

Route 11 Expressway

May 2011

Project Number: 120-85

Program Manger: Timothy Wilson (X3189)

Project Purpose and Need: Completion of Route 11 to improve overall mobility in eastern Connecticut and specifically remove through traffic from adjacent state and local north/south corridors in the area.

Project Description: Route 11 would be extended as a four-lane limited access roadway that follows an alignment from the I-95/I-395 interchange in east Lyme and Waterford to the existing terminus of Route 11 in Salem at Route 82. The length of this alignment would be approximately 8.5 miles. In addition, approximately 3 miles of I-95 would be reconstructed to allow safe traffic movements at the interchange of Route 11, I-95 and I-395. *See Figures 1-3.*

NEPA: Under Project No. 120-81, a Draft Environmental Impact Statement (EIS)/Environmental Impact Evaluation (EIE) was circulated in February 1999. Environmental Reevaluations under NEPA were completed in 2002 and 2006. A final EIS was completed in July 2007. A draft Record of Decision (ROD) was prepared, but was not approved by FHWA, due to lack of a viable financing plan and an environmental mitigation plan. It was determined to undertake a preliminary engineering effort to more fully define the Route 11 alignment with a detailed survey and layout, cost estimate, and finance plan. Further, additional environmental studies would be undertaken, to better define impacts to various floral and faunal species, which will lead to an environmental mitigation plan.

Scope of Work: The following broad areas of study will be progressed:

- 1) The consultant will perform survey and will further develop preliminary engineering documents using plans that have been prepared as part of the Environmental Impact Statement. The selected firm's initial assignment will involve advancing the highway and bridge design plans and supporting engineering documents to no further than Preliminary Design.
- 2) The consultant will perform corridor-wide environmental studies and services, including the development of mitigation and compensation strategies; design of wetland creation, restoration or enhancement sites; development of strategies for assessing preservation sites; performance of biological studies to identify and assess impact to plants and wildlife; threatened and endangered species coordination; wetland delineation and functional assessment; and coordination and development of the corridor-wide permitting, etc.
- 3) With Consultant expertise, the Department will develop a conceptual finance strategy for construction. This will include a review of options involving tolling and Public Private Partnership arrangements. More specifically, the purpose of this part of the scope is to evaluate the use of tolling as a means of financing the Route 11 extension project. The Federal Highway Administration requires a financial plan before

committing federal construction funds to a project. (*A detailed scope of the planned tolling and financing study is attached.*)

Consultant Selection is complete: A consultant has been selected and the “scoping process” with that Consultant is underway and fees will be negotiated. Anticipate having the Consulting firm under contract and available to start work within 4 months.

Project Funding; \$5 million: The Department has arranged approximately \$5 million in federal and state monies to progress the Scope of Work noted above. The federal High Priority project (HPP) earmark in the amount of \$14.4 mil (#642) was made available in SAFETEA-LU for Route 11 and a bikeway. Some agreements have been reached such that \$10 million of the earmark is to be made available for the Greenway effort, leaving \$4.4 mil (reduced by 90% ceiling i.e. 3.96 mil) in earmark funding requiring a match of 20%, bringing the available total to approximately \$5 mil.

Figure 1 – Location Map

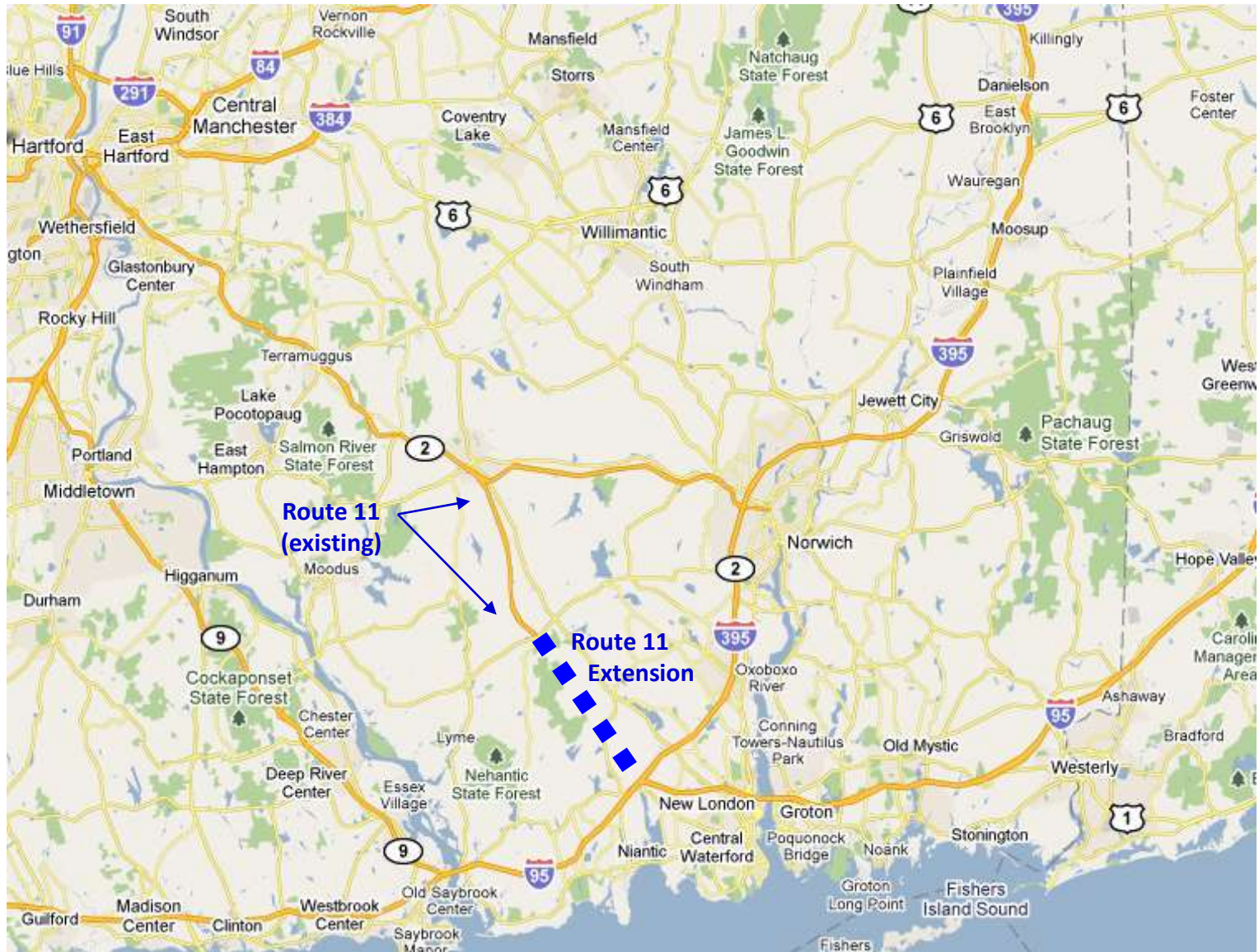
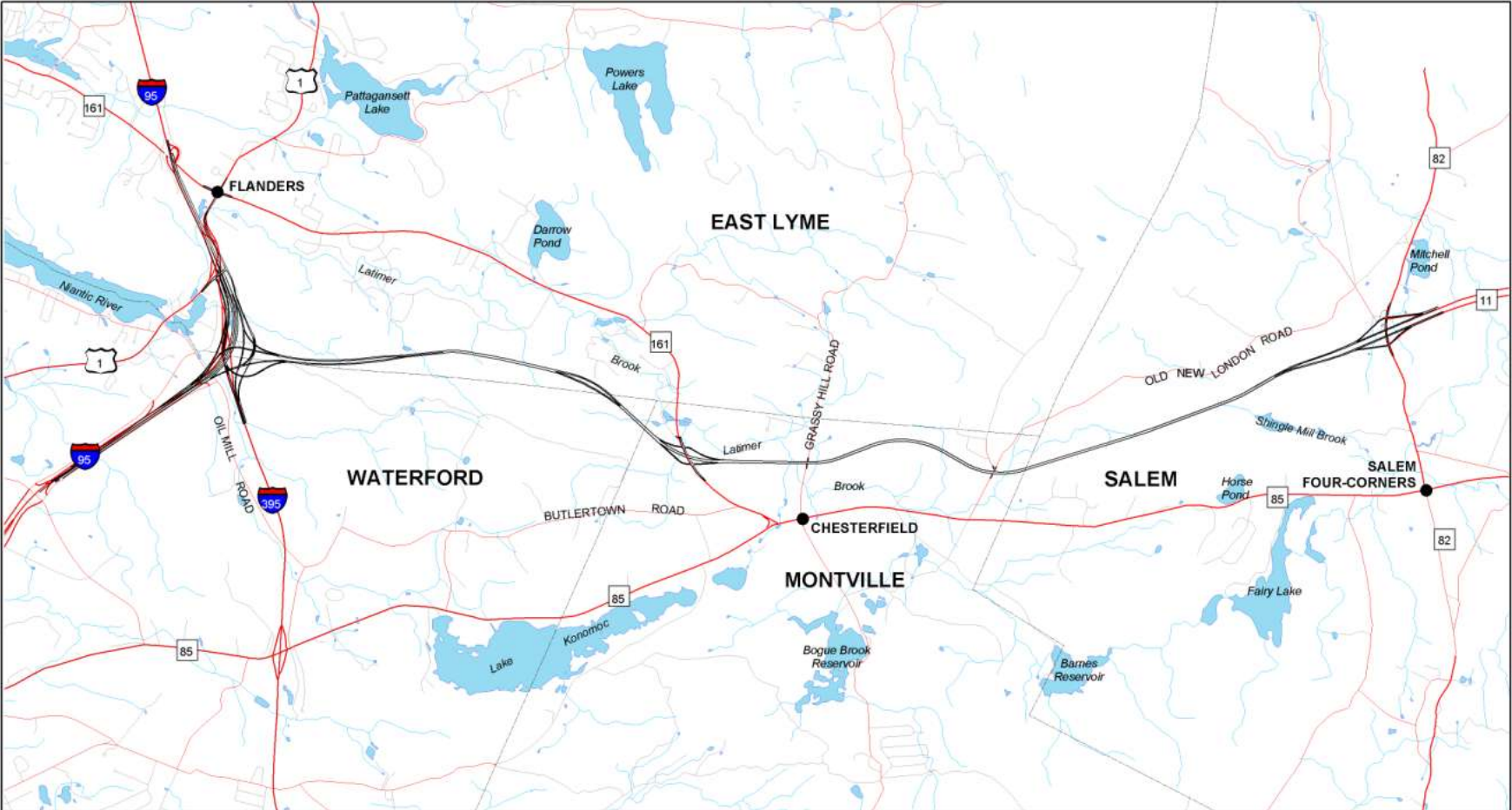


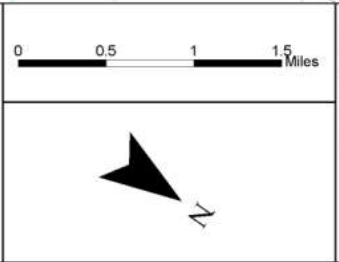
Figure 2 – Proposed Route 11 Extension alignment



State of Connecticut Department of Transportation
 Federal Highway Administration

ROUTE 11 CORRIDOR

IN THE TOWNS OF
 EAST LYME, MONTVILLE, SALEM, AND WATERFORD

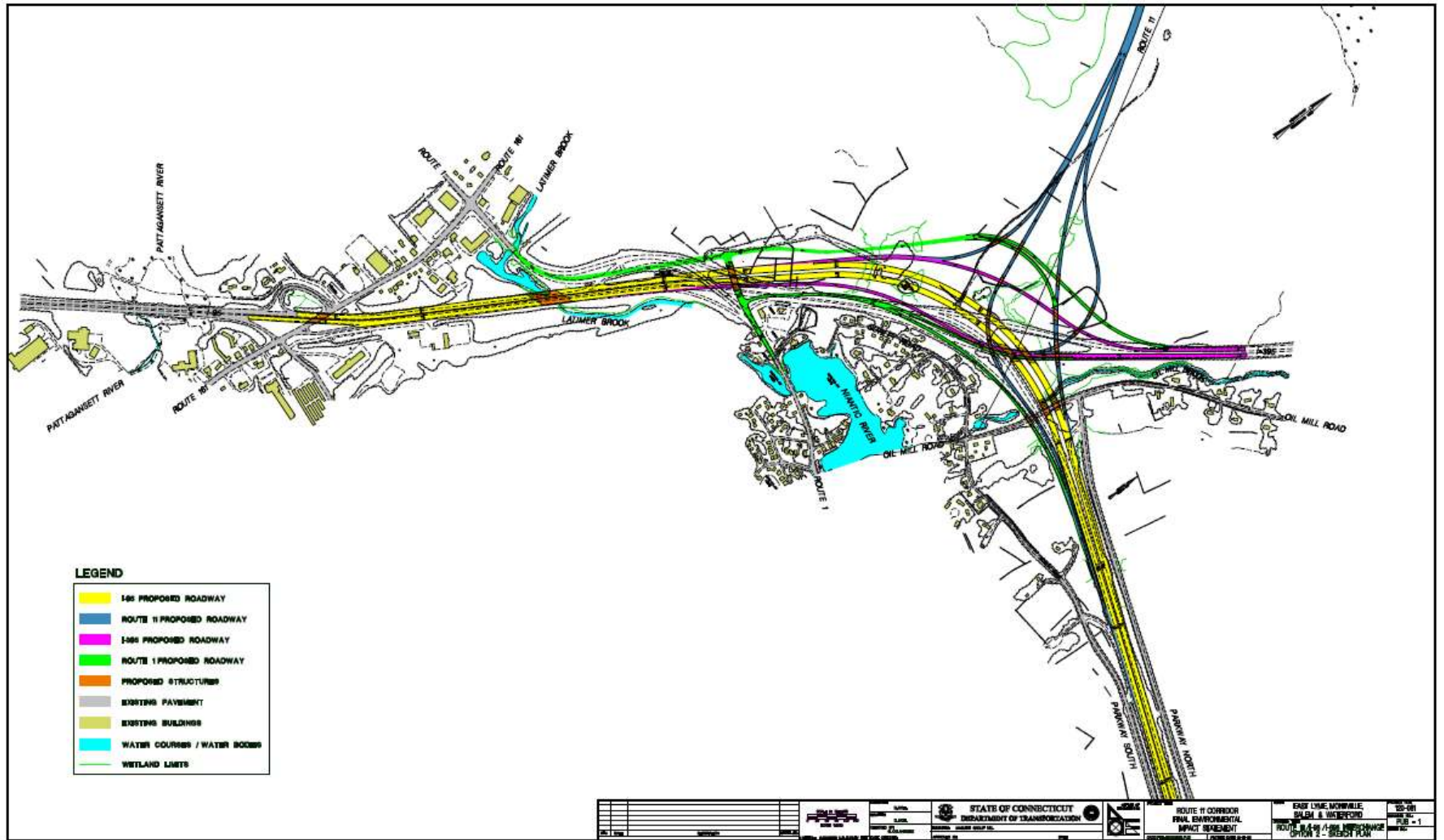


LEGEND

- PREFERRED E(4)m-V3 ALIGNMENT
- WATERCOURSE
- WATERBODY

NOTE: For Planning Purposes Only AUGUST 2004

Figure 3 – Proposed Route 11/I-95/I-395 Interchange



Route 11 Tolling & Financing Study

Connecticut Department of Transportation

April 2011

The purpose of the study is to evaluate the use of tolling as a means of financing the Route 11 extension project, which is located in the corridor shown in Figure 1. It is not anticipated that tolling will provide sufficient revenues to finance the full cost of the project, so the study will determine what portion of the cost that tolls can finance. It will also assess how the balance of the project cost can be financed. The analysis and findings will provide the basis for the development of a financial plan that the Federal Highway Administration requires for before committing federal funds to the project.

Construction Project Scope: Extension + Interchange. The project involves extending Route 11 as a 4-lane limited access roadway that follows the alignment shown in Figure 2. Besides the 8.5 mile extension, the project must include a major new interchange to link Route 11 to I-95 and I-395 as shown in Figure 3.

Construction Project Cost: \$1.4 billion. The estimated construction cost for the project (including the interchange) is \$924 million (2007 estimate). If projected out to 2021 (the previously assumed midpoint of construction), the cost inflates to \$1.4 billion.

Study Scope of Work

The goal of the study is to determine whether tolling, and in particular All Electronic Tolling (AET), can be used to finance the proposed project to extend Route 11 to I-95 and build a new interchange at I-95. This requires a special analysis of the viability of tolling as a revenue generation method, the evaluation of different tolling methods, and a determination of the administrative systems needed to support toll collection. It also requires an analysis of traffic and trip patterns to: (1) determine how many vehicles might use the tolled sections of highway, and (2) how the imposition of tolls might cause drivers to divert to alternate routes and change traffic patterns. Finally, the study must determine how much of the Route 11 project cost can be financed from toll revenues, and determine how to finance the balance of the project cost. The tasks are listed below.

1. Project management

2. Screening of Tolling Options

This task involves an initial screening of tolling options and to determine if the toll collection method should be with “All Electronic Tolling” (AET) systems, or if the option for some drivers to pay by traditional cash payment methods should be accommodated. It will also assess the practical geographic limits of the tolling. That is, should toll collection be limited to just extension segment of Route 11, or should tolling include the existing section of Route 11 and/or alternate routes as well.

3. Market Research, Equity Assessment, Community Outreach

The study will include market research, equity assessment, and community outreach.

Market Research. Market research will be used to help determine: (1) likely travel behavior changes in response to pricing, and (2) willingness of the public to accept various forms and levels of pricing. It will include state preference survey, focus groups, and an origin-destination survey.

Fairness & Equity Assessment. Instituting tolls on highways raises concerns about the fairness of road pricing and equity effects relative to income, geographic location, and mode of travel. These equity issues will be thoroughly examined and potential impacts identified.

Community & Stakeholder Outreach. Outreach efforts will be directed both to stakeholders and members of the traveling public. .

4. Traffic & Travel Profile (data collection)

This task will establish a detailed traffic and travel profile of the study area. It will focus on the primary Route 11-Route 85 corridor, but will examine alternate corridors and routes Route 2, I-395, and I-95.

5. Traffic Models: Development & Refinement

The Department's statewide travel model will be used to prepare global demand estimates. The model will be adjusted and refined as needed for this pricing study.

6. Preliminary Alternatives Assessment

A range of pricing and geographic scope alternatives will be identified and analyzed to determine the general type and level of traffic impacts of each option as well as its revenue potential. Two preferred alternative packages will be selected for more detailed assessment in tasks 7, 8, and 9.

7. Traffic Impact & Performance Analysis of Preferred Alternatives

This task will include detailed analyses of the two preferred pricing and highway improvement alternatives. Key elements of this task are:

- Toll rate sensitivity analysis
- Diversion analysis:
- Impacts by type of trip purpose and by route
- Revenue potential for each scenario

8. Toll Operations Analysis

A comprehensive assessment of toll operations options will be conducted and a preliminary operations plan will be prepared. The task will identify viable electronic collection systems, "All Electronic Tolling" or AET systems, and systems that can include some traditional cash collection. It will evaluate toll technology and support requirements such as electronic tag readers, video or optical license plate reader systems, back office and administrative requirements, customer interface methods, and necessary business rules.

9. Financial Analysis – Tolls & Other Sources

A financial analysis will be conducted to provide preliminary assessment of revenues and costs. It will include an assessment of the potential for developing and financing project improvements through the use of toll revenue generated from the project. It will examine and evaluate options for public financing and opportunities for private sector financing through various forms of public-private partnerships. The revenue analysis will provide preliminary estimates of revenues. It will assess gross revenues, operating costs, revenue leakage¹, and net revenue. The task will also examine ways to fund the balance of project costs that cannot be financed from toll revenues.

10. Final Report

The final report will include an overview of study, project description, traffic and performance impacts, revenue assessment, and financial summary.

¹ Leakage refers to toll revenues lost due to inability of toll collection systems to collect tolls from 100 percent of users. This may be due to temporary equipment malfunctions, but is also due to limitations of electronic systems. While most electronic systems have very high levels of accuracy and collection, they all have some failure rate.