

## 8. FINANCIAL PLAN

This chapter provides an overview of the cost of projects recommended in the Transportation Plan and an estimate of the revenues that will be used to finance the improvements. Since this is long-range plan, many of the cost estimates and revenue estimates are inexact. The intent is to prepare an approximate, but realistic, estimate of total program cost; and a similar estimate of total revenues that the Region can expect to receive over the next 20 years. A goal of this process is to prepare a 'financially constrained plan' whose costs can be paid from the 20-year revenue stream.

### Capital Costs & Revenues

**Capital Costs.** The estimated capital cost of implementing the Plan is about \$1,659,000,000. Most of the cost estimates are based on current design estimates or estimates prepared for other planning studies from which the respective projects were derived. These include the New Britain Busway design project, the Griffin Busway Feasibility Study, the NHHS Rail Feasibility Study, the Regional Transit Strategy, and the arterial corridor studies. For studies that are more than a couple of years old, the cost estimate has been adjusted for inflation.

The transit program is estimated to cost \$1,082,000,000 and includes all the major new services recommended in the Regional Transit Strategy. The transit program represents 65 percent of the cost for the entire regional transportation plan.

The highway program costs \$537,000,000 or 33 percent of the entire transportation plan. This includes \$501,000,000 for the primary highway program, plus \$36,000,000 for the ground access improvements at Bradley Airport. However, the real highway need exceeds this amount. There are over \$715,000,000 in unfunded needs, and there are also two locations (Buckland area and I-91 NB at the Charter Oak Bridge) where costs are still to be determined as part of ongoing or future studies.

Bicycle and pedestrian elements of the plan are estimated to cost \$40,000,000 or about two percent of the total cost.

**Capital Revenues.** The revenue estimate is based on continuation of *existing annual revenues* and *anticipated special discretionary funds* that the Region has applied for or already received.<sup>1</sup> The estimated revenues to the Region over the next 20 years will total about \$1,685,000,000. This is the total amount of State and federal transportation capital funds that will likely flow to the Region for system improvements and enhancements. (It does not include funding for basic infrastructure maintenance and repair.) The estimate is based on the assumption that current funding levels continue and that the Region continues to get its fair share of both federal and State funds.

**Regional Allocation.** The regional allocation of \$1,041,000,000 is the largest source of anticipated revenues and accounts for over 60 percent. The regional allocation estimate was prepared by the Connecticut Department of Transportation (ConnDOT) for each region in the State. It is each region's share of ConnDOT's estimate of all highway funds available for 'system enhancements' for the next 20 years. Although it is based on highway funds, it can be allocated to either highway or transit projects within the 20-year plan.

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<sup>1</sup> Most federal funds are appropriated annually to states or urban areas based on formulas specified in federal legislation. These formulas typically use variables such as population, VMT, and federal gas tax receipts. Some federal programs are 'discretionary' programs in which the State or region must apply and compete against other applicants for funds. These funds are awarded at the discretion of the Congress or US Secretary of Transportation.

**Table 8-1 CAPITAL COST ESTIMATE**

<u>Unfunded Needs</u>	<u>Cost</u>	<u>Improvement Program</u>
<b>0</b>	<b>1,082,000,000</b>	<b>Transit &amp; Ridesharing Program</b>
----	10,000,000	ITS for bus system
----	459,000,000	New Britain BRT
----	170,000,000	Griffin BRT
----	135,000,000	Manchester BRT ( <i>phases 1a, 1b, &amp; 1c</i> )
----	158,000,000	New Haven-Springfield Rail ( <i>full cost = \$350,000,000, regional share = 45%</i> )
----	150,000,000	Rocky Hill BRT
<b>715,000,000</b>	<b>501,000,000</b>	<b>Highway Program</b>
----	60,000,000	I-84: Rt 6/Rt 9/ Rt 4
----	82,000,000	I-84: Hartford - Flatbush access
----	25,000,000	I-84: West Hartford - operational lanes
----	34,000,000	I-84: access to Rentschler redevelopment area
----	20,000,000	I-91: access to Day Hill industrial area
----	170,000,000	ARTERIAL improvements (from corridor studies)
----	110,000,000	MUNICIPAL roads
TBD	<i>study</i>	I-84: access to Buckland area area
TBD	<i>study</i>	I-91: NB access to Charter Oak Bridge
390,000,000	0	I-84: Hartford - Sisson access
325,000,000	0	RT 6: new freeway ( <i>full cost = \$650,000,000, regional share = 50%</i> )
<b>0</b>	<b>40,000,000</b>	<b>Bicycle &amp; Pedestrian Program</b>
----	30,000,000	Complete major interregional trails
----	10,000,000	Other bike & pedestrian programs
<b>0</b>	<b>36,000,000</b>	<b>Bradley Airport</b>
----	36,000,000	Better Roadway Access
----	(A)	Better Transit Access
----	(B)	Other policy recommendations
<b>0</b>	<b>0</b>	<b>Freight Transport System</b>
----	(B)	Freight policy recommendations
<b>715,000,000</b>	<b>1,659,000,000</b>	<b>TOTAL CAPITAL COST</b>
----	<b>1,685,000,000</b>	<b>TOTAL REVENUES</b>
		<b>Assumed Sources of Revenue:</b>
1,041,000,000		<b>Regional Allocation:</b> CRCOG allocation from DOT statewide 20-year estimate
60,000,000		<b>Funds for projects of statewide significance:</b> I-84/Rt 4/Rt 6/Rt 10
25,000,000		<b>Funds for projects of statewide significance:</b> I-84 West Hartford
34,000,000		<b>CT DECD funds for Rentschler development:</b> I-84: access to Rentschler
275,000,000		<b>New Britain BRT:</b> FTA New Start funds
48,000,000		<b>New Britain BRT:</b> FTA - Other funds
45,000,000		<b>New Britain BRT:</b> FHWA - Other funds
91,000,000		<b>New Britain BRT:</b> State funds
<u>66,000,000</u>		<b>NHHS Rail:</b> 2006 CT Transp. Act ( <i>full amt = \$146,000,000, regional share = 45%</i> )
1,685,000,000		TOTAL
<b>Shortfall:</b>	<b>0</b>	<b>Shortfall: amount '<u>over</u>' the budget limit</b>
<b>Reserve:</b>	<b>26,000,000</b>	<b>Reserve: amount '<u>under</u>' the budget limit</b>

(A) Costs are included in projects listed in the Transit section: NHHS Rail and Griffin Busway.  
 (B) Recommendations are general policy statements and do not include specific capital improvements

Projects of Statewide Significance. When ConnDOT prepared the regional allocation estimates, they also reserved some of the future revenue for projects that they deemed to be of 'statewide significance.' Two projects in the Capitol Region are on the list of statewide projects. \$60,000,000 was reserved for the I-84 improvements at interchanges with routes 4, 6, and 9; and \$25,000,000 was reserved for operational improvements on I-84 in West Hartford.

New Britain (BRT) Busway. A financial plan for the New Britain bus rapid transit (BRT) project was prepared and approved by FTA as part of ConnDOT's application for New Starts funds. The various funding sources and amounts included in the financial plan are listed in Table 8-1. Since there is a reasonable expectation that this funding will be secured, we treat it in this regional plan as committed funds. The combined funds for the busway total to \$459,000,000.

NHHS Rail Project. The CT General Assembly passed a major transportation funding act in 2006 that committed \$1 billion in special petroleum earnings tax revenues to a new program for major transportation projects. Included in that program of projects was the NHHS commuter rail proposal. The funding allocation assumed for the NHHS rail project was \$146 million. It is reasonable to expect that the General Assembly will commit this full amount to the project.

The NHHS rail project is 62 miles in length and crosses 3 regions in Connecticut, plus part of the Springfield region in Massachusetts. Since only 45 percent (28 miles) of the project lies within the Capitol Region, we have apportioned 45 percent of the cost and 45 percent of the committed revenues to the Capitol Region for purposes of this regional plan and budget. The committed funds shown in Table 8-1 amount to \$66,000,000.

Rentschler Field Improvements. The State of Connecticut is working with the Town of East Hartford and the developers of the Rentschler Field area (one of CRCOG's designated regional growth centers) to plan and finance transportation improvements that will improve access to the site and circulation within the site. The State has proposed a financial package to fund the improvements from various funding sources including state bonding and state economic development funds. It is reasonable to expect that the \$34,000,000 cost of the improvements will be paid through special state sources plus developer participation.

## **Operating & Maintenance Costs**

The primary focus when assessing the financial viability of the Transportation Plan is on the capital cost of the Plan. However, the costs of operating and maintaining the transportation system are not ignored. In fact, Connecticut Department of Transportation has allocated about 60 percent of the expected 20-year revenue forecast to maintenance and repair of existing infrastructure. The region's maintenance costs are already accounted for in the financial planning guidelines ConnDOT issued to each region. A summary of the estimated costs for the Capitol Region is provided in Table 8-2.

**Highway Maintenance Costs: \$2,680,000,000.** ConnDOT estimates that it will cost \$2,680,000,000 to maintain all State roads in the Region over the next 20 years. Since the State places a high priority on maintenance, the funds to pay for this maintenance work have already been identified in the State's financial planning guidelines.

Special Infrastructure Repair Needs. While we assume that 60 percent of the Region's transportation funds over the next 20-year will be dedicated to maintenance, reconstruction, and replacement of existing highway infrastructure, we typically do not identify individual maintenance projects. However, in the next 20-year timeframe there are two major highway structures that warrant special mention. These are the I-84 Viaduct in Hartford and the Putnam Bridge between Wethersfield and Glastonbury. The projects are discussed below, and their costs have been included in the highway maintenance costs listed above. ConnDOT considers these projects to be of statewide significance, and allocated extra funds to the region for these two projects.

**I-84 Viaduct: \$450,000,000** About 3,200 feet of I-84 through Hartford is built as an elevated roadway referred to as the I-84 viaduct. This structure was built in 1965 and is in need of major repair or replacement. ConnDOT estimates the full cost of addressing the need to be over \$450,000,000. They are currently evaluating an interim repair that could cost about \$80,000,000. This interim repair is needed to keep the viaduct functional until a full reconstruction (or replacement) can be planned, designed, and constructed.

Conclusion. We recognize that the I-84 viaduct will require full reconstruction or replacement within the timeframe of the Plan. We also recognize that this will require a massive investment in a critical piece of our Region's transportation infrastructure. Given that the viaduct passes through the core of our central city, it is important that any decision as to when and how to undertake this project be accompanied by a full community involvement process that includes regional officials, City officials, and the affected neighborhoods.

**Putnam Bridge: \$60,000,000** The Putnam Bridge (Route 3) spans the Connecticut River between Glastonbury and Wethersfield. It is one of only eight crossings of the River in the Capital Region. The current structure was built in 1959 and is in need of major repair. ConnDOT estimates the cost of rehabilitating the existing bridge to be over \$60,000,000. They are currently evaluating various rehabilitation options.

Conclusion. We recognize that the Putnam Bridge must be rehabilitated within the next 5-10 years. We are also aware that this is one of the few River crossings left that does not include a sidewalk for pedestrians or bicyclists. It is important that the planning and design for the rehabilitation project give consideration to retrofitting the bridge to accommodate a sidewalk. The planning and design process should also involve the region's communities, especially the towns of Glastonbury and Wethersfield.

**Transit Operating & Replacement Costs.** As with the highway maintenance costs discussed above, ConnDOT has already identified both the costs of operating the existing transit systems, and the revenues to finance them. However, the estimate below does not include any funds to cover the additional operating subsidy for any 'new' transit services. For each of the new transit services proposed as part of this Plan, we will have to identify new revenues sources before the service can be implemented. Typically, this funding commitment occurs after a feasibility study is complete, but before the design phase is started. ConnDOT has committed to provide the operating funds needed to operate the New Britain Busway.

*Existing Transit Services:* Existing transit services subsidized with public funds include CT Transit bus services, a few privately operated commuter bus services, local and regional dial-a-ride services for the elderly and the disabled, and ridesharing services. The annual operating subsidies to these services amount to about \$36,600,000. This is a total of \$732,000,000 over a 20-year period.

Vehicle replacement costs are also provided below. The estimated replacement cost of \$160,000,000 is based on existing fleet size and assumes an average life expectancy of 12 years for regular transit buses and 5 years for special transit (ADA and dial-a-ride) vehicles and rideshare vans.

- CT Transit fleet: about 230 buses.
- Transit District and municipal DAR fleet: about 190 vehicles
- Rideshare Company vanpool fleet: about 100 Easy Street vans in the Hartford metro area

Table 8-2 **Operating & Maintenance Costs (20 years)**

	<b>Highways</b>	<b>Transit</b>	<b>Total</b>
<b>Maintenance</b>	2,680,000,000	-----	2,680,000,000
<b>Operating</b>	-----	919,000,000	919,000,000
<b>Replacement</b>	-----	202,000,000	202,000,000
<b>Total</b>	2,680,000,000	1,121,000,000	3,801,000,000

*New Transit Services.* The Plan recommends five new rapid transit services plus improvements to existing bus service. Each of the new busways is expected to require \$5-7 million per year in state subsidy to operate. The CT Department of Transportation is committed to providing the operating subsidy for the New Britain Busway, which is the first of the busways and is currently under design. At this time, there is no commitment to fund the operating subsidies for the other new services. Operating subsidy decisions will be made after the feasibility studies are completed.

### **Timetable for Implementation**

A proposed schedule for implementation is shown in Table 8-3. It is a tentative schedule based on a general assessment of how funding availability might affect implementation dates. While it is possible to design all the projects early in the 20-year period, the annual revenue stream will force the Region to defer many of the projects until the second decade. The schedule is merely a financial planning tool. It is a tentative schedule that can be revised periodically to reflect changing conditions. Factors such as delays in acquiring environmental permits, priorities elsewhere in the State, and availability of special discretionary funds could alter the schedule substantially.

Table 8-3 Preliminary Timetable for Implementation

<u>Period 1</u> Year 1-5	<u>Period 2</u> Year 6-10	<u>Period 3</u> Year 11-20	<u>Cost</u>	<u>Improvement Program</u>
<b>496,000,000</b>	<b>198,500,000</b>	<b>387,500,000</b>	<b>1,082,000,000</b>	<b>Transit &amp; Ridesharing Program</b>
5,000,000	5,000,000	0	10,000,000	ITS for bus system
459,000,000	0	0	459,000,000	New Britain BRT
0	0	170,000,000	170,000,000	Griffin BRT
0	67,500,000	67,500,000	135,000,000	Manchester BRT ( <i>phases 1a, 1b, &amp; 1c</i> )
32,000,000	126,000,000	0	158,000,000	New Haven-Springfield Rail
0		150,000,000	150,000,000	Rocky Hill BRT
<b>158,000,000</b>	<b>105,000,000</b>	<b>238,000,000</b>	<b>501,000,000</b>	<b>Highway Program</b>
60,000,000	0	0	60,000,000	I-84: Rt 6/Rt 9/ Rt 4
0	0	82,000,000	82,000,000	I-84: Hartford - Flatbush access
25,000,000	0	0	25,000,000	I-84: West Hartford - operational lanes
17,000,000	17,000,000	0	34,000,000	I-84: access to Rentschler redevelopment area
0	4,000,000	16,000,000	20,000,000	I-91: access to Day Hill industrial area
34,000,000	51,000,000	85,000,000	170,000,000	ARTERIAL improvements (from corridor studies)
22,000,000	33,000,000	55,000,000	110,000,000	MUNICIPAL roads
<i>study</i>	-----	-----	<i>study</i>	I-84: access to Buckland area area
<i>study</i>	-----	-----	<i>study</i>	I-91: NB access to Charter Oak Bridge
<b>8,000,000</b>	<b>12,000,000</b>	<b>20,000,000</b>	<b>40,000,000</b>	<b>Bicycle &amp; Pedestrian Program</b>
6,000,000	9,000,000	15,000,000	30,000,000	Complete major interregional trails
2,000,000	3,000,000	5,000,000	10,000,000	Other bike & pedestrian programs
<b>0</b>	<b>12,600,000</b>	<b>23,400,000</b>	<b>36,000,000</b>	<b>Bradley Airport</b>
0	12,600,000	23,400,000	36,000,000	Better Roadway Access
-----	-----	-----	-----	Better Transit Access
-----	-----	-----	-----	Other policy recommendations
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>Freight Transport System</b>
-----	-----	-----	-----	Freight policy recommendations
<b>662,000,000</b>	<b>328,100,000</b>	<b>668,900,000</b>	<b>1,659,000,000</b>	<b>TOTAL CAPITAL COST</b>