

## **CHAPTER 7 Financial Analysis**

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### **7.1 Introduction**

The purpose of this chapter is to identify and assess alternative funding sources and financing strategies to cover the cost of implementing and operating light rail transit in Chittenden County. This initial assessment will serve as basis for a more detailed sources and uses of funds analysis as the financial planning process progresses.

### **7.2 Background**

The Burlington-Essex alternatives analysis identified capital and operating costs associated with each alternative. If Chittenden County were to proceed with any of these alternatives, demands for additional resources would be placed on the county and its transportation agencies. While funds may be available for a portion of each of the alternatives, the full impact of the projects on regional resources needs to be evaluated. This section begins that process. The effort will need to be refined as the region proceeds with a preferred alternative.

A number of agencies are involved in financing and operating transportation in Chittenden County. Those that would likely be involved in developing the transportation improvements evaluated in this report include:

- Chittenden County Metropolitan Planning Organization (CCMPO)
- Chittenden County Transportation Authority (CCTA)
- Vermont Transportation Authority (VTA)
- Vermont Agency of Transportation (VTrans)
- U.S. Department of Transportation, through the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA)

All of the local agencies developing and/or operating transportation in Chittenden County are doing so with limited resources, and demands that exceed those resources.

The CCMPO is responsible for programming the region's investments in transportation infrastructure and vehicles. Under federal regulations, the CCMPO's capital program must be limited to the financial resources that are reasonably expected to be available currently and in the near future. The CCMPO has more project requests than available funding, and must prioritize project requests to accommodate them to the budget.

The CCTA operates public transit in several communities in the county. Its operations are funded primarily through contributions by member communities, who raise those revenues through property tax assessments, and through revenue from fares. Federal grants support some special transit operations, as well as the major capital improvement costs. The CCTA is limited in its scope of operations in great part by the limitations on its finances. The expansion of service into other communities is limited by those communities' willingness and abilities to contribute tax revenues to the agency's operations.

The VTA operates commuter rail service between Charlotte and Burlington. The operating costs for the service are being financed primarily from federal grants, supplemented by State funds. These grants have a limited scope and a lifespan of three years. When the grants are no longer available, VTA will need an alternate source of operating funds, if commuter rail service is to continue.

The VTrans is responsible for many of the highways and bridges in Chittenden County, and must construct and maintain them using a combination of State and federal funds. In addition, VTrans provides much of the funding required to match federal grants, such as those used by VTA for rail operations, and those used to construct the projects included in the CCMPO's capital program. In the past year, VTrans has had to postpone a number of projects because of a shortfall in construction funds.

The U.S. Department of Transportation finances much of the transportation construction in Chittenden County through grants under programs identified in the federal Transportation Equity Act for the 21<sup>st</sup> Century. Grants made under this program are both discretionary, that is the local grantee competes with other agencies for the funds, or by formula, based on regulations associated with the federal transportation programs. In addition, some funding for specific projects has been set aside in the federal legislation, and is made available for local use on the projects when federal requirements have been met. Nearly all federal grants require a contribution of local funds in order to obtain access to the federal funds.

### **7.2.1 Existing Resources**

The CCMPO's fiscally constrained transportation improvement program (TIP) for FY2001-2003 includes \$16.3 million in 2001 in funds from federal transportation programs. Funds for 2002 total \$20.6 million, and for 2003 total \$32.1 million. Some aspects of the Burlington-Essex alternatives are included in the TIP.

CCTA's operating budget for FY2001 is \$4.9 million. The budget for fixed route service is \$3.2 million. CCTA plans to recover about 25% of these operating expenses from fare revenues totaling \$777,000, and to obtain another \$492,000 from other revenue sources. For its fixed route service, federal demonstration and congestion mitigation air quality (CMAQ) grants for operations of some bus routes are included in the CCMPO's TIP, as well as federal and state operating funds totaling about \$1.5 million per year. The TIP also includes capital funds for passenger amenities, improvements to the CCTA's maintenance facility, and purchase of buses and related equipment. None of these programs include any of the bus facilities and services included in the alternatives analysis.

VTA's expenses for operating the Champlain Flyer are budgeted under the Congestion Management Air Quality grants from federal and state sources at \$2.1 million per year for three years, and are included in the CCMPO's TIP. There is no provision for continuing funding of rail operations beyond the three-year demonstration program, and no provision for the operation of an extended line running from Charlotte to Burlington.

Capital funds for preliminary engineering and right-of-way improvements for all segments of the Circumferential Highway are included in the TIP. Also included in the TIP are \$4.3 million in federal funds for preliminary engineering for the Burlington-Essex Commuter Rail alternative.

As this summary indicates, there is a limited amount of funding available for construction and operation of transportation in Chittenden County. The funds that are available are all committed. Funds available annually are well below the requirements of the more expensive alternatives, for both construction and operations.

### 7.3 Project Funding Requirements

The capital and operation costs associated with the Burlington-Essex alternatives were presented in Chapters 4 and 6. They are shown again for reference in Table 7-1.

**Table 7-1 - Costs of Alternatives**

Cost Type	No-Build	TSM	Bus	Hwy	Rail 1 Hour	Rail ½ Hour
Capital	NA	\$1,805,000	\$5,435,400	\$70,455,000	\$26,600,000	\$67,900,000
Operating	NA	\$516,865	\$1,447,685	\$671,230	\$1,917,665	\$3,364,465

These costs are based on the following assumptions:

- **TSM** – Capital costs are for intersection and signal improvements only. Costs for bus-related aspects of the TSM improvement would be interim costs pending implementation of the rail service, and are not included. Operating costs of the TSM intersection and signal improvements would be incidental to highway maintenance costs.
- **Highway** – Capital costs include a figure to cover potential improvements at Five Corners. This is of necessity a very rough estimated, as the nature of the improvements has not been defined. Maintenance costs would depend on the nature of the improvement.
- **Bus** – Capital costs include the purchase of vehicles for operation of the feeder service to the rail alternative. These vehicles could conceivably be purchased early and used for the interim service described in the TSM alternative. Operating costs reflect the cost of operating feeder service to the rail.
- **Rail** – Two sets of capital and operating costs are provided, reflecting the two operating scenarios. Capital costs include all facility improvement, purchase of new trains, where appropriate, and stations. Operating costs include the incremental cost of extending existing operations from Charlotte to IBM.

These costs are necessarily preliminary, and were developed with contingency allocations and order-of-magnitude figures to reflect the conceptual level at which the project currently stands. Operating and capital costs will be refined at each stage of the project through final design.

### 7.4 Funding Options

As Chittenden County proceeds with this project, it may be necessary to tap new sources for capital and operating funds. There are a number of potential sources, from local, state and national mechanisms. The following section provides an overview of these potential sources, and some of their advantages, disadvantages, and issues. A more detailed analysis of the availability and magnitude of these sources will be conducted as the financial planning process progresses. This survey complements the body of literature developed by Chittenden County

transportation agencies through financing studies over the last several years, and can serve as a resource in efforts to develop financing mechanisms for the preferred alternative.

#### **7.4.1 Operations and transit related**

In addition to fare revenues, other transit related revenue sources include collection of a student transportation fee, advertising and property income.

A student transportation fee allowing unlimited use of transit services can be collected at local institutions. This funding source also provides the advantage of introducing the younger generation to transit use. However, expansion of transit services to meet the requirements of these institutions may be required.

CCTA is currently benefiting from bus advertising revenues. The fiscal year (FY) 2001 budget estimates these revenues at \$100,000, up from \$92,641 in FY 2000. However, because of a Vermont law against billboards no other form of advertising revenue has been available. Advertising revenues can be expected to increase with expanded transit services. Further, if service expansion requires the construction of enclosed stations or transit centers, advertising within those facilities is permitted by law and is a potential revenue source.

#### **7.4.2 State and local**

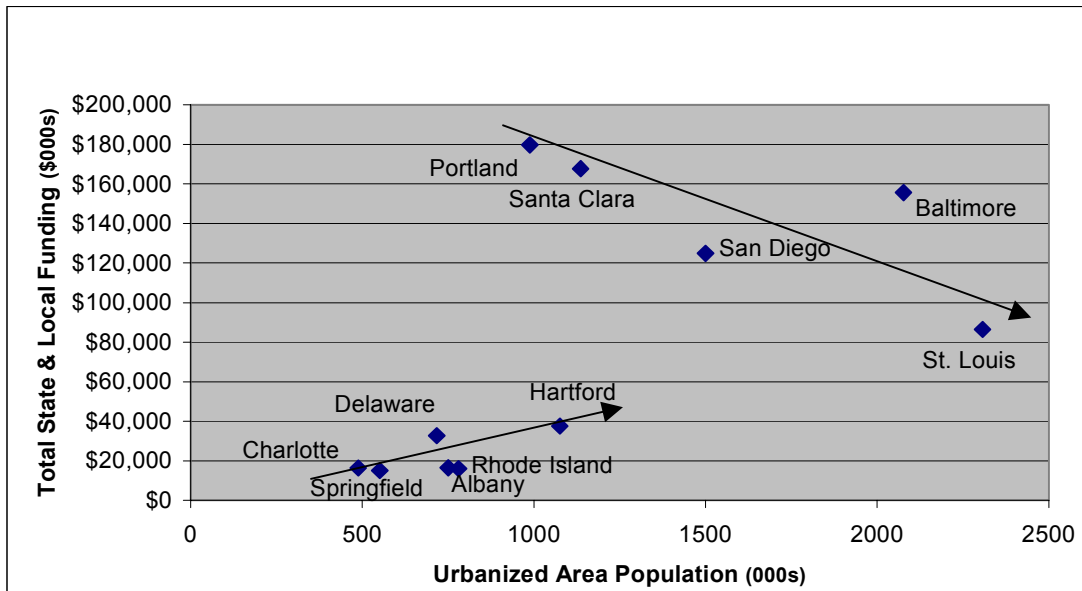
State and local transit funding takes place in the context of two typical institutional structures: the *public transit agency* and the *independent transit authority*. The *public agency* is often funded from municipal general funds, which derive primarily from local property tax revenues but also include various other municipal taxes and fees. The public operation may also utilize some state aid which is often dedicated to transit capital projects as a percentage of some state dedicated tax source. The *independent* transit authority like CCTA, on the other hand, is often authorized by state legislatures to levy taxes such as a property tax or sales tax, which must be used for the authority's purposes, viz. for mass transit. The authority plans daily operations to rely exclusively on this tax for basic local funding, but local governments may allocate small amounts of city general revenue to fund services the City Council deems essential (these services do not typically meet the authority's service standards).

The following charts display the relationship between state and local transit funding and population for a number of peer transit agencies. Looking at Figure 7-1 as a whole seems to indicate that there is no relationship between population and the level of state and local transit funding. However, the points clustered in the lower left side of the chart represent agencies that provide only bus services. The remaining points represent agencies that provide both rail and bus service. Viewed in this light, one can draw the following conclusions:

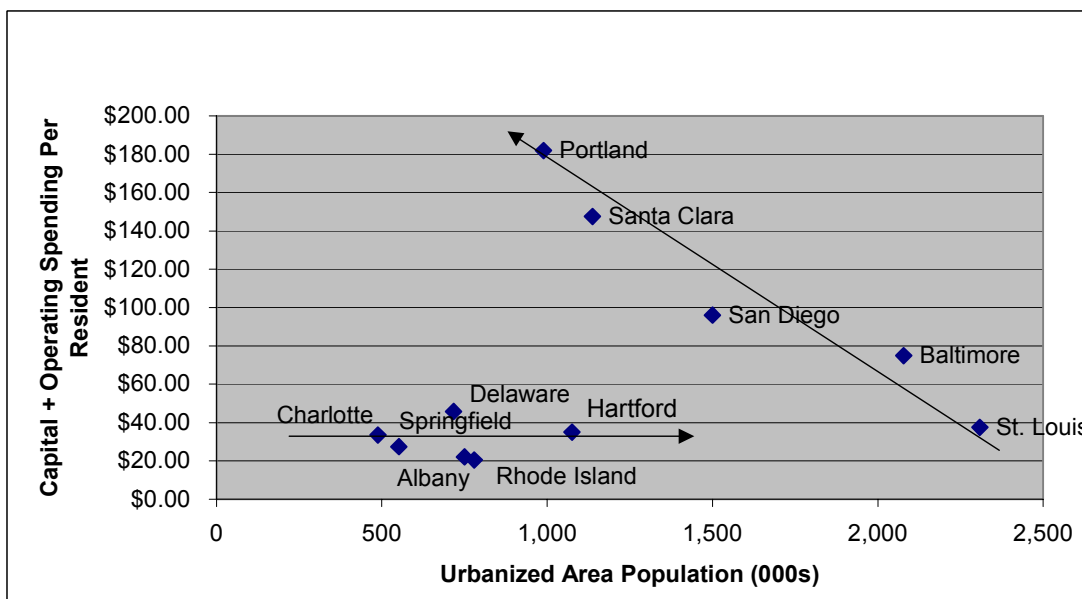
- There is a positive relationship between population and state and local transit funding for bus services; that is, as population increases so does state and local funding of transit services. This is reasonable since bus operating costs increase incrementally with service level, and service generally increases with population. Further, Figure 7-2 indicates that state and local funding per capita for bus services is relatively constant across regions with varying populations.

- The opposite is true in cases where rail and bus transit services are provided. In those cases more state and local funding is required at lower population levels. This is also true on a per capita bases. This can be explained by the fact that a large portion of rail related costs are fixed and are not easily adjusted by changes in service level. More populated regions benefit from greater fare revenue and other potential funding sources, reducing the need for state and local funds.

**Figure 7-1 - State & Local Transit Funding**



**Figure 7-2 - Peer Region State & Local Transit Funding**



Given that the population of Chittenden County is estimated at 146,585 in 2001 and is expected to increase to 178,363 in 2025, it can be expected that a relatively high level of state and local funding will be required.

The following provides an overview of various state and local funding sources.

## **A General and Selective Taxes**

The traditional source of funds for the public sector is the general tax levy. At the local level, this has manifested into a reliance on the property tax, and to a lesser extent, the local sales (or gross receipts) tax<sup>1</sup>. At the state level, the most common taxes are the sales tax and the income tax. Notable selective taxes include Oregon's lottery funds and Ohio's tourism taxes (levied on hotel bills and mixed drinks).

A brief analysis of taxes and fees that are or could potentially be used to fund transit in Chittenden County are presented in two sets of tables below. Table 7-2, titled *Revenue Mechanisms for Large Funding Requirements*, identifies tax bases that produce large-scale revenue levels. Table 7-3, titled *Revenue Mechanisms for Small Funding Requirements* describe several taxes that have moderate-to-low revenue yields. The entire list of revenue types considered for this study include:

- Local option sales tax
- Corporate income tax
- Personal income tax
- Local property tax
- Motor fuel gallonage tax
- Employer payroll tax
- Mortgage recordation tax
- Real estate transfer tax
- Vehicle rental tax
- Motor vehicle registration fee
- Motor vehicle emissions fee
- Motor vehicle privilege fee
- Surface parking fee
- Parking receipt tax
- Lottery Tax
- Tourism Tax

These fees or taxes could be levied and collected at the local or regional level or they could be levied and collected at the state level and allocated back to the regions in which they were generated.

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<sup>1</sup> TRB, Special Report 252. Page 284.

**Table 7-2 - Revenue Mechanisms for Large Funding Requirements**

Source/ Dedicated User	Financial			Political	Legal	Administrative
	Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity	Legality/ Tie to Transportation	Assessment & Collection
<b>Local Option Sales Tax</b>	<ul style="list-style-type: none"> <li>• Tax revenue is affected by economic conditions.</li> <li>• Provides a reliable revenue flow if State economy remains strong.</li> </ul>	<ul style="list-style-type: none"> <li>• There is potential for large revenue yield, especially as population and median income levels grow.</li> </ul>	<ul style="list-style-type: none"> <li>• Sales tax revenues have a direct relationship to price levels and inflation.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax is regressive; lower income individuals spend greater portion of disposable income.</li> <li>• Tax is unpopular with local retailers who fear a negative impact business.</li> <li>• Boundary issues may arise if neighboring jurisdictions do not have a similar tax.</li> </ul>	<ul style="list-style-type: none"> <li>• Sales tax has no direct tie to transportation.</li> <li>• Legislation would be required to impose new sales tax rates.</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanism in-place to collect the local-generated tax revenue.</li> </ul>
<b>Corporate Income Tax</b>	<ul style="list-style-type: none"> <li>• Revenue growth can be affected by economic conditions and existing industry mix.</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate income tax revenue is cyclical and follows state and local business patterns.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax has an indirect tie to inflation because corporate income reflects price levels over longer time periods.</li> </ul>	<ul style="list-style-type: none"> <li>• Indirect negative impact on investment and corporate growth.</li> </ul>	<ul style="list-style-type: none"> <li>• No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• State mechanism in place to collect corporate income tax revenue.</li> </ul>
	<ul style="list-style-type: none"> <li>• Tax paid by employers and is based on gross payroll paid to employees.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential for sufficient long-term yield if employment levels continue to grow.</li> </ul>	<ul style="list-style-type: none"> <li>• Inflation has indirect effect if payrolls try to keep pace with increasing costs of living.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax may face opposition from local business community.</li> </ul>	<ul style="list-style-type: none"> <li>• No tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• No Vermont precedence. However, administrative structure exists at employers.</li> </ul>

**Table 7-2 - Revenue Mechanisms for Large Funding Requirements (continued)**

Source/ Dedicated User	Financial			Political	Legal	Administrative
	Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity	Legality/ Tie to Transportation	Assessment & Collection
<b>Personal Income Tax</b>	<ul style="list-style-type: none"> <li>Salary and wage distributions account for majority of the revenue collected.</li> <li>Tax normally produces stable revenue flow.</li> </ul>	<ul style="list-style-type: none"> <li>Traditionally, personal income tax has reliable revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Inflation has an indirect effect in so far as salaries and wages keep pace with inflation.</li> </ul>	<ul style="list-style-type: none"> <li>Raising the tax is politically unpopular.</li> <li>Opponents claim increasing the tax has a negative economic impact and inhibits income generation and resulting productivity.</li> </ul>	<ul style="list-style-type: none"> <li>Legislation would be required to impose new income tax rates.</li> <li>No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Collection mechanism in place.</li> </ul>
<b>Real Estate Property Tax</b>	<ul style="list-style-type: none"> <li>Stable revenue source, but fluctuates with real estate trends and property values.</li> <li>Revenue growth contingent on property trends.</li> </ul>	<ul style="list-style-type: none"> <li>Any increase would tend to reduce municipal revenue potential.</li> </ul>	<ul style="list-style-type: none"> <li>Property values do not always follow inflationary trends.</li> </ul>	<ul style="list-style-type: none"> <li>Reliance on this tax source is already high and revenues are used to fund education.</li> </ul>	<ul style="list-style-type: none"> <li>No direct tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>Collection mechanism in place.</li> </ul>
	<ul style="list-style-type: none"> <li>Revenue stability affected by personal property value fluctuations.</li> </ul>	<ul style="list-style-type: none"> <li>Adding intangible property increases yield and progressivity.</li> </ul>	<ul style="list-style-type: none"> <li>Some personal property values will track price levels.</li> </ul>	<ul style="list-style-type: none"> <li>The state has an auto sale and use tax.</li> </ul>	<ul style="list-style-type: none"> <li>Tax has direct tie to transportation if levied against auto values.</li> </ul>	<ul style="list-style-type: none"> <li>Complex tax that is difficult to enforce.</li> </ul>

**Table 7-3 - Revenue Mechanisms for Small Funding Requirements**

Source/ Dedicated User	Financial			Political	Legal	Administrative
	Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity	Legality/ Tie to Transportation	Assessment & Collection
<b>Motor Fuel Gallonage Tax</b>	<ul style="list-style-type: none"> <li>Stable revenue flow as long as economic conditions remain strong.</li> <li>Limited revenue growth potential as technical advances improve fuel efficiency.</li> </ul>	<ul style="list-style-type: none"> <li>A local option fuel tax tends to reduce statewide tax increase potential.</li> </ul>	<ul style="list-style-type: none"> <li>Must be indexed to inflation because tax is based on a gallonage method.</li> <li>Potential long run yield not as reliable as a % of motor fuel tax or other indexed bases. Larger revenue output if consumers were taxed on the % of fuel purchased.</li> </ul>	<ul style="list-style-type: none"> <li>Requires legislative authorization.</li> <li>Opportunity to promote the tax as pro-environment (i.e.: represents effort to achieve clean air goals).</li> <li>Boundary issues may arise if neighboring jurisdictions do not have a similar tax.</li> </ul>	<ul style="list-style-type: none"> <li>Tax has a direct tie to transportation.</li> <li>Levy is actually a user charge rather than a "traditional" tax.</li> <li>Potential administrative problem if regional. Tax is currently collected from distributors serving multiple jurisdictions.</li> </ul>	<ul style="list-style-type: none"> <li>State collection mechanism in place.</li> </ul>
<b>Motor Vehicle Registration Fees</b>	<ul style="list-style-type: none"> <li>Stable revenue if the per capita growth of automobiles grows with the State's economy.</li> </ul>	<ul style="list-style-type: none"> <li>Potential exists for low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>Fee would have to be indexed for inflation.</li> </ul>	<ul style="list-style-type: none"> <li>Current fee is high compared to region.</li> <li>Competing uses exist for this revenue source.</li> </ul>	<ul style="list-style-type: none"> <li>Registration fees have a direct tie to transportation.</li> <li>The levy is a user charge not a tax.</li> <li>Requires legislative approval.</li> </ul>	<ul style="list-style-type: none"> <li>State collection mechanism in place.</li> </ul>
<b>Sales Tax on Utilities</b>	<ul style="list-style-type: none"> <li>Growth affected by economic conditions.</li> </ul>	<ul style="list-style-type: none"> <li>Low potential</li> </ul>	<ul style="list-style-type: none"> <li>Tax related to inflation through utility prices.</li> </ul>	<ul style="list-style-type: none"> <li>May impact business location decisions.</li> <li>Utility costs are already high in Vermont.</li> </ul>	<ul style="list-style-type: none"> <li>Requires legislative approval.</li> </ul>	<ul style="list-style-type: none"> <li>Mechanism in place for gas, electricity and telecommunications.</li> </ul>

**Table 7-3 - Revenue Mechanisms for Small Funding Requirements (continued)**

Source/ Dedicated User	Financial			Political	Legal	Administrative
	Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity		Revenue Growth/ Stability
	<ul style="list-style-type: none"> <li>• Tax levied on the amount charged for auto rental.</li> <li>• Small tax base and limited growth potential.</li> <li>• Revenue flow affected more by non-resident traffic.</li> </ul>	<ul style="list-style-type: none"> <li>• Low yield may be deterrent.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax may be levied on a per day basis or as % of the total rental charge.</li> </ul>	<ul style="list-style-type: none"> <li>• Considered more of a burden to non-residents.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax has a tie to transportation.</li> <li>• Requires legislative approval.</li> </ul>	<ul style="list-style-type: none"> <li>• No collection mechanism currently in place.</li> </ul>
<b>Vehicle Emissions Fee</b>	<ul style="list-style-type: none"> <li>• Normally paid as an annual flat fee but may be levied based on vehicle miles traveled.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited revenue growth; revenue yield may be a disincentive.</li> </ul>	<ul style="list-style-type: none"> <li>• Levied as a flat fee priced as an absolute dollar amount.</li> </ul>	<ul style="list-style-type: none"> <li>• May limit other auto usage revenue, such as gas tax increase.</li> <li>• Palatable to public if tax achieves clean air standards and improves quality of life.</li> </ul>	<ul style="list-style-type: none"> <li>• Emissions tax has a direct link to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• No collection mechanism in place.</li> </ul>
	<ul style="list-style-type: none"> <li>• Fee levied on the number of cars per household and is paid as an annual flat fee.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited revenue growth; yield may be a disincentive.</li> </ul>	<ul style="list-style-type: none"> <li>• Levied as a flat fee priced as an absolute dollar amount.</li> </ul>	<ul style="list-style-type: none"> <li>• Fee is a user charge; may be unpopular and viewed as an unnecessary public burden.</li> </ul>	<ul style="list-style-type: none"> <li>• Fee has a tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• Could be collected with personal property or vehicle registration fees.</li> </ul>
	<ul style="list-style-type: none"> <li>• Excise tax on recorded mortgages.</li> <li>• Low revenue growth since tax is a one-time levy on the recording of a mortgage.</li> </ul>	<ul style="list-style-type: none"> <li>• Low yields where property purchases and mortgage recordings are low or declining.</li> </ul>	<ul style="list-style-type: none"> <li>• Tax collections are based on the recorded liens.</li> <li>• Inflation has no direct affect</li> </ul>	<ul style="list-style-type: none"> <li>• Tax could be unpopular with general public; a real estate property tax is already collected at the local level.</li> </ul>	<ul style="list-style-type: none"> <li>• No tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• No collection mechanism in place.</li> </ul>

Each revenue source contains a brief reference to financial, political, legal and administrative implications. The financial section includes commentary on revenue stability, growth and yield and effect of inflation. The political discussion includes commentary on public perceptions, equity and boundary issues. The legal section contains an analysis of legislative impacts, ties to transportation and additional legal implications, and administrative looks at whether collection and assessment mechanisms currently exist at either the state or local level.

## **B Special Taxing and Assessment Districts**

The concept of special taxing or assessment district is to capture the benefits of particular improvements in order to cover costs related to those improvements. More commonly used for supporting transit systems, special districts have also been used for general highway improvements. A transportation improvement district (TID) is typically a special district assessment on property taxes. An important sub-class is tax increment financing district, where a surcharge is applied to the increase in property values above an initial base level. These are summarized in the Table 7-4.

## **C Tolls**

The process of using toll revenue to fund public transportation centers around the concept of selling excess highway capacity to non-transit users.

Single occupancy vehicles (SOV) toll facilities provide an alternative to traditional transportation funding sources by shifting project costs onto toll lane users. By diverting commuters from pre-existing free routes, SOV toll lanes help to alleviate freeway congestion. Moreover, the toll charges provide an alternative revenue source that can be bonded, thus allowing agencies to accelerate transportation projects.

SOV tolls are often utilized to shift the funding burden onto non-resident travelers. More specifically, toll collection points are placed at the start/end points of major thruways requiring non-resident drivers to pay a fee to pass while local traffic may access the facility as a free road.

High occupancy toll (HOT) lanes are designed to increase transportation efficiency by adding capacity to area freeways. HOT lanes are special freeway lanes intended for use by transit vehicles and carpools or SOVs that access the lanes by paying a toll. The SOV toll rates are adjusted to maintain acceptable traffic levels and to ensure that transit and other HOT lane users are not adversely impacted.<sup>2</sup>

Tolls, however, has limited applicability as a transportation funding source in Vermont given the relatively low traffic volumes

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<sup>2</sup> Lari, Adeel Z. and Buckeye, Kenneth R. High Occupancy Toll Lane System: A Concept Plan for the Twin Cities. July, 1998.

**Table 7-4 - Special Taxes and Assessment Districts**

Source/ Dedicated User	Financial			Political	Legal	Administrative
	Revenue Growth/ Stability	Revenue Yield	Indexing	Public Perception/ Equity	Legality/ Tie to Transportation	Assessment & Collection
<b>Incremental Tax Financing District</b>	<ul style="list-style-type: none"> <li>• Surcharge on the incremental increase of selected property values.</li> <li>• Revenue growth affected by property value fluctuations.</li> </ul>	<ul style="list-style-type: none"> <li>• Low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>• Property values are not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Surcharge may face opposition from property owners and developers.</li> </ul>	<ul style="list-style-type: none"> <li>• If the assessment district is based on transportation benefits, then tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• No collection mechanism.</li> <li>• Modifications are needed to govern the set-up of new districts.</li> <li>•</li> </ul>
<b>Benefit Assessment District</b>	<ul style="list-style-type: none"> <li>• Surcharge levied on property within defined areas that has benefited from local improvements.</li> </ul>	<ul style="list-style-type: none"> <li>• Low revenue yield.</li> </ul>	<ul style="list-style-type: none"> <li>• Property values are not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Surcharge may face opposition from property owners and developers.</li> </ul>	<ul style="list-style-type: none"> <li>• If the assessment district is based on transportation benefits, then tie to transportation</li> </ul>	<ul style="list-style-type: none"> <li>• District must be defined and collection mechanism put into place.</li> </ul>
<b>Value Capture</b>	<ul style="list-style-type: none"> <li>• Public/private partnership where private sector compensates public agency for transit development costs that generate economic value.</li> </ul>	<ul style="list-style-type: none"> <li>• Yield dependent upon the economic value of the completed transit facility or project.</li> </ul>	<ul style="list-style-type: none"> <li>• Value capture is not indexed to current price levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Can be a popular way to enlist private investment.</li> </ul>	<ul style="list-style-type: none"> <li>• If facility or project involves transportation, then there is a tie to transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects would have to be identified and developed to assess value capture opportunities.</li> </ul>

## D Grants

There are a number of grant programs available at the state and local level. Highway grants programs currently available to Chittenden County include:

- Local Transportation Facilities Program: These grants are provided by the Vermont Agency of Transportation (VAOT) for preservation, rehabilitation and reconstruction projects.
- Town Highway Grants: These grants are provided for highway and bridge improvements through the General Assembly. Class 1, 2 and 3 highways are eligible.
- Town Highway Class 2 Paying: These grants are provided by the VAOT and require a 30 percent local match. All class 2 highways are eligible.
- Town Highway Class 2 Rehabilitation Program: Provided by VAOT and CCMPO, these grants also require a 33 percent local match.

## E In-kind contributions

The State and local communities can also support transit projects through in-kind contributions. This could be done through donation of properties to be used for construction of transit facilities or for promoting development at transit station locations through public/private partnerships. Revenues from such development would provide rental income to the CCTA.

SOV tolls are often utilized to shift the funding burden onto non-resident travelers. More specifically, toll collection points are placed at the start/end points of major thruways requiring non-resident drivers to pay a fee to pass while local traffic may access the facility as a free road.

High occupancy toll (HOT) lanes are designed to increase transportation efficiency by adding capacity to area freeways. HOT lanes are special freeway lanes intended for use by transit vehicles and carpools or SOVs that access the lanes by paying a toll. The SOV toll rates are adjusted to maintain acceptable traffic levels and to ensure that transit and other HOT lane users are not adversely impacted.<sup>3</sup> The revenue collected from SOVs could be used to finance additional transportation initiatives.

### 7.4.3 Federal

#### A Grants

**FTA Section 5309 New Starts Grants:** These discretionary grants provide transit capital assistance to support new fixed guideway systems and extensions to existing fixed guideway systems. Projects must compete for funding using expanded criteria to justify the major investment involved. New Start projects will be evaluated and rated as "highly recommended," "recommended," or "not recommended." Generally no more than 50 percent funding can be expected from this source. TEA-21 limits the amount of New Starts funding that can be used for purposes other than final design and construction to 8 percent of the amounts made available for this program. Table 7-5 describes the projects under \$1 billion recommended for preliminary engineering and some of their key characteristics:

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<sup>3</sup> Lari, Adeel Z. and Buckeye, Kenneth R. High Occupancy Toll Lane System: A Concept Plan for the Twin Cities. July, 1998.

**Table 7-5 – Key Characteristics of Recent “New Starts” Projects**

Project	Miles	Passengers (000)	Passenger/Miles
Austin (two Routes)	54.0	77.0	1.4
Minneapolis (Hiawatha)	12.2	19.8	1.2
San Diego (Oceanside Escondido)	22.0	24.8	2.0
San Francisco (3 <sup>rd</sup> Street)	19.6	36.1	1.8
Average	27.0	39.4	1.6

Source: Alternatives Analysis Advisory Group Meeting, MORPC/COTA, Feb 2001

**Sec 5309 Rail Modernization Funds:** These discretionary grants are derived by formula, a function of vehicle revenue miles and route miles. This source may provide up to 80 percent of rail modernization costs.

**Section 5309 Bus Related Grants:** These Federal discretionary grants are applied to the purchase of buses and bus-related assets. Provides a 90% Federal share for the incremental costs of vehicle-related equipment needed to comply with the Clean Air Act Amendments and the Americans with Disabilities Act requirements and 80% Federal share for all other eligible costs.

**Section 5307 Urban Area Formula Grants:** The Urbanized Area Formula Grants Program provides transit capital and operating assistance to urbanized areas with populations of more than 50,000. The apportionment formula is based on:

- population and population density for areas under 200,000 in population
- population, population density, and transit data for areas over 200,000 in population

The program is funded from both the Mass Transit Account and the General Fund. In urbanized areas with populations of 200,000 or more, at least one percent of the funds apportioned each fiscal year must be used for activities defined as transit enhancements. The program provides up to 90% Federal share for the incremental costs of vehicle related equipment needed to comply with the Clean Air Act Amendments and the Americans with Disabilities Act requirements, and 80% Federal share for all other eligible costs. Funding eligibility includes:

- Equipment and facility operating costs in urbanized areas with populations less than 200,000.
- Preventative maintenance as a capital expense in areas with populations greater than 200,000.
- ADA paratransit costs, leasing, and transit enhancements.

**Section 5208:** This program provides Federal funding for the integration of multi-modal intelligent transportation system components.

**Surface Transportation Program (STP):** The STP provides flexible funding that may be used by States and localities for projects on any Federal-aid highway, including the NHS, bridge

projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. A portion of funds reserved for rural areas may be spent on rural minor collectors.

Apportioned funds are to be distributed based on the following new formula:

- 25% based on a state's total lane miles of Federal-aid highways (FAH), expressed as a percent of total FAH lane miles in all States.
- 40% based on total vehicle miles traveled (VMT) on a state's FAH lanes expressed as a percent of total VMT on lanes of FAH in all States.
- 35% based on estimated tax payments attributable to highway users in the State paid into the Highway Account of the Highway Trust Fund (HTF) in the latest fiscal year for which data are available, as a percent of total such payments by all States.

**Congestion Mitigation and Air Quality (CMAQ):** Congress apportions obligation authority to each state based on population and the severity of the area's air quality problems. States work with Metropolitan Planning Organizations (MPO) to decide which transportation activities in the approved State Implementation Plan get funding from CMAQ. Programs can vary from congestion relief strategies to transit projects to alternative fuel projects to public education and outreach activities.

## **B State Infrastructure Bank**

**State Infrastructure Bank (SIB):** SIBs are state revolving loan programs funded through seed monies provided in the Intermodal Surface Transportation Efficiency Act of 1991 and subsequent legislation. The impacts of a state infrastructure bank (SIB) on borrowing costs may be through the elimination of debt issuance and service reserve costs, and lower interest rates.

The Vermont SIB was authorized by the General Assembly in 1997. The SIB is based on cooperation among the Vermont Economic Development Authority, the Federal Highway Administration, and the Vermont Agency of Transportation.

## **7.5 Financing Options**

Financing mechanisms are used to reconcile the timing of project expenses and revenues in response to funding shortfall of limited duration. Fundamental to the concept of credit is the source of funds used to repay the debt. Various financing mechanisms are described below:

### **7.5.1 Conventional bonds**

In the case of bonds issued by public entities there are two broad classifications of debt: 1) general obligation bonds and 2) revenue bonds. General obligation bonds are backed by the full faith and credit of a state or local government and are usually the highest-rated debt of a state or locality. Revenue bonds are backed by a specific revenue source, such as a dedicated tax or lease income. The various categories of revenue bonds are described below:

- **Tax revenue bonds:** These are bonds backed by receipts from a dedicated tax. A commonly used revenue bond is sales tax bonds (also called excise tax bonds) backed by sales tax receipts.
- **Construction bonds with capitalized interest:** These are long-term bonds where the amount borrowed includes debt service payments during the construction period. During that period, only interest payments are made. This form of financing is not applied if sales tax revenue is the sole source of dedicated funding, but could be applied if, for example, fare revenues are to be partially applied to fund construction.
- **Special tax district and tax increment bonds:** Special tax district bonds are paid from special charges added to property tax bills, and only beneficiaries pay the special assessment. An important sub-class is tax increment bonds, which are paid from *increases* in property tax revenues in specified areas. Tax increment financing is most valuable for projects in redevelopment areas and requires long-term development perspective to realize significant funding levels.
- **Certificates of participation (COP):** COPs are debt instruments secured by the value of the assets so financed. Investors of COPs become the technical owner of the vehicles/facilities and “lease” them back to the transit agency. These lease payments become the service on the debt and at the end of the “lease period” the debt is retired and ownership reverts back to the transit agency. The advantage of this financing structure is that the COPs debt service payments are not applied in the computation of the debt coverage ratio.

### 7.5.2 Tax-Exempt Bonds

Tax-exempt bonds can be offered at lower interest rates than regular bonds, thus, providing the issuer with considerable financing cost savings. This is because their interest is excluded for federal income tax purposes in the gross income of recipients. However, interest on such bonds is taken into consideration for certain federal tax purposes, such as the alternative minimum tax (AMT) for individuals and corporations. With this qualified status and the accompanied tax benefit to investors, exempt bonds can be offered at a lower interest rate.

Tax-exempt bond financing regulations are subject to both federal and individual state provisions. There are specific state requirements outlined in a municipality’s codes regarding the nature, term, purpose and structure of a bond, which, if adhered to, qualifies it under that state’s classification of tax-exempt debt.<sup>4</sup>

Tax-exempt bond finance has become a key federal issue. Proposals have been made for altering IRS rules for tax-exempt bond finance to make it easier for public-private transportation projects to qualify.

The drawbacks of this financing mechanism are:

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<sup>4</sup> Introduction to Public Finance and Public Transit. Page 55

- Tax-exempt bonds have the same effect as a subsidy from all federal taxpayers to the beneficiaries of the project. If the public benefits are primarily local or regional, the subsidy might be considered inequitable.
- Tax-exempt bonds generally bias the capital market in favor of government-selected investments.
- Expanded use might increase the frequency of default and might possibly raise the cost of borrowing for all users of tax-exempt financing
- If tax-exempt finance is liberally available for a class of projects, the tendency will be for it to be used routinely

A final consideration is the “fit” for federal credit enhancement programs. ISTEA and TEA-21 both introduced credit enhancement programs—state infrastructure banks (SIB), TIFA and RIFF. However, the 1986 Tax Reform Act stipulates that federal funds cannot guarantee tax-exempt financing.

### 7.5.3 Tax-Exempt Commercial Paper (TECP)

The use of short-term debt is advantageous since debt instruments of shorter maturities generally have a lower interest rate than longer-term debt and, therefore, result in lower near-term debt service payments. TECP provides a particularly low-interest form of borrowing. Typical interest rates are 200 basis points (2.00 percent) below long-term municipal securities rates. Issuance fees are also typically low.

There are two limitations in the use of TECP:

- **Maturity:** State and federal laws limit the period of time such securities can be held before they must be turned over into long-term (higher interest) debt.
- **Percent of total principal outstanding:** Investment banking practices generally require that the percentage of total debt that is short-term be less than 10 to 20 percent, and the trend over time not be toward increasing reliance on short-term debt.

### 7.5.4 Grant Anticipation Revenue Vehicles (GARVEE) Bonds

GARVEE bonds are a finance mechanism that allows states to bond against future federal appropriations beyond the 6-year cycle. GARVEE bonds have only been in use since the authorization of TEA-21, in 1998.

### 7.5.5 Lease/Leaseback Of Existing Assets

Assets with remaining economic lives of more than 30 years may be financed through a lease/leaseback transaction in which private investors take advantage of depreciation tax benefits and pass some of these benefits back to the transit agency. The magnitude of the benefit of such a transaction depends of the quantity of land, building, equipment, and rail rolling stock assets that are eligible. Deals at other transit agencies have addressed assets with potential alternative commercial uses, such as maintenance and administrative facilities, buildings, land, and parking as well as rail rolling stock. Many transit agencies have taken advantage of these types of transactions for many of its assets, including rail cars and maintenance facilities.

### **7.5.6 Rail car cross-border lease**

The transactions involved in a cross-border lease include the assumption of the depreciation costs of rail cars by off-shore private investors. These investors take advantage of home country tax benefits related to depreciation and pass these benefits (typically valued at 5.0 percent of the leased assets) back to the transit agency.

### **7.5.7 Short-term Borrowing and Standby Credit**

Short-term borrowing is helpful for accelerating construction projects. Grant funding, including federal-aid highway, may be received as reimbursement for costs incurred on eligible projects. By issuing notes, funds are available sooner to begin construction with aid used for reimbursement on a delayed basis. The U.S. DOT Advance Construction provision is designed to address this process by permitting state DOTs to spend their own funds in anticipation of federal aid highway-grant reimbursement. Alternatively, short-term notes may be refinanced by the sale of bonds. As referenced above, borrowings where there is an explicit pledge of future federal aid payments are prohibited to be issued on a tax-exempt basis by the Federal Tax Reform Act of 1986. Federally backed notes may be issued on a taxable basis, typically at Treasury bill rates, but few public entities have chosen this finance mechanism due to the higher interest rates.

Federal standby credit or loans pledge future support only if the need arises, thus avoiding an actual outlay of funds, except in the event project-related revenues drop below a certain level.

### **7.5.8 Patient Money and Junior Liens**

Governments can help infrastructure projects by providing “patient” subordinated capital. The interest cost of this capital typically is less important than the repayment schedule. The junior lien is helpful for ensuring that the operating costs and other (senior lien) debt are paid off before the subordinated debt. By providing a junior lien, the public-sector sponsor facilitates a higher rating for the senior lien, which helps lower the overall project finance costs.

### **7.5.9 Public/Private Partnerships**

The concept of joint development can be defined as any formal arrangement between a public agency and a private organization that involves either private sector payments to the public agency (revenue sharing arrangements), or the private sector sharing of project capital costs (cost sharing arrangements).

- Revenue sharing arrangement: When a public entity enters into a contractual lease arrangement it is transferring the future services rendered by a fixed asset to a private organization, while retaining the title to that fixed asset. Long-term lease relationships provide a secure cash flow base upon which to issue bonds to finance new facilities.
- Cost Sharing arrangements: These are agreements between public entities and private organizations whereby the private party recognizes a specific capital investment as sufficiently beneficial to enhancing its own operations that it will share in the initial capital costs. For example, a private enterprise may find proximity to rail transit beneficial and be willing to pay for the station related costs.