

■ Documentation for:

EXIT 20 TRANSPORTATION FINANCING PLAN

Town of Saint Albans, VT

■ Prepared for the:

**Northwest Regional Planning
Commission;**

19 January 2006

Final Draft



R | S | G INC.
RESOURCE SYSTEMS GROUP, INC.

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FINAL DRAFT REPORT

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EXECUTIVE SUMMARY

The purpose of this study is to update the transportation system recommendations made in the Exit 20 area in the 1996 *US 7 Corridor Study* and the financing strategy presented in the 1999 *Financing Study*. The study area is located in the Town of Saint Albans, VT along US 7 from Jewett Avenue to VT 105, and along VT 207 from I-89 Exit 20 to US 7.

This study is being conducted by Resource Systems Group, Inc. (RSG) for the Northwest Regional Planning Commission (NRPC). A steering committee consisting of representatives from the Town of Saint Albans, Town of Swanton, NRPC, VTTrans, Franklin County Industrial Development Corporation (FCIDC) and land owners in the study area met once prior to the publishing of this draft report to provide guidance on assumptions and to assist with data needs.

This report is a draft prepared by RSG for review and discussion by the steering committee. It does not necessarily reflect any policies or positions stated by the NRPC, Town of Saint Albans, or any member of the steering committee.

TRAFFIC ANALYSIS AND RECOMMENDATIONS

Highway system recommendations are made to accommodate projected traffic volumes for background growth to 2015 and traffic that would be generated by an additional 1.1 million square feet of commercial development and approximately 150 new dwelling units within the study area.

The traffic analysis indicates that modifications to the highway system will be necessary to accommodate projected traffic volumes. Three alternatives were evaluated. Alternative A assumes no new local roads are constructed in the study area, Alternative B includes new connector roads between parcels to the west of US 7 with a direct extension to VT 207, and Alternative C includes all of the Alternative B local roads with an extension to Rewes Drive and the northern terminus of the proposed Federal Street Connector.

The alternatives analysis concludes that US 7 will need to be widened to four lanes between the proposed access to the JLD Properties PUD and VT 105. Construction of the new local road network does not eliminate the need to widen US 7 to four lanes. Two travel lanes per direction are also recommended on VT 207 from US 7 to just east of the I-89 northbound ramps.

The cost estimates for the US 7 and VT 207 recommendations vary from \$11.2 to \$13.7 million. The cost depends on the type of median assumed on US 7 between VT 207 and Price Chopper Drive (two-way-left-turn lane or raised) and whether or not sidewalks and bike lanes are included. The cost for the local roadways included in Alternative B is \$4 million. The extension to Federal Street assumed in Alternative C would cost an additional \$7 million.

FINANCING ANALYSIS AND RECOMMENDATIONS

The financing plan is based on the assumption that the extension to Federal Street in Alternative C would not be constructed and that the local road network assumed in Alternative B would be



constructed as part of the site development for specific development projects. Therefore, only the cost of upgrading US 7 and VT 207, which could range between \$11.2 and \$13.7 million, are included in the financing analysis and plan.

Several different financing options are described including their advantages and disadvantages relative to the study area. The options include state and federal transportation programs, municipal bonds, impact fees, and private financing of projects by developers. Of these sources, municipal bonds are the most complex to analyze because they require another layer of financing. Bonds can be paid for out of a municipality's general fund, by raising special assessment taxes, with funds captured by a tax incremental financing district, and if allowed, with local option sales taxes.

A key assumption in the analysis is the interest rate of the bond. On the revenue side, numerous assumptions are necessary. Some of the key assumptions related the tax incremental financing analysis are growth in land and building value due to the secondary effect of nearby development, rate of inflation, the ratio of local education spending per pupil to the State's base education payment, the rate of growth in the cost of municipal services, and the amount of development assumed. The special assessment tax rate necessary to pay back a bond is also affected by the assumed growth in land and building value. More importantly, the special assessment tax rate depends on how the burden is shared between the parcels in the assumed boundaries of the Exit 20 Financing District and those in the rest of Town.

Because this analysis is based on numerous assumptions, its findings are preliminary only. It provides an order of magnitude estimate on the contribution possible from each of these funding sources. A final analysis should be completed by economists or others with specific expertise in public and private financing. This study provides a general assessment of how the various state/federal, local, and private funding sources can be used in an overall financing plan. The contributions from each of these financing sources may change after a more detailed analysis has been conducted.

The revenue analysis found that:

- On a theoretical level, a Special Assessment tax could be calculated that generates enough revenue to pay for a bond that finances all of the improvements. The additional tax rate would range from \$1.45/\$100 of assessed value if limited within the Exit 20 Financing District to \$0.58/\$100 of assessed value if spread evenly across Town. These increases are significant, and would create disincentives to development defeating the purpose of making the infrastructure investment in the first place, and would probably not be supported by land owners and citizens.
- The local options sales tax would generate enough revenue to pay for a bond that finances all of the improvements. However, since it is not currently allowed by the State Legislature, a local options sales tax is not a realistic funding mechanism at this time.

The TIF is a viable option but would generate enough funds to cover only 30% of improvement costs. Therefore, state/federal and private funding will need to be part of the funding approach as follows:



- The value of improvements to US 7 and VT 207 required by the local permit issued for the JLD Properties Walmart PUD is estimated in this study to be worth \$2.6 million. This up-front investment will cover 20-23 percent of the total cost of improvements recommended to accommodate the development assumed in this study.
- A traffic impact fee between \$150 and \$300 per PM peak hour vehicle trip should be established for the Exit 20 area. This fee would be required for all un-built projects that do not currently have a local or state permit. Although the impact fees will contribute only 1-3% of the total cost of improvements, they ensure that all developers make a contribution regardless of the timing of the project.
- A Tax Incremental Financing District should be established around Exit 20. Revenue from the TIF could finance a municipal bond of \$3.2 million. This source will cover 24-29% of the cost of improvements.
- The balance of costs, between \$5.0-7.2 million depending on whether or not sidewalks and bike lanes are included, should be financed with state and federal transportation dollars through the standard VTrans project development process.

The up-front investment required by the local permit approved for the JLD Properties Walmart PUD will provide an initial capacity increase in the Exit 20 area that will accommodate additional projects beyond the Walmart PUD. This investment will provide the time necessary to establish impact fees, establish a TIF, and pursue state/federal funding.

NEXT STEPS

- Conduct a detailed economic analysis to verify and refine revenue forecasts for the tax incremental financing district. After the analysis has been refined, the TIF district needs to be approved by a majority of the eligible voters in Town.
- Prepare and adopt a traffic impact fee ordinance.
- Include the highway system upgrades in the Northwest Regional Planning Commission long range transportation plan, and work with the NRPC and VTrans to conduct a project definition/scoping study for US 7 and VT 207. This step is necessary before the long-term improvements can compete for state and federal transportation funds.



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1.0 INTRODUCTION

The purpose of this study is to update the transportation system recommendations made in the Exit 20 area in the 1996 *US 7 Corridor Study* and the financing strategy presented in the 1999 *Financing Study*. This study is being conducted by Resource Systems Group, Inc. (RSG) for the Northwest Regional Planning Commission (NRPC). A steering committee consisting of representatives from the Town of Saint Albans, Town of Swanton, NRPC, VTrans, Franklin County Industrial Development Corporation (FCIDC) and land owners in the study area met once prior to the publishing of this draft report to provide guidance on assumptions and to assist with data needs.

This report is a draft prepared by RSG for review and discussion by the steering committee. It does not necessarily reflect any policies or positions stated by the NRPC, Town of Saint Albans, or any member of the steering committee.

This update accounts for transportation improvements that have been implemented since 1999, such as traffic signals at the US 7 intersections with Price Chopper Drive and VT 207, and access management improvements along US 7. Traffic projections are developed for 2005 and 2015 that include traffic generated from new or revised development proposals in the study area, traffic from development that has been permitted at the Franklin Park West and Franklin Park East business parks, and other anticipated development as identified by the project steering committee.

Modifications to the study area roadway segments and intersections are recommended to accommodate the projected traffic volumes under three scenarios. Scenario A assumes no additional local roadways are constructed. Scenario B assumes the extension of VT 207 from its intersection with US 7 to a potential north-south collector road between the site of the proposed Walmart and Price Chopper Drive. Scenario C includes the Scenario B roadways and an extension to the proposed Federal Street Connector project at Rewes Drive.

This draft report includes order of magnitude cost estimates for the recommended improvements. It describes and compares several different financing options, and estimates the amount of revenue that could be generated by the most promising options. It suggests a financing plan that incorporates state and federal sources, revenue raised through a tax incremental financing district, impact fees, and investments by private developers.

1.1 STUDY AREA OVERVIEW

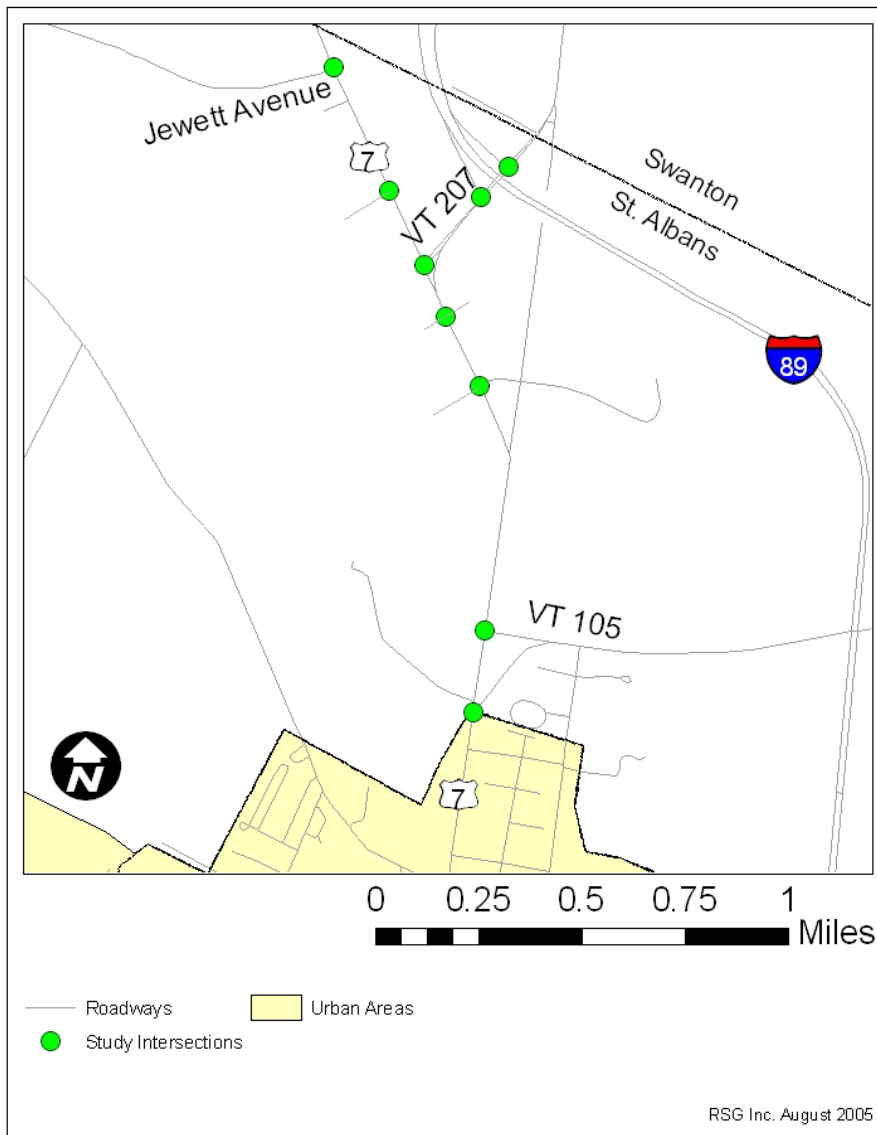
The study area is located in the Town of Saint Albans along US 7 and VT 207 as shown in Figure 1 and includes the following intersections:

- US 7-VT 105;
- US 7-Seymour Road (VT 105 approach);
- US 7-Price Chopper Dive/Franklin Park West;
- US 7-Highgate Commons;



- US 7-VT 207;
- US 7-Proposed JLD Properties PUD access; and
- US 7-Jewett Avenue; and
- VT 207-I-89 Southbound and Northbound On/Off Ramps @ Exit 20.

Figure 1: Study area overview



1.2 SUMMARY OF PREVIOUS STUDIES

1.2.1 Financing Improvements to the Exit 20 Area, 1999

This report summarizes work conducted between September 1998 and May 1999 to research methods of financing infrastructure improvements to the Exit 20 area of St. Albans Town, Vermont. Four construction/funding scenarios were analyzed in detail, including consideration of tax rate changes and economic growth rates. The analysis recommended an approach that tied together five sources of funding, as follows:

- Municipal Bond;
- VTrans Capital Program ;
- Private Funding;
- Community Development Block Grant; and
- VTrans Enhancement Grant.

This approach was recommended since it minimized risk to the town while optimizing the chance of securing funding from multiple sources.

This report highlighted 3 important concerns that must be researched before a decision on a funding approach is reached:

- Act 60 would limited the amount of funds that the town could reap from property taxes. A portion of tax revenue would have to be shared with other towns, through a state sharing pool mechanism. The extent of this sharing of tax revenue is hard to predict.
- Wetlands within the project area may create permitting difficulties.
- Designs for the Exit 20 Growth Center should incorporate features such as bicycle and pedestrian facilities, landscaping, and neo-traditional planning dimensions. The town will increase its chances of State and grant support, through advocating a growth center concept. Perceptions that the Exit 20 Improvement Plan is generating sprawl could make implementation of the plan extremely difficult.

1.2.2 JLD Properties PUD Traffic Impact Study- October 2004

This Traffic Impact Study was completed by Lamoureux and Dickinson in October of 2004. It analyzed the impacts to the transportation network in the vicinity of Exit 20 due to the construction of a 146,755 square Wal-Mart store and garden center, a multi-family residential component and related commercial uses on the west side of US 7 just north of the junction with VT 207. Recommendations from the traffic impact study were included as conditions for approval in the Town of St. Alban's Development Review Board's granting of a conditional use approval to construct a Wal-Mart store. The study recommends significant modifications to US 7 between



Highgate Commons and the proposed JLD Properties Access Road, and to northbound and southbound on/off ramps at VT 207. Phased recommendations were suggested for 2006, 2011, and 2016. Details from the conditional use approval from the Town of Saint Albans are provided appendix A.

1.2.3 Lowe's Home Improvement Warehouse Traffic Impact Study – July 2004

This traffic impact study was completed by RSG in July of 2004. It analyzed the impacts to the transportation network in the vicinity of Exit 20 due to the construction of a 138,000 square foot Lowe's Home Improvement Warehouse retail center on the Murphy/Redstone parcel accessing US 7 at Price Chopper Drive. The study includes a scenario that isolates the specific impact of Lowe's in a planning year of 2011 without additional traffic from the JLD Properties PUD, or buildout of Franklin Park East, or Franklin Park West. The study concludes that traffic generated by Lowe's can be accommodated on the highway network by:

- Optimizing traffic signal operations at the VT 207, Highgate Commons, and Price Chopper/Franklin Park West intersections with US 7; and
- Widening the Seymour Road approach to US 7 to include exclusive left and right turn lanes.

The study also considers the additional traffic from the build out of the JLD Properties PUD, 60% build-out of Franklin Park East, and 65% build-out of Franklin Park West the following additional mitigations are recommended:

- Upgrading traffic signal equipment at the US 7 – Franklin Park West intersection; and
- An additional northbound through lane on the northbound approach on US 7 at the US 7 – Highgate Commons intersection.

The traffic volumes developed for the Lowe's traffic impact study, and the resulting mitigation measures, are different from the October 2004 JLD Properties PUD traffic impact study in several ways. First, the Lowe's traffic impact study assumes partial build-out of the Franklin Park East and West business parks. Second, its planning year extends to 2011 while the JLD study extends to 2016. Third, the Lowe's study assumes that a connector road is constructed between the JLD Properties PUD and the proposed Lowe's, continuing to Price Chopper Drive. The study assumes that the connector road will affect traffic volumes by (1) allowing Lowe's and the JLD Properties PUD to function as a combined multi-use development, thereby reducing overall trip generation by 20% and (2) diverting the routes followed by some vehicles to and from the proposed developments. As a result of these assumptions, the roadway improvements recommended in the Lowe's traffic impact study, even for the scenarios that include the JLD Properties PUD and partial build-out of the Franklin Park East and West Business parks, are much less extensive than those recommended in the JLD Properties PUD study.



1.2.4 Recent Studies Related to the US 7-VT 105 Intersection

This intersection consists of three separate unsignalized intersections with US 7. The northern intersection is Seymour Road which provides a short connection between US 7 and VT 105. The southern most intersection is VT 105, which connects to US 7 at an acute angle. Rewes Drive intersects US 7 from the west between Seymour Road and VT 105. Because of its location, the US 7-VT 105 intersection has been evaluated in three recent and on-going planning studies (not including this one).

US Route 7/VT Route 105 Intersection Alternative Alignment Study – January 2004. This study was completed by HTA Consulting Engineers for the Northwest Region Planning Commission. The HTA study recommends realignment of the southern VT 105 intersection with Rewes Drive (with a traffic signal and additional turn lanes on US 7) and conversion of Seymour Road into a dead-end street. The recommendation is based on traffic projections that include only background growth. Traffic from the JLD Properties PUD or Lowe's was not included in the projections because these development projects had not been announced yet. The HTA study also did not include traffic from the Franklin Park East and West business parks. The traffic projections also did not include the effect of extending Federal Street north to Rewes Drive.

Federal Street Corridor Study – 2005 Update Project Memorandum 1 Existing Conditions and Traffic Analysis – March 2005. This study is being conducted by RSG for the NRPC and the City of Saint Albans. It evaluates the feasibility of upgrading Federal Street, and other local roads one block west of Main Street, and constructing new roadway extensions to the Saint Albans State Highway in the south and the US 7-VT 105 intersection in the north. The northern section would connect with Rewes Drive. It would follow Rewes Drive to its new realigned intersection with VT 105 as proposed in the HTA study. The March 2005 study provides the traffic volume estimates that were considered in the Saint Albans 3-Intersection study.

Saint Albans 3-Intersection Study: Project Memorandum 1 – July 2005. This report was completed by RSG for the Town of Saint Albans to identify improvements and funding options for the following intersections: US 7 -VT 105, VT 104 -VT 36 and VT 104-VT 105. This study evaluates alternatives at the US 7-VT 105-Rewes Drive intersection based on traffic projections that account for the Federal Street connector, the JLD and Lowe's traffic impact studies, Franklin East and West business parks, and other anticipated development as specified by the Town of Saint Albans.

- Assuming the Federal Street Connector is built, the study recommends the following:
 - Keep Seymour Road open to through traffic;
 - Signalize the US 7-Seymour Road and US 7-VT 105 Approach intersections;
 - Provide two through lanes in each direction on US 7 through the two intersections; with exclusive left turn lanes; and
 - Provide additional turn lanes on both side road approaches.



- If the Federal Street Connector is not built the study recommends the following:
 - Keep Seymour Road open to through traffic;
 - Signalize the US 7-Seymour Road and US 7-VT 105 Approach intersections;
 - Provide one through lane on US 7 in each direction through the two intersections; with exclusive left turn lanes; and
 - Provide additional turn lanes on the Seymour Road, and VT 105 approaches.

2.0 TRANSPORTATION SYSTEM CHARACTERISTICS

2.1 HIGHWAY SYSTEM CONTEXT

The roadways and intersections in the study area are components of a connected local, state, and national highway network. This section provides background information on these different systems and their relevance in the study area.

Highway functional class, the National Highway System, the Vermont Truck Network and town highway classification are the foundation for a variety of policies that affect funding eligibility, project prioritization, design requirements, jurisdiction, and maintenance and operation responsibilities for a highway. These various classification systems also provide a big picture view that defines the function of a specific, local highway project within the context of the regional, state, and national transportation systems.

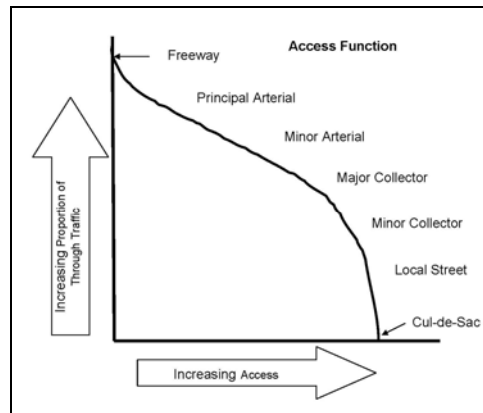
2.1.1 Functional Class

The Federal Highway Administration's roadway functional classification system is organized as a hierarchy of facilities, based on the degree to which the roadway serves mobility and access to adjacent land uses as shown in Figure 2. Freeways and interstate highways, at the top of the hierarchy, are devoted exclusively to vehicle mobility, with no direct access to adjacent land.

Arterials and Collectors provide both mobility and access to adjacent land uses. The local road system is devoted exclusively to providing local access, with limited capacity and relatively slow speeds.

Figure 3 on the following page shows the functional classification for the roadways in the study area. I-89 is classified as an urban interstate. The US 7 section of highway is classified as a rural major collector north of VT 105 and an urban minor arterial south of VT 105. VT 207 is classified as a

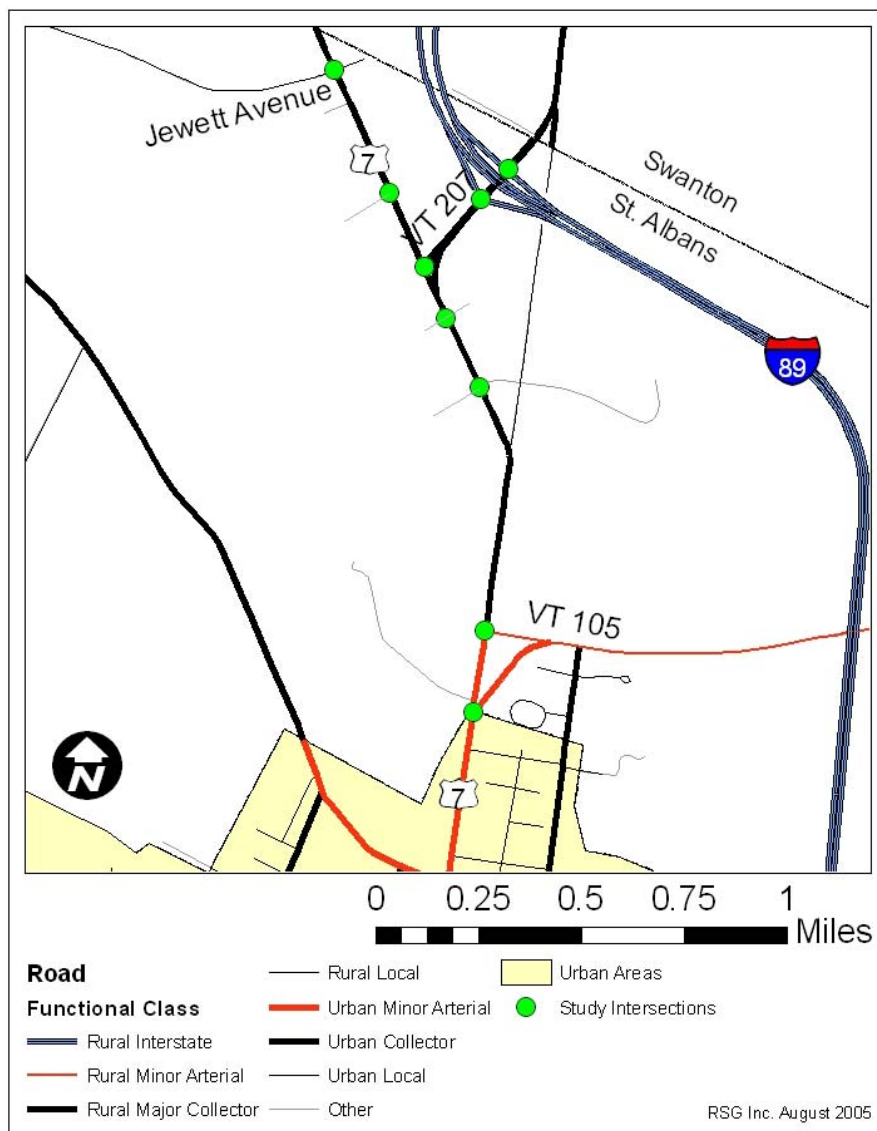
Figure 2: Conceptual Roadway Functional Hierarchy



rural major collector. Figure 2 suggests that US 7 and VT 207, which are both classified as major collectors, should provide for access to adjacent land and connecting roadways as well provide for some level of mobility for through traffic.

Functional classification is used to determine funding eligibility and to establish roadway design standards. All collectors, arterials, and freeways are part of the federal aid system and are therefore eligible to receive federal transportation funds.

Figure 3: Roadway Functional Class in Study Area



2.1.2 National Highway System (NHS) and VT Truck Route

The NHS consists of Interstate and Defense Highways and principal arterial roads essential for interstate and regional commerce, travel, national defense, intermodal transfer facilities, international commerce, and border crossings. NHS routes were designated in the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA). In the study area I-89 is the only roadway segment that is part of the NHS.

Title 23 V.S.A. Section 1432 as amended by the 2000 Vermont Legislature, establishes the Vermont Truck Network where trucks with overall lengths less than 72 feet (including 53-foot tractor-trailer combinations) may travel without permits. The Truck Network is defined as all of the NHS routes, plus VT 22A between its intersections with US 7 and US 4, VT 105 in its entirety, and VT 104 from I-89 Exit 19 to VT 105. The roads that are not part of the NHS were added to the truck network based on the volume of truck traffic and/or through the legislative decision making process. Inclusion on the truck network does not affect design standards which are governed by functional class, AADT, and truck traffic.

Within the study area, US 7 and I-89 are part of the NHS and are therefore also designated as part of the Vermont Truck Network. Additionally VT 105 is part of the Vermont Truck Network.

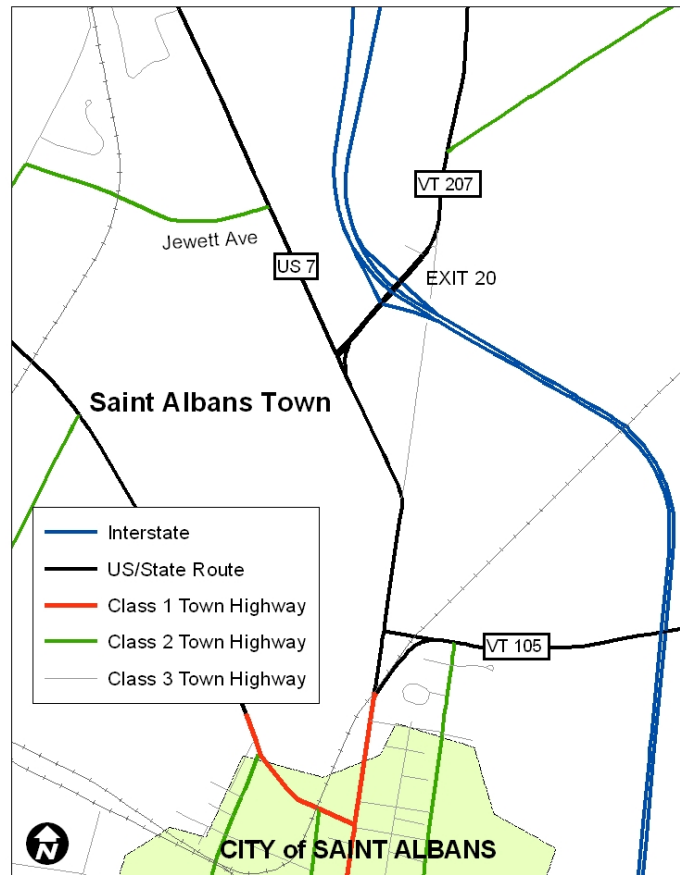
Because of this designation, recommendations related to the re-design of roadways in the study area resulting from this study should accommodate trucks with overall lengths of 72 feet. This requirement will affect turning radii and should be considered in selecting appropriate lane widths.

2.1.3 Roadway Jurisdiction

The entire public highway network in Vermont is owned either by the state or a municipality. VTrans has established a roadway classification system to identify the levels of jurisdiction over each section of road across the state as shown in Figure 4. These classifications identify whether, for example, VTrans or the Town is responsible for pot hole patching on a particular section of road. Roads owned by municipalities are categorized as class 1, 2, 3, or 4 town highways. A class 1 town highway has a VT or US route number and is an important part of the state system. In general, municipalities own and are responsible for all maintenance and construction costs associated with class 1-4 town highways, although some funds are provided by the state to support projects on local roads.

As shown in Figure 4, all of US 7, VT 207, and VT 105 (including Seymour Road) in the study area are state owned highways. Jewett Avenue is a Class 2 town highway. Any modifications to state owned highways, even if financed with non state or federal funds, requires approval by the Vermont Agency of Transportation.



Figure 4: Highway Jurisdiction

2.2 INTERSECTION AND ROADWAY CHARACTERISTICS

The existing roadway and intersection configurations are described in Table 1 and Table 2 for the US 7 and VT 207 corridors respectively.

In general, the US 7 cross-section consists of one through lane in each direction through the study area. The one exception is the section of US 7 between Price Chopper Drive and Highgate Commons that consists of two through lanes in the northbound direction (one of which converts to an exclusive right-turn lane at Highgate Commons), a center two-way-left turn lane, and one through lane in the southbound direction. The two-way left turn lane converts to an exclusive left turn lane at its southbound approach to the Price Chopper Drive/Franklin Park west intersection and at its northbound approach to the Highgate Commons intersection. The VT 207 cross-section consists of two lanes in each direction from just east of the northbound on/off ramps to US 7.



Table 1: US 7 Corridor Roadway Current Characteristics

	2005 Current Infrastructure
Road Segment	1 Lane North, 1 Lane South
US 7 - Jewett Avenue	
Control Type	Stop Controlled on Minor Approach
<u>Eastbound:</u> Jewett Avenue	1 Lane L R
<u>Northbound:</u> US 7	1 Lane L T
<u>Southbound:</u> US 7	1 Lane T R
Road Segment	1 Lane North, 1 Lane South
US 7 - JLD Properties Driveway	
Control Type	
<u>Eastbound:</u> JLD Properties Driveway	Currently this intersection does not exist.
<u>Westbound:</u> Dexter Properties	Currently, the entrance to the drive-in movie theater
<u>Northbound:</u> US 7	is located at this future intersection.
<u>Southbound:</u> US 7	
Road Segment	1 Lane North, 1 Lane South
US 7 - VT 207	
Control Type	Signalized
<u>Eastbound:</u> VT 207 Extension	This approach does not exist
<u>Westbound:</u> VT 207	1 Lane L, 1 Lane R
<u>Northbound:</u> US 7	1 Lane T, 1 Slip Lane R (275')
<u>Southbound:</u> US 7	1 Lane L (330'), 1 Lane T
Road Segment	1 Lane North, 1 Lanes South
US 7 - Highgate Commons	
Control Type	Signalized
<u>Eastbound:</u> Gas Station	1 Lane L, 1 Lane T R
<u>Westbound:</u> Highgate Commons	1 Lane L, 1 Lane T R
<u>Northbound:</u> US 7	1 Lane L (107'), 1 Lane T, 1 Lane R
<u>Southbound:</u> US 7	1 Lane L (125'), 1 Lane T R
Road Segment	2 Lanes North, 1 Lane South
US 7 - Price Chopper Plaza	
Control Type	Signalized
<u>Eastbound:</u> Price Chopper Plaza	1 Lane L, 1 Lane T R
<u>Westbound:</u> Franklin Park West	1 Lane L, 1 Lane T R
<u>Northbound:</u> US 7	1 Lane L (200'), 1 Lane T, 1 Lane T R
<u>Southbound:</u> US 7	1 Lane L (200'), 1 Lane T, 1 Lane R (325')
Road Segment	1 Lane North, 1 Lane South
US7 - Seymour Road	
Control Type	Stop Controlled on Minor Approach
<u>Westbound:</u> Seymour Road	1 Lane L R
<u>Northbound:</u> US 7	1 Lane T R
<u>Southbound:</u> US 7	1 Lane T L
Road Segment	1 Lane North, 1 Lane South
US 7 - VT 105	
Control Type	Stop Controlled on Minor Approach
<u>Eastbound:</u> Federal Street Extension	This approach does not current exist
<u>Westbound:</u> VT - 105	1 Lane L R
<u>Northbound:</u> US 7	1 Lane T R
<u>Southbound:</u> US 7	1 Lane T L
Road Segment	1 Lane North, 1 Lane South



Table 2: VT 207 Corridor Roadway Current Characteristics

	2005 Current Infrastructure
Road Segment	1 Lane East, 1 Lane West
VT 207 - I89 NB Ramps	
Control Type	Stop Controlled on Minor Approach
<u>Eastbound</u> : VT 207	1 Lane L, 1 Lane T
<u>Westbound</u> : VT 207	1 Lane T R
<u>Northbound</u> : I-89 NB Off Ramp	1 Lane L R
Road Segment	2 Lanes East, 2 Lanes West
Vt 207 - I89 SB Ramps	
Control Type	Stop Controlled on Minor Approach
<u>Eastbound</u> : VT 207	1 Lane T, 1 Lane R
<u>Westbound</u> : VT 207	1 Lane L T, 1 Lane T
<u>Southbound</u> : I-89 SB Off Ramp	1 Lane L R
Road Segment	2 Lanes East, 2 Lanes West

2.3 PEDESTRIAN AND BICYCLE FACILITIES

No sidewalks exist along US 7 or VT 207 in the study area. The Town of St. Albans prepared a sidewalk master plan in 2003 that prioritizes sidewalk construction along pedestrian routes connecting growth areas in the Town to the City of St. Albans¹. As shown in Figure 5, a sidewalk is recommended along US 7 from the City of Saint Albans town line to Jewett Avenue.

2.3.1 Bicycle Facilities

There are no designated bike paths or bike lanes in the Town of St. Albans. The highways within the study area have narrow shoulders of varying widths. The width of the existing shoulders is often less than three feet. This width does not satisfy the minimums recommended in the Vermont State Standards for paved shoulders that accommodate shared use by bicycles².

¹ Sidewalk Master Plan, St. Albans Town. April 2003.

² The recommended widths for shoulders that accommodate bicycles depend on functional class, design speed, and traffic volumes. The minimum shoulder width for most study area roads is three feet.

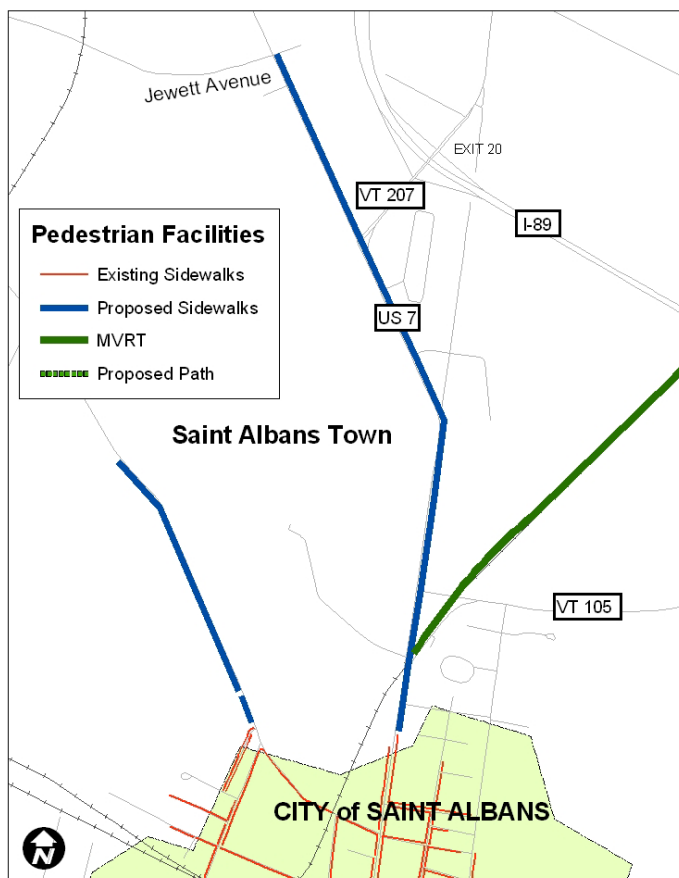


2.3.2 Shared-Use Facilities

Figure 5 shows the western terminus of the Missisquoi Valley Rail-Trail, a 26.5-mile shared-use path along an old rail bed north of the City extending to Richford. The trail starts just north of the City limits at the intersection of US 7-VT 105 and continues northeast connecting several communities. The entrance for the parking area of the rail-trail is just north of the US 7-VT 105 intersection.

The parking area for the shared-use path is within the triangle of land situated between US 7 and both VT 105 legs. The path then leads northeast crossing Seymour Drive at grade.

Figure 5: Pedestrian and Bicycle Facilities



3.0 NATURAL AND CULTURAL RESOURCES

Figure 6 shows the extent of identified Class II wetlands in the study area. The wetland boundaries are based on the Vermont Significant Wetlands Inventory developed by the Vermont Agency of Natural Resources. All Class II wetlands, including a 50-foot protective buffer, are protected under the Vermont Wetland Rules. Any intrusion into the identified wetland or its buffer requires a



Conditional Use Determination from the Water Quality Division of the Department of Environmental Conservation.

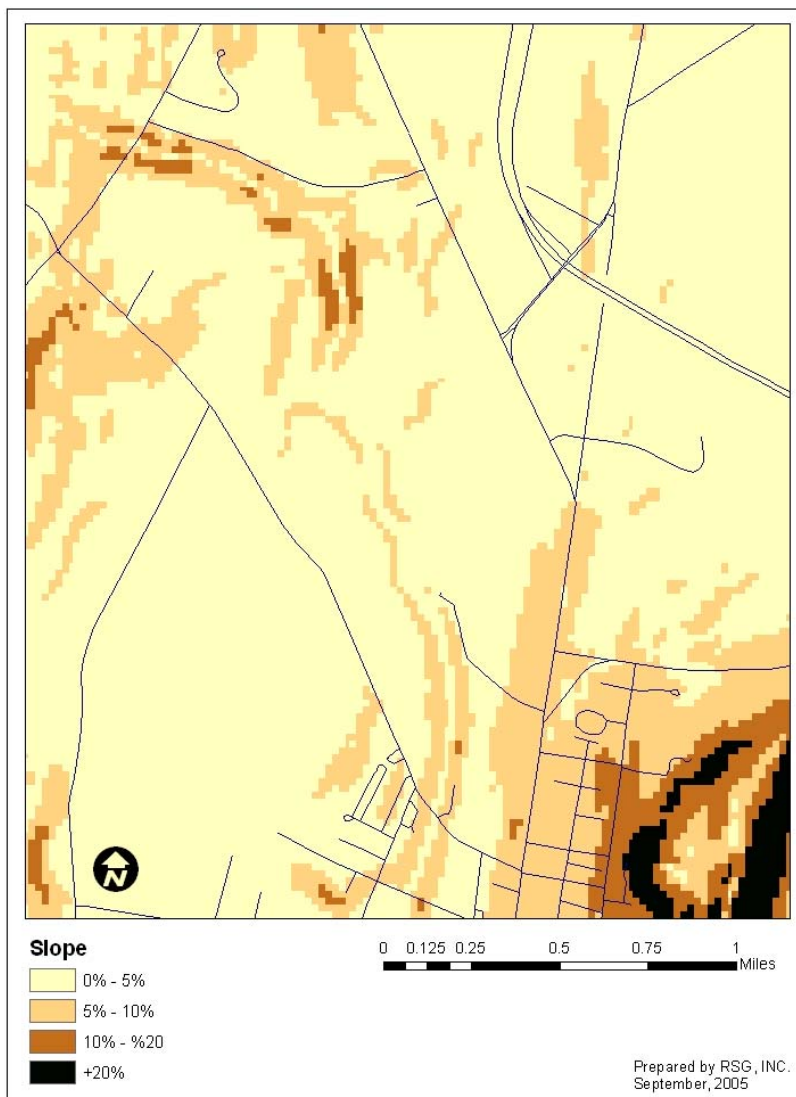
Additionally, Figure 6 shows that no deer wintering areas of endangered species are present in the study area.

Figure 6: Class II Wetlands with 50 foot buffer, endangered species, and deer wintering areas.



Figure 7 shows a composite image of estimated slopes in and near the study area. Most of the study area has slopes less than 5%. In general the study area has limited pockets of steep slopes. The steeper slopes in the study area are located southeast of VT 105.

Figure 7: Slopes In Study Area



4.0 SAFETY REVIEW

It is VTrans policy to report crashes involving injuries, fatalities, or those that exceed \$1,000 in property damage. In order to be classified as a High Crash Location (HCL), an intersection or road section (0.3 mile section) must meet two conditions: 1) it must have at least 5 crashes over a 5-year period; and 2) the actual crash rate must exceed the critical crash rate.

The most recent information published by VTrans indicates that there are no intersections in the study area classified as a high crash location¹. The one road section that satisfies the HCL criteria is located on VT 207 between the Exit 20 northbound on/off ramps to approximately 0.01 miles east of the Swanton-Saint Albans Town municipal border. Between 1998 and 2002, there were six crashes, resulting in 10 injuries, but no fatalities.

5.0 TRAFFIC VOLUME PROJECTIONS

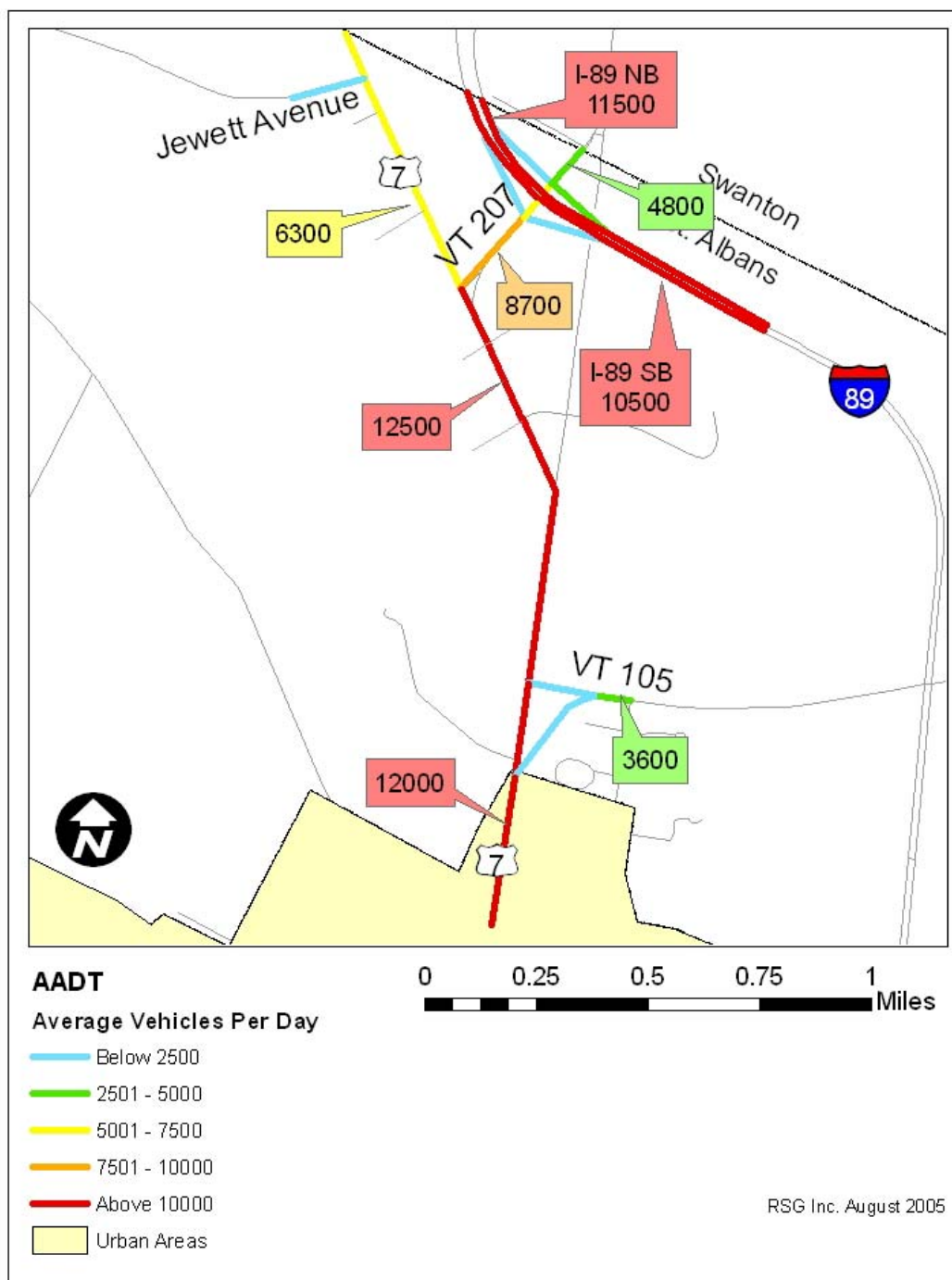
This section describes how traffic volumes have been developed for 2005 and the planning year of 2015. The 2005 traffic volumes are based on existing ground counts adjusted from the year the data were collected to 2005 while the 2015 projections include background growth plus traffic from anticipated development projects. The traffic volume projections developed in this section of the report are used to determine delay and level of service at the study intersections assuming no changes beyond optimizing the traffic signal timings are implemented in Section 6.0.

Figure 8 provides a general overview of average annual daily traffic volumes (AADT) in the study area. I-89 and US 7 south of VT 207 are the most heavily traveled roads in the study area. Traffic volumes on US 7 are significantly higher south of VT 207 where most of the existing commercial and industrial development is currently located.

¹ "High Crash Location Report Intersections: 1998-2002"; March 2005 and Ranking of Statewide HCL Sections, September 7, 2004; Program Development Division Highway Research Unit, Vermont Agency of Transportation



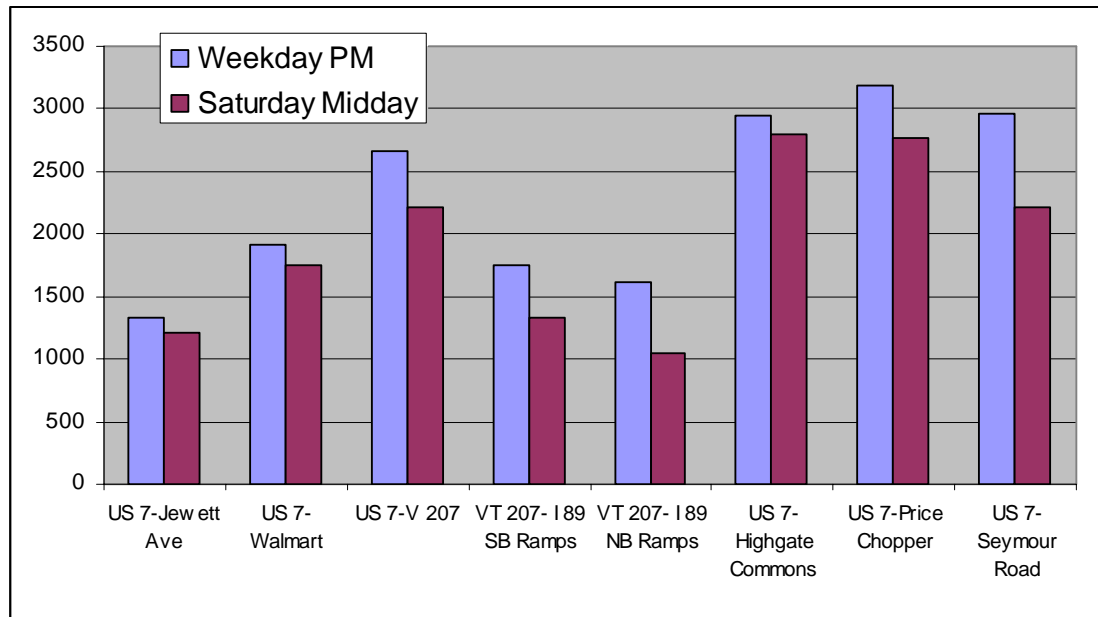
Figure 8: 2005 AADT in Study Area



5.1 ANALYSIS TIME PERIOD

The weekday PM Peak Hour, adjusted to the design hour (30th highest hour of traffic over the course of a year), is the one time period analyzed in this study. Because the study area is located in a commercial/retail area, the Saturday mid-day peak hour is another time period of interest. The weekday PM peak hour was selected as the critical analysis period based on the comparison shown in Figure 9. The volumes presented in Figure 9 were taken from the Lowe's Traffic Impact Study which includes traffic from the JLD Properties PUD and Franklin Business Parks East and West, plus existing traffic volumes. Although the commercial development around Exit 20 attracts a significant amount of traffic on Saturdays, the weekday PM peak hour is the critical time period because it combines commuter and shopping trips.

Figure 9: Comparison of Weekday PM and Saturday Midday Volumes



5.2 DEVELOPMENT OF 2005 PM PEAK HOUR DHV VOLUMES

Turning movement counts for the study intersections were conducted on the dates shown in Table 3. The raw traffic counts have been modified to represent the design hour volume (DHV)¹ in 2005, as shown in Figure 10, using two adjustment factors:

¹ The DHV is the 30th highest hour of traffic for the year and is used as the design standard in Vermont.



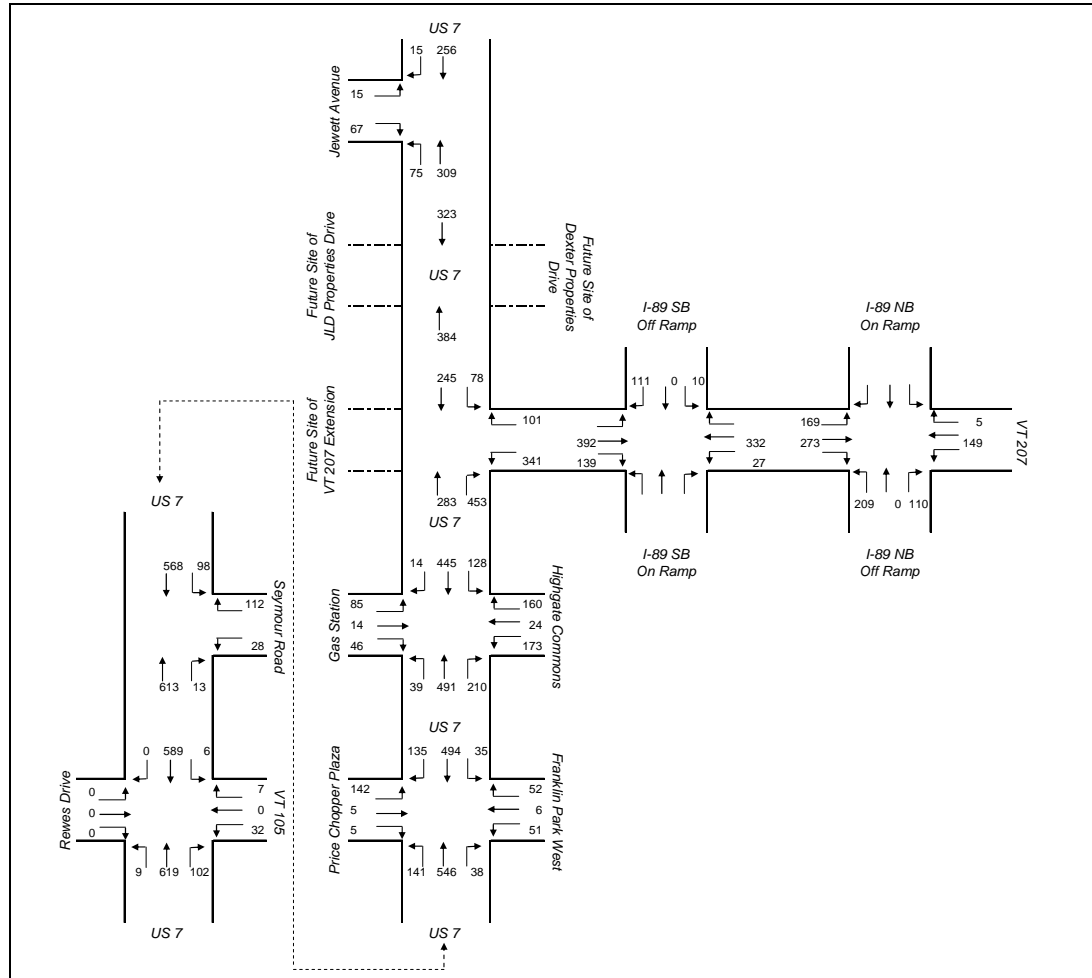
- The ground counts were adjusted to reflect the design hour of traffic. The design hour adjustment factor is based on VTrans Continuous Traffic Counter (CTC) F029, located on US 7 in Georgia. This counter collects traffic volumes 365 days per year, 24 hours per day. These data describe the daily fluctuations in traffic volumes and are used to adjust a ground count conducted on a specific date to the design hour. The counts conducted on 6/2/2003 were increased by 3%, the count conducted on 5/13/2001 was increased by 2%, the counts conducted on 6/9/2004 were increased by 5.1%, and the count on 6/10/2004 was increased by 3.8%.
- The second adjustment represents general background traffic growth, and is based on the growth rate for rural primary and secondary highways in the 2004 VTrans Redbook. The base year annual adjustment factor increased the raw volumes by 1.5% per year to represent 2005 conditions.

Table 3: Intersection Traffic Count Dates

Intersection	TM Count Date
VT 207 - I89 NB Ramps	6/2/2003
VT 207 - I89 SB Ramps	6/2/2003
US 7 - Jewett Avenue	5/31/2001
US 7 - JLD Properties Driveway	Derived from US 7 - VT 207 Volumes
US 7 - VT 207	6/9/2004
US 7 - Highgate Commons	6/9/2004
US 7 - Price Chopper Plaza	6/9/2004
US7 - Seymour Road	6/9/2004
US 7 - VT 105	6/10/2004



Figure 10: 2005 PM Peak Hour Traffic Volumes



5.3 DEVELOPMENT OF 2015 PM PEAK HOUR VOLUMES

The 2015 traffic volumes include growth in regional background traffic from 2005 to 2015 plus traffic generated by anticipated development in the study area.

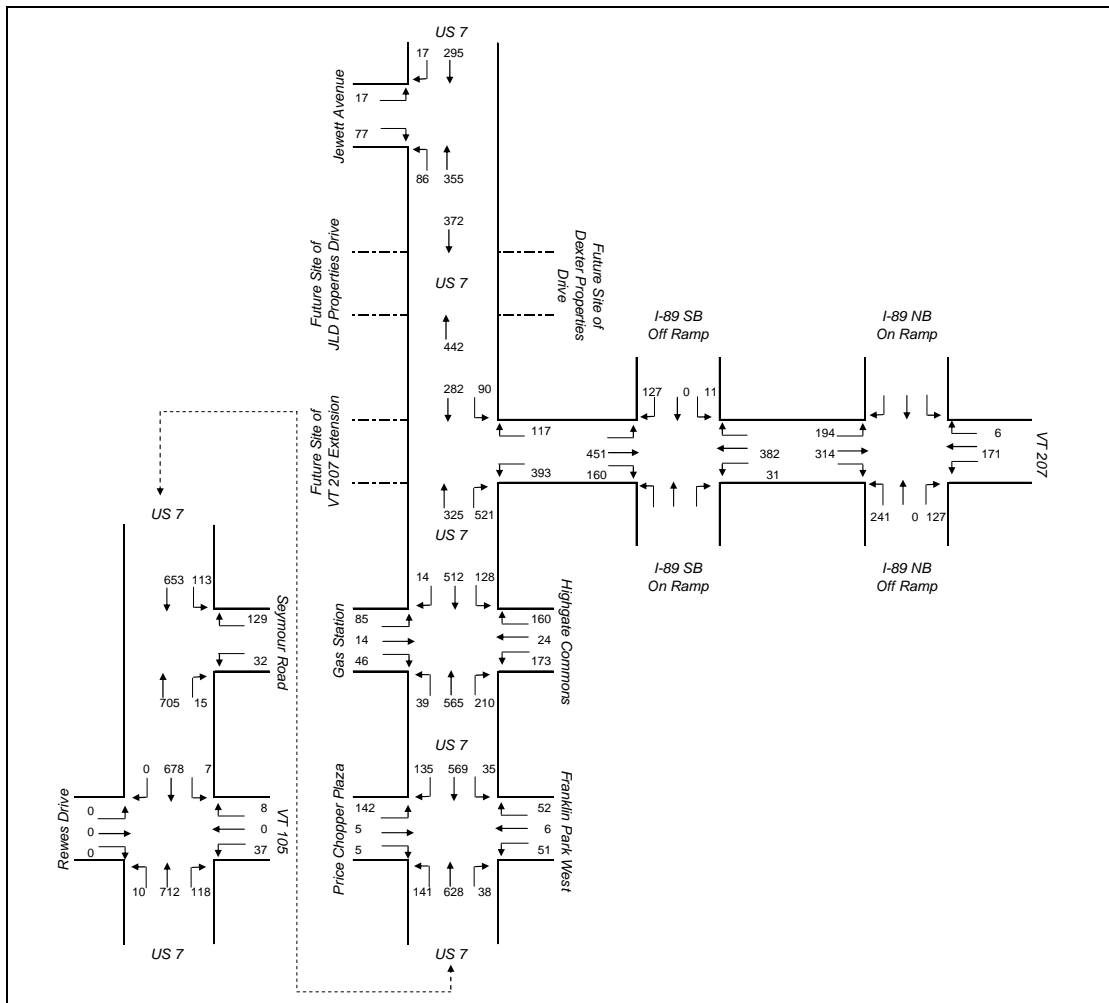
5.3.1 Background Growth 2005 to 2015

Even if no development occurs within the study area, traffic volumes will continue to increase due to growth in surrounding communities. This background growth has been estimated using the statewide averages for rural primary and secondary highways as published by the Vermont Agency of



Transportation 2004 Red Book. An annual growth rate of 1.5% was used to grow the 2005 traffic volumes to 2015 volumes. The 1.5% annual growth rate is consistent with the recent traffic impact studies completed in the area for the JLD Properties PUD and Lowe's. Figure 11 presents the resulting traffic volumes for the study intersections.

Figure 11: 2015 PM peak hour traffic volumes, background growth only



5.3.2 Trip Generation and Traffic Assignment of Anticipated Development in the Study Area

Based on input from the steering committee, traffic from several permitted or anticipated development projects are included in the 2015 projections.

The following trip generation assumptions are based on information available in traffic impact studies or various permits:



- Franklin Park West reaches 100% of its total Act 250 permit trip generation allotment of 1,294 trips.
- Franklin Business Park reaches 100% of its Act 250 permit trip generation allotment of 665 trips. A car dealership and hotel have recently been approved for this site, but are not yet built.
- The JLD Properties PUD has a total trip generation of 1,243 vph reduced by 10% to account for internal multi-use shared trips between the different uses of the PUD. The total net increase in trips added to the adjacent street network is 1,119 vph.
- The Highgate Commons shopping center reaches 100% of the trip generation specified in its Act 250 permit of 1149 vph¹.
- Trip generation for the Murphy/Redstone parcel located behind the Price Chopper is based on the trip generation estimate for the Lowe's Traffic Impact Study.
- Forty-two residential units and a bank on Seymour Road are permitted. The trip generation of 50 vph is based on the Act 250 permit for that project.

Trip generation for the following projects, which were identified by the steering committee, has been estimated for this study as follows:

- A 92 unit senior housing project east of the Exit 20 Growth Center boundary bordering the 'Rail Trail' will access US 7 through Franklin Park West Drive. The Institute of Transportation Engineers *Trip Generation 7th Edition* was used to estimate the trip generation for this project.
- Paul Poquette is planning on additional commercial development for a parcel located adjacent to and just south of the JLD Properties PUD. Lacking any further definition of the uses planned for the parcel, this study assumes a shopping center similar to Highgate Commons would be developed. A trip generation rate of 34.7 vph per acre was developed based on the Act 250 trips permitted at Highgate Commons (1,149) divided by the parcel (33.12 acres). This rate was applied to the size of the Poquette parcel of approximately 18 acres for an estimated trip generation of 624 vph. This parcel is assumed to have access to US 7 through the proposed JLD Properties PUD access road.
- The Town of Swanton has updated its Town Plan and will soon be adopting new zoning regulations. The regulations will allow additional commercial development along VT 207 just east of the Saint Albans town line. The Town of Swanton is anticipating a development proposal in the near-term that will include approximately 25,000 sf of outdoor display and 20,000 sf of some type of retail uses. Lacking any further definition of the uses planned, this study assumes a 25,000 square foot car dealership and a 20,000 square foot garden center.

¹ Verified by Dan Lindley in a 7-7-05 email



The trip generation for each has been estimated using rates published in *Trip Generation 7th Edition*.

- The steering committee suggested that the drive-in theatre located directly across US 7 from the proposed JLD Properties PUD is likely to be redeveloped. Lacking any further definition of the uses planned, this study assumes 70,000 square feet of specialty retail and 50 condominiums/town houses. The trip generation for each has been estimated using rates published in *Trip Generation 7th Edition*.

Table 4 lists all of the developments assumed to be complete by 2015, the estimated amount of traffic generated, and the source for the estimate.

Table 4. Anticipated Developments and Trip Generation

	Development Name	Information Source	Total Trip Generation
Based on Previous Studies or Permits	Franklin Park East	Franklin Park East Act 250 Permit	665
	Franklin Park West	Franklin Park West Act 250 Permit	1294
	Highgate Commons	Highgate Commons Act 250 Permit	1149
	Murphy / Redstone Property	Lowe's Traffic Impact Study	313
	Seymour Properties	Seymour Properties Act 250 Permit	59
	JLD Properties PUD	JLD Properties PUD Traffic Impact Study	1243
Estimated for this Study	Senior Housing - Frankling Park West	ITE LU # 230 (Condo/Townhouses)	38
	Poquette Property	Used Highgate Commons Trips/Acre Generation Rate	624
	Swaton Commerical Park	ITE LU # 841 (25,000 sf Car Dealership) and ITE LU # 817 (20,000 sf Garden Center)	142
	Dexter Properties PUD	ITE LU # 814 (70,000 sf Specialty Retail) and ITE LU # 230 (50 Condo/Townhouse)	217

The traffic for these developments was assigned to the study intersections as presented in completed traffic impact studies where available. The traffic from projects where previous studies are not available was assigned to the study intersections based on existing traffic patterns.

Figure 12 presents the combined assignment for all of the development projects assumed to be 100% built-out by 2015. Figure 13 presents the final 2015 PM peak hour traffic volumes which include background traffic plus traffic from anticipated development. Appendix A contains raw traffic counts, DHV and background growth adjustments, and the assignment for each specific development.



Table 5 shows how background growth and traffic from the anticipated developments listed in Table 4 result in the total projected 2015 PM peak hour volumes at each study intersection. The table demonstrates that traffic from the anticipated development account for 91% of the total projected increase in traffic from 2005 to 2015.

Table 5: Summary of Projected Traffic Growth for Each Study Intersection

Intersection	PM Peak Hour Traffic Volumes				Contribution to Traffic Growth	
	2005 - Existing	Background Growth 2005 to 2015	Traffic From All Anticipated Developments	Total 2015	Background Growth 2005 to 2015	Traffic From All Anticipated Developments
VT 207 - I89 NB Ramps	916	137	1300	2353	10%	90%
Vt 207 - I89 SB Ramps	1010	152	1584	2745	9%	91%
US 7 - Jewett Avenue	738	111	555	1403	17%	83%
US 7 - JLD Properties Driveway	707	106	1979	2792	5%	95%
US 7 - VT 207 Intersection	1502	225	2445	4173	8%	92%
US 7 - Highgate Commons	1829	140	2029	3998	6%	94%
US 7 - Price Chopper Plaza	1766	156	2419	4342	6%	94%
US7 - Seymour Road	1432	215	1669	3315	11%	89%
US 7 - VT 105	1364	205	1450	3019	12%	88%
Overall					9%	91%



Figure 12: Combined Traffic Assignment for All Anticipated Development Projects

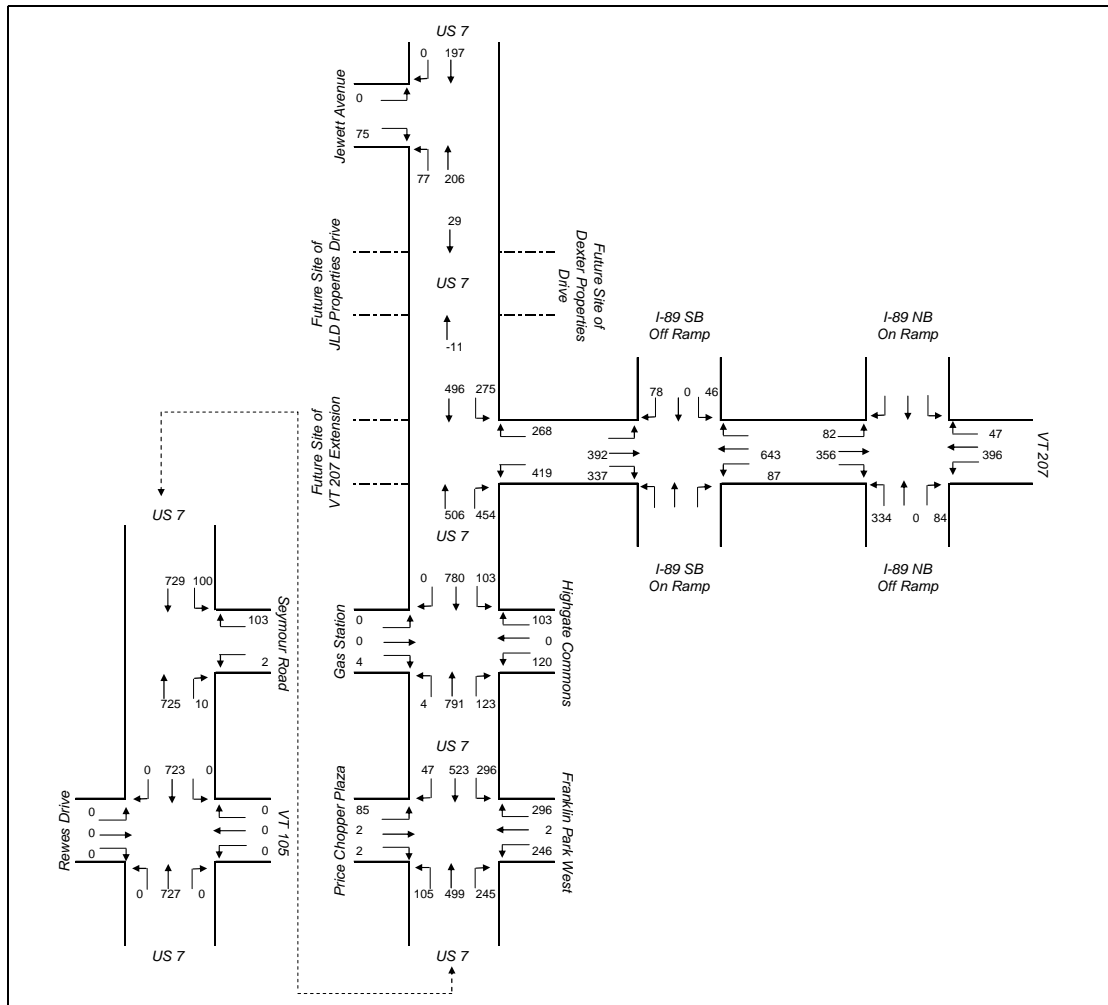
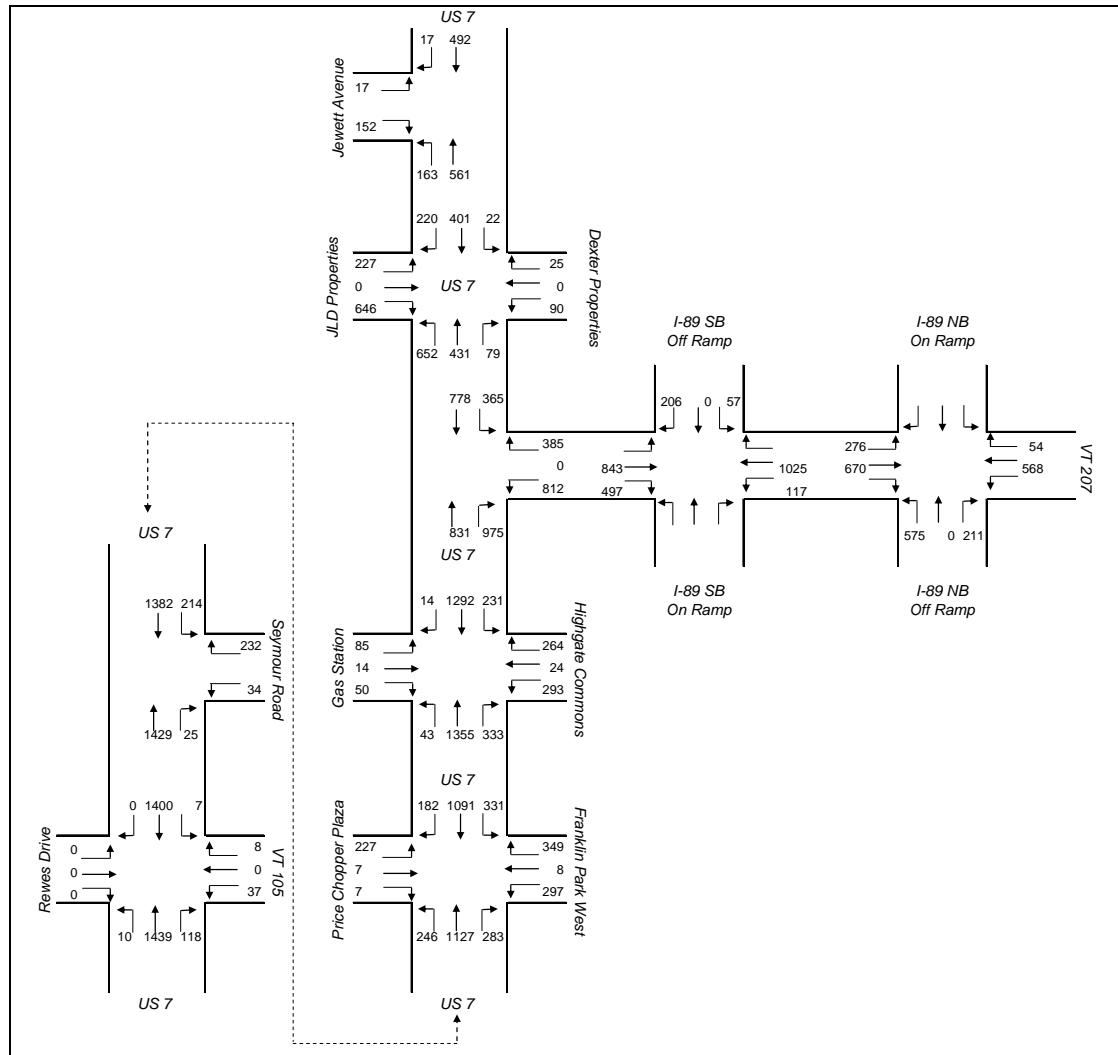


Figure 13: 2015 PM peak hour traffic volumes, background growth and anticipated developments



6.0 CONGESTION ANALYSIS

This section analyzes congestion in 2005 and 2015 with and without traffic from the anticipated development assuming no changes are made to the existing highway system beyond optimizing the existing traffic signals.

6.1 LEVEL OF SERVICE

Level-of-Service (LOS) is a qualitative measure describing the operating conditions as perceived by motorists driving in a traffic stream. The 2000 Highway Capacity Manual (HCM) defines six grades



to describe the level of service at an intersection. Level-of-service is based on the average delay per vehicle.

Table 6 shows the various level-of-service grades, qualitative descriptions, and quantitative definitions for unsignalized and signalized intersections.

Table 6: LOS Criteria for Intersections

LOS	CHARACTERISTICS	SIGNALIZED DELAY (sec)	UNSIGNALIZED DELAY (sec)
A	Little or no delay	≤ 10.0	≤ 10.0
B	Short delays	10.1-20.0	10.1-15.0
C	Average delays	20.1-35.0	15.1-25.0
D	Long delays	35.1-55.0	25.1-35.0
E	Very long delays	55.1-80.0	35.1-50.0
F	Extreme delays	80.0<	50.1<

The VTrans policy on LOS states that, principal and minor arterials in urban or village areas will generally be designed for a level of service C or better. However, in heavily developed urban areas, reduced level of service criteria such as D or E may be appropriate as judged on a case by case basis. For the purpose of this study, the assumed performance target is LOS D or better.

6.1.1 LOS Results

Synchro (v6), a traffic analysis software package from Trafficware, was used to estimate delay and the associated level of service at the study intersections. The software uses procedures that are consistent with those specified in the 2000 Highway Capacity Manual.

The LOS results for the 2005 and 2015 PM peak hour scenarios with and without anticipated development are shown in Table 7. Existing traffic signal timings were provided by VTrans and are used for the 2005 scenario. The 2015 scenarios assume optimization of the traffic signal timing plans. Both signalized and unsignalized intersections are reported in each table.

The LOS and delays are reported for each approach and for the overall intersection where traffic signals exist. At stop-controlled intersections, overall intersection LOS and delay are not provided. Through traffic on the major street is seldom delayed and typically has much higher traffic volumes than the side street. As a result, the overall intersection LOS at unsignalized intersection is less meaningful. Detailed LOS worksheets are provided in Appendix B.

The congestion analysis indicates that:

- For the 2005 scenario, which reflects current conditions, all intersections are functioning at an acceptable LOS. The one exception is the LOS F at the I-89 northbound off-ramp approach to VT 207.



- For the 2015 Scenario that includes background traffic growth, but does not include traffic from anticipated development, the projected LOS remains acceptable provided that the traffic signal timings have been optimized with the following exceptions:
 - LOS F is projected at the I-89 northbound off-ramp to VT 207; and
 - LOS E is projected at the westbound approaches of Seymour Road and VT 105 to US 7.
- For the 2015 scenario that includes background growth plus traffic from anticipated development, LOS F is projected at all of the study intersections, with the exception of US 7-Jewett Avenue.

This analysis indicates that congestion will increase significantly at all study intersection due to traffic from anticipated development if no modifications to the highway system are implemented. The next section of this report considers three different alternatives.



Table 7: LOS Results for 2005 and 2015 No Build scenarios with and without Anticipated Development.

	2005 No Build		2015 No Build Background Growth Only		2015 No Build Background Growth and Anticipated Developments	
	LOS	Delay	LOS	Delay	LOS	Delay
VT 207 - I89 NB Ramps	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>	
Overall		24		>100		>100
<u>Eastbound: VT 207</u>	A	3	A	3	B	3
<u>Westbound: VT 207</u>						
<u>Northbound: I-89 NB Off Ramp</u>	F	64	F	>100	F	>100
Vt 207 - I89 SB Ramps	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>	
Overall		2		2		>100
<u>Eastbound: VT 207</u>	A	<1	A	<1	A	3
<u>Westbound: VT 207</u>	B	11	B	12	F	>100
<u>Southbound: I-89 SB Off Ramp</u>						
US 7 - Jewett Avenue	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>	
Overall		2		3		4
<u>Eastbound: Jewett Avenue</u>	B	11	B	12	C	19
<u>Northbound: US 7</u>	A	2	A	2	A	4
<u>Southbound: US 7</u>						
US 7 - JLD Properties Driveway	<u>Unsignalized</u>		<u>Unsignalized</u>			
Overall					E	64
<u>Eastbound: JLD Properties Driveway</u>	Intersection Does Not Exist in this Scenario		Intersection Does Not Exist in this Scenario		D	52
<u>Westbound: Drive In Movie Theater</u>					F	88
<u>Northbound: US 7</u>					E	64
<u>Southbound: US 7</u>					E	68
US 7 - VT 207					F	>100
Overall	B	13	B	13		
<u>Eastbound: VT 207 Extension</u>					F	>100
<u>Westbound: VT 207</u>	C	30	C	27	F	>100
<u>Northbound: US 7</u>	A	4	A	4	F	>100
<u>Southbound: US 7</u>	B	13	B	14	F	>100
US 7 - Highgate Commons					F	>100
Overall	B	20	B	17	D	51
<u>Eastbound: Gas Station</u>	C	32	C	30	F	94
<u>Westbound: Highgate Commons</u>	C	29	C	27	F	>100
<u>Northbound: US 7</u>	B	14	B	13	F	>100
<u>Southbound: US 7</u>	B	17	B	14	F	>100
US 7 - Price Chopper Plaza					F	>100
Overall	B	17	B	15	F	>100
<u>Eastbound: Price Chopper Plaza</u>	C	30	C	28	F	>100
<u>Westbound: Franklin Park West</u>	C	27	C	26	F	>100
<u>Northbound: US 7</u>	B	13	B	13	F	>100
<u>Southbound: US 7</u>	B	15	A	9	F	>100
US7 - Seymour Road	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>	
Overall		4		5		>100
<u>Westbound: Seymour Road</u>	C	24	E	39	F	>100
<u>Northbound: US 7</u>						
<u>Southbound: US 7</u>	A	3	A	3	E	44
US 7 - VT 105	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>	
Overall		<1		1		41
<u>Eastbound: Rewes Drive</u>					F	>100
<u>Westbound: VT - 105</u>	D	27	E	37		
<u>Northbound: US 7</u>						
<u>Southbound: US 7</u>	A	<1	A	<1	A	1



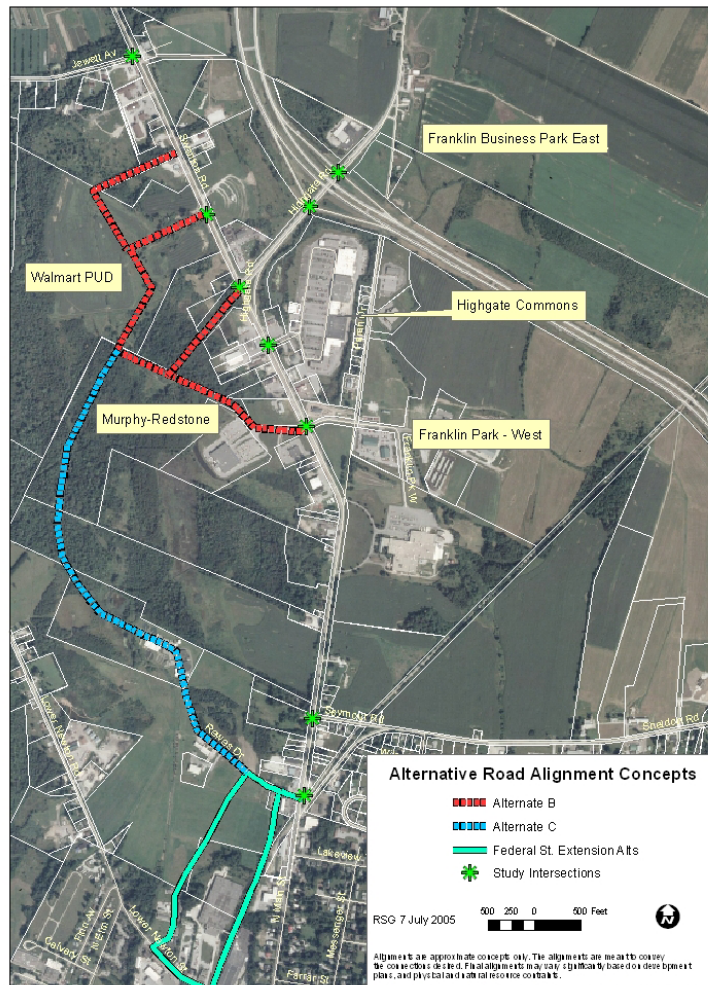
7.0 ALTERNATIVES ANALYSIS

This section describes and evaluates the following three alternatives:

- **Alternative A:** Upgrade Existing Roadways (new lanes on road segments and new turning bays at intersections) to accommodate projected traffic volumes. This alternative focuses improvements along US 7 and VT 207 and does not include any new local roadways. Additional turning and through lanes are proposed at each of the study intersections with the goal of providing LOS D for the overall intersection and on each approach. In some cases, LOS E was considered acceptable for an individual approach if additional turn or through lanes would be excessive (for example – providing three through lanes is not considered reasonable). The modifications are described in Table 9 later in this section of the report and concept plans are contained in Appendix C.
- **Alternative B:** Add West-side Connector Roads – assumes construction of new street connections on the west side of US 7 as indicated in Figure 14. This alternative also includes modifications to the intersections along US 7 and VT 207 as necessary that account for the diversion of traffic to the proposed west-side roadways.
- **Alternate C:** Include extension to Federal Street. This alternative will include a connection from the west-side connector roads from Alternative B to the proposed northern terminus of the Federal Street connector at Rewes Drive (See Figure 14). This alternative also includes modifications to the intersections along US 7 and VT 207 as necessary that account for the diversion of traffic to the proposed west-side roadways.



Figure 14: General Alignment of West Side Connector Roads



7.1 METHODOLOGY TO ESTIMATE EFFECT OF NEW LOCAL ROADS

The design changes proposed for Alternative A are based on the traffic projections provided in Figure 13, which include background growth and traffic from the anticipated development. The traffic volumes for Alternative B and C also include background growth and traffic from anticipated development but have been modified to account for the effect of the new connector roads on background traffic patterns and traffic to and from the developments proposed on the west side of US 7.

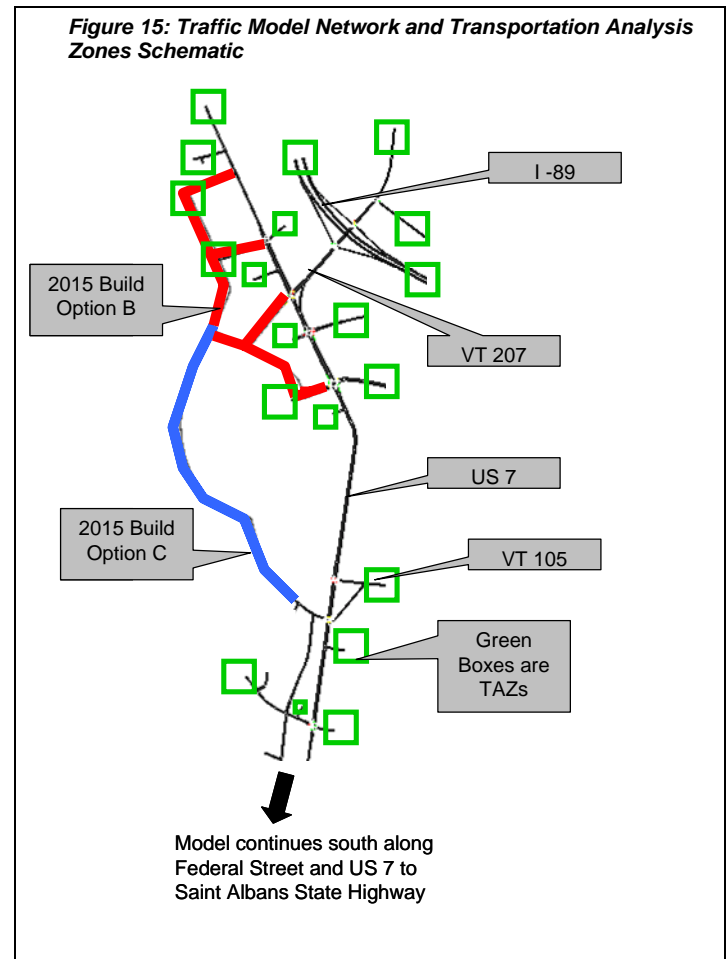
Future traffic volumes for the Alternatives B and C scenarios were developed using a travel demand model. The model utilizes the Paramics software program. Paramics is a microscopic transportation modeling program that simulates the behavior of individual vehicles traveling on the transportation



network. Microscopic simulation models have been used for many years to evaluate transportation networks and are a well accepted method of analysis in the transportation, planning, and engineering professions. The first step was to develop a base year model. This step ensures that the model reflects existing conditions and is therefore a reasonable tool for predicating future conditions. Figure 15 presents a schematic that shows the basic structure of the model. Figure 15 displays only the section of the model relevant to the study area. The full St. Albans Paramics model extends southward along US 7 and Federal Street to the St. Albans State Highway. The model was developed by RSG to evaluate the Federal Street Connector and was expanded to cover the Exit 20 study area.

The model consists of the highway network and transportation analysis zones (TAZs). The Main Street (US 7), Federal Street, and VT 207 corridors are the primary features of the St. Albans's transportation network included in the model. Cross streets such as Jewett Avenue, Newton, Lake, Stebbin, Weldon, and Nason Streets are also included in the network. Key roadway features such number of travel lanes, speed limits, turn lanes at intersections, and the type of intersection control are included in the model.

A TAZ is designated to represent a residential neighborhood, shopping center, industrial park, office building, or many other types of development. An origin/destination (O/D) matrix is created that defines the number of vehicle trips traveling between all TAZs. The 2005 year O/D table is generated through an iterative process that utilizes the 2005 turning movement volumes presented in Figure 10. The O/D table also utilized the license plate survey data collected for a 1995 study¹ which indicates how much traffic is passing through the study area.



1



The Paramics model selects a route along the highway network for each vehicle trip traveling between two TAZs based on travel time. As a highway network becomes more congested, travel times increase and drivers will seek alternate routes. Paramics accounts for this dynamic by estimating travel times between TAZs in 5 minute intervals. Vehicles are assigned to different routes as conditions changed.

The validity of a travel demand model is tested by comparing it's projected to actual traffic volumes. A model is well calibrated when the difference between its projections and actual traffic volumes falls within certain statistical measures as recommended by the Federal Highway Administration. Table 8 shows results for the Saint Albans model which exceeds the calibration guidelines for RMSE and r^2 . The calibration guideline for percent error was not met. However, the fact that both the RMSE and r^2 , which are stronger statistical measures of calibration than percent error, exceed the guidelines for calibration by a significant amount lends strong support that the model is calibrated.

Table 8: Calibration Results

Calibration Measure	Model 2005 PM Peak	Federal Highway Administration Guideline
RMSE	0.18	Less than 0.40
r^2	0.93	Greater than 0.88
Percent error	7.5%	With-in $\pm 5.0\%$

After the 2005 model was developed and calibrated, O/D tables for the 2015 PM peak hour were created by accounting for background traffic growth and traffic from specific development that are anticipated within the planning horizon. The 2005 O/D table was first increased by 15% to account for background growth between 2005 and 2015. This growth rate is based on the statewide average for rural primary and secondary roads as developed by VTtrans¹;

The traffic from anticipated development projects was added to the background growth to create the final 2015 O/D trip table. The trip generation for the JLD Properties PUD and the Redstone/Murphy parcel (potential site of future Lowe's) was reduced by 20% to account for the benefits of mixing two major retail uses. The model was used to assign traffic to the network assuming no new local roads (Alternative A), Alternative B, and Alternative C. The model created turning movement projections for each study intersection under the three alternatives. A ratio was developed for each specific turning movement for Alternative B and Alternative C relative to Alternative A. The ratio was developed for background growth and for the traffic from anticipated development. The model ratio was then applied to the Alternative A traffic volumes shown in Figure 13 to develop the final traffic projections for Alternative B and C as shown in Figure 16 and Figure 17 respectively.

¹ Continuous Traffic Counter Grouping Study and Regression Analysis Based on 2004 Traffic Data; Vermont Agency of Transportation.



Figure 16: Alternative B - 2015 PM peak hour traffic volumes, background growth and anticipated developments

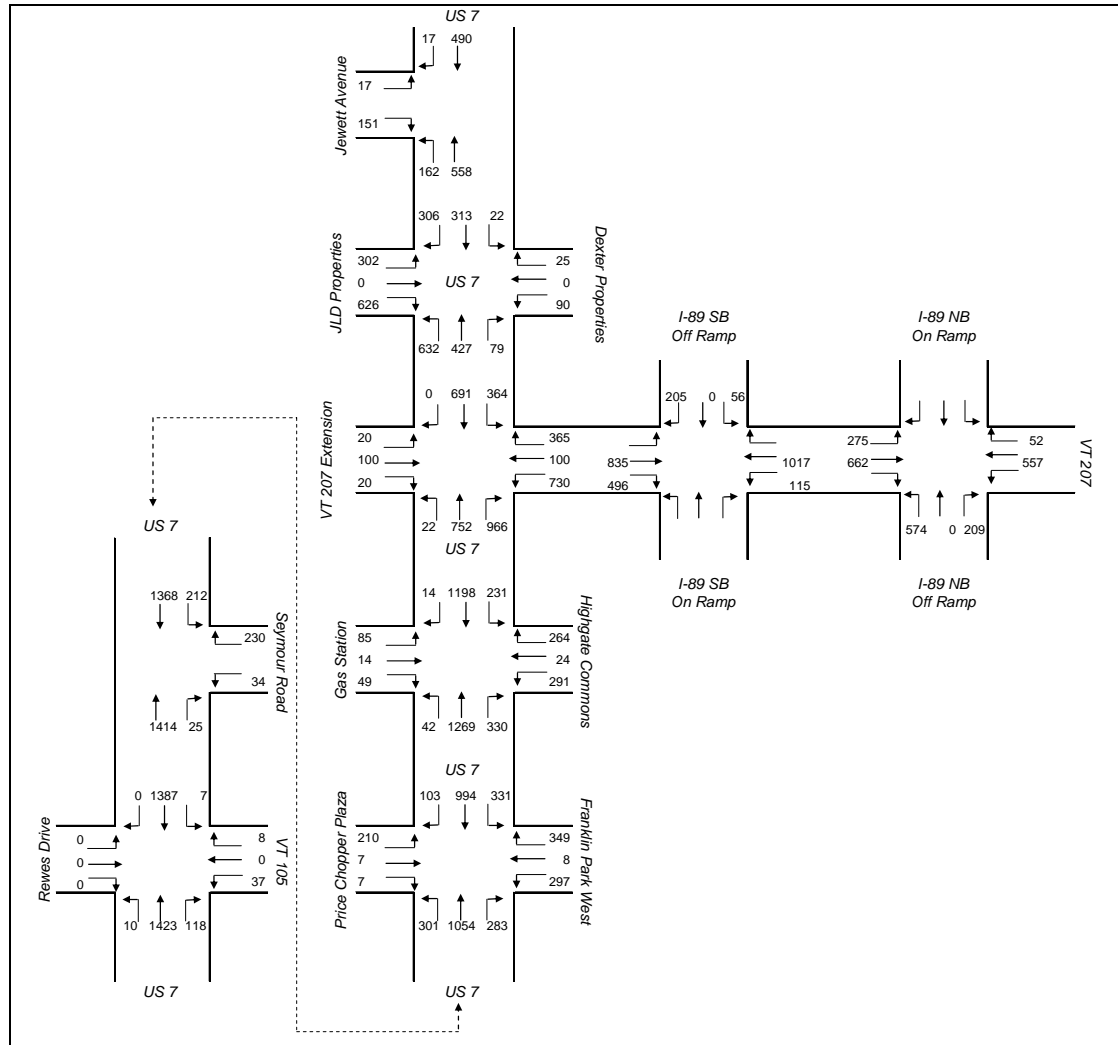


Figure 17: Alternative C - 2015 PM peak hour traffic volumes, background growth and anticipated developments

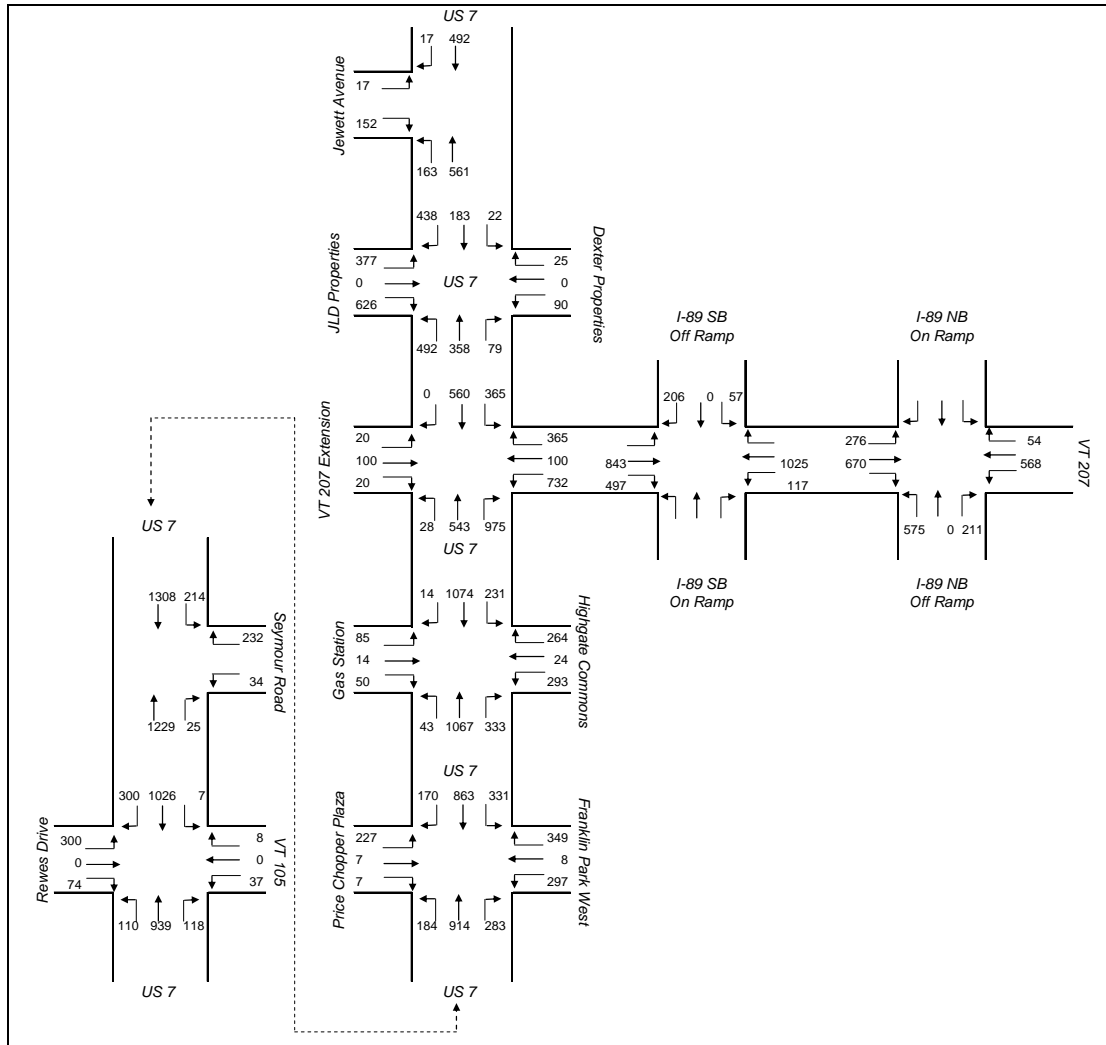


Table 9 and Table 10 list the modifications to the intersections and road segments along the US 7 and VT 207 corridors required for each alternative to accommodate projected traffic. The length of turning bays and lanes listed in the tables reflects the 50th percentile queue as calculated by Synchro. Appendix C contains concept plans for Alternative A and identifies locations where different lane configurations are recommended for Alternative B or C.



Table 9: Improvements to the US 7 corridor for the alternative infrastructure plans.

	2005 Current Infrastructure	2015 Alternative A Infrastructure	2015 Alternative B Infrastructure	2015 Alternative C Infrastructure
Road Segment	1 Lane North, 1 Lane South	1 Lane North, 1 Lane South	Same as Alternative A	Same as Alternative A
US 7 - Jewett Avenue				
Control Type	Stop Controlled on Minor Approach	Stop Controlled on Minor Approach		
Eastbound: Jewett Avenue	1 Lane L R	1 Lane L R		
Northbound: US 7	1 Lane L T	1 Lane L T		
Southbound: US 7	1 Lane T R	1 Lane T R		
Road Segment	1 Lane North, 1 Lane South	1 Lane North, 1 Lane South		
US 7 - JLD Properties Driveway				
Control Type	Signalized	Signalized		
Eastbound: JLD Properties Driveway	1 Lane T L (69'), 1 Lane R (67')	1 Lane T L (69'), 1 Lane R (67')		
Westbound: Dexter Properties	Currently this intersection does not exist.	1 Lane L (68'), 1 Lane T R		
Northbound: US 7	Currently, the entrance to the drive-in movie theater is located at this future intersection.	1 Lane L (139'), 1 Lane T, 1 Lane R		
Southbound: US 7		1 Lane L, 1 Lane T, 1 Lane R		
Road Segment	1 Lane North, 1 Lane South	2 Lanes North, 2 Lanes South		
US 7 - VT 207				
Control Type	Signalized	Signalized		
Eastbound: VT 207 Extension	This approach does not exist	This approach does not exist		
Westbound: VT 207	1 Lane L, 1 Lane R	2 Lane L (239'), 1 Slip Lane R	Signalized	Signalized
Northbound: US 7	1 Lane T, 1 Slip Lane R (275')	2 Lane T, 2 Slip Lane R (275')	1 Lane L (11'), 1 Lane T (57'), 1 Lane R	1 Lane L (11'), 1 Lane T (57'), 1 Lane R
Southbound: US 7	1 Lane L (330'), 1 Lane T	2 Lane L (134'), 1 Lane T	2 Lane L (239'), 1 T Lane, 1 Slip Lane R	2 Lane L (239'), 1 T Lane, 1 Slip Lane R
Road Segment	1 Lane North, 1 Lane South	3 Lane North, 2 Lanes South	1 Lane L (10'), 2 Lane T, 2 Slip Lane R (275')	1 Lane L (10'), 2 Lane T, 2 Slip Lane R (275')
US 7 - Highgate Commons			2 Lane L (134'), 1 Lane T R	2 Lane L (134'), 1 Lane T R
Control Type	Signalized	Signalized	Same as Alternative A	Same as Alternative A
Eastbound: Gas Station	1 Lane L, 1 Lane T R	1 Lane L (58'), 1 Lane T R		
Westbound: Highgate Commons	1 Lane L, 1 Lane T R	2 Lane L (112'), 1 Lane T R		
Northbound: US 7	1 Lane L (107'), 1 Lane T, 1 Lane R	1 Lane L (33'), 2 Lane T, 1 Lane T R (127')		
Southbound: US 7	1 Lane L (125'), 1 Lane T R	1 Lane L (169'), 1 Lane T, 1 Lane T R		
Road Segment	2 Lanes North, 1 Lane South	3 Lanes North, 2 Lanes South		
US 7 - Price Chopper Plaza				
Control Type	Signalized	Signalized		
Eastbound: Price Chopper Plaza	1 Lane L, 1 Lane T R	2 Lane L (84'), 1 Lane T R		
Westbound: Franklin Park West	1 Lane L, 1 Lane T R	2 Lane L (97'), 1 Lane T R		
Northbound: US 7	1 Lane L (200'), 1 Lane T, 1 Lane T R	1 Lane L (202'), 2 Lane T, 1 Lane R (11')		
Southbound: US 7	1 Lane L (200'), 1 Lane T, 1 Lane R (325')	1 Lane L (242'), 2 Lane T, 1 Lane R (8')		
Road Segment	1 Lane North, 1 Lane South	2 Lanes North, 2 Lanes South		
US 7 - Seymour Road				
Control Type	Stop Controlled on Minor Approach	Signalized		
Westbound: Seymour Road	1 Lane L R	1 Lane L (22'), 1 Lane R		
Northbound: US 7	1 Lane T R	1 Lane T, 1 Lane T R		
Southbound: US 7	1 Lane T L	1 Lane L (95'), 2 Lanes T		
Road Segment	1 Lane North, 1 Lane South	2 Lanes North, 2 Lanes South		
US 7 - VT 105				
Control Type	Stop Controlled on Minor Approach	Signalized		
Eastbound: Federal Street Extension	This approach does not current exist	This approach does not current exist		
Westbound: VT - 105	1 Lane L R	1 Lane L (24'), 1 Lane R		Signalized
Northbound: US 7	1 Lane T R	1 Lane T, 1 Lane T R		1 Lane L (143'), 1 Lane R
Southbound: US 7	1 Lane T L	1 Lane L, 2 Lanes T		1 Lane L, 1 Lane R
Road Segment	1 Lane North, 1 Lane South	2 Lane North, 2 Lanes South		1 Lane L, 1 Lane T, 1 Lane T R
				1 Lane L, 1 Lane T, 1 Lane T R
				2 Lane North, 2 Lanes South

Table 10: Improvements to the VT 207 corridor for the alternative infrastructure plans.

	2005 Current Infrastructure	2015 Alternative A Infrastructure	2015 Alternative B Infrastructure	2015 Alternative C Infrastructure
Road Segment	1 Lane East, 1 Lane West	2 Lane East, 2 Lane West	Same as Alternative A	Same as Alternative A
VT 207 - I-89 NB Ramps				
Control Type	Stop Controlled on Minor Approach	Signalized		
Eastbound: VT 207	1 Lane L, 1 Lane T	1 Lane L (96'), 1 Lane T		
Westbound: VT 207	1 Lane T R	1 Lane T, 1 Lane T R (205')		
Northbound: I-89 NB Off Ramp	1 Lane L R	1 Lane L (358'), 1 Lane R (22')		
Road Segment	2 Lanes East, 2 Lanes West	2 Lanes East, 2 Lanes West		
Vt 207 - I-89 SB Ramps				
Control Type	Stop Controlled on Minor Approach	Signalized		
Eastbound: VT 207	1 Lane T, 1 Lane R	1 Lane T, 1 Lane R		
Westbound: VT 207	1 Lane L T, 1 Lane T	1 Lane L T (73'), 1 Lane T		
Southbound: I-89 SB Off Ramp	1 Lane L R	1 Lane L (37'), 1 Lane R (51')		
Road Segment	2 Lanes East, 2 Lanes West	2 Lanes East, 3 Lanes West		



7.2 LOS RESULTS

The 2015 PM peak hour LOS results for the designs as proposed for each alternative are shown in Table 11. The results assume optimization of the traffic signal timing plans. Both signalized and unsignalized intersections are reported in each table. Detailed LOS worksheets are provided in Appendix B.

The congestion analysis indicates that:

- For Alternative A: with a couple of exceptions the overall intersection and approach LOS and delay are projected at LOS D or better. The two exceptions are the southbound approach of US 7 to the JLD Properties access road and the westbound Franklin Park West approach to US 7. Both approaches are projected to operate at LOS E.
- For Alternative B, all intersections are functioning at an acceptable LOS.
- For Alternative C, all intersections are functioning at an acceptable LOS.
- While Alternatives B and C do reduce some traffic on US 7, as seen in Figure 16 and Figure 17, traffic volumes are not reduced significantly enough to warrant the reduction of the transportation infrastructure improvements recommended in Alternative A.
- While Alternatives B and C do reduce some traffic on US 7, as seen in Figure 16 and Figure 17, they also create more complex intersections at US 7 – VT 207 and US 7 – VT 105 due to the addition of eastbound approaches from the new connector roads. This extra approach utilizes some of the available green time during a cycle, causing a decrease in LOS on their approaches and creating a need for additional lanes.



Table 11: LOS Results for 2015 Alternative Scenarios with background growth and anticipated development

	2005 No Build		2015 No Build Background Growth Only		2015 No Build Background Growth and Anticipated Developments		2015 Alternative A Background Growth and Anticipated Developments		2015 Alternative B Background Growth and Anticipated Developments		2015 Alternative C Background Growth and Anticipated Developments	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
VT 207 - I-89 NB Ramps	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		24		>100		>100		28		28		23
Eastbound: VT 207	A	3	A	3	B	3	C	20	C	27	C	21
Westbound: VT 207							C	28	D	40	C	31
Northbound: I-89 NB Off Ramp	F	64	F	>100	F	>100	D	37	C	20	B	19
Vt 207 - I-89 SB Ramps	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		2		2		>100		7		7		6
Eastbound: VT 207	A		A	<1	A	3	A	1	A	2	A	2
Westbound: VT 207							A	5	A	7	A	3
Southbound: I-89 SB Off Ramp	B	11	B	12	F	>100	D	48	D	39	C	33
US 7 - Jewett Avenue	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		2		3		4		4		4		4
Eastbound: Jewett Avenue	B	11	B	12	C	19	C	19	C	19	C	19
Northbound: US 7	A	2	A	2	A	4	A	4	A	4	A	4
Southbound: US 7												
US 7 - JLD Properties Driveway	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall						>100		35		30		20
Eastbound: JLD Properties Driveway					F	>100	C	25	C	24	C	21
Westbound: Drive In Movie Theater					F	>100	C	30	C	22	B	14
Northbound: US 7					C	17	C	29	C	27	B	13
Southbound: US 7	Intersection Does Not Exist in this Scenario		Intersection Does Not Exist in this Scenario		A	<1	E	61	D	44	C	28
US 7 - VT 207	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		13		13		>100		20		19		28
Eastbound: VT 207 Extension												
Westbound: VT 207	C	30	C	27	F	>100	D	40	D	43	C	30
Northbound: US 7	A	4	A	4	F	>100	A	6	A	7	A	6
Southbound: US 7	B	13	B	14	F	>100	C	22	C	27	D	41
US 7 - Highgate Commons	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		20		17		>100		19		19		16
Eastbound: Gas Station	C	32	C	30	D	51	D	51	D	43	C	32
Westbound: Highgate Commons	C	29	C	27	F	94	D	53	D	46	C	30
Northbound: US 7	B	14	B	13	F	>100	A	7	A	9	A	10
Southbound: US 7	B	17	B	14	F	>100	B	16	B	17	B	16
US 7 - Price Chopper Plaza	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		17		15		>100		32		30		28
Eastbound: Price Chopper Plaza	C	30	C	28	F	>100	D	49	D	41	C	32
Westbound: Franklin Park West	C	27	C	26	F	>100	E	55	D	51	C	32
Northbound: US 7	B	13	B	13	F	>100	C	26	C	22	C	31
Southbound: US 7	B	15	A	9	F	>100	C	24	C	26	C	23
US7 - Seymour Road	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		4		5		>100		10		10		7
Westbound: Seymour Road	C	24	E	39	F	>100	D	49	D	41	D	44
Northbound: US 7							A	10	B	13	A	4
Southbound: US 7	A	3	A	3	E	44	A	3	A	2	A	4
US 7 - VT 105	<u>Unsignalized</u>		<u>Unsignalized</u>		<u>Unsignalized</u>							
Overall		<1		1		41		2		3		26
Eastbound: Rewes Drive												
Westbound: VT - 105	D	27	E	37	F	>100	D	53	D	45	C	21
Northbound: US 7							A	2	A	3	D	35
Southbound: US 7	A	<1	A	<1	A	1	A	<1	A	1	B	18

7.3 ROADWAY CROSS-SECTION ALTERNATIVES

The recommended lane configurations combined with the traffic volumes will require that two travel lanes be provided in each direction on US 7 from the JLD properties PUD access road to the VT 105 intersection. Two travel lanes per direction are also recommended on VT 207 from US 7 to just east of the I-89 northbound ramps. The VT 207 cross-section will not include any additional features



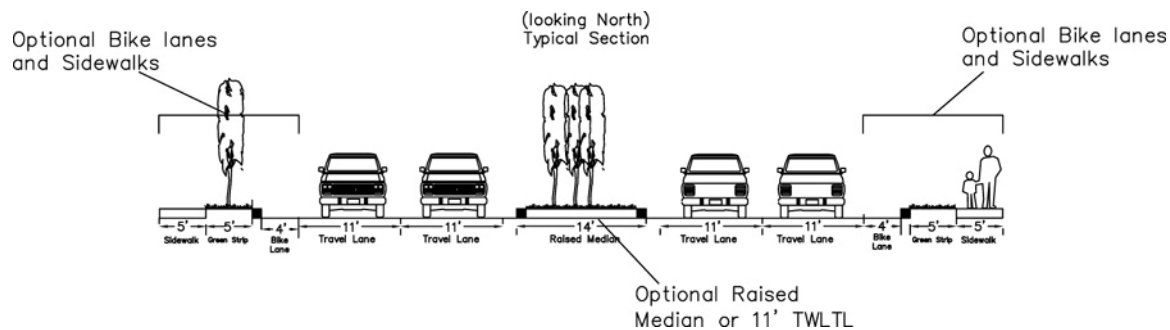
such as medians, bike lanes, or sidewalks. The US 7 cross-section however, will be greatly affected by the type of median, and whether or not sidewalks and bike lanes are included.

A median is recommended on US 7 between VT 207 and Price Copper Drive. A median is not necessary between Price Chopper Drive and VT 105. The median will provide a space for turning lanes on the approach to the intersections and may be either a two-way-left-turn lane (TWLTL) or a raised non-traversable median with landscaping.

Sidewalks are recommended along US 7 in the Saint Albans Town Sidewalk Master Plan from the Saint Albans City/Town line to Jewett Avenue. Therefore, the Town may wish to include sidewalks and possibly bike lanes along US 7 in the study area.

Figure 18 shows a cross-section for US 7 that includes two travel lanes in each direction, a median, bike lanes, sidewalk, and green strip. The total width varies from 68 feet, if only 4 travel lanes are provided, to 95 feet if all of the components are constructed. The concept plan contained in Appendix C assumes all of these features are provided. Our understanding is that the available right-of-way along US 7 is 99 feet. However, this needs to be verified by VTrans.

Figure 18: US 7 Roadway Cross-Section Options



7.4 COST ESTIMATES

Table 12 presents the preliminary cost estimates for Alternatives A, B, and C. The costs for each alternative will depend on the median treatment and whether or not sidewalks and bike lanes are included. Additional engineering design needs to occur to refine the construction cost estimates included.

Estimated costs include per unit costs for construction items, contractors overhead and profit, engineering design and permitting, and a twenty percent contingency. These cost do not include the cost of acquiring right-of-way. Detailed cost estimates are contained in Appendix E.



Table 12: Cost Estimates

Median Type on US 7 Between VT 207 and Price Chopper Drive	TWLTL	TWLTL	Raised	Raised
Sidewalks/Bike Lanes on US 7	No	Yes	No	Yes
Alternative A	\$ 11,180,774	\$ 13,240,592	\$ 11,603,584	\$ 13,663,402
Alternative B	\$ 15,218,714	\$ 17,278,532	\$ 15,641,524	\$ 17,701,342
Alternative C	\$ 22,016,310	\$ 24,076,128	\$ 22,439,120	\$ 24,498,938

8.0 FINANCING OPTIONS

This section describes the various mechanisms and funding sources that can be used to finance transportation projects. The section describes state and federal transportation programs, municipal bonds and local funding options, and private sources.

8.1 STATE AND FEDERAL TRANSPORTATION PROGRAMS AND FUNDS

The most common approach used in Vermont to fund and build highway projects is through the VTrans Capital Program. The capital program is approved by the state legislature each year. It includes a list of projects that will receive state and federal funds.

8.1.1 Surface Transportation Program (STP)

The study intersections are all part of the state highway system and can therefore be funded through the Surface Transportation Program (STP). STP funds have the most flexible uses of any federal transportation funds. STP funds may be used for highway, transit, and non-motorized facility construction and improvements. Facilities must be classified by the State as eligible for federal-aid, although sidewalk projects on local roads that are not on the federal-aid system may also be eligible for STP funding. The non-federal match is 20 percent. For projects that are completely on the state system, the state typically covers the 20% match. When local road or bridges are involved, a local match of 10-20% may be required depending on the classification of the highways involved and other factors.

Projects utilizing STP funds are typically prioritized by a regional planning commission relative to other projects in a region and must pass through the VTrans scoping and project development process. The project development process may take several years and does not necessarily guarantee that funds will be waiting when the studies are completed. This type of funding source is not recommended for a project that needs to be implemented in less than five years.



8.1.2 Enhancement Program/Bicycle Pedestrian Program

Both programs provide federal funding through a competitive application process and could fund sections of the sidewalks and associated streetscapes for the Exit 20 area. Generally, funding awards are made once per year through a competitive application process, although the state has, in recent years, made an additional round of awards after the end of the Legislative Session. The non-federal match requirement is 20 percent.

8.1.3 Congestion Mitigation and Air Quality (CMAQ)

CMAQ funds are intended for projects that address congestion problems that cause air quality problems, primarily in urban areas. In Vermont, because the entire state is currently considered to be 'in attainment' of federal air quality standards, VTTrans controls the distribution of CMAQ funds throughout the state. VTTrans has mainly used CMAQ funds to support start-up transit services such as the College Street shuttle in Burlington. CMAQ funds have also been used to fund park and ride lot construction. A 20 percent non-federal fund match is required. This funding source is not applicable to the Exit 20 area.

8.2 MUNICIPAL BONDS

This section describes the bonding programs available to municipalities and the different local funding options that could be used to pay down a bond.

8.2.1 Vermont Municipal Bond Bank

The Vermont Municipal Bond Bank (VMBB) is a quasi-state agency administered by a board of directors that includes four members appointed by the Governor and the State Treasurer. All highway infrastructure within the Town of Saint Albans would be eligible for bond financing.

VMBB operates by purchasing a bond from a municipality such as the Town of St. Albans. The municipality must have approved the issue of the bond by vote of the legislative body, which, for the Town of St. Albans, is the Town Meeting¹. The VMBB bundles together several individual municipal bonds and sells them as a package to individual or institutional investors. In this way VMBB can secure preferential rates for its municipal Vermont clients.

Bond transaction costs are assumed by VMBB, which is an important advantage of this source of financing. The interest rate accompanying any bond issue is determined at the date of sale. Bond payback terms are typically 20 years for highway-related improvements and 30 years for water/sewer improvements. Payments are made on a monthly basis, and can be calculated for level or declining principal balance.

¹ This could be a special Town Meeting or part of the annually scheduled Town Meeting. Pursuing a Town Meeting vote on this subject should follow a Selectboard resolution regarding the necessity of making the proposed improvements.



If the municipality receives the bond money before it is ready to spend it, it can invest that money in a secure instrument such as a Certificate of Deposit from a private bank and earn income on that investment for the months it takes to prepare for project start-up. On the flip side, if the municipality is prepared to begin project construction, but has not yet received the bond funds (but has received commitment of their eventual arrival), the municipality can receive a Bond Anticipation Note from a private bank. This acts as a bridge to cover the time between project start-up and the arrival of funds from the VMBB.

8.2.2 State Infrastructure Bank (SIB)

The Vermont State Infrastructure Bank (SIB) is another potential funding mechanism for proposed improvements in St. Albans. The SIB is a cooperative program involving the Vermont Economic Development Authority (VEDA), the Federal Highway Administration (FHWA), and the Vermont Agency of Transportation (VTrans). The goal of the Vermont SIB is to:

“Assist the improvement, rehabilitation, expansion, and construction of transportation projects within the state to contribute to the economic welfare of the state by providing jobs and other economic opportunities for the people of the state and enhancing economic development.”

VEDA has developed multiple guidelines for potential applicants, which can include any municipality, regional Development Corporation, or other instrumentality of the state or any of its political subdivisions. Private sector interests that have entered into a contract with one of the above to carry out a qualified project are also eligible.

To be eligible for SIB financing a proposed project must be eligible for funding under Title 23 (federal highway program) or Title 49 (federal transit program) of the United States Code. Also, projects should be part of the current state transportation Capital Program. For the types of modification recommended in this study, this means that the Northwest Regional Planning Commission must have submitted the projects as part of their annual Transportation Improvement Program (TIP). These projects, in turn, must have been brought into VTrans Capital programming.

A local match 20% equity contribution is required. This may be reduced to 10% under special circumstances. Interest rates are determined at the time that applications are approved, and are always at or below applicable market rates. Repayment of the SIB loan must commence no later than 5 years after completion of the project, and cannot exceed 30 years total. A project must have an identified revenue source adequate to amortize the debt.

Eligible activities are described in Federal Statute Title 23 and Federal Statute Title 49. In brief, SIB financing can finance all transportation-related improvements, including acquisition of rights-of-way, acquisition of replacement housing, traffic control systems, drainage structures, signage, and roadway safety improvements. From the description of eligible projects, municipal water and sewer improvements are not eligible under this source, but storm water sewer improvements would be eligible.



8.3 LOCAL REVENUE SOURCES

This section describes the options available at the local level to raise funds that can be used to pay for projects in their entirety, pay down bonds, or cover the cost of local match for projects also using state and federal funds.

Municipalities manage their investments in capital projects through the municipal capital budget and program, often referred to as a “capital improvement program”. The municipal capital budget is a fiscal management tool that is typically a component of the total municipal budget approved by the voters. The municipal capital budget schedules needed capital improvements, including proposed roadway projects, for the coming fiscal year, and for the following five year period. It identifies estimated costs and sources of financing for each project – which may include local property taxes, impact fees, state and federal transportation funding, bond programs as described above, or special grants.

8.3.1 Impact Fees

The State of Vermont State Statutes Title 24, Chapter 131 Section 5203 establishes the ability for the municipality to create Impact Fees to provide revenue for capital projects pursuant with the established capital budget plan.

Through impact fees, new developments pay a ‘fair-share’ of the costs related to updating and improving infrastructure based on the amount of ‘impact’ the development would have on that infrastructure. Impact Fees can be setup many different ways based on estimated type of growth, and what type of capital projects are planned.

The law requires the adoption of a capital budget, and a local impact fee ordinance, which stipulates the specific formula used in calculating the fee. Impact fees cannot be used to raise money for the maintenance of the existing transportation system or to overcome existing deficiencies in the system. They can only be used to overcome funding deficits caused by the deterioration of the system due to increased growth, for example when the cost of necessary improvements exceed the projected capital budget for that facility.

Issues to Address

Potential for Insufficient Revenue

Fees are collected before issuing a building permit and deposited in a special account to be expended on the specific improvements. State law requires the town to expend the fee on the capital project for which it was intended within six years of the time it was levied. This presents a major drawback to the imposition of fees, since, possibly, insufficient development would occur to pay the entire costs of the improvement within this time frame. The town would be forced to pay the balance within a specified time period or forfeit the fee.

“Fair Share”



Traditionally, impact fees have been applied to facilities where the impact of a development can be clearly defined, such as the impact of a housing development on water or sewer mains, parks or on municipal services such as fire or police. The difficulty in applying impact fees to transportation projects is that a transportation facility is characterized by non-exclusive use and by joint consumption by the public in general. Thus the “rational nexus”, or the clear, direct and substantial relationship between a particular development and the transportation needs which it generates, must be clearly defined, particularly for commercial and industrial developments.

The State of Vermont has stringent rules and regulations requiring developers to be only financially responsible for their share of the total impact. The State of Vermont attempts to maintain equity over time by stating; “Beneficiaries of future development pay an impact fee to the owners of the development on which the impact fee has already been levied.”

8.3.2 Special Assessment Tax Districts

This financing mechanism provides additional revenue by assessing an additional tax on properties that benefit from an infrastructure improvement. The State of Vermont State Statutes Title 24, Chapter 87 establishes Special Assessments as a means for municipal funding. The statute states: “Special Assessments may be made for the purchase, construction, repair, reconstruction or extension of a water system or sewage system, or any other public improvement which is of benefit to a limited area of a municipality to be served by the improvement.”

A special assessment may be apportioned on the properties to be benefited by the improvement as a distinct additional charge on the property value listed in the grand list. The assessment of the additional charge shall only be instituted once a majority of the voters in the municipality vote in favor or if all affected property owners give their consent.

Issues

8.3.2.1 Freeloader Effect

The improvements that occur in one area may benefit others outside of the special assessment area. The properties within the special assessment area pay higher costs to be located within the area, while others outside the area may be benefiting from the improvements. The tax bases can be setup to minimize the freeloader effect.

8.3.2.2 Insufficient Revenue

The improvements that may be funded by a special assessment district may not be fully funded by the additional levies imposed on the properties within the zone. Property values may fall or total costs may exceed revenue availability. Other sources of revenue will have to be utilized, therefore spreading the burden of improvements over a wider tax base than the original special assessment district.



8.3.2.3 Non-Benefiting Parties

The additional levies assessed on property values may be spread to include some properties that may not benefit from the improvements. The non-benefiting properties are assessed a higher-tax for no net benefit, creating an inequity. The tax should be setup in a manner to address this. As a requirement of Vermont State Statutes, the majority of qualified votes in the municipality must authorize the assessment, therefore allowing possible non-benefiting parties the ability to voice concerns.

8.3.3 Tax Increment Financing (TIF)

A municipality can create a Tax Increment Financing (TIF) District in accordance with Vermont law. Within a TIF district, public investment can be financed by designating the incremental increases in property tax revenues that result from freezing the tax rate on the development of land or the redevelopment of deteriorated properties. This mechanism is used when a public investment can directly result in subsequent development efforts by the private sector.

The State of Vermont State Statutes Title 24, Chapter 53 Section 1897 allows municipalities the ability to create tax incremental Financing Districts to provide revenue for the payment of the principal of and interest on bonds issued for improvements contained wholly or partially within the district. The TIF district is created by a vote of a majority of all eligible voters within the municipality.

TIF districts have been created in a few locations around Vermont primarily to serve redevelopment efforts of downtowns and to promote job creation. Areas of Newport, Winooski, Burlington, and Milton, Vermont have all implemented TIF districts to finance bonds used for infrastructure development.

Issues

8.3.3.1 Insufficient Revenue

Significant adjustments can occur to the property values when repaying the value of the bond. Shocks such as what happened to Minnesota when a state education law changed the way property taxes were valued – decreasing revenue by 37 percent. This issue is extremely critical in Vermont with the introduction of Act 60 and Act 68, and whatever future adjustments are made to the statewide property tax assessment.

Inaccurate estimates of total generated tax on land value increases can also lead to insufficient revenues for bond payments. The initial estimates of revenue from future property taxes may encourage the large initial bond values, where if growth rates or property values do not appreciate as expected, a gap can form between estimated revenue and real revenue.

Ways to Reduce Risk of Insufficient Revenue



- The size of the TIF District may be made larger than it would typically be, in order to increase the total amount of revenue entering from the TIF District.
- Secondary revenue sources for the bond repayment: Sales taxes, parking taxes, and other fees levied may be used to generate revenue to repay the value of the bond.
- Joint Financing of TIF Districts: This allows several TIF Districts to issue their own bonds, but allows the revenue from any of the TIFs to service the debt repayment schedule. This option may be attractive in Saint Albans Town which could establish a TIF district around Exit 19 and one around Exit 20.
- Loan Guarantee: A private financier can provide a loan guarantee that backs the value of the bond against any decrease in property tax revenue.

8.3.3.2 Public Investment Costs

As growth occurs within the TIF District it can be estimated that demand for public services and public infrastructure would also grow. If funding for these services and facilities are not included into the original bonds that are issued within the TIF, then the original funding sources for these services could be placed into jeopardy. Since the original base load property tax revenue funded the public services and public infrastructure, were these services to grow to meet additional demand, then their demand for funding would be increased, though their funding remains fixed within the TIF District.

A Spearheading Significant Project

A TIF works best when a significant large project is planned in the district. This project initially raises the value of the land and encourages additional investment in the area. When used in urban areas, a significant project is often a sports complex, new business structure, or other major landmark.

State of Vermont Act 60 & 68

Act 68 education tax rates for a municipality is based on assessed original property value established at the commencement of the TIF district. Throughout the life of the TIF District, the actual base rate of tax on the assessed value may change, based on the trends of sold property values within the municipality, but the original property value to the town will remain fixed. The additional revenue on the real property value, which is in excess of the revenue on the original property value, goes towards principal and interest on the bond payments for the infrastructure improvements. Once all principal and interest payments have been made on the infrastructure bonds, then all additional revenue goes to the State education fund.

The Vermont Economic Progress Council (VEPC) gives tax incentives to TIFs. If a TIF meets the criteria setup by VEPC, the municipality is allowed to use additional revenue gained from a frozen education tax rate in addition to any additional revenue gained from the frozen municipal tax rate. The VEPC approval allows significantly more revenue gained from the frozen tax rates since the statewide education tax is proportionally a higher percentage of the overall property tax. The criteria



for VEPC approval depend greatly on the type of employment anticipated in the TIF district. Industrial or manufacturing jobs are much more likely to win approval than retail employment.

8.3.4 Local Option Sales Tax (LOST)

Local Option Sales Taxes is the newest form of local funding within the State of Vermont and provides a unique way to raise revenue within the town without burdening only the residents of the town.

Vermont State Statute Section 138 of Title 24, passed in 1998 and amended in 1999, enables municipalities to collect local options sales taxes. Since the law was originally designed to offset the cost of property tax adjustment of Act 60 and later Act 68, the local options sales tax is currently scheduled to end in 2008.

Only three municipalities have successfully implemented the Local Option Sales tax¹. Since the purpose of LOST was to address the affect of Act 60 under certain situations, the criteria that a municipality must meet are somewhat restrictive, reducing the number of places where this local funding option can be applied.

Manchester, Stratton, and Williston are currently the only towns in the State that collects local sales tax.

The State of Vermont allows the following taxes to be collected as part of the Local Option Sales Tax:

- A one percent sales tax;
- A one percent meals and alcoholic beverages tax; and
- A one percent rooms tax.

Of the taxes collected, 70% of the total sum will be returned to the municipality, with the remaining 30% used by the State in the PILOT (payment-in-lieu-of-taxes) special fund established in Section 89 of Number 60 of the Acts of 1997. The PILOT fund allows municipalities to be paid for state buildings and land. All funds received by the municipality shall be used by the municipality and not for educational expenditures.

The legislature is considering a bill that will make LOST available to all municipalities and that will remove the 2008 sunset of the current bill. If this new bill is passed, LOST will become an option for the Town of Saint Albans.

¹ Williston, Manchester, and Stratton, Vermont



Issues

The LOST has several advantages and disadvantages to its implementation. Their relevance and applicability to St. Albans will be evaluated in the economic investigation.

Sharing the Burden

A LOST ensures that all users of the local facilities pay a piece of the costs of the town's services, such as public safety and transportation infrastructure.

Revenue Diversification

The LOST will allow the Town to be diversified in its income, reducing the dependence on property taxes in the area.

New Revenues

The LOST revenues will be new source for the municipality to fund projects and improve infrastructure or offset other rising costs.

Hurts Businesses

The additional tax will increase paperwork and administrative workload. Particular products with high prices could see notable declines in demand. The LOST could result in less customers and lower sales for particular goods or retail locations.

Discourages Shoppers

The LOST could persuade some shoppers from using the retail locations with the higher tax rate.

8.4 PRIVATE FINANCING OF TRANSPORTATION PROJECTS

Transportation projects that are necessary to accommodate demand created by development projects are often funded by private developers. The projects are typically negotiated through the local and state permitting process. This approach, though quite common, is not necessarily fair. It can assign all of the improvement cost to the last developer that happens to file an application after previous developers have consumed available capacity. This last developer ends up financing a capacity expansion that can then be consumed by subsequent applicants. Impact fees, notwithstanding the disadvantages listed above, address this inequity because all developers contribute funds based on an established formula regardless of the timing of a congestion problem. For transportation projects, impact fees are typically based on trip generation (some amount of dollars per new trip generated).

In some cases, local land owners may work with the municipality and VTTrans to fund needed improvements in a proactive manner. For example, some land owners near the VT 104-VT 36 intersection have agreed to contribute funds for improvements at that location.



8.5 FINANCING OPTIONS BEST SUITED FOR THE EXIT 20 AREA

The following financing option is not recommended for additional evaluation:

- Congestion Mitigation and Air Quality Funds – In Vermont, these funds are typically used for transit projects. Therefore, projects in the Exit 20 study area will not be competitive for CMAQ funds.

State Capital Program/STP Funds are an option, but will only be available for longer term needs.

Three promising approaches to funding improvements in the study area are a combination of impact fees, municipal bonds, transportation enhancement or bicycle/pedestrian program grants, and private financing of improvements.

The options available to finance the bonds are:

- Tax Increment Financing District;
- Special Assessment Tax District; and
- Local Option Sales Tax. This last option should be evaluated under the assumption that the legislature passes a bill that allows all municipalities to levy these taxes while removing the 2008 sunset.

The next section of this study analyzes how much revenue may be generated by these three sources and compares the amount of possible funds to the cost of bond payments.

9.0 LOCAL REVENUE FORECASTS

Tax increment financing (TIF), special assessment tax districts, and local option sales taxes are three methods available on the local level to raise funds that can be used to pay off a bond. This section of the study:

- Provides an estimate of the amount of funds needed to pay down a bond issued for the recommended transportation improvements;
- Identifies the geographic area that forms the TIF and special tax assessment districts and documents the historic and existing property tax structure where future tax revenues can be generated for a TIF or special assessment district;
- Identifies the key assumptions including inflation, the state education tax, future local taxes, and growth within the study area that affect change in land value (which affects the amount of funds that can be captured by a TIF, or the change in the total property tax rate resulting from a special assessment);
- Provides a forecast for the future value of the property in the growth center;
- Estimates the amount of funds that could be captured for a TIF;



- Estimates the incremental change in the local property tax revenue from creating a Special Assessment Tax. Rates are estimated assuming the entire tax increase is limited within the district, distributed evenly throughout all properties in Town, and distributed across the Town assuming a higher rate within the district; and
- Describes the assumptions and estimates the amount of funds that could be generated by a local option sales tax.

The amount of revenue possible from each source is compared to the amount of funds necessary to finance the bond. Methods for financing any estimated shortfalls are described in the Section 9.6, page 75.

9.1 BOND PAYMENTS

The Exit 20 Transportation Financing Plan derived costs for roadway infrastructure improvements in Table 12, page 39 for the three improvement alternatives. The financing analysis assumes that only improvements identified in Alternative A, which includes all modifications to US 7 and VT 207, will be fully financed by a bond, with any further improvements beyond Alternative A being a combination of private and public funds. The estimated cost of Alternative A ranges from 11.2 to 13.7 Million, depending on the type of median and whether or not bike and pedestrian facilities are included.

Table 13 presents a number of possible bond principle amounts and the annual payment necessary for completing infrastructure Alternative A under a number of potential interest rates. The annual payments are compared to the possible revenue associated with the three funding mechanisms analyzed in this study.

Table 13: Annual Bond Payment Estimates

		Bond Principle			
		\$ 11,200,000.00	\$ 13,300,000.00	\$ 11,600,000.00	\$ 13,700,000.00
3.5%	Annual Payment	(\$779,466)	(\$925,616)	(\$807,304)	(\$953,454)
4.0%		(\$814,438)	(\$967,145)	(\$843,525)	(\$996,232)
4.5%		(\$850,281)	(\$1,009,708)	(\$880,648)	(\$1,040,076)
5.0%		(\$886,981)	(\$1,053,289)	(\$918,658)	(\$1,084,967)
5.5%		(\$924,521)	(\$1,097,868)	(\$957,539)	(\$1,130,887)
6.0%		(\$962,883)	(\$1,143,424)	(\$997,272)	(\$1,177,813)
6.5%		(\$1,002,050)	(\$1,189,935)	(\$1,037,838)	(\$1,225,722)
7.0%		(\$1,042,002)	(\$1,237,377)	(\$1,079,216)	(\$1,274,591)

The bond schedule shown in Table 13 assumes a 20-year amortized payment schedule, with equal monthly payments. As noted in Section 8.2.1, page 40 bond payback terms are typically 20 years for transportation projects.



9.2 BASELINE CONDITIONS AND ASSUMPTIONS

9.2.1 Financing District

The Financing District is assumed to include all of the parcels within the Exit 20 Growth Center, Franklin Park West, and Franklin Park East including those parcels that are bisected by the growth center's border as shown in Figure 19.

To understand how the proposed future developments in the Exit 20 study area (hereafter referred to as the Financing District) will impact the Town of Saint Albans it is critical to understand how the parcels within the assumed Financing District currently affect the Town. Using the 2004 Grand List property values and estimated tax values for the 2005 Fiscal Year, Table 14 shows the relative contribution to the Town's total grand list relative to the size of the study area.

Table 14: Growth Center Relative to Town

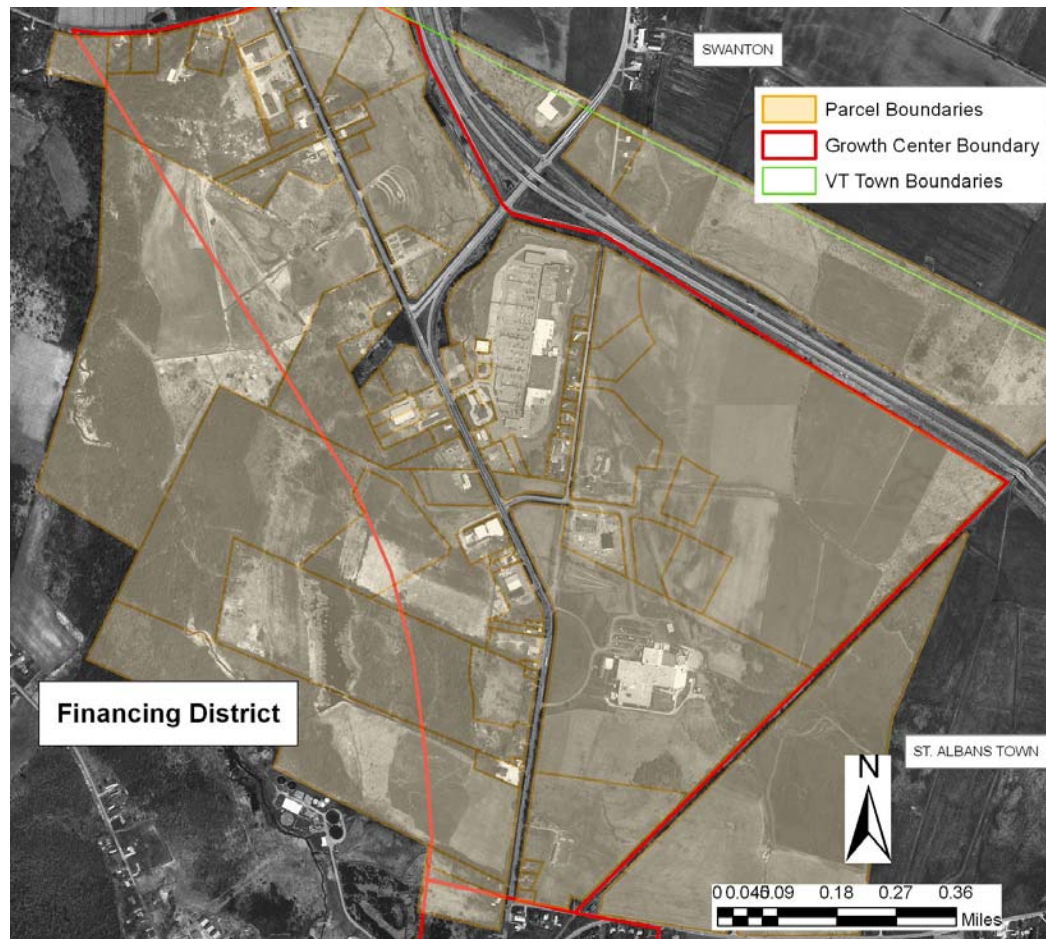
	Total Town	Financing District	Financing District % of Total
Total Value	405,911,600	47,254,200	11.6%
Land Value	112,346,900	15,220,900	13.5%
Building Value	293,564,714	32,033,314	10.9%
Taxable Amount	4,059,116	472,542	11.6%
Estimated FY 2004 Tax Revenue	8,210,841	1,038,150	12.6%
Land Area (acres)	21,698	968	4.5%

As shown in Table 14 it is clear that the Financing District plays a significant role in the Town's economy. It contains 4.5% of the land area, while generating almost 13% of the total tax revenue.

The number and location of parcels was determined using GIS and tax map data obtained from the Town of Saint of Albans town planner and lister. The 100 parcels within the Financing District used in the analysis are shown in Figure 19.



Figure 19: The Exit 20 Financing District Parcels



The land use in the Financing District is relatively homogenous with 76% of the parcels occupied by some sort of commercial activity, 19% percent by residential uses, and 5% occupied by the 'Other' category (representing Current Use and other special valuations). Though the residential and 'Other' land uses account for 24% of the total number of parcels – they comprise only 6% of the total property value within the Financing District.

Table 15: Financing District Breakdown

Land Use	Total Parcel Value	Land Value	Building Value	% of Financing District Total Value	Number of Parcels
Commercial	\$44,520,000	\$14,427,600	\$30,092,414	93.9%	76
Residential	\$1,569,900	\$449,800	\$1,120,100	3.3%	19
other	\$1,347,500	\$414,200	\$933,300	2.8%	5



9.2.2 Existing Tax Structure

The Town of St. Albans assesses two local property taxes. The local share of the total taxes is used to pay for the general municipal budget. The town taxes are assessed per hundred dollars of the value of the property.

Table 16: Historical St. Albans Town Tax Rates (per \$100 of assessed value)

Year		Town	Local Agreement	Total Town
Fiscal Year 1996	1995	0.2950	n/a	0.2950
Fiscal Year 1997	1996	0.2950	n/a	0.2950
Fiscal Year 1998	1997	0.3000	n/a	0.3000
Fiscal Year 1999	1998	0.3050	n/a	0.3050
Fiscal Year 2000	1999	0.3739	n/a	0.3739
Fiscal Year 2001	2000	0.2627	n/a	0.2627
Fiscal Year 2002	2001	0.2970	0.0054	0.3024
Fiscal Year 2003	2002/2003	0.3100	0.0056	0.3156
Fiscal Year 2004	2003/2004	0.3370	0.0059	0.3429
Fiscal Year 2005	2004/2005	0.3400	0.0057	0.3457

Prior to Act 60 in 1998, a share of the property tax was used to fund local education. Once Act 60 was enacted, it created a statewide education pool where the funds were raised locally, distributed into a general pool and then divided back out among all towns. This system created a new additional property tax on towns that was further amended in future bills.

Table 17 shows how property taxes used for education in Saint Albans Town have changed over time. The State of Vermont education taxes have changed substantially with the introduction of the Statewide Education bills, Act 60, 68, and 76. Act 60 introduced a local share of the state education tax and Act 68 and 76 further amended the process by differentiating the tax rate by land use, as indicate in the final two lines of Table 17.



Table 17: Historical St. Albans Local & State Education Property Tax

Year		Total Municipal Property Tax	State Education Tax Rate	Local Share	Total School Tax Rate	Total Property Tax Rate
Fiscal Year 1996	1995	0.295	1.29	n/a	1.29	1.585
Fiscal Year 1997	1996	0.295	1.481	n/a	1.481	1.776
Fiscal Year 1998	1997	0.300	1.65	n/a	1.65	1.95
Fiscal Year 1999	1998	0.305	1.114	0.312	1.426	1.731
Fiscal Year 2000	1999	0.374	1.1153	0.3709	1.4862	1.8601
Fiscal Year 2001	2000	0.263	1.0949	0.4424	1.5373	1.8
Fiscal Year 2002	2001	0.302	1.1357	0.5042	1.6399	1.9423
Fiscal Year 2003	2002/2003	0.316	1.1924	0.5602	1.7526	2.0682
Fiscal Year 2004	2003/2004	0.343	1.2727	0.6094	1.8821	2.225
			Statewide Education		Total Property Tax	
			NonResidential	Residential	NonResidential	Residential
Fiscal Year 2005	2004/2005	0.3457	1.9651	1.6624	2.3108	2.0081

9.2.3 Assumptions used to determine future land value

This section identifies the key assumptions used to forecast the change in land value including inflation, the state education tax, future local taxes, and development growth within the study area that affect change in land value.

9.2.3.1 Inflation

The Congressional Budget Office (CBO) publishes forward-looking estimates for increases in the consumer price index (CPI). A long-run value of 2.2% used in this analysis provides an estimate based on national projections for all urban households. The CBO estimates the future CPI out to 2015, which was then assumed to continue in this analysis until year 2030.

9.2.3.2 State Education Tax

The State of Vermont State Education tax system has significant impacts on the way property taxes are assessed and collected in Vermont. Act 60 first initially changed the way taxes were collected and pooled together to create a centralized education fund. Act 60 was further amended by the 2003 Act 68 and the 2004 Act 76.

The three acts created a system where a decided amount of revenue would be raised to be divided equally per student throughout the state. The funding mechanism is setup to value properties based on their land use, and if applicable, the gross income of the residential parcel. Nonresidential and residential land uses are valued differently and assessed different tax rates.

The State of Vermont annually determines the base tax rate that will be assessed per hundred dollars of value on nonresidential property and a base tax rate on homesteads per hundred dollars for a per pupil spending of \$6800, the FY2005 'base education payment'.



The statewide homestead rate increases proportionately for per pupil spending in excess of \$6800. In towns that spend in excess of 125 percent (135 percent in FY2005 and 130 percent in FY2006) of the statewide average per equalized pupil spending, the excess is double weighted. The base education payment grows by an inflation index in 2006 and after.

The Town of Saint Albans currently spends \$8,315 per pupil, which is 122% of the statewide base education payment. According to the estimate for FY 2006 Saint Albans Town is planning on spending \$9,108 per pupil¹, which would be 131% of the state rate. Since the Town already spends more than the State average, then the Town is assumed to continue to do so, but at a rate under that which would require a 'double tax'. All future years for per pupil spending is based on the assumption that the Town will maintain their spending at 130% above the State base education payment.

Table 18 shows the estimated State base education payment and the estimated St. Albans Town spending per pupil.

¹ Page 79 of the 2003-2004 Annual Report: Town of St. Albans & Town School District Officers



Table 18: Estimated St. Albans Town Per Pupil Spending (Dollars)

Year		St. Albans Town Spending Per Pupil	State Spending Per Pupil	% More Spending
Fiscal Year 2005	2004/2005	8315	6800	122%
Fiscal Year 2006	2005/2006	9108	6950	131%
Fiscal Year 2007	2006/2007	9267	7110	130%
Fiscal Year 2008	2007/2008	9440	7260	130%
Fiscal Year 2009	2008/2009	9650	7420	130%
Fiscal Year 2010	2009/2010	9870	7590	130%
Fiscal Year 2011	2010/2011	10080	7750	130%
Fiscal Year 2012	2011/2012	10300	7920	130%
Fiscal Year 2013	2012/2013	10530	8100	130%
Fiscal Year 2014	2013/2014	10770	8280	130%
Fiscal Year 2015	2014/2015	11000	8460	130%
Fiscal Year 2016	2015/2016	11240	8640	130%
Fiscal Year 2017	2016/2017	11480	8830	130%
Fiscal Year 2018	2017/2018	11740	9030	130%
Fiscal Year 2019	2018/2019	12000	9230	130%
Fiscal Year 2020	2019/2020	12260	9430	130%
Fiscal Year 2021	2020/2021	12540	9640	130%
Fiscal Year 2022	2021/2022	12810	9850	130%
Fiscal Year 2023	2022/2023	13100	10070	130%
Fiscal Year 2024	2023/2024	13380	10290	130%
Fiscal Year 2025	2024/2025	13670	10510	130%
Fiscal Year 2026	2025/2026	13970	10740	130%
Fiscal Year 2027	2026/2027	14280	10980	130%
Fiscal Year 2028	2027/2028	14590	11220	130%
Fiscal Year 2029	2028/2029	14920	11470	130%
Fiscal Year 2030	2029/2030	15240	11720	130%

Growth in Local Taxes

Table 19 shows how the municipal services portion of the local property would grow assuming it keeps pace with inflation. If services provided by the town grow at a faster rate than inflation or property tax revenues do not meet estimated revenue targets, local taxes will have to be raised to meet the increase in fiscal demand.



Table 19: Estimated St. Albans Town Local Tax Rates (\$ per \$100 of Assessed Value)

Year		Town	Local Agreement	Total Town
Fiscal Year 2005	2004/2005	0.340	0.006	0.346
Fiscal Year 2006	2005/2006	0.347	0.006	0.353
Fiscal Year 2007	2006/2007	0.355	0.006	0.361
Fiscal Year 2008	2007/2008	0.363	0.006	0.369
Fiscal Year 2009	2008/2009	0.371	0.006	0.377
Fiscal Year 2010	2009/2010	0.379	0.006	0.385
Fiscal Year 2011	2010/2011	0.387	0.006	0.394
Fiscal Year 2012	2011/2012	0.396	0.007	0.403
Fiscal Year 2013	2012/2013	0.405	0.007	0.411
Fiscal Year 2014	2013/2014	0.414	0.007	0.420
Fiscal Year 2015	2014/2015	0.423	0.007	0.430
Fiscal Year 2016	2015/2016	0.432	0.007	0.439
Fiscal Year 2017	2016/2017	0.441	0.007	0.449
Fiscal Year 2018	2017/2018	0.451	0.008	0.459
Fiscal Year 2019	2018/2019	0.461	0.008	0.469
Fiscal Year 2020	2019/2020	0.471	0.008	0.479
Fiscal Year 2021	2020/2021	0.482	0.008	0.490
Fiscal Year 2022	2021/2022	0.492	0.008	0.500
Fiscal Year 2023	2022/2023	0.503	0.008	0.511
Fiscal Year 2024	2023/2024	0.514	0.009	0.523
Fiscal Year 2025	2024/2025	0.525	0.009	0.534
Fiscal Year 2026	2025/2026	0.537	0.009	0.546
Fiscal Year 2027	2026/2027	0.549	0.009	0.558
Fiscal Year 2028	2027/2028	0.561	0.009	0.570
Fiscal Year 2029	2028/2029	0.573	0.010	0.583
Fiscal Year 2030	2029/2030	0.586	0.010	0.596

9.2.3.3 Potential Future Development

The amount of new development in the Financing District is an important assumption when estimating future parcel value. More development results in greater parcel value. The amount of revenue that could be generated by a TIF district has been developed for two development scenarios.

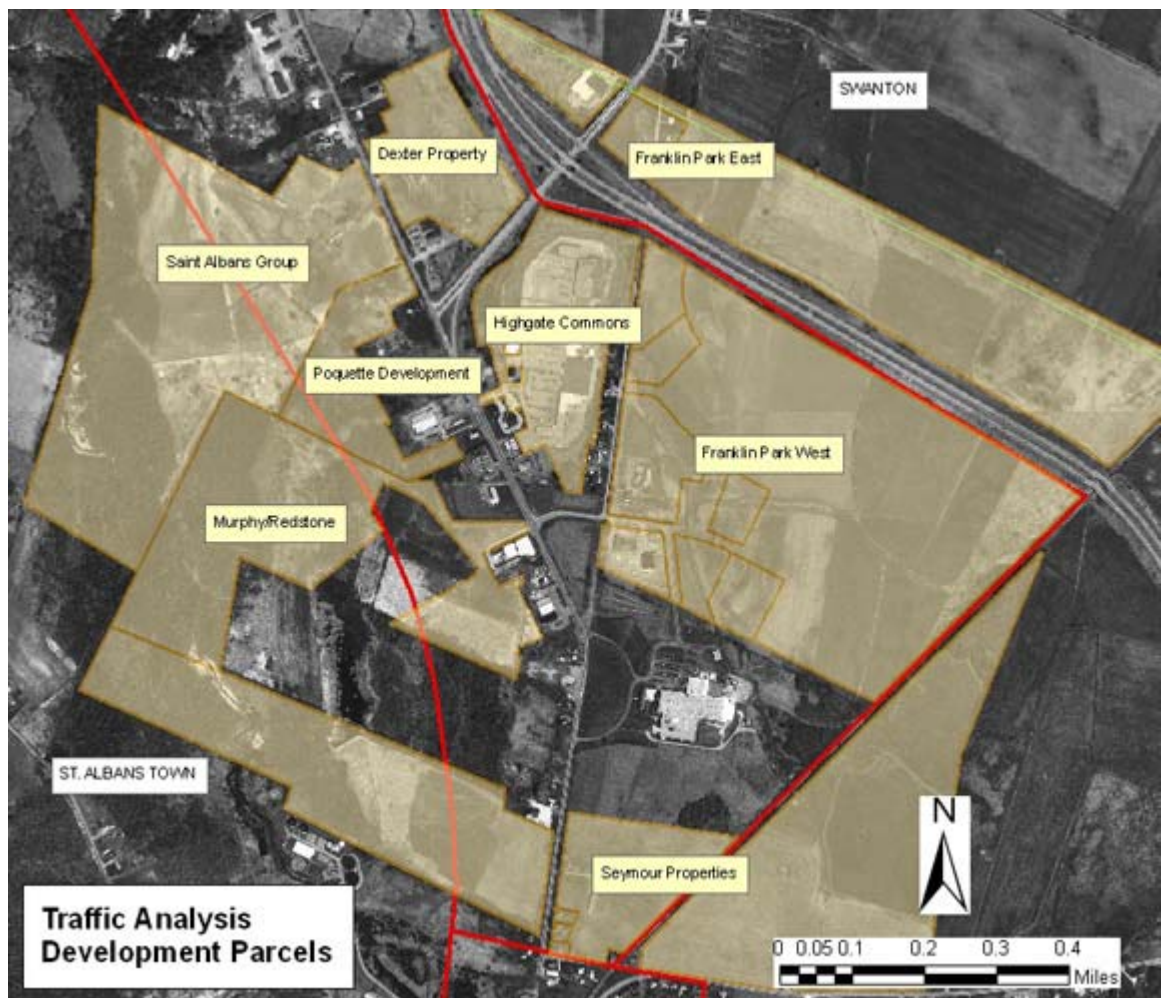
The first scenario is based upon the assumptions used for the traffic analysis, referred to below as the “Traffic Analysis Scenario”. Figure 20 shows the parcels included in the Traffic Analysis Scenario.

Table 20 lists the specific new development projects on which future revenues will be estimated. The Highgate Commons parcel is not listed in Table 20 because it is an existing building and is therefore part of the existing tax base. The improvements recommended in Section 7.0 (and their associated costs) do however account for the total number of vehicle trips allowed in Highgate Commons’ Act 250 permit.



Table 20: New Financing District Development Included in the Traffic Analysis Scenario

	Site Size (acres)	Commercial Space (sq ft)	Residential Units
St. Albans Group	103.9	300,000	47
Poquette Development	18.0	110,000	0
Dexter Property	20.6	70,000	52
Murphy/Redstone	58.9	138,000	0
Franklin Park West	105.2	240,000	0
Franklin Park East	82.4	184,700	0
Seymour Properties	143	25,000	47

Figure 20: Traffic Analysis Development Parcels

The second development scenario utilizes the full build-out land use analysis performed in the 2001 North End Sewer Growth Analysis by SE Group. The SE Group Sewer analysis included 29 parcels within the Growth Center that would experience any kind of anticipated future growth. The SE Group study included constraints based on future zoning, amount of sewer and water capacity, effect of nearby wetlands and rivers, and the parcel topography. The study estimated the amount of commercial floor area and the number of residential units created by the future development.

Figure 21 shows the parcels included in SE Group's Sewer Build-Out analysis.

Figure 21: SE Group Sewer Analysis Build-Out Parcels



The analysis of local funding mechanisms includes both development growth scenarios by evaluating the amount of possible property tax revenue of each scenario. It is important to emphasize that the improvements and their associated cost are based on the traffic to be generated by the development assumed in the Traffic Analysis Scenario. Additional improvements to the transportation system, and costs, may be necessary to accommodate the build-out development developed by the SE Group.

9.2.3.4 Land Use Conversion

Both development scenarios assumed that some parcels would change land use and zoning. The changes in land use directly impacts the value of the land and the tax rate of the parcel.

Traffic Analysis Scenario

The Seymour Property currently exists as several lots in the southern vicinity of the Financing District north of Seymour Road (VT 105 Approach). The Seymour Property is broken into several parcels, some currently zoned commercial and subdivided. Additional subdivision is planned for the larger parcel, which exists as 143 acres enrolled in the 'current use' program which taxes the land at a lower rate to compensate the landowner for leaving the land in agricultural or fallow uses.

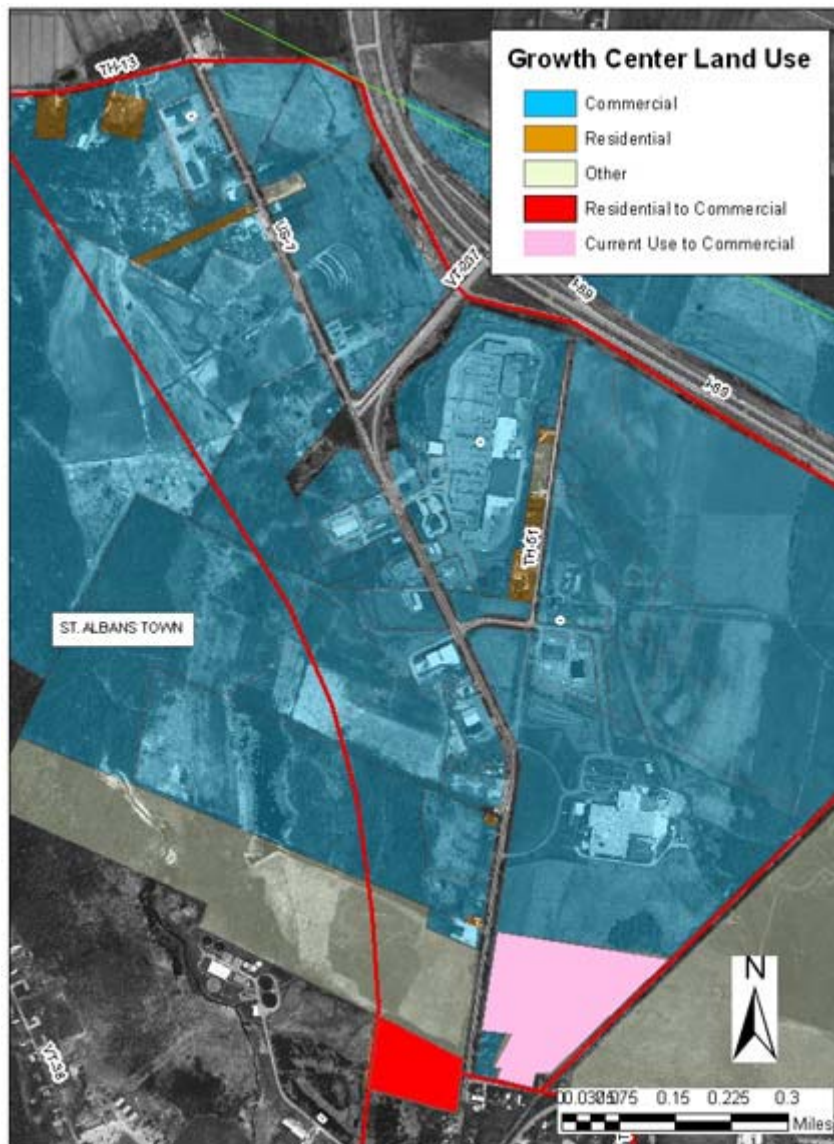
It is estimated that approximately 5 acres will be removed from the 'current use' program and be developed as commercial lots. The remaining 138 acres is assumed to remain in agriculture 'current use'.

Full-Build Scenario

Within the Financing District it is estimated that 2 of the 19 residential zoned properties will convert land use and become commercial parcels. The vast majority of residential lots would remain residential with only two parcels in a high-traffic prime location converting to a commercial land use. The two parcels are shown in Figure 22.



Figure 22: Financing District Zoning and Land Use Conversions



9.2.4 Future Property Values in Growth Center

This section uses the assumptions described above to prepare an estimate of future land value in the Financing District. The Town of Saint Albans assesses the value of each parcel within the Town on both the land value of the parcel and the value of the building structure, if any. Valuing parcels by accounting for the value in land and structure separately can better reflect the true market value of a parcel.



The future development assumed in the Exit 20 Growth Center is focused on building new structures on undeveloped land. The two-level analysis tax structure allows for development of structures to be valued at different rates than the growth of the associated land value.

9.2.5 Existing Land Values

The value of land on a parcel depends on many things, though the two significant ones in the context of this study are the location and use of the parcel.

The parcels in the Growth Center analysis were separated into two zones: (1) Prime Location along major arterial; and (2) Secondary Location off of major arterial.

Table 21 shows the average tax rates of Land Value Per Acre for the commercial and residential land uses in the Growth Center.

Table 21 also shows differences in land values based on the parcel location.

Table 21: 2004 Parcel Land Values in the Growth Center

Commercial	Land Value Per Acre 2004	% Difference in Average Land Value based on Location
Total	6,296,324	
C - Prime Location	\$5,463,158	100%
Average	\$92,596	
C - Secondary Location	\$833,165	
Average	\$46,287	
Residential		
Total	\$1,151,790	
R - Prime Location	\$657,739	-3%
Average	\$59,794	
R - Secondary Location	\$494,051	
Average	\$61,756	

The effect of location is significant on commercial land uses, with land values 100% higher in a prime location. The change in residential land value is not as sensitive to location, but it shows that residential properties along major routes may be valued slightly lower, than if they were located in a secondary location.

9.2.6 Future Land Value

To estimate the increases in the land value of parcels within the Growth Center, an area with a similar pattern of development was used to build a comparison. The West Lebanon NH 12A corridor south of Interstate 89 is quite similar to the type and amount of development estimated in the Exit 20 Growth Center.



The possible future build out of the Exit 20 Growth Center is similar to the current conditions in West Lebanon. This analogy provides data to model how land values will increase in the Growth Center as development occurs. It is assumed that the development in the Exit 20 Growth Center will be completed by 2020 – or at least to a level of development comparable with the current conditions in the West Lebanon NH 12A corridor. It is further assumed that once the Exit 20 Growth Center reaches this level of development the land values will be similar to that of West Lebanon.

The value of the commercial land in the Exit 20 Growth Center should continue to increase as other nearby parcels develop. As the density of development increases, the area will become more attractive to additional development. The land value of each parcel should capture the added value of all the external economic development.

Table 22 shows the median land value for the commercial properties in the West Lebanon NH 12A corridor in current 2005 dollars and future 2020 dollars.

Table 22: West Lebanon Commercial Land/Acre Median Vales

	2005 Dollars Median Land/Acre Values	2020 Dollars Median Land/Acre Values
Commercial		
C - Prime Location	\$351,681	\$487,430
C - Secondary Location	\$82,261	\$114,014

Table 23 shows the land values per acre for the St. Albans Growth Center and the Lebanon NH 12A corridor. Both were analyzed in 2020 Dollars, since that is the assumed planning timeline for the Exit study. It is assumed that after 2020 the land values in the Exit 20 Growth Center will continue to increase at the rate of inflation. The resulting total nominal and real annual growth rates for land values are applied to the commercial parcels in the Growth Center.

Table 23: Commercial Land Value Growth Rates

	St. Albans Growth Center Land Values		Lebanon Land Values	Total Nominal Annual Growth Rate	Real Annual Growth Rate
	2004 Dollars	2020 Dollars	2020 Dollars		
	\$ / Acre	\$ / Acre	\$ / Acre		
Prime Location Commercial Average	92,596	135,764	487,430	10.742%	8.542%
Secondary Location Commercial Average	46,287	33,523	114,014	10.326%	8.126%

The rate of growth for the residential land within the Growth Center is assumed to match the rate of inflation.



9.2.7 Building Values

In the Traffic Analysis development scenario, 9 parcels are assumed to have new structures on them. The estimates for the size and type of the structures on the parcels within the Growth Center are shown in Table 24.

Table 24: Traffic Analysis Development Estimates

Parcel ID	Parcel Name	Planned Commerical Space per Site (sq. ft/acre)	Traffic Analysis Commerical Space	Traffic Analysis Residential Units
RT00763A	St. Albans Group	2,887	300,000	47
RT007AD	Murphy/Redstone	2,343	138,000	0
TR0516	Franklin Park West	2,281	240,000	0
RT007AC	Poquette Development	6,111	110,000	0
TR0325	Franklin Park East	2,195	154,000	0
RT007DDX	Dexter Property	3,398	70,000	52
RT00755A	Seymour Properties	175	25,000	47
TR0321	Franklin Park East	2,131	10,700	0
TR0323	Franklin Park East	2,774	20,000	0

In the Build Out development scenario, 29 parcels are assumed to have new structures on them. The estimates for the size and type of the structures on the parcels within the Growth Center are shown in Table 25.



Table 25: Build Out Development Estimates

Parcel ID	Planned Commerical Space per Site (sq. ft/acre)	Sewer Build Out Analysis of Commerical Space (sq. ft)	Sewer Build Out Analysis of Residential Units
TR01213D	10,871	22,503	8
TR0125A	19,537	197,327	53
RT00763A	16,122	1,675,056	0
RT007AG	73,844	53,906	14
RT007XH	12,978	35,689	0
RT007AC	14,881	267,861	0
RT007AA	19,593	70,535	19
RT007DDX	15,737	324,184	86
RT0073	19,856	14,296	5
RT00750	14,659	73,295	0
RT00735	31,859	11,788	2
TR01213A	12,930	24,437	8
RT00737	10,937	5,031	2
000000RT007171	15,604	131,543	36
TR0322	12,942	104,185	28
TR01213B	16,209	196,134	0
00000CCONE2	15,125	36,603	12
00000CCONE4	10,888	20,033	7
RT00745	87,555	19,262	0
RT0071	35,921	15,446	5
RT00724	28,196	7,331	2
RT00761A	6,528	14,819	5
RT007AD	2,343	138,000	0
RT00748A	16,139	56,486	0
RT00714	28,017	11,487	4
RT00747	40,359	27,848	0
RT00726	12,539	18,557	0
RT007771B	26,512	24,921	0
TR0516	1,900	199,899	0

Future residential units in the Exit 20 Growth Center are assumed to be newly constructed townhouse/condominium style housing. The 2004 median price for newly constructed condominium was \$157,000¹. The 2004 median condominium price for new residential units was used to assess housing units in the Financing District.

The values of new nonresidential structures were derived from three analyses of building values in the Exit 20 area. The analyses included; (1) the proposed Wal-Mart, (2) the existing Highgate Shopping Center, and (3) the existing Price Chopper.

- The Proposed Wal-Mart. Based on the 1995 Act 250 permit application the new 150,000 sq ft structure would add \$77,000 to the property tax revenue of the Town. Based on

¹ Based on information from the Vermont Real Estate Information Service, Inc. for period January 1, 2004 to December 31, 2004.



the historical tax data and the applicable CPI the building would add \$40.16 per sq ft of property value to the Town grand list in 2004.

- The existing 200,000 sq ft Highgate commons marketplace had a 2004 assessed building value of \$6,625,811. The Highgate commons then adds \$33.13 per sq ft of property value to the grand list.
- The existing Price Chopper building, approximately 54,000 sq ft, had an assessed 2004 building value of \$2,706,000. This building then adds \$50.13 per sq ft to the property value of the Town grand list.

Based on the three studies, it was chosen that a \$38.01 (2004 dollars) per square foot of property value would be used to value nonresidential development space. The \$38.01 was derived from a weighted average based on building size of the three examples.

9.2.8 Rate of Property Development

The methodology for determining the way the parcels will develop or redevelop within the Financing District was based on the gap of the existing value of the parcel and the estimated future value of the developed parcel. The larger the gap, the greater the incentive is for the owner to develop and capture the full value of the parcel.

The Development Index was created to capture the gap between estimated future property value and the existing property value. The Index is comprised of the value of new structural development on the parcel and the location of the parcel. A secondary location of a parcel results in a 25% reduction in the Development Index.

Table 26: Development Index of Traffic Analysis Development Parcels

Parcel ID	Location (1=prime 2=secondary)	Site Acres	Existing 2004 Property Values			Future Development Value		Normalized Development Index	Rank
			Total Property Value	Land Value	Building Value	Total New Value Bldg value (2004 Dollars)			
RT00763A	1	103.9	512,000	512,000	0	11,403,000		1.000	1
RT007AD	1	58.9	399,600	399,600	0	5,245,380		0.46	2
TR0516	1	105.21	433,200	433,200	0	9,122,400		0.80	3
RT007AC	1	18	234,000	234,000	0	4,181,100		0.37	4
TR0325	1	70.15	107,200	107,200	0	5,853,540		0.51	5
RT007DDX	1	20.6	351,100	343,100	8,000	2,660,700		0.23	6
RT00755A	1	143	278,300	154,100	124,200	950,250		0.08	7
TR0321	1	5.02	345,700	345,700	0	406,707		0.04	8
TR0323	1	7.21	934,000	180,700	753,300	760,200		0.07	9



Table 27: Development Index of Build-Out Growth Parcels

Parcel ID	Location (1=prime 2=secondary)	Site Acres	Existing 2004 Property Values			Future Development Value		Normalized Development Index	Rank
			Total Property Value	Land Value	Building Value	Total New Value Bldg value (2004 Dollars)			
RT00763A	1	103.9	512,000	512,000	1	63,668,879		1.000	1
RT007DDX	1	20.6	351,100	343,100	8,000	37,392,734		0.587	2
TR0125A	2	10.1	188,000	50,400	137,600	22,760,199		0.357	3
RT007AC	1	18	234,000	234,000	1	15,576,249		0.245	4
000000RT007171	1	8.43	433,900	207,500	226,400	12,016,272		0.189	5
TR01213B	1	12.1	115,200	115,200	1	10,181,397		0.160	6
TR0322	2	8.05	68,000	68,000	1	8,135,935		0.128	7
TR0516	2	105.21	433,200	433,200	1	7,455,053		0.117	8
RT007AD	1	58.9	399,600	399,600	1	6,622,654		0.104	9
RT007AA	1	3.6	632,600	332,600	300,000	6,216,267		0.098	10
RT007AG	1	0.73	604,900	95,700	509,200	5,245,380		0.082	11
00000CCCONE2	1	2.42	723,700	257,800	465,900	4,929,280		0.077	12
RT00750	1	5	341,100	179,800	161,300	3,292,350		0.052	13
TR01213A	1	1.89	266,200	167,900	98,300	3,030,339		0.048	14
TR01213D	1	2.07	43,700	43,700	1	2,785,943		0.044	15
RT007XH	1	2.75	90,300	85,300	5,000	2,698,654		0.042	16
00000CCCONE4	1	1.84	576,300	165,900	410,400	2,147,033		0.034	17
RT0071	1	0.43	220,000	135,000	85,000	2,080,602		0.033	18
RT0073	1	0.72	89,700	23,800	65,900	1,995,870		0.031	19
RT00747	1	0.69	287,600	208,000	79,600	1,926,691		0.030	20
RT00748A	1	3.5	2,177,700	852,300	1,325,400	1,547,321		0.024	21
RT00714	1	0.41	353,000	180,000	173,000	1,356,539		0.021	22
RT00761A	1	2.27	932,000	371,000	561,000	1,115,062		0.018	23
RT00735	1	0.37	93,400	21,300	72,100	1,058,502		0.017	24
RT00745	1	0.22	83,800	20,000	63,800	986,251		0.015	25
RT007771B	1	0.94	411,000	104,000	307,000	947,247		0.015	26
RT00724	1	0.26	127,000	67,000	60,000	732,149		0.011	27
RT00726	1	1.48	501,000	295,000	206,000	705,352		0.011	28
RT00737	1	0.46	59,200	21,300	37,900	678,428		0.011	29

To estimate the amount of property value increases in the grand list due to the development of these parcels the estimated total future value of the parcel was spread out over a number of years. By spreading out the value of a development over a number of years the risk of associating a particular project with an analysis year is reduced.

9.2.9 Future Parcel Values Outside of the Growth Center

The parcels outside of the Financing District in the remaining parts of town are assumed to increase in value as well during the analysis years. No studies have been completed that looks comprehensively at the increase in development throughout the town. The amount of growth outside the Financing District can be modeled by estimating a percentage increase in land and building values. The commercial and residential land were both estimated to increase by 1.5% annually in value, while new construction and redevelopment of commercial and residential structures is assumed to increase the building values by 0.7% annually.

9.3 REVENUE FORECAST: TAX INCREMENTAL FINANCING

The parcels in the Exit 20 Financing District were considered to be all part of the TIF District. The choice of the TIF District boundary has many profound effects on the analysis. Some of the issues of the boundary choice are discussed in Section 8.3.3.



When a TIF is implemented, the municipality freezes the property taxes within the district. This baseline is referred to as the “original taxable value”. Over time the properties within the district increases in value above their “original taxable value”. As the properties within the district increase in value over time, the municipality continues to receive the same original base tax amount. The municipality uses the original taxable value as part of their general fund. The incremental value of property tax revenue collected above the original taxable value is then used to pay the bond payments that were used to fund the initial infrastructure improvements.

The parcels in the Financing District have all been analyzed for future property value increases in real growth of land values and physical structural development. The total property value for each parcel has been estimated for each of the analysis years of 2005 through 2030. By looking at the estimated property values of the parcels within the Financing District a TIF can be planned to capture the increases in these parcel’s property values.

The TIF District captures the estimated increase in property values within the Exit 20 Financing District, but due to Vermont law, only the municipal portion of the incremental increase in property value can be used for the TIF. As shown in Table 16 on page 52, the current FY 2005 municipal tax rate only constitutes 15% of non-residential property taxes, and 17.2% of residential property taxes.

Table 29 shows a possible TIF District revenue schedule. The table shows the estimated future Town Tax Rate and the local revenue collected. The TIF requires a base year in which to set the “original taxable value” of the parcels within the district. This table uses the Fiscal Year 2007 as the base year, in which Fiscal Year 2008, there is a net benefit and realization of increased property value revenues. From then on, every year shows a positive increase in the amount of incremental revenue received as part of the TIF.

The shaded column is the portion of local property tax revenue that will continue to be collected and used by the Town for the general municipal budget. The Incremental Revenue column shows the amount of revenue above the initial year of TIF implementation that the Town can use to pay off municipal bond payments.



Table 28: Traffic Analysis TIF Revenue Estimates for Base Year 2007

Analysis Year		Total Town Tax Rate	Local Revenue (Future \$)	Local Revenue in 2005 \$	TIF Revenue (Future \$)	TIF Revenue (2005 \$)	Cumulative Revenue (2005 \$)
Fiscal Year 2005	2004/2005	0.346	\$167,715	\$167,715	\$0	\$0	\$0
Fiscal Year 2006	2005/2006	0.353	\$171,405	\$167,715	\$0	\$0	\$0
Fiscal Year 2007	2006/2007	0.361	\$175,176	\$167,715	\$0	\$0	\$0
Fiscal Year 2008	2007/2008	0.369	\$250,051	\$234,248	\$74,874	\$66,532	\$66,532
Fiscal Year 2009	2008/2009	0.377	\$255,552	\$234,248	\$80,376	\$66,532	\$133,064
Fiscal Year 2010	2009/2010	0.385	\$261,174	\$234,248	\$85,998	\$66,532	\$199,596
Fiscal Year 2011	2010/2011	0.394	\$266,920	\$234,248	\$91,743	\$66,532	\$266,128
Fiscal Year 2012	2011/2012	0.403	\$272,792	\$234,248	\$97,616	\$66,532	\$332,661
Fiscal Year 2013	2012/2013	0.411	\$400,019	\$336,104	\$224,843	\$168,389	\$501,049
Fiscal Year 2014	2013/2014	0.420	\$408,820	\$336,104	\$233,644	\$168,389	\$669,438
Fiscal Year 2015	2014/2015	0.430	\$417,814	\$336,104	\$242,638	\$168,389	\$837,827
Fiscal Year 2016	2015/2016	0.439	\$427,006	\$336,104	\$251,830	\$168,389	\$1,006,215
Fiscal Year 2017	2016/2017	0.449	\$436,400	\$336,104	\$261,224	\$168,389	\$1,174,604
Fiscal Year 2018	2017/2018	0.459	\$555,273	\$418,451	\$380,097	\$250,736	\$1,425,340
Fiscal Year 2019	2018/2019	0.469	\$567,489	\$418,451	\$392,313	\$250,736	\$1,676,076
Fiscal Year 2020	2019/2020	0.479	\$579,974	\$418,451	\$404,798	\$250,736	\$1,926,812
Fiscal Year 2021	2020/2021	0.490	\$592,733	\$418,451	\$417,557	\$250,736	\$2,177,547
Fiscal Year 2022	2021/2022	0.500	\$605,773	\$418,451	\$430,597	\$250,736	\$2,428,283
Fiscal Year 2023	2022/2023	0.511	\$713,064	\$481,962	\$537,888	\$314,246	\$2,742,529
Fiscal Year 2024	2023/2024	0.523	\$728,752	\$481,962	\$553,575	\$314,246	\$3,056,776
Fiscal Year 2025	2024/2025	0.534	\$744,784	\$481,962	\$569,608	\$314,246	\$3,371,022
Fiscal Year 2026	2025/2026	0.546	\$761,169	\$481,962	\$585,993	\$314,246	\$3,685,268
Fiscal Year 2027	2026/2027	0.558	\$777,915	\$481,962	\$602,739	\$314,246	\$3,999,514
Fiscal Year 2028	2027/2028	0.570	\$863,936	\$523,734	\$688,760	\$356,019	\$4,355,533
Fiscal Year 2029	2028/2029	0.583	\$882,943	\$523,734	\$707,767	\$356,019	\$4,711,552
Fiscal Year 2030	2029/2030	0.596	\$902,368	\$523,734	\$727,191	\$356,019	\$5,067,571

Table 29: Build Out TIF Revenue Estimates for Base Year 2007

Analysis Year		Total Town Tax Rate	Local Revenue (Future \$)	Local Revenue in 2005 \$	TIF Revenue (Future \$)	TIF Revenue (2005 \$)	Cumulative Revenue (2005 \$)
Fiscal Year 2005	2004/2005	0.346	\$154,291	\$154,291	\$0	\$0	\$0
Fiscal Year 2006	2005/2006	0.353	\$157,685	\$154,291	\$0	\$0	\$0
Fiscal Year 2007	2006/2007	0.361	\$161,154	\$154,291	\$0	\$0	\$0
Fiscal Year 2008	2007/2008	0.369	\$259,236	\$242,853	\$98,082	\$88,562	\$88,562
Fiscal Year 2009	2008/2009	0.377	\$264,939	\$242,853	\$103,785	\$88,562	\$177,123
Fiscal Year 2010	2009/2010	0.385	\$270,768	\$242,853	\$109,614	\$88,562	\$265,685
Fiscal Year 2011	2010/2011	0.394	\$276,725	\$242,853	\$115,570	\$88,562	\$354,247
Fiscal Year 2012	2011/2012	0.403	\$282,813	\$242,853	\$121,658	\$88,562	\$442,809
Fiscal Year 2013	2012/2013	0.411	\$826,083	\$694,091	\$664,929	\$539,801	\$982,609
Fiscal Year 2014	2013/2014	0.420	\$844,257	\$694,091	\$683,103	\$539,801	\$1,522,410
Fiscal Year 2015	2014/2015	0.430	\$862,831	\$694,091	\$701,677	\$539,801	\$2,062,210
Fiscal Year 2016	2015/2016	0.439	\$881,813	\$694,091	\$720,659	\$539,801	\$2,602,011
Fiscal Year 2017	2016/2017	0.449	\$901,213	\$694,091	\$740,059	\$539,801	\$3,141,812
Fiscal Year 2018	2017/2018	0.459	\$1,232,892	\$929,102	\$1,071,737	\$774,811	\$3,916,623
Fiscal Year 2019	2018/2019	0.469	\$1,260,015	\$929,102	\$1,098,861	\$774,811	\$4,691,434
Fiscal Year 2020	2019/2020	0.479	\$1,287,736	\$929,102	\$1,126,581	\$774,811	\$5,466,245
Fiscal Year 2021	2020/2021	0.490	\$1,316,066	\$929,102	\$1,154,912	\$774,811	\$6,241,056
Fiscal Year 2022	2021/2022	0.500	\$1,345,019	\$929,102	\$1,183,865	\$774,811	\$7,015,867
Fiscal Year 2023	2022/2023	0.511	\$1,486,287	\$1,004,584	\$1,325,132	\$850,294	\$7,866,160
Fiscal Year 2024	2023/2024	0.523	\$1,518,985	\$1,004,584	\$1,357,831	\$850,294	\$8,716,454
Fiscal Year 2025	2024/2025	0.534	\$1,552,403	\$1,004,584	\$1,391,248	\$850,294	\$9,566,747
Fiscal Year 2026	2025/2026	0.546	\$1,586,555	\$1,004,584	\$1,425,401	\$850,294	\$10,417,041
Fiscal Year 2027	2026/2027	0.558	\$1,621,460	\$1,004,584	\$1,460,305	\$850,294	\$11,267,335
Fiscal Year 2028	2027/2028	0.570	\$1,712,209	\$1,037,973	\$1,551,055	\$883,683	\$12,151,017
Fiscal Year 2029	2028/2029	0.583	\$1,749,878	\$1,037,973	\$1,588,723	\$883,683	\$13,034,700
Fiscal Year 2030	2029/2030	0.596	\$1,788,375	\$1,037,973	\$1,627,221	\$883,683	\$13,918,382



Table 30 compares the amount of revenue that could be generated by the TIF district, based on all of the assumptions made in this report, to the total cost of a bond. The comparison assumes the bond is issued for twenty years with a 5% interest rate. The TIF has the potential to cover approximately 30% of the cost of the bond under the Traffic Analysis Development Scenario and almost 80% under the Build-out Scenario (which will likely need additional improvements).

Table 30: TIF Revenue versus Bond Payments Summary

	Build Out Development Scenario	Traffic Analysis Development Scenario
Cumulative Revenue (2005\$)	\$13,918,382	\$5,067,571
\$11.2 Mill Bond Total Repayment Value	(\$17,739,610)	(\$17,739,610)
Shortfall (Cumulative 2005 \$)	(\$3,821,228)	(\$12,672,039)

Assuming a 5% interest rate and a 20-year amortization schedule

Table 31 compares annual bond costs to the estimated annual TIF revenue for the Traffic Analysis and Build-Out development scenarios. It demonstrates that the revenue generated assuming the Traffic Analysis development scenario is insufficient to cover any year of the bond payment, while the Build Out scenario is able to begin a surplus during the 2018 Fiscal Year.

Table 31: Annual Finances of a TIF

		Build Out Development Scenario			Traffic Analysis Development Scenario		
		TIF Revenue (Future \$)	\$11.2 Million Annual Bond Payment	Annual Shortfall	TIF Revenue (Future \$)	\$11.2 Million Annual Bond Payment	Annual Shortfall
Fiscal Year 2005	2004/2005	\$0	\$0	\$0	\$0		
Fiscal Year 2006	2005/2006	\$0	\$0	\$0	\$0		
Fiscal Year 2007	2006/2007	\$0	\$0	\$0	\$0		
Fiscal Year 2008	2007/2008	\$98,082	-\$886,981	-\$788,899	\$74,874	-\$886,981	-\$812,106
Fiscal Year 2009	2008/2009	\$103,785	-\$886,981	-\$783,196	\$80,376	-\$886,981	-\$806,605
Fiscal Year 2010	2009/2010	\$109,614	-\$886,981	-\$777,367	\$85,998	-\$886,981	-\$800,983
Fiscal Year 2011	2010/2011	\$115,570	-\$886,981	-\$771,410	\$91,743	-\$886,981	-\$795,237
Fiscal Year 2012	2011/2012	\$121,658	-\$886,981	-\$765,322	\$97,616	-\$886,981	-\$789,365
Fiscal Year 2013	2012/2013	\$664,929	-\$886,981	-\$222,051	\$224,843	-\$886,981	-\$662,137
Fiscal Year 2014	2013/2014	\$683,103	-\$886,981	-\$203,878	\$233,644	-\$886,981	-\$653,337
Fiscal Year 2015	2014/2015	\$701,677	-\$886,981	-\$185,304	\$242,638	-\$886,981	-\$644,343
Fiscal Year 2016	2015/2016	\$720,659	-\$886,981	-\$166,322	\$251,830	-\$886,981	-\$635,151
Fiscal Year 2017	2016/2017	\$740,059	-\$886,981	-\$146,922	\$261,224	-\$886,981	-\$625,757
Fiscal Year 2018	2017/2018	\$1,071,737	-\$886,981	\$184,757	\$380,097	-\$886,981	-\$506,884
Fiscal Year 2019	2018/2019	\$1,098,861	-\$886,981	\$211,881	\$392,313	-\$886,981	-\$494,668
Fiscal Year 2020	2019/2020	\$1,126,581	-\$886,981	\$239,601	\$404,798	-\$886,981	-\$482,183
Fiscal Year 2021	2020/2021	\$1,154,912	-\$886,981	\$267,931	\$417,557	-\$886,981	-\$469,423
Fiscal Year 2022	2021/2022	\$1,183,865	-\$886,981	\$296,885	\$430,597	-\$886,981	-\$456,383
Fiscal Year 2023	2022/2023	\$1,325,132	-\$886,981	\$438,152	\$537,888	-\$886,981	-\$349,092
Fiscal Year 2024	2023/2024	\$1,357,831	-\$886,981	\$470,850	\$553,575	-\$886,981	-\$333,405
Fiscal Year 2025	2024/2025	\$1,391,248	-\$886,981	\$504,268	\$569,608	-\$886,981	-\$317,373
Fiscal Year 2026	2025/2026	\$1,425,401	-\$886,981	\$538,421	\$585,993	-\$886,981	-\$300,987
Fiscal Year 2027	2026/2027	\$1,460,305	-\$886,981	\$573,325	\$602,739	-\$886,981	-\$284,242
Fiscal Year 2028	2027/2028	\$1,551,055	\$0	\$1,551,055	\$688,760	\$0	\$688,760
Fiscal Year 2029	2028/2029	\$1,588,723	\$0	\$1,588,723	\$707,767	\$0	\$707,767
Fiscal Year 2030	2029/2030	\$1,627,221	\$0	\$1,627,221	\$727,191	\$0	\$727,191



9.4 SPECIAL ASSESSMENT DISTRICT – ESTIMATE OF TAX RATE TO PAY FOR BOND

The special assessment district analysis within this study focuses on the use of two tax bases, both of which represent land only, and do not include improvements to the land.

The first tax base consists of the properties within the Exit 20 Financing District. The second represents the entire tax base in town outside of the Financing District. For the analysis, the tax bases are assessed an additional tax in order to pay for the bond payments.

The Special Assessment can be distributed between the parcels in the Financing District and Town in at least three different ways: (1) assess an additional levy on the parcels in the Financing District; (2) assess an additional levy on all the properties in the entire town; and (3) assess an additional levy on all properties in the entire town, though the parcels in the Financing District may be levied a different rates. The three approaches reflect different cost sharing policies based on the beneficiaries of the improvements as described below.

9.4.1 Assessment Method 1: Parcels in Financing District Pay 100%

This approach assumes the parcels in the Financing District are the primary beneficiaries of the transportation improvements. Therefore, only the parcels within the Financing District should pay be assessed the additional tax necessary to pay for a bond. Table 32 reflects the potential annual revenue and additional tax rate for parcels within the Financing District for the two development scenarios under two possible bond amounts.



Table 32: Special Assessment Method 1 - Bond Repayment Schedules

Traffic Analysis Development Scenario				
5% Interest	\$ 11,200,000 Bond		\$13,700,000 Bond	
Year	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
1 (FY 2007)	886,981	1.456	1,084,967	1.780
2	886,981	1.250	1,084,967	1.529
3	886,981	1.110	1,084,967	1.358
4	886,981	1.024	1,084,967	1.252
5	886,981	0.934	1,084,967	1.142
6	886,981	0.899	1,084,967	1.099
7	886,981	0.864	1,084,967	1.056
8	886,981	0.829	1,084,967	1.014
9	886,981	0.794	1,084,967	0.971
10	886,981	0.759	1,084,967	0.929
11	886,981	0.730	1,084,967	0.893
12	886,981	0.700	1,084,967	0.856
13	886,981	0.669	1,084,967	0.818
14	886,981	0.638	1,084,967	0.781
15	886,981	0.628	1,084,967	0.768
16	886,981	0.619	1,084,967	0.757
17	886,981	0.610	1,084,967	0.746
18	886,981	0.601	1,084,967	0.735
19	886,981	0.592	1,084,967	0.724
20	886,981	0.582	1,084,967	0.712

Build Out Development Scenario				
5% Interest	\$ 11,200,000 Bond		\$13,700,000 Bond	
Year	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
1 (FY 2007)	886,981	1.570	1,084,967	1.920
2	886,981	1.257	1,084,967	1.537
3	886,981	1.035	1,084,967	1.266
4	886,981	0.778	1,084,967	0.951
5	886,981	0.616	1,084,967	0.754
6	886,981	0.509	1,084,967	0.623
7	886,981	0.441	1,084,967	0.540
8	886,981	0.394	1,084,967	0.482
9	886,981	0.357	1,084,967	0.436
10	886,981	0.347	1,084,967	0.425
11	886,981	0.338	1,084,967	0.414
12	886,981	0.330	1,084,967	0.403
13	886,981	0.321	1,084,967	0.393
14	886,981	0.313	1,084,967	0.382
15	886,981	0.310	1,084,967	0.379
16	886,981	0.307	1,084,967	0.376
17	886,981	0.305	1,084,967	0.373
18	886,981	0.303	1,084,967	0.370
19	886,981	0.301	1,084,967	0.368
20	886,981	0.299	1,084,967	0.366



9.4.2 Assessment Method 2: Cost Shared Equally in Town

This approach assumes that all parcels in Town benefit from the transportation improvements around Exit 20. Therefore, the improvements should be financed by all landowners in the Town equally. Table 33 shows the potential annual revenue and additional tax rate for parcels within the Financing District and outside the district for the two development scenarios under two possible bond amounts.

Table 33: Special Assessment Method 2 - Bond Repayment Schedules

Build Out Development Scenario								
5% Interest	Financing District				Outside Financing District			
	\$ 11,200,000 Bond		\$13,700,000 Bond		\$ 11,200,000 Bond		\$13,700,000 Bond	
	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
Year								
1 (FY 2007)	106,399	0.229	130,149	0.280	780,581	0.229	954,818	0.280
2	123,631	0.219	151,227	0.268	757,140	0.219	933,740	0.268
3	146,559	0.208	179,273	0.254	728,016	0.208	905,694	0.254
4	168,917	0.197	206,621	0.241	699,443	0.197	878,346	0.241
5	207,958	0.182	254,377	0.223	656,140	0.182	830,590	0.223
6	243,354	0.169	297,674	0.207	617,377	0.169	787,294	0.207
7	274,412	0.157	335,665	0.193	583,766	0.157	749,303	0.193
8	297,983	0.148	364,497	0.181	559,569	0.148	720,470	0.181
9	316,052	0.141	386,600	0.172	541,300	0.141	698,368	0.172
10	332,355	0.134	406,541	0.163	525,392	0.134	678,426	0.163
11	333,195	0.131	407,568	0.160	524,515	0.131	677,399	0.160
12	334,256	0.127	408,867	0.156	523,711	0.127	676,101	0.156
13	335,084	0.125	409,880	0.152	523,226	0.125	675,087	0.152
14	336,138	0.122	411,169	0.149	522,654	0.122	673,798	0.149
15	337,087	0.119	412,330	0.145	522,171	0.119	672,637	0.145
16	334,596	0.117	409,283	0.143	524,820	0.117	675,685	0.143
17	331,672	0.115	405,707	0.140	527,968	0.115	679,261	0.140
18	328,690	0.113	402,059	0.138	531,169	0.113	682,909	0.138
19	325,627	0.111	398,312	0.136	534,443	0.111	686,655	0.136
20	322,522	0.109	394,514	0.134	537,791	0.109	690,453	0.134

Traffic Analysis Development Scenario								
5% Interest	Financing District				Outside Financing District			
	\$ 11,200,000 Bond		\$13,700,000 Bond		\$ 11,200,000 Bond		\$13,700,000 Bond	
	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
Year								
1 (FY 2007)	112,909	0.221	137,649	0.269	774,071	0.221	948,545	0.269
2	128,881	0.212	156,909	0.257	758,100	0.212	935,336	0.257
3	144,113	0.203	175,225	0.247	742,868	0.203	922,632	0.247
4	156,466	0.196	190,000	0.238	730,514	0.196	912,096	0.238
5	164,437	0.190	199,416	0.230	722,544	0.190	905,094	0.230
6	174,331	0.184	211,149	0.222	712,649	0.184	894,862	0.222
7	176,881	0.179	213,947	0.217	710,099	0.179	890,876	0.217
8	179,677	0.175	217,037	0.211	707,303	0.175	886,561	0.211
9	182,737	0.171	220,439	0.206	704,244	0.171	881,895	0.206
10	186,078	0.167	224,174	0.201	700,902	0.167	876,854	0.201
11	189,720	0.163	228,266	0.195	697,260	0.163	871,416	0.195
12	192,683	0.159	231,528	0.190	694,297	0.159	866,801	0.190
13	196,048	0.155	235,269	0.186	690,933	0.155	861,655	0.186
14	199,833	0.151	239,510	0.181	687,147	0.151	855,955	0.181
15	204,062	0.147	244,276	0.176	682,919	0.147	849,676	0.176
16	203,305	0.144	243,204	0.172	683,676	0.144	849,992	0.172
17	202,255	0.142	241,788	0.169	684,725	0.142	850,607	0.169
18	201,273	0.139	240,456	0.165	685,708	0.139	851,099	0.165
19	200,361	0.136	239,212	0.162	686,620	0.136	851,459	0.162
20	199,522	0.134	238,060	0.159	687,458	0.134	851,680	0.159



9.4.3 Assessment Method 3: Majority of Improvements are paid by the Financing District

This approach assumes that the improved transportation facilities will benefit all parties within the Town though landowners in the Financing District may benefit more than others. The *1999 Exit 20 Financing Study* assessed properties within the Financing District twice the rate of those parcels outside the Financing District. This 2006 update includes the same assumption. Table 34 shows the potential annual revenue and tax rate for parcels within the Financing District and outside the district for the two development scenarios under two possible bond amounts.

Table 34: Special Assessment Method 3 - Bond Repayment Schedules

5% Interest	Build Out Development Scenario							
	Financing District				Outside Financing District			
	\$ 11,200,000 Bond		\$13,700,000 Bond		\$ 11,200,000 Bond		\$13,700,000 Bond	
	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
Year								
1 (FY 2007)	190,006	0.408	232,418	0.500	696,975	0.204	852,549	0.250
2	217,014	0.384	265,455	0.470	669,967	0.192	819,513	0.235
3	251,553	0.356	307,704	0.436	635,427	0.178	777,263	0.218
4	283,789	0.331	347,134	0.405	603,192	0.166	737,833	0.203
5	336,923	0.295	412,129	0.361	550,058	0.148	672,839	0.181
6	381,922	0.265	467,173	0.325	505,058	0.133	617,794	0.162
7	419,149	0.241	512,709	0.294	467,832	0.120	572,259	0.147
8	446,099	0.222	545,674	0.271	440,882	0.111	539,293	0.136
9	466,043	0.207	570,070	0.253	420,938	0.104	514,897	0.127
10	483,529	0.194	591,460	0.238	403,451	0.097	493,507	0.119
11	484,418	0.190	592,546	0.232	402,563	0.095	492,421	0.116
12	485,538	0.185	593,917	0.226	401,442	0.093	491,050	0.113
13	486,412	0.181	594,986	0.221	400,569	0.090	489,982	0.111
14	487,521	0.176	596,343	0.216	399,459	0.088	488,624	0.108
15	488,518	0.172	597,563	0.211	398,462	0.086	487,404	0.105
16	485,897	0.170	594,356	0.207	401,084	0.085	490,611	0.104
17	482,807	0.167	590,576	0.205	404,174	0.084	494,391	0.102
18	479,640	0.165	586,702	0.202	407,341	0.082	498,265	0.101
19	476,370	0.163	582,703	0.199	410,610	0.081	502,264	0.099
20	473,039	0.160	578,628	0.196	413,941	0.080	506,339	0.098



Traffic Analysis Development Scenario

5% Interest	Financing District				Outside Financing District			
	\$ 11,200,000 Bond		\$13,700,000 Bond		\$ 11,200,000 Bond		\$13,700,000 Bond	
Year	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate	Revenue Needed for Bond Payment	Additional Tax Rate
1 (FY 2007)	199,722	0.390	\$244,303	0.477	687,258	0.195	840,664	0.238
2	224,138	0.368	\$274,168	0.450	662,843	0.184	810,799	0.225
3	246,663	0.348	\$301,722	0.425	640,318	0.174	783,246	0.213
4	264,362	0.331	\$323,371	0.405	622,619	0.165	761,596	0.202
5	275,429	0.318	\$336,908	0.389	611,552	0.159	748,059	0.194
6	288,994	0.304	\$353,502	0.372	597,986	0.152	731,465	0.186
7	292,193	0.296	\$357,415	0.362	594,788	0.148	727,553	0.181
8	295,709	0.288	\$361,716	0.352	591,271	0.144	723,252	0.176
9	299,562	0.280	\$366,428	0.342	587,419	0.140	718,539	0.171
10	303,769	0.272	\$371,574	0.333	583,212	0.136	713,393	0.166
11	308,349	0.264	\$377,177	0.323	578,631	0.132	707,790	0.161
12	311,982	0.257	\$381,620	0.314	574,999	0.128	703,347	0.157
13	316,123	0.249	\$386,687	0.305	570,857	0.125	698,281	0.152
14	320,792	0.242	\$392,397	0.296	566,189	0.121	692,570	0.148
15	326,002	0.235	\$398,771	0.287	560,978	0.117	686,196	0.143
16	324,833	0.230	\$397,341	0.281	562,147	0.115	687,627	0.141
17	323,287	0.226	\$395,449	0.276	563,694	0.113	689,518	0.138
18	321,829	0.221	\$393,666	0.271	565,151	0.111	691,301	0.135
19	320,465	0.217	\$391,997	0.266	566,516	0.109	692,970	0.133
20	319,199	0.213	\$390,449	0.260	567,781	0.106	694,518	0.130

9.4.4 Special Assessment Summary

The analysis provides three approaches on how the additional tax burden to pay for a bond could be distributed between the Financing District and the rest of the Town. Additional scenarios could be tested. The cost sharing approach should be based on policies established by the Selectboard that consider issues of equality and benefits.

The Special Assessment tax exists as an additional levy on the parcel. The additional tax load on many of these parcels is quite significant; depending on the how the tax burden is distributed. The Special Assessment tax may create too burdensome of a tax load on certain parcels, which may slow, or even negate the parcels ability to develop. Only businesses that have a high profit margin will be able to develop of these parcels, often creating a zone of homogenous commercial uses. The additional tax rate for each method will vary as follows:

- Method 1: Financing District fully pays: \$1.456 first year to \$0.582 in year 20 per \$100 of assessed value.
- Method 2: All parcels in Town are assessed equally: \$0.220 first year to \$0.130 in year 20 per \$100 of assessed value.
- Method 3: Financing District pays twice the Town rate: \$0.408 first year to \$0.160 in year 20 per \$100 of assessed value.



9.5 LOCAL OPTION SALES TAX

Implementing a Local Option Sales Tax (LOST) is another way to raise local funds for repayment of a bond. As mentioned in Section 8.3.4 the Local Option Sales Tax is not yet applicable to the Town of Saint Albans, but could be possible in the near future if the state legislature approves a pending bill.

As with other local option sales taxes that have been setup in the State, the municipality is allowed to assess a 1% sales tax on all goods and services sold within the Town. The town is then able to keep 70% of that revenue, with the remaining 30% sent to the State.

Table 35 shows the estimated revenue that can be retained by the Town if a Local Option Sales Tax is implemented. As the Exit 20 area develops it is logical that sales tax revenue should also increase, though the exact rate is unknown. The table shows the estimated revenue that will be generated under different annual sales tax growth rates.

Table 35: Estimated Local Option Sales Tax Revenues

FY 2005 Local Option Revenue	\$966,428						
Annual Growth	1%	2%	3%	4%	5%	6%	7%
FY 2006 Est	\$976,092	\$985,756	\$995,421	\$1,005,085	\$1,014,749	\$1,024,414	\$1,034,078
FY 2007 Est	\$985,853	\$1,005,472	\$1,025,283	\$1,045,288	\$1,065,487	\$1,085,878	\$1,106,463
FY 2008 Est	\$995,712	\$1,025,581	\$1,056,042	\$1,087,100	\$1,118,761	\$1,151,031	\$1,183,916
FY 2009 Est	\$1,005,669	\$1,046,093	\$1,087,723	\$1,130,584	\$1,174,699	\$1,220,093	\$1,266,790
FY 2010 Est	\$1,015,725	\$1,067,015	\$1,120,355	\$1,175,807	\$1,233,434	\$1,293,299	\$1,355,465
FY 2011 Est	\$1,025,883	\$1,088,355	\$1,153,965	\$1,222,840	\$1,295,106	\$1,370,896	\$1,450,348
FY 2012 Est	\$1,036,142	\$1,110,122	\$1,188,584	\$1,271,753	\$1,359,861	\$1,453,150	\$1,551,872

The Local Option Sales Tax is an option that can generate a substantial amount of annual revenue to pay for infrastructure improvements in the Exit 20 area. Even under existing conditions, the possible sales tax revenue is sufficient to fund the annual payments (at 5% interest) on the 11.2 Million dollar bond, as shown in Table 13 on page 49.

The local revenue mechanism should be monitored so that if and when it becomes a viable option it can be evaluated and implemented by the Town.

9.6 LOCAL REVENUE SUMMARY

Sections 9.3, 9.4, and 9.5 analyze three potential mechanisms for financing the annual bond payment used to pay for transportation infrastructure improvements. The key findings are:

- The TIF has the potential to cover approximately 30% of the bond necessary to finance the cost of Alternative A (\$11.2 million) which was designed to accommodate traffic from the Traffic Analysis Development Scenario. The Build-Out Development Scenario could generate approximately 80% of the cost for the same bond. However, additional transportation improvements may be necessary to accommodate the additional traffic associated with the Build-Out Scenario.



- On a theoretical level, a Special Assessment tax could be calculated that generates enough revenue to pay for the entire bond. The Town would need to make a policy decision on how the additional tax burden is distributed between parcels in and out of the Financing District. But regardless of how the tax is shared throughout Town, the additional tax increase would be significant. The smallest increase, which assumes the cost is shared equally for all parcels in Town, requires an additional tax rate of \$0.220 the first year to \$0.130 in twenty years per \$100 of assessed value. If the tax increase is limited to parcels within the Financing District, the additional tax rate would be \$1.456 the first year to \$0.582 in twenty years per \$100 of assessed value. These increases are significant, and would create disincentives to development, defeating the purpose of making the infrastructure investment in the first place.
- The Local Option Sales Tax analysis shows that, even under the existing level of sales tax collected in the Town of St. Albans, the amount the Town is able to save for themselves exceeds the annual payment for the \$11.2 Million bond. This funding source therefore has the greatest potential to generate the funds needed to pay for a bond. However, unless the legislature makes LOST available to all Vermont municipalities, it will not be an option.

Assuming raising taxes as required by the Special Assessment approach would not be desirable, and recognizing that LOST is not an official option at this point, only the TIF is available as a viable source of local revenue. However, the TIF can only generate approximately 30% of the necessary funds. Therefore, state/federal and private funding will also be necessary. The next section of this study provides some alternative mixes of these various sources.

10.0 MULTIPLE SOURCE FUNDING APPROACH

In addition to revenue generated by a TIF within the Exit 20 Financing District, the cost of transportation improvements could be funded by a combination up-front private financing of transportation projects by developers, traffic impact fees, and with state/federal transportation funds.

Local traffic impact fees could also play a role in the financing approach. Traffic impact fees are assessed through the development review process for new projects. Projects that already have permits, but are not yet built, can not be charged an impact fee. This is an important distinction in the Exit 20 area, because there are some large trip generators that have permits but are not built. Table 36 lists the development projects that were assumed in the traffic analysis, their status, and the amount of PM peak hour traffic for each one. Approximately 4,500 vehicles per hour are anticipated from un-built projects. Of these, approximately 1,150 could be subjected to a traffic impact fee. Nearby examples of traffic impact fees range between \$145/PM peak hour trip in South Burlington to \$300/PM peak hour trip in Williston.



Table 36: PM Peak Hour Trip Generation Where an Impact Fee Could Be Applied

Project	Status	PM Peak Hour Trips
Franklin Park East	Not Built/Permitted	665
Franklin Park West	Not Built/Permitted	1294
Highgate Commons	Built/Permitted	1149
Murphy/Redstone	Not Built/Not Permitted	313
Seymour Properties	Not Built/Permitted	59
JLD	Not Built/Local Permit Only	1243
Senior Hsg FPW	Not Built/Permitted	38
Poquette	Not Built/Not Permitted	624
Dexter Properties	Not Built/Not Permitted	217
All PM Peak Hour Trips		5602
Trips from Not Built Projects with Permits		4453
Trips from Not Built Projects without Permits		1154

An additional funding source is up-front investments by developers. The most significant of these at this time are the improvements required by the St. Albans Development Review Board for the JLD Properties Walmart PUD. The conditions of the local permit require transportation improvements to US 7 and VT 207 worth approximately \$2.7 Million¹ (See Appendix E for permit conditions). The required improvements are consistent with the Alternative A. If the value of improvements is included in the analysis, the remaining cost of Alternative A decreases from \$11.2 to \$8.5 million. By making the investment upfront, these improvements reduce the overall amount of the bond principle, thereby lowering the total amount to finance.

Table 37 shows the outstanding balance after considering the contribution by the JLD Properties Walmart PUD, traffic impact fees assigned to the not-permitted/not built projects, and the amount that could be financed with a municipal bond paid for with funds from the TIF district as estimated above. The analysis includes two project cost scenarios without and with sidewalks and bike lanes. The analysis also includes a low and high traffic impact fee range of \$150 and \$300 per PM peak hour trip respectively.

Table 37 shows that, even when these three funding sources are combined, there will be a shortfall of \$5.0-5.2 million if sidewalks and bike lanes are not included and \$7.0-7.2 million if sidewalks and bike are included. This shortfall varies depending on the impact fee assumed.

¹ This estimate was calculated by RSG.



Table 37: Contribution from Multiple Sources

	Alternative A Infrastructure Improvements			
	No Sidewalks & Bike Lanes		With Sidewalks & Bike Lanes	
Improvement Costs	\$11,200,000	\$11,200,000	\$13,241,000	\$13,241,000
JLD/Walmart PUD Contribution	\$2,619,849	\$2,619,849	\$2,619,849	\$2,619,849
Balance After JLD/Walmart PUD Contribution	\$8,580,151	\$8,580,151	\$10,621,151	\$10,621,151
Vehicle Trips for Projects Not Built without Permits	1154	1154	1154	1154
Assumed Traffic Impact Fee (\$ per PM Peak Hour Trip)	\$150	\$300	\$150	\$300
Impact Fee Contribution	\$173,100	\$346,200	\$173,100	\$346,200
Balance After Impact Fee	\$8,407,051	\$8,233,951	\$10,448,051	\$10,274,951
Amount that Can be Financed with Municipal Bond Funded by TIF*	\$3,199,439	\$3,199,439	\$3,199,439	\$3,199,439
Balance After Municipal Bond	\$5,207,612	\$5,034,512	\$7,248,612	\$7,075,512
% of Total Not Covered by JLD/Walmart, Impact Fees, and TIF Bond	46.5%	45.0%	54.7%	53.4%

* Over a twenty-year period the TIF is estimated to generate \$5,067,571. Assuming a 5% annual interest rate, the bond would finance a principle of \$3,199,439.

The balance should be covered by state/federal transportation funds. As discussed in Section 8.1 on page 39 the process for receiving state and federal funds can be long and complicated. Therefore, the state/federal funding source is best used to fund projects that are necessary in the long-term. The up-front investment required by the JLD Properties Walmart PUD will provide an initial capacity increase in the Exit 20 area that will accommodate additional projects beyond the Walmart PUD. This investment will provide the time necessary to establish impact fees, establish a TIF, and pursue state/federal funding.

State/federal transportation funds have been used to fund projects in other growing commercial areas. Two nearby examples include Dorset Street in South Burlington, completed in 1993 and the US7/Shelburne Road Reconstruction project, which is almost complete. The Dorset Street project involved reconstruction of a local road in a regional retail district to a cross-section with four lanes, a raised median, sidewalks, and a paved multi-use path. Shelburne Road, which also serves a regional commercial district, was reconstructed with four lanes, medians, sidewalks and bike lanes. Therefore, there is a history of using state and federal transportation funds within commercial areas. In this case, the state/federal share would be 45-55%, significantly less than the 80 percent federal and 20 percent state/local match used for most transportation projects in the state.

The establishment of traffic impact fees is strongly recommended to ensure all developers contribute towards transportation improvements in the Exit 20 area. The next round of developers will benefit from the investments made by the JLD Walmart PUD. If no changes are made to the development review process, some of these developers may not be required to contribute because additional



capacity will have been provided by others. The establishment of impact fees will ensure that all developers contribute, regardless of the timing of their projects.

Table 38 simplifies the analysis shown above into an overall financing plan for the Exit 20 area for Alternative A, without and with sidewalks and bike lanes, and with traffic impact fees that range from \$150 to \$300 per PM peak hour trip.

Table 38: Combined Financing Plan for Alternative A.

	No Sidewalks & Bike Lanes				With Sidewalks & Bike Lanes			
	\$150 Impact Fee		\$300 Impact Fee		\$150 Impact Fee		\$300 Impact Fee	
Total Project Costs	\$	11,200,000	100%	\$	11,200,000	100%	\$	13,241,000 100%
JLD/Walmart PUD	\$	2,619,849	23%	\$	2,619,849	23%	\$	2,619,849 20%
Traffic Impact Fees	\$	173,100	2%	\$	346,200	3%	\$	173,100 1%
Municipal Bond Financed with TIF District	\$	3,199,439	29%	\$	3,199,439	29%	\$	3,199,439 24%
State/Federal Transportation Funds	\$	5,207,612	46%	\$	5,034,512	45%	\$	7,248,612 55%

11.0 RECOMMENDATIONS AND NEXT STEPS

The financing plan is based on the assumption that the extension to Federal Street in Alternative C would not be constructed and that the local road network assumed in Alternative B (which includes the extension of VT 207) would be constructed as part of the site development for specific projects. Therefore, only the cost of upgrading US 7 and VT 207, which could range between \$11.2 and \$13.7 million, are included in the financing analysis and plan.

The financial plan is based on several important assumptions that affect the cost and revenue forecasts. A key assumption in the analysis affecting cost is the interest rate of the bond. On the revenue side, numerous assumptions were necessary. Some of the key assumptions used in the tax incremental financing analysis are growth in land and building value due to the secondary effect of nearby development, rate of inflation, the ratio of local education spending per pupil to the State's base education payment, the rate of growth in the cost of municipal services, and the amount of development assumed.

The special assessment tax rate necessary to pay back a bond is also affected by the assumed growth in land and building value. More importantly, the special assessment tax rate depends on how the burden is shared between the parcels in the assumed boundaries of the Exit 20 Financing District and those in the rest of Town.

Because this analysis is based on numerous assumptions, its findings are preliminary only. It provides an order of magnitude estimate on the contribution possible from each of these funding sources. A



final analysis should be completed by economists or others with specific expertise in public and private financing. This study provides a general assessment of how the various state/federal, local, and private funding sources can be used in an overall financing plan. The contributions from each of these financing sources may change after a more detailed analysis has been conducted.

The recommended financing plan consists of:

- The value of improvements to US 7 and VT 207 required by the local permit issued for the JLD Properties Walmart PUD is estimated in this study to be worth \$2.6 million. This up-front investment will cover 20-23 percent of the total cost of improvements recommended to accommodate the development assumed in this study.
- A traffic impact fee between \$150 and \$300 should be established for the Exit 20 area. This fee would be required of all un-built projects that do not currently have local or state permits. Although the impact fees will contribute only 1-3% of the total cost of improvements, this approach ensures that all developers make a contribution regardless of the timing of their project.
- A Tax Incremental Financing District should be established around Exit 20. Revenue from the TIF could finance a municipal bond of \$3.2 million. This source will cover 24-29% of the cost of improvements.
- The balance of costs, between \$5.0-7.2 million depending on whether or not sidewalks and bike lanes are included, should be financed with state and federal transportation dollars through the standard VTrans project development process.

The up-front investment required by the JLD Properties Walmart PUD will provide an initial capacity increase in the Exit 20 area that will accommodate additional projects beyond the Walmart PUD. This investment will provide the time necessary to establish impact fees, establish a TIF, and pursue state/federal funding.

The next steps are:

- Conduct a detailed economic analysis to verify and refine revenue forecasts for the tax incremental financing district. After the analysis has been refined, the TIF district needs to be approved by a majority of the eligible voters in Town.
- Prepare and adopt a traffic impact fee ordinance.
- Include the highway system upgrades in the Northwest Regional Planning Commission long range transportation plan, and work with the NRPC and VTrans to conduct a project definition/scoping study for US 7. This step is necessary before the long-term improvements can compete for state and federal transportation funds.



12.0 SUMMARY

The purpose of this study is to update the transportation system recommendations made in the Exit 20 area in the 1996 *US 7 Corridor Study* and the financing strategy presented in the 1999 *Financing Study*. The study area is located in the Town of Saint Albans along US 7 from Jewett Avenue to VT 105, and along VT 207 from I-89 Exit 20 to US 7. This study is being conducted by Resource Systems Group, Inc. (RSG) for the Northwest Regional Planning Commission (NRPC) with input from a steering committee.

Highway system recommendations are made to accommodate projected traffic volumes for background growth to 2015 and traffic that would be generated by an additional 1.1 million square feet of commercial development and approximately 150 new dwelling units within the study area. Recommendations include widening US 7 to four lanes between the proposed access to the JLD Properties Walmart PUD and VT 105 and widening VT 207 to four lanes. The cost for these recommendations varies between \$11.2 and 13.7, depending on the type of median assumed and whether or not sidewalks and bike lanes are included. The cost for additional local roads is assumed to be born by developers.

Several different financing options are described including their advantages and disadvantages relative to the study area. The recommended financing plan consists of a mix of state/federal transportation funds, municipal bonds financed through a tax incremental financing district, traffic impact fees, and private financing of transportation projects by developers.

Because this analysis is based on numerous assumptions, its findings are preliminary only. It provides an order of magnitude estimate on the contribution possible from each of these funding sources. A final analysis should be completed by economists or others with specific expertise in public and private financing. This study provides a general assessment of how the various state/federal, local, and private funding sources can be used in an overall financing plan. The contributions from each of these financing sources may change after a more detailed analysis has been conducted.



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