated requests for additional Federal funding and the items of work for which the funds are needed. For example, if the current request is for an initial phase of construction, funding needs for future construction should be included.

Projected Phase III Budget Estimates

- Dockage with dredging - $1,305,750
- Wave Fence - $400,800
- Concrete Cap/Fendering - $100,000
- Paving/railing/lighting - $462,000
- Engineering/Construction Services - $150,000
- Contingency - $241,000
  Total - $2,600,350

Funding request absent current and projected contingency cost will complete and finalize all construction aspect of the project.

k. Other funds committed to the project and source of funds: ($ and source)

Because the annual requests for funding far exceed the available FBD funds, commitment of other funding sources to compliment the requested FBD funds is an important factor in project selection. Projects that leverage other funding from public and non-public sources will be given additional consideration. Include information about the commitment of funds, sources, and uses of all project funds, including Federal funds provided under other programs. Only indicate those amounts of funding that are firm and documented commitments.

Do not include funding that was provided for previous projects or phases of work.

Phase 1 - $750,000 that was funded by the Commonwealth of Massachusetts, Seaport Advisory Council.
Phase 2 - $1,300,000 that was funded by the Commonwealth of Massachusetts, Seaport Advisory Council.

l. Explain how the funding will provide for expeditious completion of project: (Narrative)

Preference is given to requests that will expedite the completion of a viable project over requests for initial funding of a project that will require a long-term commitment of future Federal funding. For large-scale projects, consideration is given to the State's total funding plan to expedite the completion of the project.

Provide a discussion of the current status and completion dates of the project, i.e., design, final detail design, environmental review and inclusion in the State or metropolitan planning document and transportation improvement program. Explain how the requested funding will modify the current schedule.

Currently, the construction of Phase II is underway. The anticipated completion date is May 30, 2012. If EDIC is awarded Phase III funds we could immediately begin this work on June 1, 2012. Phase III is anticipated to be a 12 month construction phase, meaning that in 18 short months the city of Lynn would be ready to launch its first Commuter Ferry.

m. Will the applicant accept a lesser award and still meet the project milestones outlined in the application (Start Date and Completion Date) or advance a significant part of the project? (y/n)

If yes, what is the minimum amount of FBD funding the applicant could accept and still meet the project milestones? ($, minimum FBD funds acceptable) FBD funding is limited. If the applicant can accept less FBD funding and still meet the project milestones or advance a significant part of the project, the

project will be given additional consideration. Do not request funds less than would be necessary to advance an individual project.

Yes, EDIC would accept a lesser award as any funds received will still accelerate the project and bring the completion date sooner than currently planned.

Massachusetts Bay Transportation Authority
Federal Highway Administration
Transportation, Community, and System Preservation Program December 22, 2011

1. State: Massachusetts

2. County: Suffolk County

3. US Congressional District MA8 and MA9

4. US Congressional District Members Names: 8-Rep. Michael Capuano and 9 –Rep. Stephen Lynch

5. Project Title: Fairmount Corridor Business Development and Ridership Initiative

6. State Priority:

7. Project Location. The 9-mile Fairmount Commuter Rail is within Boston and starts at South Station and ends at Readville station; the line runs through the neighborhoods of Dorchester, Mattapan and Hyde Park.

8. Abstract:

The proposed project is designed to realize the economic and social benefits of a $165M transit capital investment to upgrade and expand the 9-mile Fairmount Commuter Rail line of the Mass Bay Transit Authority (MBTA) to the predominantly low- and moderate-income and minority neighborhoods within 1/2mile of the line-- the "Fairmount Corridor." The MBTA has completed extensive renovations to two stops and is building four new stops by the end of 2013---transit infrastructure that will help support multiple neighborhood business districts including four Main Streets districts that promote growth and revitalization. The TCSP project will focus on 1) marketing and promotion of the line, 2) new street-level physical enhancements at the stations and stronger community connections, and 3) supporting needs of local retail businesses and light industrial businesses with higher employment potential near the line. The goal is to improve livability and create a stronger synergy between the MBTA and businesses throughout the Fairmount Corridor—whereby businesses will make location and expansion decisions based on the availability of high quality transit and new commuters, shoppers and local businesses will promote more ridership to help realize the full capacity of the "new and improved" Fairmount/Indigo Line.

9. Narrative.

The success of the Fairmount Commuter Rail Line Project depends on the ability to provide improved service to residents of underserved neighborhoods along the line with access to jobs, services and centers of trade. In addition to access to downtown Boston, the Longwood Medical Area and Boston's Innovation District, enhancing the economic vitality within the Corridor and encouraging private and non-profit development is increasingly seen as of equal importance. As construction moves forward at the four new stations, the project partners are looking at marketing and other enhancement measures to increase ridership on the train, to improve livability in the surrounding neighborhoods and to stimulate new jobs and strengthen nearby small business districts.

The MBTA works in close partnership with The Fairmount/Indigo Line CDC Collaborative (FICC), the Boston Redevelopment Authority (BRA) and the Metropolitan Planning Council (MAPC). The activities to be undertaken with the TCSP funding build on research, planning and development activities being undertaken by these groups. Since 2004, FICC has been acquiring vacant and distressed properties within ½ mile of the new and existing stops for new transit-oriented-development (TOD) to create 1500 new housing units, up to 700,000 sf of new commercial and mixed-use/retail development, and enhanced open space—all implementing a corridor revitalization vision organized by the community and based on sustainable development principles. The BRA is launching a Fairmount Corridor and Crossroads Planning Initiative to begin in early 2012 to improve the public realm at the stations and promote better access through multi-modal transit. FICC is also working with the Project for Public Spaces (PPS) under the auspices of the Great Neighborhoods Initiative-- Massachusetts Smart Growth Alliance to transform multiple public spaces near the Fairmount stops into livelier "destinations" with multiple activities to promote economic and social vitality. The FICC and PPS will conduct one or more workshops in the spring 2012.

The TCSP Project will dovetail with all these efforts. In addition, the work relates to recommendations from a recent study by FinePoint Consulting for FICC that evaluates the strength of existing Fairmount Retail "Main Streets" Districts and proposes strategies to leverage the transit improvements and bring greater retail diversity, vitality and jobs to the Corridor. The key needs we have identified are:

> **I- Improve appearance and enhance signage** at the stations to become more pedestrian-friendly, attract riders, enliven the station area, and create connections between the transit infrastructure, and the nearby commercial districts.
>
> **II- Market the business districts to potential customers and use new marketing and advertising** to take advantage of the Fairmount line upgrades.
>
> **III- Recruit new businesses and help existing businesses** to strengthen the commercial districts and job opportunities near the Fairmount line and factor into future rail service.

The project will focus on two or more of the stops on the Fairmount line, which are near local business districts. Two examples are: 1) the renovated Uphams Corner stop, which is near the Uphams Corner business district with 675,000 s.f. of commercial and institutional space and 131 businesses and 2) the new Four Corners stop to be completed in 2012 that is near the Four Corners business district with 170,000 s.f. of commercial and institutional space, and 68 businesses. Other potential stops include the new Newmarket/Mass Avenue stop near a major shopping center, the existing Fairmount stop near the Logan Square business district, and the new Talbot stop. The activities that follow address the needs identified above.

I. Improve appearance and enhance signage to become more pedestrian-friendly, attract riders, enliven the station area and create connections to the local business district

We want to begin to "brand" the new Fairmount/Indigo line to transform public perceptions and develop a distinct identify that will help promote ridership and strengthen the local business districts. In addition, we will design and implement enhancements at the street level to improve the visual appearance, increase pedestrian safety, and help make connections to the local business districts, such as:

- Design and install new LED signage with more street-level visibility to inform commuters of the train schedules, delays or other special conditions.
- Design and install station & wayfinding signage with a branding logo and identifiers to distinguish the Fairmount line to be used up and down the line
- Design and install directional signs to highlight attractions and destinations near the business districts. For example, the new Kroc Family Recreation Center, the historic Strand Theater, the Uphams Corner Main Streets, and the Dudley Village Town Common, and Franklin Park Zoo.
- Sponsor art projects or community events to involve local artists, residents and businesses. Coordinate with the BRA Fairmount Corridor and Crossroads Planning Initiative to identify elements for station area enhancement and connections with the nearby business districts.
- Participate in the FICC PPS "destination" workshop(s) to identify other ways the MBTA can contribute to increased activities at the selected station areas

II. Market the business districts to potential riders and advertise the new Fairmount line

Joint MBTA/local businesses promotion of the rail line and the local businesses:

- Develop tools, policies and agreements to attract customers to the Fairmount Line and to local businesses. Possibilities:
  - Engage local retail businesses to be the T's agent for selling monthly passes
  - Special advertising packages/rates for Fairmount businesses on at stations; graphic design support and design of marketing "furnishings" at stations
  - Establish a working group with the local Main Streets organizations, CDCs, and other merchants to assess potential for a Fairmount Corridor Business Association.
- Highlight Corridor-wide destinations on Fairmount stations, trains and publications-- the Kroc Family Recreational Center, Strand Theater, Riverside TheaterWorks, and the South Bay Mall,.

III. Recruit new businesses and help existing businesses to strengthen the commercial activity and job opportunities near the Fairmount line and factor into future rail service.

- Recruit viable businesses to open locations within the corridor: The FinePoint Associates study identified a number of such businesses. Technical assistance and loan products will be provided by the Dorchester Bay EDC --a member of the Fairmount Collaborative-- and the City of Boston business assistance offices. DBEDC is designing loan products to meet business needs including working capital and tenant improvements.
- Provide technical assistance for Fairmount service planning scenarios taking into consideration business recruitment and land use planning underway in the Corridor.

10. Amount of federal TCSP Funds Sought: $352,500

11. Commitment of Other Funds

Fairmount Indigo Line CDC Collaborative: $10,000 from Garfield Foundation FY 12 grant for business recruitment

Fairmount Indigo Line CDC Collaborative: $7,500 from FY 11 Citi Foundation grant for Fairmount business financing product:

Great Neighborhood Initiative/Project for Public Spaces: $8,000

Additional $62,500 of funding are anticipated to be raised by project partners before execution of the TCSP grant award.

Total projected match: $88,125 -→ TCSP grant amount: $352,500

12. Previous TCSP Funding: None

13 Project Administration

The MBTA, the nation's 5th largest public transit agency, will be administrator of the federal grant funds and will have responsibility for capital project management, including contractor procurement oversight for federal contracting requirements, progress reporting and fiscal management.

An MOU will be developed and executed by the project partners—the MBTA, the Fairmount Indigo Line CDC Collaborative, and clearly defining implementation actions, roles and responsibilities, collaborative policy/planning development and schedule.

As the project scope is structured, MBTA will be the lead implementing agency for the signage capital project and communications elements of the scope. The Fairmount Collaborative will be the lead for business development/recruitment task elements.

The MOU outlining implementation roles and coordination will be executed by the parties upon TCSP grant award.

14. Project Schedule

General project scoping

Month 1

- Meet with FICC, BRA, MAPC to incorporate workplan into BRA Planning process… or establish coordination/information sharing protocols
- Identify which stations and which business districts to receive TCSP-funded interventions
- Issue RFP for A&E services (or amend existing contracts) for design and contract supervision of station enhancements.

I. Improve appearance and enhance signage to become more pedestrian-friendly, attract riders, enliven the station area and create connections to the local business district

Month 1

- Recruit participants in Project for Public Spaces (PPS) charettes
- Identify local partners to sponsor and manage public art projects and community events at or near stations and on crossroads/connectors between stations and business districts

Month 2-3

- Conduct Project for Public Spaces planning sessions/charettes on Fairmount Corridor station pilot destination planning projects

Month 4

- Identify enhancements to be installed with TCSP grant,
- Community meetings to present PPS recommendations and to present ideas for physical and operational enhancements of stations to complement PPS proposals, strengthen connection between stations and surrounding streets and business district

Month 8

- Complete design of station physical enhancements (station signage; LED signs, directional signage)

Months 4 - 16

- Implement PPS plans as ratified or modified at community meetings
- Display/install public art, hold neighborhood events to enliven and spotlight stations and crossroads from stations to neighborhoods

Months 9 – 18

- Install all station enhancements to be funded with TCSP grant

Month 14 – 18

- identify potential capital sources for other station enhancements

II. Market the business districts to potential riders and advertise the new Fairmount line

Month 2

- Establish a working group with the local Main Streets organizations, CDCs, and merchants and business technical assistance providers

Month 3

- Present to working group extensive "menu" of possible activities to be included in a joint MBTA/local business rail line and business promotion campaign
- Select up to three joint promotional activities/strategies to be implemented and evaluated.

Month 11

- Issue RFP for communications consultant to design an awareness campaign about major Fairmount Corridor destinations that can be accessed by Fairmount Line.

Months 4-14

- Implement joint promotional activities and strategies

Months 12 – 16

- Evaluate joint promotional activities and strategies

Month 16

- Complete design materials for major destination campaign
- Complete plan for implementation of major corridor destination awareness, to be timed to opening of two or three new stations.

Months 16- 18

- Facilitate self assessment of the Fairmount Corridor business working group
- Decide whether to formalize a Fairmount Corridor Chamber of Commerce or Business Association.

III. Recruit new businesses and help existing businesses to strengthen the commercial activity and job opportunities near the Fairmount line and factor into future rail service.

Month 1

- Document status of business recruitment work arising from FinePoint Associates study; develop workplan to complete recruitment for each business actively being pursued

Month 2 – 3

- Presentation to Fairmount Main Streets organizations, neighborhood merchant and business association groups, business technical assistance providers information about new business loan products for Fairmount Corridor businesses

Months 4-16

- Complete business recruitment activities underway at project start, including originating new business loans
- Gather feedback from potential business "settlers" on impact of transit service levels on location decision.
- Identify new cohort of businesses to recruit to Fairmount Corridor
- Market business loan products and TA. services to existing businesses in corridor; originate ten new TA/lending relationships with businesses

Months 12-18

- Confer regularly with MAPC, Mass DOT, Central Transportation Planning Staff, BRA Fairmount Planning Initiative on updates on ridership data and projections, transit service levels and forecasted job growth within Fairmount Corridor.

KENDALL SQUARE AREA (CAMBRIDGE, MA)
EMPLOYER TRANSPORTATION BENEFIT PRICING TRIAL

1. Description of Congestion Problem

The Kendall Square area, which is a locus for R&D and life sciences activity, includes Cambridge Center, One Kendall Square, Technology Square and the Cambridge Research Park commercial developments. It also is the home of the Massachusetts Institute of Technology as well as US DOT's Volpe Research Center. The area is now coming into its own as a residential destination as well, with recent completion of over 500 rental housing units. The area has recently been rezoned for an additional 1.8 million square feet of R&D development. There are a total of about 50,000 employees, commuting each day to this dense urban neighborhood located on the banks of the Charles River, about 2-3 miles from downtown Boston.

The area has been transformed over the past 30 years, transitioning from an industrial manufacturing center to a high-tech community that borders some of Cambridge's densest lower- and middle-income neighborhoods. While fairly well served by the MBTA's Red Line (Kendall/MIT Station) and seven major bus lines, the area has traditionally included relatively large numbers of private parking facilities, ranging from numerous legacy parking lots to more recent above-ground and sub-surface parking garages. And while the market rate for the area's public parking facilities is relatively high for a non-downtown area (about $250/month), most of the private employer-controlled parking is provided to daily commuters at much lower rates, or even for free in some areas. However, recent policies adopted by the City of Cambridge and major employers such as MIT have resulted in significant increases in parking rates paid by commuters. These increased parking rates have been accompanied by improved transit and ridesharing benefit offerings to maintain employee morale and the ability to continue to attract highly qualified employees, and evidence suggests that these incentives are beginning to change mode choice and commuter behavior. (The 2000 Census Journey-to-Work data for the area suggests mode-to-work shares of about 53% SOV, 9% carpools, 27% public transit and 10% walk or bike.)

As the Kendall Square area of Cambridge continues to succeed in attracting economic growth, the road network is becoming increasingly congested. The capacity of the local area road network is actually expected to decrease as reconstruction of the bridges and viaducts over and along the Charles River and linking to I-93 takes place over the next decade. This makes the Kendall Square area ideal for learning about which incentives can best encourage SOV commuters to switch to alternative transportation modes. There is a large base of businesses that want to continue to grow, a City government and regulatory framework designed to support growth without gridlock, an excellent and growing database on employee travel behavior, and the impending threat of reduced auto capacity because of reconstruction, providing motivation to businesses, their employees, and the City to develop effective means to encourage more employees to come to work using fewer cars.

2. Description of Proposed Pricing Program

The proposed employer transportation benefit pricing program will synthesize the best prior commuter transportation benefit pricing practices in the Kendall Square area along with a number of recently developed strategies by a few of the area's employers to "push" SOV commuters to use a range of alternative transportation modes, thus reducing local congestion. Recognizing that approaching the limits of auto capacity threatens to constrain the strong growth in economic activity that the city wants to promote, the City of Cambridge passed the Parking and Transportation Demand Management Ordinance (PTDM) in 1997. This ordinance is designed to improve mobility and access, reduce congestion and air pollution, and increase safety by promoting walking, bicycling, car/vanpooling, public transportation, and other sustainable modes. Participation is triggered when a developer of a non-residential project proposes to add parking. Large developments are required to have a Single Occupancy Vehicle (SOV) mode-share commitment that is 10% below the 1990 Census Data, or based on 1995 Nationwide Personal Transportation Survey data or existing conditions (this comes to approximately 50%). To accomplish this goal, developers are required to choose a set of Transportation Demand Management (TDM) measures, and their progress is tracked by annual monitoring and reporting requirements. Subsidized transit passes are common (between 50% and 100%). Sometimes, developers agree to charge tenants for parking but usually they only agree to charge a fee that is only a portion of current market rates, and they generally have no control over whether their tenants pass the parking fee along to individual commuters (or subsidize all or a portion of that fee). There are currently over 50 developments with PTDM plans already in place in the Kendall Square area, covering over 35,000 employees (including graduate students at MIT.).

MIT has for the past decade offered fairly "progressive" transportation employee benefits, partly as a result of faculty advocacy, and partly in response to the City of Cambridge's Clean Air Act requirements associated with building permits involved in university expansion. MIT's transportation benefits policy has evolved from a situation of free parking and no transit benefit to a parking sticker priced at 35-40% of market (and rising by 11% per year), and transit benefits including 50% subsidy of transit and commuter rail, with the employee paying on a pre-tax basis. It has steadily increased employee and student parking rates to the equivalent of about $5/day, and used a significant portion of this revenue to subsidize employee transit passes at a rate of 50%, establish on-campus shuttle bus services, add numerous bicycle facilities, and begin supporting programs such as the Guaranteed Ride Home taxi voucher program. These have resulted in a current transit mode share among employees of about 35%, substantially higher than the 27% prevalent in the area. However, MIT still faces the reality of substantial parking subsidies (e.g., about 70% of the total cost) for the foreseeable future, and potentially huge expenditures for underground parking to replace surface lots taken for new buildings and future growth.

Within the past seven years, as part of an Institute policy "Walking the Talk" introduced by President Hockfield, and pursuant to innovations advocated by two Master's theses and a seminar, MIT has been experimenting with transit subsidies coupled with parking permits, to move from transit being priced per use (where parking enjoyed zero marginal cost beyond paying a yearly fee),

to a system where the marginal cost of using transit is zero above a monthly fee, and employees with parking permits also have access to subsidized use of transit on an occasional basis. This ends the binary division of employees into transit or auto commuters, and begins to recognize that beyond the mode share shift to transit by converting full-time parking to full-time transit riders, it is also possible to encourage increased (but not total) use of transit, accompanied by reduced (but not eliminated) use of parking by the same individuals on a daily or even individual trip basis. This experiment has been facilitated by technological innovation introduced by the MBTA as smart cards are displacing magnetic stripe and cash payment of fares, and a policy willingness by MBTA to experiment with inserting the "Charlie Chip" into the MIT ID card (which MIT also uses to allow access to MIT employee parking), and charging MIT for the actual use of these cards, capped by a monthly maximum, rather than a flat standard monthly fee. Simultaneously during this same time period, MIT has experimented with "free" introductory offers of transit and commuter rail access to employees, to "nudge" employees to try using transit either totally or more often.

Within the past year, MIT has worked with the MBTA to launch an innovative pilot program to put the MBTA's fare payment smart chip (the "Charlie Card") inside about 1,000 employee ID cards, to begin testing a new employer "pay per use" universal pass for the Boston area. These 1,000 cards have been provided to volunteers throughout MIT who currently participate in either the subsidized parking or transit pass programs. Since the MIT ID card is also used to provide access to all MIT parking areas (via a specially-encoded proximity chip), the new "Charlie Inside" ID cards can now be used to commute by either auto or public transit at no additional cost to the employees. Initial evidence from about 200 regular auto commuters suggests that this benefit has produced a small mode shift (about 7% less parking among the pilot parking participants than the remaining regular parkers, along with a commensurate increase in transit trips by this participant group).

During this decade, a mixture of forces has led to a greater amount of experimentation. These have included:

- strong MBTA policy support for encouraging employer-based payment systems (a stable policy element since the 1970s);
- Federal support to encourage this policy (initially through EPA regulation, and more recently through pre-tax treatment of employer transportation subsidies);
- City of Cambridge encouraging employer incentives to reduce auto use through regulatory processes involving requirements associated with building permits (pursuant to EPA Clean Air Act concerns, and more local congestion relief objectives);
- MIT policy and institutional pressures, including:
    - response to the City of Cambridge permitting requirements;
    - response to policy concerns by academic committees and presidential policy to "Walk the Talk";
    - institutional pressures emanating from the increased reliance on leased parking (which is paid from operational rather than capital budgets);

- increased opportunity cost of parking as land is converted from parking lots to building use, with very expensive below-grade parking, pursuant to both City of Cambridge parking policy and spatial constraints of the Institute;
- a long-standing MIT bureaucratically decentralized method for allocating scarcer parking supply by department;
- increasing budget pressures at MIT as overhead costs come under increasing pressure because of competition for research funding and rapidly growing health care costs;
- increased awareness of environmental concerns at the individual employee level accompanied by increasingly urban and transit-accessible locations of employee housing choices.

All of these overlapping and generally consistent forces have encouraged change in employee travel choices favoring increased use of transit and decreased auto use, which are benign from many policy perspectives, but make it difficult to ascribe causality of behavior change to any individual incentive program. In many ways, the primary causal factor affecting mode share is the quantity of parking spaces available. Once an institution, public, private, or non-profit, has built a parking space, it will manage demand so as to fill the space. Their decisions to build or not build more parking are likely to be influenced more by the desire to attract top talent, rather than attempting to minimize cost. So evidence that seems to be accumulating that new incentives such as MIT's "Mobility Pass" and free introductory offers can influence employees to choose transit is likely to be very important in affecting decisions by MIT and others to build or not build parking, and also important to the judgments that the City of Cambridge must make in terms of how restrictions on parking affect the competitiveness of Cambridge versus other locations.

The MIT Transit Research Group has received a small 9-month UTC research grant, which began in September, 2011, to study the MIT experience. At the same time, the policy context continues to evolve. Budget pressures at MBTA are forcing consideration of both fare increases and service cuts, and could affect MBTA policy towards employer-based programs; national austerity may impact the policy for pre-tax treatment of employee-based transit pass programs. Growing congestion problems in the Kendall Square area of Cambridge are leading the City of Cambridge to consider strengthening its pro-transit regulatory initiatives, and MIT is in the process of seeking permits for major development initiatives at and near Kendall Square. So the policy context continues to be in flux as the MIT Transit Research Group carries out the UTC-funded research. At the same time, the development and congestion pressures in Cambridge make the City of Cambridge very interested in the possibility of making a much larger paper-based employer/employee database available to the MIT Transit Research group effort on a large number of other major employers in and near Kendall Square who offer a variety of transit incentives and auto parking disincentives, to better understand the process of encouraging mobility choices with less auto use. This data opens the possibility of much more robust research effort examining a range of institutions including private companies, real estate developers, the local TMA, the Kendall Square Business Association, and the professional transportation consulting community.

For these reasons, the MIT Transit Research Group is seeking the support of FHWA research funding to expand the current study effort and encompass a broad range of other Kendall Square enterprises, the City of Cambridge and the MBTA. The effort we propose involves two phases over a two-year period:

Phase 1/Year 1

A. Collect all necessary data from MIT and up to 25 nearby employers and/or building owners. A large portion of the non-MIT data is available in the City of Cambridge Planning Office paper files accumulated over the past ten years that must be thoroughly vetted and converted into digital form. These data will be supplemented as necessary and available by contacting as many employers as possible to fill in gaps (such as current parking availability and rates for employees) and obtain the most current data. A final source of data would be the MBTA employer pass program, where we intend to review and report the aggregate usage data by all participating employees at each employer, in order to be able to record and analyze (potentially by home geographic districts) usage rates that can be related to the available subsidies at each employer and their parking availability and rates. We will design and implement a relational database to store all of the historical data and provide an efficient updating methodology that will facilitate ongoing analysis. The database would contain records for all of the City-required TDM and reporting requirements as well as any voluntary measures implemented by the employers and/or building owners and will include a wide range of characteristics of each property. At the conclusion of the project, the database will be turned over to the City for the ongoing maintenance of the TDM program.

B. Analyze the results of the MBTA/MIT and other Kendall Square employer-based commuter incentive programs to quantify benefits and costs associated with a variety of incentives, including:

   (a) employer-based pre-paid monthly transit passes (with and without various levels of employer subsidy)

   (b) employer-based payment per transit ride

   (c) employer-based universality (ending of binary choices)

   (d) employer-based "free" introductory offers of transit to stimulate interest

   (e) employer-based "free" occasional use of transit for employees with full parking passes, to encourage mode shift to transit on an individual trip basis

   (f) various levels of employer parking subsidies as well as various parking payment mechanisms including flat monthly or annual fees versus pay-per-use fess

   (g) administrative restrictions on parking privileges

   (h) partial “transportation benefit “cash-out” options to encourage increased walking and/or biking

C. Design and implement an analysis plan to inform the following questions:

1) What is the impact on employee mode choice and transit revenue of various employer pass program subsidies?
2) How do administrative parking restrictions compare with various parking pricing levels in influencing employee mode choice?
3) Do partial transportation benefit "cash-out" options significantly increase the walk/bike modes?
4) How important are "occasional" or part-time alternative mode transportation benefits as compared to "full-time" single mode options?

A "working hypothesis" based on preliminary review of the experience, is that:

(a) The employer-based pass offers significant convenience to employees, as well as pre-tax treatment of cost, and is clearly beneficial to MBTA, employers, and employees.

(b) Employer-based subsidy of transit passes is effective in encouraging transit use, but costs the employer. This cost is at least partially offset by reduced need for subsidized parking.

(c) For employers subsidizing transit passes by 50% or more, employees are incentivized to use the pass even if their transit use is modest, resulting in extra revenue to MBTA.

(d) For employers subsidizing transit passes by 50% or more, MBTA extending the MIT experiment (to charge employers based on actual use rather than a flat fee) would be equitable, increase participation and still be beneficial to MBTA, provided the employer adopts the "universality" principle of extending free use of MBTA service to employees who pay for full parking privileges.

(e) Offering employees a hybrid "occasional" parking pass, requiring payment per use for parking plus a zero marginal cost for use of transit, can be attractive to employees and reduce the cost of the parking subsidy for employers, advocate use of transit, and increase revenue to MBTA.

(f) Periodic "free" introductory offers to encourage employees to consider transit as their primary mode of access can be effective to increase transit use and reduce parking subsidy and be attractive to employees.

As we have individual employee commuting behavior and approximate home addresses for most of these employers, we will be able to analyze most of these issues while controlling for relative transit and walk/bike accessibility. The focus of Year 1 research is to test each and all of the above working hypotheses quantitatively based on actual individual employee behavior, as measured through use of the Charlie Card and reviewing parking records, at MIT and other selected Kendall Square employers, and present policy options to both MBTA and the City of Cambridge based upon the analysis. Early evidence from the MIT pilot program suggests that individual SOV-mode commuter choice, while somewhat influenced

by the availability of nearby transit and carpool alternatives, is present in all areas of the region and that significant numbers of current SOV commuters live in the same neighborhoods as large numbers of transit and carpool users. This suggests that refined pricing incentives can produce significant mode shifts.

D. Using the results of the Phase 1 analysis, we will design a series of new incentive program experiments for employees to reduce auto use (to be administered through the TMA and/or the Kendall Square Business Association). These are currently envisioned to be of two primary types:

   1) parking and transit pricing options including partial or full cash-out schemes; and
   2) cash prize/lottery schemes with chances earned by confirmed use of alternative modes.

   The TMA or KSBA will solicit employer interest in participating in the program trials and be responsible for running the private employer program, including a commitment to provide the designed incentives up to a specified "upset limit", after which the project would assume the cost of the incentives for up to an additional six-month period. Details of the proposed funding and employee eligibility for the incentive programs will be developed during the course of Phase 1; for planning purposes, a total project budget of $200,000 in additional employer/employee incentives is proposed here for the pilot project.

Phase 2/Year 2

Phase 2 of the project includes the introduction of new financial incentives at MIT in conjunction with a separately funded and developed set of real-time information tools as well as the expansion of various pricing incentives at selected Kendall Square area private employers. We envision some combination of the following initiates to be included in the final project design:

(a) ***A free or heavily discounted transit pass for all regular parkers***

The MIT/MBTA pilot program described briefly above will be expanded to selected interested employers in the Kendall Square area based on this year's experience with the trial program. As currently envisioned, the existing MBTA corporate pass program will add a new employer "pay-per-use" option (in addition to the MBTA's current monthly flat rate unlimited travel passes) for employers who want to pre-purchase occasional transit trips for their employees. Employers will be encouraged to embed the MBTA Charlie Card smart chip into their own employee ID or parking garage access cards. Employers can either provide the new occasional transit benefit to regular parkers at no additional fees or raise the price of a new "bundled" parking/transit card for all parkers. The effect of this program will be that all participants will be able to take transit at any time for no additional cost, including the transaction costs of obtaining and loading value onto the MBTA's smart card fare media.

(b) ***Various partial or full "parking cash out" options***

For those employers in the area who do not own and operate their own parking facilities, customized analyses will be prepared showing how they can reduce their parking subsidy costs in the long run by converting their parking benefits to a one-time salary increase covering a predetermined portion of market rate parking. Employees then would be directed to arrange their own parking, if desired, on an annual, monthly or daily basis with facility owners in the area. We expect to propose at least two levels of "cash-out," as it will be difficult for larger employers with substantial numbers of existing transit and walk-bike commuters to afford a full cash-out benefit in an area with relatively high market parking rates.

(c) ***Conversion of annual/monthly parking program commitments by employees to a daily charge system***

For those employers who own and operate their own parking facilities, their current pricing programs will be compared to all of their peers in the area to determine how their current prices compare to market rates and customized programs will be developed for each employer to gradually transition to a daily charge system, whereby parkers could save on parking each time they use an alternative mode. When combined with strategy (a) above, this strategy would dramatically change the behavioral dynamics of the mode choice decision as the price of parking would become truly marginal (instead of an annual or monthly "sunk" cost) and the price of transit would be effectively zero for at least the occasional trips.

(d) ***New real-time transit (next bus and train information) and dynamic ridesharing programs***

Kendall Square employers will be invited to join a separately developed and funded MIT-led effort to extend various new real-time transit passenger information applications (including location-specific mobile phone apps and bus stop signs currently being designed and tested by MIT) as well as a new ridesharing service to be provided by ZimRide, one of the most innovative dynamic ridesharing services being implemented around the US.

(e) Improved parking locations and costs for rideshare participants

At MIT a new program will be designed to coordinate a newly developed pricing scheme for rideshare participants in specially located and designated lots so as to maximize carpool size (higher discounts for more participants) and maximize driver participation in real-time ridesharing (e.g., some discount for "offering" to take passengers each day). Final design of these program elements will be determined in Phase 1 of the project.

(f) ***Employer-provided, lottery-based incentives for more frequent alternative mode use***

Employers will be encouraged to contribute monthly to a new alternative mode commuter lottery fund that will be well publicized and will offer a variety of prizes (of differing value). Alternatives mode users will accumulate "chances" for each prize based on the number of days not commuting as an SOV. The design of this element will be informed by the Palo Alto Value Pricing pilot program currently underway at Stanford University, but at this time, we

propose to offer at least three seasonal lotteries, each with at least three substantial prizes ranging from $2,500 up to $20,000.

At this time, we expect to begin introducing new pricing incentives at three or more employers (including MIT) during months 9-15 of the project, and the response to these initiatives will be measured and documented through the final 9 months of the proposed 2-year project. The final product will include detailed documentation of the undertaken initiatives, their take-up and commuter mode shifts, culminating in a set of policy recommendations outlining the most effective pricing changes that employers can implement throughout their transportation benefit program offerings to encourage less SOV commuting. It is anticipated that the City of Cambridge (see enclosed letter of support) will incorporate these recommendations into their ongoing TDM program for new growth throughout the City.

3. Description of Area Covered by Proposed Project

The Kendall Square area (see following figure), which is a locus for R&D and life sciences activity, includes Cambridge Center, One Kendall Square, Technology Square and the Cambridge Research Park commercial developments. It also is the home of the Massachusetts Institute of Technology as well as US DOT's Volpe Research Center. The area is now coming into its own as a residential destination as well, with recent completion of over 500 rental housing units. The area has recently been rezoned for an additional 1.8 million square feet of R&D development. There are a total of about 50,000 employees, commuting each day to this dense urban neighborhood located on the banks of the Charles River, about 2-3 miles from downtown Boston. Ultimately, we expect that various elements of the pricing program proposed here will be offered to about 75% of the employees in the area, working for 35-40 of the largest employers in the area.

Kendall Square

Cambridge, Massachusetts

- MBTA Subway Station
- City Park or Playground
- DCR-Owned Park
- DCR-Owned Parkway
- Public Plaza
- Privately-Owned, Publicly-Accessible Park
- Privately-Owned, Publicly-Accessible Plaza
- Public Rooftop Garden

325 0 325
Feet

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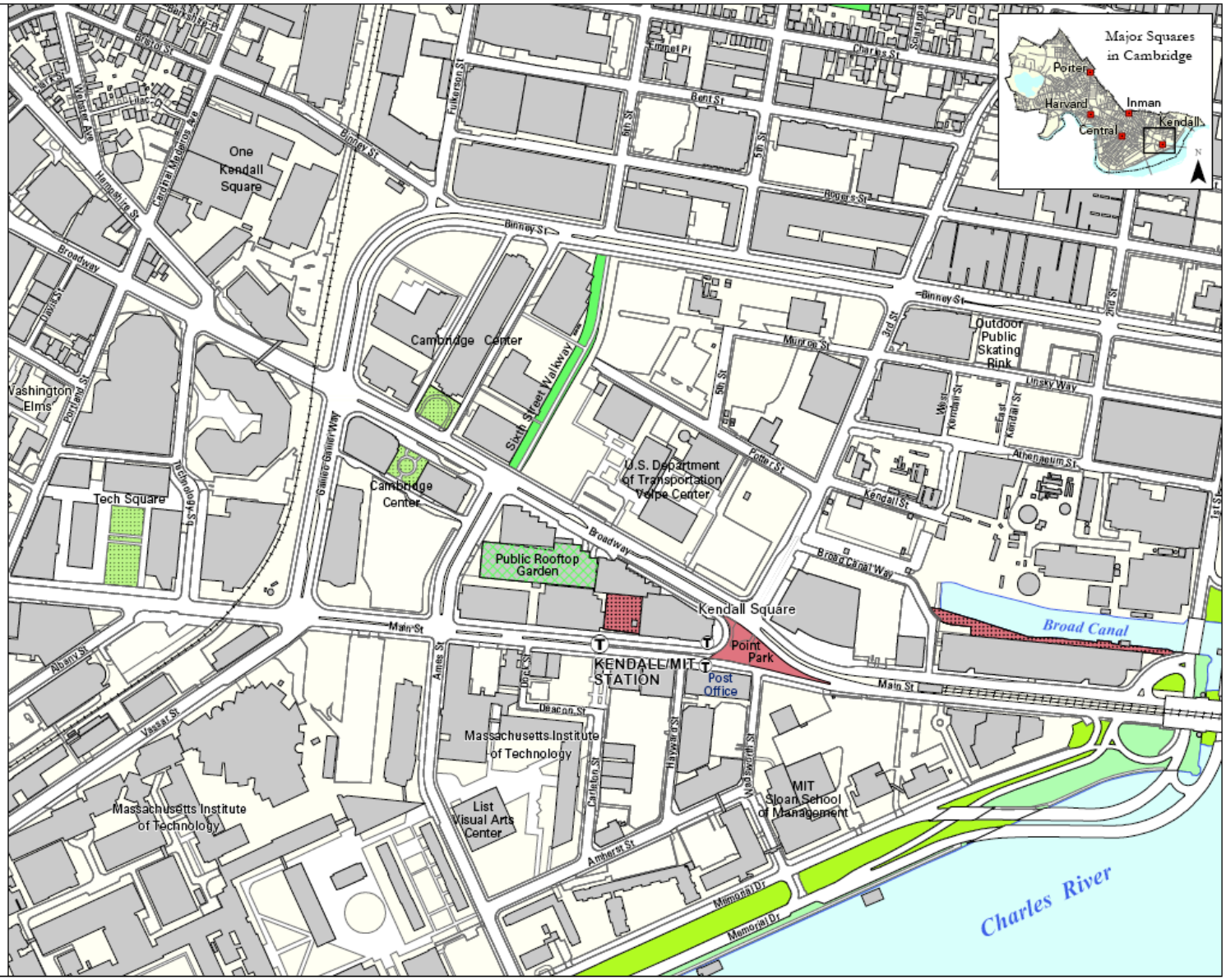

Planimetric information displayed on this map was prepared through the use of photogrammetric methods from aerial photographs taken April 17, 2003. Certain features have been updated through other methods. This map is intended for planning purposes only.

Cambridge Community Development Department
Cambridge GIS

Map prepared by Brendan Monroe on February 12, 2007. CDD GIS D:\Projects\Squares\KendallSqSm.mxd

4. Anticipated Effects of the Pricing Program

The City of Cambridge has estimated that its PTDM ordinance has had a profound effect on commuting to new developments in the City since 1998. Its planning office estimates that the measures adopted by companies subject to the ordinance have reduced commuter VMT by 24% when compared to companies who do not offer similar TDM measures. The transportation benefit pricing program proposed here attempts to address the current minority of "hard-core" SOV drivers by changing their marginal day-to-day costs to a much larger extent than any previous incentives. Depending on the program's success in convincing area employers to adopt the various program strategies, we expect that the program can produce a reduction of current SOV commuters of 10-20%, thus reducing the SOV commuting mode share to the area by about five to ten percentage points. This will have a commensurate impact on local roadway congestion (probably in the 7-15% range of reduction) as carpools do not fully reduce all VMT and congestion impacts. Public transit ridership and bicycle and walk modes will all likely increase significantly. While these primary impacts will be realized initially only in the Kendall Square area, this program, if successful, can easily be extended throughout the entire Boston region as it depends only on the MBTA extending its corporate pass program and CharlieCard technology to all employers along with the supporting mode strategies being developed and perfected at MIT.

5. Addressing the Proposal Evaluation Criteria

This proposal is directly in line with each of the FHWA evaluation criteria. In particular, the impetus for the current Cambridge PTDM ordinance is to enhance *livability* and *sustainability*. The new proposed relative changes in the employer pricing of parking and transit benefits will result in significant shifts to alternative commuting modes, reducing roadway demand and freeing up more road space in the area for bicycle travel on newly planned bike lanes. Increased parking revenues realized by area employers will be used to subsidize additional MBTA trips and introduce a variety of ridesharing incentive schemes. Perhaps even more significantly, the project, while reducing the demand for current and future commuter parking facilities, is expected to accelerate the current area trend of converting most surface parking lots into more transit-oriented development that takes advantage of the largest-capacity rapid transit line and a top-five bus corridor in the MBTA system.

We do not believe that this proposal presents any *equity* concerns both because most lower income commuters already cannot afford to and do not commute by SOV and park in the Kendall Square area, but also because the proposal provides a plethora of significantly less expensive alternative mode incentives that will likely reduce the current cost of commuting as compared to their current choices (e.g., part-time workers will be able to take advantage of the subsidized occasional transit use benefit where the current full monthly pass benefit offered now by employers may not be a good "deal" if they only commute 2-3 days a week).

Finally, we envision the proposed program providing direct *congestion reduction* as discussed above by reducing local area VMT and the revenue raised by increasing parking charges closer to market rates can be used to pay for new alternative mode programs and incentives to actually use them. Similarly, especially in the long-term, we see that the proposed program, if more widely adopted, will increase *safety* in the area and increase the *state-of-good-repair* by reducing traffic on local roads, increasing space for transit, bicycle and pedestrian commuters, and by decreasing the intensity of roadway use that leads to increased maintenance costs.

6. Estimate of the Social and Economic Effects of Proposed Pricing Program

As outlined above, the proposers do not anticipate any adverse social and economic impacts of the proposed pricing program. Current employee surveys at MIT and other area employers confirm that most SOV commuters are drawn primarily from the higher income categories and that most of the participating employers already make special accommodations (reduced parking fees) for service workers who must drive due to the nature of their jobs (i.e., 2nd and 3rd shift workers). The bi-annual commuting survey at MIT will be used to confirm these observations during the pre-implementation phase of the project (by confidentially correlating parking permit types with HR salary categories), and the project will develop further alternative mode strategies or other mitigation measures, if required, to address any of these anticipated effects. Overall, the project is expected to expand the range of lower cost commuting modes available to all income groups as well as the opportunity to "win" valuable incentives in concert with selecting the lower cost modes.

7. Role of Alternative Transportation Modes

As discussed above, the role of alternative (non-SOV) modes is central to this transportation benefit pricing proposal. Changes in benefit pricing are only a portion of the program—the introduction of a totally new occasional use subsidized transit ticket through the MBTA corporate pass program, a state-of-the-art dynamic ridesharing program that MIT will introduce, and new passenger information tools that make it much easier for commuters to understand the options available to them for every commute. These will allow commuters to reduce their preplanning effort and time horizon, and to sample many alternatives while they reduce their overall parking costs, depending on how often they choose an alternative mode. The MBTA and the City of Cambridge both confirm that this type of programs turns out to be a win-win-win, for the employer who reduces long-term parking costs and provides more useable land, for the City and MBTA, who gain more bike and pedestrian advocates and transit riders, and for the employee, who realizes a sustainable, lower cost trip to work.

8. Project Tasks

9. Project Schedule

PHASE 1 (Year 1): Pre-Implementation Tasks

MONTH	1	2	3	4	5	6	7	8	9	10	11	12
TASK												
1. Prepare detailed work program with support of all project actors	■	■										
2. MIT/MBTA pilot program to determine features of expanded employer "pay-per-use" occasional pass			■	■								
3. Analyze PTDM corporate commuting data			■	■	■	■	■					
4. Revise MBTA Corporate Pass Program procedures and employer pricing model					■	■	■	■	■			
5. Determine initial alternative mode incentive scheme									■	■	■	
6. Identify project field staff from TMA and/or KSBA, and design and implement project website							■	■	■	■	■	
7. Begin pre-implementation employer field visits to introduce program and obtain initial participation commitment										■	■	■

PHASE 2 (Year 2): Implementation and Monitoring

MONTH	13	14	15	16	17	18	19	20	21	22	23	24
TASK												
8. Roll out new MIT incentives and add 1-2 additional employers	■	■	■									
9. Assess program progress; implement design modifications if required				■								
10. Implement program elements at 2-3 additional employers					■	■						
11. Develop detailed monitoring program, including new data collection efforts	■	■	■									
12. Analyze feedback and monitoring data from all participants							■	■	■	■		
13. Prepare final project assessment report										■	■	■

10. Itemized Budget

The proposed budget for the project is itemized below. For Phase 1, $326,807 of the total of $355,557 budget is for MIT research expenses and effort on all seven of the proposed Phase 1 tasks. This level-of-effort for two FTE graduate student research assistants and 0.4 FTE faculty and staff participation was developed based on the total effort required for Phase 1 and cannot be easily separated into the suggested proposed tasks. In our view, it is also minimum level of effort required to undertake such a project. The remaining $28,750 for Phase 1 would be for the TMA or KSBA efforts on Tasks 6 and 7, including a 0.5 FTE staff effort for 6 months and development of marketing materials and a website using contractual services.

The Phase 2/Year 2 budget includes a similar level-of-effort for MIT as Phase 1, again split over all six tasks, but focused more heavily on the new MIT pricing incentives, commuter behavior, and their impacts. The remainder of the Phase 2 budget includes a 0.5 FTE staff effort at the TMA or KSBA, some small additional contractual marketing expenses, and a set-aside of $200,000 ($160,000 Federal) in new financial incentives including pay-per-use passes, new transit subsidies and "intro" offers, and parking cash-out benefits for new classes of employees.

Sponsor: FHWA
Department of Civil & Environmental Engineering
Massachusetts Institute of Technology

Budget Proposal
Principal Investigator: **Nigel H.M. Wilson**
Project Title: **Kendall Square Value Pricing Pilot Project**
Period of Performance: 7/01/12-6/30/14

Expense Category	Description	Annual Effort	Year 1 Months	7/12-6/13 Yr 1	7/13-6/14 Yr 2	Total
Personnel:						
On-Campus						
Nigel H.M. Wilson*	Faculty	100%	0.50	7,780	8,013	15,793
Fred Salvucci	Sr. Academic staff	15%	12.00	20,804	21,429	42,233
John P Attanucci	Research Staff	15%	12.00	20,250	20,554	40,804
TBA: 2 FTE students	Research Asst - Stipend	100%	23.00	53,475	55,079	108,554
Support Staff	Project Support Staff	10%	12.00	6,524	6,720	13,245
	Total Personnel			108,834	111,795	220,629
Employee Benefits						
Employee Benefits - On	(26/30% Total On-Camp Pers excl Stud)			14,393	17,015	31,408
Vacation Accrual - On	(9% of Salaries excl Fac, Oth Acad, & Students)			2,410	2,455	4,864
	Total Employee Benefits			16,803	19,469	36,272
Other Direct Costs						
Materials and Services				8,000	5,000	13,000
	Total Other Direct Costs			8,000	5,000	13,000
	Total Personnel and Operating Costs			**133,637**	**136,264**	**269,901**
MIT Tuition for Research Assts	(academic year only, at 50% of Full Tuition Rate)			42,000	43,680	85,680
Full tuition for academic year 2011-2012 = $40,460; Future years est at +4%)						
Total Direct Costs				175,637	179,945	355,581
Modified Total Direct Costs (MTDC)				*133,637*	*136,265*	*269,901*
Facilities & Admin - On	(60.5% MTDC)			80,850	82,440	163,291
Total Estimated MIT Federal Funded Expenses				**256,487**	**262,385**	**518,872**
Estimated MIT Matching Fund Expenses						
Research Asst Tuition Subsidy				42,000	43,680	85,680
Faculty (Nigel Wilson) Salary during Acad Yr (10% salary+ benefits+OH)				28,320	30,096	58,416
Total Est MIT Matching Research Expenses				**70,320**	**73,776**	**144,096**
Total Estimated MIT Project Expenses				**326,807**	**336,161**	**662,968**
TMA or KSBA Project Expenses						
Project Marketing Manager (Yr 1: .25 FTE; Yr 2: .5 FTE)				18,750	37,500	56,250
Production of Marketing Materials and Project Website				10,000	15,000	25,000
Lottery Cash Prize Incentives for Mode Shift					100,000	100,000
Increased Subsidies for Transit Passes and Pay-Per-Use					100,000	100,000
Total Estimated TMA or KSBA Project Expenses				**28,750**	**252,500**	**281,250**
Requested Federal funding of TMA or KSBA Expenses (80%)				**23,000**	**202,000**	**225,000**
Total Pilot Project Expenses				**355,557**	**588,661**	**944,218**
Total Requested Federal Funds for Project				**279,487**	**464,385**	**743,872**

11. Monitoring/Evaluation Plan

The proposed MIT research team will develop a robust and comprehensive monitoring and evaluation plan for the proposed transportation benefit pricing project. This plan will leverage a unique existing data source consisting of City (PTDM Ordinance) and State (Clean Air Act SIP) mandated reports on employee commuting behavior that are prepared and submitted annually and bi-annually, respectively, by employers. In addition, the project team expects to gain access to individual traveler surveys that form the basis of these reports from participating employers. The research team already has access to an extraordinary set of longitudinal datasets from MIT surveys that include a wide range of information on commuter behavior and preferences, including detailed data on the prevalence of mode switching within one or two work weeks. In addition, the research team expects to design more extensive internet surveys of all program participants to be implemented in 1-2 "waves" during the implementation period, perhaps in concert with the employers' regular commuter surveys. Another source of important evaluation data will be automatically collected data, including the fare transaction and usage data for each employer that becomes the basis for their payments to the MBTA. Furthermore, the research team currently anticipates developing (under a separately-funded effort) or using existing mobile phone-based data collection instruments/apps that will provide real-time feedback on the use of alternative modes and, potentially, parking behavior. All of the monitoring data will be analyzed as it is received and the project website will be updated with "rolling" results on a regular basis. Finally, the project data will be synthesized into a final impact report to be prepared and circulated during the last 3 months of the project term.

12. Financial Plan for Sustainability

All of the proposed project participants are private, non-profit organizations with the exception of the MBTA, Boston's regional transit provider and the City of Cambridge. Each has a significant stake in making the Kendall Square area a vibrant area that can continue to grow. MIT (through its endowment investment company) owns a number of the area's real estate parcels that have yet to be developed and, as such, has strong motivation to ensure that congestion does not slow its ability to realize the highest value from its investments. This in itself will provide the motivation and resources to sustain this program, provided that it can produce the anticipated results. On the other hand, the Commonwealth and the MBTA are continually searching for better ideas to do "more with less" and it is certain that it will monitor this program closely to determine lessons learned for their ongoing TDM and SIP programs and the MBTA's corporate pass program. The private organizations will provide their own matching share funds for this project, another indication of their commitment to sustain it, as it is not expected that the ongoing costs of maintaining such a program will approach its initial implementation costs as outlined herein.

13. Public Support

This proposal was developed in cooperation with the City of Cambridge Planning Department (see attached Letter of Support) and MassDOT's Planning office. MIT maintains a good relationship with all of its neighboring employers and often cooperates in funding and implementing joint commuter

programs such as the private EasyRide shuttle service to North Station and a Guaranteed Ride Home taxi voucher program.

14. Federal State and Local Requirements

This proposal is in compliance with all applicable Federal, State and local requirements.

15. Private Entities Involved

As outlined above, this proposal was prepared primarily by MIT and it will receive some portion of the requested grant funding to lead the project along with the Kendal Square Business Association and/or the Charles River TMA, two private, NGO's who are actively engaged with the area's employers. Each will provide its own local matching funds for the project. In addition, one or more of these private entities will contract for other services necessary for this project, including website support and other marketing services, and other miscellaneous materials and services. It is anticipated that individual employers will fund their own incentives for alternative mode usage for the project, although a set-aside of $160,000 in Federal funds is proposed to fund innovative incentives (such as full parking cash-outs and significant lottery prizes) that are not currently being considered by the area's employers in their transportation benefit program planning.

16. Tolling Authority—Not Applicable

OMB Number: 4040-0004
Expiration Date: 01/31/2009

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*1. Type of Submission:	*2. Type of Application	* If Revision, select appropriate letter(s)
☐ Preapplication	☒ New	
☒ Application	☐ Continuation	*Other (Specify)
☐ Changed/Corrected Application	☐ Revision	

3. Date Received:	4. Applicant Identifier:

5a. Federal Entity Identifier:	*5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:	7. State Application Identifier:

8. APPLICANT INFORMATION:

*a. Legal Name: Massachusetts Institute of Technology

*b. Employer/Taxpayer Identification Number (EIN/TIN):	*c. Organizational DUNS:
04-2103594	001425594

d. Address:

*Street 1: 77 Massachusetts Avenue
Street 2:
*City: Cambridge
County:
*State: MA
Province:
*Country: USA
*Zip / Postal Code 02139

e. Organizational Unit:

Department Name:	Division Name:
Department of Civil & Environmental Engineering	

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: *First Name: John
Middle Name:
*Last Name: Attanucci
Suffix:

Title: Research Associate

Organizational Affiliation:
Department of Civil & Environmental Engineering, MIT

*Telephone Number: 617-253-7022 Fax Number:

*Email: jattan@mit.edu

OMB Number: 4040-0004
Expiration Date: 01/31/2009

Application for Federal Assistance SF-424 Version 02

***9. Type of Applicant 1: Select Applicant Type:**

O. Private Institute of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

*Other (Specify)

***10 Name of Federal Agency:**

Federal Highway Administration

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

***12 Funding Opportunity Number**:

VPP 2012

*Title:

FHWA Value Pricing Pilot Program

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Cambridge, MA (Middlesex County)

***15. Descriptive Title of Applicant's Project**:

Kendall Square (Cambridge, MA) Area Employer Transportation Benefit Pricing Trial

OMB Number: 4040-0004
Expiration Date: 01/31/2009

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16. Congressional Districts Of:

*a. Applicant: MA-008 *b. Program/Project: MA-008

17. Proposed Project:

*a. Start Date: 07/01/2012 *b. End Date: 06/30/2014

18. Estimated Funding ($):

*a. Federal	743,872
*b. Applicant	200,346
*c. State	
*d. Local	
*e. Other	
*f. Program Income	
*g. TOTAL	944,218

***19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on ____

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E. O. 12372

***20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation.)**

☐ Yes ☒ No

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U. S. Code, Title 218, Section 1001)

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions

Authorized Representative:

Prefix: *First Name: John

Middle Name:

*Last Name: Attanucci

Suffix:

*Title: Research Associate

*Telephone Number: 617-253-7022 Fax Number:

* Email: jattan@mit.edu

*Signature of Authorized Representative: *Date Signed: 12/30/2011

Authorized for Local Reproduction

Standard Form 424 (Revised 10/2005)
Prescribed by OMB Circular A-102

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***Applicant Federal Debt Delinquency Explanation**

The following should contain an explanation if the Applicant organization is delinquent of any Federal Debt.

BUDGET INFORMATION - Non-Construction

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function	Catalog of Federal Domestic Assistance	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (a)	Total (g)
1.FHWA VPP 2012		$743,872	$200,346	$0	$0	$944,218
2.		0	0	0	0	0
3.		0	0	0	0	0
4.		0	0	0	0	0
5. Totals		$743,872	$200,346	$0	$0	$944,218

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total
	(1)	(2)	(3)	(4)	
a. Personnel	$265,629	$39,678	0	0	$305,307
b. Fringe Benefits	$36,272	$7,968	0	0	$44,240
c. Travel	$3,000	0	0	0	$3,000
d. Equipment	$5,000	0	0	0	$5,000
e. Supplies	$10,000	$5,000	0	0	$15,000
f. Contractual	$15,000	0	0	0	$15,000
g. Construction	0	0	0	0	0
h. Other (Tuition, Incentives)	$245,680	$125,680	0	0	$371,360
i. Total Direct Charges *(sum of 6a-6h)*	$580,581	$178,326	0	0	$758,907
j. Indirect Charges	$163,291	$22,020	0	0	$185,311
k. TOTALS *(sum of 6i and 6j)*	$743,872	$200,346	0	0	$944,218
7. Program Income	$0	$0	$0	$0	$0

SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. FHWA VPP 2012	$144,096	$0	$56,250	$ $200,346
9.	0	0	0	0
10.	0	0	0	0
11.	0	0	0	0
12. TOTAL *(sum of lines 8-11)*	$144,096	$0	$56,250	$200,346

SECTION D - FORECASTED CASH NEEDS					
13. Federal	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
	$279,489	$55,000	$60,000	$60,000	$104,489
14. Non-Federal	$76,068	$15,000	$20,000	$20,000	$21,068
15. TOTAL *(sum of lines 13 and 14)*	$355,557	$70,000	$80,000	$80,000	$125,557

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. FHWA VPP 2012	$279,489	$464,385		
17.				
18.				
19.				
20. TOTAL *(sum of lines 16-19)*	$279,489	$464,385		

SECTION F - OTHER BUDGET INFORMATION	
21. Indirect Charges: "Other" includes 50% Tuition Reimbursement for Graduate Student Research Assistants, and $160,000 in transportation benefit financial incentives	22. Indirect Charges: MIT Provisional Rate = 60.5% on Modified Total Direct Costs base of $269,901 (Fed)
23. Remarks:	