



*Cost/Schedule Status
of the
Central Artery/Tunnel Project*

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EXECUTIVE SUMMARY

This Cost/Schedule Status Update presents integrated cost and funding information for the Central Artery/Tunnel Project. In an effort to provide comprehensive cost/schedule information, this report also includes current schedule milestone and budget variance information.

As of December 2004, the Project cost continues to be projected at \$14.625 billion. The Project has committed over \$13.9 billion with almost 96 percent of all construction scope under contract. \$13.5 billion has been expended of the \$14.625 billion estimate. The Project is 96 percent complete.

This Cost/Schedule Status Update reflects an update of the schedules and estimates developed under Cost and Schedule Update 11 (CSU11). It is based on data through December 31, 2004.

- As of December 2004, as well as currently, total Project costs remained at \$14.625 billion.
- Major Project schedule milestone dates have been achieved. The completion of Interstate 90 (I-90) from the Massachusetts Turnpike to Logan Airport to Route 1A opened on January 18, 2003. The Interstate 93 (I-93) Northbound milestone date was accomplished on March 29, 2003. The Interstate 93 (I-93) Initial Southbound Opening occurred on December 19, 2003. The Interstate 93 (I-93) Full Southbound Opening occurred on March 5, 2005. The remaining Project schedule milestone dates forecast is mid to late 2005 for Project Substantial Completion.
- In accordance with commitments made by the Commonwealth of Massachusetts with the Federal Highway Administration (FHWA), the federal funding ceiling for the Project remains at \$8.549 billion. This includes \$76 million in insurance trust interest earnings.
- The remaining cash flow for the Project is expected to be \$598 million for state fiscal year (SFY) 2005, and \$676 million for SFY 2006 and beyond.
- The Commonwealth continues to demonstrate its commitment to a balanced statewide infrastructure investment independent of the Project. The Massachusetts Highway Department has and continues to commit to spending a minimum of \$400 million per year for constructive activities and specific transportation projects through SFY 2005. This was achieved for the last several years including SFY 2004.
- The Project concluded in March 2005 a comprehensive reassessment of those cost centers that are currently the major drivers of the budget. The results of this review validated the reasonability of the existing \$14.625 billion budget.

I. INTRODUCTION

Recognized as the largest, most complex, and technologically challenging highway project in the history of the United States, the Central Artery/Tunnel Project (CA/T) has begun to significantly reduce traffic congestion and improve mobility in one of America's oldest and most congested major cities. In addition, it is helping improve the environment, and establish the groundwork for continued economic growth for Massachusetts and all of New England.

The Project entails replacing Boston's deteriorating six-lane elevated Central Artery (I-93) with an eight-to-ten lane state-of-the-art underground highway, two new bridges over the Charles River (the Leverett Circle Connector Bridge and the Leonard P. Zakim Bunker Hill Bridge), extending of I-90 to Boston's Logan International Airport, and Route 1A, creating more than 260 acres of open land and reconnecting downtown Boston to the waterfront.

The Project spans 7.3 miles of highway, 161 lane miles in all, about half of which are in tunnels. All told, the CA/T will place 3.8 million cubic yards of concrete – the equivalent of 2,350 acres, one foot thick – and excavate more than 16 million cubic yards of soil. The larger of the two Charles River bridges, a ten-lane cable-stayed hybrid bridge, is the widest ever built and the first to use an asymmetrical design. To monitor traffic flow, the CA/T's Operations Control Center (OCC) in South Boston contains the most advanced electronic traffic monitoring and incident response system in the world. Using a wide array of Intelligent Transportation Systems (ITS) devices, the OCC will monitor traffic in the I-90/I-93 system of tunnels, ramps, and surface highways in downtown Boston, as well as in the Sumner, Callahan, Prudential, and City Square tunnels and on I-90 (the Massachusetts Turnpike) from Boston to Route 128. The OCC systems will utilize more than 35,000 data collection points to manage traffic and incidents, fire detection and response, security, ventilation, lighting, and air quality. It includes over 430 closed-circuit, color, pan-tilt-zoom video cameras that will pinpoint the site, type, and severity of incidents.

The CA/T's unique challenge is the fact that it is being built in the middle of a bustling city. Work of the CA/T's magnitude and duration has never been attempted in the heart of an American urban area. Unlike any other major highway project, however, the CA/T is designed to maintain traffic capacity and access to residents and businesses – to keep the city open for business – throughout construction. By contrast, highway projects of the 1950s and 1960s, when the interstates were first built, gave very little consideration to the communities in the path of the new roads, with disruption and dislocation commonplace.

Recognizing that a failure to maintain Boston's economic viability during construction would damage the city's competitive position for years to come, Project planners continue to work with environmental and other oversight and permitting agencies, community groups, businesses, and elected officials.

Along with improving mobility in downtown Boston, the CA/T Project is reconnecting neighborhoods severed by the old elevated highway, and improving the quality of life in the city beyond the limited confines of the new expressway. Apart from a 12 percent reduction in citywide carbon monoxide levels, major Project benefits include the creation of more than 260 acres of open land, including 30 acres where the existing Central Artery now stands, more than

100 acres at Spectacle Island in Boston Harbor (where Project dirt has capped an abandoned dump), and 40 more acres of new parks in and around downtown Boston. Clay and dirt from the Project have been used to fill and cap landfills throughout the Boston area.

The Project has been under construction since late 1991. As of December 31, 2004 construction is approximately 96 percent complete. Several milestones have been achieved to date, including the opening of the Ted Williams Tunnel in December, 1995; the Leverett Circle Connector Bridge in October, 1999; the I-90 Connector to the Ted Williams Tunnel and Boston's Logan Airport in January, 2003; the opening of the underground I-93 North in March, 2003, the initial opening of the underground I-93 Southbound in December, 2003 and most recently the full opening of the underground I-93 Southbound tunnel on March 5, 2005.

The Central Artery/Tunnel Project is scheduled to be substantially complete in 2005.

II. PROJECT SCHEDULE STATUS

Project Schedule Milestones

Ted Williams Tunnel

The Ted Williams Tunnel – completed (15-Dec-95)

Initial Leverett Circle Connector

The initial Leverett Circle Connector – completed (10-Oct-99)

Interstate 90 Eastbound and Westbound

The I-90 Tunnel (Fort Point Channel crossing) was substantially completed and opened to traffic on 18-Jan-2003. A high occupancy vehicle tunnel bore remains to be opened.

Interstate 93 Northbound

The I-93 Northbound Tunnel was substantially completed and opened to traffic on 29-Mar-2003.

Initial Interstate 93 Southbound

The Initial Opening of I-93 Southbound Tunnel was substantially completed and opened to traffic on 21-Dec-2003.

Remaining Interstate 93 Schedule Strategy

The new I-93 corridor provides an eight-lane to ten-lane wide highway, Northbound and Southbound, through and under Boston. The Northbound side starts at a southerly location adjacent to Southampton Street and continues to its most northerly point, just south of Sullivan Square. The overall length is approximately 3.6 miles, and the major elements include elevated viaducts, cut and cover tunnels, various bridge structures including an asymmetric cable-stayed bridge over the Charles River, and tunnel ventilation structures.

The alignment of the I-93 Southbound corridor is similar to the northbound alignment and parallels the northbound tunnel until reaching the Federal Reserve building. At that point, heading south, the two tunnels separate and southbound transitions into the Dewey Square tunnel (DST) and exits from the portion of the newly constructed 400' tunnel extension (south of DST).

To accommodate the necessary traffic moves within the city limits, a number of existing ramps (both northbound and southbound) have been realigned and/or replaced during construction, and a number of on and off ramps, in the new I-93 tunnel, have been significantly reduced maximizing traffic flow.

The completion of I-93 Southbound tunnel occurs in two major phases. The first phase has been completed and was done on the “early window date”:¹

¹ CSU10 forecast to accomplish the Initial I-93 SB Opening was between 19-Dec-03 (early window date) and 17-Feb-04 (late window date).

- Initial Interstate 93 Southbound Opening – opened to traffic on December 21, 2003.

The second phase as revised by CSU11:

- Full Interstate 93 Southbound Opening – between March 05, 2005 and June 04, 2005

After the Initial Southbound Opening, the remaining old elevated artery sections were released for demolition. As of Dec-2004, the demolition of the old elevated artery viaduct was substantially complete.

The removal of the existing elevated viaduct and the Opening of Full I-93 Southbound tunnel also facilitates the completion of the remaining ramps and roadways to and from the I-93 mainline. Construction of these final downtown ramps continues today.

Over 40 construction contracts are required to complete I-93. The first mainline civil/structural contract associated with I-93 commenced construction in February 1995 and the final contract received Notice to Proceed in February 2003.

The completion of the rehabilitation of the west bore of the Dewey Square Tunnel (Apr-2004), allows for the rehabilitation of the east bore in two major phases. The first phase completes most of the bore to allow for one lane of traffic, which opened in mid-Dec-2004. The second phase completes the final alignment within the same bore, and open three lanes in 2005.

Project Substantial Completion

The opening of I-93 Southbound initiates the final sequence of work activities, which are generally roadway and ramp completions and the elimination of any remaining temporary systems with the exception of Integrated Project Control System (IPCS).

The CSU11 Project Substantial Completion date is targeted between May 21, 2005 and September 22, 2005.

The opening of the three lanes in the east bore of the Dewey Square Tunnel marks the completion of the Full I-93 Southbound tunnel, allowing for remaining ramps to be complete and allows for the west bore to be put in its final alignment (reducing to 1 lane to serve as the I-90 Collector Distributor).

Schedule Status as of 10-Mar-05

Full I-93 Southbound Opening

The project successfully opened the Full I-93 Southbound tunnel on 5-Mar-2005. This is a significant achievement because it was opened on the first day of the three-month schedule window identified in CSU11.

Project Substantial Completion

Overall, most of the remaining ramps, roadways and streets are on schedule to be completed before the CSU11 end window date of 22-Sep-05. There are a few ramps in the South Bay area and some of the downtown surface streets that are trending later than that date. Because these activities are essentially independent, these delays do not represent significant costs impacts.

Project Schedule Risks

Following the recommendations of the U.S. Department of Transportation Office of Inspector General and the National Academy of Engineering, the Project modified the projection of major road opening from an “aggressive but achievable date” (accompanied by an estimated budget for schedule exposure) to a “window of time” estimate. These “windows” (ranges of dates) account for schedule exposures.

There are a number of general exclusions/assumptions that are part of the basis for the remaining schedule activities. These exclusions, generally not quantifiable in nature, are as follows:

- No allowances for shortages of resources (labor, materials, equipment) have been included, including any possible impacts from re-sequencing of work (prioritizing one contract over another).
- No allowances for impacts from highly unusual circumstances such as natural disasters, “state of emergency,” unforeseen conditions, or any dramatic changes in the nation’s/state’s economy.
- No allowances for significant “third party” delays (examples: Boston City, MBTA, Amtrak, Boston Fire Department, and/or abutters such as Gillette, United States Postal Service, Fleet Center events, or Boston Sand and Gravel).
- No allowances for other types of unexpected incidents such as traffic disruptions, public safety issues, public events, and/or utility hits.
- No allowances for cancelled traffic detours have been factored into the demolition schedule.
- No allowances have been made for equipment failure during testing of electrical, ventilation, fire protection systems, or Integrated Project Control Systems.
- No time and/or cost allowances have been included for impacts resulting from Contractor insolvency.

Issues representing schedule exposure to the Project Substantial Completion include:

- Contract C17A6's ability to complete all remaining surface work items that are part of Project Substantial Completion (see below for major project substantial completion exclusions).
- Contracts C19BA and C19E6's ability to achieve the required production rates to complete major connection ramps to the north (Charles River area).
- Contract C09C2's ability to complete the remaining contract connection ramps.
- Contracts C08A1's ability to complete the remaining contract scope including the opening of the final condition of Rt. 1A-Northbound.

Remaining Work Activities (after Project Substantial completion)

Certain select surface and street restoration activities will continue beyond the Project Substantial Completion, accommodating the planting seasons for trees and shrubs. In addition, new contracts are being awarded for the implementation of the Rose Kennedy Greenway.

Other Project Substantial Completion Exclusions

1. Final testing and activation of the remaining IPCS system.
2. Conversion of IPCS software (from Phase I extended to Phase II)
3. Cut-over of IPCS to final IPCS in the Southbound tunnel
4. IPCS for the Metropolitan Highway System – MHS
5. MDC parks (29A1, 29A2, 29B1, 29C1, 29D2 and 29F1)
6. Downtown and Airport Parks (C32's and C08A1)
7. Neptune Road End Condition
8. C28A1 Plantings

III. COST STATUS

A. Cost Estimate by Project Element

The Project has seven major cost centers. Exhibit 1 shows the CSU11 and current December 2004 cost estimates as well as the cost to complete for each cost center. As displayed in Exhibit 1, the total cost of the Project as of December 31, 2004, remain at \$14.625 billion. Since CSU11 there are four cost centers that have changed slightly. They are Construction, Force Accounts, Project Management, and Contingency. There are other costs and funding exposures that the Project is tracking that could, in the future, affect Contingency. The following sections describe all firm and potential budget impacts and categorize them as either Firm Budget Adjustments or Potential Cost Exposures.

Cost Center	Cost Estimate CSU11	Updated Cost Estimate ² 12/31/04	Net Increase since CSU/10	Expenditures to Date ³ 12/31/04	Expenditures Remaining
<i>Design</i>	1,052	1,052	0	1,026	26
<i>ROW</i>	592	592	0	583	9
<i>Construction</i>	9,482	9,541	59	8,880	661
<i>Project Management</i>	2,152	2,152	0	2,052	100
<i>Insurance</i>	605	605	0	463	142
<i>Force Accounts</i>	600	600	0	545	55
<i>Contingency</i>	142	83	(59)	0	83
TOTAL	14,625	14,625	0	13,549	1,076

Exhibit 1: Cost Estimate by Major Project Element (\$ in Millions)

It has been the long-standing practice of the Project not to include operation and maintenance costs after the permanent operator was established because they are not capitalized costs and thus not Project costs. Operation and Maintenance preplanning activities have been ongoing for several years and are being directly reimbursed by the Turnpike Authority, the agency responsible for the operation of the system. For completeness, Operation and Maintenance pre-turnover activity is included in the Project Management Monthly Report (PMM) report as a third party cost.

B. Firm Budget Adjustments

Firm Budget Adjustments are defined as budget variances that are definitive enough to require a modification to the budget of the affected Project cost center. These adjustments include: the

² Estimates are based on data through 12/31/04.

³ Expenditures reflect "Authorized Invoices To-Date" from the Budget, Cost, Commitment and Forecast Report through 12/31/04 and include retained invoice amounts per individual contract terms.

recognition of newly awarded contract values, approved scope changes to be incorporated in the design, and negotiated settlement amounts for asserted construction claims.

The major reasons for the changes are as follows. Only the significant changes are listed.

1. Construction - \$59 million

Approximately \$43 million of the total increase was related to the completion of IPCS. The following contracts were involved: C20B1, \$18.2 million; C22A1, \$8.5 million; C22A2, \$6.8 million, and The Unallocated Construction Account, \$9.7 million. These were offset by a comparable decrease in Contingency.

A net \$6.6 million was transferred to C32A1 from Contingency to recognize the low bid for the contract.

\$1.8 million was transferred to C08A8 from Contingency to recognize the low bid for the contract.

\$1.5 million was transferred to C01A7 from Contingency for adjustments to miscellaneous unit price adjustments.

\$1.2 million was transferred to C08A1 from Contingency due primarily to the cost increases of the retaining wall at the YMCA and an increase in police details.

\$1.6 million was transferred to C22A9 from Contingency mainly to accommodate a reassessment of this contract's Future Allowance value.

A net \$1.6 million was transferred to C17AA from Contingency primarily for increased scope in the work related to the South Bay Mall lane rebalancing and pavement overlay.

2. Contingency - (\$59) Million

Changes in Contingency reflect offsets to the increases in Construction discussed previously.

C. Cost Exposures

Cost Exposures are defined as budget variances that may happen subject to further management action or other alternative remedies. These include speculative issues that are difficult to quantify and price but could have a positive or negative effect on the future cost of the Project.

It is the Project's practice to identify cost exposures in the Project Management Monthly (PMM) report. As of the cutoff date of this Cost/Schedule Status Update, the following issues are identified as cost exposures. These exposures are incremental to the firm Project forecast costs contained within the Cost/Schedule Status Update. Some are speculative in nature, and are not well defined, but are identified early so that sufficient time is available for the Project to manage the particular issue. Specifically, the Project cost exposures as of December 31, 2004, are:

1. Bird Screens

This issue reflects the costs associated with preventing birds from entering and occupying the internal viaduct structure. This will be done by installing bird screens. The estimated total cost of this issue is between \$250 and \$500 thousand.

2. O & M Electrical Cost Reimbursement

This issue addresses a potential exposure to an NSTAR Force Account item. The current budget assumes MTA as the party who will be responsible for the payment of electricity costs related to operation and maintenance. If these costs are not borne by a third party, there may be a cost exposure to the project. The cost is currently being evaluated.

3. Bremen St. Park House

In CSU11, the Project included \$0.6 million in the base budget for the Bremen St. Park House. A cost exposure of an additional \$0.6 million reflects a potential low bid of \$1.2 million. The construction contract bid process is on hold pending the results of a value engineering study.

4. Third Party Costs (C11A1)

This issue is for a potential exposure to the project related to C11A1. The Project has assumed that certain contract changes will be funded by a third party. Discussions are taking place with this party and the exposure is being evaluated.

5. Wharf District Parks

Preliminary estimates for this scope of work are exceeding the values contained in the budget. The estimate and scope are being reassessed by the Project.

6. Park 'N Fly (a TPL Property)

The budget assumed that this project would be acquired at no cost to the Project. Discussions continue with the owner.

D. Cost Update (12/31/2004 through 3/31/2005)

Interim Estimate Update

The Project concluded on interim update of the CSU Revision 11 budget in March 2005. The following explains the difference to the Cost Estimate values contained in Exhibit 2.

Cost Center	Updated Cost Estimate 12/31/04	Updated Cost Estimate 3/31/05	Net Increase
<i>Construction</i>	9,541	9,512	(29)
<i>Force Accounts</i>	600	599	(1)
<i>ROW</i>	592	590	(2)
<i>Design</i>	1,052	1,057	5
<i>Project Management</i>	2,152	2,172	20
<i>Insurance</i>	605	602	(3)
<i>Contingency</i>	83	93	10
<i>TOTAL⁴</i>	14,625	14,625	0

Exhibit 2: Cost Changes by Major Project Element (\$ in Millions)

1. Construction – (\$29.1) Million

The following contracts' Potential Forecasts were changed: C09C2, (\$15.5M); C17A6, (\$7.6M); C17AA, +\$8.0M; C20B1, +\$4.3M and the Unallocated Account, (\$12.6M). Back charge Credits incorporated into the latest estimate amount to \$14.4M. This change also reflects the projected increase in the budget based on the current estimates of the Wharf District and Chinatown Parks. (\$7.0M was previously transferred from Project Contingency for the differences in the North End Parks.)

2. Force Accounts – (\$1.7) Million

Decreases in NSTAR of \$1.8M and MBTA, \$1.9M were offset by the addition of a MTA ISA for Symmetric related to the IPCS Completion, +\$1.5M.

3. Right-of-Way – (\$1.8) Million

The reduction of \$1.8M in the Right-of-Way Account reflects the deletion of the leaseback of 185 Kneeland Street.

4. Section Design Contracts – \$5.4 Million

Increase is primarily in Construction Phase Services on D022A, +\$3.7M; D017A, +\$1.0M; and D009C, +\$1.0M, partially offset by a \$1.0M decrease in D009A.

5. Management Consultant (through 2005) – \$10.6 Million

This change reflects a position-by-position analysis of the remaining 2005 support services including the added IPCS completion support activities.

⁴ Total may be off due to rounding.

6. MTA/MHD Project Management through 2005 – \$1.4 Million

Included in this account is an amount of \$13.5M for Cost Recovery efforts and a corresponding Cost Recovery recapture credit of (\$10.0M), in addition to the already realized (\$3.5M) carried in the Section Design Contracts cost center. The latest estimate assumes that all credits resulting from Cost Recovery efforts will be equal to cost recovery expenditures.

7. Project Management Staffing Requirement (2006 – 2008) - \$7.8 Million

This change also reflects an in depth position-by-position assessment of Project activities that will occur during 2006 to 2008. The major activities include contract closeout, archiving, parks, IPCS, and PIC completions.

8. Insurance – (\$2.8) Million

Insurance decreased by \$2.8M, primarily because of an elimination of Incurred But Not Received (IBNR) costs for policy years that contained an IBNR but has no open claims.

9. Project Contingency – \$24.2 Million

The increase in Project Contingency incorporates the current bottoms up contingency analysis.

10. MTA CEO Contingency – (\$14.0) Million

The MTA CEO Contingency CSU11 amount of \$20.7M was reduced to \$6.7M. The current contingency includes Cost Recovery efforts of \$6.5M and a corresponding cost recovery recapture of (\$6.5M).

E. Project Cost Risks

Outstanding Contractor Claims

The October 2004 Finance Plan had 2,919 open issues and 1,299 open claims with a total contractor proposal value of \$591.4 million and a total budget of \$303.6 million. As of this Cost/Schedule Status Report (information dated February 28, 2005) there are 2,364 open issues and 1,276 open claims with a total contractor proposal value of \$441.6 million and a total budget value of \$226.2 million.

Between CSU11 (October 2004 Finance Plan) and this Cost/Schedule Status Report, the Project received 1,501 additional issues/claims in addition to the 4,218 issues/claims identified as of CSU11. 2,079 issues/claims were resolved during this period, resulting in 3,640 open issues (2,364) and claims (1,276) as of this Cost/Schedule Status Report.

Cost Recovery

Project costs may be reduced by aggressively pursuing opportunities to recover costs resulting from potential design errors and omissions already paid on some previously approved change orders. The Project has had a FHWA approved Cost Recovery Program since 1994 that allows

the Project to approve the change order, pay the consultant contractor for the work and seek reimbursement from FHWA, before determining whether the change was, in fact, due to a design error. Significant attention by FHWA, MTA, Project officials and the Attorney General is being placed on identifying issues and pursuing the recovery of potential costs that were due to design errors.

On February 1, 2005, the Massachusetts Turnpike Authority (MTA) and the Office of the Attorney General (AG) entered into a Memorandum of Understanding (MOU) transferring Cost Recovery from the Massachusetts Turnpike Authority to the Attorney General.

The Project recognizes that FHWA participated in the sharing of costs to build the Central Artery/Ted Williams Tunnel Project. Any monies realized from the Cost Recovery Program will reflect the nature of the original Federal participation percentage ratio.

Potential Contractor Insolvency

The State's bond disclosure statement has noted that a weak economy and delays or reductions in settling contractor claims against the Project could affect the financial health of the Project's major contractors. These factors could create cash flow and credit issues that could, in turn, affect the ability of contractors to complete CA/T project work. If an affected contractor with significant critical path contract work toward an overall project completion milestone were to become insolvent, or otherwise fail to complete its contract work, it is possible that there would be a substantial and material impact on the Project schedule and costs.

The Project does have some degree of protection should one of its major contractors fail to perform, in that it requires all contractors to provide surety bonds that guarantee contractor performances. However, the process of realizing funds from performance surety bonds may not be immediate nor fully cover all associated costs.

IV. FUNDING STATUS

The Project is funded through the following seven sources:

- 1) Federal Reimbursements (\$7.049 billion)
- 2) Grant Anticipation Notes - GANS (\$1.500 billion)
- 3) Commonwealth of Massachusetts (\$1.633 billion)
- 4) Transportation Infrastructure Funds - TIF (\$2.410 billion)
- 5) Massachusetts Port Authority Funds - MPA (\$302 million)
- 6) Massachusetts Turnpike Authority Funds - MTA (\$1.591 billion)
- 7) Insurance Trust Interest (\$140 million)

The following pie chart shows a percentage breakdown by revenue source.

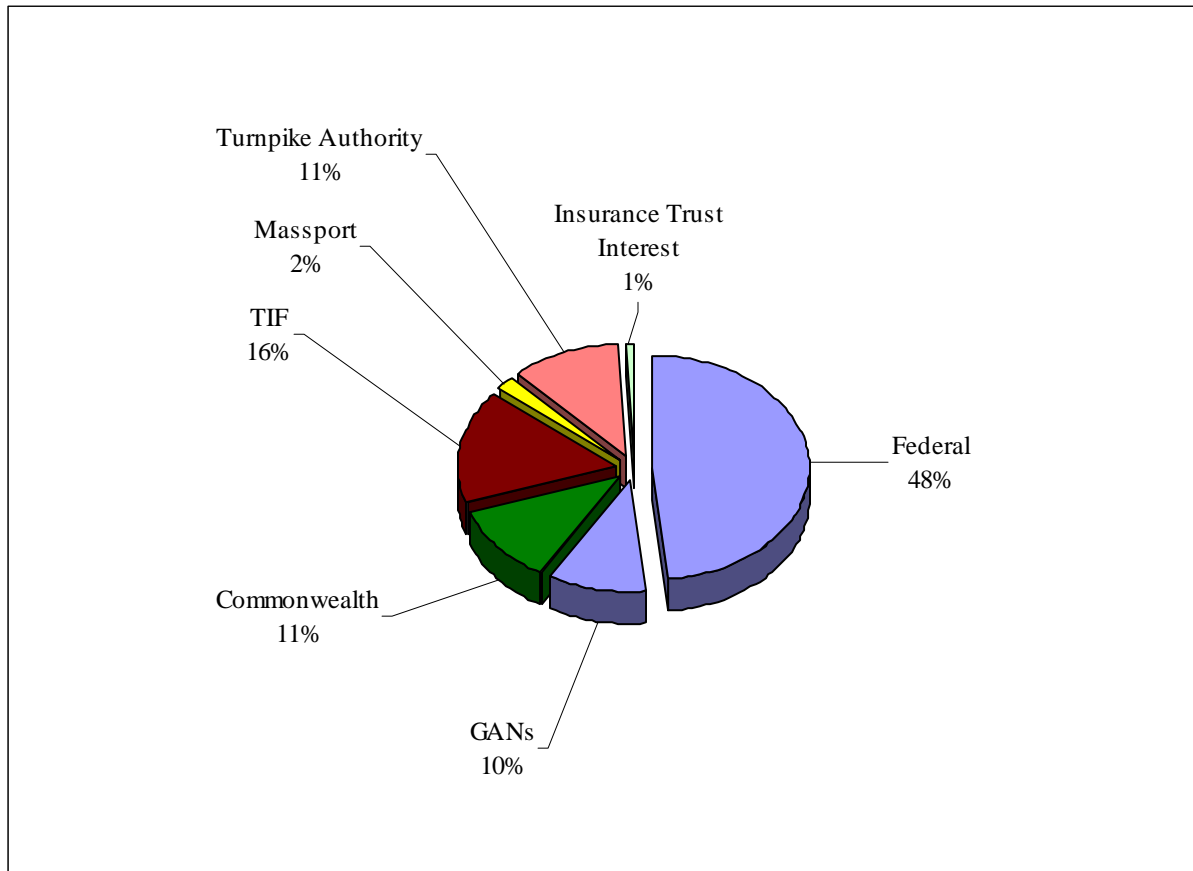


Exhibit 3: Total Revenues by Source

A. Federal Funding

Excluding GANs, federal aid accounts for 48 percent of Project funding. When the Project receives federal reimbursement for the GANs principle, the federal portion will increase to approximately 58 percent. On May 8, 2000, FHWA instituted an administrative cap on the Project. Under this cap, the Project cannot exceed \$7.049 billion in federal obligations plus \$1.500 billion in GANs repayments for a total federal participation level of \$8.549 billion. This cap recognizes \$76 million of Federal funding-related interest earned in the insurance trust. This reduces the direct all year federal participation level to \$8.473 billion. EOTC and MHD certify that \$76 million in obligation authority related to the investment earnings of the Owner Controlled Insurance Program (OCIP) will be applied to the Statewide Road and Bridge (SWRB) Program in the years 2006-2009. In return, the SWRB Program will repay \$76 million of GANs through its Advanced Construction balance in the years 2006-2009.

The Project's annual federal funding depends upon Highway Trust Fund (HTF) revenues and annual appropriations levels. The federal government authorizes transportation spending through multi-year bills. The current bill (extended) is called the Transportation Equity Act for the 21st Century or TEA-21. TEA-21 covered a six-year period (1998-2003) and has been temporarily extended by Congress. On an annual basis, TEA-21 apportions funding to the states through formulas and discretionary grants. New federal legislation is expected in the near future.

While the federal apportionments set the broad funding parameters, the federal obligation authority (OA) translates the apportionment into the actual federal funding amounts. This report estimates that annual obligation authority equals approximately 92.5% of the apportionment value.

The following table shows a breakdown of to-date and to-go obligation authority for the Project.

Funding Source	Obligations through 12/31/04	Remaining Obligations	Total Obligations
Federal	6,968	81	7,049

Exhibit 4: Summary of Total Obligations by Funding Source (\$ in millions)

In Massachusetts, obligation authority is split between the Central Artery/Tunnel Project and the Statewide Road and Bridge Program (SWRB) until the Project GANs are repaid. This split is affected by multi-year exchanges of obligation authority between CA/T and SWRB. Over the period FFY2001-2004, CA/T has agreed to provide SWRB \$150 million in obligation authority and SWRB will give CA/T \$150 million in state funding. In FFY02, CA/T gave \$25 million of obligation authority for contract C01A7 (South Boston Haul Road).⁵ To address the federal cap reduction due to OCIP-related interest earnings, from FFY2006 through FFY2009 CA/T will provide SWRB \$76 million in obligation authority and SWRB will repay \$76 million of GANs.

⁵ In SFY02, CA/T provided \$25 million of OA to the SWRB program for C01A7, because of the close functional link of this contract between the CA/T Project and the SWRB program. Most of the scope of C01A7 is SWRB, but the C01A7 traffic improvements are integral to the success of the CA/T traffic design in South Boston.

The following table shows the schedule.

	FFY2001	FFY2002	FFY2003	FFY2004	FFY2005	FFY2006-09
<i>CA/T OA</i>	\$330	\$368	\$226	\$225	\$199	\$534
<i>\$150M Exchange</i>	(\$23)	(\$43)	(\$42)	(\$42)		
<i>\$25M for C01A7</i>		(\$25)				
<i>\$76M OCIP Exch.</i>						(\$76)
TOTAL⁶	\$307	\$301	\$184	\$183	\$199	\$458

Exhibit 4a: Schedule for Obligation Authority Exchange (\$ in millions; rounded)

The following bar chart shows the obligation authority split between CA/T and SWRB. It factors in the exchange shown in the table above.

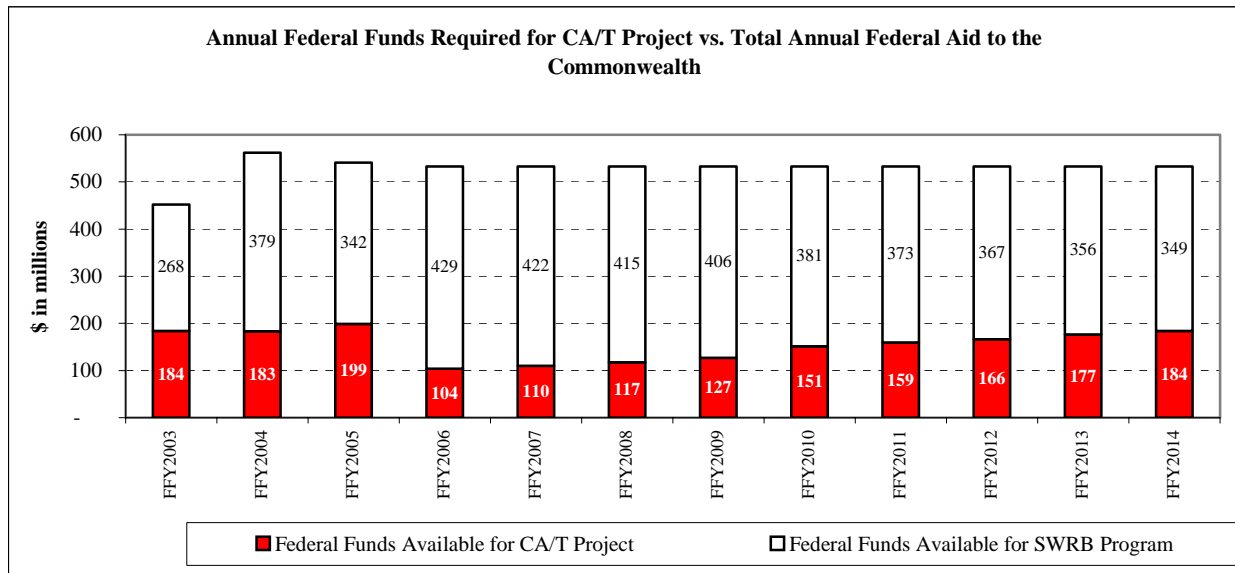


Exhibit 4b: Annual Federal Funds required for the CA/T Project (\$ in millions)

Advance Construction with Partial Conversion

Project financing is heavily dependent on optimizing available federal funds through the use of Advance Construction (AC) with Partial Conversion⁷. This Finance Plan update, using AC with Partial Conversion, assumes that over 98 percent of federal funds are obligated and spent in the same fiscal year. Under traditional obligation practices, this percentage would be closer to 20 – 25 percent, since, for example, the full value of a four year construction contract would be obligated at the start of construction.

Exhibit 4c identifies the Project’s projected AC activity and federal fiscal year-end balances. The AC balance is the sum of the existing authorized advance construction amounts for the Project less the annual obligations (conversions) required to pay the federal share of invoices through that

⁶ Totals may be off due to rounding.

⁷ The National Highway Act of 1995 (NHS) permits states to use the AC financing mechanism for projects included in their STIP.

year. The Project’s AC Balance is \$1.806 billion as of the end of FFY03. The projected FY2005 AC Balance of \$1.576 billion at the twilight of the Project construction period is required for the remaining GANs repayments of \$1.413 billion and for any future conversions required to fully obligate the Project’s \$8.462 billion federal funding. In no case will the total federal obligations for the Project exceed \$8.473 billion.

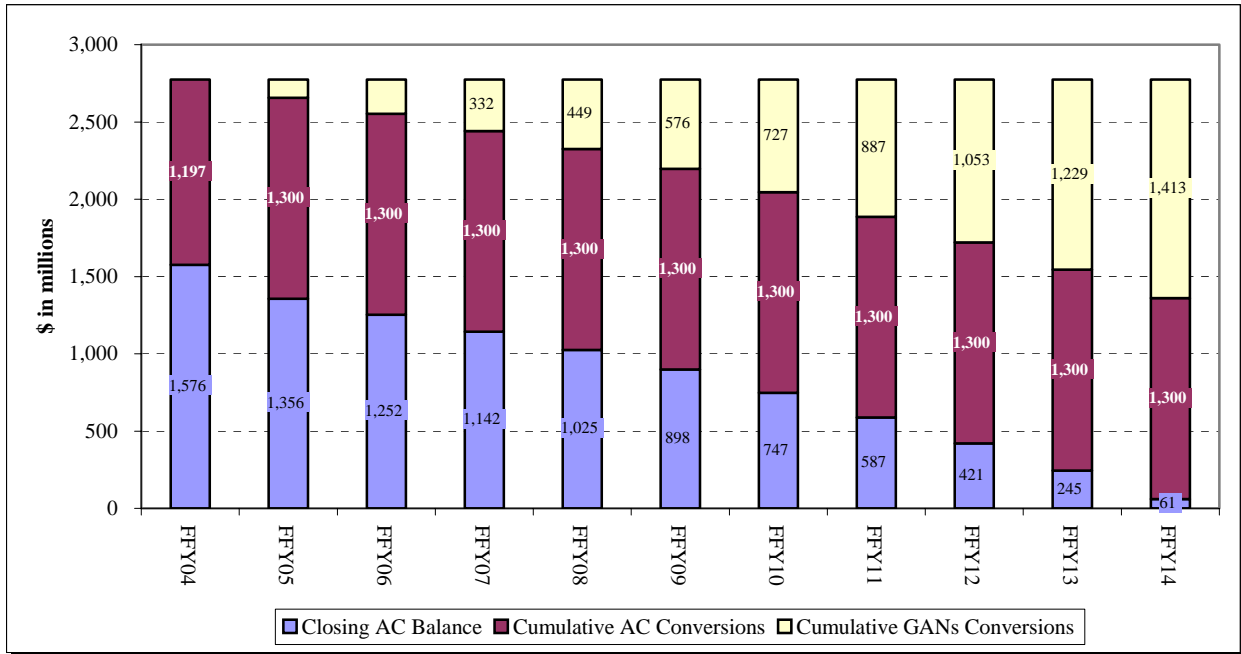


Exhibit 4c: Projected Project AC Balances Chart FFY04 – FFY14 (\$ in millions)

	FFY04	FFY05	FFY06	FFY07	FFY08	FFY09	FFY10	FFY11	FFY12	FFY13	FFY14
<i>Opening Bal.</i>	\$1,806	\$1,576	\$1,356	\$1,252	\$1,142	\$1,025	\$898	\$747	\$587	\$421	\$245
<i>New Auth.</i>	\$61	0	0	0	0	0	0	0	0	0	0
<i>Conversions</i>	(\$290)	(\$103)	0	0	0	0	0	0	0	0	0
<i>Conversion- - OCIP</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Conversions- - GANs⁸</i>	0	(\$118)	(\$104)	(\$110)	(\$117)	(\$127)	(\$151)	(\$159)	(\$166)	(\$177)	(\$184)
<i>Deauth.</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Closing Bal⁹.</i>	\$1,576	\$1,356	\$1,252	\$1,142	\$1,025	\$898	\$747	\$587	\$421	\$245	\$61

Exhibit 4d: Projected Project AC Balances Table FFY04 – FFY12 (\$ in millions)

B. Grant Anticipation Notes

In 1996 the Commonwealth filed a Finance Plan with FHWA that identified a transportation program funding variance between cash requirements and available funding sources during the

⁸ The Project has GANs authorizations of which \$1.413 billion will be reimbursed from federal funds and \$76 million will be reimbursed from SWRB federal obligation authority.

⁹ Totals may be off due to rounding.

Project’s peak construction years. The projected funding sources were insufficient to maintain both an adequate statewide program and support the Project during peak construction. The Project and the Commonwealth conducted several studies to address and minimize this funding deficiency.

The Project evaluated all remaining scope and removed those features judged non-essential in order to help lower the cash requirement and reduce the funding variance. The Project also resequenced construction to the extent possible to reduce the funding variance during the peak years.

The Project also identified significant cost impacts that would result from major Project delays and schedule extensions. In addition, the Administration and Legislature concluded that the statewide program was also a priority, and that both the statewide and Project program requirements must be supported.

The Administration, working closely with the Legislature, developed a comprehensive funding strategy to support both transportation program priorities. The GANs program, a cornerstone of this strategy, is an innovative financing program that leverages future federal highway funds to provide current cash for Project costs without a general obligation pledge from the Commonwealth. GANs funding reduces the funding variance, creates no adverse cost or schedule impacts, and has minimal impact to the Commonwealth’s credit ratings.

The Commonwealth issued its first series of GANs, consisting of \$580 million in Notes, in June 1998 at a total interest cost of 4.84 percent. The second series of \$320 million in Notes was issued in November 1998 at an interest cost of 4.69 percent. The third and final series of \$600 million was issued in December 2000 bringing the total to \$1.5 billion.

The GANs will be repaid by the Project and the Statewide Road and Bridge Program over a nine-year period (FFY05-FFY2014). The following table shows the repayment schedule.

	FFY05	FFY06	FFY07	FFY08	FFY09	FFY10	FFY11	FFY12	FFY13	FFY14	Total
CA/T¹⁰	\$118	\$104	\$110	\$117	\$127	\$151	\$159	\$166	\$177	\$184	\$1,413
SWRB		\$20	\$20	\$20	\$16						\$76
Total	\$118	\$124	\$130	\$137	\$143	\$151	\$159	166	\$177	\$184	\$1,489

Exhibit 4e: GANs Repayment Schedule (\$ in millions)

¹⁰ Totals may be off due to rounding.

C. General Obligation Bonds

The Commonwealth has a long practice of borrowing funds, via state general and special obligation bonds, to pay for capital expenditures such as the Project. Proceeds from these bonds cover the state share of federal-aid projects and pay for non-federally funded projects. General obligation bonds are the principal non-federal source of financing for most of the Commonwealth's capital infrastructure investment, including transportation, higher education, public housing, and other facilities.

Between 1991 and 1998 the Commonwealth issued approximately \$900 million per year of bonds to finance its capital program. In 1998 and again in 2001, this amount was increased to approximately \$1 billion and \$1.2 billion per year respectively, to provide the Commonwealth greater financing flexibility and allow continued investment in other important capital construction activities during the peak cash flow years of the Project. Citing the Commonwealth's overall fiscal health and management, Moody's Investor Services upgraded the state's credit rating from Aa3 to Aa2 in January 2000. In addition, Standard and Poor's changed the state's outlook from stable to positive, and Fitch IBCA, Inc. re-affirmed its stable outlook on the Commonwealth's credit. It was reported in the March 18, 2005 publication of the Bond Buyer that Standard & Poor's had upgraded the Commonwealth's general obligation bond rating from AA- to AA. At this time, Fitch IBCA, Inc. has not changed the Commonwealth's general obligation bond rating AA-.

D. Transportation Infrastructure Fund

Chapter 87 of the Acts of 2000, "An Act Providing Additional Funding for the Central Artery/Ted Williams Tunnel Project and the Statewide Road and Bridge Program" (Additional Funding Act) was passed by the Legislature on May 16, 2000 and signed by the Governor on May 17. The Additional Funding Act provided state funding to meet additional costs associated with the Project and to supplement funding available (a total of \$500 million) for the Statewide Road and Bridge Program. A separate fund has been created within the Commonwealth known as the Central Artery and Statewide Road and Bridge Transportation Infrastructure Fund (TIF). The proceeds from the additional funding sources will be deposited directly into the TIF. A Technical Corrections Bill (Chapter 125 of the Acts of 2000) provides significant financial flexibility to the Commonwealth by clarifying that any license and registration fees not needed to support debt service payments will be available for the Project.

The fund relies on a variety of revenue sources to fund Project costs, including:

- A \$200 million contribution from the Turnpike Authority that was received on September 1, 2000
- A \$65.1 million contribution from the Massachusetts Port Authority that was received on January 29, 2001
- General Obligation Bonds funded by license and registration fees. A total of \$1 billion in Commonwealth General Obligation Bonds (\$675 million in variable rate debt and \$325 million in fixed rate debt) were issued in November and December 2000.
- Excess license and registration fees, including a total of \$67 million deposited to the TIF on account of SFY2001

- Commonwealth Debt Service Savings achieved through the defeasance of Commonwealth debt. In August, September and December of 2000 three separate defeasance transactions produced savings of \$659.2 million.
- Interest Earnings on the balances produced above. The interest earnings produce significant revenue that inure to the benefit of the Project.

There are three basic variables that impact overall TIF performance: registry fees, the rate of spending (cash flow) and interest rates. The Registry of Motor Vehicle ("Registry fees") revised projections show revenues exceeding estimates from the October 2000 Finance Plan. In addition, the cash flow needs of TIF funds have lagged behind earlier projections. Interest rates, which affect both interest earnings and the cost of \$675 million in variable rate debt in the TIF, have fallen significantly since 2001. The drop in interest rates has been more than offset by slower than expected cash flow needs and stronger than projected Registry fees. As a result, within the current program, the TIF can be expected to produce the necessary revenue.

The stronger than projected Registry fees, along with lower than expected interest rates, also provide the opportunity to leverage additional borrowing to support Project costs. The \$1.35 billion in borrowing authorized in the TIF legislation was based on a projection of \$100 million annually in Registry fees. As discussed above, the fee growth is expected to exceed previous expectations. This additional revenue could be utilized to support additional debt capacity. The Governor and legislature passed Chapter 131 of the Acts of 2002 authorizing an additional \$150 million of TIF borrowing. In combination with higher than anticipated earnings on the fund of over \$25 million, the fund will generate at least an additional \$175 million for the Project.

The Department of the State Treasurer in a letter dated January 7, 2005 released the results of the most recent TIF analysis. The Fund is projected to meet (a) the spending projections provided by the Project: and (b) an additional \$100 million in statewide road and bridge program expenditures in fiscal year 2005. In fact, the projections show that the Fund could have an excess balance above required expenditures of some \$67 million at the end of fiscal year 2006. Please refer to Appendix D.

E. Massachusetts Port Authority and Bond Anticipation Notes

The Massachusetts Port Authority is statutorily obliged pursuant to the Metropolitan Highway System (MHS) legislation (Chapter 3 of the Acts of 1997 - M.G.L. Chapter 81A) to purchase not less than \$200 million of assets built as part of the Project. The Project will substantially improve the vehicular access to Logan Airport as well as properties owned by MassPort in South Boston. However, for the purpose of compliance with federal regulations and obligations associated with previous debt financing, substantial financial payments must be associated with assets owned by MassPort, and in many cases must be assets that exclusively benefit airport activities.

Chapter 3 of the Acts of 1997 directed the EOAF, the State Auditor, the Division of Capital Asset Management, the Turnpike Authority, and MassPort "to undertake a joint assessment study to identify any additional segments and the value of such segments which may be acquired by MassPort in connection with an additional payment to the Commonwealth, not to exceed one hundred million dollars." The joint assessment study concluded that it was appropriate for

MassPort to acquire certain segments of the Project located near Logan Airport that exclusively serve or provide enhanced access to the airport and to pay \$300 million in the exchange. Such payments are to be made pursuant to the terms of the roadway asset transfer agreement between the Turnpike Authority, MHD, EOAF and MassPort. The \$300 million purchase of roadway assets does not include the additional \$65 million in roadway transfers identified in Chapter 87 of the Acts of 2000.

Out of the total \$365 million, Massport has paid \$160 million. Under the August 1998 Memorandum of Understanding (MOU) with the Commonwealth, Massport had planned to pay the remaining \$205 million in accordance with the following schedule:

- 1) \$105 million on December 31, 2002,
- 2) \$50 million on December 31, 2003, and
- 3) \$50 million on December 31, 2004.

However, due to the events of September 11th 2001, Massport had difficulty supporting this payment schedule. To cover these expenditures, the Commonwealth issued \$180 million of bond anticipation notes (BANs) in March 2002. By issuing BANs, the Commonwealth ensures that Project funding is not affected by the timing of the Massport contributions. Since the last Financial Plan Massport has paid the Commonwealth \$105 million against the \$180 million BANs issuance.

F. Massachusetts Turnpike Authority

To Date Contributions

The Turnpike Authority has contributed \$1.555 billion to date (including the \$200 million required for the TIF) towards the financing of the Project. Additional Turnpike Authority committed contributions will be made to cover additional funding needs for the Project previously identified in the October 2001 Finance Plan when necessary.

The first \$100 million was contributed in 1996 as mandated by Chapter 273 of the Acts of 1995 towards the acquisition of the Ted Williams Tunnel. The Turnpike Authority contributed \$700 million in 1998 to the Capital Expenditure Reserve Fund of the Commonwealth to satisfy the Turnpike Authority's financial obligations mandated under Chapter 11 of the Acts of 1997.

The Feasibility Study prepared pursuant to Chapter 102 of the Acts of 1995, as amended by Chapter 273 of the Acts of 1995 suggested that the Turnpike Authority might have the capacity to contribute an additional \$300 million in later years. The Turnpike Authority entered into a Memorandum of Understanding with the Executive Office of Administration and Finance (EOAF) and the Executive Office of Transportation and Construction in February 1999 that amended and restated an earlier MOU, providing for additional contributions to the Project during SFY1999 and SFY2000.

The payments were contingent upon the Turnpike Authority's ability to issue additional bonds resulting in net proceeds at least sufficient to make such payments on such dates and execution of a Contract for Financial Assistance with the Commonwealth. The Turnpike Authority executed a Contract for Financial Assistance with EOAF on behalf of the Commonwealth in February 1999

and subsequently, in March 1999, issued \$808 million in Metropolitan Highway System Revenue Bonds, 1999 Series A (Subordinated) (the “1999 Bonds”) under the terms of its 1997 MHS Trust Agreement. The 1999 Bonds were issued to pay the Commonwealth all of the amounts stipulated in the MOU (\$555 million) on the schedule described therein to pay Project costs. As stipulated in the MOU, the Commonwealth agreed to provide \$45 million in alternative financing for the Project in return for the Turnpike Authority’s contribution of \$355 million in April 1999 instead of \$400 million in 2002. This \$45 million is broken out separately in this Finance Plan’s cash flow section.

The Turnpike Authority transferred \$355 million on April 15, 1999 to the Capital Expenditure Reserve Fund and also funded \$4 million into an escrow account on behalf of MHD (representing the Commonwealth) and the Project as part of a settlement agreement between MHD and an abutter.¹¹ The balance of the \$100 million due in SFY1999 (\$96 million) was transferred to the Commonwealth’s Capital Expenditure Reserve Fund on June 30, 1999. The remaining Turnpike Authority contribution of \$100 million (stipulated under the MOU executed in February 1999) was paid on June 30, 2000. As previously mentioned, the Turnpike Authority transferred \$200 million (as required under Chapter 87 of the Acts of 2000) to the TIF on September 1, 2000.

To Go Contributions

In early estimates, the Project categorized the land taking and construction of the Parcel 7 Garage¹² and a portion of the Surface Restoration as a non-CA/T Project cost, because it was to be funded directly by the Turnpike Authority. This assumption was changed making the Parcel 7 Garage and Surface Restoration a Project cost with additional Turnpike Authority funds identified (in addition to commitments discussed previously) to pay for this scope of work. The total cost for these scope elements is \$53 million. The Turnpike intends to transfer \$38 million to the Commonwealth in recognition of costs previously paid for the Parcel 7 Garage and \$15 million for Surface Restoration after the actual Surface Restoration commences.

On May 16, 2000, the Turnpike Authority released an “Invitation to Bid” relating to the disposition of certain property (approximately 48 acres) known as the “Allston Landing Parcels”. Two bids were received for the property and on July 12, 2000, the Turnpike Authority’s Board voted to accept the bid from Harvard University in the amount of \$151.8 million. On July 14, 2000 the Turnpike Authority executed Land Disposition Agreement with Harvard to formally transfer the property. The proceeds from the disposition have been deposited into a reserve within the MHS to be used for the Project and other Metropolitan Highway System (MHS) contingencies as needed. For purposes of planning, the Project is including \$183 million in funding in this Finance Plan from the Allston Landing sale (sale price plus approximately \$31 million in interest earned. This is an increased Allston Landing related commitment of \$27M since the October 2004 Finance Plan.

¹¹ Section 2 of the MOU permits the Turnpike Authority to make the payments by transferring funds directly to the Commonwealth’s Capital Expenditure Reserve Fund or by directly paying on behalf of the Commonwealth amounts owed to third parties in connection with any portion of the Project.

¹² The Parcel 7 Garage cost of \$38 million was originally paid with Project funds. The Turnpike Authority will contribute an additional \$38 million to the Project to be used on future costs in recognition of the prior Parcel 7 Garage costs paid for with Project funds.

Past Finance Plans recognized \$94 million (out of \$97 million available) in Turnpike Kneeland Street real estate assets. The value of these assets was derived from the planned sale or lease of two real estate parcels (26b and 27a) located south of Kneeland Street in Boston. The \$97 million value was determined by an independent appraisal prepared on behalf of the Turnpike Authority, less transaction costs.

GAO issued a guidance in the form of a legal opinion that took exception to FHWA's interpretation of Section 156 of Title 23 which allows the proceeds from the sale of ROW to be used for Title 23 eligible purposes but does not classify the proceeds as Federal funds. The OIG raised this issue again in its review of the 2002 CA/T Finance Plan. The OIG requested an opinion from GAO as to whether the proceeds from the sale of the Kneeland Street Building would count towards the CA/T financial cap of \$8.549 billion. On May 16, 2003, Secretary Mineta released the General Counsel opinion on these two issues. The General Counsel opinion supports FHWA's interpretation of Section 156 of Title 23 and also concludes the proceeds from the sale do not count towards the \$8.549 billion cap on the CA/T project.

In June 2004 the MTA issued a Request for Proposals and Invitation for Bids for the South Bay Area Parcels (Parcels 25, 26a, 26b and 27a). The MTA received one proposal that is currently under review. Preliminary reviews have indicated that the Project will not realize \$94 million from this proposal. To make up this shortfall in funding, the Project intends to use the excess earnings from the TIF (\$67M) and the added interest earnings from the sale of Allston Landing North (\$27M). Please refer to previous pages 20 and 22.

G. Additional Funding Sources

Potential Insurance Trust Interest Revenues Above or Below \$140M

Insurance trust interest revenues may vary depending on the economic climate over the next few years. The Project currently estimates that the insurance trust may generate an additional \$140 million in interest income. The base insurance trust revenue values contained in this Finance Plan assume an annual compounded interest factor approximating 3.2 percent.

V. CASH FLOW

The following tables show the Project cash flow by cost center and funding source. The cash flow is based on data through December 31, 2004. Totals may be off due to rounding.

<i>Cost Center</i>	Cumulative thru SFY03	SFY 2004	SFY 2005	SFY 2006 & Beyond	Current Estimate
<i>Construction</i>	8,130	537	427	447	9,541
<i>Force Accounts</i>	490	28	27	56	601
<i>ROW</i>	587	-8	6	8	592
<i>Design</i>	991	29	21	11	1,052
<i>Project Management</i>	1,875	125	99	52	2,152
<i>Insurance Premiums</i>	553	15	17	20	605
<i>Contingency</i>	0	0	0	83	83
TOTAL	12,626	725	598	676	14,625

Exhibit 5: Cash Flow by Cost Center (\$ in millions)

<i>Funding Source</i>	Cumulative thru SFY03	SFY 2004	SFY 2005	SFY 2006 & Beyond	Current Estimate
<i>Federal</i>	6,492	345	197	15	7,049
<i>GANs</i>	1,500	0	0	0	1,500
<i>State Bond/Notes</i>	1,462	53	60	13	1,588
<i>State Interest on MTA Funds</i>	45	0	0	0	45
<i>Transportation Infrastructure Fund</i>	1,424	317	329	340	2,410
<i>MassPort via State</i>	302	0	0	0	302
<i>Turnpike Authority</i>	1,351	9	8	224	1,591
<i>Insurance Trust Revenue</i>	50	2	5	83	140
TOTAL	12,626	725	598	676	14,625

Exhibit 6: Cash Flow by Funding Source (\$ in millions)

The next table shows the To-Date and To-Go spending by funding source.

Funding Source	Expenditures through 12/31/04	Remaining Expenditures	Total Expenditures
<i>Federal</i>	6,955	94	7,049
<i>GANs</i>	1,500	0	1,500
<i>State Bond/Notes</i>	1,544	44	1,588
<i>State Interest on MTA Funds</i>	45	0	45
<i>Transportation Infrastructure Fund</i>	1,871	539	2,410
<i>MassPort</i>	302	0	302
<i>Turnpike Authority</i>	1,371	221	1,591
<i>Insurance Trust Revenue</i>	55	85	140
TOTAL:¹³	13,642	983	14,625

**Exhibit 7: Summary of Total Expenditures To-Date and To-Go by Funding Source
(\$ in millions)**

¹³ Totals may be off due to rounding.

VI. OTHER FACTORS

Commitment to the Statewide Road and Bridge and Local Aid Programs

Since 1991, the Commonwealth of Massachusetts has identified improvements in transportation infrastructure as a top priority. The Administration has and continues to demonstrate its commitment to a balanced statewide infrastructure investment consistent with the spirit and intent of federal regulations. Spending, independent of the Central Artery/Tunnel Project, has steadily increased over the past decade to the point where the Commonwealth now dedicates nearly \$700 million a year to road and bridge projects. The following bar chart illustrates the increased spending levels over the past nine and previous five-year periods.

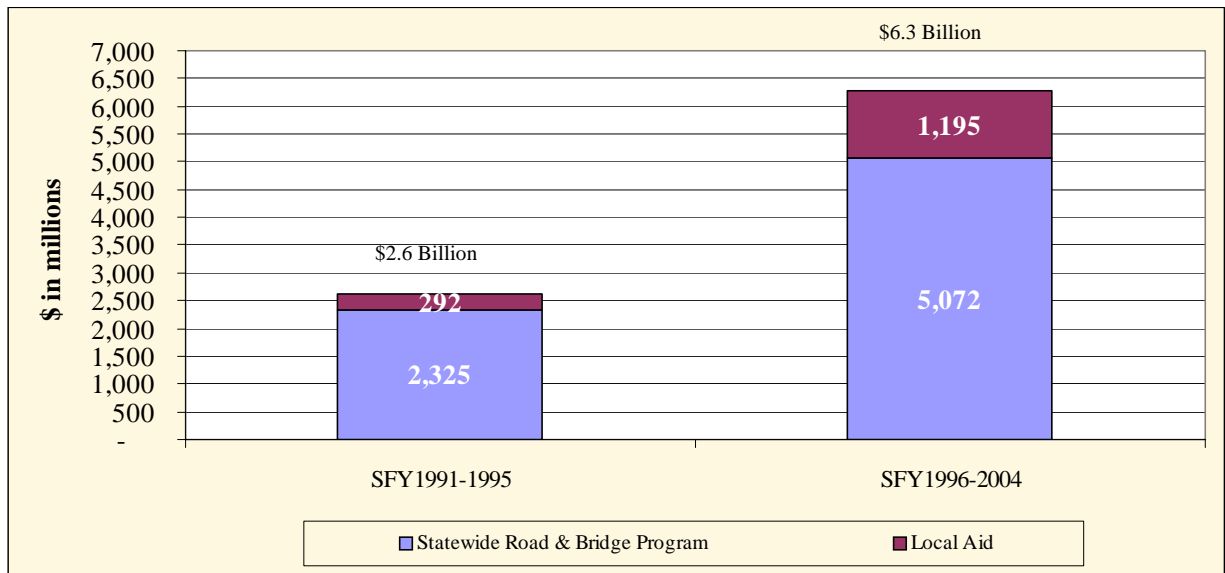


Exhibit 8: Highway Spending Comparison (\$ in millions)¹⁴

The Commonwealth's program is geared to address safety, traffic and environmental issues as well as promote economic development. The investment levels have resulted in safer, better-maintained bridges and highways throughout the state. For the last ten years Massachusetts has led the nation with the lowest fatality crash rate. The capital outlay has resulted in the following achievements since 1991:

- Structurally deficient bridges¹⁵ have been reduced by 36 percent¹⁶ from 864 to 532.

¹⁴ Totals do not include Route 3 North.

¹⁵ The structure has significant deterioration that potentially reduces load carrying capacity. This reduction does not necessarily correlate to a posted bridge or an unsafe condition. This designation means that an evaluation in the field determined a measurable loss of section compared to the original condition of the structure.

¹⁶ The 532 bridges are out of 4,427 MHD and City/Town owned bridges, based upon the April 2004 inventory. City/Town owned bridges are included because MHD inspects these bridges and rehabilitates or replaces them using federal bridge funds. Other agencies own an additional 552 bridges, of which 47 are structurally deficient. MHD does not rehabilitate or replace these bridges and they are not included in the report on the condition of the Commonwealth's bridges.

- Through December 2002, 1,644 out of 4,437 (37.0%) of the bridges managed by MHD have been reconstructed, significantly renovated, or repaired.
- Roadway pavement conditions have improved. From 1991 to 2002 the pavement condition of the state maintained highway system classified as either “good” or “excellent” has increased from 54 percent to 75 percent. In that same time frame, the percentage of the system classified as “poor” has decreased from 24 percent to only 7 percent.
- Approximately \$1.3 billion in Chapter 90 program funds have been authorized for city and town road improvements since 1995.
- Currently there are 65 active Public Works Economic Development contracts that have been awarded for a total of \$35 million.
- Approximately \$6.7 billion has been spent on improving the Commonwealth’s roads and bridges through the Statewide Road and Bridge and Local Aid Programs since 1995.

Balanced Statewide Program

On June 14, 2000, the Executive Office of Transportation and Construction (EOTC), MHD, and the Massachusetts Association of Regional Planning Agencies (MARPA) signed an “Agreement in Principle” with the Memorandum of Understanding (MOU) defining a balanced statewide program. The MOU was subsequently endorsed by a majority of the State’s Metropolitan Planning Organizations (MPO’s). The Agreement resulted from negotiations of a task force of the above parties as well as FHWA and the Construction Industries of Massachusetts (CIM).

MassHighway is committed to maintaining a Statewide Road and Bridge Program, exclusive of the Central Artery/Tunnel Project, with a minimum annual expenditure through SFY 2005 of \$400 million for construction activities and specific transportation projects. The Agreement recognizes that the commitment will be in existence beyond TEA-21.

MassHighway met and exceeded the \$400 million requirement for SFY01, SFY02, SFY03 and SFY04. As of January 31, 2005, spending was \$28.5 million against a minimum target of \$27.7 million. Spending as February 11, 2005 was \$13.7 million against a target of \$15.6 million. Total spending as of February 11, 2005 was \$276.9 million. Please refer to Appendix E.

The Agreement identifies expenditures of certain components of the Statewide Road and Bridge Program that will be measured on an annual basis to determine that the Statewide Program is balanced and in accord with the Agreement and federal requirements. The expenditure of funds on these components will be monitored for the following activities:

Construction Activities:

- Construction or reconstruction of roads and bridges
- Construction contract legal settlements
- Construction of enhancement projects
- Construction of MassHighway-funded projects by cities or towns (by agreement)
- ROW acquisitions and relocations required for MassHighway-funded construction projects

- Direct environmental mitigation related to transportation projects including remediation and site cleanup

Other Transportation Project Activities programmed in Transportation Improvement Programs:

- Congestion Mitigation and Air Quality (CMAQ) projects recommended by the CMAQ Consultation Committee
- Transportation Demand Management programs
- Federal aid programming by the MPO to support environmental documents related to transportation projects
- Transportation Enhancements and Federal Transit Administration transfers

MassHighway files quarterly reports summarizing progress under the MOU. These reports document a balanced blend of projects, including reconstruction of roads and bridges and projects targeted at mitigating congestion.

To ensure continuing compliance with the MOU, EOTC and MHD have established a monitoring system to track active MassHighway construction projects expected to contribute to the \$400 million spending program. To assure prompt issuance of advertised projects, MassHighway has also adopted a performance standard establishing 120 days as the target time between Advertisement and Notice to Proceed. Currently MassHighway has approximately 499 active construction projects and continues to advertise and initiate new projects on regular basis to maintain a balanced \$400 million construction spending program.

Innovative Financing Resulting in Additional Infrastructure Development

Chapter 53 legislation specifically authorized the use of design-build-finance contracting rather than the traditional design-bid-build procurement process in order to accelerate design and construction of the Route 3 North Transportation Improvements Project.

After an extensive review process, a selection committee recommended, and the Secretary of EOTC concurred with, the selection of a team led by *Modern Continental Construction Co., Inc* as the developer whose proposal provided the overall best value to the Commonwealth. Finance closing and a notice to proceed were issued on August 17, 2000, with a total design/build cost of approximately \$385 million. The Project will take 3.5 years to complete, as compared to an estimated 9.5 years under the traditional design-bid-build procurement process. Construction started in 2001 and is scheduled to be completed in 2005. This work is in addition to the \$400 million commitment under the Statewide Road and Bridge Program. Major project benefits to this 21-mile highly congested highway are as follows

- Construction of 41 new bridge structures
- Construction of an additional travel lane in each direction
- Improvements to 13 interchanges
- New signalization, signage and construction period maintenance
- Introduction of Intelligent Transportation System components along the corridor.

VII. APPENDICES

- Appendix A: Deloitte CSU11 Project Assessment, Executive Summary, August 20, 2004*
- Appendix B: CSU11 Letter of Certification from The Commonwealth of Massachusetts Executive Office for Administration & Finance, October 12, 2004*
- Appendix C: CSU11 Letter of Certification from The Commonwealth of Massachusetts Executive Office of Transportation and Construction and Massachusetts Highway Department, September 24, 2004*
- Appendix D: Treasury Assessment of Transportation Infrastructure Fund from The Commonwealth of Massachusetts Department of the State Treasurer, January 7, 2005*
- Appendix E: SFY2005 Statewide Road and Bridge Status Report for \$400 million MOU*
- Appendix F: Revision to Page 56 of the October 1, 2004 Finance Plan*
- Appendix G: Summary of CSU11 Estimate Update*

APPENDIX A

Deloitte CSU11 Project Assessment

Executive Summary

August 20, 2004

APPENDIX B

**CSU11 Letter of Certification
from
The Commonwealth of Massachusetts
Executive Office
for
Administration & Finance
October 12, 2004**

APPENDIX C

CSU11 Letter of Certification
from
The Commonwealth of Massachusetts
Executive Office of Transportation and Construction
and
Massachusetts Highway Department
September 24, 2004

APPENDIX D

**Treasury Assessment
of
Transportation Infrastructure Fund
from
The Commonwealth of Massachusetts
Department of the State Treasurer
January 7, 2005**

APPENDIX E

SFY2005

Statewide Road and Bridge Status Report

for

\$400 million MOU

APPENDIX F
Revision to Page 56
of the
October 1, 2004 Finance Plan

Change	Base Estimate (June 2000)	Current Estimate	Increase	Explanation
<i>OCIP Accounting Change and Risk Category</i>	\$0	\$29	\$29	Cost of Insurance accounting change from old method of premium pay-ins to new method of estimated claims pay-outs; \$50M withdrawal from OCIP Trust.
<i>MHD Staff Costs Accounting Change</i>	\$0	\$52	\$52	Staff costs previously allocated to MHD, now allocated to Project.
<i>MHD Audit Consultants</i>	\$0	\$15	\$15	Accounting change due to nature of services provided.
<i>Expanded Claims and Changes Administration</i>	\$0	\$39	\$39	Board mandated staffing increase for Mod Review process.
<i>Staffing Requests through 2007</i>	\$0	\$14	\$14	Management cost after 2005
<i>Total Scope Increases/Accounting Changes</i>	0	\$214	\$214	

Exhibit 13b: Scope Increases /Accounting Changes (\$ in millions)

APPENDIX G

Summary

of

CSU11 Estimate Update